TUBELITE, INC.

14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT FLORIDA BUILDING CODE (FBC), **EXCLUDING** HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
   - AAMA 501-24
   - ASTM E283-19
   - ASTM E330-14(21)
   - ASTM E331-00(23)
   - ASTM E1886-19
   - ASTM E1996-23

2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/ MASONRY, 2X FRAMING AND METAL STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.

3. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.

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

5. APPROVED IMPACT PROTECTIVE SYSTEM **IS NOT REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONE 3 OR LESS.

6. APPROVED IMPACT PROTECTIVE SYSTEM **IS REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONE 4.

7. FRAME MATERIAL: ALUMINUM 6063-T5 MINIMUM

8. ALL STRUCTURAL MATERIALS & DISSIMILAR METALS SHALL BE PROTECTED, TREATED, PAINTED, COATED, AND/OR ISOLATED AS REQUIRED IN THE APPLICABLE SECTIONS OF THE CURRENT FLORIDA BUILDING CODE AND REFERENCED DESIGN SPECIFICATIONS.

9. GLASS MEETS THE REQUIREMENTS OF ASTM E 1300 GLASS CHARTS. SEE SECTION 3 FOR GLAZING DETAILS.

10. GLASS SHALL BE SET WITH THE USE OF SETTING BLOCKS IN ACCORDANCE WITH CHAPTER 24 OF THE CURRENT FLORIDA BUILDING CODE.

11. GLAZING GASKETS SHALL MEET THE MINIMUM PERFORMANCE REQUIREMENTS AS APPLICABLE IN CHAPTER 24 OF THE FLORIDA BUILDING CODE.

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8	ANCHOR SCHEDULE AND INSTALLATION NOTES
9	INSTALLATION DETAILS

MISSILE IMPACT RATING	DESIGN PRESSURE
LARGE AND SMALL MISSILE IMPACT	SEE SECTIONS 3, 5, 8, AND 9 FOR DESIGN PRESSURE LIMITATIONS. THE LOWEST APPLICABLE VALUE SHALL BE APPLIED TO THE ENTIRE SYSTEM.

TUBELITE
DEPENDABLE
LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE DRIVE N.W.
WALKER, MICHIGAN 49544
PH: 800 866 2227 FX: 616 301 0008

TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
GENERAL NOTES AND TABLE OF CONTENTS

PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI COURT, SUITE 2-15
MIAMI, FL 33132
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

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Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Date: 2026.10.25 15:00:54 -04'00'

HERMES F. NORERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER

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

FL #: FL48458

DATE: 09.25.26

DWG. BY:	CHK. BY:
MS	HFN

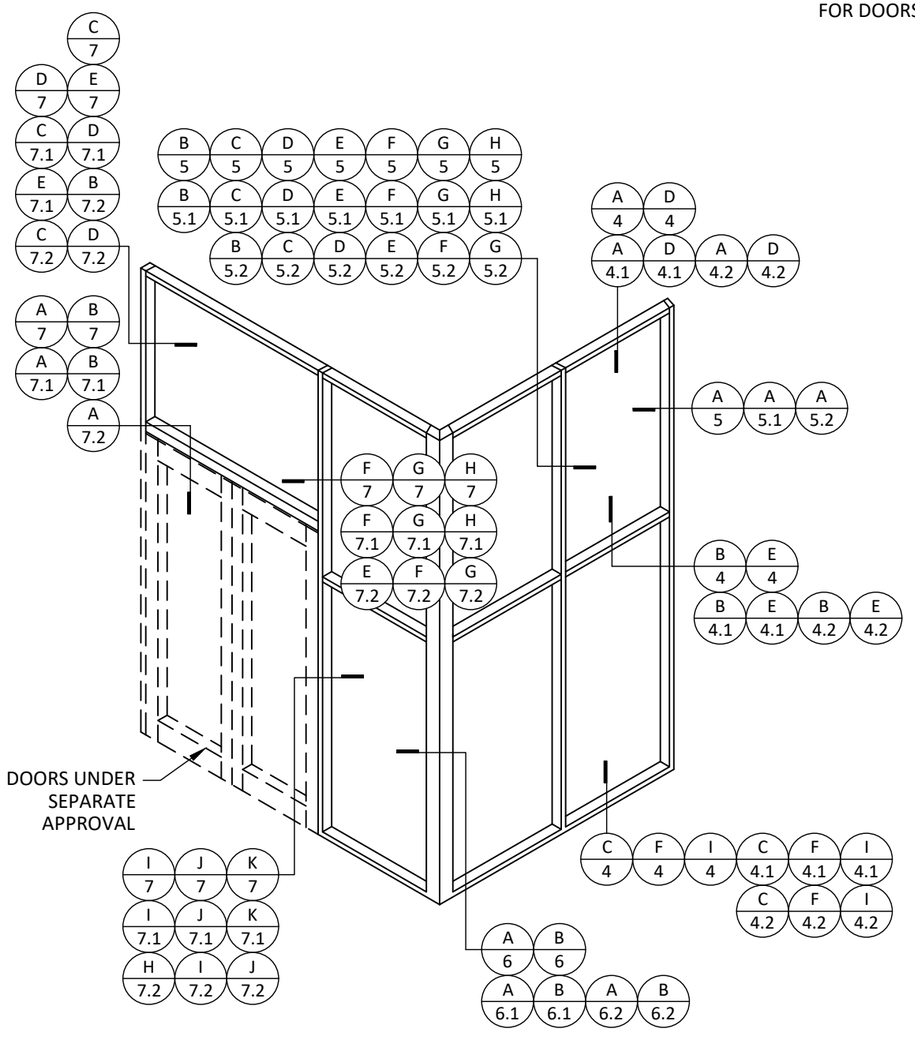
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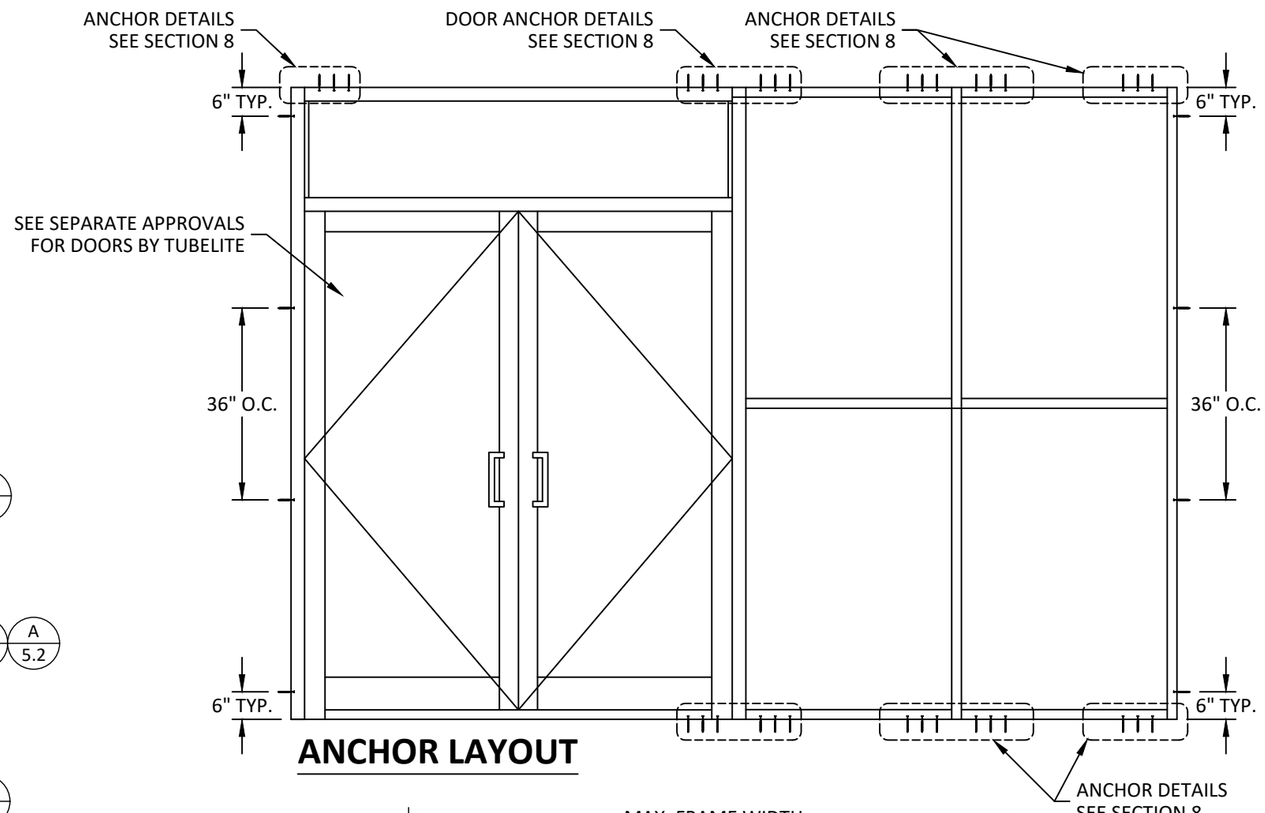
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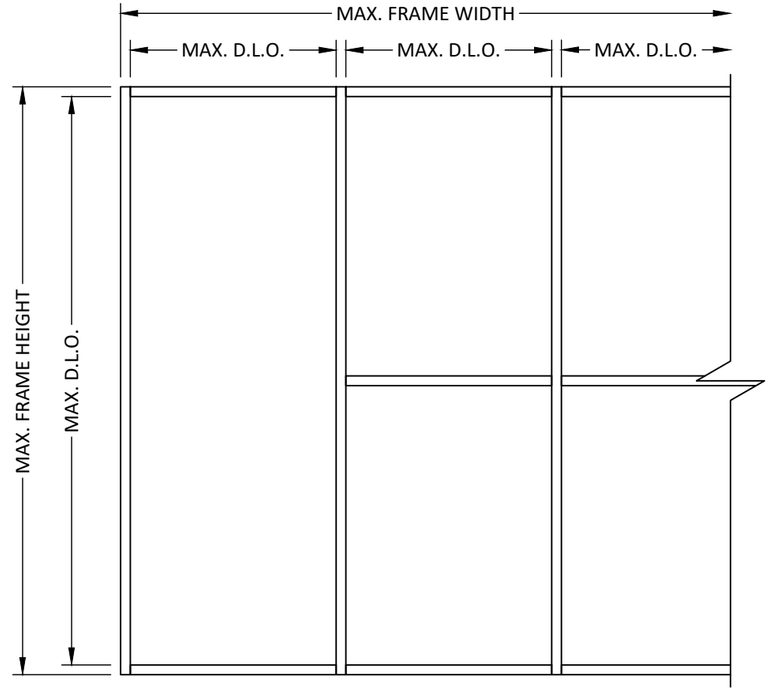
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TYPICAL ELEVATION



