

HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS

GENERAL NOTES:

- HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS, SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2020 (7th EDITION) OF THE FLORIDA BUILDING CODE. PRODUCT MAY BE INSTALLED WITHIN HIGH VELOCITY HURRICANE ZONES (H.V.H.Z) AND OUT OF IT (N.H.V.H.Z).
- DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 AND 1609 OF THE ABOVE MENTIONED CODE. USING ASCE 7-16 AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON NOTE 2 BELOW. IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-16 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE W/MAX. (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON NOTE 2 BELOW.
- IN ORDER TO VERIFY THAT ANCHORS ON THIS P.E.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS **NOT** USED IN THEIR ANALYSIS. FASTENERS SPACING TO WOOD HAS BEEN DETERMINED IN ACCORDANCE WITH N.D.S. 2018 AND OR AVAILABLE TEST DATA FROM MANUFACTURER. THIS PRODUCT'S ADEQUACY FOR IMPACT AND CYCLIC RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION **1626 & 1609.1.2 & AAMA 501** (PER SECTION **2411.3.2.1.1**) OF THE ABOVE MENTIONED CODE AS PER PROTOCOLS TAS-201, TAS-202, TAS-203, PER FENESTRATION TESTING LABORATORY REPORT # 6179 AND AS PER SUBMITTED STRUCTURAL CALCULATIONS, PERFORMED AS PER SECTION **1616 & 1604** OF THE FLORIDA BUILDING CODE.
- MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR THIS PRODUCT SHALL BE AS SHOWN ON SHEETS 5 THRU 15 & 23.**
- THIS PRODUCT WILL NOT REQUIRE AN APPROVED HURRICANE PROTECTION DEVICE.**
- THIS PRODUCT IS APPROVED FOR WATER INFILTRATION AT 19.5 p.s.f.**
- THIS PRODUCT COMPLIES WITH SECTIONS 2406 OF THE FLORIDA BUILDING CODE.
- ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY AND TEMPER. THE THICKNESS OF ALL EXTRUSIONS SHALL BE AS SHOWN ON SHEET 2 OF THIS DRAWING.
- PROVIDE 1/4" OR 3/8" MAX. LOAD BEARING SHIM SPACE (TYP.), WHEN ALLOWED BY THIS DRAWING.
- WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE BUILDING STRUCTURE. WOOD BUCKS MUST BE SOUTHERN PINE #2, G = 0.55. AND SHALL COMPLY WITH SECTIONS 2411.3.3.3 OF THE FLORIDA BUILDING CODE.
 - 2 X WOOD BUCKS MUST BE ANCHORED PROPERLY TO EXISTING STRUCTURE TO TRANSFER LOADS TO IT. ANCHORAGE IS INDEPENDENT OF GLASS WALL FRAME MUST BE SEPARATELY ANCHORED TO 2X WOOD WOOD BUCK FOLLOWING DETAILS ON THIS DRAWINGS.
 - 1X WOOD BUCK (OR ANY WOOD BUCK LESS THAN 2X) MUST BE PROPERLY ANCHORED TO EXISTING STRUCTURE TO TRANSFER LOADS TO IT. GLASS WALL FRAME ANCHOR SHALL BE USED TO ATTACH 1X WOOD BUCK TO EXISTING STRUCTURE BY DRIVING ANCHOR THRU BOTH GLASS WALL FRAME & 1X WOOD BUCK INTO EXISTING STRUCTURE W/PROPER EMBEDMENT AND EDGE DISTANCE AS SHOWN ON THIS DRAWING.
 - GLASS WALL FRAME MAY BE DIRECTLY CONNECTED TO EXISTING STRUCTURE WITH NO NEED OF WOOD BUCKS WHEN MASONRY OPENING IS NOT LARGER THAN ACTUAL GLASS WALL FRAME OVERALL DIMENSIONS. HOWEVER, SHIMS (SEE NOTE 7) MAY BE ALLOWED AT GLASS WALL FRAME ANCHOR LOCATION IF NEEDED.
- REMAINING COMPONENTS FOR THIS PRODUCT SHALL BE AS INDICATED ON BILL OF MATERIALS, SHEET 3 OF THIS DRAWING.
- ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2015 ALUMINUM DESIGN MANUAL.
- SEE ANCHOR SCHEDULES ON SHEETS 8 THRU 13 FOR ANCHOR TYPE IDENTIFICATION AND SPACING.
- SHOP DRAWINGS PREPARED BASED ON THIS APPROVAL AND TAKING INTO ACCOUNT THE SPECIFIC JOB CONDITIONS, SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AS PART OF THE PERMIT DOCUMENTS.
- STRUCTURAL SUBSTRATES NOTED ON THIS DRAWING AS "EXISTING STEEL BY OTHERS", POURED CONCRETE AND WOOD MUST WITHSTAND THE LOADS IMPOSED BY THIS PRODUCT.
- PRODUCT'S MANUFACTURER LABEL SHALL BE PLACED ON A READILY VISIBLE LOCATION AT PRODUCE IN ACCORDANCE WITH SECTION 1709.5 OF THE FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY UNIT.
- THIS P.E.D. PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEViate FROM THE P.E.D.
 - CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS P.E.D., PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
 - THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
 - SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D.
 - ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

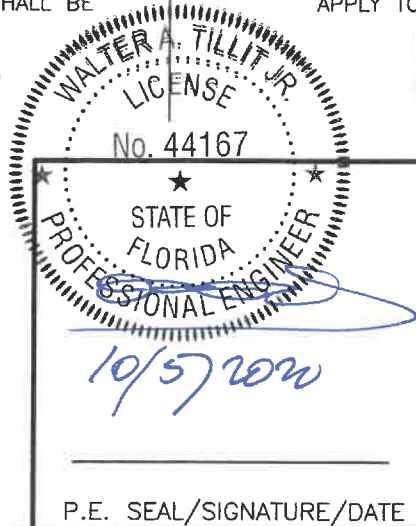
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- SHEET 1: GENERAL NOTES, INDEX AND INSTRUCTIONS.
- SHEET 2: HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 COMPONENTS.
- SHEET 3: GLAZING DETAILS & BILL OF MATERIALS.
- SHEET 4: ELEVATIONS FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000.
- SHEETS : MAXIMUM FRAME WIDTH "a" AND FRAME LENGTH "b" VERSUS A.S.D. DESIGN PRESSURE RATING (psf) SCHEDULE, VALID ONLY FOR INSTALLATIONS WITH JAMBS J-1, J-1A, J-2, J-2A, AND MULLIONS M-1, M-1A, M-2, M-2A.
- 5 & 5A SHEET 6: MAX. A.S.D. DESIGN PRESSURE RATING FOR INTERIOR VERTICAL & JAMB MULLIONS SPAN.
- SHEET 7: MAX. A.S.D. DESIGN PRESSURE RATING FOR INTERIOR VERTICAL & JAMB MULLIONS SPAN. (CONTINUED)
- SHEET 8: MAX. A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS FOR 1/4" MAX. LOAD BEARING SHIM SPACE.
- SHEET 9: MAX. A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS FOR 1/4" MAX. LOAD BEARING SHIM SPACE. (CONTINUED)
- SHEET 10: MAX. A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS FOR 1/4" MAX. LOAD BEARING SHIM SPACE. (CONTINUED)
- SHEET 11: MAX. A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS FOR 3/8" MAX. LOAD BEARING SHIM SPACE.
- SHEET 12: MAX. A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS FOR 3/8" MAX. LOAD BEARING SHIM SPACE. (CONTINUED)
- SHEET 13: MAX. A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS FOR 3/8" MAX. LOAD BEARING SHIM SPACE. (CONTINUED)
- SHEET 14: MAX. A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR HORIZONTAL MULLIONS SPAN.
- SHEET 15: MAX. A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR HORIZONTAL MULLIONS SPAN. (CONTINUED)
- SHEET 16: HORIZONTAL CONNECTION DETAILS.
- SHEET 17: HEAD & SILL CONNECTIONS DETAILS.
- SHEET 18: HEAD & SILL CONNECTIONS DETAILS. (CONTINUED)
- SHEET 19: HORIZONTAL SECTIONS AT INTERIOR VERTICAL MULLIONS AT STRAIGHT GLASS WALLS APPLICATION.
- SHEET 20: HORIZONTAL SECTIONS AT INTERIOR VERTICAL MULLIONS PLUS JAMB MULLIONS AT CURVED GLASS WALLS APPLICATION.
- SHEET 21: HORIZONTAL SECTIONS AT JAMB MULLIONS AT STRAIGHT GLASS WALLS APPLICATION.
- SHEET 22: ELEVATION FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 ADJACENT TO APPROVED DOOR (ON SEPARATE NOA).
- SHEET 23: MAX. A.S.D. DESIGN PRESSURE RATING FOR DOOR JAMB MULLION SPAN.
- SHEET 24: JOINT CONNECTION DETAIL & ARCHED HEAD ① SPLINE CONNECTION DETAIL.

INSTRUCTIONS:

- STEP 1:** DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BUILDING HEIGHT, WIND ZONE, USING APPLICABLE ASCE 7 STANDARDS.
- STEP 2:** GO TO SCHEDULE ON SHEETS 5, 5A, 5B & 5C TO DETERMINE MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf) CAPACITY OF DESIRED GLASS SIZE BASED ON GLASS PANEL DIMENSIONS.
- STEP 3:** DETERMINE MAXIMUM INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) FOR A GIVEN MULLION EFFECTIVE SPACING "b", ON SCHEDULE ON SHEETS 6 & 7, AND SELECT ANCHOR OPTION W/ A.S.D. DESIGN PRESSURE RATING EQUAL OR GREATER THAN A.S.D. DESIGN WIND LOAD SPECIFIED IN **STEP 1** USING SCHEDULES ON SHEET 8 THRU 13.
- STEP 4:** USING SCHEDULES ON SHEETS 14 & 15, VERIFY MAXIMUM A.S.D. DESIGN PRESSURE RATING OF HORIZONTAL MULLIONS (IF USED). FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O.".
- STEP 5:** THE LOWEST VALUE OF A.S.D. DESIGN PRESSURE RATINGS RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO THE ENTIRE SYSTEM.

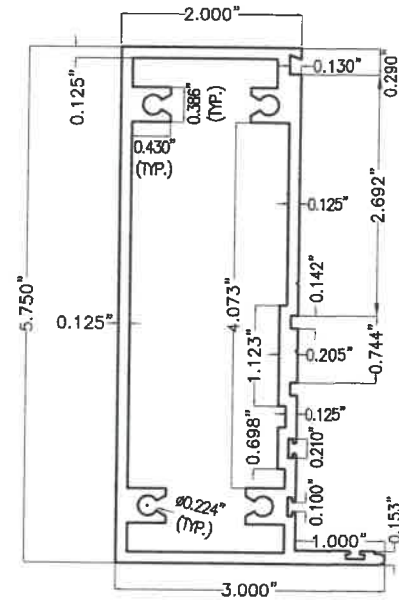
THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA



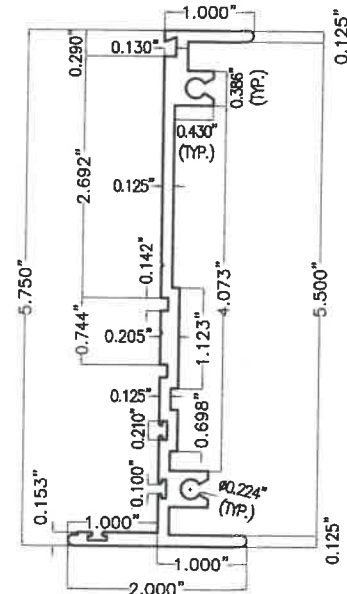
FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)					
©2020 TILTECO, INC. TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 e-mail: tilteco@aol.com CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167			HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS ALUMINA DISTRIBUTION CENTER 15002 N.W. 107 AVENUE SUITE # 1 HIALEAH GARDENS, FL 33018 PHONE: (305) 444-1198		
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-009	08/03/20	3		
2			4	-	-
					F.P. DRAWN BY 08/03/2020 DATE 20-234 DRAWING No SHEET 1 OF 24

COMPONENTS FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000

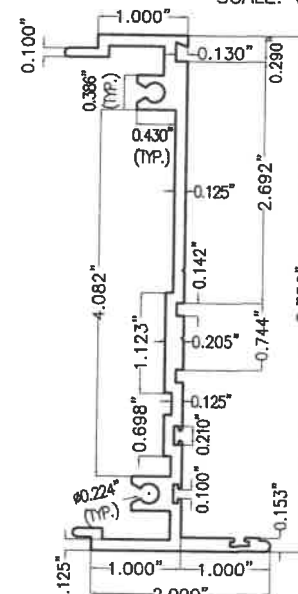
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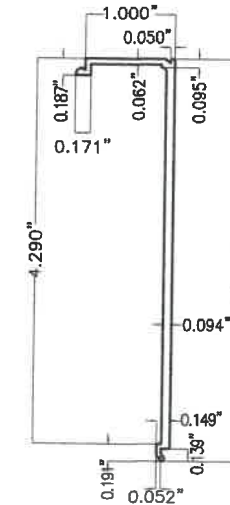
1 **FRAME JAMB, HEAD & SILL**
(1/8" THICK)



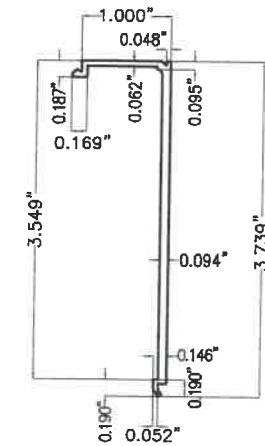
2 **FEMALE MULLION**
(1/8" THICK)



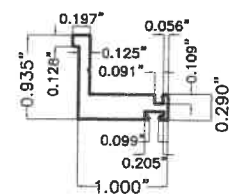
3 **MALE MULLION**
(1/8" THICK)



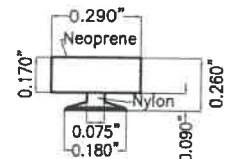
4 **LAMINATED WINDOW COVER**



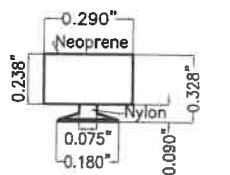
4A **INSULATED WINDOW COVER**



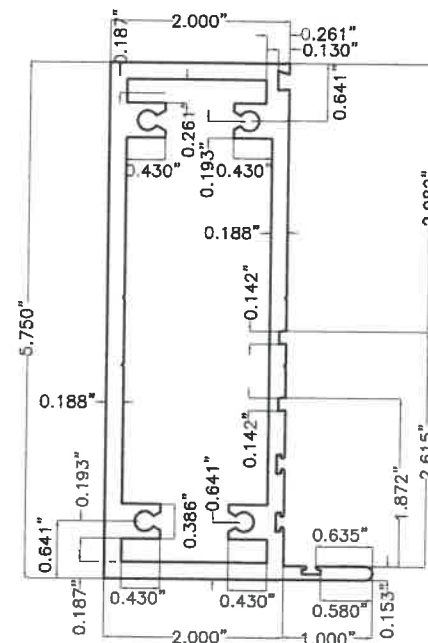
5 **GLAZING BEAD ANGLE**
6063-T6 ALUMINUM ALLOY



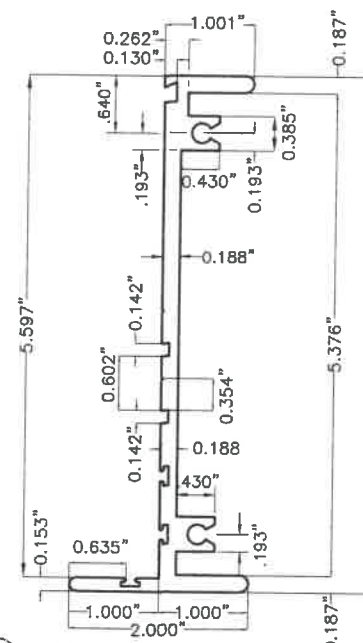
6 **SOLID RUBBER GASKET**
NEOPRENE/NYLON
N.T.S.



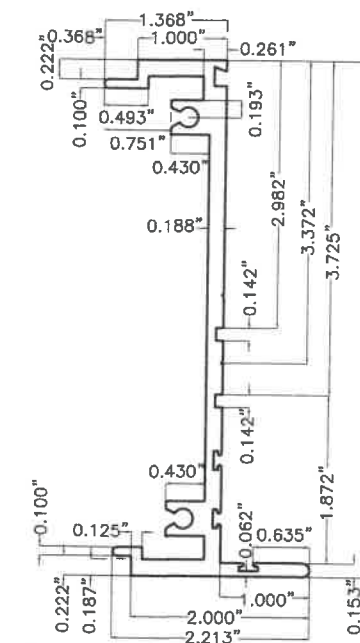
6A **SOLID RUBBER GASKET**
NEOPRENE/NYLON
N.T.S.



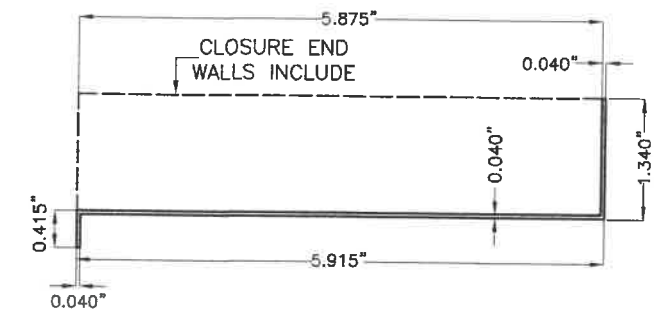
15 **FRAME JAMB, HEAD & SILL**
(3/16" THICK)



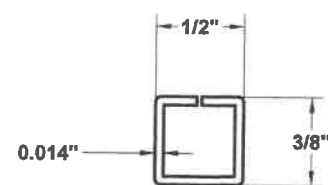
16 **FEMALE MULLION**
(3/16" THICK)



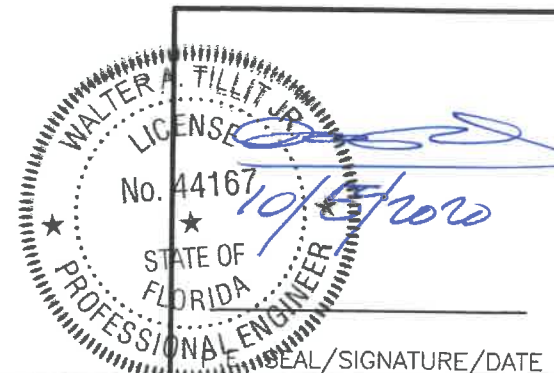
17 **MALE MULLION**
(3/16" THICK)



18 **SILL FLASHING**
(OPTIONAL)
3105-H14 ALUMINUM ALLOY



19 **INSULATED GLASS**
UNIT SPACER
NTS



FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

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SERIES 12000 LARGE MISSILE LAMINATED &
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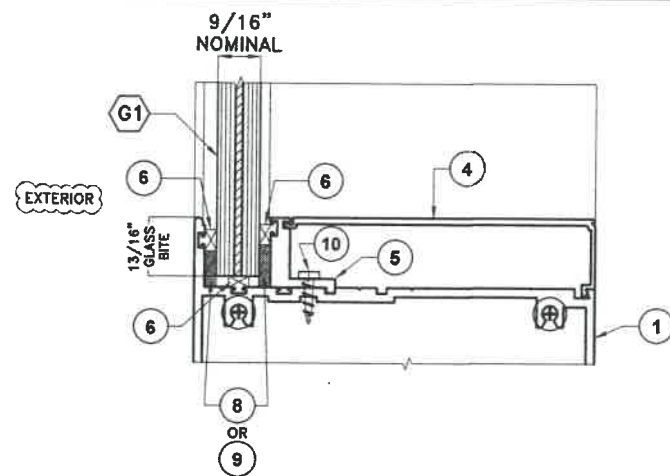
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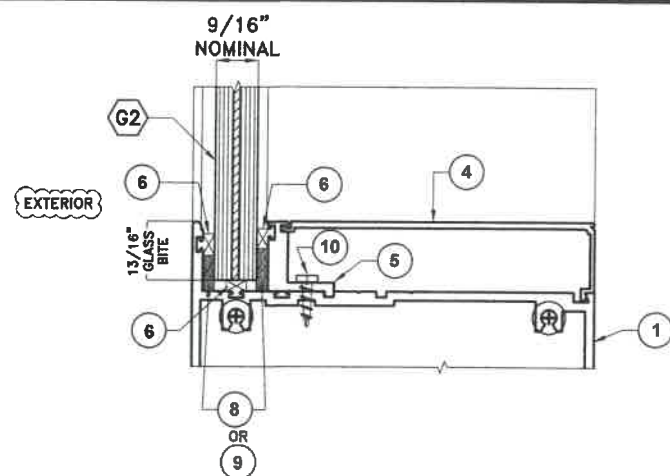
20-234
DRAWING No

SHEET 2 OF 24

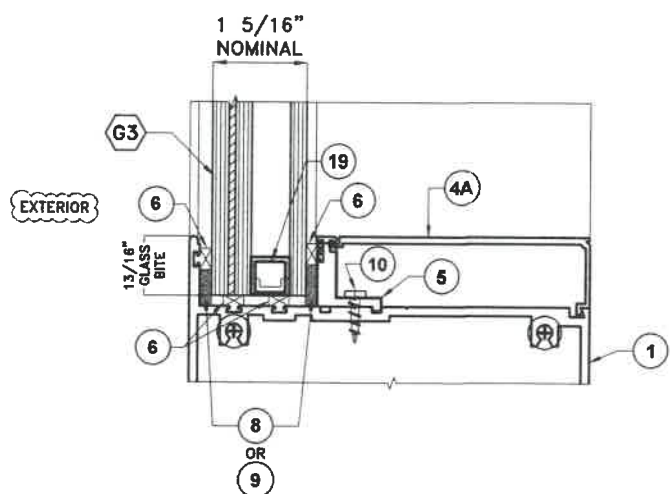
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2	COMP. 19	10/2/20	4		



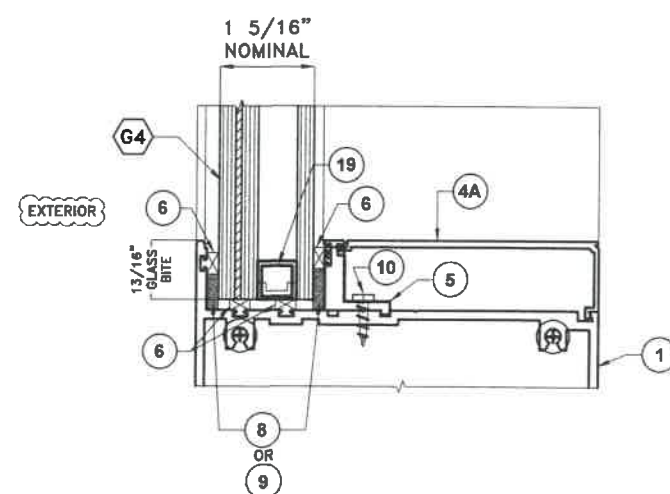
GLAZING DETAIL FOR G1



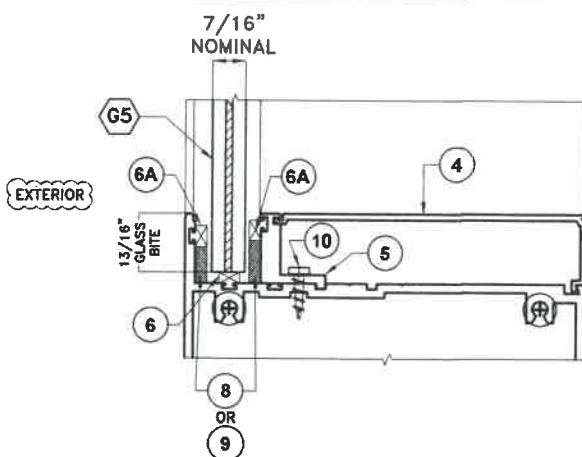
GLAZING DETAIL FOR G2



GLAZING DETAIL FOR G3



GLAZING DETAIL FOR G4



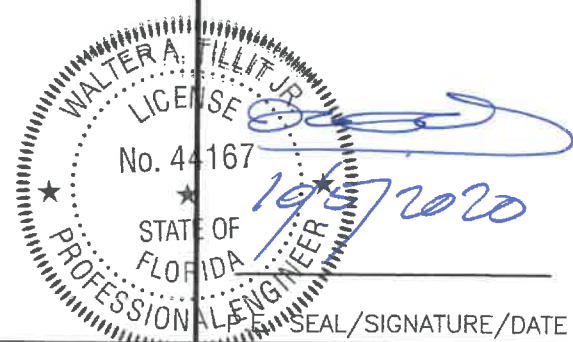
GLAZING DETAIL FOR G5

GLAZING DETAILS

SCALE: 3/8" = 1"

BILL OF MATERIALS

ITEM #	DESCRIPTION	DIMENSIONS & REMARKS	MATERIAL
1	FRAME JAMB, HEAD & SILL	5.75" x 3" x 0.125" THK.	6063-T6 ALUMINUM
2	FEMALE MULLION	5.75" x 2" x 0.125" THK.	6063-T6 ALUMINUM
3	MALE MULLION	5.75" x 2" x 0.125" THK.	6063-T6 ALUMINUM
4	LAMINATED WINDOW COVER	4.682" x 1" x VARIES THK.	6063-T6 ALUMINUM
4A	INSULATED WINDOW COVER	3.941" x 1" x VARIES THK.	6063-T6 ALUMINUM
5	GLAZING BEAD ANGLE	0.935" x 1"	6063-T6 ALUMINUM
6	SOLID RUBBER GASKET	0.260"x0.290"	NEOPRENE/NYLON
6A	SOLID RUBBER GASKET	0.328"x0.290"	NEOPRENE/NYLON
8	STRUCTURAL SILICONE DOW CORNING 995	ALL AROUND GLASS	SILICONE OPTIONAL TO 9
9	STRUCTURAL SILICONE DOW CORNING 795	ALL AROUND GLASS	SILICONE OPTIONAL TO 8
10	GLAZING BEAD ANGLE ASSEMBLY SCREW	1/4"x1" TEK SCREW @ 8" o.c.	STEEL
11	SPLINE ASSEMBLY SCREW	1/4"x2 3/4" F.H. TEK SCREW	STEEL
11A	ARCH SPLINE ASSEMBLY SCREW	1/4"x2 3/4" F.H. TEK SCREW	STEEL
12	JOINT DETAIL (METAL TO METAL) GASKET 1/16 XLP W/ RUBBER BASED PSA	OPTIONAL TO 13 FOR INTERNAL JOINT. MANUFACTURED BY FRANK LOWE RUBBER & GASKET CO.	CLOSED CELL POLYETHYLENE FOAM TAPE COATED IN ONE SIDE
13	STRUCTURAL SILICONE 795 DOW CORNING	OPTIONAL TO 12 FOR INTERNAL JOINT, PLUS EXTERIOR FRAME SEALANT ALL AROUND PERIMETER	SILICONE
14	MULLION ASSEMBLY BOLT	1/4"-20x2 1/2" THRU BOLT W/ NUT @ 12" O.C. (START @ 6" O.C. FROM TOP/BOTTOM)	STAINLESS STEEL AISI 304 SERIES
15	FRAME JAMB, HEAD & SILL	5.75"x3"x0.188" THK.	6063-T6 ALUMINUM
16	FEMALE MULLION	5.75"x2"x0.188" THK.	6063-T6 ALUMINUM
17	MALE MULLION	5.75"x2"x0.188" THK.	6063-T6 ALUMINUM
18	SILL FLASHING (OPTIONAL)	1.340" MIN.x5.915" MIN.x0.415" MIN.x0.040" THK.	3105-H14 ALUMINUM
G1	9/16" NOMINAL LAMINATED GLASS W/ 1/4" H.S. GLASS + 0.090" SENTRYGLAS® INTERLAYER + 1/4" H.S. GLASS.	KURARAY AMERICA, INC.	GLASS
G2	9/16" NOMINAL LAMINATED GLASS W/ 1/4" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER + 1/4" H.S. GLASS.	KURARAY AMERICA, INC.	GLASS
G3	1 5/16" NOMINAL INSULATED GLASS W/ 1/4" H.S. GLASS + 0.090" SENTRYGLAS® INTERLAYER + 1/4" H.S. GLASS + 1/2" AIR SPACE + 1/4" INTERIOR MONOLITHIC TEMPERED GLASS	KURARAY AMERICA, INC.	GLASS
G4	1 5/16" NOMINAL INSULATED GLASS W/ 1/4" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER + 1/4" H.S. GLASS + 1/2" AIR SPACE + 1/4" INTERIOR MONOLITHIC TEMPERED GLASS	KURARAY AMERICA, INC.	GLASS
G5	7/16" NOMINAL LAMINATED GLASS W/ 3/16" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER + 3/16" H.S. GLASS.	KURARAY AMERICA, INC.	GLASS
19	INSULATED GLASS UNIT SPACER	1/2"x 0.014" THK. (SEE SHT. 2)	3105-H24 ALUMINUM



