

# TUBELITE, INC.

## SERIES E34000/T34000 STOREFRONT (WZ3)(IMPACT)

**GENERAL NOTES:**

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND 2018 INTERNATIONAL RESIDENTIAL CODE (IRC), AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
  - TAS 201-94
  - TAS 202-94
  - TAS 203-94
  - ASTM E1996-14a
  - ASTM E1886-13a
  - ASTM E283-04(12)
  - ASTM E331-00(09)
  - ASTM E330-14
  - AAMA 501-15
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.
6. FRAME MATERIAL: ALUMINUM 6063-T5 & ALUMINUM 6063-T6
7. ALL STRUCTURAL MATERIALS & DISSIMILAR METALS SHALL BE PROTECTED, TREATED, PAINTED, COATED, AND/OR ISOLATED AS REQUIRED IN THE APPLICABLE SECTIONS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC), 2018 INTERNATIONAL RESIDENTIAL CODE (IRC), AND REFERENCED DESIGN SPECIFICATIONS.
8. GLASS MEETS THE REQUIREMENTS OF ASTM E 1300 GLASS CHARTS. SEE SHEET 3 FOR GLAZING DETAILS.

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	GENERAL NOTES & TABLE OF CONTENTS
2	ELEVATIONS AND ANCHORS LAYOUT
3	GLAZING DETAILS AND DESIGN PRESSURE TABLE
4	E34000 VERTICAL SECTIONS
5	E34000 HORIZONTAL SECTIONS
6	T34000 VERTICAL & HORIZONTAL SECTIONS
7	MULLION CAPACITY CHART
8	ANCHOR SCHEDULE AND INSTALLATION NOTES
9	ANCHOR CAPACITY CHART
10	INTERMEDIATE MULLION/JAMB ANCHOR CONFIGURATIONS

MISSILE IMPACT RATING	DESIGN PRESSURE
LARGE MISSILE IMPACT RATED	SEE SHEETS 3, 7, 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: SERIES E34000/T34000 STOREFRONT (WZ3)(IMPACT)

GENERAL NOTES & TABLE OF CONTENTS

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
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, P.E.  
TEXAS P.E. NO. 118471  
398 EAST DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
TBPE FIRM NO. 13734

DATE: 02/24/2021	
DWG. BY: LL	CHK. BY: HFN
SCALE: NTS	
DWG. #: TLI013	

SECTION  
1  
OF 10

4/19/2021 7:30 PM  
s:\projects\tubelite, inc\tdi-21-0211 - tdi submittal - fl17192.series e34000.t34000.storefront\dwgs\wz3\tli013\_2021-04-19.dwg

TITLE: **SERIES E34000/T34000**  
**STOREFRONT**  
**(WZ3)(IMPACT)**  
 ELEVATIONS AND ANCHOR LAYOUT

PREPARED BY:  
**BUILDING DROPS, INC.**  
 398 E. DANIA BEACH BLVD., STE. 338  
 DANIA BEACH, FL 33004  
 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, P.E.  
 TEXAS P.E. NO. 118471  
 398 EAST DANIA BEACH BLVD. #338  
 DANIA BEACH, FL 33004  
 TBPE FIRM NO. 13734

DATE: **02/24/2021**

DWG. BY:  
**LL**

CHK. BY:  
**HFN**

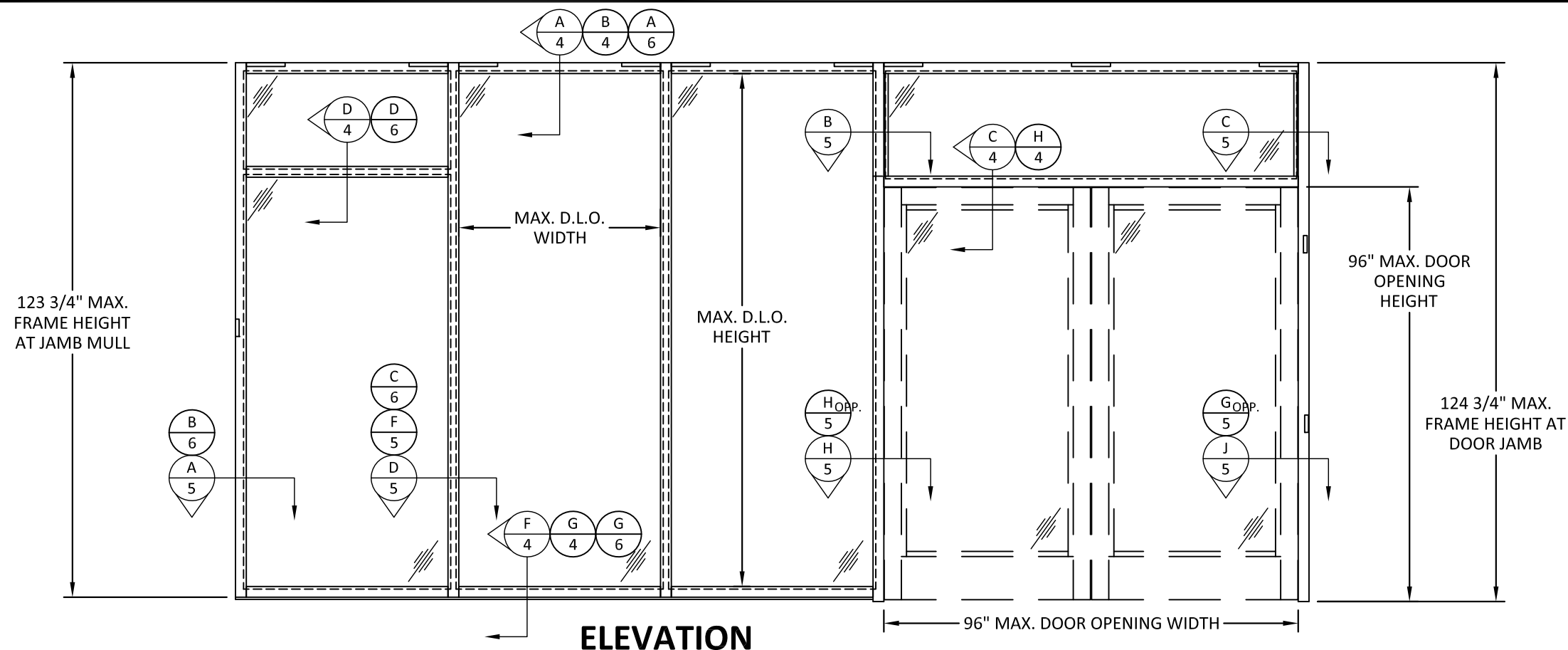
SCALE: **NTS**

DWG. #: **TLI013**

SECTION

**2**

OF 10



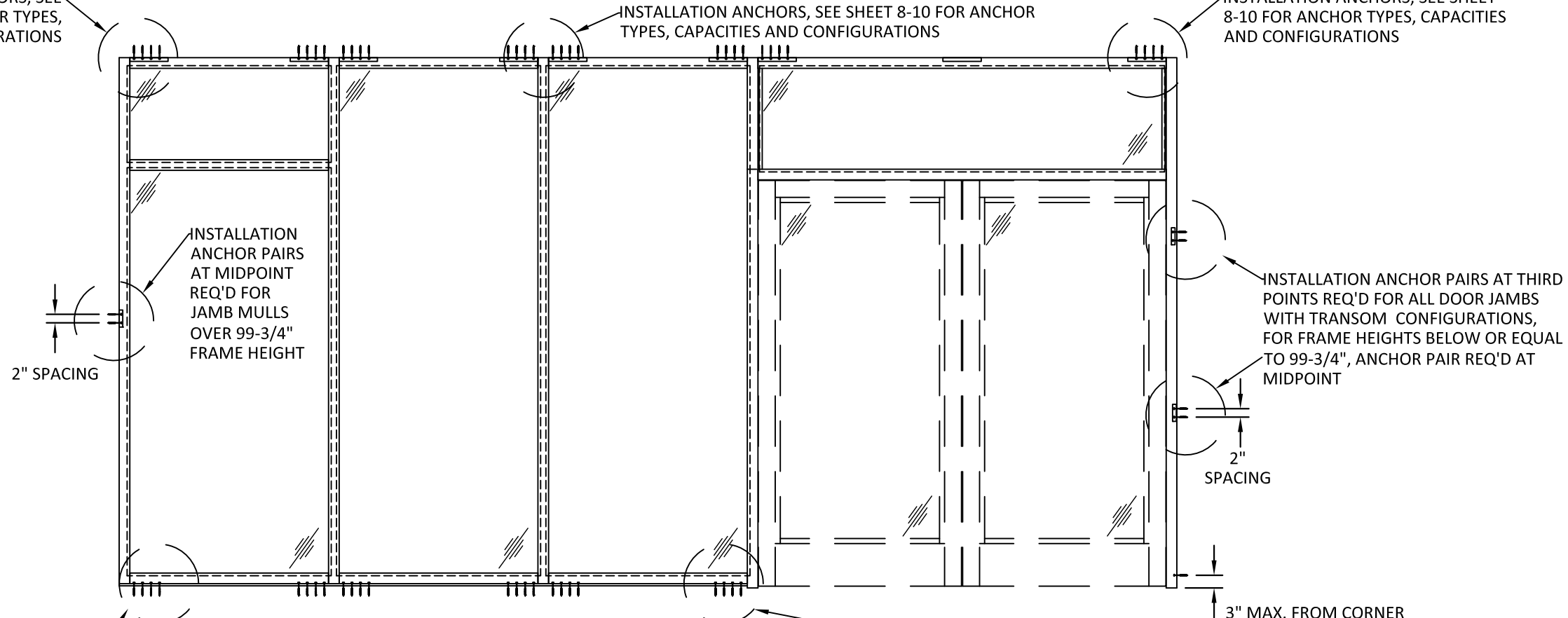
**ELEVATION**

**E34000/T34000 STOREFRONT WITH DOOR AND TRANSOM**

INSTALLATION ANCHORS, SEE SHEET 8-10 FOR ANCHOR TYPES, CAPACITIES AND CONFIGURATIONS

INSTALLATION ANCHORS, SEE SHEET 8-10 FOR ANCHOR TYPES, CAPACITIES AND CONFIGURATIONS

INSTALLATION ANCHORS, SEE SHEET 8-10 FOR ANCHOR TYPES, CAPACITIES AND CONFIGURATIONS



**ANCHOR LAYOUT**

**E34000/T34000 STOREFRONT WITH DOOR AND TRANSOM**

**D.L.O. NOTE:**  
 D.L.O. HEIGHT AND WIDTH LIMITED BY GLASS TYPE, SEE SHEET 3 FOR ADDITIONAL INFORMATION AND ULD CAPACITY CHART.

