



Te Kāhui
Whaihanga
New Zealand
Institute of
Architects



Building Code Clause(s) B1

PRODUCER STATEMENT – PS1 – DESIGN

ISSUED BY: CSEng.nz Ltd.
(Design Firm)

TO: Moddex New Zealand
(Owner/Developer)

TO BE SUPPLIED TO: Applicable Territorial Authority
(Building Consent Authority)

IN RESPECT OF: Moddex Barrier System: Conectabal - Occupancy Class A/B/E & C3
(Description of Building Work)

AT: Various Locations across New Zealand
(Address)

Town/City: **LOT** **DP** **SO**
(Address)

We have been engaged by the owner/developer referred to above to provide:
Engineering design.

.....
(Extent of Engagement)

services in respect of the requirements of Clause(s) B1 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 & Employment B1/VM1 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:

See schedule attached* and numbered ;
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 See schedule attached*
- (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, Gerard Callebaut am: CPEng 1010705 # Reg Arch #
(Name of Design Professional)

I am a member of: Engineering New Zealand NZIA and hold the following qualifications: B. Sc. Civil Engineering

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: Gerard Callebaut (Signature) 
(Name of Design Professional)

ON BEHALF OF CSEng.nz Ltd. Date 31/08/2020
(Design Firm)

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.
THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACENZ, ENGINEERING NEW ZEALAND AND NZIA

SCHEDULE

*From page 1:

On behalf of the design firm and subject to site verification of the following design assumptions:

1. The substrate, to which the barrier is fixed, as designed by others, is able to resist the applied loads.
2. The installation of the barrier is in accordance with the limits and specifications as set out on the drawing.

DRAWINGS

Drawing Number	Sheet	Revision	Date	Description
160430-100-S002_1	1	3	27/05/2019	Conectabal: Barrier Details and Specification
160430-100-S002_2	2	4	06/07/2020	Conectabal: Barrier Details and Specification
200623-100-S002_3	3	0	27/08/2020	Conectabal: Barrier Details and Specification
200623-100-S003_1	1	0	12/08/2020	Conectabal: Barrier Details and Specification
200623-100-S003_2	2	0	12/08/2020	Conectabal: Barrier Details and Specification

DOCUMENTS

Document Number	Revision	Date	Description
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ALTERNATIVE SOLUTIONS

NZ Building Code Compliance Clause	Document Number	Date	Description
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GENERAL

1. THESE SPECIFICATIONS SHALL TAKE PRECEDENCE UNLESS OTHERWISE ADVISED BY THE DESIGN ENGINEER
2. COMPLY WITH CONTRACTORS HSE PLAN.
COMPLY WITH HEALTH & SAFETY IN EMPLOYMENT ACT & REGULATIONS.
MAINTAIN SAFE SITE AND WORK PRACTICES AT ALL TIMES.
3. ALL WORK AND MATERIALS SHALL COMPLY WITH THE BUILDING ACT & REGULATIONS.
4. THE BUILDING DESIGNER IS RESPONSIBLE FOR ENSURING THE NECESSARY SUPPORTING STRUCTURE IS PROVIDED FOR THE BARRIER SYSTEM.
5. THE SUPPORTING STRUCTURE SHALL BE DESIGNED FOR THE MINIMUM DESIGN LOADS SPECIFIED IN THE BASIS OF DESIGN.
6. THE SUPPORTING STRUCTURE SHALL BE DESIGNED TO ACCOMMODATE THE SPECIFIED BARRIER ANCHORS.
7. OBTAIN BUILDING CONSENT AS REQUIRED. CALL FOR ALL SCHEDULED INSPECTIONS AND FINAL INSPECTION FOR CODE OF COMPLIANCE ON COMPLETION.
8. CHECK ALL DIMENSIONS AND LEVELS ON SITE BEFORE STARTING CONSTRUCTION WORK.
REFER ARCHITECTURAL DIMENSIONING FOR LAYOUT AND LEVELS.
REFER ENGINEERING DIMENSIONING FOR DETAILS.
9. ALL COMPONENTS OF THE MODDEX BARRIER SYSTEM INCLUDING FIXINGS AND ANCHORS SHALL BE SUPPLIED BY MODDEX NZ.

