GENERAL NOTES:

1. IMPACT PROTECTIVE ROLLING SYSTEM WITH CDH–6 SLAT (END RETENTION) SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2023 (8th EDITION) OF THE FLORIDA BUILDING CODE.

2. THIS PRODUCT MAY BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE, USING ASCE 7–22 AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 8 THRU 11, 13 THRU 16, 18, 19 AND 20 THRU 22
IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7–22 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 ABOVE.

   IN ORDER TO VERIFY THAT COMPONENTS AND ANCHORS ON THIS P.E.D. AS TESTED WERE NOT OVER STRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. FASTENERS SPACING TO WOOD HAVE BEEN DETERMINED IN ACCORDANCE WITH N.D.S. 2018.
THIS PRODUCT'S ADEQUACY FOR IMPACT AND WIND RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE MENTIONED CODE AS PER BLACK WATER TEST LAB. REPORT # BT–JUP–19–001 AS PER TAS–201, TAS–202 AND TAS–203 PROTOCOLS.

3. ALL ALUMINUM EXTRUSIONS SHALL BE 6063–T6 ALLOY (UNLESS OTHERWISE NOTED), SEE SHEET **2. ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III–6 OF THE ALUMINUM DESIGN MANUAL.**

4. ALL SCREWS (EXCEPT WIND LOCK SCREW Ⓔ) TO BE STAINLESS STEEL 304 OR 316 SERIES WITH 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018.
ALL S.D.S. ARE TEK SCREWS MANUFACTURED BY ITW BUILDEX & SHALL COMPLY W/FLORIDA BUILDING CODE SECTION 2411.3.3.4.

5. BOLTS TO BE ASTM A–307, GALVANIZED OR AISI 304 OR 316 SERIES STAINLESS STEEL WITH 36 ksi MINIMUM YIELD STRENGTH.

6. THIS PRODUCT BEARS U.S. PATENT.

7. ANCHORS TO WALL FOR Ⓒ SIDE RAIL SHALL BE AS FOLLOWS:

   (A) TO EXISTING POURED CONCRETE: MIN. 3000 p.s.i. COMPRESSIVE STRENGTH.

   –5/16"ø TAPCON XL ANCHORS AS MANUFACTURED BY ITW BUILDEX, INC.
   –3/8"ø S.S KWIK BOLT 3 ANCHORS AS MANUFACTURED BY HILTI, INC.
   –3/8"ø CONFLEX SCREW AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.

   A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE SHALL BE:
   2 1/4" FOR 5/16"ø TAPCON XL ANCHORS, 2 3/8" FOR 3/8"ø KWIK BOLT 3 ANCHORS & 3 1/2" FOR ELCO CONFLEX. NO EMBEDMENT INTO STUCCO SHALL BE CONSIDERED AS PART OF THE REQUIRED EMBEDMENT.

   A.2) MINIMUM EDGE DISTANCE (E.D.) INTO POURED CONCRETE SHALL BE:
   3" FOR 5/16"ø TAPCON XL & 4 1/2" FOR 3/8"ø KWIK BOLT 3 AND CONFLEX ANCHORS. EDGE DISTANCE IS BEYOND ANY FINISH MATERIAL.

   A.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE OR BRICK PANELS, VENEER OR PAVERS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS.

   (B) TO EXISTING MIN. f'c= 2 ksi GROUT FILLED CELL CONCRETE BLOCK WALL: ASTM C–90

   –5/16"ø TAPCON XL ANCHORS, AS MANUFACTURED BY ITW BUILDEX, INC.
   –3/8" ø S.S KWIK BOLT 3 ANCHORS AS MANUFACTURED BY HILTI INC.

   B.1) MINIMUM EMBEDMENT OF 5/16"ø TAPCON XL ANCHORS INTO THE GROUT FILLED CELL CONCRETE BLOCK UNIT SHALL BE 2 1/4" & 2 1/2" FOR HILTI KWIT BOLT 3.
   NO EMBEDMENT INTO STUCCO SHALL BE CONSIDERED AS PART OF THE REQUIRED EMBEDMENT.

   B.2) MINIMUM EDGE DISTANCE (E.D.) OF 5/16"ø TAPCON XL ANCHORS & KWIK BOLT 3 INTO GROUT FILLED CELL CONCRETE BLOCK SHALL BE 4". EDGE DISTANCE IS BEYOND ANY FINISH MATERIAL.

   B.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE OR BRICK PANELS, VENEER OR PAVERS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS.

   (C) TO EXISTING WOOD FRAME BUILDING: SPRUCE PINE–FIR–SOUTH (G–0.36), DOUGLAS–FIR–SOUTH (G=0.46) OR SOUTHERN PINE #2 W/ G = 0.55 MIN.

   –5/16"ø TAPCON XL OR MAXISET ANCHORS, AS MANUFACTURED BY ITW BUILDEX, INC. OR 5/16" ELCO CONSTRUCTION PRODUCTS ULTRACON.

   C.1) MINIMUM EMBEDMENT OF TAPCON XL ANCHORS, MAXISET OR ULTRACONS INTO THE WOOD FRAME UNIT SHALL BE 1 1/4" PHYSICAL THREADED PENETRATION.
   NO EMBEDMENT INTO FINISH MATERIAL SHALL BE CONSIDERED AS PART OF THE REQUIRED EMBEDMENT.

   C.2) MINIMUM EDGE DISTANCE (E.D.) OF TAPCON XL ANCHORS, MAXISET OR ULTRACONS INTO WOOD SHALL BE 2 1/4". EDGE DISTANCE IS BEYOND ANY FINISH MATERIAL.

   C.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE OR BRICK PANELS, VENEER OR PAVERS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS.

8. ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.

9. SHUTTER MAY BE INSTALLED WITH SLAT'S CONCAVE SIDE FACING IN OR OUT.

10. ANCHORS REQUIRED FOR MULLION CONNECTIONS TO CONCRETE SHALL BE AS SPECIFIED ON APPLICABLE SECTIONS SHOWN ON SHEETS **8, 9, 10 & 11.**

    – S.S KWIK BOLT 3 EXPANSION ANCHOR MANUFACTURED BY HILTI, INC.
    – CONFLEX SCREW ANCHOR MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.

    MINIMUM EDGE DISTANCE FOR ABOVE MENTIONED ANCHORS SHALL BE AS INDICATED BELOW OR AT ABOVE MENTIONED SHEETS. EDGE DISTANCE AND EMBEDMENTS ARE BEYOND ANY FINISH MATERIAL.

ANCHOR	EDGE DISTANCE @ 100%	EMBEDMENT @ 100% CONCRETE	REQ'. MIN. THICKNESS FOR SUBSTRATE
3/4"ø KWIK BOLT 3	14"	5 1/2" (3000 psi)	10"
1/2"ø KWIK BOLT 3	8"	3 1/2" (3000 PSI)	8"
3/8"ø KWIK BOLT 3	4 1/2"	2 3/8" (3000 PSI)	6"
3/8"ø CONFLEX SCREW	4"	2 5/8" (3000 PSI)	6"
1/2"ø CONFLEX	6"	3 1/2" (3000 PSI)	6"
5/8"ø HILTI HUS–H SCREW	7 1/2"	2 1/2" (3000 PSI)	4"

11. THE INSTALLATION CONTRACTOR IS TO SEAL/CAULK ALL PRODUCT COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION. CAULK AND SEAL PRODUCT TRACKS ALL AROUND FULL LENGTH.

12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE PRODUCT IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. THIS PRODUCT SHALL ONLY BE ATTACHED TO CONCRETE, GROUTED CONCRETE BLOCK OR WOOD FRAME BUILDINGS.

13. THIS PRODUCT'S INSTALLATION SHALL COMPLY WITH ALL SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.

14. LIFTING MECHANISM NOT PART OF THIS APPROVAL.

15. (a) 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.

    (b) 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.

    (c) THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

    (d) 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. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

    (e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

16. PRODUCT MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT PRODUCT IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE.
ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION 1709.9.2 OF THE FLORIDA BUILDING CODE.

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

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

1/16/2024

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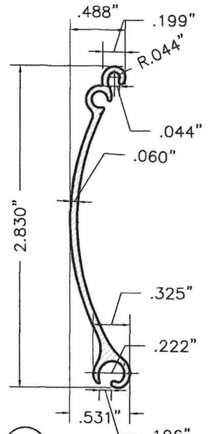
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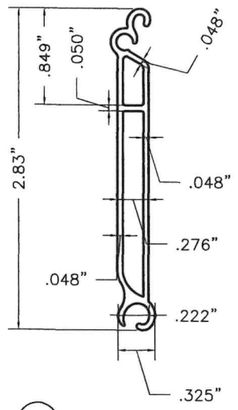
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SHEET 1 OF 22



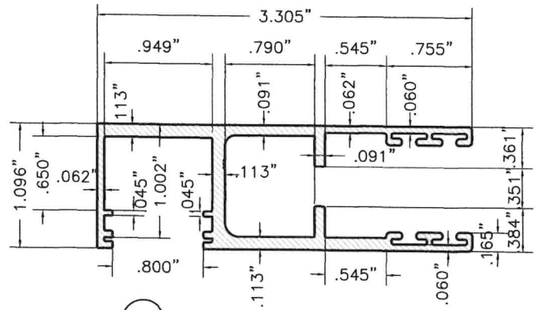
(A) SLAT

6063–T6 ALUMINUM
ALLOY TEMPER
SCALE 3/4"=1"



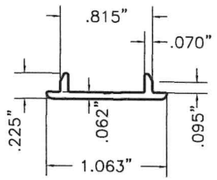
(B) BOTTOM SLAT

6063–T6 ALUMINUM
ALLOY TEMPER
SCALE 3/4"=1"



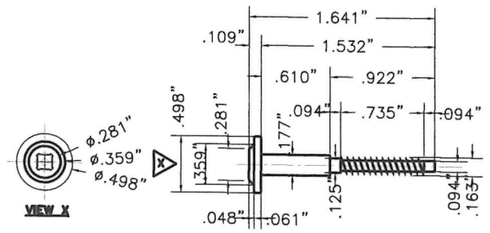
(C) SIDE RAIL

6063–T6 ALUMINUM
ALLOY TEMPER
SCALE 3/4"=1"



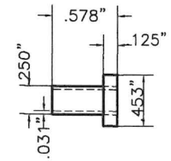
(D) SNAP CAP FOR (C)

6063–T6 ALUMINUM
ALLOY TEMPER
SCALE 3/4"=1"



(E) WIND LOCK SCREW

#8–18 AISI 410 SERIES
S.S. W/ XYLAN COATING
SCALE 3/4"=1"



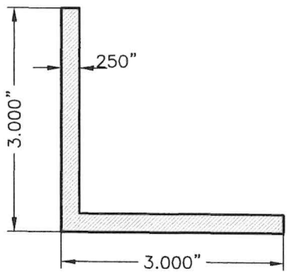
(F) SCREW SLEEVE

1/4"ø NYLON/ACETAL
SCALE 3/4"=1"



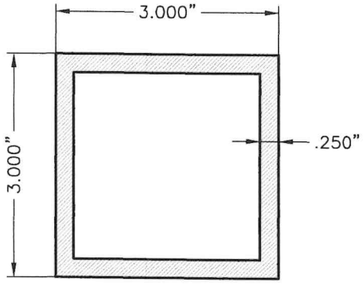
(F') 1/4"øx3/4" ITW/BUILDEX TEK SCREW

CARBON STEEL
SCALE 3/4"=1"



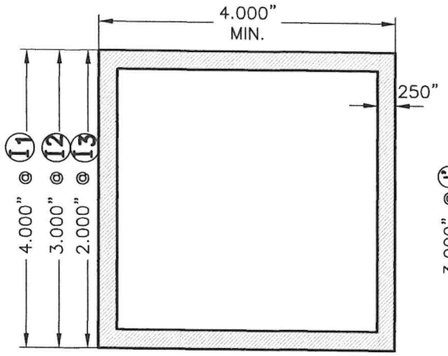
(G) TRAPPED ANGLE

6063–T6 ALUMINUM
ALLOY TEMPER
SCALE 1/2"=1"



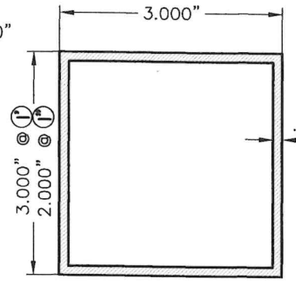
(H) TRAPPED MOUNTED TUBE

6061–T6 ALUMINUM
ALLOY TEMPER
SCALE 1/2"=1"



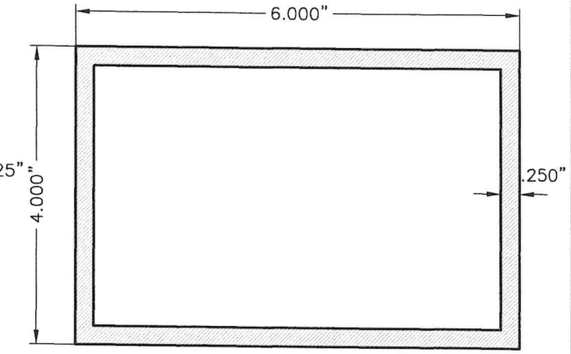
(I1), (I2), (I3) BUILD–OUT MOUNTED TUBE (MASONRY)

6061–T6 ALUMINUM
ALLOY TEMPER
SCALE 1/2"=1"



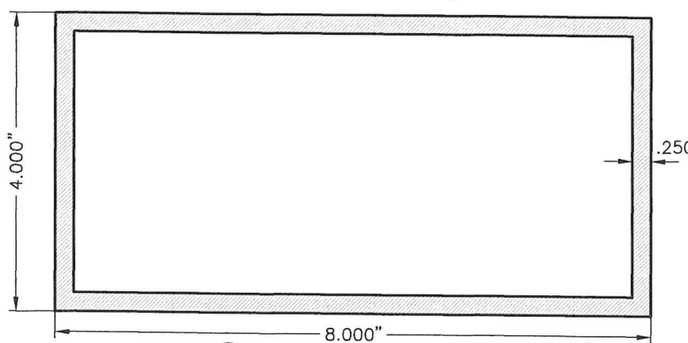
(I') & (I") BUILD–OUT MOUNTED TUBE (WOOD)

6063–T6 ALUMINUM
ALLOY TEMPER
SCALE 1/2"=1"



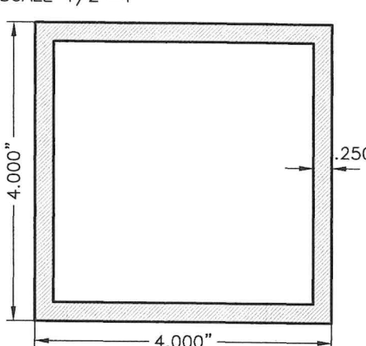
(J) 4"x 6" MULLION

6061–T6 ALUMINUM
ALLOY TEMPER
SCALE 1/2"=1"



(K) 4"x 8" MULLION

6061–T6 ALUMINUM
ALLOY TEMPER
SCALE 1/2"=1"



(L) 4"x 4" MULLION

6061–T6 ALUMINUM
ALLOY TEMPER
SCALE 1/2"=1"

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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COMPONENTS

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IMPACT PROTECTIVE ROLLING SYSTEM
WITH CHD–6 SLAT (END RETENTION)

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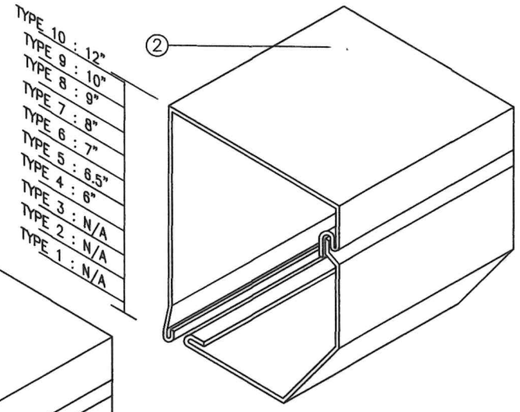
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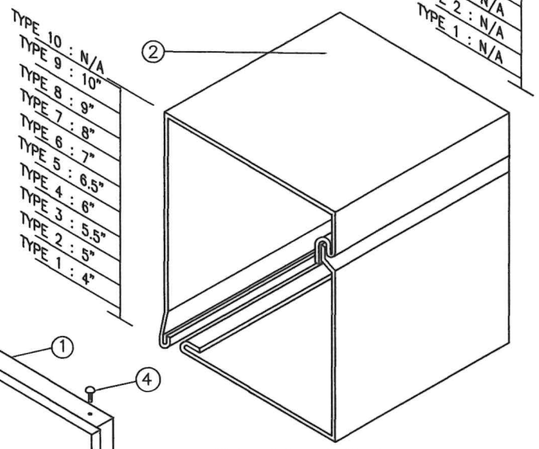
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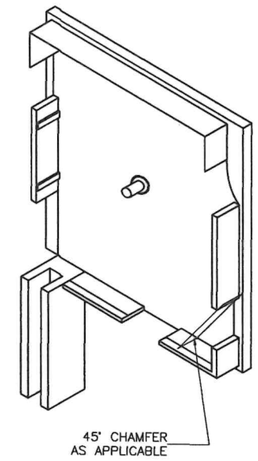
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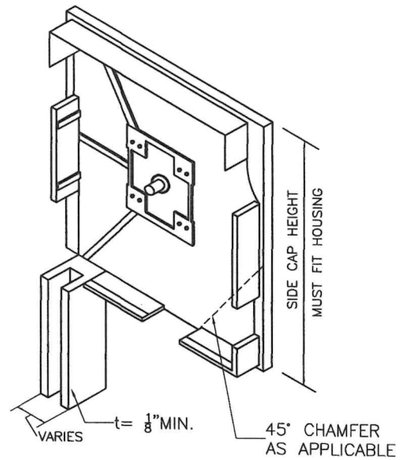


