



Building Code Clause(s) B1, D1

PRODUCER STATEMENT – PS1 – DESIGN

(Guidance on use of Producer Statements (formerly page 2) is available at www.ipenz.nz)

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 Handrail System : AR10 Assistral - Occupancy Class B/E
(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, D1 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/MM1, D1/AS1 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: IPENZ 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 30/07/2020
(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, IPENZ 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 |
|-------------------|-------|----------|------------|---|
| 191002-100-S001_1 | 1 | 1 | 06/07/2020 | AR10 Assistrail: Handrail Details and Specification |
| 191002-100-S001_2 | 2 | 0 | 29/11/2019 | AR10 Assistrail: Handrail Details and Specification |
| 200623-100-S001_1 | 1 | 0 | 27/07/2020 | AR10 Assistrail: Handrail Details and Specification |
| 200623-100-S001_2 | 2 | 0 | 27/07/2020 | AR10 Assistrail: Handrail Details and Specification |

DOCUMENTS

| Document Number | Revision | Date | Description |
|-----------------|----------|------|-------------|
|-----------------|----------|------|-------------|

ALTERNATIVE SOLUTIONS

| NZ Building Code Compliance Clause | Document Number | Date | Description |
|---------------------------------------|--------------------|------|-------------|
|---------------------------------------|--------------------|------|-------------|

GENERAL

- THESE SPECIFICATIONS SHALL TAKE PRECEDENCE UNLESS OTHERWISE ADVISED BY THE DESIGN ENGINEER
- COMPLY WITH CONTRACTORS HSE PLAN
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 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 FININGS AND ANCHORS SHALL BE SUPPLIED BY MODDEX NZ.

BASIS OF DESIGN

- DESIGN LIFE 50 YEARS MINIMUM
- BUILDING OCCUPANCY B.E
- LOADINGS AS/NZS 1170.1 : 2002 - TABLE 3.3
AS 1657:2013 - CL6.1
- LIVE LOADINGS
LINE 0.25 kN/m
CONCENTRATED 0.6 kN
INFILL N/A

