Boundaryline

Mode**Panel PS1**

Rev: 1.2
Issue Date: 28/08/2026

Application

Engineering specifications & installation details for compliance with **NZBC B1, F4 & F9**

BARRIER SPECIFICATION SELECTION GUIDE

Clause F4 ‘Safety from Falling’ of the New Zealand Building Code requires building areas to be constructed to reduce the likelihood of accidental falls. Specifically, barriers are required where people could fall one metre or more.

Barriers need to be designed and constructed so that they are capable of providing the strength and stiffness necessary for the proposed location and occupancy type of the property which they serve. Evidence of the suitability of the barrier system for its proposed use, needs to be provided when making a building consent application. This producer statement provides the assurance that Boundaryline product specifications and installation details have been pre-approved by Chartered Professional Engineers and comply with all NZBC B1, F4, F9 requirements.

It is important that your selected barrier design is appropriate to the specific installation location and intended use. Use this guide to determine your specific barrier design and installation details.

Generic Producer Statement:

This is a generic Producer Statement, issued to Boundaryline Ltd, which provides the assurance that the proprietary products detailed in this document have been structurally engineered to comply with the New Zealand Building Code and the building code clauses as detailed, and for the application(s) as described in this document.

The fencing components detailed in this Producer Statement are proprietary products, engineered to comply with the requirements of the stated building code clause. Of equal importance is the detail of the fixing method to ensure the correct installation of the proprietary components. To this end, most common installation applications have been illustrated with appropriate details to ensure a safe and compliant fence/balustrade.

The structure (or ground conditions) to which the proprietary components are installed is the responsibility of the installer or end user, and it is recommended that an independent engineer is engaged to confirm the compliance of the structure (or ground condition) with the New Zealand Building Code. Where relevant, and when critical to the compliance of the proprietary components, this producer statement details specific requirements of the structure (or ground conditions) as a minimum standard.

It is the installer or end user’s responsibility to ensure the proprietary components are installed accurately to the detail provided. If your particular structure design or application is not covered in the details provided, then this generic producer statement cannot be applied to your installation. In this instance, please contact Boundaryline to discuss a custom-engineered solution that will meet your requirements.

Barrier Loading Selection:

Where a barrier serves multiple occupancies, default to the highest loading requirement from all location scenarios. For more information, please refer to www.building.govt.nz.

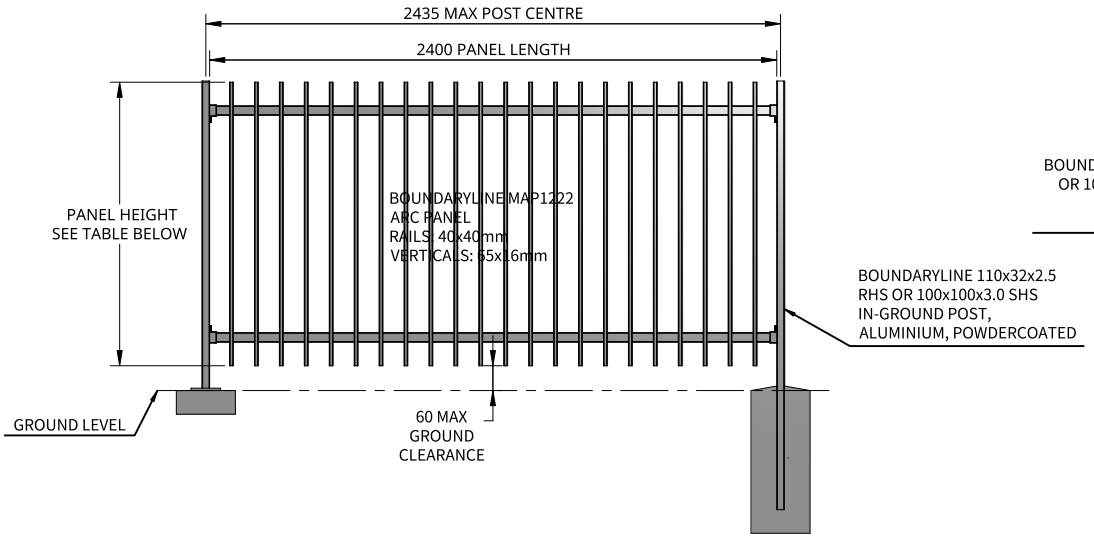
Occupancy Type:	Building Code Clause:	Specific Use:	Horizontal Design Loading:	Minimum Overall Barrier Height:
A - Domestic	F9	Pool fence only.	0.33kN	1.2m
A - Domestic	F4	All areas serving one dwelling but excluding balconies, decks, and terraces. For example; walkways, stairs and landings and retaining walls, not adjacent to a deck or terrace.	0.35kN/m	1.0m 0.9m for stairs only
A - Domestic	F4	External balcony, decks, terraces, retaining walls and walkways in a multi-dwelling application, including open public spaces.	0.75kN/m	1.0m single dwelling 1.1m multi dwelling
B & E – Offices and work areas including storage	F4	Access walkways, stairs and landings.	0.35kN/m	1.1m
B & E – Offices and work areas including storage	F4	Areas including balconies, decks and terraces not susceptible to overcrowding.	0.75kN/m	1.1m
C3 – Areas without obstacles for moving people and where people may congregate	F4	Areas including walkways, stairs and landings, balconies, decks and terraces not susceptible to overcrowding, including parks and reserves.	0.75kN/m	1.1m

Fixing Types

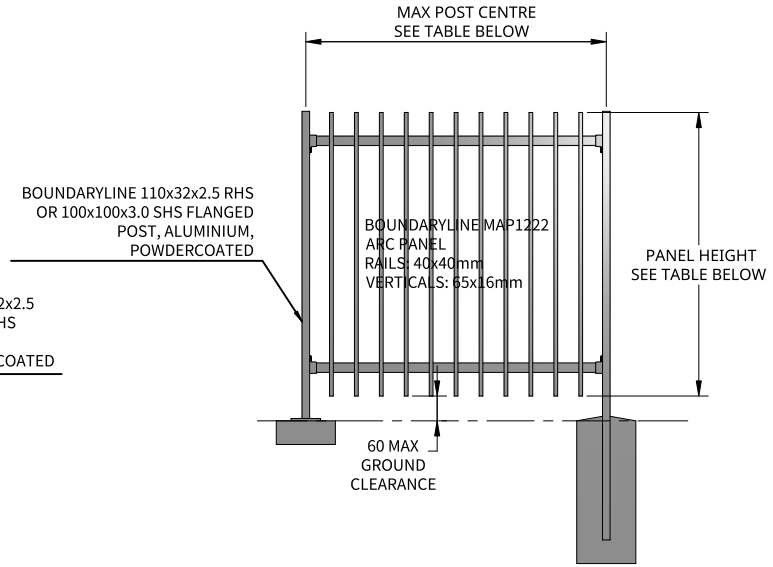
There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. To determine the corrosion zone of your installation location, please check maps in Figure 4.2 in NZS3604:2011 (or online search 'BRANZ Maps'). Use the table below to determine the appropriate fixing types required for your particular location.