45 & 45/S OPTIONAL HOUSINGS



90 HOUSING





① END CAPS:

BOX STRUCTURAL COMPONENTS AND ASSEMBLY DETAIL

STRUCTURAL COMPONENTS FOR OPERATING SYSTEM

① – SIDE/END CAP (CAST ALUMINUM) *
② – HOUSING MIN. 0.040" THICK SHEET METAL (3105–H14 OR STRONGER)
③ – SIDE RAIL Ⓒ W/ Ⓓ

FASTENERS

④ – 3/16" ALUMINUM POP RIVETS OR # 10 S.D.S. (6 REQ'D EA. SIDE CAP) : 2 @ TOP, 2 @ REAR, 2@ BOTTOM

* SHALL BE CAPABLE TO SUSTAIN SLAT'S WEIGHT AND ASSURE LIFTING MECHANISM. (SEE NOTE 14/1)

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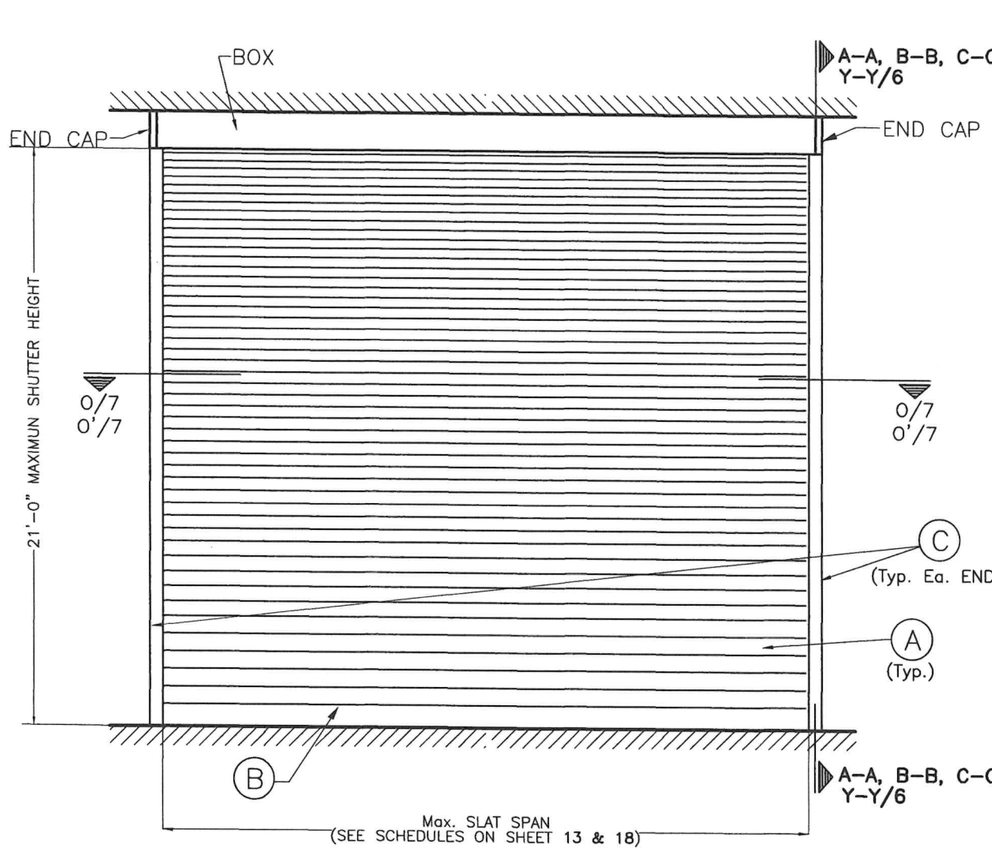
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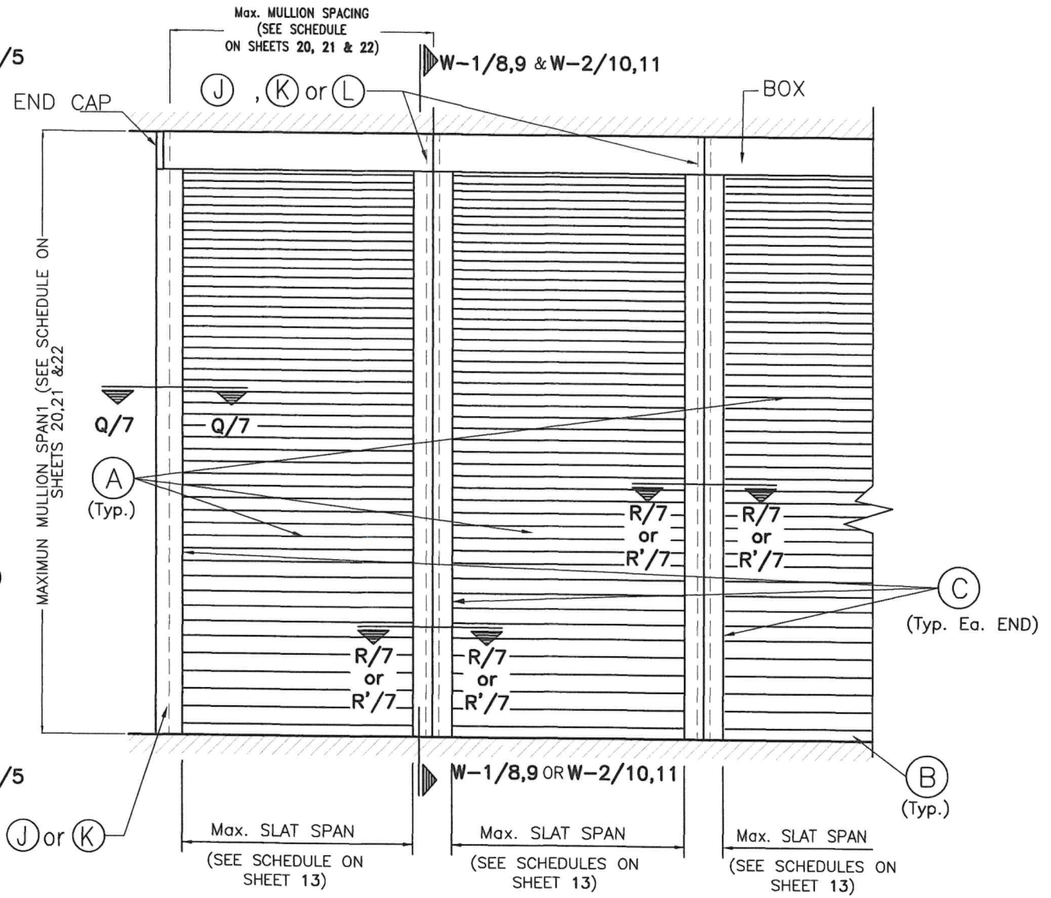
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TYPICAL SINGLE UNIT ELEVATION
(CONCRETE, GROUTED BLOCK OR WOOD)

NOTE: SEE SHEETS 2 & 3 FOR COMPONENTS NOMENCLATURE.

N.T.S.



TYPICAL CONSECUTIVE SINGLE UNIT ELEVATION
W/ MULLION INTO POURED CONCRETE

NOTE: SEE SHEETS 2 & 3 FOR COMPONENTS NOMENCLATURE.

N.T.S.

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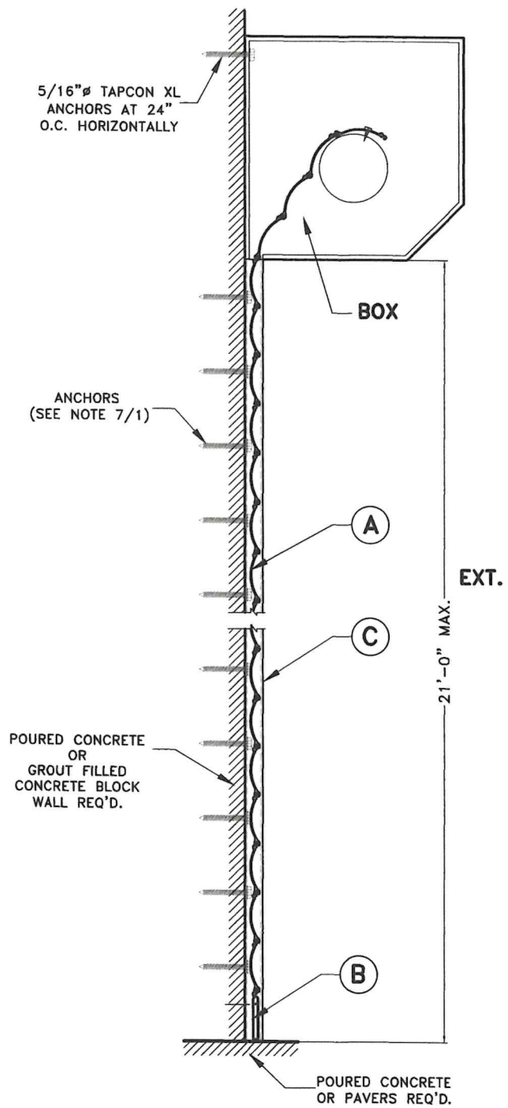
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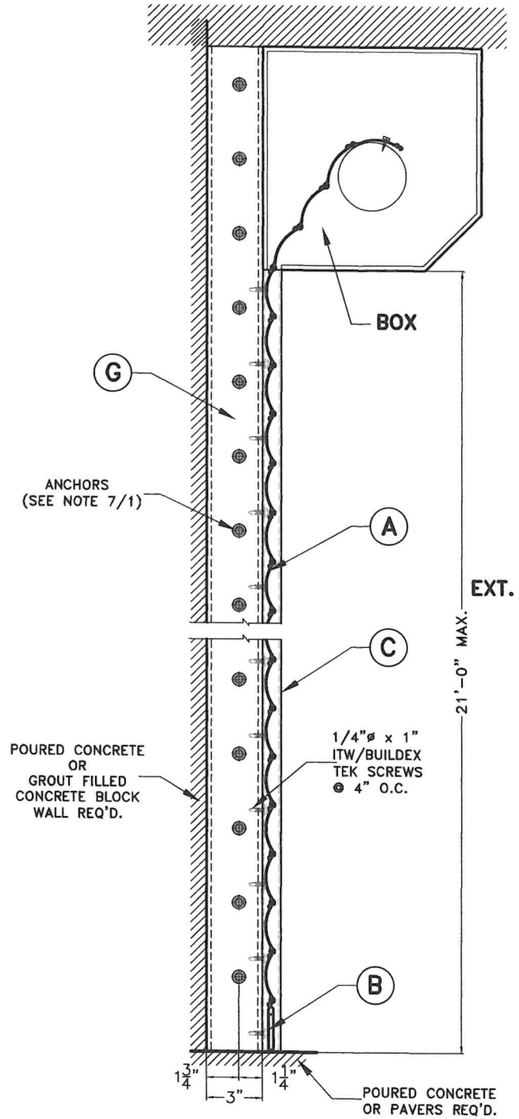
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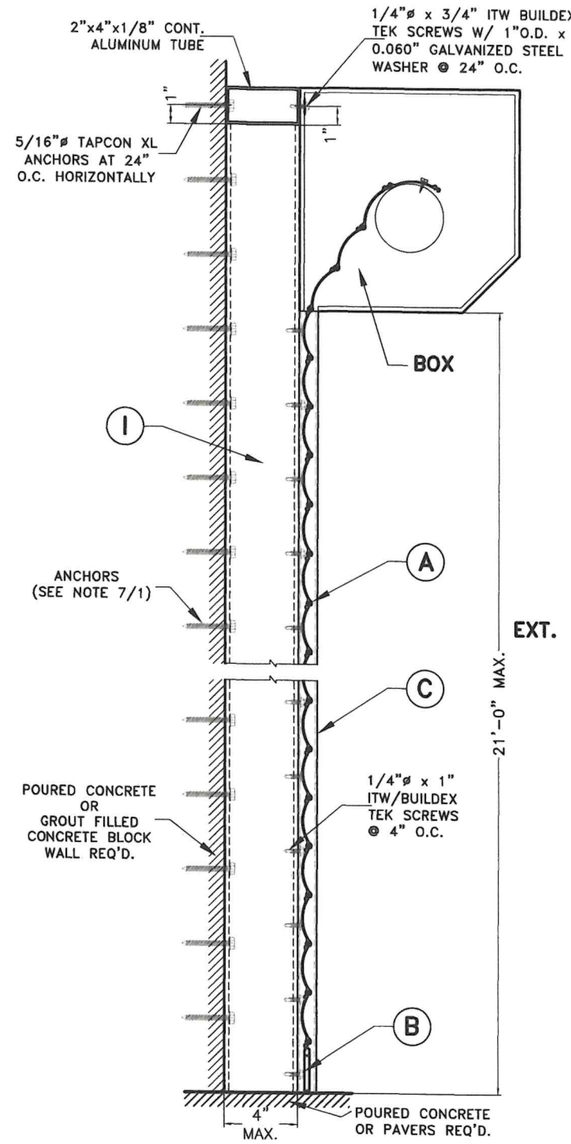
SECTION A–A (WALL MOUNTED)

SCALE 1/8"=1"



SECTIONS B–B (TRAPPED MOUNTED)

SCALE 1/8"=1"



SECTION C–C (BUILD OUT)

SCALE 1/8"=1"

INSTALLATION DETAILS ON EXISTING POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK WALL BUILDINGS

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

1/16/2024

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FLORIDA BUILDING CODE (HIGH VELOCITY HURRICANE ZONE)

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CA-0006719
WALTER A. TILLIT Jr. P.E.
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IMPACT PROTECTIVE ROLLING SYSTEM WITH CHD-6 SLAT (END RETENTION)

PSS PERFECT STORM Shutters

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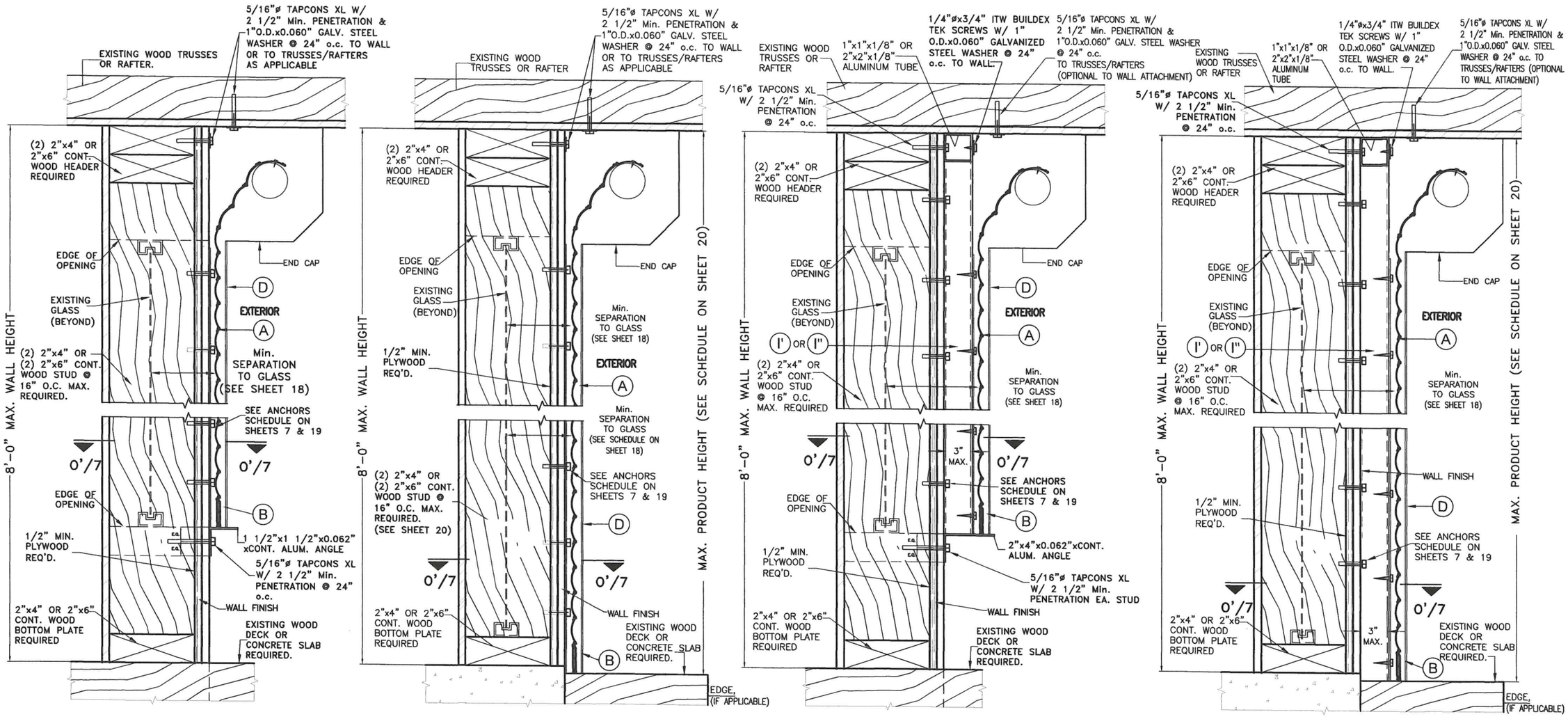
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SHEET 5 OF 22



SECTIONS Y–Y

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS *

N.T.S.