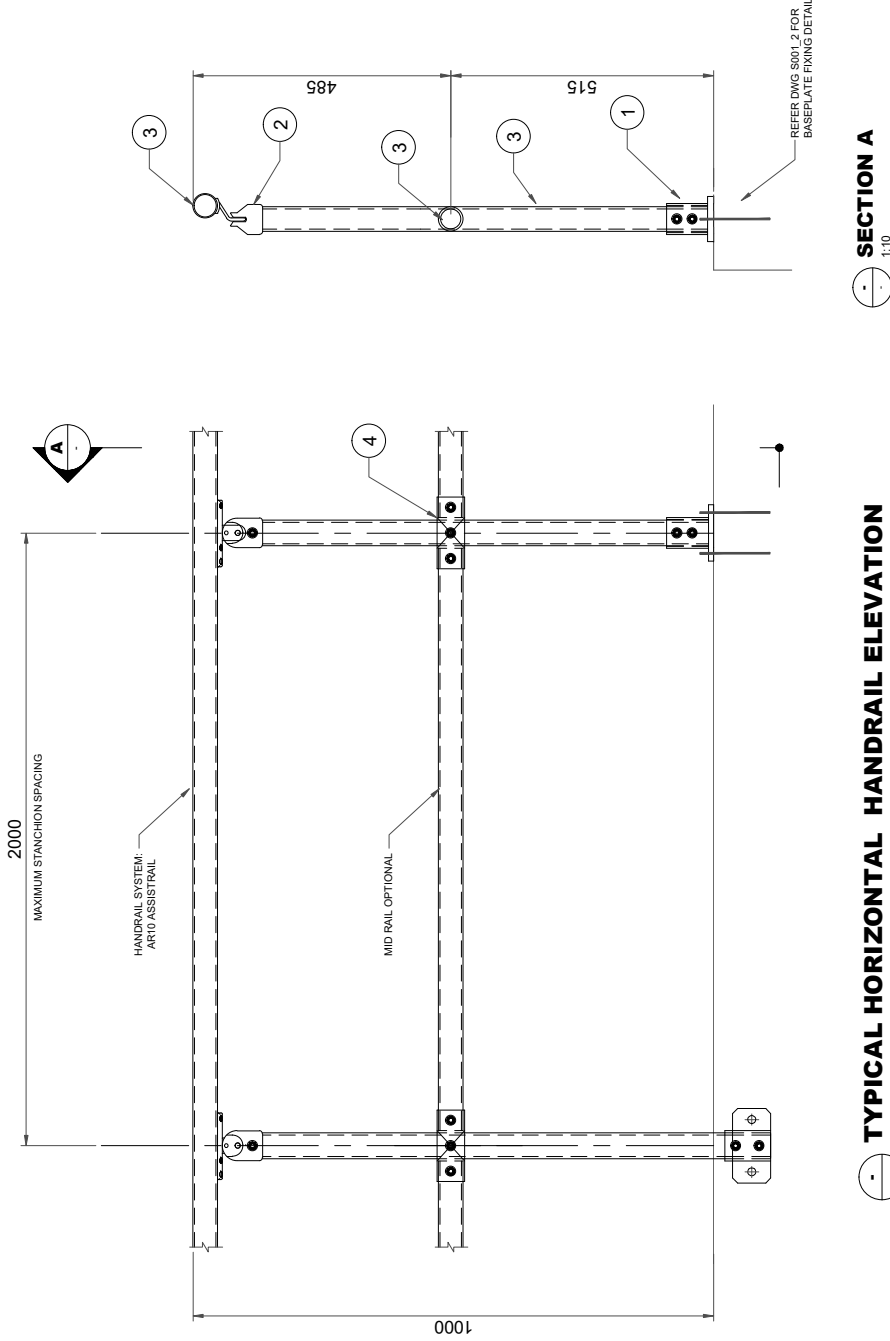
STRUCTURE

| ITEM NO. | MATERIAL | GRADE |
|----------|------------------------------|---------------------|
| 1 | CAST BASE FLANGE | MALLEABLE CAST IRON |
| 2 | CAST HANDRAIL CONNECTOR | MALLEABLE CAST IRON |
| 3 | 48.3 OD x 3.2 GALVANIZED CHS | 250 |
| 4 | CAST CONNECTOR | MALLEABLE CAST IRON |

- ALL PIPE TO CONFORM TO : AS 1074
- GALVANIZING TO : AS/NZS 4680 : 2006
- REFER TO MODDEX HANDRAIL SYSTEM - AR10 ASSISTRAIL FOR FURTHER PRODUCT SPECIFICATION DETAILS.

HANDRAIL CONFIGURATION OPTIONS

- TOP RAIL & STANCHION
- TOP RAIL, MID RAIL & STANCHION




SECTION A
1:10

TYPICAL HORIZONTAL HANDRAIL ELEVATION
1:10

| Rev | Date | Appd | Reason |
|-----|------------|------|---------------------------|
| 1 | 08.07.2020 | GC | APPROVED FOR CONSTRUCTION |
| 0 | 28.11.2019 | GC | APPROVED FOR CONSTRUCTION |

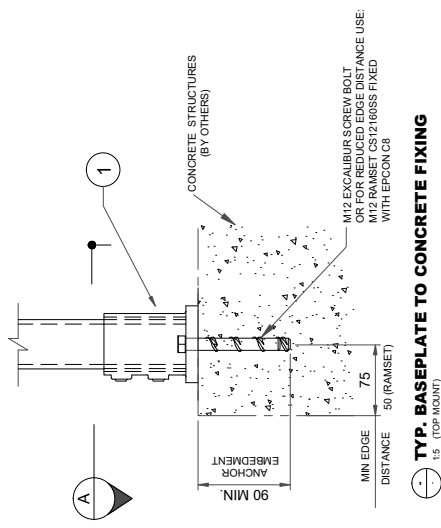
| Client | |
|--------|--|
| | |
| | |
| | |
| | |