INSTALLATION ANCHORS, SEE SHEET 8-10 FOR ANCHOR TYPES, CAPACITIES AND CONFIGURATIONS

INSTALLATION ANCHORS, SEE SHEET 8-10 FOR ANCHOR TYPES, CAPACITIES AND CONFIGURATIONS

4/19/2021 7:30 PM

s:\projects\tubelite, inc\tdl\21-0211 - tdl submittal - fl17192.series e34000.t34000 storefront\dwg\wz3\tli013 2021-04-19.dwg

# GLAZING DETAILS AND DESIGN PRESSURE TABLE

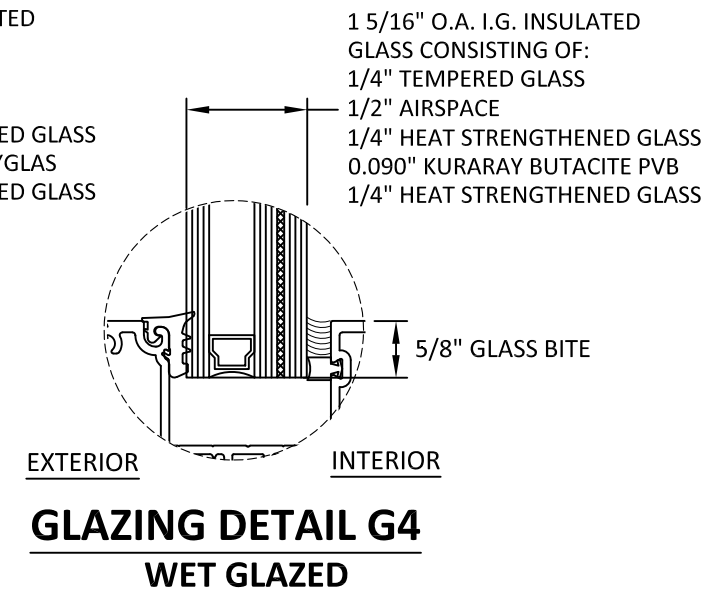
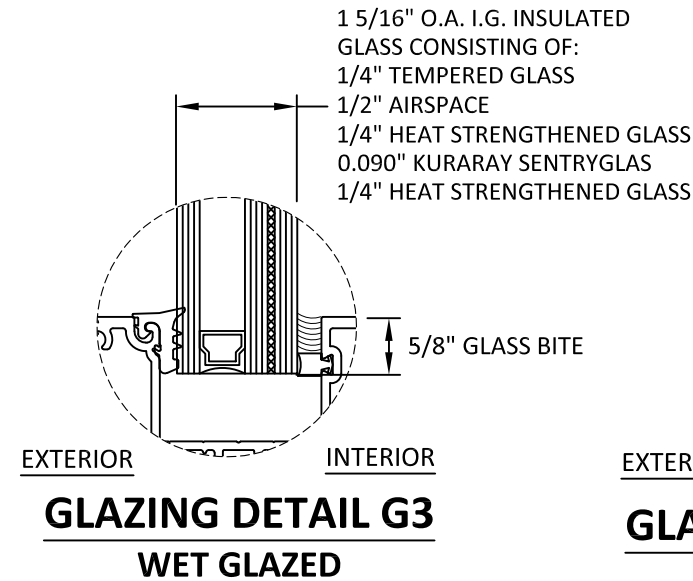
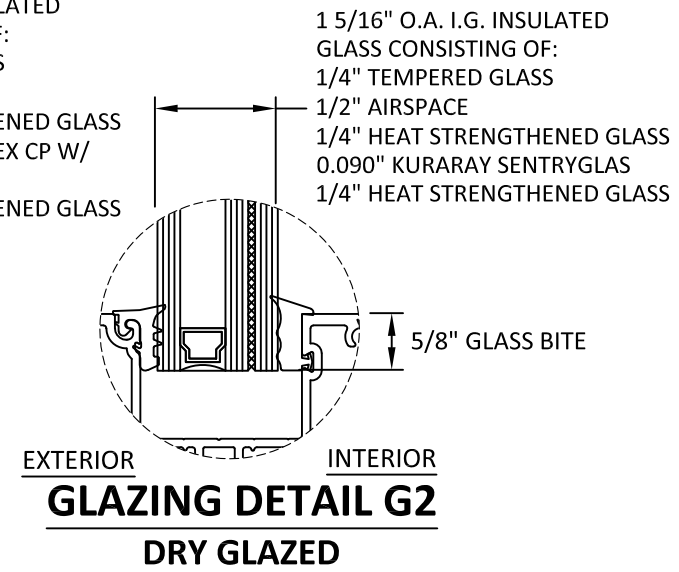
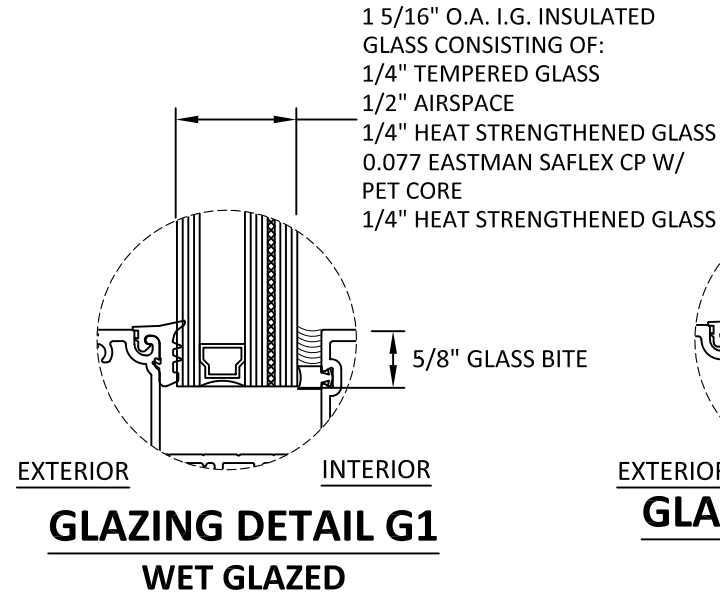
**TUBELITE®**  
DEPENDABLE

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

GLASS LOAD CAPACITY (PSF)				
NOMINAL DIMS.		G1 & G3		G2
DLO WIDTH (in.)	DLO HEIGHT (in.)	EXT. (+) INT. (-)	EXT. (+)	INT. (-)
47	58	70.0	70.0	61.0
	70	70.0	70.0	61.0
	82	70.0	70.0	61.0
	94	70.0	70.0	61.0
	106	70.0	70.0	61.0
	118.75	70.0	70.0	61.0
49	58	66.8	66.8	58.2
	70	66.8	66.8	58.2
	82	66.8	66.8	58.2
	94	66.8	66.8	58.2
	106	66.8	66.8	58.2
52	58	62.9	62.9	54.8
	70	62.9	62.9	54.8
	82	62.9	62.9	54.8
	94	62.9	62.9	54.8
	106	62.9	62.9	54.8
55	58	59.5	59.5	51.9
	70	59.5	59.5	51.9
	82	59.5	59.5	51.9
	94	59.5	59.5	51.9
58	58	56.4	56.4	49.2
	70	56.4	56.4	49.2
	82	56.4	56.4	49.2
	94	56.4	56.4	49.2
61	58	56.4	56.4	49.2
	70	53.6	53.6	46.8
	82	53.6	53.6	46.8
64	58	56.4	56.4	49.2
	70	51.1	51.1	44.6
	82	51.1	51.1	44.6

GLASS LOAD CAPACITY (PSF)		
NOMINAL DIMS.		G4
DLO WIDTH (in.)	DLO HEIGHT (in.)	EXT. (+) INT. (-)
47	34	70.0
	46	70.0
	58	70.0
	70	70.0
	82	70.0
	92.50	70.0
49	34	70.0
	46	70.0
	58	66.8
	70	66.8
	82	66.8
52	34	70.0
	46	70.0
	58	62.9
	70	62.9
	82	62.9
55	34	70.0
	46	70.0
	58	59.5
	70	59.5
58	34	70.0
	46	70.0
	58	56.4
	70	56.4
61	34	70.0
	46	70.0
	58	56.4
64	34	70.0
	46	70.0



- GLAZING NOTES:
- GLASS TYPE & THICKNESS SHALL COMPLY WITH ASTM E1300 REQUIREMENTS AS WELL AS APPLICABLE SAFETY GLAZING REQUIREMENTS PER THE IBC/IRC. TEMPER AND SAFETY GLAZING REQUIREMENTS SHALL BE REVIEWED ON A SITE SPECIFIC BASIS.
  - SETTING BLOCK DUROMETER HARDNESS OF 70-90 (SHORE A).
  - SETTING BLOCKS TO BE LOCATED AT 1/4 SPAN LENGTH FOR GLASS WIDER THAN 36".
  - D.L.O. AND DESIGN PRESSURES MAY NOT EXCEED MAX VALUES IN SIZE CHARTS.