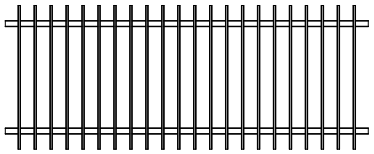
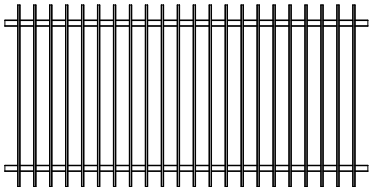
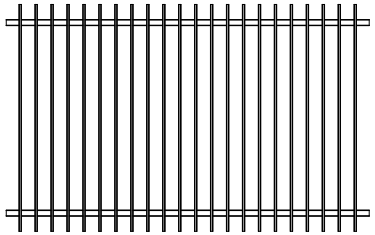
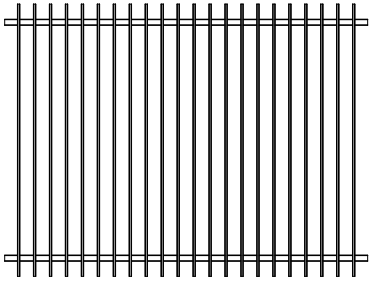
Zone	Risk Level & Location	Fixing Type
Zone B	Low risk	Hot-dip Galvanised
Zone C	Medium risk	Hot-dip Galvanised
Zone D	High risk, all offshore islands, locations within 500m of coastline including harbours, locations within 100m of tidal estuaries and sheltered inlets	316 Stainless Steel
Zone D	Very high risk, locations described in Zone D, beach fronts and seaside locations	316 Stainless Steel

BOUNDARYLINE MODEPANEL ARC FENCE FOR F9 (POOL FENCE) AND F4-0.35kN/m (FALL RESTRAINT BARRIER) APPLICATIONS



BOUNDARYLINE MODEPANEL ARC FENCE FOR F4-0.75kN/m (FALL RESTRAINT BARRIER) APPLICATIONS



	ARC 950 High - MAP9524-BK			ARC 1200 High - MAP1224-BK			ARC 1500 High - MAP1524-BK			ARC 1800 High - MAP1824-BK		
Panel Type												
Loadings	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**	**F9 (Pool Fence)**	**F4 - 0.35kN/m (Fall Restraint)**	**F4 - 0.75kN/m (Fall Restraint)**
Max Post Centres	N/A	2435mm	1950mm	2435mm	2435mm	1700mm	2435mm	2435mm	1400mm	2435mm	2435mm	1200mm
In-Ground Post Options	N/A	110x32mm - MAP1119-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6519-BK	110x32mm - MAP1119-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6519-BK	110x32mm - MAP1119-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6519-BK	110x32mm - MAP1119-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6519-BK	110x32mm - MAP1119-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6519-BK	110x32mm - MAP1125-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6522-BK	110x32mm - MAP1125-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6522-BK	110x32mm - MAP1125-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6522-BK	110x32mm - MAP1125-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6525-BK	110x32mm - MAP1125-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6525-BK	110x32mm - MAP1125-BK 100x100mm - MAP1025-BK or 65x65mm - DAP6525-BK
Flanged Post Options	N/A	110x32mm - MAF1112-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6513-BK	110x32mm - MAF1112-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6513-BK	110x32mm - MAF1112-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6513-BK	110x32mm - MAF1112-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6513-BK	110x32mm - MAF1112-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6513-BK	110x32mm - MAF1118-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6519-BK	110x32mm - MAF1118-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6519-BK	110x32mm - MAF1118-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6519-BK	110x32mm - MAF1118-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6519-BK	110x32mm - MAF1118-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6519-BK	110x32mm - MAF1118-BK 100x100mm - MAF1013-BK or 65x65mm - DAF6519-BK
Applicable Fixing Details	N/A	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503	MPA117501 MPA117502 MPA117503

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General Notes

1. All dimensions are in millimetres.

2. Drawings are not necessarily to scale

3. Check www.boundaryline.co.nz to ensure you have the most recent edition of this publication.

Fixing Notes

1. All coach screws and bolts to be pre-drilled according to NZS 3603:1997

2. When fixing self-drilling screws, ensure low torque setting to avoid thread stripping. A battery drill is recommended for self-drilling screws - DO NOT use an impact driver.

Corrosion Zones

There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. See maps in figure 4.2 of NZS 3604:2011 (or online search '*BRANZ Maps*') to determine the corrosion zone of the installation location and appropiate fixing option required.

Zone	Risk Level & Location	Fixing Type
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Zone E	Very high risk, locations described in Zone D, beachfronts and seaside locations.	316 Stainless Steel

Existing Support Structure

1. Supporting structures as not covered by these drawings unless specific requirements are detailed.

2. Supporting structures are by others and must comply with the New Zealand Building Code.

3. If unsure of existing structure compliance, seek professional advice.

Boundaryline Ltd.
60 Basstian Street, Invercargill
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Email: enquiries@boundaryline.co.nz
Website: www.boundaryline.co.nz

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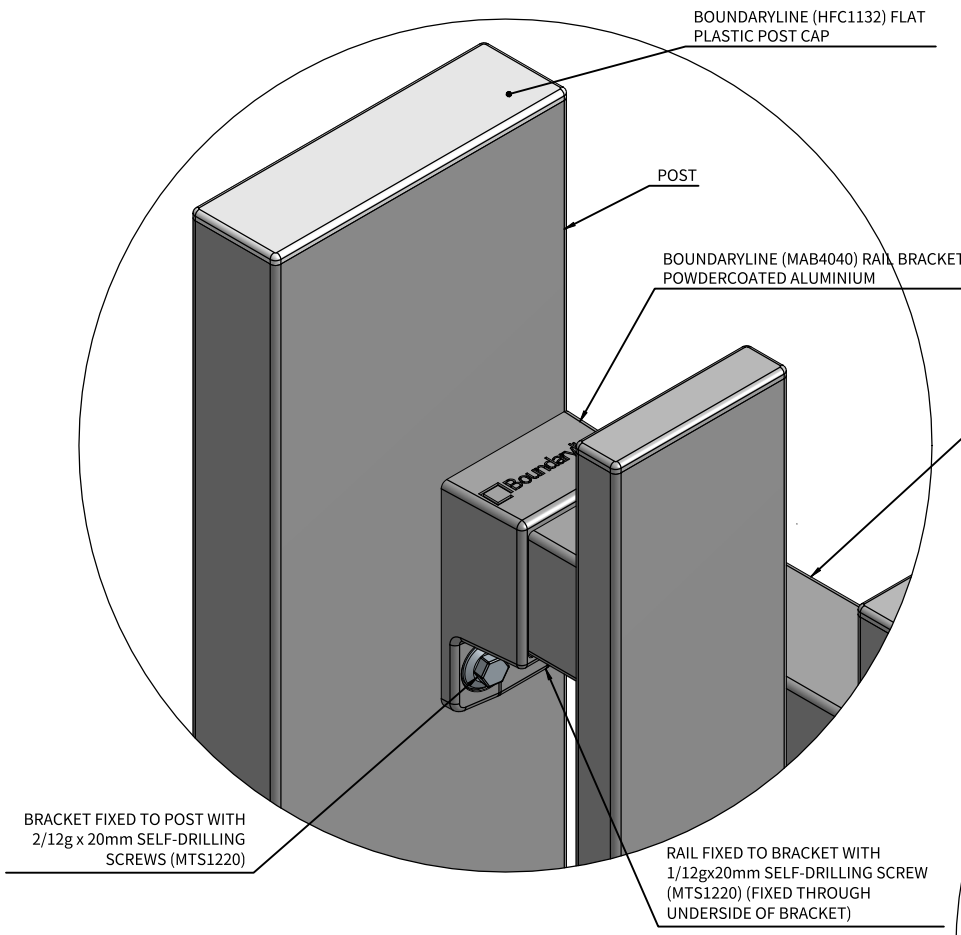
TITLE