* SEE SHEETS 18 & 19 FOR LIMITATIONS AND ANCHOR SPACING REQUIREMENTS

WALTER A. TILLIT JR LICENSE NO. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

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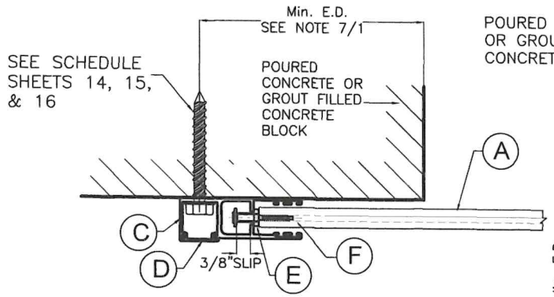
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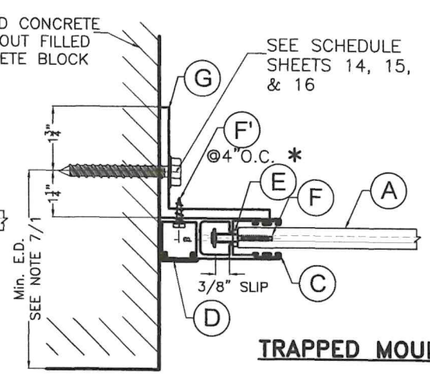
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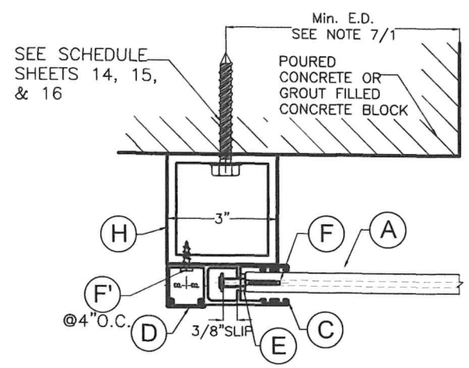
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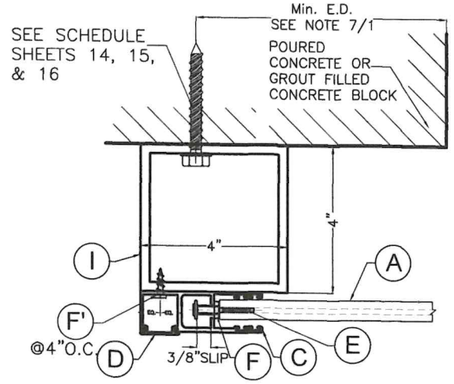
FLUSH MOUNT (WALL)



TRAPPED MOUNT



BUILD-OUT MOUNT

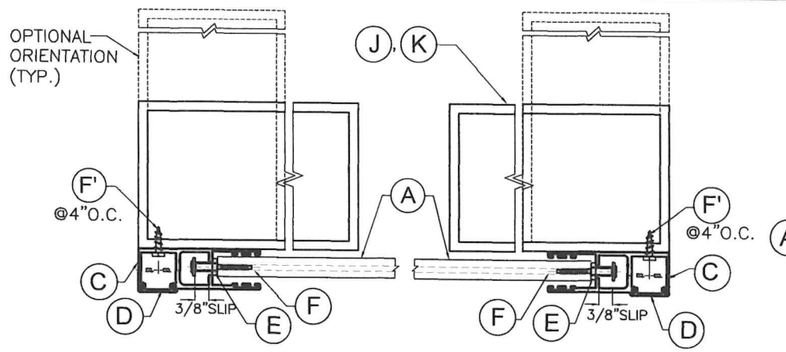


BUILD-OUT MOUNT

SECTIONS O–O (PLAN)

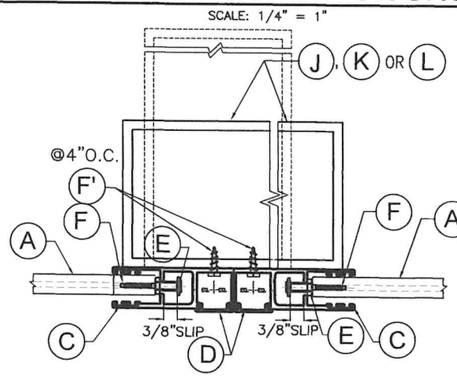
INSTALLATION DETAILS INTO EXISTING POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK BUILDINGS

SCALE: 1/4" = 1"

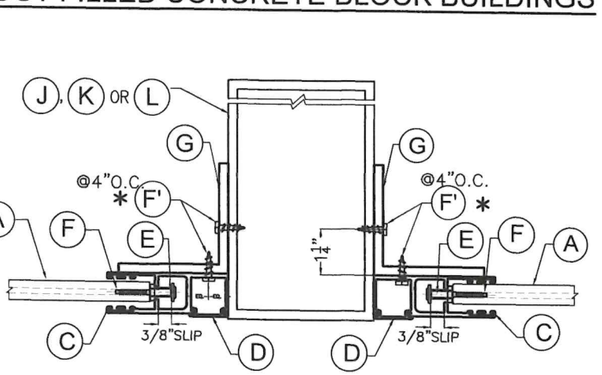


SECTION Q–Q (PLAN)
ORIENTATION #1
WALL MOUNT END MULLION

SECTION Q–Q (PLAN)
ORIENTATION #2
WALL MOUNT END MULLION



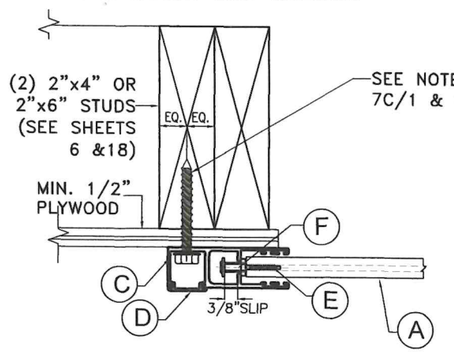
SECTION R–R (PLAN)
ORIENTATIONS #1 & #2
WALL MOUNT INTERIOR MULLION



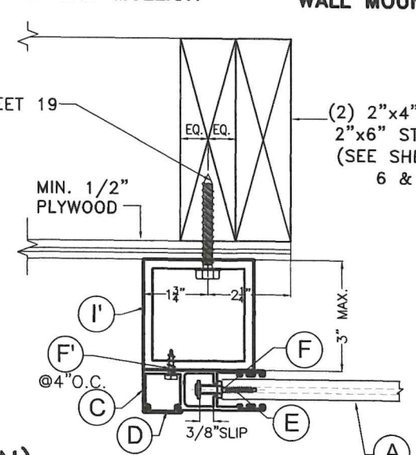
SECTION R'–R' (PLAN)
ORIENTATION #2
TRAPPED MOUNT INTERIOR MULLION

INSTALLATION DETAILS INTO MULLIONS J, K, L

SCALE: 1/4" = 1"



FLUSH MOUNT (WALL)



BUILD-OUT MOUNT

SECTIONS O'–O' (PLAN)

INSTALLATION DETAILS INTO EXISTING WOOD BUILDINGS

SCALE: 1/4" = 1"

* ALTERNATIVELY TO (F') A 1/4"ø–20x3/4" S.S. M.S. W/ NUT MAY BE USED FOR THIS CONNECTION

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

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IMPACT PROTECTIVE ROLLING SYSTEM WITH CHD–6 SLAT (END RETENTION)

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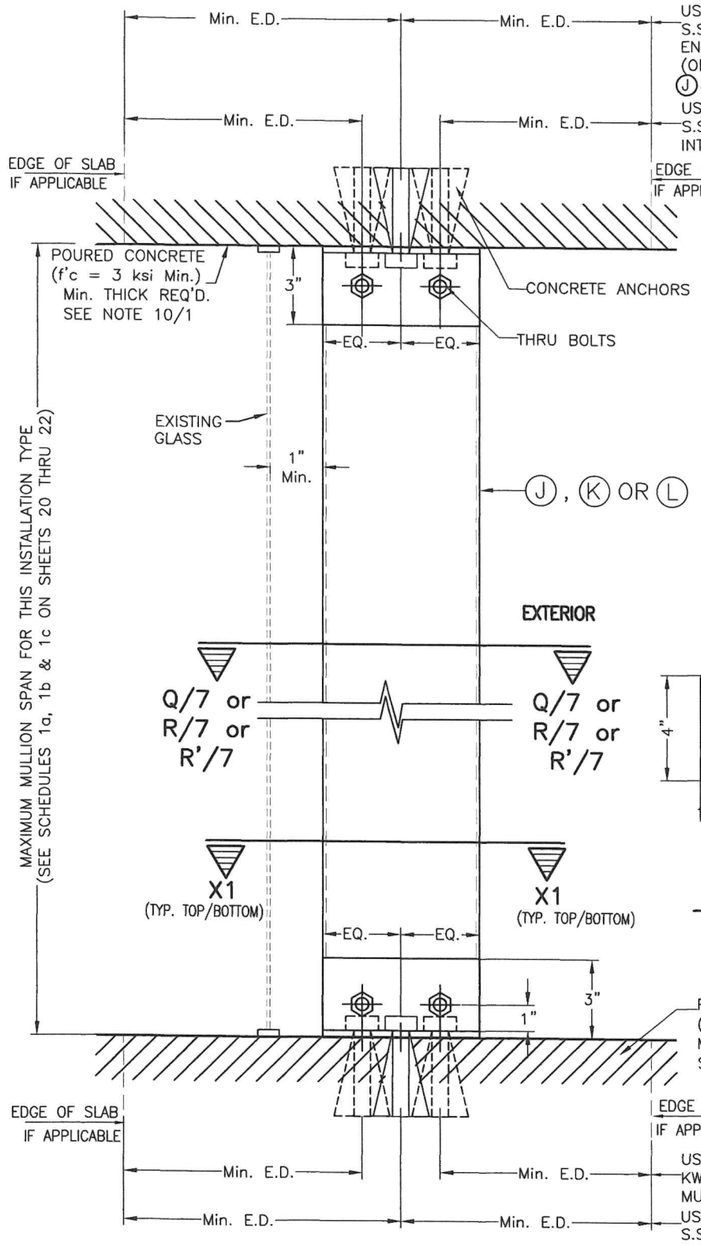
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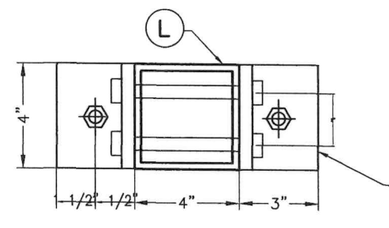
SECTIONS W-1

FLOOR TO CEILING / TRAPPED MOUNTING : MULLIONS Ⓙ, Ⓚ OR Ⓛ

END & INTERIOR TRAPPED MOUNTED MULLION INSTALLATION *

(TO BE USED WITH SCHEDULES 1a,1b & 1c ON SHEETS 20 THRU 22)

SCALE: 1/8" = 1"

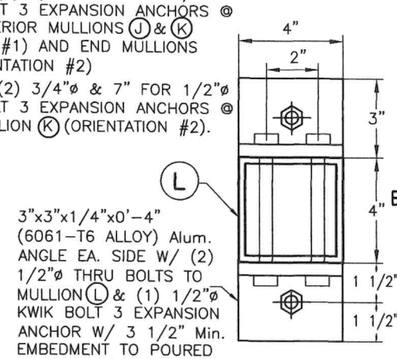


SECTION X1-X1 W/ Ⓛ*

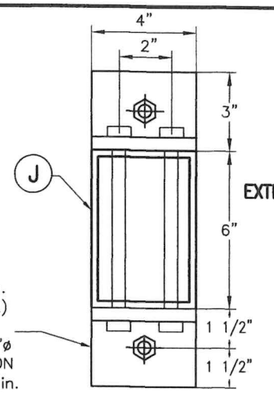
(INTERIOR MULLION)

(4"x4")

3"x3"x1/4"x0'-4" (6061-T6 ALLOY) Alum. ANGLE EA. SIDE W/ (2) 1/2"ø THRU BOLTS TO MULLION Ⓛ & (1) 1/2"ø KWIK BOLT 3 EXPANSION ANCHOR W/ 3 1/2" Min. EMBEDMENT TO POURED CONCRETE (Typ. TOP & BOTTOM)



3"x3"x1/4"x0'-4" (6061-T6 ALLOY) Alum. ANGLE EA. SIDE W/ (2) 1/2"ø THRU BOLTS TO MULLION Ⓛ & (1) 1/2"ø KWIK BOLT 3 EXPANSION ANCHOR W/ 3 1/2" Min. EMBEDMENT TO POURED CONCRETE (Typ. TOP & BOTTOM)



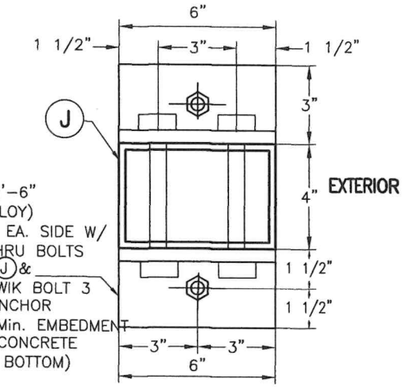
SECTION X1-X1 W/ Ⓙ*

(END & INTERIOR MULLION)

(W/ ORIENTATION # 1)

(6"x4")

3"x3"x1/4"x0'-4" (6061-T6 ALLOY) Alum. ANGLE EA. SIDE W/ (2) 1/2"ø THRU BOLTS TO MULLION Ⓙ & (1) 3/4"ø KWIK BOLT 3 EXPANSION ANCHOR W/ 5 1/2" Min. EMBEDMENT TO POURED CONCRETE (Typ. TOP & BOTTOM)



3"x3"x1/4"x0'-6" (6061-T6 ALLOY) Alum. ANGLE EA. SIDE W/ (2) 1/2"ø THRU BOLTS TO MULLION Ⓙ & (1) 3/4"ø KWIK BOLT 3 EXPANSION ANCHOR W/ 5 1/2" Min. EMBEDMENT TO POURED CONCRETE (Typ. TOP & BOTTOM)

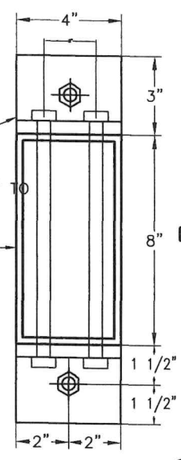
ALTERNATIVE SECTION X1-X1 W/ Ⓙ*

(END & INTERIOR MULLION)

(W/ ORIENTATION # 2)

(4"x6")

3"x3"x3/8"x0'-4" (6061-T6 ALLOY) Alum. ANGLE EA. SIDE W/ (2) 3/4"ø THRU BOLTS TO MULLION Ⓚ & (1) 3/4"ø KWIK BOLT 3 EXPANSION ANCHOR W/ 5 1/2" Min. EMBEDMENT TO POURED CONCRETE (Typ. TOP & BOTTOM)



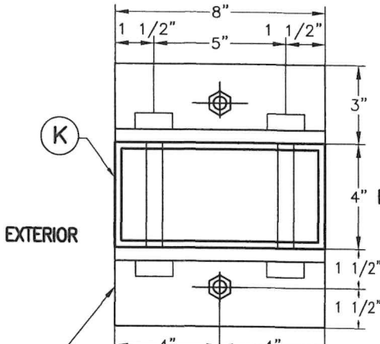
SECTION X1-X1 W/ Ⓚ*

(END & INTERIOR MULLION)

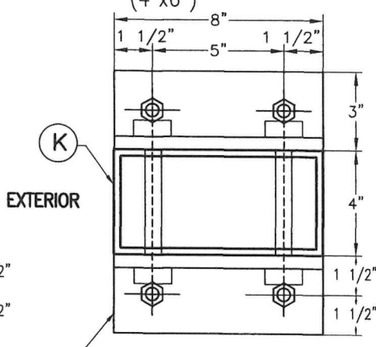
(W/ ORIENTATION # 1)

(8"x4")

3"x3"x1/4"x0'-8" (6061-T6 ALLOY) Alum. ANGLE EA. SIDE W/ (2) 3/4"ø THRU BOLTS TO MULLION Ⓚ & (1) 3/4"ø KWIK BOLT 3 EXPANSION ANCHOR W/ 5 1/2" Min. EMBEDMENT TO POURED CONCRETE (Typ. TOP & BOTTOM)



(INTERIOR MULLION ONLY)



(END MULLION ONLY)

3"x3"x1/4"x0'-8" (6061-T6 ALLOY) Alum. ANGLE EA. SIDE W/ (2) 1/2"ø THRU BOLTS TO MULLION Ⓚ & (2) 3/4"ø KWIK BOLT 3 EXPANSION ANCHOR W/ 5 1/2" Min. EMBEDMENT TO POURED CONCRETE (Typ. TOP & BOTTOM)

ALTERNATIVES SECTION X1-X1 W/ Ⓚ*

(W/ ORIENTATION # 2)

(4"x8")

*** SIDE RAIL Ⓒ AND BOX NOT SHOWN FOR CLARITY.***

NOTE:

VALID FOR ALL LOADS EXCEPT SPECIAL CONDITIONS PER SHEET 9

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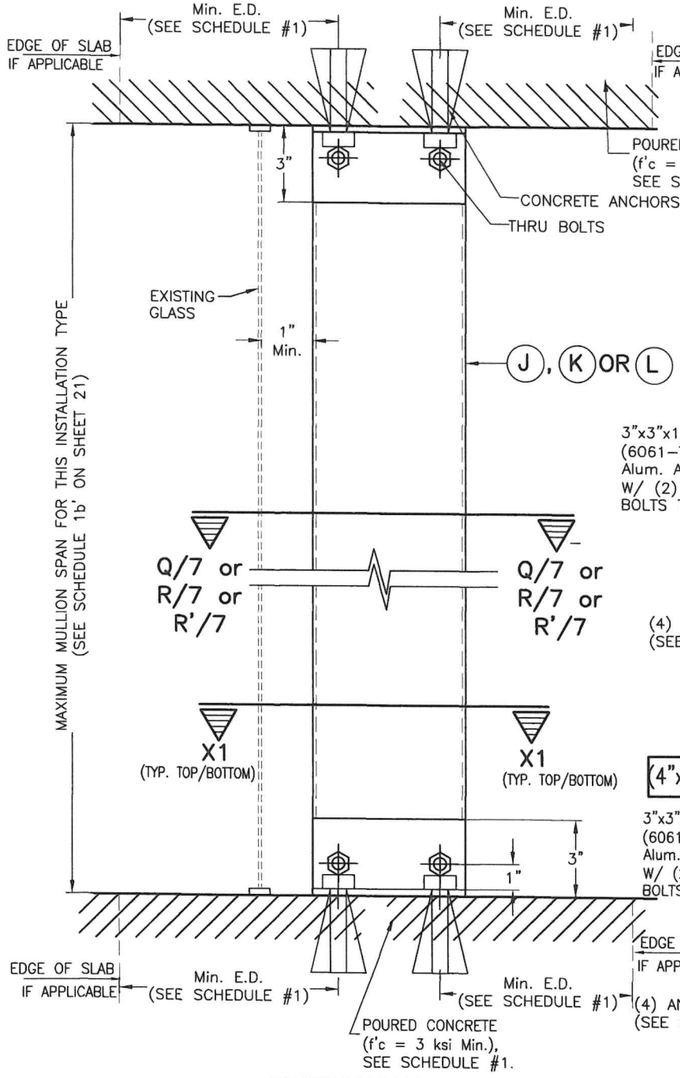
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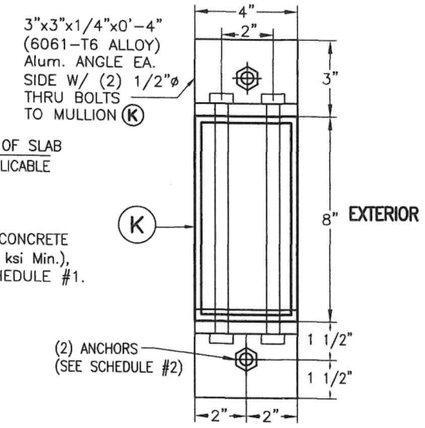
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SHEET 8 OF 22



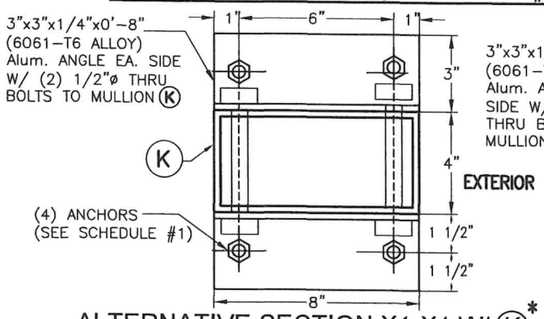
SECTIONS W-1

FLOOR TO CEILING / TRAPPED MOUNTING : MULLIONS (J), (K) OR (L)



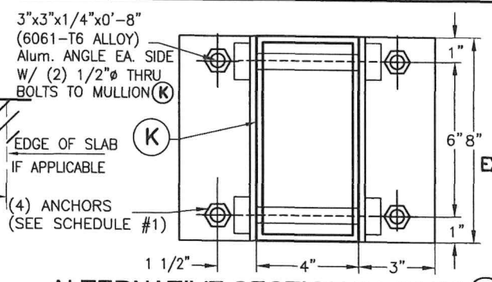
ALTERNATIVE SECTION X1-X1 W/ (K)*

(4"x8" INTERIOR MULLION W/ ORIENTATION # 1)



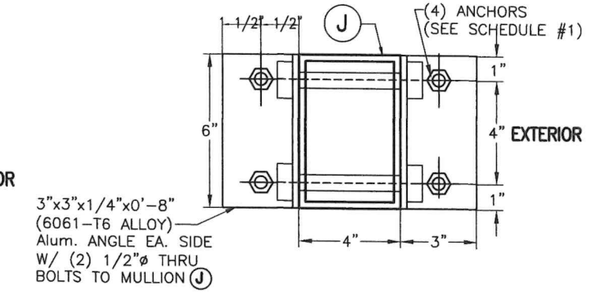
ALTERNATIVE SECTION X1-X1 W/ (K)*

(4"x8" END OR INTERIOR MULLION W/ORIENTATION # 2)



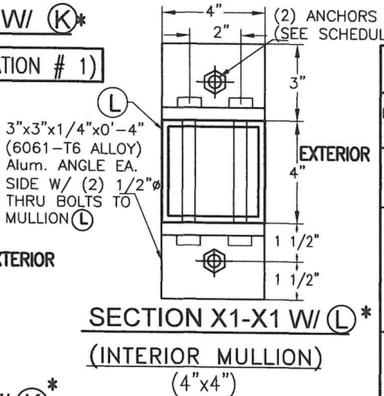
ALTERNATIVE SECTION X1-X1 W/ (K)*

(4"x8" INTERIOR MULLION W/ ORIENTATION # 1)



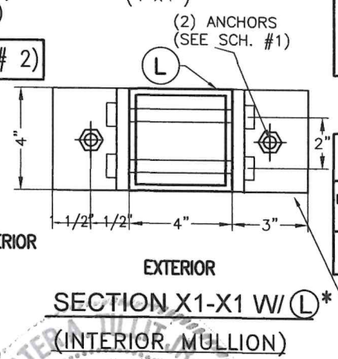
ALTERNATIVE SECTION X1-X1 W/ (J)*

(4"x6" INTERIOR MULLION ONLY W/ORIENTATION # 1)



SECTION X1-X1 W/ (L)*

(INTERIOR MULLION)
(4"x4")



SECTION X1-X1 W/ (L)*

(INTERIOR MULLION)
(4"x4")

◊ SEE MAXIMUM (J) (INTERIOR) & (K) (END & INTERIOR) TRAPPED MOUNTED MULLIONS SPAN COVERED BY SCHEDULE 1b' FOR INSTALLATION CASES I, Ia & II ON SHEET 21.
(LIMITED LOAD, MULLION SPACING AND SPAN INSTALLATION):

INSTALLATION CASE I – RESIDENTIAL AND COMMERCIAL APPLICATIONS WITH ±60.8 p.s.f. MAXIMUM A.S.D. DESIGN PRESSURE RATING, 12'-0" MAXIMUM MULLION SPACING. SEE SCHEDULES #1 & #2 FOR ADDITIONAL SPECS.

INSTALLATION CASE Ia – RESIDENTIAL AND COMMERCIAL APPLICATION W/ ±60.8 p.s.f. MAXIMUM A.S.D. DESIGN PRESSURE RATING, 8'-0" MAXIMUM MULLION SPACING. SEE SCHEDULES #1 & #2 FOR ADDITIONAL SPECS.

INSTALLATION CASE II – COMMERCIAL APPLICATION FOR ±100.0 p.s.f. MAXIMUM A.S.D. DESIGN PRESSURE RATING, 8'-0" MAXIMUM MULLION SPACING. SEE SCHEDULES #1 & #2 FOR ADDITIONAL SPECS.

SCHEDULE #1

INSTALLATION CASES	MIN. SLAB THICKNESS REQ'D.	ANCHOR TYPE & SIZE (TYP. TOP & BOTTOM)	MIN. ANCHOR EMBEDMENT	MIN. EDGE DISTANCE FOR ANCHOR
I	4"	3/8"ø HILTI INC KWIK BOLT 3 & 3/8"ø CONFLEX ANCHOR FOR (J) & (K) (INTERIOR) MULLIONS W/ ORIENTATION #2, OR INTERIOR MULLION (L)	2 3/8"	4 1/2"
Ia	8"	1/2"ø HILTI INC KWIK BOLT 3 ONLY FOR (J) & (K) INTERIOR MULLIONS W/ ORIENTATION #2) & (K) (END MULLION W/ ORIENTATION #1), OR INTERIOR MULLION (L)	3 1/2"	7"
	6"	1/2"ø CONFLEX SCREW FOR (J) & (K) (END OR INTERIOR MULLION) W/ ORIENTATIONS #1 OR #2 OR INTERIOR MULLION (L)	3 1/2"	6"
II	6"	1/2"ø HILTI INC KWIK BOLT 3 ONLY FOR (J) & (K) INTERIOR MULLIONS W/ ORIENTATION #2) & (K) (END MULLION W/ ORIENTATION #1), OR INT. MULLION (L)	3 1/2"	7"
		1/2"ø CONFLEX SCREW. SEE * NOTE ON SCHEDULE 1b' ON SHEET 21. VALID FOR END & INTERIOR MULLIONS (J) & (K) W/ ORIENTATIONS #1 OR #2, OR INT. MULLION (L)	3 1/2"	6"

SCHEDULE #2

INSTALLATION CASES	MIN. SLAB THICKNESS REQ'D.	ANCHOR TYPE & SIZE (TYP. TOP & BOTTOM)	MIN. ANCHOR EMBEDMENT	MIN. EDGE DISTANCE FOR ANCHOR
I, Ia & II	4"	5/8"ø HILTI INC HUS-H SCREW	2 1/2"	7 1/2"

◊ END & INTERIOR TRAPPED MOUNTED MULLION INSTALLATION *

APPLICABLE TO A LIMITED LOAD, MULLION SPAN AND MULLION SPACING INSTALLATIONS

(TO BE USED WITH SCHEDULE 1b' ON SHEET 21)

SCALE: 1/8" = 1"

* SIDE RAIL (C) AND BOX NOT SHOWN FOR CLARITY

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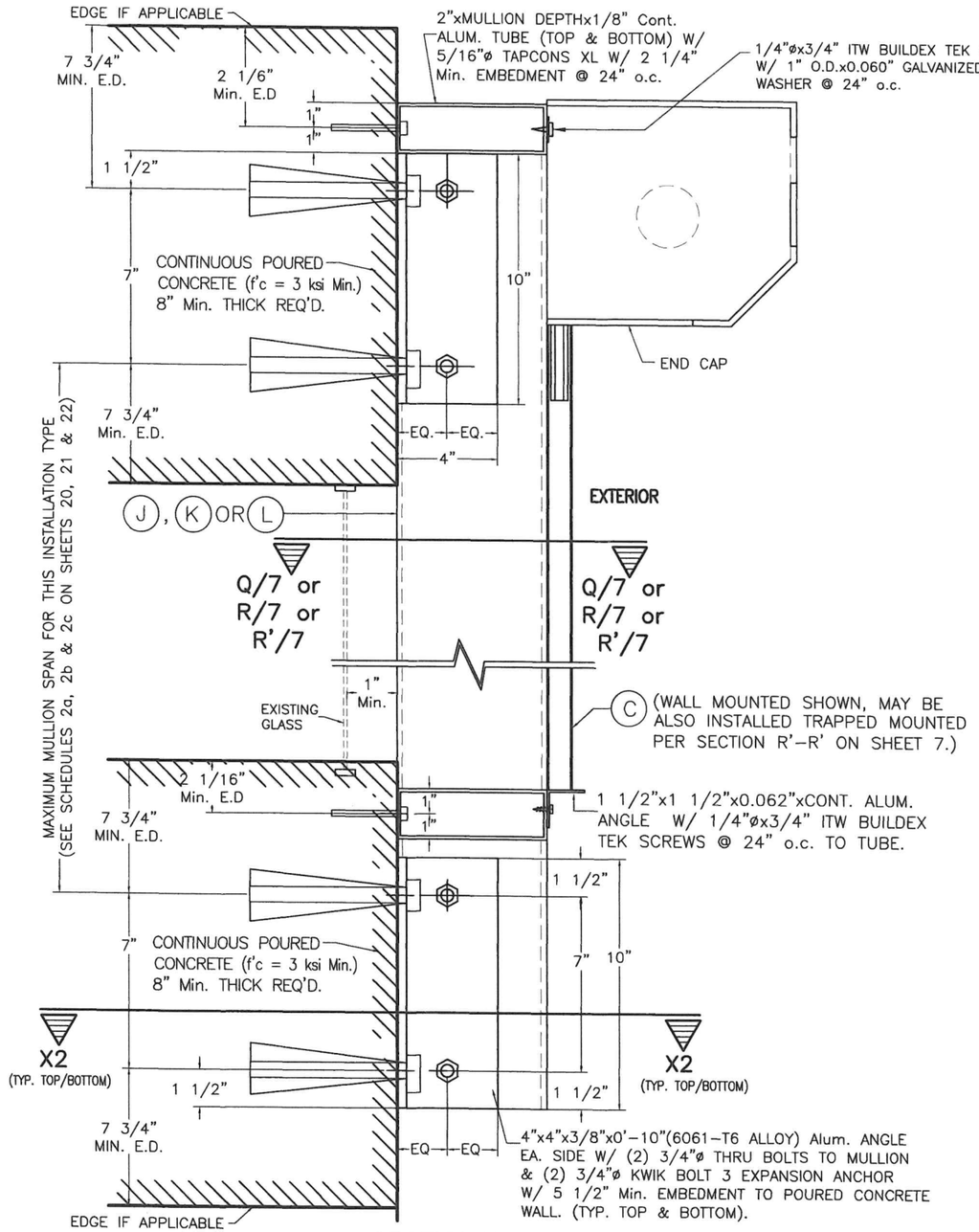
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SHEET 9 OF 22



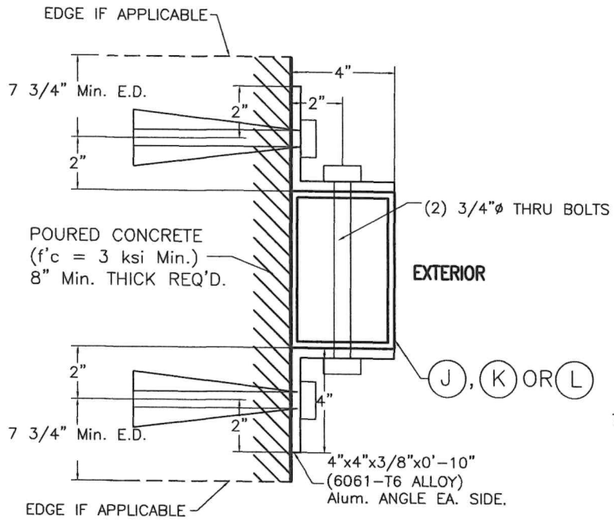
SECTION W-2

WALL MOUNTING : MULLIONS (J), (K) OR (L)
POURED CONCRETE WALL

END & INTERIOR WALL MOUNTED MULLION INSTALLATION

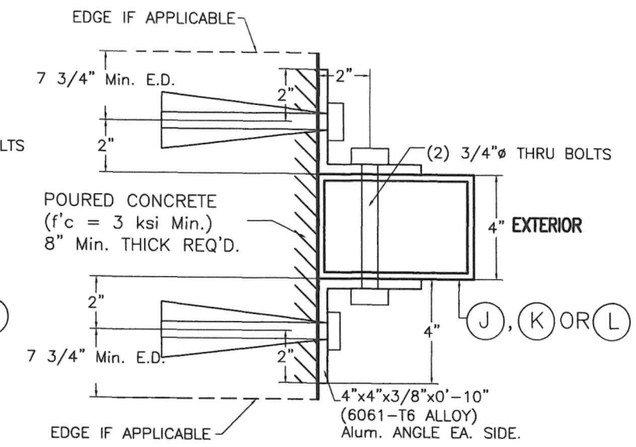
(TO BE USED WITH SCHEDULES 2a, 2b & 2c ON SHEETS 20 THRU 22)

SCALE: 1/8" = 1"



SECTION X2-X2 W/ (J),(K) OR (L)*

(END & INTERIOR MULLION) (J) & (K) or INTERIOR MULLION (L)
(W/ ORIENTATION # 2)
(6"x4" , 8"x4" or 4"x4")



ALTERNATIVE SECTION X2-X2 W/ (J) ,(K) OR (L)*

(END & INTERIOR MULLION) (J) & (K) or INTERIOR MULLION (L)
(W/ ORIENTATION # 1)
(4"x4" , 4"x6" or 4"x8")

