

PLY GEM WINDOWS

1500 SERIES BEVELED TUBE MULLION

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT FLORIDA BUILDING CODE.
2. MULLION INSTALLATION DETAILS APPLY TO PLY GEM SERIES 1500 BRICKMOULD FRAME MULLION WHEN USED TO MULL WINDOWS WITH A ONE-WAY OR TWO-WAY MULLION USING THE INSTALLATION METHODS SHOWN HEREIN.
3. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS ZONE 3 OR LESS. INDIVIDUAL UNITS MUST BE IMPACT RATED.
4. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGION ZONE 4.
5. USE #12 WOOD SCREWS OF SUFFICIENT LENGTH TO ACHIEVE MINIMUM EMBEDMENT OF 1-1/2" INTO WOOD FRAMING. (SEE CHARTS & NOTES ON SHEETS 3 & 5 FOR DESIGN PRESSURE AND ANCHOR NOTES).
6. USE 3/16" OR 1/4" ITW TAPCON OR ELCO ULTRAICON SCREWS OF SUFFICIENT LENGTH TO ACHIEVE MINIMUM EMBEDMENT OF 1-1/4" INTO CONCRETE/MASONRY SUBSTRATE. (SEE CHARTS & NOTES ON SHEETS 4 & 6 FOR DESIGN PRESSURE AND ANCHOR DIAMETER REQUIREMENTS).
7. USE #12 GRADE 5 SELF-TAPPING SCREWS OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM (3) THREAD PENETRATION BEYOND STEEL SUBSTRATE. (SEE CHARTS & NOTES ON SHEETS 3 & 5 FOR DESIGN PRESSURE AND ANCHOR NOTES).
8. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X FRAMING, OR STEEL FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
9. SEE CHARTS & NOTES ON SHEETS 3-6 FOR DESIGN PRESSURE CHARTS.
10. THIS MULLION IS ONLY VALID WHEN USED IN CONJUNCTION WITH APPLICABLE PLY GEM SERIES 1500 WINDOW PRODUCTS UTILIZING THE BEVELED FRAME COMPONENT SHOWN HEREIN.
11. ALL WINDOWS USED WITH THIS MULLION SHALL BE QUALIFIED UNDER SEPARATE APPROVAL.
12. MULLION MATERIAL: ALUMINIUM 6063-T6.
13. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:

A. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.

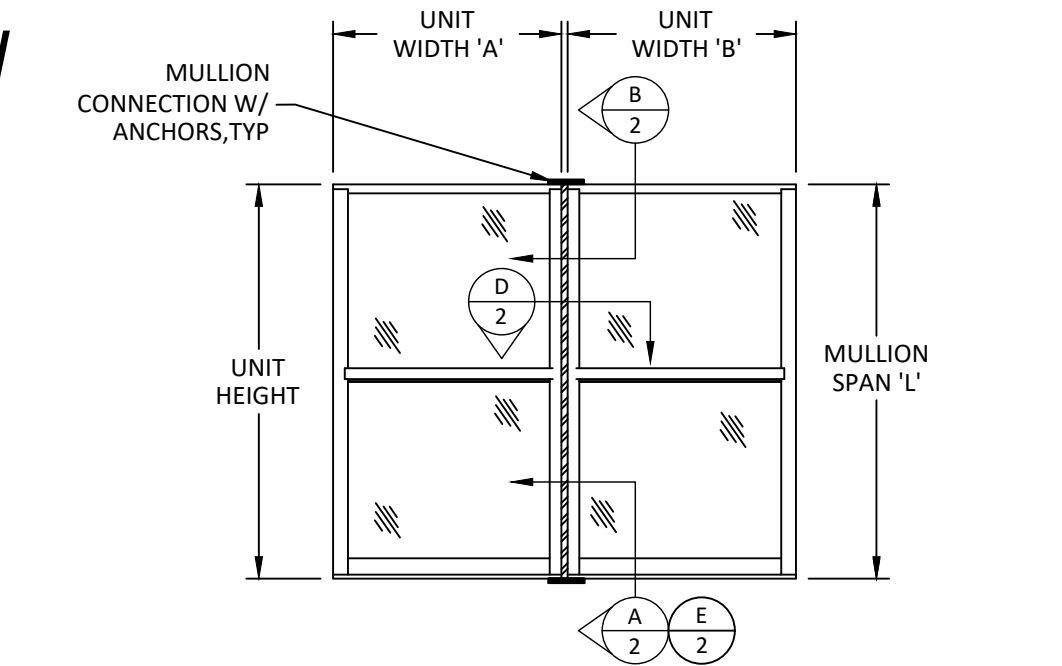
B. CONCRETE -MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.

C. GROUT-FILLED CMU- UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AND GROUT CONFORMS TO ASTM C 476, MINIMUM GROUT COMPRESSIVE STRENGTH OF 2000 PSI.

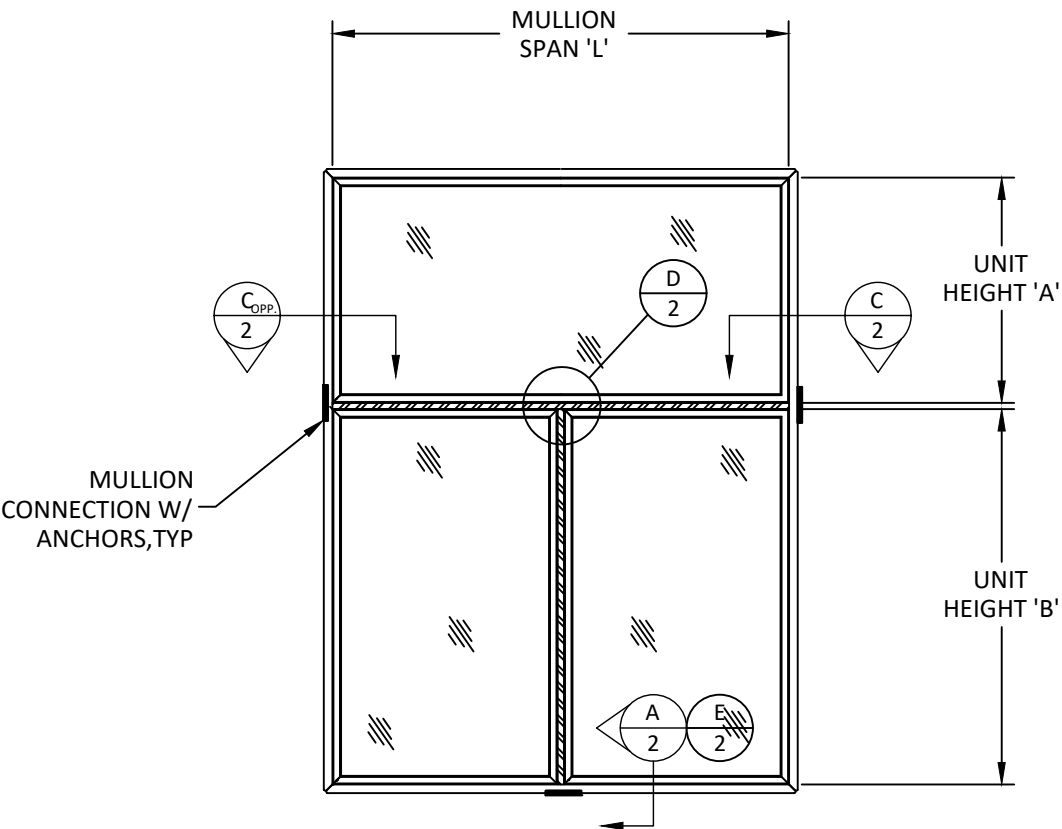
D. HOLLOW BLOCK CMU - UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.

