Clifton Scannell Emerson Associates
Seafort Lodge, Castledawson Avenue,
Blackrock, Co. Dublin. Republic of Ireland.
Tel: 353 (0)1 2885006
Fax: 353 (0)1 2833466

CLIENT: **Amvic Ireland**

PROJECT TITLE: **Amvic Insulated Concrete Formwork (Amvic ICF)**

PROJECT NO: **06_064**

8	26/05/20	General Revision	NM			
7	04/07/19	Lintel Design Update	NM			
6	16/03/07	Information Update	AS			
5	9/03/07	Information Update	AS			
4	5/03/07	Information Update	AS			
3	16/02/07	Information Update	AS			
2	8/02/07	Information Update	AS			
1	2/2/07	Information Update	AS			
REV #	***DATE***	***REASON FOR ISSUE***	***PREPARED BY***	***DISCIPLINE CHECK***	***ENGINEERING TEAM APPROVAL***	

DOCUMENT TITLE: **Design Guide for Housing**

DOCUMENT NO: **06_064-CN-003**

CLIENT REF:

TABLE OF CONTENTS

1.0 Introduction

This Design Guide is intended for use in the construction of structures within the Republic of Ireland falling within the "Consequence Class 1" classification in Table 6 of The Irish Building Regulations Technical Guidance Document Part A.

This Design Guide may be used by Builders, Architects, Engineers and other construction professionals for specifying wall thickness, reinforcement and specific construction details relating to the construction of the walls of houses built using the Amvic Insulated Concrete Formwork System.

Any applications outside the scope outlined in the following sections of this document must be referred to a suitably qualified Chartered Structural Engineer for guidance.

Notwithstanding the contents of this Design Guide it is the responsibility of the supervising construction professionals to ensure that all works are carried out in accordance with the requirements of The Irish Building Regulations Technical Guidance Document Part A.

1.1 Amvic ICF Products

Amvic ICF is available in 2 core thicknesses, 150 and 200mm, with the 150 mm core being available in 2 insulation thicknesses 64 and 75mm, as summarised in the table below.

Amvic Product	Overall mm	Insulation	Conc. Core mm	Web Spac. mm	U-Value
300	*300*	*2 x 75*	*150*	*200*	*0.20*
280	*280*	*2 X 64*	*150*	*150*	*0.23*
330	*330*	*2 x 64*	*200*	*150*	*0.23*

2.0 Scope

2.1 General

The specifics of this Design Guide apply to single occupancy houses up to three storeys. This can include houses in which the ground floor is suspended, i.e. bearing on the load bearing walls at ground level.

Outer walls are to be built using the Amvic System. Internal walls can be formed using Amvic, traditional blockwork, or non-loadbearing partitions.

2.2 Geometry

The following restrictions apply with respect to geometry for houses designed using this Design Guide:-

(a) Max height of house – 10.0m to the ridge
(b) Width not less than half the height
(c) Floor to ceiling height, max = 3.0m
(d) Max roof span = 12m
(e) Max span of floor = 6.5m
(f) Max wall ope size = 3.0m
(g) Amvic wall core thickness = 150mm or 200mm.

3.0 Loading

3.1 Vertical Loads

The characteristic(unfactored) vertical imposed loads that are within the scope of this Design Guide are as follows:

Element	Loading	
Roof	Uniformly Distributed Load	0.75 kN/m^2
Floor	Uniformly Distributed Load	1.50 kN/m^2
Partitions	Uniformly Distributed Load	1.00 kN/m^2
Ceiling	Uniformly Distributed Load	0.75 kN/m^2

Higher loads are possible subject to a structural design by a suitably qualified structural or civil engineer.

The characteristic(unfactored) vertical dead loads are to be calculated based on the self-weight of materials to be used in construction and reference should be made to Annex A of IS EN 1991-1-1 in this regard.

The following self-weights apply to the Amvic Insulated Framework wall thicknesses used in this guide:

150 Core Wall	3.7 kN/m2
200 Core Wall	4.9 kN/m2

The above loadings have been used to generate the tables in Appendix A of this document. Note that these tables are attached for guidance purposes based on typical housing layouts. It may be necessary to have some layouts checked by a suitably qualified Chartered Structural Engineer.

3.2 Wind Loads

This Design Guide assumes the proposed structure is located anywhere in Ireland as shown on Figure NA.1 in IS EN 1991-1-4.

Using IS EN 1991-1-4 a maximum characteristic wind loading pressure on the walls of 1.2 kN/m^2 has been calculated for the geometry outlined in Section 2.2 of this document. Note local peaks pressures at corners may exceed this value. This value is for a site 100m above sea level or less and lacking in in significant orography ie. the site is not located on an isolated hill or escarpment.

If the site is located greater than 100m above sea level or is located on or near the crest of an isolated hill or escarpment a detailed wind load analysis is to be carried out be a suitable qualified Chartered Structural Engineer.

3.3 Retained Earth

Differences in the final level of ground or floor slabs between one side of a wall and the other should not exceed four times the wall thickness.

Where the difference in level does exceed 4 times the wall thickness the wall should be treated as a basement wall and should be designed as such by a suitably qualified Chartered Structural Engineer in accordance with IS EN 1997-1 and detailed as shown on Amvic Drawing 20-300-014

4.0 Materials

The following material strengths have been used in the design of the Amvic walls and lintels

Concrete, f_{cu}	=	Minimum C28/35 N/mm^2
Reinforcement Bars, f_y	=	500N/mm^2

5.0 Stability

Because of homogenous and boxed nature of the form of construction, domestic structures built using the Amvic System will be stable in themselves. Normally the elements requiring particular care are the tying in of floors and roofs into walls and the bracing of any free standing, or unbutressed sections of wall.

Further information can be found in Sections 1.1.3.13-17 of The Irish Building Regulations Technical Guidance Document Part A.

6.0 Foundations

Reference may be made Part 5 of The Irish Building Regulations Technical Guidance Document Part A.

Alternatively, foundation design may be carried out by a suitable qualified Chartered Structural Engineer as per the requirements of IS EN 1997-1 considering local ground conditions. Information contained in this document may be used for foundation design.

Amvic Drawing20-300-01 shows a typical rising wall from a strip foundation to finish floor level, while Drawing 20-300-002 shows a typical raft foundation detail. Note that these drawings illustrate typical situations and are not intended to show actual foundation sizes.

7.0 Floors

7.1 Ground Floor Slabs.

Generally ground floors will be on grade concrete slabs. See Amvic Drawings 20-300-001 & 20-300-013 for details.

When the depth of fill under the ground floor slab exceeds 600mm it is advisable to suspend the ground floor slab, usually using an in-situ a precast system. This will not impact the assumptions of this design guide.

7.2 Pre-cast Floor/External Wall Connection.

The connection of a precast concrete slab to an external wall is as shown on Amvic Drawing 20-300-003.

The bearing surface should be nominally 100mm, minimum 75mm, and loads from floors may be assumed to act at one-third of the depth of bearing as specified in BS 8110.

The slabs are to bedded in 1:3 mortar placed on top of the wall. The minimum cover to the vertical reinforcing steel must be at least 30mm, as specified.

The Amvic ICF form straddling the transition between the walls and the floor is cut as required to allow the smooth transition between the floors. This form is filled with concrete of the same specification as the rest of the wall.

7.3 Timber Floors

Suspended timber floors are assumed to be formed using timber floor joists fixed into the load bearing walls using the Simpsons Strong Tie Ledger System, products ICFLC & ICFVL-CW. Guidance on this system is contained in Appendix A of this document. Details of the use of this system are shown ion Amvic Drawing 20-300-004. An alternative heavy-duty ledger board detail to the Simpson Strong Tie system is shown on Amvic Drawing 20-300-005.

Details for the tying connection of timber floors to non-loadbearing walls are shown on Amvic Drawing 20-300-006.

Interior Fire Stops must be installed at the top of the 12.5mm gypsum plasterboard, immediately below ceiling level, for houses of 2 floors or higher, ie. from the second floor upwards. The Fire Stops can comprise 1mm stainless or galvanized steel strips inserted the full depth of the insulation as required.

8.0 Party Walls

Party walls between adjacent units can be built using Amvic 150mm or 200mm core as stipulated in Diagram 4 of The Irish Building Regulations Technical Guidance Document Part E. The connection of the Party wall to the exterior wall of the building is as shown on Amvic Drawing 20-300-007. A fire stop must be installed vertically at the exterior of the party wall, comprising 1mm stainless or galvanized steel strips inserted the full depth of the insulation as required

Timber floors are connected to the party walls as per Section 7.3 of this document.

For pre-cast floors the floor slabs must be centered on the wall, as shown in Amvic Drawing 20-300-008. The minimum bearing surface is to be 75mm on each slab, as specified in BS 8110. The slabs are to be bedded in 1:3 mortar placed on top of the wall.

Compartment walls and floors, and the second floor of units of more than two storeys high, must be fire stopped on the exterior as shown in drawings. The Fire Stopping can be comprised of 1mm stainless or galvanized steel strips inserted the full depth of the insulation as required and is rendered over using the specified IAB certified external render system.

The top of party walls must be completed as shown in Amvic Drawing 20-300-009. The roofing laths are nailed to the timber battens and are to be discontinuous at the centre of the wall.

Note that the battens and the roof structure must be fire stopped at the top of the wall as specified in the Irish Building Regulations Technical Guidance Document Part B 2006 Section 3.2.5.11 and Diagram 13.

9.0 Wall Openings

The number size and position of wall openings should not impair the stability of the wall or the lateral support provided by a buttressing wall to a supported wall. Refer also to Diagram 3 of The Irish Building Regulations Technical

Guidance Document Part A for the allowable size and proximity of adjacent openings. Window openings are to be detailed as per Amvic Drawings 20-300-010 or 20-300-011. Door openings can be detailed as per Amvic Drawings 20-300-013 or another approved alternative.

Reference should be made to Appendix A of this document for the provision of reinforcement over and to the side of wall openings. In no case should a wall opening exceed 3m without detail design by a Structural Engineer.

10.0 Lift Shafts

Lift shafts can be built using Amvic ICF Formwork, as specified by the Structural Engineer.

