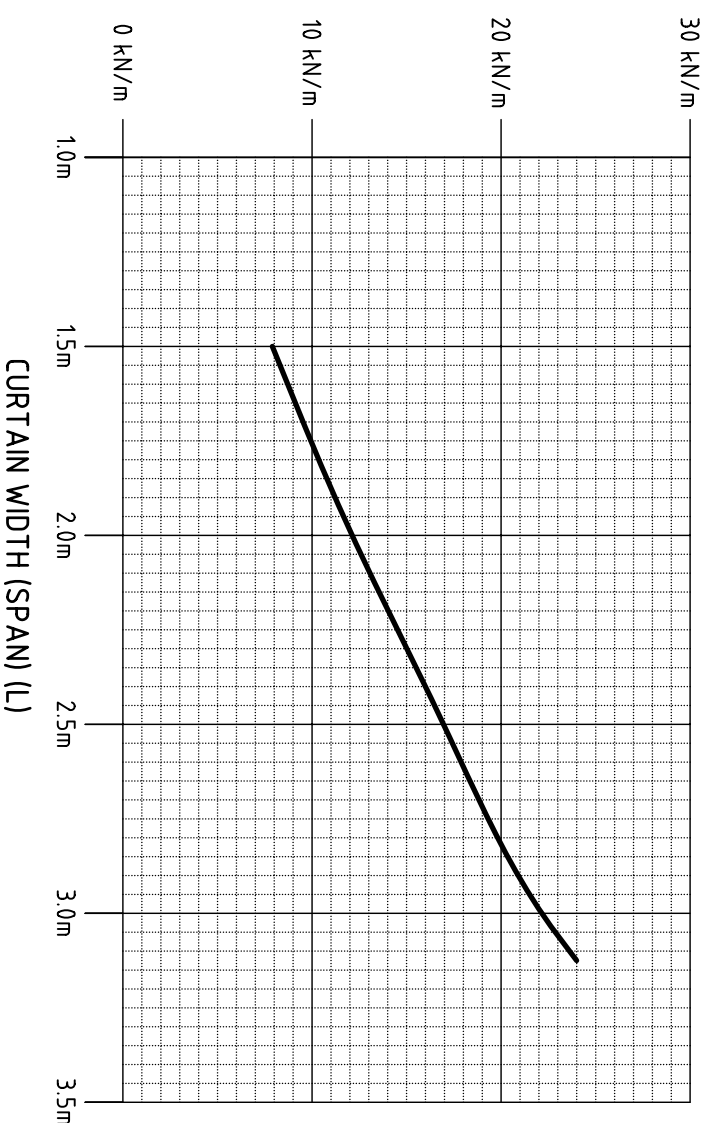


MAXIMUM ULTIMATE DESIGN ABUTMENT CATENARY FORCE F_x (PER METRE HEIGHT)

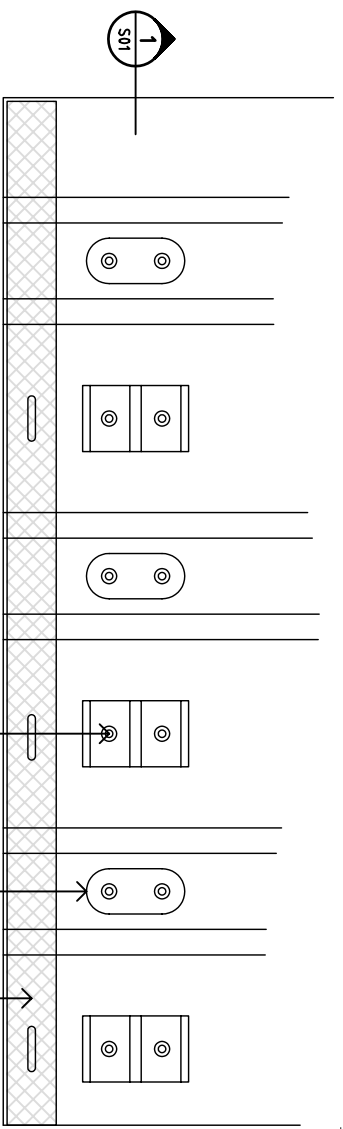


SERIES 1 ROLL-A-DOOR ELEVATION - TYPICAL

SCALE 1:50

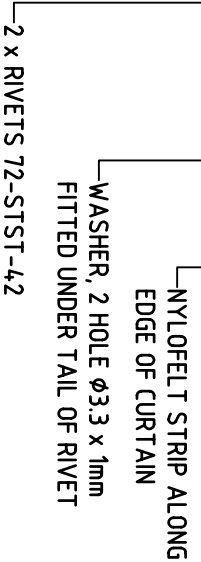
NOTE:

