SERIES 2 AND SERIES 3 ROLL-A-DOOR ELEVATION - TYPICAL

TABLE A

<table>
<thead>
<tr>
<th>CURTAIN MODEL &amp; PRODUCT NAME</th>
<th>CURTAIN MATERIAL TYPE AND GRADE</th>
<th>CURTAIN PROFILE</th>
<th>CURTAIN MATERIAL THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2L - SERIES 2 TRADITIONAL LOW PROFILE</td>
<td>COLORBOND ZALG300S2</td>
<td>S2</td>
<td>0.4mm</td>
</tr>
<tr>
<td>R2F - SERIES 2 SWINGDOOR LIGHT INDUSTRIAL</td>
<td>COLORBOND ZALG300S2</td>
<td>S2</td>
<td>0.4mm</td>
</tr>
<tr>
<td>R2I - SERIES 2 TRADITIONAL</td>
<td>COLORBOND ZALG300S2</td>
<td>S2</td>
<td>0.5mm</td>
</tr>
<tr>
<td>R2W - SERIES 2 TRADITIONAL WIDELINE</td>
<td>COLORBOND ZALG300S2</td>
<td>S2</td>
<td>0.5mm</td>
</tr>
<tr>
<td>R3F - SERIES 3 MAXI</td>
<td>COLORBOND ZALG300S2</td>
<td>S3</td>
<td>0.4mm</td>
</tr>
<tr>
<td>R3I - SERIES 3 SQUARELINE INDUSTRIAL</td>
<td>COLORBOND ZALG300S2</td>
<td>S3</td>
<td>0.5mm</td>
</tr>
<tr>
<td>R3W - SERIES 3 SQUARELINE WIDELINE</td>
<td>COLORBOND ZALG300S2</td>
<td>S3</td>
<td>0.5mm</td>
</tr>
</tbody>
</table>

CURTAIN SERIES 2 OR SERIES 3 (0.4mm OR 0.5mm THICK) FOR CURTAIN DETAILS REFER TO TABLE A AND SECTION 3

WINDLOCK CLIP SERIES 2 AND SERIES 3 (PART No. 50525) 2575 HI TEN 0.5mm x 35mm WIDE BMT x 35mm WIDE

STEEL EDGE STRIP (PART No. 44806)

Rivets 73-SS-64

2 x STEEL/STEEL UNIVERSAL CLIP (PART No. 046177) 37.5mm WIDE

NOTES:

1. AMENDMENTS
2. DRAWN
3. DESIGNED
4. CHECKED
5. PROJECT No.
6. SCALE
7. DRAWING No.
8. DATE

B&D SERIES 2 AND SERIES 3 ROLL-A-DOOR FOR USE IN ALL WIND REGIONS

James Ellis & Associates

Consulting Structural Engineers

B&D AUSTRALIA PTY LTD

B&D SERIES 2 AND SERIES 3 ROLL-A-DOOR, ELEVATION PART, SECTION AND NOTES

Scale 1:50. CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS (REFER TO DRAWINGS S02, S03 & S04 FOR DETAILS)

CURTAIN WIDTH - VARIES (REFER TO TABLES) (L)

CURTAIN HEIGHT = OPENING HEIGHT.

SERIES 2 AND SERIES 3 ROLL-A-DOOR, DOOR GUIDES REFER TO SECTION 4 ON DRAWINGS S02, S03 AND S04.

DOOR DRUM SUPPORT BRACKETS. INSTALL TO B&D STANDARD INSTALLATION PROCEDURES.

DOOR INSTALLATION TO BE IN ACCORDANCE WITH STANDARD B&D SERIES 2 AND SERIES 3 ROLL-A-DOOR INSTALLATION GUIDELINES.

FOR THE ABOVE DESIGN CRITERIA PROVIDE CLIPS AT EVERY FLAT AS SHOWN ON PART PLAN OF CURTAIN MATERIAL AND WIND-LOCK CLIPS.