The EPS to the inside of the shaft must be removed, prior to the installation of the lift equipment, for fire safety purposes.

The lift equipment can be fixed directly to the concrete wall using the appropriate fixing details, subject to the Structural Engineer's approval.

11.0 Escape Stairs

Escape stairways constructed using Amvic ICF must be lined with fire retardant linings.

12.0 Electrical Wiring

Electrical cables can be recessed into the EPS wall lining, if required. The necessary groove can be cut in the EPS using an electrical hot knife.

Because of the insulating properties of the EPS, there is a risk of heat buildup if the cable is heavily loaded.

The cables must be placed in PVC conduit and must be sized to minimize heat buildup with resulting fire risk, in accordance with the ETCI requirements.

Refer to the Electro-Technical Council of Ireland documents, ET 101:2000 "National Rules for Electrical Installations as Amended" and ET 207:2003 "Guide to the National Rules for Electrical Installations as Applicable to Domestic and Similar Installations".

13.0 Roofs

Roofs will generally be of timber construction, either cut on site or formed using timber trussed rafter construction. In either case the roof structure should be stable in itself and not be reliant on the walls other than for vertical load support. The roof structure is to be connected to the walls by means of wall plates as shown on Amvic Drawing 20-300-012. In general, the roof structure will be used to stabilize the triangular portion of gable walls above eaves level.

Where required, both exterior and interior walls can be fire stopped at eaves level as shown in drawing 20-300-012. The exterior Fire Stops can comprise 1mm stainless or galvanized steel strips inserted the full depth of the insulation as required. Fire stopping of the interior can be as above or by extending the wall plate, as shown in the drawing,

14.0 Chimneys

Chimneys may be formed using block work, brickwork or from patented and IAB certified systems such as the Perla Lite Chimney System.

For chimneys constructed using block work or brickwork, the requirements of Part 2 of The Irish Building Regulations Technical Guidance Document Part J, should be observed. In particular the EPS behind the chimney must be at least 200mm from the flue or 40mm from the outer surface the block work or brickwork chimney.

For patented and IAB certified chimney systems, the chimney should be installed in accordance with the manufacturer's instructions and certificate requirements.

The proportions of chimney stacks above roof level should be in accordance with Part 4 of The Irish Building Regulations Technical Guidance Document Part A.

15.0 Internal Wall Linings

Internal walls may be line using 12.5mm Gypsum Plasterboard. The Gypsum Plasterboard Boards are mechanically fixed to the wall using Lafarge Grabber Drywall Screws or equivalent, screwed into the ICF webs at 400mm centers horizontally and 200mm vertically. The center line of the webs is easily identified by the position of the deep grooves molded into the face of the forms.

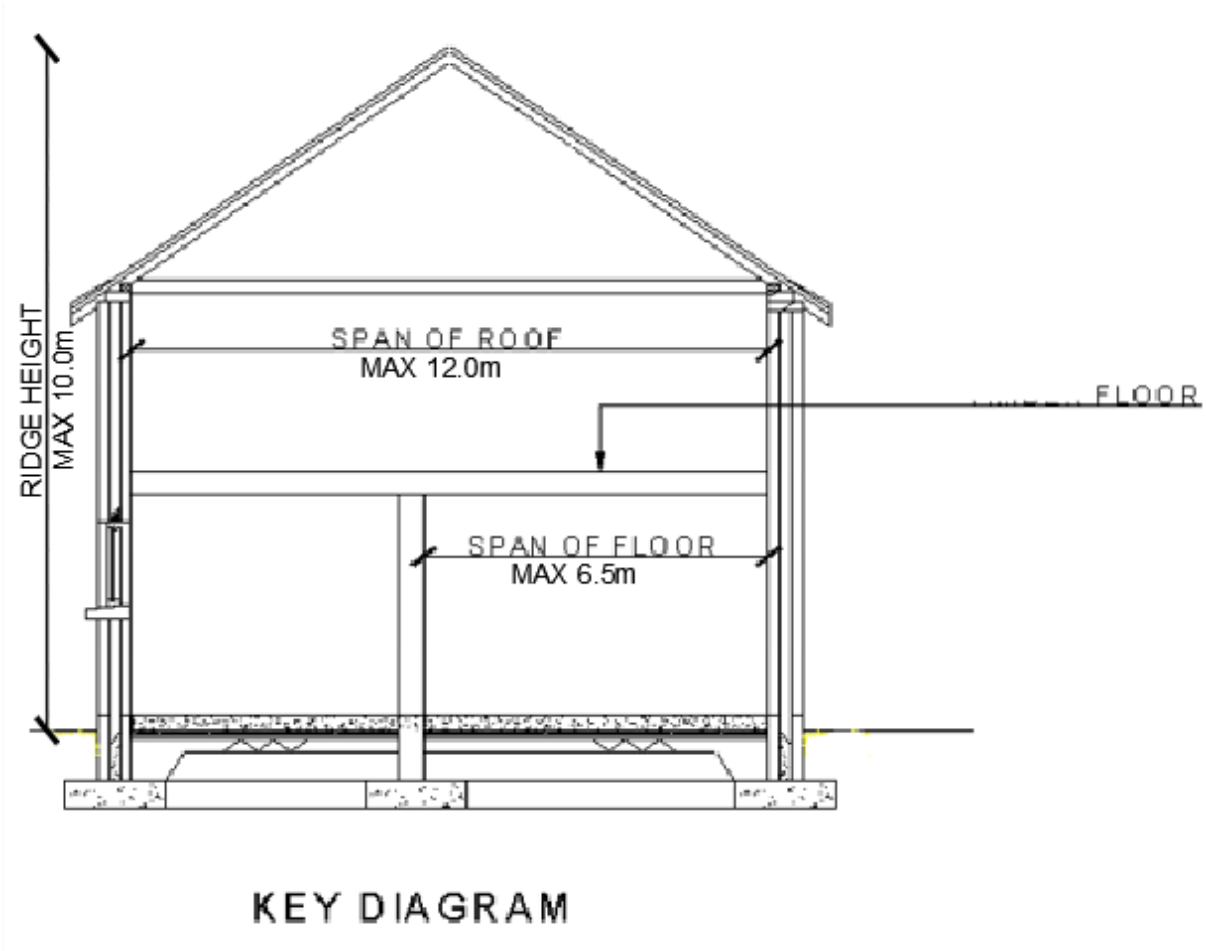
16.0 External Wall Finish

The external finish of the wall is specified and certified as a external render system approved by NSAI Agrément for use onto EPS.

Please refer to the certified render suppliers Installation Manual for details of exterior finishes and their installation.

Other finishes such as stone, brick, timber or metal cladding, etc can also be used.

Appendix A: Amvic Wall Design Guide Geometry Limits



KEY DIAGRAM

Table 1: Reinforcement Required for Amvic Wall

Design Wind Pressure	Maximum wall height (mm)	Minimum Vertical Reinforcement	
		Supporting Timber Roof	
		Minimum Core Wall Thickness (mm)	
1.2		150	200
	2.4	T12-1200	T12-1200
	2.7	T12-1200	T12-1200
	3.0	T12-1200	T12-1200

In all cases horizontal reinforcement to be T12 @ 1200 mm centers.

Tables 2: Lintel Steel Requirements 150mm core Amvic ICF

The following table is to be used on openings less than 3.0m in lengths. Openings above 3.0m to be designed on a case by case basis by a suitable qualified Chartered Structural Engineer.

Max Span of Floor Spanning onto Opening to Be < 5.0m

Opening Size (m)	Bottom Steel	Shear Steel
0.0m - 0.5m Opening	2 x H12s	None
0.5m - 1.0m Opening	2 x H12s	None
1.0m - 1.5m Opening	2 x H12s	None
1.5m - 2.0m Opening	2 x H16s	None
2.0m - 2.5m Opening	2 x H16s	H8s @ 200
2.5m - 3.0m Opening	2 x H16s	H8s @ 200

1. Numbers Above are for a 150mm Core Wall
2. Concrete Strength to be C28/35
3. Minimum Depth of Window/Door Head to Be > 300mm
4. Max Span of Floor Spanning onto Opening to Be < 5.0m
5. Floor Construction Assumed as 75mm Screed on 150mm Precast Hollowcore Units
6. Building to Be Used for Domestic Purposes Only
7. Partitions Built Off Floor to Be Lightweight in Nature
8. If any of the Criteria 1-7 are Not Met Detailed Design by Structural Engineer is Required
9. When a 200mm core wall is used the spans without shear steel can be increased by 25%.

Max Span of Floor Spanning onto Opening to Be < 6.5m

Opening Size (m)	Bottom Steel	Shear Steel
0.0m - 0.5m Opening	2 x H12s	None
0.5m - 1.0m Opening	2 x H12s	None
1.0m - 1.5m Opening	2 x H16s	None
1.5m - 2.0m Opening	2 x H16s	H8s @ 200
2.0m - 2.5m Opening	2 x H16s	H8s @ 200
2.5m - 3.0m Opening	2 x H16s	H8s @ 200

1. Numbers Above are for a 150mm Core Wall
2. Concrete Strength to be C28/35
3. Minimum Depth of Window/Door Head to Be > 300mm
4. Max Span of Floor Spanning onto Opening to Be < 6.5m
5. Floor Construction Assumed as 75mm Screed on 150mm Precast Hollowcore Units
6. Building to Be Used for Domestic Purposes Only
7. Partitions Built Off Floor to Be Lightweight in Nature
8. If any of the Criteria 1-7 are Not Met Detailed Design by Structural Engineer is Required
9. When a 200mm core wall is used the spans without shear steel can be increased by 25%.

Tables 3: Simpsons Strong Tie Tables

The following spacing table is an alternative to the ICFLC and ICFVL Spacing to Replace Anchor Bolts tables or allowable loads. They give the spacing of Ledger Connectors based on the allowable vertical load of the connector, the load on the floor and the span of the joists.