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SERIES 12000 LARGE MISSILE LAMINATED &
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HIALEAH GARDENS, FL 33018
PHONE: (305) 444-1198

F.P
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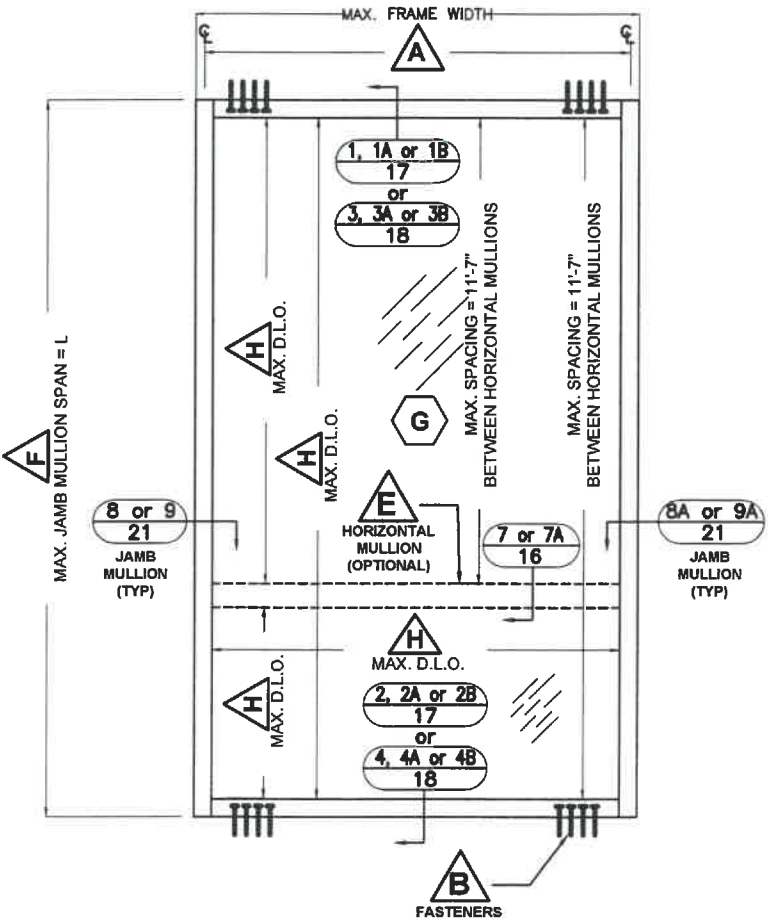
08/03/2020
DATE

20-234
DRAWING No

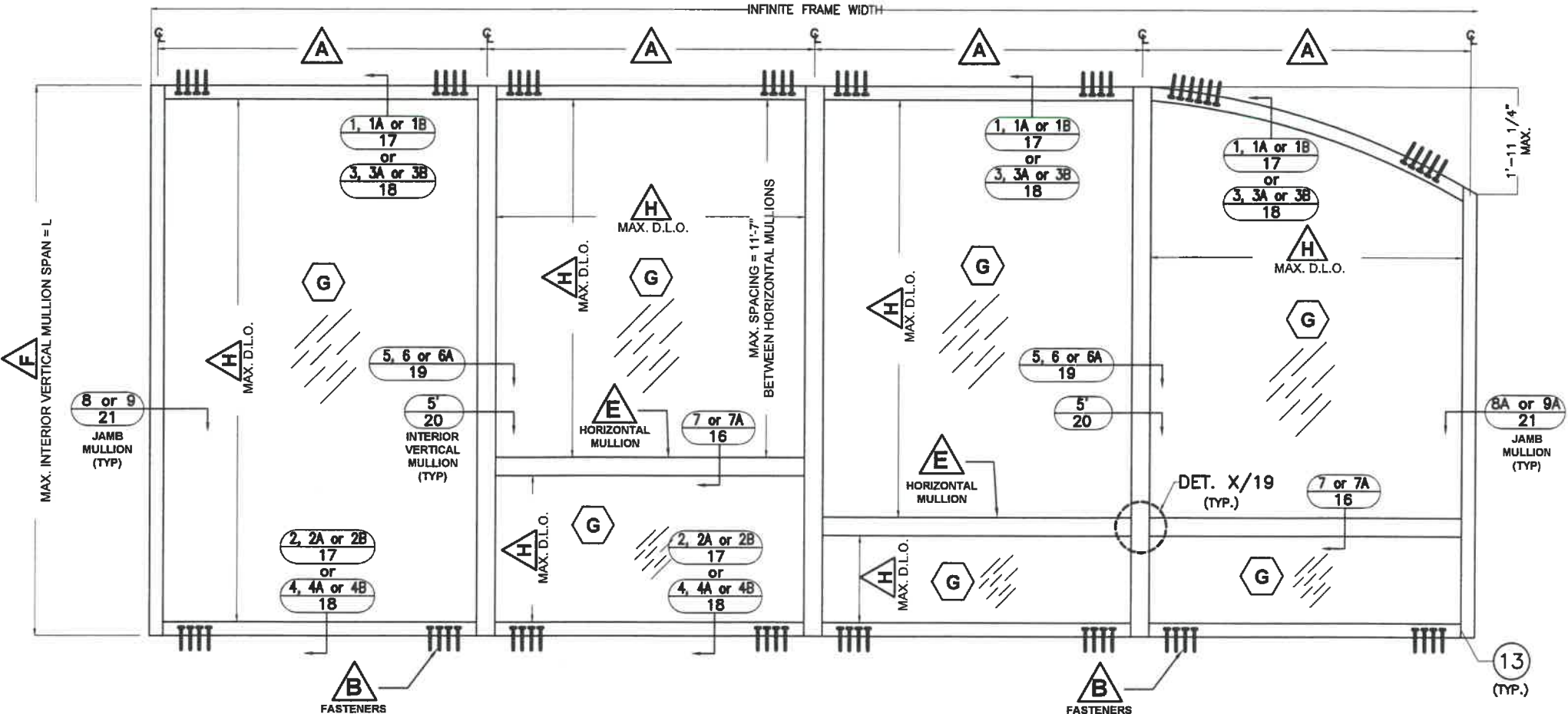
SHEET 3 OF 24

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-009	08/03/20	3		
2	COMP. 19	10/2/20	4		

ELEVATIONS FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000



SINGLE PANEL *



MULTIPLE PANELS *

FOOT NOTES:

- A** FOR MAXIMUM INTERIOR VERTICAL MULLION AND JAMB MULLION SPACING SEE SHEETS 6 & 7.
- B** FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEETS 8 THRU 13.
- E** USE OF HORIZONTAL MULLION LIMITED BY SCHEDULES ON SHEETS 14 & 15.
- F** FOR MAXIMUM INTERIOR VERTICAL MULLION AND JAMB MULLION SPAN SEE SHEETS 6 & 7.
- G** FOR GLAZING DETAILS SEE SHEET 3 AND FOR GLASS SCHEDULE SEE SHEETS 5, 5A, 5B & 5C.
- H** FOR MAXIMUM D.L.O. SEE SCHEDULE ON SHEETS 5, 5A, 5B & 5C.

* NOTE: ELEVATIONS FOR SINGLE & MULTIPLE PANELS FIXED GLASS WALL SERIES 12000 MAY BE INSTALLED ROTATED 90° FROM ABOVE SHOWN ORIENTATION.

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

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TILLIT TESTING & ENGINEERING COMPANY
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CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL
SERIES 12000 LARGE MISSILE LAMINATED &
INSULATED GLASS

ALUMINA DISTRIBUTION CENTER
15002 N.W. 107 AVENUE SUITE # 1
HIALEAH GARDENS, FL 33018
PHONE: (305) 444-1198

REV. NoDESCRIPTIONDATEREV. NoDESCRIPTIONDATE

1OLD 20-00808/03/203-4-

2-

F.P
DRAWN BY

08/03/2020
DATE

20-234
DRAWING No

SHEET 4 OF 24

MAXIMUM FRAME WIDTH "a" AND FRAME LENGTH "b" VERSUS A.S.D. DESIGN PRESSURE RATING (psf) SCHEDULE *, VALID ONLY FOR INSTALLATIONS
 W/ JAMBS J-1, J-1A, J-2, J-2A, AND MULLIONS M-1, M-1A, M-2, M-2A

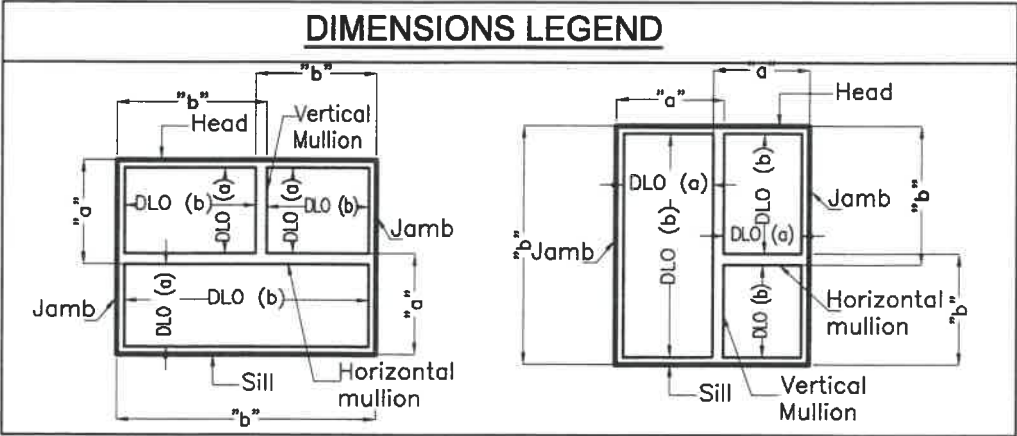
GLASS TYPE G1		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	+130.0 -140.0
18"	18" to 139"	+130.0 -140.0
20"	20" to 139"	+130.0 -140.0
22"	22" to 139"	+130.0 -140.0
24"	24" to 139"	+130.0 -140.0
26"	26" to 139"	+130.0 -140.0
28"	28" to 139"	+130.0 -140.0
30"	30" to 139"	+130.0 -140.0
32"	32" to 139"	+130.0 -140.0
34"	34" to 139"	+130.0 -140.0
36"	36" to 139"	+130.0 -140.0
38"	38" to 139"	+130.0 -140.0
40"	40" to 139"	+130.0 -140.0
42"	42" to 139"	+130.0 -140.0
44"	44" to 137"	+130.0 -120.0
46"	46" to 131"	+130.0 -116.0
48"	48" to 126"	+130.0 -140.0
	> 126" to 139"	±20.0
50"	50" to 121"	+130.0 -111.0
52"	52" to 116"	+130.0 -111.0
54"	54" to 112"	+130.0 -140.0
	> 112" to 139"	±20.0
56"	56" to 108"	+130.0 110.0
58"	58" to 104"	+130.0 -111.0
60"	60" to 98"	+130.0 -140.0
	> 98" to 139"	±20.0
62"	62" to 97"	+130.0 -114.0
64"	64" to 94"	+130.0 -110.4
	66" to 84"	+130.0 -140.0
66"	> 84" to 90"	±99.5
	> 90" to 139"	±20.0
68"	68" to 89"	+130.0 -103.9
70"	70" to 86"	+130.0 -101.0
	72" to 82"	+130.0 -140.0
72"	>82" to 84"	±91.0
	>84" to 139"	±20.0
74"	74" to 78"	+130.0 -95.5
76"	76" to 79.7"	+130.0 -93.0

GLASS TYPE G2		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±90.0
18"	18" to 139"	±90.0
20"	20" to 139"	±90.0
22"	22" to 139"	±90.0
24"	24" to 139"	±90.0
26"	26" to 139"	±90.0
28"	28" to 139"	±90.0
30"	30" to 139"	±90.0
32"	32" to 139"	±90.0
34"	34" to 139"	±90.0
36"	36" to 139"	±90.0
38"	38" to 132"	±90.0
40"	40" to 128"	±90.0
42"	42" to 120"	±90.0
	> 120" to 139"	±80.0
44"	44" to 117"	±90.0
	> 117" to 139"	±80.0
46"	46" to 112"	±90.0
	> 112" to 139"	±80.0
48"	48" to 107"	±90.0
	> 107" to 139"	±80.0
50"	50" to 103"	±90.0
52"	52" to 99"	±87.4
54"	54" to 95"	±84.1
56"	56" to 129"	±80.0
58"	58" to 124"	±80.0
60"	60" to 120"	±80.0
62"	62" to 116"	±80.0
64"	64" to 112"	±80.0
66"	66" to 108"	±79.6
68"	68" to 106"	±79.3
70"	70" to 103"	±79.3
72"	72" to 100"	±79.5
74"	74" to 97"	±79.8
76"	76" to 95"	±78.4
78"	78" to 92.5"	±76.4
80"	80" to 90"	±74.5
82"	82" to 88"	±72.6
84"	84" to 86"	±70.9

* DETERMINATION OF MAXIMUM DAY LIGHT
 OPENING (D.L.O.) AT EACH END OF GLASS
 GIVEN "a" & "b"

SIDE	MAX. DAY LIGHT OPENING	
	(D.L.O.) Formula at vertical & horizontal mullions	(D.L.O.) Formula at jamb, head & sill frames
MAX. D.L.O. (a) (SHORT SIDE)	"a" - 6.00"	"a" - 6.00"
MAX. D.L.O. (b) (LONG SIDE)	"b" - 6.00"	"b" - 6.00"

NOTE:
 1. SEE SHEET 3 FOR GLAZING DETAILS AND GLASS DESCRIPTIONS ON BILL OF MATERIALS.



WALTER A. TILLIT JR.
 LICENSE
 No. 44167
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)					
©2020 TILTECO, INC.			HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS		F.P DRAWN BY
 TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 e-mail: tilteco@aol.com CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167			ALUMINA DISTRIBUTION CENTER 15002 N.W. 107 AVENUE SUITE # 1 HIALEAH GARDENS, FL 33018 PHONE: (305) 444-1198		08/03/2020 DATE
			20-234		DRAWING No
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-009	08/03/20	3		
2			4		
					SHEET 5 OF 24

MAXIMUM FRAME WIDTH "a" AND FRAME LENGTH "b" VERSUS A.S.D. DESIGN PRESSURE RATING (psf) SCHEDULE *, VALID ONLY FOR
INSTALLATIONS W/ JAMBS J-1, J-1A, J-2, J-2A, AND MULLIONS M-1, M-1A, M-2, M-2A

GLASS TYPE G3		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	+130.0 -140.0
18"	18" to 139"	+130.0 -140.0
20"	20" to 139"	+130.0 -140.0
22"	22" to 139"	+130.0 -140.0
24"	24" to 139"	+130.0 -140.0
26"	26" to 139"	+130.0 -140.0
28"	28" to 139"	+130.0 -140.0
30"	30" to 139"	+130.0 -140.0
32"	32" to 139"	+130.0 -140.0
34"	34" to 139"	+130.0 -140.0
36"	36" to 139"	+130.0 -140.0
38"	38" to 139"	+130.0 -140.0
40"	40" to 139"	+130.0 -140.0
42"	42" to 139"	+130.0 -140.0
44"	44" to 137"	+130.0 -126.0
46"	46" to 131"	+130.0 -121.0
48"	48" to 122"	+130.0 -140.0
	> 122" to 139"	±20.0
50"	50" to 121"	+130.0 -113.0
52"	52" to 116"	+130.0 -113.0
54"	54" to 108"	+130.0 -140.0
	> 108" to 139"	±20.0
56"	56" to 108"	+130.0 -108.0
58"	58" to 104"	+130.0 -117.0
60"	60" to 98"	+130.0 -140.0
	> 98" to 139"	±20.0
62"	62" to 96"	+130.0 -114.0
64"	64" to 94"	+130.0 -110.4
66"	66" to 87.5"	+130.0 -140.0
	> 87.5" to 90"	±107.1
	> 90" to 139"	±20.0
68"	68" to 89"	+130.0 -103.9
70"	70" to 86"	+130.0 -101.0
72"	72" to 80.5"	+130.0 -140.0
	>80.5" to 84"	±98.1
	>84" to 139"	±20.0
74"	74" to 81"	+130.0 -95.5
76"	76" to 79"	+130.0 -93.0

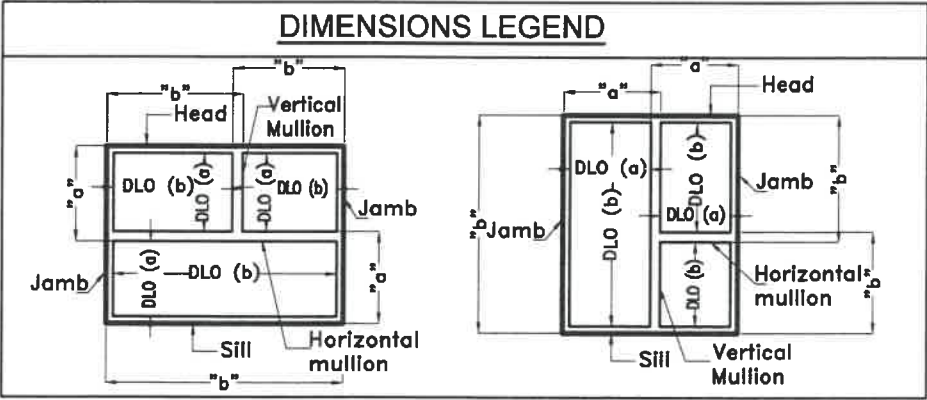
GLASS TYPE G4		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±80.0
18"	18" to 139"	±80.0
20"	20" to 139"	±80.0
22"	22" to 139"	±80.0
24"	24" to 139"	±80.0
26"	26" to 139"	±80.0
28"	28" to 139"	±80.0
30"	30" to 139"	±80.0
32"	32" to 139"	±80.0
34"	34" to 139"	±80.0
36"	36" to 139"	±80.0
38"	38" to 139"	±80.0
40"	40" to 139"	±80.0
42"	42" to 139"	±80.0
44"	44" to 139"	±80.0
46"	46" to 139"	±80.0
48"	48" to 139"	±80.0
50"	50" to 139"	±80.0
52"	52" to 138"	±80.0
54"	54" to 133.5"	±80.0
56"	56" to 129"	±80.0
58"	58" to 124"	±80.0
60"	60" to 120"	±80.0
62"	62" to 116"	±80.0
64"	64" to 112"	±80.0
66"	66" to 108"	±80.0
	> 108" to 109.5"	±79.6
68"	68" to 106"	±79.3
70"	70" to 103"	±79.3
72"	72" to 96"	±80.0
	> 96" to 100"	±79.5
74"	74" to 97"	±79.8
76"	76" to 95"	±78.4
78"	78" to 91"	±76.1
80"	80" to 90"	±74.5
82"	82" to 88"	±72.6
84"	84" to 86"	±70.9

GLASS TYPE G5		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±90.0
18"	18" to 139"	±90.0
20"	20" to 139"	±90.0
22"	22" to 139"	±90.0
24"	24" to 139"	±90.0
26"	26" to 139"	±90.0
28"	28" to 139"	±90.0
30"	30" to 139"	±90.0
32"	32" to 139"	±90.0
34"	34" to 139"	±90.0
36"	36" to 139"	±90.0
38"	38" to 132"	±90.0
40"	40" to 128"	±90.0
42"	42" to 120"	±90.0
44"	44" to 117"	±90.0
46"	46" to 111"	±90.0
48"	48" to 107"	±90.0
50"	50" to 103"	±90.0
52"	52" to 99"	±90.0
54"	54" to 95"	±84.1
56"	56" to 91"	±81.1
58"	58" to 88"	±78.3
60"	60" to 85.5"	±75.7
62"	62" to 83"	±73.3
64"	64" to 80"	±71.2
66"	66" to 78"	±68.8
68"	68" to 75"	±66.8
70"	70" to 73"	±64.3

* DETERMINATION OF MAXIMUM DAY LIGHT
OPENING (D.L.O.) AT EACH END OF GLASS
GIVEN "a" & "b"

SIDE	MAX. DAY LIGHT OPENING	
	(D.L.O.) Formula at vertical & horizontal mullions	(D.L.O.) Formula at jamb, head & sill frames
MAX. D.L.O. (a) (SHORT SIDE)	"a" - 6.00"	"a" - 6.00"
MAX. D.L.O. (b) (LONG SIDE)	"b" - 6.00"	"b" - 6.00"

NOTE:
1. SEE SHEET 3 FOR
GLAZING DETAILS AND
GLASS DESCRIPTIONS ON
BILL OF MATERIALS.



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HIGH IMPACT GREEN WORLD FIXED GLASS WALL
SERIES 12000 LARGE MISSILE LAMINATED &
INSULATED GLASS

ALUMINA DISTRIBUTION CENTER

15002 N.W. 107 AVENUE SUITE # 1
HIALEAH GARDENS, FL. 33018
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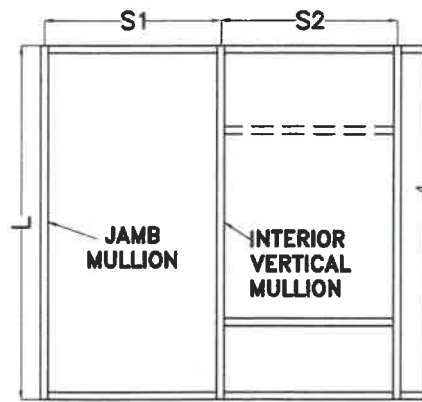
08/03/2020
DATE

20-234

DRAWING No

SHEET 5A OF 24

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-009	08/03/20	3		
2			4		

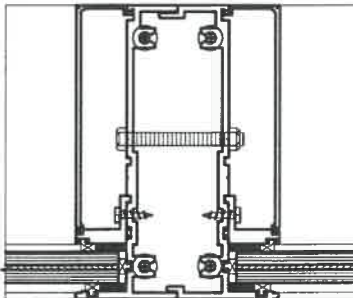


ELEVATION W/ INTERIOR VERTICAL MULLION @ MULTIPLE PANELS

"L" = MAXIMUM INTERIOR VERTICAL MULLION SPAN

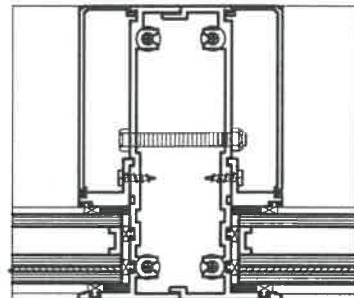
EFFECTIVE SPACING: "b" = $\frac{S_1 + S_2}{2}$, FOR MULTIPLE PANELS

M-1	CASE 1: MULLION		$I_x = 16.999 \text{ in}^4$ $S_x = 5.566 \text{ in}^3$
	$(2) \text{ (2) } + (3) \text{ (3) } +$ $(2) \text{ (4) } + (2) \text{ (5) }$		
WATER INFILTRATION IS 19.5 psf			



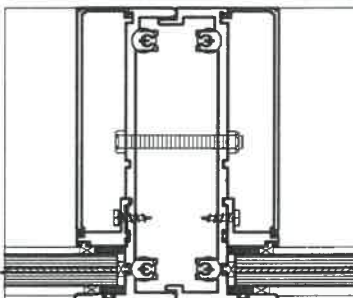
EXTERIOR

M-2	CASE 2: MULLION	Ix = 15.726 in4 Sx = 5.422 in3
	(2) + (3) + (2) 4A + (2) 5	
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM



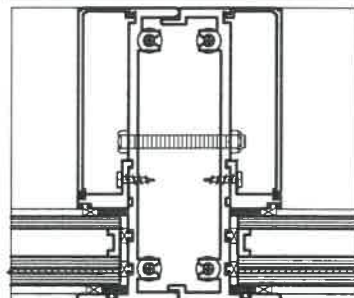
EXTERIOR

M-1A	CASE 3: MULLION	Ix = 19.618 in4 Sx = 6.491 in3
	$\begin{array}{c} (16) + (17) + \\ (2)(4) + (2)(5) \end{array}$	
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.

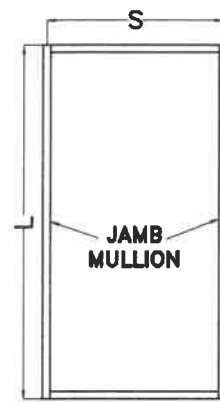


EXTERIOR

M-2A	CASE 4: MULLION	Ix = 18.322 in4 Sx = 6.346 in3
	(16) + (17) + (2)(4A) + (2)(5)	
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.



EXTERIOR

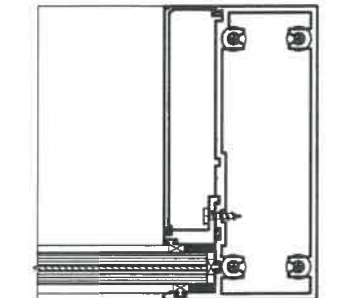


ELEVATION W/ JAMB MULLION @ SINGLE PANEL

"L" = MAXIMUM JAMB MULLION SPAN

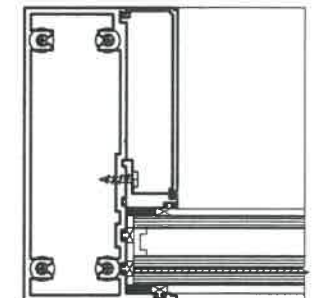
EFFECTIVE SPACING: "b" = S, FOR SINGLE PANEL

J-1	CASE 1: JAMB MULLION		Ix = 13.075 in4 Sx = 4.351 in3
	(1) + (4) +	(5)	
WATER INFILTRATION IS 19.5 psf			IN TERMS OF ALUM



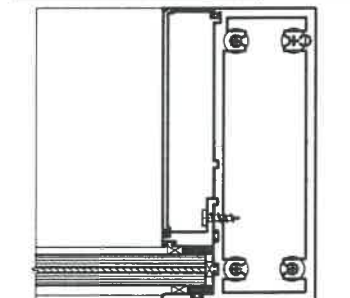
EXTERIOR

J-2	CASE 2: JAMB MULLION	Ix = 12.421 in4 Sx = 4.277 in3
	(1) + (4A) + (5)	
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.



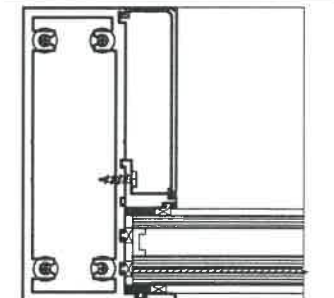
EXTERIOR

J-1A	CASE 3: JAMB MULLION	Ix = 16.084 in4 Sx = 5.415 in3
	(15) + (4) + (5)	
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.