ANCHOR LAYOUT



TYPICAL ELEVATION

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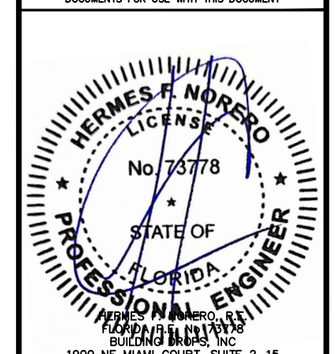
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TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
ELEVATIONS AND ANCHOR LAYOUT

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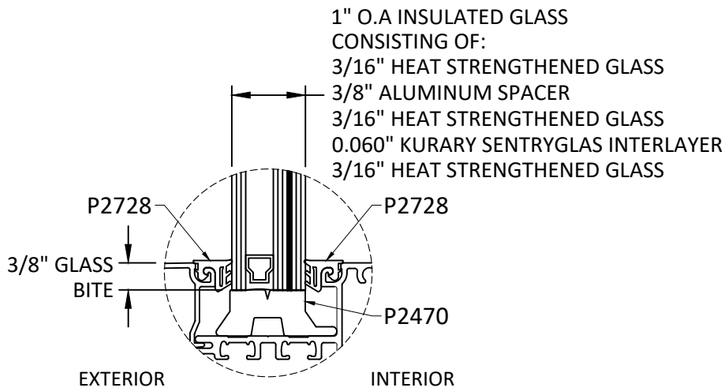
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MS	HFN

SCALE: NTS

DWG. #: TLI043

SECTION 2

GLAZING DETAIL AND DESIGN PRESSURE TABLE



A/3 **GLAZING DETAIL**

GLAZING NOTES:

1. GLASS TYPE COMPLIES WITH ASTM E1300 REQUIREMENTS AS WELL AS APPLICABLE SAFETY GLAZING REQUIREMENTS PER THE FBC. TEMPER AND SAFETY GLAZING REQUIREMENTS SHALL BE REVIEWED ON A SITE SPECIFIC BASIS.
2. SETTING BLOCK DUROMETER HARDNESS OF 70-90 (SHORE A) AS REFERENCED IN FBC CHAPTER 24.
3. TWO APPROVED SETTING BLOCKS SHALL BE USED FOR GLASS WIDER THAN 36" AS PER FBC CHAPTER 24.
4. D.L.O. AND DESIGN PRESSURES MAY NOT EXCEED MAX VALUES IN SIZE CHARTS.

DESIGN PRESSURE TABLE (PSF)

D.L.O. HEIGHT (INCH)	D.L.O. WIDTH (INCH)																
	24	30	36	42	48	54	60	66	72	78	84	96	108	120	126	150	168
24	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
30	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-
36	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-	-
42	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-	-	-	-
48	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-	-	-	-	-
54	45.00	45.00	45.00	45.00	45.00	40.00	40.00	40.00	40.00	40.00	40.00	-	-	-	-	-	-
60	45.00	45.00	45.00	45.00	45.00	40.00	36.00	36.00	36.00	-	-	-	-	-	-	-	-
66	45.00	45.00	45.00	45.00	45.00	40.00	36.00	32.73	-	-	-	-	-	-	-	-	-
72	45.00	45.00	45.00	45.00	45.00	40.00	36.00	-	-	-	-	-	-	-	-	-	-
78	45.00	45.00	45.00	45.00	45.00	40.00	-	-	-	-	-	-	-	-	-	-	-
84	45.00	45.00	45.00	45.00	45.00	40.00	-	-	-	-	-	-	-	-	-	-	-
96	45.00	45.00	45.00	45.00	45.00	-	-	-	-	-	-	-	-	-	-	-	-
108	45.00	45.00	45.00	45.00	-	-	-	-	-	-	-	-	-	-	-	-	-
120	45.00	45.00	45.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	45.00	45.00	45.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150	45.00	45.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
168	45.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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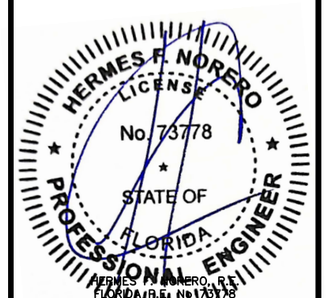
3056 WALKER RIDGE DRIVE N.W.
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TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)* GLAZING DETAIL AND DESIGN PRESSURE TABLE

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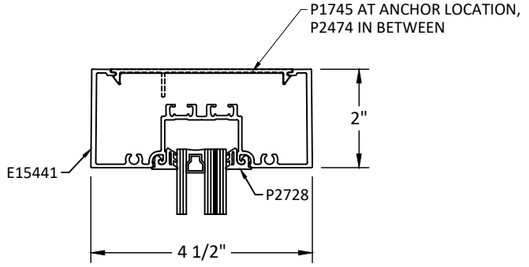
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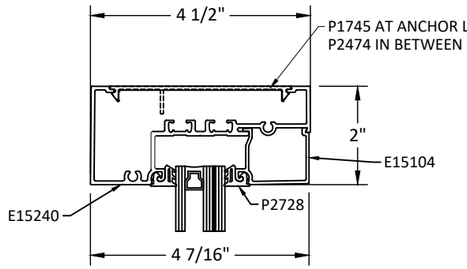
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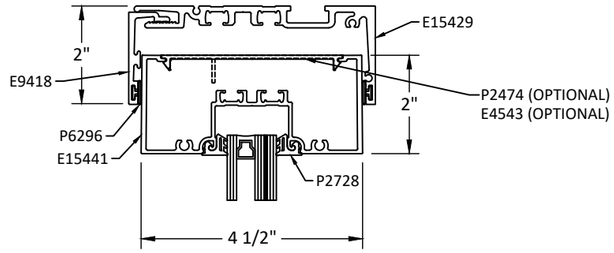
HORIZONTAL DETAILS (E14000)



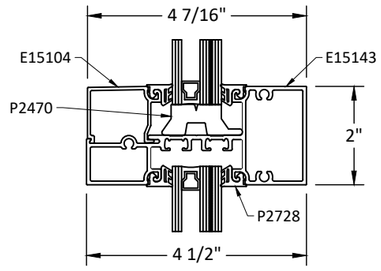
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OUTSIDE GLAZED



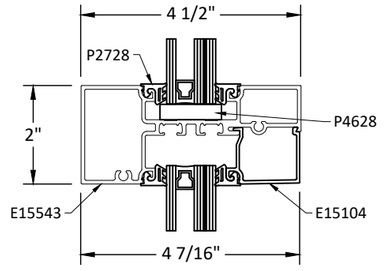
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INSIDE GLAZED



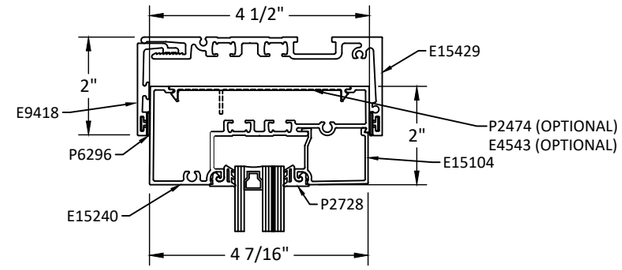
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OUTSIDE GLAZED
W/ HEAD RECEPTOR



B/4 **HORIZONTAL**
OUTSIDE GLAZED

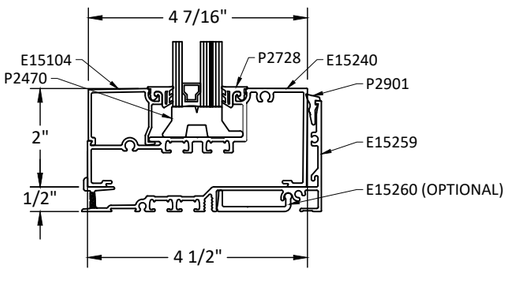


E/4 **HORIZONTAL**
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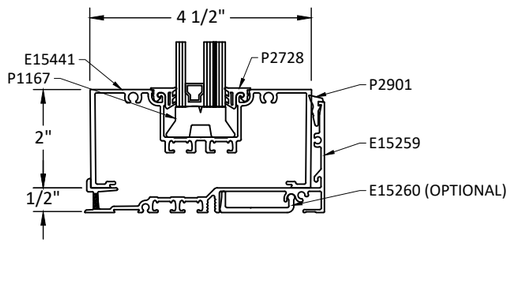


H/4 **HEAD**
INSIDE GLAZED
W/ HEAD RECEPTOR

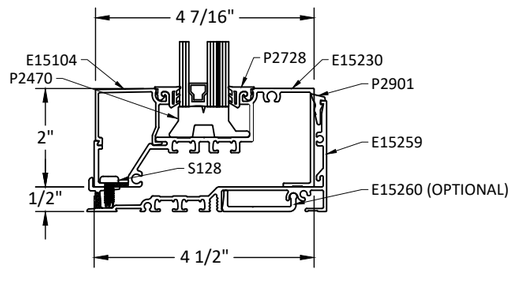
HORIZONTAL DESIGN PRESSURE TABLE					
SPAN LENGTH (INCH)	48	51	54	57	60
DESIGN PRESSURE (PSF)	45.00	35.31	28.09	22.63	18.43



C/4 **SILL**
OUTSIDE GLAZED



F/4 **SILL**
INSIDE GLAZED



I/4 **SILL**
OUTSIDE GLAZED
PINNABLE SILL

TUBELITE
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TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
HORIZONTAL DETAILS (E14000)

PREPARED BY:
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REMARKS	BY	DATE

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DWG. BY: MS | CHK. BY: HFN

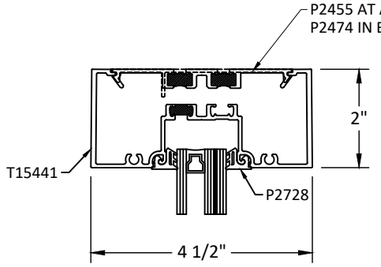
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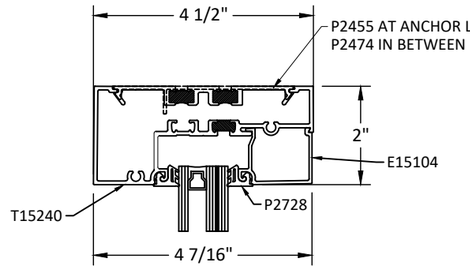
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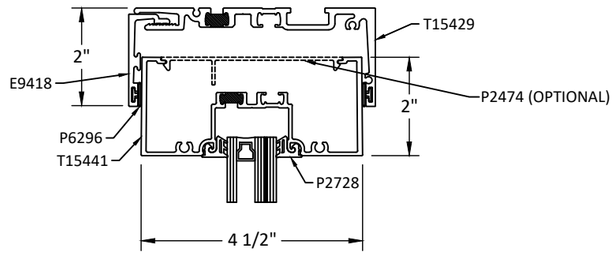
HORIZONTAL DETAILS (T14000)



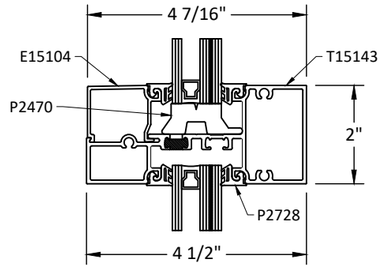
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OUTSIDE GLAZED