ICFVL Spacing for Wood Ledger (mm) & Joist Span (m) - 75mm EPS

Uniform Loads		ICFVL Spacing for Wood Ledger (mm)									
Dead Load	Live Load	Joist Span (m)									
(KN/m2)	(KN/m2)	3.0	3.5	4.0	4.5	5.5	6.0	6.5	7.5	8.0	8.5
0.5	1.9	610	610	610	610	610	595	535	495	455	420
0.7	1.9	610	610	610	610	595	535	485	445	420	380
1	1.9	610	610	610	610	545	495	445	405	380	355
0.5	2.9	610	610	610	535	470	420	380	355	330	305
1	2.9	610	610	535	455	405	370	330	305	280	265
1.4	2.9	610	545	470	405	370	330	305	115	255	230
1.9	2.9	595	495	420	370	330	290	265	240	230	215
0.5	4.8	535	445	380	330	305	265	240	230	205	190
1	4.8	495	405	355	305	280	240	230	205	190	180

ICFVL Spacing for Wood Ledger (mm) & Joist Span (m) - 64mm EPS

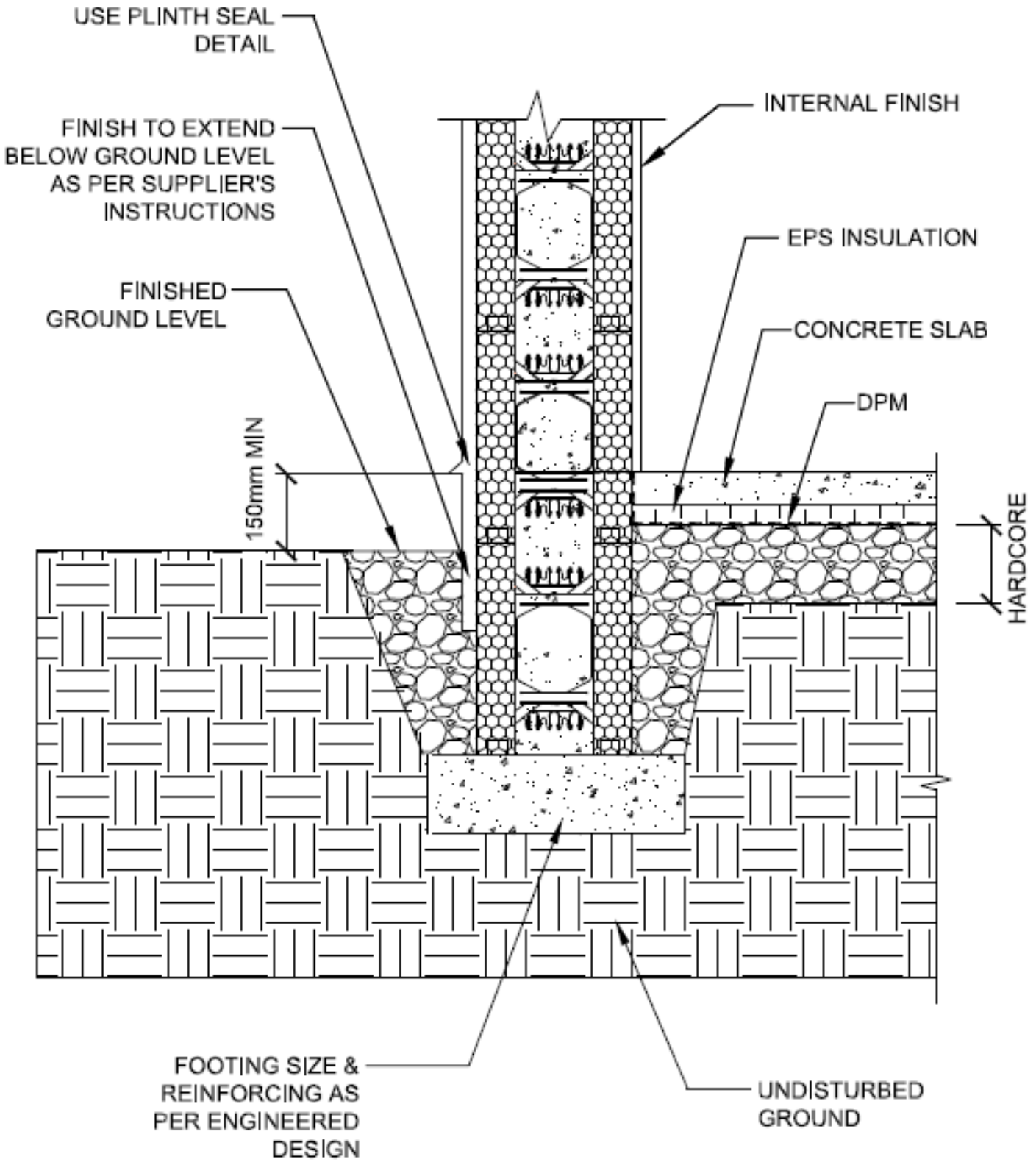
Uniform Loads		ICFVL Spacing for Wood Ledger (mm)									
Dead Load	Live Load	Joist Span (m)									
(KN/m^2)	(KN/m^2)	3.0	3.5	4.0	4.5	5.5	6.0	6.5	7.5	8.0	8.5
0.5	1.9	1220	1220	1220	1220	1220	1190	1070	990	910	840
0.7	1.9	1220	1220	1220	1220	1190	1070	970	890	840	760
1	1.9	1220	1220	1220	1220	1090	990	890	810	760	710
0.5	2.9	1220	1220	1220	1070	940	840	760	710	660	610
1	2.9	1220	1220	1070	910	810	740	660	610	560	530
1.4	2.9	1220	1090	940	810	740	660	610	230	510	460
1.9	2.9	1190	990	840	740	660	580	530	480	460	430
0.5	4.8	1070	890	760	660	610	530	480	460	410	380
1	4.8	990	810	710	610	560	480	460	410	380	360

1. Values shown are maximum spacing distances based on simple span, uniformly loaded conditions and do not consider concentrated loads.
2. Joist and ledger are to be designed by others.
3. Allowable loads are based on testing, with no further increases allowed.
4. Tables above address vertical loads only. If connection is designed to resist lateral loads, spacing will decrease. Contact Simpson for current information.