EXTERIOR

J-2A	CASE 4: JAMB MULLION $(15) + (4A) + (5)$	$I_x = 15.300 \text{ in}^4$ $S_x = 5.283 \text{ in}^3$
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.



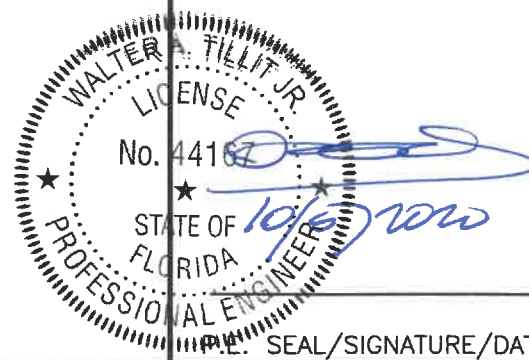
EXTERIOR

MAXIMUM INTERIOR VERTICAL MULLION & JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b"					
MAXIMUM DESIGN PRESSURE RATING	MAX. EFFECTIVE SPACING	MAXIMUM 1/8" THICK MULLION SPAN "L"(FT)		MAXIMUM 3/16" THICK MULLION SPAN "L"(FT)	
		Laminated Glass	Insulated Glass	Laminated Glass	Insulated Glass
		CASE 1	CASE 2	CASE 3	CASE 4
"W" (psf)	"b" (Ft-in)	M-1/J-1	M-2/J-2	M-1A/J-1A	M-2A/J-2A
± 40.0	3'-6"	15'-9"	15'-9"	15'-9"	15'-9"
	4'-0"	15'-9"	15'-9"	15'-9"	15'-9"
	4'-6"	15'-9"	15'-6"	15'-9"	15'-9"
	5'-0"	15'-4"	14'-11"	15'-9"	15'-8"
	5'-6"	14'-10"	14'-8"	15'-7"	15'-3"
	6'-0"	14'-5"	14'-1"	15'-1"	14'-9"
	6'-6"	14'-0"	13'-8"	14'-9"	14'-5"
± 45.0	3'-6"	15'-9"	15'-9"	15'-9"	15'-9"
	4'-0"	15'-9"	15'-6"	15'-9"	15'-9"
	4'-6"	15'-3"	14'-10"	15'-9"	15'-8"
	5'-0"	14'-9"	14'-4"	15'-5"	15'-1"
	5'-6"	14'-3"	13'-11"	15'-0"	14'-8"
	6'-0"	13'-10"	13'-6"	14'-6"	14'-3"
	6'-6"	13'-0"	13'-8"	14'-9"	14'-5"
± 50.0	3'-6"	15'-9"	15'-9"	15'-9"	15'-9"
	4'-0"	15'-4"	14'-11"	15'-9"	15'-8"
	4'-6"	14'-9"	14'-4"	15'-5"	15'-1"
	5'-0"	14'-3"	13'-10"	14'-11"	14'-7"
	5'-6"	13'-9"	13'-5"	14'-5"	14'-2"
	6'-0"	13'-5"	13'-0"	14'-0"	13'-9"
	6'-6"	13'-0"	12'-8"	13'-8"	13'-4"
± 55.0	3'-6"	15'-6"	15'-1"	15'-9"	15'-9"
	4'-0"	14'-10"	14'-6"	15'-7"	15'-3"
	4'-6"	14'-3"	13'-11"	15'-0"	14'-8"
	5'-0"	13'-9"	13'-5"	14'-5"	14'-2"
	5'-6"	13'-4"	13'-0"	14'-0"	13'-8"
	6'-0"	12'-11"	12'-8"	13'-7"	13'-4"
	6'-6"	12'-5"	12'-4"	13'-3"	12'-11"
± 60.0	3'-6"	15'-1"	14'-8"	15'-9"	15'-5"
	4'-0"	14'-5"	14'-1"	15'-1"	14'-9"
	4'-6"	13'-10"	13'-6"	14'-6"	14'-3"
	5'-0"	13'-5"	13'-0"	14'-0"	13'-9"
	5'-6"	12'-11"	12'-8"	13'-7"	13'-4"
	6'-0"	12'-5"	12'-3"	13'-3"	12'-11"
	6'-6"	11'-11"	11'-9"	12'-10"	12'-6"
± 65.0	3'-6"	14'-8"	14'-4"	15'-5"	15'-1"
	4'-0"	14'-0"	13'-8"	14'-9"	14'-5"
	4'-6"	13'-6"	13'-2"	14'-2"	13'-10"
	5'-0"	13'-0"	12'-8"	13'-8"	13'-4"
	5'-6"	12'-5"	12'-4"	13'-3"	12'-11"
	6'-0"	11'-11"	11'-9"	12'-10"	12'-6"
	6'-6"	11'-5"	11'-4"	12'-4"	12'-0"

MAXIMUM INTERIOR VERTICAL MULLION & JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)					
MAXIMUM DESIGN PRESSURE RATING	MAX. EFFECTIVE SPACING	MAXIMUM 1/8" THICK MULLION SPAN "L"(FT)		MAXIMUM 3/16" THICK MULLION SPAN "L"(FT)	
		Laminated Glass	Insulated Glass	Laminated Glass	Insulated Glass
		CASE 1	CASE 2	CASE 3	CASE 4
"W" (psf)	"b" (Ft-in)	M-1/J-1	M-2/J-2	M-1A/J-1A	M-2A/J-2A
± 70.0	3'-6"	14'-4"	13'-11"	15'-0"	14'-8"
	4'-0"	13'-8"	13'-4"	14'-4"	14'-0"
	4'-6"	13'-2"	12'-10"	13'-10"	13'-6"
	5'-0"	12'-7"	12'-5"	13'-4"	13'-0"
	5'-6"	12'-0"	11'-10"	12'-11"	12'-7"
	6'-0"	11'-6"	11'-4"	12'-4"	12'-0"
	6'-6"	11'-0"	10'-11"	11'-10"	11'-7"
± 75.0	3'-6"	14'-0"	13'-8"	14'-8"	14'-4"
	4'-0"	13'-5"	13'-0"	14'-0"	13'-9"
	4'-6"	12'-9"	12'-6"	13'-6"	13'-2"
	5'-0"	12'-2"	12'-0"	13'-0"	12'-9"
	5'-6"	11'-7"	11'-6"	12'-5"	12'-2"
	6'-0"	11'-1"	11'-0"	11'-11"	11'-7"
	6'-6"	10'-8"	10'-7"	11'-5"	11'-2"
± 80.0	3'-6"	13'-8"	13'-4"	14'-4"	14'-0"
	4'-0"	13'-1"	12'-9"	13'-9"	13'-5"
	4'-6"	12'-5"	12'-3"	13'-3"	12'-11"
	5'-0"	11'-9"	11'-8"	12'-8"	12'-4"
	5'-6"	11'-2"	11'-1"	12'-1"	11'-9"
	6'-0"	10'-0"	10'-0"	10'-0"	10'-0"
	6'-6"	10'-0"	10'-0"	10'-0"	10'-0"
± 85.0	3'-6"	13'-5"	13'-1"	14'-1"	13'-9"
	4'-0"	12'-9"	12'-6"	13'-6"	13'-2"
	4'-6"	12'-0"	11'-11"	12'-11"	12'-7"
	5'-0"	11'-5"	11'-4"	12'-3"	11'-11"
	5'-6"	10'-10"	10'-9"	11'-8"	11'-5"
	6'-0"	10'-0"	10'-0"	10'-0"	10'-0"
	6'-6"	10'-0"	9'-11"	10'-0"	10'-0"
± 90.0	3'-6"	13'-2"	12'-10"	13'-10"	13'-6"
	4'-0"	12'-5"	12'-3"	13'-3"	12'-11"
	4'-6"	11'-8"	11'-7"	12'-7"	12'-3"
	5'-0"	11'-1"	11'-0"	11'-11"	11'-7"
	5'-6"	10'-7"	10'-6"	11'-4"	11'-1"
	6'-0"	10'-0"	10'-0"	10'-0"	10'-0"
	6'-6"	9'-9"	9'-8"	10'-0"	10'-0"
± 95.0	3'-6"	12'-11"	12'-7"	13'-7"	13'-3"
	4'-0"	12'-1"	11'-11"	13'-0"	12'-8"
	4'-6"	11'-4"	11'-3"	12'-3"	11'-11"
	5'-0"	10'-9"	10'-8"	11'-7"	11'-4"
	5'-6"	10'-3"	10'-2"	11'-1"	10'-9"
	6'-0"	9'-10"	9'-9"	10'-0"	10'-0"
	6'-6"	9'-5"	9'-4"	10'-0"	9'-11"

CASES DEFINITIONS

CASE 1: M-1	INTERIOR VERTICAL MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 19)
J-1	JAMB MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEETS 20 & 21)
CASE 2: M-2	INTERIOR VERTICAL MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 6 ON SHEET 19)
J-2	JAMB MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 8 OR 8A ON SHEET 21)
CASE 3: M-1A	INTERIOR VERTICAL MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 19)
J-1A	JAMB MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEETS 20 & 21)
CASE 4: M-2A	INTERIOR VERTICAL MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 6 ON SHEET 19)
J-2A	JAMB MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 8 OR 8A ON SHEET 21)



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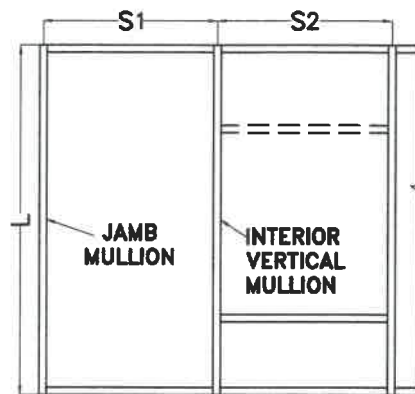
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SHEET 6 OF 24

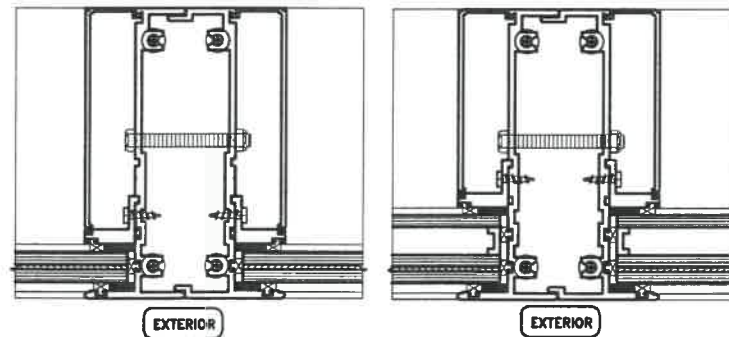


ELEVATION W/ INTERIOR VERTICAL MULLION @ MULTIPLE PANELS

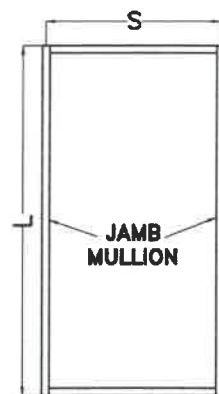
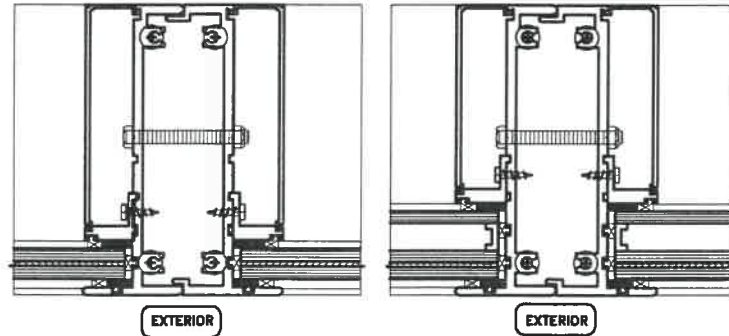
"L" = MAXIMUM INTERIOR VERTICAL MULLION SPAN

EFFECTIVE SPACING: "b" = $\frac{S_1 + S_2}{2}$, FOR MULTIPLE PANELS

M-1	CASE 1: MULLION $\begin{matrix} \textcircled{2} + \textcircled{3} + \\ (2) \textcircled{4} + (2) \textcircled{5} \end{matrix}$	$I_x = 16.999 \text{ in}^4$ $S_x = 5.566 \text{ in}^3$	M-2	CASE 2: MULLION $\begin{matrix} \textcircled{2} + \textcircled{3} + \\ (2) \textcircled{4A} + (2) \textcircled{5} \end{matrix}$	$I_x = 15.726 \text{ in}^4$ $S_x = 5.422 \text{ in}^3$
	WATER INFILTRATION IS 19.5 psf			IN TERMS OF ALUM.	



M-1A	CASE 3: MULLION $\begin{matrix} (16) + (17) + \\ (2) (4) + (2) (5) \end{matrix}$	$I_x = 19.618 \text{ in}^4$ $S_x = 6.491 \text{ in}^3$	M-2A	CASE 4: MULLION $\begin{matrix} (16) + (17) + \\ (2) (4A) + (2) (5) \end{matrix}$	$I_x = 18.322 \text{ in}^4$ $S_x = 6.346 \text{ in}^3$
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.	WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.

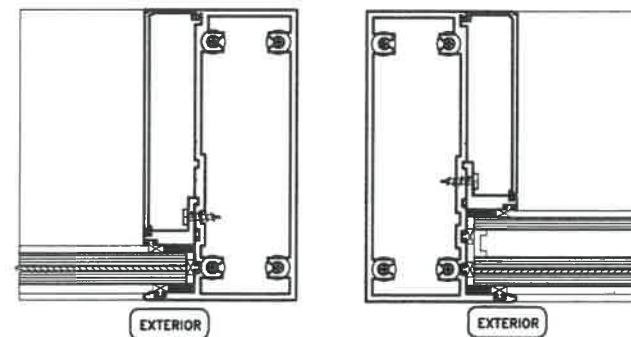


ELEVATION W/ JAMB MULLION @ SINGLE PANEL

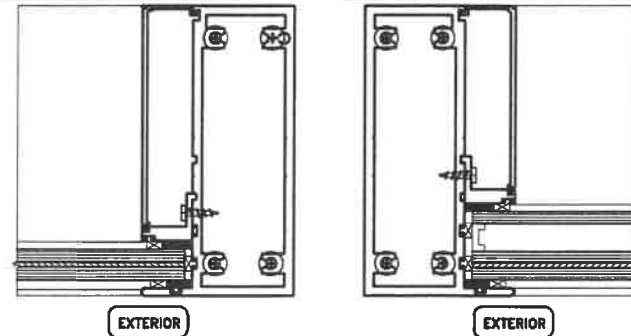
"L" = MAXIMUM JAMB MULLION SPAN

EFFECTIVE SPACING: "b" = S, FOR SINGLE PANEL.

J-1	CASE 1: JAMB MULLION (1) + (4) + (5)	Ix = 13.075 in4 Sx = 4.351 in3	J-2	CASE 2: JAMB MULLION (1) + (4A) + (5)	Ix = 12.421 in4 Sx = 4.277 in3
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.	WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.



J-1A	CASE 3: JAMB MULLION (15) + (4) + (5)	Ix = 16.084 in4 Sx = 5.415 in3	J-2A	CASE 4: JAMB MULLION (15) + (4A) + (5)	Ix = 15.300 in4 Sx = 5.283 in3
WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.	WATER INFILTRATION IS 19.5 psf		IN TERMS OF ALUM.

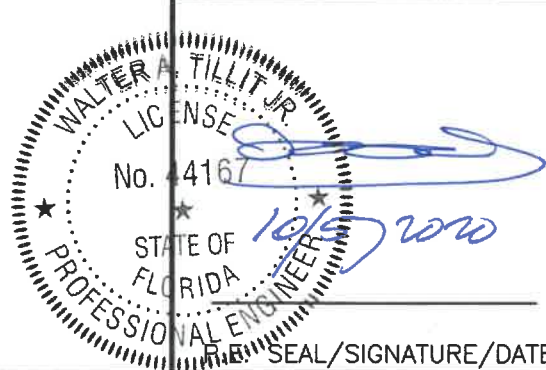


MAXIMUM INTERIOR VERTICAL MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)					
MAXIMUM DESIGN PRESSURE RATING "W" (psf)	MAX. EFFECTIVE SPACING "b" (ft-in)	MAXIMUM 1/8" THICK MULLION SPAN "L"(FT)		MAXIMUM 3/16" THICK MULLION SPAN "L"(FT)	
		Laminated Glass CASE 1	Insulated Glass CASE 2	Laminated Glass CASE 3	Insulated Glass CASE 4
		M-1/J-1	M-2/J-2	M-1A/J-1A	M-2A/J-2A
±100.0	3'-6"	12'-7"	12'-5"	13'-4"	13'-0"
	4'-0"	11'-9"	11'-8"	12'-8"	12'-4"
	4'-6"	11'-1"	11'-0"	11'-11"	11'-7"
	5'-0"	10'-6"	10'-5"	11'-4"	11'-0"
	5'-6"	10'-0"	9'-11"	10'-9"	10'-6"
	6'-0"	9'-7"	9'-6"	10'-0"	10'-0"
	6'-6"	9'-3"	9'-2"	9'-11"	9'-8"
	7'-0"	8'-11"	8'-10"	9'-7"	9'-4"
±105.0	3'-6"	12'-3"	12'-2"	13'-1"	12'-10"
	4'-0"	11'-6"	11'-4"	12'-4"	12'-0"
	4'-6"	10'-10"	10'-9"	11'-8"	11'-4"
	5'-0"	10'-3"	10'-2"	11'-0"	11'-0"
	5'-6"	9'-9"	9'-8"	10'-6"	10'-3"
	6'-0"	9'-4"	9'-3"	10'-0"	9'-10"
	6'-6"	9'-0"	8'-11"	9'-8"	9'-5"
	7'-0"	8'-8"	8'-7"	9'-4"	9'-1"
±110.0	3'-6"	12'-0"	11'-10"	12'-11"	12'-7"
	4'-0"	11'-2"	11'-1"	11'-9"	11'-5"
	4'-6"	10'-7"	10'-6"	11'-4"	11'-1"
	5'-0"	10'-0"	9'-11"	10'-9"	10'-6"
	5'-6"	9'-7"	9'-6"	10'-3"	10'-0"
	6'-0"	9'-2"	9'-1"	9'-10"	9'-7"
	6'-6"	8'-9"	8'-8"	9'-6"	9'-3"
	7'-0"	8'-6"	8'-5"	9'-1"	8'-11"
±115.0	3'-6"	11'-9"	11'-7"	12'-7"	12'-3"
	4'-0"	10'-11"	10'-10"	11'-10"	11'-6"
	4'-6"	10'-4"	10'-3"	11'-1"	10'-10"
	5'-0"	9'-10"	9'-9"	10'-7"	10'-3"
	5'-6"	9'-4"	9'-3"	10'-1"	9'-10"
	6'-0"	8'-11"	8'-10"	9'-8"	9'-5"
	6'-6"	8'-7"	8'-6"	9'-3"	9'-0"
	7'-0"	8'-3"	8'-2"	8'-10"	8'-8"
±120.0	3'-6"	11'-6"	11'-4"	12'-4"	12'-0"
	4'-0"	10'-9"	10'-8"	11'-7"	11'-3"
	4'-6"	10'-1"	10'-0"	10'-11"	10'-7"
	5'-0"	9'-7"	9'-6"	10'-4"	10'-1"
	5'-6"	9'-2"	9'-1"	9'-10"	9'-7"
	6'-0"	8'-9"	8'-8"	9'-5"	9'-2"
	6'-6"	8'-5"	8'-4"	9'-1"	8'-10"
	7'-0"	8'-1"	8'-0"	8'-6"	8'-6"
±125.0	3'-6"	11'-3"	11'-2"	12'-1"	11'-9"
	4'-0"	10'-6"	10'-5"	11'-4"	11'-0"
	4'-6"	9'-11"	9'-10"	10'-8"	10'-5"
	5'-0"	9'-5"	9'-4"	10'-1"	9'-10"
	5'-6"	9'-0"	8'-11"	9'-8"	9'-5"
	6'-0"	8'-7"	8'-6"	9'-3"	9'-0"
	6'-6"	8'-3"	8'-2"	8'-9"	8'-8"
	7'-0"	7'-11"	7'-10"	8'-2"	8'-2"

MAXIMUM INTERIOR VERTICAL MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)					
MAXIMUM DESIGN PRESSURE RATING "W" (psf)	MAX. EFFECTIVE SPACING "b" (ft-in)	MAXIMUM 1/8" THICK MULLION SPAN "L"(FT)		MAXIMUM 3/16" THICK MULLION SPAN "L"(FT)	
		Laminated Glass CASE 1	Insulated Glass CASE 2	Laminated Glass CASE 3	Insulated Glass CASE 3
		M-1/J-1	M-2/J-2	M-1A/J-1A	M-1A/J-1A
±130.0	3'-6"	11'-0"	10'-11"	11'-10"	11'-7"
	4'-0"	10'-4"	10'-3"	11'-1"	10'-10"
	4'-6"	9'-8"	9'-8"	10'-6"	10'-2"
	5'-0"	9'-3"	9'-2"	9'-11"	9'-8"
	5'-6"	8'-9"	8'-8"	9'-6"	9'-3"
	6'-0"	8'-5"	8'-4"	9'-1"	8'-10"
	6'-6"	8'-1"	8'-0"	8'-5"	8'-5"
	7'-0"	7'-9"	7'-9"	7'-10"	7'-10"
+130.0, -135.0	3'-6"	10'-10"	10'-9"	11'-8"	11'-4"
	4'-0"	10'-1"	10'-0"	10'-11"	10'-7"
	4'-6"	9'-6"	9'-5"	10'-3"	10'-0"
	5'-0"	9'-0"	9'-0"	9'-9"	9'-6"
	5'-6"	8'-7"	8'-7"	9'-3"	9'-0"
	6'-0"	8'-3"	8'-2"	8'-10"	8'-8"
	6'-6"	7'-11"	7'-10"	8'-2"	8'-2"
	7'-0"	7'-7"	7'-7"	7'-7"	7'-7"
+130.0, -140.0	3'-6"	10'-7"	10'-6"	11'-5"	11'-2"
	4'-0"	9'-11"	9'-10"	10'-8"	10'-5"
	4'-6"	9'-4"	9'-3"	10'-1"	9'-10"
	5'-0"	8'-11"	8'-10"	9'-7"	9'-4"
	5'-6"	8'-6"	8'-5"	9'-1"	8'-11"
	6'-0"	8'-1"	8'-0"	8'-6"	8'-6"
	6'-6"	7'-9"	7'-9"	7'-10"	7'-10"
	7'-0"	7'-3"	7'-3"	7'-3"	7'-3"

CASES DEFINITIONS

CASE 1 : M-1	INTERIOR VERTICAL MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 19)
J-1	JAMB MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEETS 20 & 21)
CASE 2 : M-2	INTERIOR VERTICAL MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 6 ON SHEET 19)
J-2	JAMB MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 8 OR 8A ON SHEET 21)
CASE 3 : M-1A	INTERIOR VERTICAL MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 19)
J-1A	JAMB MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEETS 20 & 21)
CASE 4 : M-2A	INTERIOR VERTICAL MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 6 ON SHEET 19)
J-2A	JAMB MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 8 OR 8A ON SHEET 21)



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2			4		

SHEET 7 OF 24

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE																													
		POURED CONCRETE SUBSTRATE												WOOD (2) 1 1/2" Min. THK. SUBSTRATE												STEEL 1/4" Min. THK. SUBSTRATE					
		FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE					
		A (1/4")						B (3/8")						C (1/4")						D (3/8")						E (3/8")					
"L" (Ft-In)	"b" (Ft-In)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12					
8'-0"	3'-6"	80.8	121.2	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	67.0	100.5	140.0	140.0	140.0	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-0"	70.7	106.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	58.7	88.0	140.0	140.0	140.0	55.0	82.5	110.0	137.5	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-6"	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	52.1	78.2	125.7	130.3	140.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	5'-0"	56.6	84.8	113.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	46.9	70.4	113.1	117.3	140.0	44.0	66.0	88.0	110.0	132.0	140.0	140.0	140.0	140.0	140.0	140.0				
	5'-6"	51.4	77.1	102.8	128.6	140.0	133.3	140.0	140.0	140.0	140.0	42.7	64.0	102.8	106.6	128.0	40.0	60.0	80.0	100.0	120.0	140.0	140.0	140.0	140.0	140.0	140.0				
	6'-0"	47.1	70.7	94.3	117.8	140.0	122.2	140.0	140.0	140.0	140.0	39.1	58.7	94.3	97.8	117.3	36.7	55.0	73.3	91.7	110.0	140.0	140.0	140.0	140.0	140.0	140.0				
	6'-6"	43.5	65.3	87.0	108.8	130.5	112.8	140.0	140.0	140.0	140.0	36.1	54.1	87.0	90.2	108.3	33.9	50.8	67.7	84.6	101.6	140.0	140.0	140.0	140.0	140.0	140.0				
8'-6"	7'-0"	40.4	60.6	80.8	101.0	121.2	104.7	140.0	140.0	140.0	140.0	33.5	50.3	80.8	83.8	100.5	31.4	47.2	62.9	78.6	94.3	130.2	140.0	140.0	140.0	140.0	140.0				
	3'-6"	76.1	114.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	63.1	94.6	140.0	140.0	140.0	59.2	88.8	118.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-0"	66.5	99.8	133.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	55.2	82.8	133.1	138.0	140.0	51.8	77.7	103.6	129.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-6"	59.2	88.7	118.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0	49.1	73.6	118.3	122.7	140.0	46.0	69.0	92.0	115.1	138.1	140.0	140.0	140.0	140.0	140.0	140.0				
	5'-0"	53.2	79.9	106.5	133.1	140.0	138.0	140.0	140.0	140.0	140.0	44.2	66.2	106.5	110.4	132.5	41.4	62.1	82.8	103.6	124.3	140.0	140.0	140.0	140.0	140.0	140.0				
	5'-6"	48.4	72.6	96.8	121.0	140.0	125.4	140.0	140.0	140.0	140.0	40.1	60.2	96.8	100.4	120.4	37.7	56.5	75.3	94.1	113.0	140.0	140.0	140.0	140.0	140.0	140.0				
	6'-0"	44.4	66.5	88.7	110.9	133.1	115.0	140.0	140.0	140.0	140.0	36.8	55.2	88.7	92.0	110.4	34.5	51.8	69.0	86.3	103.6	140.0	140.0	140.0	140.0	140.0	140.0				
9'-0"	6'-6"	41.0	61.4	81.9	102.4	122.9	106.1	140.0	140.0	140.0	140.0	34.0	51.0	81.9	84.9	101.9	31.9	47.8	63.7	79.7	95.6	131.9	140.0	140.0	140.0	140.0	140.0				
	7'-0"	38.0	57.0	76.1	95.1	114.1	98.6	140.0	140.0	140.0	140.0	31.5	47.3	76.1	78.9	94.6	29.6	44.4	59.2	74.0	88.8	122.5	140.0	140.0	140.0	140.0	140.0				
	3'-6"	71.8	107.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	59.6	89.4	140.0	140.0	140.0	55.9	83.8	111.8	139.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-0"	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	52.1	78.2	125.7	130.3	140.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-6"	55.9	83.8	111.7	139.7	140.0	140.0	140.0	140.0	140.0	140.0	46.3	69.5	111.7	115.9	139.0	43.5	65.2	86.9	108.7	130.4	140.0	140.0	140.0	140.0	140.0	140.0				
	5'-0"	50.3	75.4	100.6	125.7	140.0	130.3	140.0	140.0	140.0	140.0	41.7	62.6	100.6	104.3	125.1	39.1	58.7	78.2	97.8	117.4	140.0	140.0	140.0	140.0	140.0	140.0				
	5'-6"	45.7	68.6	91.4	114.3	137.1	118.5	140.0	140.0	140.0	140.0	37.9	56.9	91.4	94.8	113.7	35.6	53.3	71.1	88.9	106.7	140.0	140.0	140.0	140.0	140.0	140.0				
9'-6"	6'-0"	41.9	62.9	83.8	104.8	125.7	108.6	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0	140.0				
	6'-6"	38.7	58.0	77.4	96.7	116.0	100.2	140.0	140.0	140.0	140.0	32.1	48.1	77.4	80.2	96.2	30.1	45.1	60.2	75.2	90.3	124.6	140.0	140.0	140.0	140.0	140.0				
	7'-0"	35.9	53.9	71.8	89.8	107.7	93.1	139.6	140.0	140.0	140.0	29.8	44.7	71.8	74.5	89.4	27.9	41.9	55.9	69.9	83.8	115.7	140.0	140.0	140.0	140.0	140.0				
	3'-6"	68.0	102.1	136.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	56.4	84.7	136.1	140.0	140.0	52.9	79.4	105.9	132.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-0"	59.5	89.3	119.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	49.4	74.1	119.1	123.5	140.0	46.3	69.5	92.7	115.8	139.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-6"	52.9	79.4	105.9	132.3	140.0	137.2	140.0	140.0	140.0	140.0	43.9	65.9	105.9	109.8	131.7	41.2	61.8	82.4	102.9	123.5	140.0	140.0	140.0	140.0	140.0	140.0				
	5'-0"	47.6	71.5	95.3	119.1	140.0	123.5	140.0	140.0	140.0	140.0	39.5	59.3	95.3	98.8	118.5	37.1	55.6	74.1	92.7	111.2	140.0	140.0	140.0	140.0	140.0	140.0				
10'-0"	5'-6"	43.3	65.0	86.6	108.3	129.9	112.2	140.0	140.0	140.0	140.0	35.9	53.9	86.6	89.8	107.8	33.7	50.5	67.4	84.2	101.1	139.5	140.0	140.0	140.0	140.0	140.0				
	6'-0"	39.7	59.5	79.4	99.2	119.1	102.9	140.0	140.0	140.0	140.0	32.9	49.4	79.4	82.3	98.8	30.9	46.3	61.8	77.2	92.7	127.9	140.0	140.0	140.0	140.0	140.0				
	6'-6"	36.6	55.0	73.3	91.6	109.9	95.0	140.0	140.0	140.0	140.0	30.4	45.6	73.3	76.0	91.2	28.5	42.8	57.0	71.3	85.5	118.0	140.0	140.0	140.0	140.0	140.0				
	7'-0"	34.0	51.0	68.0	85.1	102.1	88.2	132.3	140.0	140.0	140.0	28.2	42.3	68.0	70.6	84.7	26.5	39.7	52.9	66.2	79.4	109.6	140.0	140.0	140.0	140.0	140.0				
	3'-6"	64.6	97.0	129.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0	53.6	80.4	129.3	134.1	140.0	50.3	75.4	100.6	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-0"	56.6	84.8	113.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	46.9	70.4	113.1	117.3	140.0	44.0	66.0	88.0	110.0	132.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4'-6"	50.3	75.4	100.6	125.7	140.0	130.3	140.0	140.0	140.0	140.0	41.7	62.6	100.6	104.3	125.1	39.1	58.7	78.2	97.8	117.4	140.0	140.0	140.0	140.0	140.0	140.0				
10'-6"	5'-0"	45.3	67.9	90.5	113.1	135.8	117.3	140.0	140.0	140.0	140.0	37.5	56.3	90.5	93.8	112.6	35.2	52.8	70.4	88.0	105.6	140.0	140.0	140.0	140.0	140.0	140.0				
	5'-6"	41.1	61.7	82.3	102.8	123.4	106.6	140.0	140.0	140.0	140.0	34.1	51.2	82.3	85.3	102.4	32.0	48.0	64.0	80.0	96.0	132.5	140.0	140.0	140.0	140.0	140.0				
	6'-0"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.5	140.0	140.0	140.0	140.0	140.0				
	6'-6"	34.8	52.2	69.6	87.0	104.4	90.2	135.3	140.0	140.0	140.0	28.9	43.3	69.6	72.2	86.6	27.1	40.6	54.2	67.7	81.2	112.1	140.0	140.0	1						