NOTE:

1. FOR CURTAIN SERIES 2 & SERIES 3 BASED ON A MAXIMUM ALLOWABLE SPAN AND INTERNAL PRESSURE COEFFICIENTS AS NOMINATED ON DRAWING S05.

2. FOR WIND REGIONS A & B BASED ON A MAXIMUM ALLOWABLE SPAN AND INTERNAL PRESSURE COEFFICIENTS AS NOMINATED ON DRAWING S05.

DESIGN CRITERIA:

1. REGION C
2. TERRAIN CATEGORY 2
3. DOOR HEIGHT 3.3m MAX.
4. BUILDING IMPORTANCE - LEVEL 2
5. REGION WIND SPEED VR = 60.0m/s
6. SERIES 2 AND SERIES 3 DOORS ARE RATED UP TO AN ULTIMATE DESIGN WIND PRESSURE RATING AS GIVEN IN FIGURES A1, B1, C1 OR D1 AS APPROPRIATE FOR THE RELEVANT SPAN CONSIDERED.

7. FOR THE ABOVE DESIGN CRITERIA PROVIDE CLIPS AT EVERY FLAT AS SHOWN ON PART PLAN OF CURTAIN MATERIAL AND WIND-LOCK CLIPS.

8. CURTAIN HEIGHT = OPENING HEIGHT.

9. CURTAIN OVERLAPS (REFER TO SECTION 4 ON DRAWINGS S02, S03 & S04)

10. CLIPS AT EVERY SECOND FLAT ARE TO BE ADOPTED ONLY FOR USE IN WIND REGIONS A & B BASED ON A MAXIMUM ALLOWABLE SPAN AND INTERNAL PRESSURE COEFFICIENTS AS NOMINATED ON DRAWING S05.

11. TABLES 1a & 1b PROVIDE CLIPS AT EVERY SECOND FLAT AS REQUIRED (REFER TO FIGURES A1, B1, C1 OR D1 AS APPROPRIATE).

12. TABLES 2a & 2b PROVIDE CLIPS AT EVERY FLAT OR EVERY SECOND FLAT AS REQUIRED (REFER TO FIGURES A1, B1, C1 OR D1 AS APPROPRIATE FOR THE RELEVANT SPAN CONSIDERED.

13. NOTES COVERING BASIS OF DRAWINGS

- TEST REPORT NO. TS 1032 REVISION A
- AS/NZS 4600:2005 COLD FORMED STEEL STRUCTURES.
- AS 4505:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.
- AS 4100-1998 STEEL STRUCTURES.
- AS 3600-2009 CONCRETE STRUCTURES.
- AS 3700:2001 MASONRY STRUCTURES.
- AS 4100-1998 STEEL STRUCTURES.
- AS 2700:2001 MASONRY STRUCTURES.
- AS 3600-2009 CONCRETE STRUCTURES.
- AS 3700:2001 MASONRY STRUCTURES.
- AS 4100-1998 STEEL STRUCTURES.
- AS 2700:2001 MASONRY STRUCTURES.
- AS 3600-2009 CONCRETE STRUCTURES.
- AS 3700:2001 MASONRY STRUCTURES.
- AS 1720.1:2010 TIMBER STRUCTURES, PART 1 - DESIGN METHODS.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1: GENERAL PRINCIPLES.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 2: WIND ACTIONS.
- AS/NZS 4603:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.
- AS/NZS 4603:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.
- AS/NZS 4603:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.
- AS/NZS 4603:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.
- AS/NZS 4603:2012 GARAGE DOORS AND OTHER LARGE ACCESS DOORS.

- IN-HOUSE TESTING CONDUCTED ON THE 19TH JULY, 2017.
- GENERAL REVISION.
- IN-HOUSE TESTING CONDUCTED ON THE 19TH JULY, 2017.
- IN-HOUSE TESTING CONDUCTED ON THE 19TH JULY, 2017.
- IN-HOUSE TESTING CONDUCTED ON THE 19TH JULY, 2017.
- IN-HOUSE TESTING CONDUCTED ON THE 19TH JULY, 2017.