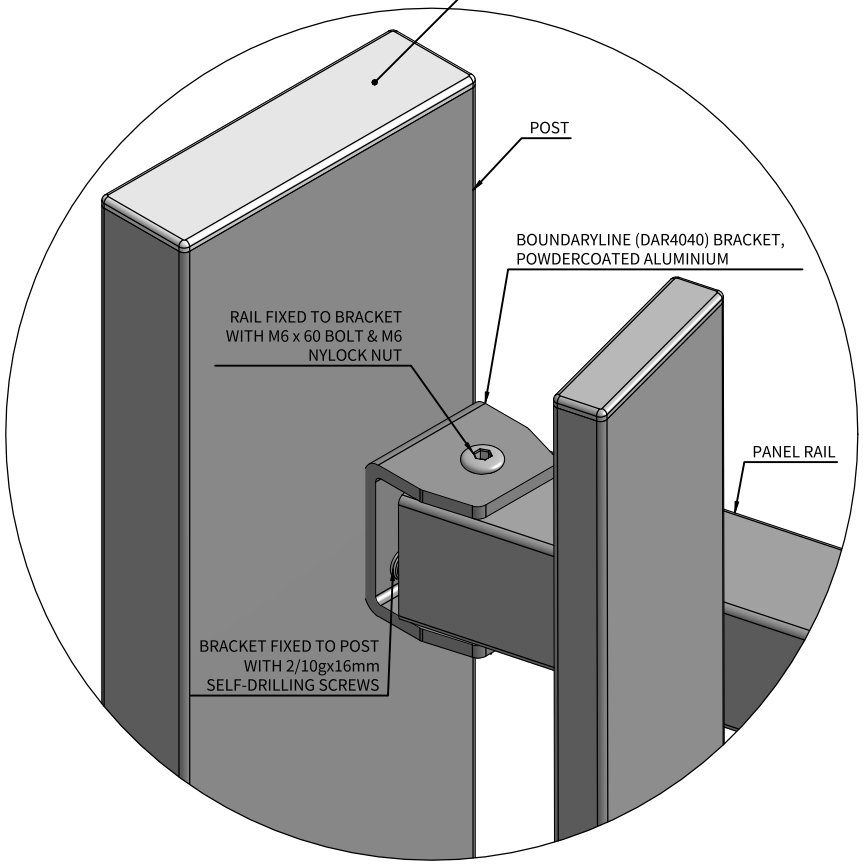
BOUNDARYLINE MODEPANEL ARC

SCALE	SIZE	DRAWING NO
1:32	A4	MAP01

REV.	DATE ISSUED	SHEET
A	28/08/2026	4



STANDARD PANEL BRACKET FIXING DETAIL
1:2



DIRECTIONAL PANEL BRACKET FIXING DETAIL
1:2

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TITLE

BOUNDARYLINE MODEPANEL ARC

SCALE	SIZE	DRAWING NO
1:32	A4	MAP02

REV.	DATE ISSUED	SHEET
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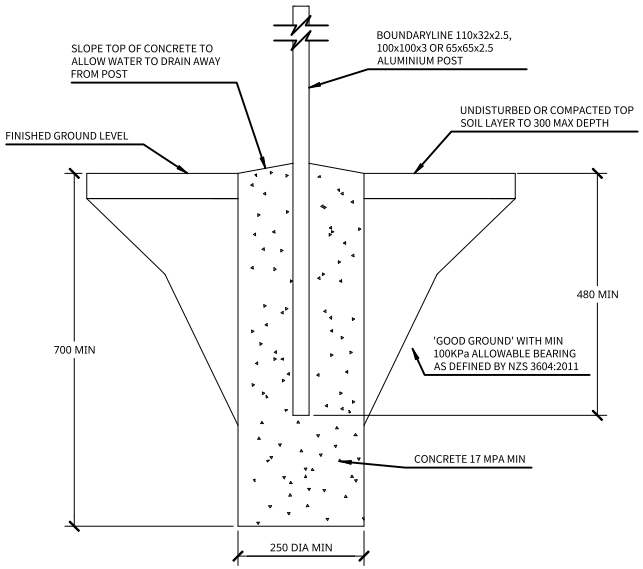