17.0 Appendix B: Drawings

REBAR SIZE AND LOCATION AS SPECIFIED BY THE ENGINEER WHERE REQ'D

ALL DIMENSIONS IN MM



AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

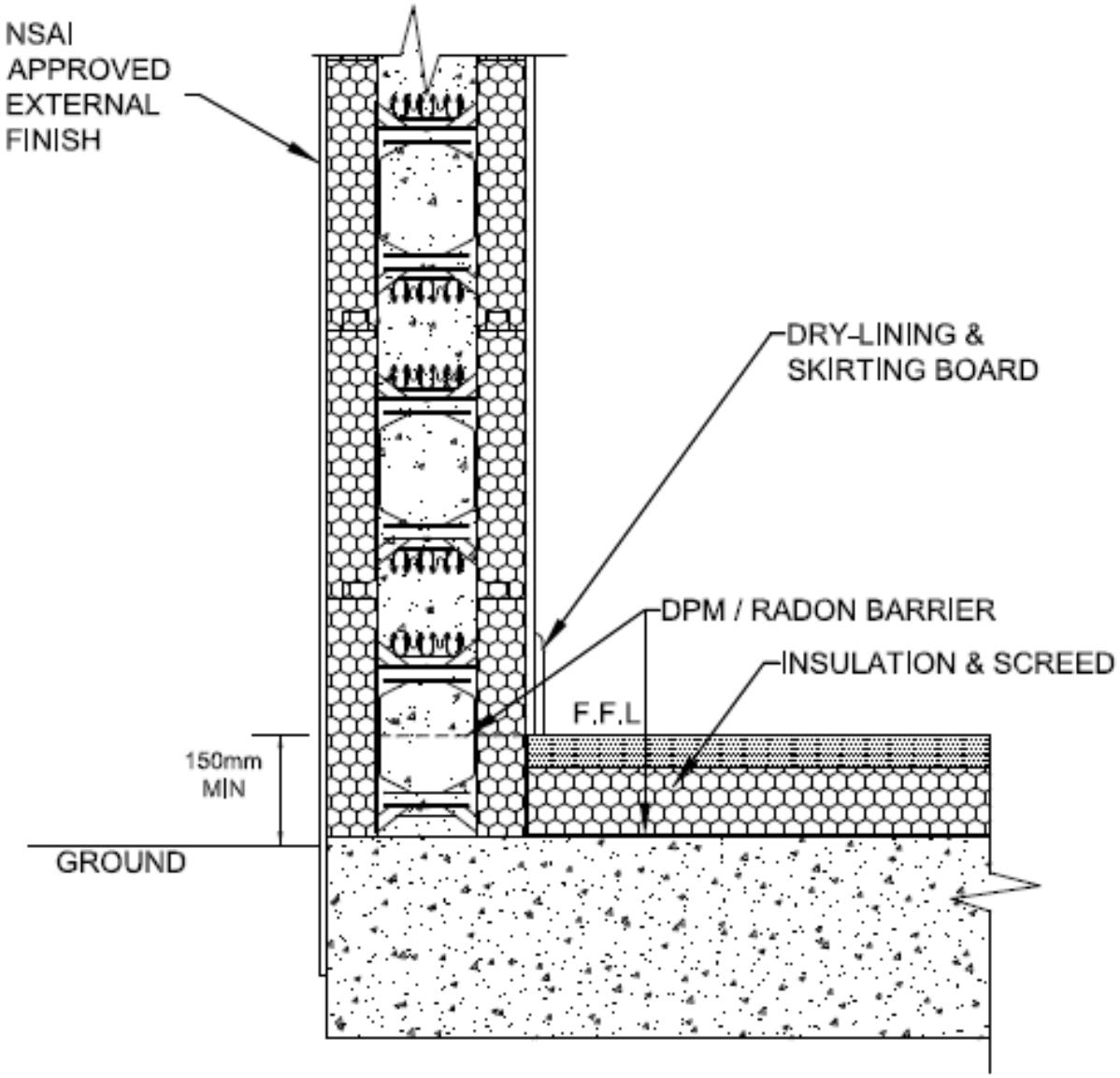
www.amvicireland.com

FOUNDATION DETAIL
AMVIC 300 BLOCK

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-001

ALL DIMENSIONS
IN MM

REBAR SIZE AND LOCATION
AS SPECIFIED BY THE
ENGINEER WHERE REQUIRED



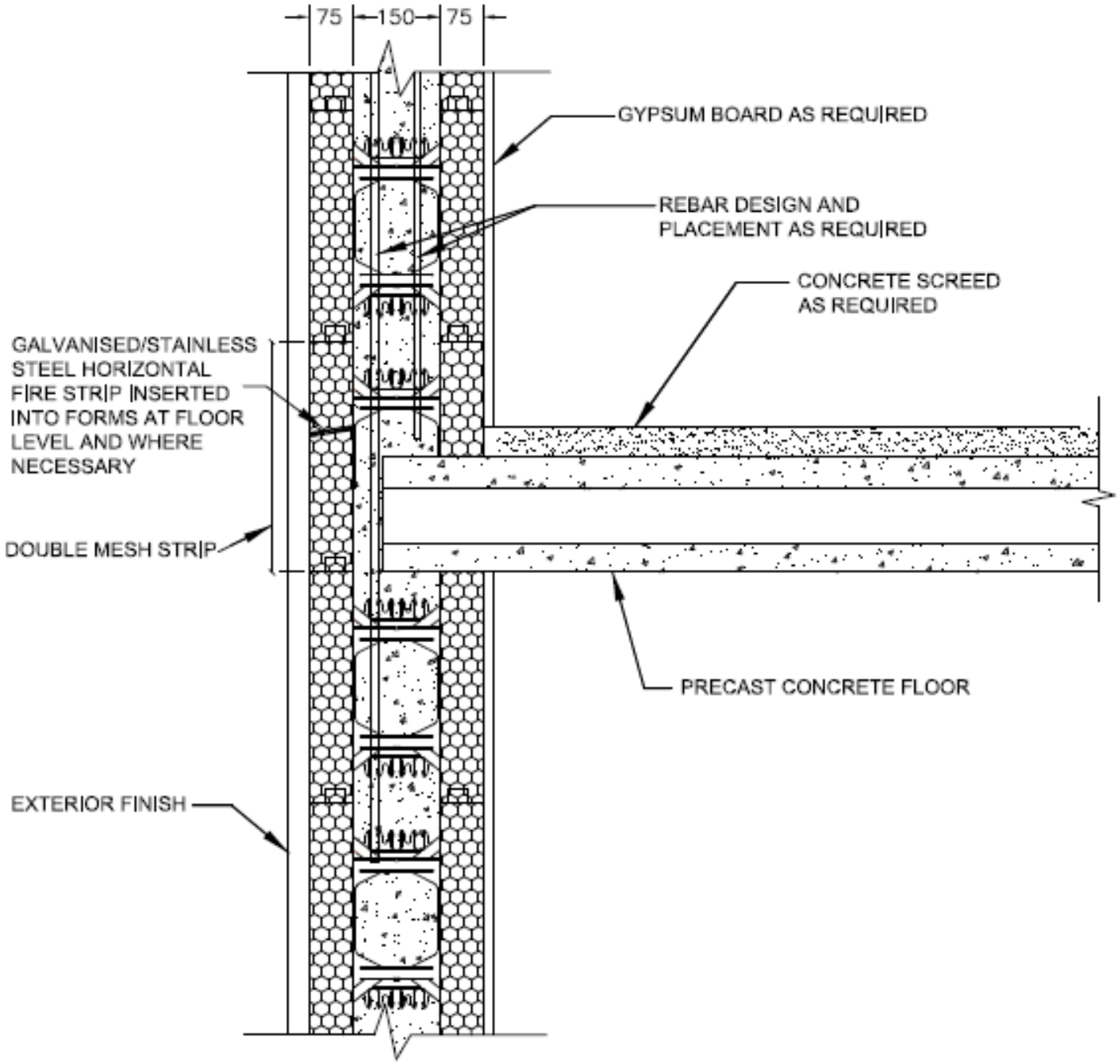
AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

www.amvicireland.com

GROUND BEARING SLAB/RAFT DETAIL
AMVIC 300 BLOCK

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-002

ALL DIMENSIONS
IN MM



REBAR SIZE AND LOCATION
AS SPECIFIED BY THE
ENGINEER WHERE REQ'D

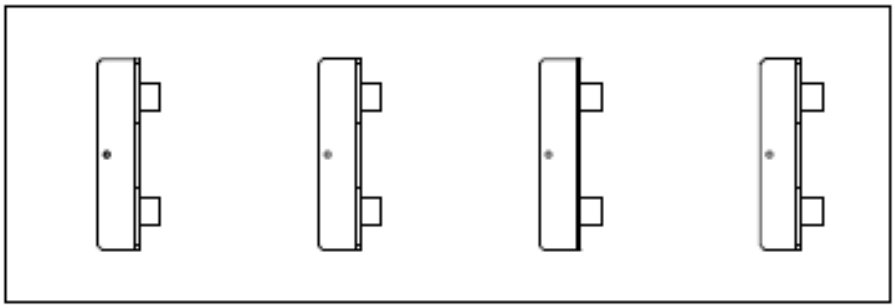
AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

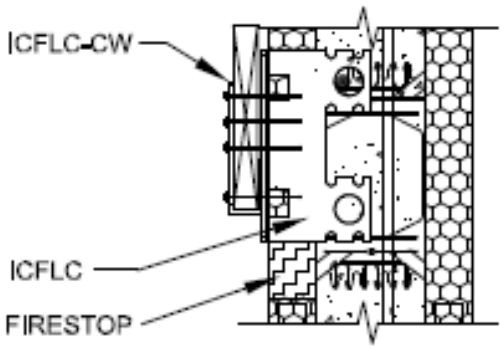
www.amvicireland.com

Pre Cast Concrete FLOOR BEARING
AMVIC 300 BLOCK

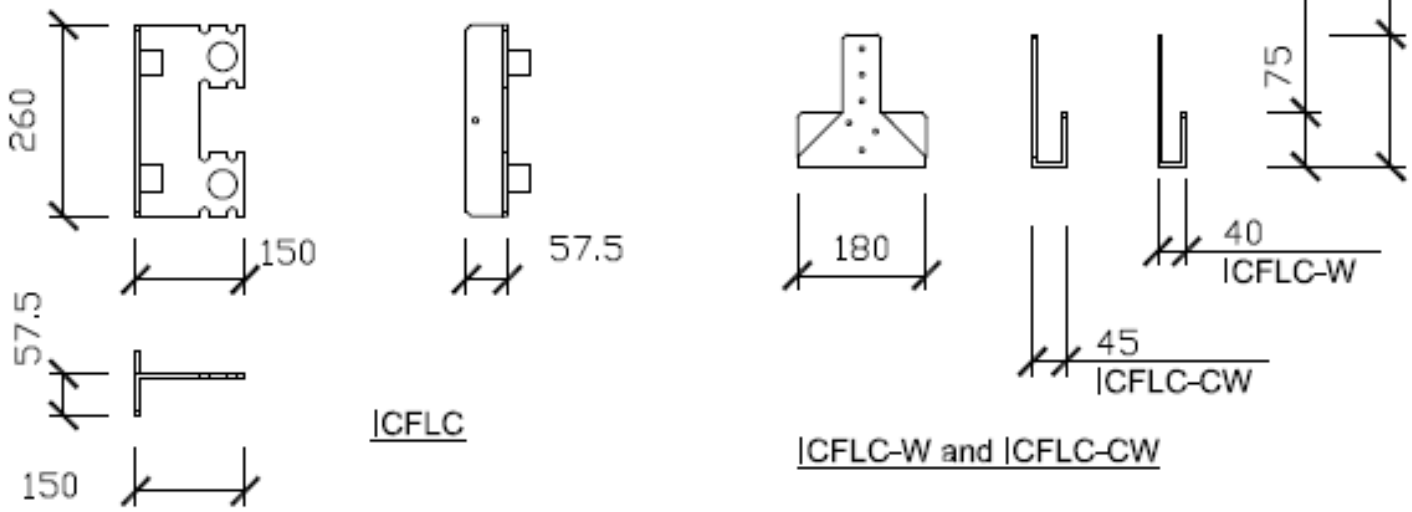
Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-003