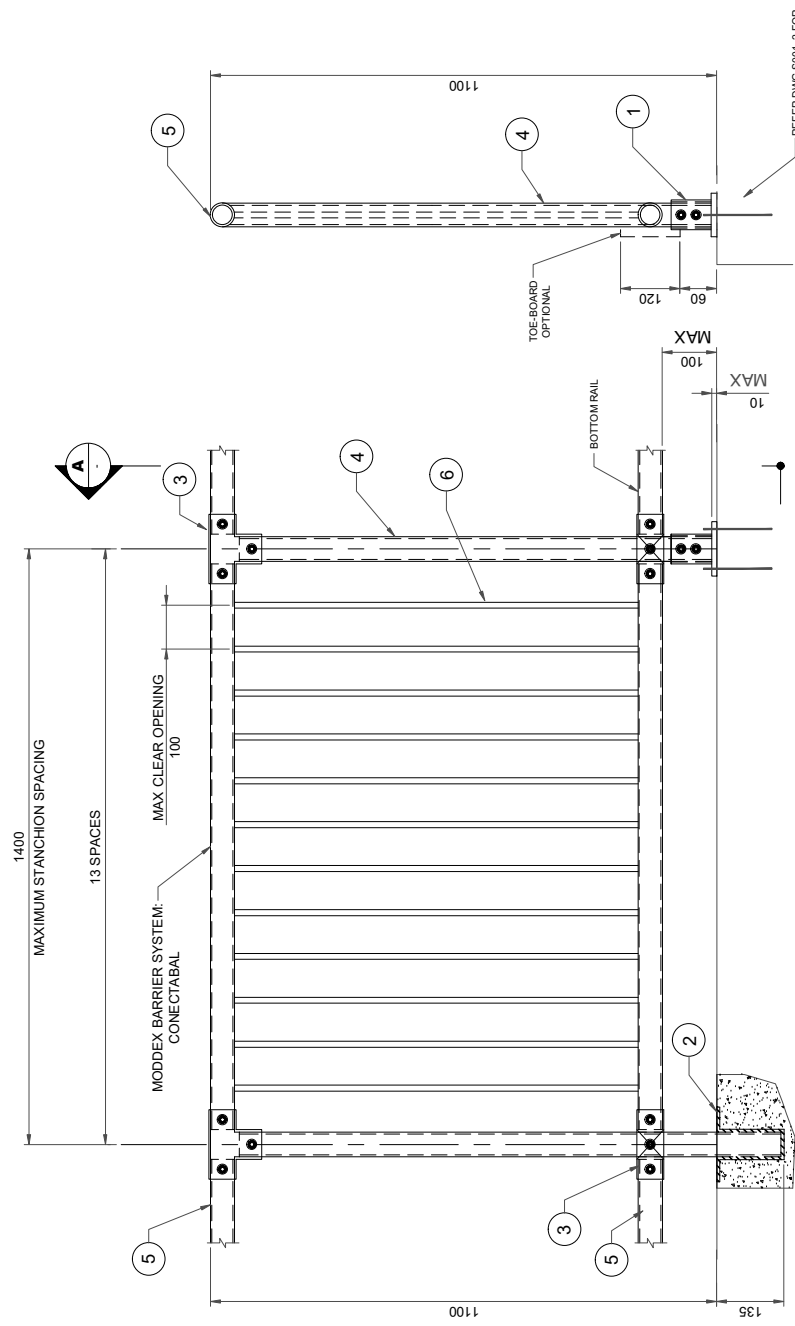
BASIS OF DESIGN

1. DESIGN LIFE 50 YEARS MINIMUM
2. BUILDING OCCUPANCY A, B/E, & C3
3. LOADINGS AS/NZS 1170.1:2002 - TABLE 3.3
AS 1857:2013 - CL6.1
4. LIVE LOADINGS LINE 0.75 kN/m
CONCENTRATED 0.6 kN
INFILL 1kPa(0.5kN).

STRUCTURE

ITEM NO.	MATERIAL	GRADE
1	CAST BASE FLANGE	MALLEABLE CAST IRON
2	CAST BASE SOCKET	MALLEABLE CAST IRON
3	CAST CONNECTOR	MALLEABLE CAST IRON
4	48.3 OD x 4.0 GALVANIZED CHS	250
5	48.3 OD x 3.2 GALVANIZED CHS	250
6	12 DIA. ROUND BAR	300

1. ALL PIPE TO CONFORM TO /AS 1074
2. GALVANIZING TO /AS/NZS 4680: 2006
3. REFER TO MODDEX BARRIER SYSTEM : TUFFRAIL FOR FURTHER PRODUCT SPECIFICATION DETAILS.