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APPLICATION: CONCRETE IN-GROUND
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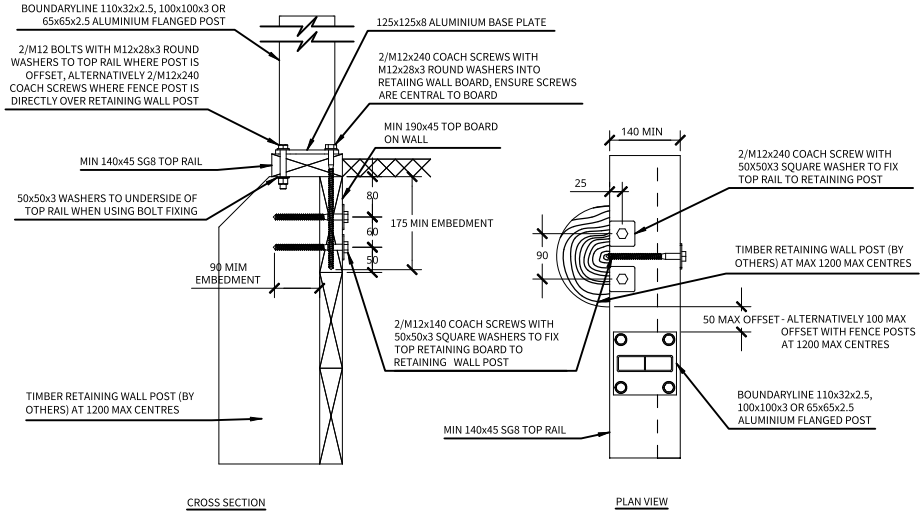
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: TRA527511
APPLICATION: TOP-FIX TO TIMBER RETAINING WALL
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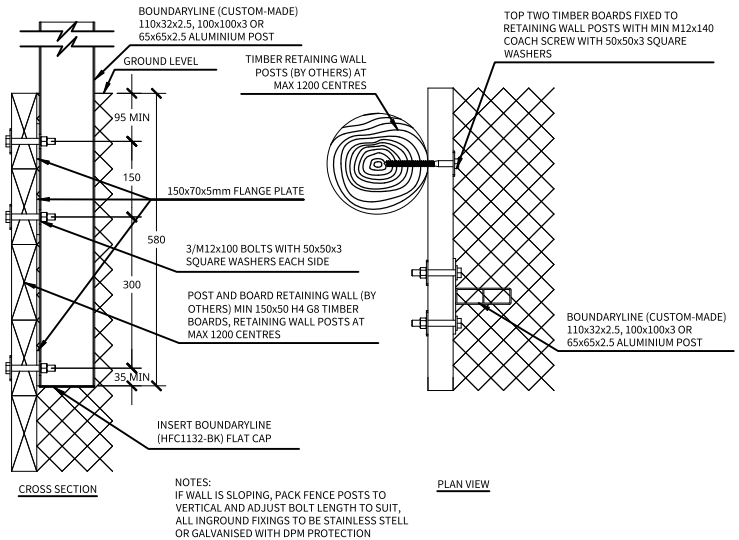
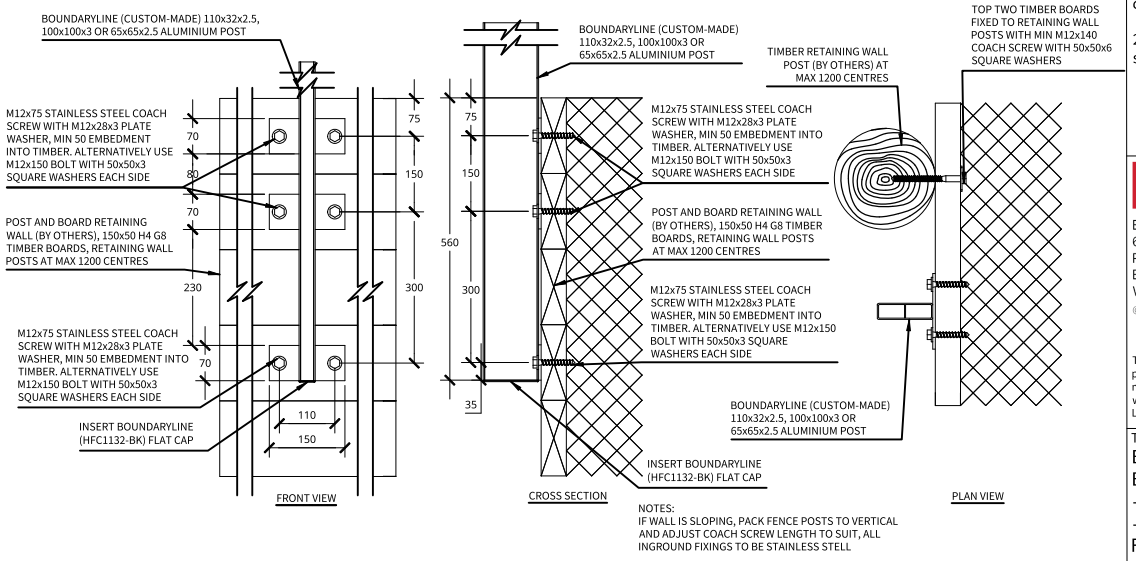
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: SRA527511-A
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON INSIDE OF RETAINING WALL)
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: SRA527511-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4

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General Notes

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Fixing Notes

1. All coach screws and bolts to be pre-drilled according to NZS 3603:1993

2. When fixing self-drilling screws, ensure low torque setting to avoid thread stripping. A battery drill is recommended for self-drilling screws - DO NOT use an impact driver.

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Zone D	High risk, all offshore islands, locations within 500m of coastline including harbours, locations within 100m of tidal estuaries and sheltered inlets.	316 Stainless Steel
Zone E	Very high risk, locations described in Zone D, beachfronts and seaside locations.	316 Stainless Steel

Existing Support Sturcture

1. All supporting structure by others and must comply with the New Zealand Building Code

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TITLE
BOUNDARYLINE MODEPANEL ARC BARRIER FIXING DESIGNS FOR:
- CONCRETE IN-GROUND
- TIMBER RETAINING WALL
FOR 0.33kN POINT LOAD, 0.35kN/m & 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

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1:15	A4	MPA117501

REV.	DATE ISSUED	SHEET
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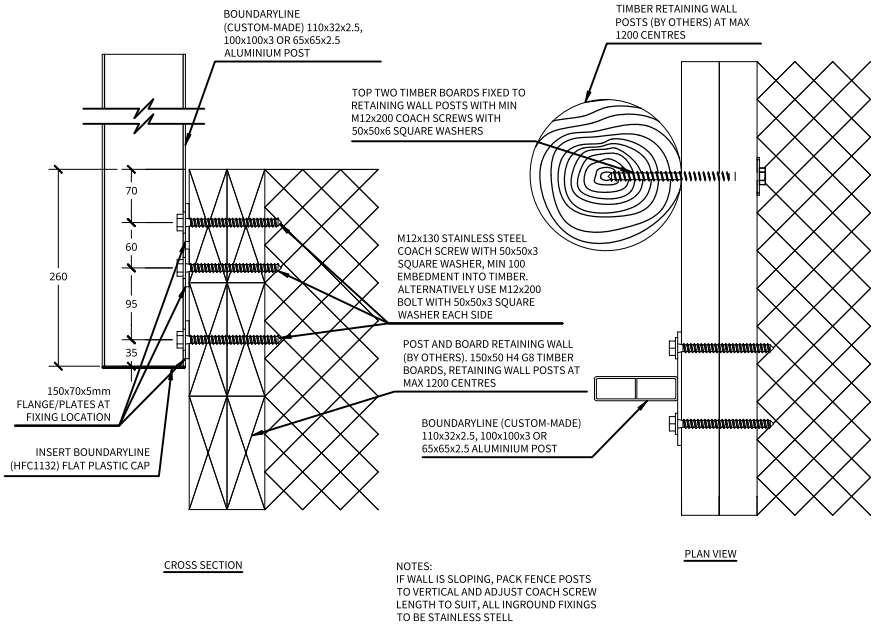
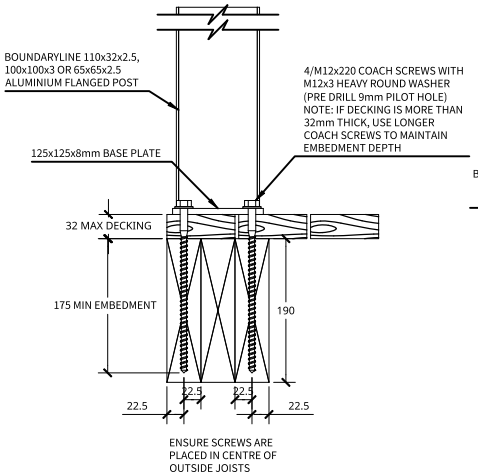
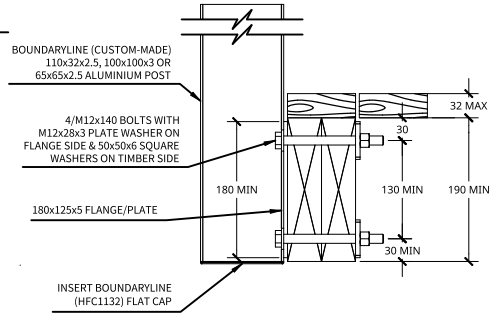


