Boundaryline

Colour**Panel PS1**

Rev: 3.1
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, e.g., 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 & walkways in a multi-dwelling application, including open public spaces	0.75kN/m	1.0m single dwelling 1.1m multi dwelling
B & E - Offices & work areas including storage	F4	Access walkways, stairs and landings	0.35kN/m	1.1m
B & E - Offices & work areas including storage	F4	Areas including balconies, decks and terraces not susceptible to overcrowding	0.75kN/m	1.1m
C - Areas without obstacles for moving people & where people might congregate	F4	Areas including walkways, stairs and landings, balconeis, decks and terraces not susceptible to overcrowding, including parks and reserves	0.75kN/m	1.1m

Table 1 - Barrier Loading Selection

Wind Zones

There are five main Wind Zones in New Zealand: Low, Medium, High, Very High, and Extra High. All details in this Producer Statement have been engineered to high wind zone. If your property falls into a higher wind zone, please contact Boundaryline to discuss a custom-engineered solution to meet your requirements.

To identify the wind zone at your site location, search for BRANZ Maps, turn on the 'Wind Regions' layer, and search your site address. If it is unclear what wind zone applies to your site, please contact your engineer to calculate the wind zone for your property.

For properties that fall into a high or very high wind zone, but are in a built-up area, it may be beneficial to engage a Professional Engineer to calculate the specific wind zone for your site, as terrain and adjacent structures can impact the wind zone applicable to your particular site. A means of determining the wind zone for a specific location is in detailed in NZS 3604:2011.