14. GENERAL PRINCIPLES.

- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 1: GENERAL PRINCIPLES.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 2: WIND ACTIONS.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 4: IMPACT ACTIONS.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 4: IMPACT ACTIONS.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 4: IMPACT ACTIONS.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 4: IMPACT ACTIONS.
- AS/NZS 1170.1:2002 STRUCTURAL DESIGN ACTIONS - PART 4: IMPACT ACTIONS.

15. DESIGN WIND PRESSURE RATING AS GIVEN IN FIGURES A1, B1, C1 AND D1 AS APPROPRIATE.

- THE STRUCTURE TO WHICH THE DOORS ARE ATTACHED SHALL BE ASSESSED AND CERTIFIED INDEPENDENTLY AS REQUIRED BY A SUITABLY QUALIFIED ENGINEER.

- ALTERNATIVE DESIGN PARAMETERS TO WHAT ARE SPECIFIED ON THESE DRAWINGS ALONG WITH ALTERNATIVE SITE LOCAL PRESSURE FACTORS MAY BE ADOPTED PROVIDED THE CALCULATED SITE SPECIFIC ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED THE ULTIMATE DESIGN WIND PRESSURES AS SHOWN ON FIGURES A1, B1, C1 OR D1 AS APPROPRIATE.

- THE BUILDING DESIGN ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE ULTIMATE DESIGN WIND PRESSURES RATING GIVEN IN FIGURES A1, B1, C1 OR D1 AS APPROPRIATE.

- THE STRUCTURE TO WHICH THE DOORS ARE ATTACHED SHALL BE ASSESSED AND CERTIFIED INDEPENDENTLY AS REQUIRED BY A SUITABLY QUALIFIED ENGINEER.

- ALTERNATIVE DESIGN PARAMETERS TO WHAT ARE SPECIFIED ON THESE DRAWINGS ALONG WITH ALTERNATIVE SITE LOCAL PRESSURE FACTORS MAY BE ADOPTED PROVIDED THE CALCULATED SITE SPECIFIC ULTIMATE DESIGN WIND PRESSURES DO NOT EXCEED THE ULTIMATE DESIGN WIND PRESSURES AS SHOWN ON FIGURES A1, B1, C1 OR D1 AS APPROPRIATE.

- THE BUILDING DESIGN ENGINEER IS TO ENSURE THAT THE SITE SPECIFIC DESIGN WIND LOADINGS DO NOT EXCEED THE ULTIMATE DESIGN WIND PRESSURES RATING GIVEN IN FIGURES A1, B1, C1 OR D1 AS APPROPRIATE.
130mm MINIMUM

REINFORCED CONCRETE CORE FILLED MASONRY ABUTMENT TO BE DESIGNED BY OTHERS

1 x M10 GALV. "ANKASCREW" OR EQUIVALENT AT CENTRES AS SPECIFIED IN TABLE 2 (90mm EMBEDMENT). "ANKASCREWS" ARE NOT TO BE LOCATED AT MORTAR BED JOINTS. PROVIDE A MINIMUM CLEARANCE OF 60mm FROM EDGE OF MORTAR JOINTS TO EDGE OF "ANKASCREW" FIXINGS WHERE REQUIRED.

"ANKASCREWS" ARE NOT TO BE LOCATED AT MORTAR BED JOINTS. PROVIDE A MINIMUM CLEARANCE OF 60mm FROM EDGE OF MORTAR JOINTS TO EDGE OF "ANKASCREW" FIXINGS WHERE REQUIRED.

2 x M10 GALV. "ANKASCREW" OR EQUIVALENT AT CENTRES AS SPECIFIED IN TABLE 2 (90mm EMBEDMENT).

"ANKASCREWS" ARE NOT TO BE LOCATED AT MORTAR BED JOINTS. PROVIDE A MINIMUM CLEARANCE OF 60mm FROM EDGE OF MORTAR JOINTS TO EDGE OF "ANKASCREW" FIXINGS WHERE REQUIRED.