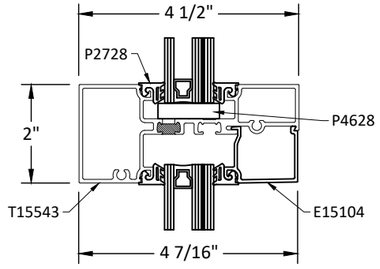
D 4.1 **HEAD**
INSIDE GLAZED



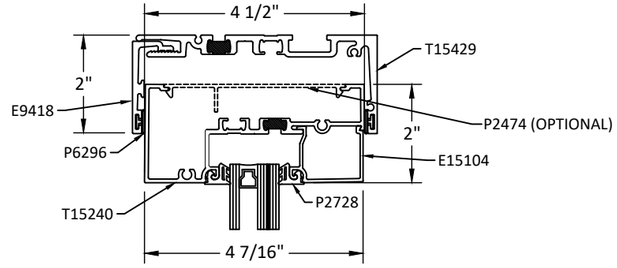
G 4.1 **HEAD**
OUTSIDE GLAZED
W/ HEAD RECEPTOR



B 4.1 **HORIZONTAL**
OUTSIDE GLAZED

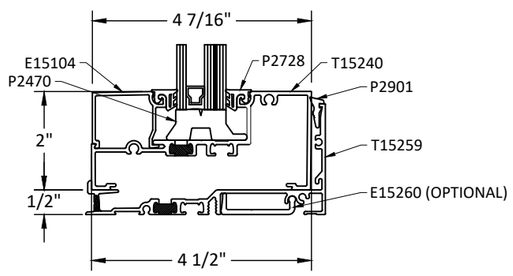


E 4.1 **HORIZONTAL**
INSIDE GLAZED

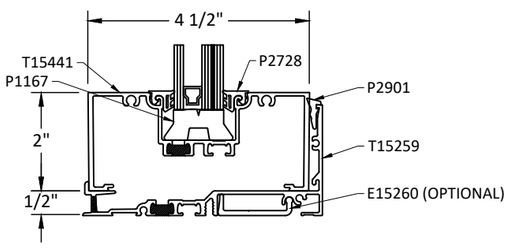


H 4.1 **HEAD**
INSIDE GLAZED
W/ HEAD RECEPTOR

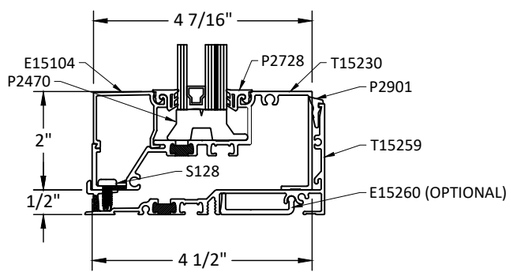
HORIZONTAL DESIGN PRESSURE TABLE					
SPAN LENGTH (INCH)	48	51	54	57	60
DESIGN PRESSURE (PSF)	45.00	35.31	28.09	22.63	18.43



C 4.1 **SILL**
OUTSIDE GLAZED



F 4.1 **SILL**
INSIDE GLAZED



I 4.1 **SILL**
OUTSIDE GLAZED
PINNABLE SILL

TUBELITE
DEPENDABLE
LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE DRIVE N.W.
WALKER, MICHIGAN 49544
PH: 800 866 2227 FX: 616 301 0008

TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
HORIZONTAL DETAILS (T14000)

PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI COURT, SUITE 2-15
MIAMI, FL 33132
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

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HERMES F. NORERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER

HERMES F. NORERO, PE
FLORIDA PE No. 73778
BUILDING DROPS, INC.
1900 NE MIAMI COURT, SUITE 2-15
MIAMI, FL 33132
FBPE CERT. OF AUTHORIZATION No. 29578

FL #: FL48458

DATE: 09.25.26

DWG. BY: MS | CHK. BY: HFN

SCALE: NTS

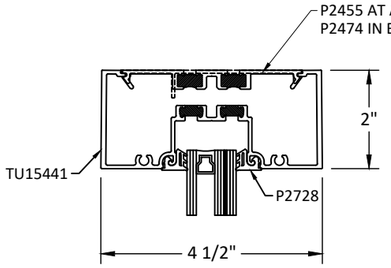
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SECTION 4.1

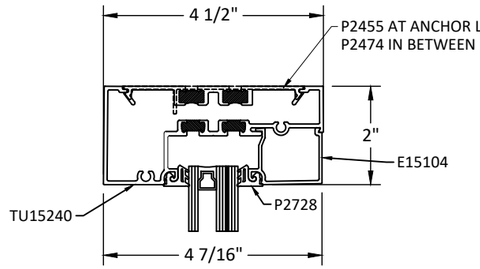
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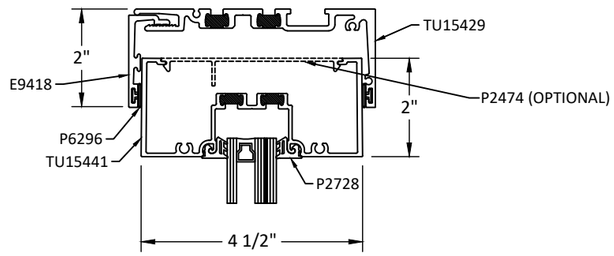
HORIZONTAL DETAILS (TU14000)



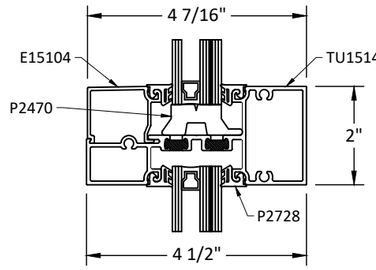
A 4.2 **HEAD**
OUTSIDE GLAZED



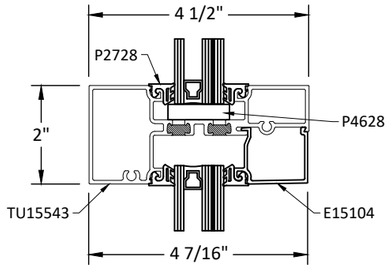
D 4.2 **HEAD**
INSIDE GLAZED



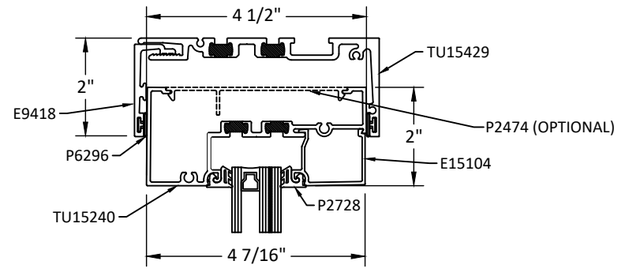
G 4.2 **HEAD**
OUTSIDE GLAZED
W/ HEAD RECEPTOR



B 4.2 **HORIZONTAL**
OUTSIDE GLAZED

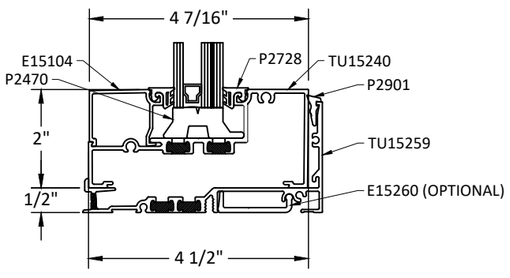


E 4.2 **HORIZONTAL**
INSIDE GLAZED

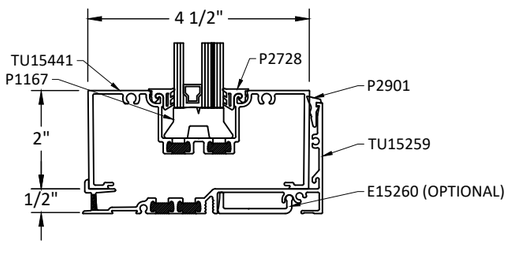


H 4.2 **HEAD**
INSIDE GLAZED
W/ HEAD RECEPTOR

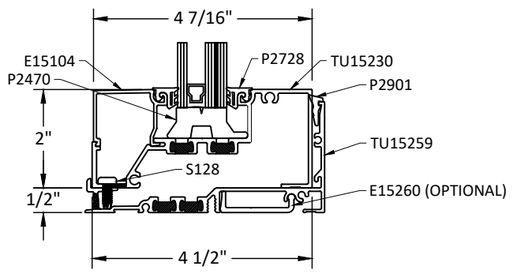
HORIZONTAL DESIGN PRESSURE TABLE					
SPAN LENGTH (INCH)	48	51	54	57	60
DESIGN PRESSURE (PSF)	45.00	35.31	28.09	22.63	18.43



C 4.2 **SILL**
OUTSIDE GLAZED



F 4.2 **SILL**
INSIDE GLAZED



I 4.2 **SILL**
OUTSIDE GLAZED
PINNABLE SILL

TUBELITE
DEPENDABLE
LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

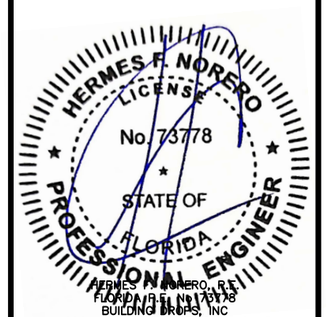
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SCALE: NTS

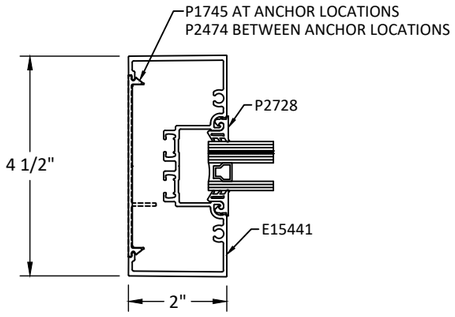
DWG. #: TLI043

SECTION 4.2

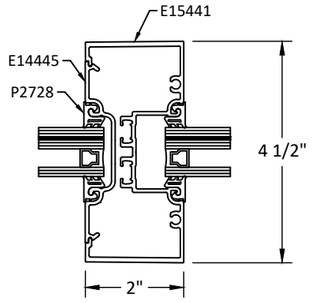
[SHEET 6 OF 19]

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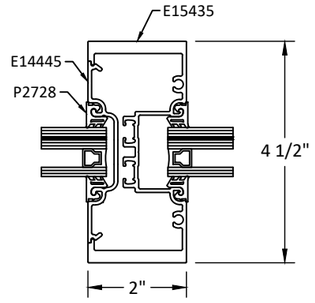
VERTICAL DETAILS (E14000)