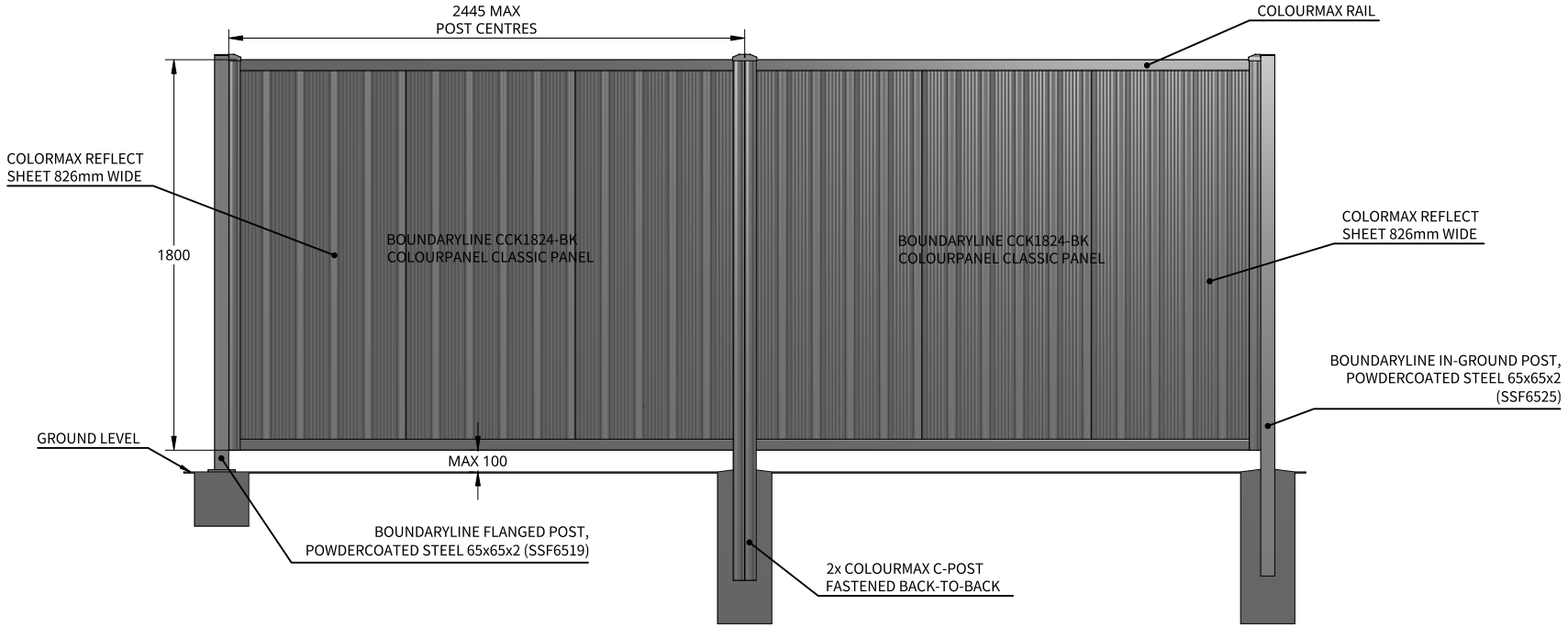
Fixing types

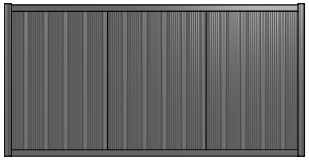
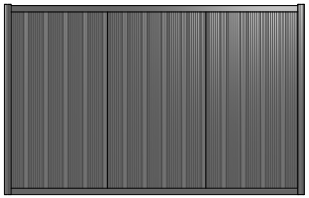
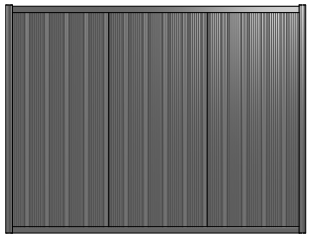
There are four corrosion zones in New Zealand that relate to the severity of exposure to wind-driven salt. To determine the corrosion zone for your installation location, please check maps in Figure 4.2 in NZS3604:201 (or online search 'BRANZ Maps'). Use the table below to determine the appropriate fixing types required for your particular location.

Zone	Risk level & location	Fixing type
Zone B	Low risk	Hot dip galvinised
Zone C	Medium risk	Hot dip galvinised
Zone D	High risk, all offshore locations within 500m of coastline, including harbours, locations within 100m of tidal estuaries & sheltered inlets	316 stainless steel
Zone E	Very high risk, locations described in Zone D, beachfronts & seaside locations	316 stainless steel

Table 2 - Fixing Types

BOUNDARYLINE COLOURPANEL CLASSIC PANEL
-CODE: CCK1824-BK, COLOURPANEL CLASSIC FENCE PANEL



Panel Type	COLOURPANEL CLASSIC 1200 High - CCK1224-BK			COLOURPANEL CLASSIC 1500 High - CCK1524-BK			COLOURPANEL CLASSIC 1800 High - CCK1824-BK		
									
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)**
Max Post Centres	2445mm	2445mm	2445mm	2445mm	2445mm	2445mm	2445mm	2445mm	2445mm
In-Ground Post Options / **Flanged Post Options**	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS
Maximum Wind Loading	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
Applicable Fixing Details	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505

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

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
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. 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
Boundaryline Ltd.
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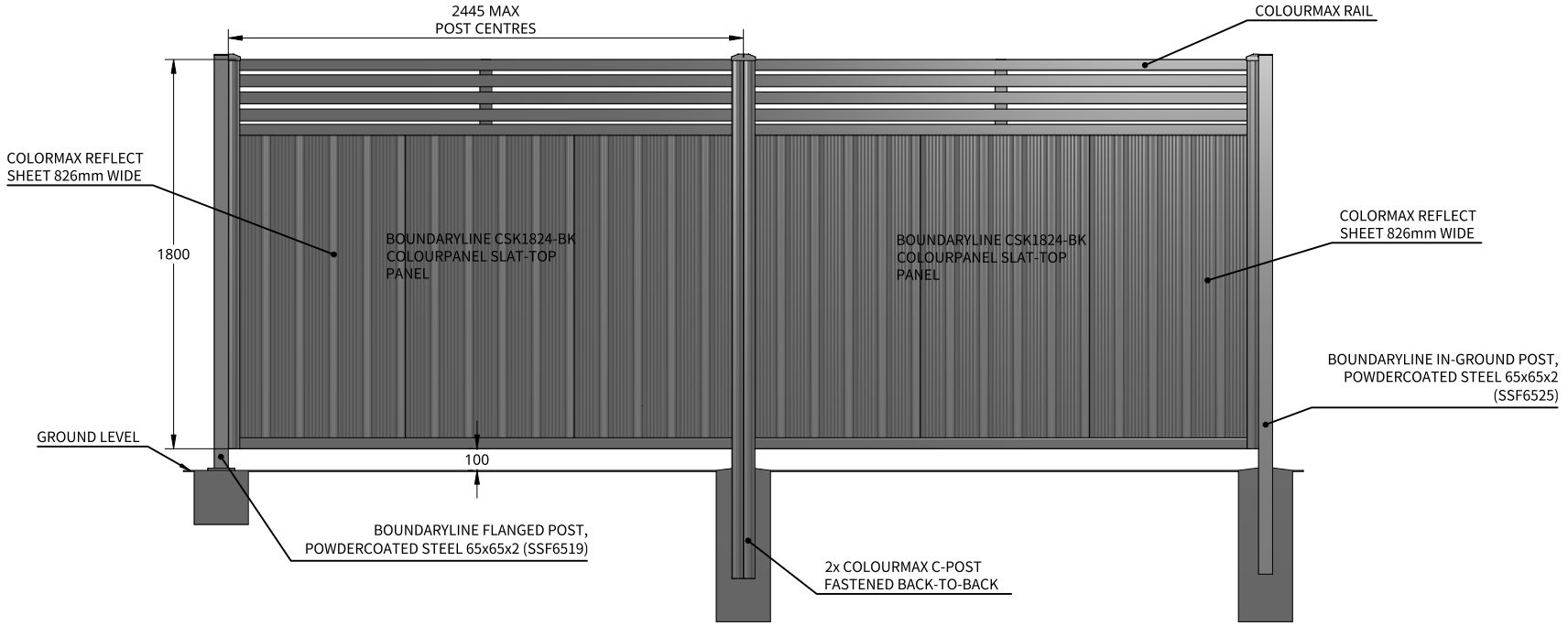
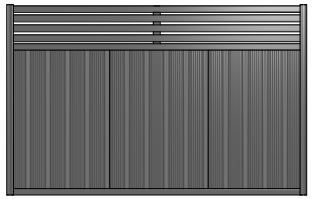
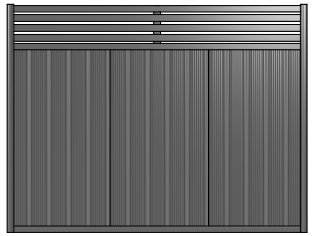
TITLE
BOUNDARYLINE
COLOURPANEL CLASSIC
CODE: CCK1824-BK

