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**Product Approval**  
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FL #	FL22267-R12	
Application Type	Revision	
Code Version	2023	FL-22267.1
Application Status	Approved	
Comments		
Archived	<input type="checkbox"/>	
Product Manufacturer	E.S. Windows, Inc.	
Address/Phone/Email	10653 NE Quaybridge Ct. Miami, FL 33138 (305) 624-7775 achamorro@eswllc.com	
Authorized Signature	Yiping Wang mcy@mcengineering.com	
Technical Representative	Samir Sabagh	
Address/Phone/Email	3550 NW 49th St. Miami, FL 33142 (305) 638-5151 ssabagh@energiasolarsa.com	
Quality Assurance Representative		
Address/Phone/Email		
Category	Exterior Doors	
Subcategory	Sliding Exterior Door Assemblies	
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer	
	<input type="checkbox"/> Evaluation Report - Hardcopy Received	
Florida Engineer or Architect Name who developed the Evaluation Report	Yiping Wang	
Florida License	PE-55983	
Quality Assurance Entity	Keystone Certifications, Inc.	
Quality Assurance Contract Expiration Date	07/16/2025	
Validated By	Xiaojun Gu	
	<input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received	
Certificate of Independence	<a href="#">FL22267 R12 COI Certificate of Independence FBC 2023.pdf</a>	

Referenced Standard and Year (of Standard)	<b>Standard</b>	<b>Year</b>
	AAMA 1304	2002
	ASTM E1886	2019
	ASTM E1996	2020
	ASTM E283	2012
	ASTM E331	2016
	ASTM F842	2017
	TAS 201	1994
	TAS 202	1994
	TAS 203	1994

Equivalence of Product Standards  
Certified By

Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted 12/18/2023  
 Date Validated 12/28/2023  
 Date Pending FBC Approval 01/03/2024  
 Date Approved 02/13/2024

**Summary of Products**

FL #	Model, Number or Name	Description
22267.1	ES-SGD2020 SLIDING GLASS DOOR-LMI & SMI	sliding glass door-large and small missile impact.
<b>Limits of Use</b> <b>Approved for use in HVHZ:</b> Yes <b>Approved for use outside HVHZ:</b> Yes <b>Impact Resistant:</b> Yes <b>Design Pressure:</b> +150/-150 <b>Other:</b> for sliding glass door sizes vs. design pressure refer to installation instructions		<b>Installation Instructions</b> <a href="#">FL22267 R12 II ES-SGD2020 SLIDING GLASS DOOR LMI SMI FL22267 AD16-29 REV 12.21.2023 ss.pdf</a> Verified By: Yiping Wang PE #55983 Created by Independent Third Party: Yes <b>Evaluation Reports</b> <a href="#">FL22267 R12 AE SGD2020-EVR FBC 2023 SS.pdf</a> Created by Independent Third Party: Yes

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Product Approval Accepts:



Credit Card  
**Safe**



# ES WINDOWS, INC. SERIES SGD 2020 SLIDING GLASS DOOR LARGE AND SMALL MISSILE IMPACT

DOORS RATED FOR LARGE AND SMALL MISSILE IMPACT.  
IMPACT SHUTTERS ARE NOT REQUIRED.

LAMINATED GLASS AND INSULATED-LAMINATED GLASS, LARGE AND SMALL MISSILE IMPACT.

**SERIES SGD 2020 SLIDING GLASS DOOR**

APPLICABLE EGRESS REQUIREMENTS PER FBC TO BE REVIEWED BY BUILDING OFFICIAL.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 8TH EDITION (2023) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

THESE DOORS ARE APPROVED FOR AIR AND WATER INFILTRATION.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL / METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 8TH EDITION (2023) SECTION AS APPLICABLE.

METAL STRUCTURES BY OTHERS TO BE DESIGNED TO SUPPORT THE LOADS IMPOSED BY THIS GLAZING SYSTEM AND TO TRANSFER SUCH LOADS TO THE BUILDING MAIN STRUCTURE.

ULTIMATE LOAD OBTAINED FROM ASCE 7-22, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.

MANUFACTURERS LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE LABELING TO COMPLY WITH SECTION 1709.9.2.

**INSTRUCTIONS:**  
USE CHARTS AS FOLLOWS

**STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-22 STANDARD.

**STEP 2** SEE ALLOWABLE CONFIGURATIONS ON SHEETS EG THROUGH E I.2. SEE CHARTS ON SHEET G I FOR ALLOWABLE DESIGN LOAD BASED ON DESIRED GLASS TYPE. SEE CHARTS ON SHEET K I FOR INTERLOCK DESIGN LOAD. SEE SHEET K2 FOR SILL RAISER OPTION FOR WATER INFILTRATION.

**STEP 3** FOR FREESTANDING JAMB USED AT 2 TRACK OR 3 TRACK. SEE CHARTS ON SHEET J I AND J2 FOR REINFORCING LEVEL AND CAPACITIES.

**STEP 4** FOR ANCHORED JAMB, SEE OPTIONS AND SPACING ON SHEETS J3 AND J4.

**STEP 5** USING CHARTS ON SHEET A I SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.

**STEP 6** THE LOWEST VALUE RESULTING FROM STEPS 2 THRU 5 SHALL APPLY TO ENTIRE SYSTEM.

**ABBREVIATIONS AND SYMBOLS**

D.L.O. - DAYLITE OPENING	¢ - CENTER LINE
F.H. - FRAME HEIGHT	S.S. - STAINLESS STEEL
F.W. - FRAME WIDTH	H.S. - HEAT STRENGTHENED
LG. - LONG	55G - STRUCTURAL SILICONE
STL. - STEEL	GLAZED
ALUM. - ALUMINUM	TEMP. - TEMPERED
MULL. - MULLION	O.C. - ON CENTER
HORIZ. - HORIZONTAL	G.B. - GLASS BITE
W/ - WITH	SECTION NUMBER
W/O - WITHOUT	
VERT. - VERTICAL	
T.H. - TRANSOM HEIGHT	



**FL #22267**

**DEFINITIONS OF USE**

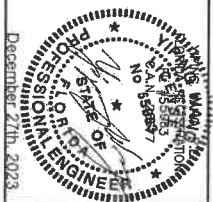
A. THIS PRODUCT EVALUATION DOCUMENT IS GENERAL IN NATURE AND DOES NOT PROVIDE SPECIFIC DESIGN OR CONSTRUCTION CONDITIONS SEPARATE FROM THE P.E.O. CONTRACT DOCUMENTS.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THIS PRODUCT BASED ON THE CONTRACT DOCUMENTS AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE PRODUCT FROM DAMAGE AND THE PROTECTION OF THE OCCUPANT.

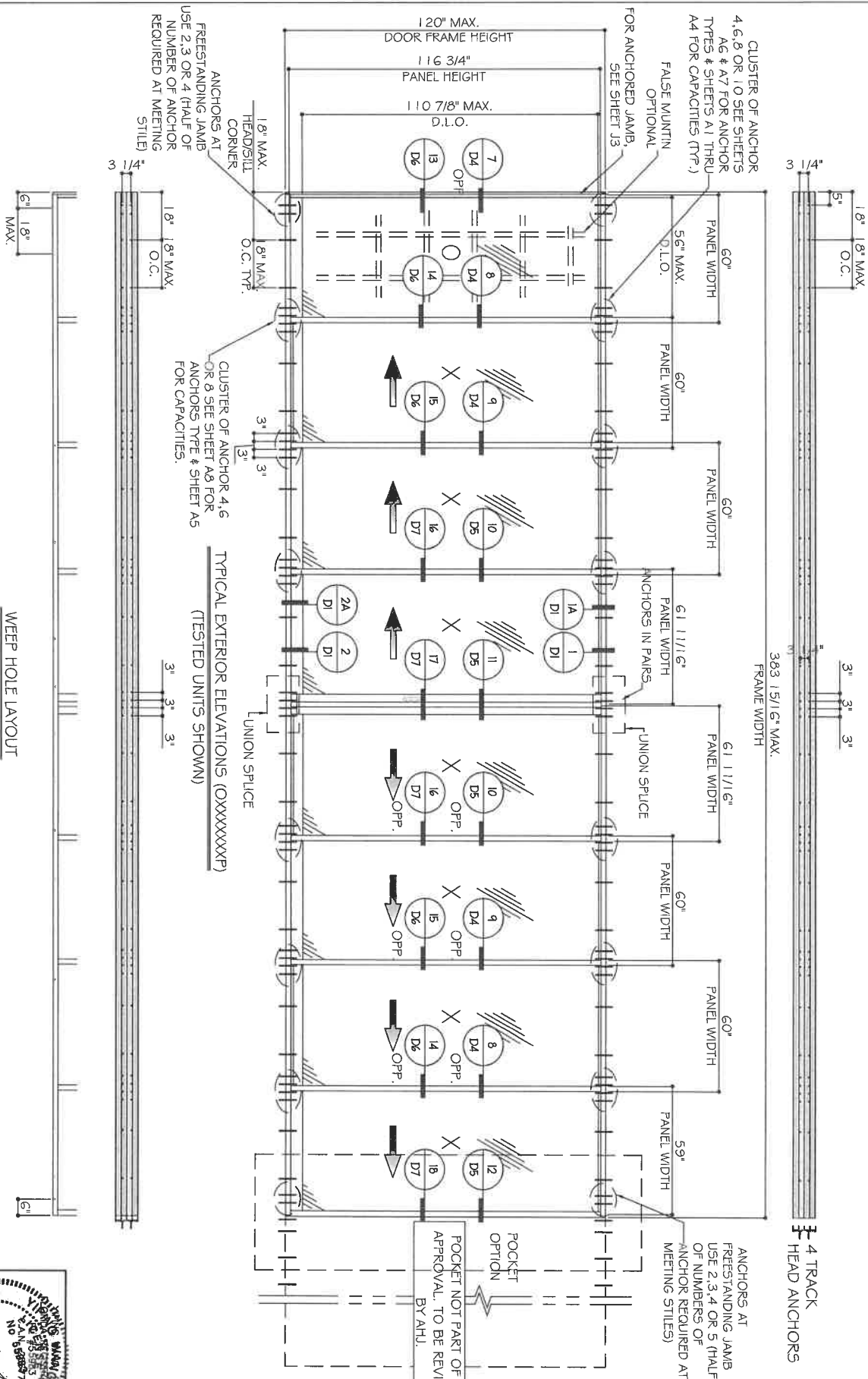
C. THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY PERSON.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE PRODUCT FROM DAMAGE AND THE PROTECTION OF THE OCCUPANT.

E. THIS P.E.O. SHALL SIGN THE DATE AND SIGNATURE OF THE PROFESSIONAL ENGINEER ON THE DRAWING.



<b>ES-SGD2020 SLIDING GLASS DOOR (LMI &amp; SMI)</b>		<b>ES WINDOWS, INC.</b> 10653 NE Quaybridge Ct Miami, FL 33138 TEL. (305) 624-7775		<b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS 12781 MIRAMAR PARKWAY #301 MIRAMAR, FL 33027 P: 305.271.0117 www.MCYEngineering.com mcy@mcyengineering.com	
Drawing No.	Scale	Date	Rev. No.	Description	
AD16-29	AS SHOWN	02.04.2023	01	REVISION	
<b>COVER</b>		Sheet No.		01 OF 59	



CLUSTER OF ANCHOR 4, 6, 8, OR 10 SEE SHEETS A6 & A7 FOR ANCHOR TYPES & SHEETS A1 THRU A4 FOR CAPACITIES (TYF)  
 FALSE MUNTIN OPTIONAL  
 FOR ANCHORED JAMB SEE SHEET J3  
 120" MAX. DOOR FRAME HEIGHT  
 116 3/4" PANEL HEIGHT  
 110 7/8" MAX. D.L.O.  
 18" MAX. HEAD/SILL CORNER  
 18" MAX. O.C. TYF.  
 ANCHORS AT FREESTANDING JAMB USE 2, 3, OR 4 (HALF OF NUMBER OF ANCHOR REQUIRED AT MEETING STILES)  
 3 1/4" O.C. MAX.  
 6" 1.8" MAX.  
 18" 1.8" MAX. O.C.

CLUSTER OF ANCHOR 4, 6 OR 8 SEE SHEET A8 FOR ANCHORS TYPE & SHEET A5 FOR CAPACITIES.  
 3" 3" 3" UNION SPLICE  
 TYPICAL EXTERIOR ELEVATIONS (XXXXXXXXXX)  
 3" 3" 3"

ANCHORS AT FREESTANDING JAMB USE 2, 3, 4 OR 5 (HALF OF NUMBERS OF ANCHOR REQUIRED AT MEETING STILES)  
 POCKET OPTION  
 POCKET NOT PART OF THIS APPROVAL. TO BE REVIEWED BY A.H.I.  
 4 TRACK HEAD ANCHORS  
 383 1/51/6" MAX. FRAME WIDTH  
 60" PANEL WIDTH  
 60" PANEL WIDTH  
 60" PANEL WIDTH  
 61 1/16" PANEL WIDTH  
 61 1/16" PANEL WIDTH  
 60" PANEL WIDTH  
 60" PANEL WIDTH  
 60" PANEL WIDTH  
 59" PANEL WIDTH  
 6" 1.8" MAX.

WEEP HOLE LAYOUT  
 6"

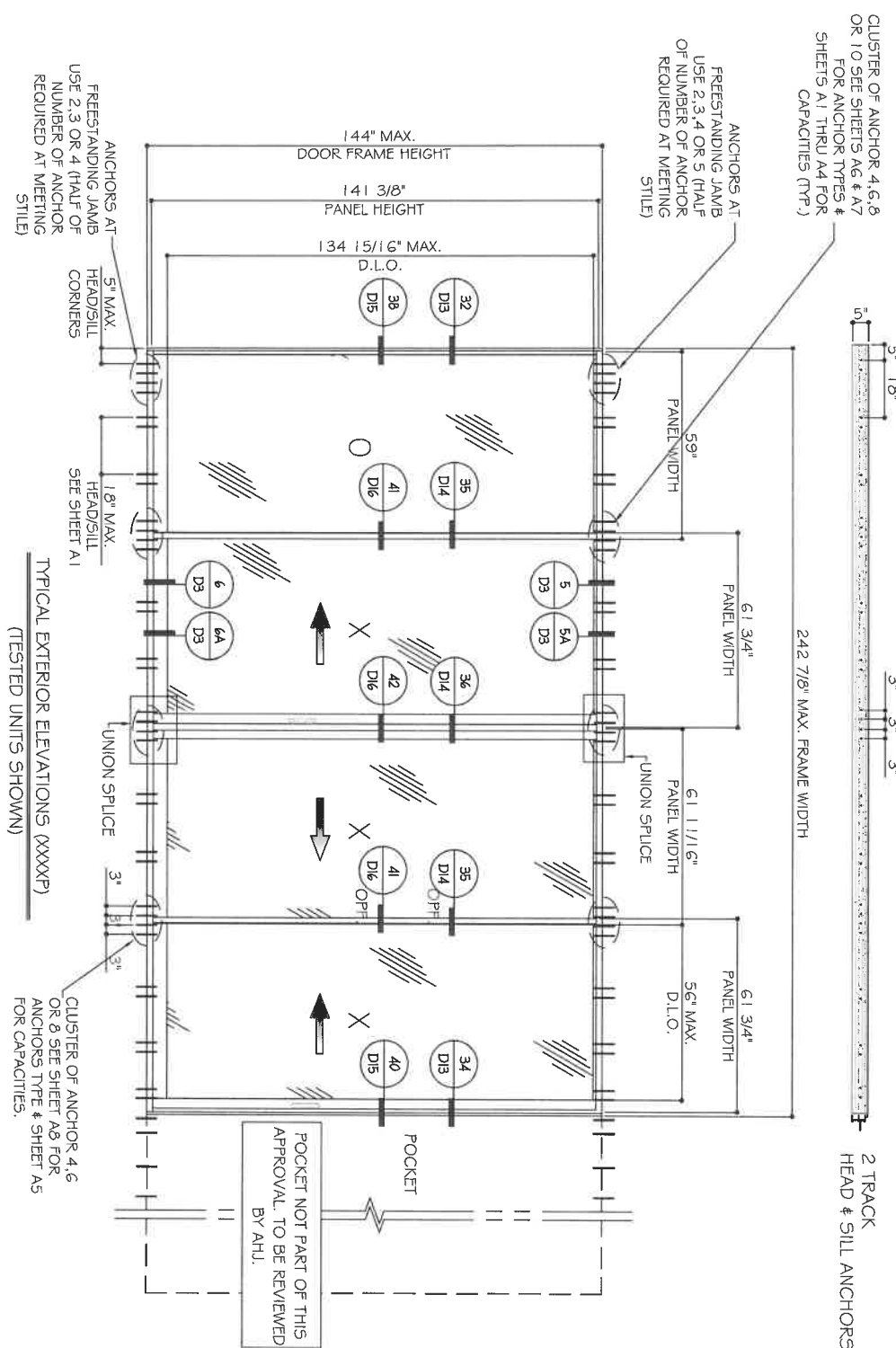


Drawing No. <b>AD16-29</b>	Date 12.04.2023	Scale
Rev. No.	Date	Description
R2	2.04.2023	James REVISION
R1	12.04.2023	James

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)  
**ES WINDOWS, INC.**  
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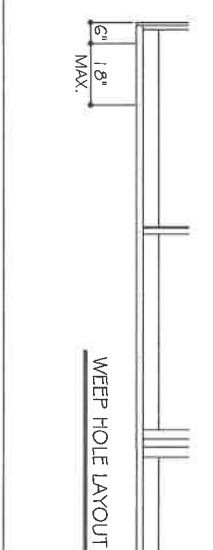


NOMINAL PANEL WIDTH = FRAME WIDTH / NO. OF PANEL

PANEL HEIGHT = FRAME HEIGHT - 2.625"

D.L.O. HEIGHT = DOOR FRAME HEIGHT - 9.125"

D.L.O. WIDTH = NOMINAL PANEL WIDTH - 4"



Drawn Date	12/26/2023
Scale	
Rev. No.	01
Date	2/04/2023
Drawn By	James
Description	REVISION

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

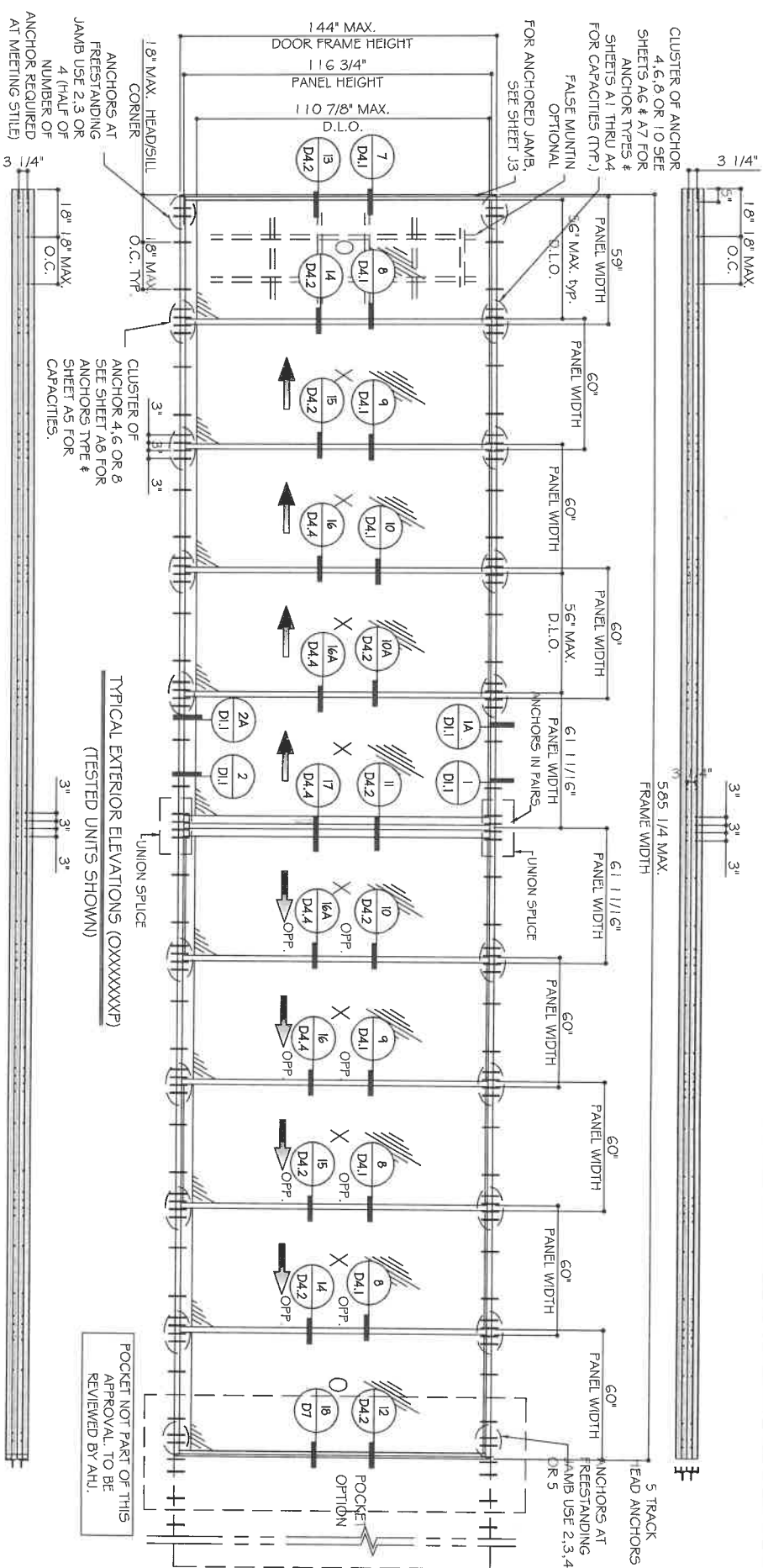
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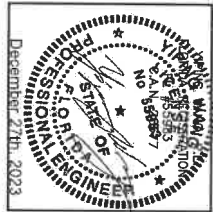
www.MCYEngineering.com mcy@mcyengineering.com



TYPICAL EXTERIOR ELEVATIONS (XXXXXXXXX)  
(TESTED UNITS SHOWN)

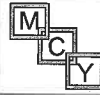
NOMINAL PANEL WIDTH = FRAME WIDTH / NO. OF PANEL  
 PANEL HEIGHT = FRAME HEIGHT - 2.625"  
 D.L.O. HEIGHT = DOOR FRAME HEIGHT - 9.125"  
 D.L.O. WIDTH = NOMINAL PANEL WIDTH - 4"

FOR INTERLOCK CAPACITY  
 SEE CHARTS  
 SHEET K1



ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

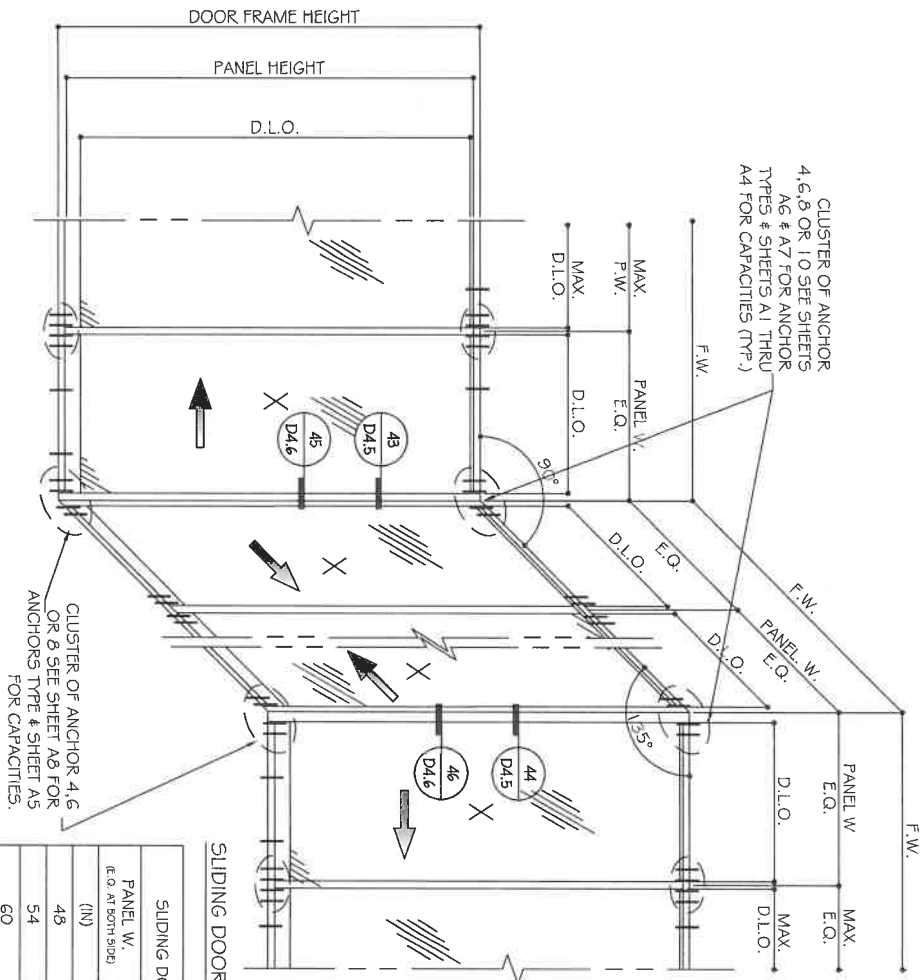
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Rev. No.	Date	Drawn By	Description
1	2.04.2023	James	REVISED
2	12.04.2023		
3			
4			
5			

Drawing No. AD16-29  
 Scale: E4  
 Sheet No. 05 OF 59

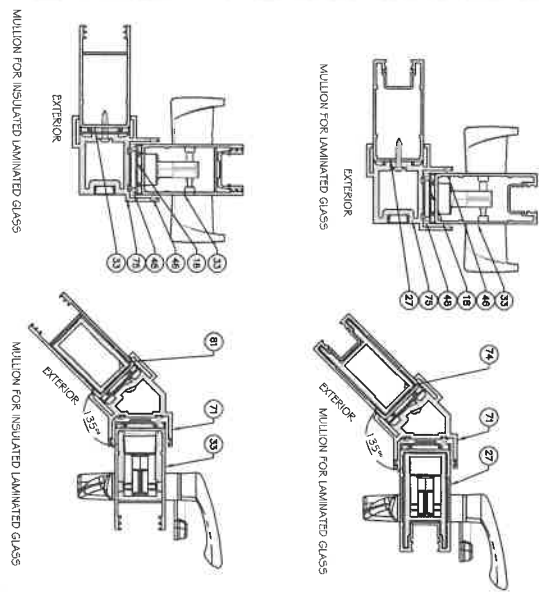


NOTE: CAPACITY FOR SGD WITH EQ WIDTH(W) AND EQUAL LOAD AT BOTH SIDES, FOR UNEQUAL CONDITIONS TO BE CHECKED SEPARATELY.

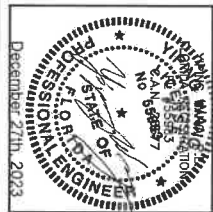
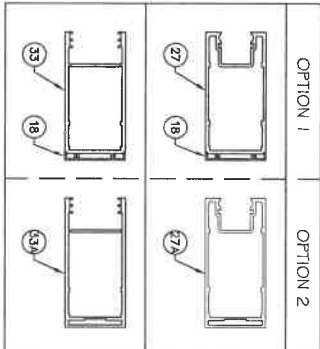
SLIDING DOOR WITH CORNER STILES			
PANEL W. (IN) AT BOTH SIDES	F.H. (IN)	ALLOW. DESIGN LOAD	
(IN)	(IN)	(+) PSF	(-) PSF
48	120	90	102
54	120	88.3	100.1
60	120	79.5	90.1
42	126	90	102
48	126	85.8	97.3
54	126	76.3	86.5
42	132	85.3	96.7
48	132	74.7	84.6
54	132	66.4	75.2
36	138	87.1	98.7
42	138	74.7	84.6
48	138	65.3	74.1
36	144	76.7	86.9
42	144	65.7	74.5
48	144	57.5	65.2

SLIDING DOOR WITH 90° & 135° TURN

CORNER MULLION



LOCKSTILE OPTIONS



ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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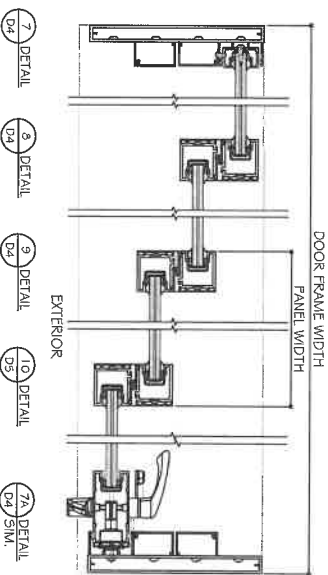
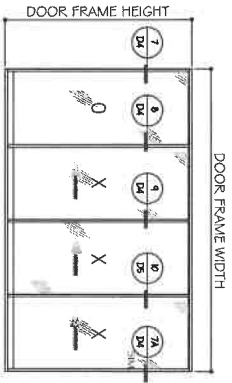
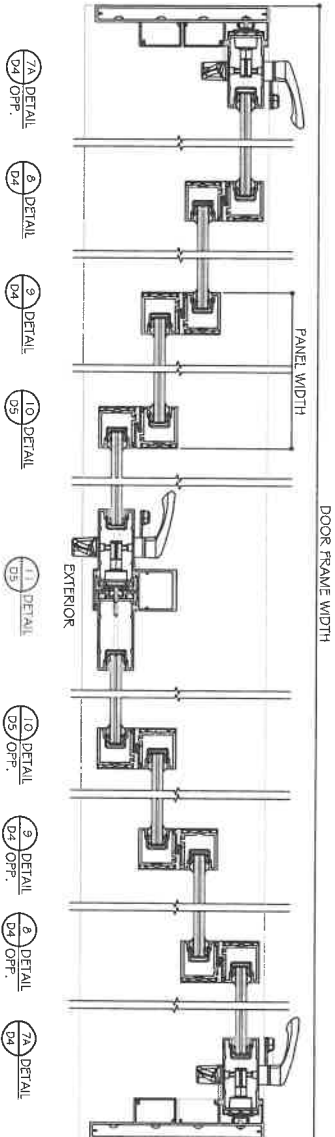
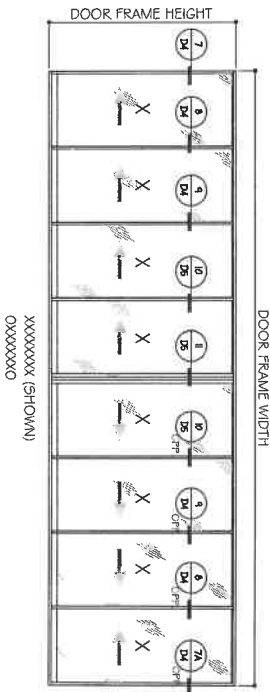
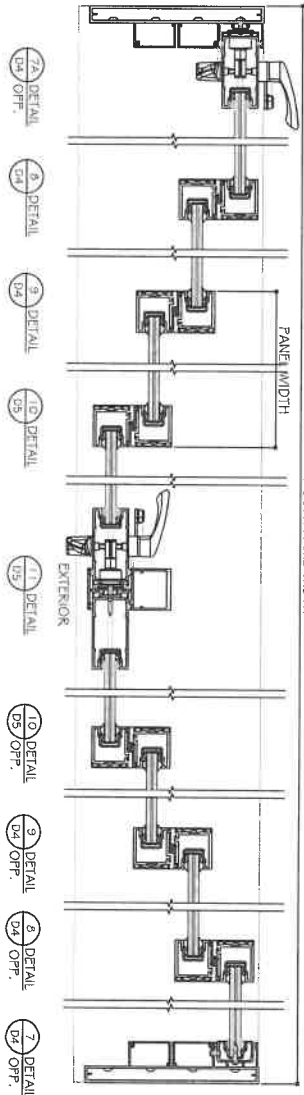
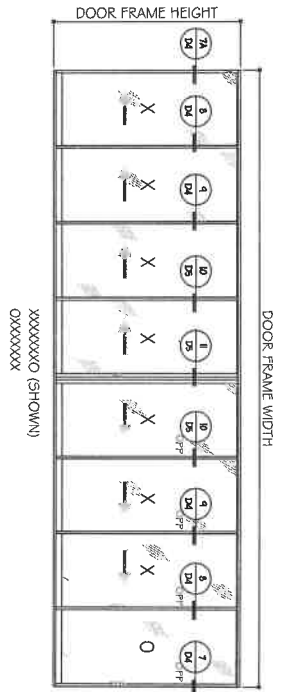
Drawn Date	12.04.2023	Scale	
Rev. No.		Date	
Rev. By		Description	
PROJECT: AD16-29 DRAWING NO.: ES SHEET NO.: 06 OF 59			



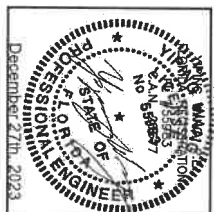
APPROVED CONFIGURATION DOORS  
(NON-REINFORCED SHOWN)  
SEE SHEET K.1 FOR DP AND REINFORCING OPTIONS

LAMINATED GLASS OPTIONS SHOWN.  
SEE DETAILS FOR INSULATED LAMINATED OPTION.

NON-REINFORCED DETAILS SHOWN.  
FOR REINFORCED DETAILS, SEE SHEET D4  
TO D7 FOR (4 TRACKS), D8 TO D12 FOR (3  
TRACKS), D13 TO D16 FOR (2 TRACKS).



- NOTES:
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
  2. SEE CHART ON SHEET G.1 FOR GLASS CAPACITIES AND GLASS OPTIONS.
  3. FOR APPLICABLE DESIGN PRESSURES SGD REINFORCING LEVEL 1, 2 OR 3. SEE SHEET K.1
  4. FOR ANCHOR DETAILS AND CAPACITIES AT HEAD/SILL SEE SHEET A1 TO A8.
  5. FREE STANDING JAMB SEE OPTIONS AND CAPACITIES ON SHEET J1 TO J4.
  6. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER FBC.



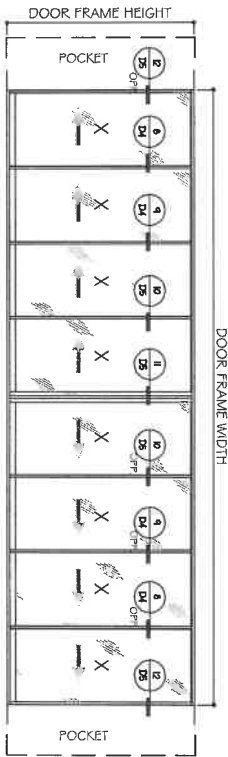
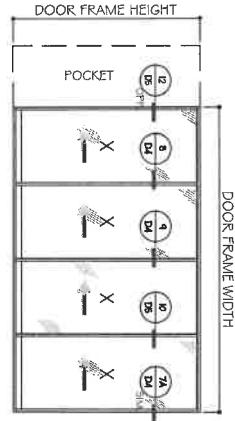
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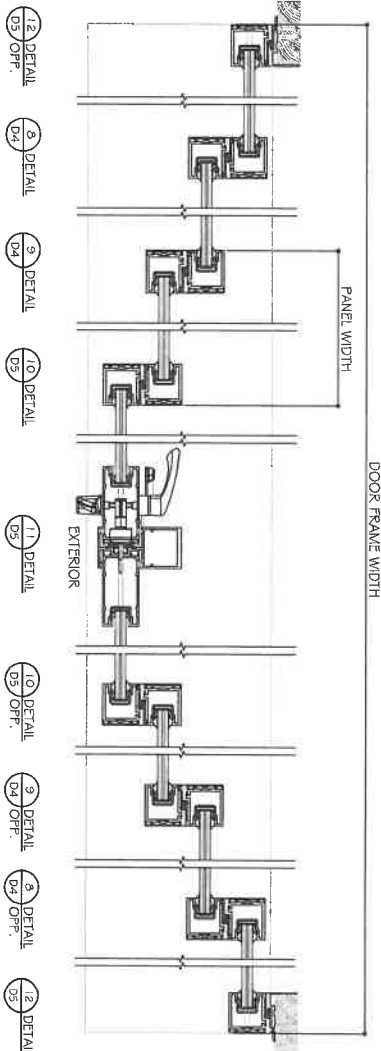
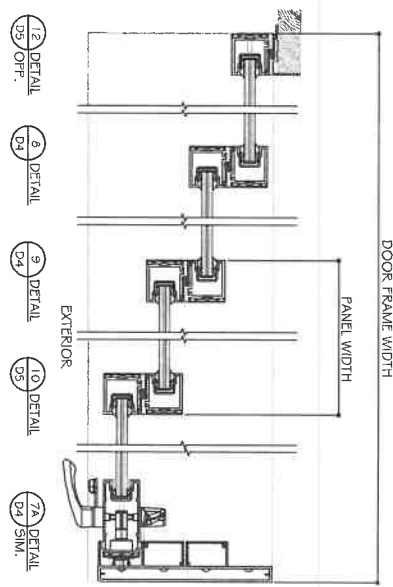
Drawings No. <b>AD16-29</b>	Revision <b>E6</b>	Sheet No. <b>07 OF 59</b>								
<table border="1"> <thead> <tr> <th>Rev. No.</th> <th>Date</th> <th>By</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>R6</td> <td>2/04/2023</td> <td>James</td> <td>REVISION</td> </tr> </tbody> </table>	Rev. No.	Date	By	Description	R6	2/04/2023	James	REVISION		
Rev. No.	Date	By	Description							
R6	2/04/2023	James	REVISION							

APPROVED CONFIGURATION POCKETED DOORS  
(NON-REINFORCED SHOWN)  
SEE SHEET K.1 FOR DP AND REINFORCING OPTIONS



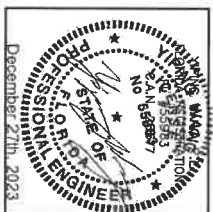
LAMINATED GLASS OPTIONS SHOWN.  
SEE DETAILS FOR INSULATED LAMINATED OPTION.

NON-REINFORCED DETAILS SHOWN.  
FOR REINFORCED DETAILS, SEE SHEET D4  
TO D7 FOR (4 TRACKS), D8 TO D12 FOR (3  
TRACKS), D13 TO D16 FOR (2 TRACKS).



FOUR (4) TRACKS  
POCKETS ARE NOT PART OF THIS APPROVAL  
AND ARE TO BE REVIEWED BY AHL.

- NOTES:
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
  2. SEE CHART ON SHEET G.1 FOR GLASS CAPACITIES AND GLASS OPTIONS.
  3. FOR APPLICABLE DESIGN PRESSURES SGD REINFORCING LEVEL 1, 2 OR 3. SEE SHEET K.1.
  4. FOR ANCHOR DETAILS AND CAPACITIES AT HEAD/SILL SEE SHEET A1 TO A8.
  5. FREE STANDING JAMB SEE OPTIONS AND CAPACITIES ON SHEET J1 TO J4.
  6. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER FBC.