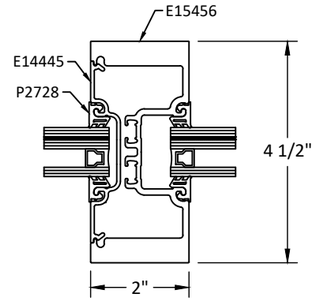
A/5 **JAMB OPTION 1**



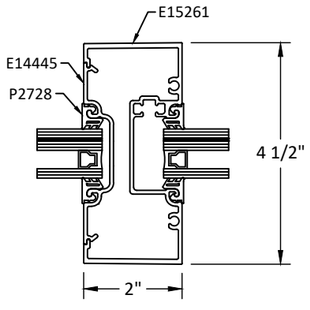
B/5 **MULLION OPTION 1**



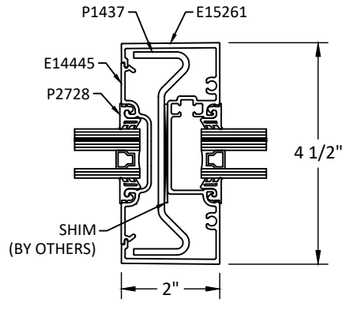
C/5 **MULLION OPTION 2**



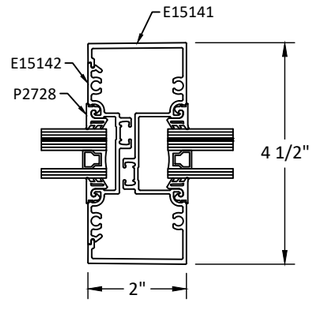
D/5 **MULLION OPTION 3**



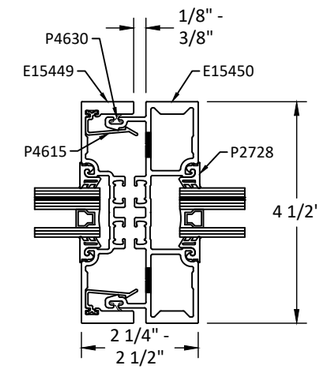
E/5 **MULLION OPTION 4**



F/5 **MULLION OPTION 5**



G/5 **MULLION OPTION 6**



H/5 **MULLION OPTION 7**

SEE SECTION 5.3 FOR DESIGN PRESSURES.

TUBELITE
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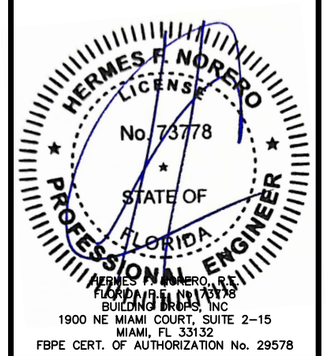
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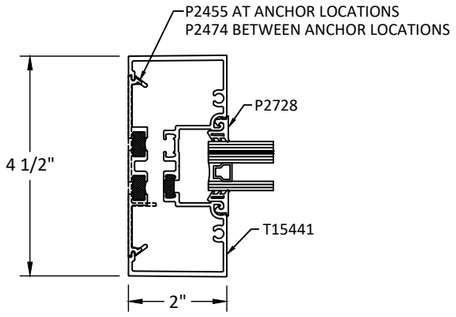
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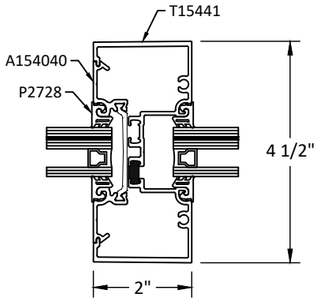
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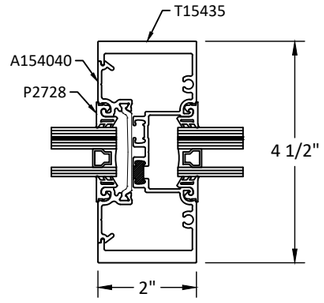
VERTICAL DETAILS (T14000)



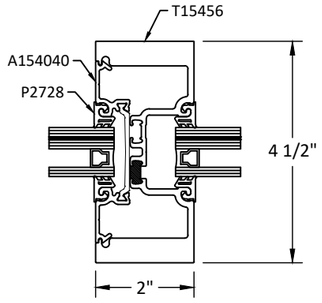
A 5.1 **JAMB OPTION 1**



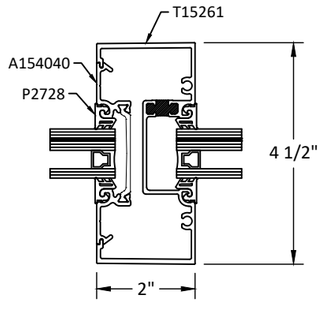
B 5.1 **MULLION OPTION 1**



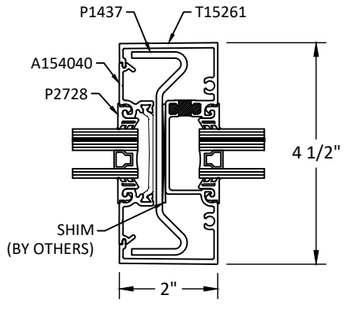
C 5.1 **MULLION OPTION 2**



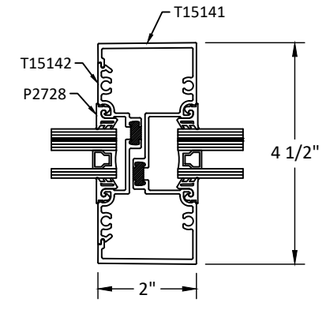
D 5.1 **MULLION OPTION 3**



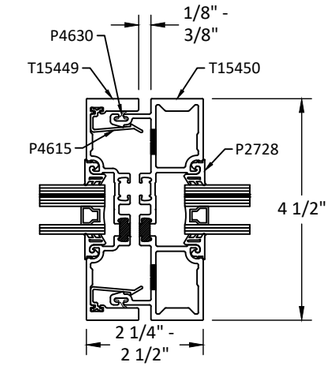
E 5.1 **MULLION OPTION 4**



F 5.1 **MULLION OPTION 5**



G 5.1 **MULLION OPTION 6**



H 5.1 **MULLION OPTION 7**

SEE SECTION 5.3 FOR DESIGN PRESSURES.

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LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

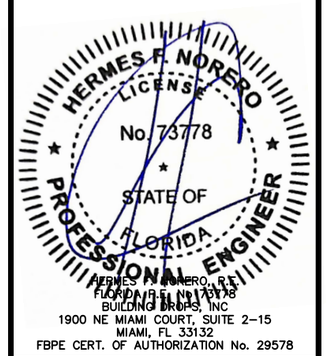
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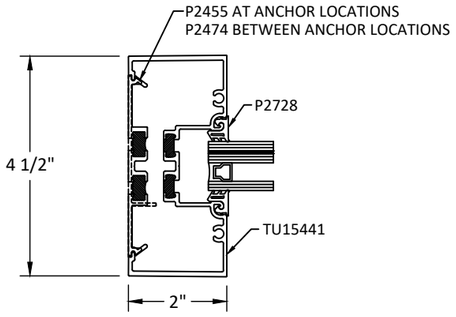
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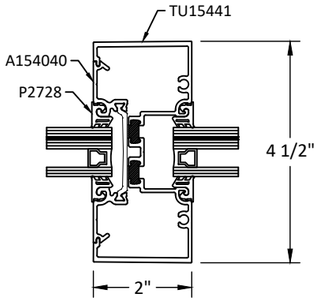
SECTION 5.1

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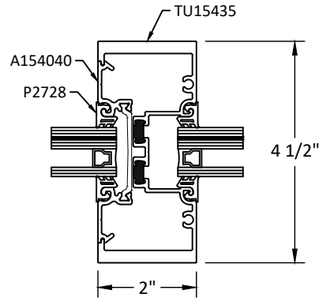
VERTICAL DETAILS (TU14000)



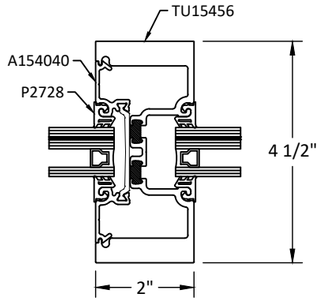
A 5.2 **JAMB OPTION 1**



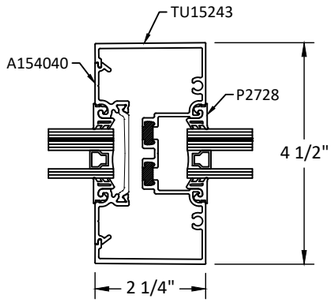
B 5.2 **MULLION OPTION 1**



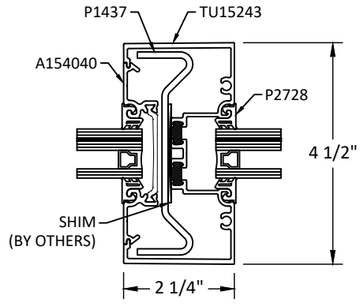
C 5.2 **MULLION OPTION 2**



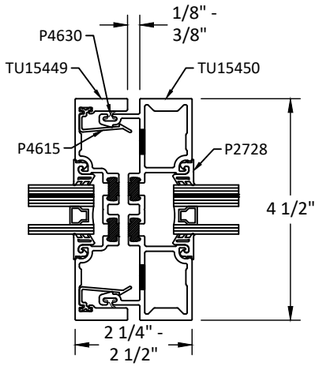
D 5.2 **MULLION OPTION 3**



E 5.2 **MULLION OPTION 4**



F 5.2 **MULLION OPTION 5**



G 5.2 **MULLION OPTION 7**

SEE SECTION 5.3 FOR DESIGN PRESSURES.

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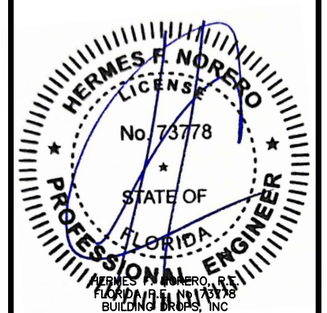
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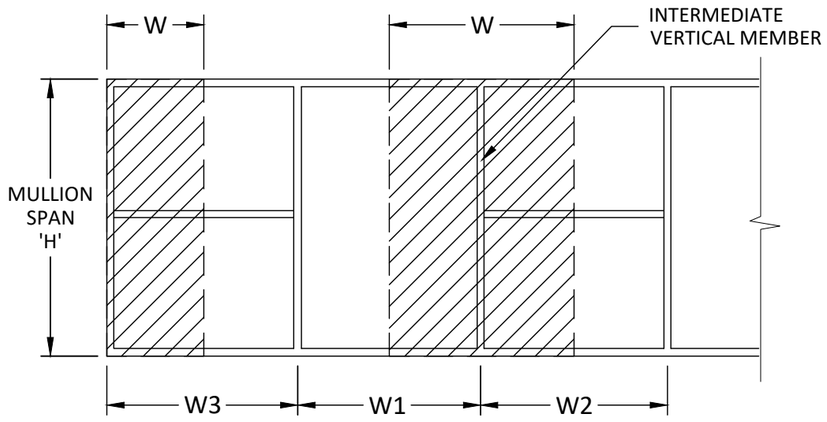
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DWG. #: TLI043

