

Dura**Panel Titan PS1**

Rev: 1.2

Issue Date: 01/10/2024

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.

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.buildin.govt.nz

Occupancy type	Specific use	Horizontal design loading	Minimum overall barrier height	Installation details (drawing number)
A - Domestic	Pool fence only	0.33kN/m	1.2m	All fixing details are applicable
A - Domestic	All areas serving one dwelling but excluding balconies, decks & terraces, e.g., walkways, stairs & landings, & retaining walls not adjacent to a deck or terrace	0.35kN/m	1.0m 0.9m for stairs only	DPA653501 DPA653502 DPA653503
A - Domestic	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	DPA667501 DPA667502 DPA667503 DPA667504
B & E - Offices & work areas including storage	Access walkways, stairs & landings	0.35kN/m	1.1m	DPA653501 DPA653502 DPA653503
B & E - Offices & work areas including storage	Areas including balconies, decks & terraces not susceptible to overcrowding	0.75kN/m	1.1m	DPA667501 DPA667502 DPA667503 DPA667504
C - Areas without obstacles for moving people & where people might congregate	Areas including walkways, stairs & landings, balconeis, decks & terraces not susceptible to overcrowding, including parks and reserves	0.75kN/m	1.1m	DPA667501 DPA667502 DPA667503 DPA667504

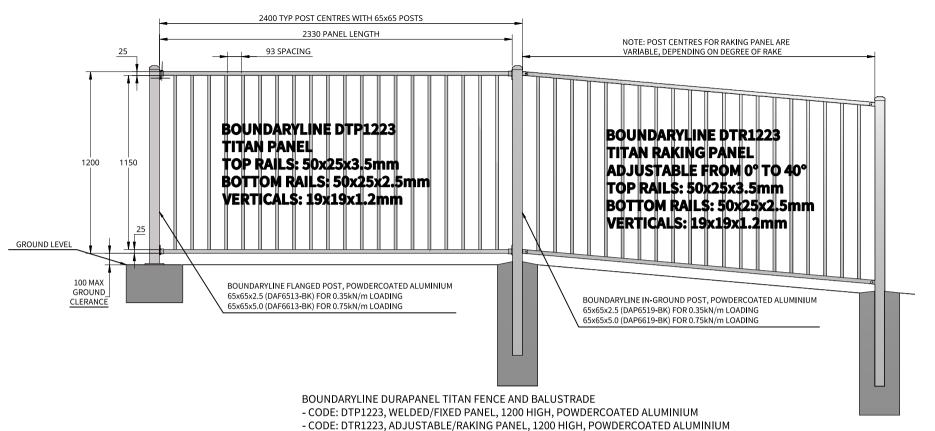
Post fixing details.

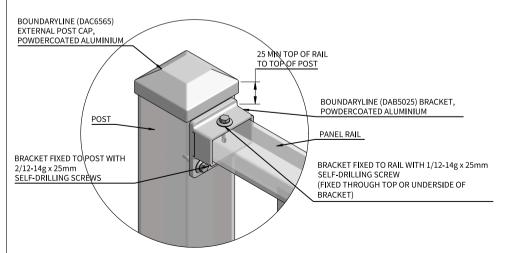
The following pages detail common and standardised methods for fixing the barrier to various structures. First determine the barrier loading using the table above and reference the correct drawing(s) for that particular design. If a variant to these standard installation methods is required, please contact Boundaryline for further information about custom design and engineering services

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





STANDARD PANEL BRACKET FIXING DETAIL

SCALE: 1:3.5

BOUNDARYLINE (DAC6565) EXTERNAL
POST CAP, POWDERCOATED ALUMINIUM

5 TYP CLERANCE BETWEEN
END OF RAIL AND POST

BRACKET FIXED TO POST WITH 2/10g x 16mm
SELF-DRILLING SCREWS

BOUNDARYLINE (DAR5025) BRACKET,
POWDERCOATED ALUMINIUM

PANEL RAIL

PANEL RAIL

ADJUSTABLE PANEL BRACKET FIXING DETAIL SCALE: 1:3.5

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

 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 appropriate fixing option required.

