



BLACKWATER TESTING INC.

7341 Westport Pl Suite 1A, West Palm Beach, FL 33413

Phone: 561-508-2830 E-mail: Engdep@blackwatertesting.com

REPORT NO: BT-CON-16-002A

MIAMI-DADE CERTIFICATION #14-0911.04



04/07/2016

Test Dates: Start: 03/28/2016 End: 03/30/2016

TESTING FOR UNIFORM STATIC AIR PRESSURE TAS 202-94 (ASTM E330-02), AIR INFILTRATION ASTM E283-04, WATER INFILTRATION ASTM E331-00 OF "3900 BUTT GLAZED WINDOW WALL"

Client:

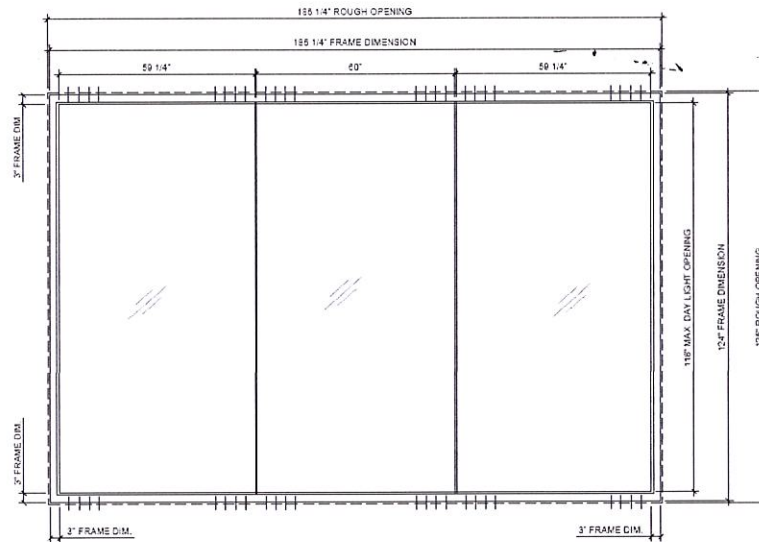
Continental Glass Systems Inc.

325 West 74 Place

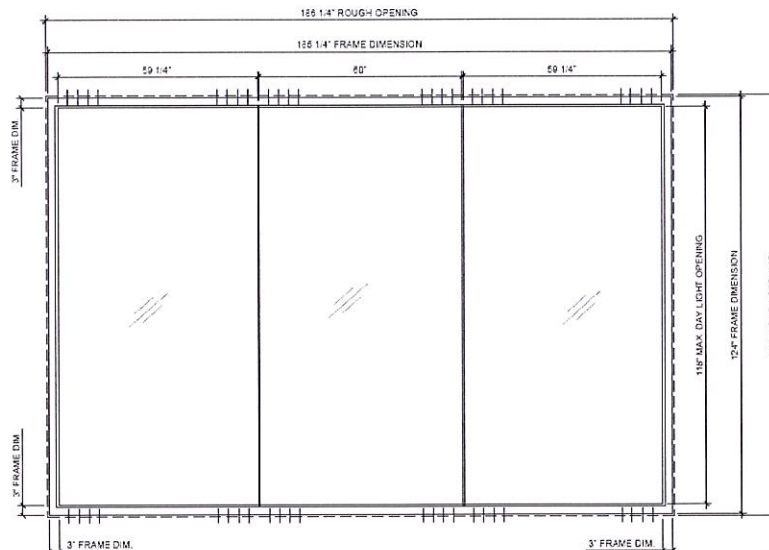
Hialeah Florida, 33014

Phone: (305) 231-1101

Fax: (305) 231-1103



Specimen 1



Specimen 2

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04/07/2016

Product Description of Specimen 1 and Specimen 2 3900 Butt Glazed Window Wall

Overall Size Specimen 1 and Specimen 2 185-1/4" w x 124" h

Rough Opening Buck Specimen 1 and Specimen 2 186-1/4" w x 125" h

Test Protocol:

Specimen 1 and Specimen 2-Air Infiltration ASTM E283-04, +/-90 psf TAS 202-94, +/-120 psf TAS 202-94, Water Infiltration ASTM E331-00, +/-180 psf TAS 202-94

Disclaimer: This is a general statement and does not supersede the specific product descriptions in this report. The specimens are in conformance with drawings provided by the manufacturer. These drawings have been marked to indicate the appropriate portions descriptive of this test series. Blackwater Testing Inc. does not take responsibility of product performance and whose only purpose is to test and gather pertinent data under test report format for the client.