SECTION 5.2

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DESIGN PRESSURE TABLES



$$\text{MULL TRIBUTARY WIDTH (W)} = \frac{W1 + W2}{2}$$

$$\text{JAMB TRIBUTARY WIDTH (W)} = \frac{W3}{2}$$

DESIGN PRESSURE TABLE (PSF) - MULLION OPTIONS 1, 4, 6, & 7

MULLION SPAN (INCH)	TRIBUTARY WIDTH (INCH)												
	26	29	32	35	38	41	44	47	50	53	56	59	62
72	45.00	45.00	45.00	45.00	45.00	45.00	45.00	42.55	40.00	37.74	35.71	33.90	32.26
78	45.00	45.00	45.00	45.00	45.00	45.00	41.96	39.28	36.92	34.83	32.97	31.29	-
84	45.00	45.00	45.00	45.00	45.00	41.81	38.96	36.47	34.29	32.35	30.61	-	-
90	45.00	45.00	45.00	45.00	42.11	39.02	36.36	34.04	32.00	30.19	-	-	-
96	45.00	45.00	45.00	42.86	39.47	36.59	34.09	31.91	30.00	-	-	-	-
102	45.00	43.12	39.08	35.73	32.91	30.50	28.42	26.61	-	-	-	-	-
108	40.52	36.33	32.92	30.10	27.72	25.70	23.94	-	-	-	-	-	-
114	34.45	30.89	27.99	25.59	23.57	21.85	-	-	-	-	-	-	-
120	29.54	26.48	24.00	21.94	20.21	-	-	-	-	-	-	-	-
126	25.52	22.88	20.73	18.96	17.46	-	-	-	-	-	-	-	-
132	22.19	19.90	18.03	16.49	-	-	-	-	-	-	-	-	-
138	19.42	17.41	15.78	-	-	-	-	-	-	-	-	-	-
144	17.09	15.33	-	-	-	-	-	-	-	-	-	-	-
150	15.12	-	-	-	-	-	-	-	-	-	-	-	-

DESIGN PRESSURE TABLE (PSF) - MULLION OPTIONS 2 & 5

MULLION SPAN (INCH)	TRIBUTARY WIDTH (INCH)												
	26	29	32	35	38	41	44	47	50	53	56	59	62
72	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	44.64	42.37	40.32
78	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	43.54	41.21	39.11	37.22
84	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	42.86	40.43	38.27	36.32	34.56
90	45.00	45.00	45.00	45.00	45.00	45.00	45.00	42.55	40.00	37.74	35.71	33.90	32.26
96	45.00	45.00	45.00	45.00	45.00	45.00	42.61	39.89	37.50	35.38	33.48	31.78	30.24
102	45.00	45.00	45.00	45.00	45.00	43.04	40.11	37.55	35.29	33.30	31.51	-	-
108	45.00	45.00	45.00	45.00	43.86	40.65	37.88	35.46	33.33	31.45	-	-	-
114	45.00	45.00	45.00	45.00	41.55	38.51	35.89	33.59	31.58	-	-	-	-
120	45.00	45.00	45.00	42.86	39.47	36.59	34.09	31.91	30.00	-	-	-	-
126	45.00	44.68	40.49	37.02	34.10	31.60	29.45	27.57	-	-	-	-	-
132	43.35	38.86	35.22	32.20	29.66	27.49	25.61	-	-	-	-	-	-
138	37.93	34.01	30.82	28.18	25.95	24.06	-	-	-	-	-	-	-
144	33.39	29.93	27.13	24.80	22.84	21.17	-	-	-	-	-	-	-
150	29.54	26.48	24.00	21.94	20.21	-	-	-	-	-	-	-	-
156	26.26	23.54	21.34	19.51	17.97	-	-	-	-	-	-	-	-
162	23.45	21.02	19.05	17.42	-	-	-	-	-	-	-	-	-
168	21.02	18.85	17.08	15.62	-	-	-	-	-	-	-	-	-
174	18.92	16.97	15.38	-	-	-	-	-	-	-	-	-	-
180	17.09	15.33	-	-	-	-	-	-	-	-	-	-	-

DESIGN PRESSURE TABLE (PSF) - JAMB OPTION 1 & MULLION OPTION 3

MULLION SPAN (INCH)	TRIBUTARY WIDTH (INCH)												
	26	29	32	35	38	41	44	47	50	53	56	59	62
72	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
78	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
84	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
90	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
96	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
102	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-	-
108	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-	-	-
114	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-	-	-	-
120	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-	-	-	-
126	45.00	45.00	45.00	45.00	45.00	45.00	44.17	41.35	-	-	-	-	-
132	45.00	45.00	45.00	45.00	44.49	41.23	38.42	-	-	-	-	-	-
138	45.00	45.00	45.00	42.27	38.93	36.08	-	-	-	-	-	-	-
144	45.00	44.90	40.69	37.20	34.27	31.76	-	-	-	-	-	-	-
150	44.31	39.72	36.00	32.91	30.32	-	-	-	-	-	-	-	-
156	39.39	35.31	32.00	29.26	26.95	-	-	-	-	-	-	-	-
162	35.17	31.53	28.58	26.13	-	-	-	-	-	-	-	-	-
168	31.54	28.27	25.62	23.43	-	-	-	-	-	-	-	-	-
174	28.39	25.45	23.06	-	-	-	-	-	-	-	-	-	-
180	25.64	22.99	20.83	-	-	-	-	-	-	-	-	-	-

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3056 WALKER RIDGE DRIVE N.W.
WALKER, MICHIGAN 49544
PH: 800 866 2227 FX: 616 301 0008

TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
MULLION DESIGN PRESSURE TABLES

PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI COURT, SUITE 2-15
MIAMI, FL 33132
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

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

FL #: FL48458

DATE: 09.25.26

DWG. BY: MS | CHK. BY: HFN

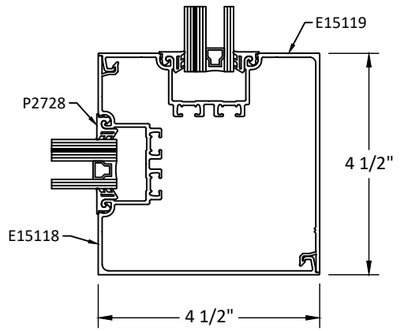
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DWG. #: TLI043

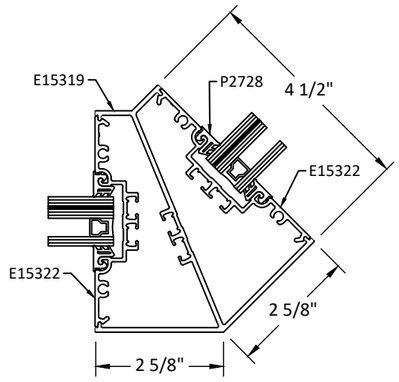
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CORNER DETAILS (E14000)



A/6 **90° CORNER DETAIL**
OUTSIDE CORNER



B/6 **135° CORNER DETAIL**
OUTSIDE CORNER

DESIGN PRESSURE TABLE (PSF) - CORNER

MULLION SPAN (INCH)	TRIBUTARY WIDTH (INCH)												
	26	29	32	35	38	41	44	47	50	53	56	59	62
72	45.00	45.00	45.00	45.00	45.00	45.00	43.18	40.43	38.00	35.85	33.93	32.20	30.65
78	45.00	45.00	45.00	45.00	45.00	42.78	39.86	37.32	35.08	33.09	31.32	-	-
84	45.00	45.00	45.00	45.00	42.86	39.72	37.01	34.65	32.57	30.73	-	-	-
90	45.00	45.00	45.00	43.43	40.00	37.07	34.55	32.34	30.40	-	-	-	-
96	45.00	45.00	44.53	40.71	37.50	34.76	32.39	30.32	-	-	-	-	-
102	45.00	45.00	41.91	38.32	35.29	32.71	30.48	-	-	-	-	-	-
108	45.00	43.68	39.58	36.19	33.33	30.89	-	-	-	-	-	-	-
114	45.00	41.38	37.50	34.29	31.58	-	-	-	-	-	-	-	-
120	43.85	39.31	35.63	32.57	30.00	-	-	-	-	-	-	-	-
126	37.88	33.96	30.77	28.14	-	-	-	-	-	-	-	-	-
132	32.94	29.53	26.77	-	-	-	-	-	-	-	-	-	-
138	28.83	25.85	23.42	-	-	-	-	-	-	-	-	-	-
144	25.37	22.75	-	-	-	-	-	-	-	-	-	-	-
150	22.45	20.13	-	-	-	-	-	-	-	-	-	-	-
156	19.96	17.89	-	-	-	-	-	-	-	-	-	-	-
162	17.82	-	-	-	-	-	-	-	-	-	-	-	-
168	15.98	-	-	-	-	-	-	-	-	-	-	-	-

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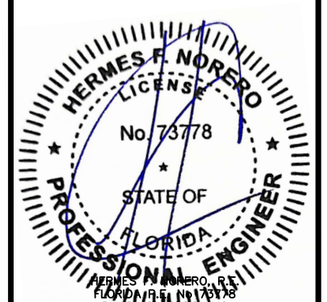
3056 WALKER RIDGE DRIVE N.W.
WALKER, MICHIGAN 49544
PH: 800 866 2227 FX: 616 301 0008

TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
CORNER DETAILS (E14000) AND DESIGN PRESSURE TABLES

PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI COURT, SUITE 2-15
MIAMI, FL 33132
PH: (954) 399-8478
FAX: (954) 744-4738
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REMARKS	BY	DATE

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FL #: FL48458

DATE: 09.25.26

DWG. BY: MS | CHK. BY: HFN

SCALE: NTS

DWG. #: TLI043

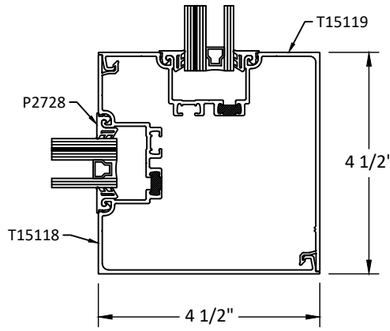
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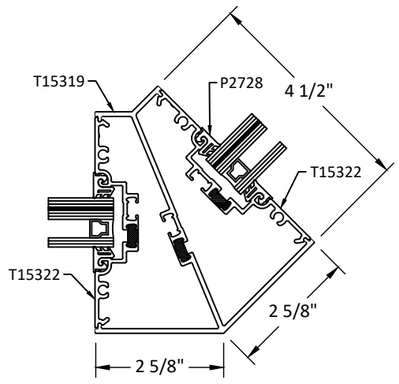
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CORNER DETAILS (T14000)



A 6.1 **90° CORNER DETAIL**
OUTSIDE CORNER



B 6.1 **135° CORNER DETAIL**
OUTSIDE CORNER

SEE SECTION 6 FOR DESIGN PRESSURES.