	Zone	Risk Level & Location	Fixing Type	
	Zone B	Low risk	Hot-dip Galvanised	
1	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

Terranota Ltd. P.O. Box 1703 Invercargill 1703 Telephone: 0800 003 006 Fax: 03 215 8248

Email: enquiries@boundaryline.co.nz Website: www.boundaryline.co.nz

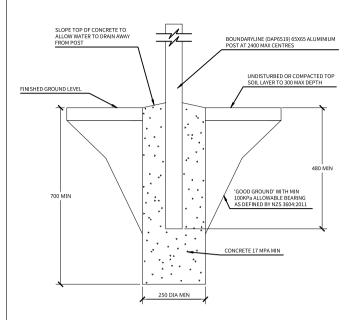
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TITLE

BOUNDARYLINE DURAPANEL TITAN CODE: DTP1223 AND DTR1223 1200 HIGH

SCALE		SIZE	DF	AWING NO
1:25	5	A4	ı	OTP1223
REV.	DATE IS	SUED		SHEET
Α	01	I-10-2024		3



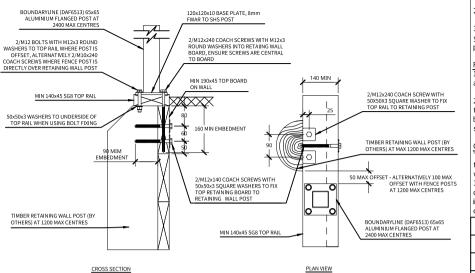
DRAWING NO: ICA653524 APPLICATION: CONCRETE IN-GROUND

LOADING: 0.35kN/m AT MAX 2400 POST CENTRES

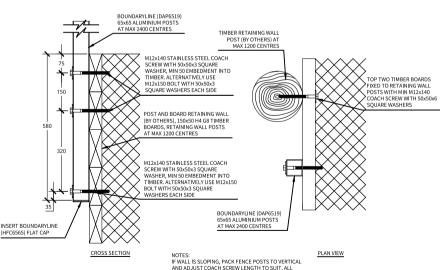
BOUNDARYLINE (DAP6519) 65x65 ALUMINIUM POST AT MAX 2400 CENTRES TIMBER RETAINING WALL POSTS (BY OTHERS) AT MAX 1200 TOP TWO TIMBER BOARDS FIXED TO RETAINING WALL POSTS WITH MIN M12x140 COACH SCREW WITH 50x50x3 SQUARE SOUARE WASHERS EACH SIDE POST AND BOARD RETAINING WALL (BY BOARDS, RETAINING WALL POSTS AT BOUNDARYLINE (DAP6519) 65x65 ALUMINIUM POSTS AT MAX 2400 NSERT BOUNDARYLINE (HEC6565) FLAT CAP CROSS SECTION PLAN VIEW IF WALL IS SLOPING, PACK FENCE POSTS TO VERTICAL AND ADJUST BOLT LENGTH TO SUIT, ALL INGROUND FIXINGS TO BE STAINLESS STELL

DRAWING NO: SRA653524-A APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON INSIDE OF RETAINING WALL) LOADING: 0.35kN/m AT MAX 2400 POST CENTRES

OR GAI VANISED WITH DPM PROTECTION



DRAWING NO: TRA653524 APPLICATION: TOP-FIX TO TIMBER RETAINING WALL LOADING: 0.35kN/m AT MAX 2400 POST CENTRES



DRAWING NO: SRA653524-B APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON OUTSIDE OF RETAINING WALL) LOADING: 0.35kN/m AT MAX 2400 POST CENTRES

INGROUND FIXINGS TO BE STAINLESS STELL

General Notes

1 All dimensions are in millimetres

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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	
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	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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BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:

- CONCRETE IN-GROUND
- TIMBER RETAINING WALL

FOR 0.35kN/m HORIZONTAL LOADING (REFER TO BARRIER SPECIFICATION GUIDE FOR

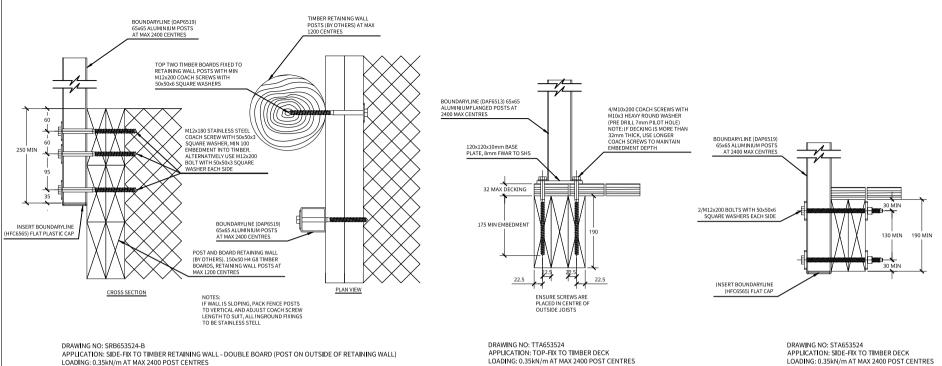
RELEVANT OCUPANCY TYPES) SCALE

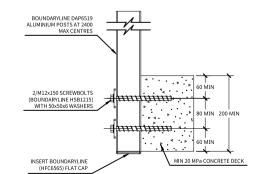
4

1:15 DPA653501

Α

01-10-24







40 MIN

40 MIN

MIN 20 MPa CONCRETE DECK

60 MIN 140 MIN

EMBEDMENT

DRAWING NO: SDA653524-B APPLICATION: SIDE-FIX TO CONCRETE DECK (200 min THICKNESS) LOADING: 0.35kN/m AT MAX 2400 POST CENTRES

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 appropriate fixing ontion required

optioni	equireu.	
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

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TITLE:

BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:

- TIMBER DECK
- CONCRETE DECK

FOR 0.35kN/m HORIZONTAL

LOADING (REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

SCALE DPA653502 1:10 A4

Α 01-10-24

5

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

BOUNDARYLINE (DAP6519) ALLIMINIUM POSTS AT 2400

2/M12 STUDS, WITH 50x50x6

INSERT BOUNDARYLINE

(HFC6565) FAT CAP

WASHERS, SAT IN 14 DIA HOLE WITH

EPCON C8 EPOXY OR APPROVED EQUIVALENT, INSTALLED ACCORDING

TO MANUFACTURERS INSTRUCTIONS

120 MIN

THICKNESS

40 MIN EDGE DISTANCE

APPLICATION: TOP-FIX TO CONCRETE DECK

LOADING: 0.35kN/m AT MAX 2400 POST CENTRES

DRAWING NO: TDA653524

MAX CENTRES

BOUNDARYLINE (DAF6513)

65v65 ALLIMINIUM FLANGED

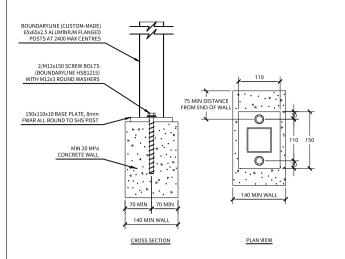
POST AT 2400 MAX CENTRES

4/M10x100 SCREW BOLTS

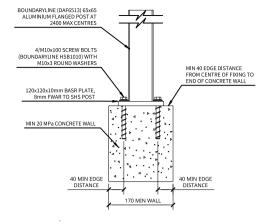
(BOUNDARYLINE HSB1010) WITH M10x3 ROUND WASHER

120v120v10mm BASE PLATE

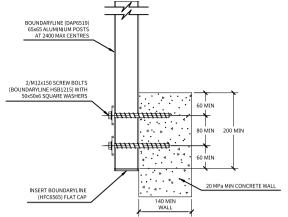
MIN 20 MPa CONCRETE DECK



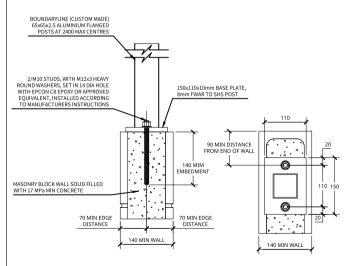
DRAWING NO: TWA653524-A APPLICATION: TOP-FIX TO CONCRETE WALL LOADING: 0.35kN/m AT MAX 2400 POST CENTRE



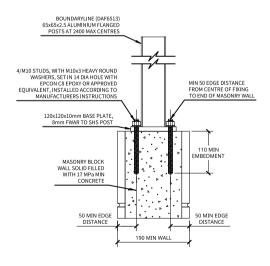
DRAWING NO: TWA653524-B
APPLICATION: TOP-FIX TO CONCRETE WALL
LOADING: 0.35kN/m AT MAX 2400 POST CENTRE



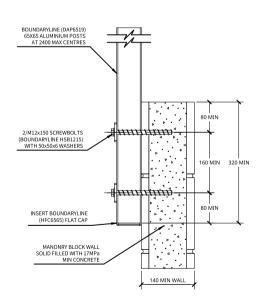
DRAWING NO: SWA653524
APPLICATION: SIDE-FIX TO CONCRETE WALL
LOADING: 0.35kN/m AT MAX 2400 POST CENTRE