REBAR SIZE AND LOCATION
AS SPECIFIED BY THE
ENGINEER WHERE REQ'D





TYPICAL TIMBER BEARER
INSTALLATION WITH
ICFLC AND ICFLC W



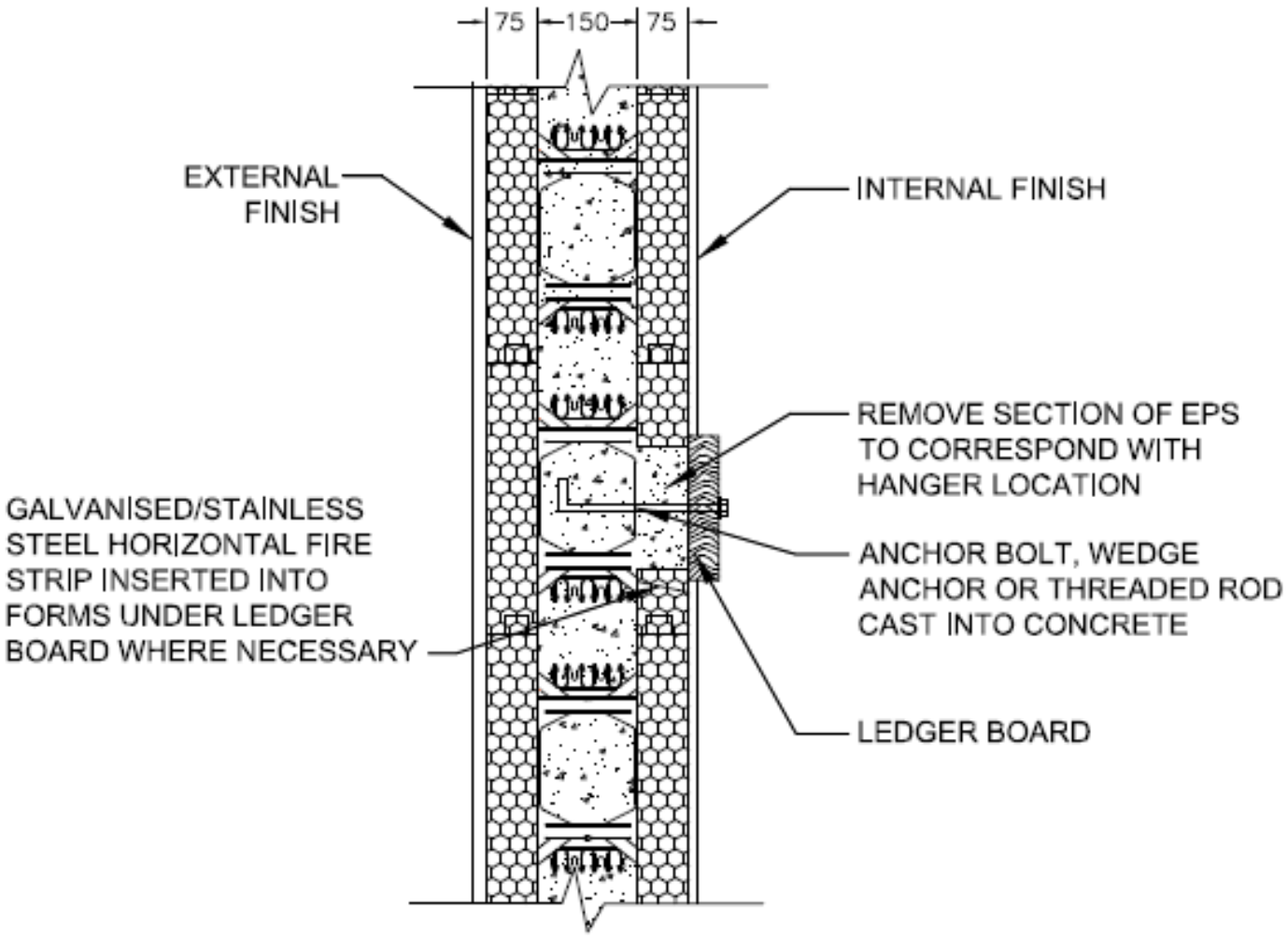
AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

www.amvicireland.com

SIMPSON STRONG-TIE LEDGER BOARD	
Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-004

REBAR SIZE AND LOCATION AS SPECIFIED BY THE ENGINEER WHERE REQUIRED

ALL DIMENSIONS IN MM



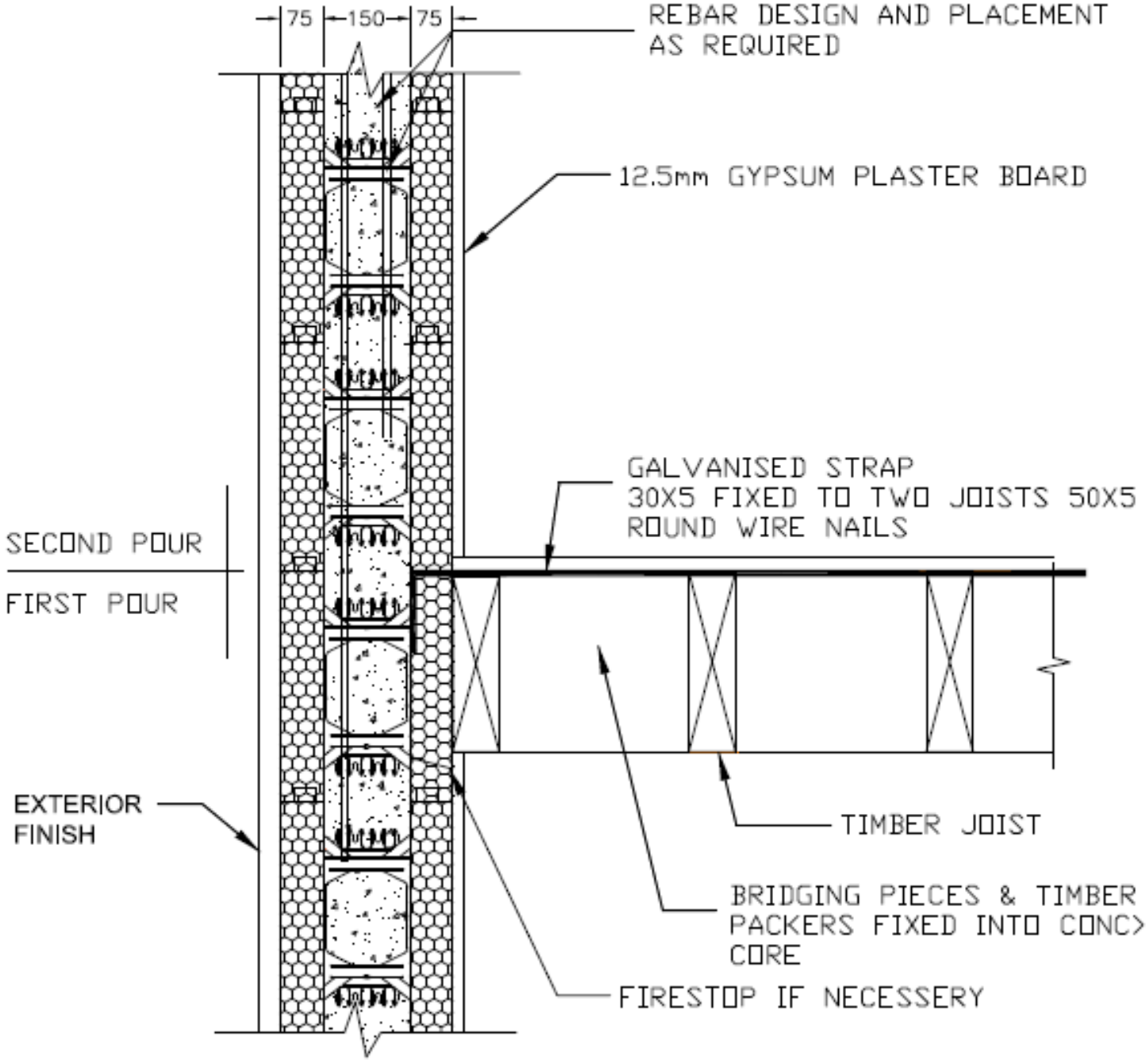
AMVIC
www.amvicireland.com

AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

LEDGER/HEAVY LOAD HANGING DETAIL

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-005

ALL DIMENSIONS
IN MM



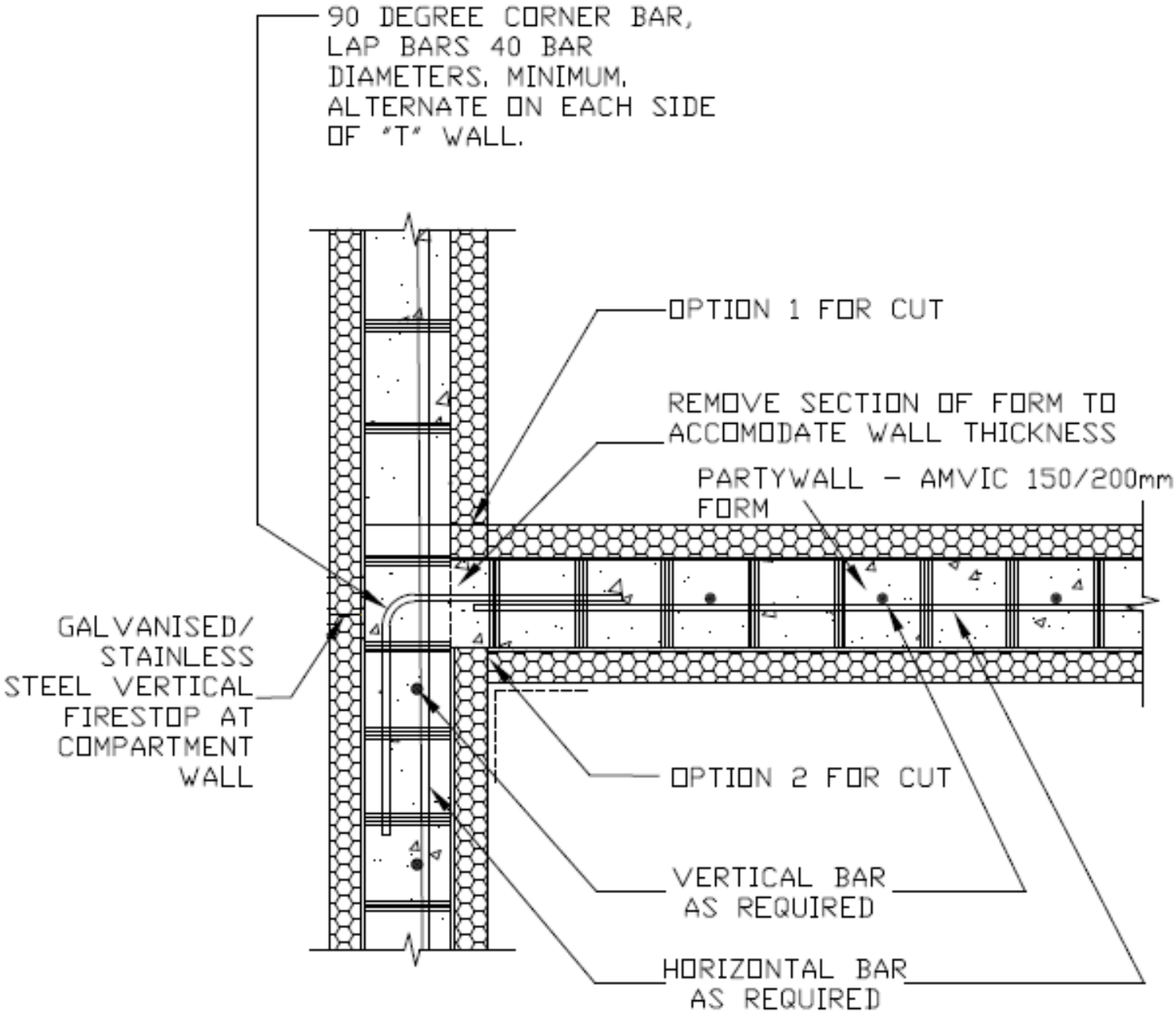
REBAR SIZE AND LOCATION AS SPECIFIED BY THE ENGINEER WHERE REQ'D

AMVIC
www.amvicireland.com

AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

LEDGER BOARD WITH TIMBER JOISTS (PARALLEL TO WALL).