TITLE: SERIES E34000/T34000  
STOREFRONT (WZ3)(IMPACT)  
GLAZING DETAILS AND DESIGN PRESSURE TABLE

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
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



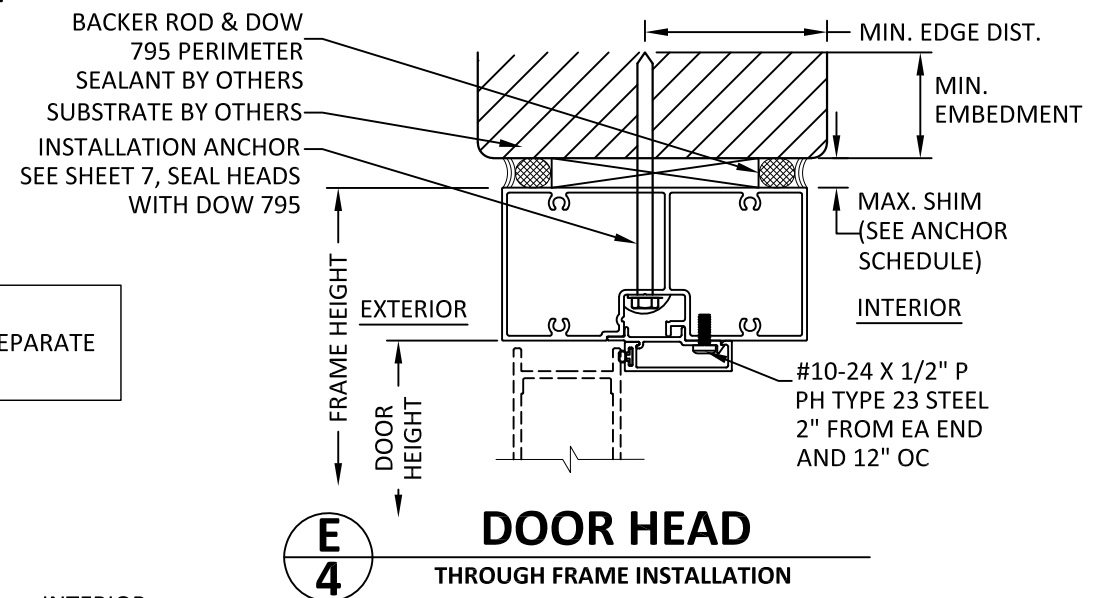
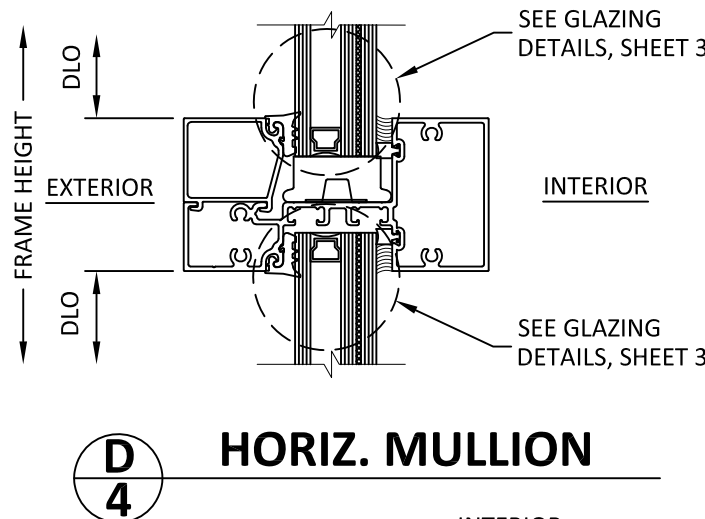
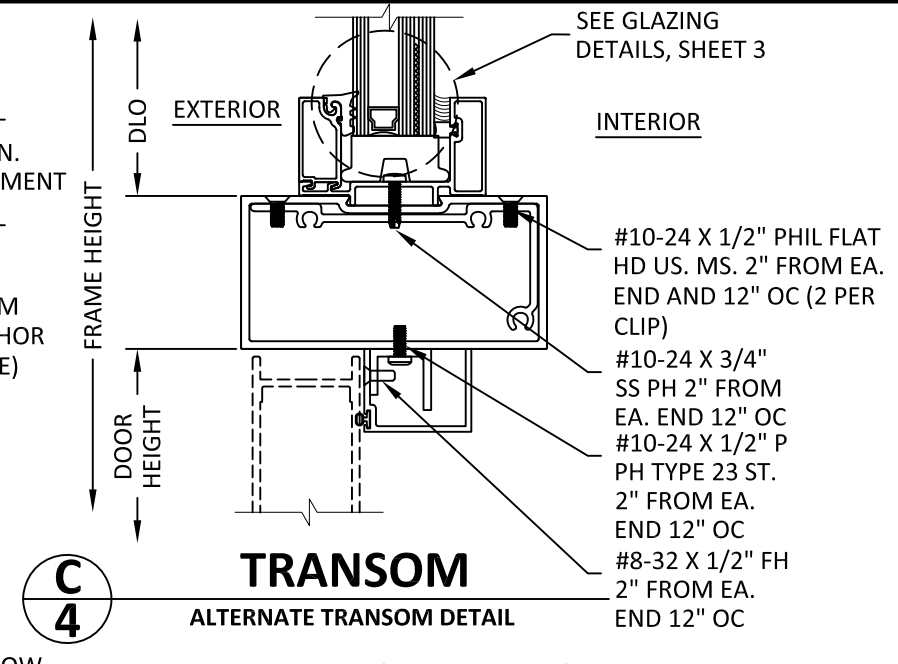
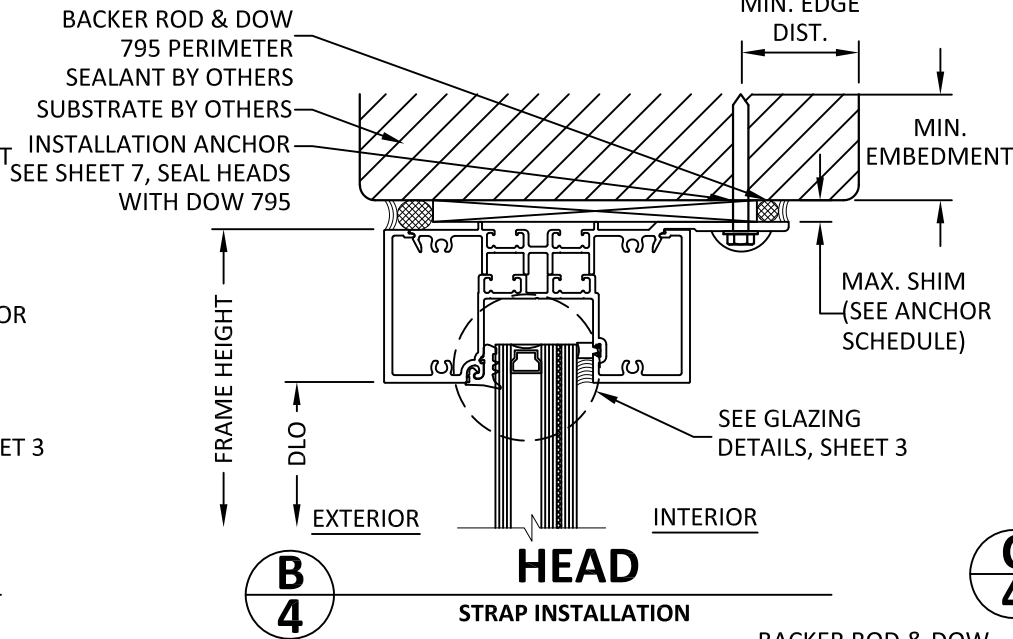
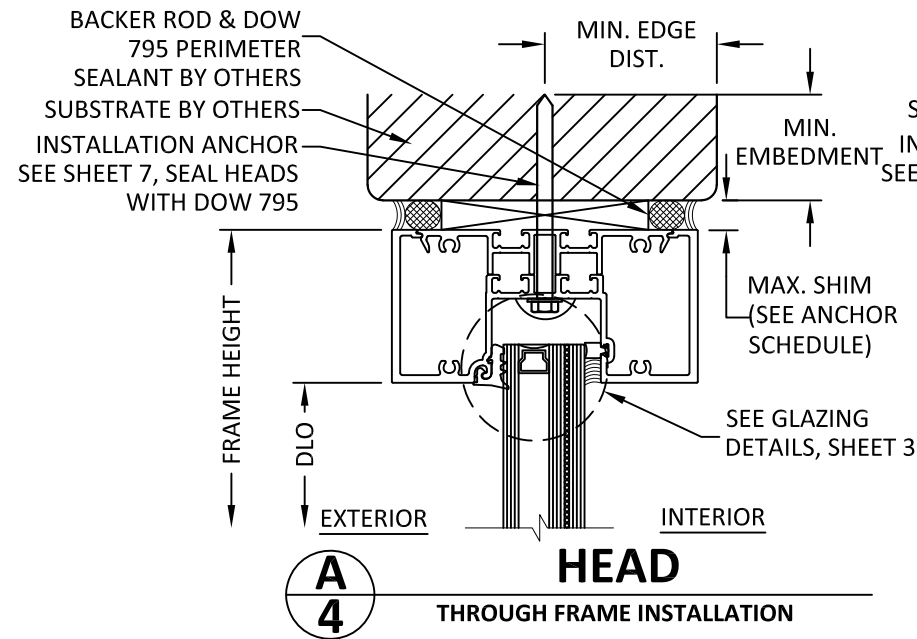
HERMES F. NORERO, P.E.  
TEXAS P.E. NO. 118471  
398 EAST DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
TBE FIRM NO. 13734