* SIDE RAIL (C) NOT SHOWN FOR CLARITY

NOTE:
VALID FOR ALL LOADS EXCEPT SPECIAL CONDITIONS PER SHEET 11

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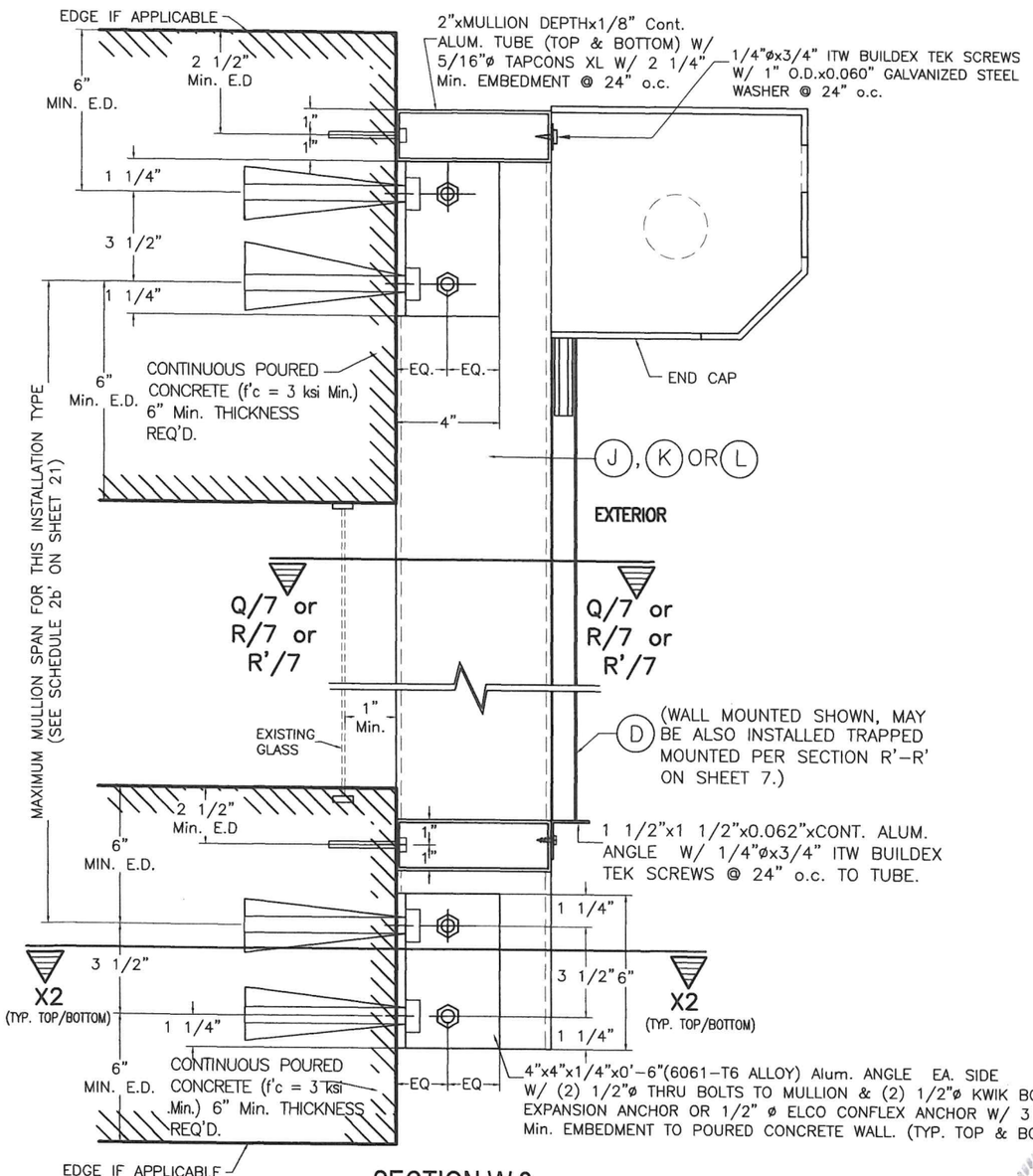
IMPACT PROTECTIVE ROLLING SYSTEM WITH CHD-6 SLAT (END RETENTION)

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SHEET 10 OF 22



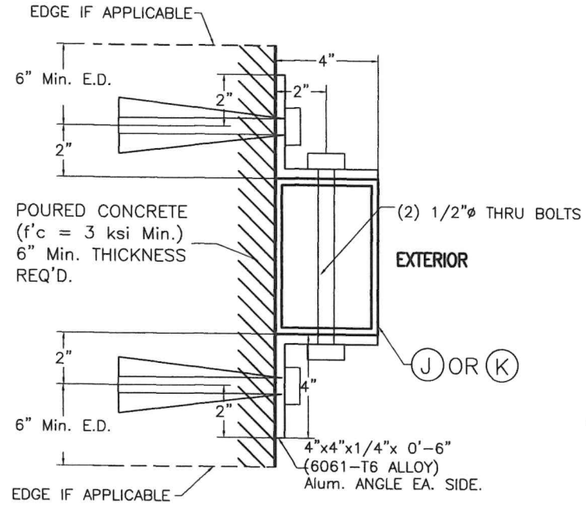
SECTION W-2

WALL MOUNTING : MULLIONS (J), (K) OR (L)
POURED CONCRETE WALL

◊END & INTERIOR WALL MOUNTED MULLION INSTALLATION *

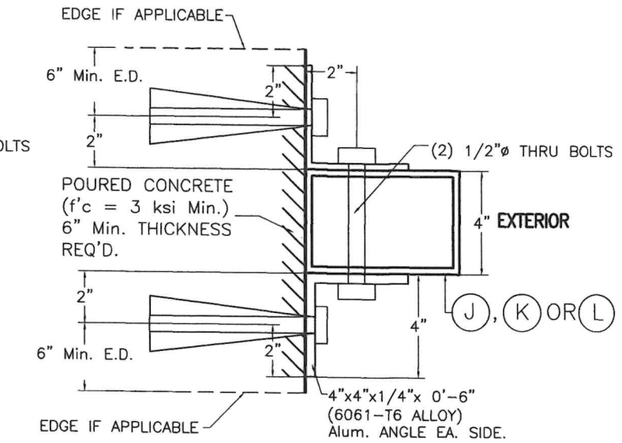
APPLICABLE TO A LIMITED LOAD, MULLION SPAN AND MULLION SPACING INSTALLATIONS

(TO BE USED WITH SCHEDULE 2b' ON SHEET 21)
SCALE: 1/8" = 1"



SECTION X2-X2 W/ (K)*

(END & INTERIOR MULLION) (J) & (K) W/ OR INTERIOR MULLION (L)
(4"x4" or 4"x8")



ALTERNATIVE SECTION X2-X2 W/ (J), (K) OR (L)*

(INTERIOR MULLION)
(W/ ORIENTATION # 2)
(4"x4", 4"x6" or 4"x8")

◊ SEE MAXIMUM (L) (INTERIOR) (J) & (K) (END & INTERIOR) WALL MOUNTED MULLIONS SPAN COVERED BY SCHEDULE 2b' FOR INSTALLATION CASES **I' & II'** ON SHEET 21 (LIMITED LOAD, MULLION SPACING AND SPAN INSTALLATION):

INSTALLATION CASE I' - RESIDENTIAL AND COMMERCIAL APPLICATIONS WITH ±60.8 p.s.f. MAXIMUM A.S.D. DESIGN PRESSURE RATING, 12'-0" MAXIMUM MULLION SPACING. VALID FOR CONNECTION TO CONCRETE W/ 1/2"ø S.S. KWIK BOLT 3 OR 1/2"ø ELCO CONFLEX ANCHOR.

INSTALLATION CASE II' - COMMERCIAL APPLICATION FOR ±100.0 p.s.f. MAXIMUM A.S.D. DESIGN PRESSURE RATING, 8'-0" MAXIMUM MULLION SPACING. VALID FOR CONNECTION TO CONCRETE W/ 1/2" ø S.S. HILTI INC KWIK BOLT 3 ANCHORS.

* SIDE RAIL (C) NOT SHOWN FOR CLARITY

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SHEET 11 OF 22

TYPICAL MANDATORY PROCEDURE FOR VERIFYING PRODUCT CODE COMPLIANCE RELATED TO ITS INSTALLATION INTO EXISTING POURED CONCRETE OR GROUT FILLED CELL CONCRETE BLOCK STRUCTURES (*)

STEP 1: OBTAIN JOB SITE'S A.S.D. DESIGN PRESSURE RATING (p.s.f.) FOR THE OPENING AND DESIRED SLAT SPAN "L" (ft) TO PROTECT IT (SEE GENERAL NOTE #2, SHEET 1).

STEP 2: ENTER TO CHARTS **Ia, Ib, Ic, Id** AND **Ie** ON SHEET 13 TO DETERMINE, BASED ON AN 3/8" SLAT SLIP (in), ANCHOR TYPE AT SIDE RAILS; AND A.S.D. DESIGN PRESSURE RATING (p.s.f.), THE REQUIRED MAX SLAT SPAN "L" ft .

THE FOLLOWING INFORMATION IS PROVIDED AT CHARTS **I** THRU **Ie** TO PROCEED WITH PRODUCT INSTALLATION VERIFICATION:

- ENTER A.S.D. DESIGN PRESSURE RATING: SEE STEP (1) ABOVE.
- FOR A SPECIFIC PRODUCT MOUNTING INSTALLATION TYPE, INCLUDING ANCHOR TYPE, THE FOLLOWING DEFINITION FOR SLAT SPAN SHALL BE CONSIDERED:

  LMAX: THIS IS THE MAXIMUM ALLOWABLE SLAT SPAN FOR WHICH A GIVEN 3/8" SLAT SLIP MAY BE USED, FOR A GIVEN A.S.D. DESIGN PRESSURE RATING, AND MOUNTING TYPE.

- MINIMUM REQUIRED SEPARATION TO GLASS IS PROVIDED ON CHART **Ie**.

STEP 3: OBTAIN INFORMATION ON PRODUCT'S SIDE RAIL ANCHOR SPACING REQUIREMENTS FOR CONNECTION TO EXISTING STRUCTURE FROM ANCHOR SCHEDULES Va, Vb & Vb' ON SHEETS 14 THRU 16. ENTER SCHEDULES WITH ANCHOR TYPE, SUBSTRATE, MOUNTING TYPE, A.S.D. DESIGN PRESSURE RATING & SLAT SPAN AND OBTAIN MAXIMUM ANCHOR SPACING (INCHES ON CENTERS). SEE GENERAL NOTE 7 ON SHEET 1 FOR ANCHOR SPECS.

STEP 4: IF PRODUCT INSTALLATION INCLUDES MULLIONS, THE FOLLOWING MANDATORY ADDITIONAL PROCEDURE IS APPLICABLE.

1. MINIMUM SEPARATION TO GLASS FOR SLATS IF MULLIONS ARE USED SHALL BE BASED ON CHART Ie ON SHEET 13. IT SHALL BE MEASURED FROM BACK OF SLATS TO GLASS.
2. ENTER SCHEDULES 1a THRU 2c ON SHEETS 20, 21 & 22 W/ A.S.D. DESIGN LOAD; MAXIMUM MULLION SPACING (MAX., 12', 8' OR 7'), AND DETERMINE MAXIMUM MULLIONS SPAN (HEIGHT) W/ ALLOWABLE INTERPOLATION IN BETWEEN SPACING'S FOR A GIVEN Ⓙ Ⓚ & Ⓛ, MULLION TYPE & MULLION ORIENTATION.
3. SEE SHEETS 8 THRU 11 FOR REQUIRED MULLION CONNECTION DETAILS AT TOP & BOTTOM FOR FLOOR TO CEILING (TRAPPED) OR WALL MOUNTINGS OF MULLIONS INTO CONCRETE FOR A GIVEN MULLION TYPE (Ⓙ Ⓚ & Ⓛ).

* PROCEDURE PER STEPS 1 THRU 3 IS SIMILAR FOR INSTALLATIONS INTO WOOD FRAME STRUCTURES. SEE SHEETS 18 & 19 FOR LIMITATIONS APPLICABLE TO INSTALLATIONS INTO WOOD FRAME STRUCTURES.

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SLAT PERFORMANCE CHARTS **Ia, Ib, Ic, Id & Ie**: (ONLY VALID FOR 3/8" SLIP). SEE SHT. 18 FOR WOOD SUBSTRATE

FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (p.s.f), PRODUCT MOUNT CONDITION INCLUDING ANCHOR TYPE

MAX. A.S.D. DESIGN PRESSURE RATING (psf)	CHART Ia				CHART Ib				CHART Ic				CHART Id				CHART Ie
	3/8"Ø ELCO CONFLEX ANCHOR TO POURED CONCRETE				3/8"Ø KWIK BOLT 3 ANCHOR TO POURED CONCRETE				5/16"Ø TAPCON XL ANCHOR TO POURED CONCRETE				5/16"ø TAPCON XL ANCHOR or 3/8 " Ø KWIK BOLT 3 TO GROUT FILLED CELL CONCRETE BLOCK				USE MAXIMUM POSITIVE A.S.D. LOAD VALUE
	MAX. SLAT SPAN "LMAX." (FT)				MAX. SLAT SPAN "LMAX." (FT)				MAX. SLAT SPAN "LMAX." (FT)				MAX. SLAT SPAN "LMAX." (FT)				REQUIRED MIN. SEPARATION TO GLASS MEASURED TO BACK OF SLAT (in)
	WALL MOUNT SEE NOTES *	TRAPPED MOUNT SEE NOTES *	BUILD-OUT MOUNT W/ (I1) & (I2) SEE NOTES *	BUILD-OUT MOUNT W/ (I3) SEE NOTES *	WALL MOUNT SEE NOTES *	TRAPPED MOUNT SEE NOTES *	BUILD-OUT MOUNT W/ (I1) & (I2) SEE NOTES *	BUILD-OUT MOUNT W/ (I3) SEE NOTES *	WALL MOUNT SEE NOTES *	TRAPPED MOUNT SEE NOTES *	BUILD-OUT MOUNT W/ (I1) & (I2) SEE NOTES *	BUILD-OUT MOUNT W/ (I3) SEE NOTES *	WALL MOUNT SEE NOTES *	TRAPPED MOUNT SEE NOTES *	BUILD-OUT MOUNT W/ I1 & (I2) SEE NOTES *	BUILD-OUT MOUNT W/ (I3) SEE NOTES *	
30.0	21'-8"	21'-8"	21'-8"	21'-8"	21'-8"	21'-8"	16'-9"	21'-8"	21'-8"	21'-8"	13'-4"	17'-0"	21'-8"	21'-8"	11'-2"	14'-9"	7"
35.0	19'-9"	19'-9"	19'-9"	19'-9"	19'-9"	19'-9"	15'-0"	19'-9"	19'-9"	19'-9"	12'-0"	15'-3"	19'-9"	19'-9"	10'-0'	13'-6"	7"
40.0	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	13'-9"	17'-10"	18'-0"	18'-0"	11'-0"	13'-9"	18'-0"	18'-0"	9'-0"	12'-3"	7"
45.0	16'-6"	16'-6"	16'-6"	16'-6"	16'-6"	16'-6"	12'-8"	16'-3"	16'-6"	16'-6"	10'-0"	12'-9"	16'-6"	16'-6"	8'-4"	11'-3"	7"
50.0	15'-3"	15'-3"	15'-3"	15'-3"	15'-3"	15'-3"	11'-6"	15'-0"	15'-3"	15'-3"	9'-6"	11'-9"	15'-3"	15'-3"	7'-9"	10'-6"	6"
55.0	14'-3"	14'-3"	14'-3"	14'-3"	14'-3"	14'-3"	11'-0"	14'-0"	14'-3"	14'-3"	9'-0"	11'-2"	14'-3"	14'-3"	7'-4"	10'-0"	6"
60.0	13'-6"	13'-6"	13'-6"	13'-6"	13'-6"	13'-6"	10'-3"	13'-0"	13'-6"	13'-6"	8'-4"	10'-6"	13'-6"	13'-6"	7'-0"	9'-3"	6"
65.0	12'-9"	12'-9"	12'-9"	12'-9"	12'-9"	12'-9"	9'-9"	12'-6"	12'-9"	12'-9"	8'-2"	10'-0"	12'-9"	12'-9"	6'-6"	8'-9"	6"
70.0	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	9'-3"	11'-6"	12'-0"	12'-0"	7'-9"	9'-6"	12'-0"	12'-0"	6'-3"	8'-6"	6"
75.0	11'-6"	11'-6"	11'-6"	11'-6"	11'-6"	11'-6"	8'-9"	11'-0"	11'-6"	11'-6"	7'-6"	9'-0"	11'-6"	11'-6"	6'-0"	8'-0"	6"
80.0	11'-0"	11'-0"	11'-0"	11'-0"	11'-0"	11'-0"	8'-4"	10'-6"	11'-0"	11'-0"	7'-2"	8'-3"	11'-0"	11'-0"	5'-9"	7'-8"	6"
85.0	10'-6"	10'-6"	10'-6"	10'-6"	10'-6"	10'-6"	8'-3"	10'-3"	10'-6"	10'-6"	6'-9"	8'-0"	10'-6"	10'-6"	5'-6"	7'-6"	6"
90.0	10'-3"	10'-3"	10'-3"	10'-3"	10'-3"	10'-3"	8'-0"	9'-9"	10'-3"	10'-3"	6'-8"	7'-6"	10'-3"	10'-3"	5'-4"	7'-3"	6"
95.0	9'-9"	9'-9"	9'-9"	9'-9"	9'-9"	9'-9"	7'-9"	9'-3"	9'-9"	9'-9"	6'-6"	7'-3"	9'-9"	9'-9"	5'-2"	7'-0"	6"
100.0	9'-6"	9'-6"	9'-6"	9'-6"	9'-6"	9'-6"	7'-6"	9'-0"	9'-6"	9'-6"	6'-5"	7'-2"	9'-6"	9'-6"	5'-0"	6'-9"	6"
105.0	9'-3"	9'-3"	9'-3"	9'-3"	9'-3"	9'-3"	7'-3"	8'-9"	9'-3"	9'-3"	6'-3"	7'-1"	9'-3"	9'-3"	4'-10"	6'-6"	6"
110.0	9'-0"	9'-0"	9'-0"	9'-0"	9'-0"	9'-0"	7'-0"	8'-6"	9'-0"	9'-0"	6'-0"	7'-0"	9'-0"	9'-0"	4'-9"	6'-4"	6"
115.0	8'-9"	8'-9"	8'-9"	8'-9"	8'-9"	8'-9"	6'-9"	8'-3"	8'-9"	8'-9"	5'-9"	6'-6"	8'-9"	8'-9"	4'-8"	6'-3"	5"
120.0	8'-6"	8'-6"	–	–	8'-6"	8'-6"	–	–	8'-6"	8'-6"	–	–	8'-6"	8'-6"	–	–	5"
125.0	8'-3"	8'-3"	–	–	8'-3"	8'-3"	–	–	8'-3"	8'-3"	–	–	8'-3"	8'-3"	–	–	5"
130.0	8'-0"	8'-0"	–	–	8'-0"	8'-0"	–	–	8'-0"	8'-0"	–	–	8'-0"	8'-0"	–	–	5"
135.0	7'-9"	7'-9"	–	–	7'-9"	7'-9"	–	–	7'-9"	7'-9"	–	–	7'-9"	7'-9"	–	–	4 5/16"
140.0	7'-9"	7'-9"	–	–	7'-9"	7'-9"	–	–	7'-9"	7'-9"	–	–	7'-9"	7'-9"	–	–	4 5/16"

* **NOTES**:

1. ABOVE INDICATED MAX. SLAT SPANS MAY BE USED AS LONG AS ANCHOR SPACING SCHEDULES ON SHEETS 14, 15 & 16 INDICATE THAT AN ANCHOR SPACING IS AVAILABLE FOR THE CORRESPONDING SLAT SPAN AND A.S.D. DESIGN PRESSURE RATING.