Drawing No.	AD16-29
Scale	1/4" = 1'-0"
Rev. No.	1
Date	12/14/2023
Drawn By	James
Description	REVISION

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

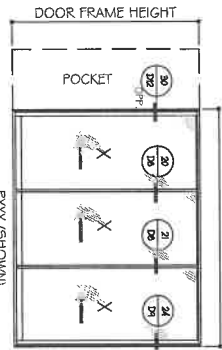
12781 MIRAMAR PARKWAY #301  
MIRAMAR, FL 33027 P: 305.271.0117

www.MCYEngineering.com mcy@mcyengineering.com

APPROVED CONFIGURATION POCKETED DOORS

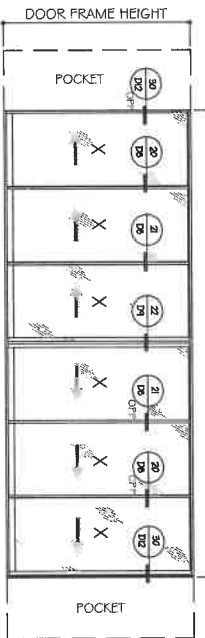
(NON-REINFORCED SHOWN)  
SEE SHEET K1 FOR DP AND REINFORCING OPTIONS

DOOR FRAME WIDTH



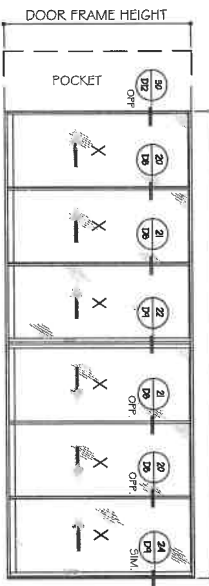
PXXXX (SHOWN)  
XXXXP

DOOR FRAME WIDTH



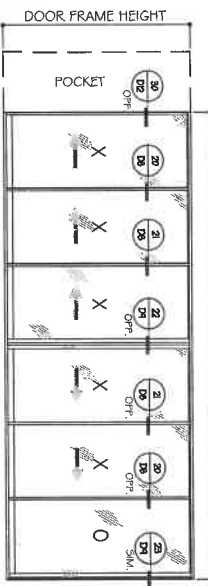
PXXXXX (SHOWN)  
XXXXXXP

DOOR FRAME WIDTH



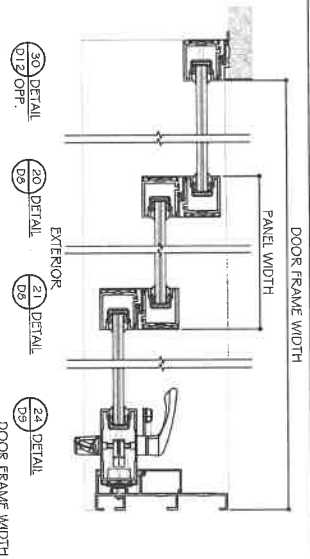
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XXXXXXXP

DOOR FRAME WIDTH



PXXXXXX (SHOWN)  
XXXXXXXP

DOOR FRAME WIDTH



30 DETAIL  
D12 OFF.

20 DETAIL  
D8

21 DETAIL  
D8

24 DETAIL  
D8

22 DETAIL  
D9

23 DETAIL  
D9

24 DETAIL  
D9

25 DETAIL  
D9

26 DETAIL  
D9

27 DETAIL  
D9

28 DETAIL  
D9

29 DETAIL  
D9

30 DETAIL  
D9

31 DETAIL  
D9

32 DETAIL  
D9

33 DETAIL  
D9

34 DETAIL  
D9

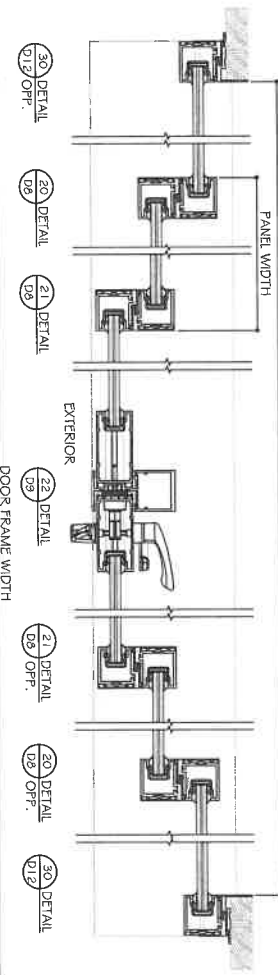
35 DETAIL  
D9

36 DETAIL  
D9

37 DETAIL  
D9

38 DETAIL  
D9

NON-REINFORCED DETAILS SHOWN.  
FOR REINFORCED DETAILS, SEE SHEET D4  
TO D7 FOR (4 TRACKS), D8 TO D12 FOR (3  
TRACKS), D13 TO D16 FOR (2 TRACKS).  
LAMINATED GLASS OPTIONS SHOWN.  
SEE DETAILS FOR INSULATED LAMINATED OPTION.



30 DETAIL  
D12 OFF.

20 DETAIL  
D8

21 DETAIL  
D8

24 DETAIL  
D8

22 DETAIL  
D9

23 DETAIL  
D9

24 DETAIL  
D9

25 DETAIL  
D9

26 DETAIL  
D9

27 DETAIL  
D9

28 DETAIL  
D9

29 DETAIL  
D9

30 DETAIL  
D9

31 DETAIL  
D9

32 DETAIL  
D9

33 DETAIL  
D9

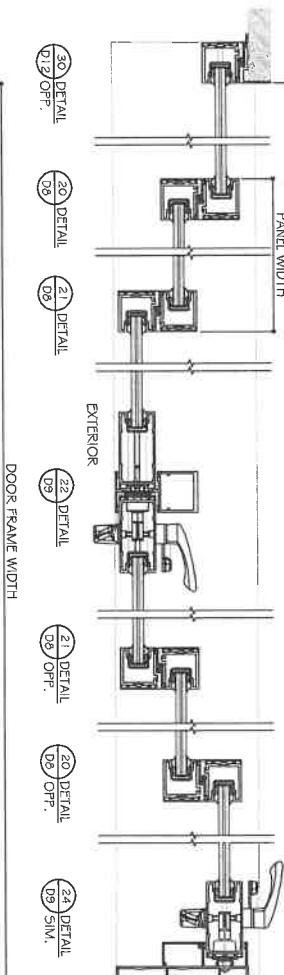
34 DETAIL  
D9

35 DETAIL  
D9

36 DETAIL  
D9

37 DETAIL  
D9

38 DETAIL  
D9



30 DETAIL  
D12 OFF.

20 DETAIL  
D8

21 DETAIL  
D8

24 DETAIL  
D8

22 DETAIL  
D9

23 DETAIL  
D9

24 DETAIL  
D9

25 DETAIL  
D9

26 DETAIL  
D9

27 DETAIL  
D9

28 DETAIL  
D9

29 DETAIL  
D9

30 DETAIL  
D9

31 DETAIL  
D9

32 DETAIL  
D9

33 DETAIL  
D9

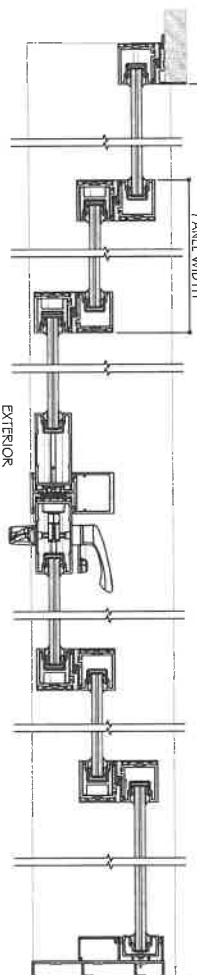
34 DETAIL  
D9

35 DETAIL  
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36 DETAIL  
D9

37 DETAIL  
D9

38 DETAIL  
D9



30 DETAIL  
D12 OFF.

20 DETAIL  
D8

21 DETAIL  
D8

24 DETAIL  
D8

22 DETAIL  
D9

23 DETAIL  
D9

24 DETAIL  
D9

25 DETAIL  
D9

26 DETAIL  
D9

27 DETAIL  
D9

28 DETAIL  
D9

29 DETAIL  
D9

30 DETAIL  
D9

31 DETAIL  
D9

32 DETAIL  
D9

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D9

38 DETAIL  
D9

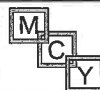
THREE (3) TRACKS  
POCKET'S ARE NOT PART OF THIS APPROVAL  
AND ARE TO BE REVIEWED BY ATL.

- NOTES:
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
  2. SEE CHART ON SHEET G1 FOR GLASS CAPACITIES AND GLASS OPTIONS.
  3. FOR APPLICABLE DESIGN PRESSURES S&D REINFORCING LEVEL 1, 2 OR 3, SEE SHEET K1.
  4. FOR ANCHOR DETAILS AND CAPACITIES AT HEAD/SILL SEE SHEET A1 TO A8.
  5. FREE STANDING JAMB SEE OPTIONS AND CAPACITIES ON SHEET J1 TO J4.
  6. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER IBC.



ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

ES WINDOWS, INC.  
10653 NE Quaybridge Ct.  
Miami, FL 33138  
TEL. (305) 624-7775



MCY ENGINEERING, INC.  
GLAZING CONSULTANTS

12761 MIRAMAR PARKWAY #301  
MIRAMAR, FL 33027

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mcy@mcyengineering.com

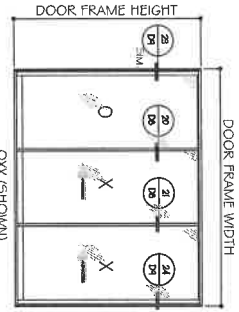
Sheet No. 09 OF 59

AD16-29

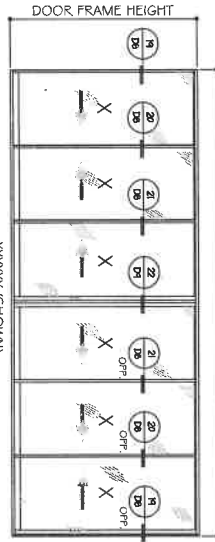
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Rev. No.	Date	Drawn By	Checked By	Description
R2	12/04/2023	Jmm		REVISION
R1	12/04/2023			Scale

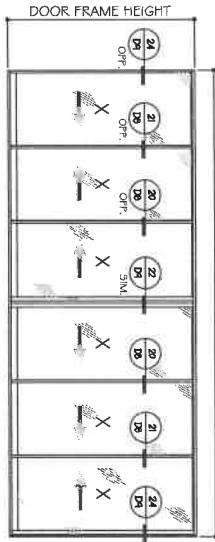
APPROVED CONFIGURATION DOORS  
(NON-REINFORCED SHOWN)  
SEE SHEET K.1 FOR DP AND REINFORCING OPTIONS



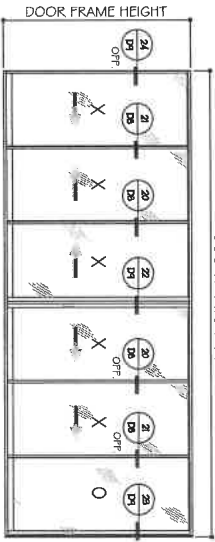
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XXX (REVERSE)



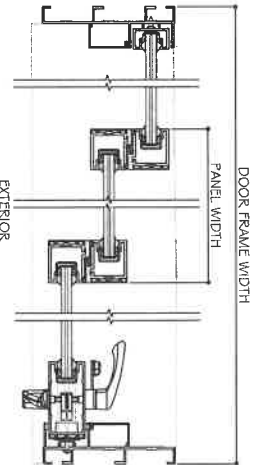
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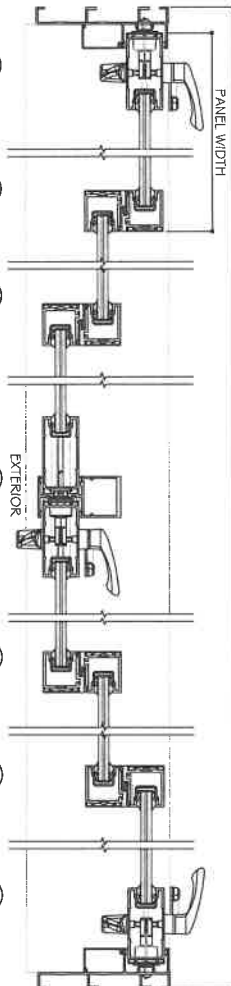
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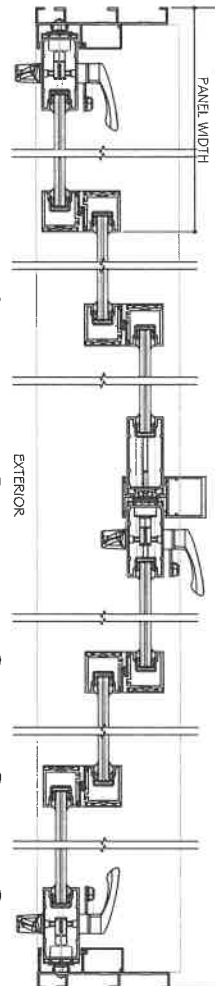
XXXXXX (SHOWN)  
XXXXXX



D23 DETAIL  
D19 SIM.  
D20 DETAIL  
D21 DETAIL  
D24 DETAIL  
D25



D19 DETAIL  
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D22 DETAIL  
D23 DETAIL  
D24 DETAIL  
D25 DETAIL



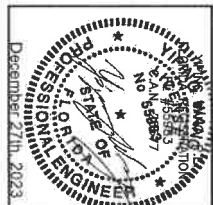
D24 DETAIL  
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D24 DETAIL  
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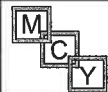
NON-REINFORCED DETAILS SHOWN.  
FOR REINFORCED DETAILS, SEE SHEET D4  
TO D7 FOR (4 TRACKS), D8 TO D12 FOR (3  
TRACKS), D13 TO D16 FOR (2 TRACKS).  
LAMINATED GLASS OPTIONS SHOWN.  
SEE DETAILS FOR INSULATED LAMINATED OPTION.

- NOTES:
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
  2. SEE CHART ON SHEET G1 FOR GLASS CAPACITIES AND GLASS OPTIONS.
  3. FOR APPLICABLE DESIGN PRESSURES SGD REINFORCING LEVEL 1, 2 OR 3, SEE SHEET K.1.
  4. FOR ANCHOR DETAILS AND CAPACITIES AT HEAD/SILL, SEE SHEET A1 TO A3.
  5. FREE STANDING JAMB SEE OPTIONS AND CAPACITIES ON SHEET J1 TO J4.
  6. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER IBC.



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10653 NE Quaybridge Ct.  
Miami, FL 33138  
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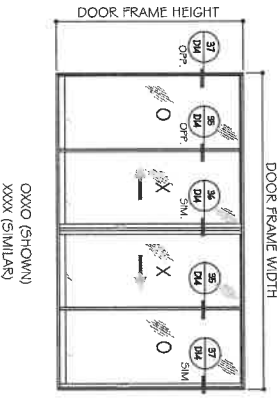
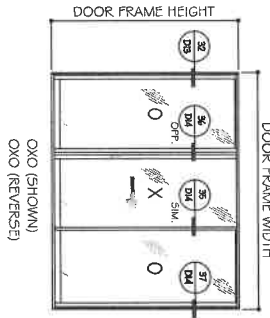
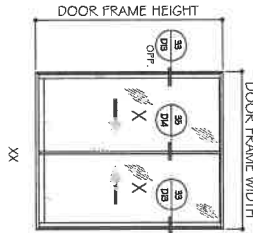
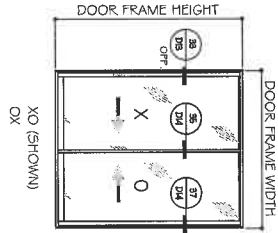
12781 MIRAMAR PARKWAY #301  
MIRAMAR, FL 33027 P: 305.271.0117

www.MCYEngineering.com mcy@mcyengineering.com

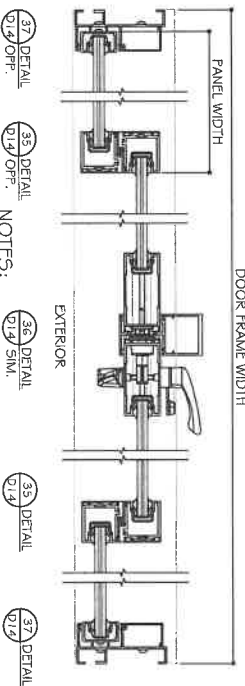
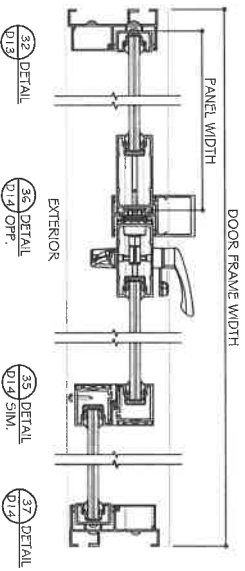
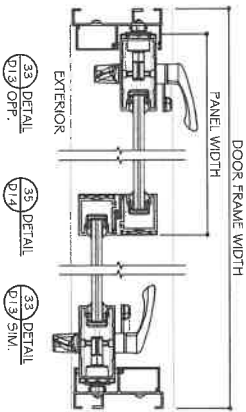
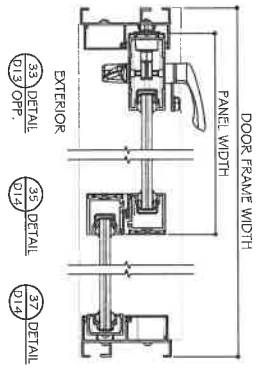
Rev. No.	Date	By	Description
02	02.04.2023	James Kevin	REVISION
01			

Drawing No: AD16-29  
 Scale: 1/4" = 1'-0"  
 Date: 12/04/2023  
 Sheet No: 10 OF 59

APPROVED CONFIGURATION DOORS  
(NON-REINFORCED SHOWN)  
SEE SHEET K.1 FOR DP AND REINFORCING OPTIONS



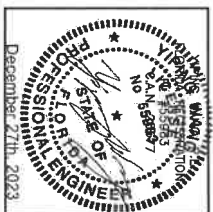
LAMINATED GLASS OPTIONS SHOWN.  
SEE DETAILS FOR INSULATED LAMINATED OPTION.



NON-REINFORCED DETAILS SHOWN.  
FOR REINFORCED DETAILS, SEE SHEET D4  
TO D7 FOR (4 TRACKS), D8 TO D12 FOR (3  
TRACKS), D13 TO D16 FOR (2 TRACKS).

TWO (2) TRACKS  
POCKETS ARE NOT PART OF THIS APPROVAL  
AND ARE TO BE REVIEWED BY AIA.

- NOTES:
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
  2. SEE CHART ON SHEET G.1 FOR GLASS CAPACITIES AND GLASS OPTIONS.
  3. FOR APPLICABLE DESIGN PRESSURES SEE REINFORCING LEVEL 1, 2 OR 3. SEE SHEET K.1
  4. FOR ANCHOR DETAILS AND CAPACITIES AT HEADSILL SEE SHEET A.1 TO A.6.
  5. FREE STANDING JAMB SEE OPTIONS AND CAPACITIES ON SHEET J.1 TO J.4.
  6. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER IFBC.



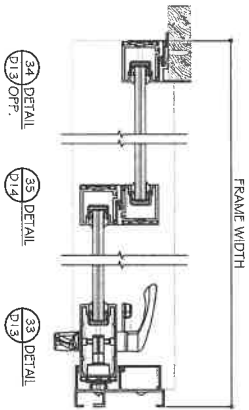
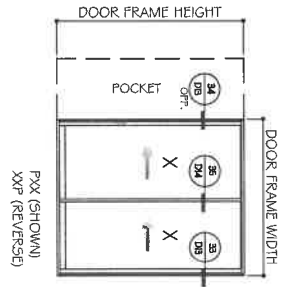
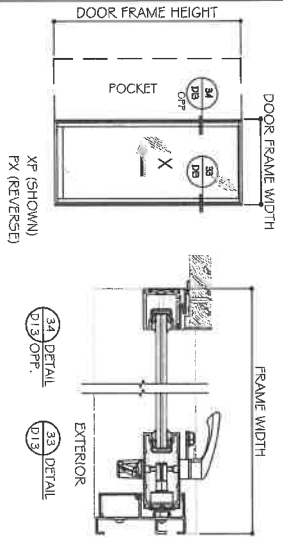
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Scale	E=10
Sheet No.	11 OF 59
Date	2.04.2023
Drawn By	Jancy
Rev. No.	
Date	
Description	

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MIRAMAR, FL 33027 P. 305.271.0117  
www.MCYEngineering.com mcy@mcyengineering.com

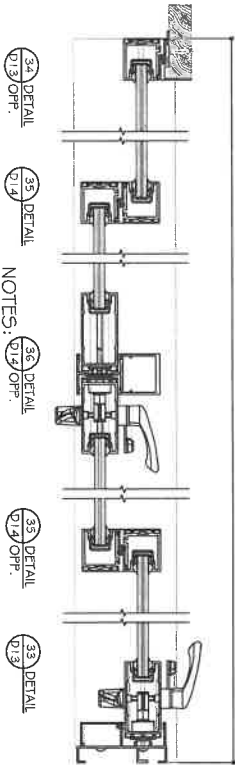
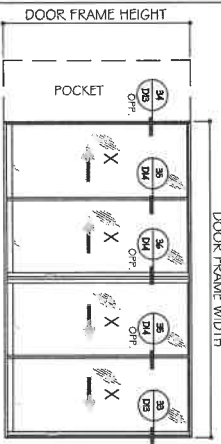
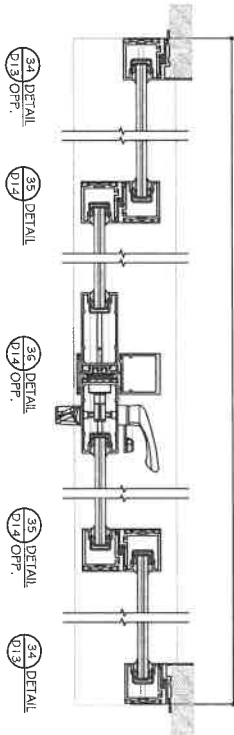
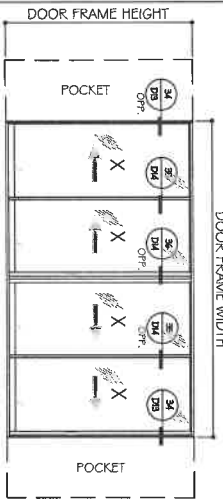
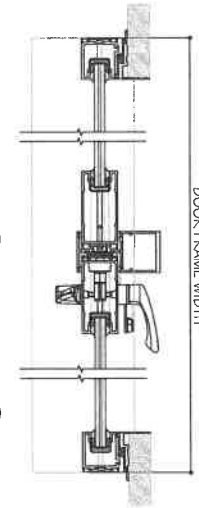
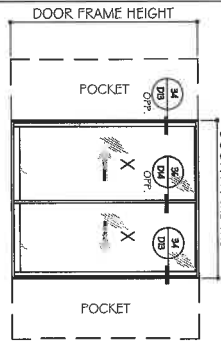
APPROVED CONFIGURATION POCKETED DOORS

(NON-REINFORCED SHOWN)  
SEE SHEET K.I FOR DP AND REINFORCING OPTIONS



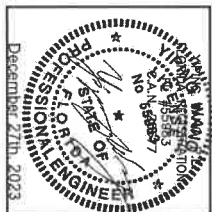
LAMINATED GLASS OPTIONS SHOWN.  
SEE DETAILS FOR INSULATED LAMINATED OPTION.

NON-REINFORCED DETAILS SHOWN.  
FOR REINFORCED DETAILS, SEE SHEET D4 TO D7 FOR (4 TRACKS), D8 TO D12 FOR (3 TRACKS), D13 TO D16 FOR (2 TRACKS).



TWO (2) TRACKS  
POCKETS ARE NOT PART OF THIS APPROVAL  
AND ARE TO BE REVIEWED BY AHL.

- NOTES:
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
  2. SEE CHART ON SHEET G1 FOR GLASS CAPACITIES AND GLASS OPTIONS.
  3. FOR APPLICABLE DESIGN PRESSURES SGD REINFORCING LEVEL 1, 2 OR 3, SEE SHEET K.I.
  4. FOR ANCHOR DETAILS AND CAPACITIES AT HEADS/ILL SEE SHEET A1 TO A8.
  5. FREE STANDING JAMB SEE OPTIONS AND CAPACITIES ON SHEET J1 TO J4.
  6. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER FBC.



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MIRAMAR, FL 33027

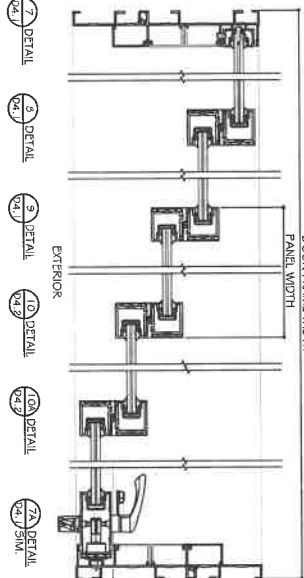
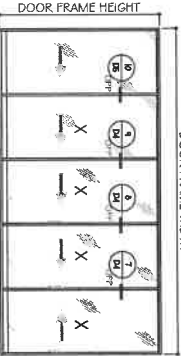
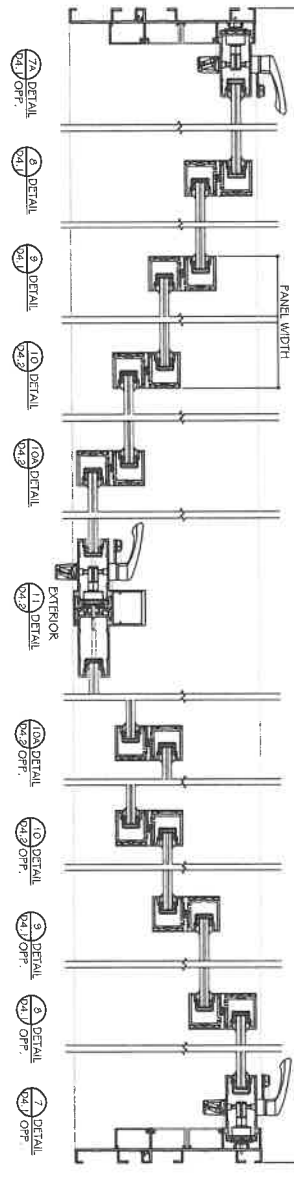
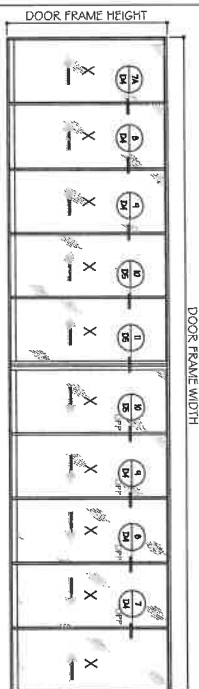
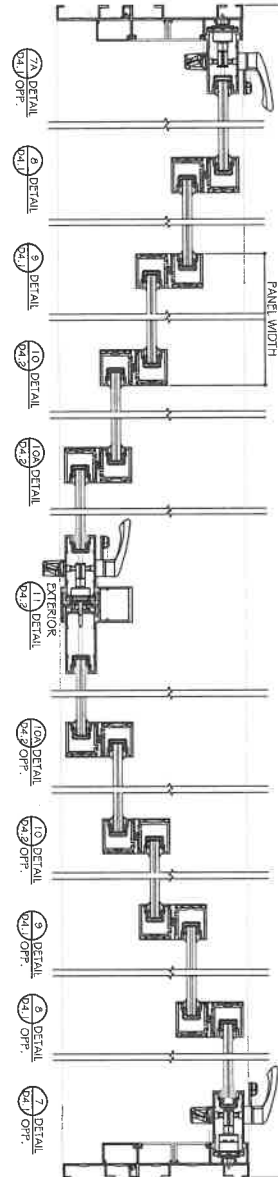
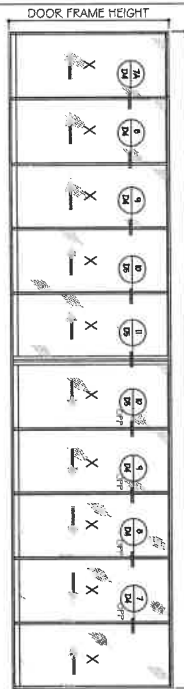
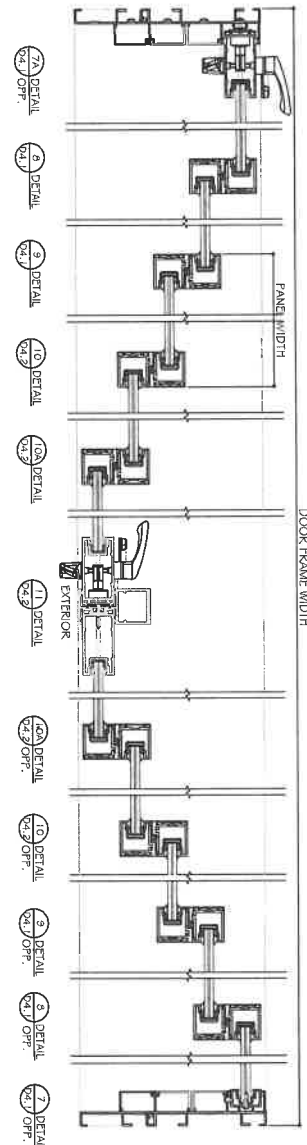
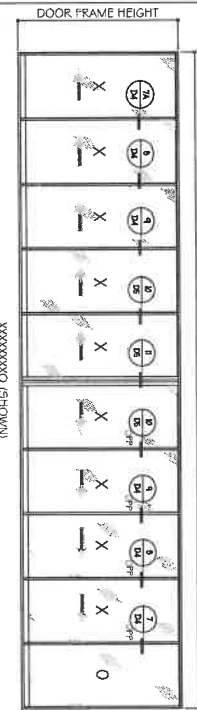
F. 305.271.0117

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Rev. No.	Date	Drawn By	Description
06	2.04.2023	Jarvis	FEVISION

Drawing No. AD16-29  
 Scale: 1/2" = 1'-0"  
 Sheet No. 12 OF 59

APPROVED CONFIGURATION POCKETED AND NO POCKET DOORS  
(NON-REINFORCED SHOWN)  
SEE SHEET K1 FOR DP AND REINFORCING OPTIONS

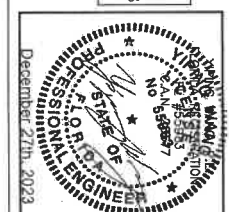


**FIVE (5) TRACKS**  
POCKETS ARE NOT PART OF THIS APPROVAL AND ARE TO BE REVIEWED BY A.H.I.

**NOTES:**  
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.  
2. SEE CHART ON SHEET G1 FOR GLASS CAPACITIES AND GLASS OPTIONS.  
3. FOR APPLICABLE DESIGN PRESSURES SGD REINFORCING LEVEL 1, 2 OR 3, SEE SHEET K1.  
4. FOR ANCHOR DETAILS AND CAPACITIES AT HEAD/SILL SEE SHEET A1 TO A6.  
5. FREE STANDING JAMB SET OPTIONS AND CAPACITIES ON SHEET J1 TO J4.  
6. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER IBC.

LAMINATED GLASS OPTIONS SHOWN.  
SEE DETAILS FOR INSULATED LAMINATED OPTION.

NON-REINFORCED DETAILS SHOWN.  
FOR REINFORCED DETAILS, SEE SHEET D4 TO D7 FOR (4 TRACKS), D8 TO D12 FOR (3 TRACKS), D13 TO D16 FOR (2 TRACKS).



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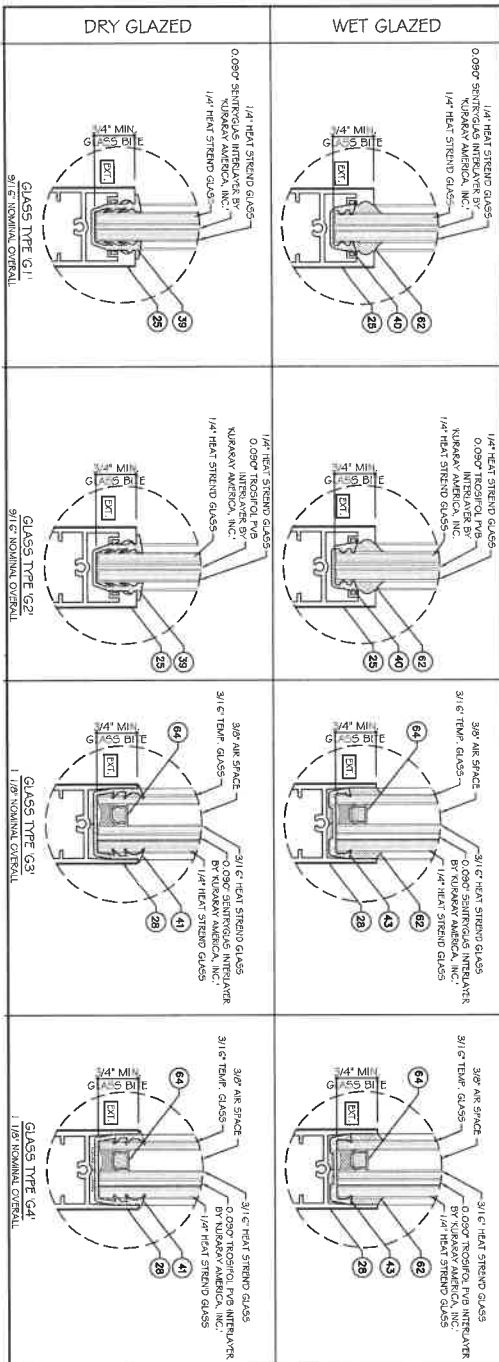
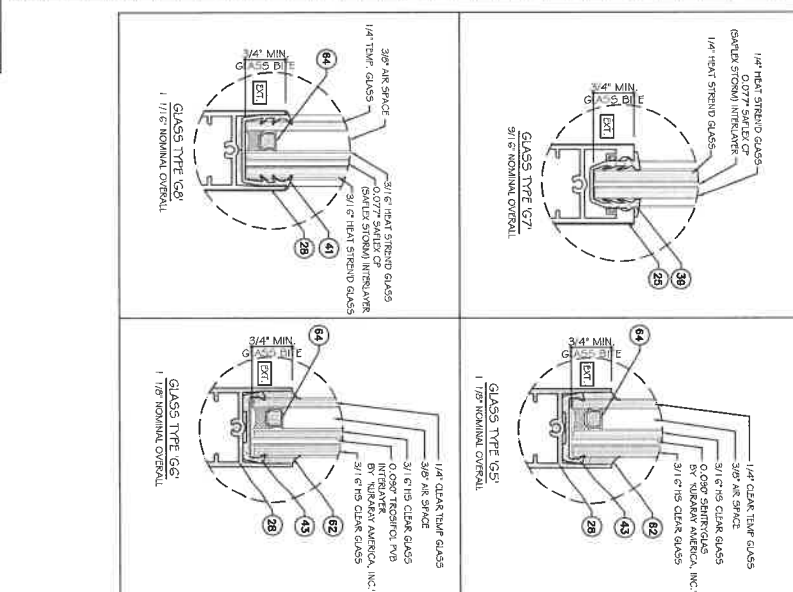
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Drawn Date	7/24/2023	Scale	
Rev. No.		Date	12.04.2023
Rev. Description		Drawn By	Jmcs
			REVISION

AD16-29  
E12  
13 OF 59

5GD PANEL SIZES		DESIGN LOAD CAPACITY - PSF (GLASS)					
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	9/16" NOMINAL LAMINATED GLASS	1-1/8" NOMINAL INSUL. LAM. GLASS	1-1/8" NOMINAL INSUL. LAM. GLASS	1-1/8" NOMINAL INSUL. LAM. GLASS	1-1/8" NOMINAL INSUL. LAM. GLASS	
60	90	150.0	150.0	90.0	150.0	150.0	
66	90	150.0	150.0	90.0	150.0	150.0	
72	90	102.0	100.0	90.0	102.0	102.0	
78	90	102.0	100.0	90.0	102.0	102.0	
84	90	102.0	100.0	90.0	102.0	102.0	
60	96	150.0	150.0	90.0	150.0	150.0	
66	96	102.0	100.0	90.0	102.0	102.0	
72	96	102.0	100.0	90.0	102.0	102.0	
78	96	102.0	100.0	90.0	102.0	102.0	
84	96	102.0	100.0	90.0	102.0	102.0	
36	102	150.0	150.0	90.0	150.0	150.0	
42	102	150.0	150.0	90.0	150.0	150.0	
48	102	150.0	150.0	90.0	150.0	150.0	
54	102	150.0	150.0	90.0	150.0	150.0	
60	102	102.0	100.0	90.0	102.0	102.0	
66	102	102.0	100.0	90.0	102.0	102.0	
72	102	102.0	100.0	90.0	102.0	102.0	
78	102	102.0	100.0	90.0	102.0	102.0	
84	102	102.0	100.0	90.0	102.0	102.0	
36	108	150.0	150.0	90.0	150.0	150.0	
42	108	150.0	150.0	90.0	150.0	150.0	
48	108	150.0	150.0	90.0	150.0	150.0	
54	108	150.0	150.0	90.0	150.0	150.0	
60	108	102.0	100.0	90.0	102.0	102.0	
66	108	102.0	100.0	90.0	102.0	102.0	
72	108	102.0	100.0	90.0	102.0	102.0	
78	108	102.0	100.0	90.0	102.0	102.0	
84	108	102.0	100.0	90.0	102.0	102.0	

5GD PANEL SIZES		DESIGN LOAD CAPACITY - PSF (GLASS)					
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	9/16" NOMINAL LAMINATED GLASS	1-1/8" NOMINAL INSUL. LAM. GLASS	1-1/8" NOMINAL INSUL. LAM. GLASS	1-1/8" NOMINAL INSUL. LAM. GLASS	1-1/8" NOMINAL INSUL. LAM. GLASS	
36	126	150.0	150.0	90.0	150.0	150.0	
42	126	150.0	150.0	90.0	150.0	150.0	
48	126	150.0	150.0	90.0	150.0	150.0	
54	126	150.0	150.0	90.0	150.0	150.0	
60	126	102.0	100.0	90.0	102.0	102.0	
66	126	102.0	100.0	90.0	102.0	102.0	
72	126	102.0	100.0	90.0	102.0	102.0	
78	126	102.0	100.0	90.0	102.0	102.0	
84	126	102.0	100.0	90.0	102.0	102.0	
36	132	150.0	150.0	90.0	150.0	150.0	
42	132	150.0	150.0	90.0	150.0	150.0	
48	132	150.0	150.0	90.0	150.0	150.0	
54	132	150.0	150.0	90.0	150.0	150.0	
60	132	102.0	100.0	90.0	102.0	102.0	
66	132	102.0	100.0	90.0	102.0	102.0	
72	132	102.0	100.0	90.0	102.0	102.0	
78	132	102.0	100.0	90.0	102.0	102.0	
84	132	102.0	100.0	90.0	102.0	102.0	
36	144	150.0	150.0	90.0	150.0	150.0	
42	144	150.0	150.0	90.0	150.0	150.0	
48	144	150.0	150.0	90.0	150.0	150.0	
54	144	150.0	150.0	90.0	150.0	150.0	
60	144	102.0	100.0	90.0	102.0	102.0	
66	144	102.0	100.0	90.0	102.0	102.0	
72	144	102.0	100.0	90.0	102.0	102.0	
78	144	102.0	100.0	90.0	102.0	102.0	
84	144	102.0	100.0	90.0	102.0	102.0	



NOTE: PARTS 39, 40, 41, 43 ARE ALSO USED AS SETTING BLOCK.

NOTE: GLASS COMPLIES WITH ASTM E 1300-09 (3 SEC. GLISTS).