DATE: 02/24/2021  
DWG. BY: LL  
CHK. BY: HFN  
SCALE: NTS  
DWG. #: TLI013  
SECTION

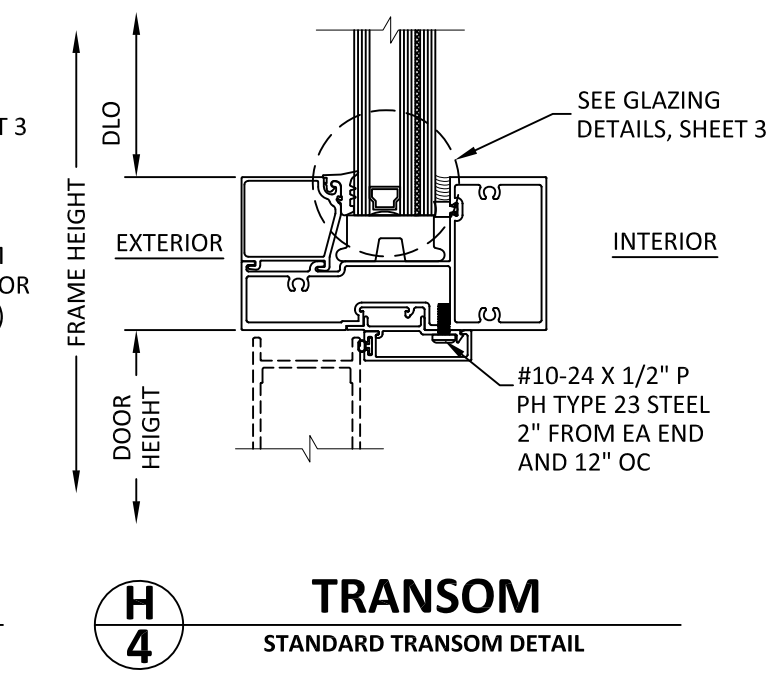
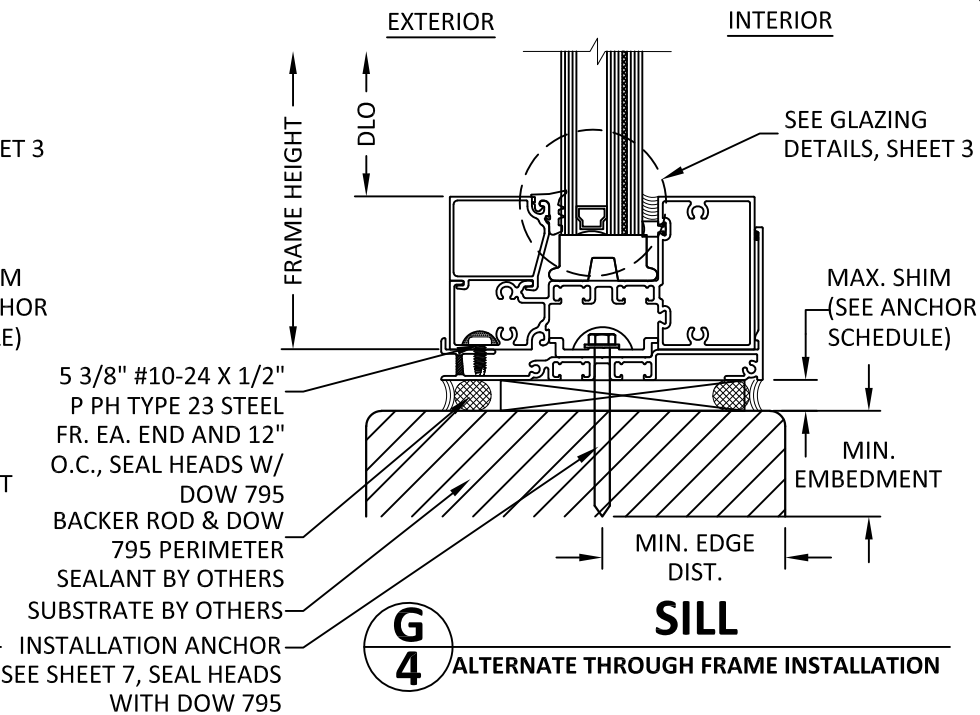
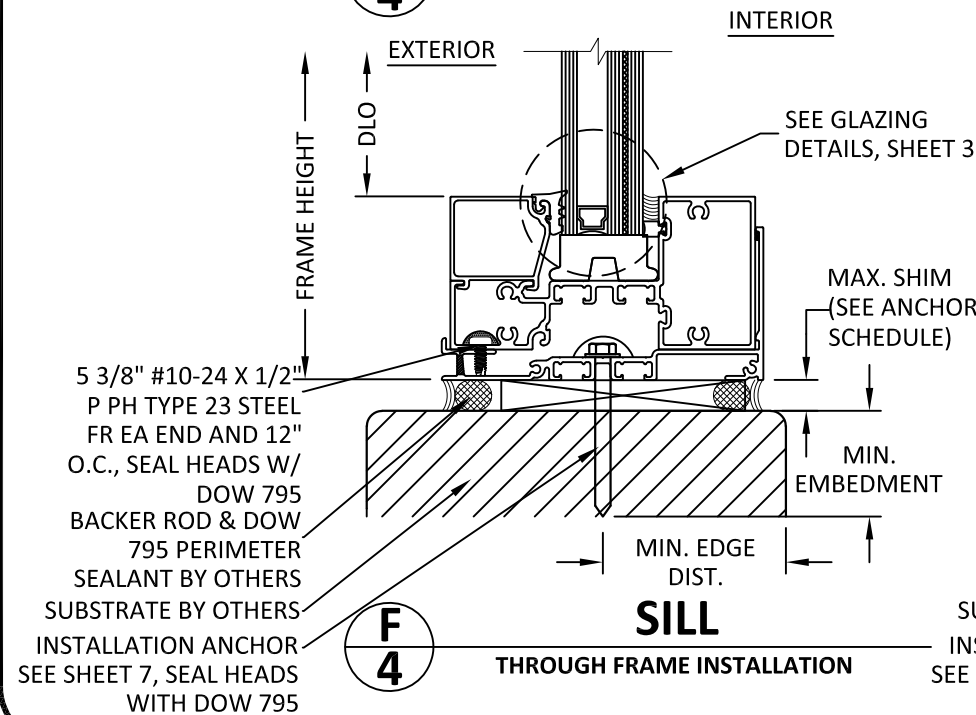
4/19/2021 7:30 PM s:\projects\tubelite, inc\tdi-21-0211 - tdi submittal - fl17192.series e34000.storefront\dwg\twz3\tli013\_2021-04-19.dwg

4/19/2021 7:31 PM

s:\projects\tubelite, inc\tdi-21-0211 - tdi submittal - fl17192.series e34000.storefront\dwg\wz3\tl1013\_2021-04-19.dwg



NOTE:  
DOOR SYSTEMS SHOWN ARE UNDER SEPARATE APPROVAL



**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: SERIES E34000/T34000  
STOREFRONT (WZ3)(IMPACT)  
E34000 VERTICAL SECTIONS

PREPARED BY: BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
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, P.E.  
TEXAS P.E. NO. 118471  
398 EAST DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
TBPE FIRM NO. 13734

DATE: 02/24/2021

DWG. BY: LL      CHK. BY: HFN

SCALE: NTS

DWG. #: TLI013

SECTION

4

OF 10

TITLE: SERIES E34000/T34000  
STOREFRONT  
(WZ3) (IMPACT)  
E34000 HORIZONTAL SECTIONS

PREPARED BY:  
**BUILDING DROPS, INC.**  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
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, P.E.  
TEXAS P.E. NO. 118471  
398 EAST DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
TBPE FIRM NO. 13734

DATE: 02/24/2021

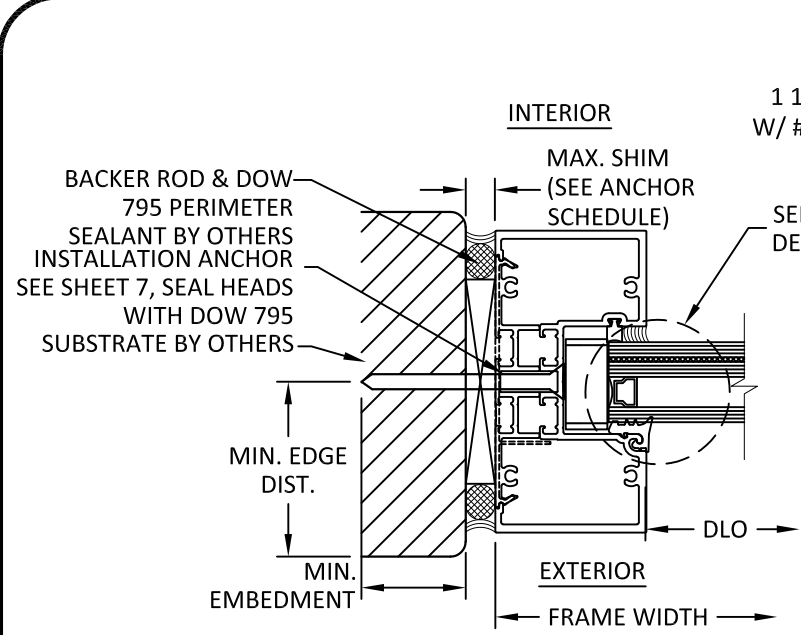
DWG. BY: LL      CHK. BY: HFN

SCALE: NTS

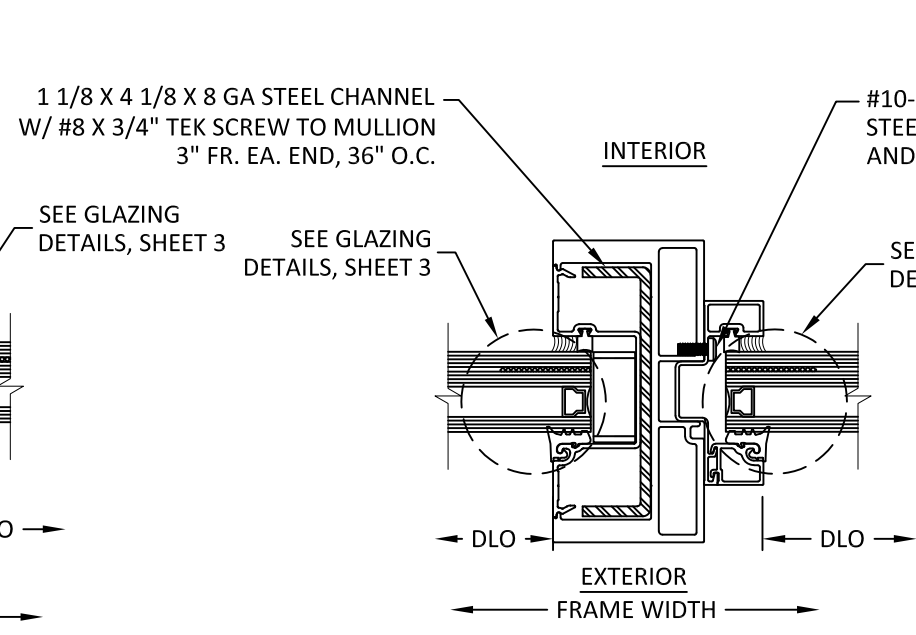
DWG. #: TLI013

SECTION

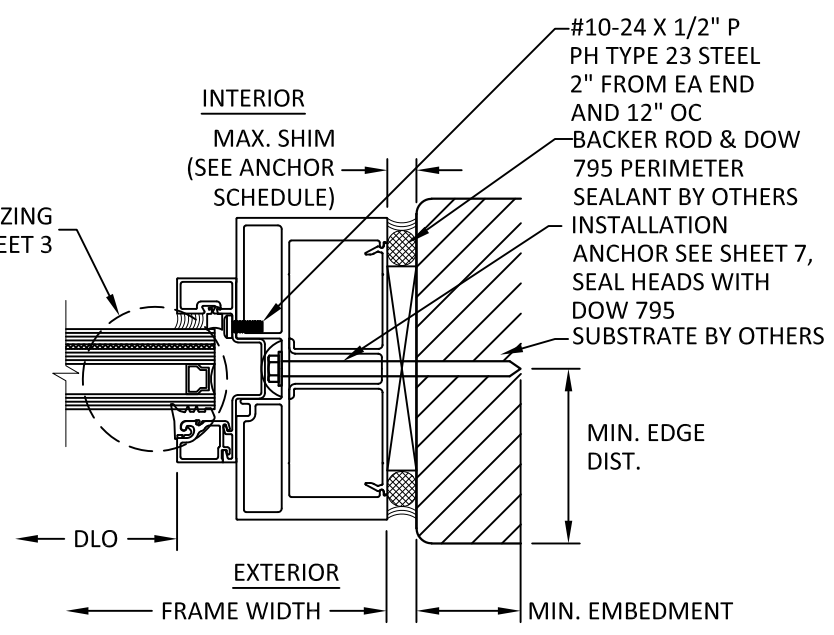
5



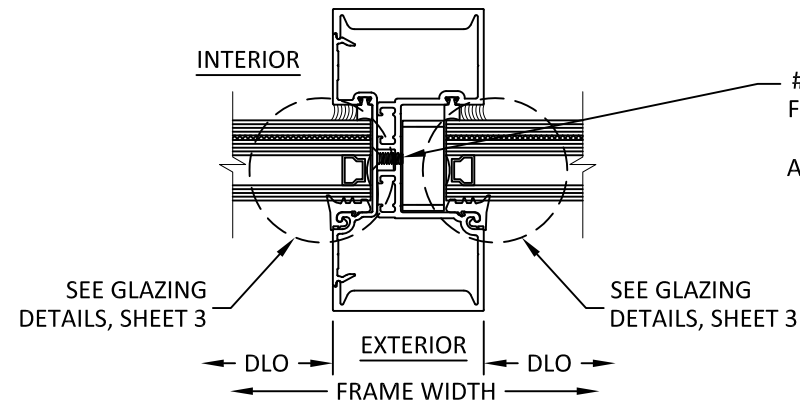
**A**  
**5**  
**JAMB**  
THROUGH FRAME INSTALLATION