- CURTAIN HEIGHT = OPENING HEIGHT
- OPENING WIDTH = CURTAIN WIDTH - CURTAIN OVERLAP (REFER SECTION 2 ON DRAWINGS S02 AND S03)



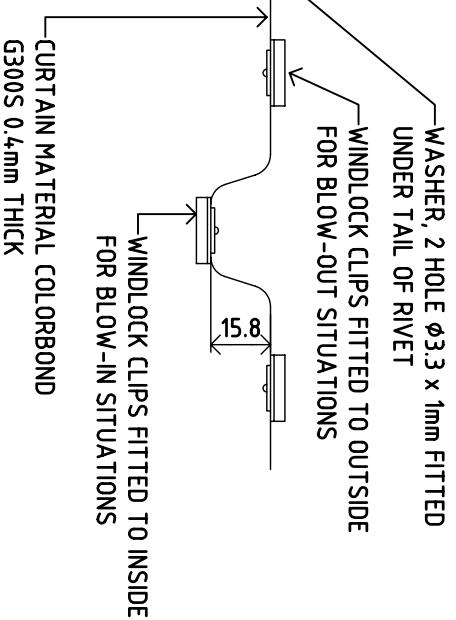
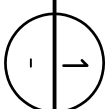
CURTAIN MATERIAL AND WINDCLIPS - PART PLAN

SCALE 1:2



SECTION

SCALE = 1:2



NOTES:

DESIGN CRITERIA

- (REFER ALSO TO NOTES COVERING BASIS OF DRAWINGS & LIMITATIONS)
- REGION C
 - TERRAIN CATEGORY 2
 - DOOR HEIGHT 3.0M MAX.
 - INTERNAL PRESSURE COEFFICIENTS, C_{pi} = (-0.3,+0.6)
 - BUILDING IMPORTANCE = LEVEL 2
 - REGION WINDSPEED V_R = 69.3m/s
 - ULTIMATE DESIGN WIND PRESSURE = 3.26kPa FOR A MAXIMUM ALLOWABLE SPAN OF 3.15m (DOOR LOCATED IN REGION C TC2)
 - CURTAIN HEIGHT = OPENING HEIGHT
 - OPENING WIDTH = CURTAIN WIDTH - CURTAIN OVERLAP (REFER SECTION 2 ON DRAWINGS S02 AND S03)

LIMITATIONS

- (REFER ALSO TO NOTES COVERING BASIS OF DRAWINGS AND DESIGN CRITERIA)
- STEEL ABUTMENT POSTS TO BE 2.4mm (MIN.) WITH A MINIMUM STRESS GRADE OF G250 MPa.
 - CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF BLOCK WALL UNIT F_c = 15 MPa (MIN.).
 - CORE FILLING OF BLOCKWALL F_c = 15 MPa (MIN.).
 - ALL DOOR COMPONENTS TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 1 ROLL-A-DOOR MANUFACTURING.
 - DOOR INSTALLATION TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 1 ROLL-A-DOOR INSTALLATION GUIDELINES.
 - CLASS 4, FINISH REQUIRED TO ALL TEK SCREW FIXINGS.
 - MECHANICAL BOLTS OR ANKASCREW FIXINGS TO BE GALVANISED.

NOTES COVERING BASIS OF DRAWINGS

- TEST REPORT NO. TS894 REVISION A (CYCLONE TESTING STATION, SCHOOL OF ENGINEERING AND PHYSICAL SCIENCES, JAMES COOK UNIVERSITY), PRINCIPLES OF MECHANICS.
- AS/NZS 1170.2:2011 (STRUCTURAL DESIGN ACTIONS - PART 2: WIND ACTIONS).
- AS/NZS 1170.0:2002 (STRUCTURAL DESIGN ACTIONS - PART 0: GENERAL PRINCIPLES). REFER TO DESIGN CRITERIA & LIMITATIONS.
- AS/NZS 4505:2012 (GARAGE DOORS AND OTHER LARGE ACCESS DOORS)
- THE SERIES 1 ROLL-A-DOORS INCLUDE THE FOLLOWING B&D PRODUCT/MODEL NAMES:
 - a) SQUARELINE™ DELUXE ROLL-A-DOOR® (MODEL R1D)
 - b) FIRMA DOOR (MODEL R1F)
 - c) ROLLMASTA (MODEL R1R)
 - d) ROLL-A-DOOR™ MINI WAREHOUSE MODEL (MODEL R1M)
 - e) ROLL-A-DOOR™ MINI WAREHOUSE (R1ME)