2. REQUIRES SIDE RAILS FASTENED TO EXISTING STRUCTURE WITH **3/8" ø ELCO CONFLEX ANCHOR, 3/8"ø KWIK BOLT 3 ANCHOR OR 5/16"ø TAPCON XL ANCHOR,** INTO POURED CONCRETE OR GROUT FILLED CELL CONCRETE BLOCK, OR WITH (F') AT MULLIONS CONNECTION. VALID FOR WALL MOUNTED, TRAPPED MOUNTED, AND BUILD-OUT MOUNTED SLATS.

3. MAXIMUM SLAT SPANS FOR INTERMEDIATE LOADS MAY BE DETERMINED BY LINEAR INTERPOLATION BETWEEN END VALUES.

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MAX. ANCHOR'S SPACING SCHEDULE Va

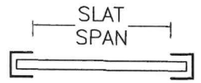
FOR A GIVEN PRODUCT MOUNTING TYPE, W/ 3/8"Ø CONFLEX ANCHORS TO POURED CONCRETE WALL, A.S.D. DESIGN PRESSURE RATING & SLAT SPAN RANGE †

WALL MOUNT

MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f)	SLAT SPAN RANGE							
	0'–4' †	> 4'–5' †	> 5'–6' †	> 6'–7' †	> 7'–9' †	> 9'–12' †	> 12'–16' †	>16'–21'–8"†
≤ 30.0	6"	6"	6"	6"	6"	6"	6"	6"
>31–40	6"	6"	6"	6"	6"	6"	6"	6"
>41–60	6"	6"	6"	6"	6"	6"	6"	6"
>61–80	6"	6"	6"	6"	6"	6"	6"	–
>81–105	6"	6"	6"	6"	6"	6"	–	–
>106–120	6"	6"	6"	6"	6"	6"	–	–
>121–140	6"	6"	6"	6"	6"	–	–	–

TRAPPED MOUNT

MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f)	SLAT SPAN RANGE							
	0'–4' †	> 4'–5' †	> 5'–6' †	> 6'–7' †	> 7'–9' †	> 9'–12' †	> 12'–16' †	>16'–21'–8"†
≤ 30.0	6"	6"	6"	6"	6"	6"	6"	6"
>31–40	6"	6"	6"	6"	6"	6"	6"	6"
>41–60	6"	6"	6"	6"	6"	6"	6"	6"
>61–80	6"	6"	6"	6"	6"	6"	6"	–
>81–105	6"	6"	6"	6"	6"	6"	–	–
>106–120	6"	6"	6"	6"	6"	6"	–	–
>121–140	6"	6"	6"	6"	6"	–	–	–



SLAT SPAN DEFINITION

† NOTE:
MAX. SLAT SPAN FOR A GIVEN A.S.D. DESIGN PRESSURE RATING SHALL **NEVER** EXCEED MAX. SLAT SPAN INDICATED ON SLAT PERFORMANCE CHART ON SHEET 13.

BUILD-OUT MOUNT

MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f)	SLAT SPAN RANGE																					
	0'–4' †			> 4'–5' †			> 5'–6' †			> 6'–7' †			> 7'–9' †			> 9'–12' †			> 12'–16' †			>16'–21'–8"†		
	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3
≤ 30.0	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
>31–40	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
>41–60	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
>61–80	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"
>81–105	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	–	4"
>105–115	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	–	–	–	–

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FLORIDA BUILDING CODE (HIGH VELOCITY HURRICANE ZONE)

©2024 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
CA–0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

IMPACT PROTECTIVE ROLLING SYSTEM WITH CHD–6 SLAT (END RETENTION)

PSS PERFECT STORM Shutters

PERFECT STORM SHUTTERS INC.
12901 SW 89 Ct
MIAMI, FL 33176
ph: 305–256–085
www.perfectstormshutters.com

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	–	–	2	–	–

W.H.
DRAWN BY:

01/16/2024
DATE:

24–003
DRAWING No.

MAX. ANCHOR'S SPACING SCHEDULE Va1

FOR A GIVEN PRODUCT MOUNTING TYPE, W/ 3/8"Ø KWIK BOLT 3 ANCHORS TO POURED CONCRETE WALL, A.S.D. DESIGN PRESSURE RATING & SLAT SPAN RANGE†

WALL MOUNT

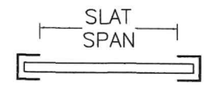
MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f)	SLAT SPAN RANGE							
	0'–4' †	> 4'–5' †	> 5'–6' †	> 6'–7' †	> 7'–9' †	> 9'–12' †	> 12'–16' †	>16'–21'–8"†
≤ 30.0	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>31–40	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>41–60	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>61–80	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–
>81–105	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–	–
>106–120	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–	–
>121–140	6"	6"	4 1/2"	4 1/2"	4 1/2"	–	–	–

TRAPPED MOUNT

MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f)	SLAT SPAN RANGE							
	0'–4' †	> 4'–5' †	> 5'–6' †	> 6'–7' †	> 7'–9' †	> 9'–12' †	> 12'–16' †	>16'–21'–8"†
≤ 30.0	6"	6"	5"	5"	5"	5"	5"	5"
>31–40	6"	6"	5"	5"	5"	5"	5"	5"
>41–60	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>61–80	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–
>81–105	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–	–
>106–120	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–	–
>121–140	6"	6"	4 1/2"	4 1/2"	4 1/2"	–	–	–

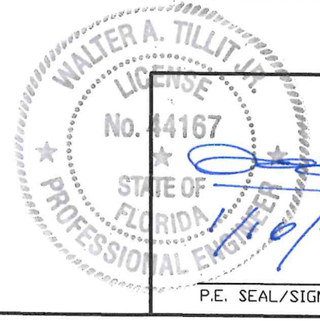
BUILD-OUT MOUNT

MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f)	SLAT SPAN RANGE																					
	0'–4' †			> 4'–5' †			> 5'–6' †			> 6'–7' †			> 7'–9' †			> 9'–12' †			> 12'–16' †			>16'–21'–8"†		
	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3
≤ 30.0	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
>31–40	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"
>41–60	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"
>61–80	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"	–	–	–
>81–105	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"	–	–	–	–	–	–
>105–115	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	–	–	–	–	–	–	–



SLAT SPAN DEFINITION

† NOTE:
MAX. SLAT SPAN FOR A GIVEN A.S.D. DESIGN PRESSURE RATING SHALL NEVER EXCEED MAX. SLAT SPAN INDICATED ON SLAT PERFORMANCE CHART ON SHEET 13.



P.E. SEAL/SIGNATURE/DATE

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1	–	–	2	–	–

W.H.
DRAWN BY:

01/16/2024
DATE:

24–003
DRAWING No.

MAX. ANCHOR'S SPACING SCHEDULE Vb FOR A GIVEN SHUTTER MOUNTING TYPE

W/ 5/16"Ø TAPCON XL ANCHOR TO POURED CONCRETE WALL

A.S.D. DESIGN LOAD & SLAT SPAN RANGE †

WALL MOUNT

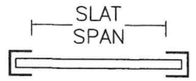
MAXIMUM A.S.D. DESIGN PRESSURE RATING RANGE(psf)	SLAT SPAN RANGE							
	0'–4' †	> 4'–5' †	> 5'–6' †	> 6'–7' †	> 7'–9' †	> 9'–12' †	> 12'–16' †	>16'–21'–8"†
≤ 30.0	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>31–40	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>41–60	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>61–80	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–
>81–105	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	3 3/4"	–
>106–120	6"	6"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–	–
>121–140	6"	6"	4 1/2"	4 1/2"	4 1/2"	–	–	–

TRAPPED MOUNT

MAXIMUM A.S.D. DESIGN PRESSURE RATING RANGE(psf)	SLAT SPAN RANGE							
	0'–4' †	> 4'–5' †	> 5'–6' †	> 6'–7' †	> 7'–9' †	> 9'–12' †	> 12'–16' †	>16'–21'–8"†
≤ 30.0	6"	6"	4 1/2"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"
>31–40	6"	6"	4 1/2"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"
>41–60	6"	6"	4 1/2"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"
>61–80	6"	6"	4 1/2"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	–
>81–105	6"	6"	4 1/2"	3 3/4"	3 3/4"	3 3/4"	–	–
>106–120	6"	6"	4 1/2"	3 3/4"	3 3/4"	–	–	–
>121–140	6"	6"	4 1/2"	3 3/4"	3 3/4"	–	–	–

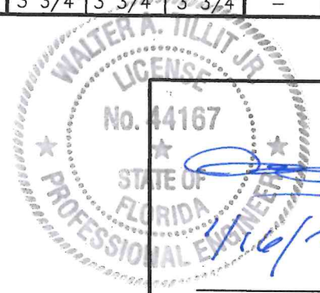
BUILD-OUT MOUNT

MAXIMUM A.S.D. DESIGN PRESSURE RATING RANGE(psf)	SLAT SPAN RANGE																					
	0'–4' †			> 4'–5' †			> 5'–6' †			> 6'–7' †			> 7'–9' †			> 9'–12' †			> 12'–16' †			>16'–21'–8"†		
	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3	I_1	I_2	I_3
≤ 30.0	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	–	–	3 3/4"
>31–40	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	–	–	3 3/4"
>41–60	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	–	–	3 3/4"	–	–	–
>61–80	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	3 3/4"	3 3/4"	3 3/4"	–	–	3 3/4"	–	–	–	–	–	–
>81–105	4"	4"	4"	4"	4"	4"	3 3/4"	3 3/4"	4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	–	–	–	–	–	–	–	–	–
>105–115	4"	4"	4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	–	–	–	–	–	–	–	–	–	–	–	–



SLAT SPAN DEFINITION

† NOTE:
MAX. SLAT SPAN FOR A GIVEN A.S.D. DESIGN LOAD SHALL **NEVER** EXCEED MAX. SLAT SPAN INDICATED ON SLAT PERFORMANCE CHART ON SHEET 15.



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W.H.
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24–003
DRAWING No.

MAX. ANCHOR'S SPACING SCHEDULE Vb' FOR A GIVEN PRODUCT MOUNTING TYPE,

W/ 5/16"Ø TAPCON XL OR 3/8 " Ø KWIK BOLT 3 ANCHORS TO GROUT FILLED CELL CONCRETE BLOCK WALL,

A.S.D. DESIGN PRESSURE RATING & SLAT SPAN RANGE †

WALL MOUNT

MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f.)	SLAT SPAN RANGE							
	0'–4' †	> 4'–5' †	> 5'–6' †	> 6'–7' †	> 7'–9' †	> 9'–12' †	> 12'–16' †	>16'–21'–8"†
≤ 30.0	6"	6"	4"	4"	4"	4"	4"	4"
>31–40	6"	6"	4"	4"	4"	4"	4"	4"
>41–60	6"	6"	4"	4"	4"	4"	4"	4"
>61–80	6"	6"	4"	4"	4"	4"	4"	–
>81–105	6"	6"	4"	4"	4"	4"	–	–
>106–120	6"	6"	4"	4"	4"	4"	–	–
>121–140	6"	6"	4"	4"	4"	–	–	–

TRAPPED MOUNT

MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f.)	SLAT SPAN RANGE							
	0'–4' †	> 4'–5' †	> 5'–6' †	> 6'–7' †	> 7'–9' †	> 9'–12' †	> 12'–16' †	>16'–21'–8"†
≤ 30.0	6"	5"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>31–40	6"	5"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
>41–60	6"	5"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–
>61–80	6"	5"	4 1/2"	4 1/2"	4 1/2"	4 1/2"	–	–
>81–105	6"	5"	4 1/2"	4 1/2"	–	–	–	–
>106–120	6"	5"	4 1/2"	4 1/2"	–	–	–	–
>121–140	6"	5"	4 1/2"	–	–	–	–	–

BUILD-OUT MOUNT

MAX. A.S.D. DESIGN PRESSURE RATING RANGE (p.s.f.)	SLAT SPAN RANGE																					
	0'–4' †			> 4'–5' †			> 5'–6' †			> 6'–7' †			> 7'–9' †			> 9'–12' †			> 12'–16' †			>16'–21'–8"†		
	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3	I1	I2	I3
≤ 30.0	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"	–	–	–
>31–40	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"	–	–	–
>41–60	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"	–	–	–
>61–80	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"	–	–	4"	–	–	4"	–	–	4"	–	–	–
>81–105	4"	4"	4"	4"	4"	4"	4"	4"	4"	–	–	4"	–	–	4"	–	–	4"	–	–	4"	–	–	–
>105–115	4"	4"	4"	4"	4"	4"	–	–	4"	–	–	4"	–	–	4"	–	–	4"	–	–	4"	–	–	–



SLAT SPAN DEFINITION

† NOTE:
MAX. SLAT SPAN FOR A GIVEN A.S.D. DESIGN PRESSURE RATING SHALL **NEVER** EXCEED MAX. SLAT SPAN INDICATED ON SLAT PERFORMANCE CHART ON SHEET 13.

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

P.E. SEAL/SIGNATURE/DATE

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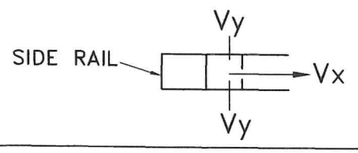
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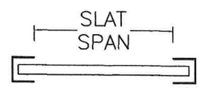
Vx FORCES (Lb/FT) & Vy FORCES (Lb/FT) ACTING AT JAMBS FOR AN A.S.D. DESIGN LOAD RANGE, SLAT SPAN RANGE FOR POURED CONCRETE OR GROUT FILLED CELL CONCRETE BLOCK WALL BUILDINGS*

(USE MAXIMUM VALUE BETWEEN POSITIVE AND NEGATIVE A.S.D. LOAD)

MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	SLAT SPAN RANGE																	
	0'–4'		> 4'–5'		> 5'–6'		> 6'–7'		> 7'–9'		> 9'–12'		> 12'–16'		> 16'–20'		> 20'–21'–8"	
	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy
≤ 30.0	0	60	0	75	20	90	181	105	427	135	739	180	1134	240	1530	300	1696	325
>31–40	0	80	0	100	127	120	307	140	599	180	986	240	1485	320	1736	360	–	–
>41–60	0	120	55	150	330	180	551	210	932	270	1461	360	1722	405	–	–	–	–
>61–80	0	160	215	200	525	240	786	280	1254	360	1698	440	–	–	–	–	–	–
>81–105	0	210	407	263	763	315	1073	368	1645	473	1714	486	–	–	–	–	–	–
>106–120	20	240	519	300	902	360	1242	420	1719	510	–	–	–	–	–	–	–	–
>121–140	138	280	666	350	1086	420	1463	490	1734	543	–	–	–	–	–	–	–	–

*NOTE:
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR PERMIT HOLDER TO VERIFY THAT EXISTING STRUCTURE IS DESIGNED TO SUPPORT Vx AND Vy FORCES IN POUNDS PER UNIT FOOT OF PRODUCT HEIGHT AT BOTH JAMBS.
SEE THIS SHEET FOR Vx & Vy VALUES.





SLAT SPAN DEFINITION

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

1/16/2024

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W.H.
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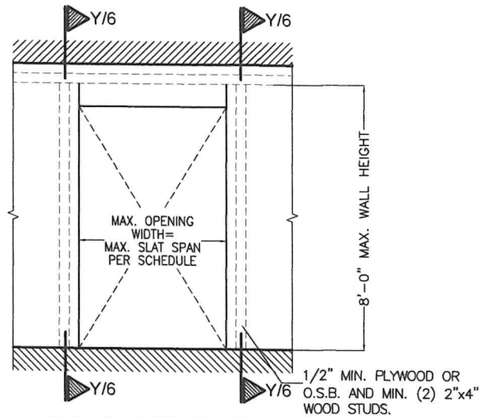
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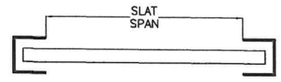
SLAT PERFORMANCE CHART Ib1 & Ic1

FOR A GIVEN MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f) AND SHUTTER MOUNT CONDITION FOR INSTALLATIONS PER DETAIL 1 BELOW

CHART Ib1				CHART Ic1
USE MAXIMUM VALUE BETWEEN POSITIVE AND NEGATIVE A.S.D. LOAD				
5/16"Ø TAPCON XL ANCHOR				USE MAXIMUM POSITIVE A.S.D. LOAD VALUE
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. SLAT SPAN "LMAX." (ft)			REQUIRED MIN. SEPARATION TO GLASS MEASURED TO BACK OF SLAT (in)
	WALL MOUNT (SEE NOTES Δ)	BUILD-OUT MOUNT W/ (I') (SEE NOTES) Δ	BUILD-OUT MOUNT W/ (I") (SEE NOTES Δ)	
30.0 *	12'-0"	10'-0"	10'-0"	5 1/4"
35.0 **	10'-0"	10'-0"	10'-0"	5 1/4"
40.0 **	10'-0"	10'-0"	10'-0"	5 1/4"
45.0 ***	10'-0"	10'-0"	10'-0"	5 1/4"
50.0 ***	10'-0"	10'-0"	10'-0"	5 1/4"
55.0 ***	8'-0"	8'-0"	10'-0"	4 1/4"



DETAIL 1 (ELEVATION)



SLAT SPAN "L" DEFINITION

MAXIMUM A.S.D. DESIGN LOAD VS WOOD GRADE SCHEDULE:

* VALID FOR DOUGLAS-FIR-SOUTH (G=0.46)
SOUTHERN PINE #2 (G=0.55)
SPRUCE PINE-FIR-SITH (G=0.36)

** VALID FOR DOUGLAS-FIR-SOUTH (G=0.46)
SOUTHERN PINE #2 (G=0.55)

*** VALID FOR SOUTHERN PINE #2 (G=0.55)

INSTALLATIONS INTO WOOD FRAME BUILDINGS

Δ NOTES:

1. ABOVE INDICATED MAX. SLAT SPANS MAY BE USED AS LONG AS ANCHOR SPACING SCHEDULES ON SHEET 19 INDICATE THAT A SPACING IS AVAILABLE FOR THE CORRESPONDING SLAT SPAN AND A.S.D. DESIGN LOAD.

