PRODUCER STATEMENT – PS1 – DESIGN

(Guidance notes on the use of this form are printed on page 2)

ISSUED BY:.Lapish Enterprises Ltd

..

(Design Firm)

TO: GlassVice Products Ltd

(Owner/Developer)

TO BE SUPPLIED TO: Any BCA in New Zealand

(Building Consent Authority)

IN RESPECT OF:1600mm x 1200mm high 6/8 (15.5) laminated glass on Clearline brackets at 800mm centres with hand rail at 900mm above the floor. Refer to plans.

(Description of Building Work)

AT:Any where in New Zealand
Any where permitted by NZBC for 1.5kN/m imposed action to occupancies in AS/NZS1170.1:2002 and maximum wind speed of 50 mps..

(Address)

.... **LOT**........................ **DP** .... **SO** ....

We have been engaged by the owner/developer referred to above to provide a system to comply with NZBC B/VM1 Clauses B1 by test and calculation,B2 by use of stainless steel and glass,F2 Clause 1.1 and F4 Clauses 1.1 &1.2 by physical examination of details of balustrades certified.

services in respect of the requirements of

(Extent of Engagement)

Clause(s) B1/VM1,B2/AS1.of the Building Code for

All ☐ or Part only √☐ (as specified in the attachment to this statement), 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 & EmploymentAS/NZS1170, or

(verification method / acceptable solution)

☐ Alternative solution as per the attached schedule

The proposed building work covered by this producer statement is described on the drawings titled Glassvice Clearline Handrail

and numbered CL-12-HR

;

together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

(i) Site verification of the following design assumptions Support structure to comply with AS/NZS1170 by OTHERS

(ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code and that b), the persons who have undertaken the design have the necessary competency to do so. I also recommend the following level of construction monitoring/observation:

√☐CM1 ☐CM2 ☐CM3 ☐CM4 ☐CM5 (Engineering Categories) or ☐ as per agreement with owner/developer (Architectural)

I, ...Ernest B Lapish   am:

(Name of Design Professional)

√☐CPEng ...5078........................#

☐Reg Arch ....#

I am a Member of : √☐ IPENZ   ☐NZIA and hold the following qualifications: MICE FIPENZ...

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than $200,000*.

The Design Firm is a member of ACENZ: √☐

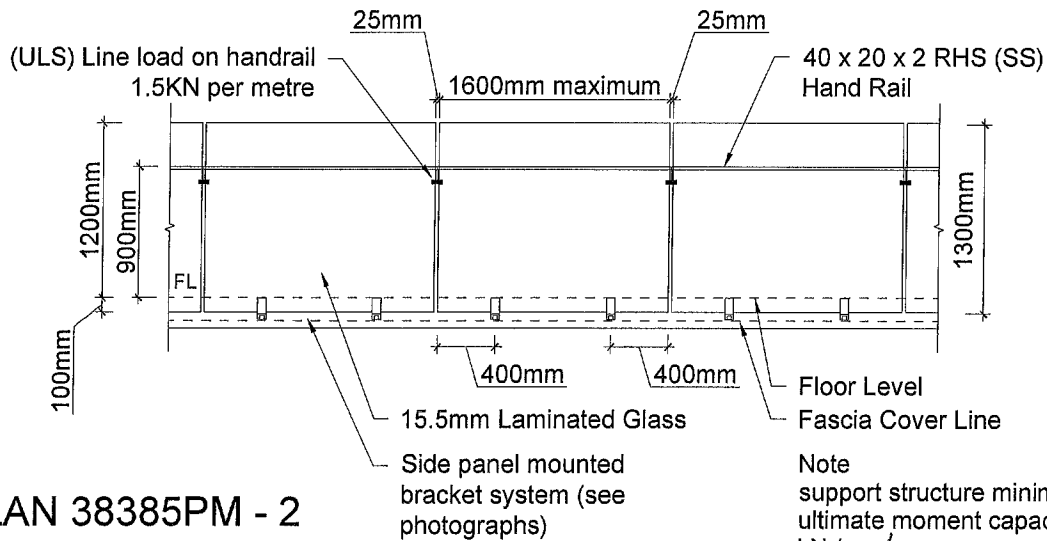SIGNED BY ...Ernest B Lapish
. ON BEHALF OF Lapish Enterprises Ltd

(Design Firm)

Date...18.05.17 (signature)...