15mm MINIMUM

STEEL FRAME (SHS) OR SIMILAR (TO BE DESIGNED BY OTHERS), MINIMUM THICKNESS TO BE 3mm. ALL STEEL SURFACES IN CONTACT WITH THE ALUMINUM GUIDE ARE TO BE APPROPRIATELY PAINTED TO AVOID THE ONSET OF CORROSION (SPECIFICATION BY OTHERS).

NOTE:

THE ABOVE FASTENING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS AS GIVEN IN TABLE 3.

FASTENINGS INTO STRUCTURAL STEEL ABUTMENTS HAVE BEEN DESIGNED USING THE TECHNICAL DATA PROVIDED BY BUILDEX FASTERNERS.

STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.

THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FASTENING DETAIL:

AS 4100:1998 STEEL STRUCTURES
AS/NZS 4600:2005 COLD FORMED STEEL STRUCTURES
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.

NOTE:

THE ABOVE FASTENING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS AS GIVEN IN TABLE 2.

FASTENINGS 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 FASTENING DETAIL:

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

NOTE:

THE ABOVE FASTENING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS AS GIVEN IN TABLE 2.

FASTENINGS 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 FASTENING DETAIL:

AS 3700-2001 MASONRY STRUCTURES
AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.
SECTION 4  PART PLAN

SCALE = 1:2

S04

GUIDE SUPPORTED BY TIMBER FRAME (REFER TO TABLE 4 FOR FASTENING DETAILS).

NOTE:

- THE ABOVE FASTENING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS AS GIVEN IN TABLE 4.
- FASTENINGS INTO TIMBER FRAMED ABUTMENTS HAVE BEEN DESIGNED USING THE TECHNICAL DATA PROVIDED BY BUILDEX FASTERNERS.
- STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL 4 COATED TEK SCREWS ARE TO BE USED IN HIGHLY CORROSIVE ENVIRONMENTS.
- THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FASTENING DETAIL:
  - AS 1720.1-2010 TIMBER STRUCTURES PART 1: DESIGN METHODS.
  - AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.

THE FOLLOWING CODES OF PRACTICE WERE ALSO CONSIDERED IN THE DESIGN OF THE ABOVE FASTENING DETAIL:

- AS 1720.1-2010 TIMBER STRUCTURES PART 1: DESIGN METHODS.
- AS/NZS 1664.1:1997 ALUMINIUM STRUCTURES PART 1: LIMIT STATE DESIGN.
SECTION 4

PART PLAN
SCALE = 1:2

NOTE:
- THE ABOVE FASTENING DETAIL HAS BEEN BASED ON THE RELEVANT MAXIMUM DESIGN SPAN LIMITS GIVEN IN TABLE 6.
- FASTENINGS ONTO COLD FORMED STEEL ABUTMENTS HAVE BEEN DESIGNED USING THE TECHNICAL DATA PROVIDED BY BUILDEX FASTENERS.
- STAINLESS STEEL TEK SCREWS IN LIEU OF CLIMASEAL® 4 COATING FINISH OR EQUIVALENT, LENGTH OF SCREWS TO BE DETERMINED ON SITE. LENGTH OF SCREWS TO HAVE AT LEAST 3 THREADS PROTRUDING PAST METAL FACE EDGE.
- COLD FORMED STEEL FRAME POST TO BE DESIGNED BY OTHERS. POST THICKNESS AND GRADE IS AS SPECIFIED IN TABLE B. ALL STEEL SURFACES IN CONTACT WITH THE ALUMINUM GUIDE ARE TO BE APPROPRIATELY PAINTED TO AVOID THE ONSET OF CORROSION (SPECIFICATION BY OTHERS).