SCALE	SIZE	DRAWING NO
1:32	A4	CCP01

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

BOUNDARYLINE COLOURPANEL SLAT-TOP PANEL
-CODE: CSK1824-BK, COLOURPANEL SLAT-TOP FENCE PANEL



Panel Type	COLOURPANEL SLAT-TOP 1500 High - CSK1524-BK			COLOURPANEL SLAT-TOP 1800 High - CSK1824-BK		
						
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)**
Max Post Centres	2445mm	2445mm	2445mm	2445mm	2445mm	2445mm
In-Ground Post Options	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS	REFER TO APPLICABLE FIXING DETAILS
Flanged Post Options						
Maximum Wind Loading	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
Applicable Fixing Details	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505	CTS657501 CTS657502 CTS657503 CTS657504 CTS657505

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

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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

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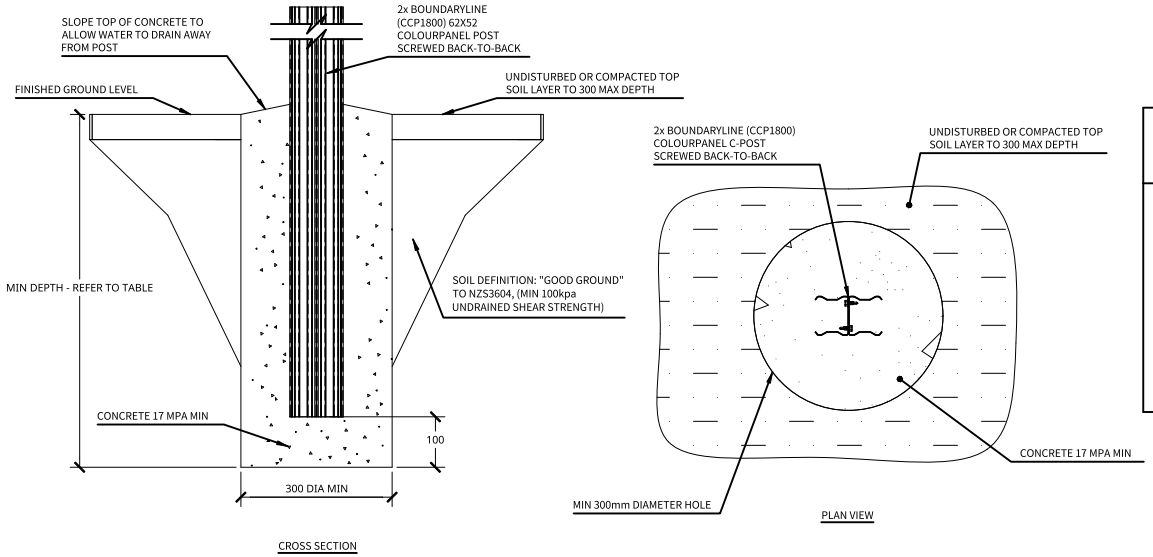
TITLE
BOUNDARYLINE
COLOURPANEL SLAT-TOP
CODE: CSK1824-BK