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
No. 58897  
December 27th, 2003

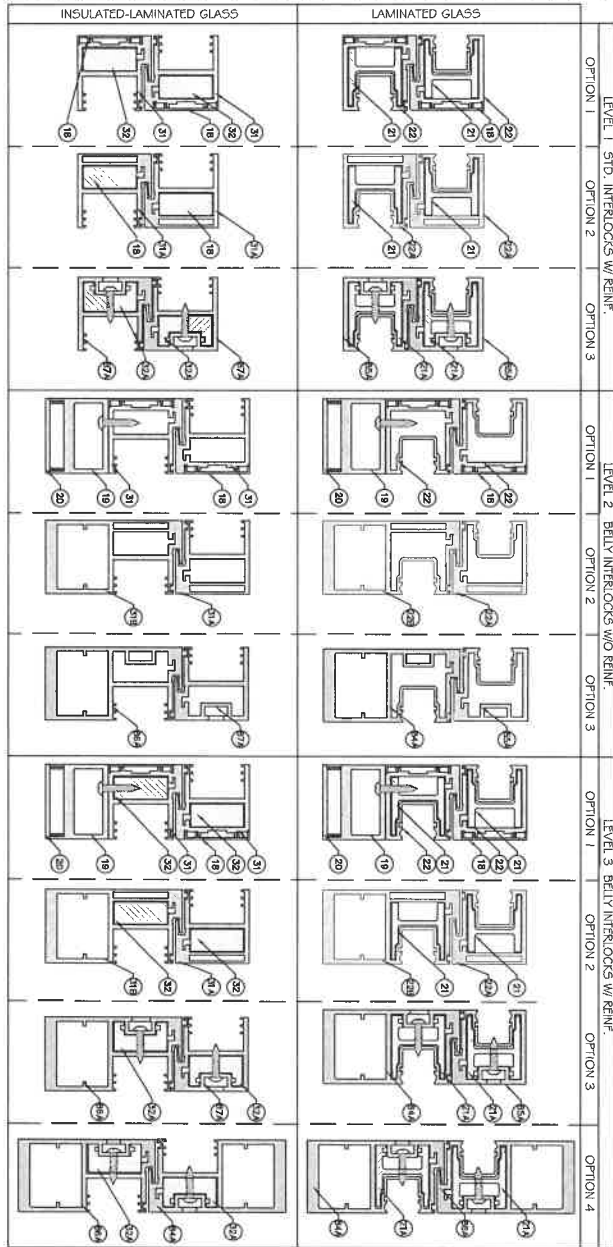
AD16-29  
G1  
14 OF 59

Rev. No.	Date	Drawn By	Description
01	2.04.2003	James	REVISED

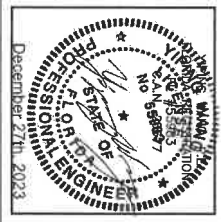


DESIGN LOAD CAPACITY - PSF				
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	LEVEL 1	LEVEL 2	LEVEL 3
		(STD INTERLOCK W/ REINF.) PSF	(BELLY INTERLOCK W/O REINF.) PSF	(BELLY INTERLOCK W/ REINF.) PSF
36	102	+85/-100	65.0/78.0	90.0/150.0
42	102	+85/-100	65.0/78.0	90.0/150.0
48	102	+85/-100	65.0/78.0	90.0/150.0
54	102	+85/-100	65.0/78.0	90.0/150.0
60	102	+85/-100	65.0/78.0	90.0/102.0
72	102	+85/-100	65.0/78.0	90.0/102.0
36	108	+85/-100	65.0/78.0	90.0/150.0
42	108	+85/-100	65.0/78.0	90.0/150.0
48	108	+85/-100	65.0/78.0	90.0/150.0
54	108	+85/-100	65.0/78.0	90.0/150.0
60	108	+85/-100	65.0/78.0	90.0/102.0
72	108	+85/-100	65.0/78.0	90.0/102.0
36	114	+85/-100	65.0/78.0	90.0/150.0
42	114	+85/-100	65.0/78.0	90.0/150.0
48	114	+85/-100	65.0/78.0	90.0/150.0
54	114	+85/-100	65.0/78.0	90.0/102.0
60	114	+85/-100	65.0/78.0	90.0/102.0
72	114	+85/-100	65.0/78.0	90.0/102.0
36	120	-	65.0/78.0	90.0/102.0
42	120	+85/-100	65.0/78.0	90.0/150.0
48	120	+85/-100	65.0/78.0	90.0/150.0
54	120	+85/-100	65.0/78.0	90.0/102.0
60	120	+85/-100	65.0/78.0	90.0/102.0
72	120	-	65.0/78.0	90.0/102.0
36	126	-	65.0/78.0	85.0/102.0
42	126	-	65.0/78.0	85.0/102.0
48	126	-	65.0/78.0	85.0/102.0
54	126	-	65.0/78.0	85.0/102.0
60	126	-	65.0/78.0	85.0/102.0
66	126	-	65.0/78.0	85.0/102.0
72	126	-	65.0/78.0	85.0/102.0
36	132	-	65.0/78.0	85.0/102.0
42	132	-	65.0/78.0	85.0/102.0
48	132	-	65.0/78.0	85.0/102.0
54	132	-	65.0/78.0	85.0/102.0
60	132	-	65.0/78.0	85.0/102.0
66	132	-	65.0/78.0	85.0/102.0
72	132	-	65.0/78.0	85.0/102.0
36	136	-	65.0/78.0	85.0/102.0
42	136	-	65.0/78.0	85.0/102.0
48	136	-	65.0/78.0	85.0/102.0
54	136	-	65.0/78.0	85.0/102.0
60	136	-	65.0/78.0	85.0/102.0

DESIGN LOAD CAPACITY - PSF				
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	LEVEL 1	LEVEL 2	LEVEL 3
		(STD INTERLOCK W/ REINF.) PSF	(BELLY INTERLOCK W/O REINF.) PSF	(BELLY INTERLOCK W/ REINF.) PSF
36	144	-	65.0/78.0	85.0/102.0
42	144	-	65.0/78.0	85.0/102.0
48	144	-	65.0/78.0	85.0/102.0
54	144	-	65.0/78.0	85.0/102.0
60	144	-	65.0/78.0	85.0/102.0



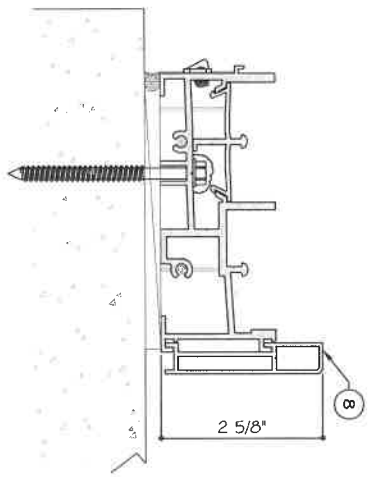
AVE. PANEL WIDTH = FRAME WIDTH  
# OF PANELS



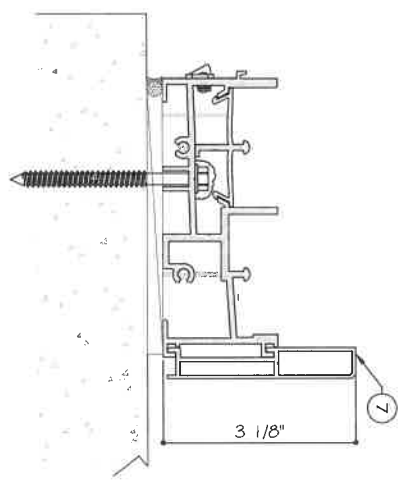
Drawing No. <b>AD16-29</b>	Scale 1/4" = 1'-0"	Date 12.04.2023	Drawn By James W. Adams	Description ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)
Sheet No. <b>K1</b>	15 OF 56	ES WINDOWS, INC. 10653 NE Quaybridge Ct. Miami, FL 33138 TEL. (305) 624-7775		

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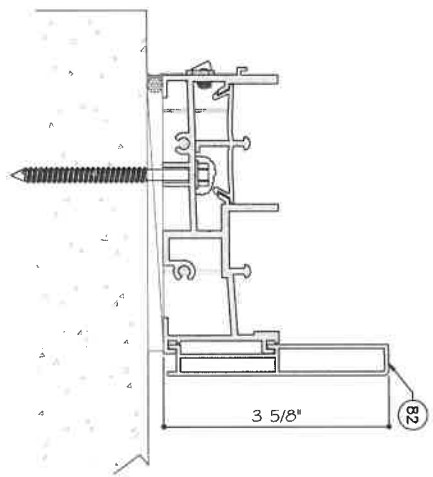
SILL RAISER OPTIONS (SHOWN ON 2 TRACK DOORS)  
 POSITIVE LOAD LIMITED AS FOLLOW DUE TO WATER INFILTRATION



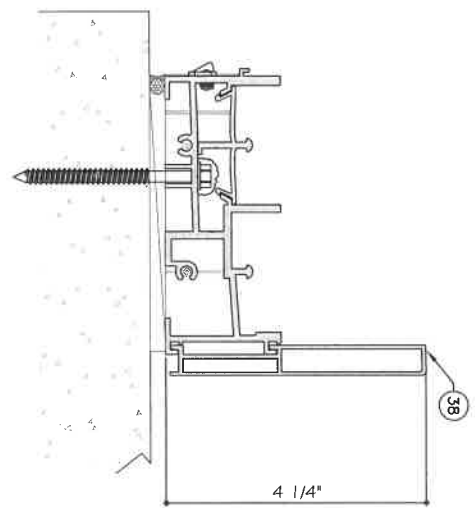
Pd MAX. = +53 PSF



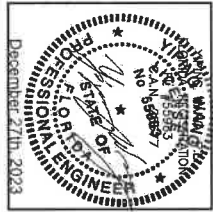
Pd MAX. = +67 PSF



Pd MAX. = +80 PSF



Pd MAX. = +90 PSF



Drawn Date	2.04.2023	James	REVISION
Scale			
Rev. No.		Drawn By	Description

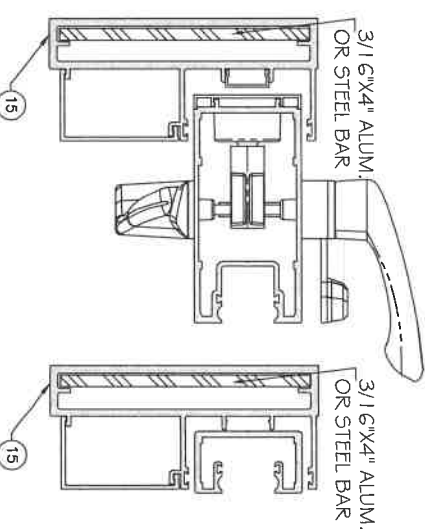
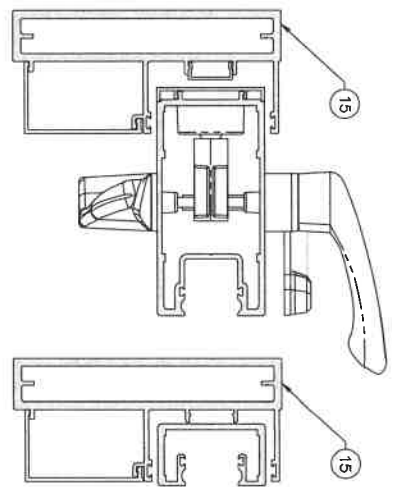
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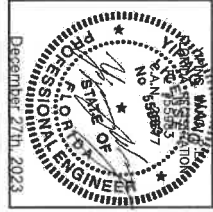
2 TRACK FREE STANDING JAMB CAPACITY - PSF					
SGD PANEL SIZES	JAMB W/O REINF. (J1)	JAMB W/ ALUM REINF. (J2)	JAMB W/ STEEL REINF. (J2S)	JAMB W/ STEEL REINF. (J2S)	JAMB W/ STEEL REINF. (J2S)
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	PSF	PSF	PSF	PSF
60	84	65	77	85	100
66	84	65	73	85	100
72	84	65	71	85	100
78	84	65	69	85	100
84	84	65	68	85	100
60	90	62	62	85	100
66	90	59	59	85	100
72	90	57	57	85	100
78	90	56	56	85	100
84	90	56	56	85	100
60	96	53	53	85	100
66	96	50	50	80	96
72	96	47	47	82	96
78	96	47	47	82	96
84	96	47	47	82	96
36	102	65	76	85	100
42	102	65	66	85	100
48	102	59	59	85	100
54	102	53	53	85	100
60	102	49	49	78	85
66	102	46	46	73	85
72	102	43	43	57	65
78	102	42	42	55	65
84	102	40	40	53	65
36	108	65	67	85	100
42	108	58	58	85	100
48	108	52	52	83	85
54	108	47	47	75	85
60	108	43	43	69	83
66	108	40	40	64	83
72	108	38	38	50	73
78	108	36	36	48	69
84	108	36	36	48	69
36	114	60	60	85	100
42	114	52	52	83	85
48	114	46	46	74	85
54	114	42	42	66	80
60	114	38	38	61	73
66	114	36	36	47	68
72	114	33	33	44	64

2 TRACK FREE STANDING JAMB CAPACITY - PSF					
SGD PANEL SIZES	JAMB W/O REINF. (J1)	JAMB W/ ALUM REINF. (J2)	JAMB W/ STEEL REINF. (J2S)	JAMB W/ STEEL REINF. (J2S)	JAMB W/ STEEL REINF. (J2S)
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	PSF	PSF	PSF	PSF
36	120	54	54	85	100
42	120	47	47	74	89
48	120	42	42	66	79
54	120	37	37	59	72
60	120	34	34	54	66
66	120	32	32	42	61
72	126	30	30	39	57
78	126	29	29	38	55
84	126	29	29	38	55
36	132	44	44	59	78
42	132	38	38	51	73
48	132	34	34	45	65
54	132	31	31	40	58
60	132	28	28	37	53
66	138	29	29	38	55
72	138	28	28	37	53
78	138	28	28	37	53
84	138	28	28	37	53
36	144	37	37	49	65
42	144	32	32	42	61
48	144	28	28	37	54
54	144	25	25	33	49
60	144	23	23	31	44

AVE. PANEL WIDTH =  $\frac{\text{FRAME WIDTH}}{\# \text{ OF PANELS}}$



NOTE: STILE SHOWN FOR LAMINATED GLASS OPTION ONLY. CHART COVERS BOTH INSULATED LAMINATED AND LAMINATED GLASS OPTIONS.



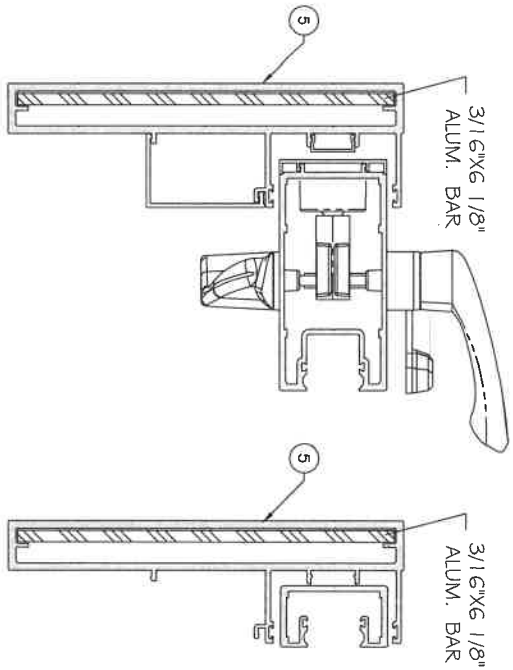
Drawn Date	12.04.2023	James	REVISION
Scale			
Rev. No.			
Date			
Description			

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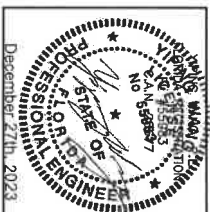
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3 TRACK F. STANDING JAMB CAPACITY - PSF				3 TRACK DESIGN LOAD JAMB CAPACITY - PSF			
SGD PANEL SIZES		JAMB W/ ALUM REINF. (J3)		SGD PANEL SIZES		JAMB W/ ALUM REINF. (J3)	
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	PSF	PSF	PANEL WIDTH (IN)	DOOR HEIGHT (IN)	PSF	PSF
60		85	102	36		85	102
66		85	102	42		85	102
72	84	85	102	48		85	102
78		85	102	54	120	85	102
84		85	102	60		85	102
60		85	102	66		85	102
66		85	102	72		85	102
72	90	85	102	36		85	102
78		85	102	42		85	102
84		85	102	48	126	85	102
60		85	102	54		85	102
66		85	102	60		85	102
72	96	85	102	66		85	102
78		85	102	72		85	102
84		85	102	36	132	85	102
36		85	102	48		85	102
42		85	102	54		85	102
48		85	102	60		85	102
54	102	85	102	36		85	102
60		85	102	42		85	102
66		85	102	48	138	85	102
72		85	102	54		85	102
78		85	102	60		85	98
84		85	102	36		85	102
36		85	102	42		85	102
42		85	102	48	144	85	102
48		85	102	54		85	99
54	108	85	102	60		85	90
60		85	102				
66		85	102				
72		85	102				
78		85	102				
84		85	102				
36		85	102				
42		85	102				
48		85	102				
54	114	85	102				
60		85	102				
66		85	102				
72		85	102				

$$\text{AVE. PANEL WIDTH} = \frac{\text{FRAME WIDTH}}{\text{\# OF PANELS}}$$



NOTE: STILE SHOWN FOR LAMINATED GLASS OPTION ONLY. CHART COVERS BOTH INSULATED LAMINATED AND LAMINATED GLASS OPTIONS.

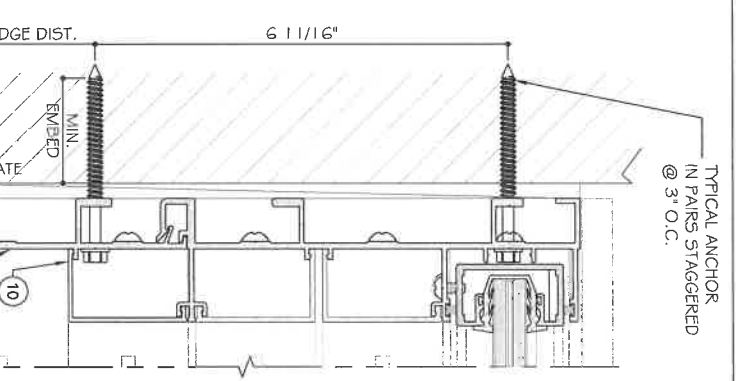
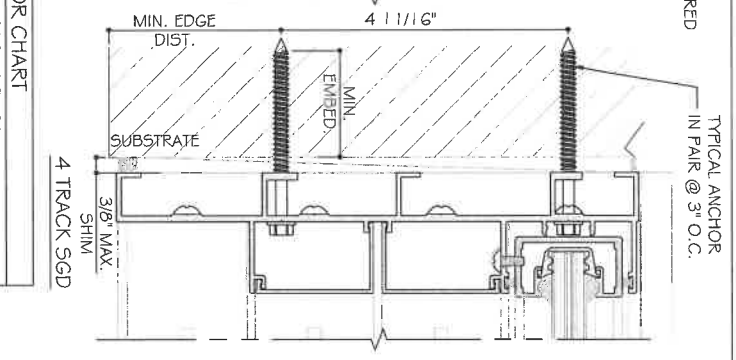
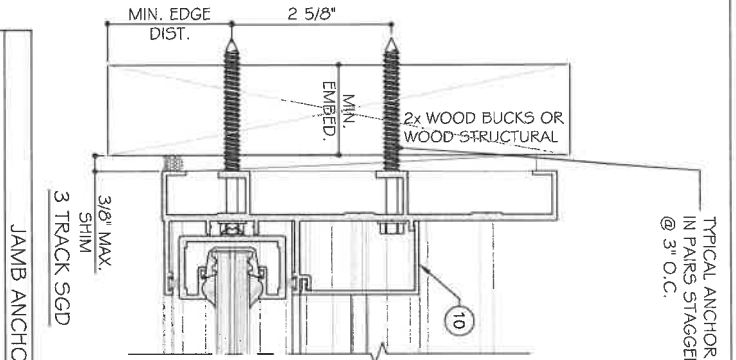
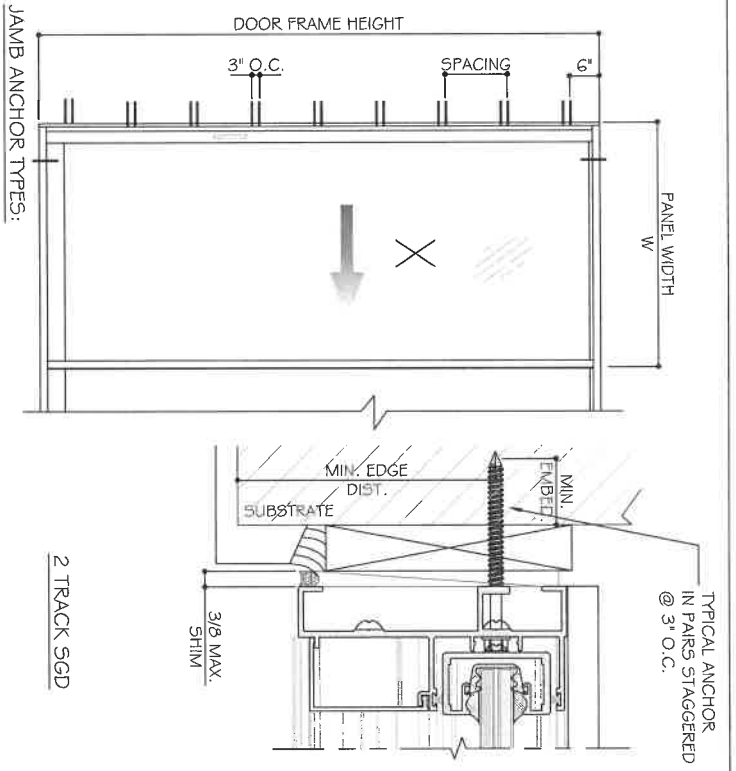


Drawn Date	Rev. No.	Date	By	Description
12/20/23	1	12.04.2023	James	REVISION
AD16-29				
J2				
18 OF 59				

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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**JAMB ANCHOR TYPES:**

**TYPE "A1":** 1/4" DIA. KWIKCON (F<sub>u</sub> = 136 KSI, F<sub>y</sub> = 137 KSI)

- 1 1/2" MIN. EMBED INTO 2X WOOD OR WOOD THRU 1X WOOD BUCKS 1 3/4" MIN. EMBED INTO F<sub>c</sub> = 3 KSI MIN. CONCRETE
- 1 3/4" MIN. EMBED DIRECTLY INTO F<sub>c</sub> = 3 KSI MIN. CONCRETE

1/4" DIA. KWIKCON (F<sub>u</sub> = 136 KSI, F<sub>y</sub> = 137 KSI)

- 1 1/2" MIN. EMBED INTO 2X WOOD OR WOOD THRU 1X WOOD BUCKS 1 3/4" MIN. EMBED INTO F<sub>c</sub> = 3 KSI MIN. CONCRETE
- 1 3/4" MIN. EMBED DIRECTLY INTO F<sub>c</sub> = 3 KSI MIN. CONCRETE

**TYPE "B1":** 1/4" DIA. ULTRACON + BY DEMVALT (F<sub>u</sub> = 164 KSI, F<sub>y</sub> = 148 KSI)

- 1 1/2" MIN. EMBED INTO 2X WOOD OR WOOD THRU 1X WOOD BUCKS 1 3/4" MIN. EMBED INTO F<sub>c</sub> = 3 KSI MIN. CONCRETE
- 1 3/4" MIN. EMBED DIRECTLY INTO F<sub>c</sub> = 3 KSI MIN. CONCRETE

**TYPE "C1":** 1/4" DIA. TKSJDRL-FLEX SCREW GRADE 5 (F<sub>u</sub> = 120 KSI, F<sub>y</sub> = 92 KSI) INTO METAL STRUCTURE

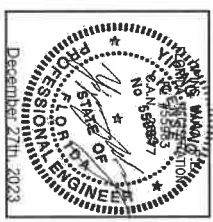
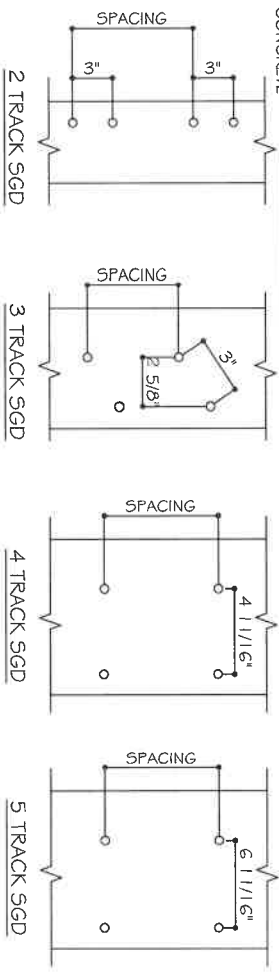
**TYPE "D1":** 5/16" TKSJDRL-FLEX SCREW (F<sub>u</sub> = 120 KSI, F<sub>y</sub> = 92 KSI) INTO METAL STRUCTURE

ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)  
 STEEL: 1/8" THK. MIN. (F<sub>y</sub> = 36 KSI, MIN.)  
 STEEL IN CONTACT WITH ALUM. TO BE PAINTED.

MIN. EDGE DISTANCE: CONCRETE 2 1/2" WOOD: 1" METAL: 1"

**JAMB ANCHOR CHART**

JAMB ANCHOR TYPE	SUBSTRATE	MAX. SHIM	ANCHOR SPACING
A1	CONC.	1/4"	18"
A1	WOOD/CONC.	3/8"	15"
A1	WOOD/CGO BLOCK	3/8"	13"
B1	CONC.	3/8"	18"
B1	WOOD/CONC.	3/8"	13"
C1	1/8" THK. METAL(6063-T5)	3/8"	13"
D1		3/8"	18"



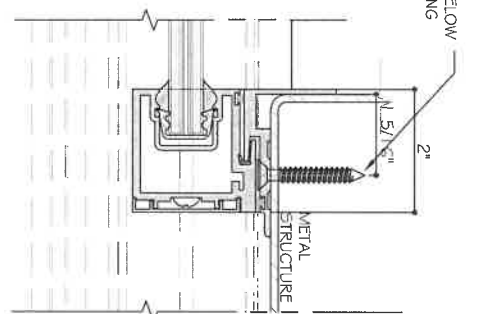
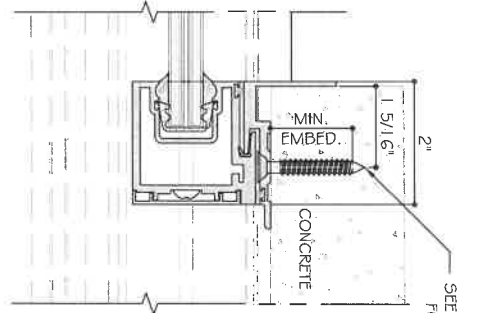
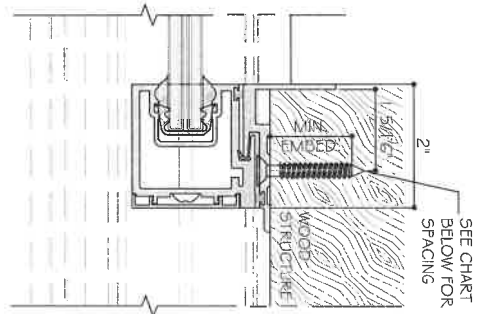
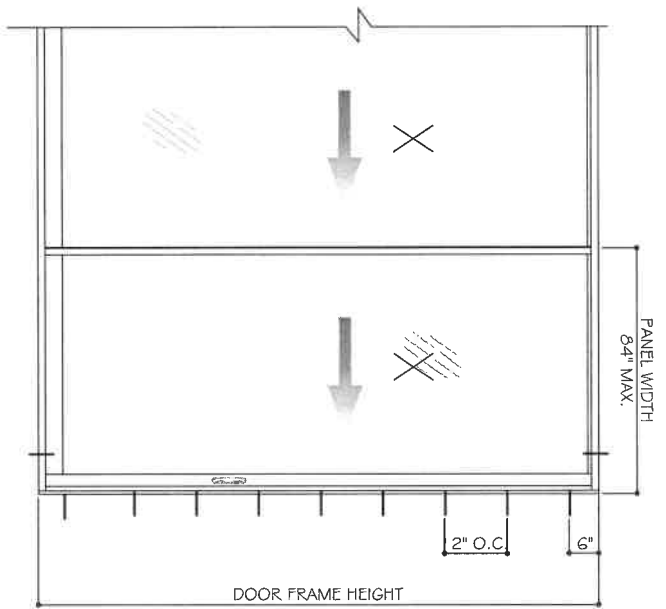
ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

ES WINDOWS, INC.  
 10653 NE Quaybridge Ct.  
 Miami, FL 33138  
 TEL. (305) 624-7775

**MCY ENGINEERING, INC.**  
 GLAZING CONSULTANTS  
 12781 MIRAMAR PARKWAY #301  
 MIRAMAR, FL 33027 P: 305.271.0117  
 www.MCYEngineering.com mcy@mcyeengineering.com

Drawn Date	12/04/2023	Scale	
Rev. No.	02	Date	12/04/2023
Drawn By	James J. Jones	Revision	
Description			

AD16-29  
 J3  
 19 OF 59



**JAMB ANCHOR TYPES:**

TYPE "B2": 1/4" DIA. ULTRACON+ BY DEMWALT (F<sub>u</sub>=164 KSI, F<sub>y</sub>=148 KSI)  
 1 3/4" MIN. EMBED INTO F<sub>2</sub>=3 KSI MIN. CONCRETE  
 1 5/16" MIN. EDGE DISTANCE

TYPE "D2": 1/4" DIA. TEKS-SELF DRILLING SCREW (F<sub>u</sub>=120 KSI, F<sub>y</sub>=92 KSI)  
 INTO METAL STRUCTURE  
 ALUMINUM: 3/16" THK. MIN. (6063-T6 MIN.)  
 STEEL: 1/8" THK. MIN. (F<sub>y</sub>=36KSI, MIN.)

TYPE "D2A": 1/4" DIA. SMS (F<sub>u</sub>=74 KSI, F<sub>y</sub>=57 KSI)  
 1 1/2" MIN. EMBED INTO WOOD STRUCTURE (SG=0.55 MIN.)  
 1" MIN. EDGE DISTANCE

ANCHOR TYPE	EMBEDMENT	SUBSTRATE	ANCHOR WIDTH	ANCHOR SPACING
A2 (1/4" ULTRACON)	1 3/4"	CONCRETE	W<72"	72"<W<84"
D2 (#14 TEKS)	3 1/6"	ALUM. 6063-T6	12"	11"
D2 (#14 SMS)	1/8"	STL	16"	14"
D2A (#14 SMS)	1 1/2"	WOOD SG=0.55	14"	12"
			13"	11"

**NOTE:**  
 WOOD BUCKS/ METAL STRUCTURES BY OTHERS MUST BE PROPERLY  
 SECURED TO SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND  
 TRANSFER THEM TO THE BUILDING STRUCTURES.



Drawn Date	12.04.2023	Drawn By	Jones	REVISION
Rev. No.	2	Date	12.04.2023	Description
Scale				

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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 MIRAMAR, FL 33027 P. 305.271.0117

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Sheet No. **J4**

**AD16-29**

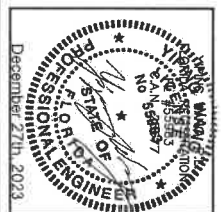
20 OF 59

HEAD ANCHOR CAPACITY - PSF												
5GD PANEL SIZES		ANCHOR TYPE "A" OR "AA"						ANCHOR TYPE "B"				
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	A4	AG	A8	A10	A10	B4	B6	B6	B6	B6	B6
90	36	132.4	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
	42	118.9	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
	48	109.2	150.0	150.0	150.0	140.0	150.0	150.0	150.0	150.0	150.0	150.0
	54	102.2	150.0	150.0	150.0	131.0	150.0	150.0	150.0	150.0	150.0	150.0
	60	97.1	145.6	150.0	150.0	124.4	150.0	150.0	150.0	150.0	150.0	150.0
	66	93.4	140.1	150.0	150.0	119.8	150.0	150.0	150.0	150.0	150.0	150.0
	72	91.0	136.5	150.0	150.0	116.7	150.0	150.0	150.0	150.0	150.0	150.0
	78	89.6	134.4	150.0	150.0	114.9	150.0	150.0	150.0	150.0	150.0	150.0
	84	89.1	133.7	150.0	150.0	114.3	150.0	150.0	150.0	150.0	150.0	150.0
	36	121.3	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
96	42	108.5	150.0	150.0	150.0	139.1	150.0	150.0	150.0	150.0	150.0	150.0
	48	99.3	148.9	150.0	150.0	127.3	150.0	150.0	150.0	150.0	150.0	150.0
	54	92.4	138.7	150.0	150.0	118.5	150.0	150.0	150.0	150.0	150.0	150.0
	60	87.4	131.0	150.0	150.0	112.0	150.0	150.0	150.0	150.0	150.0	150.0
	66	83.6	125.4	150.0	150.0	107.2	150.0	150.0	150.0	150.0	150.0	150.0
	72	80.9	121.3	150.0	150.0	103.7	150.0	150.0	150.0	150.0	150.0	150.0
	78	79.1	118.6	150.0	150.0	101.4	150.0	150.0	150.0	150.0	150.0	150.0
	84	78.0	117.0	150.0	150.0	100.0	150.0	150.0	150.0	150.0	150.0	150.0
	36	112.0	150.0	150.0	150.0	143.6	150.0	150.0	150.0	150.0	150.0	150.0
	42	99.8	149.8	150.0	150.0	128.0	150.0	150.0	150.0	150.0	150.0	150.0
102	48	91.0	136.5	150.0	150.0	116.7	150.0	150.0	150.0	150.0	150.0	150.0
	54	84.4	126.6	150.0	150.0	108.2	150.0	150.0	150.0	150.0	150.0	150.0
	60	79.4	119.1	150.0	150.0	101.8	150.0	150.0	150.0	150.0	150.0	150.0
	66	75.6	113.5	150.0	150.0	97.0	150.0	150.0	150.0	150.0	150.0	150.0
	72	82.8	109.2	145.6	150.0	93.3	140.0	150.0	150.0	150.0	150.0	150.0
	78	70.7	106.1	141.5	150.0	90.7	136.0	150.0	150.0	150.0	150.0	150.0
	84	69.3	104.0	138.7	150.0	88.9	133.3	150.0	150.0	150.0	150.0	150.0
	36	104.0	150.0	150.0	150.0	133.3	150.0	150.0	150.0	150.0	150.0	150.0
	42	92.4	138.7	150.0	150.0	118.5	150.0	150.0	150.0	150.0	150.0	150.0
	48	84.0	126.0	150.0	150.0	107.7	150.0	150.0	150.0	150.0	150.0	150.0
108	54	77.7	116.5	150.0	150.0	99.6	149.3	150.0	150.0	150.0	150.0	150.0
	60	72.8	109.2	145.6	150.0	93.3	140.0	150.0	150.0	150.0	150.0	150.0
	66	69.1	103.6	138.1	150.0	88.5	132.8	150.0	150.0	150.0	150.0	150.0
	72	66.2	99.3	132.4	150.0	84.8	127.3	150.0	150.0	150.0	150.0	150.0
	78	64.0	96.0	128.0	150.0	82.1	123.1	150.0	150.0	150.0	150.0	150.0
	84	62.4	93.6	124.8	150.0	80.0	120.0	150.0	150.0	150.0	150.0	150.0
	36	97.1	145.6	150.0	150.0	124.4	150.0	150.0	150.0	150.0	150.0	150.0
	42	86.1	129.1	150.0	150.0	110.3	150.0	150.0	150.0	150.0	150.0	150.0
	48	78.0	117.0	150.0	150.0	100.0	150.0	150.0	150.0	150.0	150.0	150.0
	54	71.9	107.9	143.8	150.0	92.2	138.3	150.0	150.0	150.0	150.0	150.0
60	67.2	100.8	134.4	150.0	86.2	129.2	150.0	150.0	150.0	150.0	150.0	
66	63.5	95.3	127.1	150.0	81.5	122.2	150.0	150.0	150.0	150.0	150.0	
72	60.7	91.0	121.3	150.0	77.8	116.7	150.0	150.0	150.0	150.0	150.0	
78	58.4	87.7	116.9	146.1	74.9	112.4	149.8	150.0	150.0	150.0	150.0	

HEAD ANCHOR CAPACITY - PSF												
5GD PANEL SIZES		ANCHOR TYPE "A" OR "AA"						ANCHOR TYPE "B"				
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	A4	AG	A8	A10	A10	B4	B6	B6	B6	B6	B6
120	36	91.0	136.5	150.0	150.0	150.0	116.7	150.0	150.0	150.0	150.0	150.0
	42	80.5	120.8	150.0	150.0	103.2	150.0	150.0	150.0	150.0	150.0	150.0
	48	72.8	109.2	145.6	150.0	93.3	140.0	150.0	150.0	150.0	150.0	150.0
	54	66.9	100.4	133.9	150.0	85.8	128.7	150.0	150.0	150.0	150.0	150.0
	60	62.4	93.6	124.8	150.0	80.0	120.0	150.0	150.0	150.0	150.0	150.0
	66	58.8	88.2	117.7	147.1	75.4	113.1	150.0	150.0	150.0	150.0	150.0
	72	56.0	84.0	112.0	142.0	71.8	107.7	143.6	150.0	150.0	150.0	150.0
	36	85.6	128.5	150.0	150.0	109.8	150.0	150.0	150.0	150.0	150.0	150.0
	42	75.6	113.5	150.0	150.0	97.0	145.5	150.0	150.0	150.0	150.0	150.0
	48	68.3	102.4	136.5	150.0	87.5	131.3	150.0	150.0	150.0	150.0	150.0
132	54	62.6	93.9	125.2	150.0	80.3	120.4	150.0	150.0	150.0	150.0	150.0
	60	58.2	87.4	116.5	145.6	74.7	112.0	149.3	150.0	150.0	150.0	150.0
	66	54.8	82.2	109.5	136.9	70.2	105.3	140.4	150.0	150.0	150.0	150.0
	72	52.0	78.0	104.0	130.0	66.7	100.0	133.3	150.0	150.0	150.0	150.0
	36	80.9	121.3	150.0	150.0	103.7	150.0	150.0	150.0	150.0	150.0	150.0
	42	71.3	107.0	142.6	150.0	91.4	137.1	150.0	150.0	150.0	150.0	150.0
	48	64.2	96.4	128.5	150.0	82.4	123.5	150.0	150.0	150.0	150.0	150.0
	54	58.8	88.2	117.7	147.1	75.4	113.1	150.0	150.0	150.0	150.0	150.0
	60	54.6	81.9	109.2	136.5	70.0	105.0	140.0	150.0	150.0	150.0	150.0
	66	51.2	76.9	102.5	128.1	65.7	98.5	131.4	150.0	150.0	150.0	150.0
138	36	76.6	114.9	150.0	150.0	98.2	147.4	150.0	150.0	150.0	150.0	150.0
	42	67.5	101.2	134.9	150.0	86.5	129.7	150.0	150.0	150.0	150.0	150.0
	48	60.7	91.0	121.3	150.0	77.8	116.7	150.0	150.0	150.0	150.0	150.0
	54	55.5	83.2	110.9	138.7	71.1	106.7	142.2	150.0	150.0	150.0	150.0
	60	51.4	77.1	102.8	128.5	65.9	98.8	131.8	150.0	150.0	150.0	150.0
	66	48.1	72.2	96.3	120.3	61.7	92.6	123.4	150.0	150.0	150.0	150.0
	36	72.8	109.2	145.6	150.0	93.3	140.0	150.0	150.0	150.0	150.0	150.0
	42	64.0	96.0	128.0	150.0	82.1	123.1	150.0	150.0	150.0	150.0	150.0
	48	57.5	86.2	114.9	143.7	73.7	110.5	147.4	150.0	150.0	150.0	150.0
	54	52.5	78.7	104.9	131.2	67.3	100.9	134.5	150.0	150.0	150.0	150.0
144	60	48.5	72.8	97.1	121.3	62.2	93.3	124.4	150.0	150.0	150.0	150.0
	36	69.3	104.0	138.7	150.0	88.9	133.3	150.0	150.0	150.0	150.0	150.0
	42	60.9	91.3	121.8	150.0	78.0	117.1	150.0	150.0	150.0	150.0	150.0
	48	54.6	81.9	109.2	136.5	70.0	105.0	140.0	150.0	150.0	150.0	150.0
	54	49.8	74.7	99.6	124.4	63.8	95.7	127.6	150.0	150.0	150.0	150.0
	60	46.0	69.0	92.0	114.9	58.9	88.4	117.9	150.0	150.0	150.0	150.0

A4 OR A44 - A CLUSTER OF (4) TYPE "A" OR "AA" ANCHORS AT HEAD  
AG OR AAG - A CLUSTER OF (6) TYPE "A" OR "AA" ANCHORS AT HEAD  
A8 OR A88 - A CLUSTER OF (8) TYPE "A" OR "AA" ANCHORS AT HEAD  
A10 OR A100 - A CLUSTER OF (10) TYPE "A" OR "AA" ANCHORS AT HEAD  
B4 - A CLUSTER OF (4) TYPE "B" ANCHORS AT HEAD  
B6 - A CLUSTER OF (6) TYPE "B" ANCHORS AT HEAD  
B8 - A CLUSTER OF (8) TYPE "B" ANCHORS AT HEAD

FOR ANCHOR TYPES & LAYOUT, SEE SHEET AG & AJ



<p>ES-SGD2020 SLIDING GLASS DOOR (LMI &amp; SMI)</p> <p><b>ES WINDOWS, INC.</b>          10653 NE Quaybridge Ct.          Miami, FL 33138          TEL. (305) 624-7775</p>	<p><b>MCY ENGINEERING, INC.</b>          GLAZING CONSULTANTS          12781 MIRAMAR PARKWAY #301          MIRAMAR, FL 33027          P. 305.271.0117          www.MCYEngineering.com    mcy@mcyengineering.com</p>
<p>Rev. No. 21 of 59</p> <p>Scale</p> <p>Date</p> <p>Drawn By</p> <p>Description</p>	<p>Drawn Date 11/04/2023</p> <p>Scale</p> <p>AD16-29</p> <p>A1</p>