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of $200,000.*
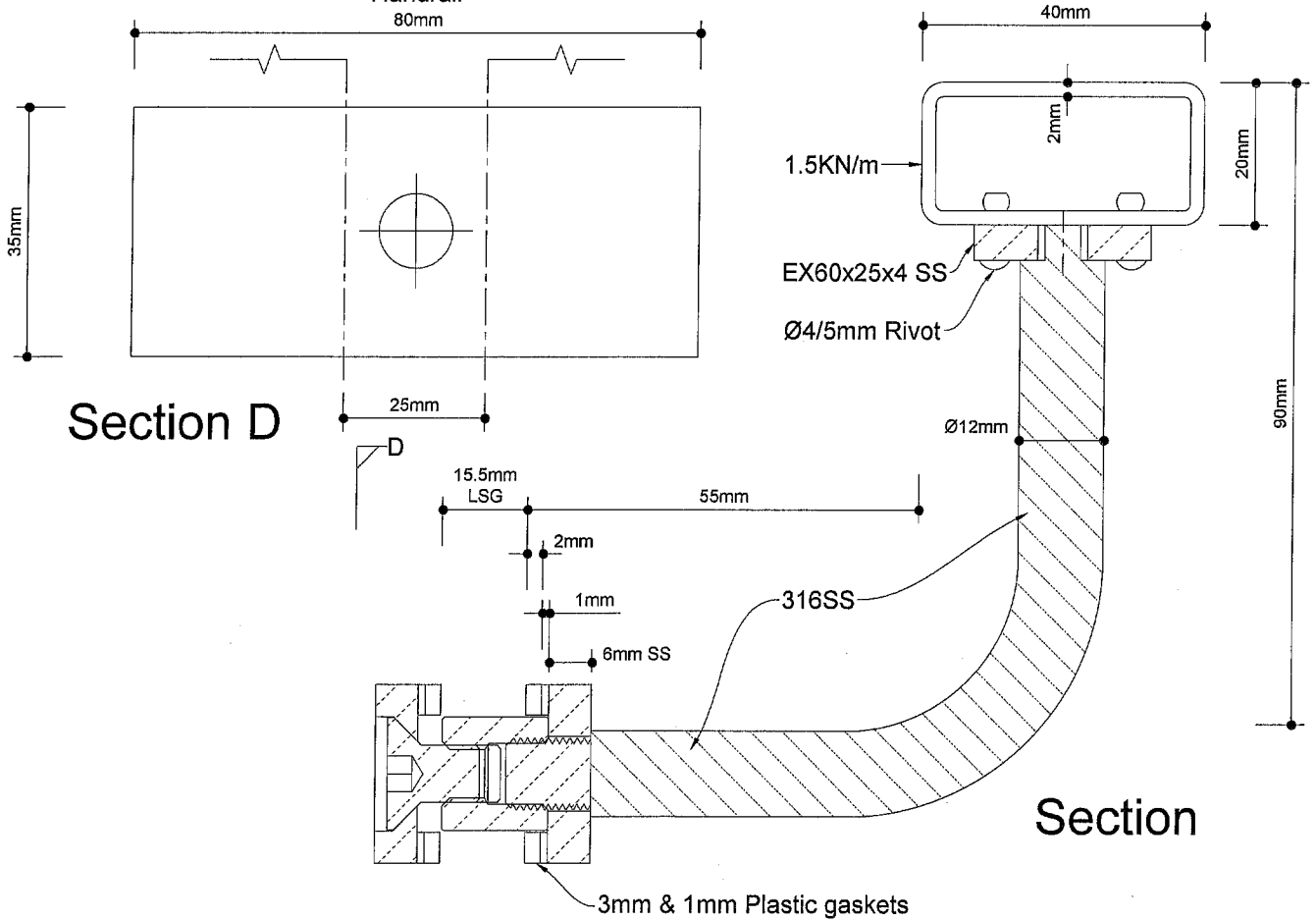
This form is to accompany **Form 2 of the Building (Forms) Regulations 2004** for the application of a Building Consent.