Drawing Scale:	NTS
Creation Date:	MAY'20
Revision:	/
Drawing ID Number:	20-300-006



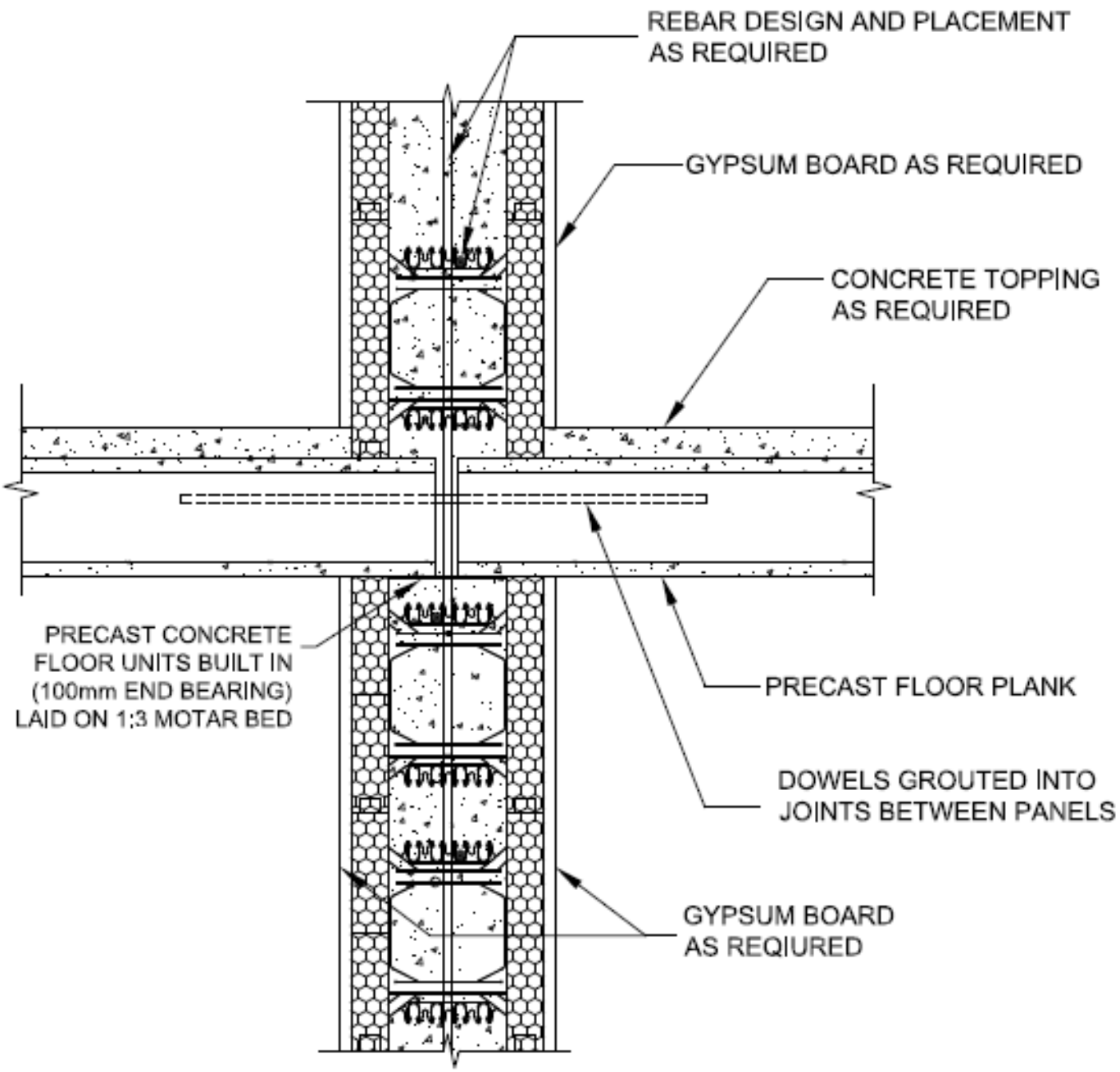
AMVIC
www.amvicireland.com

AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

AMVIC "T" WALL CONNECTION

Drawing Scale:	NTS
Creation Date:	MAY'20
Revision:	/
Drawing ID Number:	20-300-007

REBAR SIZE AND LOCATION
AS SPECIFIED BY THE
ENGINEER WHERE REQ'D



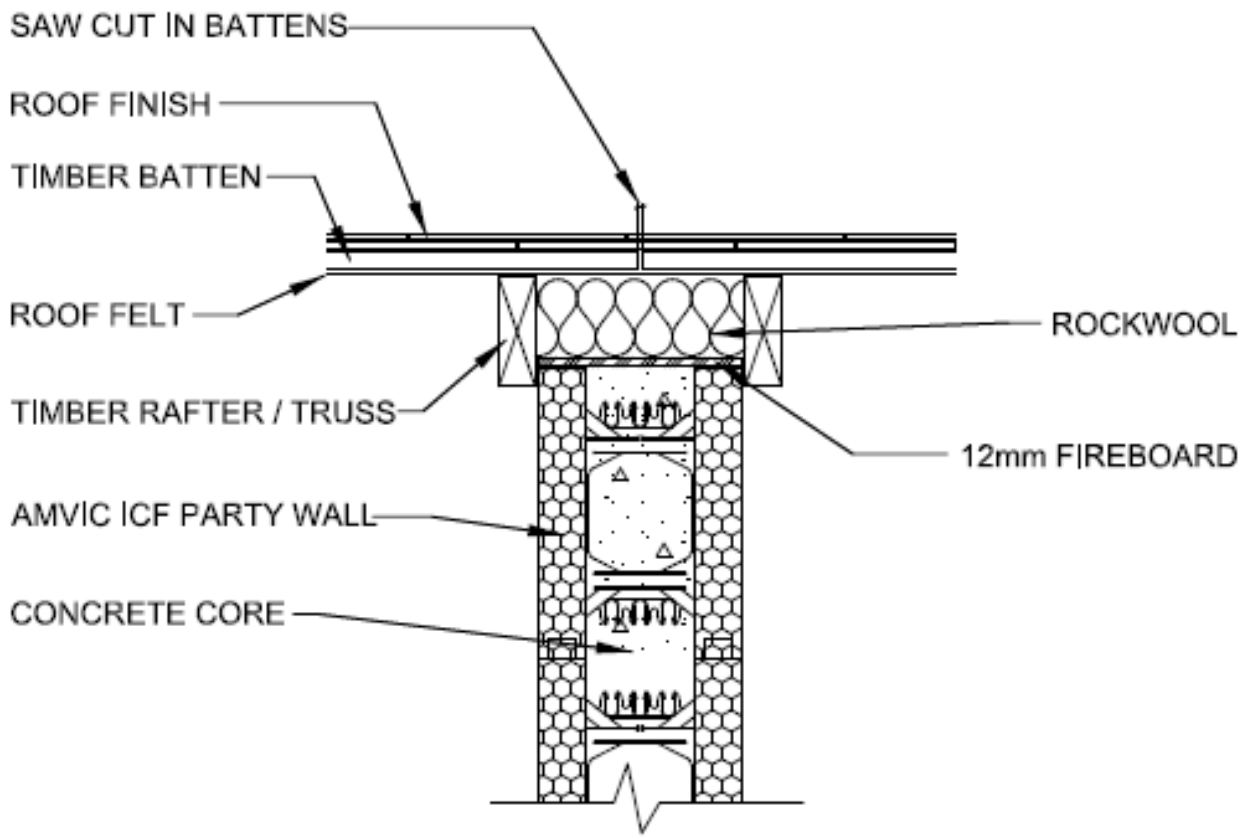
AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