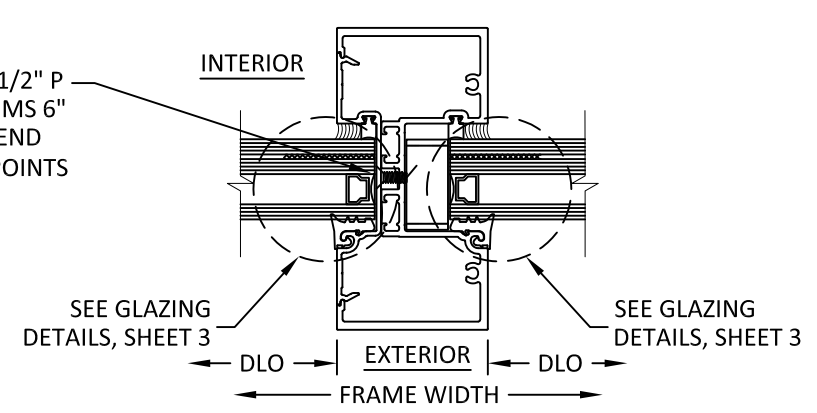
**B**  
**5**  
**DOOR MULLION**  
@ TRANSOM DETAIL



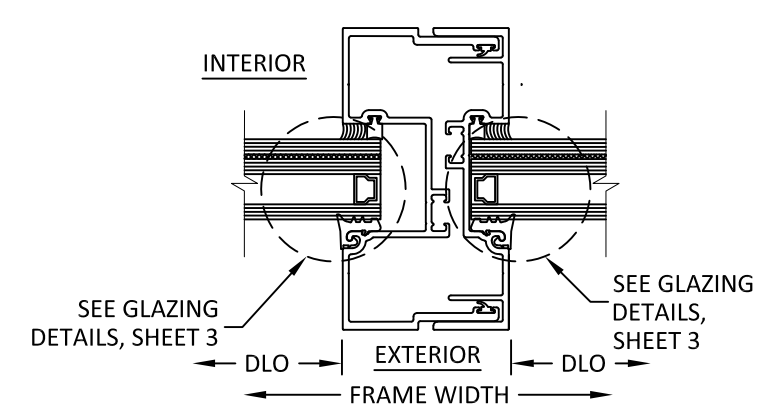
**C**  
**5**  
**DOOR JAMB**  
@ TRANSOM DETAIL  
THROUGH FRAME INSTALLATION



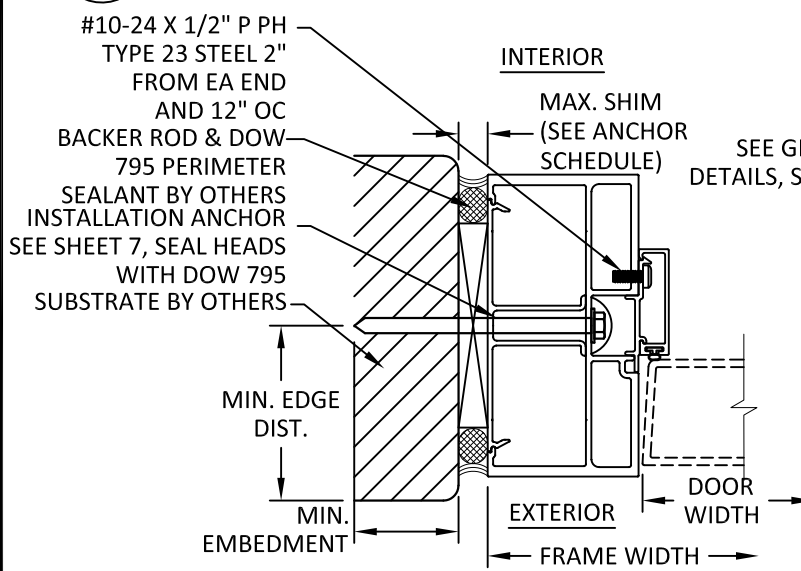
**D**  
**5**  
**VERTICAL MULLION**



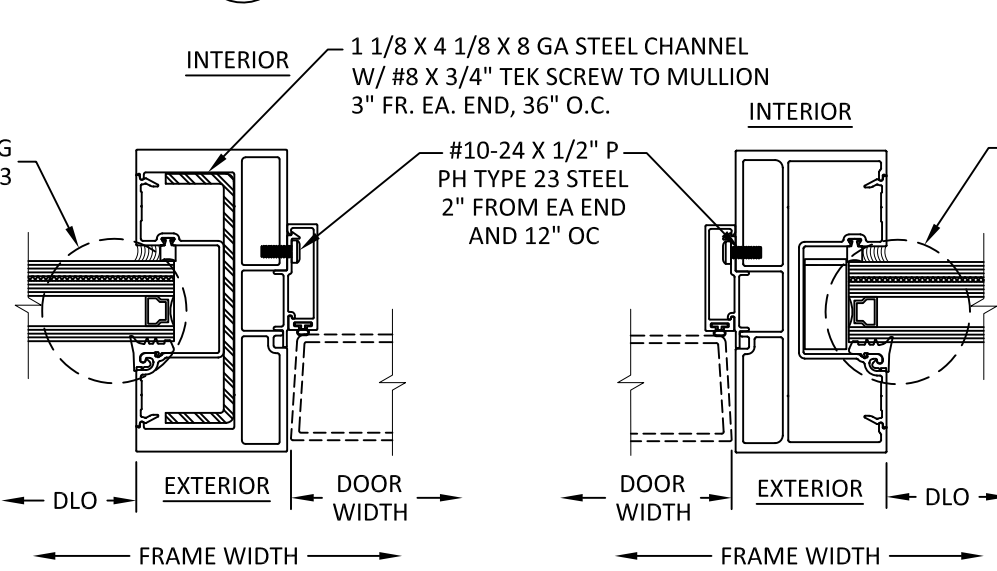
**E**  
**5**  
**VERTICAL MULLION**



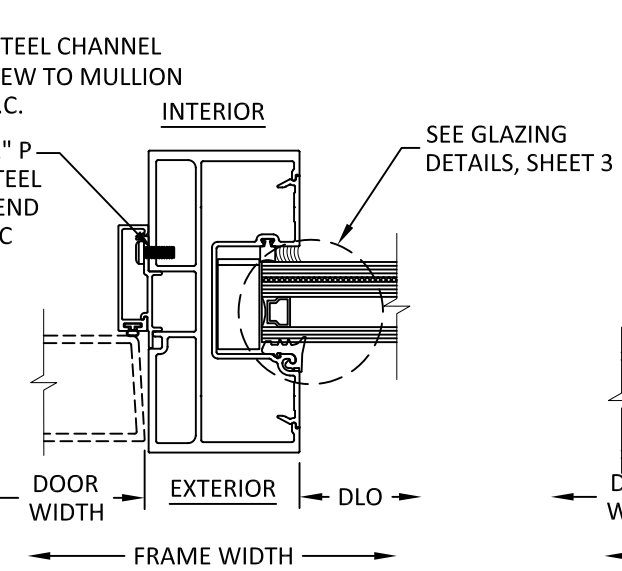
**F**  
**5**  
**VERTICAL MULLION**



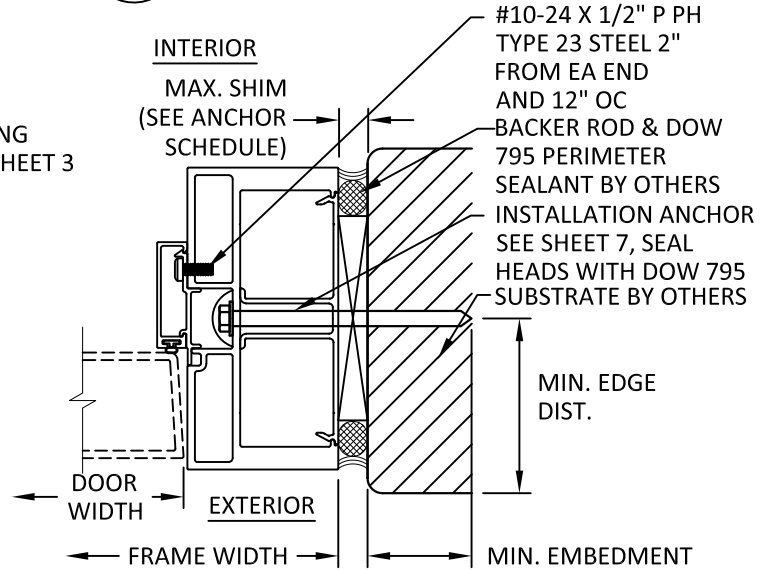
**G**  
**5**  
**DOOR JAMB**  
THROUGH FRAME INSTALLATION