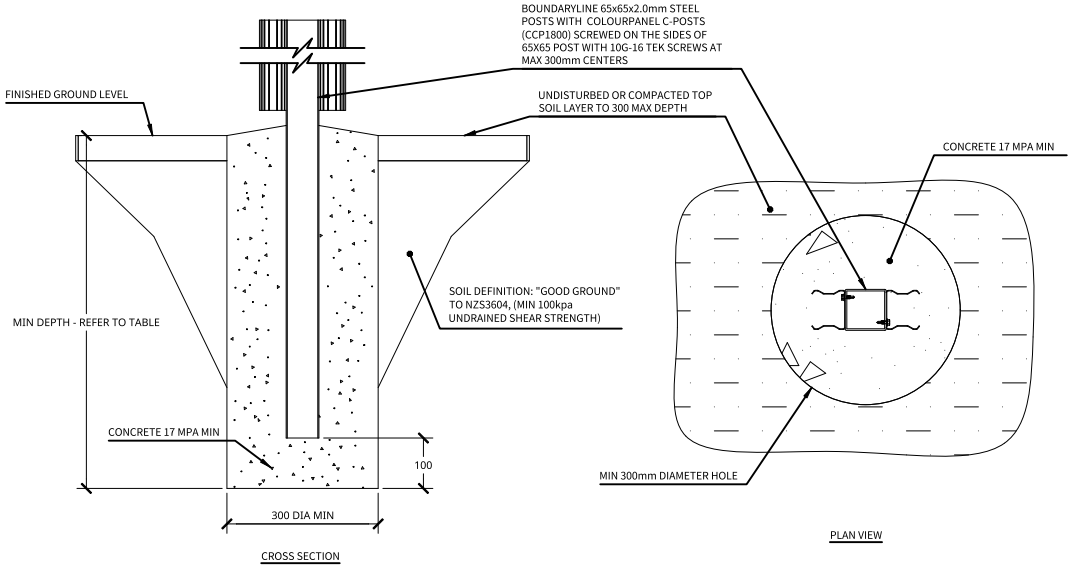
SCALE	SIZE	DRAWING NO
1:32	A4	CSP01

REV.	DATE ISSUED	SHEET
A	28/08/2026	5



DRAWING NO: ICA667524-A
APPLICATION: C POSTS ONLY, CONCRETE IN-GROUND
LOADING: 0.75kN/m

		Maximun Post Centre		
		1.2m	1.6m	2.445m
Maximun Panel Height	1200mm	600mm Min Depth	700mm Min Depth	800mm Min Depth
	1500mm	600mm Min Depth	700mm Min Depth	Not Available - Use detail below
	1800mm	700mm Min Depth	Not Available - Use detail below	Not Available - Use detail below
	2100mm	Not Available - Use detail below	Not Available - Use detail below	Not Available - Use detail below



DRAWING NO: ICA667524-B
APPLICATION: 65mm STEEL POST (WITH C-POSTS) CONCRETE IN-GROUND
LOADING: 0.75kN/m

		Maximun Post Centre		
		1.2m	1.6m	2.445m
Maximun Panel Height	1200mm	Use detail above	Use detail above	Use detail above
	1500mm	Use detail above	Use detail above	900mm Min Depth
	1800mm	Use detail above	800mm Min Depth	1100mm Min Depth
	2100mm	800mm Min Depth	1100mm Min Depth	Not Available

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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.

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.