www.amvicireland.com

PRECAST HOLLOWCORE
FLOOR ON INTERIOR WALL

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-008

ALL DIMENSIONS
IN MM



AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

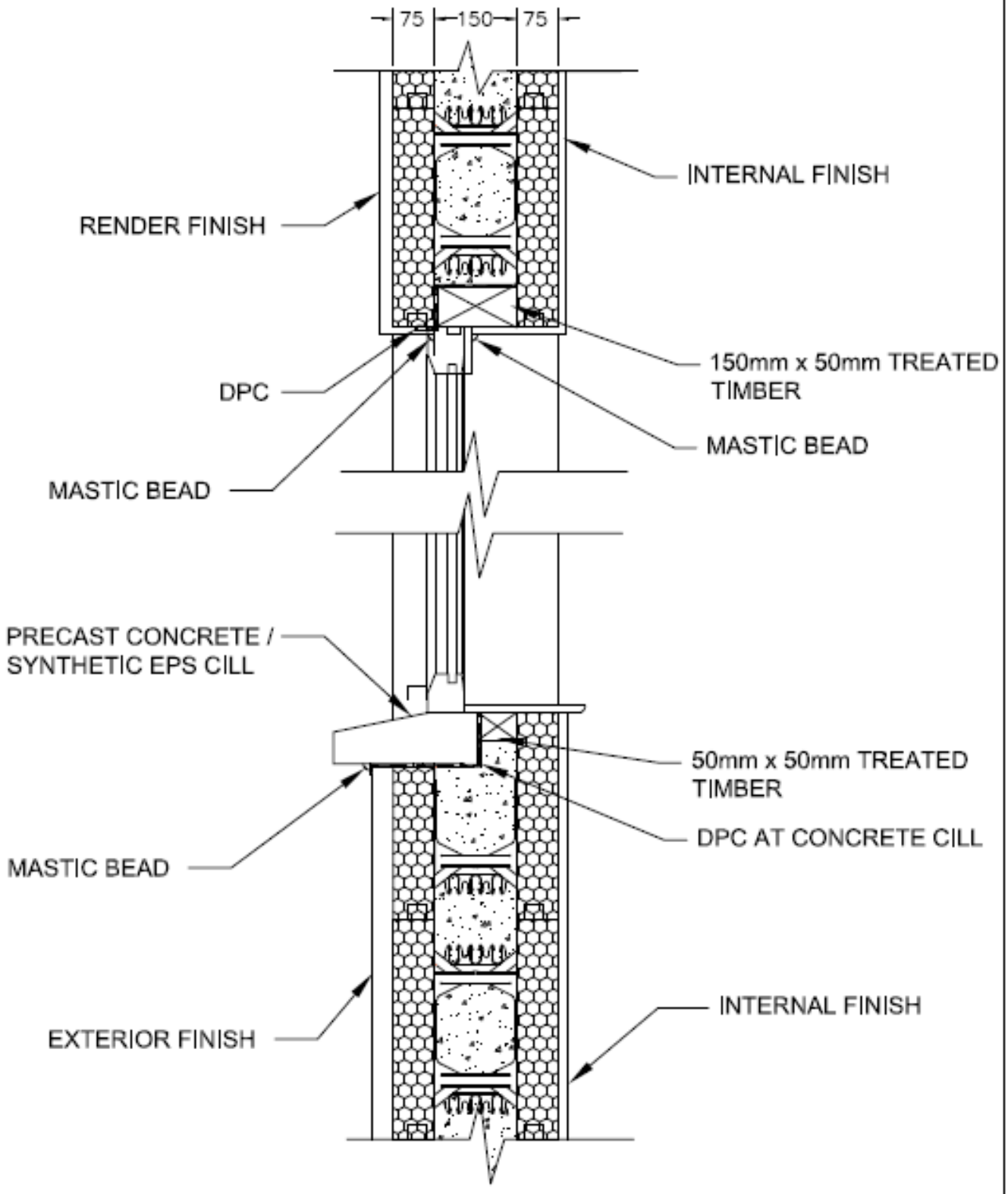
www.amvicireland.com

FIRE STOPPING AT PARTY WALL

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-009

REBAR SIZE AND LOCATION AS SPECIFIED BY THE ENGINEER WHERE REQ'D

ALL DIMENSIONS IN MM

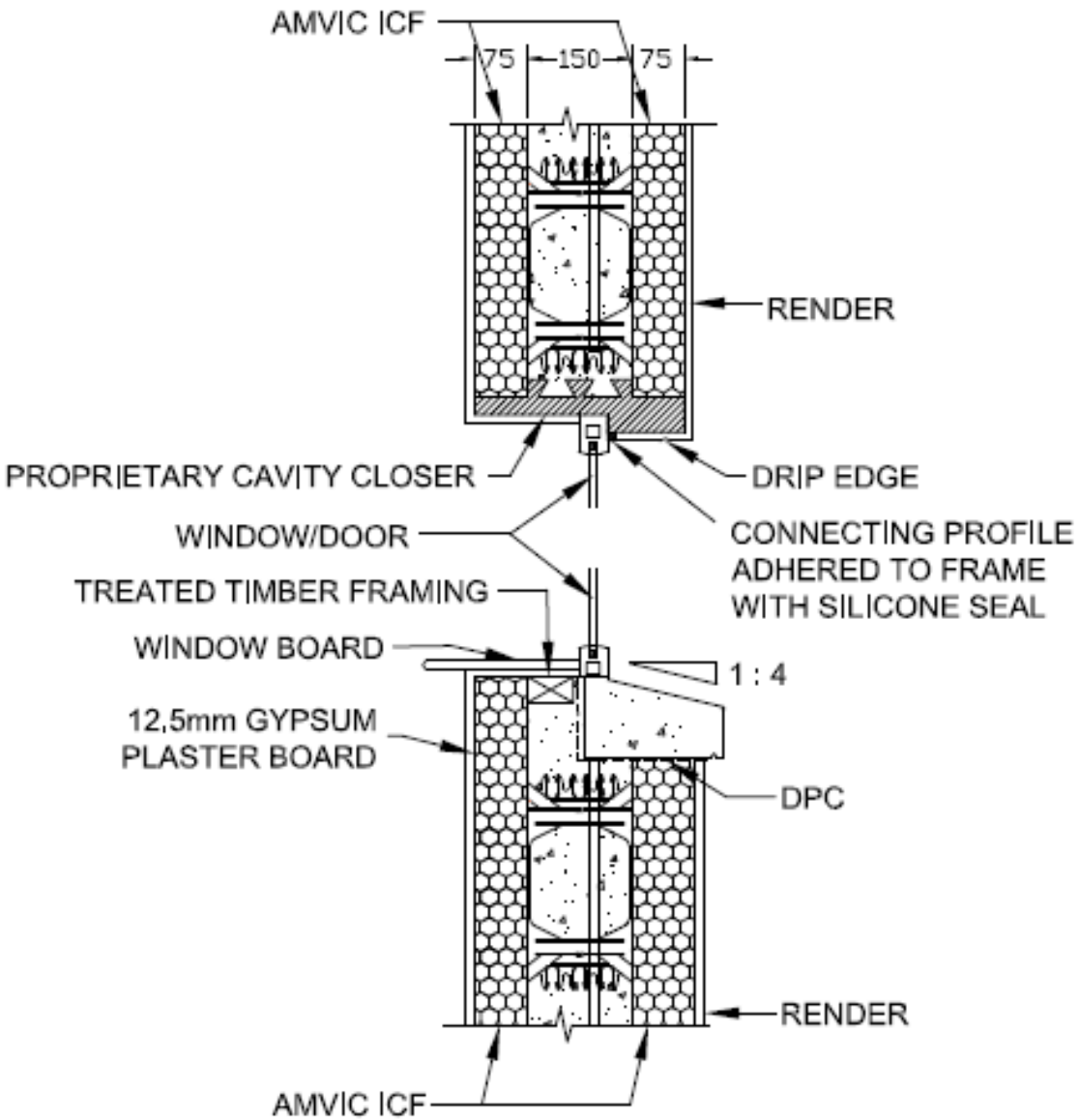


AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

www.amvicireland.com

SECTION THROUGH WINDOW
AMVIC 300 BLOCK/TIMBER CLOSER

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-010



REBAR SIZE AND LOCATION
AS SPECIFIED BY THE
ENGINEER WHERE REQ'D

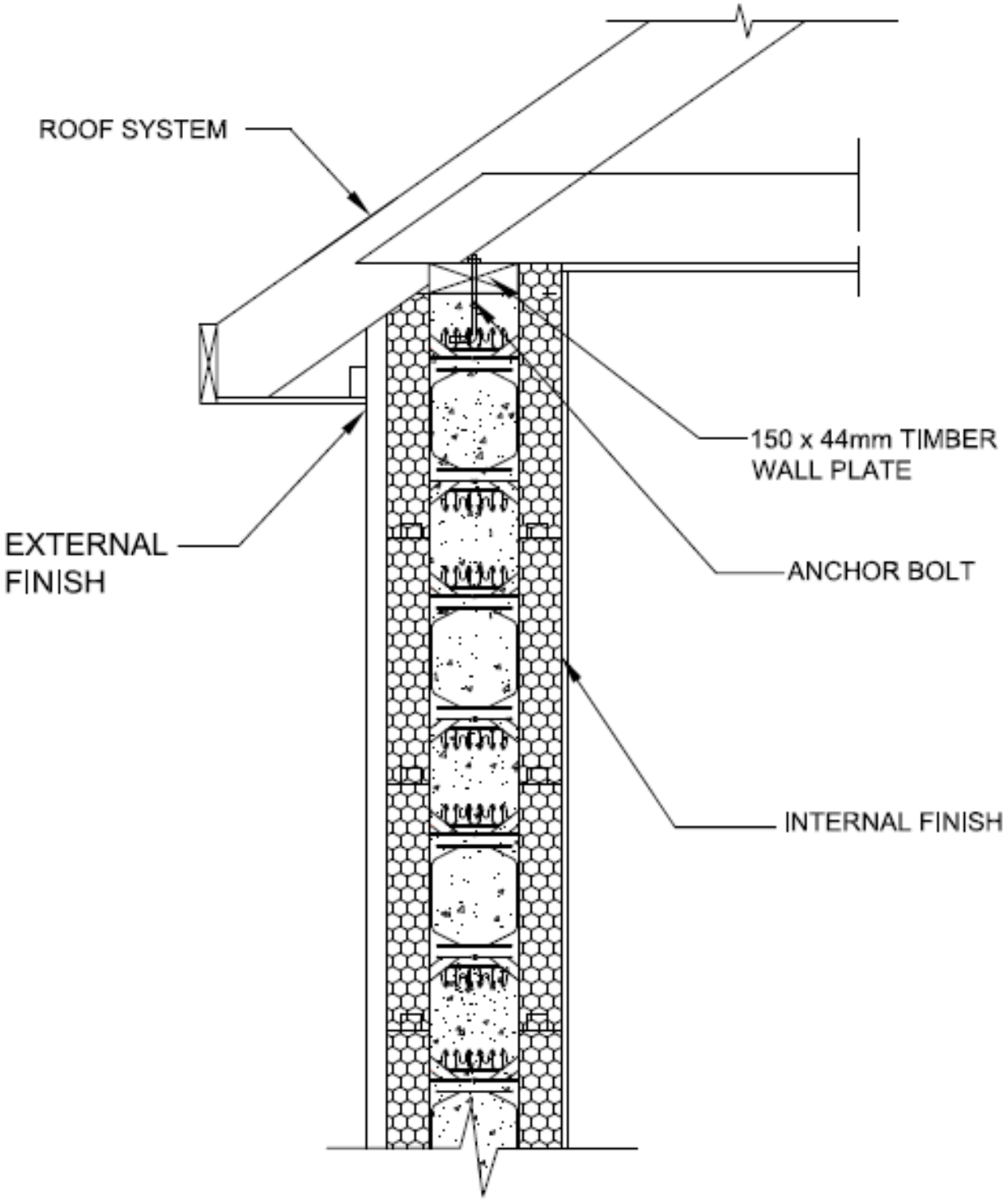
AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

www.amvicireland.com

TYPICAL WINDOW OPENING DETAIL INSULATED CLOSER

Drawing Scale:	NTS
Creation Date:	MAY'20
Revision:	/
Drawing ID Number:	20-300-011

