Boundaryline

PS1

ColourPanel

Rev No. 1.00
Issue Date: 19/12/2023

Pool Fencing & Fall Restraint Barriers

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

PRODUCER STATEMENT – PS1
DESIGN

BUILDING CODE CLAUSE(S): B1, F4, F9 **JOB NUMBER:** 213679
ISSUED BY: Hadley Consultants Limited
(Engineering Design Firm)
TO: Terranota Limited
(Owner/Developer)
TO BE SUPPLIED TO: Queenstown Lakes District Council
(Building Consent Authority)
IN RESPECT OF: Boundaryline Colourpanel Fence Balustrades for 0.35kN/m and 0.75kN/m loading
(Description of Building Work)
AT:
(Address, Town/City)
LEGAL DESCRIPTION: **N/A** ☐

We have been engaged by the owner/developer referred to above to provide *(Extent of Engagement)*:
Structural design services beyond the scope of NZS3604.
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 attached schedule .
- 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)* James Hadley , am:

- ☑ CPEng number 189829

and hold the following qualifications BE (Hons), CMEngNZ, CPEng,IntPE

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)*: James Hadley
(Signature below):

ON BEHALF OF *(Engineering Design Firm)*: Hadley Consultants Limited Date: 19/12/23

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.

PS1 – Design Producer Statement Schedule

Project	:	**Terranota Producer Statements**
Location	:	**Throughout New Zealand, ≥1km from the coast**
Job Number	:	**213679**
Date	:	**19th December 2023**

Description of Building Works Designed:

Structural design checking for the Boundaryline Colourpanel Fencing system as balustrades up to 0.35kN/m and 0.75kN/m loading and Medium and High Wind Zones respectively, at various locations throughout New Zealand and as referenced below.

The applicable requirements of the New Zealand Building Code, in particular, Clauses B1, F4 & F9 have, where the provisions of these Clauses are applicable, been met in the design. The structural design has been prepared using the following New Zealand Standards as Verification Methods and/or Acceptable Solutions as set out in the Building Code. These New Zealand Standards are NZS1170, NZS3404, and general engineering principles.

B2 Durability:

The design life of structural elements is 50 years. There is no effective verification method for B2 contained within the Building Code. Durability provisions of structural elements covered under B1 are achieved as follows:

Steel All structural members are Colourbond G550 steel. All steelwork is to be located so that it is easy to inspect and maintain the protective coating and replace elements if necessary.

Schedule of Documentation:

0.35kN/m loading with posts @2.4m crs, refer attached detail numbered 132469 – SK25 – Rev D.
0.75kN/m loading with posts @1.6m crs, refer attached detail numbered 132469 – SK26 – Rev D.
0.75kN/m loading with posts @2.4m crs, refer attached detail numbered 132469 – SK28 – Rev C.

Conditions:

The attached PS1 is also subject to;

1. This statement is based on generic design of the specified products, without specific knowledge of the location or intended use of the product at the site referred to. The Owner/Developer and Building Consent Authority must be satisfied the specified product and the corresponding Producer Statement and manufacturer's specifications are applicable to the situation in which the product is to be used,
2. Any ground at the site directly supporting the balustrade providing an allowable working bearing capacity of 100kPa minimum and meeting the definition of good ground as set out in NZS3604,
3. The minimum heights of all fencing meeting the requirements of F4 (1m min for private domestic and 1.1m min elsewhere) and F9 (1.2m min) where required.
4. Any structure supporting the balustrade or retaining the ground to be in accordance with the Building Code Acceptable Solutions or subject to specific design,
5. The work covered by this statement being carried out in accordance with the manufacturer's installation specifications,
6. The work covered by this statement being inspected at appropriate times during construction by an approved Council Building Inspector as part of typical inspection regime,
7. Maintenance being carried out to maintain the steelwork protective coating throughout the 50yr design life, with particular care paid to the base of posts.

If you have any queries on any of the above please contact the undersigned in the first instance.

Hadley Consultants Ltd

CHARTERED PROFESSIONAL ENGINEER

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 2011[2]

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.