DRAWING NO: SRB527511-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL - DOUBLE BOARD (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: TTA527511
APPLICATION: TOP-FIX TO TIMBER DECK
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: STA527511
APPLICATION: SIDE-FIX TO TIMBER DECK
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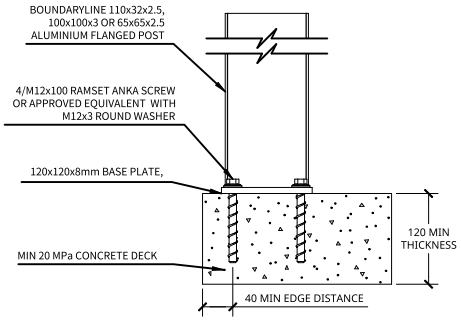
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: TDA527511
APPLICATION: TOP-FIX TO CONCRETE DECK
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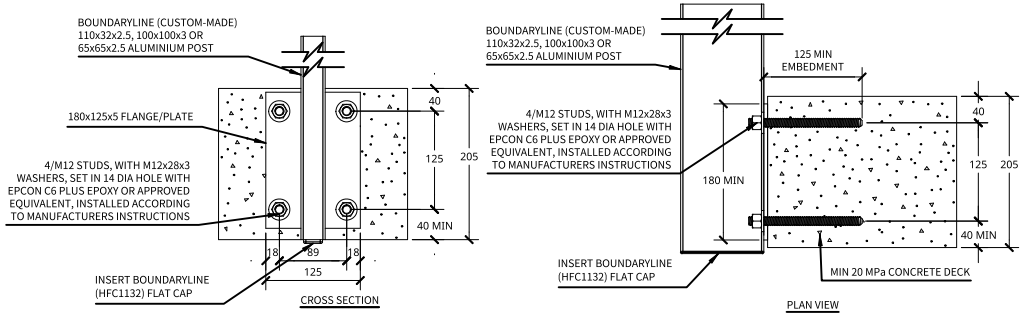
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: SDA527511-A
APPLICATION: SIDE-FIX TO CONCRETE DECK
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4

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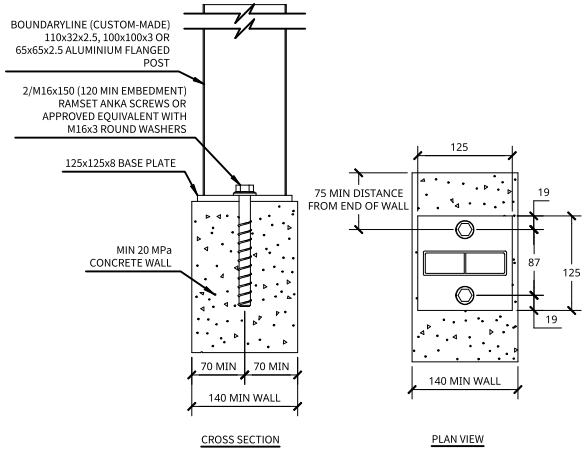
TITLE:
BOUNDARYLINE MODEPANEL ARC BARRIER FIXING DESIGNS FOR:
- TIMBER RETAINING WALL (DOUBLE BOARD)
- TIMBER DECK
- CONCRETE DECK

FOR 0.33kN POINT LOAD, 0.35kN/m & 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

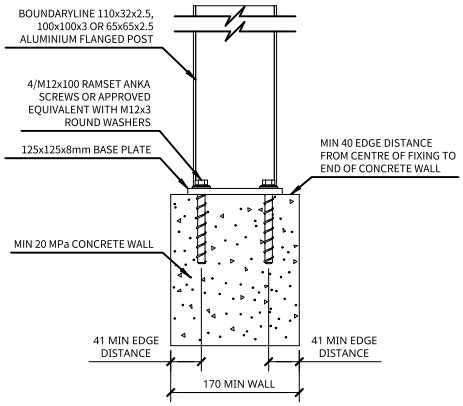
SCALE	SIZE	DRAWING NO
1:10	A4	MPA117502

REV.	DATE ISSUED	SHEET
A	28/08/2026	7

IMPORTANT: THIS DESIGN AND ASSOCIATED DESIGN PRODUCER STATEMENTS ARE ONLY RELEVENT FOR PROPRIETARY BOUNDARYLINE PRODUCTS; ANY PRODUCT SUBSTITUTIONS WILL INVALIDATE THE PRODUCER STATMENT



DRAWING NO: TWA527511-A
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: TWA527511-B
APPLICATION: TOP-FIX TO CONCRETE WALL
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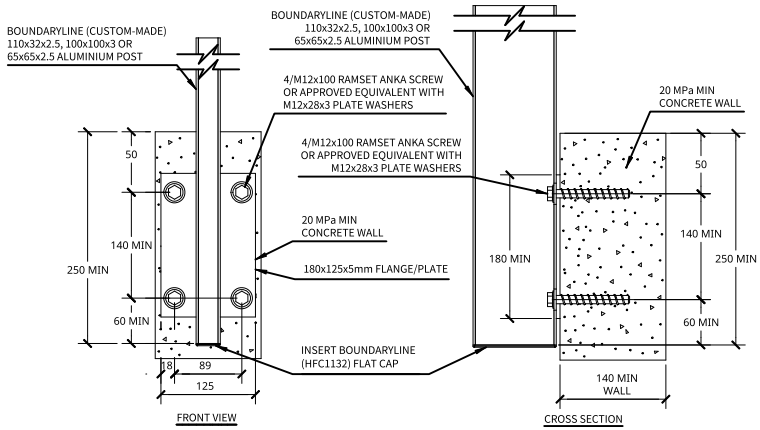
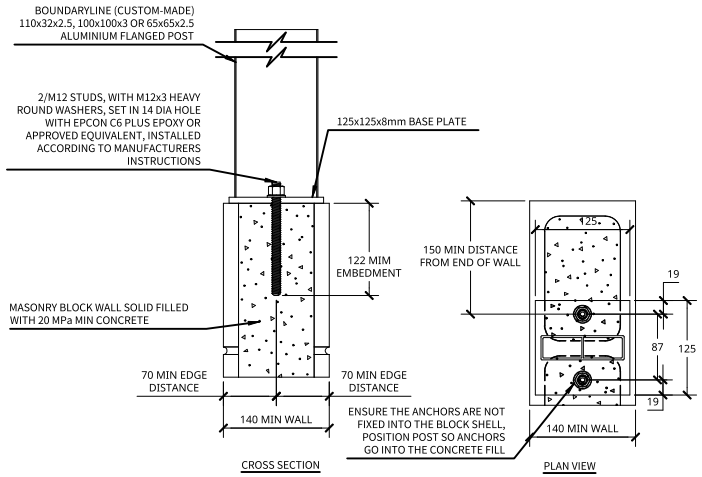
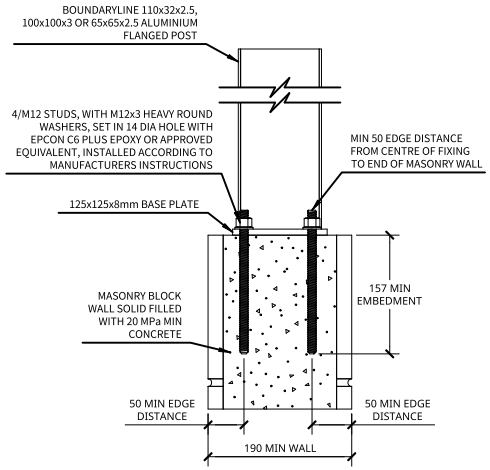
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