TABLE 6
FASTENING SPECIFICATIONS OF ALUMINUM GUIDE ONTO COLD FORMED STEEL ABUTMENTS COMPLYING WITH AS 1397-1993

<table>
<thead>
<tr>
<th>THICKNESS (t)mm</th>
<th>SPAN</th>
<th>CLIPS AT EVERY FLAT</th>
<th>CLIPS AT EVERY SECOND FLAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1mm (G550)</td>
<td>3000-3499mm</td>
<td>2 x 14-20 TEK SCREWS AT 150 CTS.</td>
<td>2 x 14-20 TEK SCREWS AT 300 CTS.</td>
</tr>
<tr>
<td>1.2mm (G550)</td>
<td>3000-3499mm</td>
<td>2 x 14-20 TEK SCREWS AT 175 CTS.</td>
<td>2 x 14-20 TEK SCREWS AT 350 CTS.</td>
</tr>
<tr>
<td>1.5mm (G550)</td>
<td>3000-3499mm</td>
<td>2 x 14-20 TEK SCREWS AT 200 CTS.</td>
<td>2 x 14-20 TEK SCREWS AT 400 CTS.</td>
</tr>
<tr>
<td>1.9mm (G550)</td>
<td>3000-3499mm</td>
<td>2 x 14-20 TEK SCREWS AT 225 CTS.</td>
<td>2 x 14-20 TEK SCREWS AT 450 CTS.</td>
</tr>
<tr>
<td>2.4mm (G550)</td>
<td>3000-3499mm</td>
<td>2 x 14-20 TEK SCREWS AT 250 CTS.</td>
<td>2 x 14-20 TEK SCREWS AT 500 CTS.</td>
</tr>
</tbody>
</table>

NOTE: FOR SPANS LESS THAN 3m USE FASTENING SPECIFICATIONS AS FOR SPANS 3000-3499mm

TABLE B
MINIMUM STRENGTHS OF COLD FORMED STEEL COMPLYING WITH AS 1397-1993

<table>
<thead>
<tr>
<th>THICKNESS (t)mm</th>
<th>GRADE</th>
<th>YIELD STRENGTH</th>
<th>TENSILE STRENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1mm G550</td>
<td>550 MPa</td>
<td>550 MPa</td>
<td></td>
</tr>
<tr>
<td>1.2mm G550</td>
<td>520 MPa</td>
<td>520 MPa</td>
<td></td>
</tr>
<tr>
<td>1.5mm G450</td>
<td>480 MPa</td>
<td>480 MPa</td>
<td></td>
</tr>
<tr>
<td>1.9mm G450</td>
<td>480 MPa</td>
<td>480 MPa</td>
<td></td>
</tr>
<tr>
<td>2.4mm G450</td>
<td>480 MPa</td>
<td>480 MPa</td>
<td></td>
</tr>
</tbody>
</table>
NOTE: THE BUILDING DESIGN ENGINEER IS TO VERIFY THAT THE MAXIMUM ALLOWABLE SPANS GIVEN IN TABLE 1a FOR ANY GIVEN WIND REGION AND TERRAIN CATEGORY ARE WITHIN THE MAXIMUM ULTIMATE DESIGN WIND CAPACITY LIMITS GIVEN IN FIGURES A1 AND C1 AS APPROPRIATE WHEN DETERMINING THE SITE SPECIFIC DESIGN WIND PRESSURES.

TABLE 1a
QUICK REFERENCE GUIDE ON MAXIMUM ALLOWABLE SPANS FOR BUILDERS AND BUILDING CERTIFIERS

<table>
<thead>
<tr>
<th>REGION</th>
<th>TERRAIN CATEGORY</th>
<th>CURTAIN THICKNESS = 0.5mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SERIES 2</td>
<td>SERIES 3</td>
</tr>
<tr>
<td></td>
<td>CLIPS AT EVERY FLAT</td>
<td>CLIPS AT EVERY SECOND FLAT</td>
</tr>
<tr>
<td>A</td>
<td>2</td>
<td>5.5m</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5m</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>5.5m</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5m</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>5.5m</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5m</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>5.5m</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5m</td>
</tr>
</tbody>
</table>