†: WOOD FRAME WALL TO BE BUILT STRICTLY IN ACCORDANCE WITH SPECS GIVEN ON SHEET 6 AND PROVISIONS FROM CHAPTER 23 OF THE FLORIDA BUILDING CODE. MINIMUM LENGTH OF WALL AT EITHER SIDE OF OPENING SHALL BE 33".

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

1/16/2024

P.E. SEAL/SIGNATURE/DATE

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W.H.
DRAWN BY:

01/16/2024
DATE:

24-003
DRAWING No.

MAX. ANCHOR'S SPACING SCHEDULE VI FOR A GIVEN SHUTTER MOUNTING TYPE, WOOD GRADE, A.S.D. DESIGN LOAD (psf) AND SLAT SPAN RANGE FOR INSTALLATIONS INTO WOOD BUILDINGS;

SEE SHT.7 SECTION O'-O' FOR ANCHOR SPEC'S & GENERAL NOTE 7C ON SHT. 1

WALL MOUNT TO MIN. 2"x4" WOOD STUD WITH MINIMUM 1/2" PLYWOOD

(SEE DETAIL 1 ON SHEET 18)

WOOD GRADE	MAXIMUM A.S.D. DESIGN PRESSURE RATING RANGE (psf)	SLAT SPAN RANGE						
		0' to 4' *	> 4' to 5' *	> 5' to 6' *	> 6' to 7' *	> 7' to 9' *	> 9' to 10' *	>10' to 12' *
SOUTHERN PINE #2 (G=0.55)	≤ 30.0	6"	6"	6"	6"	6"	6"	6"
	40	6"	6"	6"	6"	6"	4 3/4"	4 1/2"
	50	6"	6"	6"	6"	4 3/4"	3 1/2"	3"
	55	6"	6"	5 3/4"	5 1/4"	3 3/4"	3"	3"
DOUGLAS-FIR-SOUTH (G=0.46)	≤ 30.0	6"	6"	6"	6"	6"	6"	6"
	40	6"	6"	6"	5 1/4"	5 1/4"	4 1/4"	3"
SPRUCE PINE-FIR-SOUTH (G=0.36)	≤ 30.0	6"	6"	6"	6"	6"	5 1/4"	4 1/2"

BUILD-OUT MOUNT TO MIN. 2"x4" WOOD STUD WITH MINIMUM 1/2" PLYWOOD

(SEE DETAIL 1 ON SHEET 18)

WOOD GRADE	MAXIMUM A.S.D. DESIGN PRESSURE RATING RANGE (psf)	SLAT SPAN RANGE													
		0'-4' *		> 4'-5' *		> 5'-6' *		> 6'-7' *		> 7'-9' *		> 9'-10' *		> 10' to 12' *	
		BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")	BUILD-OUT MOUNT W/(1")
SOUTHERN PINE #2 (G=0.55)	≤ 30.0	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
	40	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	5 1/4"	5 1/4"	5 1/4"	5 1/4"
	50	6"	6"	6"	6"	6"	6"	6"	6"	5 1/4"	5 1/4"	4"	4"	4"	4"
	55	6"	6"	6"	6"	6"	6"	5 3/4"	5 3/4"	4"	4"	3"	3"	3"	3"
DOUGLAS-FIR-SOUTH (G=0.46)	≤ 30.0	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
	40	6"	6"	6"	6"	6"	6"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	4 1/2"	4 1/2"	4 1/2"	4 1/2"
SPRUCE PINE-FIR-SOUTH (G=0.36)	≤ 30.0	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	5 1/4"	5"	5 1/4"	5"

* NOTE:
MAX. SPAN FOR SLAT FOR A GIVEN A.S.D. DESIGN LOAD SHALL **NEVER** EXCEED MAX. SLAT SPAN INDICATED ON SLAT PERFORMANCE CHARTS ON SHEET 18.

WALTER A. TILLIT JR. LICENSE NO. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

1/16/2024

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W.H.
DRAWN BY:

01/16/2024
DATE:

24-003
DRAWING No.

SCHEDULE 1a
FLOOR TO CEILING (TRAPPED) MOUNTING
MAX. SPAN (ft) FOR END AND INTERIOR MULLIONS FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (p.s.f.), & A MAX. MULLION SPACING (ft) *

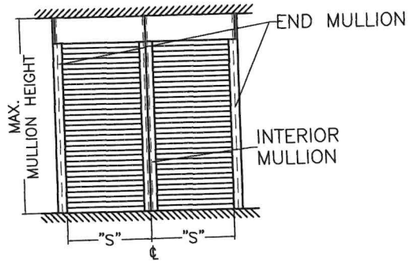
MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM MULLION SPACING (ft) *	MAXIMUM MULLION SPAN (FT)								
		(J) 4"x6"x1/4" MULLION				(K) 4"x8"x1/4" MULLION				(L) 4"x4"x1/4" MULLION
		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([])		
		END	INTERIOR	END	INTERIOR	END	INTERIOR	END	INTERIOR	INTERIOR
30.0	21'–8"	7'–10"	9'–8"	7'–3"	12'–0"	9'–4"	10'–7"	8'–0"	12'–6"	7'–4"
35.0	19'–9"	7'–4"	9'–3"	6'–9"	11'–5"	8'–8"	10'–0"	7'–7"	12'–6"	7'–3"
40.0	18'–0"	6'–10"	8'–10"	6'–4"	10'–11"	8'–1"	9'–7"	7'–3"	12'–6"	7'–2"
45.0	16'–6"	6'–6"	8'–6"	6'–6"	10'–6"	7'–8"	9'–3"	6'–11"	12'–6"	7'–1"
50.0	15'–3"	6'–2"	8'–2"	6'–0"	9'–11"	7'–4"	8'–11"	6'–7"	12'–6"	7'–0"
55.0	14'–3"	5'–11"	7'–11"	5'–9"	9'–0"	6'–8"	8'–7"	6'–3"	12'–4"	6'–11"
60.0	13'–6"	5'–9"	7'–9"	5'–6"	8'–6"	6'–4"	8'–6"	6'–2"	12'–0"	6'–10"
65.0	12'–9"	5'–9	7'–9"	5'–4"	8'–4"	6'–4"	8'–4"	6'–2	11'–10"	6'–10"
70.0	12'–0"	5'–9"	7'–8"	5'–4"	8'–2"	6'–3"	8'–2"	6'–2"	11'–9"	6'–9"
75.0	11'–6"	5'–9"	7'–7"	5'–4"	8'–0"	6'–3"	8'–0"	6'–2"	11'–7"	6'–9"
80.0	11'–0"	5'–9"	7'–7"	5'–4"	7'–10"	6'–3"	7'–10"	6'–2"	11'–6"	6'–8"
85.0	10'–6"	5'–9"	7'–7"	5'–4"	7'–9"	6'–3"	7'–9"	6'–2"	11'–5"	6'–7"
90.0	10'–3"	5'–10"	7'–7"	5'–5"	7'–9"	6'–4"	7'–9"	6'–3"	11'–5"	6'–7"
95.0	9'–9"	5'–10"	7'–7"	5'–6"	7'–9"	6'–5"	7'–9"	6'–4"	11'–5"	6'–7"
100.0	9'–6"	5'–11"	7'–7"	5'–7"	7'–9"	6'–6"	7'–9"	6'–4"	11'–5"	6'–6"
105.0	9'–3"	6'–0"	7'–7"	5'–7"	7'–9"	6'–7"	7'–9"	6'–5"	11'–5"	6'–5"
110.0	9'–0"	6'–0"	7'–7"	5'–8"	7'–9"	6'–8"	7'–9"	6'–6"	11'–5"	6'–5"
115.0	8'–9"	6'–1"	7'–7"	5'–9"	7'–9"	6'–9"	7'–9"	6'–7"	11'–5"	6'–5"
120.0	8'–6"	6'–1"	7'–6"	5'–9"	7'–9"	6'–10"	7'–9"	6'–7"	11'–5"	6'–4"
125.0	8'–3"	6'–2"	7'–7"	5'–10"	7'–10"	7'–0"	7'–10"	6'–9"	11'–5"	6'–4"
130.0	8'–0"	6'–3"	7'–7"	5'–10"	7'–9"	7'–0"	7'–9"	6'–9"	11'–5"	6'–4"
135.0	7'–9"	6'–4"	7'–7"	5'–11"	7'–10"	7'–2"	7'–10"	6'–10"	11'–5"	6'–4"
140.0	7'–9"	6'–4"	7'–7"	6'–0"	7'–10"	7'–3"	7'–10"	6'–11"	11'–5"	6'–3"

SCHEDULE 2a
WALL MOUNTING
MAX. SPAN (FT) FOR END AND INTERIOR MULLIONS FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (P.S.F.), & A MAX. MULLION SPACING (FT) *

MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM MULLION SPACING (ft) *	MAXIMUM MULLION SPAN (FT)								
		(J) 4"x6"x1/4" MULLION				(K) 4"x8"x1/4" MULLION				(L) 4"x4"x1/4" MULLION
		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		
		END	INTERIOR	END	INTERIOR	END	INTERIOR	END	INTERIOR	INTERIOR
30.0	21'–8"	7'–10"	9'–8"	7'–3"	12'–0"	9'–4"	10'–7"	8'–0"	12'–6"	7'–4"
35.0	19'–9"	7'–4"	9'–3"	6'–9"	11'–5"	8'–8"	10'–0"	7'–7"	12'–6"	7'–3"
40.0	18'–0"	6'–10"	8'–10"	6'–4"	10'–11"	8'–1"	9'–7"	7'–3"	12'–6"	7'–2"
45.0	16'–6"	6'–6"	8'–6"	6'–6"	10'–6"	7'–8"	9'–3"	6'–11"	12'–6"	7'–1"
50.0	15'–3"	6'–2"	8'–2"	6'–0"	10'–2"	7'–4"	8'–11"	5'–3"	12'–6"	7'–0"
55.0	14'–3"	5'–11"	7'–11"	5'–9"	9'–10"	7'–0"	8'–7"	4'–10"	12'–4"	6'–11"
60.0	13'–6"	5'–9"	7'–9"	5'–6"	9'–8"	6'–10"	8'–6"	4'–8"	12'–0"	6'–10"
65.0	12'–9"	5'–9	7'–9"	5'–4"	9'–7"	6'–10"	8'–5"	4'–8"	11'–10"	6'–10"
70.0	12'–0"	5'–9"	7'–8"	5'–4"	9'–6"	6'–10"	8'–4"	4'–8"	11'–9"	6'–9"
75.0	11'–6"	5'–9"	7'–7"	5'–4"	9'–5"	6'–10"	8'–3"	4'–8"	11'–7"	6'–9"
80.0	11'–0"	5'–9"	7'–7"	5'–4"	9'–4"	6'–10"	8'–3"	4'–8"	11'–6"	6'–8"
85.0	10'–6"	5'–9"	7'–7"	5'–4"	9'–3"	6'–10"	8'–2"	4'–8"	11'–5"	6'–7"
90.0	10'–3"	5'–10"	7'–7"	5'–5"	9'–3"	6'–11"	8'–3"	4'–10"	11'–5"	6'–7"
95.0	9'–9"	5'–10"	7'–7"	5'–6"	9'–3"	6'–11"	8'–3"	4'–11"	11'–5"	6'–7"
100.0	9'–6"	5'–11"	7'–7"	5'–7"	9'–3"	7'–0"	8'–2"	5'–0"	11'–5"	6'–6"
105.0	9'–3"	6'–0"	7'–7"	5'–7"	9'–3"	7'–1"	8'–2"	5'–1"	11'–5"	6'–5"
110.0	9'–0"	6'–0"	7'–7"	5'–8"	9'–3"	7'–2"	8'–3"	5'–3"	11'–5"	6'–5"
115.0	8'–9"	6'–1"	7'–7"	5'–9"	9'–3"	7'–2"	8'–3"	5'–4"	11'–5"	6'–5"
120.0	8'–6"	6'–1"	7'–6"	5'–9"	9'–3"	7'–3"	8'–2"	5'–5"	11'–5"	6'–4"
125.0	8'–3"	6'–2"	7'–7"	5'–10"	9'–3"	7'–4"	8'–3"	6'–9"	11'–5"	6'–4"
130.0	8'–0"	6'–3"	7'–7"	5'–10"	9'–3"	7'–4"	8'–2"	6'–9"	11'–5"	6'–4"
135.0	7'–9"	6'–4"	7'–7"	5'–11"	9'–3"	7'–5"	8'–3"	6'–10"	11'–5"	6'–4"
140.0	7'–9"	6'–4"	7'–7"	6'–0"	9'–3"	7'–6"	8'–3"	6'–11"	11'–5"	6'–3"

* MAXIMUM MULLION SPACING SHALL BE SUCH THAT MAX. ALLOWABLE WALL MOUNTED SLAT SPAN FOR THAT A.S.D. DESIGN PRESSURE RATING SHALL NOT BE EXCEEDED.

† MULLION ORIENTATION IS AS SEEN FROM THE OUTSIDE (EXTERIOR) OF PRODUCT.



MULLION SPACING: "S"

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

1/16/2024

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1	–	–	2	–	–

DRAWN BY: W.H.
DATE: 01/16/2024
DRAWING No. 24–003

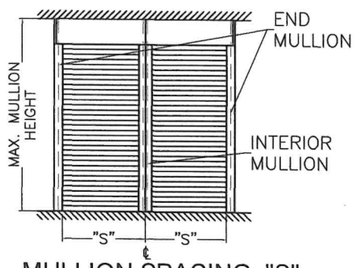
SCHEDULE 1b
FLOOR TO CEILING (TRAPPED) MOUNTING MAX. SPAN (ft) FOR END AND INTERIOR MULLIONS FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (p.s.f.), & A 12'-0" MAX. MULLION SPACING (ft) *

MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM MULLION SPACING (ft) *	MAXIMUM MULLION SPAN (FT)								
		(J) 4"x6"x1/4" MULLION				(K) 4"x8"x1/4" MULLION				(L) 4"x4"x1/4" MULLION
		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		
		END	INTERIOR	END	INTERIOR	END	INTERIOR	END	INTERIOR	INTERIOR
30.0	12'–0"	11'–7"	11'–6"	9'–9"	12'–6"	12'–6"	12'–6"	10'–7"	12'–6"	9'–0"
35.0	12'–0"	10'–7"	10'–11"	9'–2"	12'–6"	12'–6"	11'–11"	10'–0"	12'–6"	8'–6"
40.0	12'–0"	9'–10"	10'–5"	8'–9"	12'–6"	11'–8"	11'–4"	9'–6"	12'–6"	8'–2"
45.0	12'–0"	9'–3"	10'–1"	8'–4"	12'–5"	10'–11"	10'–11"	9'–1"	12'–6"	7'–10"
50.0	12'–0"	8'–9"	9'–8"	8'–1"	12'–0"	10'–4"	10'–7"	8'–9"	12'–6"	7'–5"
55.0	12'–0"	8'–4"	9'–5"	7'–10"	11'–8"	9'–10"	10'–3"	8'–6"	12'–6"	7'–4"
60.0	12'–0"	8'–0"	9'–2"	7'–6"	11'–4"	9'–5"	9'–11"	8'–3"	12'–6"	7'–2"
65.0	12'–0"	7'–8"	8'–11"	7'–2"	11'–0"	9'–1"	9'–8"	8'–0"	12'–6"	6'–11"
70.0	12'–0"	7'–4"	8'–8"	6'–11"	10'–9"	8'–9"	9'–5"	7'–10"	12'–6"	6'–9"
75.0	12'–0"	7'–1"	8'–6"	6'–8"	10'–6"	8'–5"	9'–3"	7'–8"	12'–6"	–
80.0	12'–0"	6'–11"	8'–4"	6'–5"	10'–3"	8'–2"	9'–0"	7'–5"	12'–6"	–
85.0	12'–0"	6'–8"	8'–2"	6'–3"	9'–9"	7'–11"	8'–10"	7'–2"	12'–6"	–
90.0	12'–0"	6'–6"	8'–0"	6'–1"	9'–2"	7'–8"	8'–8"	7'–0"	12'–5"	–
95.0	12'–0"	6'–4"	7'–10"	5'–11"	8'–8"	7'–5"	8'–6"	6'–10"	12'–1"	–
100.0	12'–0"	6'–2"	7'–8"	5'–9"	8'–3"	7'–0"	8'–3"	6'–8"	11'–9"	–
105.0	12'–0"	6'–0"	7'–7"	5'–8"	7'–10"	6'–8"	7'–10"	6'–6"	11'–6"	–