| Consultant | |
|--|--|
|  info@cseng.nz | |

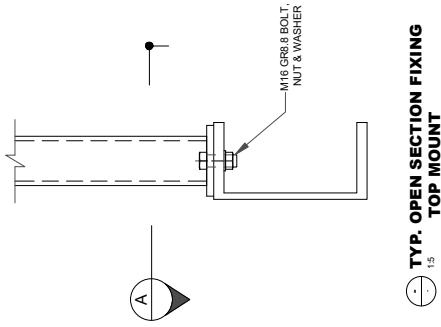
| Project | |
|--------------------------|--|
| AR10 DISABILITY HANDRAIL | |

| Sheet Title | |
|------------------------------------|--|
| HANDRAIL DETAILS AND SPECIFICATION | |

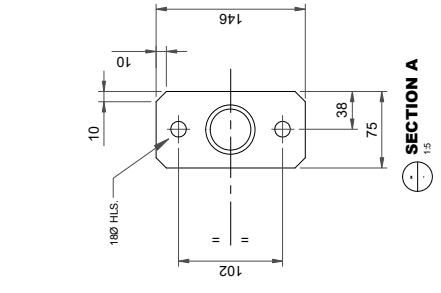
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|-------------|------------|-------------|-----|
| File name: | Job Number | Series | Rev |
| 191002 | 100 | S001_1 | 1 |



SECTION A
1.5 TOP MOUNT



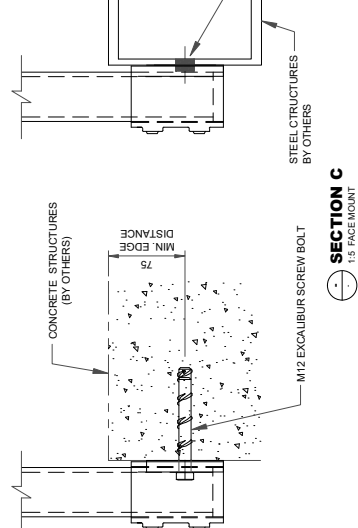
SECTION B
1.5 TOP MOUNT



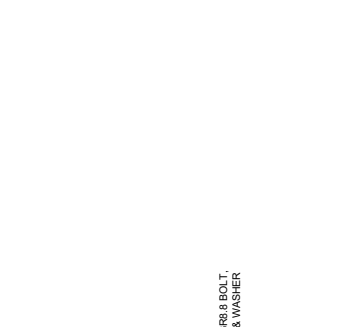
SECTION C
1.5 FACE MOUNT



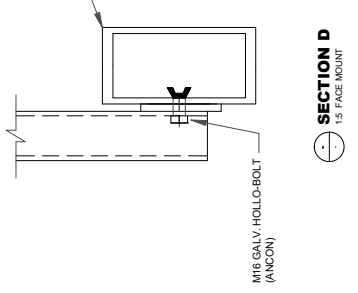
SECTION D
1.5 TOP MOUNT



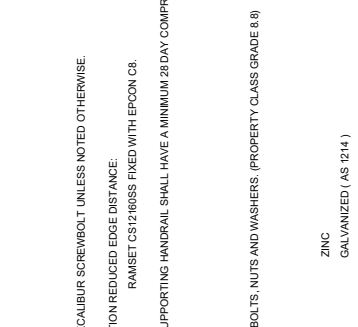
SECTION A
1.5



SECTION B
1.5 FACE MOUNT



SECTION C
1.5 TOP MOUNT



SECTION D
1.5 TOP MOUNT

ANCHORS:
CONCRETE
1. ANCHORS SHALL BE M12 EXCALIBUR SCREWBOLT UNLESS NOTED OTHERWISE.
2. ALTERNATIVE ANCHOR OPTION/REDUCED EDGE DISTANCE:
EXTERIOR ALL ZONES RAMSET CS12160SS FIXED WITH EPON C8.
3. CONCRETE STRUCTURES SUPPORTING HANDRAIL SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 30 MPa.
STEEL
1. ANCHORS SHALL BE M16 BOLTS, NUTS AND WASHERS (PROPERTY CLASS GRADE 8.8)
ANCHOR MATERIAL/COATING
1. INTERIOR ZINC GALVANIZED (AS 1214)
2. EXTERIOR ZONE B