DRAWING NO: TMA653524-A APPLICATION: TOP-FIX TO MASONARY WALL (15 SERIES) LOADING: 0.35kN/m AT MAX 2400 POST CENTRE



DRAWING NO: TMA653524-B
APPLICATION: TOP-FIX TO MASONARY WALL (20 SERIES)
LOADING: 0.35kN/m AT MAX 2400 POST CENTRE



DRAWING NO: SMA653524
APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES)
LOADING: 0.35kN/m AT MAX 2400 POST CENTRE

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.

option	equireu.	
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

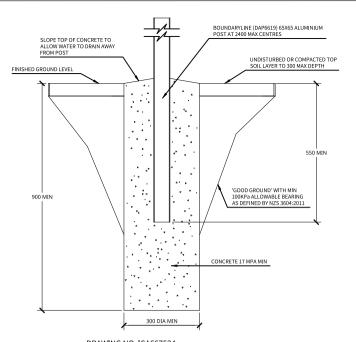
BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:

- CONCRETE WALL
- MASONARY WALL

FOR 0.35kN/m HORIZONTAL LOADING

(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT

OCCUPANCY ITPES)					
	SCALE		SIZE	DF	RAWING NO
	1:10		A4	DPA653503	
			SUED		SHEET
	Α	(1-10-24		6

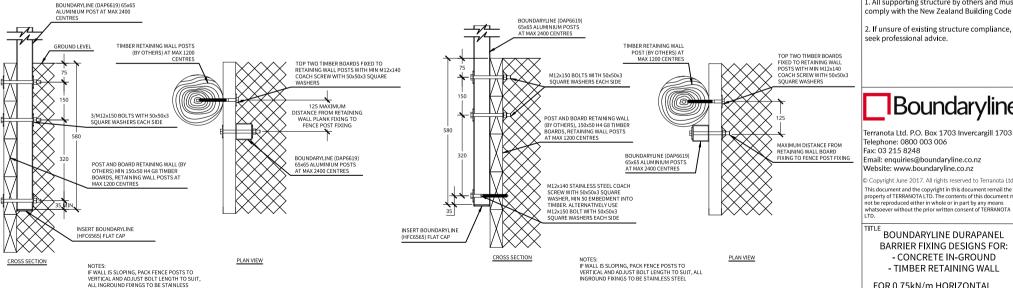


DRAWING NO: ICA667524 APPLICATION: CONCRETE IN-GROUND LOADING: 0.75kN/m AT MAX 2400 POST CENTRES

120x120x10 BASE PLATE, 8mm FWAR TO SHS POST BOUNDARYLINE (DAF6513) 65x65 ALUMINIUM FLANGED POST AT 2/M12x240 COACH SCREWS WITH M12x3 2/M12 BOLTS WITH M12x3 ROUND WASHERS TO TOP RAIL WHERE POST IS ROLIND WASHERS INTO RETAIING WALL BOARD, ENSURE SCREWS ARE CENTRAL TO BOARD OFFSET, ALTERNATIVELY 2/M10x240 DIRECTLY OVER RETAINING WALL POST 140 MIN MIN 190x45 TOP BOARD 2/M12x240 COACH SCREW WITH MIN 140x45 SG8 TOP RAIL 50X50X3 SQUARE WASHER TO FIX TOP RAIL TO RETAINING POST 50x50x3 WASHERS TO UNDERSIDE OF TOP RAIL WHEN USING BOLT FIXING 190 MIN EMBEDMENT TIMBER RETAINING WALL POST (BY OTHERS) AT MAX 1200 MAX CENTRES 50 MAX OFFSET 2/M12x140 COACH SCREWS WITH 50x50x3 SQUARE WASHERS TO FIX TOP RETAINING BOARD TO RETAINING WALL POST TIMBER RETAINING WALL POST BOUNDARYLINE (DAF6513) 65x65 ALUMINIUM FLANGED POST AT (BY OTHERS) AT 1200 MAX CENTRES MIN 140x45 SG8 TOP RAI 1260 MAX CENTRES PLAN VIEW

CROSS SECTION

DRAWING NO: TRA657512 APPLICATION: TOP-FIX TO TIMBER RETAINING WALL LOADING: 0.75kN/m AT MAX 1260 POST CENTRES (NOTE: 0.75kN/m AT MAX 2400 POST CENTRE SUBJECT TO SPECIFIC ENGINEERING DESIGN)