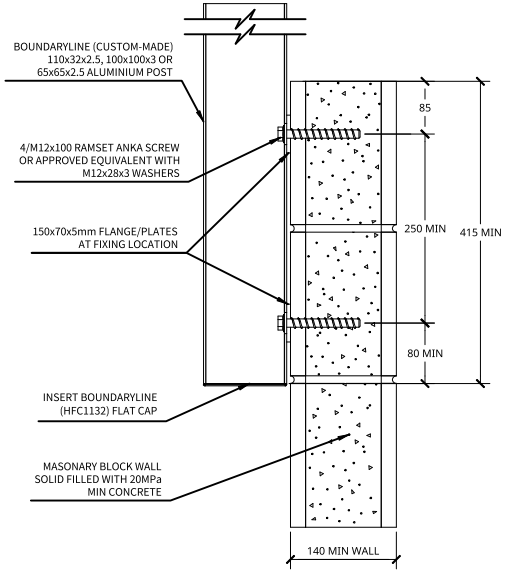
DRAWING NO: SWA527511
APPLICATION: SIDE-FIX TO CONCRETE WALL
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: TMA527511-A
APPLICATION: TOP-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: TMA527511-B
APPLICATION: TOP-FIX TO MASONARY WALL (20 SERIES)
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4



DRAWING NO: SMA527511
APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.33kN and 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 to 1950 POST CENTRES - REFER TO TABLE ON SHEET 4

General Notes

1. All dimensions are in millimetres.

2. Drawings are not necessarily to scale

3. Check www.boundaryline.co.nz to ensure you have the most recent edition of this publication.

Fixing Notes

1. All coach screws and bolts to be pre-drilled according to NZS 3603:1993

2. When fixing self-drilling screws, ensure low torque setting to avoid thread stripping. A battery drill is recommended for self-drilling screws - DO NOT use an impact driver.

Corrosion Zones

There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. See maps in figure 4.2 of NZS 3604:2011 (or online search *'BRANZ Maps'*) to determine the corrosion zone of the installation location and appropiate fixing option required.

Zone	Risk Level & Location	Fixing Type
Zone B	Low risk	Hot-dip Galvanised
Zone C	Medium risk	Hot-dip Galvanised
Zone D	High risk, all offshore islands, locations within 500m of coastline including harbours, locations within 100m of tidal estuaries and sheltered inlets.	316 Stainless Steel
Zone E	Very high risk, locations described in Zone D, beachfronts and seaside locations.	316 Stainless Steel

Existing Support Sturcture

1. All supporting structure by others and must comply with the New Zealand Building Code

2. If unsure of existing structure compliance, seek professional advice.

Boundaryline Ltd.
60 Basstian Street, Invercargill
Phone: 0800 003 006
Email: enquiries@boundaryline.co.nz
Website: www.boundaryline.co.nz

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TITLE
BOUNDARYLINE MODEPANEL ARC BARRIER FIXING DESIGNS FOR:
- CONCRETE WALL
- MASONARY WALL

FOR 0.33kN POINT LOAD, 0.35kN/m & 0.75kN/m HORIZONTAL LOADING

(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	MPA117503

REV.	DATE ISSUED	SHEET
A	28/08/2026	8

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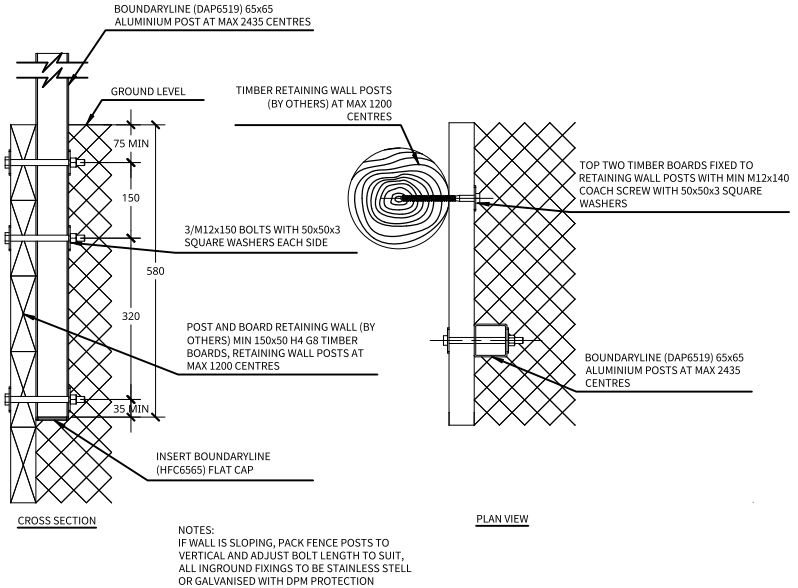
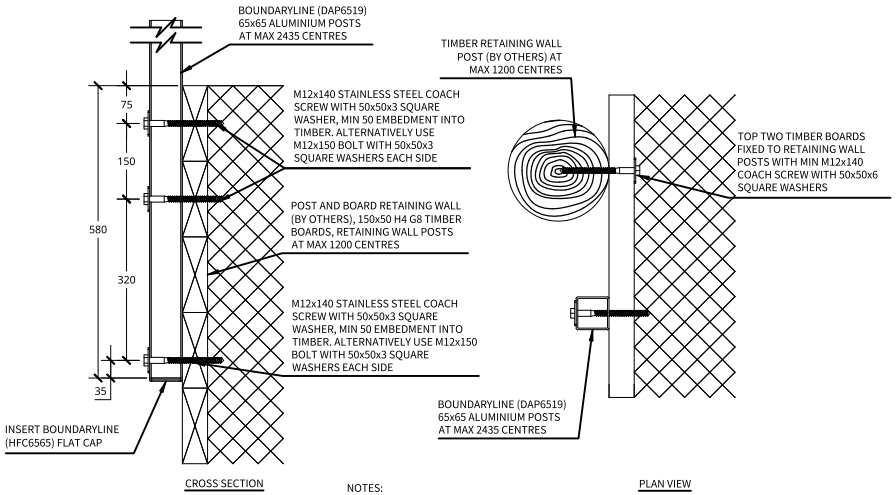