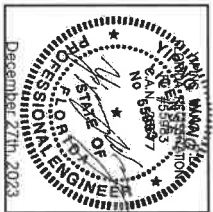
HEAD ANCHOR CAPACITY - PSF

SGD PANEL SIZES		ANCHOR TYPE "BB"				
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	BB4	BB6	BB8	BB10	BB10
78	84	77.8	116.7	150.0	150.0	150.0
84	84	77.4	116.1	150.0	150.0	150.0
78	90	68.6	103.0	137.3	150.0	150.0
84	90	67.7	101.6	135.4	150.0	150.0
36		97.2	145.8	150.0	150.0	150.0
42		86.7	130.0	150.0	150.0	150.0
48		79.0	118.5	150.0	150.0	150.0
54		73.3	109.9	146.6	150.0	150.0
60		68.9	103.4	137.9	150.0	150.0
66		65.7	98.5	131.3	150.0	150.0
72		63.2	94.8	126.4	150.0	150.0
78		61.4	92.1	122.8	150.0	150.0
84		60.2	90.3	120.4	150.0	150.0
36		90.3	135.4	150.0	150.0	150.0
42		80.3	120.4	150.0	150.0	150.0
48		72.9	109.4	145.8	150.0	150.0
54		67.4	101.1	134.8	150.0	150.0
60		63.2	94.8	126.4	150.0	150.0
66		60.0	89.9	119.9	149.9	149.9
72		57.5	86.2	114.9	143.6	143.6
76		55.6	83.3	111.1	138.9	138.9
84		54.2	81.3	108.3	135.4	135.4
36		84.3	126.4	150.0	150.0	150.0
42		74.7	112.1	149.4	150.0	150.0
48		67.7	101.6	135.4	150.0	150.0
54		62.4	93.6	124.8	150.0	150.0
60		58.3	87.5	116.7	145.8	145.8
66		55.2	82.7	110.3	137.9	137.9
72		52.7	79.0	105.3	131.7	131.7
78		50.7	76.1	101.5	126.8	126.8
36		79.0	118.5	150.0	150.0	150.0
42		69.9	104.8	139.8	150.0	150.0
48		63.2	94.8	126.4	150.0	150.0
54		58.1	87.2	116.2	145.3	145.3
60		54.2	81.3	108.3	135.4	135.4
66		51.1	76.6	102.1	127.7	127.7
72		48.6	72.9	97.2	121.5	121.5
36		74.4	111.5	148.7	150.0	150.0
42		65.7	98.5	131.3	150.0	150.0
48		59.3	88.9	118.5	148.1	148.1
54		54.4	81.5	108.7	135.9	135.9
60		50.6	75.8	101.1	126.4	126.4
66		47.5	71.3	95.1	118.9	118.9
72		45.1	67.7	90.3	112.9	112.9

HEAD ANCHOR CAPACITY - PSF

SGD PANEL SIZES		ANCHOR TYPE "BB"				
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	BB4	BB6	BB8	BB10	BB10
36		66.5	99.8	133.1	150.0	150.0
42		58.6	87.8	117.1	146.4	146.4
48		52.7	79.0	105.3	131.7	131.7
54		48.2	72.2	96.3	120.4	120.4
60		44.6	66.9	89.2	111.5	111.5
66		41.8	62.7	83.6	104.5	104.5
36		63.2	94.8	126.4	150.0	150.0
42		55.6	83.3	111.1	138.9	138.9
48		49.9	74.8	99.8	124.7	124.7
54		45.5	68.3	91.1	113.9	113.9
60		42.1	63.2	84.3	105.3	105.3
36		60.2	90.3	120.4	150.0	150.0
42		52.9	79.3	105.7	132.1	132.1
48		47.4	71.1	94.8	118.5	118.5
54		43.2	64.8	86.4	108.0	108.0
60		39.9	59.9	79.8	99.8	99.8

BB4 - A CLUSTER OF (4) ANCHORS TYPE "BB" AT INTERLOCK/ASTRAGAL  
 BB6 - A CLUSTER OF (6) ANCHORS TYPE "BB" AT INTERLOCK/ASTRAGAL  
 BB8 - A CLUSTER OF (8) ANCHORS TYPE "BB" AT INTERLOCK/ASTRAGAL  
 BB10 - A CLUSTER OF (10) ANCHORS TYPE "BB" AT INTERLOCK/ASTRAGAL  
 FOR ANCHOR TYPES & LAYOUT, SEE SHEET A7



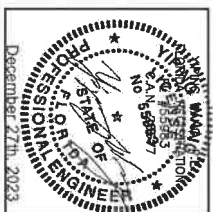
ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)	ES WINDOWS, INC. 10653 NE Quaybridge Ct Miami, FL 33138 TEL. (305) 624-7775	M C Y ENGINEERING, INC. GLAZING CONSULTANTS 12781 MIRAMAR PARKWAY #301 MIRAMAR, FL 33027 P: 305.271.0117 www.MCYEngineering.com mcy@mcyeengineering.com
Rev. No.	Date	Description
1	2.04.2023	James JONES REVISION
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SGD PANEL SIZES		ANCHOR TYPE 'CC'				
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	CC4	CC6	CC8	CC10	
78		+/-	+/-	+/-	+/-	
84	84	88.0	131.9	150.0	150.0	
		87.5	131.3	150.0	150.0	
78	90	77.6	116.4	150.0	150.0	
84		76.6	114.9	150.0	150.0	
36		109.9	150.0	150.0	150.0	
42		98.0	147.0	150.0	150.0	
48		89.3	134.0	150.0	150.0	
54		82.9	124.3	150.0	150.0	
60	96	78.0	116.9	150.0	150.0	
66		74.3	111.4	148.5	150.0	
72		71.5	107.2	142.9	150.0	
78		69.4	104.2	138.9	150.0	
84		68.1	102.1	136.1	150.0	
36		102.1	150.0	150.0	150.0	
42		90.8	136.1	150.0	150.0	
48		82.5	123.7	150.0	150.0	
54	102	76.2	114.3	150.0	150.0	
60		71.5	107.2	142.9	150.0	
66		67.8	101.7	135.6	149.9	
72		65.0	97.5	129.9	143.6	
78		62.8	94.2	125.7	150.0	
84		61.3	91.9	122.5	150.0	
36		95.3	142.9	150.0	150.0	
42		84.5	126.7	150.0	150.0	
48		76.6	114.9	150.0	150.0	
54	108	70.6	105.9	141.2	150.0	
60		66.0	99.0	131.9	150.0	
66		62.4	93.6	124.7	150.0	
72		59.6	89.3	119.1	148.9	
78		57.4	86.0	114.7	143.4	
36		89.3	134.0	150.0	150.0	
42		79.0	118.6	150.0	150.0	
48		71.5	107.2	142.9	150.0	
54	114	65.7	96.6	131.4	150.0	
60		61.3	91.9	122.5	150.0	
66		57.8	86.6	115.5	144.4	
72		55.0	82.5	109.9	137.4	
36		84.1	126.1	150.0	150.0	
42		74.3	111.4	148.5	150.0	
48		67.0	100.5	134.0	150.0	
54	120	61.5	92.2	123.0	150.0	
60		57.2	85.8	114.3	142.9	
66		53.8	80.7	107.5	134.4	
72		51.0	76.6	102.1	127.6	

SGD PANEL SIZES		ANCHOR TYPE 'CC'				
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	CC4	CC6	CC8	CC10	
36		+/-	+/-	+/-	+/-	
42		75.2	112.8	150.0	150.0	
48	132	66.2	99.3	132.4	150.0	
54		59.6	89.3	119.1	148.9	
60		54.5	81.7	108.9	136.1	
66		50.4	75.7	100.9	126.1	
36		47.3	70.9	94.5	118.1	
42		71.5	107.2	142.9	150.0	
48	138	62.8	94.2	125.7	150.0	
54		56.4	84.6	112.8	141.1	
60		51.5	77.3	103.0	128.8	
66		47.6	71.5	95.3	119.1	
36		68.1	102.1	136.1	150.0	
42		59.8	89.6	119.5	149.4	
48	144	53.6	80.4	107.2	134.0	
54		48.9	73.3	97.7	122.2	
60		45.1	67.7	90.3	112.8	

CC4 - A CLUSTER OF (4) ANCHORS TYPE 'CC' AT INTERLOCK/ASTRAGAL  
 CC6 - A CLUSTER OF (6) ANCHORS TYPE 'CC' AT INTERLOCK/ASTRAGAL  
 CC8 - A CLUSTER OF (8) ANCHORS TYPE 'CC' AT INTERLOCK/ASTRAGAL  
 CC10 - A CLUSTER OF (10) ANCHORS TYPE 'CC' AT INTERLOCK/ASTRAGAL  
 FOR ANCHOR TYPES & LAYOUT, SEE SHEET A7

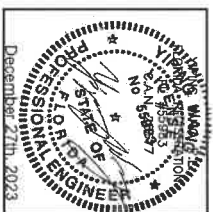


<b>ES-SGD2020 SLIDING GLASS DOOR (LMI &amp; SMI)</b> <b>ES WINDOWS, INC.</b> 10653 NE Quaybridge Ct. Miami, FL 33138 TEL. (305) 624-7775		<b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS 12781 MIRAMAR PARKWAY #301 MIRAMAR, FL 33027 P. 305.271.0117 www.MCYEngineering.com    mcy@mcyengineering.com	
Drawing No. <b>AD16-29</b> Scale Date: 2.04.2023 Drawn By: James KEYSOM Rev. No.	Sheet No. <b>A3</b> 23 OF 59		

SGD PANEL SIZES		HEAD ANCHOR CAPACITY - PSF					
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	ANCHOR TYPE "C"	ANCHOR TYPE "D"			ANCHOR TYPE "E"	
		C4	C6	D4	D6	D8	E4
36		150.0	150.0	114.9	150.0	150.0	150.0
42		150.0	150.0	103.2	150.0	150.0	150.0
48		150.0	150.0	94.8	142.2	150.0	150.0
54		150.0	150.0	88.7	133.1	150.0	150.0
60		150.0	150.0	84.3	126.4	150.0	150.0
66		150.0	150.0	81.1	121.7	150.0	150.0
72		150.0	150.0	79.0	118.5	150.0	146.7
78		150.0	150.0	77.8	116.7	150.0	144.4
84		150.0	150.0	77.4	116.1	150.0	143.7
36		150.0	150.0	105.3	150.0	150.0	150.0
42		150.0	150.0	94.2	141.3	150.0	150.0
48		150.0	150.0	86.2	129.3	150.0	150.0
54		150.0	150.0	80.3	120.4	150.0	149.0
60		150.0	150.0	75.8	113.8	150.0	140.8
66		142.2	150.0	72.6	108.9	145.1	134.7
72		139.6	150.0	70.2	105.3	140.4	130.4
78		136.4	150.0	68.6	103.0	137.3	127.4
84		134.6	150.0	67.7	101.6	135.4	125.7
36		150.0	150.0	97.2	145.8	150.0	150.0
42		150.0	150.0	86.7	130.0	150.0	150.0
48		150.0	150.0	79.0	118.5	150.0	146.7
54		145.6	150.0	73.3	109.9	146.6	136.0
60		137.0	150.0	68.9	103.4	137.9	126.0
66		130.5	150.0	65.7	98.5	131.3	121.9
72		125.6	150.0	63.2	94.8	126.4	117.3
78		122.0	150.0	61.4	92.1	122.8	114.0
84		119.6	150.0	60.2	90.3	120.4	111.7
36		150.0	150.0	90.3	135.4	150.0	150.0
42		150.0	150.0	80.3	120.4	150.0	149.0
48		144.9	150.0	72.9	109.4	145.8	135.4
54		134.0	150.0	67.4	101.1	134.8	125.2
60		125.6	150.0	63.2	94.8	126.4	117.3
66		119.1	150.0	60.0	89.9	119.9	111.3
72		114.2	150.0	57.5	86.2	114.9	106.7
78		110.4	150.0	55.6	83.3	111.1	103.2
84		107.7	150.0	54.2	81.3	108.3	100.6
36		150.0	150.0	84.3	126.4	150	150.0
42		148.5	150.0	74.7	112.1	149.4	138.7
48		134.6	150.0	62.7	101.6	135.4	125.7
54		124.0	150.0	56.4	93.6	124.8	115.9
60		115.9	150.0	53.3	87.5	116.7	106.3
66		109.6	150.0	52.2	82.7	110.3	102.4
72		104.7	150.0	52.7	79.0	105.3	97.8
78		100.8	150.0	50.7	76.1	101.5	94.2

SGD PANEL SIZES		HEAD ANCHOR CAPACITY - PSF					
AVE. PANEL WIDTH (IN)	DOOR HEIGHT (IN)	ANCHOR TYPE "C"	ANCHOR TYPE "D"			ANCHOR TYPE "E"	
		C4	C6	D4	D6	D8	E4
36		150.0	150.0	79.0	118.5	150.0	146.7
42		136.9	150.0	69.9	104.8	139.8	129.8
48		125.6	150.0	63.2	94.8	126.4	117.3
54		115.5	150.0	58.1	87.2	116.2	107.9
60		107.7	150.0	54.2	81.3	100.6	100.6
66		101.5	150.0	51.5	76.6	94.8	94.8
72		96.6	144.9	48.6	72.9	90.3	90.3
36		147.8	150.0	74.4	111.5	148.7	136.0
42		130.5	150.0	65.7	98.5	131.3	121.9
48		117.8	150.0	59.3	88.9	118.5	110.0
54		108.0	150.0	54.4	81.5	108.7	100.9
60		100.5	150.0	50.6	75.8	101.1	93.9
66		94.5	141.7	47.5	71.3	95.1	88.3
72		89.7	134.6	45.1	67.7	90.3	83.3
36		139.6	150.0	70.2	105.3	140.4	130.4
42		123.0	150.0	61.9	92.9	123.8	114.9
48		110.5	150.0	55.8	83.6	111.5	103.5
54		101.5	150.0	51.1	76.6	102.1	94.8
60		94.2	141.3	47.4	71.1	94.8	86.0
66		88.4	132.6	44.5	66.7	89.0	82.6
72		83.2	125.0	41.8	62.7	83.6	77.6
36		125.6	150.0	63.2	94.8	126.4	117.3
42		110.4	150.0	55.6	83.3	111.1	103.2
48		99.2	147.8	49.9	74.8	99.8	92.6
54		90.5	135.8	45.5	68.3	91.1	84.6
60		83.7	125.6	42.1	63.2	84.3	78.2
36		119.6	150.0	60.2	90.3	120.4	111.7
42		105.0	150.0	52.9	79.3	105.7	96.1
48		94.2	141.3	47.4	71.1	94.8	86.0
54		85.9	128.8	43.2	64.8	86.4	80.2
60		79.3	119.0	39.9	59.9	79.8	74.1

C4 - A CLUSTER OF (4) TYPE "C" ANCHORS AT HEAD  
 C6 - A CLUSTER OF (6) TYPE "C" ANCHORS AT HEAD  
 D4 - A CLUSTER OF (4) TYPE "D" ANCHORS AT HEAD  
 D6 - A CLUSTER OF (6) TYPE "D" ANCHORS AT HEAD  
 D8 - A CLUSTER OF (8) TYPE "D" ANCHORS AT HEAD  
 E4 - A CLUSTER OF (4) TYPE "E" ANCHORS AT HEAD  
 E6 - A CLUSTER OF (6) TYPE "E" ANCHORS AT HEAD  
 FOR ANCHOR TYPES & LAYOUT, SEE SHEET AG



DATE	BY	DESCRIPTION
12.04.2023	James Kivison	REVISION

Drawing No: AD16-29  
 Scale: A4  
 Sheet No: 24 OF 59

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

**ES WINDOWS, INC.**  
 10653 NE Quaybridge Ct.  
 Miami, FL 33138  
 TEL. (305) 624-7775

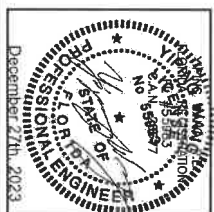
**MCY ENGINEERING, INC.**  
 GLAZING CONSULTANTS  
 12781 MIRAMAR PARKWAY #301  
 MIRAMAR, FL 33027 P: 305.271.0117  
 www.MCYEngineering.com mcymeyengineering.com

SILL ANCHOR CAPACITY - PSF			
SGD PANEL SIZES		ANCHOR TYPE "A" / "B"	
AVE PANEL WIDTH (IN)	DOOR HEIGHT (IN)	A4 / B4	A6 / B6
36	150.0	+/-	+/-
42	150.0	150.0	150.0
48	146.8	150.0	150.0
54	137.4	150.0	150.0
60	130.5	150.0	150.0
66	125.6	150.0	150.0
72	122.3	150.0	150.0
78	120.5	150.0	150.0
84	119.8	150.0	150.0
36	150.0	150.0	150.0
42	150.0	150.0	150.0
48	145.9	150.0	150.0
54	133.5	150.0	150.0
60	124.3	150.0	150.0
66	117.4	150.0	150.0
72	112.4	150.0	150.0
78	108.7	150.0	150.0
84	106.3	150.0	150.0
36	150.0	150.0	150.0
42	134.2	150.0	150.0
48	123.3	150.0	150.0
54	113.5	150.0	150.0
60	106.8	150.0	150.0
66	101.7	150.0	150.0
72	97.9	146.8	150.0
78	95.1	142.6	150.0
84	93.2	139.8	150.0
36	139.8	150.0	150.0
42	124.3	150.0	150.0
48	112.9	150.0	150.0
54	104.4	150.0	150.0
60	97.9	146.8	150.0
66	92.8	139.3	150.0
72	89.0	133.5	150.0
78	86.0	129.1	150.0
84	83.9	125.8	150.0
36	130.5	150.0	150.0
42	115.7	150.0	150.0
48	104.9	150.0	150.0
54	96.7	145.0	150.0
60	90.3	135.5	150.0
66	85.4	128.1	150.0
72	81.6	122.3	150.0
78	78.6	117.8	150.0

SILL ANCHOR CAPACITY - PSF			
SGD PANEL SIZES		ANCHOR TYPE "A" / "B"	
AVE PANEL WIDTH (IN)	DOOR HEIGHT (IN)	A4 / B4	A6 / B6
36	122.3	150.0	150.0
42	106.2	150.0	150.0
48	97.9	146.8	150.0
54	90.0	135.0	150.0
60	83.9	125.8	150.0
66	79.1	118.6	150.0
72	75.3	112.9	150.0
36	115.1	150.0	150.0
42	101.7	150.0	150.0
48	91.8	137.6	150.0
54	84.2	126.3	150.0
60	78.3	117.4	150.0
66	73.6	110.4	147.3
72	69.9	104.9	139.8
36	108.7	150.0	150.0
42	95.9	143.8	150.0
48	86.4	129.5	150.0
54	79.1	118.6	150.0
60	73.4	110.1	146.8
66	68.9	103.3	137.8
72	65.2	97.9	130.5
36	103.0	150.0	150.0
42	90.7	136.0	150.0
48	81.6	122.3	150.0
54	74.6	111.8	149.1
60	69.1	103.6	138.2
66	64.7	97.1	129.4
36	97.9	146.8	150.0
42	86.0	129.1	150.0
48	77.3	115.9	150.0
54	70.5	105.8	141.1
60	65.2	97.9	130.5
36	93.2	139.8	150.0
42	81.8	122.8	150.0
48	73.4	110.1	146.8
54	66.9	100.4	133.8
60	61.8	92.7	123.6

A4 - A CLUSTER OF (4) TYPE "A" ANCHORS AT SILL  
A6 - A CLUSTER OF (6) TYPE "A" ANCHORS AT SILL  
A8 - A CLUSTER OF (8) TYPE "A" ANCHORS AT SILL  
B4 - A CLUSTER OF (4) TYPE "B" ANCHORS AT SILL  
B6 - A CLUSTER OF (6) TYPE "B" ANCHORS AT SILL  
B8 - A CLUSTER OF (8) TYPE "B" ANCHORS AT SILL

FOR ANCHOR TYPES & LAYOUT, SEE SHEET A8



Drawn By	Scale	Revision
2.04.2023		
Rev. No.	Date	Description
DRAWING NO. AD16-29		
SHEET NO. A5		
25 OF 59		

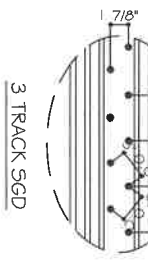
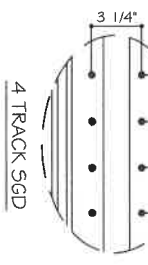
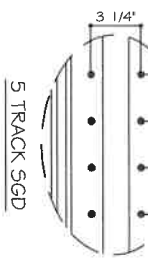
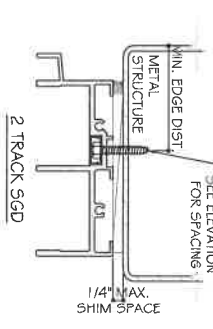
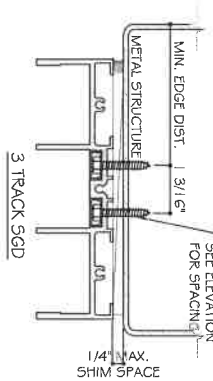
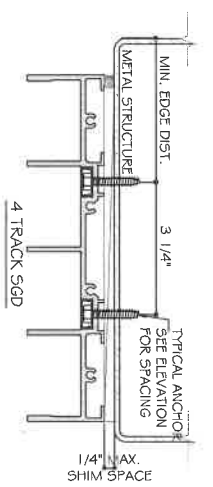
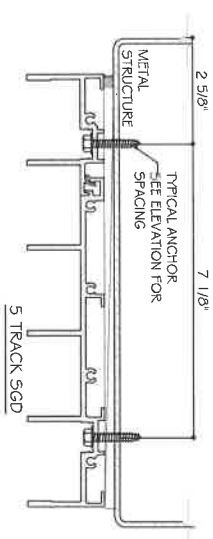
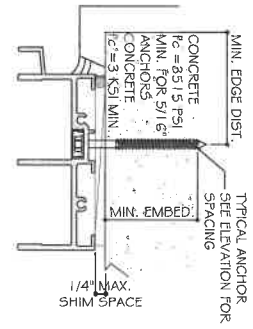
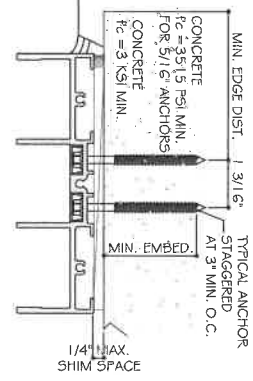
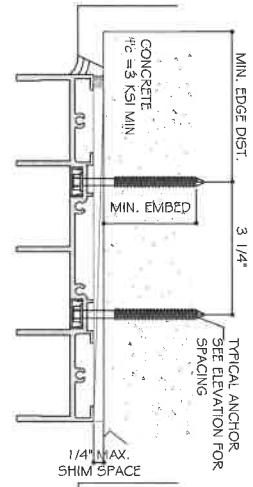
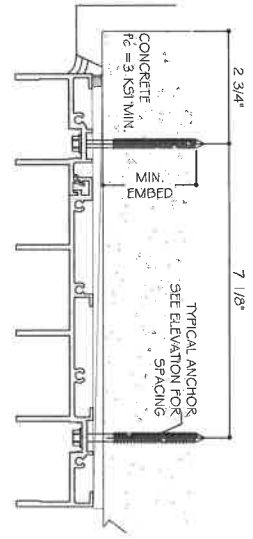
ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

**ES WINDOWS, INC.**  
10653 NE Quaybridge Ct.  
Miami, FL 33138  
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**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

12781 MIRAMAR PARKWAY #301  
MIRAMAR, FL 33027 P: 305.271.0117

www.MCYEngineering.com mcy@mcyengineering.com



**HEAD ANCHOR TYPES:**

TYPE "A": 1/4" DIA. KWIKCON (F<sub>u</sub> = 138 KSI, F<sub>y</sub> = 137 KSI)  
 T 3/4" MIN. EMBED INTO F<sub>c</sub> = 3 KSI MIN. CONCRETE  
 2 1/2" MIN. EDGE DISTANCE, 3" MIN. O.C.

TYPE "B": 1/4" DIA. ULTRACON+ BY DEWALT (F<sub>u</sub> = 164 KSI, F<sub>y</sub> = 148 KSI)  
 T 3/4" MIN. EMBED INTO F<sub>c</sub> = 3 KSI MIN. CONCRETE  
 2 1/2" MIN. EDGE DISTANCE, 3" MIN. O.C.

TYPE "C": 5/16" DIA. ULTRACON BY DEWALT (F<sub>u</sub> = 177 KSI, F<sub>y</sub> = 155 KSI)  
 T 3/4" MIN. EMBED INTO F<sub>c</sub> = 3515 PSI MIN. CONCRETE  
 2 1/2" MIN. EDGE DISTANCE, 3" MIN. O.C.

TYPE "D": 1/4" DIA. TEKS/DRILL-FLEX SCREW GRADE 5 (F<sub>u</sub> = 120 KSI, F<sub>y</sub> = 92 KSI)  
 INTO METAL STRUCTURE  
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)  
 STEEL: 1/8" THK. MIN. (F<sub>y</sub> = 36 KSI, MIN.)

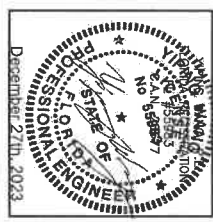
TYPE "E": 5/16" TEKS/DRILL-FLEX SCREW (F<sub>u</sub> = 120 KSI, F<sub>y</sub> = 92 KSI)  
 INTO METAL STRUCTURE  
 (3) THREAD MIN. PENETRATION BEYOND METAL SUBSTRATE  
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)  
 STEEL: 1/8" THK. MIN. (F<sub>y</sub> = 36 KSI, MIN.)

STEEL IN CONTACT WITH ALUM. TO BE PAINTED.

A4 - A CLUSTER OF (4) TYPE "A" ANCHORS AT HEAD  
 A6 - A CLUSTER OF (6) TYPE "A" ANCHORS AT HEAD  
 A8 - A CLUSTER OF (8) TYPE "A" ANCHORS AT HEAD  
 A10 - A CLUSTER OF (10) TYPE "A" ANCHORS AT HEAD  
 B4 - A CLUSTER OF (4) TYPE "B" ANCHORS AT HEAD  
 B6 - A CLUSTER OF (6) TYPE "B" ANCHORS AT HEAD  
 B8 - A CLUSTER OF (8) TYPE "B" ANCHORS AT HEAD

C4 - A CLUSTER OF (4) TYPE "C" ANCHORS AT HEAD  
 C6 - A CLUSTER OF (6) TYPE "C" ANCHORS AT HEAD  
 D4 - A CLUSTER OF (4) TYPE "D" ANCHORS AT HEAD  
 D6 - A CLUSTER OF (6) TYPE "D" ANCHORS AT HEAD  
 D8 - A CLUSTER OF (8) TYPE "D" ANCHORS AT HEAD  
 E4 - A CLUSTER OF (4) TYPE "E" ANCHORS AT HEAD  
 E6 - A CLUSTER OF (6) TYPE "E" ANCHORS AT HEAD

NOTE:  
 WOOD BUCKS/ METAL STRUCTURES BY OTHERS MUST BE PROPERLY  
 SECURED TO SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND  
 TRANSFER THEM TO THE BUILDING STRUCTURES.

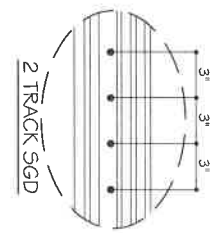
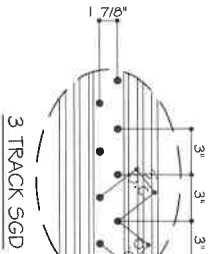
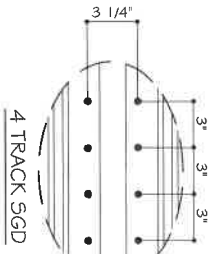
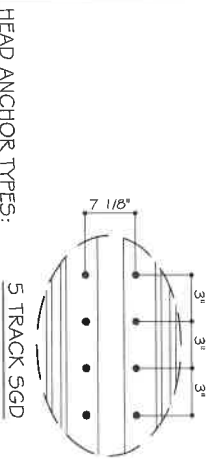
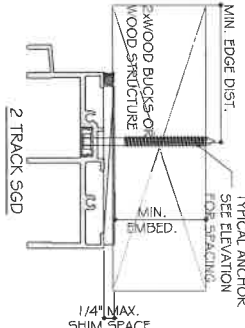
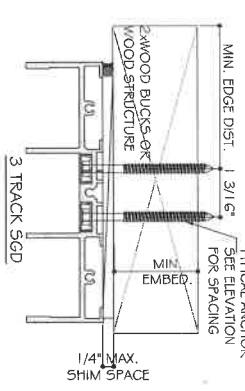
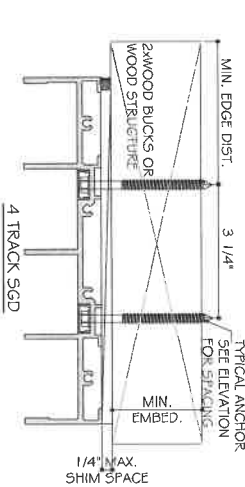
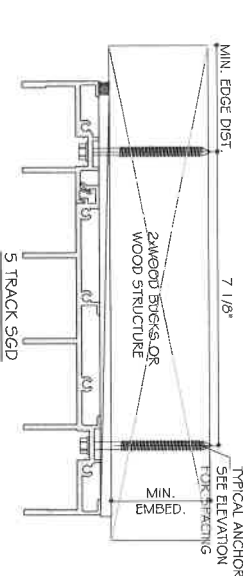
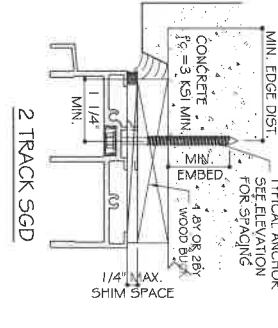
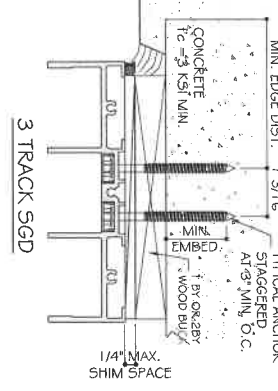
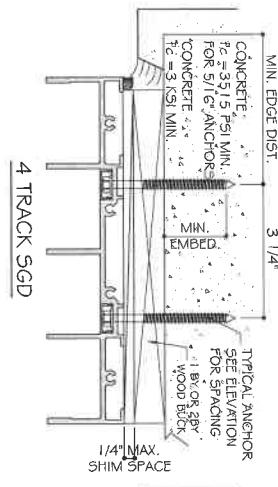
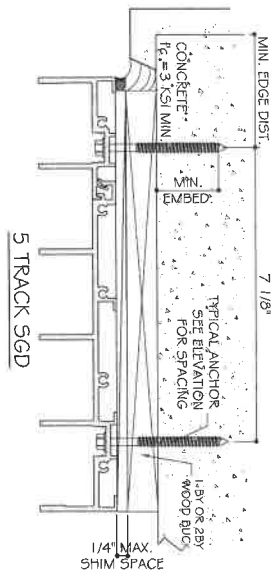


Rev. No.	Date	Drawn By	Description
1	12.04.2023	Jones	REVISION

Drawing No: AD16-29  
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 MIRAMAR, FL 33027 P: 305.271.0117  
 www.MCYEngineering.com mcy@mcyengineering.com

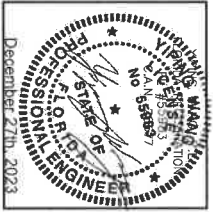


HEAD ANCHOR TYPES:

- TYPE "AA": 1/4" DIA. KWIKCON (F<sub>u</sub> = 138 KSI, F<sub>y</sub> = 137 KSI)  
 1 1/2" MIN. EMBED INTO 2XWOOD BUCKS OR WOOD STRUCTURE  
 SG=0.55 MIN.  
 OR THRU 1BY OR 2BY WOOD BUCK WITH 1 3/4" MIN. EMBED  
 INTO f<sub>c</sub>=3000 PSI CONCRETE  
 2 1/2" MIN. EDGE DISTANCE, 3" MIN. O.C.
- TYPE "BB": 1/4" DIA. ULTRACON ± BY DEWALT (F<sub>u</sub> = 164 KSI, F<sub>y</sub> = 148 KSI)  
 1 1/2" MIN. EMBED INTO 2XWOOD BUCKS OR WOOD STRUCTURE  
 SG=0.55 MIN.  
 OR THRU 1BY OR 2BY WOOD BUCK WITH 1 3/4" MIN. EMBED  
 INTO f<sub>c</sub>=3000 PSI CONCRETE  
 2 1/2" MIN. EDGE DISTANCE, 3" MIN. O.C.
- TYPE "CC": 5/16" DIA. ULTRACON BY DEWALT (F<sub>u</sub> = 177 KSI, F<sub>y</sub> = 155 KSI)  
 1 1/2" MIN. EMBED INTO 2XWOOD BUCKS OR WOOD STRUCTURE  
 SG=0.55 MIN.  
 OR THRU 1BY OR 2BY WOOD BUCK WITH 1 3/4" MIN. EMBED  
 INTO f<sub>c</sub>=3515 PSI CONCRETE  
 2 1/2" MIN. EDGE DISTANCE, 3" MIN. O.C.

- AA4 - A CLUSTER OF (4) TYPE "AA" ANCHORS AT HEAD  
 AA6 - A CLUSTER OF (6) TYPE "AA" ANCHORS AT HEAD  
 AA8 - A CLUSTER OF (8) TYPE "AA" ANCHORS AT HEAD  
 AA10 - A CLUSTER OF (10) TYPE "AA" ANCHORS AT HEAD  
 BB4 - A CLUSTER OF (4) TYPE "BB" ANCHORS AT HEAD  
 BB6 - A CLUSTER OF (6) TYPE "BB" ANCHORS AT HEAD  
 BB8 - A CLUSTER OF (8) TYPE "BB" ANCHORS AT HEAD  
 BB10 - A CLUSTER OF (10) TYPE "BB" ANCHORS AT HEAD  
 CC4 - A CLUSTER OF (4) TYPE "CC" ANCHORS AT HEAD  
 CC6 - A CLUSTER OF (6) TYPE "CC" ANCHORS AT HEAD  
 CC8 - A CLUSTER OF (8) TYPE "CC" ANCHORS AT HEAD  
 CC10 - A CLUSTER OF (10) TYPE "CC" ANCHORS AT HEAD

NOTE:  
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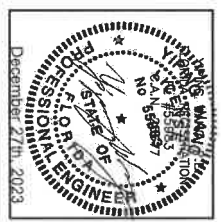
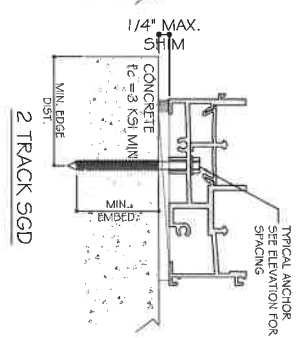
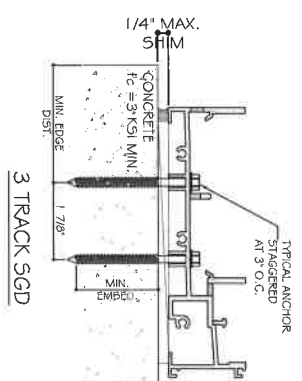
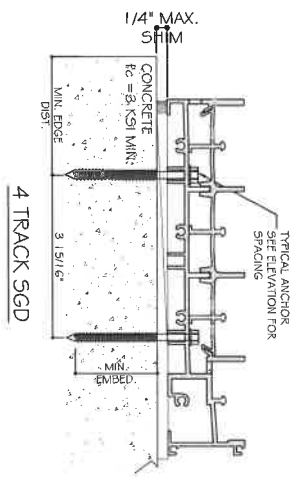
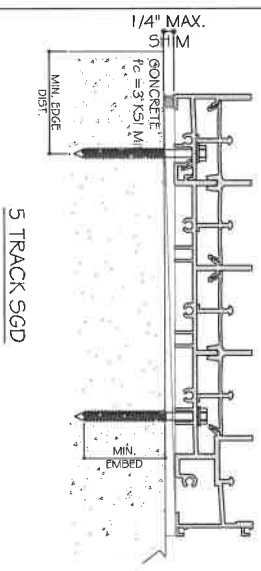
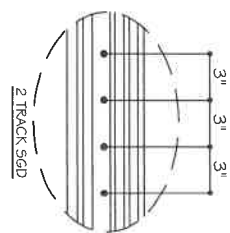
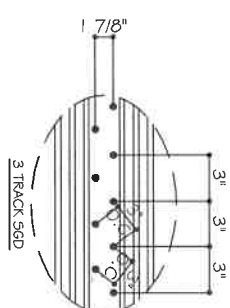
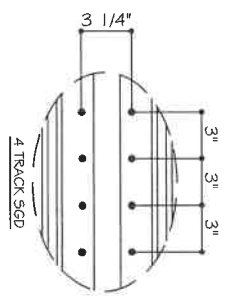
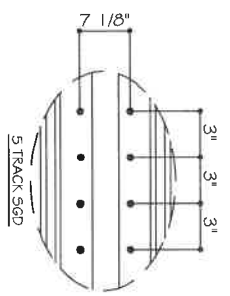
mcy@mcyengineering.com

DATE	BY	DESCRIPTION
2-04-2023	James	REVISION
Rev. No.	Date	Description

DRAWING NO. AD16-29  
 SCALE: A7  
 SHEET NO. 27 OF 59

SILL ANCHOR TYPES:

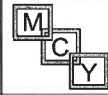
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 1 3/4" MIN. EMBED INTO F<sub>c</sub>=3 KSI MIN. CONCRETE  
 2 1/2" MIN. EDGE DISTANCE, 3" MIN. O.C.
- TYPE "B": 1/4" DIA. ULTRACON+ (F<sub>u</sub>=164 KSI, F<sub>y</sub>=148 KSI)  
 1 3/4" MIN. EMBED INTO F<sub>c</sub>=3 KSI MIN. CONCRETE  
 2 1/2" MIN. EDGE DISTANCE, 3" MIN. O.C.