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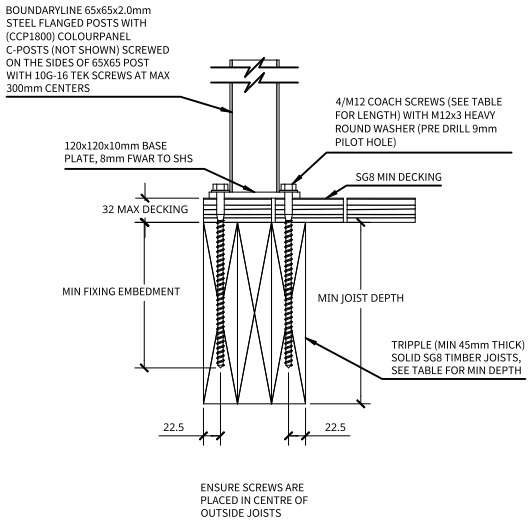
TITLE
BOUNDARYLINE COLOURPANEL FIXING DESIGNS FOR:
- CONCRETE IN-GROUND

FOR 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:15	A4	CTS657501

REV.	DATE ISSUED	SHEET
A	28/08/2026	6



DRAWING NO: TTA657512
APPLICATION: TOP-FIX TO TIMBER DECK
LOADING: 0.75kN/m

		Maximum Post Centre		
		1.2m	1.6m	2.445m
Panel Height	1200mm	Min joist depth: 190mm	Min joist depth: 240mm	Min joist depth: 360mm*
		Min fixing embedment: 160mm	Min fixing embedment: 220mm	Min fixing embedment: 310mm
	1500mm	Min joist depth: 240mm	Min joist depth: 360mm*	Not available
		Min fixing embedment: 220mm	Min fixing embedment: 310mm	
	1800mm	Min joist depth: 360mm*	Not available	Not available
		Min fixing embedment: 310mm		
*LVL (LAMINATED) TIMBER BEAM REQUIRED				

General Notes
1. All dimensions are in millimetres.

2. Drawings are not necessarily to scale

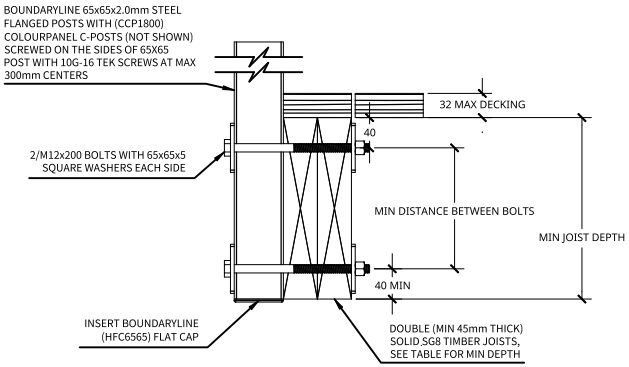
3. Check www.boundaryline.co.nz to ensure you have the most recent edition of this publication.

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



DRAWING NO: STA657512
APPLICATION: SIDE-FIX TO TIMBER DECK
LOADING: 0.75kN/m

		Maximum Post Centre		
		1.2m	1.6m	2.445m
Panel Height	1200mm	Min joist depth: 240mm	Min joist depth: 240mm	Min joist depth: 290mm
		Min distance between bolts: 160mm	Min distance between bolts: 160mm	Min distance between bolts: 180mm
	1500mm	Min joist depth: 240mm	Min joist depth: 240mm	Min joist depth: 360mm*
		Min distance between bolts: 160mm	Min distance between bolts: 160mm	Min Distance between bolts: 270mm
	1800mm	Min joist depth: 290mm	Min joist depth: 360mm*	Not available
		Min distance between bolts: 180mm	Min distance between bolts: 270mm	
*LVL (LAMINATED) TIMBER BEAM REQUIRED				

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.

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TITLE:
BOUNDARYLINE COLOURPANEL FIXING DESIGNS FOR:
- TIMBER DECK

FOR 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	CTS657503

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

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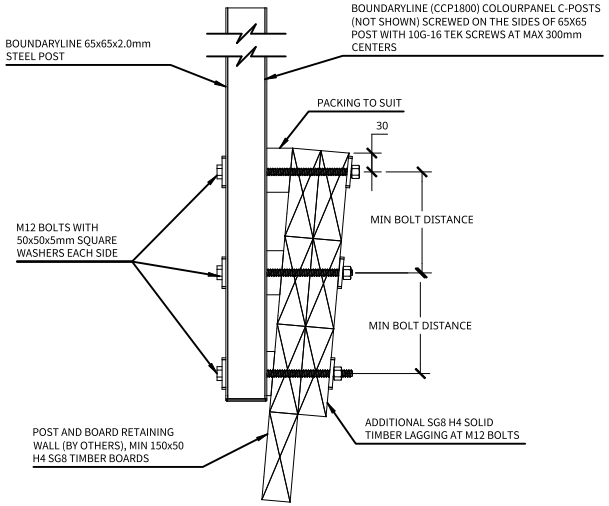