NOTE: CURTAIN WIDTH = OPENING WIDTH + CURTAIN OVERLAP

MAXIMUM ULTIMATE DESIGN ABUTMENT CATENARY FORCE F_x (PER METRE HEIGHT) FOR VARIOUS SPANS IN REGION C, TC2 FOR A DESIGN WIND PRESSURE OF 3.26 kPa

NOTE 1: $F_y = \frac{wL}{2}$ WHERE

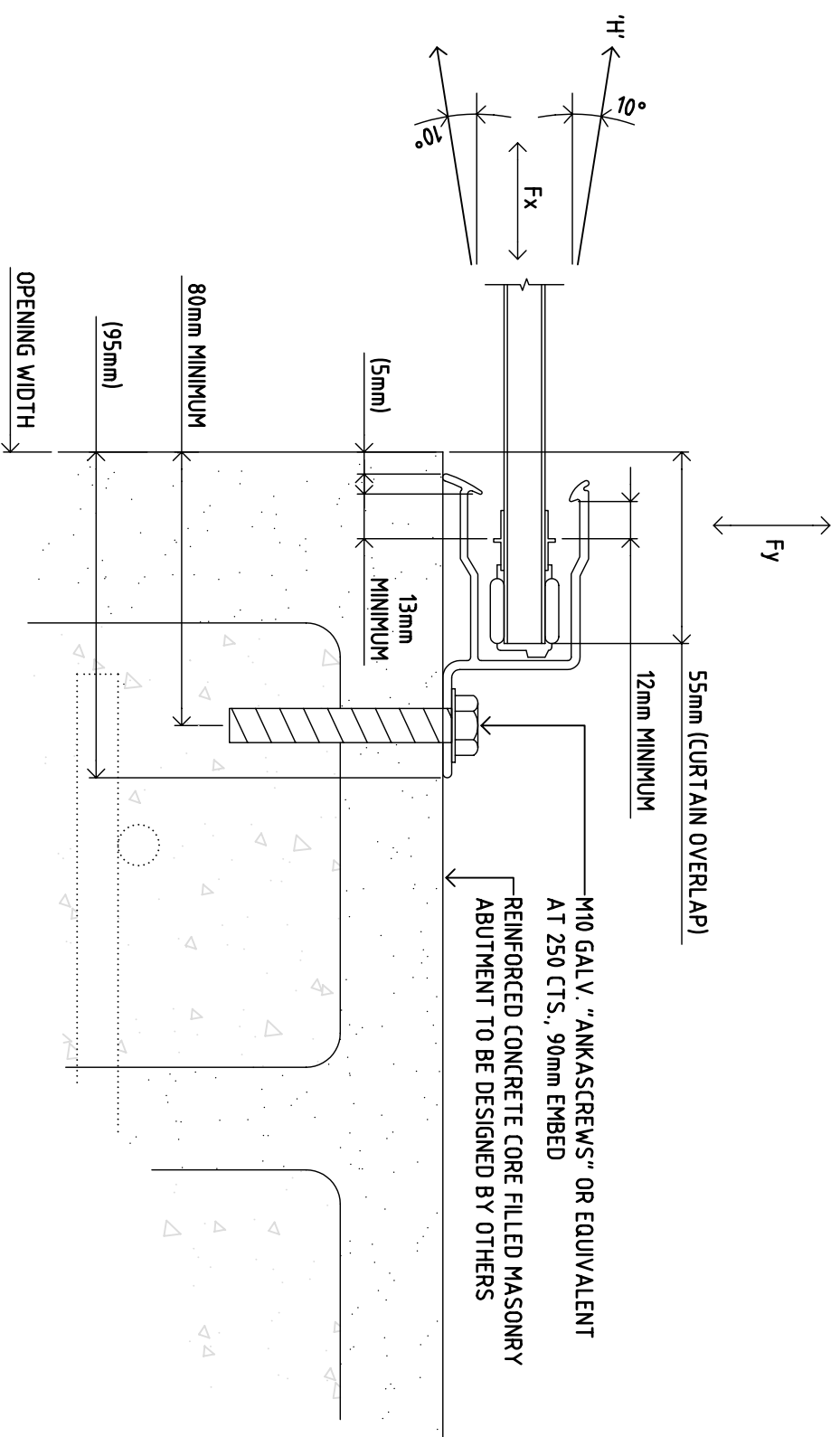
F_y = MAXIMUM OUT OF PLANE ULTIMATE DESIGN ABUTMENT FORCE (PER METRE HEIGHT)
 W = ULTIMATE DESIGN WIND PRESSURE (kPa)
 L = CURTAIN WIDTH (SPAN) (m)

ISSUE	DATE	AMENDMENTS
D	13.05.13	ISSUED FOR CONSTRUCTION
E	13.05.13	ISSUED FOR CONSTRUCTION
F	16.06.13	GENERAL REVISION
G	09.07.13	GENERAL REVISION
H	01.11.13	GENERAL REVISION