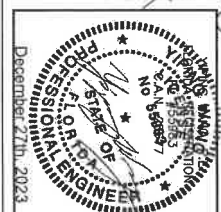
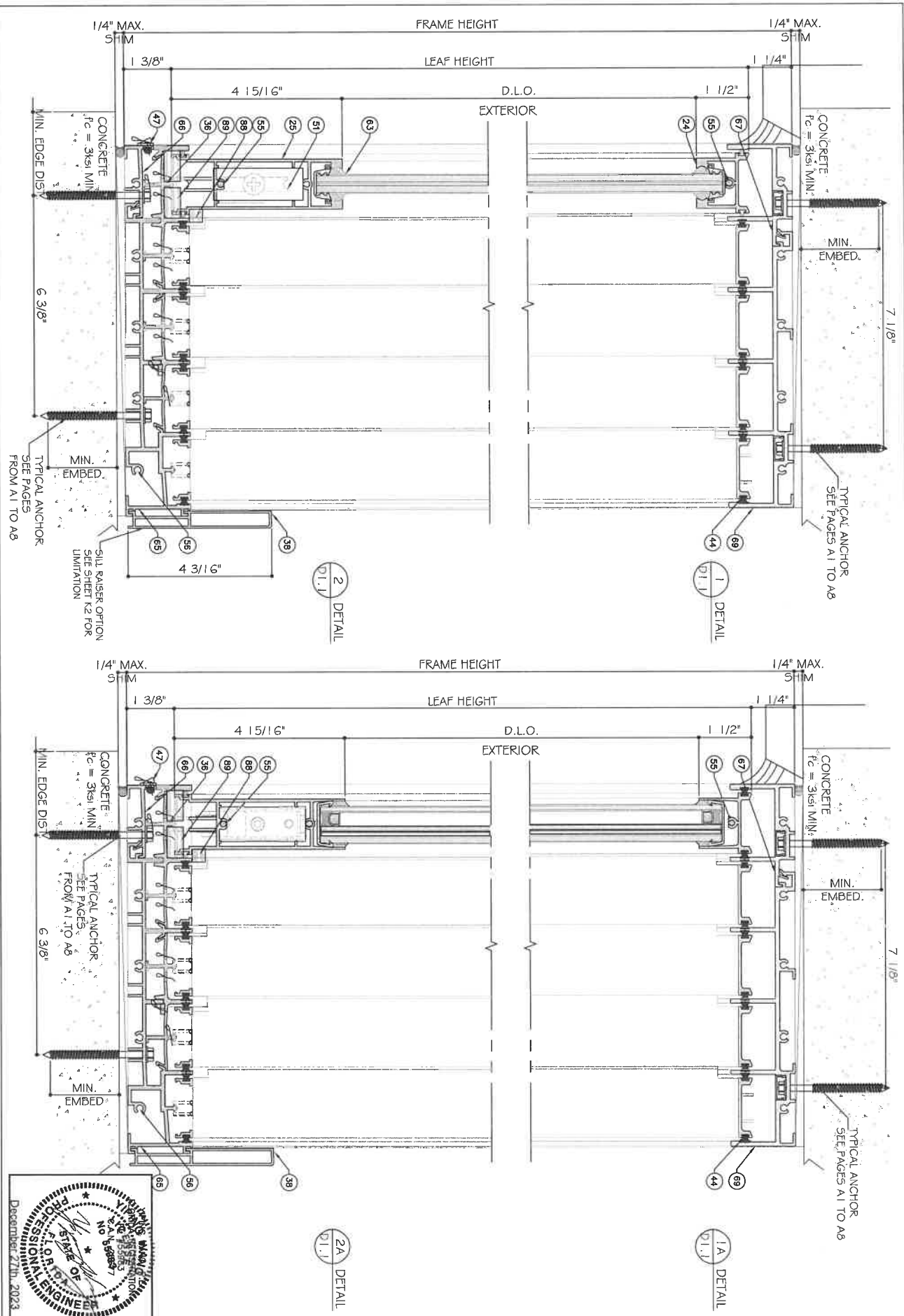
DATE	28 OF 59
SCALE	A8
DRAWING NO.	AD16-29
DATE	2-04-2023
REV. NO.	1
DATE	
BY	
DESCRIPTION	

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Revision	Date	By	Description
1	2.04.2023	James	REVISION
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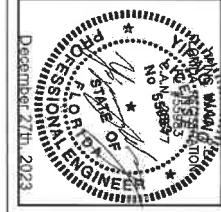
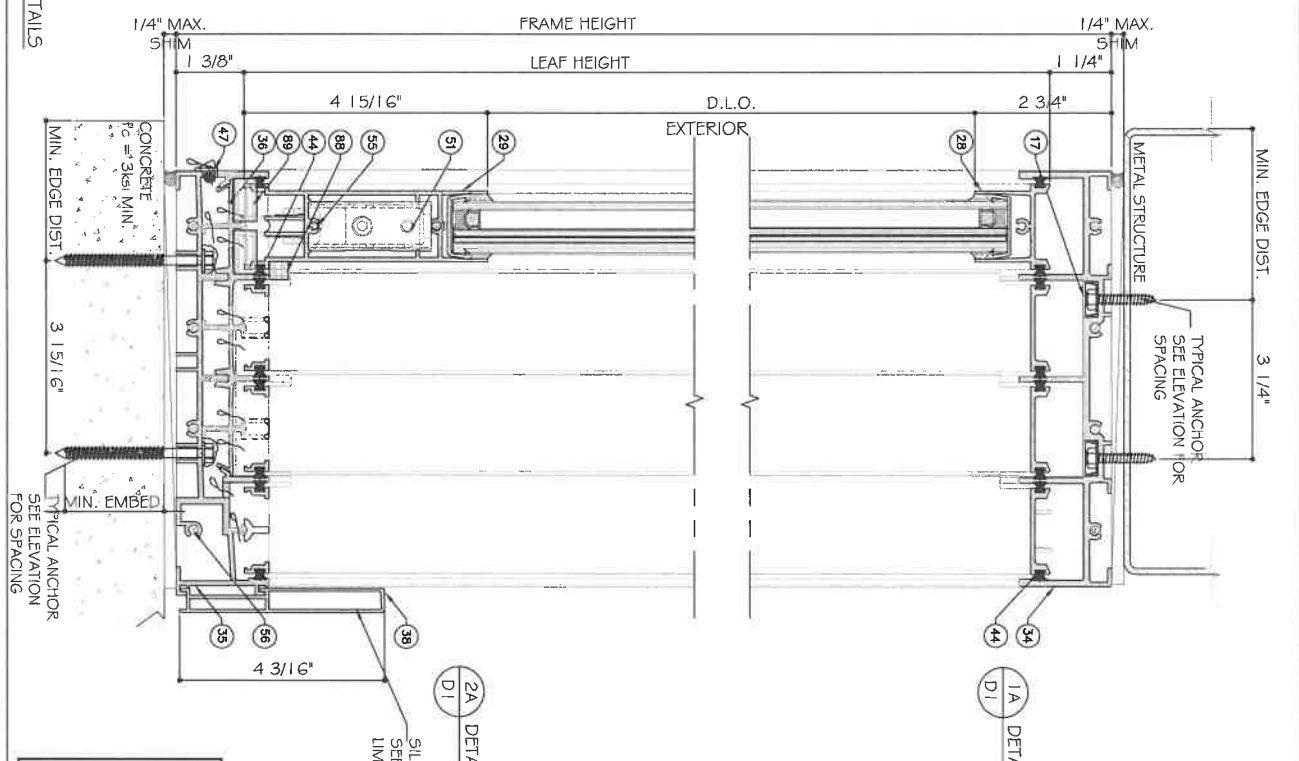
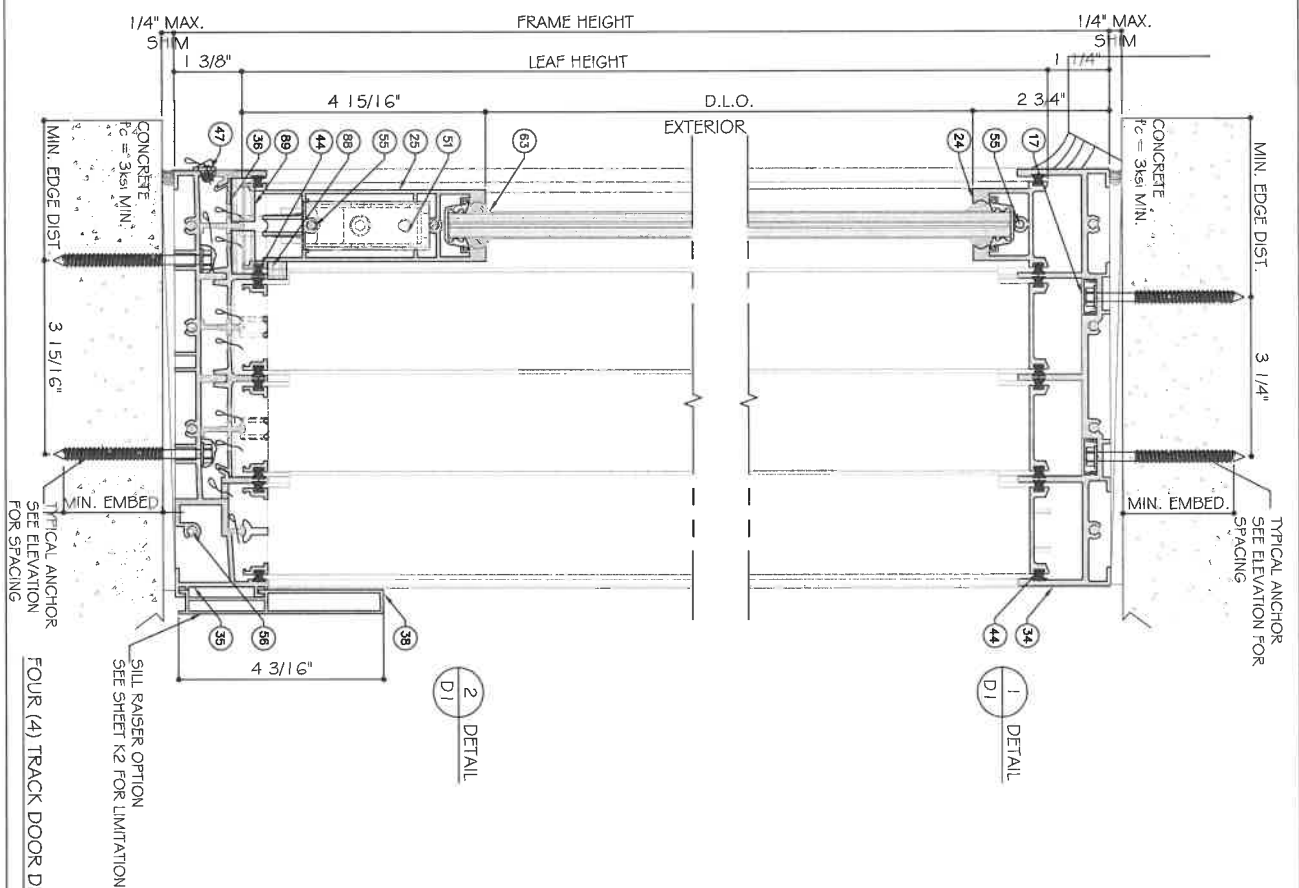
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Sheet No. **D1.1**  
 29 OF 59

AD16-29  
 12/24/2023



Sheet No.	30 OF 59			
AD16-29				
DATE	12/04/2023			
SCALE				
REV.	NO.	DATE	BY	DESCRIPTION
2	04	2023	James	REVISED

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

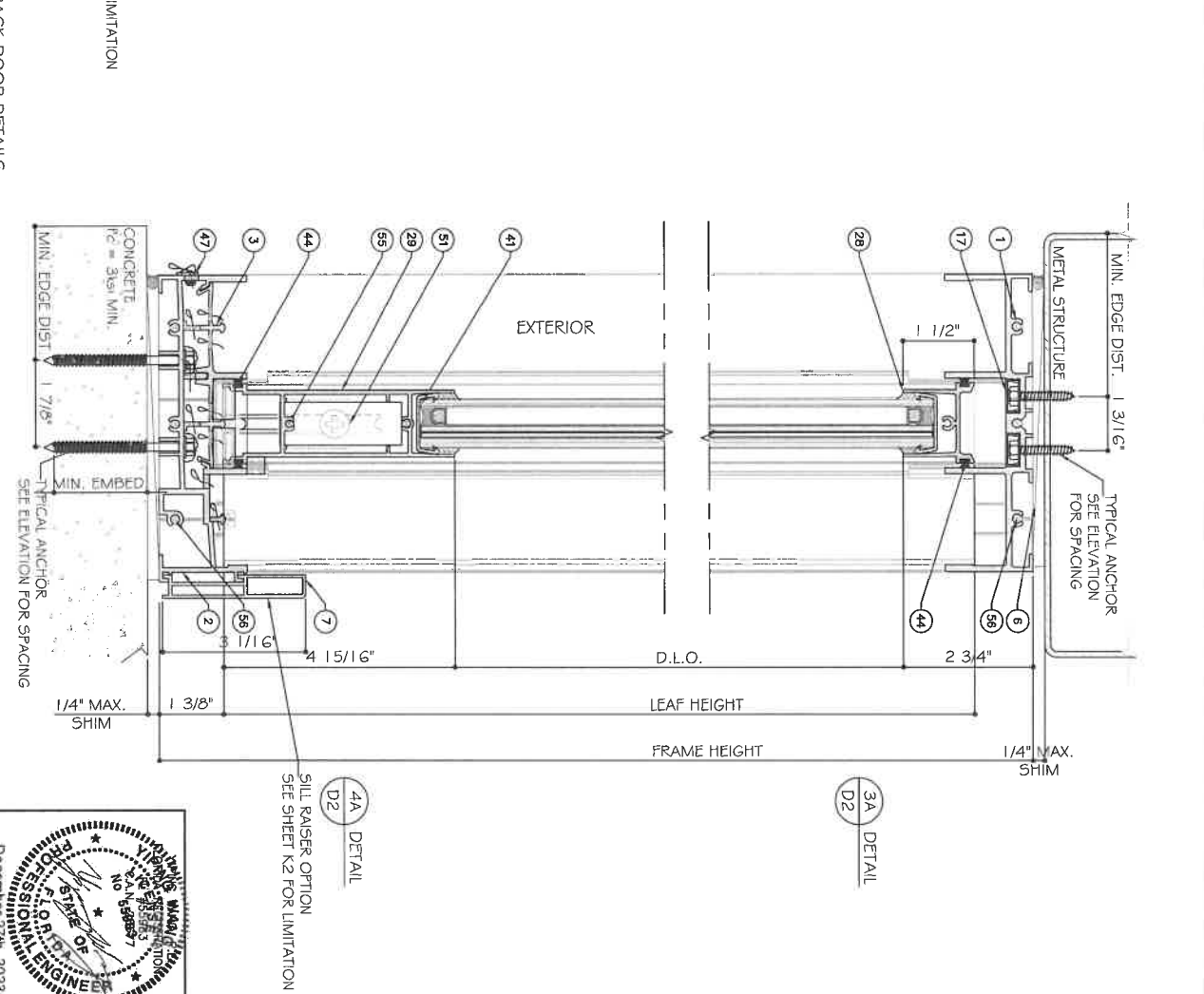
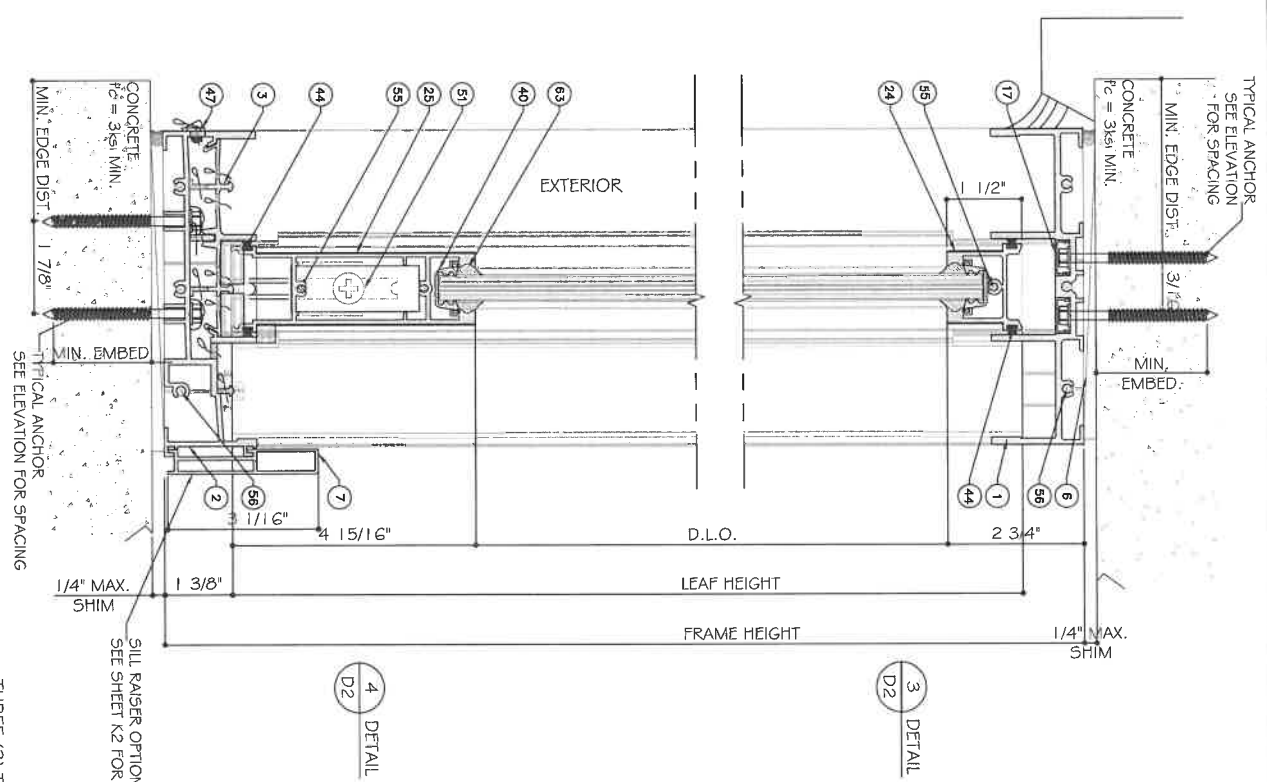
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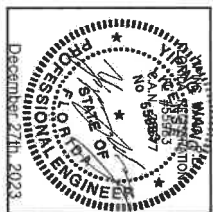
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THREE (3) TRACK DOOR DETAILS



Sheet No.	D2		
31 OF 59			
AD16-29			
12/04/2023			
2.04.2023			
James			
REVISION			
Rev. No.	Date	Drawn By	Description

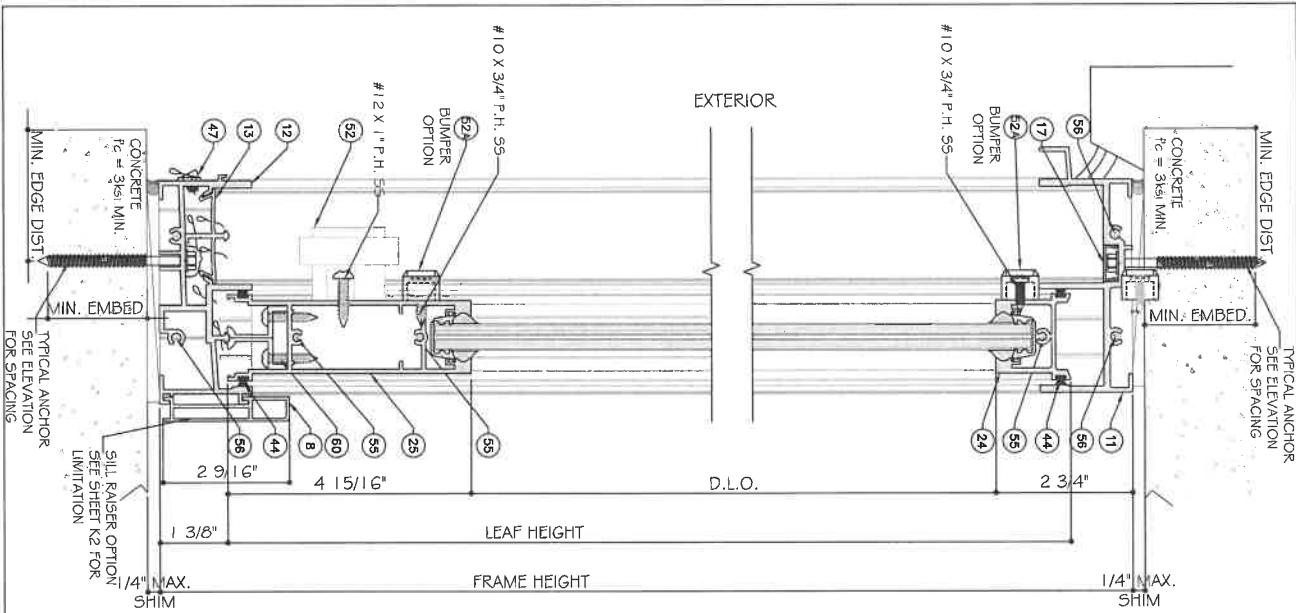
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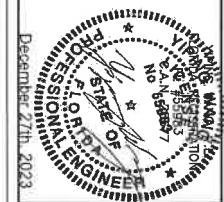
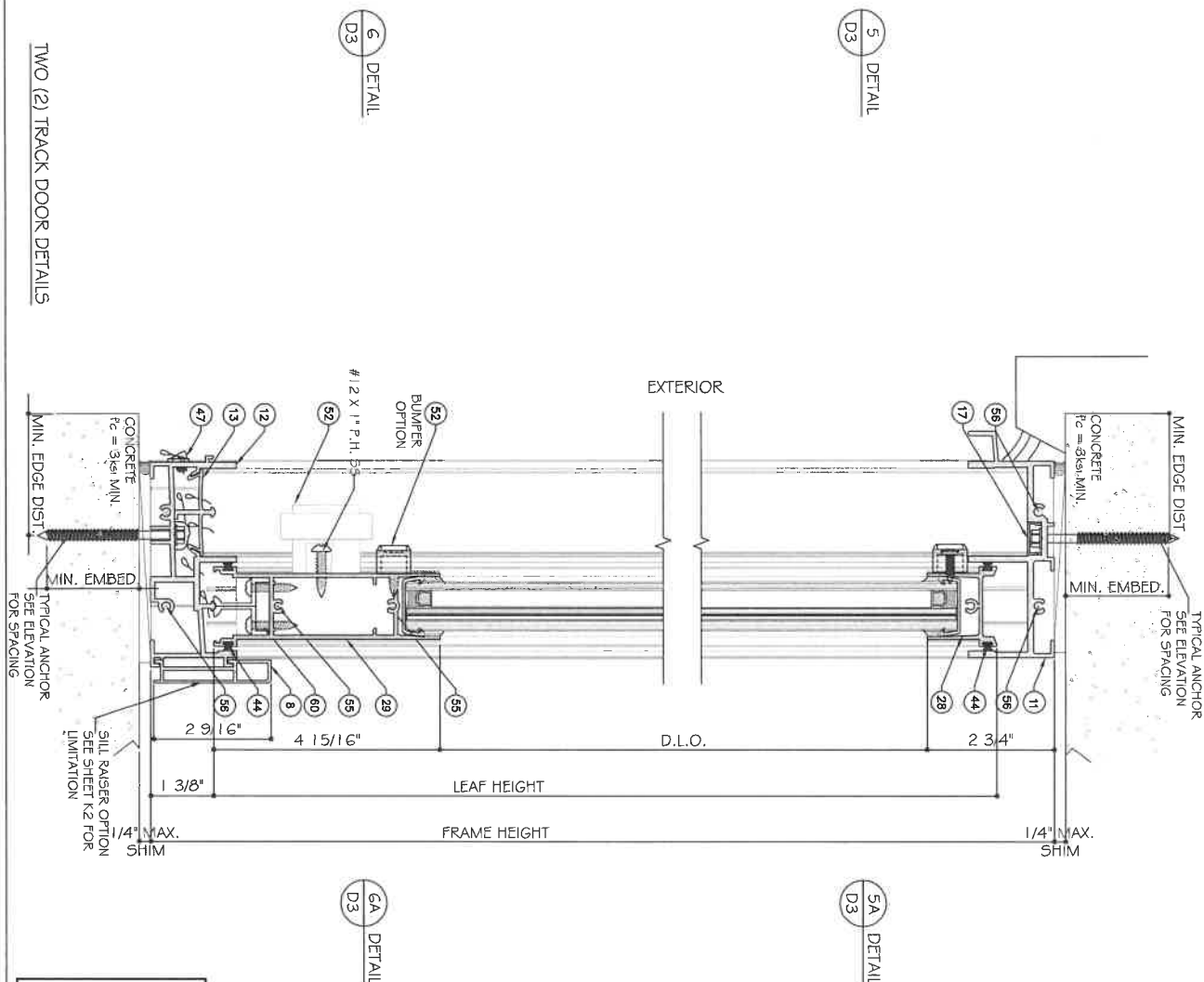
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TWO (2) TRACK DOOR DETAILS



Sheet No.	D3
Rev. No.	AD16-29
Scale	3/2 OF 5/8
Drawn Date	12/04/2023
Drawn By	James
Date	12/04/2023
Description	

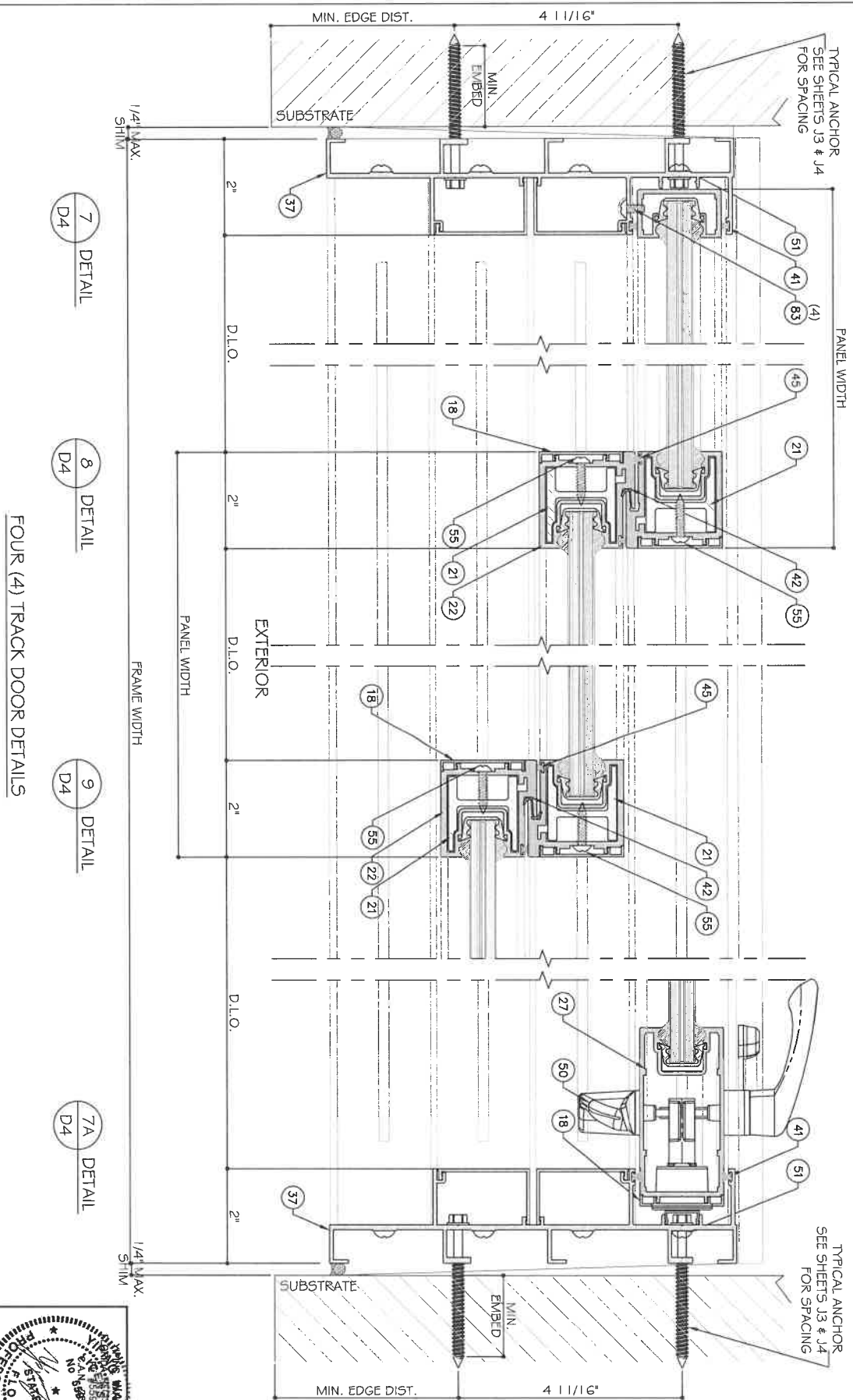
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7 DETAIL  
D4

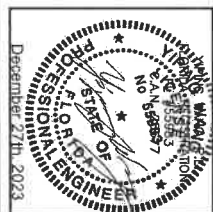
8 DETAIL  
D4

9 DETAIL  
D4

7A DETAIL  
D4

FOUR (4) TRACK DOOR DETAILS

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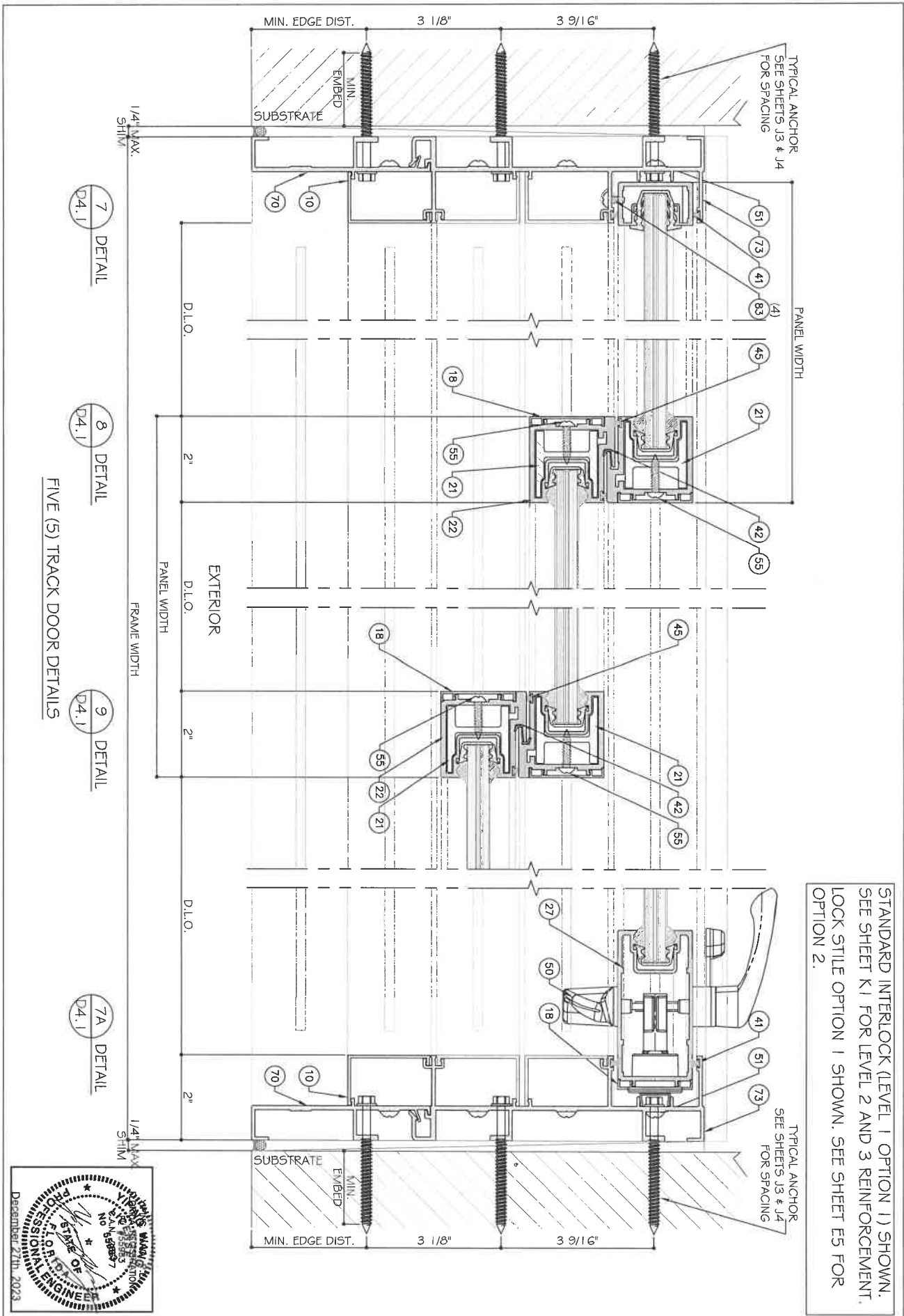


DATE	SCALE	REV.	BY	DESCRIPTION
12/04/2023		1	JAMES	REVISION
		2	JAMES	REVISION

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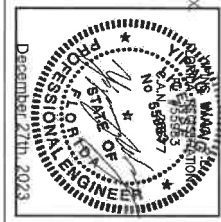
D4  
33 OF 59



STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

- 7 DETAIL D4.1
- 8 DETAIL D4.1
- 9 DETAIL D4.1
- 7A DETAIL D4.1

FIVE (5) TRACK DOOR DETAILS



Revision	Date	By	Description
1	12.14.2023	James	REVISION
2	04.2023	James	REVISION

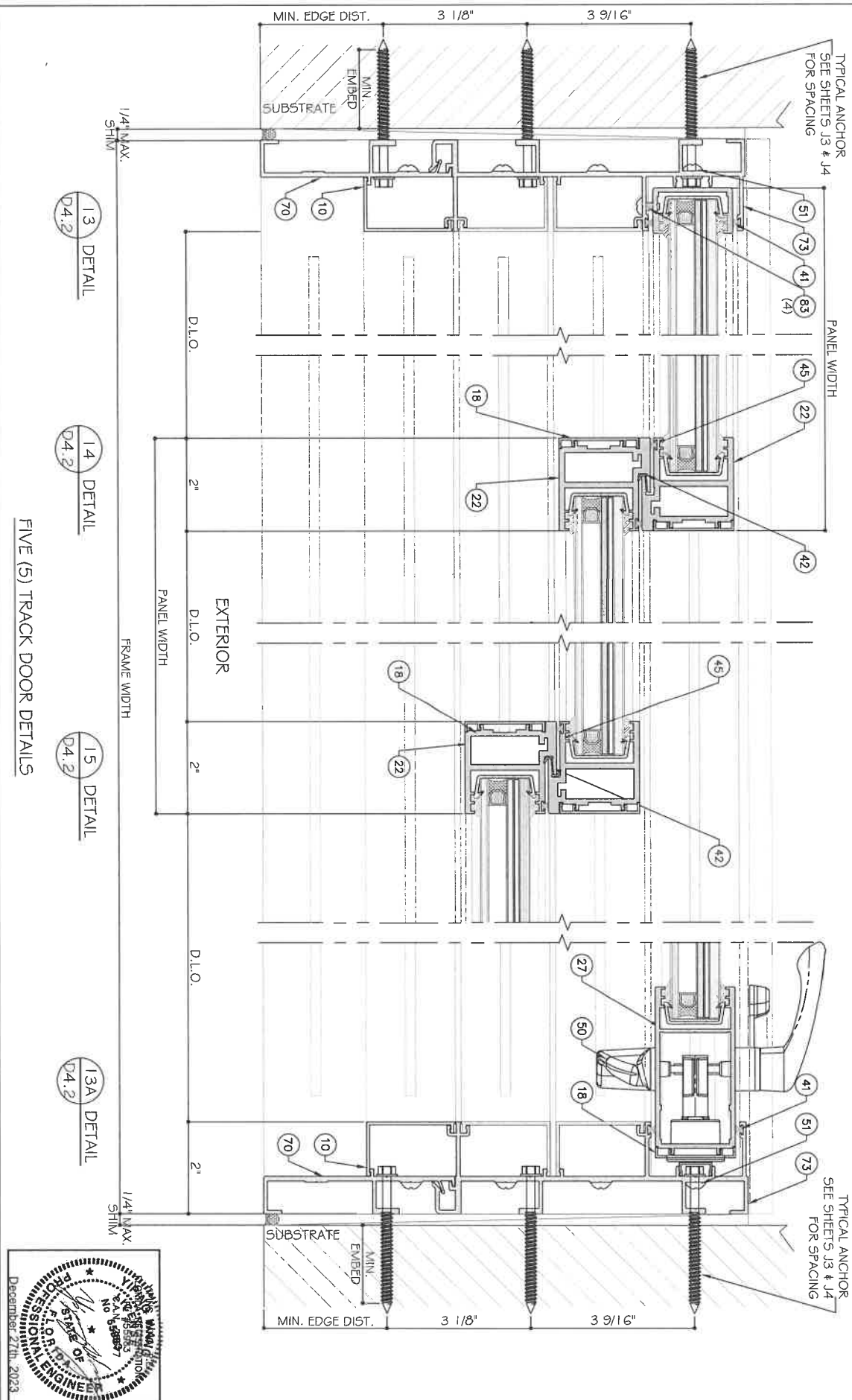
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STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN.  
 SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT.  
 LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR  
 OPTION 2.

13 DETAIL  
 D4.2

14 DETAIL  
 D4.2

15 DETAIL  
 D4.2

13A DETAIL  
 D4.2

FIVE (5) TRACK DOOR DETAILS



DATE	2.04.2023	DESIGNED BY	James	REVISION	
REV. NO.		DATE		BY	DESCRIPTION
NO.					

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

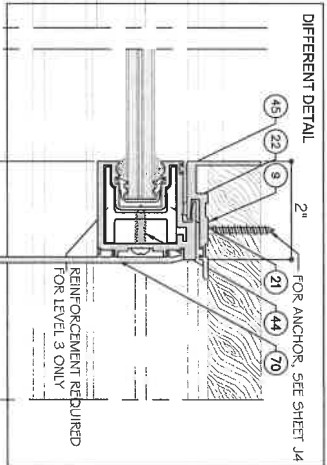
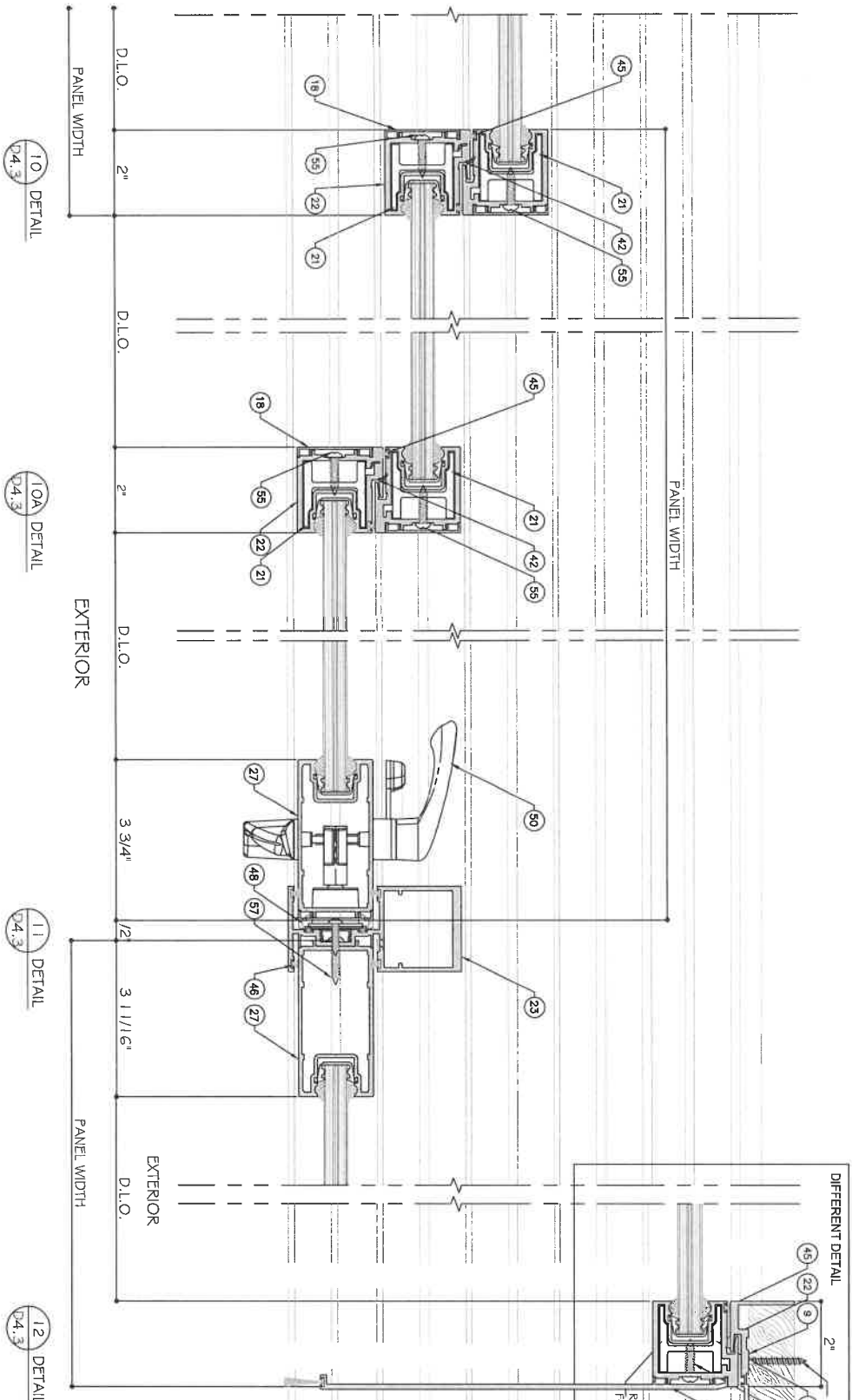
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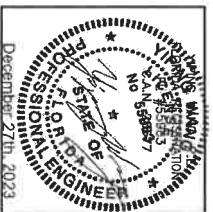
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D4.2  
 35 OF 59



STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOOK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