SCHEDULE 1b' (LIMITED LOAD, MULLION SPACING & SPAN INSTALLATION)
FLOOR TO CEILING (TRAPPED) MOUNTED MAX. SPAN (ft) FOR END & INTERIOR MULLIONS FOR A GIVEN A.S.D. DESIGN PRESSURE (p.s.f.),AND FOR 12'-0" (CASE I) & 8'-0" (CASES Ia & II) MAX. MULLION SPACING (ft) *

INSTALLATION CASES	MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM MULLION SPACING (ft) *	MAXIMUM MULLION SPAN (FT)					
			(J) 4"x6"x1/4" MULLION		(K) 4"x8"x1/4" MULLION			(L) 4"x4"x1/4" MULLION
			ORIENTATION #2 (⟺) †	ORIENTATION #1 ([]) †	ORIENTATION #2 (⟺) †	ORIENTATION #2 (⟺) †	ORIENTATION #1 ([]) †	
			END	INTERIOR	END	INTERIOR	INTERIOR	INTERIOR
CASE I	30.0	12'–0"	–	12'–6"	12'–6"	12'–6"	12'–6"	9'–0"
	35.0	12'–0"	–	12'–6"	12'–6"	11'–11"	12'–6"	8'–6"
	40.0	12'–0"	–	12'–6"	11'–8"	11'–4"	12'–6"	8'–2"
	45.0	12'–0"	–	12'–5"	10'–11"	10'–11"	12'–6"	7'–10"
	50.0	12'–0"	–	12'–0"	10'–4"	10'–7"	12'–6"	7'–5"
	55.0	12'–0"	–	11'–8"	9'–10"	10'–3"	12'–6"	7'–4"
	60.0	12'–0"	–	11'–4"	9'–5"	9'–11"	12'–6"	7'–2"
	60.8	12'–0"	–	11'–3"	9'–4"	9'–11"	12'–6"	7'–0"
CASE Ia	30.0	8'–0"	–	12'–6"	12'–6"	12'–6"	12'–6"	10'–0"
	35.0	8'–0"	–	12'–6"	12'–6"	12'–6"	12'–6"	9'–9"
	40.0	8'–0"	–	12'–6"	12'–6"	12'–6"	12'–6"	9'–4"
	45.0	8'–0"	–	12'–6"	12'–6"	12'–6"	12'–6"	9'–0"
	50.0	8'–0"	–	12'–6"	12'–6"	12'–1"	12'–6"	8'–7"
	55.0	8'–0"	–	12'–6"	12'–6"	11'–8"	12'–6"	8'–5"
	60.0	8'–0"	–	12'–2"	12'–2"	11'–4"	12'–2"	8'–2"
	60.8	8'–0"	–	12'–0"	12'–0"	11'–4"	12'–0"	8'–2"
CASE II	30.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	10'–0"
	35.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	9'–9"
	40.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	9'–4"
	45.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	9'–0"
	50.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	8'–7"
	55.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	8'–5"
	60.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	8'–2"
	65.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–11"
	70.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–9"
	75.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–6"
	80.0	8'–0"	–	9'–0"	9'–0"	8'–9" *	9'–0"	7'–5"
	85.0	8'–0"	–	9'–0"	8'–9" *	8'–3" *	9'–0"	7'–3"
	90.0	8'–0"	–	9'–0"	8'–2" *	7'–9" *	9'–0"	7'–2"
	95.0	8'–0"	–	9'–0"	7'–8" *	7'–4" *	9'–0"	7'–0"
	100.0	8'–0"	–	9'–0"	7'–3" *	7'–0" *	9'–0"	6'–10"

* NOTE: USE 9'-0" IF ANCHOR CONSISTS OF ELCO CONFLEX SCREW
SEE SCHEDULES 1 & 2 ON SHEET 9



MULLION SPACING: "S"

* MAXIMUM MULLION SPACING SHALL BE SUCH THAT MAX. ALLOWABLE WALL MOUNTED SLAT SPAN FOR THAT DESIGN LOAD SHALL NOT BE EXCEEDED.

† MULLION ORIENTATION IS AS SEEN FROM THE OUTSIDE (EXTERIOR) OF PRODUCT.

WALTER A. TILLIT JR LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

P.E. SEAL/SIGNATURE/DATE

SCHEDULE 2b
WALL MOUNTING MAX. SPAN (FT) FOR END AND INTERIOR MULLIONS FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (P.S.F.), & A 12'-0" MAX. MULLION SPACING (FT) *

MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM MULLION SPACING (ft) *	MAXIMUM MULLION SPAN (FT)								
		(J) 4"x6"x1/4" MULLION				(K) 4"x8"x1/4" MULLION				(L) 4"x4"x1/4" MULLION
		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		
		END	INTERIOR	END	INTERIOR	END	INTERIOR	END	INTERIOR	INTERIOR
30.0	12'–0"	9'–9"	11'–6"	9'–9"	12'–6"	12'–6"	12'–6"	10'–7"	12'–6"	9'–0"
35.0	12'–0"	9'–2"	10'–11"	9'–2"	12'–6"	12'–6"	11'–11"	10'–0"	12'–6"	8'–6"
40.0	12'–0"	8'–9"	10'–5"	8'–9"	12'–6"	11'–8"	11'–4"	9'–6"	12'–6"	8'–2"
45.0	12'–0"	8'–4"	10'–1"	8'–4"	12'–5"	10'–11"	10'–11"	9'–1"	12'–6"	7'–10"
50.0	12'–0"	8'–1"	9'–8"	8'–1"	12'–0"	10'–4"	10'–7"	8'–9"	12'–6"	7'–5"
55.0	12'–0"	7'–10"	9'–5"	7'–10"	11'–8"	9'–10"	10'–3"	8'–6"	12'–6"	7'–4"
60.0	12'–0"	7'–6"	9'–2"	7'–6"	11'–4"	9'–5"	9'–11"	8'–3"	12'–6"	7'–2"
65.0	12'–0"	7'–2"	8'–11"	7'–2"	11'–0"	9'–1"	9'–8"	8'–0"	12'–6"	6'–11"
70.0	12'–0"	6'–11"	8'–8"	6'–11"	10'–9"	8'–9"	9'–5"	7'–10"	12'–6"	6'–9"
75.0	12'–0"	6'–8"	8'–6"	6'–8"	10'–6"	8'–5"	9'–3"	7'–8"	12'–6"	–
80.0	12'–0"	6'–5"	8'–4"	6'–5"	10'–3"	8'–2"	9'–0"	7'–5"	12'–6"	–
85.0	12'–0"	6'–3"	8'–2"	6'–3"	10'–1"	7'–11"	8'–10"	7'–2"	12'–6"	–
90.0	12'–0"	6'–1"	8'–0"	6'–1"	9'–11"	7'–8"	8'–8"	7'–0"	12'–5"	–
95.0	12'–0"	5'–11"	7'–10"	5'–11"	9'–8"	7'–6"	8'–6"	6'–10"	12'–1"	–
100.0	12'–0"	5'–9"	7'–8"	5'–9"	9'–7"	7'–4"	8'–5"	5'–6"	11'–9"	–
105.0	12'–0"	5'–8"	7'–7"	8'–8"	9'–4"	7'–1"	8'–3"	5'–3"	11'–6"	–

SCHEDULE 2b' (LIMITED LOAD, MULLION SPACING & SPAN INSTALLATION)
WALL MOUNTED MAX. SPAN (ft) FOR END & INTERIOR MULLIONS FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (p.s.f.),AND FOR 12'-0" (CASE I) & 8'-0" (CASE II) MAX. MULLION SPACING (ft) *

INSTALLATION CASES	MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM MULLION SPACING (ft) *	MAXIMUM MULLION SPAN (FT)					
			(J) 4"x6"x1/4" MULLION		(K) 4"x8"x1/4" MULLION			(L) 4"x4"x1/4" MULLION
			ORIENTATION #2 (⟺) †	ORIENTATION #1 ([]) †	ORIENTATION #2 (⟺) †	ORIENTATION #2 (⟺) †	ORIENTATION #1 ([]) †	
			END	INTERIOR	END	INTERIOR	INTERIOR	INTERIOR
CASE I'	30.0	12'–0"	–	12'–6"	12'–6"	12'–6"	12'–6"	9'–0"
	35.0	12'–0"	–	12'–6"	12'–6"	11'–11"	12'–6"	8'–6"
	40.0	12'–0"	–	12'–6"	11'–8"	11'–4"	12'–6"	8'–2"
	45.0	12'–0"	–	12'–5"	10'–11"	10'–11"	12'–6"	7'–10"
	50.0	12'–0"	–	12'–0"	10'–4"	10'–7"	12'–6"	7'–5"
	55.0	12'–0"	–	11'–8"	9'–10"	10'–3"	12'–6"	7'–4"
	60.0	12'–0"	–	11'–4"	9'–5"	9'–11"	12'–6"	7'–2"
	60.8	12'–0"	–	11'–3"	9'–4"	9'–11"	12'–6"	7'–0"
CASE II'	30.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	10'–0"
	35.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	9'–9"
	40.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	9'–4"
	45.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	9'–0"
	50.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	8'–7"
	55.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	8'–5"
	60.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	8'–2"
	65.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–11"
	70.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–9"
	75.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–6"
	80.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–5"
	85.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–3"
	90.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–2"
	95.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	7'–0"
	100.0	8'–0"	–	9'–0"	9'–0"	9'–0"	9'–0"	6'–10"

FLORIDA BUILDING CODE (HIGH VELOCITY HURRICANE ZONE)

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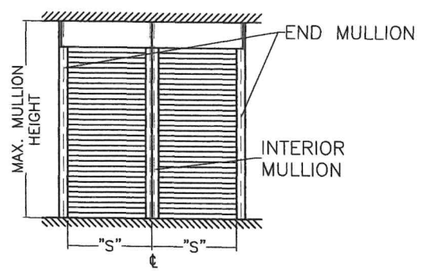
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SHEET 21 OF 22

SCHEDULE 1c
FLOOR TO CEILING (TRAPPED) MOUNTING
MAX. SPAN (ft) FOR END AND INTERIOR MULLIONS FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (p.s.f.), & A 7'-0" MAX. MULLION SPACING (ft) *

MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM MULLION SPACING (ft) *	MAXIMUM MULLION SPAN (FT)								
		(J) 4"x6"x1/4" MULLION				(K) 4"x8"x1/4" MULLION				(L) 4"x4"x1/4" MULLION
		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		
		END	INTERIOR	END	INTERIOR	END	INTERIOR	END	INTERIOR	INTERIOR
30.0	7'–0"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	10'–0"
35.0	7'–0"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	10'–0"
40.0	7'–0"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	9'–9"
45.0	7'–0"	12'–6"	12'–0"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	9'–4"
50.0	7'–0"	12'–6"	11'–7"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	9'–1"
55.0	7'–0"	12'–6"	11'–3"	12'–6"	12'–6"	12'–6"	12'–3"	12'–6"	12'–6"	8'–9"
60.0	7'–0"	12'–6"	10'–11"	12'–6"	12'–6"	12'–6"	11'–11"	12'–6"	12'–6"	8'–6"
65.0	7'–0"	12'–6"	10'–8"	12'–1"	12'–6"	12'–6"	11'–7"	12'–6"	12'–6"	8'–4"
70.0	7'–0"	12'–6"	10'–5"	11'–6"	12'–6"	12'–6"	11'–3"	12'–6"	12'–6"	8'–1"
75.0	7'–0"	12'–1"	10'–2"	10'–11"	12'–6"	12'–6"	11'–0"	11'–11"	12'–6"	7'–11"
80.0	7'–0"	11'–6"	9'–11"	10'–6"	12'–4"	12'–6"	10'–10"	11'–5"	12'–6"	7'–9"
85.0	7'–0"	11'–0"	9'–9"	10'–2"	12'–1"	12'–6"	10'–7"	11'–0"	12'–6"	7'–7"
90.0	7'–0"	10'–7"	9'–7"	9'–10"	11'–10"	12'–5"	10'–5"	10'–8"	12'–6"	7'–5"
95.0	7'–0"	10'–2"	9'–5"	9'–6"	11'–7"	11'–11"	10'–2"	10'–4"	12'–6"	7'–4"
100.0	7'–0"	9'–10"	9'–3"	9'–3"	11'–5"	11'–6"	10'–0"	10'–1"	12'–6"	7'–2"
105.0	7'–0"	9'–6"	9'–1"	9'–1"	11'–3"	11'–2"	9'–10"	9'–10"	12'–6"	7'–1"
110.0	7'–0"	9'–3"	8'–11"	8'–10"	11'–1"	10'–10"	9'–9"	9'–7"	12'–6"	7'–0"
115.0	7'–0"	9'–0"	8'–10"	8'–7"	10'–11"	10'–7"	9'–7"	9'–5"	12'–6"	6'–10"
120.0	7'–0"	8'–9"	8'–8"	8'–5"	10'–9"	10'–3"	9'–5"	9'–3"	12'–6"	6'–9"
125.0	7'–0"	8'–6"	8'–7"	8'–2"	10'–7"	10'–0"	9'–4"	9'–1"	12'–6"	6'–8"
130.0	7'–0"	8'–4"	8'–5"	8'–0"	10'–6"	9'–9"	9'–2"	8'–11"	12'–6"	6'–7"
135.0	7'–0"	8'–2"	8'–4"	7'–9"	10'–4"	9'–7"	9'–1"	8'–9"	12'–6"	6'–6"
140.0	7'–0"	8'–0"	8'–3"	7'–7"	10'–1"	9'–4"	9'–0"	8'–7"	12'–6"	6'–5"

SCHEDULE 2c
WALL MOUNTING
MAX. SPAN (FT) FOR END AND INTERIOR MULLIONS FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (P.S.F.), & AND 7'-0" MAX. MULLION SPACING (FT) *

MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM MULLION SPACING (ft) *	MAXIMUM MULLION SPAN (FT)								
		(J) 4"x6"x1/4" MULLION				(K) 4"x8"x1/4" MULLION				(L) 4"x4"x1/4" MULLION
		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		ORIENTATION #2 (⟺) †		ORIENTATION #1 ([]) †		
		END	INTERIOR	END	INTERIOR	END	INTERIOR	END	INTERIOR	INTERIOR
30.0	7'–0"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	10'–0"
35.0	7'–0"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	10'–0"
40.0	7'–0"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	9'–9"
45.0	7'–0"	12'–6"	12'–0"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	9'–4"
50.0	7'–0"	12'–6"	11'–7"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	12'–6"	9'–1"
55.0	7'–0"	12'–6"	11'–3"	12'–6"	12'–6"	12'–6"	12'–3"	12'–6"	12'–6"	8'–9"
60.0	7'–0"	12'–6"	10'–11"	12'–6"	12'–6"	12'–6"	11'–11"	12'–6"	12'–6"	8'–6"
65.0	7'–0"	12'–6"	10'–8"	12'–1"	12'–6"	12'–6"	11'–7"	12'–6"	12'–6"	8'–4"
70.0	7'–0"	12'–6"	10'–5"	11'–6"	12'–6"	12'–6"	11'–3"	12'–6"	12'–6"	8'–1"
75.0	7'–0"	12'–1"	10'–2"	10'–11"	12'–6"	12'–6"	11'–0"	11'–11"	12'–6"	7'–11"
80.0	7'–0"	11'–6"	9'–11"	10'–6"	12'–4"	12'–6"	10'–10"	11'–5"	12'–6"	7'–9"
85.0	7'–0"	11'–0"	9'–9"	10'–2"	12'–1"	12'–6"	10'–7"	11'–0"	12'–6"	7'–7"
90.0	7'–0"	10'–7"	9'–7"	9'–10"	11'–10"	12'–5"	10'–5"	10'–8"	12'–6"	7'–5"
95.0	7'–0"	10'–2"	9'–5"	9'–6"	11'–7"	11'–11"	10'–2"	10'–4"	12'–6"	7'–4"
100.0	7'–0"	9'–10"	9'–3"	9'–3"	11'–5"	11'–6"	10'–0"	10'–1"	12'–6"	7'–2"
105.0	7'–0"	9'–6"	9'–1"	9'–1"	11'–3"	11'–2"	9'–10"	9'–10"	12'–6"	7'–1"
110.0	7'–0"	9'–3"	8'–11"	8'–10"	11'–1"	10'–10"	9'–9"	9'–7"	12'–6"	7'–0"
115.0	7'–0"	9'–0"	8'–10"	8'–7"	10'–11"	10'–7"	9'–7"	9'–5"	12'–6"	6'–10"
120.0	7'–0"	8'–9"	8'–8"	8'–5"	10'–9"	10'–3"	9'–5"	9'–3"	12'–6"	6'–9"
125.0	7'–0"	8'–6"	8'–7"	8'–2"	10'–7"	10'–0"	9'–4"	9'–1"	12'–6"	6'–8"
130.0	7'–0"	8'–4"	8'–5"	8'–0"	10'–6"	9'–9"	9'–2"	8'–11"	12'–6"	6'–7"
135.0	7'–0"	8'–2"	8'–4"	7'–9"	10'–4"	9'–7"	9'–1"	8'–9"	12'–6"	6'–6"
140.0	7'–0"	8'–0"	8'–3"	7'–7"	10'–3"	9'–4"	9'–0"	8'–7"	12'–6"	6'–5"



MULLION SPACING: "S"

* MAXIMUM MULLION SPACING SHALL BE SUCH THAT MAX. ALLOWABLE WALL MOUNTED SLAT SPAN FOR THAT A.S.D. DESIGN PRESSURE RATING SHALL NOT BE EXCEEDED.

† MULLION ORIENTATION IS AS SEEN FROM THE OUTSIDE (EXTERIOR) OF PRODUCT.

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

1/16/2024

P.E. SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH VELOCITY HURRICANE ZONE)

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TILLIT TESTING & ENGINEERING COMPANY
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W.H.
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DATE:

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DRAWING No.