E. STEEL - MINIMUM YIELD STRENGTH OF 33 KSI. MINIMUM 18 GA. WALL THICKNESS.

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5	TWO-WAY MULLION DESIGN PRESSURE CHARTS FOR INSTALL. TO WOOD OR STEEL
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7	ANCHOR PATTERN THROUGH INSTALLATION CLIP



ONE-WAY MULLION
EXAMPLE



TWO-WAY MULLION
EXAMPLE



Part of the Cornerstone Building Brands Family

433 N. MAIN ST., PO BOX 559,
ROCKY MOUNT, VA 24151

PH: 540-484-6348 FX: 540-484-6683

TITLE: 1500 SERIES BEVELED
TUBE MULLION

MULLION ASSEMBLY
ELEVATIONS & NOTES

PREPARED BY:



BUILDING DROPS, INC.
1900 NE MIAMI CT, SUITE 2-15
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FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
ADDED NOTES ON SHEET 4, 5 & 6	LMH	09.03.17
CURRENT FBC	LMH	07.29.26

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Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Date: 2026.08.06 20:21:28 -04'00'



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BUILDING DROPS, INC
1900 NE MIAMI CT, SUITE 2-15
MIAMI, FL 33132
FBPE CERT. OF AUTHORIZATION No. 29578

FL #:

16118

DATE:

06.26.13

DWG. BY:

CHK. BY:

ADS

HFN

SCALE:

NTS

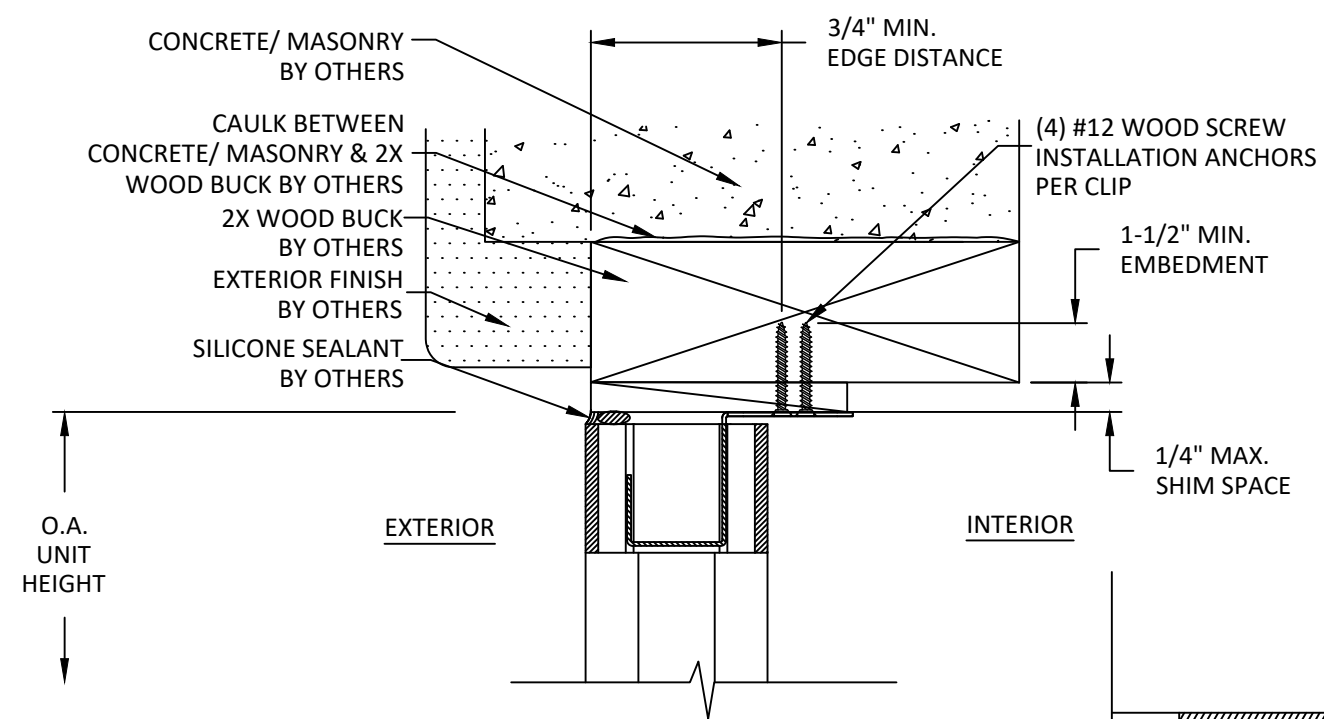
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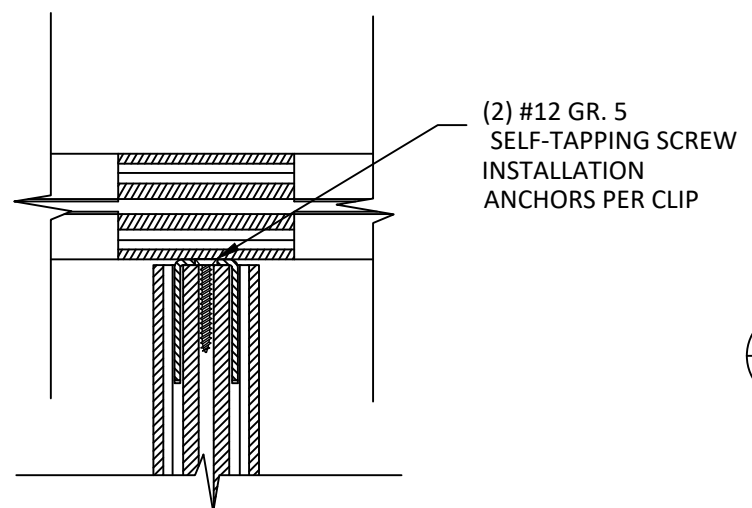
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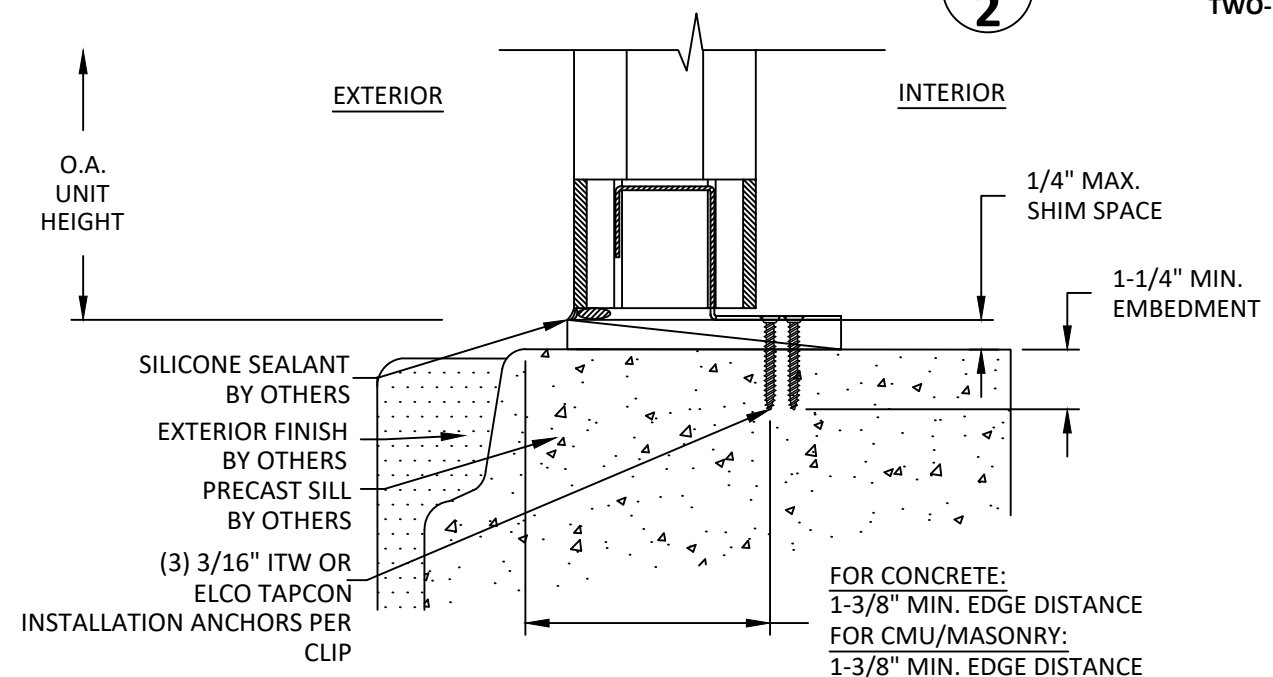
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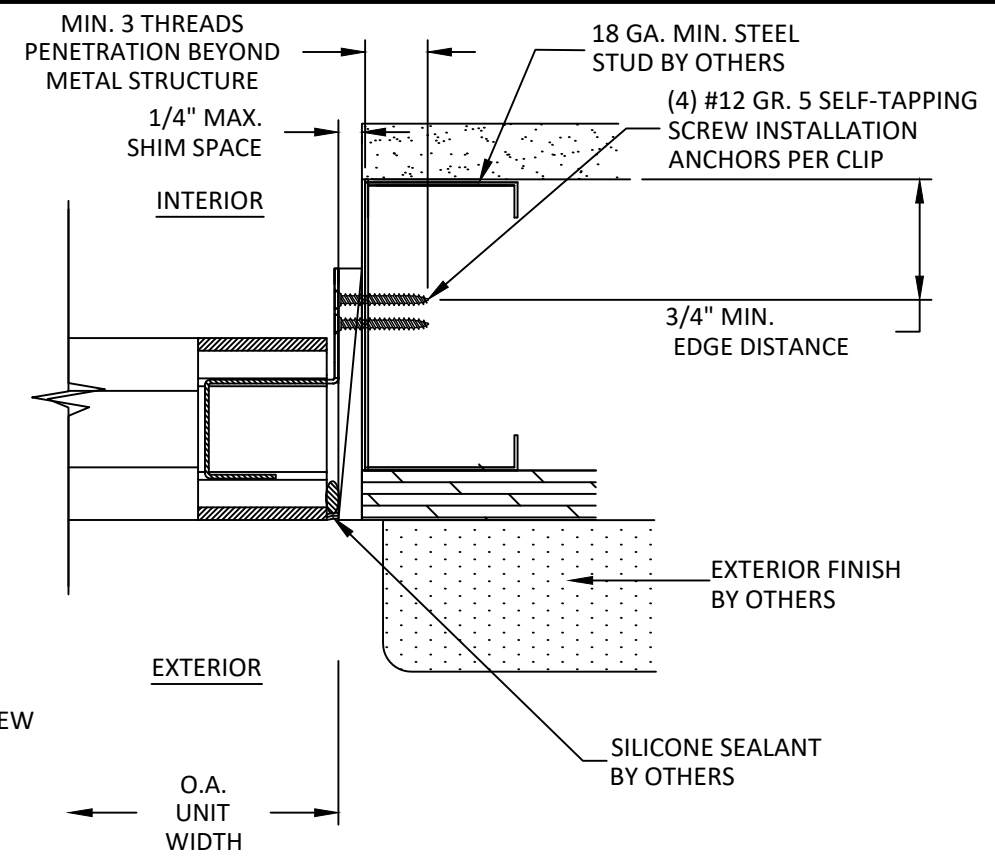
**B
2** VERTICAL SECTION
2X WOOD BUCK
MULLION CLIP INSTALLATION



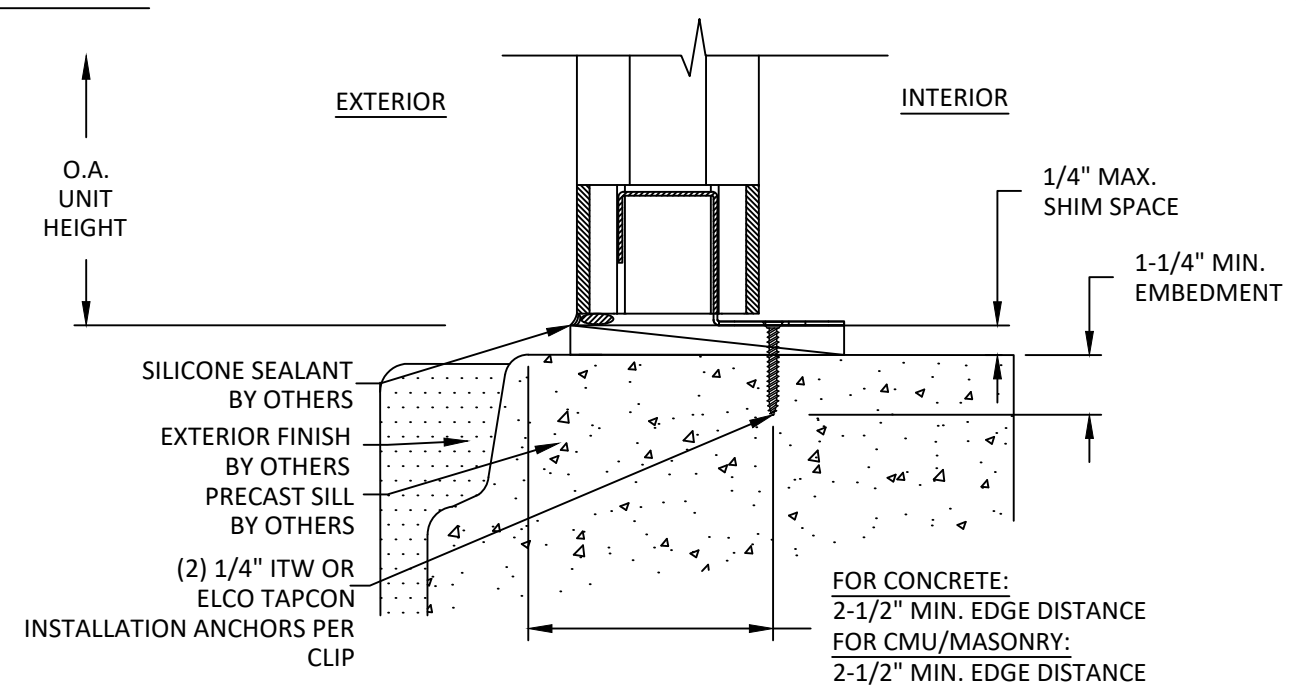
**D
2** CROSS SECTION
TWO-WAY MULLION
TYPICAL