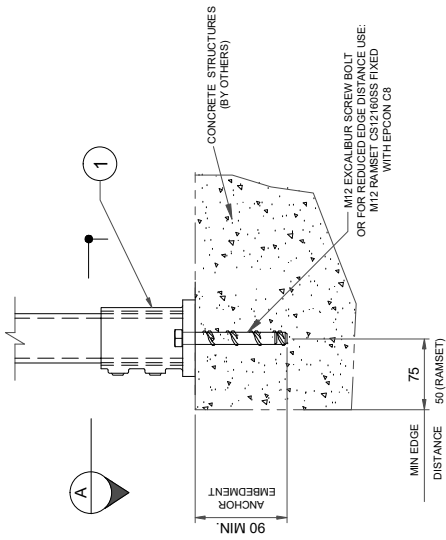
TYPICAL HORIZONTAL BARRIER ELEVATION
1:10

SECTION A
1:10

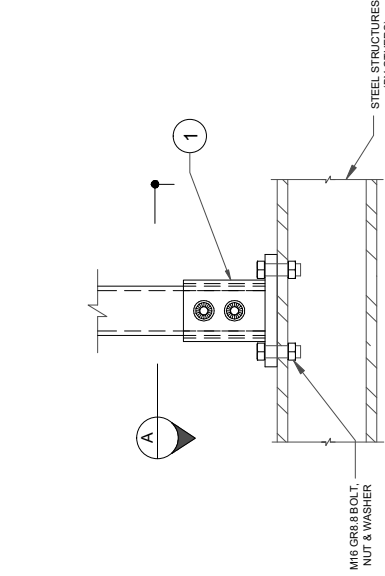
BARRIER CONFIGURATION OPTIONS

1. TOP RAIL & BOTTOM RAIL.
2. TOP RAIL, BOTTOM RAIL & TOE-BOARD.

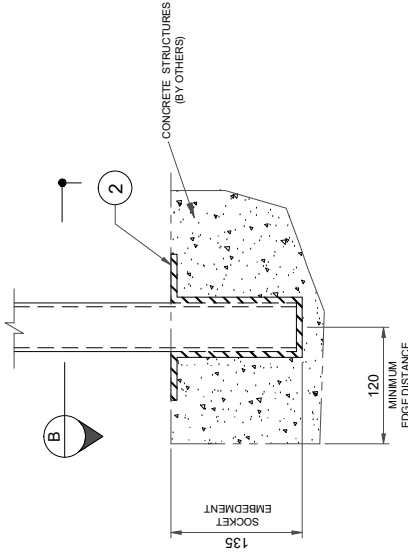
Rev		Date	Appd	Reason
3	27.05.2019	GC		STANCHION BASE SOCKET
2	30.09.2018	GC		STANCHION SPACING MATERIAL
1	31.05.2018	GC		BARRIER HEIGHT
0	17.04.2018	GC		APPROVED FOR CONSTRUCTION
Client				
moddex		CS Eng.nz CIVIL & STRUCTURAL ENGINEERS		
Consultant		info@cseng.nz		
Project		MODDEX BARRIER SYSTEM: CONECTABAL		
Sheet Title		BARRIER DETAILS AND SPECIFICATION		
Drawn: SDTS		Scale: 1:10		
File name:		Job Number	Series	Sheet Number
		160430	100	S002_1
				Rev
				3



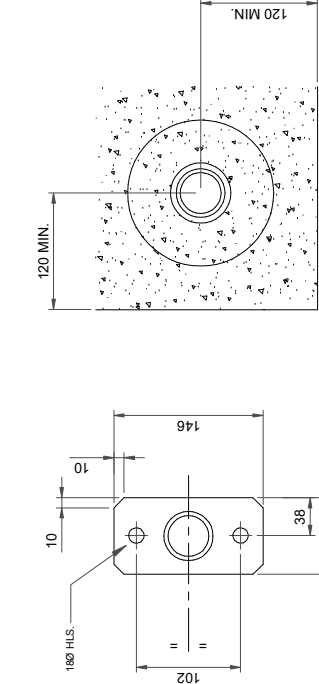
TYP. BASEPLATE TO CONCRETE FIXING
1.5 (TOP MOUNT)