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS

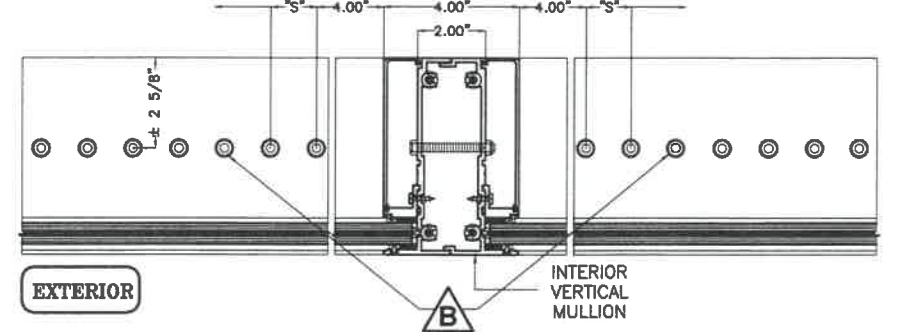
MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 14" MAX. SHIM SPACE (CONTINUED)																								
		POURED CONCRETE SUBSTRATE												WOOD (2) 1 1/2" Min. THK. SUBSTRATE												
		FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					STEEL 1/4" Min. THK.				
		A (1/4")					B (3/8")					C (1/4")					D (3/8")					E (3/8")				
"L" (Ft-In)	"b" (Ft-In)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12
11' - 6"	3' - 6"	56.2	84.3	112.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0	46.8	69.9	112.4	116.6	139.9	43.7	65.6	87.5	109.3	131.2	140.0	140.0	140.0	140.0	140.0
	4' - 0"	49.2	73.8	98.4	123.0	140.0	127.5	140.0	140.0	140.0	140.0	40.8	61.2	98.4	102.0	122.4	38.3	57.4	76.5	95.7	114.8	140.0	140.0	140.0	140.0	140.0
	4' - 6"	43.7	65.6	87.4	109.3	131.2	113.3	140.0	140.0	140.0	140.0	36.3	54.4	87.4	90.7	108.8	34.0	51.0	68.0	85.0	102.1	140.0	140.0	140.0	140.0	140.0
	5' - 0"	39.3	59.0	78.7	98.4	118.0	102.0	140.0	140.0	140.0	140.0	32.6	49.0	78.7	81.6	97.9	30.6	45.9	61.2	76.5	91.8	126.8	140.0	140.0	140.0	140.0
	5' - 6"	35.8	53.7	71.5	89.4	107.3	92.7	139.1	140.0	140.0	140.0	29.7	44.5	71.5	74.2	89.0	27.8	41.7	56.7	69.6	83.5	115.2	140.0	140.0	140.0	140.0
	6' - 0"	32.8	49.2	65.6	82.0	98.4	85.0	127.5	140.0	140.0	140.0	27.2	40.8	65.6	68.0	81.6	25.5	38.3	51.0	63.8	76.5	105.8	140.0	140.0	140.0	140.0
	6' - 6"	30.3	45.4	60.5	75.7	90.8	78.5	117.7	140.0	140.0	140.0	25.1	37.7	60.5	62.8	75.3	23.6	35.3	47.1	58.9	70.7	97.5	140.0	140.0	140.0	140.0
7' - 0"	28.1	42.2	56.2	70.3	84.3	72.8	109.3	140.0	140.0	140.0	23.3	35.0	56.2	58.3	69.9	21.9	32.8	43.7	54.7	65.6	90.5	135.8	140.0	140.0	140.0	
12' - 0"	3' - 6"	63.9	80.8	107.7	134.7	140.0	139.6	140.0	140.0	140.0	140.0	44.7	67.0	107.7	111.7	134.1	41.9	62.9	83.8	104.8	125.7	140.0	140.0	140.0	140.0	140.0
	4' - 0"	47.1	70.7	94.3	117.8	140.0	122.2	140.0	140.0	140.0	140.0	39.1	58.7	94.3	97.8	117.3	36.7	55.0	73.3	91.7	110.0	140.0	140.0	140.0	140.0	140.0
	4' - 6"	41.9	62.9	83.8	104.8	125.7	108.8	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0
	5' - 0"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.5	140.0	140.0	140.0	140.0
	5' - 6"	34.3	51.4	68.6	85.7	102.8	88.9	133.3	140.0	140.0	140.0	28.4	42.7	68.6	71.1	85.3	26.7	40.0	53.3	66.7	80.0	110.4	140.0	140.0	140.0	140.0
	6' - 0"	31.4	47.1	62.9	78.6	94.3	81.4	122.2	140.0	140.0	140.0	26.1	39.1	62.9	65.2	78.2	24.4	36.7	48.9	61.1	73.3	101.2	140.0	140.0	140.0	140.0
	6' - 6"	29.0	43.5	58.0	72.5	87.0	75.2	112.8	140.0	140.0	140.0	24.1	36.1	58.0	60.2	72.2	22.6	33.9	45.1	56.4	67.7	93.4	140.0	140.0	140.0	140.0
7' - 0"	26.9	40.4	53.9	67.3	80.8	69.8	104.7	139.6	140.0	140.0	22.3	33.5	53.9	55.9	67.0	21.0	31.4	41.9	52.4	62.9	86.8	130.2	140.0	140.0	140.0	
12' - 6"	3' - 6"	61.7	77.6	103.4	129.3	140.0	134.0	140.0	140.0	140.0	140.0	42.9	64.3	103.4	107.2	128.7	40.2	60.4	80.5	100.6	120.7	140.0	140.0	140.0	140.0	140.0
	4' - 0"	45.3	67.9	90.5	113.1	135.8	117.3	140.0	140.0	140.0	140.0	37.5	56.3	90.5	93.8	112.6	35.2	52.8	70.4	88.0	105.8	140.0	140.0	140.0	140.0	140.0
	4' - 6"	40.2	60.3	80.4	100.6	120.7	104.3	140.0	140.0	140.0	140.0	33.4	50.0	80.4	83.4	100.1	31.3	46.9	62.6	78.2	93.9	129.6	140.0	140.0	140.0	140.0
	5' - 0"	36.2	54.3	72.4	90.5	108.6	93.8	140.0	140.0	140.0	140.0	30.0	45.0	72.4	75.1	90.1	28.2	42.2	56.3	70.4	84.5	116.6	140.0	140.0	140.0	140.0
	5' - 6"	32.9	49.4	65.8	82.3	98.7	85.3	127.9	140.0	140.0	140.0	27.3	40.9	65.8	68.2	81.9	25.6	38.4	51.2	64.0	76.8	106.0	140.0	140.0	140.0	140.0
	6' - 0"	30.2	45.3	60.3	75.4	90.5	78.2	117.3	140.0	140.0	140.0	25.0	37.5	60.3	62.6	75.1	23.5	35.2	46.9	58.7	70.4	97.2	140.0	140.0	140.0	140.0
	6' - 6"	27.8	41.8	55.7	69.6	83.5	72.2	108.3	140.0	140.0	140.0	23.1	34.6	55.7	57.7	69.3	21.7	32.5	43.3	54.2	65.0	89.7	134.6	140.0	140.0	140.0
7' - 0"	25.9	38.8	51.7	64.6	77.5	67.0	100.5	134.0	140.0	140.0	21.4	32.2	51.7	53.6	64.3	20.1	30.2	40.2	50.3	60.4	83.3	124.9	140.0	140.0	140.0	
13' - 0"	3' - 6"	49.7	74.6	99.5	124.3	140.0	128.9	140.0	140.0	140.0	140.0	41.2	61.9	99.5	103.1	123.7	38.7	58.0	77.4	96.7	116.1	140.0	140.0	140.0	140.0	140.0
	4' - 0"	43.5	65.3	87.0	108.8	130.5	112.8	140.0	140.0	140.0	140.0	36.1	54.1	87.0	90.2	108.3	33.9	50.8	67.7	84.6	101.6	140.0	140.0	140.0	140.0	140.0
	4' - 6"	38.7	58.0	77.4	96.7	116.0	100.2	140.0	140.0	140.0	140.0	32.1	48.1	77.4	80.2	96.2	30.1	45.1	60.2	75.2	90.3	124.6	140.0	140.0	140.0	140.0
	5' - 0"	34.8	52.2	69.6	87.0	104.4	90.2	135.3	140.0	140.0	140.0	28.9	43.3	69.6	72.2	86.6	27.1	40.6	54.2	67.7	81.2	112.1	140.0	140.0	140.0	140.0
	5' - 6"	31.6	47.5	63.3	79.1	94.9	82.0	123.0	140.0	140.0	140.0	26.2	39.4	63.3	65.8	78.7	24.6	36.9	49.2	61.6	73.9	101.9	140.0	140.0	140.0	140.0
	6' - 0"	29.0	43.5	58.0	72.5	87.0	75.2	112.8	140.0	140.0	140.0	24.1	36.1	58.0	60.2	72.2	22.6	33.9	45.1	56.4	67.7	93.4	140.0	140.0	140.0	140.0
	6' - 6"	26.8	40.2	53.6	66.9	80.3	69.4	104.1	138.8	140.0	140.0	22.2	33.3	53.6	55.6	66.8	20.8	31.2	41.7	52.1	62.5	86.3	129.4	140.0	140.0	140.0
7' - 0"	24.9	37.3	49.7	62.2	74.6	64.4	96.7	128.9	140.0	140.0	20.6	30.9	49.7	51.6	61.9	19.3	29.0	38.7	48.4	58.0	80.1	120.1	140.0	140.0	140.0	
13' - 6"	3' - 6"	47.9	71.8	95.8	119.7	140.0	124.1	140.0	140.0	140.0	140.0	39.7	59.6	95.8	99.3	119.2	37.3	55.9	74.5	93.1	111.8	140.0	140.0	140.0	140.0	140.0
	4' - 0"	41.9	62.9	83.8	104.8	125.7	108.8	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0
	4' - 6"	37.2	55.9	74.5	93.1	111.7	95.5	140.0	140.0	140.0	140.0	30.9	46.3	74.5	77.2	92.7	29.0	43.5	58.0	72.4	86.9	120.0	140.0	140.0	140.0	140.0
	5' - 0"	33.5	50.3	67.0	83.8	100.6	86.9	130.3	140.0	140.0	140.0	27.8	41.7	67.0	69.5	83.4	26.1	39.1	52.2	65.2	78.2	108.0	140.0	140.0	140.0	140.0
	5' - 6"	30.5	45.7	60.9	76.2	91.4	79.0	118.5	140.0	140.0	140.0	25.3	37.9	60.9	63.2	75.8	23.7	35.6	47.4	59.3	71.1	98.2	140.0	140.0	140.0	140.0
	6' - 0"	27.9	41.9	55.9	69.8	83.8	72.4	108.6	140.0	140.0	140.0	23.2	34.8	55.9	57.9	69.5	21.7	32.6	43.5	54.3	65.2	90.0	135.0	140.0	140.0	140.0
	6' - 6"	25.8	38.7	51.5	64.5	77.4	66.8	100.2	133.7	140.0	140.0	21.4	32.1	51.5	53.5	64.2	20.1	30.1	40.1	50.2	60.2	83.1	124.6	140.0	140.0	140.0
7' - 0"	23.9	35.9	47.9	59.9	71.8	62.1	93.1	124.1	140.0	140.0	19.9	29.8	47.9	49.7	59.6	18.6	27.9	37.3	46.6	55.9	77.1	115.7	140.0	140.0	140.0	
14' - 0"	3' - 6"	46.2	69.3	92.4	115.4	138.5	119.7	140.0	140.0	140.0	140.0	38.3	57.5	92.4	95.8	114.9	35.9	53.9	71.9	89.8	107.8	140.0	140.0	140.0	140.0	140.0
	4' - 0"	40.4	60.6	80.8	101.0	121.2</																				

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS

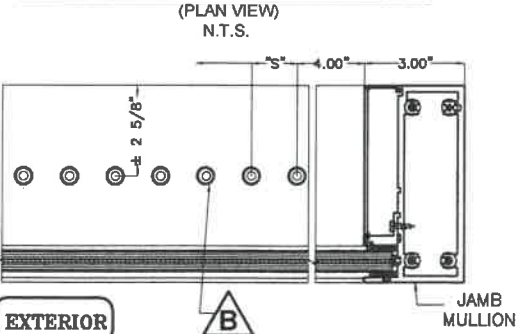
MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE (CONTINUED)																												
		POURED CONCRETE SUBSTRATE												WOOD (2) 1 1/2" Min. THK. SUBSTRATE												STEEL 1/4" Min. THK.				
		FASTENERS TYPE A (1/4")						FASTENERS TYPE B (3/8")						FASTENERS TYPE C (1/4")						FASTENERS TYPE D (3/8")						FASTENERS TYPE E (3/8")				
		n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12				
15' - 0"	3' - 6"	43.1	64.6	86.2	107.7	129.3	111.7	140.0	140.0	140.0	140.0	35.7	53.6	86.2	89.4	107.2	33.5	50.3	67.1	83.8	100.6	138.8	140.0	140.0	140.0	140.0				
	4' - 0"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.5	140.0	140.0	140.0	140.0				
	4' - 6"	33.5	50.3	67.0	83.8	100.6	86.9	130.3	140.0	140.0	140.0	27.8	41.7	67.0	69.5	83.4	26.1	39.1	52.2	65.2	78.2	108.0	140.0	140.0	140.0	140.0				
	5' - 0"	30.2	45.3	60.3	75.4	90.5	78.2	117.3	140.0	140.0	140.0	25.0	37.5	60.3	62.6	75.1	23.5	35.2	46.9	58.7	70.4	97.2	140.0	140.0	140.0	140.0				
	5' - 6"	27.4	41.1	54.9	68.6	82.3	71.1	106.6	140.0	140.0	140.0	22.7	34.1	54.9	56.9	68.2	21.3	32.0	42.7	53.3	64.0	88.3	132.5	140.0	140.0	140.0				
	6' - 0"	25.1	37.7	50.3	62.9	75.4	65.2	97.7	130.3	140.0	140.0	20.9	31.3	50.3	52.1	62.6	19.6	29.3	39.1	48.9	58.7	81.0	121.5	140.0	140.0	140.0				
	6' - 6"	23.2	34.8	46.4	58.0	69.6	60.1	90.2	120.3	140.0	140.0	19.2	28.9	46.4	48.1	57.7	18.1	27.1	36.1	45.1	54.2	74.8	112.1	140.0	140.0	140.0				
7' - 0"	21.5	32.3	43.1	53.9	64.6	55.9	83.8	111.7	139.6	140.0	17.9	26.8	43.1	44.7	53.6	16.8	25.1	33.5	41.9	50.3	69.4	104.1	138.8	140.0	140.0					
15' - 6"	3' - 6"	41.7	62.6	83.4	104.3	125.1	108.1	140.0	140.0	140.0	140.0	34.6	51.9	83.4	86.5	103.8	32.4	48.7	64.9	81.1	97.3	134.4	140.0	140.0	140.0	140.0				
	4' - 0"	36.5	54.7	73.0	91.2	109.5	94.6	140.0	140.0	140.0	140.0	30.3	45.4	73.0	75.7	90.8	28.4	42.6	58.8	71.0	85.2	117.6	140.0	140.0	140.0	140.0				
	4' - 6"	32.4	48.7	64.9	81.1	97.3	84.1	126.1	140.0	140.0	140.0	26.9	40.4	64.9	67.3	80.7	25.2	37.9	50.5	63.1	75.7	104.5	140.0	140.0	140.0	140.0				
	5' - 0"	29.2	43.8	58.4	73.0	87.6	75.7	113.5	140.0	140.0	140.0	24.2	36.3	58.4	60.5	72.7	22.7	34.1	45.4	56.8	68.1	94.0	140.0	140.0	140.0	140.0				
	5' - 6"	26.5	39.8	53.1	66.4	79.6	68.8	103.2	137.6	140.0	140.0	22.0	33.0	53.1	55.0	66.0	20.6	31.0	41.3	51.6	61.9	85.5	128.2	140.0	140.0	140.0				
	6' - 0"	24.3	36.5	48.7	60.8	73.0	63.1	94.6	126.1	140.0	140.0	20.2	30.3	48.7	50.5	60.5	18.9	28.4	37.9	47.3	56.8	78.4	117.6	140.0	140.0	140.0				
	6' - 6"	22.5	33.7	44.9	56.1	67.4	58.2	87.3	116.4	140.0	140.0	18.6	27.9	44.9	46.6	55.9	17.5	26.2	34.9	43.7	52.4	72.3	108.5	140.0	140.0	140.0				
7' - 0"	20.9	31.3	41.7	52.1	62.6	54.0	81.1	108.1	135.1	140.0	17.3	25.9	41.7	43.2	51.9	16.2	24.3	32.4	40.6	48.7	67.2	100.8	134.4	140.0	140.0					
15' - 9"	3' - 6"	41.0	61.6	82.1	102.6	123.1	106.4	140.0	140.0	140.0	140.0	34.0	51.1	82.1	85.1	102.1	31.9	47.9	63.9	79.8	95.8	132.2	140.0	140.0	140.0	140.0				
	4' - 0"	35.9	53.9	71.8	89.8	107.7	93.1	139.6	140.0	140.0	140.0	29.8	44.7	71.8	74.5	89.4	27.9	41.9	55.9	69.9	83.8	115.7	140.0	140.0	140.0	140.0				
	4' - 6"	31.9	47.9	63.8	79.8	95.8	82.7	124.1	140.0	140.0	140.0	26.5	39.7	63.8	66.2	79.4	24.8	37.3	49.7	62.1	74.5	102.8	140.0	140.0	140.0	140.0				
	5' - 0"	28.7	43.1	57.5	71.8	86.2	74.5	111.7	140.0	140.0	140.0	23.8	35.7	57.5	59.6	71.5	22.4	33.5	44.7	55.9	67.1	92.6	138.8	140.0	140.0	140.0				
	5' - 6"	26.1	39.2	52.2	65.3	78.4	67.7	101.5	135.4	140.0	140.0	21.7	32.5	52.2	54.2	65.0	20.3	30.5	40.6	50.8	61.0	84.1	126.2	140.0	140.0	140.0				
	6' - 0"	23.9	35.9	47.9	59.9	71.8	62.1	93.1	124.1	140.0	140.0	19.9	29.8	47.9	49.7	59.6	18.6	27.9	37.3	46.6	55.9	77.1	115.7	140.0	140.0	140.0				
	6' - 6"	22.1	33.2	44.2	55.3	66.3	57.3	85.9	114.6	140.0	140.0	18.3	27.5	44.2	45.8	55.0	17.2	25.8	34.4	43.0	51.6	71.2	106.8	140.0	140.0	140.0				
7' - 0"	20.5	30.8	41.0	51.3	61.6	53.2	79.8	106.4	133.0	140.0	17.0	25.5	41.0	42.6	51.1	16.0	24.0	31.9	39.9	47.9	66.1	99.2	132.2	140.0	140.0					

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

- A - 1/4"Ø ELCO CONSTRUCTION PRODUCTS, ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 2.730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø POWERS FASTENERS, WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3.0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø ELCO CONSTRUCTION PRODUCTS, ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.