DRAWING NO: SRA667524-A APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON INSIDE OF RETAINING WALL) LOADING: 0.75kN/m AT MAX 2400 POST CENTRES

STEEL OR GALVANISED WITH DPM PROTECTION

DRAWING NO: SRA667524-B APPLICATION: SIDE-FIX TO TIMBER RETAINING WALL (POST ON OUTSIDE OF RETAINING WALL) LOADING: 0.75kN/m AT MAX 2400 POST CENTRES

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 appropriate fixing option required.

opt.o	equirea.		
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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BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:

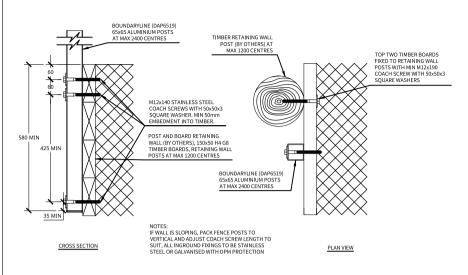
- CONCRETE IN-GROUND
- TIMBER RETAINING WALL

FOR 0.75kN/m HORIZONTAL LOADING

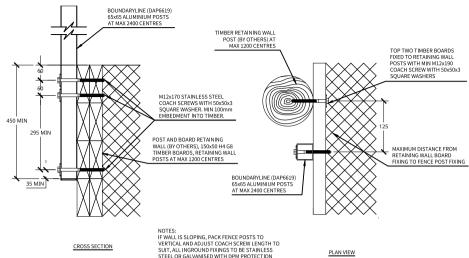
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES)

SCALE DPA667501 1:15

01-10-24



DRAWING NO: SRB657512-A APPLICATION: SIDE-FIX TO SINGLE BOARD TIMBER RETAINING WALL (POSTS ON OUTSIDE OF RETAINING WALL) LOADING: 0.75kN/m AT MAX 2400 POST CENTRES



DRAWING NO: SRB667524-B APPLICATION: SIDE-FIX TO DOUBLE BOARD TIMBER RETAINING WALL (POSTS ON OUTSIDE OF RETAINING WALL) LOADING: 0.75kN/m AT MAX 2400 POST CENTRES

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 appropriate fixing ontion required

option required.			
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BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:

- TIMBER RETAINING WALL (Single and Double Board)

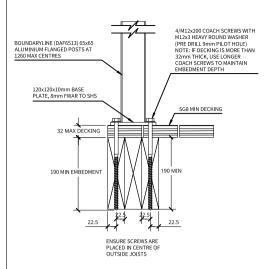
FOR 0.75kN/m HORIZONTAL LOADING

(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCUPANCY TYPES) SCALE RAWING NO

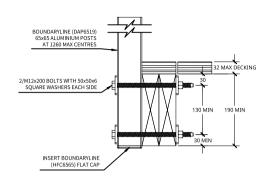
DPA667502 1:15 A4

Α 01-10-24

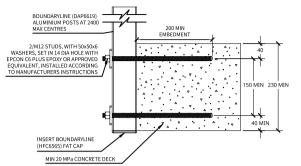
8



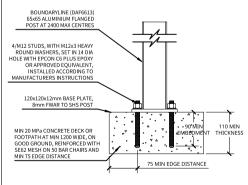
DRAWING NO: TTA657512 APPLICATION: TOP-FIX TO TIMBER DECK LOADING: 0.75kN/m, AT MAX 1260 POST CENTRES (NOTE: 0.75kN/m AT MAX 2400 POST CENTRE SUBJECT TO SPECIFIC ENGINEERING DESIGN INCLUDING SUPPORTING STRUCTURE)



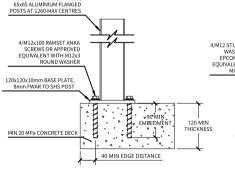
DRAWING NO: STA657512 APPLICATION: SIDE-FIX TO TIMBER DECK LOADING: 0.75kN/m, AT MAX 1260 POST CENTRES (NOTE: 0.75kN/m AT MAX 2400 POST CENTRE SUBJECT TO SPECIFIC ENGINEERING DESIGN OF SUPPORTING STRUCTURE)



DRAWING NO: SDA667524-A APPLICATION: SIDE-FIX TO CONCRETE DECK (230 min THICKNESS) LOADING: 0.75kN/m, AT MAX 2400 POST CENTRES