**A
2** VERTICAL SECTION
MASONRY/CONCRETE
MULLION CLIP INSTALLATION



**C
2** HORIZONTAL SECTION
STEEL STUD
MULLION CLIP INSTALLATION



**E
2** VERTICAL SECTION
MASONRY/CONCRETE
ALT. MULLION CLIP INSTALLATION

TITLE: 1500 SERIES BEVELED
TUBE MULLION

MULLION SECTION
DETAILS

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BD
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DWG. BY: ADS		CHK. BY: HFN	
SCALE:		NTS	
DWG. #:		PGW204	
SHEET:		2	
		OF 7	

ONE-WAY MULLION DESIGN PRESSURE CHARTS FOR WOOD & STEEL INSTALLATION

L - Mull Length	W - Tributary Width (in)														
	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
24	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
30	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
36	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
42	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
48	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
54	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
60	150.0	150.0	150.0	150.0	144.7	134.5	126.3	119.8	114.6	110.5	107.4	105.0	103.4	102.4	102.0
66	150.0	146.1	129.5	116.8	106.8	98.9	92.4	87.2	83.0	79.5	76.7	74.4	72.7	71.4	70.5
72	129.2	111.8	98.9	89.0	81.2	74.9	69.8	65.6	62.1	59.3	56.9	54.9	53.3	52.0	51.0
78	101.2	87.5	77.2	69.4	63.2	58.2	54.1	50.7	47.9	45.5	43.5	41.8	40.4	39.2	38.2
83.5	82.3	71.0	62.6	56.2	51.1	47.0	43.6	40.8	38.4	36.4	34.7	33.3	32.0	31.0	30.1
90	65.5	56.5	49.8	44.6	40.5	37.2	34.4	32.2	30.2	28.6	27.2	26.0	25.0	24.1	23.3
96.5	53.0	45.7	40.2	36.0	32.7	29.9	27.7	25.8	24.2	22.9	21.7	20.7	19.8	19.1	18.4
108	37.7	32.5	28.5	25.5	23.1	21.1	19.5	18.2	17.0	16.0	15.2	-	-	-	-
120	27.4	23.6	20.7	18.5	16.7	15.3	-	-	-	-	-	-	-	-	-

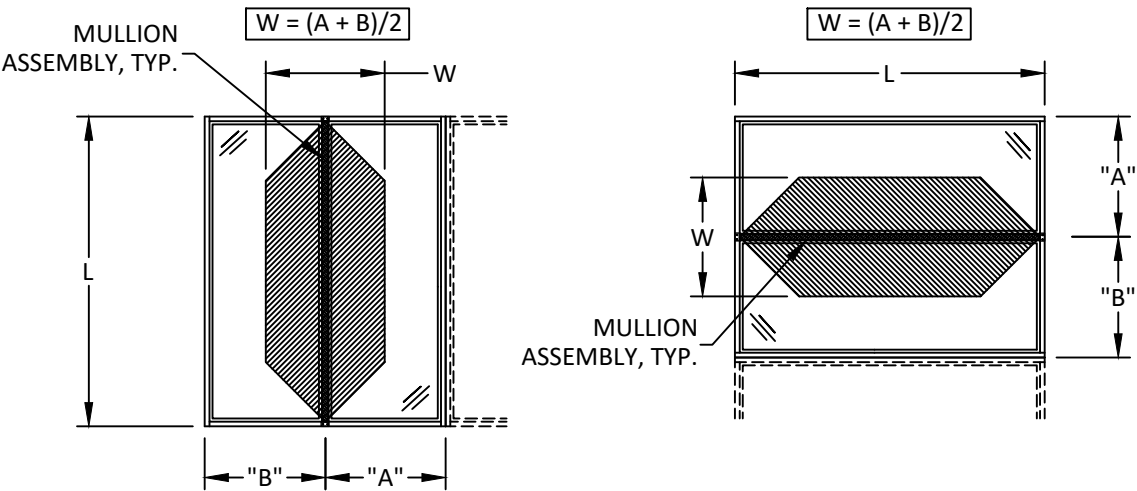
1. THE DESIGN PRESSURES IN THIS CHART ARE FOR ONE-WAY MULLIONS WHEN INSTALLED USING THE MULLION CLIP METHOD.
2. FOR MULLION CLIP METHOD:

A. FOR WOOD FRAMING INSTALLATION USE FOUR (4) #12 WOOD SCREWS PER CLIP (ITEM #2 OR #5). USE ONE CLIP PER MULLION END. WOOD SCREWS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE A 1-1/2" MINIMUM EMBEDMENT INTO FRAMING. SEE SHEET 2 FOR TYPICAL INSTALLATION DETAILS. SEE SHEET 7 FOR ANCHOR PATTERN.

B. FOR STEEL FRAME INSTALLATION USE FOUR (4) #12 GR. 5 SELF-TAPPING SCREWS PER CLIP (ITEM #2 OR #5). USE ONE CLIP PER MULLION END. SELF-TAPPING SCREWS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM (3) THREAD PENETRATION BEYOND STEEL SUBSTRATE. SEE SHEET 2 FOR TYPICAL INSTALLATION DETAILS. SEE SHEET 7 FOR ANCHOR PATTERN.
3. DESIGN PRESSURE VALUES APPLY TO MULLION WHERE TWO OR MORE WINDOWS ARE LISTED IN A SINGLE OPENING.
4. DESIGN PRESSURE VALUES ON THIS CHART ARE POSITIVE AND NEGATIVE PSF.
5. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.

5.1. FASTENERS USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE AND INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.1 (e.g., ASTM A153 CLASS D, ASTM A641 CLASS 3S, OR EQUIVALENT CORROSION RESISTANCE).

5.2. CONNECTORS AND METAL PLATES USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE SHALL BE STANDARD GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.2 (e.g., ASTM A653 G90, ASTM A123, OR PROTECTIVE COATING PER TPI 1).