SILL OR HEAD CONNECTION DETAIL @ INTERIOR VERTICAL MULLION



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SHEET 10 OF 24

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARING SHM SPACE																												
		POURED CONCRETE SUBSTRATE												WOOD (2) 2" x THK. SUBSTRATE												STEEL 1/4" Min. THK. SUBSTRATE				
		FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE				
		A (1/4")						B (3/8")						C (1/4")						D (3/8")						E (3/8")				
"L" (Ft-In)	"b" (Ft-In)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12				
8' - 0" OR LESS	3' - 6"	58.7	88.0	117.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0	58.7	88.0	117.4	140.0	140.0	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	51.4	77.0	102.7	128.4	140.0	140.0	140.0	140.0	140.0	140.0	51.4	77.0	102.7	128.4	140.0	55.0	82.5	110.0	137.5	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	45.7	68.5	91.3	114.1	137.0	135.1	140.0	140.0	140.0	140.0	45.7	68.5	91.3	114.1	137.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	41.1	61.6	82.2	102.7	123.3	121.6	140.0	140.0	140.0	140.0	41.1	61.6	82.2	102.7	123.3	44.0	66.0	88.0	110.0	132.0	138.5	140.0	140.0	140.0	140.0				
	5' - 6"	37.4	56.0	74.7	93.4	112.1	110.5	140.0	140.0	140.0	140.0	37.4	56.0	74.7	93.4	112.1	40.0	60.0	80.0	100.0	120.0	125.9	140.0	140.0	140.0	140.0				
	6' - 0"	34.2	51.4	68.5	85.6	102.7	101.3	140.0	140.0	140.0	140.0	34.2	51.4	68.5	85.6	102.7	36.7	55.0	73.3	91.7	110.0	115.4	140.0	140.0	140.0	140.0				
	6' - 6"	31.6	47.4	63.2	79.0	94.8	93.5	140.0	140.0	140.0	140.0	31.6	47.4	63.2	79.0	94.8	33.9	50.8	67.7	84.6	101.6	106.5	140.0	140.0	140.0	140.0				
8' - 6"	7' - 0"	29.3	44.0	58.7	73.4	88.0	86.8	130.3	140.0	140.0	140.0	29.3	44.0	58.7	73.4	88.0	31.4	47.2	62.9	78.6	94.3	98.9	140.0	140.0	140.0	140.0				
	3' - 6"	55.2	82.9	110.5	138.1	140.0	140.0	140.0	140.0	140.0	140.0	55.2	82.9	110.5	138.1	140.0	59.2	88.8	118.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	48.3	72.5	96.7	120.8	140.0	140.0	140.0	140.0	140.0	140.0	48.3	72.5	96.7	120.8	140.0	51.8	77.7	103.6	129.4	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	43.0	64.5	85.9	107.4	128.9	127.1	140.0	140.0	140.0	140.0	43.0	64.5	85.9	107.4	128.9	46.0	69.0	92.0	115.1	138.1	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	38.7	58.0	77.3	96.7	116.0	114.4	140.0	140.0	140.0	140.0	38.7	58.0	77.3	96.7	116.0	41.4	62.1	82.8	103.6	124.3	130.3	140.0	140.0	140.0	140.0				
	5' - 6"	35.2	52.7	70.3	87.9	105.5	104.0	140.0	140.0	140.0	140.0	35.2	52.7	70.3	87.9	105.5	37.7	56.5	75.3	94.1	113.0	118.5	140.0	140.0	140.0	140.0				
	6' - 0"	32.2	48.3	64.5	80.6	96.7	95.4	140.0	140.0	140.0	140.0	32.2	48.3	64.5	80.6	96.7	34.5	51.8	69.0	86.3	103.6	108.6	140.0	140.0	140.0	140.0				
9' - 0"	6' - 6"	29.7	44.6	59.5	74.4	89.2	88.0	132.0	140.0	140.0	140.0	29.7	44.6	59.5	74.4	89.2	31.9	47.8	63.7	79.7	95.6	100.3	140.0	140.0	140.0	140.0				
	7' - 0"	27.6	41.4	55.2	69.1	82.9	81.7	122.6	140.0	140.0	140.0	27.6	41.4	55.2	69.1	82.9	29.6	44.4	59.2	74.0	88.8	93.1	139.7	140.0	140.0	140.0				
	3' - 6"	52.2	78.3	104.4	130.4	140.0	140.0	140.0	140.0	140.0	140.0	52.2	78.3	104.4	130.4	140.0	55.9	83.8	111.8	139.7	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	45.7	68.5	91.3	114.1	137.0	135.1	140.0	140.0	140.0	140.0	45.7	68.5	91.3	114.1	137.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	40.6	60.9	81.2	101.5	121.7	120.1	140.0	140.0	140.0	140.0	40.6	60.9	81.2	101.5	121.7	43.5	65.2	86.9	108.7	130.4	136.8	140.0	140.0	140.0	140.0				
	5' - 0"	36.5	54.8	73.0	91.3	109.6	108.1	140.0	140.0	140.0	140.0	36.5	54.8	73.0	91.3	109.6	38.1	58.7	78.2	97.8	117.4	123.1	140.0	140.0	140.0	140.0				
	5' - 6"	33.2	49.8	66.4	83.0	99.6	98.3	140.0	140.0	140.0	140.0	33.2	49.8	66.4	83.0	99.6	35.6	53.3	71.1	88.9	106.7	111.9	140.0	140.0	140.0	140.0				
9' - 6"	6' - 0"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0				
	6' - 6"	28.1	42.1	56.2	70.2	84.3	83.1	124.7	140.0	140.0	140.0	28.1	42.1	56.2	70.2	84.3	30.1	45.1	60.2	75.2	90.3	94.7	140.0	140.0	140.0	140.0				
	7' - 0"	26.1	39.1	52.2	65.2	78.3	77.2	115.8	140.0	140.0	140.0	26.1	39.1	52.2	65.2	78.3	27.9	41.9	55.9	69.9	83.8	87.9	131.9	140.0	140.0	140.0				
	3' - 6"	49.4	74.1	98.9	123.6	140.0	140.0	140.0	140.0	140.0	140.0	49.4	74.1	98.9	123.6	140.0	52.9	79.4	105.9	132.4	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	43.3	64.9	86.5	108.1	129.8	128.0	140.0	140.0	140.0	140.0	43.3	64.9	86.5	108.1	129.8	46.3	69.5	92.7	115.8	139.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	38.4	57.7	76.9	96.1	115.3	113.8	140.0	140.0	140.0	140.0	38.4	57.7	76.9	96.1	115.3	41.2	61.8	82.4	102.9	123.5	129.6	140.0	140.0	140.0	140.0				
	5' - 0"	34.6	51.9	69.2	86.5	103.8	102.4	140.0	140.0	140.0	140.0	34.6	51.9	69.2	86.5	103.8	37.1	55.6	74.1	92.7	111.2	116.6	140.0	140.0	140.0	140.0				
10' - 0"	5' - 6"	31.5	47.2	62.9	78.6	94.4	93.1	139.6	140.0	140.0	140.0	31.5	47.2	62.9	78.6	94.4	33.7	50.5	67.4	84.2	101.1	106.0	140.0	140.0	140.0	140.0				
	6' - 0"	28.8	43.3	57.7	72.1	86.5	85.3	128.0	140.0	140.0	140.0	28.8	43.3	57.7	72.1	86.5	30.9	46.3	61.8	77.2	92.7	97.2	140.0	140.0	140.0	140.0				
	6' - 6"	26.6	39.9	53.2	68.5	79.8	78.8	118.1	140.0	140.0	140.0	26.6	39.9	53.2	66.5	79.8	28.5	42.8	57.0	71.3	85.5	89.7	134.6	140.0	140.0	140.0				
	7' - 0"	24.7	37.1	49.4	61.8	74.1	73.1	109.7	140.0	140.0	140.0	24.7	37.1	49.4	61.8	74.1	26.5	39.7	52.9	66.2	79.4	83.3	125.0	140.0	140.0	140.0				
	3' - 6"	47.0	70.4	93.9	117.4	140.0	139.0	140.0	140.0	140.0	140.0	47.0	70.4	93.9	117.4	140.0	50.3	75.4	100.6	125.7	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	41.1	61.6	82.2	102.7	123.3	121.6	140.0	140.0	140.0	140.0	41.1	61.6	82.2	102.7	123.3	44.0	66.0	88.0	110.0	132.0	138.5	140.0	140.0	140.0	140.0				
	4' - 6"	36.5	54.8	73.0	91.3	109.6	108.1	140.0	140.0	140.0	140.0	36.5	54.8	73.0	91.3	109.6	38.1	58.7	78.2	97.8	117.4	123.1	140.0	140.0	140.0	140.0				
10' - 6"	5' - 0"	32.9	49.3	65.7	82.2	98.6	97.3	140.0	140.0	140.0	140.0	32.9	49.3	65.7	82.2	98.6	35.2	52.8	70.4	88.0	105.6	110.8	140.0	140.0	140.0	140.0				
	5' - 6"	29.9	44.8	59.8	74.7	89.6	88.4	132.6	140.0	140.0	140.0	29.9	44.8	59.8	74.7	89.6	32.0	48.0	64.0	80.0	96.0	100.7	140.0	140.0	140.0	140.0				
	6' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0				
	6' - 6"	25.3	37.9	50.6	63.2	75.9	74.8	112.2	140.0	140.0	140.0	25.3	37.9	50.6	63.2	75.9	27.1	40.6	54.2	67.7	81.2	85.2	127.8	140.0	140.0	140.0				
	7' - 0"	23.5	35.2	47.0	58.7	70.4	69.5	104.2	139.0	140.0	140.0	23.5	35.2	47.0	58.7	70.4	25.1	37.7	50.3	62.9	75.4	79.1	118.7	140.0	140.0	140.0				
	3' - 6"	44.7	67.1	89.4	111.8	134.2	132.3	140.0	14																					

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS

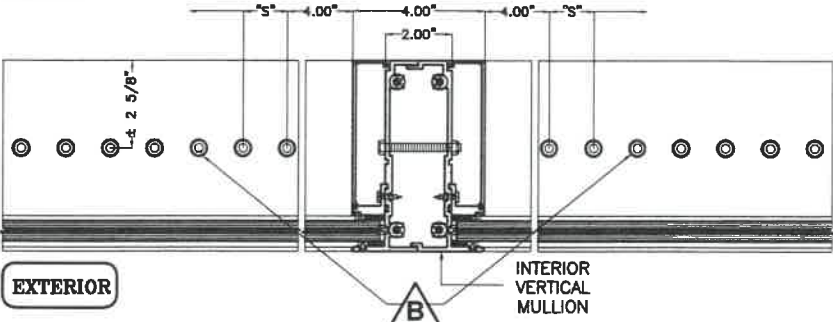
MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARING SHIM SPACE (CONTINUED)																								
		POURED CONCRETE SUBSTRATE										WOOD (2) 2" x THK. SUBSTRATE										STEEL 1/4" Min. THK.				
		FASTENERS TYPE A (1/4")					FASTENERS TYPE B (3/8")					FASTENERS TYPE C (1/4")					FASTENERS TYPE D (3/8")					FASTENERS TYPE E (3/8")				
		n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12
11' - 6"	3' - 6"	40.8	61.2	81.7	102.1	122.5	120.8	140.0	140.0	140.0	140.0	40.8	61.2	81.7	102.1	122.5	43.7	65.6	87.5	109.3	131.2	137.6	140.0	140.0	140.0	140.0
	4' - 0"	35.7	53.6	71.5	89.3	107.2	105.7	140.0	140.0	140.0	140.0	35.7	53.6	71.5	89.3	107.2	38.3	57.4	76.5	95.7	114.8	120.4	140.0	140.0	140.0	140.0
	4' - 6"	31.8	47.6	63.5	79.4	95.3	94.0	140.0	140.0	140.0	140.0	31.8	47.6	63.5	79.4	95.3	34.0	51.0	68.0	85.0	102.1	107.0	140.0	140.0	140.0	140.0
	5' - 0"	28.6	42.9	57.2	71.5	85.7	84.6	126.9	140.0	140.0	140.0	28.6	42.9	57.2	71.5	85.7	30.6	45.9	61.2	76.5	91.8	96.3	140.0	140.0	140.0	140.0
	5' - 6"	26.0	39.0	52.0	65.0	78.0	76.9	115.3	140.0	140.0	140.0	26.0	39.0	52.0	65.0	78.0	27.8	41.7	55.7	69.6	83.5	87.6	131.4	140.0	140.0	140.0
	6' - 0"	23.8	35.7	47.6	59.5	71.5	70.5	105.7	140.0	140.0	140.0	23.8	35.7	47.6	59.5	71.5	25.5	38.3	51.0	63.8	76.5	80.3	120.4	140.0	140.0	140.0
	6' - 6"	22.0	33.0	44.0	55.0	66.0	65.1	97.6	130.1	140.0	140.0	22.0	33.0	44.0	55.0	66.0	23.6	35.3	47.1	58.9	70.7	74.1	111.2	140.0	140.0	140.0
12' - 0"	7' - 0"	20.4	30.6	40.8	51.0	61.2	60.4	90.6	120.8	140.0	140.0	20.4	30.6	40.8	51.0	61.2	21.9	32.8	43.7	54.7	65.6	68.8	103.2	137.6	140.0	140.0
	3' - 6"	39.1	58.7	78.3	97.8	117.4	115.8	140.0	140.0	140.0	140.0	39.1	58.7	78.3	97.8	117.4	41.9	62.9	83.8	104.8	125.7	131.9	140.0	140.0	140.0	140.0
	4' - 0"	34.2	51.4	68.5	85.6	102.7	101.3	140.0	140.0	140.0	140.0	34.2	51.4	68.5	85.6	102.7	36.7	55.0	73.3	91.7	110.0	115.4	140.0	140.0	140.0	140.0
	4' - 6"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0
	5' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0
	5' - 6"	24.9	37.4	49.8	62.3	74.7	73.7	110.5	140.0	140.0	140.0	24.9	37.4	49.8	62.3	74.7	26.7	40.0	53.3	66.7	80.0	83.9	125.9	140.0	140.0	140.0
	6' - 0"	22.8	34.2	45.7	57.1	68.5	67.5	101.3	135.1	140.0	140.0	22.8	34.2	45.7	57.1	68.5	24.4	36.7	48.9	61.1	73.3	76.9	115.4	140.0	140.0	140.0
12' - 6"	6' - 6"	21.1	31.6	42.1	52.7	63.2	62.4	93.5	124.7	140.0	140.0	21.1	31.6	42.1	52.7	63.2	22.6	33.9	45.1	56.4	67.7	71.0	106.5	140.0	140.0	140.0
	7' - 0"	19.6	29.3	39.1	48.9	58.7	57.9	86.8	115.8	140.0	140.0	19.6	29.3	39.1	48.9	58.7	21.0	31.4	41.9	52.4	62.9	65.9	98.9	131.9	140.0	140.0
	3' - 6"	37.6	56.3	75.1	93.9	112.7	111.2	140.0	140.0	140.0	140.0	37.6	56.3	75.1	93.9	112.7	40.2	60.4	80.5	100.6	120.7	126.6	140.0	140.0	140.0	140.0
	4' - 0"	32.9	49.3	65.7	82.2	98.6	97.3	140.0	140.0	140.0	140.0	32.9	49.3	65.7	82.2	98.6	35.2	52.8	70.4	88.0	105.6	110.8	140.0	140.0	140.0	140.0
	4' - 6"	29.2	43.8	58.4	73.0	87.7	86.5	129.7	140.0	140.0	140.0	29.2	43.8	58.4	73.0	87.7	31.3	46.9	62.6	78.2	93.9	98.5	140.0	140.0	140.0	140.0
	5' - 0"	26.3	39.4	52.6	65.7	78.9	77.8	116.7	140.0	140.0	140.0	26.3	39.4	52.6	65.7	78.9	28.2	42.2	56.3	70.4	84.5	88.6	132.9	140.0	140.0	140.0
	5' - 6"	23.9	35.9	47.8	59.8	71.7	70.7	106.1	140.0	140.0	140.0	23.9	35.9	47.8	59.8	71.7	25.6	38.4	51.2	64.0	76.8	80.6	120.9	140.0	140.0	140.0
13' - 0"	6' - 0"	21.9	32.9	43.8	54.8	65.7	64.8	97.3	129.7	140.0	140.0	21.9	32.9	43.8	54.8	65.7	23.5	35.2	46.9	58.7	70.4	73.9	110.8	140.0	140.0	140.0
	6' - 6"	20.2	30.3	40.5	50.6	60.7	59.9	89.8	119.7	140.0	140.0	20.2	30.3	40.5	50.6	60.7	21.7	32.5	43.3	54.2	65.0	68.2	102.3	136.4	140.0	140.0
	7' - 0"	18.1	27.1	36.1	45.2	54.2	53.4	80.2	106.9	133.6	140.0	18.1	27.1	36.1	45.2	54.2	19.3	29.0	38.7	48.4	58.0	60.9	91.3	121.7	140.0	140.0
	3' - 6"	36.1	54.2	72.2	90.3	108.4	106.9	140.0	140.0	140.0	140.0	36.1	54.2	72.2	90.3	108.4	38.7	58.0	77.4	96.7	116.1	121.7	140.0	140.0	140.0	140.0
	4' - 0"	31.6	47.4	63.2	79.0	94.8	93.5	140.0	140.0	140.0	140.0	31.6	47.4	63.2	79.0	94.8	33.9	50.8	67.7	84.6	101.6	106.5	140.0	140.0	140.0	140.0
	4' - 6"	28.1	42.1	56.2	70.2	84.3	83.1	124.7	140.0	140.0	140.0	28.1	42.1	56.2	70.2	84.3	30.1	45.1	60.2	75.2	90.3	94.7	140.0	140.0	140.0	140.0
	5' - 0"	25.3	37.9	50.6	63.2	75.9	74.8	112.2	140.0	140.0	140.0	25.3	37.9	50.6	63.2	75.9	27.1	40.6	54.2	67.7	81.2	85.2	127.8	140.0	140.0	140.0
13' - 6"	5' - 6"	23.0	34.5	46.0	57.5	69.0	68.0	102.0	136.0	140.0	140.0	23.0	34.5	46.0	57.5	69.0	24.6	36.9	49.2	61.6	73.9	77.5	116.2	140.0	140.0	140.0
	6' - 0"	21.1	31.6	42.1	52.7	63.2	62.4	93.5	124.7	140.0	140.0	21.1	31.6	42.1	52.7	63.2	22.6	33.9	45.1	56.4	67.7	71.0	106.5	140.0	140.0	140.0
	6' - 6"	18.7	28.1	37.5	46.8	56.2	55.4	83.1	110.8	138.6	140.0	18.7	28.1	37.5	46.8	56.2	20.1	30.1	40.1	50.2	60.2	63.1	94.7	126.3	140.0	140.0
	7' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	128.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0
	3' - 6"	34.8	52.2	69.6	87.0	104.4	102.9	140.0	140.0	140.0	140.0	34.8	52.2	69.6	87.0	104.4	37.3	55.9	74.5	93.1	111.8	117.2	140.0	140.0	140.0	140.0
	4' - 0"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0
	4' - 6"	27.1	40.6	54.1	67.6	81.2	80.1	120.1	140.0	140.0	140.0	27.1	40.6	54.1	67.6	81.2	29.0	43.5	58.0	72.4	86.9	91.2	136.8	140.0	140.0	140.0
14' - 6"	5' - 0"	24.3	36.5	48.7	60.9	73.0	72.1	108.1	140.0	140.0	140.0	24.3	36.5	48.7	60.9	73.0	26.1	39.1	52.2	65.2	78.2	82.1	123.1	140.0	140.0	140.0
	5' - 6"	22.1	33.2	44.3	55.3	66.4	65.5	98.3	131.0	140.0	140.0	22.1	33.2	44.3	55.3	66.4	23.7	35.6	47.4	59.3	71.1	74.6	111.9	140.0	140.0	140.0
	6' - 0"	18.9	28.3	37.8	47.2	56.7	55.9	83.9	111.8	139.8	140.0	18.9	28.3	37.8	47.2	56.7	20.2	30.4	40.5	50.6	60.7	63.7	95.5	127.3	140.0	140.0
	6' - 6"	17.4	26.2	34.9	43.6	52.3	51.6	77.4	103.2	129.0	140.0	17.4	26.2	34.9	43.6	52.3	18.7	28.0	37.4	46.7	56.0	58.8	88.2	117.6	140.0	140.0
	7' - 0"	16.2	24.3	32.4	40.5	48.6	47.9	71.9	95.8	119.8	140.0	16.2	24.3	32.4	40.5	48.6	17.3	26.0	34.7	43.4	52.0	54.6	81.9	109.2	136.4	140.0
	3' - 6"	32.4	48.6	64.8	81.0	97.2	95.8	140.0	140.0	140.0	140.0	32.4	48.6	64.8	81.0	97.2	34.7	52.0	69.4	86.7	104.1	109.2	140.0	140.0	140.0	140.0
	4' - 0"	28.3	42.5	56.7	70.8	85.0	83.9	125.8	140.0	140.0	140.0	28.3	42.5	56.7	70.8	85.0	30.4	45.5	60.7	75.9	91.1	95.5	140.0	140.0	14	

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR VERTICAL MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS

MAXIMUM MILLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARING SHIM SPACE (CONTINUED)																												
		POURED CONCRETE SUBSTRATE												WOOD (2) 2" x THK. SUBSTRATE												STEEL 1/4" Min. THK.				
		FASTENERS TYPE A (1/4")						FASTENERS TYPE B (3/8")						FASTENERS TYPE C (1/4")						FASTENERS TYPE D (3/8")										
		n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12				
15' - 0"	3' - 6"	31.3	47.0	62.6	78.3	93.9	92.6	139.0	140.0	140.0	140.0	31.3	47.0	62.6	78.3	93.9	33.5	50.3	67.1	83.8	100.6	105.5	140.0	140.0	140.0	140.0				
	4' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0				
	4' - 6"	24.3	36.5	48.7	60.9	73.0	72.1	108.1	140.0	140.0	140.0	24.3	36.5	48.7	60.9	73.0	26.1	39.1	52.2	65.2	78.2	82.1	123.1	140.0	140.0	140.0				
	5' - 0"	21.2	31.8	42.4	53.0	63.6	62.8	94.1	125.5	140.0	140.0	21.2	31.8	42.4	53.0	63.6	22.7	34.1	45.4	56.8	68.1	71.5	107.2	140.0	140.0	140.0				
	5' - 6"	19.3	28.9	38.6	48.2	57.8	57.0	85.6	114.1	140.0	140.0	19.3	28.9	38.6	48.2	57.8	20.6	31.0	41.3	51.6	61.9	65.0	97.5	130.0	140.0	140.0				
	6' - 0"	17.7	26.5	35.3	44.2	53.0	52.3	78.4	104.6	130.7	140.0	17.7	26.5	35.3	44.2	53.0	18.9	28.4	37.9	47.3	56.8	59.6	89.3	119.1	140.0	140.0				
	6' - 6"	16.3	24.5	32.6	40.8	48.9	48.3	72.4	96.5	120.7	140.0	16.3	24.5	32.6	40.8	48.9	17.5	26.2	34.9	43.7	52.4	55.0	82.5	110.0	137.5	140.0				
	7' - 0"	15.1	22.7	30.3	37.9	45.4	44.8	67.2	89.6	112.1	134.5	15.1	22.7	30.3	37.9	45.4	16.2	24.3	32.4	40.6	48.7	51.1	76.6	102.1	127.6	140.0				
15' - 6"	3' - 6"	30.3	45.4	60.6	75.7	90.9	89.6	134.5	140.0	140.0	140.0	30.3	45.4	60.6	75.7	90.9	32.4	48.7	64.9	81.1	97.3	102.1	140.0	140.0	140.0	140.0				
	4' - 0"	26.5	39.8	53.0	66.3	79.5	78.4	117.7	140.0	140.0	140.0	26.5	39.8	53.0	66.3	79.5	28.4	42.6	56.8	71.0	85.2	89.3	134.0	140.0	140.0	140.0				
	4' - 6"	23.2	34.8	46.4	58.0	69.6	68.6	102.9	137.2	140.0	140.0	23.2	34.8	46.4	58.0	69.6	24.8	37.3	49.7	62.1	74.5	78.2	117.2	140.0	140.0	140.0				
	5' - 0"	20.9	31.3	41.7	52.2	62.6	61.8	92.6	123.5	140.0	140.0	20.9	31.3	41.7	52.2	62.6	22.4	33.5	44.7	55.9	67.1	70.3	105.5	140.0	140.0	140.0				
	5' - 6"	19.0	28.5	37.9	47.4	56.9	56.1	84.2	112.3	140.0	140.0	19.0	28.5	37.9	47.4	56.9	20.3	30.5	40.6	50.8	61.0	63.9	95.9	127.9	140.0	140.0				
	6' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	128.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0				
	6' - 6"	16.1	24.1	32.1	40.1	48.2	47.5	71.3	95.0	118.8	140.0	16.1	24.1	32.1	40.1	48.2	17.2	25.8	34.4	43.0	51.6	54.1	81.2	108.2	135.3	140.0				
	7' - 0"	14.9	22.4	29.8	37.3	44.7	44.1	66.2	88.2	110.3	132.3	14.9	22.4	29.8	37.3	44.7	16.0	24.0	31.9	39.9	47.9	50.2	75.4	100.5	125.6	140.0				
15' - 9"	3' - 6"	29.8	44.7	59.6	74.5	89.4	88.2	132.3	140.0	140.0	140.0	29.8	44.7	59.6	74.5	89.4	31.9	47.9	63.9	79.8	95.8	100.5	140.0	140.0	140.0	140.0				
	4' - 0"	26.1	39.1	52.2	65.2	78.3	77.2	115.8	140.0	140.0	140.0	26.1	39.1	52.2	65.2	78.3	27.9	41.9	55.9	69.9	83.8	87.9	131.9	140.0	140.0	140.0				
	4' - 6"	23.2	34.8	46.4	58.0	69.6	68.6	102.9	137.2	140.0	140.0	23.2	34.8	46.4	58.0	69.6	24.8	37.3	49.7	62.1	74.5	78.2	117.2	140.0	140.0	140.0				
	5' - 0"	20.9	31.3	41.7	52.2	62.6	61.8	92.6	123.5	140.0	140.0	20.9	31.3	41.7	52.2	62.6	22.4	33.5	44.7	55.9	67.1	70.3	105.5	140.0	140.0	140.0				
	5' - 6"	19.0	28.5	37.9	47.4	56.9	56.1	84.2	112.3	140.0	140.0	19.0	28.5	37.9	47.4	56.9	20.3	30.5	40.6	50.8	61.0	63.9	95.9	127.9	140.0	140.0				
	6' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	19.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0				
	6' - 6"	16.1	24.1	32.1	40.1	48.2	47.5	71.3	95.0	19.7	140.0	16.1	24.1	32.1	40.1	48.2	17.2	25.8	34.4	43.0	51.6	54.1	81.2	108.2	135.3	140.0				
	7' - 0"	14.9	22.4	29.8	37.3	44.7	44.1	66.2	88.2	110.3	132.3	14.9	22.4	29.8	37.3	44.7	16.0	24.0	31.9	39.9	47.9	50.2	75.4	100.5	125.6	140.0				

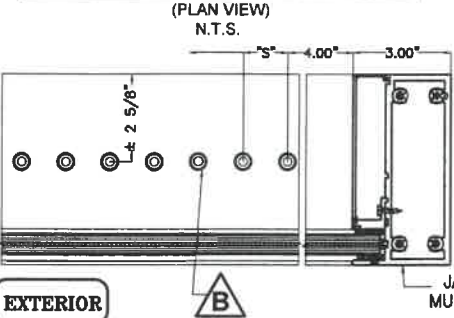
FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

- A - 1/4"Ø ELCO CONSTRUCTION PRODUCTS, ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 2,730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø POWERS FASTENERS, WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3,0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø ELCO CONSTRUCTION PRODUCTS, ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HMB THRU BOLT W/ NUT & LOCK WASHER.



"n" FASTENERS
n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, EQUALLY INSTALLED AT EACH SIDE OF INTERIOR VERTICAL MULLION

SILL OR HEAD CONNECTION DETAIL @ INTERIOR VERTICAL MULLION



"n/2" FASTENERS
n/2 = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, INSTALLED AT ONE SIDE OF JAMB MULLION

SILL OR HEAD CONNECTION DETAIL @ JAMB MULLION

(PLAN VIEW)
N.T.S.