NOTE: FOR SPANS LESS THAN 3m USE FASTENING SPECIFICATIONS AS FOR SPANS 3000-3499mm

TABLE 1b
QUICK REFERENCE GUIDE ON MAXIMUM ALLOWABLE SPANS FOR BUILDERS AND BUILDING CERTIFIERS

<table>
<thead>
<tr>
<th>REGION</th>
<th>TERRAIN CATEGORY</th>
<th>CURTAIN THICKNESS = 0.4mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SERIES 2</td>
<td>SERIES 3</td>
</tr>
<tr>
<td></td>
<td>CLIPS AT EVERY FLAT</td>
<td>CLIPS AT EVERY SECOND FLAT</td>
</tr>
<tr>
<td>A</td>
<td>2</td>
<td>5.5m</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5m</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>5.5m</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5m</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>5.5m</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5m</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>5.5m</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>5.5m</td>
</tr>
</tbody>
</table>

NOTE: THE BUILDING DESIGN ENGINEER IS TO VERIFY THAT THE MAXIMUM ALLOWABLE SPANS GIVEN IN TABLE 1b FOR ANY GIVEN WIND REGION AND TERRAIN CATEGORY ARE WITHIN THE MAXIMUM ULTIMATE DESIGN WIND CAPACITY LIMITS GIVEN IN FIGURES A1 AND C1 AS APPROPRIATE WHEN DETERMINING THE SITE SPECIFIC DESIGN WIND PRESSURES.

TABLE 2
FASTENING SPECIFICATIONS OF ALUMINUM GUIDE ONTO BLOCKWALL ABUTMENTS

<table>
<thead>
<tr>
<th>SPAN</th>
<th>SERIES 2</th>
<th>SERIES 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000-3499mm</td>
<td>1 x M10 GAL ANKASCREW AT 250 CTS.</td>
<td>1 x M10 GAL ANKASCREW AT 400 CTS.</td>
</tr>
<tr>
<td>3500-3999mm</td>
<td>1 x M10 GAL ANKASCREW AT 250 CTS.</td>
<td>1 x M10 GAL ANKASCREW AT 400 CTS.</td>
</tr>
<tr>
<td>4000-4499mm</td>
<td>1 x M10 GAL ANKASCREW AT 225 CTS.</td>
<td>1 x M10 GAL ANKASCREW AT 400 CTS.</td>
</tr>
<tr>
<td>4500-4999mm</td>
<td>1 x M10 GAL ANKASCREW AT 225 CTS.</td>
<td>1 x M10 GAL ANKASCREW AT 400 CTS.</td>
</tr>
<tr>
<td>5000-5500mm</td>
<td>1 x M10 GAL ANKASCREW AT 225 CTS.</td>
<td>1 x M10 GAL ANKASCREW AT 400 CTS.</td>
</tr>
</tbody>
</table>

NOTE: FOR SPANS LESS THAN 3m USE FASTENING SPECIFICATIONS AS FOR SPANS 3000-3499mm

TABLE 3
FASTENING SPECIFICATIONS OF ALUMINUM GUIDE ONTO 3.0mm (MINIMUM) THICK Q235 STEEL ABUTMENTS

<table>
<thead>
<tr>
<th>SPAN</th>
<th>SERIES 2</th>
<th>SERIES 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000-3499mm</td>
<td>2 x 14-20 TEK SCREWS AT 300 CTS.</td>
<td>1 x M10 GAL ANKASCREWS AT EVERY SECOND BRICK COURSE (MAX. 170 CTS.)</td>
</tr>
<tr>
<td>3500-3999mm</td>
<td>2 x 14-20 TEK SCREWS AT 300 CTS.</td>
<td>1 x M10 GAL ANKASCREWS AT EVERY SECOND BRICK COURSE (MAX. 170 CTS.)</td>
</tr>
<tr>
<td>4000-4499mm</td>
<td>2 x 14-20 TEK SCREWS AT 275 CTS.</td>
<td>1 x M10 GAL ANKASCREWS AT EVERY SECOND BRICK COURSE (MAX. 170 CTS.)</td>
</tr>
<tr>
<td>4500-4999mm</td>
<td>2 x 14-20 TEK SCREWS AT 275 CTS.</td>
<td>1 x M10 GAL ANKASCREWS AT EVERY SECOND BRICK COURSE (MAX. 170 CTS.)</td>
</tr>
<tr>
<td>5000-5500mm</td>
<td>2 x 14-20 TEK SCREWS AT 275 CTS.</td>
<td>1 x M10 GAL ANKASCREWS AT EVERY SECOND BRICK COURSE (MAX. 170 CTS.)</td>
</tr>
</tbody>
</table>