**H**  
**5**  
**DOOR MULLION**



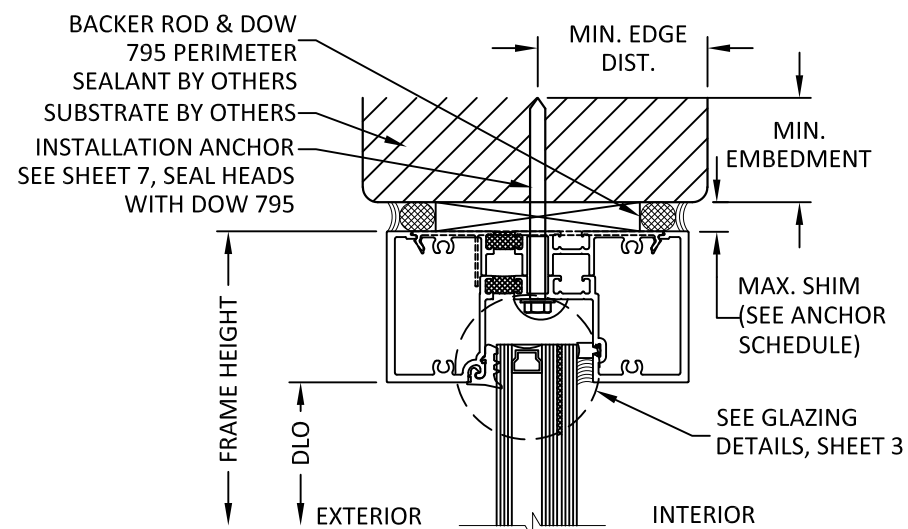
**I**  
**5**  
**DOOR MULLION**



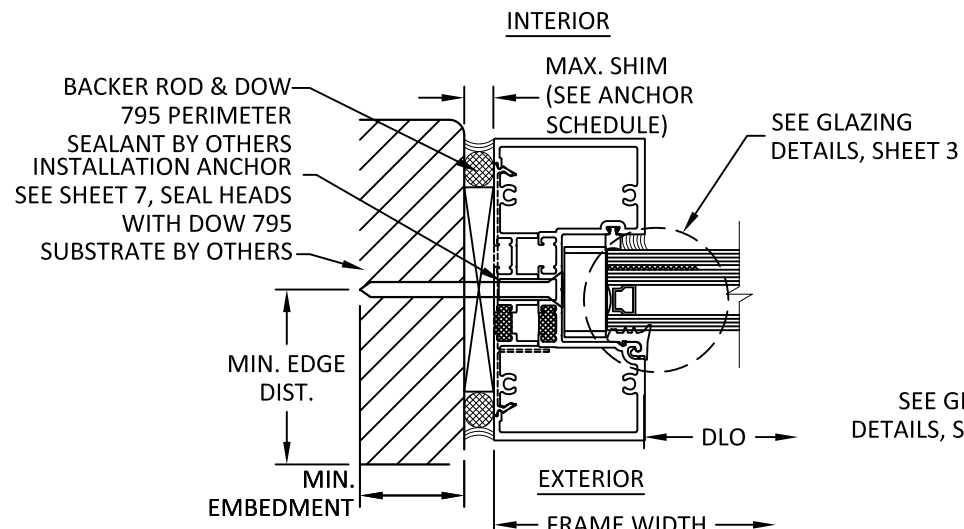
**J**  
**5**  
**DOOR JAMB**  
THROUGH FRAME INSTALLATION

4/19/2021 7:31 PM

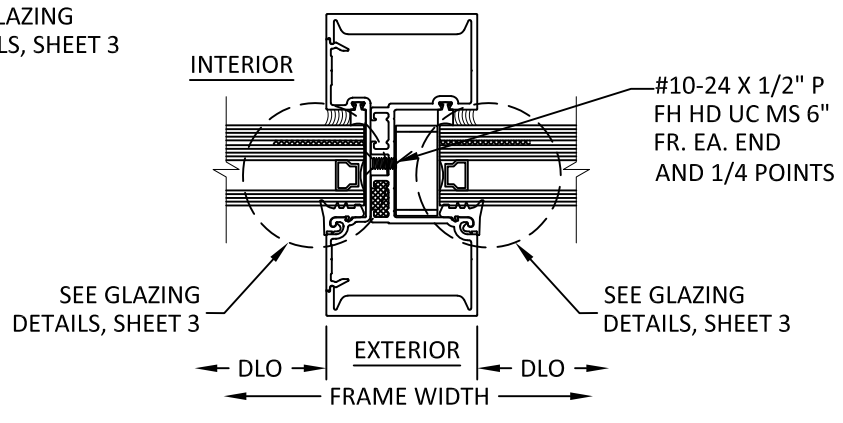
s:\projects\tubelite, inc\tdi-21-0211- tdi submittal - fl17192.series e34000.storefront\dwg\twz3\tl013\_2021-04-19.dwg



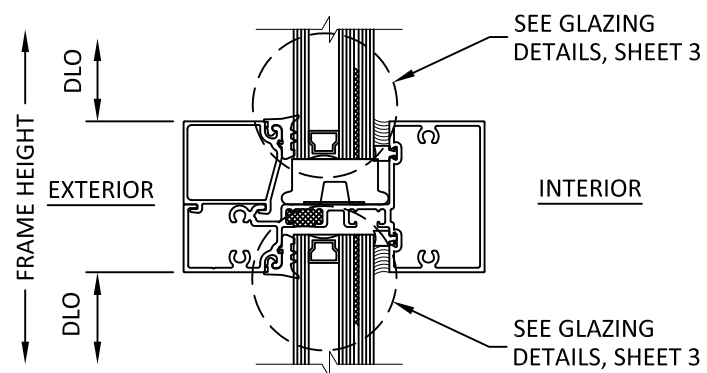
**A**  
**6**  
**HEAD**  
SINGLE POUR  
THROUGH FRAME INSTALLATION



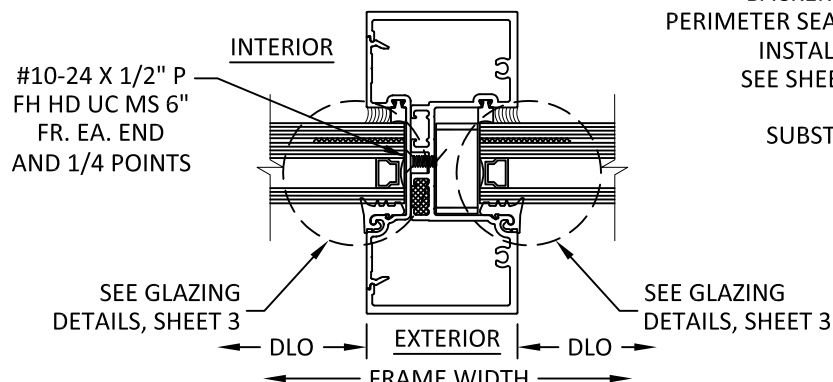
**B**  
**6**  
**JAMB**  
SINGLE POUR  
THROUGH FRAME INSTALLATION



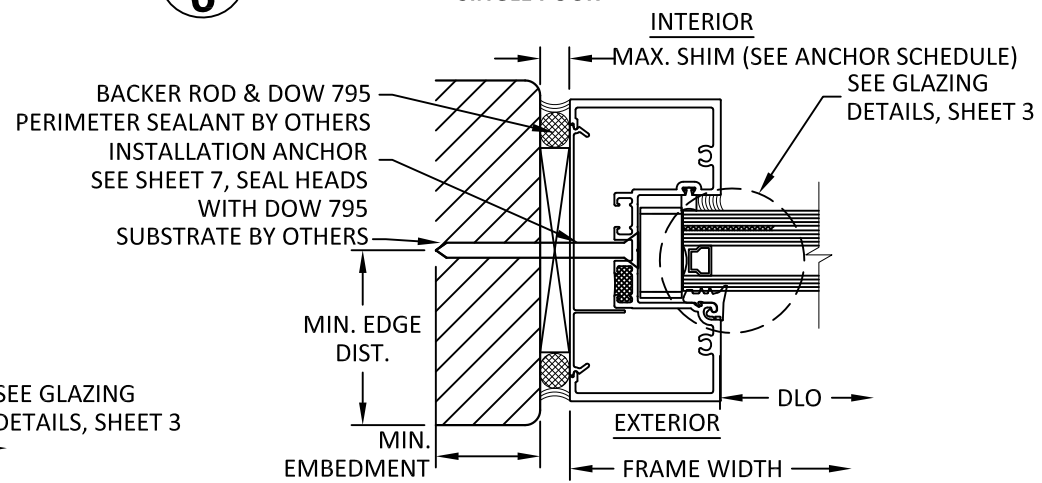
**C**  
**6**  
**VERTICAL MULLION**  
SINGLE POUR



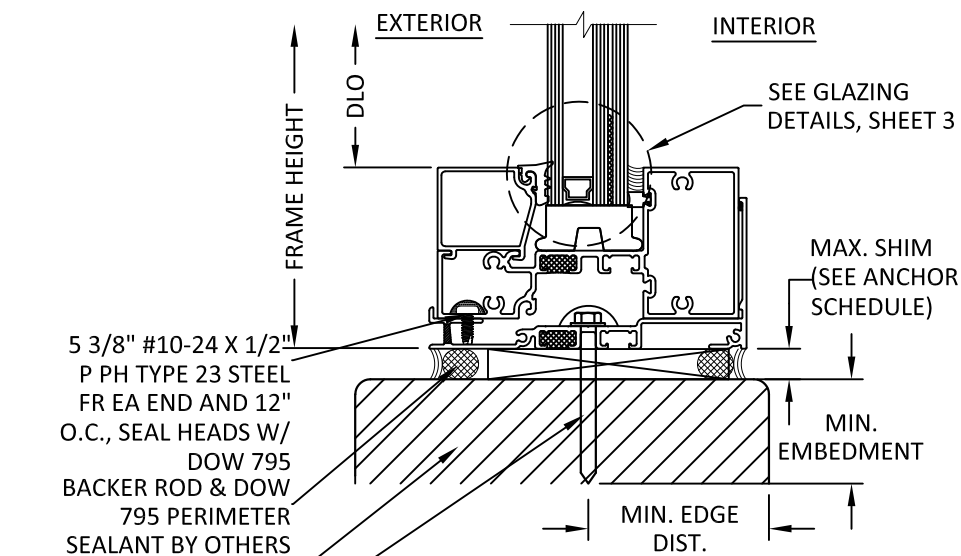
**D**  
**6**  
**HORIZ. MULLION**  
SINGLE POUR



**E**  
**6**  
**VERTICAL MULLION**  
SINGLE POUR



**F**  
**6**  
**JAMB**  
SINGLE POUR  
THROUGH FRAME INSTALLATION



**G**  
**6**  
**SILL**  
SINGLE POUR  
THROUGH FRAME INSTALLATION

**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: SERIES E34000/T34000  
STOREFRONT  
(WZ3)(IMPACT)  
T34000 VERTICAL & HORIZONTAL  
SECTIONS