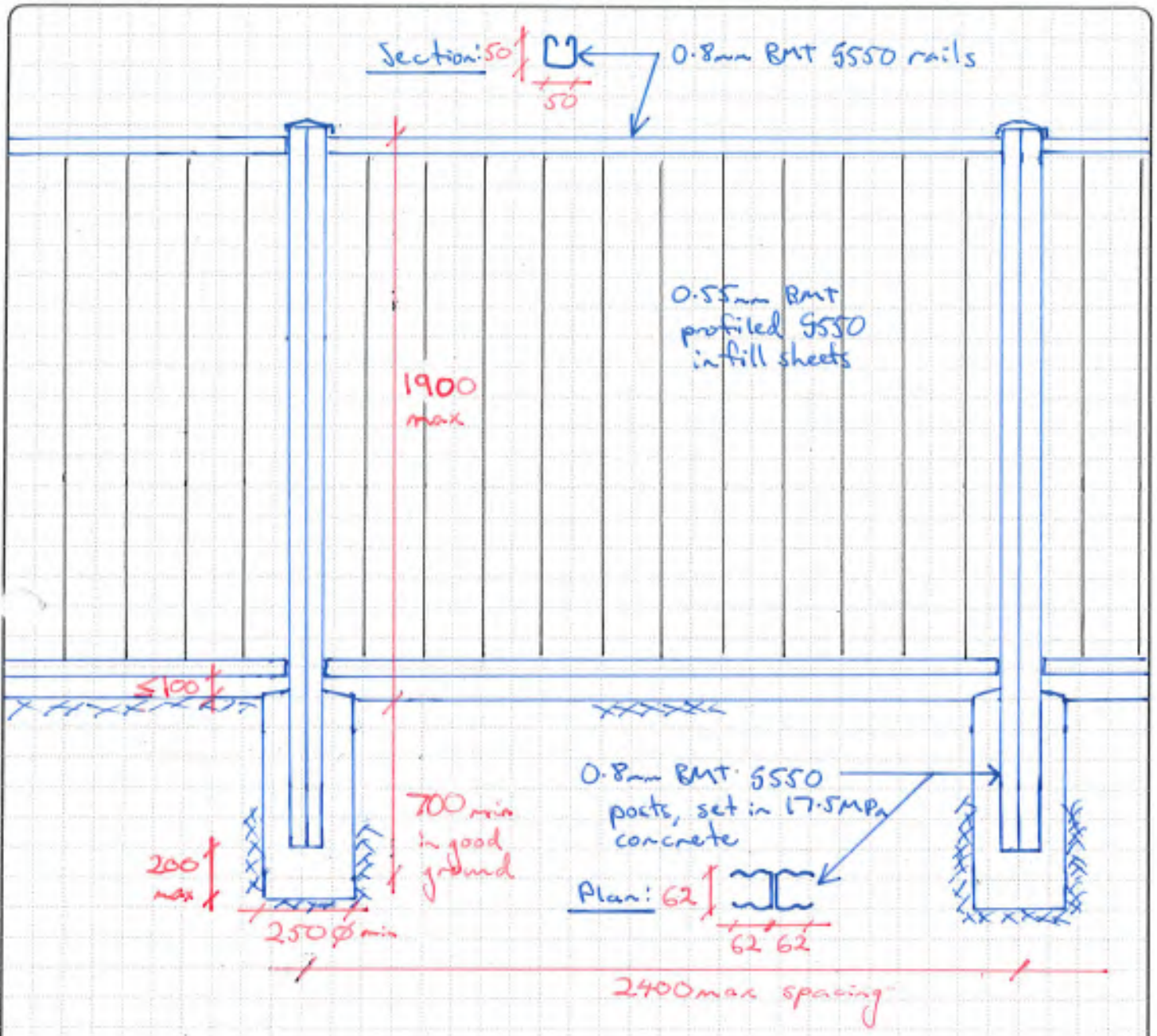
Professional Services during Construction Phase
There are several levels of service that an engineering firm may provide during the construction phase of a project (CM1-CM5 for engineers[3]). The building Consent Authority is encouraged to require that the service to be provided by the engineering firm 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:

1 Conditions of Contract for Building & Civil Engineering Construction NZS 3910: 2013
2 NZIA Standard Conditions of Contract SCC 2011
3 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



Notes:

1. Barrier suitable for access areas of occupancy types A, B & E with ≤0.35kN/m top rail loading, not suitable adjacent decks or terraces susceptible to crowding.
2. Colourpanel fence to be installed in strict accordance to Boundaryline Installation Guide.
3. Barrier suitable for wind zones Low & Medium. Free ends to have 65x65x2.0mm steel posts, or be either ≤1.2m high or end spacing to be ≤1.2m wide

Issue	Description	By	Date
D	Construction	AOM	11/3/19
C	Construction	AOM	28/11/18
B	Construction	AOM	7/11/18
A	Construction	AOM	17/10/18

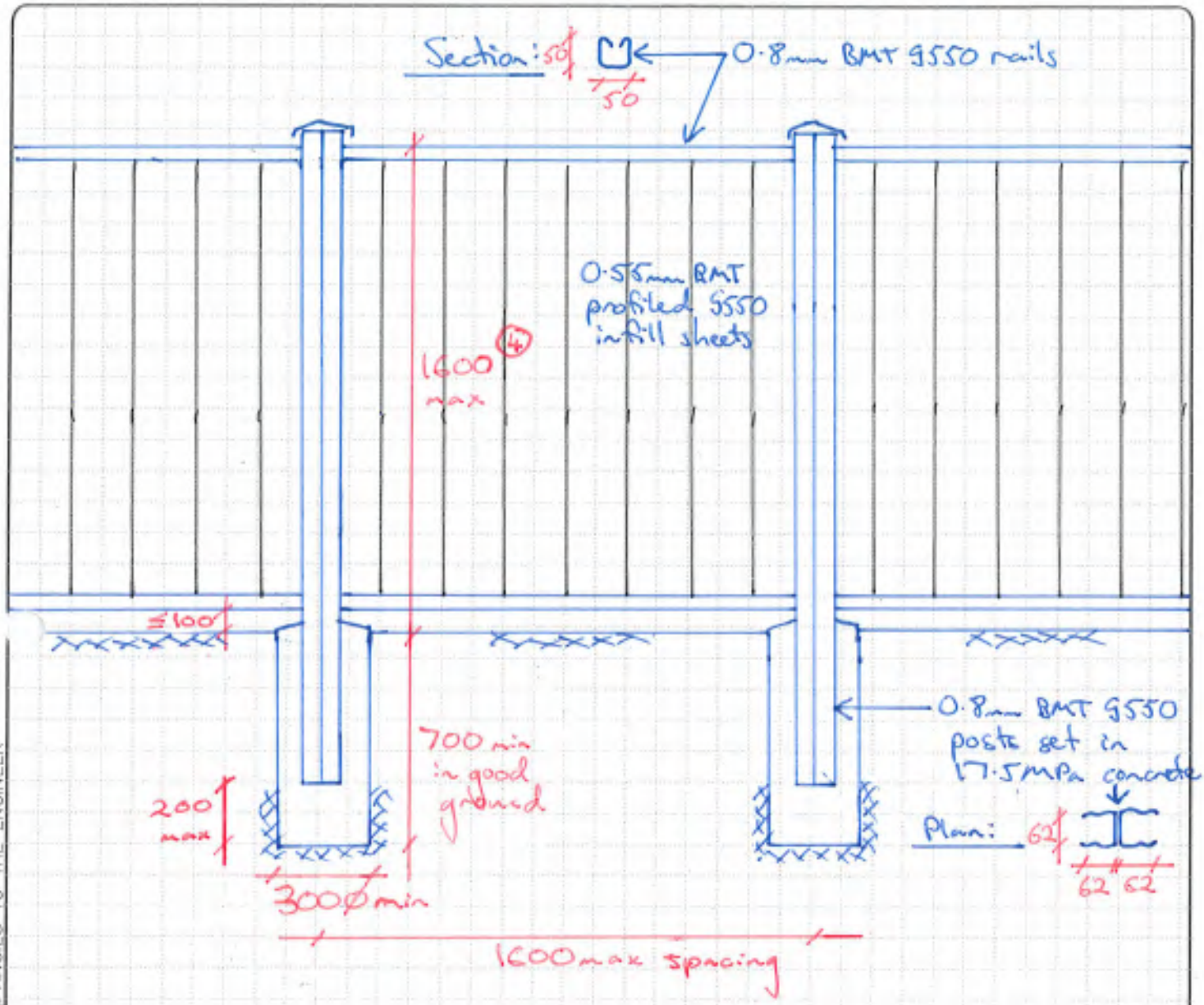
Project: Boundaryline Barriers

Title: Colourpanel 0.35kN/m Loading

Client: Terranata Ltd

hadley consultants LTD
CONSULTING ENGINEERS STRUCTURAL / CIVIL / PROJECT MANAGEMENT / GEOTECHNICAL
44 Robins Road, PO Box 1956, Queenstown, New Zealand. P: +64 3 450 2140, F: +64 3 441 3513, W: www.hadleys.co.nz

Drawn: AOM | Checked: | Scale: 1:20 | Drawing No. Project: 132469 | Sheet: SK25 | Issue: D



Notes:

1. Barrier suitable for areas of occupancy types A, B, C3 & E with ≤0·75kN/m top rail loading, not suitable for non-residential areas susceptible to over crowding
2. Colourpanel fence to be installed in strict accordance to Boundaryline Installation Guide.
3. Barrier suitable for wind zones Low, Medium & High. Free ends to have 65×65×2·0mm steel posts, or alternatively be ≤1·2m high or end spacing to be ≤1·2m wide

Issue	Description	By	Date
D	Construction	ADM	11/3/19
C	Construction	ADM	28/11/18
B	Construction	ADM	7/4/18
A	Construction	ADM	17/10/18