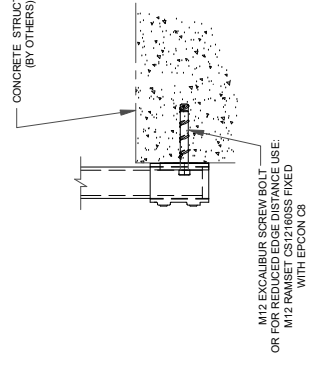
TYP. BASEPLATE TO STEEL FIXING
1.5 (TOP MOUNT)



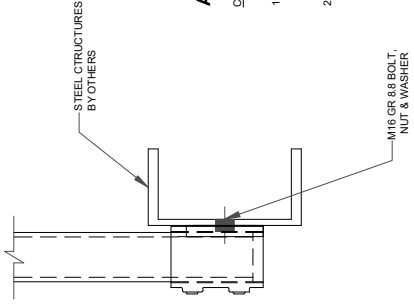
TYP. CAST-IN SOCKET TO CONCRETE EMBEDMENT
1.5



SECTION A
1.5



SECTION B
1.5



SECTION C
1.5 FACE MOUNT

ANCHORS:
CONCRETE

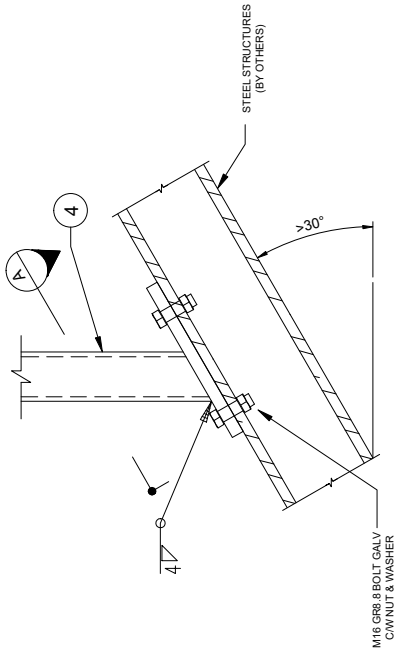
TYP. FACE MOUNT FIXING
1.5

1. CONCRETE STRUCTURES SUPPORTING BARRIERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 30 MPa.
2. ANCHORS SHALL BE M12 EXCALIBUR SCREWBOLT UNLESS NOTED OTHERWISE.
3. ALTERNATIVE ANCHOR OPTION FOR REDUCED EDGE DISTANCE, AND EXTERIOR ZONES C & D
RAMISET CS/12168GH FIXED WITH EPICON C8
RAMISET CS12168SS FIXED WITH EPICON C8

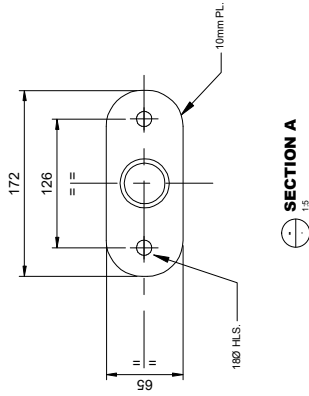
ANCHOR MATERIAL COATING
INTERIOR ZINC GALVANIZED (AS 1214)
EXTERIOR ZONE B ZINC GALVANIZED (AS 1214)

Rev	Date	Appd	Reason
4	06.07.2020	GC	TOP MOUNT
3	20.08.2019	GC	FACE MOUNT
2	27.05.2019	GC	STANCHION BASE SOCKET
1	30.09.2018	GC	LOGO CHANGE
0	17.4.2018	GC	APPROVED FOR CONSTRUCTION

Client		moddex		CS Eng.nz CONSTRUCTION ENGINEERING CONSULTANTS		info@cseng.nz	
Project				MODDEX BARRIER SYSTEM: CONECTABAL			
Sheet Title				BARRIER DETAILS AND SPECIFICATION			
Drawn: SDTS		Scale: AS SHOWN		Job Number		160430	
File name:		Series		Sheet Number		Rev	
		100		S002_2		4	



TYP. BASEPLATE TO STEEL FIXING
1:5 (TOP MOUNT)