PREPARED BY:  
**BUILDING DROPS, INC.**  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
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, P.E.  
TEXAS P.E. NO. 118471  
398 EAST DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
TBPE FIRM NO. 13734

DATE: 02/24/2021	
DWG. BY: LL	CHK. BY: HFN
SCALE: NTS	
DWG. #: TLI013	
SECTION	

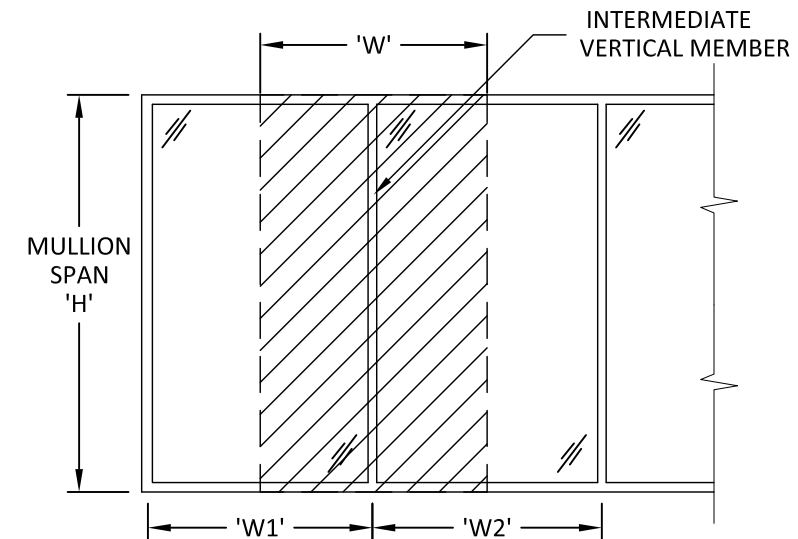
6

OF 10

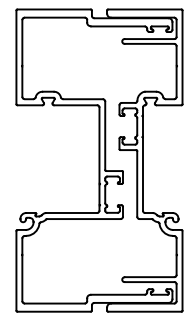
# MULLION CAPACITY CHART

DESIGN PRESSURE TABLE: VERTICAL SECTION CAPACITY - SINGLE SPAN

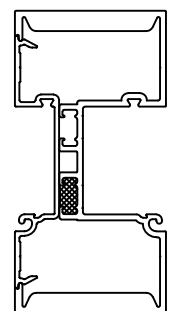
TRIBUTARY WIDTH 'W' (INCH)	SPAN HEIGHT 'H' (INCH)	MULLION M1 (PSF)	MULLION M2 (PSF)	MULLION M4 (PSF)	MULLION M5 OR M6 (PSF)	MULLION MR5 OR MR6 (PSF)	TRIBUTARY WIDTH 'W' (INCH)	SPAN HEIGHT 'H' (INCH)	MULLION M3, M7 OR M8 (PSF)
49	87	70.0	+58/-55	70.0	+70/-61	+70/-68	49	63	50.0
54		70.0	+58/-55	70.0	+70/-61	+70/-68	54		50.0
57		70.0	+58/-55	70.0	+70/-61	+70/-68	57		50.0
60		70.0	+58/-55	70.0	+70/-61	+70/-68	60		50.0
63		70.0	+58/-55	70.0	+70/-61	+70/-68	63		50.0
66		70.0	+58/-55	70.0	+70/-61	+70/-68	66		50.0
69		70.0	+58/-55	70.0	+70/-61	+70/-68	69		50.0
49	99	70.0	+58/-55	70.0	+70/-61	+70/-68	49	75	50.0
54		70.0	+58/-55	70.0	+70/-61	+70/-68	54		50.0
57		70.0	+58/-55	70.0	+70/-61	+70/-68	57		50.0
60		70.0	+58/-55	70.0	+70/-61	+70/-68	60		50.0
42	87	70.0	+58/-55	70.0	+70/-61	+70/-68	49	87	50.0
45		70.0	+58/-55	70.0	+70/-61	+70/-68	54		50.0
48		70.0	+58/-55	70.0	+70/-61	+70/-68	49		50.0
49		70.0	+58/-55	70.0	+70/-61	+70/-68	49		50.0
54		70.0	+58/-55	70.0	+70/-61	+70/-68	49		99.50
36	123.75	70.0	+58/-55	70.0	+70/-61	+70/-68			
39		70.0	+58/-55	70.0	+70/-61	+70/-68			
42		70.0	+58/-55	70.0	+70/-61	+70/-68			
45		68.9	+58/-55	70.0	+70/-61	+70/-68			
48		65.1	+58/-55	70.0	+70/-61	+70/-68			
49		63.7	+58/-55	70.0	+70/-61	+70/-68			



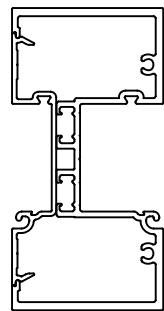
MULLION: TRIBUTARY WIDTH (W) =  $\frac{W1 + W2}{2}$   
 JAMB: TRIBUTARY WIDTH (W) =  $\frac{W1}{2}$



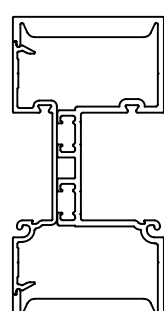
EXPANSION MULLION "M1"



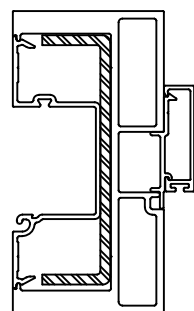
THERMALLY INSULATED HD MULLION "M2"



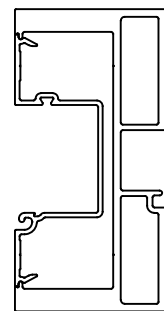
STANDARD MULLION "M3"



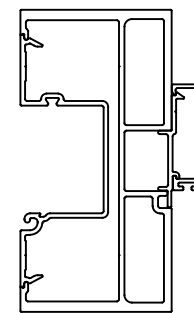
HD MULLION "M4"



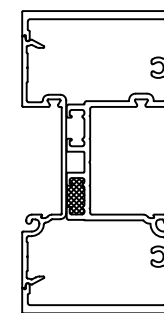
REINFORCED HD DOOR MULLION "MR5" + "MR6"



HD DOOR MULLION "M5" + "M6"



STANDARD DOOR MULLION "M7"



THERMALLY INSULATED STANDARD MULLION "M8"

**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: SERIES E34000/T34000  
 STOREFRONT (WZ3)(IMPACT)  
 MULLION CAPACITY CHART

PREPARED BY: BUILDING DROPS, INC.  
 398 E. DANIA BEACH BLVD., STE. 338  
 DANIA BEACH, FL 33004  
 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, P.E.  
 TEXAS P.E. NO. 118471  
 398 EAST DANIA BEACH BLVD. #338  
 DANIA BEACH, FL 33004  
 TBPE FIRM NO. 13734

DATE: 02/24/2021  
 DWG. BY: LL  
 CHK. BY: HFN  
 SCALE: NTS  
 DWG. #: TLI013

SECTION 7 OF 10

4/19/2021 7:31 PM  
 s:\projects\tubelite, inc\tdi-21-0211 - tdi submittal - fl17192.series e34000.storefront\dwgs\wz3\1013 2021-04-19.dwg

TITLE: SERIES E34000/T34000  
STOREFRONT  
(WZ3)(IMPACT)  
ANCHOR SCHEDULE AND  
INSTALLATION NOTES

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
FAX: (954)744-4738  
WEB: www.buildingdrops.com



ANCHOR SCHEDULE					
TYPE	ANCHOR	SUBSTRATE	MIN. EMBEDMENT	MIN. EDGE DISTANCE	MAX. SHIM SPACE
A	#14 WOOD SCREW (STAINLESS STEEL)	2X WOOD MIN. S.G.=0.42	1.50"	1.00"	0.25"
	7/16" LAG SCREW	2X WOOD MIN. S.G.=0.42	1.50"	1.50"	0.125"
B	1/4" ELCO ULTRACON (CARBON STEEL)	3050 PSI CONCRETE MIN.	1.75"	2.50"	0.50"
		GROUT FILLED CMU PER ASTM C-90 W/ MIN. F'C=2000 PSI	1.25"	2.50"	0.50"
	1/4" ITW TAPCON (CARBON OR STAINLESS STEEL)	3000 PSI CONCRETE MIN.	1.75"	2.50"	0.50"
		GROUT FILLED CMU PER ASTM C-90 W/ MIN. F'C=2000 PSI	1.00"	2.50"	0.50"
	1/4" HILTI KWIK-CON II+ (CARBON OR STAINLESS STEEL)	2000 PSI CONCRETE MIN.	1.00"	1.50"	0.50"
		GROUT FILLED CMU PER ASTM C-90 W/ MIN. F'C=2000 PSI	1.00"	1.50"	0.50"
	3/8" POWERS TAPPER (CARBON STEEL)	3000 PSI CONCRETE MIN.	1.25"	2.50"	0.50"
		GROUT FILLED CMU PER ASTM C-90 W/ MIN. F'C=2000 PSI	1.7500	3.00"	0.50"
	3/8" ITW LDT (CARBON STEEL)	3000 PSI CONCRETE MIN.	1.50"	2.50"	0.50"
		GROUT FILLED CMU PER ASTM C-90. MIN. F'C=2000 PSI	1.50"	3.00"	0.50"
3/8" ITW TRUBOLT WEDGE (CARBON STEEL OR SS)	3000 PSI CONCRETE MIN.	1.50"	2.50"	0.50"	
C	1/4" GR. 5 SELF-TAPPING/DRILLING SCREW	MIN. 0.090" 6063-T5 ALUMINUM	3 THREADS*	1.00"	0.50"
		MIN. 18 GA STEEL STUD (0.0478") 33 KSI			
	5/16" GR. 5 SELF-TAPPING/DRILLING SCREW	MIN. 0.090" 6063-T5 ALUMINUM			
		MIN. 18 GA STEEL STUD (0.0478") 33 KSI			

**INSTALLATION NOTES:**

- \*FOR STEEL AND ALUMINUM, ANCHOR SHALL BE OF SUFFICIENT LENGTH TO ACHIEVE 3 THREADS OF PENETRATION BEYOND THE WALL OF THE METAL.
- ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
- 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.
- 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.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
- INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- 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.