TYPICAL ONE-WAY MULLION LAYOUTS



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TUBE MULLION

ONE-WAY MULLION
DP CHARTS FOR WOOD/STEEL

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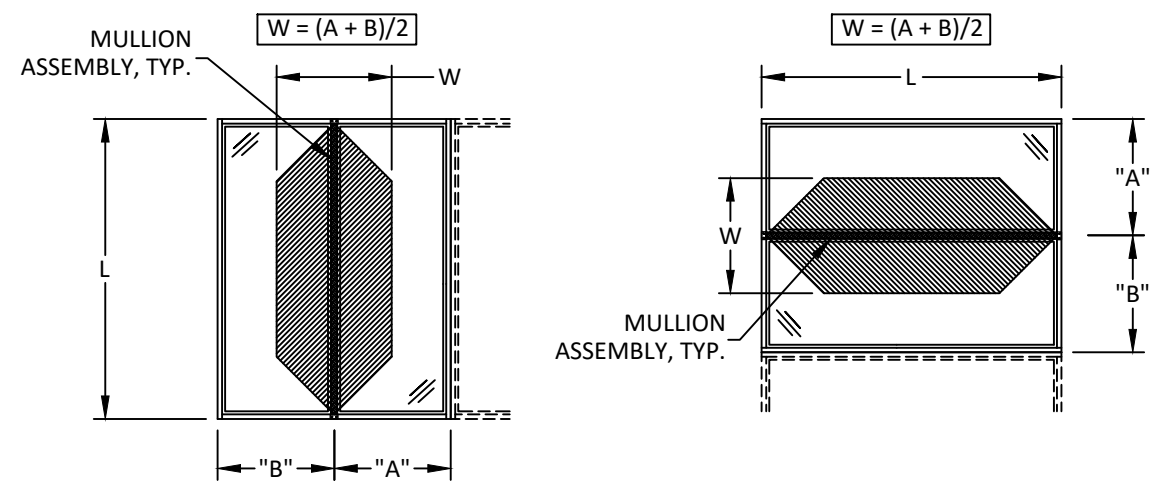
SHEET:

3

ONE-WAY MULLION DESIGN PRESSURE CHARTS FOR CONCRETE & MASONRY INSTALLATION

L - Mull Length	W - Tributary Width (in)														
	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
24	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
30	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
36	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
42	150.0	150.0	150.0	141.4	134.4	129.3	126.0	124.0	123.4	123.4	123.4	123.4	123.4	123.4	123.4
48	150.0	138.2	126.0	116.8	109.9	104.7	100.8	97.9	96.0	94.8	94.5	94.5	94.5	94.5	94.5
54	134.4	119.1	108.0	99.5	93.0	87.9	84.0	80.9	78.5	76.8	75.6	74.9	74.6	74.6	74.6
60	118.5	104.7	94.5	86.7	80.6	75.8	72.0	68.9	66.4	64.5	63.0	61.9	61.1	60.6	60.5
66	106.1	93.4	84.0	76.8	71.1	66.6	63.0	60.0	57.6	55.6	54.0	52.7	51.7	50.9	50.4
72	96.0	84.3	75.6	68.9	63.6	59.4	56.0	53.2	50.8	48.9	47.2	45.9	44.8	43.9	43.2
78	87.6	76.8	68.7	62.5	57.6	53.6	50.4	47.7	45.5	43.6	42.0	40.6	39.5	38.6	37.8
83.5	81.2	71.0	62.6	56.2	51.1	47.0	43.6	40.8	38.4	36.4	34.7	33.3	32.0	31.0	30.1
90	65.5	56.5	49.8	44.6	40.5	37.2	34.4	32.2	30.2	28.6	27.2	26.0	25.0	24.1	23.3
96.5	53.0	45.7	40.2	36.0	32.7	29.9	27.7	25.8	24.2	22.9	21.7	20.7	19.8	19.1	18.4
108	37.7	32.5	28.5	25.5	23.1	21.1	19.5	18.2	17.0	16.0	15.2	-	-	-	-
120	27.4	23.6	20.7	18.5	16.7	15.3	-	-	-	-	-	-	-	-	-

1. THE DESIGN PRESSURES IN THIS CHART ARE FOR ONE-WAY MULLIONS WHEN INSTALLED USING THE MULLION CLIP METHOD OUTLINED BELOW:
- A. FOR CONCRETE/MASONRY FRAMING INSTALLATION USE THREE (3) 3/16" ITW TAPCONS OR ELCO ULTRACONS PER CLIP (ITEM #2) OR USE TWO (2) 1/4" ITW TAPCONS OR ELCO ULTRACONS PER CLIP (ITEM #5). USE ONE CLIP PER MULLION END. TAPCONS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE A 1-1/4" MINIMUM EMBEDMENT INTO SUBSTRATE. SEE SHEET 2 FOR TYPICAL INSTALLATION DETAILS. SEE SHEET 7 FOR ANCHOR PATTERN.
2. DESIGN PRESSURE VALUES APPLY TO MULLION WHERE TWO OR MORE WINDOWS ARE LISTED IN A SINGLE OPENING.
3. DESIGN PRESSURE VALUES ON THIS CHART ARE POSITIVE AND NEGATIVE PSF.
4. THE LESSER DESIGN PRESSURE OF THE MULLION PERFORMANCE AND INDIVIDUAL WINDOW RATING SHALL GOVERN.
5. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- 5.1. FASTENERS USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE AND INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.1 (e.g., ASTM A153 CLASS D, ASTM A641 CLASS 3S, OR EQUIVALENT CORROSION RESISTANCE).
- 5.2. CONNECTORS AND METAL PLATES USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE SHALL BE STANDARD GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.2 (e.g., ASTM A653 G90, ASTM A123, OR PROTECTIVE COATING PER TPI 1).



TYPICAL ONE-WAY MULLION LAYOUTS

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DP CHARTS FOR CONC/MASONRY

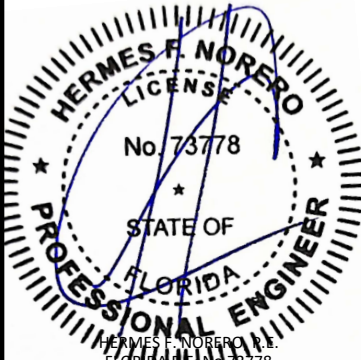
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SHEET:

4

OF 7

TWO-WAY MULLION DESIGN PRESSURE CHARTS FOR WOOD & STEEL INSTALLATION

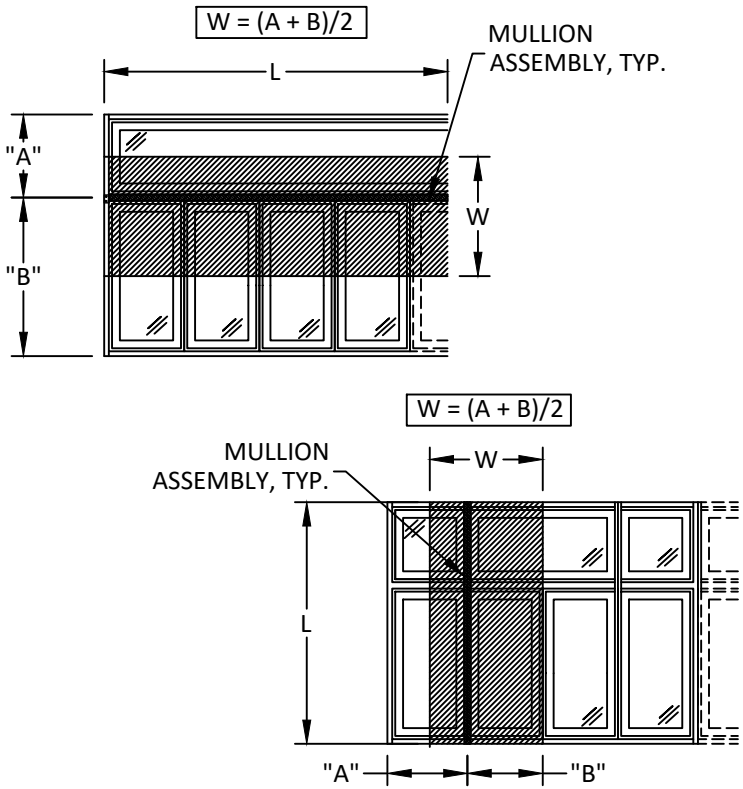
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24	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
30	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	148.7	140.5	133.1	126.4
36	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	140.5	131.7	123.9	117.1	110.9	105.3
42	150.0	150.0	150.0	150.0	150.0	150.0	150.0	138.9	129.0	120.4	112.9	106.2	100.3	95.0	90.3
48	150.0	150.0	150.0	150.0	150.0	143.7	131.7	121.6	112.9	105.3	98.8	93.0	87.8	83.2	79.0
54	150.0	150.0	150.0	150.0	140.5	127.7	117.1	108.0	100.3	93.6	87.8	82.6	78.0	73.9	70.2
60	150.0	150.0	150.0	140.5	126.4	114.9	105.3	97.2	90.3	84.3	79.0	74.4	70.2	66.5	63.2
66	150.0	140.2	122.7	109.0	98.1	89.2	81.8	75.5	70.1	65.4	61.3	57.7	54.5	51.7	49.1
72	126.0	108.0	94.5	84.0	75.6	68.7	63.0	58.1	54.0	50.4	47.2	44.5	42.0	39.8	37.8
78	99.1	84.9	74.3	66.1	59.5	54.0	49.5	45.7	42.5	39.6	37.2	35.0	33.0	31.3	29.7
83.5	80.8	69.2	60.6	53.8	48.5	44.1	40.4	37.3	34.6	32.3	30.3	28.5	26.9	25.5	24.2
90	64.5	55.3	48.4	43.0	38.7	35.2	32.3	29.8	27.6	25.8	24.2	22.8	21.5	20.4	19.4
96.5	52.3	44.9	39.2	34.9	31.4	28.5	26.2	24.2	22.4	20.9	19.6	18.5	17.4	16.5	15.7
108	37.3	32.0	28.0	24.9	22.4	20.4	18.7	17.2	16.0	-	-	-	-	-	-
120	27.2	23.3	20.4	18.1	16.3	-	-	-	-	-	-	-	-	-	-

1. THE DESIGN PRESSURES IN THIS CHART ARE FOR ONE-WAY MULLIONS WHEN INSTALLED USING THE MULLION CLIP METHOD OUTLINED BELOW:
- A. FOR WOOD FRAMING INSTALLATION USE FOUR (4) #12 WOOD SCREWS PER CLIP (ITEM #2 OR #5). USE ONE CLIP PER MULLION END. WOOD SCREWS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE A 1-1/2" MINIMUM EMBEDMENT INTO FRAMING. SEE SHEET 2 FOR TYPICAL INSTALLATION DETAILS. SEE SHEET 7 FOR ANCHOR PATTERN.

B. FOR STEEL FRAME INSTALLATION USE FOUR (4) #12 GR. 5 SELF-TAPPING SCREWS PER CLIP (ITEM #2 OR #5). USE ONE CLIP PER MULLION END. SELF-TAPPING SCREWS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM (3) THREAD PENETRATION BEYOND STEEL SUBSTRATE. SEE SHEET 2 FOR TYPICAL INSTALLATION DETAILS. SEE SHEET 7 FOR ANCHOR PATTERN.
2. DESIGN PRESSURE VALUES APPLY TO MULLION WHERE TWO OR MORE WINDOWS ARE LISTED IN A SINGLE OPENING.
3. DESIGN PRESSURE VALUES ON THIS CHART ARE POSITIVE AND NEGATIVE PSF.
4. THE LESSER DESIGN PRESSURE OF THE MULLION PERFORMANCE AND INDIVIDUAL WINDOW RATING SHALL GOVERN.
5. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.

5.1. FASTENERS USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE AND INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.1 (e.g., ASTM A153 CLASS D, ASTM A641 CLASS 3S, OR EQUIVALENT CORROSION RESISTANCE).

5.2. CONNECTORS AND METAL PLATES USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE SHALL BE STANDARD GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.2 (e.g., ASTM A653 G90, ASTM A123, OR PROTECTIVE COATING PER TPI 1).



TYPICAL TWO-WAY MULLION LAYOUTS

TITLE:

1500 SERIES BEVELED
TUBE MULLION

TWO-WAY MULLION
DP CHARTS FOR WOOD/STEEL

PREPARED BY:

BUILDING DROPS, INC.
1900 NE MIAMI CT, SUITE 2-15
MIAMI, FL 33132
PH: (954) 999-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com



BUILDING DROPS

REMARKS	BY	DATE
ADDED NOTES ON SHEET 4, 5 & 6	LMH	09.03.17
CURRENT FBC	LMH	07.29.26

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



HERMES F. NORERO
LICENSE
No. 73778
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
HERMES F. NORERO, P.E.
FLORIDA LICENSE NO. 73778
BUILDING DROPS, INC
1900 NE MIAMI CT, SUITE 2-15
MIAMI, FL 33132
FBPE CERT. OF AUTHORIZATION No. 29578

FL #:

16118

DATE:

06.26.13

DWG. BY:

ADS

CHK. BY:

HFN

SCALE:

NTS

DWG. #:

PGW204

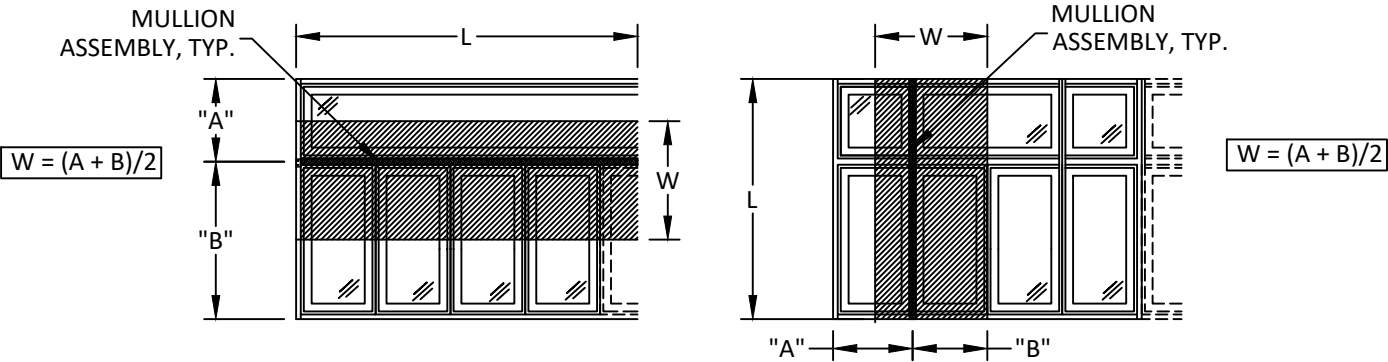
SHEET:

5

OF 7

TWO-WAY MULLION DESIGN PRESSURE CHARTS FOR CONCRETE & MASONRY INSTALLATION WITH CLIP (ITEM #2)

L - Mull Length	W - Tributary Width (in)														
	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
24	150.0	150.0	150.0	150.0	150.0	137.4	126.0	116.3	108.0	100.8	94.5	88.9	84.0	79.6	75.6
30	150.0	150.0	150.0	134.4	120.9	109.9	100.8	93.0	86.4	80.6	75.6	71.1	67.2	63.6	60.5
36	150.0	144.0	126.0	112.0	100.8	91.6	84.0	77.5	72.0	67.2	63.0	59.3	56.0	53.0	50.4
42	144.0	123.4	108.0	96.0	86.4	78.5	72.0	66.4	61.7	57.6	54.0	50.8	48.0	45.5	43.2
48	126.0	108.0	94.5	84.0	75.6	68.7	63.0	58.1	54.0	50.4	47.2	44.5	42.0	39.8	37.8
54	112.0	96.0	84.0	74.6	67.2	61.1	56.0	51.7	48.0	44.8	42.0	39.5	37.3	35.4	33.6
60	100.8	86.4	75.6	67.2	60.5	55.0	50.4	46.5	43.2	40.3	37.8	35.6	33.6	31.8	30.2
66	91.6	78.5	68.7	61.1	55.0	50.0	45.8	42.3	39.3	36.6	34.4	32.3	30.5	28.9	27.5
72	84.0	72.0	63.0	56.0	50.4	45.8	42.0	38.8	36.0	33.6	31.5	29.6	28.0	26.5	25.2
78	77.5	66.4	58.1	51.7	46.5	42.3	38.8	35.8	33.2	31.0	29.1	27.4	25.8	24.5	23.3
83.5	72.4	62.1	54.3	48.3	43.4	39.5	36.2	33.4	31.0	29.0	27.2	25.6	24.1	22.9	21.7
90	64.5	55.3	48.4	43.0	38.7	35.2	32.3	29.8	27.6	25.8	24.2	22.8	21.5	20.4	19.4
96.5	52.3	44.9	39.2	34.9	31.4	28.5	26.2	24.2	22.4	20.9	19.6	18.5	17.4	16.5	15.7
108	37.3	32.0	28.0	24.9	22.4	20.4	18.7	17.2	16.0	-	-	-	-	-	-
120	27.2	23.3	20.4	18.1	16.3	-	-	-	-	-	-	-	-	-	-



TYPICAL TWO-WAY MULLION LAYOUTS

TWO-WAY MULLION DESIGN PRESSURE CHARTS FOR CONCRETE & MASONRY INSTALLATION WITH ALTERNATE CLIP (ITEM #5)

L - Mull Length	W - Tributary Width (in)														
	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
24	150.0	150.0	150.0	150.0	150.0	150.0	150.0	138.5	128.6	120.0	112.5	105.9	100.0	94.7	90.0
30	150.0	150.0	150.0	150.0	144.0	130.9	120.0	110.8	102.9	96.0	90.0	84.7	80.0	75.8	72.0
36	150.0	150.0	150.0	133.3	120.0	109.1	100.0	92.3	85.7	80.0	75.0	70.6	66.7	63.2	60.0
42	150.0	146.9	128.6	114.3	102.9	93.5	85.7	79.1	73.5	68.6	64.3	60.5	57.1	54.1	51.4
48	150.0	128.6	112.5	100.0	90.0	81.8	75.0	69.2	64.3	60.0	56.3	52.9	50.0	47.4	45.0
54	133.3	114.3	100.0	88.9	80.0	72.7	66.7	61.5	57.1	53.3	50.0	47.1	44.4	42.1	40.0
60	120.0	102.9	90.0	80.0	72.0	65.5	60.0	55.4	51.4	48.0	45.0	42.4	40.0	37.9	36.0
66	109.1	93.5	81.8	72.7	65.5	59.5	54.5	50.3	46.8	43.6	40.9	38.5	36.4	34.4	32.7
72	100.0	85.7	75.0	66.7	60.0	54.5	50.0	46.2	42.9	40.0	37.5	35.3	33.3	31.6	30.0
78	92.3	79.1	69.2	61.5	55.4	50.3	46.2	42.6	39.6	36.9	34.6	32.6	30.8	29.1	27.7
83.5	80.8	69.2	60.6	53.8	48.5	44.1	40.4	37.3	34.6	32.3	30.3	28.5	26.9	25.5	24.2
90	64.5	55.3	48.4	43.0	38.7	35.2	32.3	29.8	27.6	25.8	24.2	22.8	21.5	20.4	19.4
96.5	52.3	44.9	39.2	34.9	31.4	28.5	26.2	24.2	22.4	20.9	19.6	18.5	17.4	16.5	15.7
108	37.3	32.0	28.0	24.9	22.4	20.4	18.7	17.2	16.0	-	-	-	-	-	-
120	27.2	23.3	20.4	18.1	16.3	-	-	-	-	-	-	-	-	-	-

1. THE DESIGN PRESSURES IN THIS CHART ARE FOR ONE-WAY MULLIONS WHEN INSTALLED USING THE MULLION CLIP METHOD OUTLINED BELOW:
- A. FOR CONCRETE/MASONRY FRAMING INSTALLATION USE THREE (3) 3/16" ITW TAPCONS OR ELCO ULTRACONS PER CLIP (ITEM #2). USE ONE CLIP PER MULLION END. TAPCONS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE A 1-1/4" MINIMUM EMBEDMENT INTO SUBSTRATE. SEE SHEET 2 FOR TYPICAL INSTALLATION DETAILS. SEE SHEET 7 FOR ANCHOR PATTERN.
2. DESIGN PRESSURE VALUES APPLY TO MULLION WHERE TWO OR MORE WINDOWS ARE LISTED IN A SINGLE OPENING.
3. DESIGN PRESSURE VALUES ON THIS CHART ARE POSITIVE AND NEGATIVE PSF.
4. THE LESSER DESIGN PRESSURE OF THE MULLION PERFORMANCE AND INDIVIDUAL WINDOW RATING SHALL GOVERN.
5. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- 5.1. FASTENERS USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE AND INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.1 (e.g., ASTM A153 CLASS D, ASTM A641 CLASS 3S, OR EQUIVALENT CORROSION RESISTANCE).
- 5.2. CONNECTORS AND METAL PLATES USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE SHALL BE STANDARD GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.2 (e.g., ASTM A653 G90, ASTM A123, OR PROTECTIVE COATING PER TPI 1).