SECTION A
1:5

Rev		Date	Appd	Reason
0	27.08.2020	GC		APPROVED FOR CONSTRUCTION
Client				
moddex		Client		
CS Eng. nz CONSULTANTS ENGINEERS ARCHITECTS		Consultant		
info@cseng.nz		Project		
MODDEX BARRIER SYSTEM: CONECTABAL		Project		
BARRIER DETAILS AND SPECIFICATION		Sheet Title		
Drawn: SDTS		Scale: AS SHOWN		
File name:		Job Number	Series	Sheet Number
		160430	100	S002_3
				Rev
				0

GENERAL

- THESE SPECIFICATIONS SHALL TAKE PRECEDENCE UNLESS OTHERWISE ADVISED BY THE DESIGN ENGINEER
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- COMPLY WITH HEALTH & SAFETY IN EMPLOYMENT ACT & REGULATIONS.
- COMPLY WITH HEALTH & SAFETY IN EMPLOYMENT ACT & REGULATIONS.
- MAINTAIN SAFE SITE AND WORK PRACTICES AT ALL TIMES.
- ALL WORK AND MATERIALS SHALL COMPLY WITH THE BUILDING ACT & REGULATIONS.
- THE BUILDING DESIGNER IS RESPONSIBLE FOR ENSURING THE NECESSARY SUPPORTING STRUCTURE IS PROVIDED FOR THE BARRIER SYSTEM.
- THE SUPPORTING STRUCTURE SHALL BE DESIGNED FOR THE MINIMUM DESIGN LOADS SPECIFIED IN THE BASIS OF DESIGN.
- THE SUPPORTING STRUCTURE SHALL BE DESIGNED TO ACCOMMODATE THE SPECIFIED HANDRAIL ANCHORS.
- OBTAIN BUILDING CONSENT AS REQUIRED. CALL FOR ALL SCHEDULED INSPECTIONS AND FINAL INSPECTION FOR CODE OF COMPLIANCE ON COMPLETION.
- CHECK ALL DIMENSIONS AND LEVELS ON SITE BEFORE STARTING CONSTRUCTION WORK. REFER ARCHITECTURAL DIMENSIONING FOR LAYOUT AND LEVELS. REFER ENGINEERING DIMENSIONING FOR DETAILS.
- ALL COMPONENTS OF THE MODDEX HANDRAIL SYSTEM INCLUDING FIXINGS AND ANCHORS SHALL BE SUPPLIED BY MODDEX NZ.

BASIS OF DESIGN

- DESIGN LIFE: 50 YEARS MINIMUM
- BUILDING OCCUPANCY: A, BE, & C3
AS/NZS 1170.1:2002 - TABLE 3.3
AS 1687:2013 - Cl.6.1
- LOADINGS: LINE CONCENTRATED
0.75 kN/m
0.6 kN
1kPa/0.5kN
- LIVE LOADINGS