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, P.E.  
TEXAS P.E. NO. 118471  
398 EAST DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
TBPE FIRM NO. 13734

DATE: 02/24/2021  
DWG. BY: LL      CHK. BY: HFN  
SCALE: NTS  
DWG. #: TLI013

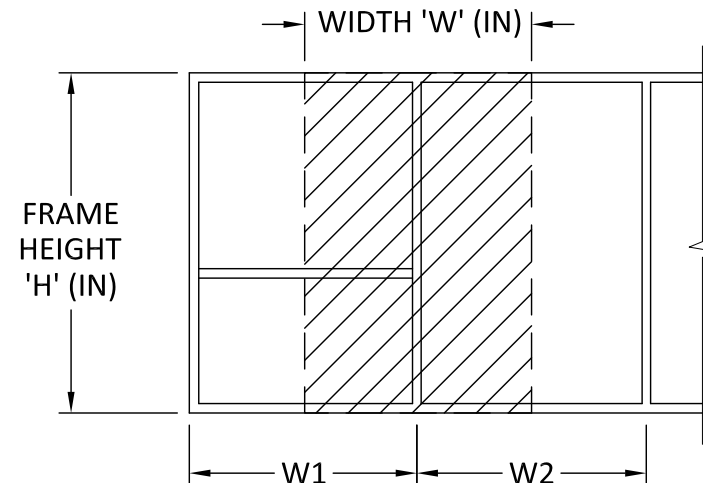
SECTION  
8

4/19/2021 7:31 PM s:\projects\tubelite, inc\tdi-21-0211 - tdi submittal - fl17192.series e34000.storefront\dwg\twz3\tli013 2021-04-19.dwg



# ANCHOR CAPACITY CHART

"ANCHOR LOAD CAPACITY - QUANTITY OF ANCHORS CLUSTERED ON EACH SIDE OF MULLION PSF - EXT. (+) & INT. (-)"										
NOMINAL DIMS.		A			B			C		
WIDTH (W)	FRAME HEIGHT	1	2	3	1	2	3	1	2	
36	87	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
39		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
42		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
45		70.0	70.0	70.0	67.5	70.0	70.0	70.0	70.0	
48		70.0	70.0	70.0	64.8	70.0	70.0	70.0	70.0	
49		69.2	70.0	70.0	63.8	70.0	70.0	70.0	70.0	
54		65.6	70.0	70.0	60.4	70.0	70.0	70.0	70.0	
57		63.7	70.0	70.0	58.7	70.0	70.0	70.0	70.0	
60		62.1	70.0	70.0	57.3	70.0	70.0	70.0	70.0	
63		60.8	70.0	70.0	56.0	70.0	70.0	70.0	70.0	
66		59.6	70.0	70.0	54.9	70.0	70.0	69.6	70.0	
69		58.7	70.0	70.0	54.1	70.0	70.0	68.5	70.0	
36		99.50	70.0	70.0	70.0	67.2	70.0	70.0	70.0	70.0
39			68.5	70.0	70.0	63.2	70.0	70.0	70.0	70.0
42	64.9		70.0	70.0	59.8	70.0	70.0	70.0	70.0	
45	61.7		70.0	70.0	56.9	70.0	70.0	70.0	70.0	
48	59.0		70.0	70.0	54.4	70.0	70.0	68.9	70.0	
49	58.1		70.0	70.0	53.5	70.0	70.0	67.8	70.0	
54	54.7		70.0	70.0	50.4	70.0	70.0	63.8	70.0	
36	111	63.5	70.0	70.0	58.5	70.0	70.0	70.0	70.0	
39		59.6	70.0	70.0	54.9	70.0	70.0	69.5	70.0	
42		56.2	70.0	70.0	51.8	70.0	70.0	65.6	70.0	
45		53.4	70.0	70.0	49.2	70.0	70.0	62.3	70.0	
48		50.9	70.0	70.0	46.9	70.0	70.0	59.4	70.0	
49		50.0	70.0	70.0	46.1	70.0	70.0	58.4	70.0	
54		46.9	70.0	70.0	43.2	70.0	70.0	54.7	70.0	
36	123.75	55.8	70.0	70.0	51.4	70.0	70.0	65.2	70.0	
39		52.3	70.0	70.0	48.2	70.0	70.0	61.0	70.0	
42		49.2	70.0	70.0	45.4	70.0	70.0	57.5	70.0	
45		46.6	70.0	70.0	43.0	70.0	70.0	54.4	70.0	
48		44.4	70.0	70.0	40.9	70.0	70.0	51.8	70.0	
49	43.6	70.0	70.0	40.1	70.0	70.0	50.9	70.0		



MULLION: WIDTH (W) =  $\frac{W1 + W2}{2}$

JAMB: WIDTH (W) =  $\frac{W1}{2}$

**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: SERIES E34000/T34000  
STOREFRONT  
(WZ3)(IMPACT)  
ANCHOR CAPACITY CHART

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
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



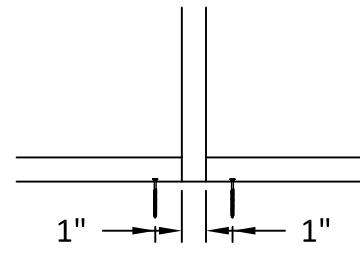
HERMES F. NORERO, P.E.  
TEXAS P.E. NO. 118471  
398 EAST DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
TBPE FIRM NO. 13734

DATE: 02/24/2021  
DWG. BY: LL  
CHK. BY: HFN  
SCALE: NTS  
DWG. #: TLI013

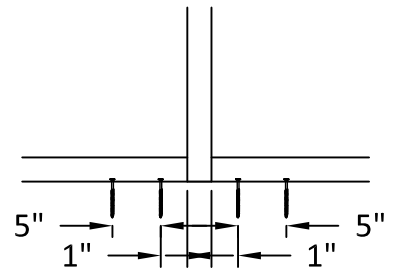
SECTION  
9

4/19/2021 7:31 PM  
s:\projects\tubelite, inc\tdi-21-0211 - tdi submittal - fl17192.series e34000.storefront\dwg\twz3\tli013\_2021-04-19.dwg

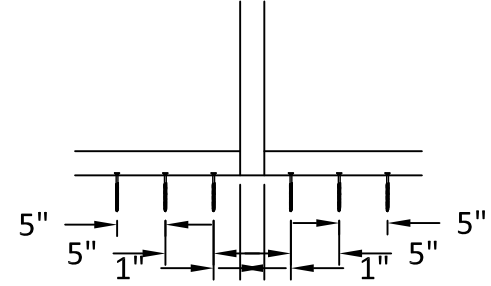
# MULLION ANCHOR CONFIGURATIONS



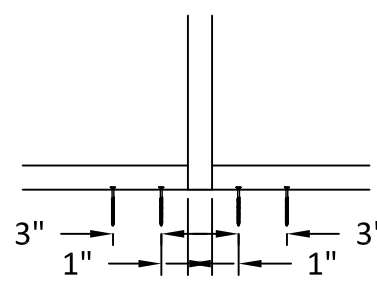
**A**  
10 ANCHOR  
A1, B1, C1



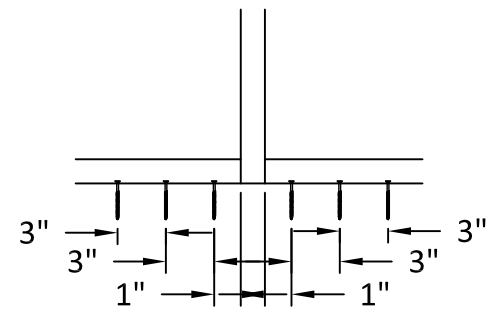
**B**  
10 ANCHOR  
B2



**C**  
10 ANCHOR  
B3



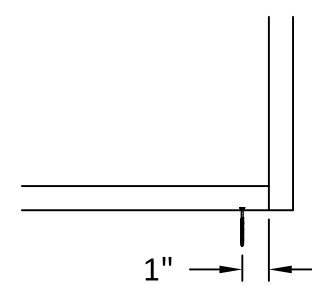
**D**  
10 ANCHOR  
A2, C2



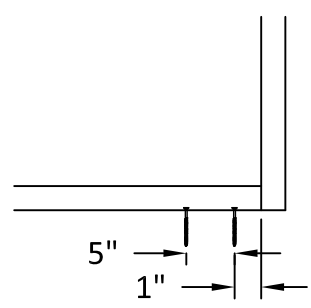
**E**  
10 ANCHOR  
A3

NOTE:  
DEPICTED SPACING SHOWS MINIMUM  
REQUIREMENTS TO ACHIEVE FULL  
CAPACITY FOR ALL INSTALLATION  
ANCHORS REFERENCED ON ANCHOR  
SCHEDULE AND CHARTS.

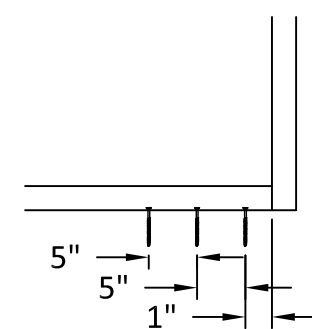
# JAMB ANCHOR CONFIGURATIONS



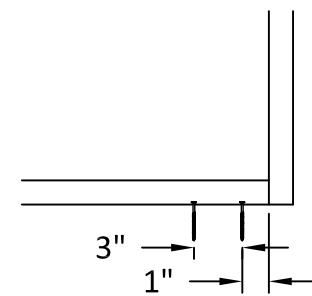
**F**  
10 ANCHOR  
A1, B1, C1



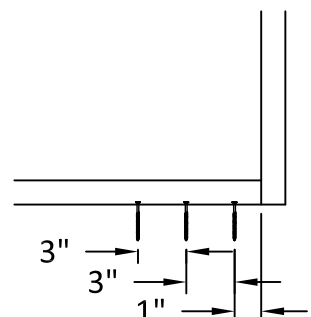
**G**  
10 ANCHOR  
B2



**H**  
10 ANCHOR  
B3



**I**  
10 ANCHOR  
A2, C2



**J**  
10 ANCHOR  
A3

**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: SERIES E34000/T34000  
STOREFRONT  
(WZ3)(IMPACT)  
INTERMEDIATE MULLION/JAMB  
ANCHOR CONFIGURATIONS

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
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, P.E.  
TEXAS P.E. NO. 118471  
398 EAST DANIA BEACH BLVD. #338  
DANIA BEACH, FL 33004  
TBPE FIRM NO. 13734

DATE: 02/24/2021  
DWG. BY: LL  
CHK. BY: HFN  
SCALE: NTS  
DWG. #: TLI013

SECTION  
10  
OF 10

4/19/2021 7:31 PM

s:\projects\tubelite, inc\tdi-21-0211 - tdi submittal - fl17192.series e34000.storefront\dwg\wz3\1013 2021-04-19.dwg