CLIENT	PROJECT
B&D AUSTRALIA PTY LTD	B&D SERIES 1 ROLL-A-DOOR (WINDLOCKED) FOR USE IN WIND REGION C, TC2

DRAWING	SCALE
SERIES 1 ROLL-A-DOOR ELEVATION, PART PLAN, SECTION DETAIL, GRAPH AND NOTES	JE
James Ellis & Associates	AAB
Consulting Structural Engineers	CHECKED & APPROVED
	DATE
	July 2013

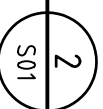
DRAWING No.	PROJECT No.
S01 H	2212



SECTION 2

PLAN

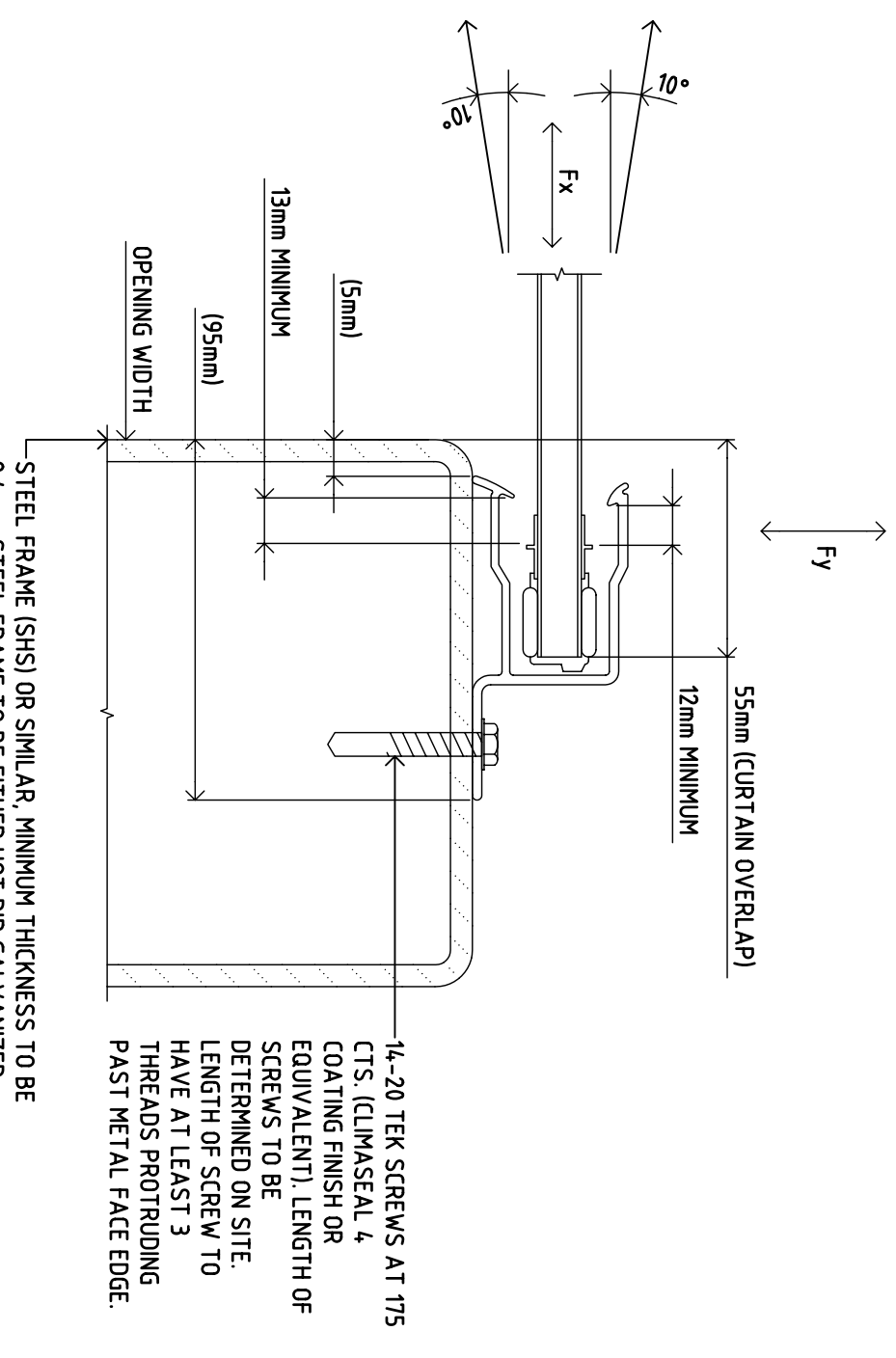
SCALE = 1:2



GUIDE SUPPORTED BY REINFORCED CONCRETE CORE FILLED MASONRY UNITS FOR A DOOR SPAN OF 3150mm IN REGION C TC2 FOR A DESIGN WIND PRESSURE OF 3.26 kPa.