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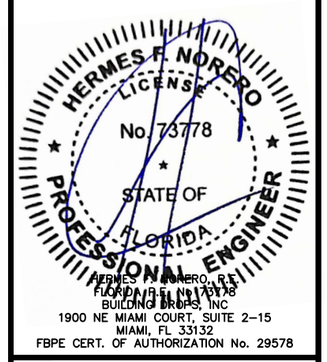
3056 WALKER RIDGE DRIVE N.W.
WALKER, MICHIGAN 49544
PH: 800 866 2227 FX: 616 301 0008

TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
CORNER DETAILS (T14000)

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

FL #: FL48458

DATE: 09.25.26

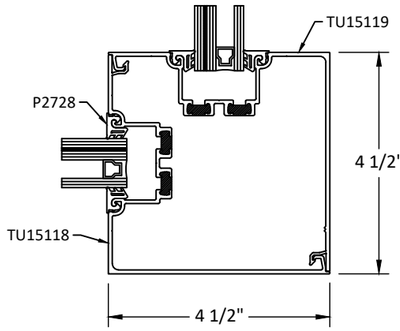
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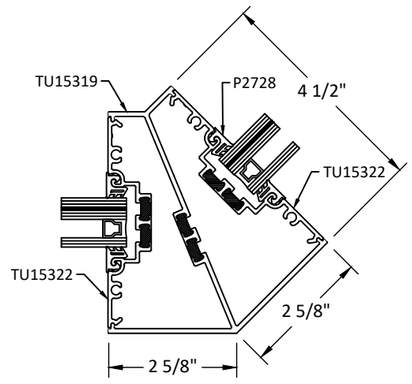
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SECTION 6.1

CORNER DETAILS (TU14000)



A 6.2 **90° CORNER DETAIL**
OUTSIDE CORNER



B 6.2 **135° CORNER DETAIL**
OUTSIDE CORNER

SEE SECTION 6 FOR DESIGN PRESSURES.

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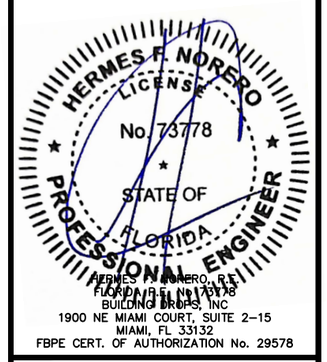
3056 WALKER RIDGE DRIVE N.W.
WALKER, MICHIGAN 49544
PH: 800 866 2227 FX: 616 301 0008

TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
CORNER DETAILS (TU14000)

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REMARKS	BY	DATE

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DATE: 09.25.26

DWG. BY: MS | CHK. BY: HFN

SCALE: NTS

DWG. #: TLI043

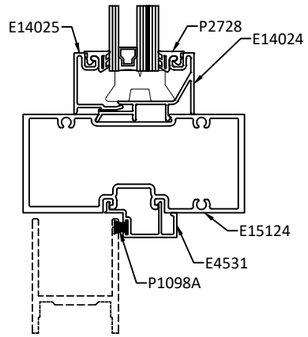
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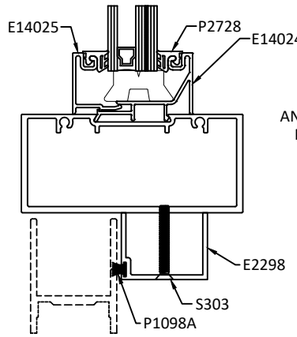
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DOOR DETAILS (E14000)

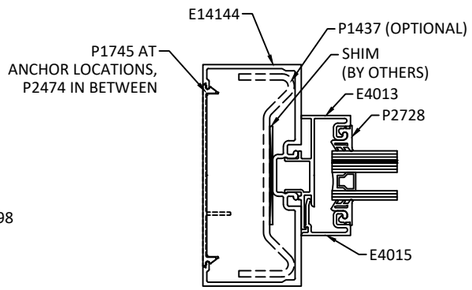
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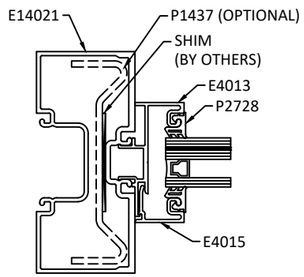
A/7 **DOOR HEADER**



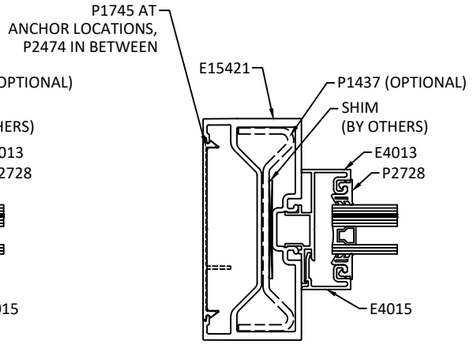
B/7 **DOOR HEADER**
OHCC



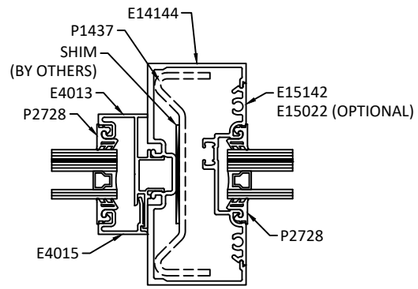
C/7 **TRANSOM JAMB**



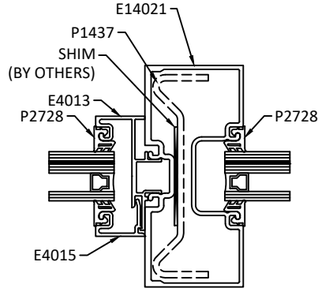
D/7 **TRANSOM JAMB**
TUBULAR



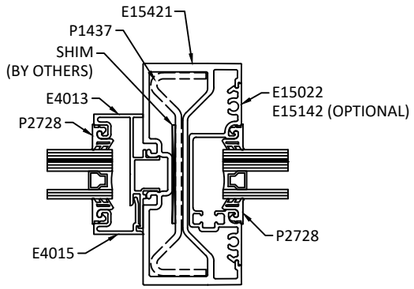
E/7 **TRANSOM JAMB**
OPEN-BACK/TUBE HYBIRD



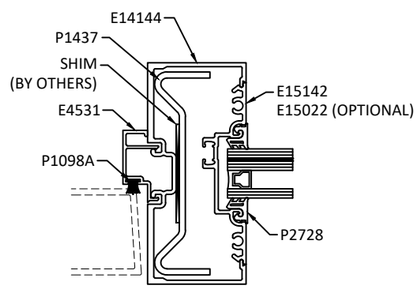
F/7 **TRANSOM MULLION**



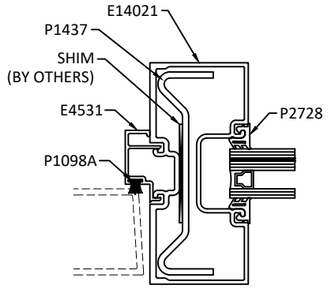
G/7 **TRANSOM MULLION**
TUBULAR



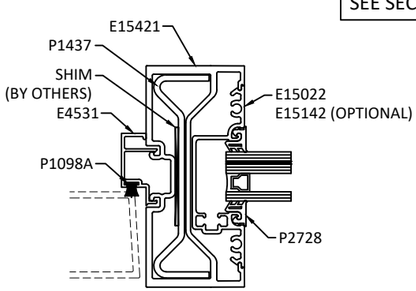
H/7 **TRANSOM MULLION**
OPEN-BACK/TUBE HYBIRD



I/7 **DOOR MULLION**



J/7 **DOOR MULLION**
TUBULAR



K/7 **DOOR MULLION**
OPEN-BACK/TUBE HYBIRD

SEE SECTION 7.3 FOR DESIGN PRESSURES.

TUBELITE
DEPENDABLE
LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

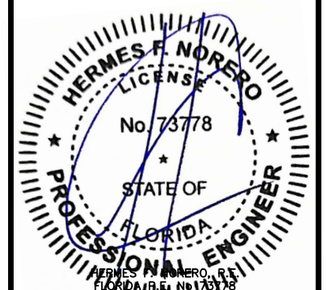
3056 WALKER RIDGE DRIVE N.W.
WALKER, MICHIGAN 49544
PH: 800 866 2227 FX: 616 301 0008

TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
DOOR DETAILS (E14000)

PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI COURT, SUITE 2-15
MIAMI, FL 33132
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

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

FL #: FL48458

DATE: 09.25.26

DWG. BY:	CHK. BY:
MS	HFN

SCALE: NTS

DWG. #: TLI043

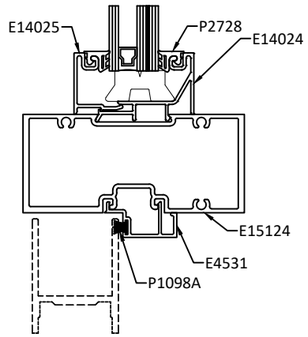
SECTION 7

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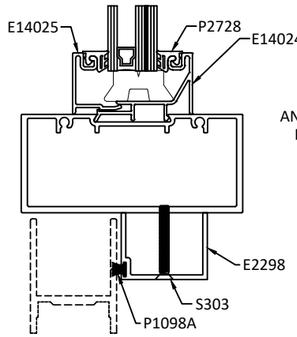
c:\users\mengqisun\building drops, inc\building drops landing - common\projects\tubelite, inc\fbc-25-0101 - fbc submittal - forcefront storm 14000 storefront system - fl16992\dwgs\tli043.dwg

DOOR DETAILS (T14000)

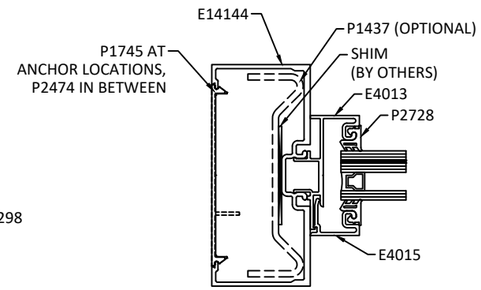
DOOR SYSTEMS SHOWN ARE UNDER SEPARATE APPROVAL.