NOTE: FOR SPANS LESS THAN 3m USE FASTENING SPECIFICATIONS AS FOR SPANS 3000-3499mm

TABLE 4
FASTENING SPECIFICATIONS OF ALUMINUM GUIDE ONTO TIMBER FRAMED ABUTMENTS

<table>
<thead>
<tr>
<th>SPAN</th>
<th>SERIES 2</th>
<th>SERIES 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000-3499mm</td>
<td>3 x 14-10 TYPE 17 WOOD SCREWS AT 200 CTS.</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 250 CTS.</td>
</tr>
<tr>
<td>3500-3999mm</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 250 CTS.</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 250 CTS.</td>
</tr>
<tr>
<td>4000-4499mm</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 200 CTS.</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 250 CTS.</td>
</tr>
<tr>
<td>4500-4999mm</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 200 CTS.</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 250 CTS.</td>
</tr>
<tr>
<td>5000-5500mm</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 200 CTS.</td>
<td>2 x 14-10 TYPE 17 WOOD SCREWS AT 250 CTS.</td>
</tr>
</tbody>
</table>

NOTE: FOR SPANS LESS THAN 3m USE FASTENING SPECIFICATIONS AS FOR SPANS 3000-3499mm

TABLE 5
FASTENING SPECIFICATIONS OF ALUMINUM GUIDE ONTO SOLID CLAY MASONRY ABUTMENTS

<table>
<thead>
<tr>
<th>SPAN</th>
<th>SERIES 2</th>
<th>SERIES 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000-3499mm</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
<td>1 x M10 GAL ANKASCREWS AT EVERY SECOND BRICK COURSE (MAX. 170 CTS.)</td>
</tr>
<tr>
<td>3500-3999mm</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
</tr>
<tr>
<td>4000-4499mm</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
</tr>
<tr>
<td>4500-4999mm</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
</tr>
<tr>
<td>5000-5500mm</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
<td>REFER TO COMMENT IN NOTES BELOW</td>
</tr>
</tbody>
</table>

NOTE: FOR CASES WHERE FASTENING SPECIFICATIONS OF ALUMINUM GUIDE ONTO SOLID CLAY MASONRY ABUTMENTS HAVE NOT BEEN NOMINATED IN TABLE 5, THE CURTAIN GUIDES ARE TO BE FIXED TO A STEEL MULLION IN ACCORDANCE WITH THESE DRAWINGS. THE STEEL MULLION IS TO BE SUBSEQUENTLY SECURED TO THE CLAY MASONRY ABUTMENTS IN ACCORDANCE WITH THE PROJECT ENGINEER'S DESIGN INSTRUCTIONS.

NOTE: FOR SPANS LESS THAN 3m USE FASTENING SPECIFICATIONS AS FOR SPANS 3000-3499mm

B&D AUSTRALIA PTY LTD

B&D SERIES 2 AND SERIES 3 ROLL-A-DOOR TABLES

ROLL-A-DOOR TABLES

James Ellis & Associates
Consulting Structural Engineers

Date: Oct 2017

PROJECT No.

DRAWING No.

SCALE

DESIGNED

J.E.

DRAWN

AAB

CHECKED & APPROVED

DATE

2289
FIGURE (A1)
ULTIMATE DESIGN WIND CAPACITY FOR A GIVEN SPAN USING A CURTAIN THICKNESS OF 0.5mm WITH A SERIES 2 PROFILE

FIGURE (A2)
ULTIMATE DESIGN CATENARY FORCE FOR A GIVEN SPAN WHEN USING A CURTAIN THICKNESS OF 0.5mm WITH A SERIES 2 PROFILE

NOTE:
- Extrapolation is not permitted.
- Curtain width (L) = Opening width + Curtain overlaps.