WALTER A. TILLIT JR.
LICENSE
No. 4416
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

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e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL
SERIES 12000 LARGE MISSILE LAMINATED &
INSULATED GLASS

ALUMINA DISTRIBUTION CENTER
15002 N.W. 107 AVENUE SUITE # 1
HIALEAH GARDENS, FL 33018
PHONE: (305) 444-1198

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1

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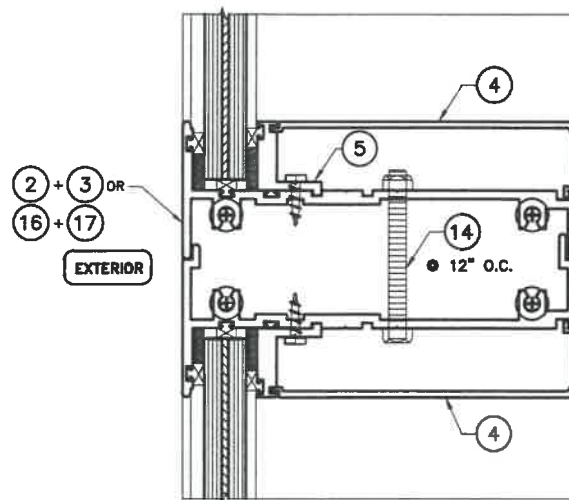
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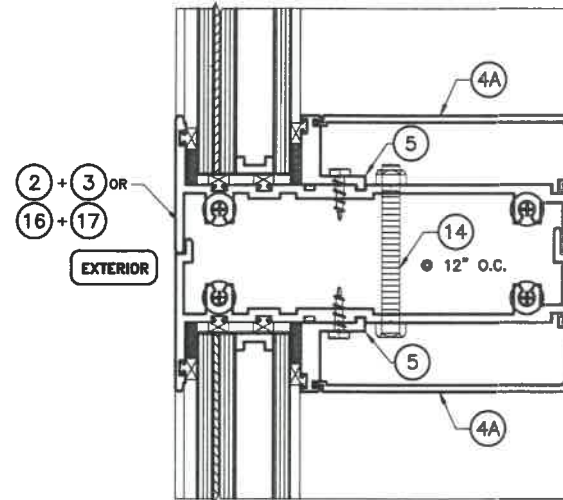
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DATE

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SHEET 13 OF 24

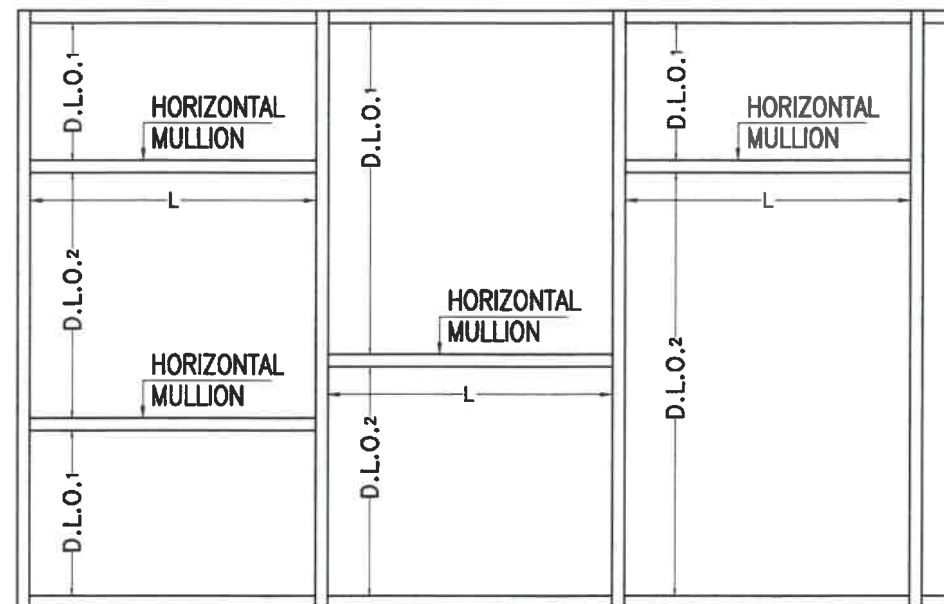


LAMINATED GLASS CASE

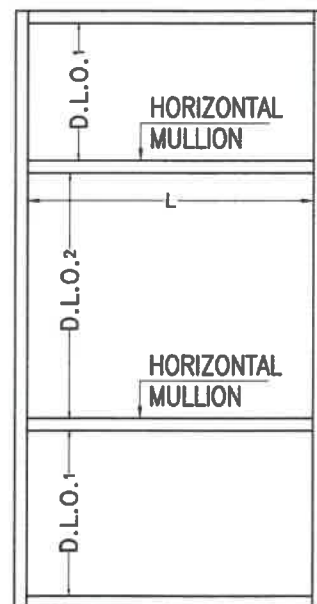


INSULATED GLASS CASE

SECTION AT HORIZONTAL MULLIONS



MULTIPLE PANELS



SINGLE PANEL

ELEVATIONS W/ HORIZONTAL MULLIONS

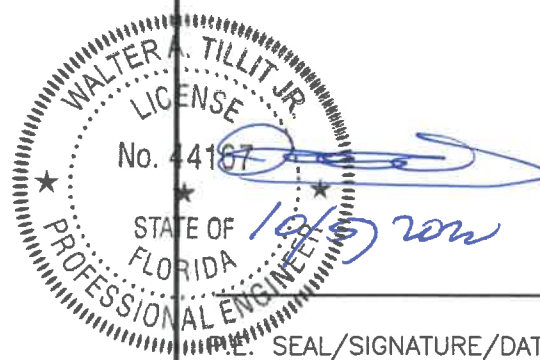
"L" = MAXIMUM HORIZONTAL MULLION SPAN

"D.L.O." = HORIZONTAL MULLION MAX. EFFECTIVE DAY LIGHT OPENING = $\frac{D.L.O.1 + D.L.O.2}{2}$

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING	MAX. EFFECTIVE DAY LIGHT OPENING	MAXIMUM 1/8" & 3/16" THICK HORIZONTAL MULLION SPAN LAMINATED/INSULATED GLASS
(psf)	"DLO" (Ft-in)	"L" (Ft)
± 40.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	7'-0"
	7'-6"	7'-0"
± 45.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	7'-0"
	7'-6"	7'-0"
± 50.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	7'-0"
	7'-6"	7'-0"
± 55.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	7'-0"
	7'-6"	7'-0"

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING	MAX. EFFECTIVE DAY LIGHT OPENING	MAXIMUM 1/8" & 3/16" THICK HORIZONTAL MULLION SPAN LAMINATED/INSULATED GLASS
(psf)	"DLO" (Ft-in)	"L" (Ft)
± 60.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	7'-0"
	7'-6"	7'-0"
± 65.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	7'-0"
	7'-6"	7'-0"
± 70.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	7'-0"
	7'-6"	7'-0"
± 75.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	7'-0"
	7'-6"	6'-8"

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING	MAX. EFFECTIVE DAY LIGHT OPENING	MAXIMUM 1/8" & 3/16" THICK HORIZONTAL MULLION SPAN LAMINATED/INSULATED GLASS
(psf)	"DLO" (Ft-in)	"L" (Ft)
± 80.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
	7'-0"	6'-8"
	7'-6"	6'-3"
± 85.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	6'-10"
	7'-0"	6'-4"
	7'-6"	5'-11"
± 90.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	6'-11"
	6'-6"	6'-5"
	7'-0"	6'-0"
	7'-6"	5'-7"
± 95.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	6'-7"
	6'-6"	6'-1"
	7'-0"	5'-8"
	7'-6"	5'-3"



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Phone : (305)871-1530 . Fax : (305)871-1531
e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL
SERIES 12000 LARGE MISSILE LAMINATED &
INSULATED GLASS

ALUMINA DISTRIBUTION CENTER

15002 N.W. 107 AVENUE SUITE # 1
HIALEAH GARDENS, FL 33018
PHONE: (305) 444-1198

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1	OLD 20-009	08/03/20	3		
2			4		

SHEET 14 OF 24

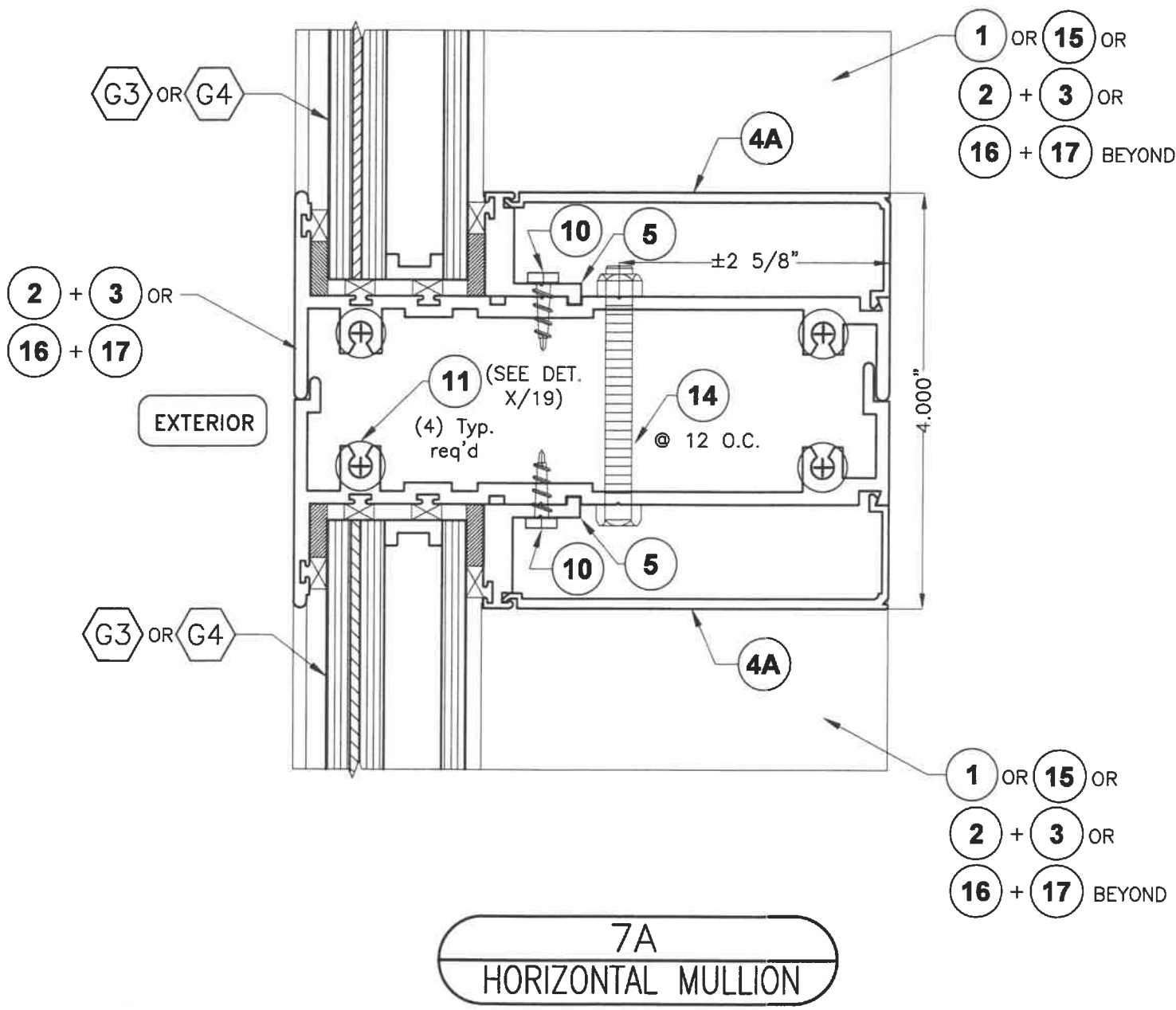
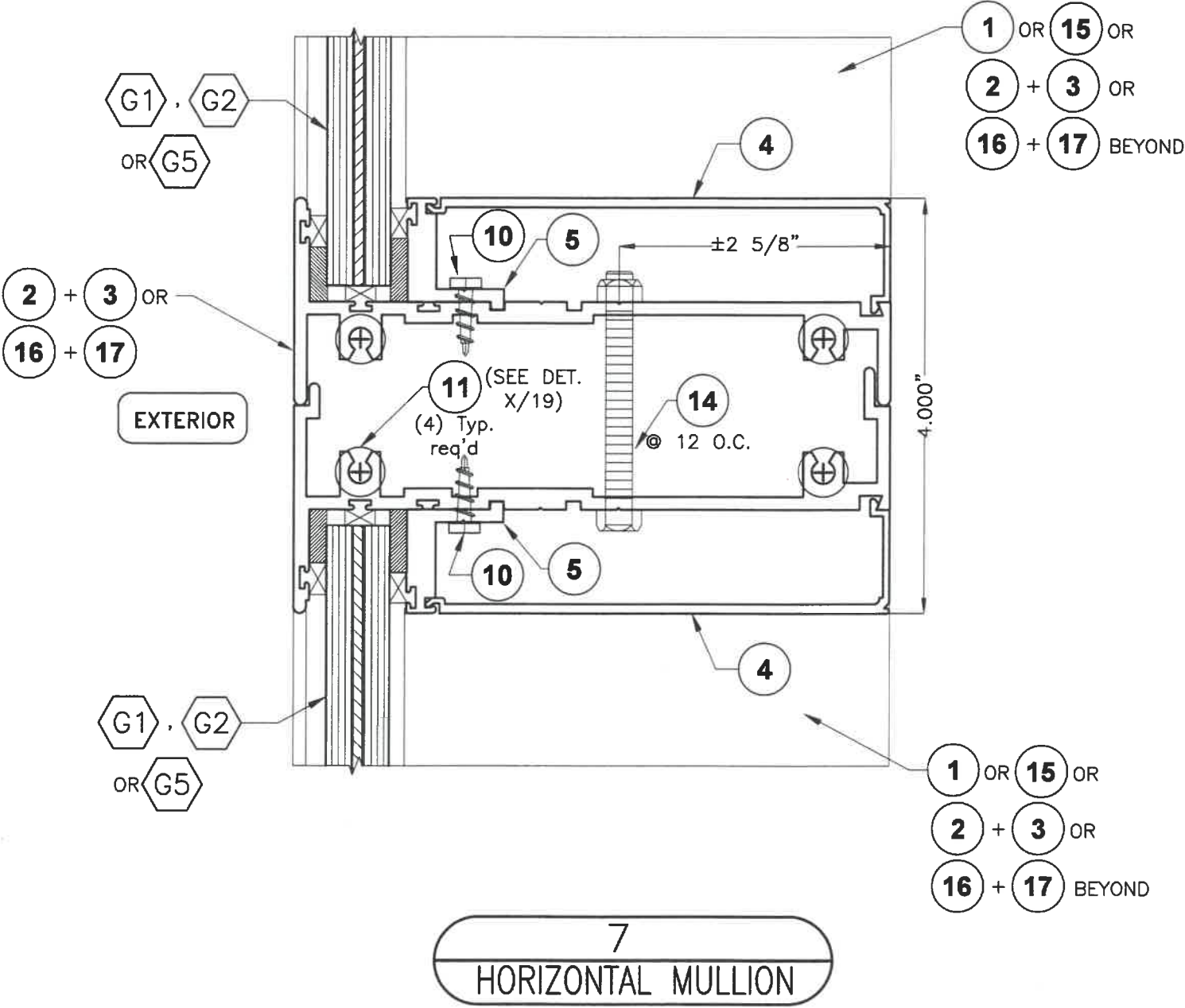

$$\text{"D.L.O."} = \text{HORIZONTAL MULLION EFFECTIVE DAY LIGHT OPENING} = \frac{\text{D.L.O.}_1 + \text{D.L.O.}_2}{2}$$

MAXIMUM HORIZONTAL SPAN "L"(FT)		
SCHEDULE FOR A GIVEN HORIZONTAL MULTION		
EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D.		
DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING	MAX. EFFECTIVE DAY LIGHT OPENING	MAXIMUM
		18" & 3/16" THICK HORIZONTAL RAILS SPAN LAMINATED INSULATED GLASS
(psf)	"DLO" (Ft-in)	"L" (Ft)
± 120.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	6' - 11"
	5' - 0"	6' - 3"
	6' - 0"	5' - 3"
	6' - 6"	4' - 10"
	7' - 0"	4' - 6"
± 125.0	7' - 6"	4' - 2"
	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	6' - 8"
	5' - 0"	6' - 0"
	6' - 0"	5' - 0"
	6' - 6"	4' - 7"
± 130.0	7' - 0"	4' - 4"
	7' - 6"	4' - 0"
	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	6' - 5"
	5' - 0"	5' - 9"
	6' - 0"	4' - 10"
+130.0,- 135.0	6' - 6"	4' - 5"
	7' - 0"	4' - 2"
	7' - 6"	3' - 10"
	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	6' - 11"
	4' - 6"	6' - 2"
	5' - 0"	5' - 7"
+130.0,- 140.0	6' - 0"	4' - 8"
	6' - 6"	4' - 3"
	7' - 0"	4' - 0"
	7' - 6"	3' - 9"
	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	6' - 8"
	4' - 6"	6' - 0"
+130.0,- 140.0	5' - 0"	5' - 4"
	6' - 0"	4' - 6"
	6' - 6"	4' - 2"
	7' - 0"	3' - 10"
	7' - 6"	3' - 7"

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1	OLD 20-009	04/03/20	3		
2			4		

SHEET 15 OF 24

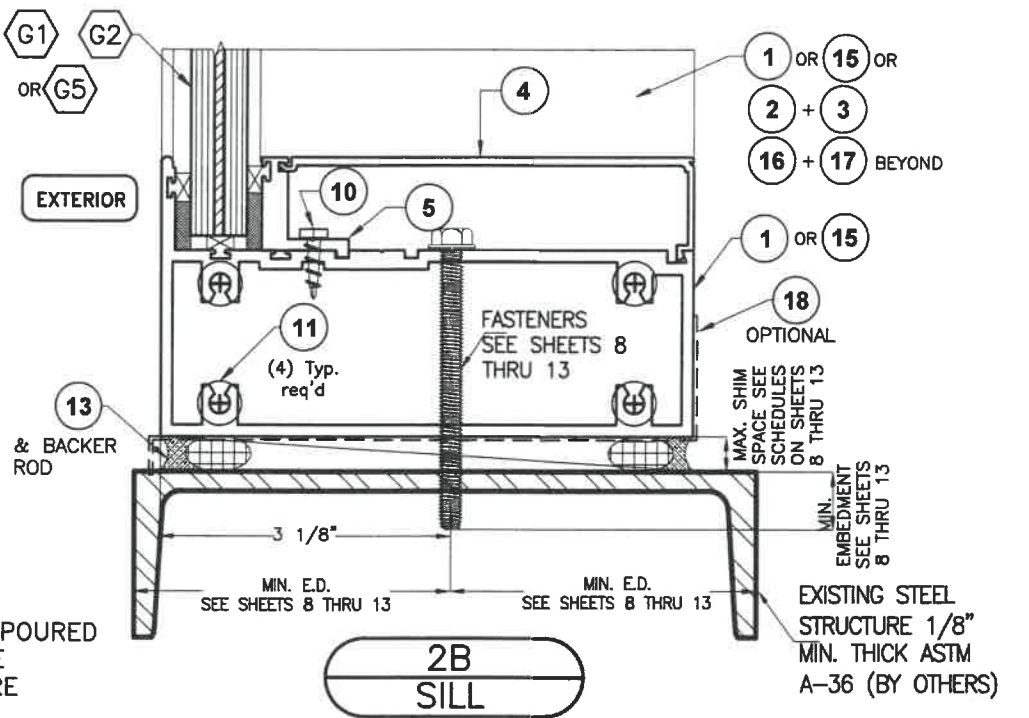
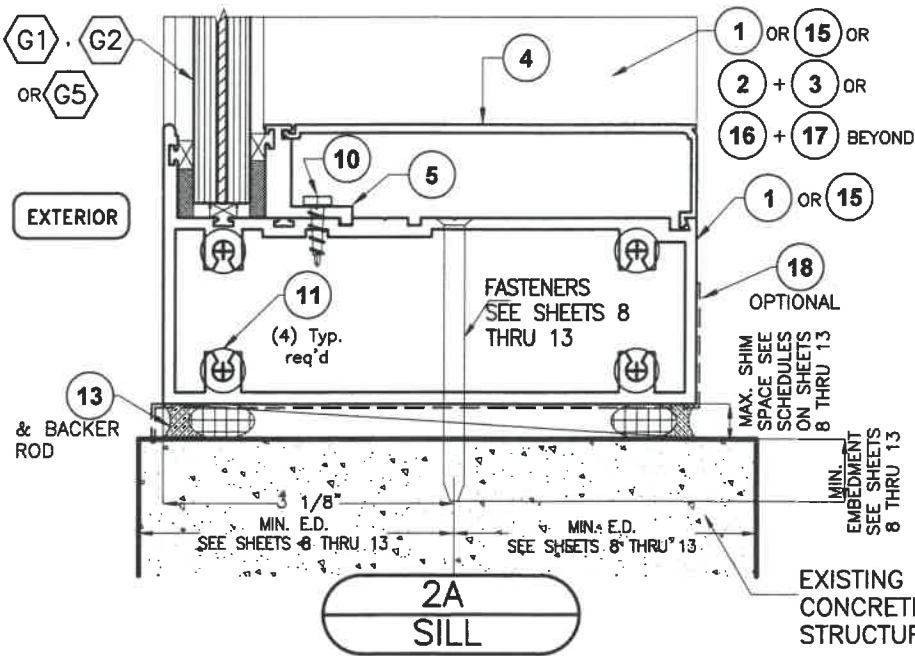
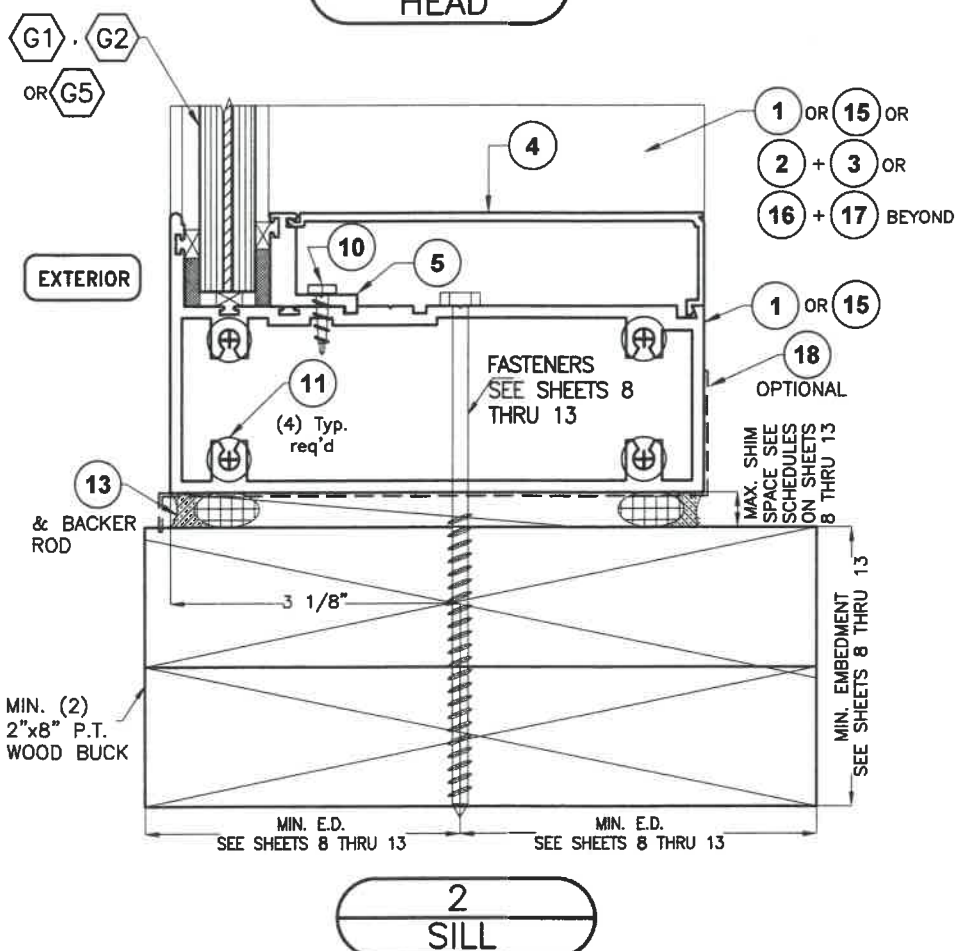
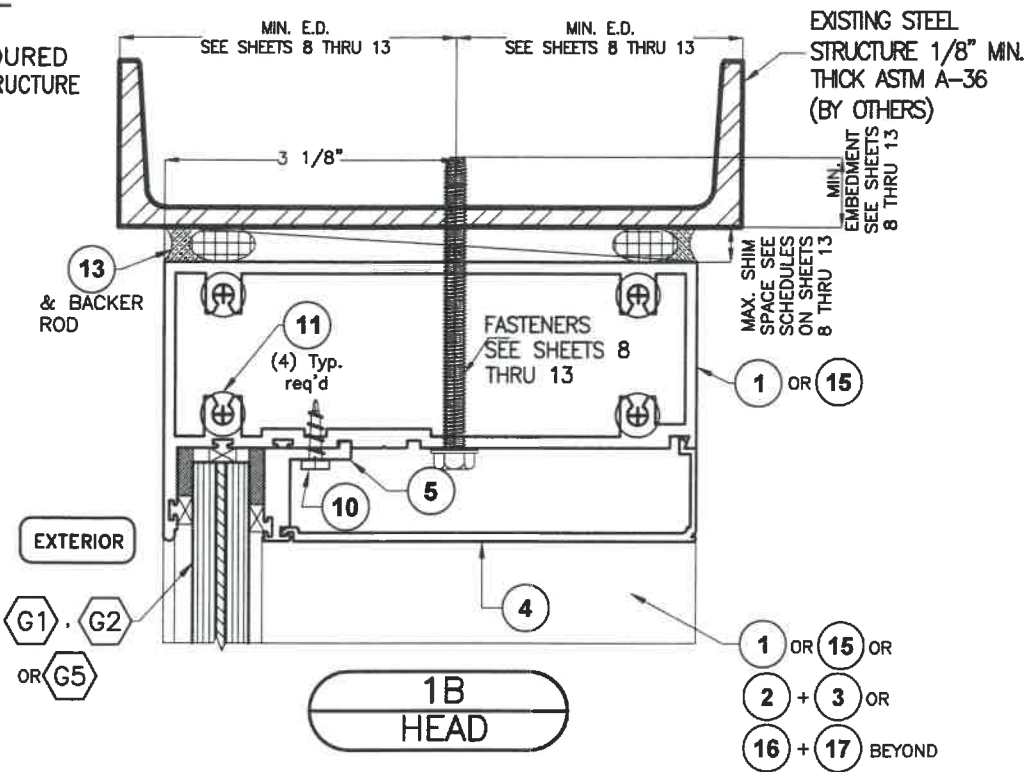
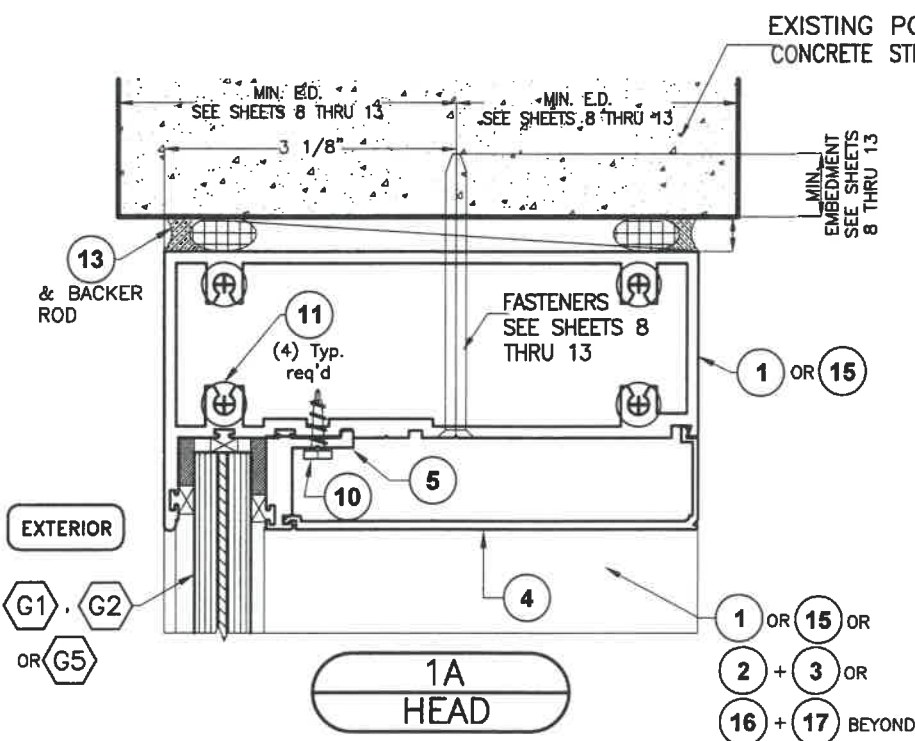
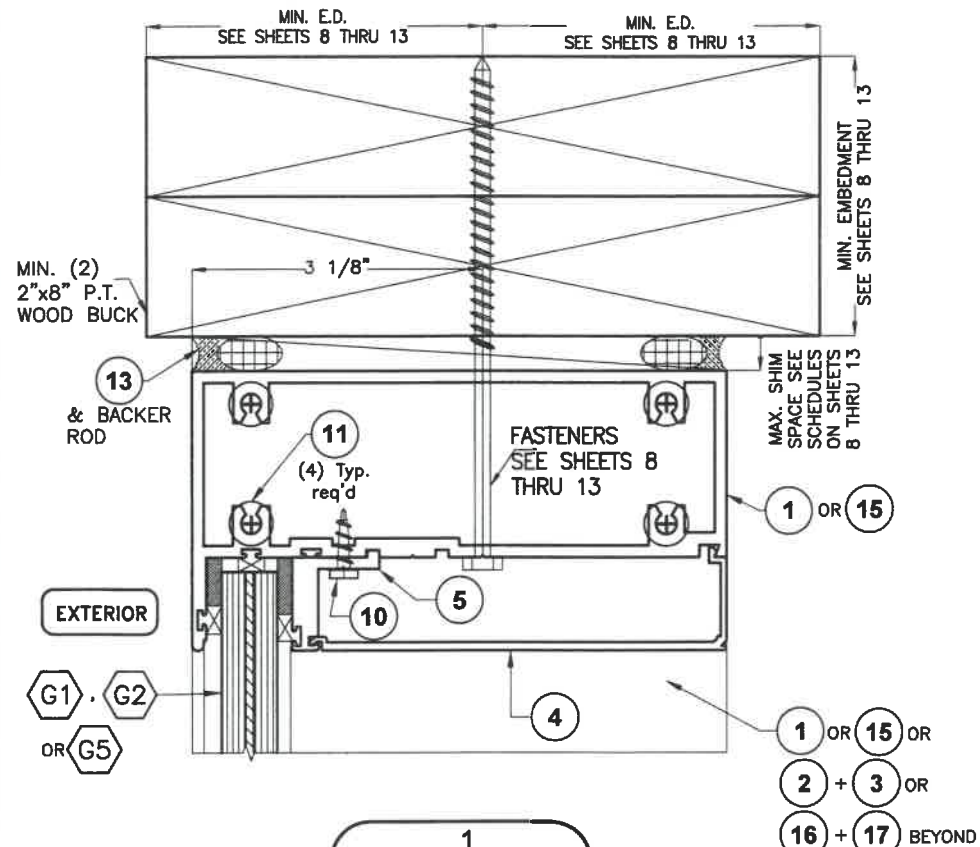
HORIZONTAL MULLION DETAILS