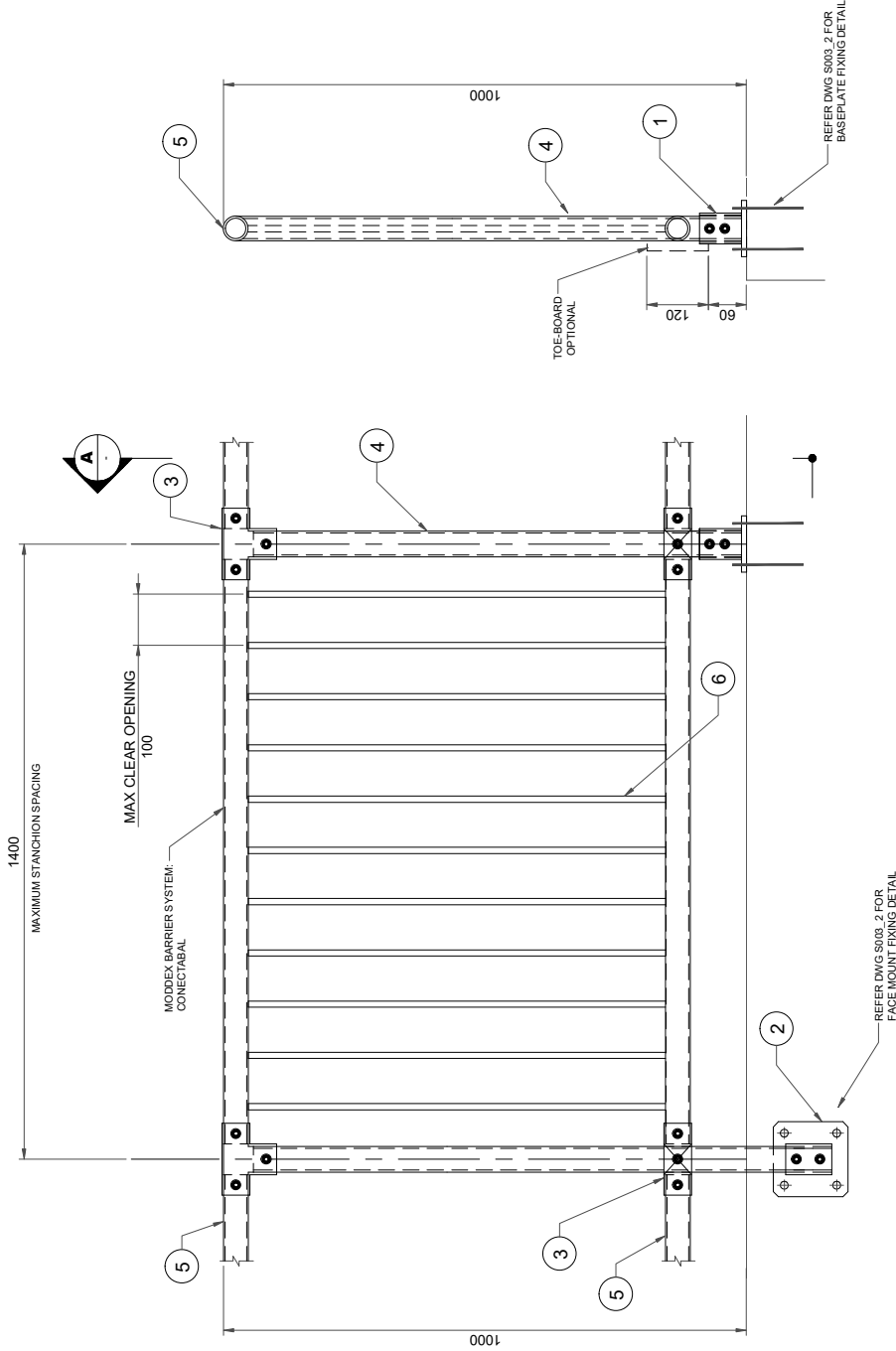
STRUCTURE

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5	48.3 OD x 3.2 GALVANIZED CHS	250
6	12 DIA. ROUND BAR	300

- ALL PIPE TO CONFORM TO: AS 1074
- GALVANIZING TO: AS/NZS 4680:2006
- REFER TO MODDEX HANDRAIL SYSTEM: CONECTABAL FOR FURTHER PRODUCT SPECIFICATION DETAILS.

HANDRAIL CONFIGURATION OPTIONS

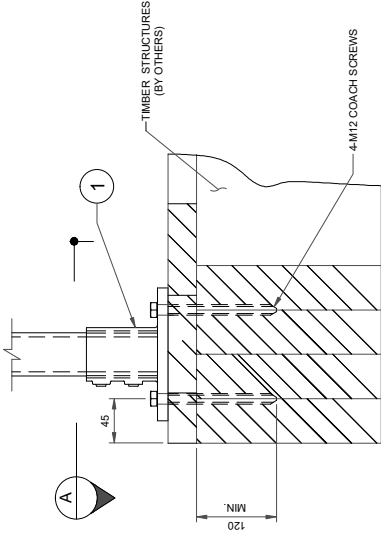
- TOP RAIL & BOTTOM RAIL
- TOP RAIL, BOTTOM RAIL & TOE BOARD