NOTE:

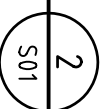
- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN OF 3150mm.
- FIXINGS INTO REINFORCED CONCRETE CORE FILLED BLOCK WALL ABUTMENTS HAVE BEEN DESIGNED USING THE RAMSET-SPECIFIERS RESOURCE BOOK.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.
AS 3700-2001 MASONRY STRUCTURES



SECTION 2

PLAN

SCALE = 1:2



GUIDE SUPPORTED BY STEEL FRAME FOR A DOOR SPAN OF 3150mm IN REGION C TC2 FOR A DESIGN WIND PRESSURE OF 3.26 kPa.

NOTE:

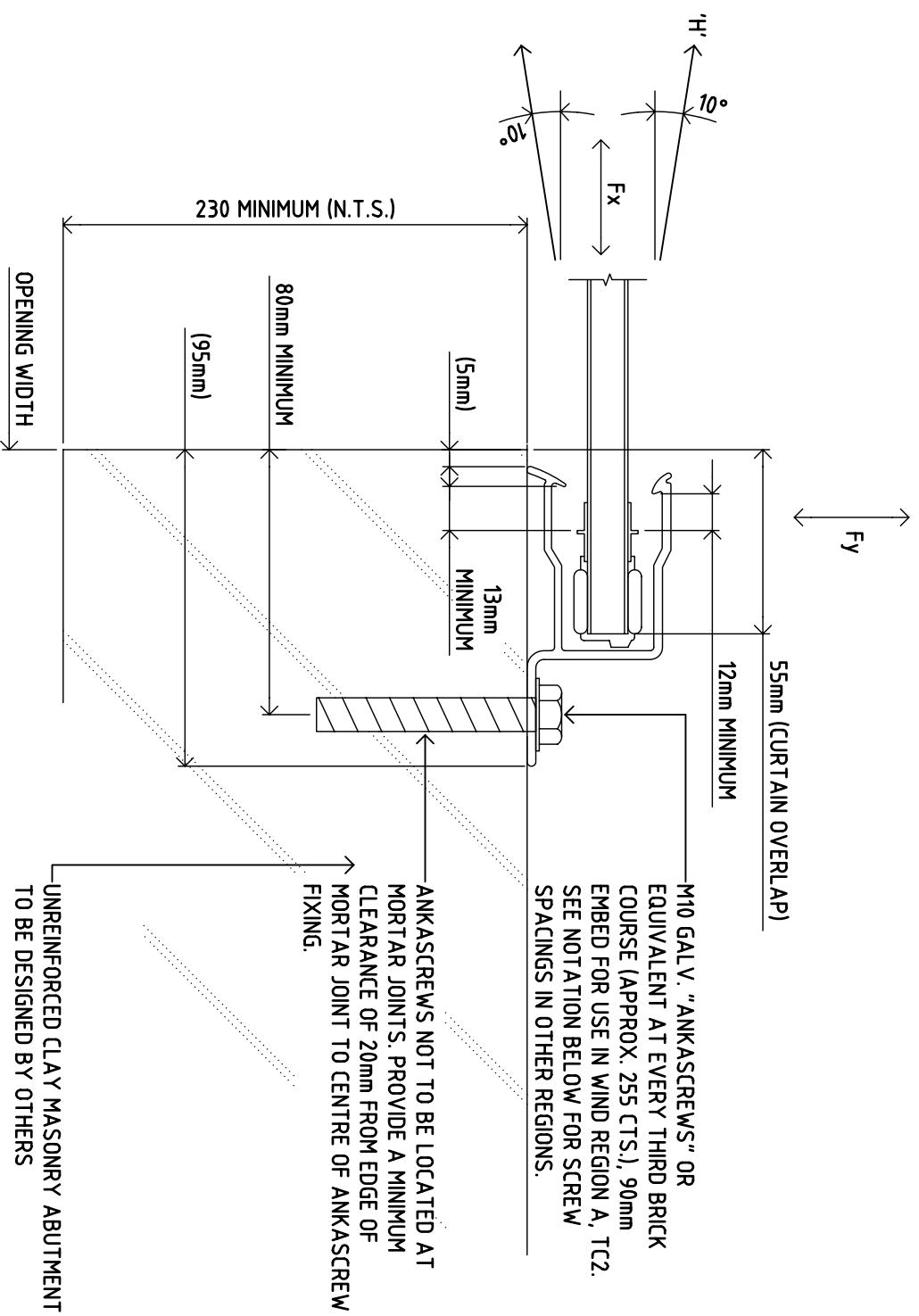
- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN OF 3150mm.
- FIXINGS INTO STRUCTURAL STEEL ABUTMENTS HAVE BEEN DESIGNED USING TECHNICAL DATA PROVIDED BY BUILDEX FASTENERS.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:
AS 4:100:1998 STEEL STRUCTURES.
AS/NZS 4600:2005 COLD FORMED STEEL STRUCTURES
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1:LIMIT STATE DESIGN.