DRAWING NO: SRS657524-A
APPLICATION: SIDE-FIX (BOLTED) TO TIMBER RETAINING WALL (POSTS ON OUTSIDE OF RETAINING WALL)
LOADING: 0.75kN/m

		Maximum Post Centre		
		1.2m	1.6m	2.445m
Panel Height	1200mm	Min bolt distance: 60mm	Min bolt distance: 90mm	Min bolt distance: 120mm
	1500mm	Min bolt distance: 90mm	Min bolt distance: 120mm	Min bolt distance: 160mm
	1800mm	Min bolt distance: 120mm	Min bolt distance: 160mm	Min bolt distance: 230mm
	2100mm	Min bolt distance: 160mm	Min bolt distance: 230mm	Min bolt distance: 320mm

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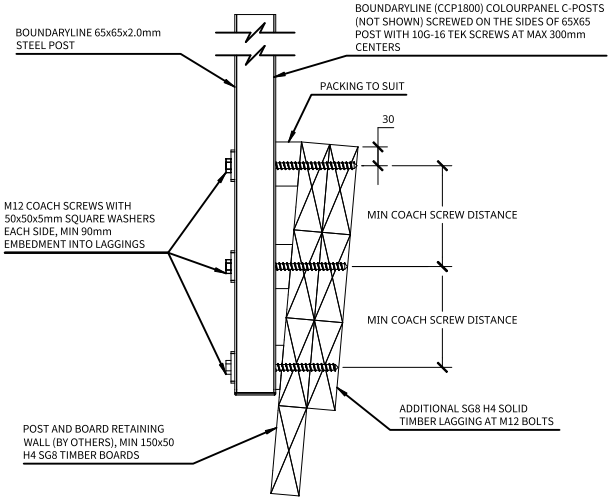
Fixing Notes
1. All coach screws and bolts to be pre-drilled according to NZS 3603:1993

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.

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



DRAWING NO: SRS657524-B
APPLICATION: SIDE-FIX (COACH SCREWED) TO TIMBER RETAINING WALL (POSTS ON OUTSIDE OF RETAINING WALL)
LOADING: 0.75kN/m

		Maximum Post Centre		
		1.2m	1.6m	2.445m
Panel Height	1200mm	Min coach screw distance: 140mm	Min coach screw distance: 180mm	Min coach screw distance: 240mm
	1500mm	Min coach screw distance: 180mm	Min coach screw distance: 240mm	Not available
	1800mm	Min coach screw distance: 240mm	Not available	Not available

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
Boundaryline Ltd.
60 Basstian Street, Invercargill
Phone: 0800 003 006
Email: enquiries@boundaryline.co.nz
Website: www.boundaryline.co.nz
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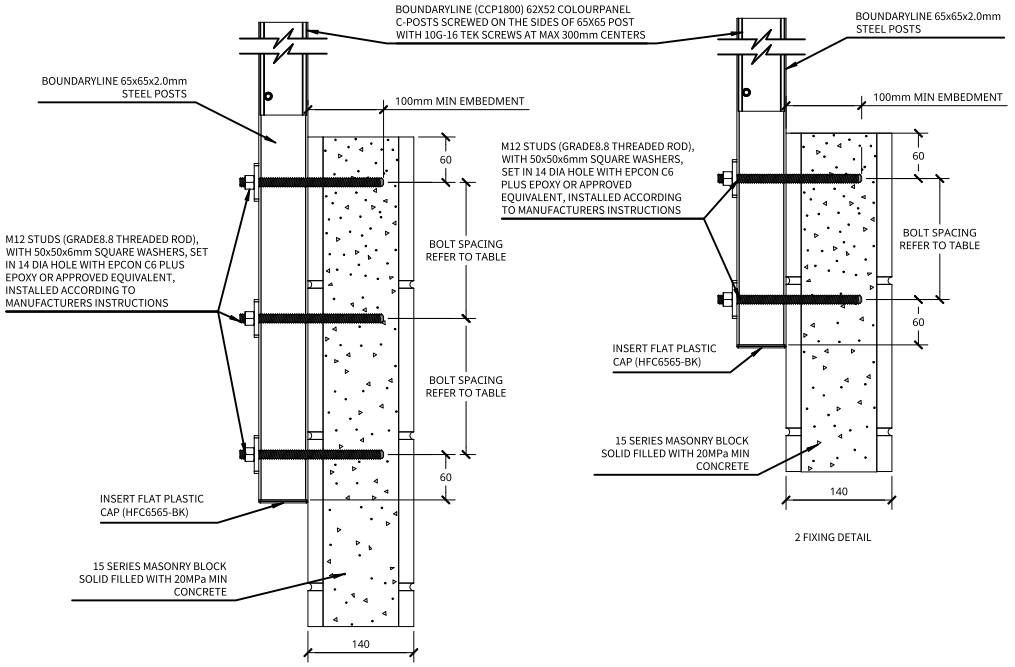
TITLE
BOUNDARYLINE COLOURPANEL FIXING DESIGNS FOR:
- TIMBER RETAINING WALL