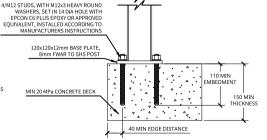


DRAWING NO: TDA667524-A APPLICATION: TOP-FIX TO CONCRETE PATH OR DECK (MIN 1.2m WIDE) LOADING: 0.75kN/m AT MAX 2400 POST CENTRES



BOUNDARYLINE (DAF6513)

DRAWING NO: TDA657512 APPLICATION: TOP-FIX TO CONCRETE DECK LOADING: 0.75kN/m AT MAX 1260 POST CENTRES



BOUNDARYLINE (DAF6613)

65x65 ALUMINIUM FLANGED POST AT 2400 MAX CENTRES

DRAWING NO: TDA667524-B APPLICATION: TOP-FIX TO CONCRETE DECK LOADING: 0.75kN/m AT MAX 2400 POST CENTRES BOUNDARYLINE (DAF6613) 65x65 ALUMINIUM ELANGED POSTS AT 4/M12x150 RAMSET ANKA SCREWS OR APPROVED EQUIVALENT, WITH M12x3 ROUND WASHER 120x120x12mm BASE PLATE 8mm FWAR TO SHS POST MIN 20 MPa CONCRETE DECK 50 MIN EDGE DISTANCE

> DRAWING NO: TDA667524-C APPLICATION: TOP-FIX TO CONCRETE DECK LOADING: 0.75kN/m AT MAX 2400 POST CENTRES

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 appropriate fixing option required.

	option	equireu.	
	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

Terranota Ltd. P.O. Box 1703 Invercargill 1703 Telephone: 0800 003 006 Fax: 03 215 8248 Email: enquiries@boundaryline.co.nz

Website: www.boundaryline.co.nz

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TITLE:

BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:

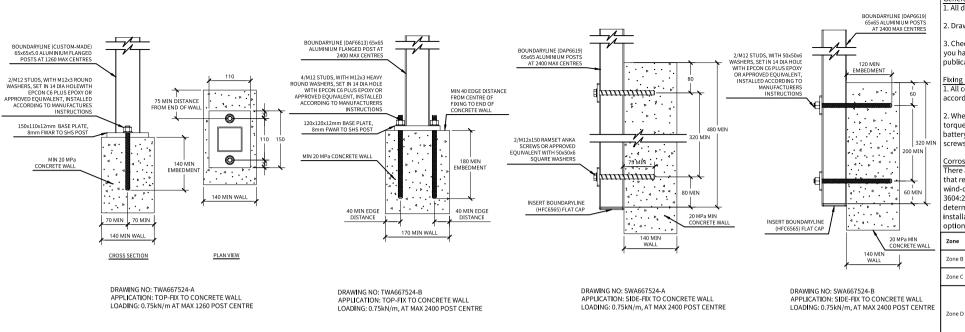
- TIMBER DECK
- CONCRETE DECK

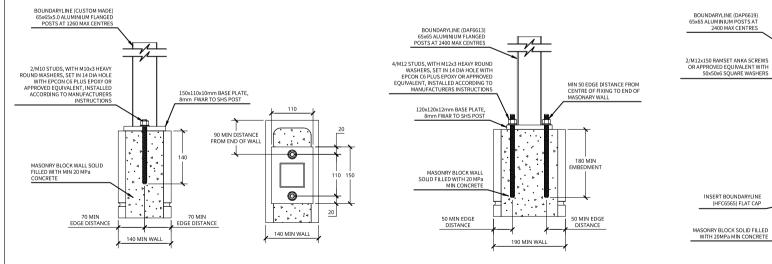
FOR 0.75kN/m HORIZONTAL LOADING (REFER TO BARRIER SPECIFICATION GUIDE FOR

RELEVANT OCCUPANCY TYPES)

SCALE DPA667503 1:10

Α 01-10-24





DRAWING NO: TMA657512 APPLICATION: TOP-FIX TO MASONARY WALL LOADING: 0.75kN/m, AT MAX 1260 POST CENTRE (NOTE: 0.75kN/m AT MAX 2400 POST CENTRE NOT POSSIBLE TO TOP-FIX ON 15 SERIES MASONARY WALL)