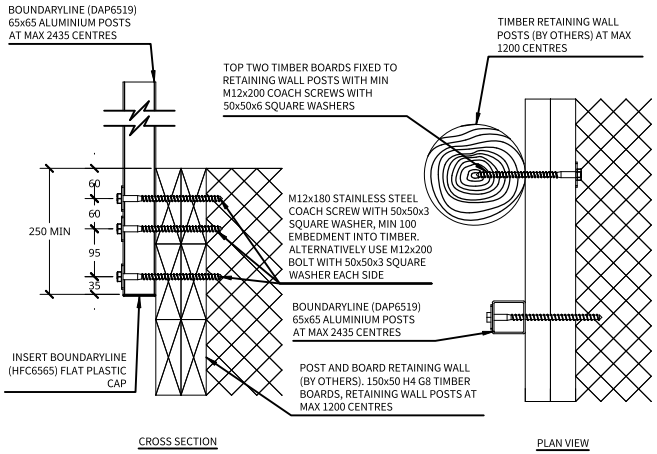
NOTES:
IF WALL IS SLOPING, PACK FENCE POSTS TO VERTICAL AND ADJUST BOLT LENGTH TO SUIT, ALL INGROUND FIXINGS TO BE STAINLESS STELL OR GALVANISED WITH DPM PROTECTION

DRAWING NO: SRA653524-A
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON INSIDE OF RETAINING WALL)
LOADING: 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1950 POST CENTRES



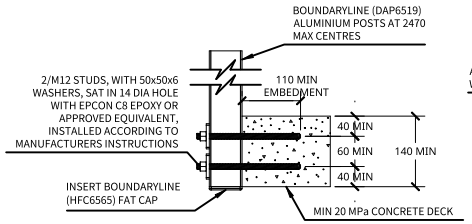
NOTES:
IF WALL IS SLOPING, PACK FENCE POSTS TO VERTICAL AND ADJUST COACH SCREW LENGTH TO SUIT, ALL INGROUND FIXINGS TO BE STAINLESS STELL

DRAWING NO: SRA653524-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1950 POST CENTRES

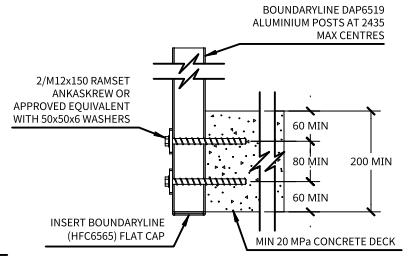


NOTES:
IF WALL IS SLOPING, PACK FENCE POSTS TO VERTICAL AND ADJUST COACH SCREW LENGTH TO SUIT, ALL INGROUND FIXINGS TO BE STAINLESS STELL

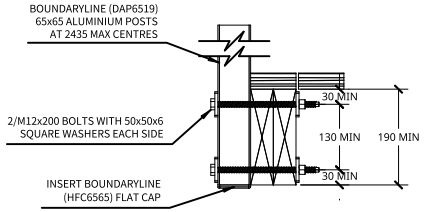
DRAWING NO: SRB653524-B
APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL - DOUBLE BOARD (POST ON OUTSIDE OF RETAINING WALL)
LOADING: 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1950 POST CENTRES



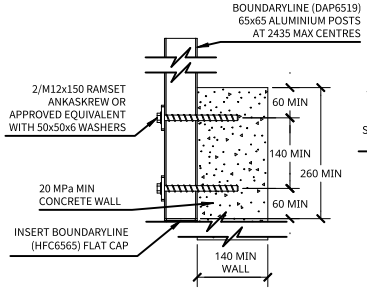
DRAWING NO: SDA653524-A
APPLICATION: SIDE-FIX TO CONCRETE DECK (140 min THICKNESS)
LOADING: 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 POST CENTRES



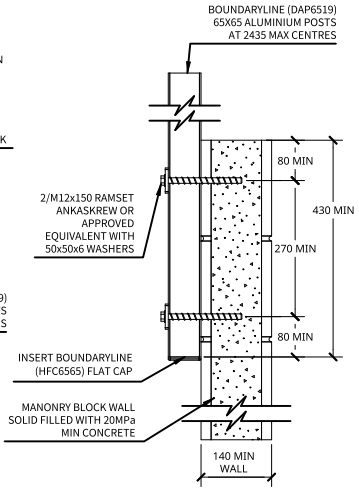
DRAWING NO: SDA653524-B
APPLICATION: SIDE-FIX TO CONCRETE DECK (200 min THICKNESS)
LOADING: 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1200 POST CENTRES



DRAWING NO: STA653524
APPLICATION: SIDE-FIX TO TIMBER DECK
LOADING: 0.35kN/m AT MAX 2435 POST CENTRES
LOADING: 0.75kN/m AT MAX 1950 POST CENTRES



DRAWING NO: SWA653524
APPLICATION: SIDE-FIX TO CONCRETE WALL
LOADING: 0.35kN/m AT MAX 2435 POST CENTRE
LOADING: 0.75kN/m AT MAX 1500 POST CENTRES



DRAWING NO: SMA653524
APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.35kN/m AT MAX 2435 POST CENTRE
LOADING: 0.75kN/m AT MAX 1950 POST CENTRES

General Notes

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TITLE
BOUNDARYLINE MODEPANE ARC BARRIER FIXING DESIGNS FOR ALTERNATIVE 65x65 POST SIDE-FIXED

FOR 0.33kN POINT LOAD, 0.35kN/m & 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:15	A4	MPA657504

REV.	DATE ISSUED	SHEET
A	28/08/2026	9

IMPORTANT: THIS DESIGN AND ASSOCIATED DESIGN PRODUCER STATEMENTS ARE ONLY RELEVENT FOR PROPRIETARY BOUNDARYLINE PRODUCTS; ANY PRODUCT SUBSTITUTIONS WILL INVALIDATE THE PRODUCER STATMENT

Boundaryline

Auckland
43 Noel Burnside Road
09 250 1144

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03 347 3191

Invercargill
60 Basstian Street
03 211 5145

0800 003 006
enquiries@boundaryline.co.nz
boundaryline.co.nz

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NZBC Clause B1 Structure - Design

Design Review of Aluminum Balustrades

Project number: 25072061-09C

Client name: Boundaryline Ltd

Date: 03/09/2026

Expiry Date: 04/12/2026

Location: Various Locations

PO Box 90392, Victoria Street West,
Auckland 1010, New Zealand

p: +64 9 216 7104
e: info@teambrevity.com

PRODUCER STATEMENT – PS1
DESIGN

BUILDING CODE CLAUSE(S): B1, F4 & F9 **JOB NUMBER:** 25072061-09C
ISSUED BY: Brevity Ltd
(Engineering Design Firm)
TO: Boundaryline Limited
(Owner/Developer)
TO BE SUPPLIED TO: -
(Building Consent Authority)
IN RESPECT OF: Brevity Report # 25072061-09C Design of Boundaryline ModePanel
(Description of Building Work)
AT: Various Location
(Address, Town/City)
LEGAL DESCRIPTION: Lot no. - DP no. - **N/A** ☑

We have been engaged by the owner/developer referred to above to provide *(Extent of Engagement)*:
Design Consultancy for Structural Analysis of Boundaryline ModePanel
in respect of the requirements of the Clause(s) of the Building Code specified above for Part only , as specified in the Schedule, of the proposed building work.