FOR 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:12	A4	CTS657503

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

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: SMA657524-A
APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.75kN/m

		Maximum Post Centre		
		1.2m	1.6m	2.445m
Panel Height	1200mm	Min number of fixings: 2	Min number of fixings: 2	Min number of fixings: 3
		Bolt spacing: 110mm	Bolt spacing: 160mm	Bolt spacing: 120mm
	1500mm	Min number of fixings: 2	Min number of fixings: 3	Min number of fixings: 3
		Bolt spacing: 160mm	Bolt spacing: 120mm	Bolt spacing: 180mm
	1800mm	Min number of fixings: 3	Min number of fixings: 3	Min number of fixings: 3
		Bolt spacing: 120mm	Bolt spacing: 180mm	Bolt spacing: 250mm
	2100mm	Min number of fixings: 3	Min number of fixings: 3	Not available
		Bolt spacing: 180mm	Bolt spacing: 250mm	

General Notes
1. All dimensions are in millimetres.

2. Drawings are not necessarily to scale

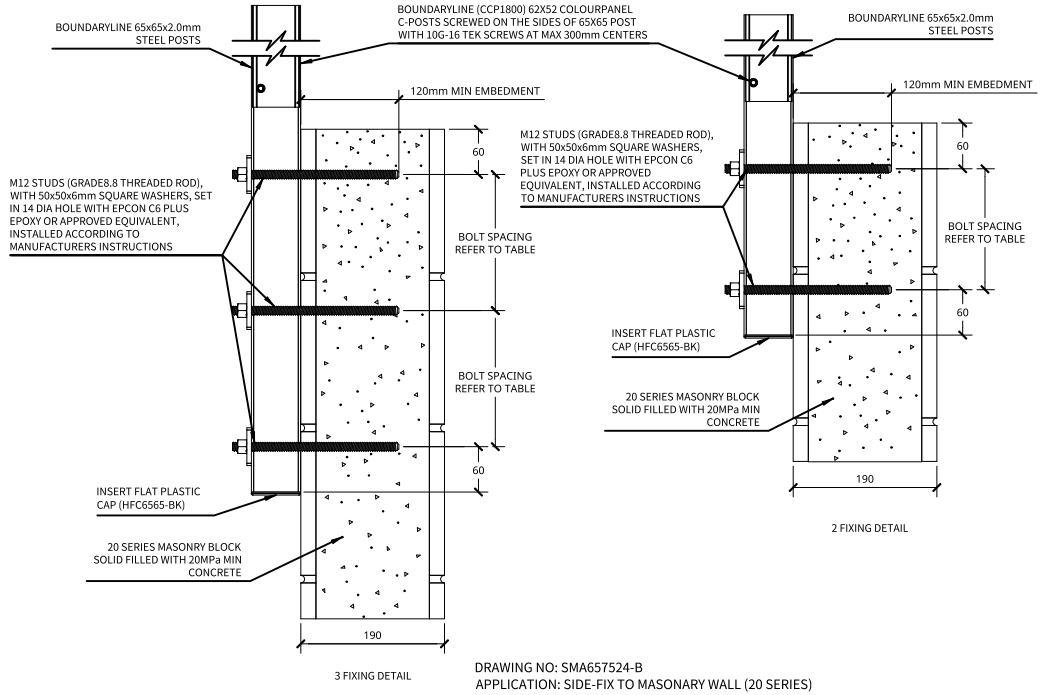
3. Check www.boundaryline.co.nz to ensure you have the most recent edition of this publication.