DRAWING NO: TMA667524 APPLICATION: TOP-FIX TO MASONARY WALL LOADING: 0.75kN/m AT MAX 2400 POST CENTRE

anddani 600 MIN and the state of t 5 MIN 140

> DRAWING NO: SMA667524 APPLICATION: SIDE-FIX TO MASONARY WALL (15 SERIES) LOADING: 0.75kN/m AT MAX 2400 POST CENTRE

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 appropriate 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 Terranota Ltd. P.O. Box 1703 Invercargill 1703

Telephone: 0800 003 006 Fax: 03 215 8248 Email: enquiries@boundaryline.co.nz

Website: www.boundaryline.co.nz

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TITLE:

SCALE

Α

BOUNDARYLINE DURAPANEL BARRIER FIXING DESIGNS FOR:

- CONCRETE WALL

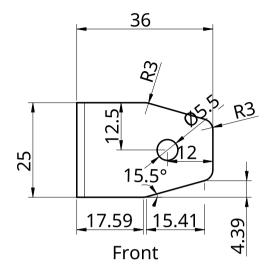
MASONARY WALL

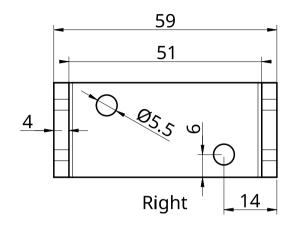
FOR 0.75kN/m HORIZONTAL LOADING

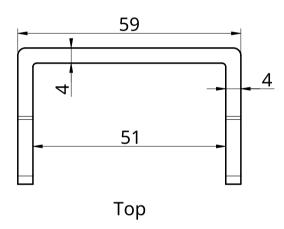
(REFER TO BARRIER SPECIFICATION GUIDE FOR RELEVANT OCCUPANCY TYPES)

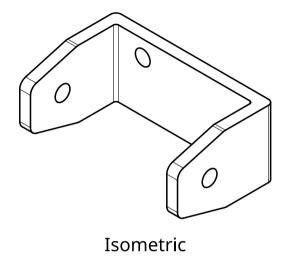
DPA667504 1:10 SHEET 01-10-24

10









Boundaryline					DAR5025-BK		Notes: - Must be Made from min Grade 6063-T6 or 5052-H32 Aluminium
Telephone Fax: 03 2: Email: end	Terranota Ltd. P.O. Box 1703 Invercargill 1703 Telephone: 0800 003 006 Fax: 03 215 8248 Email: enquiries@boundaryline.co.nz Website: www.boundaryline.co.nz				DESCRIPTION TITAN RAKING BRACKET		- Chromate Pre-Treated and powdercoated Satin Black
© Copyright	© Copyright June 2017. All rights reserved to Terranota Ltd.						
A4	DATE ISSU	-10-24	REV.	DO NOT SCALE DRAWING	SIZE		
SCALE 1:1		SHEET 11	WEIGHT	0.03kg	DRAWN BY KENT FAWKES	LAST CHANGED BY ASHIN JOSE	- UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS - APPLICABLE TO POWDERCOATED ITEMS ONLY; CLASS A POWDERCOAT COLOURS WILL BE USED UNLESS OTHERWISE SPECIFIED





PRODUCER STATEMENT – PS1 DESIGN

BUILDING CODE CLAUSE(S):	JOB NUMBER:	
ISSUED BY: (Engineering Design Firm)		
TO:		
(Owner/Developer)		1
TO BE SUPPLIED TO: (Building Consent Authority)		
IN RESPECT OF:]
(Description of Building Work)		1
AT:		
(Address, Town/City) LEGAL DESCRIPTION:		N/A □
ELGAL DESCRIPTION.		N/A 🗆
We have been engaged by the owner/developer referred t	o above to provide (Extent of Engagen	nent):
in respect of the requirements of the Clause(s) of the Build Schedule, of the proposed building work.	ing Code specified above for Choose a	an item., as specified in the
The design carried out by us has been prepared in accorda		
 □ Compliance documents issued by the Ministry solution) 	of Business, Innovation & Employment	(Verification method/acceptable and/or;
□ Alternative solution as per the attached Schedu	ıle.	janu/or,
The proposed building work covered by this producer state with the specification, and other documents set out in the		ecified in the Schedule, together
On behalf of the Engineering Design Firm, and subject to:	T .	1
Site verification of the following design assumptionAll proprietary products meeting their performan	<u> </u>	j.
I believe on reasonable grounds that:		
 the building, if constructed in accordance with the 	= :	ocuments provided or listed in the
Schedule, will comply with the relevant provisionsthe persons who have undertaken the design hav		
I recommend following level of construction monitoring: A	s per condition of building consent as	a minimum.
I, (Name of Engineering Design Professional)		, am:
 □ CPEng number 		
and hold the following qualifications		
The Engineering Design Firm holds a current policy of Prof The Engineering Design Firm Choose one a member of ACE		han \$200,000
SIGNED BY (Name of Engineering Design Professional): (Signature below):		
ON BEHALF OF (Engineering Design Firm):		Date: VALID FROM 1 OCT
OH DELIALI OF LENGINGERING DESIGNETHIN).		Date: 2024 TO 30 SEP 2025

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.