| | | | | |
|------------------------------------|------------|------------|--------|---------------------------|
| Rev | | Date | Appd | Reason |
| 0 | 28.11.2019 | GC | | APPROVED FOR CONSTRUCTION |
| Client | | | | |
| moddex | | Client | | |
| CS Eng. nz | | Consultant | | |
| AR10 DISABILITY HANDRAIL | | Project | | |
| HANDRAIL DETAILS AND SPECIFICATION | | File name: | | |
| 191002 | Job Number | 100 | Series | Sheet Number |
| 0 | Rev | S001_2 | Rev | 0 |

Scale: AS SHOWN

Drawn: SDTS

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 HANDRAIL 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 HANDRAIL SYSTEM INCLUDING FIXINGS AND ANCHORS SHALL BE SUPPLIED BY MODDEX NZ.

BASIS OF DESIGN

1. DESIGN LIFE 50 YEARS MINIMUM
2. BUILDING OCCUPANCY B, E
AS/NZS 1170.1 : 2002 - TABLE 3.3
AS 1687 : 2013 - Cl.6.1
3. LOADINGS
4. LIVE LOADINGS
LINE 0.35 kN/m
CONCENTRATED 0.6 kN
INFILL N/A

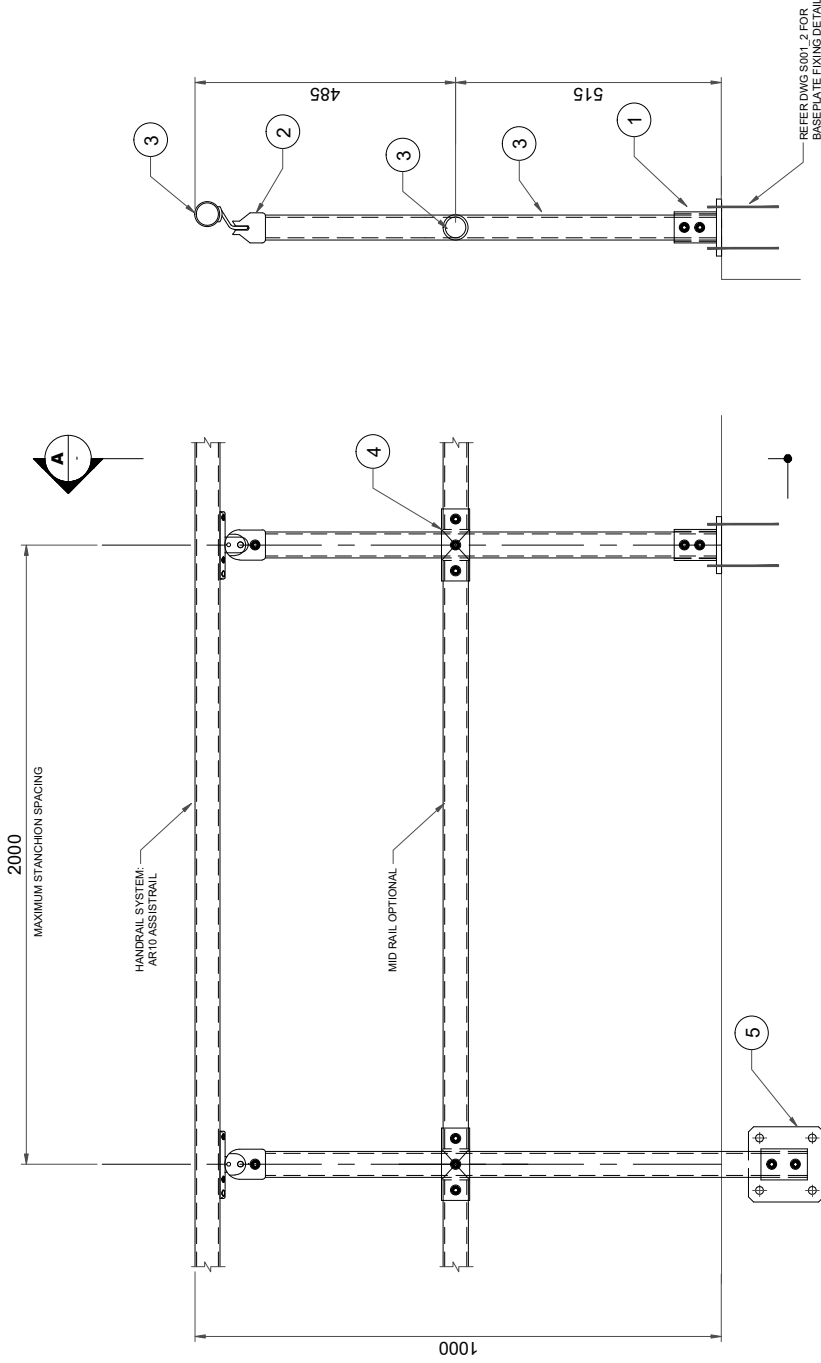
STRUCTURE

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| 4 | CAST CONNECTOR | MALLEABLE CAST IRON |
| 5 | CAST FACE MOUNT | MALLEABLE CAST IRON |

1. ALL PIPE TO CONFORM TO : AS 1074
2. GALVANIZING TO : AS/NZS 4680 : 2006
3. REFER TO MODDEX HANDRAIL SYSTEM : AR10 ASSISTRAIL FOR FURTHER PRODUCT SPECIFICATION DETAILS.

HANDRAIL CONFIGURATION OPTIONS

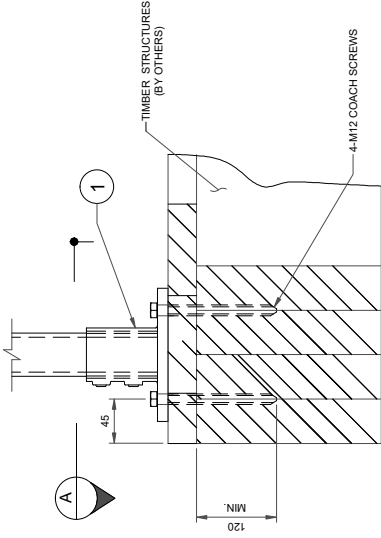
1. TOP RAIL & STANCHION
2. TOP RAIL, MID RAIL & STANCHIONS



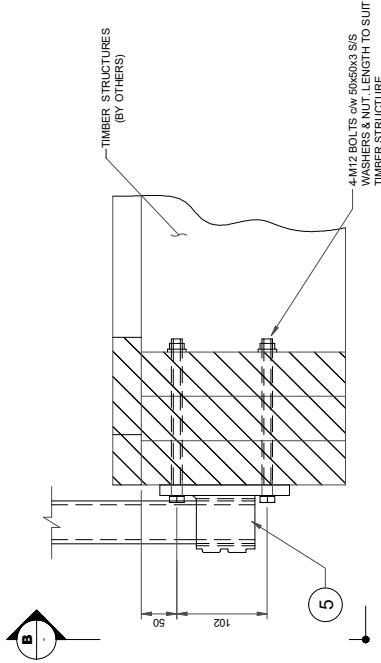
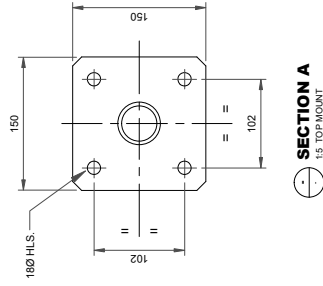
SECTION A
1:10