The design carried out by us has been prepared in accordance with:

- ☑ Compliance documents issued by the Ministry of Business, Innovation & Employment *(Verification method/acceptable solution)* B1/VM1 - F4/AS1 - F9/AS1 and/or;
- ☑ Alternative solution as per the attached Schedule.

The proposed building work covered by this producer statement is described on the drawings specified in the Schedule, together with the specification, and other documents set out in the Schedule.

On behalf of the Engineering Design Firm, and subject to:

- Site verification of the following design assumptions: refer to attached report
- All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that:

- the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the Schedule, will comply with the relevant provisions of the Building Code and that;
- the persons who have undertaken the design have the necessary competency to do so.

I recommend the CM 1 level of **construction monitoring**.

I, *(Name of Engineering Design Professional)* Matt Bishop , am:

- ☑ CPEng number 243276

and hold the following qualifications BE (Hons)

The Engineering Design Firm holds a current policy of Professional Indemnity Insurance no less than $200,000
The Engineering Design Firm is a member of ACE New Zealand.

SIGNED BY *(Name of Engineering Design Professional)*: Matt Bishop
(Signature below):

Issue Date 03/09/2026

Expiry Date: 04/12/2026

ON BEHALF OF *(Engineering Design Firm)*: Brevity Ltd

Note: This statement has been prepared solely for the Building Consent Authority named above and shall not be relied upon by any other person or entity. Any liability in relation to this statement accrues to the Engineering Design Firm only. As a condition of reliance on this statement, the Building Consent Authority accepts that the total maximum amount of liability of any kind arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in tort or otherwise, is limited to the sum of $200,000.

This form is to accompany **Form 2 of the Building (Forms) Regulations 2004** for the application of a Building Consent.

Contents

Document Revision History 2

1. Overview 3

2. Design Methodology and Loading 4

3. Construction Monitoring 4

4. Our Contact Details 6

Document Revision History

Rev	Date	Revision details	Author	Approved
A	19/12/2025	For Consent	SM	MB
B	28/05/2026	Updated Document (CM Schedule)	RK	MB
C	03/09/2026	Updated Drawings	RK	MB

1. Overview

Brevity has been engaged by Boundaryline to provide a Chartered Engineer's PS1 – Design Review for the Aluminum Balustrades for Global Design, for various locations in New Zealand. This report summarizes the engineering design criteria and records, key decisions, and outcomes as per NZ standards.

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This report has been prepared by Brevity on the specific instructions of our client. It is solely for our client's use for the purpose for which it is intended in accordance with the agreed scope of work. Any use or reliance by any person contrary to the above, to which Brevity has not given its prior written consent, is at that person's risk.

2. Design Methodology and Loading

In accordance with the New Zealand Building Code Section B1 by Specific Engineering Design to B1, F4, and F9 by specific engineering design to VM1 and AS1 the engineering system was checked to the following loading standards:

- AS/NZS 1170 Series
- NZS 3404: Part 1:1997
- AS/NZS 1664.1 :1997
- AS/NZS 1720.1:2022.

Based on the previous project for this type of structure, wind is the key factor influencing the design.

3. Construction Monitoring

Construction monitoring is to be carried out before finishes are installed (e.g. linings or tiles).

The following table outlines guidance for the required elements to be inspected for issuance of a Producer Statement - PS4 - Construction Review:

Element	Random Sampling	Stage	Person
Structure: - Posts or spigots - Infill - Handrails - Anchors	100% Visual Scan[1] 5% Visual Inspection[2] Compare to Brevity plans	Structure Complete Before spigot covers or other items that obstruct viewing of the anchors are installed	Site Engineer

[1]Where Visual Scan is required, floor level access is to be supplied by the client.

[2]Where Visual Inspection is required, access is to be supplied by the client to allow measurement of specific details.

We recommend CM1 level of construction monitoring for this project. Please see the following page for a description of the various levels.

CM1 Review
Monitor the outputs from another party's quality assurance programme against the requirements of the plans and specifications. Visit the works at a frequency agreed with the client to review important materials of construction critical work procedures and/or completed plant or components. Be available to advise the constructor on the technical interpretation of the plans and specifications

This level is only a secondary service. It may be appropriate where:
- For the design consultant when another party is engaged to provide a higher level of construction monitoring or review during the period of construction or
- When the project works are the subject of a performance based specification and performance testing is undertaken and monitored by others.

CM2 Review
Review, preferably at the earliest opportunity, a sample of each important work procedure, material of construction and component for compliance with the requirements of the plans and specifications and review a representative sample of each important completed work prior to enclosure or completion as appropriate. Be available to provide the constructor with technical interpretation of the plans and specifications.

This level of service is appropriate for smaller projects of a routine nature being undertaken by an experienced and competent constructor and where a higher than normal risk of non-compliance is acceptable. It provides for the review of a representative sample of work procedures and materials of construction. The assurance of compliance of the finished work is dependent upon the constructor completing the work to at least the same standard as the representative sample reviewed.

CM3 Review
Review, to an extent agreed with the client, random samples of important work procedures, for compliance with the requirements of the plans and specifications and review important completed work prior to enclosure or on completion as appropriate. Be available to provide the constructor with technical interpretation of the plans and specifications.

This level of service is appropriate for medium sized projects of a routine nature being undertaken by an' experienced constructor when a normal risk of non-compliance is acceptable.

CM4 Review
Review, at a frequency agreed with the client, regular samples of the work procedures, materials of construction and components for compliance with the requirements of the plans and specifications and review the majority of completed work prior to the enclosure or on completion as appropriate.

This level of service is appropriate for projects where a lower than normal risk of non-compliance is required.

CM5 Review
Maintain personnel on site to constantly review work procedures, materials of construction and components for compliance with the requirements of the plans and specifications and review completed work prior to enclosure or con completion as appropriate.

This level of service is appropriate for: Major projects, Projects where the consequences of failure are critical, Projects involving innovative or complex construction procedures. The level of service provides the client with the greatest assurance that the completed work complies with the requirements of the plans and specifications.

4. Our Contact Details

Engineer's contact details for this report

Contact	Contact details
This report was prepared by	Ryota Kagimori
Email	engineering@teambrevity.com

Auckland office

Contact	Contact details
Main office phone	+64 9 216 7104
Email for all enquiries	info@teambrevity.com
Mailing address	PO Box 90392, Victoria Street West, Auckland 1010, New Zealand