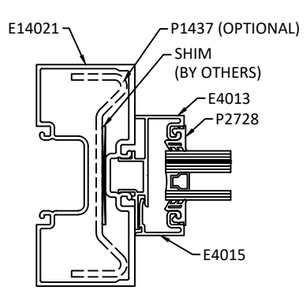
A 7.1 **DOOR HEADER**



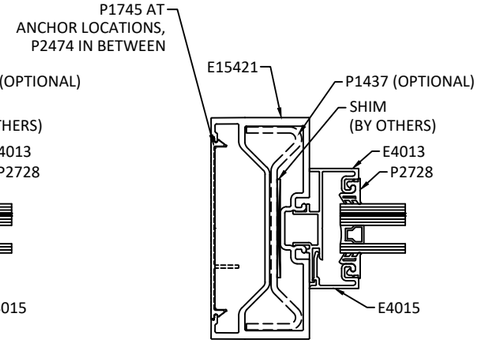
B 7.1 **DOOR HEADER**
OHCC



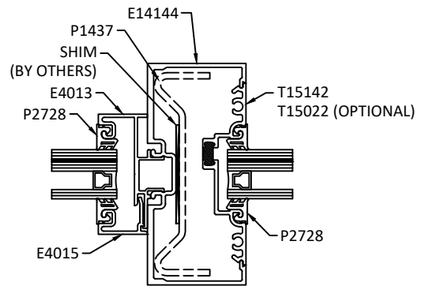
C 7.1 **TRANSOM JAMB**



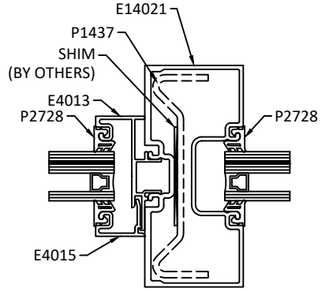
D 7.1 **TRANSOM JAMB**
TUBULAR



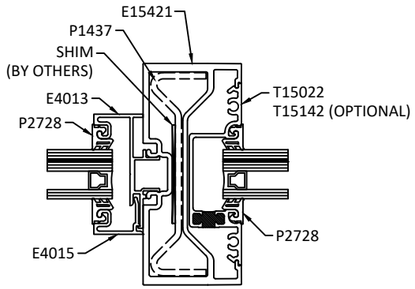
E 7.1 **TRANSOM JAMB**
OPEN-BACK/TUBE HYBIRD



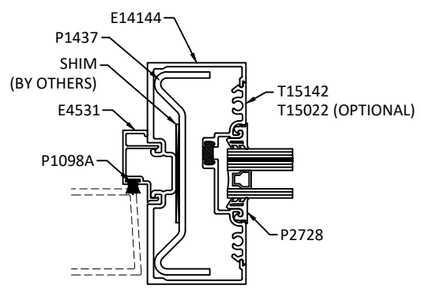
F 7.1 **TRANSOM MULLION**



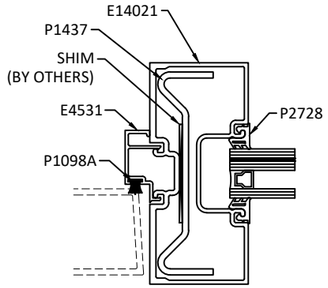
G 7.1 **TRANSOM MULLION**
TUBULAR



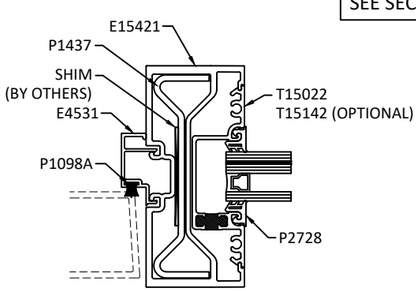
H 7.1 **TRANSOM MULLION**
OPEN-BACK/TUBE HYBIRD



I 7.1 **DOOR MULLION**



J 7.1 **DOOR MULLION**
TUBULAR



K 7.1 **DOOR MULLION**
OPEN-BACK/TUBE HYBIRD

SEE SECTION 7.3 FOR DESIGN PRESSURES.

TUBELITE
DEPENDABLE
LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

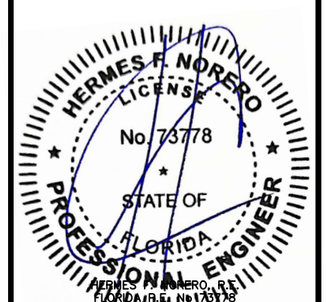
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FL #: FL48458

DATE: 09.25.26

DWG. BY: MS | CHK. BY: HFN

SCALE: NTS

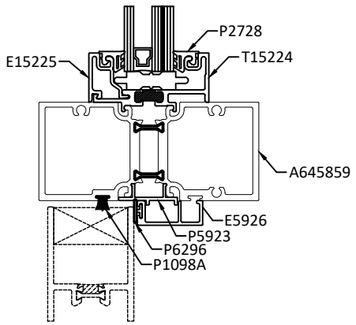
DWG. #: TLI043

SECTION 7.1

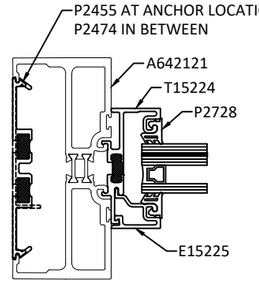
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DOOR DETAILS (TU14000)

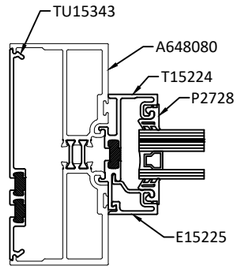
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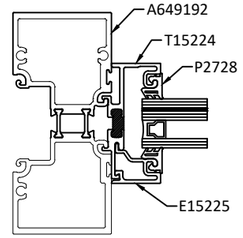
A 7.1 DOOR HEADER



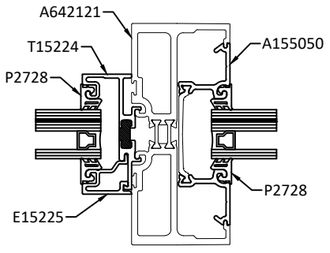
B 7.2 TRANSOM JAMB
STANDARD OPEN-BACK/TUBE HYBIRD



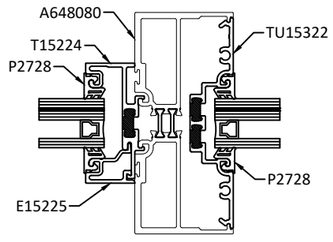
C 7.2 TRANSOM JAMB
OPTIONAL OPEN-BACK/TUBE HYBIRD



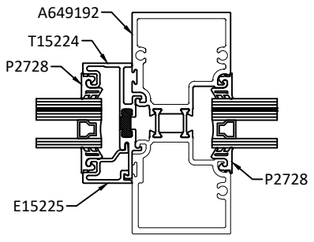
D 7.2 TRANSOM JAMB
OPTIONAL TUBE



E 7.2 TRANSOM MULLION
STANDARD OPEN-BACK/TUBE HYBIRD

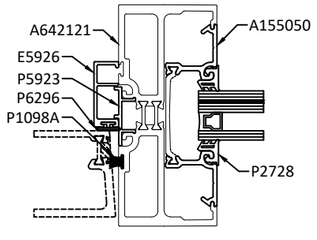


F 7.2 TRANSOM MULLION
OPTIONAL OPEN-BACK/TUBE HYBIRD

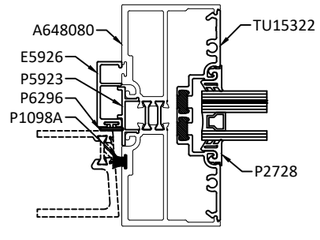


G 7.2 TRANSOM MULLION
OPTIONAL TUBE

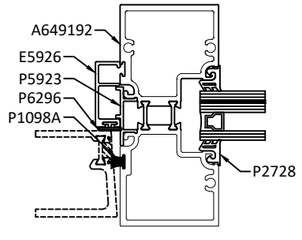
SEE SECTION 7.3 FOR DESIGN PRESSURES.



H 7.2 DOOR MULLION
STANDARD OPEN-BACK/TUBE HYBIRD



I 7.2 DOOR MULLION
OPTIONAL OPEN-BACK/TUBE HYBIRD



J 7.2 DOOR MULLION
OPTIONAL TUBE

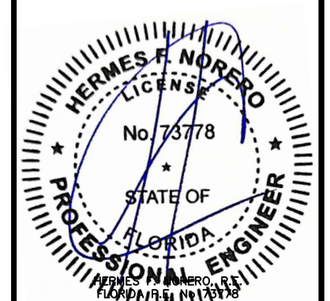
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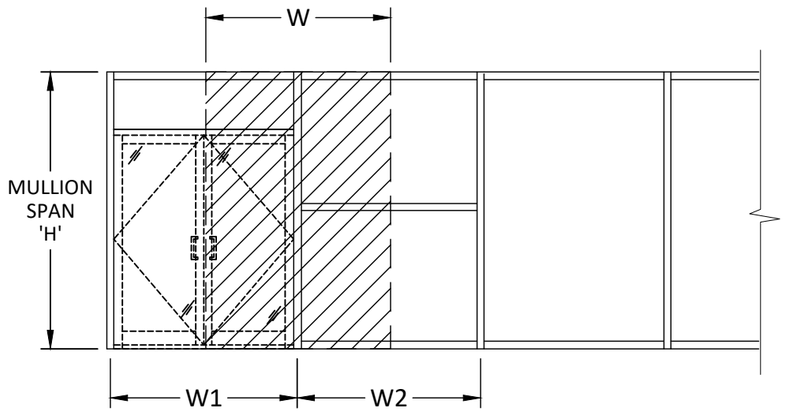


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FBPE CERT. OF AUTHORIZATION No. 29578

FL #: FL48458
DATE: 09.25.26
DWG. BY: MS
CHK. BY: HFN
SCALE: NTS
DWG. #: TLI043
SECTION 7.2

DESIGN PRESSURE TABLES

DESIGN PRESSURE TABLE (PSF) - DOOR MULLION WITHOUT STEEL REINFORCEMENT															
MULLION SPAN (INCH)	TRIBUTARY WIDTH (INCH)														
	26	29	32	35	38	41	44	47	50	53	56	59	62	65	68
72	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	44.29	42.03	40.00	38.15	36.47
78	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	43.19	40.88	38.80	36.92	35.22	33.67
84	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	42.51	40.11	37.96	36.03	34.29	32.70	31.26
90	45.00	45.00	45.00	45.00	45.00	45.00	45.00	42.21	39.68	37.43	35.43	33.63	32.00	30.52	-
96	45.00	45.00	45.00	45.00	45.00	45.00	42.27	39.57	37.20	35.09	33.21	31.53	30.00	-	-
102	45.00	45.00	45.00	44.31	40.81	37.82	35.24	32.99	31.01	29.26	27.69	-	-	-	-
108	45.00	45.00	40.82	37.32	34.38	31.86	29.69	27.79	26.13	24.65	-	-	-	-	-
114	42.72	38.30	34.71	31.74	29.23	27.09	25.24	23.63	22.21	-	-	-	-	-	-
120	36.63	32.84	29.76	27.21	25.06	23.23	21.64	20.26	-	-	-	-	-	-	-
126	31.64	28.37	25.71	23.50	21.65	20.06	18.70	17.50	-	-	-	-	-	-	-
132	27.52	24.67	22.36	20.44	18.83	17.45	16.26	-	-	-	-	-	-	-	-
138	24.08	21.59	19.57	17.89	16.48	15.27	-	-	-	-	-	-	-	-	-
144	21.20	19.00	17.22	15.75	-	-	-	-	-	-	-	-	-	-	-
150	18.75	16.81	15.24	-	-	-	-	-	-	-	-	-	-	-	-