ISSUE	DATE	AMENDMENTS
D	13.05.13	ISSUED FOR CONSTRUCTION
E	13.05.13	ISSUED FOR CONSTRUCTION
F	16.06.13	GENERAL REVISION
G	09.07.13	GENERAL REVISION
H	01.11.13	GENERAL REVISION

CLIENT	B&D AUSTRALIA PTY LTD
PROJECT	B&D SERIES 1 ROLL-A-DOOR (WINDLOCKED) FOR USE IN WIND REGION C, TC2

DRAWING	SERIES 1 ROLL-A-DOOR SUPPORT SECTION DETAILS
DRAWN	AAB
CHECKED & APPROVED	[Signature]
DATE	July 2013

DRAWING No.	S02 H
PROJECT No.	2212



SECTION 2 PLAN

SCALE = 1:2

S01

GUIDE SUPPORTED BY UNREINFORCED CLAY MASONRY WALLS FOR A DOOR SPAN OF 3150mm IN REGION A TC2 FOR A DESIGN WIND PRESSURE OF 1.18 kPa

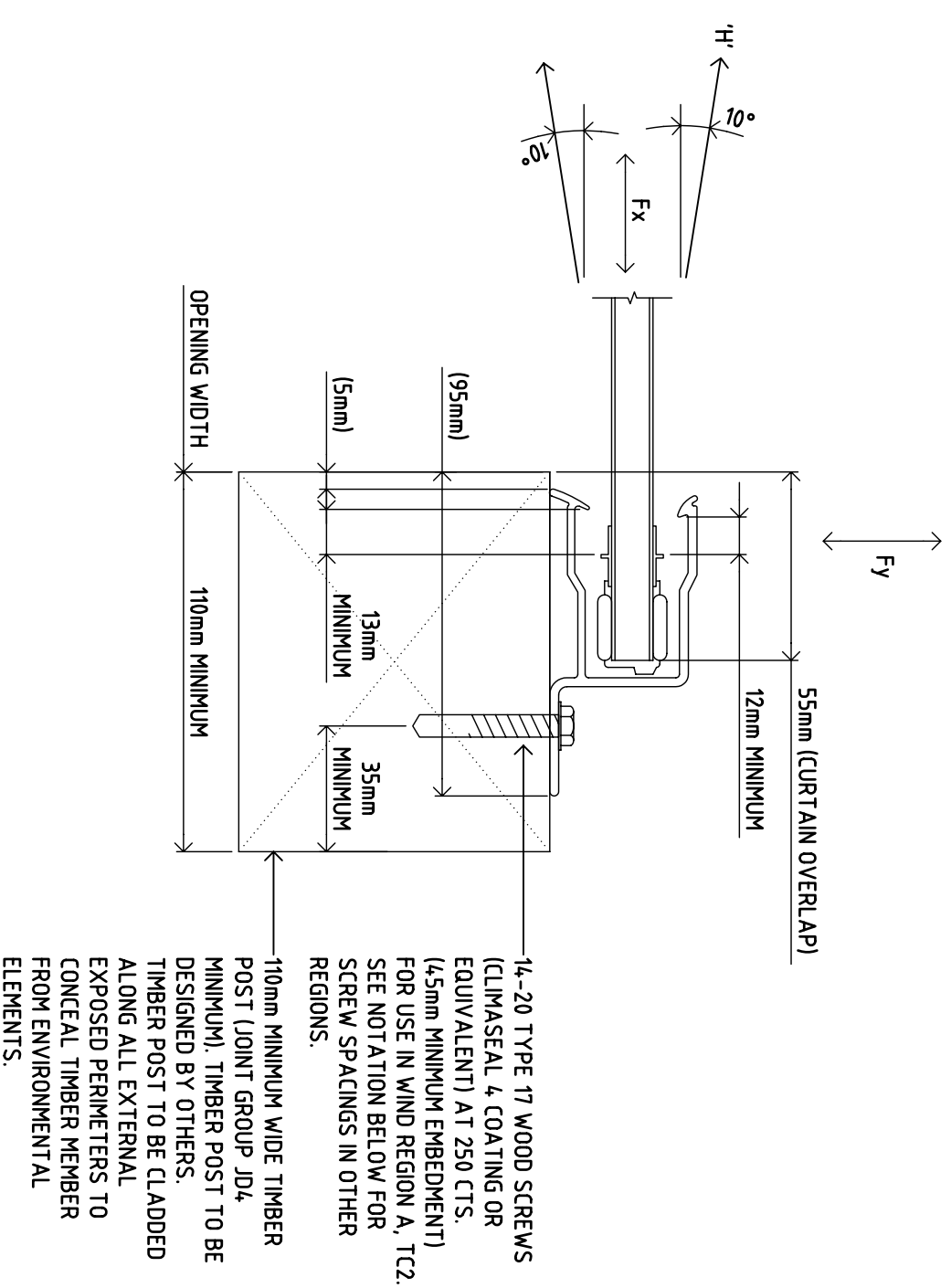
NOTE: IN WIND REGION B, TC2 FOR A DESIGN WIND PRESSURE OF 1.89kPa, ANKASCREWS TO BE SPACED AT EVERY SECOND BRICK COURSE (APPROX. 170 CTS.)