FIVE (5) TRACK DOOR DETAILS



DRAWING NO. <b>AD16-29</b> SCALE <b>D4.3</b> SHEET NO. <b>36 OF 59</b>	DATE 12/04/2023	DRAWN BY JAMES KEVIN	CHECKED BY JAMES KEVIN
REV. NO. 1	DATE 12/04/2023	DRAWN BY JAMES KEVIN	DESCRIPTION ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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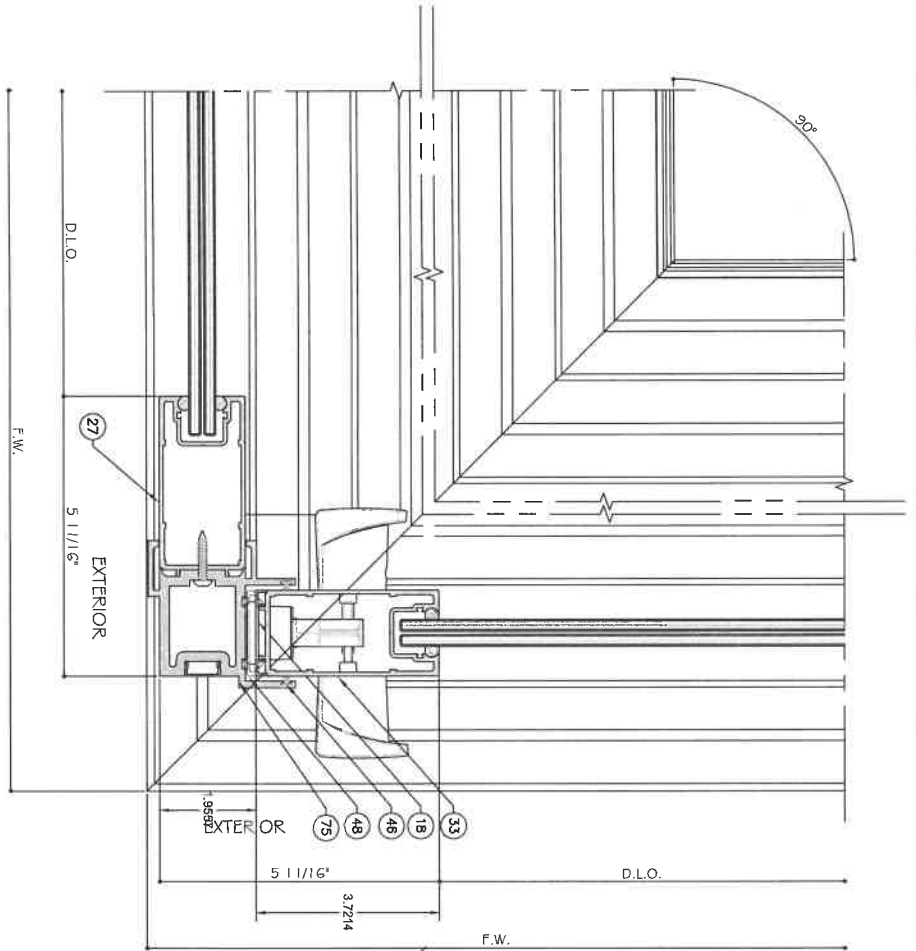
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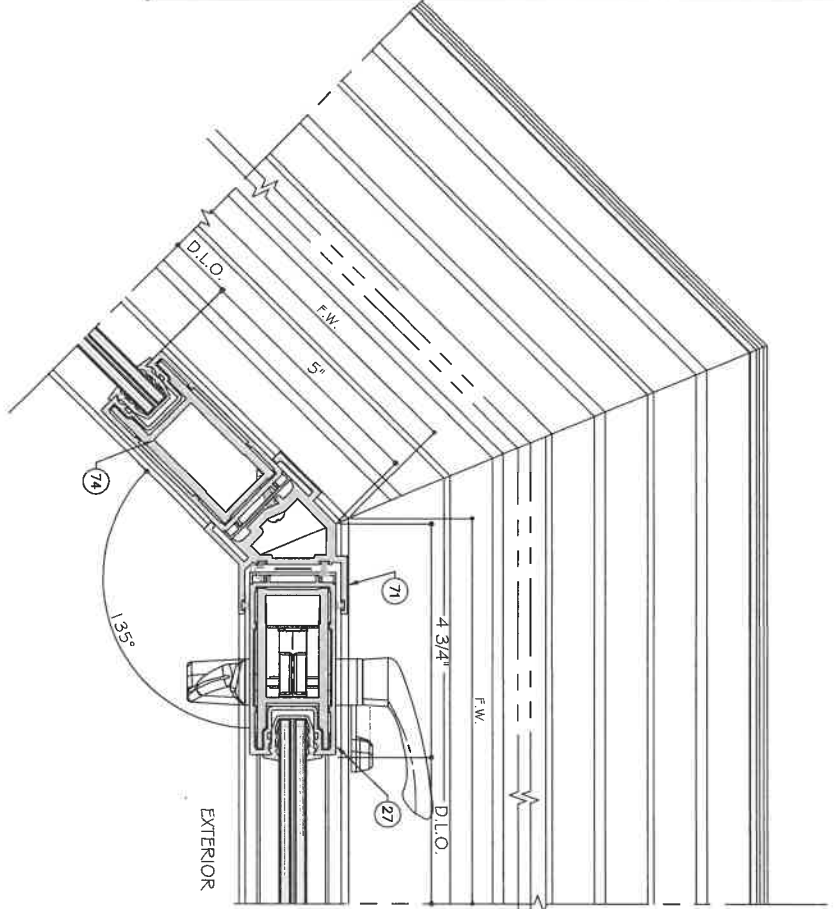
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43 DETAIL  
D4.5

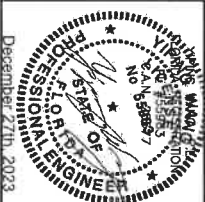


44 DETAIL  
D4.5

CORNERS CAN BE USED ON ALL TRACK CONFIGURATIONS

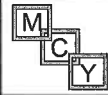
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CORNER DETAILS



ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

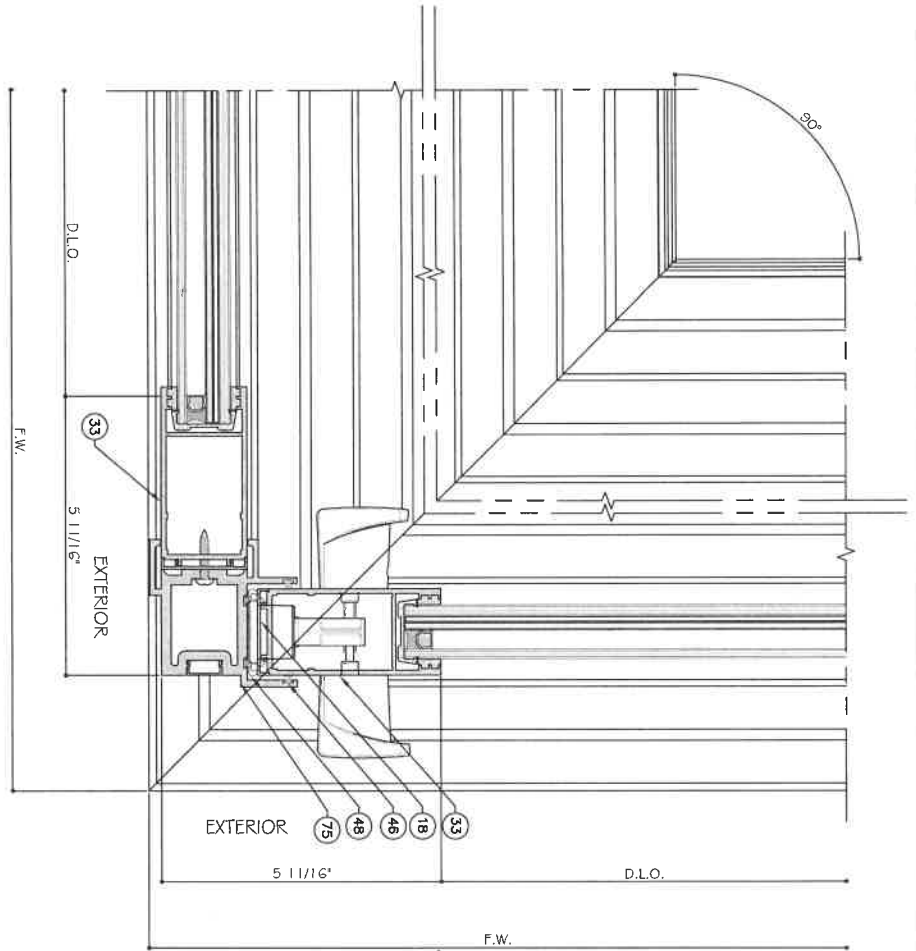
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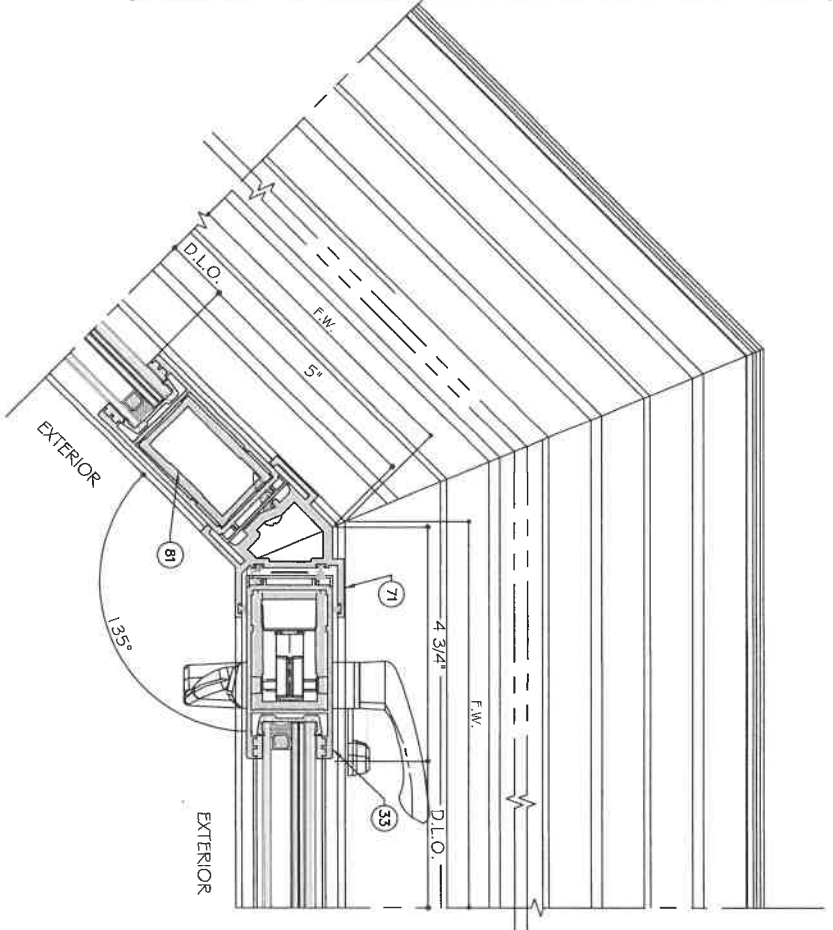
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Drawn Date 12/28/2023	Scale	Rev. No.	Date	Drawn By	Description
AD16-29	D4.5	1	12/28/2023	James	FEVISION
38 OF 59					





45  
D4.6  
DETAIL

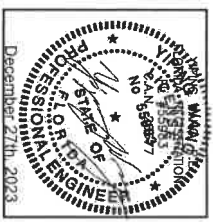


46  
D4.6  
DETAIL

CORNERS CAN BE USED ON ALL TRACK CONFIGURATIONS

STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STILE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

CORNER DETAILS



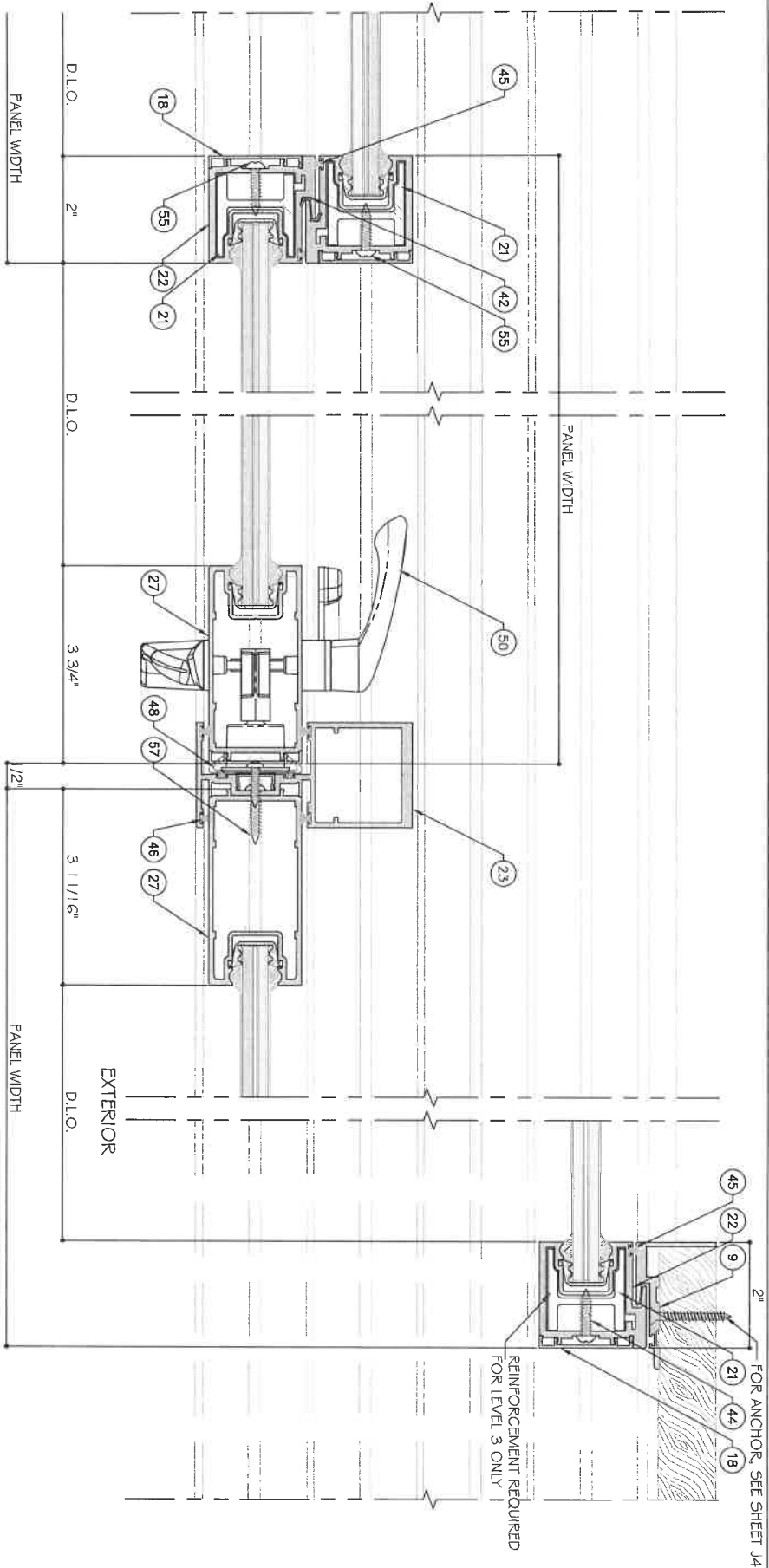
ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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Drawing No.	AD16-29
Scale	D4.6
Sheet No.	39 OF 59
Drawn By	Jones
Date	12.04.2023
Rev. No.	1
Description	REVISION



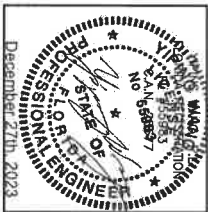
10 DETAIL  
D5

11 DETAIL  
D5

12 DETAIL  
D5

STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

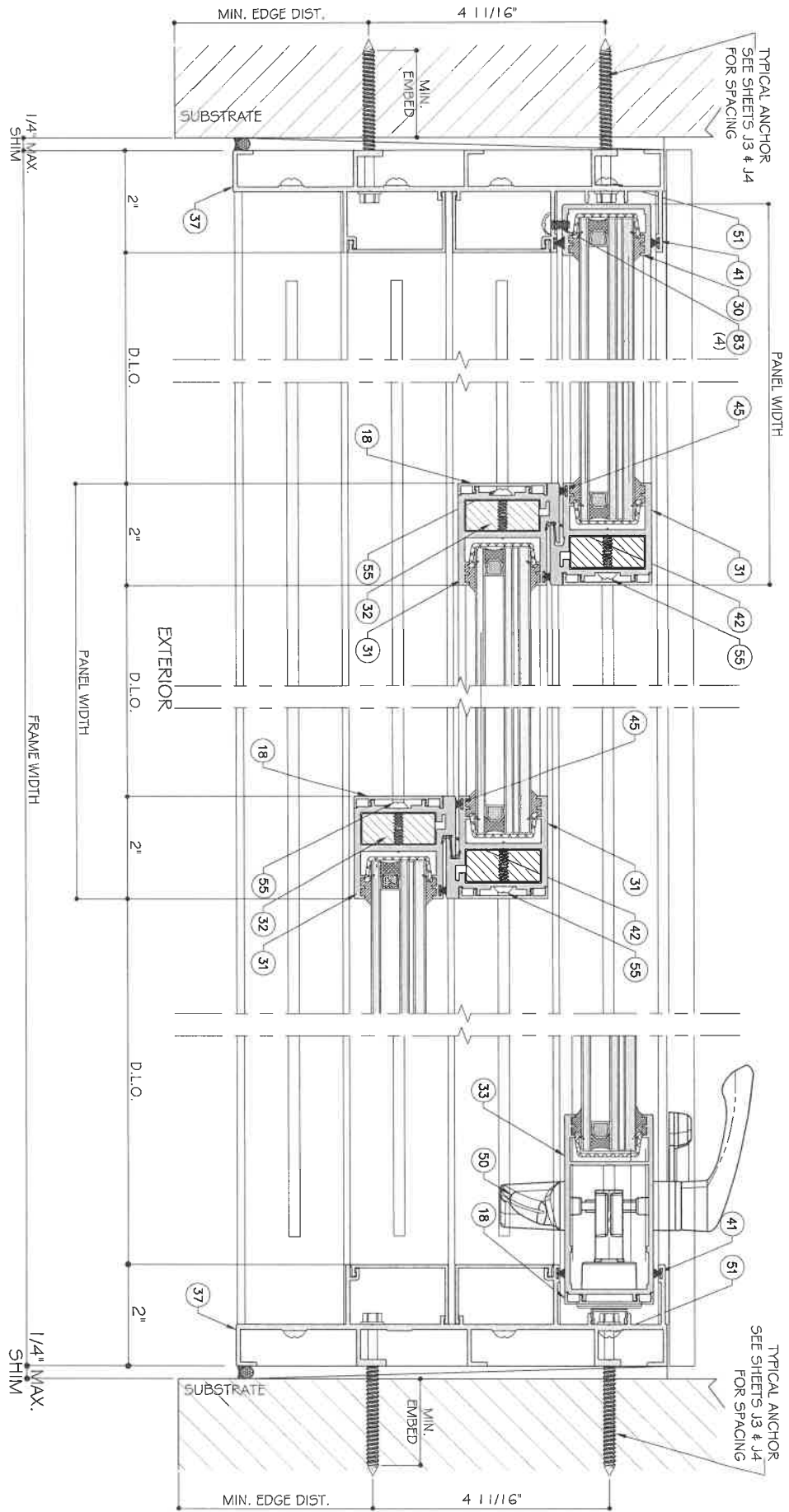
FOUR (4) TRACK DOOR DETAILS



Drawing No. <b>AD16-29</b>	Drawing Date 12.04.2023	Scale 1/2" = 1'-0"	Rev. No.	Date	Drawn By	Checked By	REVISION
Sheet No. <b>40 OF 59</b>	D5	Drawing Title <b>ES-SGD2020 SLIDING GLASS DOOR (LMI &amp; SMI)</b>	Rev. No.	Date	Drawn By	Checked By	Description

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STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

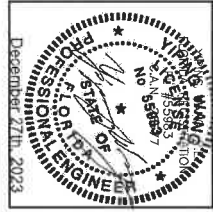
13 DETAIL  
DG

14 DETAIL  
DG

15 DETAIL  
DG

13A DETAIL  
DG

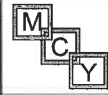
FOUR (4) TRACK DOOR DETAILS



Drawn Date	12/26/2023	Scale	
Rev. No.	Date	Drawn By	Description
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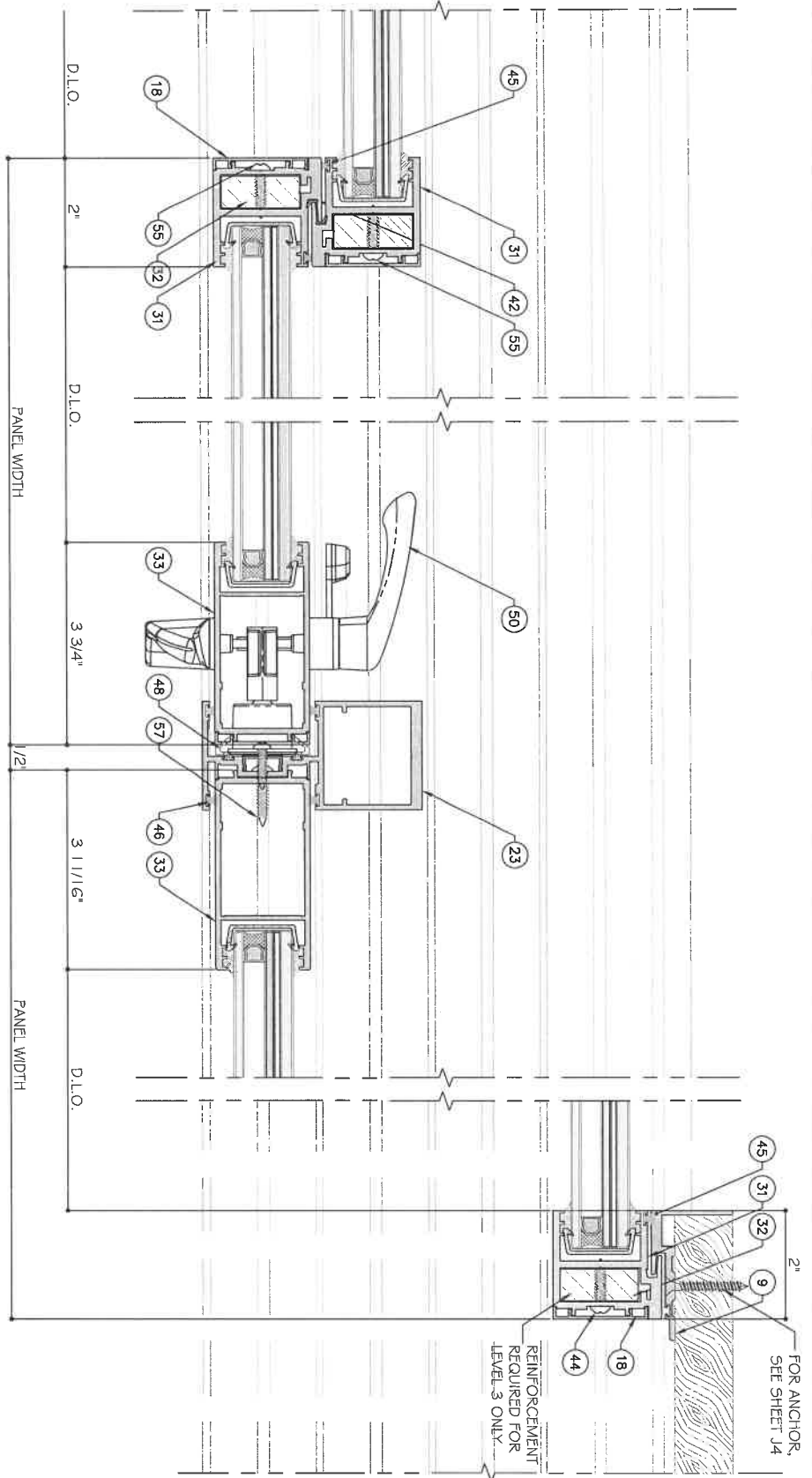
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AD16-29  
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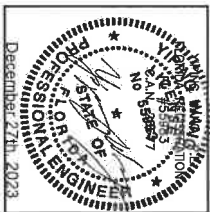
16 DETAIL  
D7

17 DETAIL  
D7

18 DETAIL  
D7

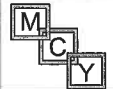
FOUR (4) TRACK DOOR DETAILS

STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STILE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.



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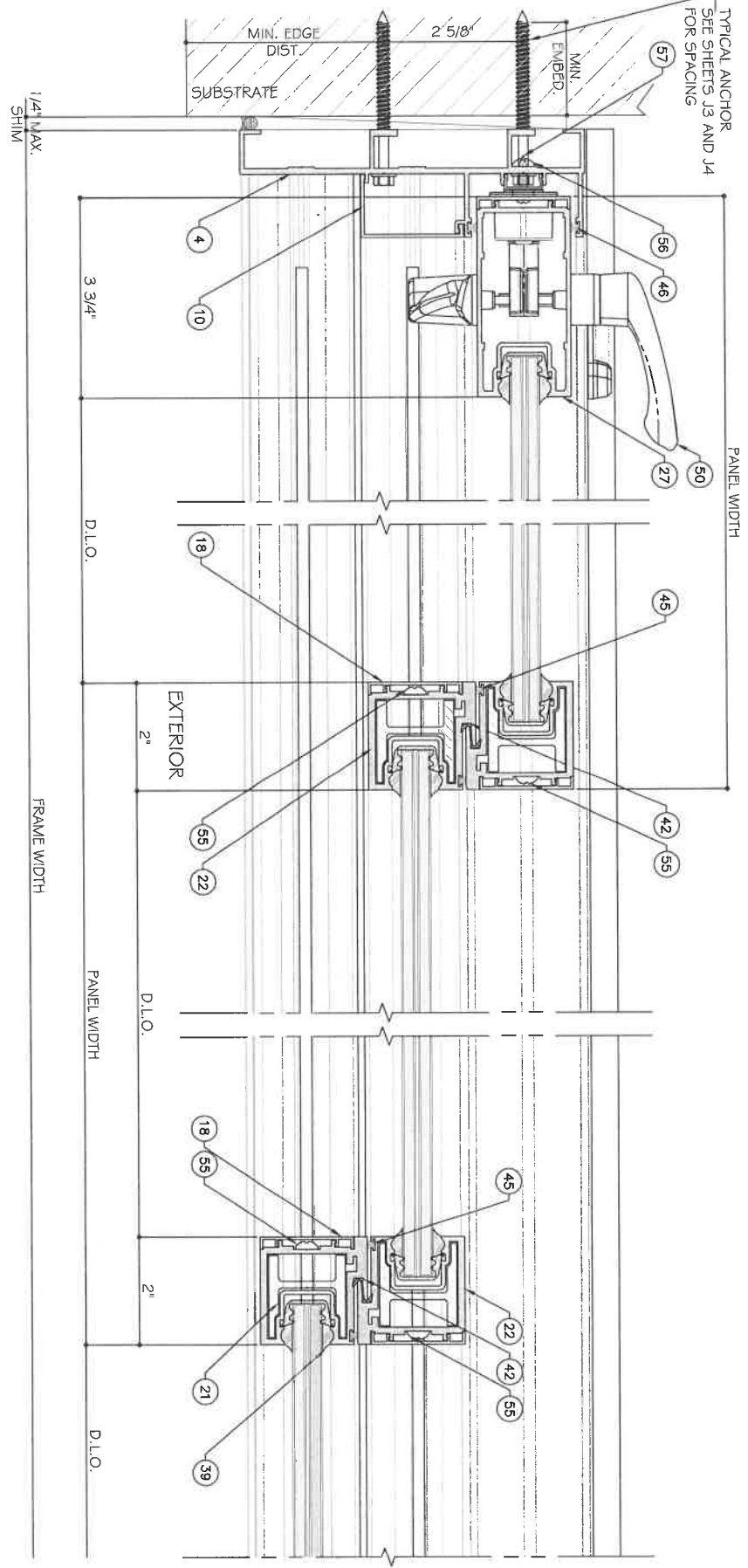


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Rev. No.	Date	Drawn By	Description
1	2.04.2023	Jones	REVISION

Drawing Date: 1/24/2023  
 Scale:   
 Drawing No.: AD16-29  
 Sheet No.: D7  
 Total Sheets: 42 OF 59

STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

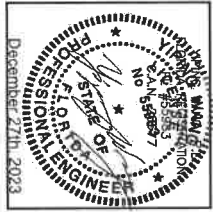


19 DETAIL  
D8

20 DETAIL  
D8

21 DETAIL  
D8

THREE (3) TRACK DOOR DETAILS



Drawn Date	12.14.2023	Scale	
Drawn By		Scale	
Rev. No.	1	Date	12-04-2023
Rev. No.	2	Date	
Rev. No.	3	Date	
Rev. No.	4	Date	
Rev. No.	5	Date	
Rev. No.	6	Date	
Rev. No.	7	Date	
Rev. No.	8	Date	
Rev. No.	9	Date	
Rev. No.	10	Date	
Rev. No.	11	Date	
Rev. No.	12	Date	
Rev. No.	13	Date	
Rev. No.	14	Date	
Rev. No.	15	Date	
Rev. No.	16	Date	
Rev. No.	17	Date	
Rev. No.	18	Date	
Rev. No.	19	Date	
Rev. No.	20	Date	
Rev. No.	21	Date	
Rev. No.	22	Date	
Rev. No.	23	Date	
Rev. No.	24	Date	
Rev. No.	25	Date	
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Rev. No.	27	Date	
Rev. No.	28	Date	
Rev. No.	29	Date	
Rev. No.	30	Date	

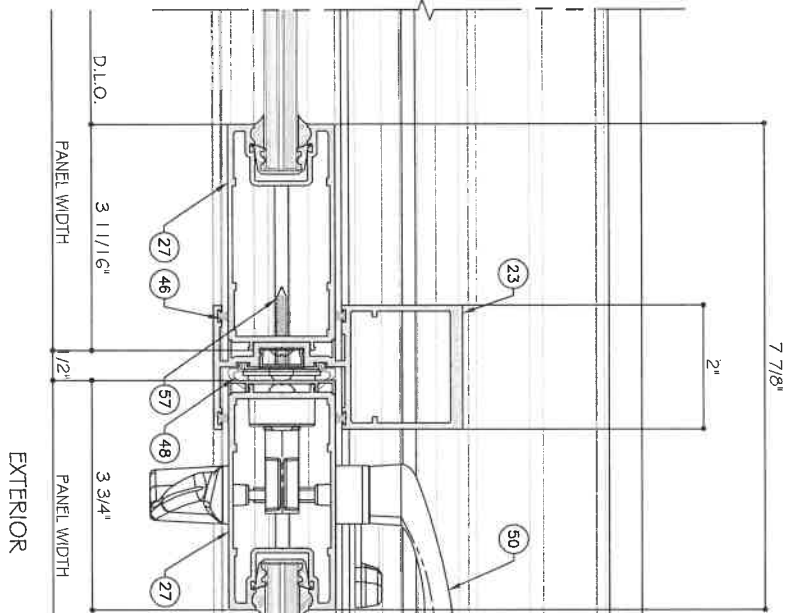
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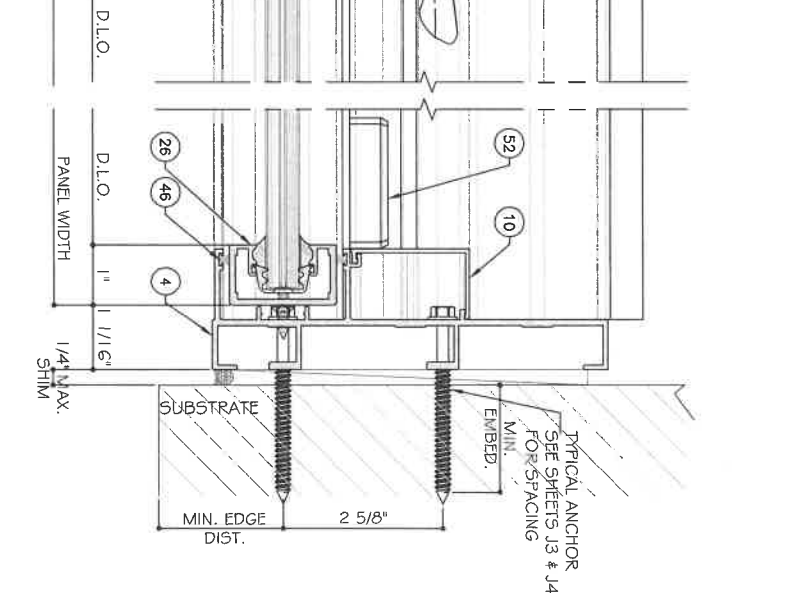
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LOCK STILE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

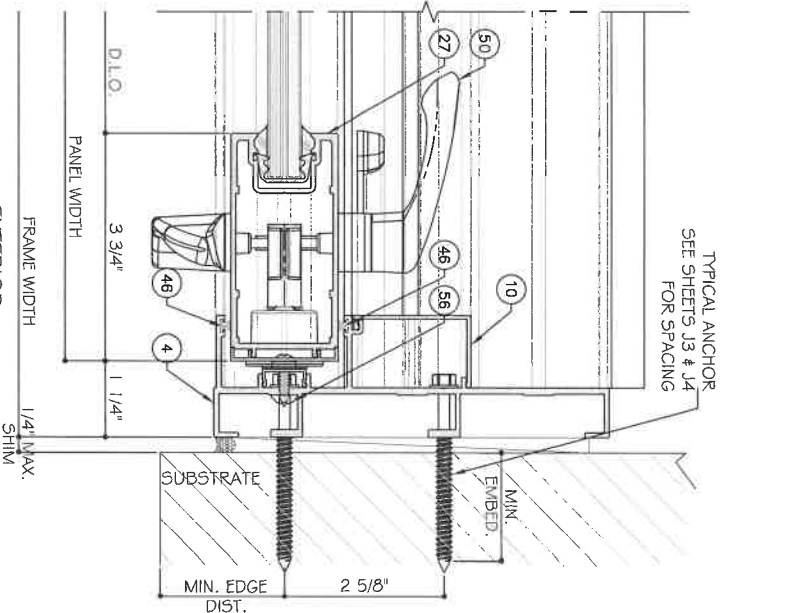
22 DETAIL  
D9



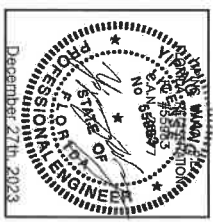
23 DETAIL  
D9



24 DETAIL  
D9



THREE (3) TRACK DOOR DETAILS



Rev. No.	Date	Drawn By	Description
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52			
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60			

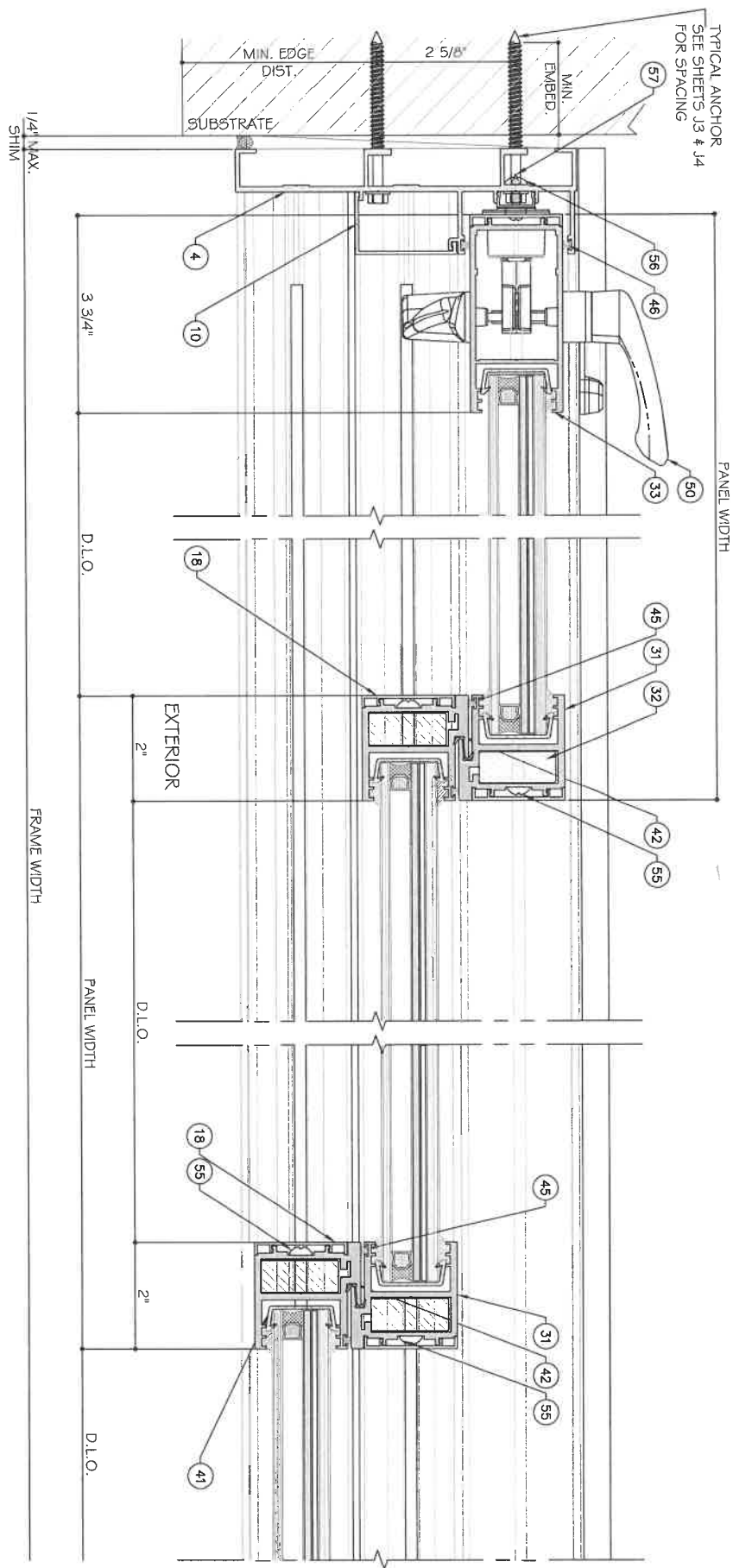
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D9  
AD16-29  
DRAWING NO.  
Drawing Date 12.04.2023  
Scale

STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN.  
 SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT.  
 LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR  
 OPTION 2.