DOOR MULL TRIBUTARY WIDTH (W) = $\frac{W1 + W2}{2}$

DESIGN PRESSURE TABLE (PSF) - DOOR MULLION WITH STEEL REINFORCEMENT															
MULLION SPAN (INCH)	TRIBUTARY WIDTH (INCH)														
	26	29	32	35	38	41	44	47	50	53	56	59	62	65	68
72	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
78	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
84	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
90	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
96	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
102	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
108	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
114	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-
120	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	-	-
126	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	43.04	40.85	-	-	-
132	45.00	45.00	45.00	45.00	45.00	45.00	45.00	44.60	41.92	39.55	37.43	-	-	-	-
138	45.00	45.00	45.00	45.00	45.00	44.74	41.69	39.03	36.69	34.61	-	-	-	-	-
144	45.00	45.00	45.00	45.00	42.49	39.38	36.70	34.35	32.29	-	-	-	-	-	-
150	45.00	45.00	44.64	40.81	37.59	34.84	32.47	30.39	-	-	-	-	-	-	-
156	45.00	43.79	39.68	36.28	33.42	30.97	28.86	27.02	-	-	-	-	-	-	-
162	43.61	39.10	35.44	32.40	29.84	27.66	25.77	-	-	-	-	-	-	-	-
168	39.11	35.06	31.77	29.05	26.76	24.80	23.11	-	-	-	-	-	-	-	-
174	35.20	31.56	28.60	26.15	24.08	22.32	-	-	-	-	-	-	-	-	-
180	31.79	28.51	25.83	23.62	21.75	20.16	-	-	-	-	-	-	-	-	-

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SCALE: NTS

DWG. #: TLI043

SECTION 7.3

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ANCHOR SCHEDULE										
TYPE	ANCHOR	SUBSTRATE	MIN. EMBEDMENT	MIN. EDGE DISTANCE	MAX. SHIM SPACE	HEAD ANCHOR QTY. PER VERTICAL MULLION	SILL ANCHOR QTY. PER VERTICAL MULLION	HEAD ANCHOR QTY. PER DOOR MULLION	SILL ANCHOR QTY. PER DOOR MULLION	SILL ANCHOR SPACING FOR CONCEALED ANCHORS
A	#14 WOOD SCREW	WOOD, MIN. SG = 0.55	1-1/2"	1"	1/4"	6	12	8	15	8
B	1/4" GR. 5 SELF-DRILLING/SELF-TAPPING SCREW	STEEL STUDS, MIN. 18 GA. THICK, MIN Fy = 33 KSI, OR ALUMINUM, MIN. 1/8" THICK, MIN. 6063-T5	3 THREADS*	3/4"	3/8"	4	6	8	7	15
C	5/16" GR. 5 SELF-DRILLING/SELF-TAPPING SCREW	STEEL STUDS, MIN. 18 GA. THICK, MIN Fy = 33 KSI	3 THREADS*	3/4"	3/8"	3	4	3	5	19
D	1/4" ITW TAPCON	CONCRETE, MIN F'C = 3,000 PSI	1-1/2"	2-1/2"	1/2" (HEAD & CONCEALED SILL) 1/4" (SILL)	4	6	5	7	12
		GROUT-FILLED CMU** PER ASTM C-90, MIN. F'C = 2000 PSI	1"	2"	1/2"	-	-	-	-	-
E	1/4" DEWALT ULTRACON+	CONCRETE, MIN F'C = 3,000 PSI	1-3/4"	2-1/2"	1/4"	3	5	3	6	23
					3/8"	3	5	4	6	19
					1/2"	4	6	4	7	15

INSTALLATION NOTES:

1. *FOR STEEL AND ALUMINUM, ANCHOR SHALL BE OF SUFFICIENT LENGTH TO ACHIEVE 3 THREADS OF PENETRATION BEYOND THE WALL OF THE METAL.

2. **CMU INSTALLATION IS ONLY APPLIED AT THE JAMB.

3. ANCHOR SPACING AT HEAD AND SILL MULLION CLUSTER:
   3.1. TYPES A, B, & C: 1" MIN.
   3.2. TYPES D & E: 3" MIN.

4. ANCHOR QUANTITIES SHOWN ABOVE ARE FOR INTERMEDIATE VERTICALS. AT JAMBS, USE HALF OF THE QUANTITY SHOWN ABOVE. FOR INTERMEDIATE VERTICALS WITH DOOR JAMB ON ONE SIDE, PLACE THE TOTAL NUMBER OF ANCHORS REQUIRED THROUGH THE SIDELITE.

5. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.

6. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.

7. INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.

8. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 1/2 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.

9. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.

10. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.

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

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

11. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.

TUBELITE
DEPENDABLE
LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE DRIVE N.W.
WALKER, MICHIGAN 49544
PH: 800 866 2227 FX: 616 301 0008

TITLE: *14000 FORCEFRONT STORM® STOREFRONT FRAMING (WZ3) (IMPACT)*
ANCHOR SCHEDULE AND INSTALLATION NOTES

PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI COURT, SUITE 2-15
MIAMI, FL 33132
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

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

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

FL #: FL48458

DATE: 09.25.26

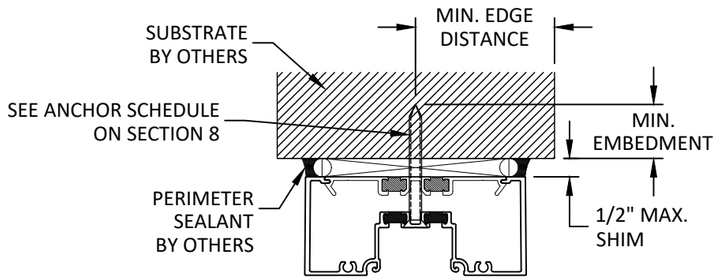
DWG. BY: MS | CHK. BY: HFN

SCALE: NTS

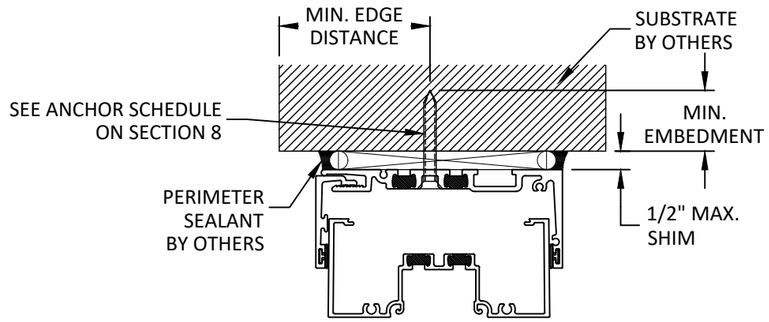
DWG. #: TLI043

SECTION 8

INSTALLATION DETAILS

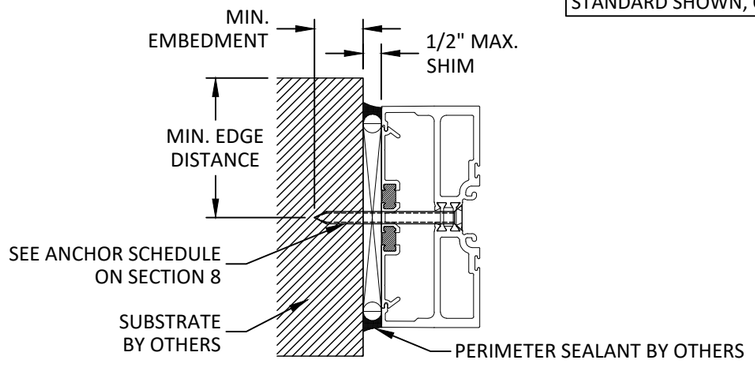


A 9 HEAD ANCHOR DETAIL
OUTSIDE GLAZED

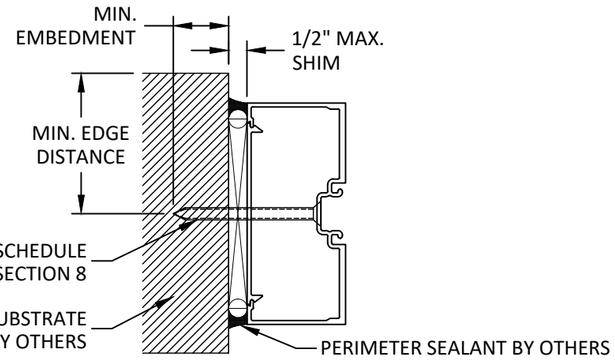


B 9 HEAD ANCHOR DETAIL
HEAD RECEPTOR

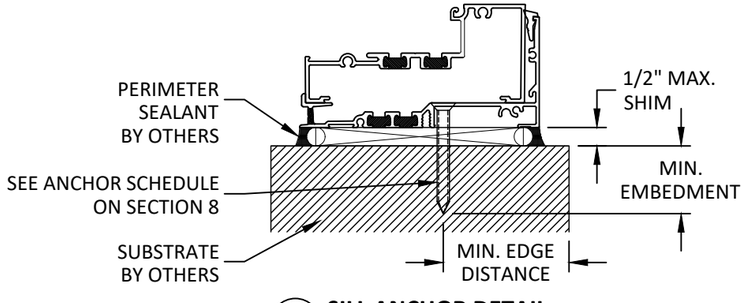
NOTES:
TU14000 SHOWN, E/T14000 SIMILAR.
OUTSIDE GLAZED SHOWN, INSIDE GLAZED SIMILAR.
STANDARD SHOWN, OTHER OPTIONS SIMILAR.



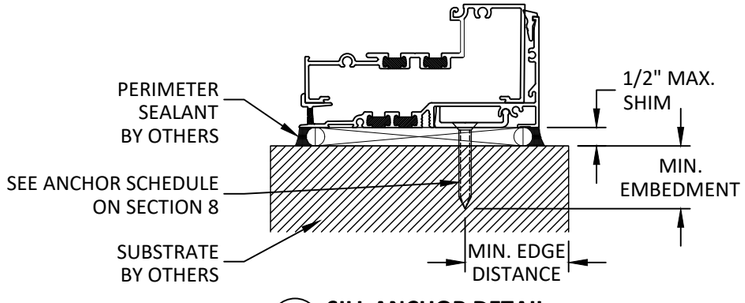
C 9 JAMB ANCHOR DETAIL
THERMAL TRANSOM



D 9 JAMB ANCHOR DETAIL
NON-THERMAL TRANSOM



E 9 SILL ANCHOR DETAIL
OUTSIDE GLAZED



F 9 SILL ANCHOR DETAIL
OUTSIDE GLAZED
CONCEALED SILL

TUBELITE
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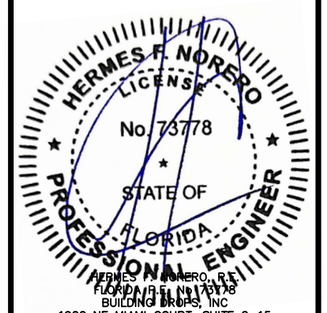
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FL #: FL48458

DATE: 09.25.26

DWG. BY:	CHK. BY:
MS	HFN

SCALE: NTS

DWG. #: TLI043

SECTION 9

10/23/2026 11:43 AM
c:\users\mengoisun\building drops, inc\building drops landing - common\projects\tubelite, inc\fbc-25-0101 - fbc submittal - forcefront storm 14000 storefront system - fl16992\dwgs\tli043.dwg