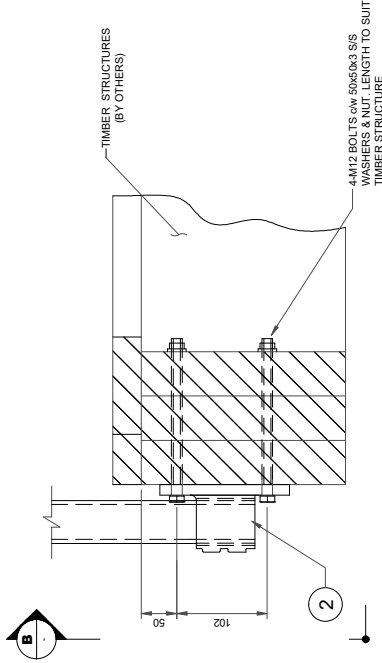
SECTION A
1:10

TYPICAL HORIZONTAL BARRIER ELEVATION
1:10

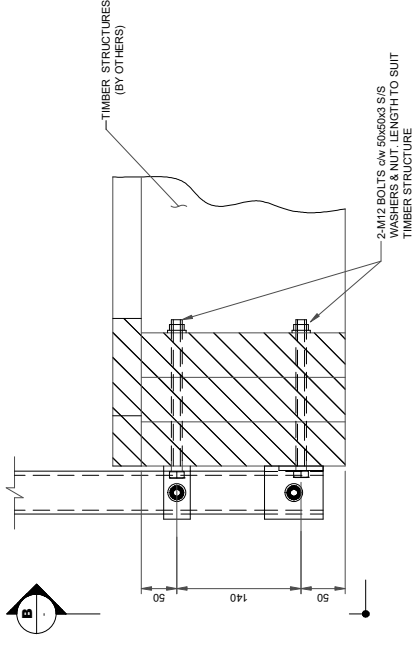
Drawn: SDTS		Scale: 1:10	
File name:			
Job Number	Series	Sheet Number	Rev
200623	100	S003_1	0
Sheet Title		MODDEX BARRIER SYSTEM: CONECTABAL	
BARRIER DETAILS AND SPECIFICATION		Project	
CS Eng. nz CIVIL STRUCTURAL ENGINEERS		info@cseeng.nz	
moddex		Client	
Consultant		Approved for Construction Reson	
Rev	Date	Appd	
0	12.09.2020	GC	



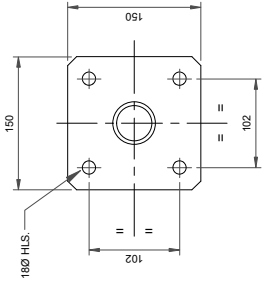
TYP. TOP MOUNT FIXING
1:5



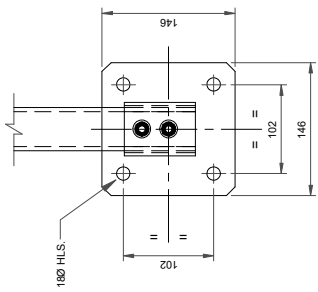
TYP. FACE MOUNT FIXING
1:5



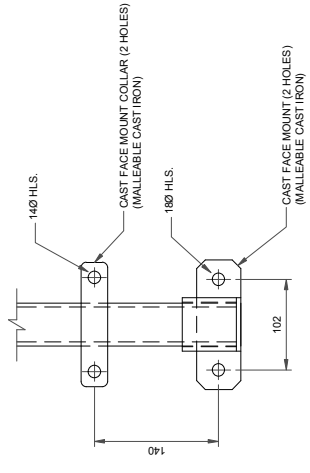
ALT. FACE MOUNT FIXING
1:5



SECTION A
1:5 TOP MOUNT



SECTION B
1:5 FACE MOUNT



SECTION C
1:5 FACE MOUNT

ANCHORS:

TIMBER:

- TIMBER STRUCTURES SUPPORTING BARRIERS SHALL BE DESIGNED IN ACCORDANCE WITH THE NEW ZEALAND BUILDING CODE AND NZS 3604 (TIMBER FRAMED BUILDINGS)

ANCHOR MATERIAL COATING (NZS 3604 - TBL.4.1)
1. EXTERIOR, EXPOSED - TYPE 304 STAINLESS STEEL

Rev		Date	Appd	Reason
0	12.09.2020	GC		APPROVED FOR CONSTRUCTION
Client				
moddrex		Client		
CS Eng. nz		Consultant		
MODDEX BARRIER SYSTEM: CONECTABAL		Project		
BARRIER DETAILS AND SPECIFICATION		Sheet Title		
Drawn: SDTS		Scale: AS SHOWN		
File name:		Job Number	Series	Sheet Number
		200623	100	S003_2
Rev	Date	Appd	Reason	
0	12.09.2020	GC		APPROVED FOR CONSTRUCTION