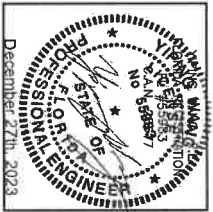


25 DETAIL  
 D10

26 DETAIL  
 D10

27 DETAIL  
 D10

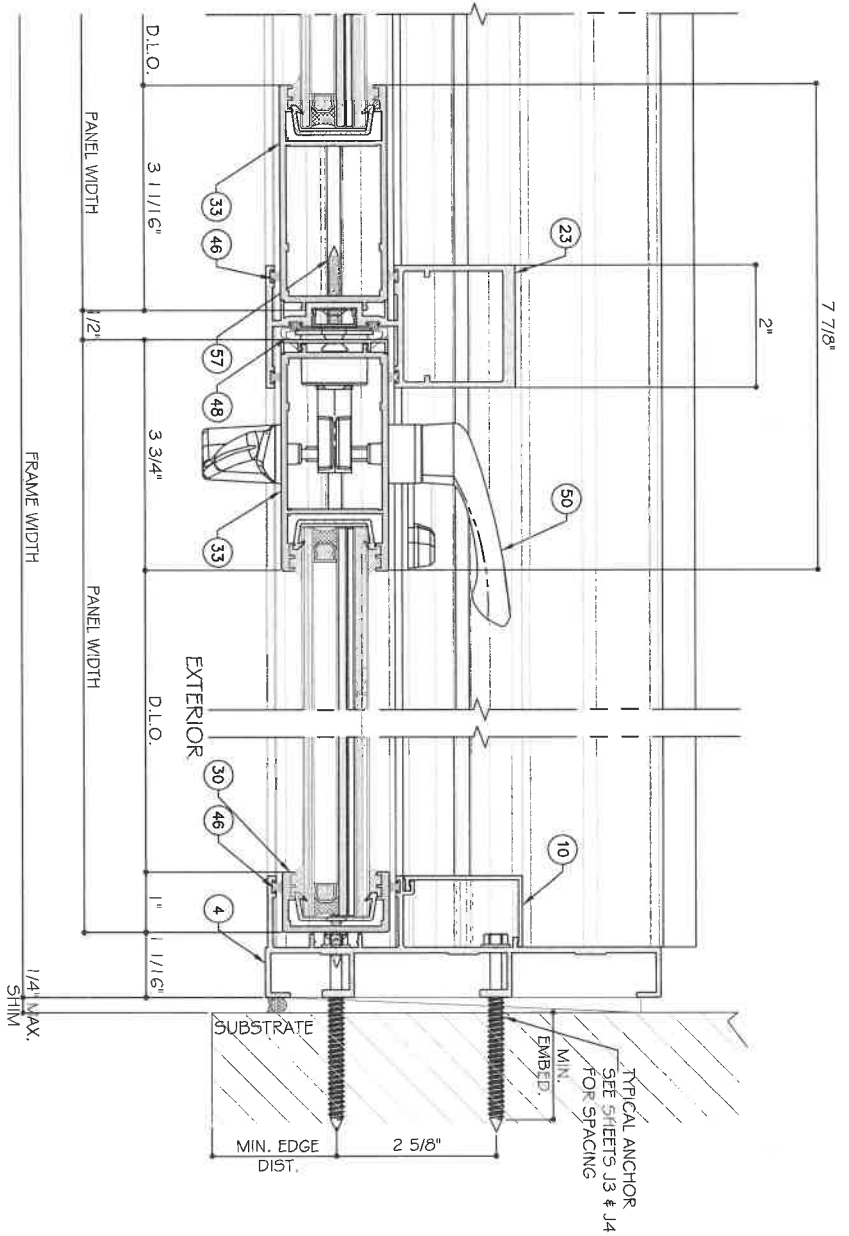
THREE (3) TRACK DOOR DETAILS



Drawn Date	2.04.2023	James FEVerson	FEVerson
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Rev. No.			
Date			
Drawn By			
Description			

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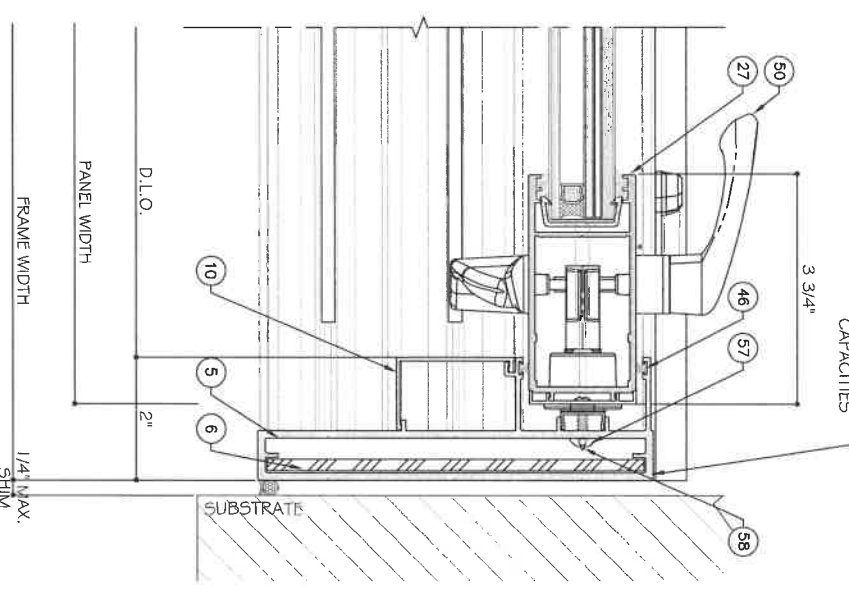


28 DETAIL  
D11

29 DETAIL  
D11

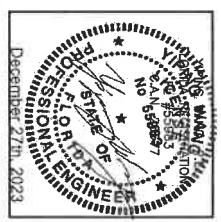
LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

THREE (3) TRACK DOOR DETAILS



SEE SHEET J1 & J2 FOR JAMB OPTION & CAPACITIES

FREESTANDING JAMB FOR 3 TRACKS OPTION



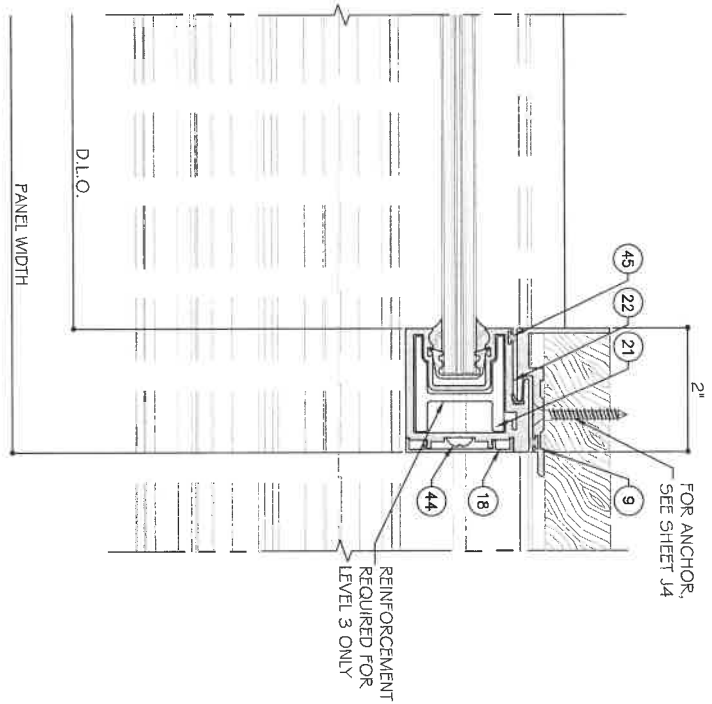
DATE	2.04.2023	JAN	REVISION
REV. NO.		DATE	DESCRIPTION
Rev. No.		Date	Description
Scale			
Drawing No.	AD16-29		
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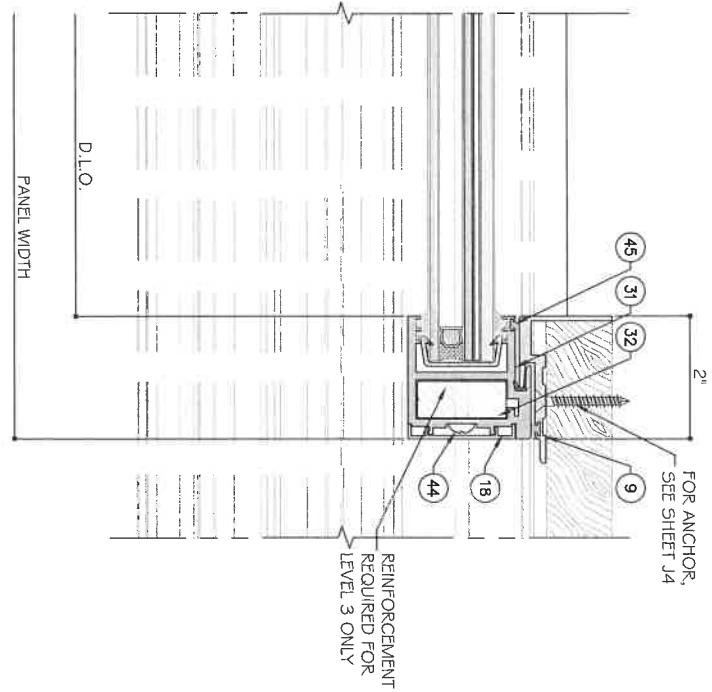
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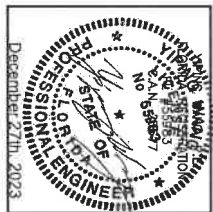


30  
D12  
DETAIL

POCKET DETAIL



31  
D12  
DETAIL



Drawn Date 12/04/2023	Scale	Rev. No.	Date	By	Description
		02	12-04-2023	James	REVISION
DRAWING NO. <b>AD16-29</b> Sheet No. <b>D12</b> 47 OF 59					

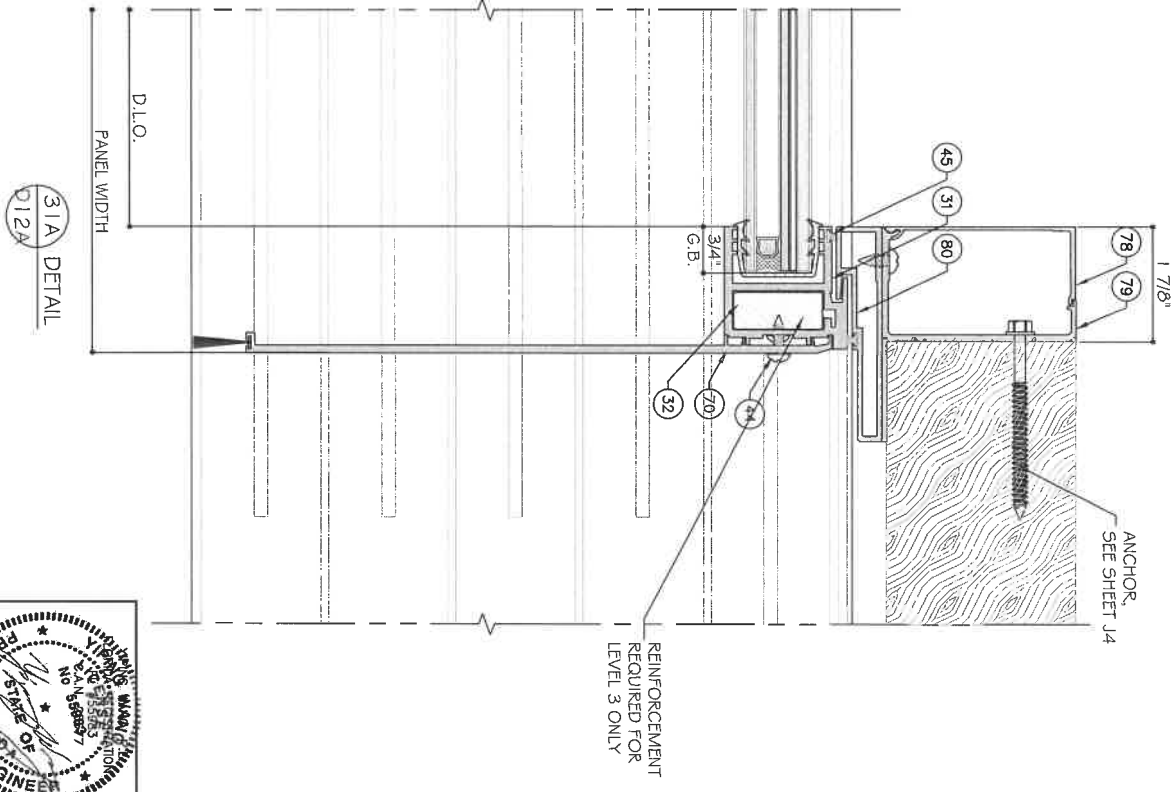
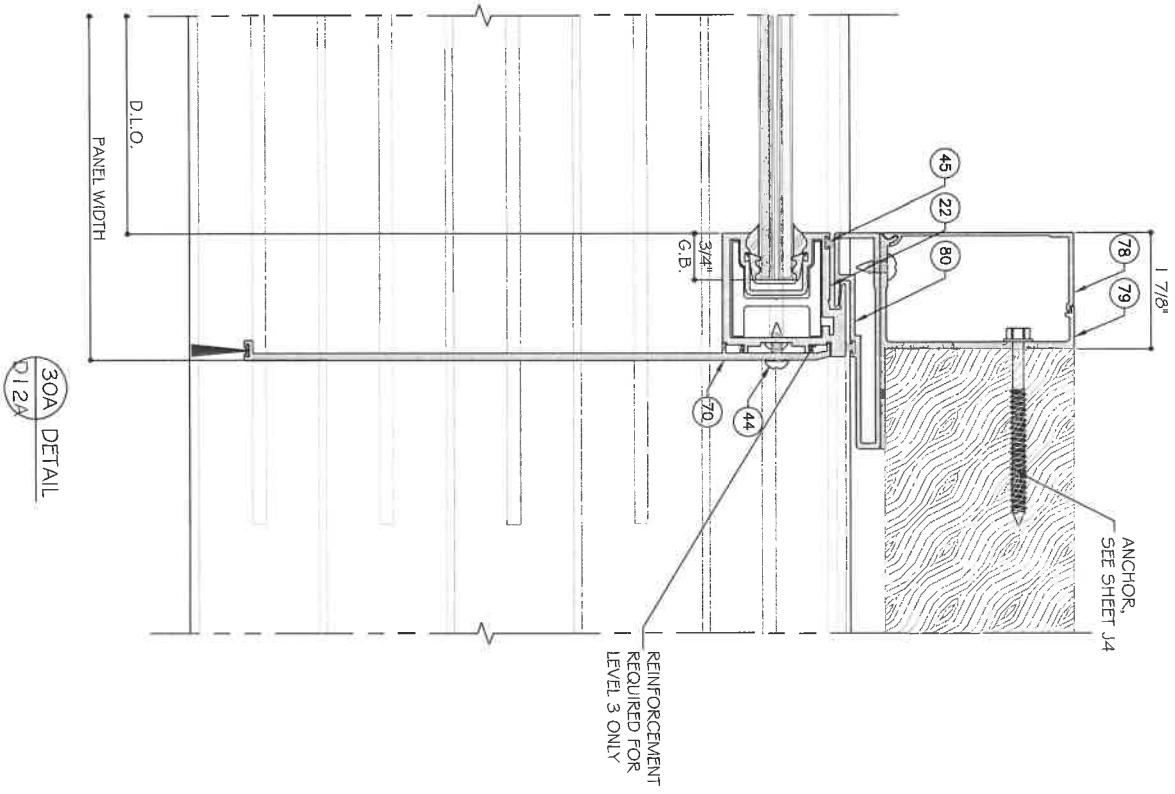
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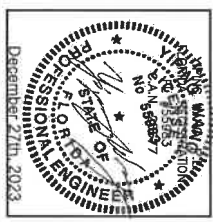
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POCKET DETAIL

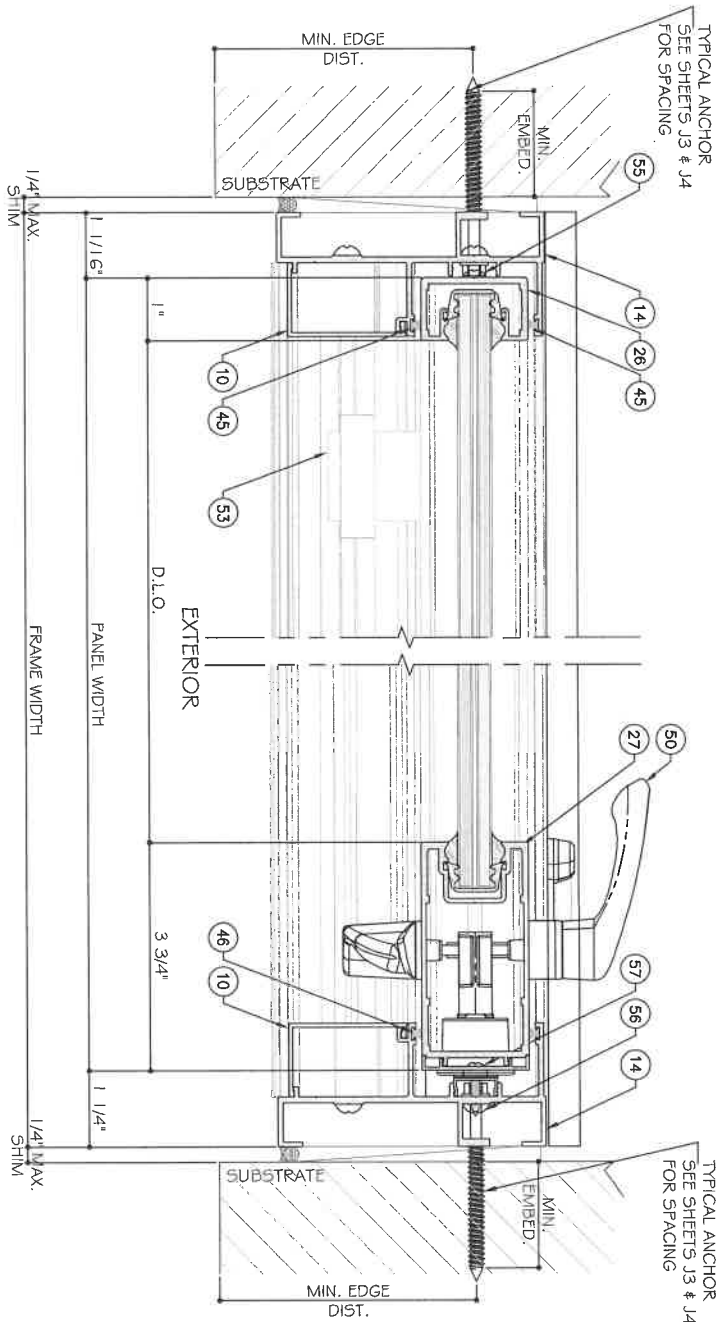


DRAWING NO. <b>AD16-29</b>	SHEET NO. <b>D12A</b>	TOTAL SHEETS <b>48 OF 59</b>
DRAWING DATE 12/04/2023	DRAWN BY James J. Sweeney	CHECKED BY James J. Sweeney
SCALE 1/8" = 1'-0"	DATE 12/04/2023	DESCRIPTION ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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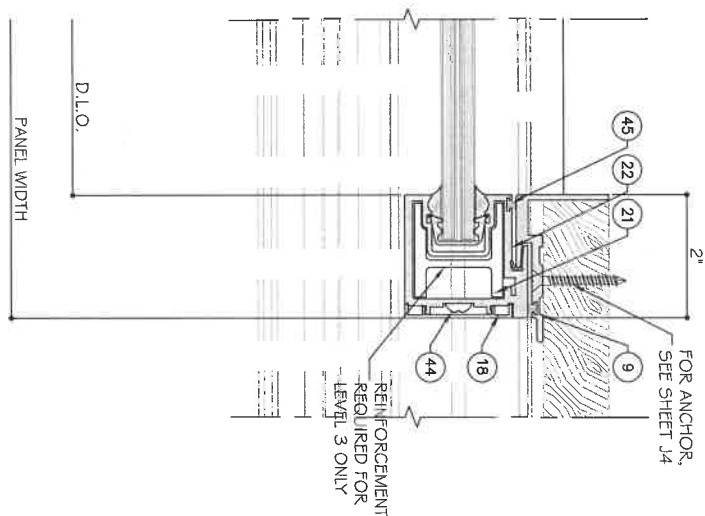
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STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.



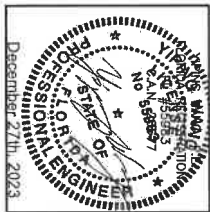
32 DETAIL  
D13

33 DETAIL  
D13



34 DETAIL  
D13

TWO (2) TRACK DOOR DETAILS



Drawing No. <b>AD16-29</b>	Sheet No. <b>D13</b>	Total Sheets <b>49 OF 59</b>
Date 12/16/2023	Scale	Description
Rev. No. 02	Date 02.04.2023	Drawn By James

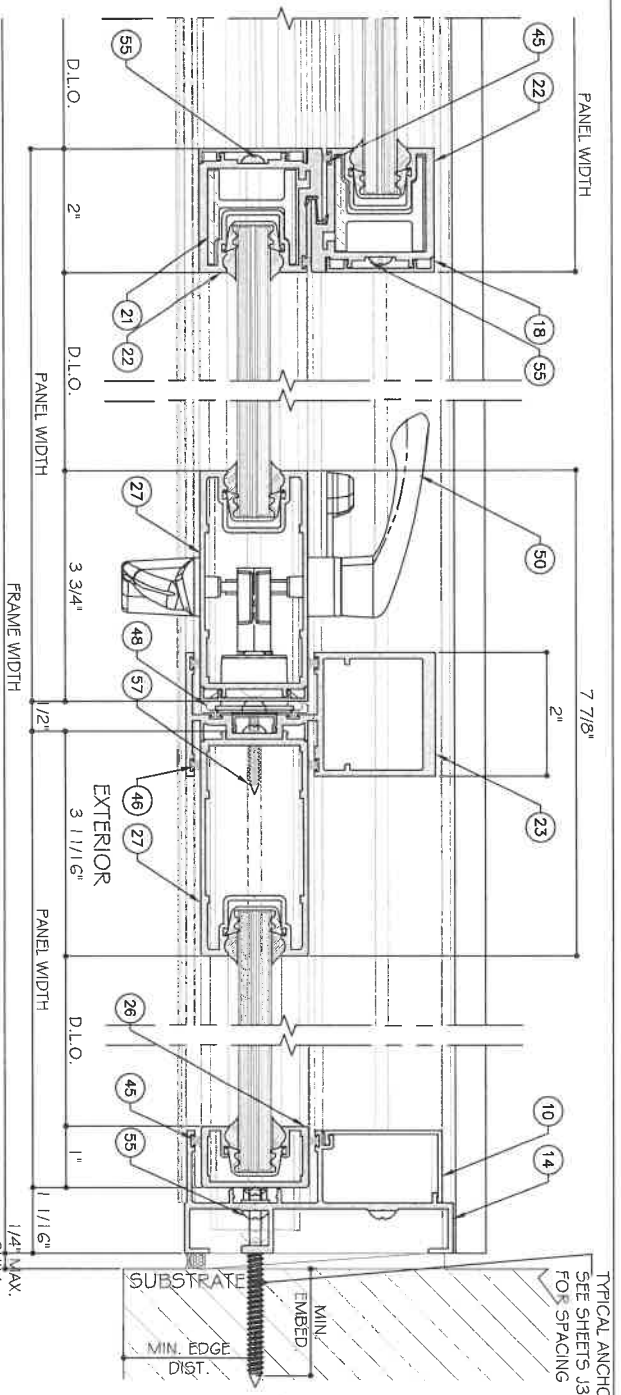
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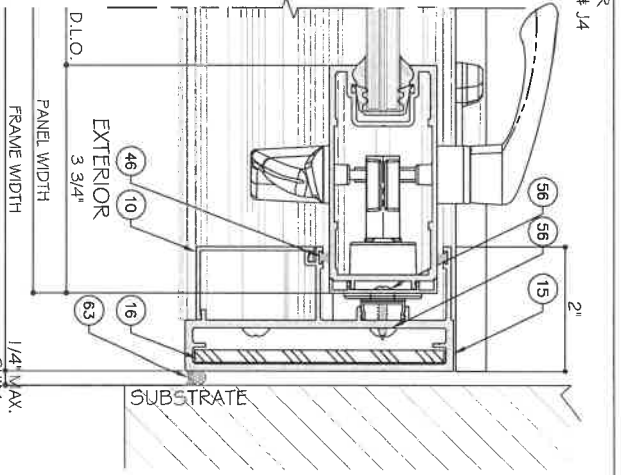
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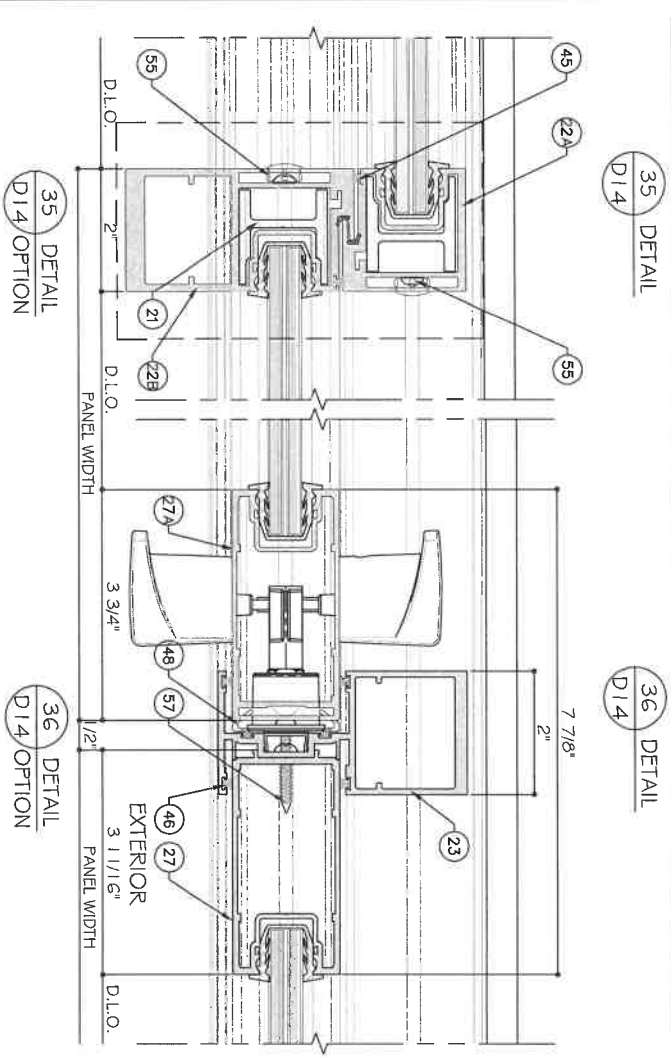
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TYPICAL ANCHOR  
SEE SHEETS J3 & J4  
FOR SPACING



FREESTANDING JAMB OPTION



TWO (2) TRACK DOOR DETAILS

STANDARD INTERLOCK (LEVEL 1) OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT.  
LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

35 DETAIL D14 OPTION  
36 DETAIL D14 OPTION

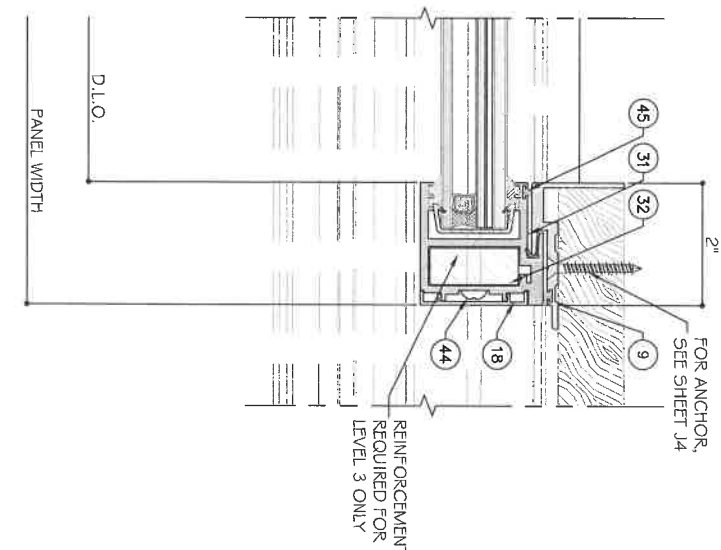
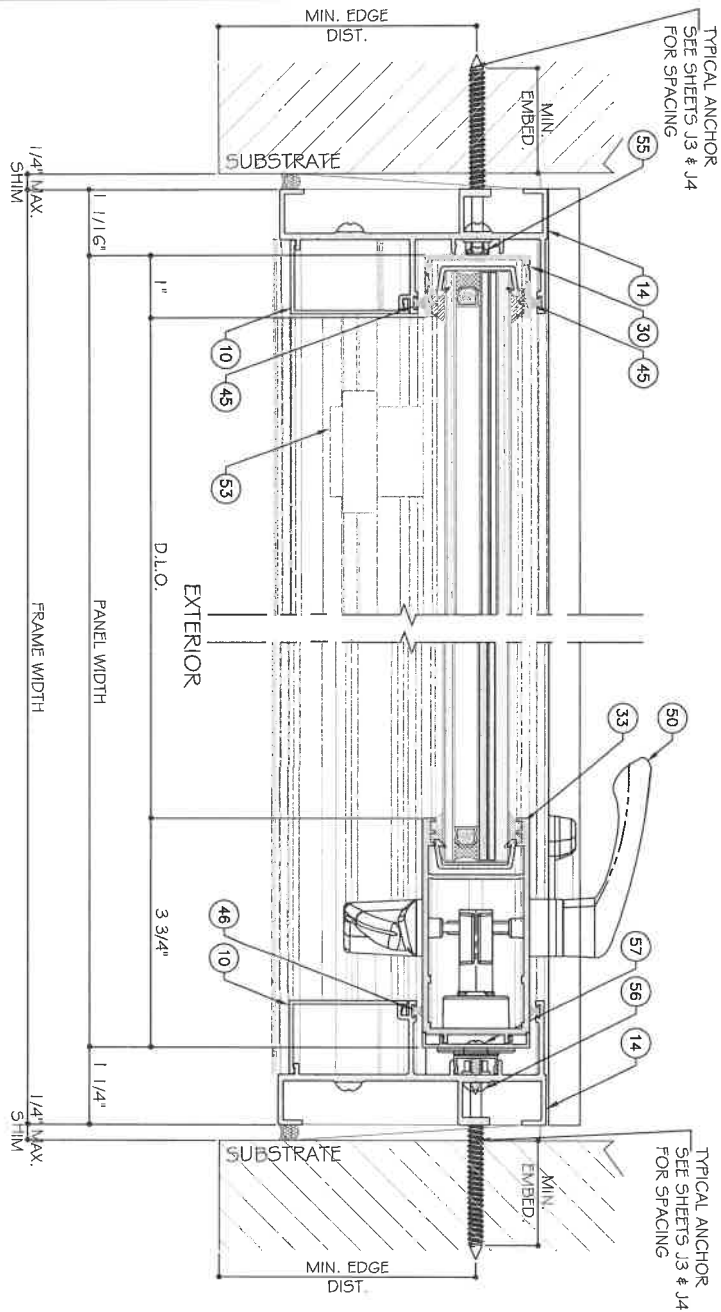


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AD16-29	D14	50 OF 59
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Rev. No.	Date	By	Description
R5	12.04.2023	Janis	REVISION
R4			
R3			
R2			
R1			

Drawn Date	12/27/2023
Scale	
Drawn No.	



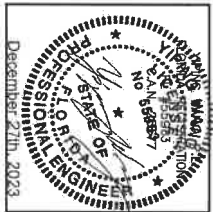
STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STYLE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

38 DETAIL  
D15

39 DETAIL  
D15

40 DETAIL  
D15

TWO (2) TRACK DOOR DETAILS

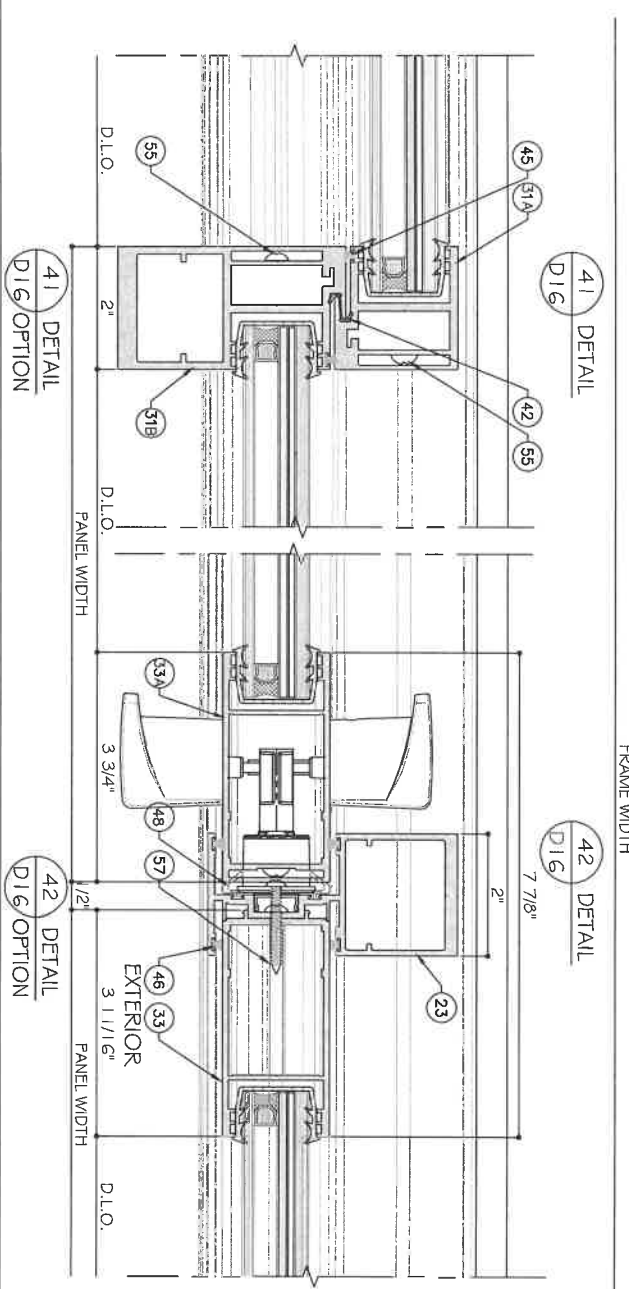
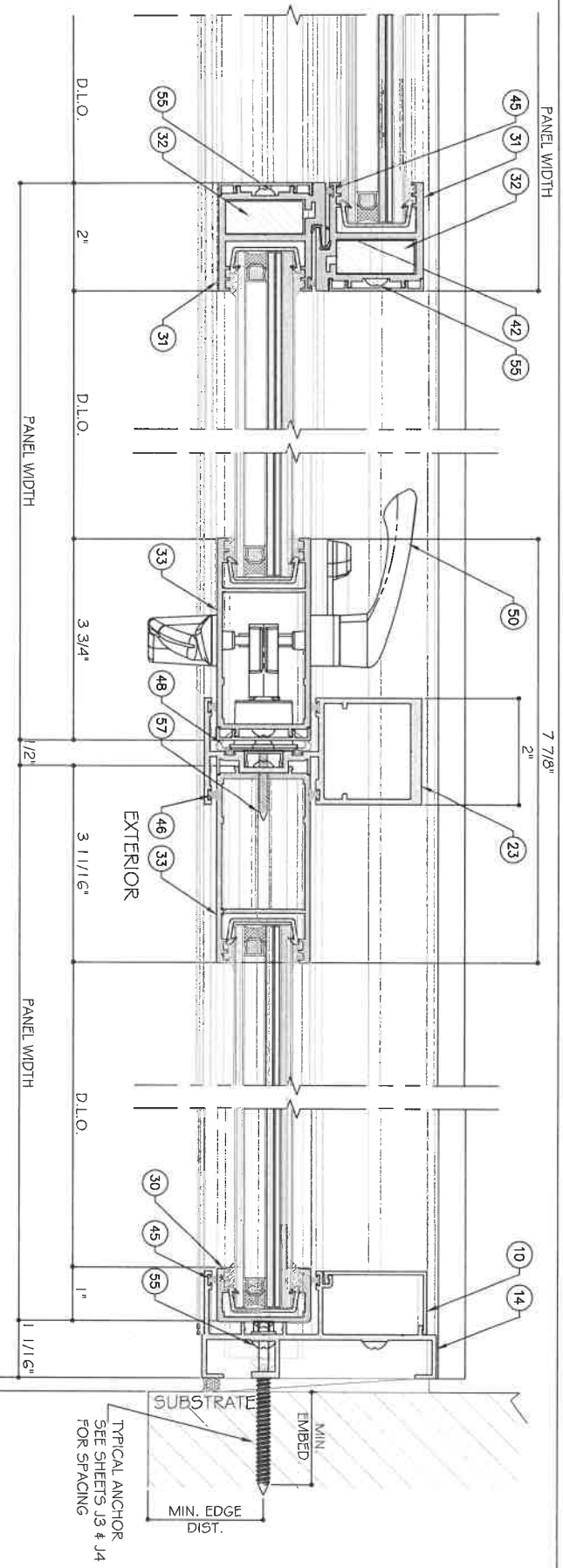


DRAWING NO. <b>AD16-29</b>	SCALE <b>5/16" = 1'-0"</b>
DRAWING DATE 12/04/2023	DATE 12/04/2023
DRAWN BY JAMES J. ADAMS	CHECKED BY JAMES J. ADAMS
REVISION 1. 12/04/2023 JAMES J. ADAMS	REVISION 1. 12/04/2023 JAMES J. ADAMS

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41 DETAIL  
D16

42 DETAIL  
D16

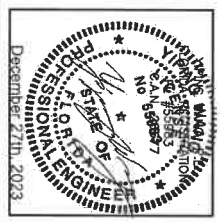
43 DETAIL  
D16

STANDARD INTERLOCK (LEVEL 1 OPTION 1) SHOWN. SEE SHEET K1 FOR LEVEL 2 AND 3 REINFORCEMENT. LOCK STILE OPTION 1 SHOWN. SEE SHEET E5 FOR OPTION 2.

TWO (2) TRACK DOOR DETAILS

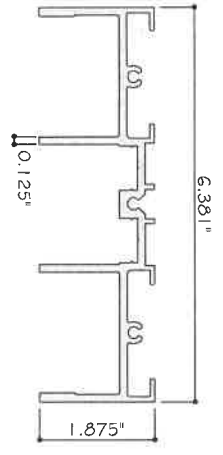
41 DETAIL  
D16 OPTION

42 DETAIL  
D16 OPTION

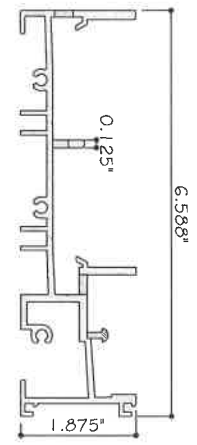


ES-SGD200 SLIDING GLASS DOOR (LMI & SMI)	ES WINDOWS, INC. 10653 NE Quaybridge Ct. Miami, FL 33138 TEL. (305) 624-7775	<p>MCY ENGINEERING, INC. GLAZING CONSULTANTS 12781 MIRAMAR PARKWAY #301 MIRAMAR, FL 33027 P: 305.271.0117 www.MCYEngineering.com mcy@mcyengineering.com</p>
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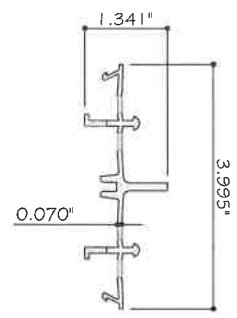
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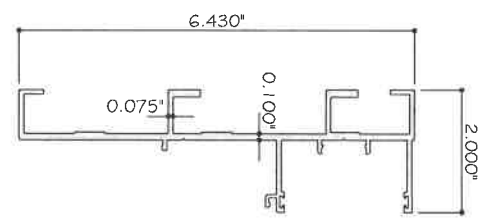
1 HEAD (3 TRACK)  
ES-SGD2020-001 6063-T6



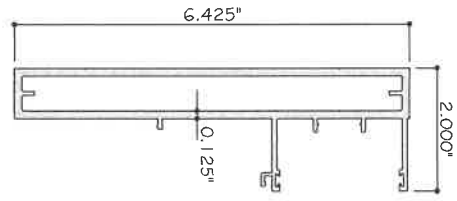
2 SILL (3 TRACK)  
ES-SGD2020-002 6063-T6



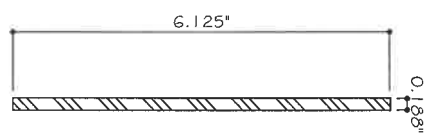
3 FRAME SILL COVER (3 TRACKS)  
ES-SGD2020-003 6063-T6



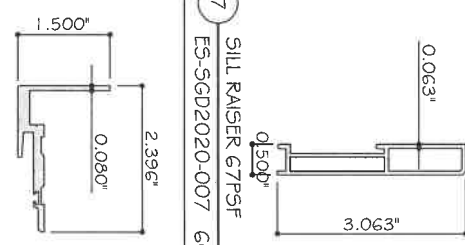
4 JAMB (3 TRACK)  
ES-SGD2020-004 6063-T6



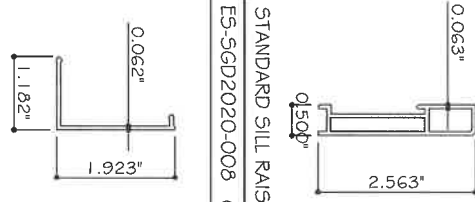
5 UNANCHORED JAMB (3 TRACK)  
ES-SGD2020-005 6063-T6



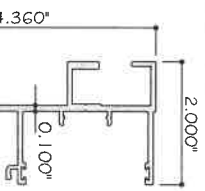
6 UNANCHORED JAMB REINF.  
FOR 3 TRACK  
ES-SGD2020-006 6005-T5



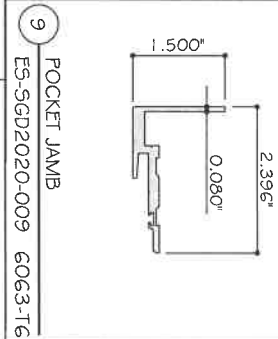
7 SILL RAISER 67PSF  
ES-SGD2020-007 6063-T6



8 STANDARD SILL RAISER 53PSF  
ES-SGD2020-008 6063-T6

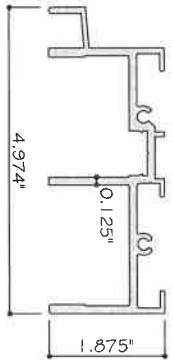


14 JAMB (2 TRACK)  
ES-SGD2020-014 6063-T6

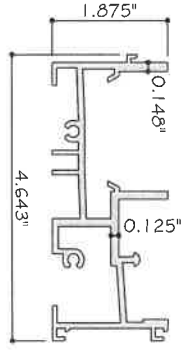


9 POCKET JAMB  
ES-SGD2020-009 6063-T6

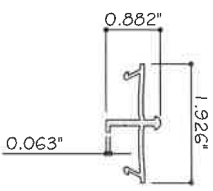
10 JAMB SCREW COVER  
ES-SGD2020-010 6063-T6



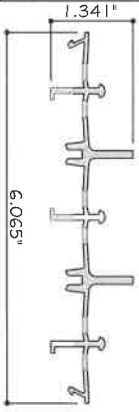
11 HEAD (2 TRACK)  
ES-SGD2020-011 6063-T6



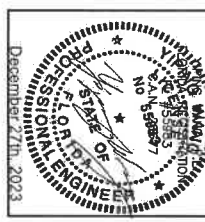
12 SILL (2 TRACK)  
ES-SGD2020-012 6063-T6



13 FRAME SILL COVER (2 TRACKS)  
ES-SGD2020-013 6063-T6

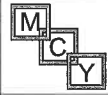


36 FRAME SILL COVER (4 TRACKS)  
ES-SGD2020-013 6063-T6



ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

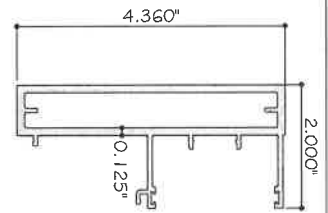
ES WINDOWS, INC.  
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TEL. (305) 624-7775



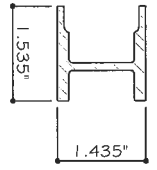
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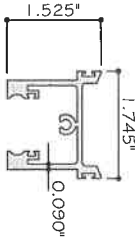
Rev. No.	Date	Drawn By	Description
1	2.04.2023	Junes	REVISION