TYPICAL HORIZONTAL HANDRAIL ELEVATION
1:10

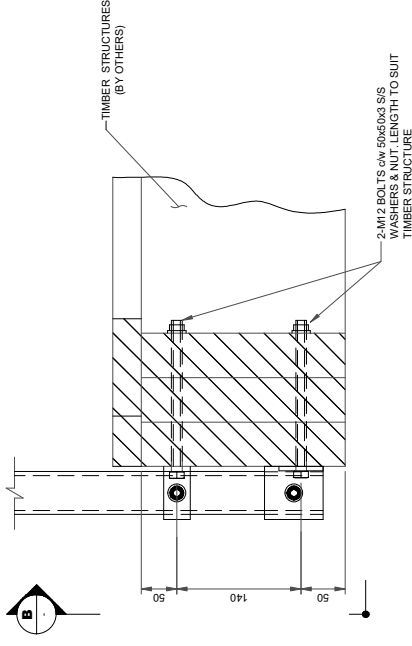
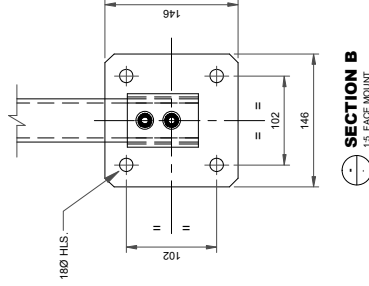
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| File name: | | | |
| Job Number | Series | Sheet Number | Rev |
| 200623 | 100 | S001_1 | 0 |
| Sheet Title | | HANDRAIL DETAILS AND SPECIFICATION | |
| AR10 DISABILITY HANDRAIL | | Project | |
| moddex | | CS Eng.nz CIVIL STRUCTURAL ENGINEERS | |
| Client | | info@cseeng.nz | |
| Rev | Date | Appd | Reason |
| 0 | 27.07.2020 | GC | APPROVED FOR CONSTRUCTION |
| | | | Recon |



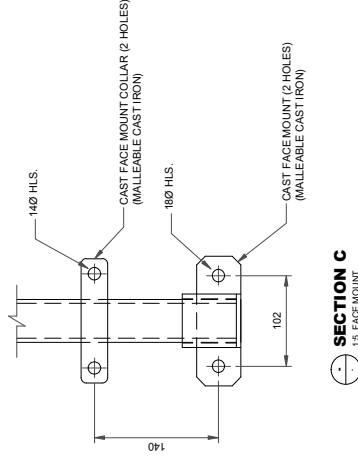
TYP. TOP MOUNT FIXING
1:5



TYP. FACE MOUNT FIXING
1:5



ALT. FACE MOUNT FIXING
1:5



ANCHORS:

TIMBER:

- TIMBER STRUCTURES SUPPORTING BARRIERS SHALL BE DESIGNED IN ACCORDANCE WITH THE NEW ZEALAND BUILDING CODE AND NZS 3804 (TIMBER FRAMED BUILDINGS)

ANCHOR MATERIAL COATING (NZS 3804 - TBL 4.1)

- EXTERIOR, EXPOSED - TYPE 304 STAINLESS STEEL

| | | | | | | | | | | | |
|-------------------------------------|--|------------|------|----------------|--|------------|--|------------------------------------|--|--------------|--|
| Rev | | Date | Appd | Client | | Consultant | | Project | | Scale: | |
| 0 | | 28.07.2020 | GC | moddex | | CS Eng.nz | | AR10 DISABILITY HANDRAIL | | AS SHOWN | |
| - | | | | info@cseeng.nz | | CSEng.nz | | HANDRAIL DETAILS AND SPECIFICATION | | Job Number | |
| - | | | | | | | | 200623 | | Series | |
| - | | | | | | | | 100 | | Sheet Number | |
| - | | | | | | | | S001_2 | | Rev | |
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