1. THE DESIGN PRESSURES IN THIS CHART ARE FOR ONE-WAY MULLIONS WHEN INSTALLED USING THE MULLION CLIP METHOD OUTLINED BELOW:
- A. FOR CONCRETE/MASONRY FRAMING INSTALLATION USE TWO (2) 1/4" ITW TAPCONS OR ELCO ULTRACONS PER CLIP (ITEM #5). USE ONE CLIP PER MULLION END. TAPCONS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE A 1-1/4" MINIMUM EMBEDMENT INTO SUBSTRATE. SEE SHEET 2 FOR TYPICAL INSTALLATION DETAILS. SEE SHEET 7 FOR ANCHOR PATTERN.
2. DESIGN PRESSURE VALUES APPLY TO MULLION WHERE TWO OR MORE WINDOWS ARE LISTED IN A SINGLE OPENING.
3. DESIGN PRESSURE VALUES ON THIS CHART ARE POSITIVE AND NEGATIVE PSF.
4. THE LESSER DESIGN PRESSURE OF THE MULLION PERFORMANCE AND INDIVIDUAL WINDOW RATING SHALL GOVERN.
5. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- 5.1. FASTENERS USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE AND INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.1 (e.g., ASTM A153 CLASS D, ASTM A641 CLASS 3S, OR EQUIVALENT CORROSION RESISTANCE).
- 5.2. CONNECTORS AND METAL PLATES USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE SHALL BE STANDARD GALVANIZED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1711.1.2 (e.g., ASTM A653 G90, ASTM A123, OR PROTECTIVE COATING PER TPI 1).

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WINDOWS & DOORS
Part of the Cornerstone Building Brands Family
433 N. MAIN ST., PO BOX 559,
ROCKY MOUNT, VA 24151
PH: 540-484-6348 FX: 540-484-6683

TITLE: 1500 SERIES BEVELED TUBE MULLION
TWO-WAY MULLION DP CHARTS FOR CONC./MASONRY
PREPARED BY: BUILDING DROPS, INC.
1900 NE MIAMI CT. SUITE 2-15
MIAMI, FL 33132
PH: (954) 395-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
ADDED NOTES ON SHEET 4, 5 & 6	LMH	09.03.17
CURRENT FBC	LMH	07.29.26

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FL #: 16118
DATE: 06.26.13
DWG. BY: ADS
CHK. BY: HFN
SCALE: NTS
DWG. #: PGW204
SHEET: 6
OF 7

TITLE:

1500 SERIES BEVELED
TUBE MULLION

ANCHOR PATTERNS

PREPARED BY:

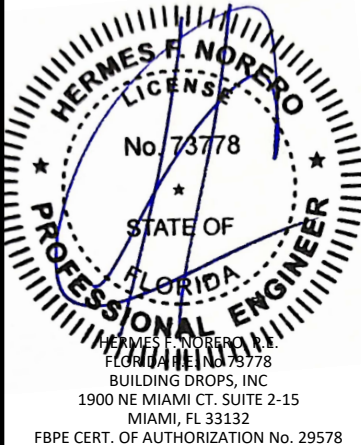
BUILDING DROPS

BUILDING DROPS, INC.

1900 NE MIAMI CT. SUITE 2-15
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PH: (954)399-8478
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REMARKS	BY	DATE
ADDED NOTES ON SHEET 4, 5 & 6	LMH	09.03.17
CURRENT FBC	LMH	07.29.26

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HERMES F. NORERO, P.E.
FLORIDA LICENSE NO. 73778
BUILDING DROPS, INC
1900 NE MIAMI CT. SUITE 2-15
MIAMI, FL 33132
FBPE CERT. OF AUTHORIZATION No. 29578

FL #:

16118

DATE:

06.26.13

DWG. BY:

ADS

CHK. BY:

HFN

SCALE:

NTS

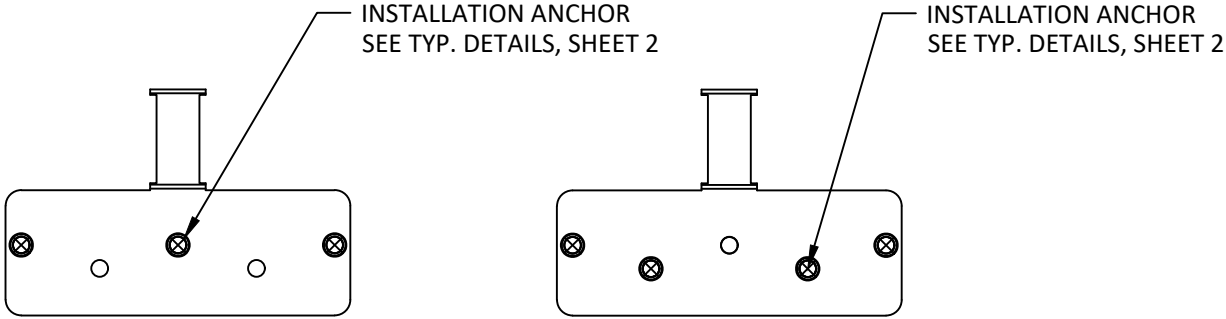
DWG. #:

PGW204

SHEET:

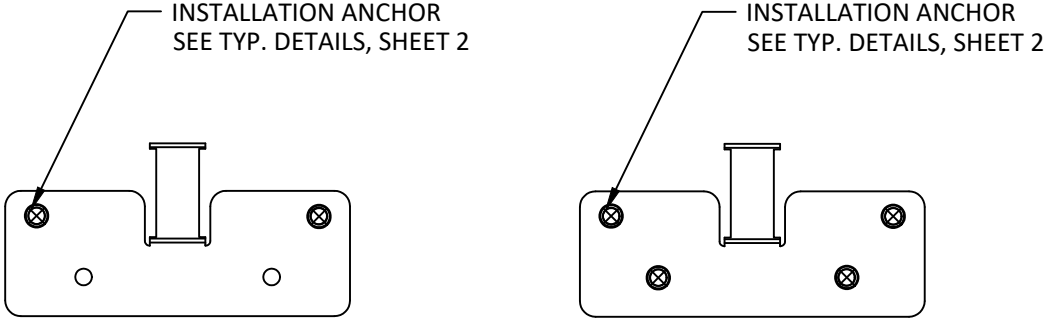
7

OF 7



ANCHOR PATTERN
CONCRETE/MASONRY SUBSTRATES

ANCHOR PATTERN
WOOD/STEEL SUBSTRATES



ANCHOR PATTERN
CONCRETE/MASONRY SUBSTRATES
ALTERNATE CLIP

ANCHOR PATTERN
WOOD/STEEL SUBSTRATES
ALTERNATE CLIP