ORIGINAL SIZE A4 DO NOT SCALE, REFER ALL DISCREPANCIES TO THE ENGINEER

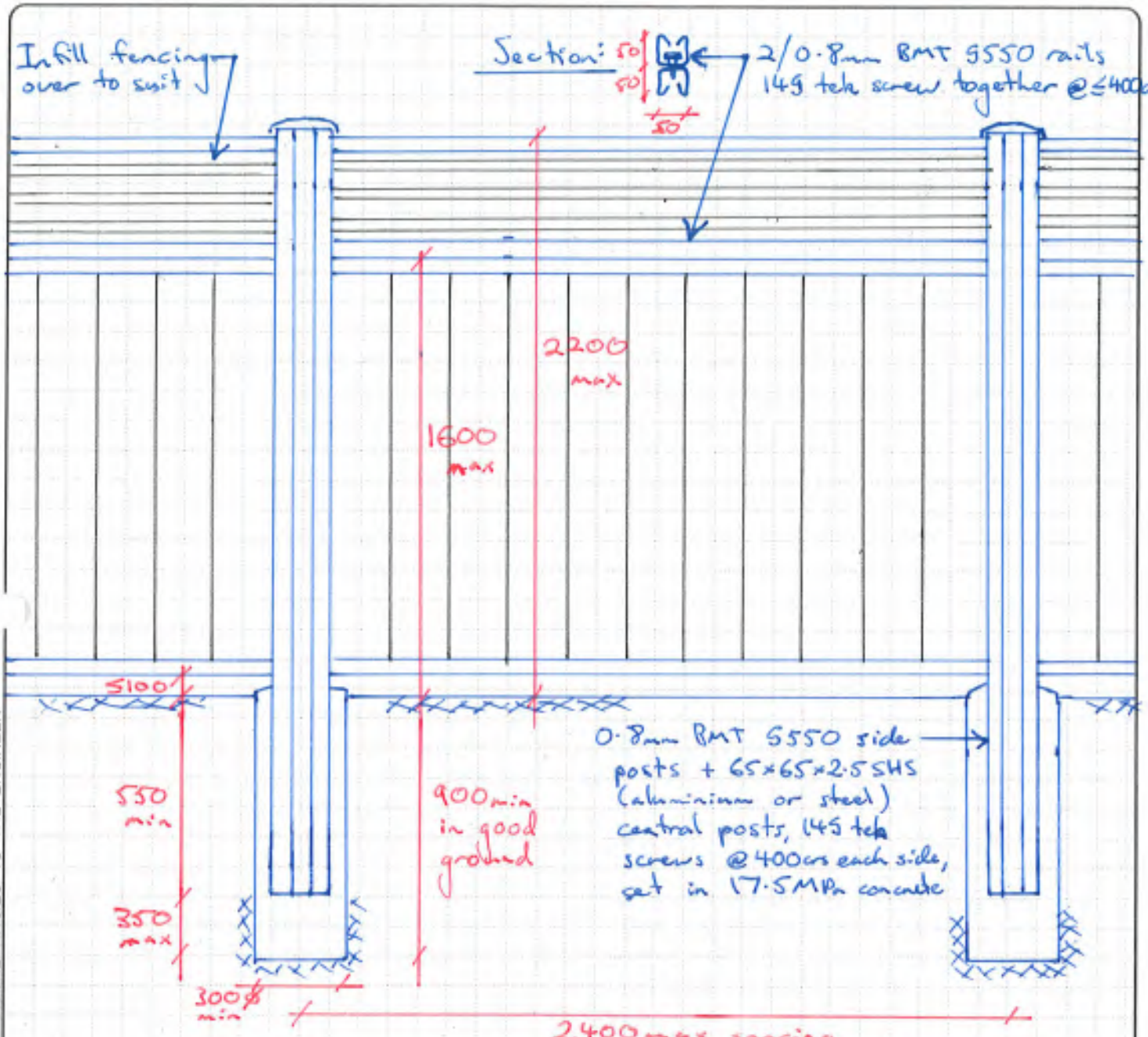
Project: Boundaryline Barriers

Title: Colourpanel 0·75kN/m Loading

Client: Terranora Ltd

hadley consultants LTD
CONSULTING ENGINEERS STRUCTURAL / CIVIL / PROJECT MANAGEMENT / GEOTECHNICAL
44 Robins Road, PO Box 1354, Queenstown, New Zealand, P: +64 3 450 2140, F: +64 3 441 3513, W: www.hadleys.co.nz

Drawn	Checked	Scale	Drawing No.	Sheet	Issue
ADM		1:20	Project: 132469	SK26	D



Notes:

1. Barrier suitable for areas of occupancy types A, B, C3 & E with ≤0.75kN/m top rail loading, not suitable for non-residential areas susceptible to over crowding.
2. Colourpanel fence to be installed in strict accordance to Boundaryline Installation Guide.
3. Barrier suitable for wind zones Low, Medium & High. Free ends to have 65x65x2.0mm steel posts or alternatively be ≤1.2m high or end spacing to be ≤1.2m wide

Issue	Description	By	Date
C	Construction	ADM	11/3/19
B	Construction	ADM	28/11/18
A	Construction	ADM	7/11/18

ORIGINAL SIZE A4 DO NOT SCALE, REFER ALL DISCREPANCIES TO THE ENGINEER

Project: Boundaryline Barriers

Title: Colourpanel 0.75kN Loading @2.4m

Client: Terranova Ltd

hadley consultants LTD
CONSULTING ENGINEERS STRUCTURAL / CIVIL / PROJECT MANAGEMENT / GEOTECHNICAL
44 Rekiera Road, PO Box 1356, Queenstown, New Zealand. P: +64 3 450 2160, F: +64 3 441 3513, W: www.hadleys.co.nz

Drawn:	Checked:	Scale:	Drawing No. Project:	Sheet:	Issue:
ADM		1:20	132469	SK28	C