ALL DIMENSIONS
IN MM



AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

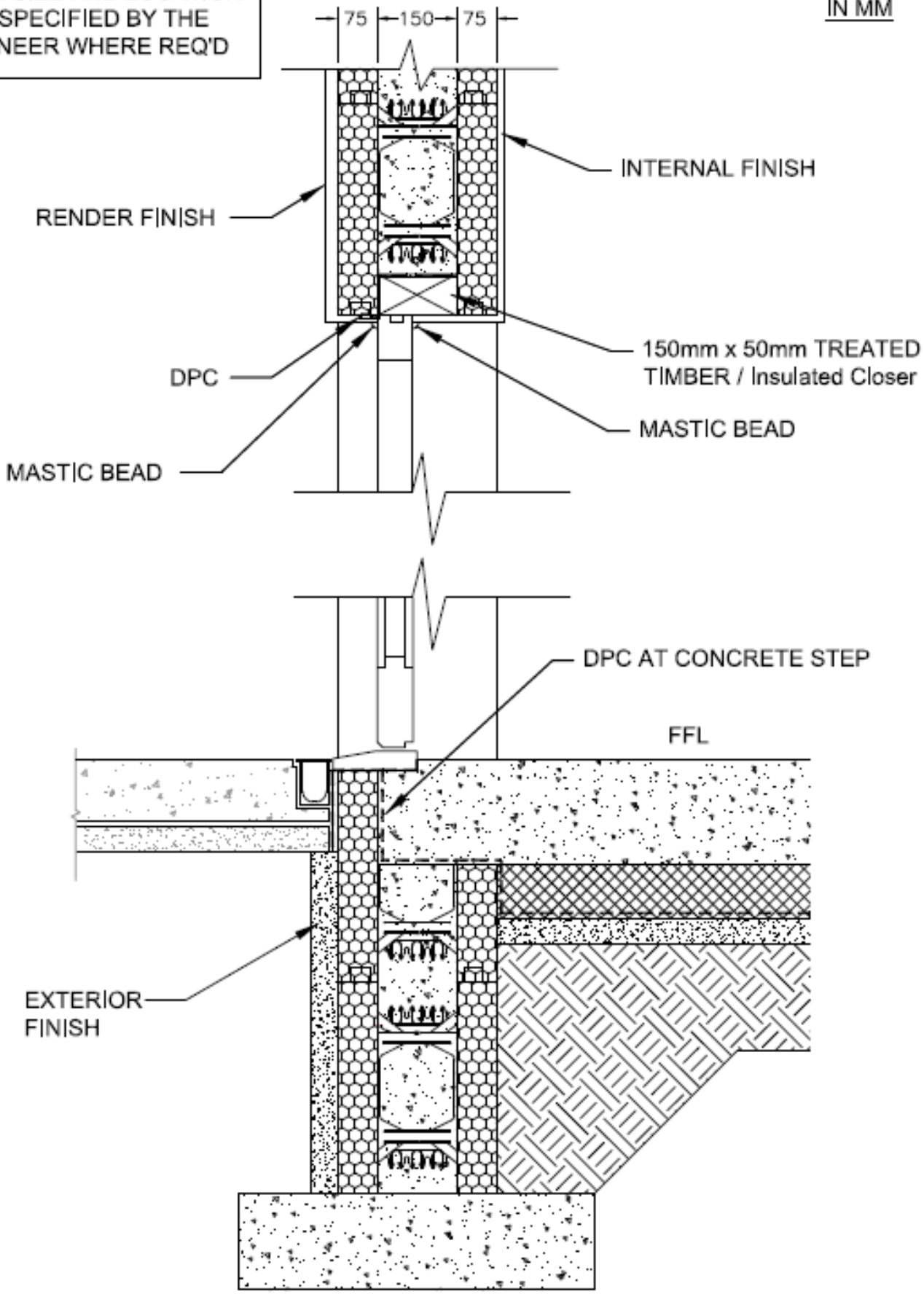
www.amvicireland.com

AMVIC WALL / ROOF CONNECTION
AMVIC 300 BLOCK - Option 1

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-012

REBAR SIZE AND LOCATION AS SPECIFIED BY THE ENGINEER WHERE REQ'D

ALL DIMENSIONS IN MM



AMVIC

www.amvicireland.com

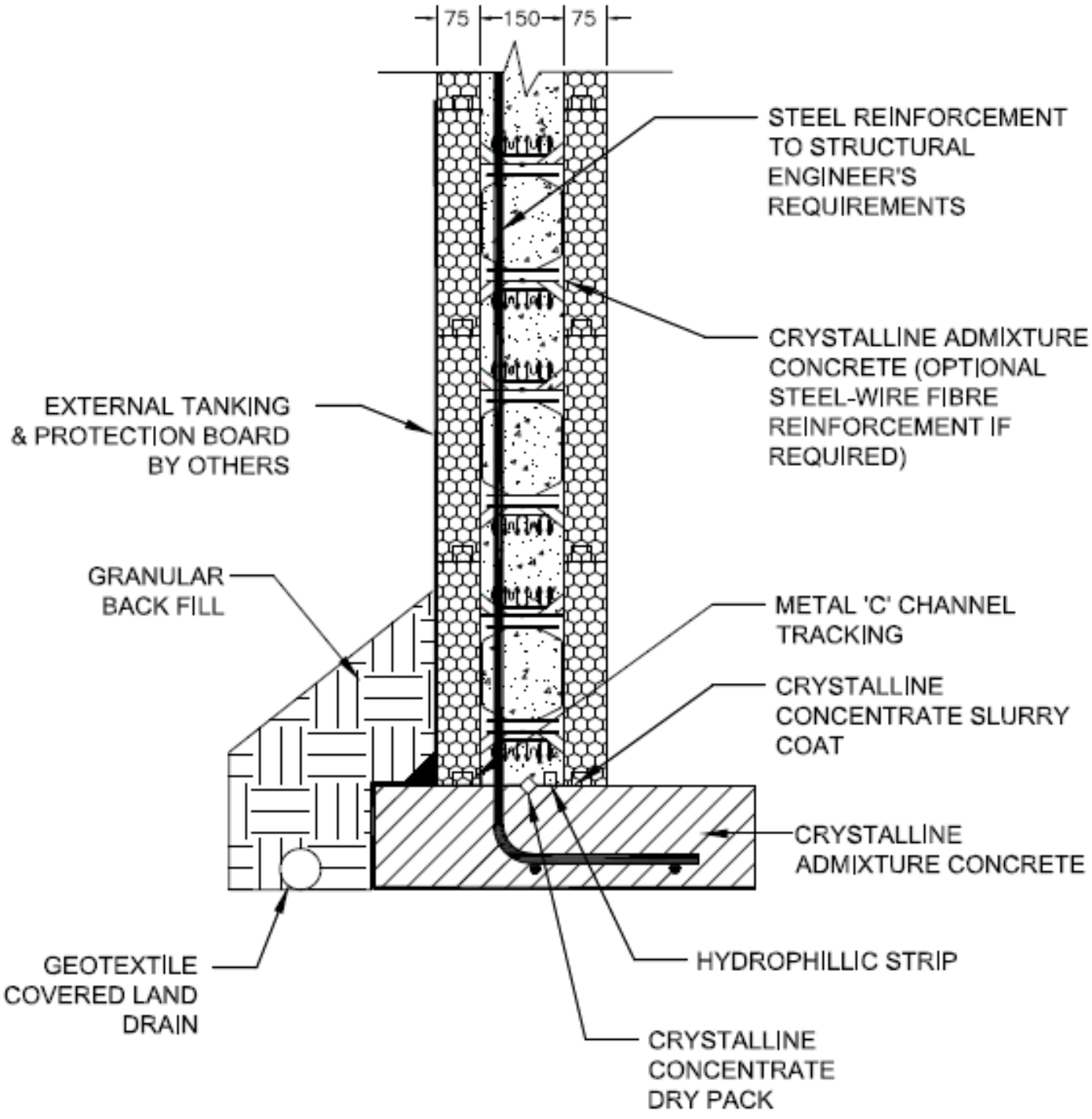
AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

DOOR THRESHOLD DETAIL
AMVIC 300 BLOCK 1

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-013

REBAR SIZE AND LOCATION AS SPECIFIED BY THE ENGINEER WHERE REQ'D

ALL DIMENSIONS IN MM



AMVIC IRELAND LTD.
UNIT 11
ROSEMOUNT BUSINESS PARK
DUBLIN 11
D11Y382
IRELAND
TEL: 01 899 1883

www.amvicireland.com

WATERPROOF BASEMENT JOINT DETAIL
150mm Core, 75mm Insulation

Drawing Scale:	NTS
Date:	MAY'20
Revision:	/
Drawing Number:	20-300-014

18.0 Appendix C: References

TGD Part A	-	Technical Guidance Document Part A - Structure
TGD Part B	-	Technical Guidance Document Part B - Fire Safety
TGD Part E	-	Technical Guidance Document Part E - Sound
TGD Part J	-	Technical Guidance Document Part J - Heat Producing Appliances
IS EN 1990-1	-	Eurocode: Basis of structural design
IS EN 1991-1-1	-	Eurocode 1: Actions on structures. General actions. Densities, self-weight, imposed loads for buildings
IS EN 1990-1-4	-	Eurocode 1: Actions on structures. General actions. Wind actions
IS EN 1992-1-1	-	Eurocode 2: Design of concrete structures. General rules and rules for buildings
IS EN 1997-1	-	Eurocode 7. Geotechnical design. General rules
IS EN 206-1	-	Concrete - specification, performance, production and conformity
BS 8110	-	Structural use of concrete. Code of practice for design and construction
BS5628	-	Code of practice for use of masonry.
BS 4449	-	Steel for the reinforcement of concrete. Weldable reinforcing steel. Bar, coil and decoiled product. Specification
BS 8666	-	Scheduling, dimensioning, bending and cutting of steel reinforcement for concrete. Specification
REP 347	-	Energy-efficient in-situ concrete housing using EPS permanent formwork
IP 9/98	-	Energy efficient concrete walls using EPS permanent formwork
CCIP-019	-	Design and Construction using Insulating Concrete Formwork

This Page is Intentionally Left Blank