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3					
4					
					20-234 DRAWING No
					SHEET 16 OF 24

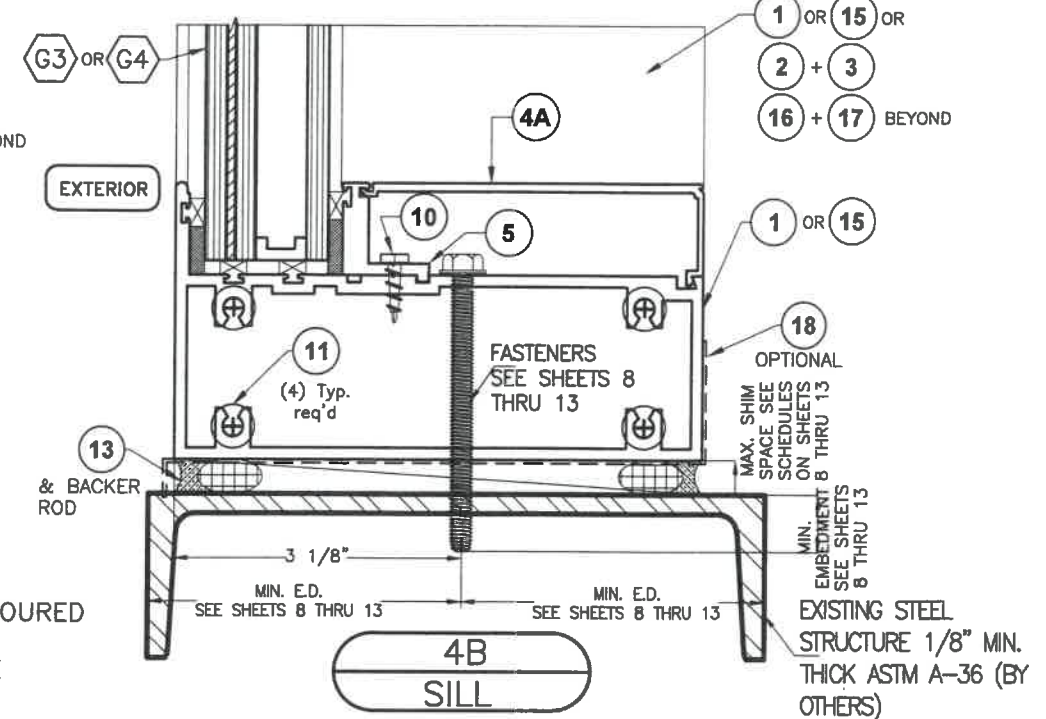
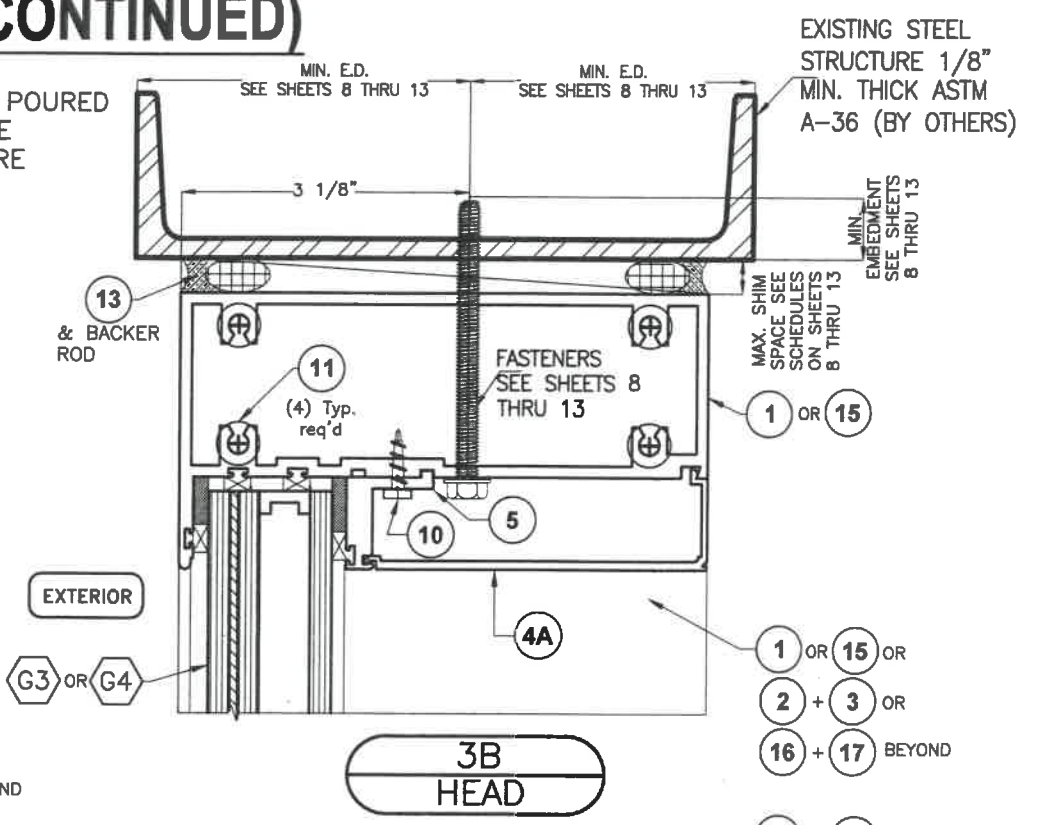
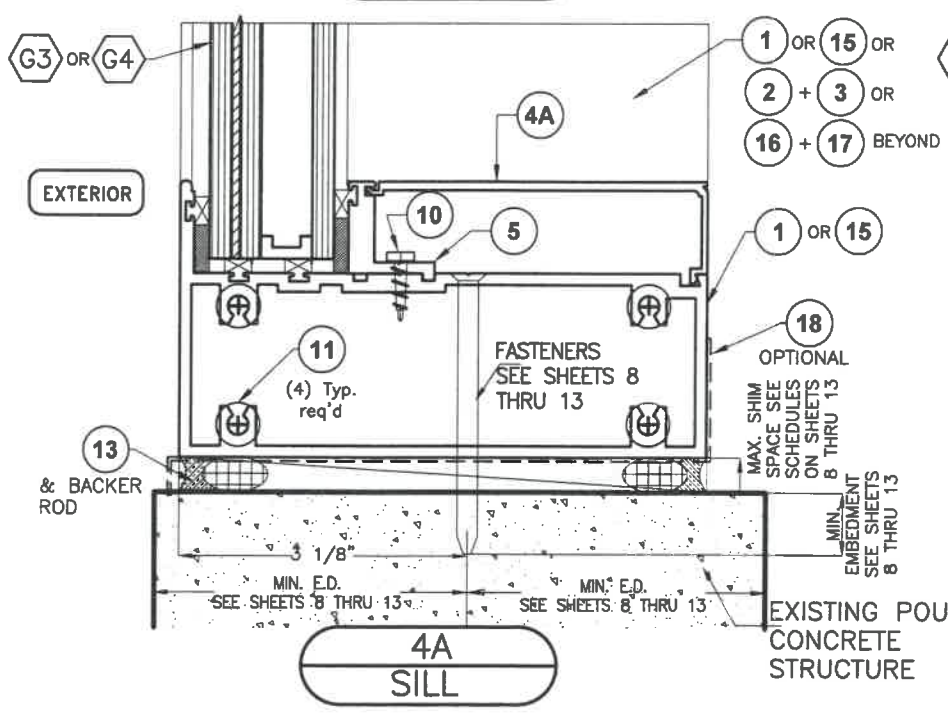
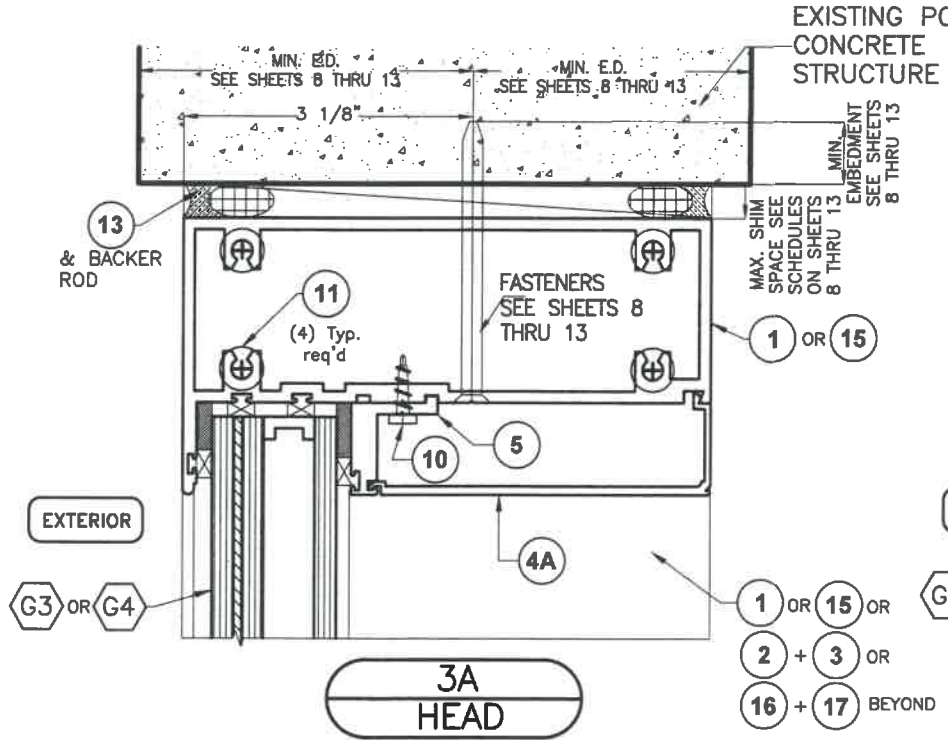
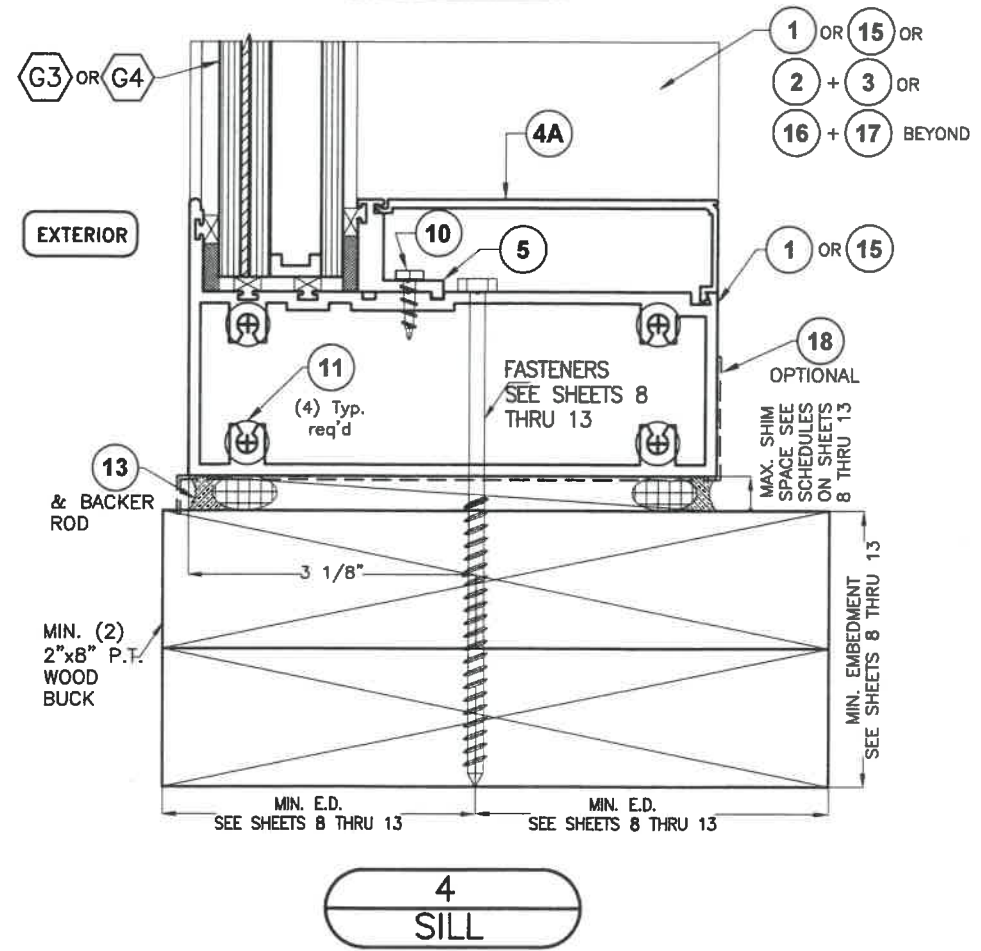
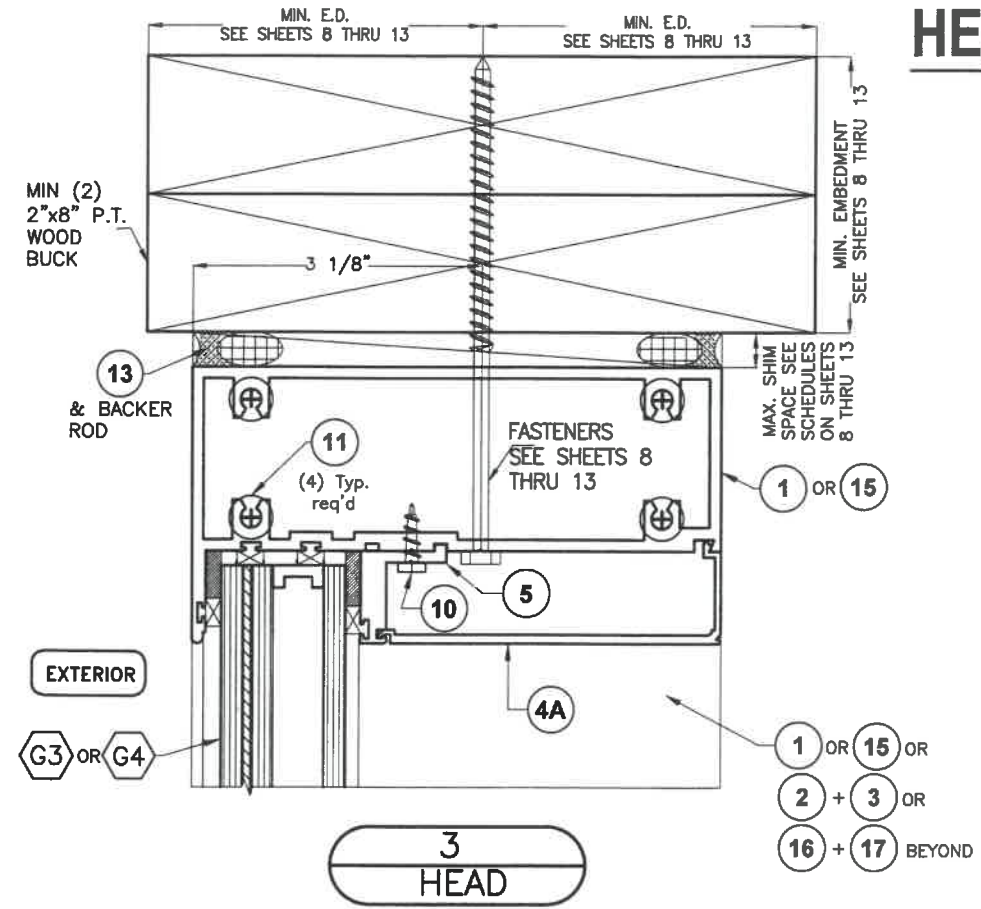
HEAD & SILL CONNECTIONS DETAILS



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FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)						
©2020 TILTECO, INC.			HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS			F.P DRAWN BY
TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 e-mail: tilteco@aol.com CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167						
			ALUMINA DISTRIBUTION CENTER			08/03/2020 DATE
			15002 N.W. 107 AVENUE SUITE # 1 HIALEAH GARDENS, FL 33018 PHONE: (305) 444-1198			20-234 DRAWING No
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 17 OF 24
1	OLD 20-009	08/03/20	3			
2			4	-	-	

HEAD & SILL CONNECTIONS DETAILS (CONTINUED)



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WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

**HIGH IMPACT GREEN WORLD FIXED GLASS WALL
SERIES 12000 LARGE MISSILE LAMINATED &
INSULATED GLASS**

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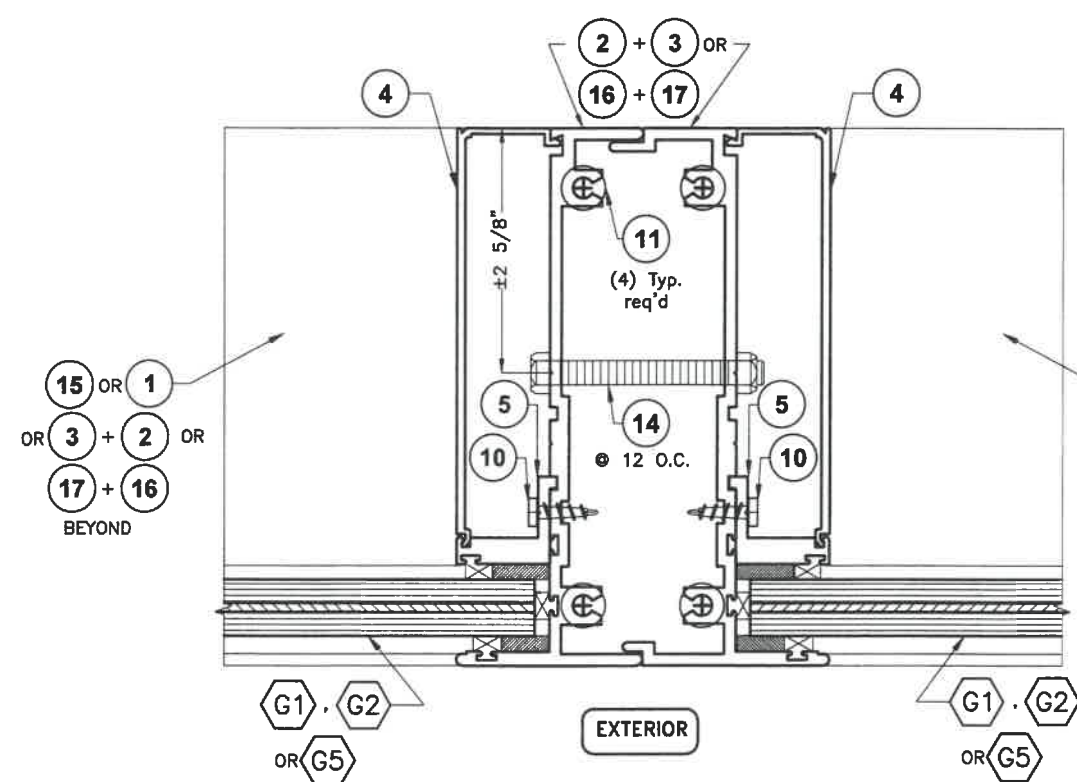
08/03/2020
DATE

20-234
DRAWING No

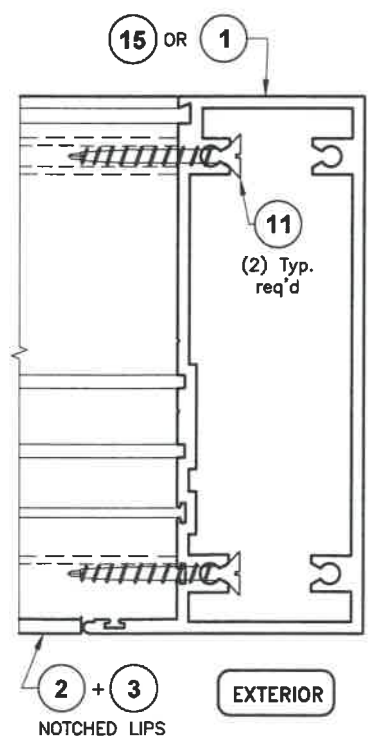
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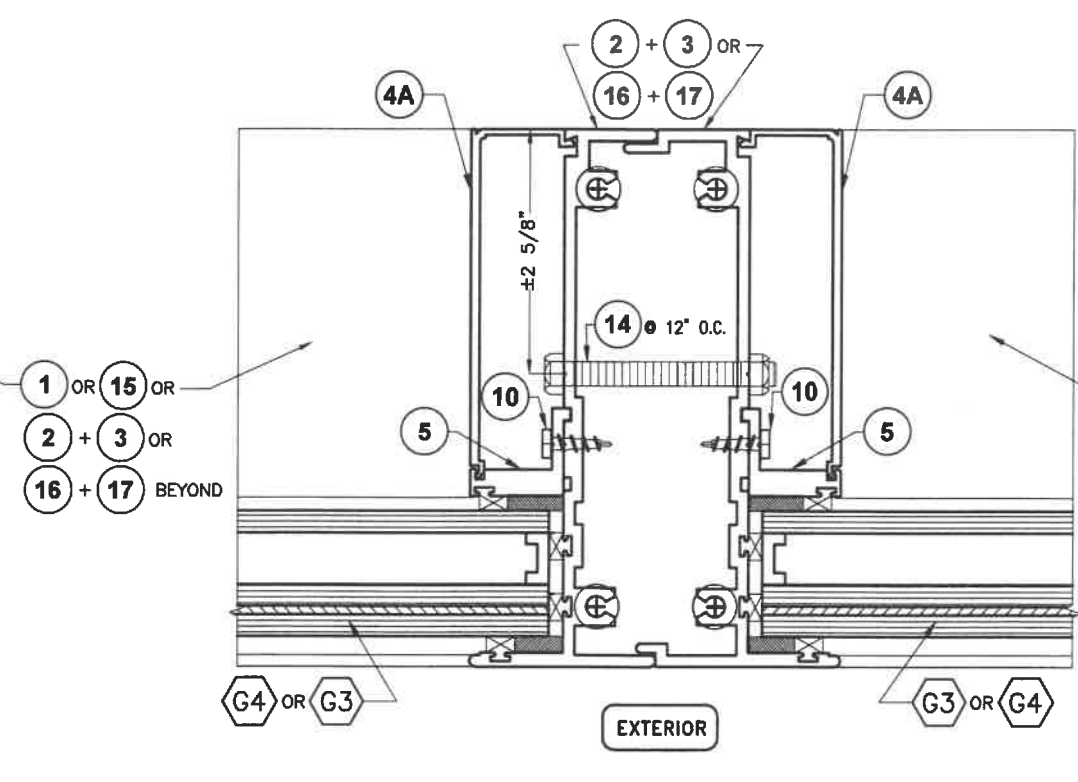
HORIZONTAL SECTIONS AT INTERIOR VERTICAL MULLIONS AT STRAIGHT GLASS WALL APPLICATIONS



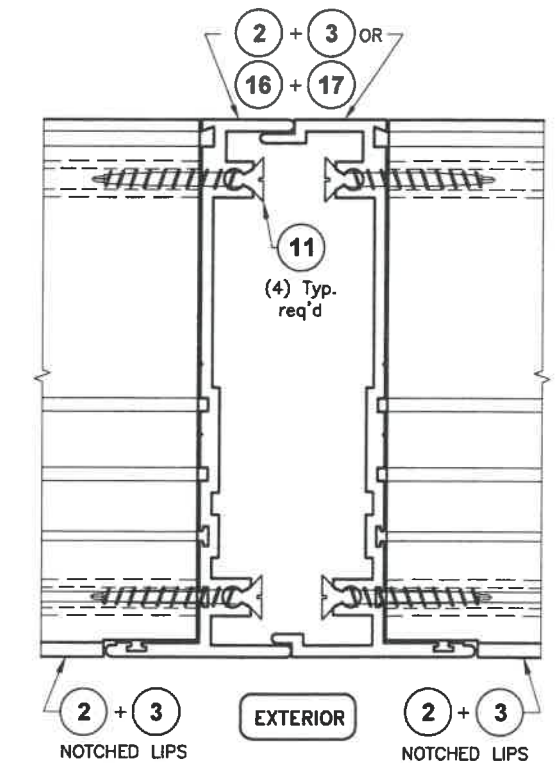
5
INTERIOR VERTICAL MULLION



DETAIL X
HORIZONTAL MULLION TO JAMB MULLION



6
INTERIOR VERTICAL MULLION



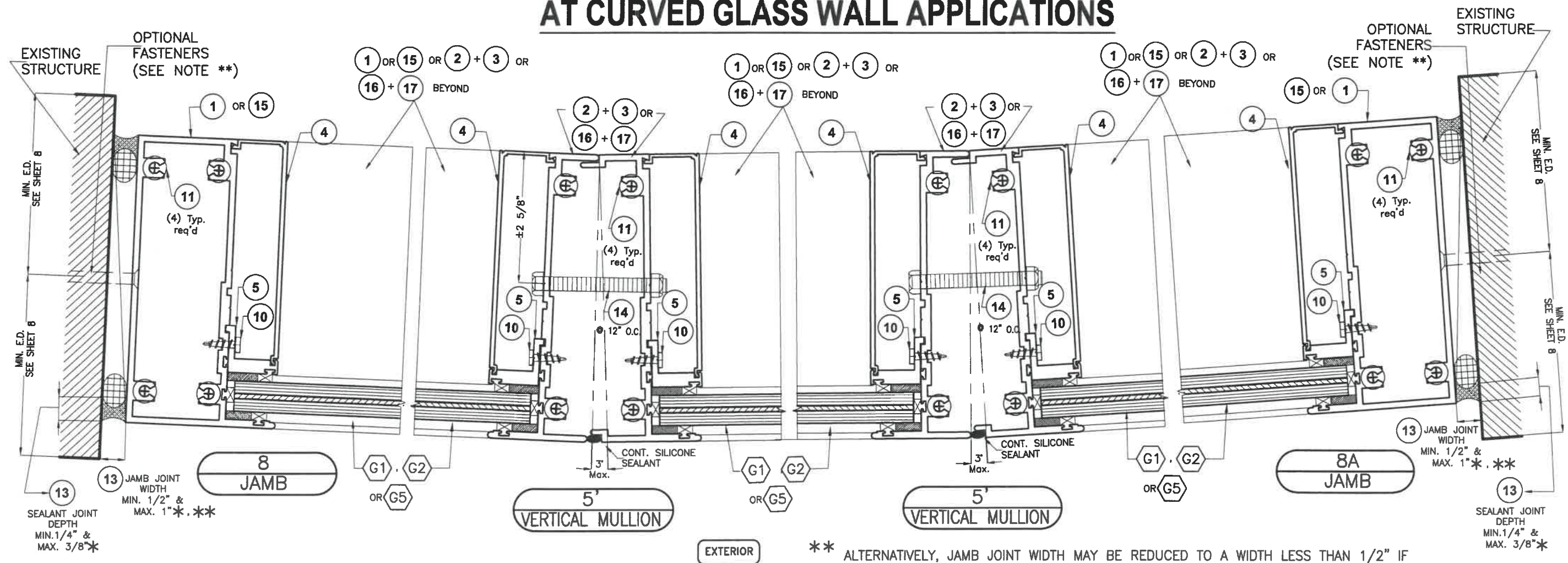
DETAIL X
HORIZONTAL MULLION TO
INTERIOR VERTICAL MULLION

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HORIZONTAL SECTIONS AT INTERIOR VERTICAL MULLIONS PLUS JAMB MULLIONS

AT CURVED GLASS WALL APPLICATIONS



* NOTE: ABOVE INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS NOT CONNECTED TO WALL (FREE STANDING) HAVE BEEN DETERMINED ONLY TAKING INTO CONSIDERATION THE ACTUAL MOVEMENT OF GLASS WALL AT JAMBS DUE TO THERMAL, WIND AND ITS OWN CONSTRUCTION TOLERANCE, AND NOT PERFORMANCE FACTORS FROM THE SURROUNDING STRUCTURE.