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



DRAWING NO: SMA657524-B
APPLICATION: SIDE-FIX TO MASONARY WALL (20 SERIES)
LOADING: 0.75kN/m

		Maximum Post Centre		
		1.2m	1.6m	2.445m
Panel Height	1200mm	Min number of fixings: 2	Min number of fixings: 2	Min number of fixings: 2
		Bolt spacing: 90mm	Bolt spacing: 120mm	Bolt spacing: 180mm
	1500mm	Min number of fixings: 2	Min number of fixings: 2	Min number of fixings: 3
		Bolt spacing: 120mm	Bolt spacing: 180mm	Bolt spacing: 130mm
	1800mm	Min number of fixings: 2	Min number of fixings: 3	Min number of fixings: 3
		Bolt spacing: 180mm	Bolt spacing: 130mm	Bolt spacing: 180mm
	2100mm	Min number of fixings: 3	Min number of fixings: 3	Not available
		Bolt spacing: 130mm	Bolt spacing: 180mm	

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
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TITLE:
BOUNDARYLINE COLOURPANEL
FIXING DESIGNS FOR:
- MASONARY WALL

FOR 0.75kN/m
HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	CTS657504

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

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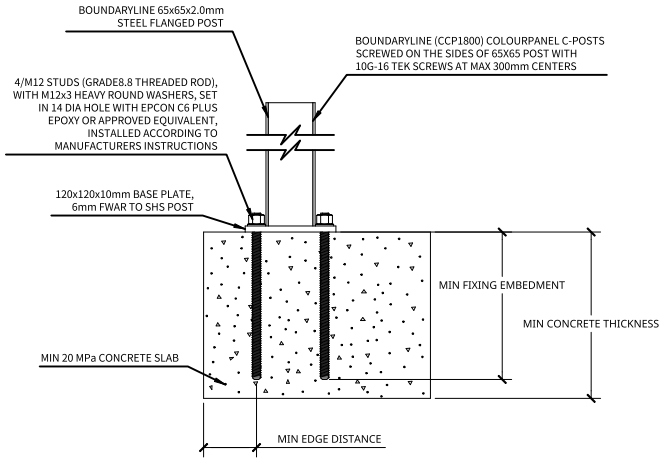

DRAWING NO: TDA657524
APPLICATION: TOP-FIX TO CONCRETE DECK
LOADING: 0.75kN/m

		Maximum Post Centre		
		1.2m	1.6m	2.445m
Panel Height	1200mm	Min concrete thickness: 150mm	Min concrete thickness: 220mm	Min concrete thickness: 300mm
		Min fixing embedment: 120mm	Min fixing embedment: 190mm	Min fixing embedment: 190mm
		Min edge distance: 55mm	Min edge distance: 70mm	Min edge distance: 120mm
	1500mm	Min concrete thickness: 220mm	Min concrete thickness: 300mm	Min concrete thickness: 300mm
		Min fixing embedment: 190mm	Min fixing embedment: 190mm	Min fixing embedment: 190mm
		Min edge distance: 70mm	Min edge distance: 120mm	Min edge distance: 210mm
	1800mm	Min concrete thickness: 300mm	Min concrete thickness: 300mm	Not available
		Min fixing embedment: 190mm	Min fixing embedment: 190mm	
		Min edge distance: 120mm	Min edge distance: 210mm	

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

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

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TITLE:
BOUNDARYLINE SMARTWALL FIXING DESIGNS FOR:
- CONCRETE DECK

FOR 0.75kN/m HORIZONTAL LOADING
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE	SIZE	DRAWING NO
1:10	A4	CTS657505

REV.	DATE ISSUED	SHEET
A	28/08/2026	10

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

Boundaryline

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NZBC Clause B1 Structure - Design

Design Review of Aluminum Balustrades

Project number: 25072061-08E

Client name: Boundaryline Limited

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:** 25072061-08E
ISSUED BY: Brevity Ltd
(Engineering Design Firm)
TO: Boundaryline Limited
(Owner/Developer)
TO BE SUPPLIED TO: -
(Building Consent Authority)
IN RESPECT OF: Brevity Report # 25072061-08E Design of Boundaryline DuraPanel Colour Panel
(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 and Seismic Design of Boundaryline DuraPanel Colour Panel
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**.

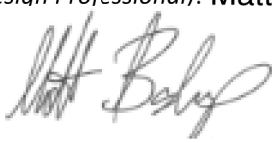
I, *(Name of Engineering Design Professional)* Matt Bishop , am:

- ☑ 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	27/08/2025	For Consent	CE	MB
B	02/09/2025	Updated Document	RK	MB
C	04/09/2025	Updated Company Name	CE	MB
D	28/05/2026	Updated Document (CM Schedule)	RK	MB
E	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