IN WIND REGION C, TC2 FOR A DESIGN WIND PRESSURE OF 3.26 kPa ANKASCREWS TO BE SPACED AT EVERY BRICK COURSE (APPROX. 85 CTS.).

NOTE:

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN OF 3150mm.
- FIXINGS INTO UNREINFORCED CLAY MASONRY ABUTMENTS HAVE BEEN DESIGNED USING THE RAMSET-SPECIFIERS RESOURCE BOOK.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:

AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.
AS 3700-2001 MASONRY STRUCTURES



SECTION 2 PLAN

SCALE = 1:2

S01

GUIDE SUPPORTED BY TIMBER FRAMED WALLS FOR A DOOR SPAN OF 3150mm IN REGION A TC2 FOR A DESIGN WIND PRESSURE OF 1.18 kPa.

NOTE: IN WIND REGION B, TC2 FOR A DESIGN WIND PRESSURE OF 1.89kPa WOOD SCREWS TO BE SPACED AT 175 CTS.

IN WIND REGION C, TC2 FOR A DESIGN WIND PRESSURE OF 3.26 kPa WOOD SCREWS TO BE SPACED AT 100 CTS.

NOTE:

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN OF 3150mm.
- FIXINGS INTO TIMBER FRAMED ABUTMENTS HAVE BEEN DESIGNED USING TECHNICAL DATA PROVIDED BY BULDEX FASTENERS.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:

AS 1720.1-2010 TIMBER STRUCTURES PART 1: DESIGN METHODS.
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.

ISSUE	DATE	AMENDMENTS
C	13.05.13	ISSUED FOR CONSTRUCTION
E	13.05.13	ISSUED FOR CONSTRUCTION
F	16.06.13	GENERAL REVISION
G	09.07.13	GENERAL REVISION
H	01.11.13	GENERAL REVISION

CLIENT	PROJECT
B&D AUSTRALIA PTY LTD	B&D SERIES 1 ROLL-A-DOOR (WINDLOCKED) FOR USE IN WIND REGION C, TC2

DRAWING	SCALE
SERIES 1 ROLL-A-DOOR SUPPORT SECTION DETAIL	DESIGNED JE.
James Ellis & Associates	DRAWN AAB
Consulting Structural Engineers	CHECKED & APPROVED [Signature]
	DATE July 2013