25mm   25mm

(ULS) Line load on handrail
1.5KN per metre

1600mm maximum

40 x 20 x 2 RHS (SS)
Hand Rail

1200mm
900mm

1300mm

FL

100mm

15.5mm Laminated Glass

400mm   400mm

Floor Level
Fascia Cover Line

Side panel mounted
bracket system (see
photographs)

PLAN 38385PM - 2

Note
support structure minimum
ultimate moment capacity 1.18
kN / m / m
1.8

1.5KN/m Imposed Action
15.5mm Laminated Safety Glass Balustrade and 40 x 20 x 2 RHS
Handrail

80mm

40mm

2mm

1.5KN/m

20mm

35mm

EX60x25x4 SS

Ø4/5mm Rivot

90mm

25mm

Section D

D

15.5mm
LSG

55mm

Ø12mm

2mm

316SS

1mm

6mm SS

Section

3mm & 1mm Plastic gaskets

All dimensions in millimetres

Glass Vice® Clearline® - Handrail
NZBC B1/VM1 Clause 2.2.7
AS/NZS 1170 Part 1 Clause 3.6

Date: May, 2017
Scale: Scale ###

www.glassvice.com
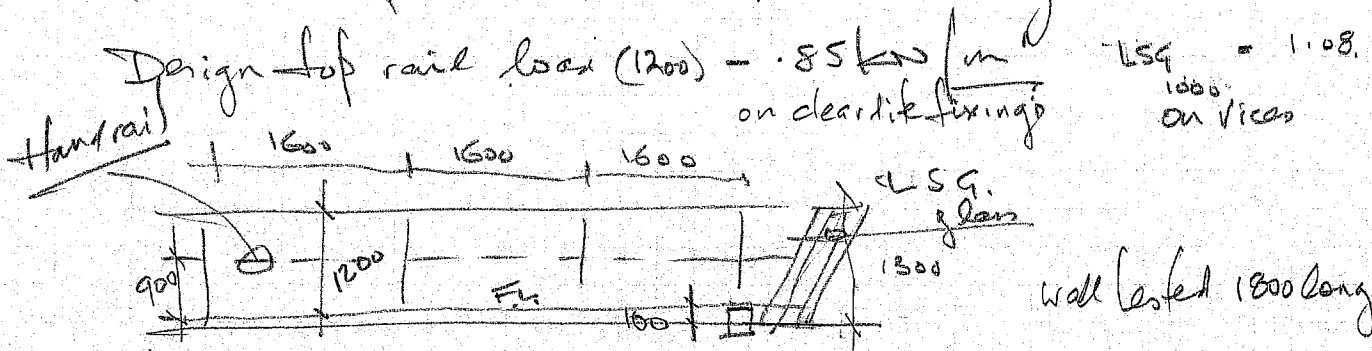Phone +64 9 414 6565
info@glassvice.com

Quick Code:

CL-12-HR

GLASS VICE

Glass Vice. 1600 x 1300 clear lime
15.5mm Laminated glass. with hand
rail — side fixed

examine to see if top rail will take 1.5 kN/m E1/B2
check capacity — 1.5 kN/m. with inclusion of handrail.

tests on laminated glass. 1800 x 1600 x 15.5 LSG,
            s   tt t

test at failure 265, 271 & 290 kg.

Design top rail load (1200) — .85 kN/m   LSG. = 1.08.
on clear tik fixings $\frac{1000}{}$ on Vices

Handrail

      1600   1600   1600   LSG.
                           glass
900   1200   Fₕ   1300   wall tested 1800 long.
                          100

Approx strength without hand rail = $\frac{1.8}{1.6} \times .85 = .956$ kN/m

with hand rail load shared between 3 panels
see attached tests. If one panel breaks
then handrail supported by adjacent two panels

    $\frac{1}{2}F = 1.5$?

(F) 'equivalent' $= .956 \times \frac{1.12}{.9} = 1.27 < 1.5$
on handrail

900. $\left(\frac{F}{2}\right)$ at top of glass $= \frac{1.5 \times .85}{2} = .63 < .75$

from previous tests on 15TSG, with
3 panel & hand rail. Min test load 3.11 kN/m < 1.5

MBIE
Guidance
on Barrier
Design
2012

Note:
Areas susceptible to
overcrowding

Depth measured ⊥ to barrier	3.4	2.3	1.07
min horiz. Top edge load	3 kN/m	2 kN/m	1.5 kN/m