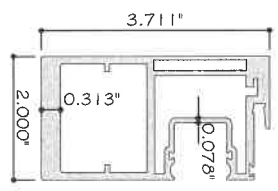
15 UNANCHORED JAMB (2 TRACK)  
ES-SGD2020-015 G063-T6



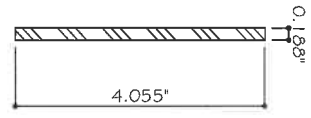
21 REINF. FOR INTERLOCK  
ES-SGD2020-021 G005-T5



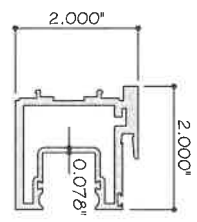
24 TOP RAIL FOR LAMINATED GLASS  
ES-SGD2020-024 G063-T6



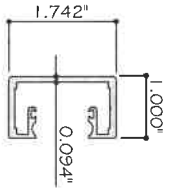
22 INTERLOCK HEAVY FOR LAMINATED  
ES-SGD2020-085 G005-T5



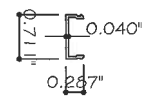
16 UN-ANCHORED JAMB REINF.  
FOR 2 TRACK  
ES-SGD2020-016 G063-T6



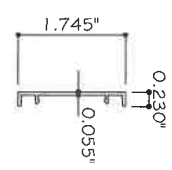
22 INTERLOCK FOR LAMINATED GLASS  
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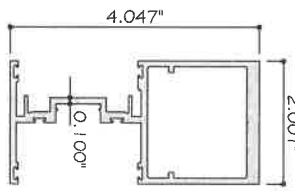
26 FIXED STILE FOR LAMINATED GLASS  
ES-SGD2020-026 G063-T6



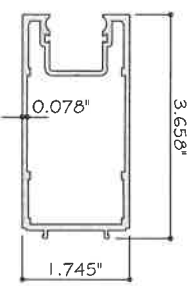
17 JAMB SCREW COVER  
ES-6011 G063-T6



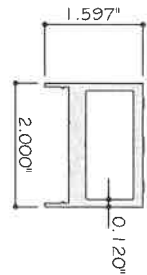
18 INTERLOCK AND LOCKSTILE SCREW COVER  
ES-SGD2020-018 G063-T6



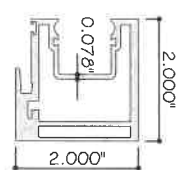
23 ASTRAGAL  
ES-SGD2020-023 G063-T6



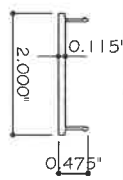
27 LOCK STILE FOR LAMINATED GLASS  
ES-SGD2020-027 G063-T6



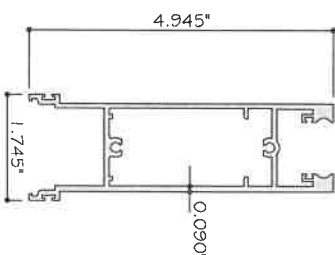
19 HEAVY INTERLOCK REINF.  
ES-SGD2020-019 G063-T6



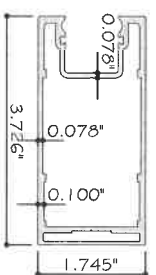
22 INTERLOCK FOR LAMINATED  
ES-SGD2020-084 G005-T5



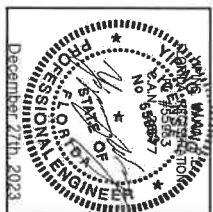
20 HEAVY INTERLOCK REINF. COVER  
ES-SGD2020-020 G063-T6



25 BOTTOM RAIL FOR LAMINATED GLASS  
ES-SGD2020-025 G063-T6

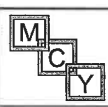


27a LOCKSTILE FOR LAMINATED  
ES-SGD2020-088 G063-T6



ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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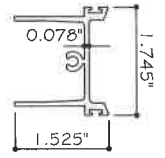


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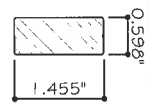
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K6	12.04.2023	James	REVISION

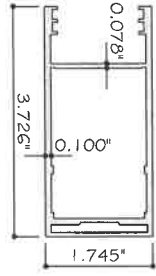




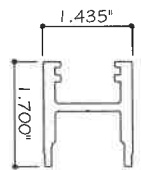
28 TOP RAIL FOR INSULATED LAMINATED  
ES-SGD2020-028 6063-T6



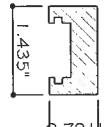
32 REINF. FOR INTERLOCK -  
INSULATED LAMINATED GLASS  
ES-SGD2020-032 6005-T5



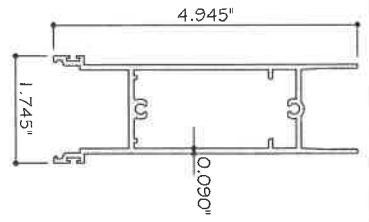
33A LOCK STILE FOR INSULATE LAMINATED  
ES-SGD2020-089 6063-T6



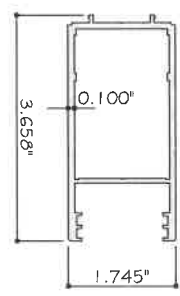
21A REINF. FOR INTERLOCK  
LAMINATED GLASS  
ES-SGD2020-021A 6005-T5



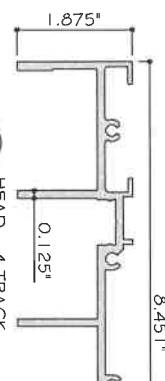
32A REINF. FOR INTERLOCK -  
INSULATED LAMINATED GLASS  
ES-SGD2020-032A 6005-T5



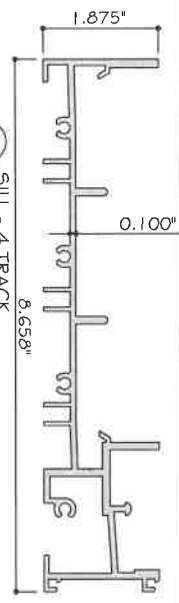
29 BOTTOM RAIL FOR  
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ES-SGD2020-029 6063-T6



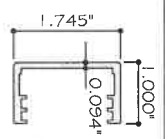
33 LOCK STILE FOR INSULATED  
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ES-SGD2020-033 6063-T6



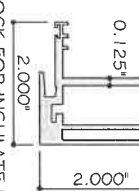
34 HEAD - 4 TRACK  
ES-SGD2020-034 6063-T6



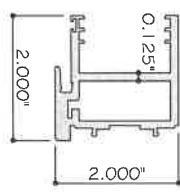
35 SILL - 4 TRACK  
ES-SGD2020-035 6063-T6



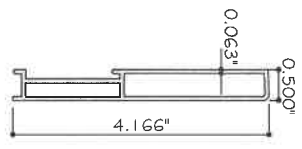
30 FIXED STILE FOR INSULATED LAMINATED  
ES-SGD2020-030 6063-T6



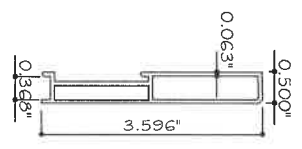
31 INTERLOCK FOR INSULATE LAMINATED  
ES-SGD2020-087 6005-T5



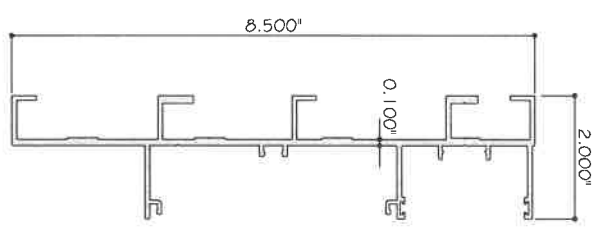
31 INTERLOCK FOR INSULATED  
LAMINATED GLASS  
ES-SGD2020-031 6063-T6



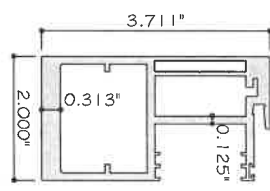
38 SILL RAISER - 90 PSF  
ES-SGD2020-040 6063-T6



82 SILL RAISER - 80 PSF  
ES-SGD2020-041 6063-T6



37 JAMB - 4 TRACK  
ES-SGD2020-038 6063-T6

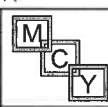


31B INTERLOCK HEAVY FOR  
INSULATE LAMINATED  
ES-SGD2020-086 6005-T5



ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

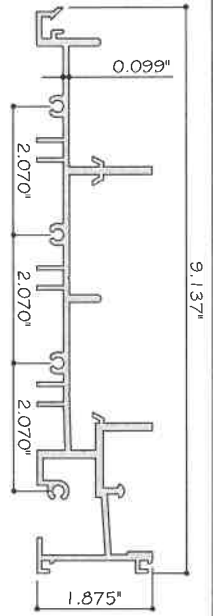
ES WINDOWS, INC.  
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Miami, FL 33138  
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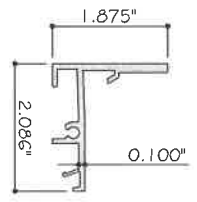
MCY ENGINEERING, INC.  
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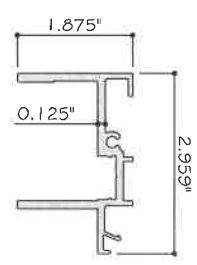
Rev. No.	Date	Drawn By	Description
R2	7.2.04.2023	Juan	REVISION
R1			



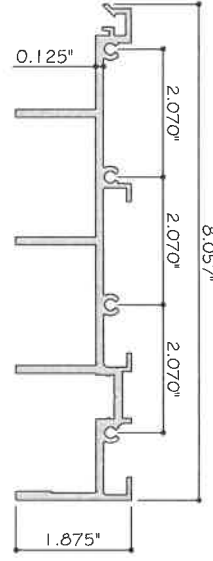
65 FRAME SILL - 5 TRACKS  
ES-SGD2020-055 6063-T6



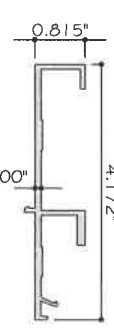
66 FRAME FRONT SILL  
ES-SGD2020-054 6063-T6



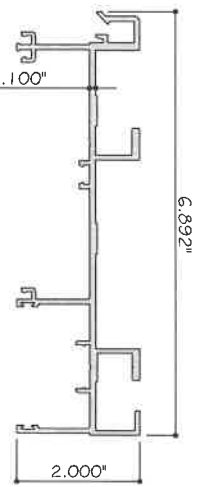
67 FRAME FRONT HEAD  
ES-SGD2020-062 6063-T6



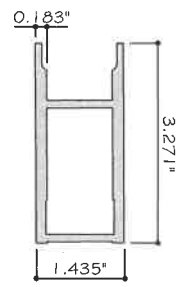
69 FRAME HEAD - 5 TRACKS  
ES-SGD2020-063 6063-T6



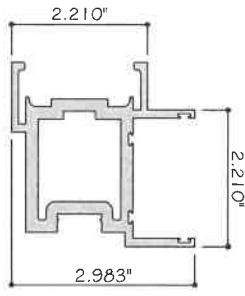
70 FRAME FRONT JAMB  
ES-SGD2020-064 6063-T6



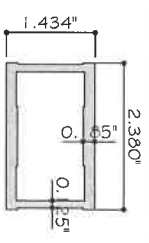
73 JAMB - 5 TRACKS  
ES-SGD2020-065 6063-T6



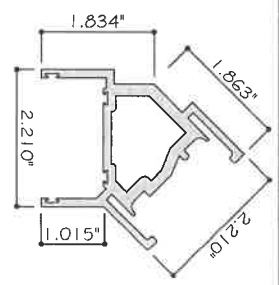
74 REINF. FOR LOCK STILE LAM. GLASS  
ES-SGD2020-071 6063-T6



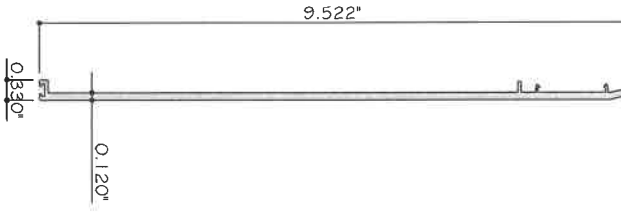
75 FRAME FRONT SILL  
ES-SGD2020-068 6063-T6



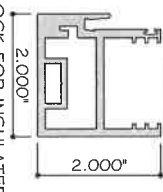
81 REINF. FOR LOCK STILE (INSUL-LAM.)  
ES-SGD2020-07X 6063-T6



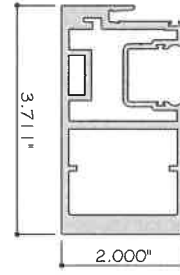
71 FRAME FRONT SILL  
ES-SGD2020-056 6063-T6



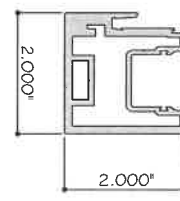
72 POCKET DOOR CLOSER - 5 TRACKS  
ES-SGD2020-061 6063-T6



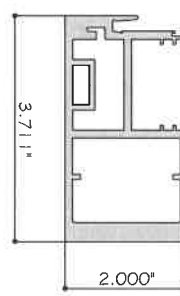
87A INTERLOCK FOR INSULATED LAMINATED GLASS  
ES-SGD2020-087A 6005-T5



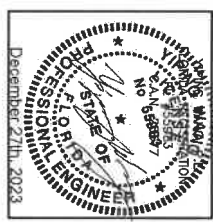
84A INTERLOCK HEAVY FOR LAMINATED GLASS  
ES-SGD2020-084A 6005-T5



85A INTERLOCK FOR LAMINATED GLASS  
ES-SGD2020-085A 6005-T5



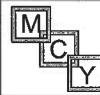
86A INTERLOCK HEAVY FOR INSULATED LAMINATED GLASS  
ES-SGD2020-086A 6005-T5



AD16-29  
PARTS  
56 OF 59

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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10653 NE Quaybridge Ct.  
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**BILL OF MATERIALS**

ITEM	PART	DESCRIPTION	MATERIAL	REMARKS
1	ES-5GD2020-001	HEAD (3 TRACK)	6063-16	-
2	ES-5GD2020-002	SILL (3 TRACK)	6063-16	-
3	ES-5GD2020-003	FRAME SILL COVER	6063-16	-
4	ES-5GD2020-004	JAMB (3 TRACK)	6063-16	-
5	ES-5GD2020-005	PRESTANDING JAMB (3 TRACK)	6063-16	-
6	ES-5GD2020-006	UN-ANCHORED JAMB REINFORCEMENT FOR 3 TRACK	6005-15	-
7	ES-5GD2020-007	HI SILL RAISER 3-1/16" HEIGHT	6063-16	-
8	ES-5GD2020-008	STANDARD SILL RAISER 2-9/16" HEIGHT	6063-16	-
9	ES-5GD2020-009	POCKET JAMB	6063-16	-
10	ES-5GD2020-010	JAMB SCREW COVER	6063-16	-
11	ES-5GD2020-011	HEAD 2 TRACK	6063-16	-
12	ES-5GD2020-012	SILL 2 TRACK	6063-16	-
13	ES-5GD2020-013	FRAME SILL COVER	6063-16	-
14	ES-5GD2020-014	JAMB (2 TRACK)	6063-16	-
15	ES-5GD2020-015	PRESTANDING JAMB (2 TRACK)	6063-16	-
16	ES-5GD2020-016	UN-ANCHORED JAMB REINFORCEMENT FOR 2 TRACK	6005-15	-
17	ES-6011	JAMB SCREW COVER	6063-16	-
18	ES-5GD2020-018	INTERLOCK AND LOCK STYLE SCREW COVER	6063-16	-
19	ES-5GD2020-019	HEAVY INTERLOCK REINFORCEMENT	6005-15	-
20	ES-5GD2020-020	HEAVY INTERLOCK REINFORCEMENT COVER	6063-16	-
21	ES-5GD2020-021	REINFORCEMENT FOR INTERLOCK	6005-15	-
21A	ES-5GD2020-021A	REINFORCEMENT FOR INTERLOCK LAMINATED GLASS	6005-15	-
22	ES-5GD2020-022	INTERLOCK FOR LAMINATED GLASS	6005-15	-
22A	ES-5GD2020-022A	INTERLOCK FOR LAMINATED GLASS	6005-15	-
22B	ES-5GD2020-022B	INTERLOCK HEAVY FOR LAMINATED GLASS	6005-15	-
23	ES-5GD2020-023	ASTRAGAL	6005-15	-
24	ES-5GD2020-024	TOP RAIL FOR LAMINATED GLASS	6063-16	-
25	ES-5GD2020-025	BOTTOM RAIL FOR LAMINATED GLASS	6063-16	-
26	ES-5GD2020-026	FIXED STYLE FOR LAMINATED GLASS	6063-16	-
27	ES-5GD2020-027	LOCK STYLE FOR LAMINATED GLASS	6063-16	-
27A	ES-5GD2020-027A	LOCK STYLE FOR LAMINATED GLASS	6063-16	-
28	ES-5GD2020-028	TOP RAIL FOR INSULATED LAMINATED GLASS	6063-16	-
29	ES-5GD2020-029	BOTTOM RAIL FOR INSULATED LAMINATED GLASS	6063-16	-
30	ES-5GD2020-030	FIXED STYLE FOR INSULATED LAMINATED GLASS	6063-16	-
31	ES-5GD2020-031	INTERLOCK FOR INSULATED LAMINATED GLASS	6063-16	-
31A	ES-5GD2020-031A	INTERLOCK FOR INSULATED LAMINATED GLASS	6005-15	-
31B	ES-5GD2020-031B	INTERLOCK HEAVY FOR INSULATED LAMINATED GLASS	6005-15	-
32	ES-5GD2020-032	REINFORCEMENT FOR INTERLOCK INSULATED LAM. GLASS	6005-15	-
32A	ES-5GD2020-032A	REINFORCEMENT FOR INTERLOCK INSULATED LAM. GLASS	6005-15	-
33	ES-5GD2020-033	LOCK STYLE FOR INSULATED LAMINATED GLASS	6063-16	-
33A	ES-5GD2020-033A	LOCK STYLE FOR INSULATED LAMINATED GLASS	6063-16	-
34	ES-5GD2020-034	HEAD (4 TRACK)	6063-16	-
35	ES-5GD2020-035	SILL (4 TRACK)	6063-16	-
36	ES-5GD2020-036	FRAME SILL COVER (4 TRACK)	6063-16	-
37	ES-5GD2020-037	JAMB (4 TRACK)	6063-16	-
38	ES-5GD2020-040	SILL RAISER 4-3/16" HEIGHT	6063-16	-
39	ES-5GD2020-041	GLAZING GASKET FOR LAMINATED GLASS	SILICONE, DURO 70	-
40	ES-5GD2020-042	GLAZING GASKET FOR LAMINATED GLASS	SILICONE, DURO 70	-
41	ES-5GD2020-043	GLAZING GASKET FOR INSULATED LAMINATED GLASS	SILICONE, DURO 70	-
42	ES-5GD2020-044	INTERLOCK BUMPER	BLACK PVC, 60 SHORE D	-
43	ES-5GD2020-045	GLAZING GASKET FOR INSULATED LAMINATED GLASS	SILICONE, DURO 70	-
44	W23221 NG	SILL HEAD FILE	POLYPROPYLENE	-
45	W23171 NK	INTERLOCK FILE	POLYPROPYLENE	-
46	W23211 NG	INTERLOCK ASTRAGAL	POLYPROPYLENE	-
47	W21	WEHPHOLE COVER	POLYPROPYLENE	-
48	QEZ 447-1	QION	FOAM ALL STRUCTURE	-
49	FS01-0035-00B	RECESSED FACELATE SEMI LOCK TWO POINT	-	-

**BILL OF MATERIALS**

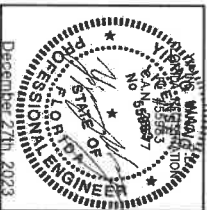
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50	FS01-0014-000	INVOLUTE HANDLE SET	-	-
51	FS01-0014-117	ADJUSTABLE STRIKE	POLYPROPYLENE	-
52	5GD-1-700	BUMPER	STEEL AND RUBBER	-
52A	196C-FRI-300095	BUMPER BASE AND SNAP FIT	STEEL AND RUBBER	-
53	GTT-1500C-HKA-01-TE	ROLLER	STAINLESS STEEL	-
54	-	ROLLER	-	ZAVAK
55	-	#10 X 7/8" P.H. SCREW FOR PANEL ASSEMBLY	575T	-
56	-	#12 X 1-1/2" P.H. SCREW FOR FRAME ASSEMBLY	575T	-
57	-	#8 X 3/4" P.H. SCREW FOR HANDLE STRIKE	575T	-
58	-	#10 X 1" P.H. SCREW FOR MORTISE LOCK	575T	-
59	-	#12 X 1" P.H. SCREW FOR BUMPER	575T	-
60	-	#10 X 1" P.H. SCREW	575T	-
61	-	1/4-20 X 2-1/2" PAN HEAD SCREW	575T	-
62	DC963	DOW CORNING 963 STRUCTURAL SILICONE	SILICONE	-
63	DC791	DOW CORNING 791	SILICONE	-
64	ES-5GD2020-055	GLAZING SPACER	ALUMINIUM	HELIMA
65	ES-5GD2020-054	FRAME SILL - 5 TRACKS	6063-16	-
66	ES-5GD2020-052	FRAME FRONT SILL	6063-16	-
67	ES-5GD2020-062	FRAME FRONT HEAD	6063-16	-
68	ES-5GD2020-061	INTERLOCK REINF. FOR LAMINATED GLASS	6063-16	-
69	ES-5GD2020-063	FRAME HEAD - 5 TRACKS	6063-16	-
70	ES-5GD2020-064	FRAME FRONT JAMB	6005-15	-
71	ES-5GD2020-056	FRAME FRONT SILL	6063-16	-
72	ES-5GD2020-061	POCKET DOOR CLOSER - 5 TRACKS	6063-16	-
73	ES-5GD2020-065	JAMB - 5 TRACK	6063-16	-
74	ES-5GD2020-071	REINF. FOR LOCK STYLE LAM. GLASS	6063-16	-
75	ES-5GD2020-068	FRAME FRONT SILL	6063-16	-
76	ALUF-01B	SUPPORT FOR HANDLE LOCK	6063-16	-
77	ALUF-020	SUPPORT FOR HANDLE LOCK	6063-16	-
78	ES-W525-014	COVER-POCKET	6063-16	-
79	ES-5GD2020-069	HOOK STRIP BASE	6063-16	-
80	ES-5GD2020-070	HOOK STRIP	6063-16	-
81	ES-5GD2020-07X	REINFORCE FOR LOCK STYLE (INSUL-LAM)	6063-16	-
82	ES-5GD2020-041	SILL RAISER	6063-16	-
83	-	#10 X 3/8" P.H. TYP B	STAINLESS STEEL	-
84A	ES-5GD2020-064A	INTERLOCK HEAVY FOR LAMINATED GLASS	6005-15	-
85A	ES-5GD2020-085A	INTERLOCK FOR LAMINATED GLASS	6005-15	-
86A	ES-5GD2020-086A	INTERLOCK HEAVY FOR INSULATED LAMINATED GLASS	6005-15	-
87A	ES-5GD2020-087A	INTERLOCK FOR INSULATED LAMINATED GLASS	6005-15	-
88	DA304NAK-130V1.00X.370"	FOR GLIDING PANEL INTERLOCK AT SILL AND HEAD	POLYPROPYLENE	-
89	DS009NAK-500V2.25X.970"	FOR GLIDING PANEL INTERLOCK AT SILL AND HEAD	POLYPROPYLENE	-

**ES-5GD2020 SLIDING GLASS DOOR (LMI & SMI)**

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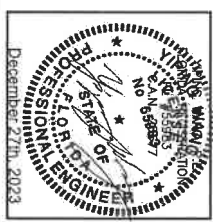
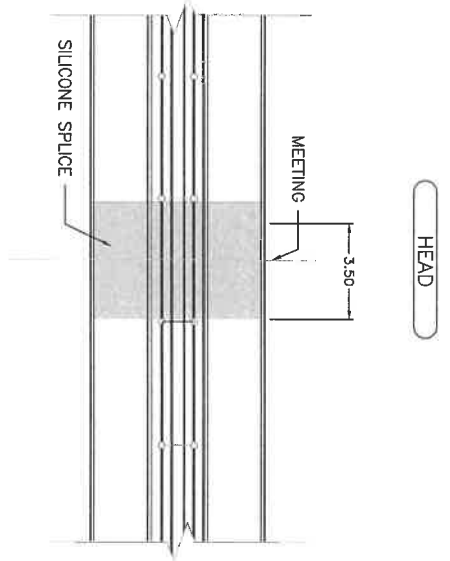
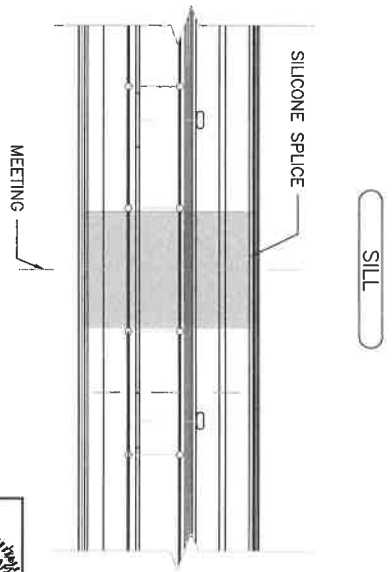
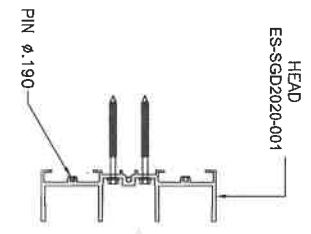
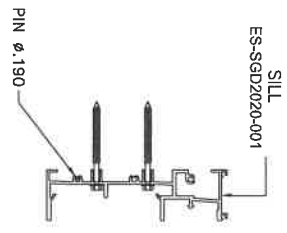
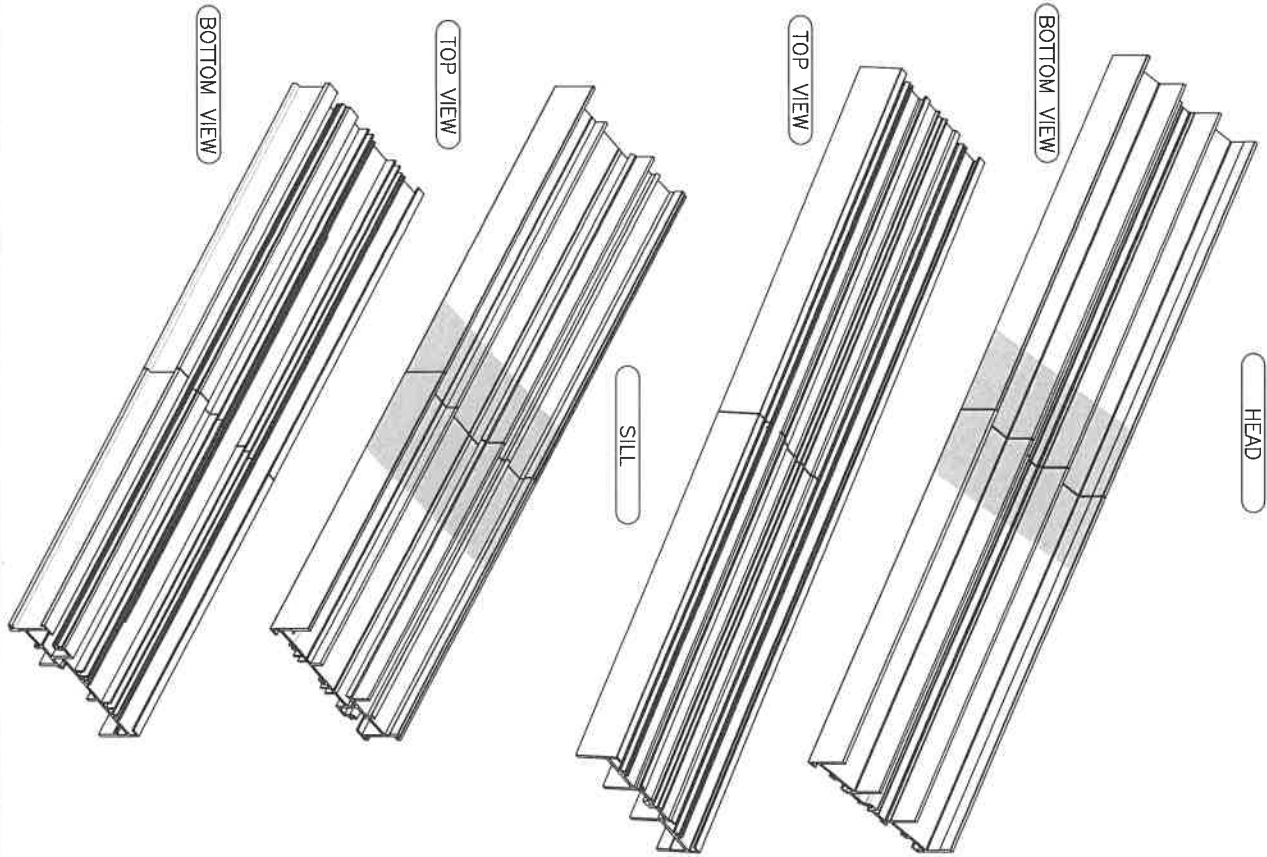


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**BOM**  
 AD16-29  
 DRAWING NO. 12/04/2023  
 SHEET NO. 57 OF 59

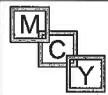
Rev. No.	Date	By	Description
1	12/04/2023	Jones	REVISION



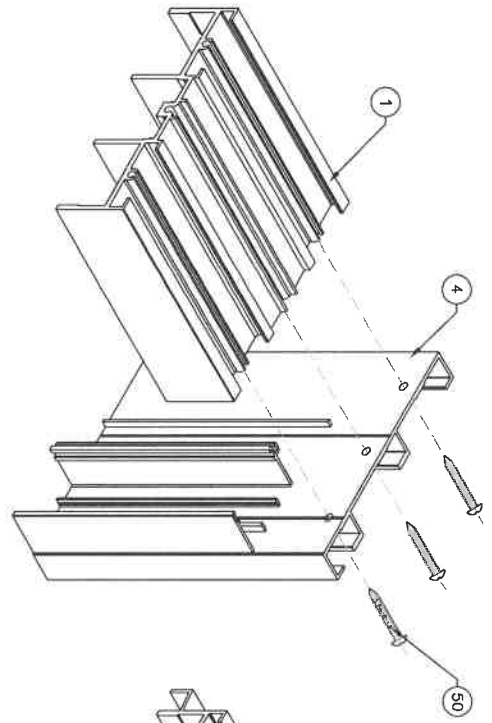
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ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

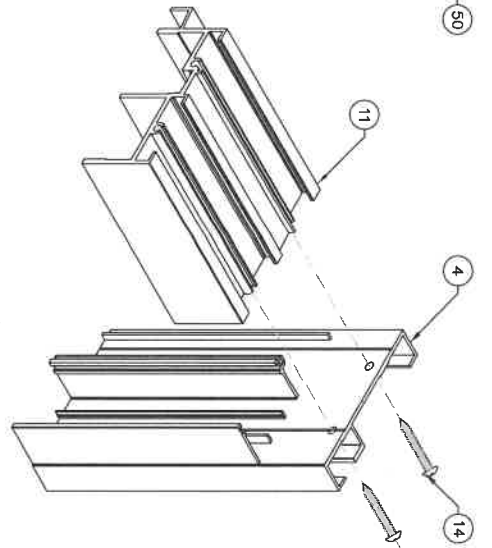
ES WINDOWS, INC.  
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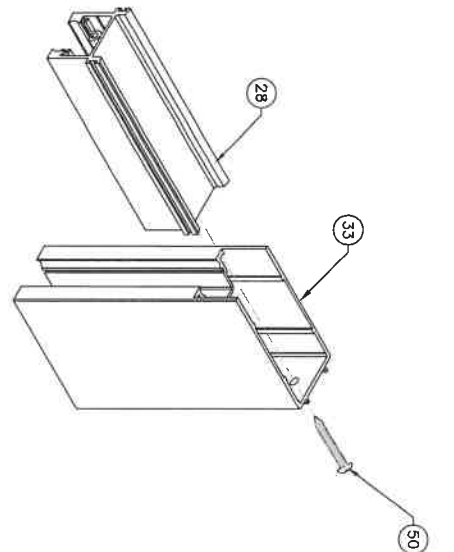
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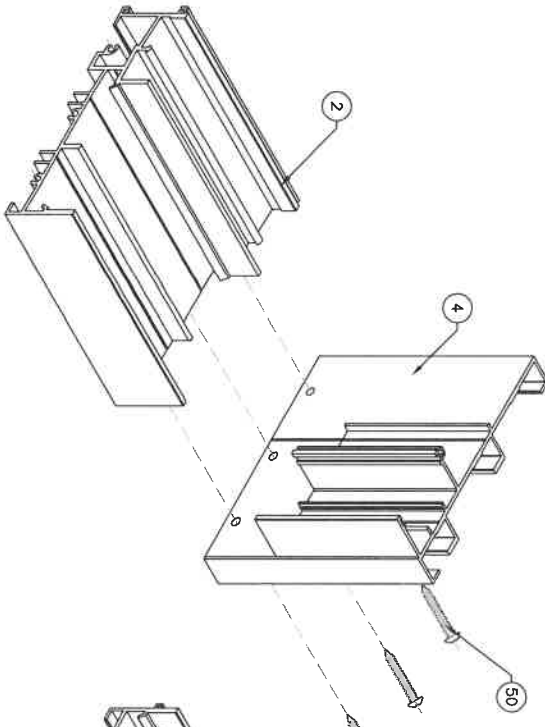
FRAME TOP CORNER  
3 TRACK SHOWN



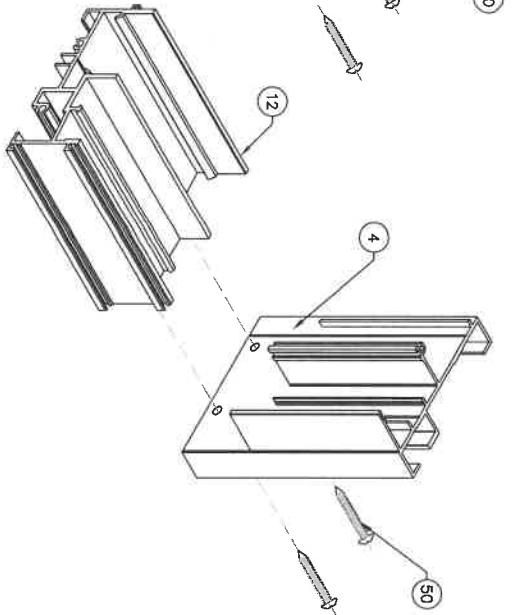
FRAME TOP CORNER  
2 TRACK SHOWN



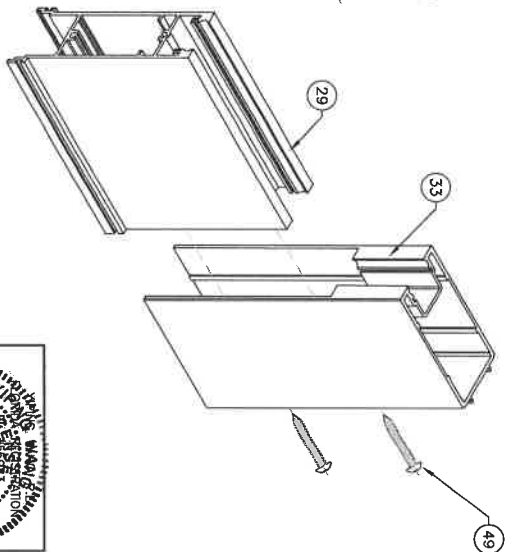
PANEL TOP CORNER



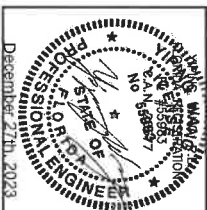
FRAME BOTTOM CORNER  
3 TRACK SHOWN



FRAME BOTTOM CORNER  
2 TRACK SHOWN



PANEL BOTTOM CORNER

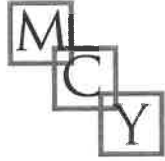


DRAWING NO. <b>AD16-29</b>	SCALE 1/4" = 1'-0"
DATE 2.04.2023	DRAWN BY JAMES
REV. NO.	DESCRIPTION
59 OF 59	ISO

ES-SGD2020 SLIDING GLASS DOOR (LMI & SMI)

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## PRODUCT APPROVAL EVALUATION REPORT

<p><u>Product Manufacturer:</u> <b>E.S. WINDOWS, Inc.</b> 10653 NE Quaybridge Ct. Miami, FL 33138</p>	<p><u>Product Name/Model &amp; Description:</u> <b>Series SGD 2020 SLIDING GLASS DOOR</b> <b>(L.M.I. &amp; S.M.I.) (HVHZ)</b> Sliding Glass Door – large &amp; small missile impact</p>
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**Scope:** This product has been evaluated by the below-signed Florida Professional Engineer for compliance with the Code noted herein and is, for the purpose intended, at least equivalent to that required by the Code, in accordance with section 553.842 F.S. & chapter 61G20-3.005 F.A.C. Re-evaluation of this product shall be required following applicable Code modifications or revisions.

**Code:** 8<sup>th</sup> Edition Florida Building Code (2023), inclusive of all Supplements effective as of this report date.

**Compliance Method:** 61G20-3.005 (1)(d) – Evaluation Report from a licensed Professional Engineer

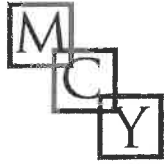
**Product Description:** Product Approval **Drawing #AD16-29**, prepared by MCY Engineering, signed and sealed by Yiping Wang, P.E., is an integral part of this Evaluation Report.

**Limitations & Conditions of Use:**

- This product has been evaluated for use **inside and outside of the HVHZ** (High Velocity Hurricane Zone)
- Impact Resistance: **Large and Small Missile Impact**
- Refer to Product Approval Drawing noted above for:
  - Maximum allowable wind loads at related maximum allowable size(s).
  - Other load limitations applicable to the product, if any.
  - Overall dimensions and material/grade of main product components, accessories, etc.
  - Illustrated diagrams of the attachment of the product to the structure.
  - Anchor type(s), size(s), substrate(s), embedment, edge distance and spacing/locations.



December 27th, 2023



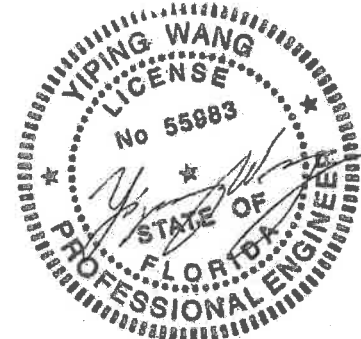
**Test Reports:**

**Mandatory Tests (Tested in accordance with Florida Building Code Tests Protocols)**

Test Lab	Report Number	Test Report Date	Test Standard & Description
Blackwater Testing, Inc. -West Palm Beach, FL	<i>BT-ESW-18-002, signed and sealed by Constantin Bortes, P.E.</i>	05/17/2018	TAS 201 (large missile impact) TAS 202(uniform static test) TAS 203 (cyclic wind pressure loading) ASTM E283 (air infiltration test) ASTM E331 (water infiltration test) AAMA 1304 (forced entry test)
Fenestration Testing Laboratory FL33166	<i>FTL-12390 signed and sealed by Marlin Binson, PE</i>	12/17/2020	TAS 201 (large missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading) ASTM E283 (Air Infiltration) ASTM E331 (Water Resistance Test) ASTM F842 (Force Entry)
Blackwater Testing, Inc. -West Palm Beach, FL	<i>BT-ESW-16-010, signed and sealed by Constantin Bortes, P.E.</i>	03/23/2017	TAS 201 (large missile impact) TAS 202(uniform static test) TAS 203 (cyclic wind pressure loading) ASTM E283 (air infiltration test) ASTM E331 (water infiltration test) ASTM 1886(cyclic wind pressure loading) ASTM 1996 (large missile impact) AAMA 1303 (forced entry test)
Blackwater Testing, Inc. -West Palm Beach, FL	<i>BT-ESW-23-003, signed and sealed by MICHAEL D CALDWELL, P.E.</i>	12/07/2023	TAS 201 (large missile impact) TAS 202(uniform static test) TAS 203 (cyclic wind pressure loading)

**Engineering Analysis:** The following engineering analyses and/or calculations have been performed:

- No comparative analysis has been performed for conditions other than those tested.
- No rational analysis has been performed.
- Anchor calculations are based on manufacturer’s published anchor capacity, anchor Notice of Acceptance by Miami Dade County.



December 27th, 2023