DRAWING No.	PROJECT No.
S03 H	2212

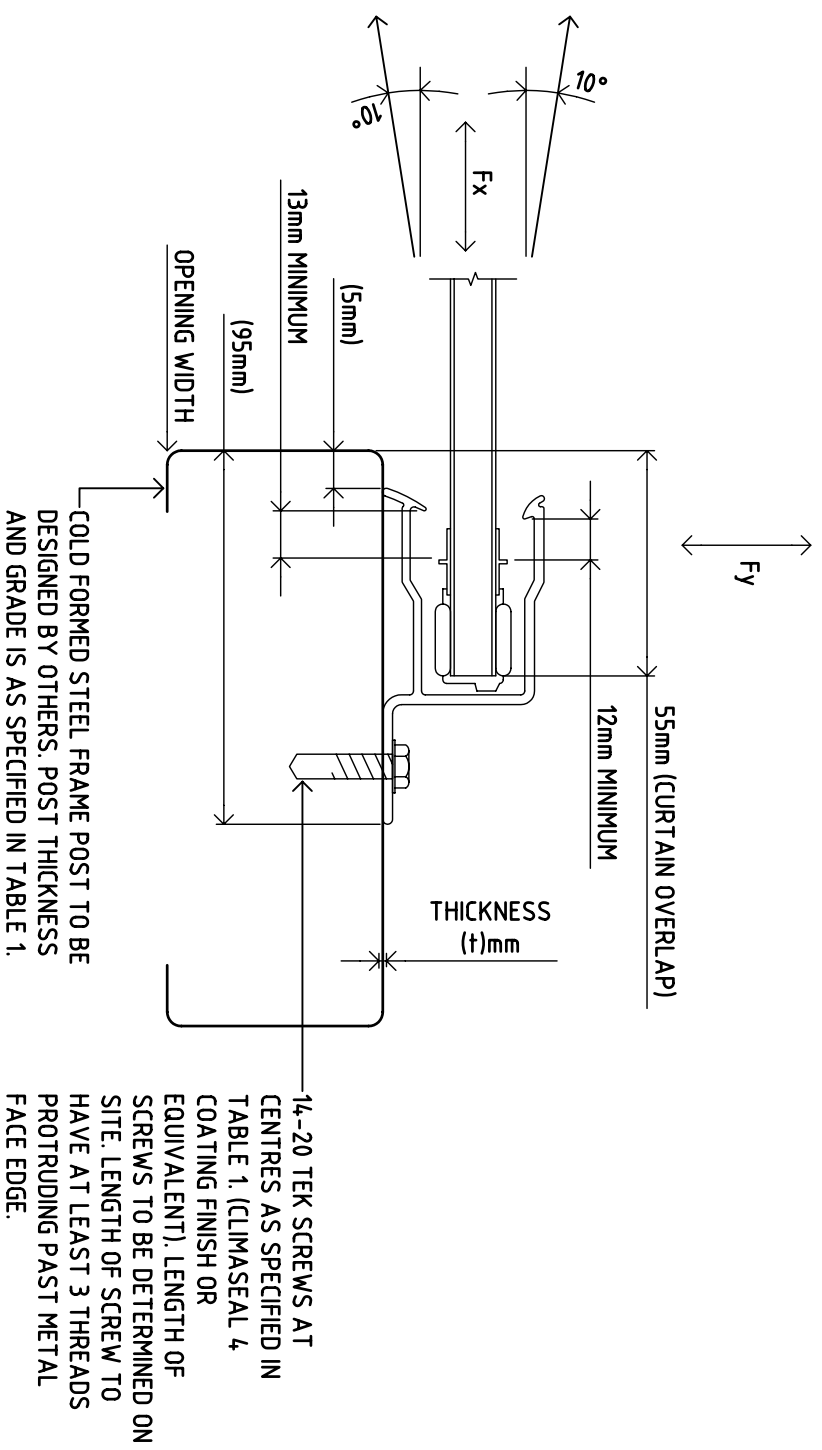


TABLE 1

FASTENING SPECIFICATIONS ONTO COLD FORMED STEEL ABUTMENT SUPPORTS COMPLYING WITH AS 1397-1993

THICKNESS (t)mm	GRADE	YIELD STRENGTH	TENSILE STRENGTH	SPACING (mm)
1mm	G550	550 MPa	550 MPa	125mm
1.2mm	G500	500 MPa	520 MPa	150mm
1.5mm	G450	450 MPa	480 MPa	175mm
1.9mm	G450	450 MPa	480 MPa	175mm

SECTION 2 PLAN
SCALE = 1:2

GUIDE SUPPORTED BY COLD FORMED STEEL FRAME FOR A DOOR SPAN OF 3150mm IN REGION C TC2 FOR A DESIGN WIND PRESSURE OF 3.26 KPa.

NOTE:

- THE ABOVE FIXING DETAIL HAS BEEN BASED ON A MAXIMUM DESIGN SPAN OF 3150mm.
- FIXINGS ONTO COLD FORMED STEEL ABUTMENTS HAVE BEEN DESIGNED USING TECHNICAL DATA PROVIDED BY BUILDEX FASTENERS.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FIXING DETAIL:
AS/NZS 4600:2005 COLD FORMED STEEL STRUCTURES
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1:LIMIT STATE DESIGN.

ISSUE	DATE	AMENDMENTS
A	14.10.13	ISSUED FOR CONSTRUCTION
H	01.11.13	GENERAL REVISION

CLIENT	B&D AUSTRALIA PTY LTD
PROJECT	B&D SERIES 1 ROLL-A-DOOR (WINDLOCKED) FOR USE IN WIND REGION C, TC2

DRAWING	SERIES 1 ROLL-A-DOOR SUPPORT SECTION DETAIL
DESIGNED	JE
DRAWN	AAB
CHECKED & APPROVED	[Signature]
DATE	July 2013

DRAWING No.	S04 H
PROJECT No.	2212

James Ellis & Associates
Consulting Structural Engineers