** ALTERNATIVELY, JAMB JOINT WIDTH MAY BE REDUCED TO A WIDTH LESS THAN 1/2" IF JAMB PROFILE IS ATTACHED TO WALL FULL HEIGHT W/ THE FOLLOWING FASTENERS.

SUBSTRATE Δ	FASTENERS TYPES Δ		SPACING
	3/8" SHIM SPACE OR LESS	>3/8" , <1/2" SHIM SPACE	
POURED CONCRETE	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
2500 psi GROUT FILLED ASTM C-90 CONCRETE BLOCK	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
STEEL	FASTENER TYPE E	FASTENER TYPE E	6" O.C.
WOOD	FASTENER TYPES C & D	FASTENER TYPE D	5" O.C.

Δ CORRESPONDS TO FASTENERS TYPES AND SUBSTRATES CHARACTERISTICS (AS APPLICABLE) DESCRIBED ON SHEET 8.

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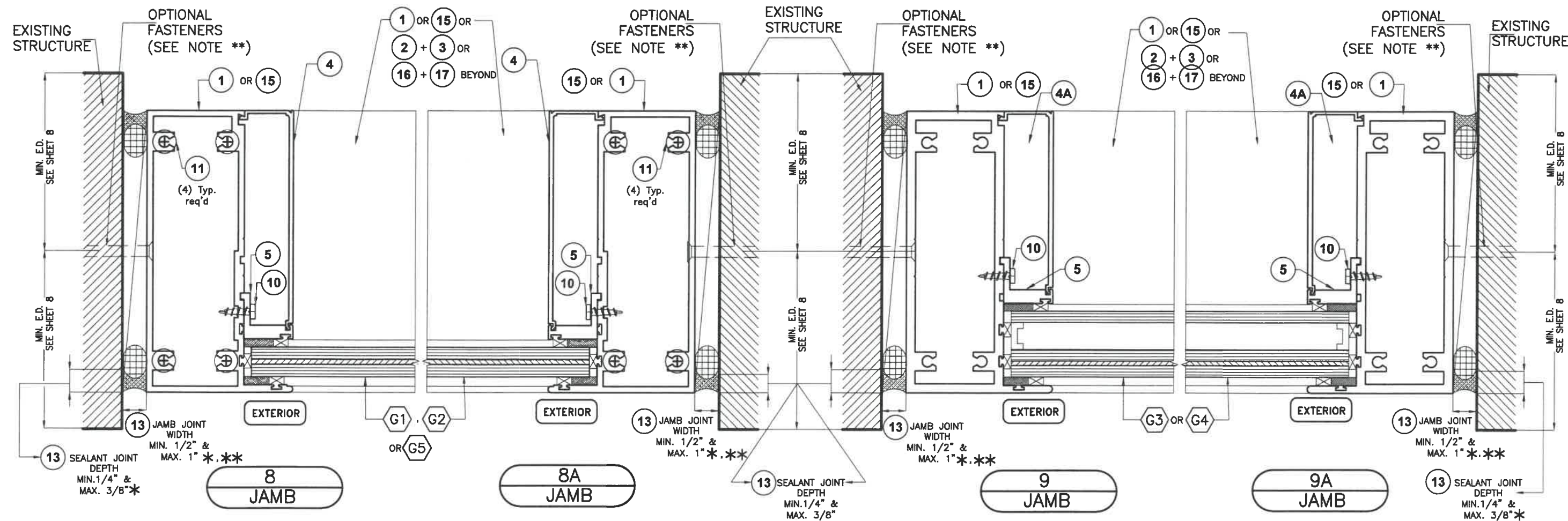
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HORIZONTAL SECTIONS AT JAMBS AT STRAIGHT GLASS WALL APPLICATIONS



** ALTERNATIVELY, JAMB JOINT WIDTH MAY BE REDUCED TO A WIDTH LESS THAN 1/2" IF JAMB PROFILE IS ATTACHED TO WALL FULL HEIGHT W/ THE FOLLOWING FASTENERS.

* NOTE: ABOVE INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS NOT CONNECTED TO WALL (FREE STANDING) HAVE BEEN DETERMINED ONLY TAKING INTO CONSIDERATION THE ACTUAL MOVEMENT OF GLASS WALL AT JAMBS DUE TO THERMAL, WIND AND ITS OWN CONSTRUCTION TOLERANCE, AND NOT PERFORMANCE FACTORS FROM THE SURROUNDING STRUCTURE.

SUBSTRATE Δ	FASTENERS TYPES Δ		SPACING
	3/8" SHIM SPACE OR LESS	>3/8" , <1/2" SHIM SPACE	
POURED CONCRETE	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
2500 psi GROUT FILLED ASTM C-90 CONCRETE BLOCK	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
STEEL	FASTENER TYPE E	FASTENER TYPE E	6" O.C.
WOOD	FASTENER TYPES C & D	FASTENER TYPE D	5" O.C.

Δ CORRESPONDS TO FASTENERS TYPES AND SUBSTRATES CHARACTERISTICS (AS APPLICABLE) DESCRIBED ON SHEET 8.

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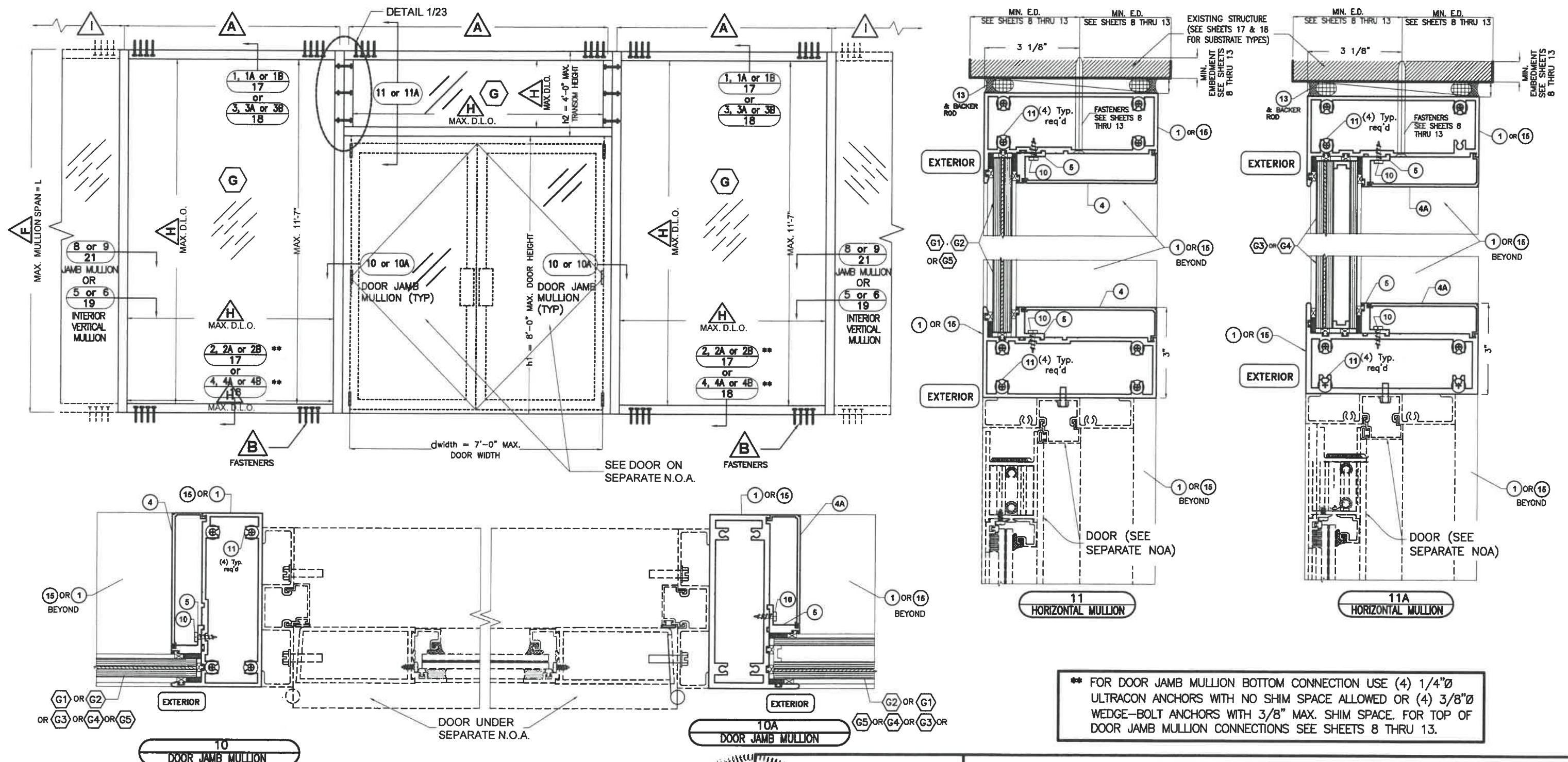
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DRAWING No

SHEET 21 OF 24

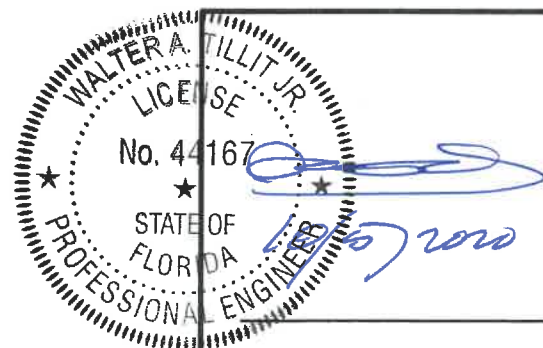
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1	OLD 20-008	08/03/20	3		
2			4		

ELEVATION FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 ADJACENT TO APPROVED DOOR (ON SEPARATE NOA)



FOOT NOTES:

- | | |
|---|---|
|  | FOR MAXIMUM DOOR JAMB MULLION SPACING ON CENTERS SEE SHEET 23. |
|  | FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEETS 8 THRU 13. |
|  | FOR MAXIMUM VERTICAL MULLION SPAN SEE SHEET 23. |
|  | FOR GLAZING DETAILS SEE SHEET 3 AND FOR GLASS SCHEDULE SEE SHEETS 5, 5A, 5B & 5C. |
|  | FOR MAXIMUM D.L.O. SEE SCHEDULE ON SHEETS 5, 5A, 5B & 5C. |
|  | FOR MAXIMUM INTERIOR VERTICAL MULLION SPACING ON CENTERS SEE SHEETS 6 & 7. |



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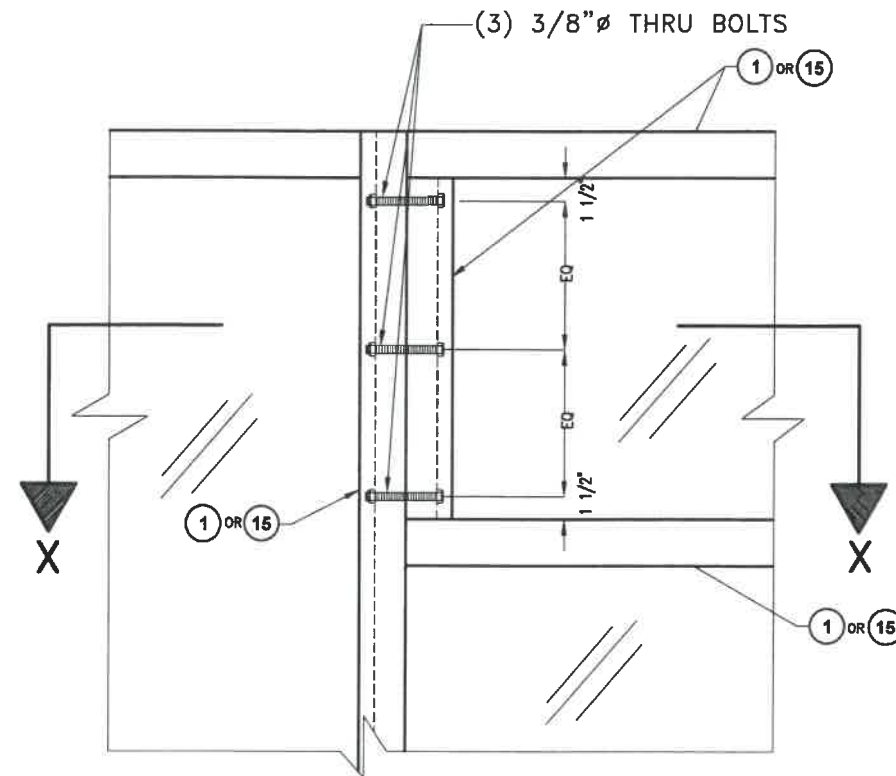
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DATE

20-234

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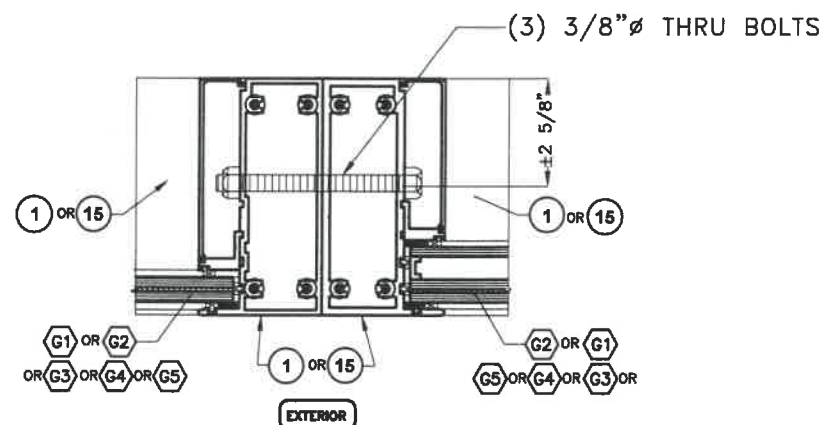
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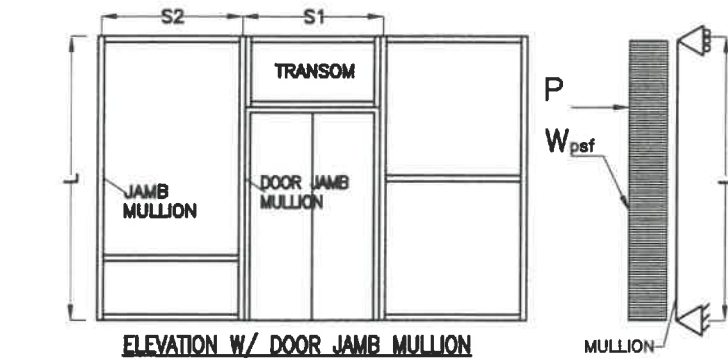
ELEVATION DETAIL 1

SCALE: 1"=1'-0"



SECTION X-X

SCALE: 3/8"=1'-0"

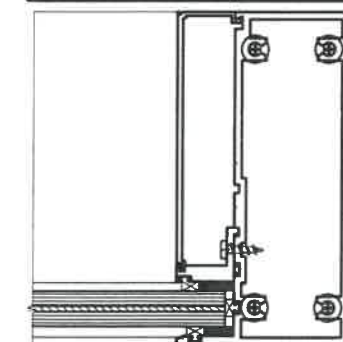


ELEVATION W/ DOOR JAMB MULLION

"L" = MAXIMUM DOOR JAMB MULLION SPAN
DOOR JAMB MULLION EFFECTIVE SPACING: "b" = $\frac{S1+S2}{2}$

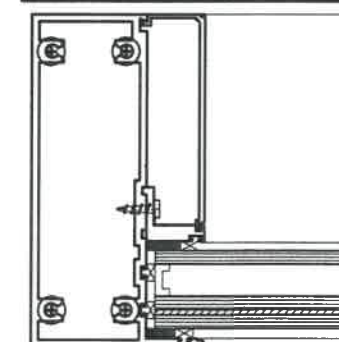
* MAXIMUM DESIGN PRESSURE RATING FOR DOOR JAMB MULLION WILL AUTOMATICALLY QUALIFY DESIGN PRESSURE RATINGS FOR ANY GIVEN MULLION SPACING & PRESSURE RATING.

CASE 1: J-1 DOOR JAMB MULLION	lx = 13.075 in4 Sx = 4.351 in3
(1) + (4) + (6)	
WATER INFILTRATION IS 19.5 psf	IN TERMS OF ALUM.



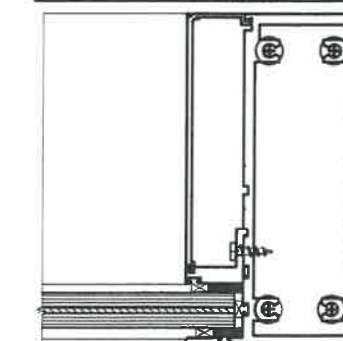
EXTERIOR

CASE 2: J-2 DOOR JAMB MULLION	lx = 12.421 in4 Sx = 4.277 in3
(1) + (4A) + (6)	
WATER INFILTRATION IS 19.5 psf	IN TERMS OF ALUM.



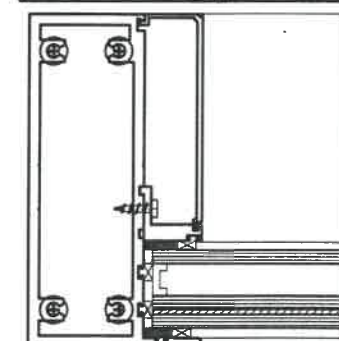
EXTERIOR

CASE 3: J-1A DOOR JAMB MULLION	lx = 16.084 in4 Sx = 5.415 in3
(16) + (4) + (6)	
WATER INFILTRATION IS 19.5 psf	IN TERMS OF ALUM.



EXTERIOR

CASE 4: J-2A DOOR JAMB MULLION	lx = 15.300 in4 Sx = 5.283 in3
(16) + (4A) + (6)	
WATER INFILTRATION IS 19.5 psf	IN TERMS OF ALUM.



EXTERIOR

** MAXIMUM DOOR JAMB MULLION SPAN "L" (FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf), DOOR JAMB MULLION EFFECTIVE SPACING "b"

MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE SPACING "b" (Ft-In)	1/8" or 3/16" THICK INTERIOR DOOR JAMB MULLION SPAN "L" (FT) Laminated/Insulated Glass CASES: 1,2,3,4 J-1, J2, J-1A & J-2A
± 40.0	3'-6"	12'-0"
	4'-0"	12'-0"
	4'-6"	12'-0"
	5'-0"	12'-0"
	5'-6"	11'-9"
	6'-0"	11'-3"
	6'-6"	10'-10"
	7'-0"	10'-5"
± 45.0	3'-6"	12'-0"
	4'-0"	12'-0"
	4'-6"	12'-0"
	5'-0"	11'-7"
	5'-6"	11'-1"
	6'-0"	10'-7"
	6'-6"	10'-10"
	7'-0"	9'-10"
± 50.0	3'-6"	12'-0"
	4'-0"	12'-0"
	4'-6"	11'-7"
	5'-0"	11'-0"
	5'-6"	10'-6"
	6'-0"	10'-1"
	6'-6"	9'-8"
	7'-0"	9'-4"
± 55.0	3'-6"	12'-0"
	4'-0"	11'-9"
	4'-6"	11'-1"
	5'-0"	10'-6"
	5'-6"	10'-0"
	6'-0"	9'-7"
	6'-6"	9'-3"
	7'-0"	8'-11"
± 60.0	3'-6"	12'-0"
	4'-0"	11'-3"
	4'-6"	10'-7"
	5'-0"	10'-1"
	5'-6"	9'-7"
	6'-0"	9'-2"
	6'-6"	8'-10"
	7'-0"	8'-6"
± 65.0	3'-6"	11'-7"
	4'-0"	10'-10"
	4'-6"	10'-2"
	5'-0"	9'-8"
	5'-6"	9'-3"
	6'-0"	8'-10"
	6'-6"	8'-5"
	7'-0"	7'-10"

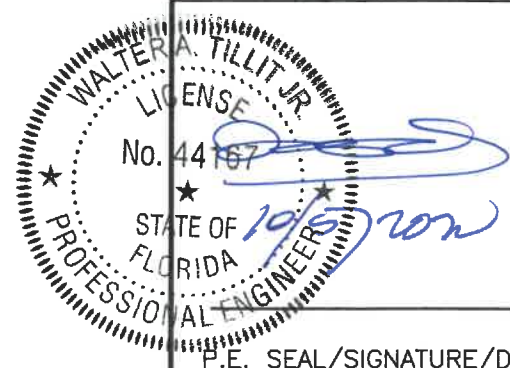
** MAXIMUM DOOR JAMB MULLION SPAN "L" (FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & DOOR JAMB MULLION EFFECTIVE SPACING "b" (CONTINUED)

MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE SPACING "b" (Ft-In)	1/8" or 3/16" THICK INTERIOR DOOR JAMB MULLION SPAN "L" (FT) Laminated/Insulated Glass CASES: 1,2,3,4 J-1, J2, J-1A & J-2A
± 70.0	3'-6"	11'-2"
	4'-0"	10'-5"
	4'-6"	9'-10"
	5'-0"	9'-4"
	5'-6"	8'-11"
	6'-0"	8'-6"
	6'-6"	7'-10"
	7'-0"	7'-3"
± 75.0	3'-6"	10'-9"
	4'-0"	10'-1"
	4'-6"	9'-6"
	5'-0"	9'-0"
	5'-6"	8'-7"
	6'-0"	7'-11"
	6'-6"	7'-4"
	7'-0"	6'-9"
± 80.0	3'-6"	10'-5"
	4'-0"	9'-9"
	4'-6"	9'-2"
	5'-0"	8'-9"
	5'-6"	8'-1"
	6'-0"	7'-5"
	6'-6"	6'-10"
	7'-0"	6'-4"
± 85.0	3'-6"	10'-1"
	4'-0"	9'-5"
	4'-6"	8'-11"
	5'-0"	8'-5"
	5'-6"	7'-7"
	6'-0"	7'-0"
	6'-6"	6'-5"
	7'-0"	6'-0"

** FOR DOOR JAMB MULLION BOTTOM CONNECTION USE (4) 1/4" ULTRACON ANCHORS WITH NO SHIM SPACE ALLOWED OR (4) 3/8" WEDGE-BOLT ANCHORS WITH 3/8" MAX. SHIM SPACE. FOR TOP OF DOOR JAMB MULLION CONNECTIONS SEE SHEETS 8 THRU 13.

CASES DEFINITIONS

- CASE 1: J-1 JAMB MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 8/ 21 & 10/22)
- CASE 2: J-2 JAMB MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 8A / 21 & 10/22)
- CASE 3: J-1A JAMB MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 9/ 21 & 10A/22)
- CASE 4: J-2A JAMB MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 9A/21 & 10A/22)



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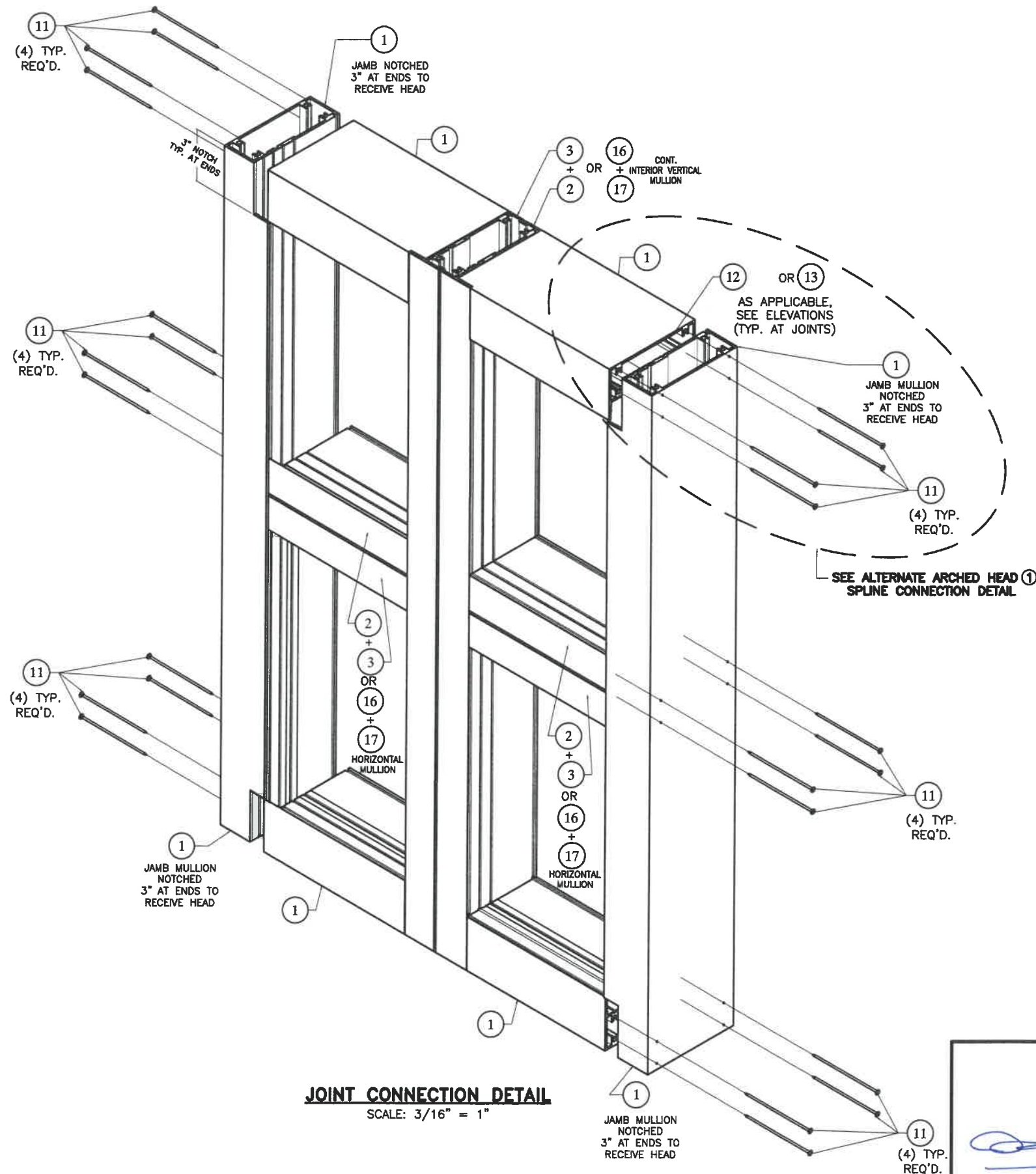
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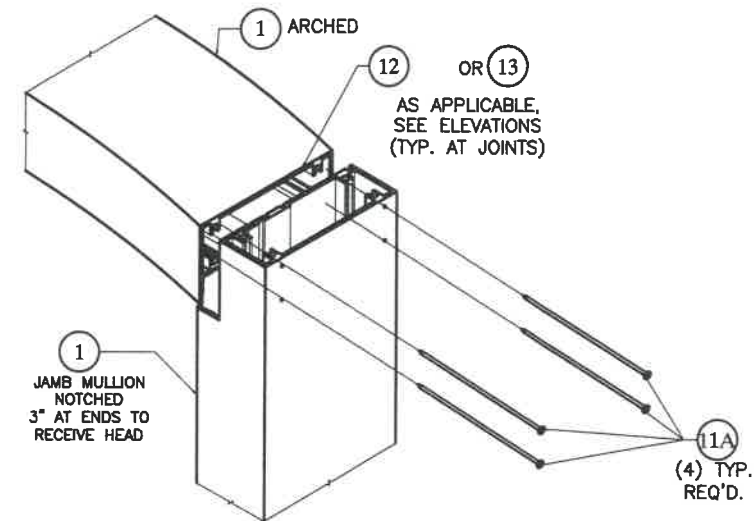
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JOINT CONNECTION DETAIL
SCALE: 3/16" = 1"



ARCHED HEAD ① SPLINE CONNECTION DETAIL
SCALE: 3/16" = 1"

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