SCHEDULE to PS1

Please include an itemised list of all referenced documents, drawings, or other supporting materials in relation to this producer statement below:

Job Number PRODUCER STATEMENT PS1

GUIDANCE ON USE OF PRODUCER STATEMENTS

Information on the use of Producer Statements and Construction Monitoring Guidelines can be found on the Engineering New Zealand website

https://www.engineeringnz.org/engineer-tools/engineering-documents/producer-statements/

Producer statements were first introduced with the Building Act 1991. The producer statements were developed by a combined task committee consisting of members of the New Zealand Institute of Architects (NZIA), Institution of Professional Engineers New Zealand (now Engineering New Zealand), Association of Consulting and Engineering New Zealand (ACE NZ) in consultation with the Building Officials Institute of New Zealand (BOINZ). The original suite of producer statements has been revised at the date of this form to ensure standard use within the industry.

The producer statement system is intended to provide Building Consent Authorities (BCAs) with part of the reasonable grounds necessary for the issue of a Building Consent or a Code Compliance Certificate, without necessarily having to duplicate review of design or construction monitoring undertaken by others.

PS1 DESIGN Intended for use by a suitably qualified independent engineering design professional in circumstances where the BCA accepts a producer statement for establishing reasonable grounds to issue a Building Consent;

PS2 DESIGN REVIEW Intended for use by a suitably qualified independent engineering design review professional where the BCA accepts an independent design professional's review as the basis for establishing reasonable grounds to issue a Building Consent;

PS3 CONSTRUCTION Forms commonly used as a certificate of completion of building work are Schedule 6 of NZS 3910:2013 or Schedules E1/E2 of NZIA's SCC 2011²

PS4 CONSTRUCTION REVIEW Intended for use by a suitably qualified independent engineering construction monitoring professional who either undertakes or supervises construction monitoring of the building works where the BCA requests a producer statement prior to issuing a Code Compliance Certificate.

This must be accompanied by a statement of completion of building work (Schedule 6).

The following guidelines are provided by ACE New Zealand and Engineering New Zealand to interpret the Producer Statement.

Competence of Engineering Professional

This statement is made by an engineering firm that has undertaken a contract of services for the services named, and is signed by a person authorised by that firm to verify the processes within the firm and competence of its personnel.

The person signing the Producer Statement on behalf of the engineering firm will have a professional qualification and proven current competence through registration on a national competence-based register such as a Chartered Professional Engineer (CPEng).

Membership of a professional body, such as Engineering New Zealand provides additional assurance of the designer's standing within the profession. If the engineering firm is a member of ACE New Zealand, this provides additional assurance about the standing of the firm.

Persons or firms meeting these criteria satisfy the term "suitably qualified independent engineering professional".

Professional Indemnity Insurance

As part of membership requirements, ACE New Zealand requires all member firms to hold Professional Indemnity Insurance to a minimum level.

The PI Insurance minimum stated on the front of this form reflects standard practice for the relationship between the BCA and the engineering firm.

Professional Services during Construction Phase

There are several levels of service that an engineering firm may provide during the construction phase of a project (CM1-CM5 for engineers³). The building Consent Authority is encouraged to require that the service to be provided by the engineering firm is appropriate for the project concerned.

Requirement to provide Producer Statement PS4

Building Consent Authorities should ensure that the applicant is aware of any requirement for producer statements for the construction phase of building work at the time the building consent is issued as no design professional should be expected to provide a producer statement unless such a requirement forms part of the Design Firm's engagement.

Refer Also:

- Conditions of Contract for Building & Civil Engineering Construction NZS 3910: 2013
- ² NZIA Standard Conditions of Contract SCC 2011
- Guideline on the Briefing & Engagement for Consulting Engineering Services (ACE New Zealand/Engineering New Zealand 2004)
- ⁴ PN01 Guidelines on Producer Statements

www.acenz.org.nz www.engineeringnz.org



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