NOTE:
- Design abutment forces have been derived using the maximum ultimate design wind capacity for that given span.
- Curtain width (L) = Opening width + Curtain overlaps.

WHERE:
- $F_y = \text{Maximum out of plane ultimate design abutment force (per metre height)}$
- $W = \text{Ultimate design wind pressure (kPa)}$
- $L = \text{Curtain width (span) (m)}$
FIGURE (B1)
ULTIMATE DESIGN WIND CAPACITY FOR A GIVEN SPAN USING A CURTAIN THICKNESS OF 0.4mm WITH A SERIES 2 PROFILE

NOTE:
EXTRAPOLATION IS NOT PERMITTED
CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS

FIGURE (B2)
ULTIMATE DESIGN CATENARY FORCE FOR A GIVEN SPAN WHEN USING A CURTAIN THICKNESS OF 0.4mm WITH A SERIES 2 PROFILE

NOTE:
Fy = WL / 2
WHERE: Fy = MAXIMUM OUT-OF-PLANE ULTIMATE DESIGN ABUTMENT FORCE (PER METRE HEIGHT)
W = ULTIMATE DESIGN WIND PRESSURE (kPa)
L = CURTAIN WIDTH (SPAN) (m)
**FIGURE (C1)**
MAXIMUM ULTIMATE DESIGN WIND CAPACITY FOR A GIVEN SPAN USING A CURTAIN THICKNESS OF 0.5mm WITH A SERIES 3 PROFILE

**NOTE:**
EXTRAPOLATION IS NOT PERMITTED
CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS

**FIGURE (C2)**
MAXIMUM ULTIMATE DESIGN ABUTMENT CATENARY FORCE FOR A GIVEN SPAN USING A CURTAIN THICKNESS OF 0.5mm WITH A SERIES 3 PROFILE

**NOTE:**
DESIGN ABUTMENT FORCES HAVE BEEN DERIVED USING THE MAXIMUM ULTIMATE DESIGN WIND CAPACITY FOR THAT GIVEN SPAN.
CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS

WHERE
\[ F_y = \frac{W \times L}{2} \]

\(F_y\) = MAXIMUM OUT OF PLANE ULTIMATE DESIGN ABUTMENT FORCE (PER METRE HEIGHT)
\(W\) = ULTIMATE DESIGN WIND PRESSURE (kPa)
\(L\) = CURTAIN WIDTH (SPAN) (m)
FIGURE (D1)  
MAXIMUM ULTIMATE DESIGN WIND CAPACITY FOR A GIVEN SPAN  
USING A CURTAIN THICKNESS OF 0.4mm WITH A SERIES 3 PROFILE  

CURTAIN WIDTH (SPAN) (L)  

2.0 m  3.0 m  4.0 m  5.0 m  6.0 m  

1.0 kPa  2.0 kPa  3.0 kPa  4.0 kPa  5.0 kPa  

NOTE:  
EXTRAPOLATION IS NOT PERMITTED  
CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS

FIGURE (D2)  
MAXIMUM ULTIMATE DESIGN ABUTMENT CATENARY FORCE FOR A GIVEN SPAN  
USING A CURTAIN THICKNESS OF 0.4mm WITH A SERIES 3 PROFILE  

CURTAIN WIDTH (SPAN) (L)  

2.0 m  3.0 m  4.0 m  5.0 m  6.0 m  

10.0 kN/m  20.0 kN/m  30.0 kN/m  40.0 kN/m  50.0 kN/m  60.0 kN/m  

NOTE:  
DESIGN ABUTMENT FORCES HAVE BEEN DERIVED USING THE MAXIMUM ULTIMATE DESIGN WIND CAPACITY FOR THAT GIVEN SPAN.  
CURTAIN WIDTH (L) = OPENING WIDTH + CURTAIN OVERLAPS  

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