Witness to Testing:

Dennis Duffy, BT CEO
Erik Coppola, BT Lab Technician
Yamil G. Kuri, P.E. Test Engineer

SPECIMEN 1 AND SPECIMEN 2 DETAILS

Glazing Detail:

Specimen 1

LMI GLASS: 1/4" Clear Temp Glass + 0.090" Sentryglas Plus Interlayer by Kuraray America, Inc. + 1/4" Clear Temp Glass + 0.090" Sentryglas Plus Interlayer by Kuraray America, Inc. + 1/2" Clear Temp. Glass

Specimen 2

SMI GLASS: 1/4" Clear Temp Glass + 0.035" Sentryglas Plus Interlayer by Kuraray America, Inc. + 1/4" Clear Temp Glass + 0.035" Sentryglas Plus Interlayer by Kuraray America, Inc. + 1/2" Clear Temp. Glass

Sealant:

Specimen 1 and Specimen 2

Perimeter Sealant: DOW CORNING-DC795 Silicone Building

BUTT-JOINT: DOW CORNING-DC795 Black Silicone Building Sealant for 3/8" glass to glass gap

Daylight Opening:

Specimen 1 and Specimen 2

X2 Outer Panels: 59-1/4"w X 118"h

X1 Center Panels: 60"w X 118"h

Testing Buck:

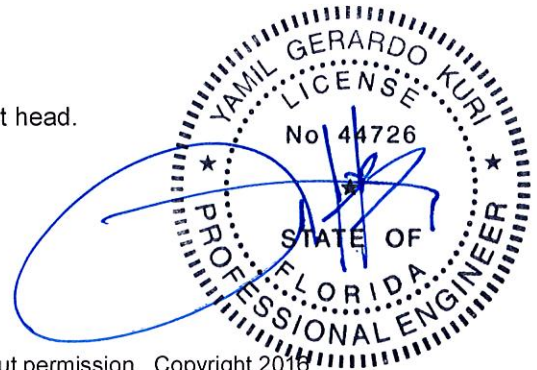
Specimen 1 and Specimen 2

10"x10"x1/4" HSS members Welded.

Strata:

Specimen 1 and Specimen 2

The specimens was Anchored to Concrete (typical fc') at sill and Steel at head.



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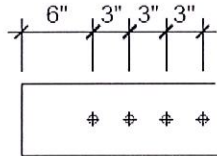
04/07/2016

Anchoring:

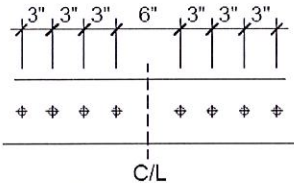
Specimen 1 and Specimen 2

Header Anchoring:

Jambs- x4 ϕ 1/4" Self Drilling Screws 3/4" Min Edge Distance

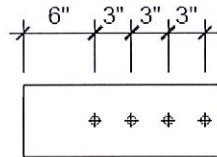


Mullion- x8 ϕ 1/4" Self Drilling Screws 3/4" Min Edge Distance

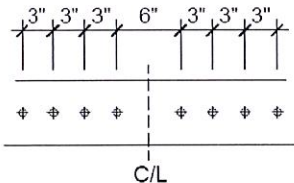


Sill Anchoring:

Jambs- ϕ 5/16" Ultracon ELCO (Fu 177KSI, Fy 155KSI) 1-3/4" Min. Embedment

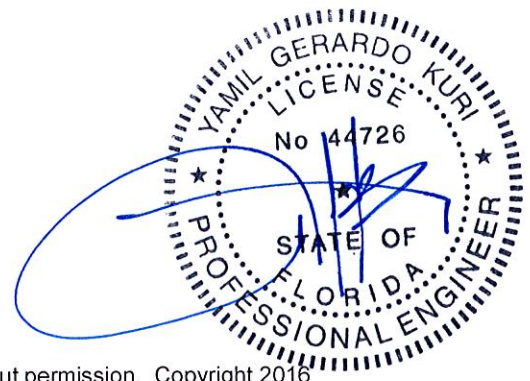


Mullion- x8 ϕ 5/16" Ultracon ELCO (Fu 177KSI, Fy 155KSI) 1-3/4" Min. Embedment



Jamb Anchoring:

Free Jambs



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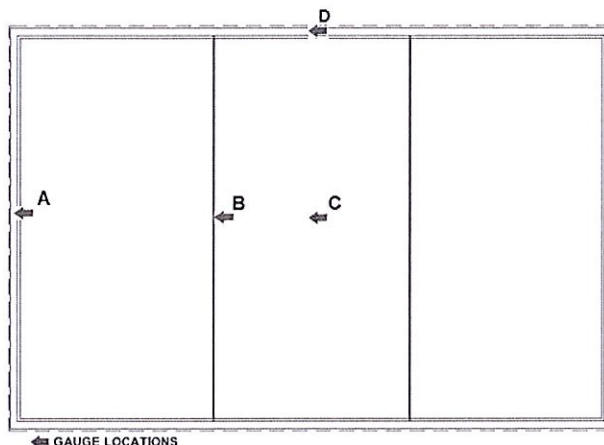
REPORT NO: BT-CON-16-002A

MIAMI-DADE CERTIFICATION #14-0911.04



04/07/2016

Test Results



Specimen 1

STATIC LOAD DATA SHEET						DP psf		T= 83°F		
						High	Low			
								120		-120
Positive Pressure										
			A		B		C		D	
Load Factor	Load psf	Load Inch Water	Deflection (in.)	Permanent Set (in.)	Deflection (in.)	Permanent Set (in.)	Deflection (in.)	Permanent Set (in.)	Deflection (in.)	Permanent Set (in.)
0.5FL	90	17.31	0.219	0.000	0.781	0.000	0.875	0.000	0.125	0.000
DP	120	23.08	0.281	0.063	0.844	0.063	1.063	0.063	0.183	0.000
FL=1.5*DP	180	34.62	0.375	0.094	1.125	0.156	1.313	0.094	0.313	0.063
Negative Pressure										
			A		B		C		D	
Load Factor	Load psf	Load Inch Water	Deflection (in.)	Permanent Set (in.)	Deflection (in.)	Permanent Set (in.)	Deflection (in.)	Permanent Set (in.)	Deflection (in.)	Permanent Set (in.)
0.5FL	90	17.31	0.250	0.000	0.875	0.031	1.000	0.063	0.125	0.000
DP	120	23.08	0.375	0.063	1.000	0.094	1.156	0.094	0.219	0.000
FL=1.5*DP	180	34.62	0.438	0.094	1.188	0.156	1.433	0.094	0.375	0.063

Specimen 1 Air Infiltration Test Results T=83°F

Test Pressure (psf)	Measured Flow (cfm/ft ²)	Allowed Flow (cfm/ft ²)
Series 3900 Butt Glazed		
6.24	0.01	0.06

Air infiltration satisfies requirements by ASTM E283-04 and TAS202-94.

Specimen 1 Water Infiltration Test Result T=83°F

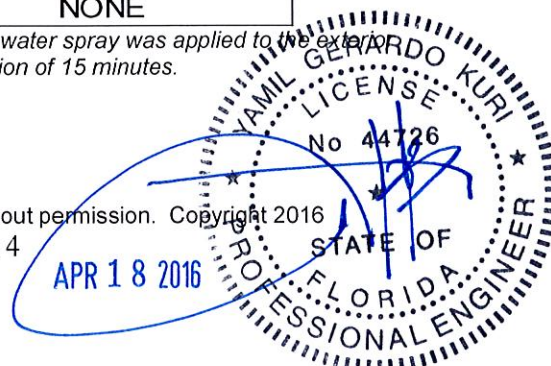
Test Pressure (psf)	Test Duration (min)	Water Leakage (in ³ /sec)
18.00	15.00	NONE

The Water Infiltration Test was conducted as per ASTM E-331-00. A uniform water spray was applied to the exterior surface of the windows at a rate of 5.0 gal/ft²/hr for duration of 15 minutes.

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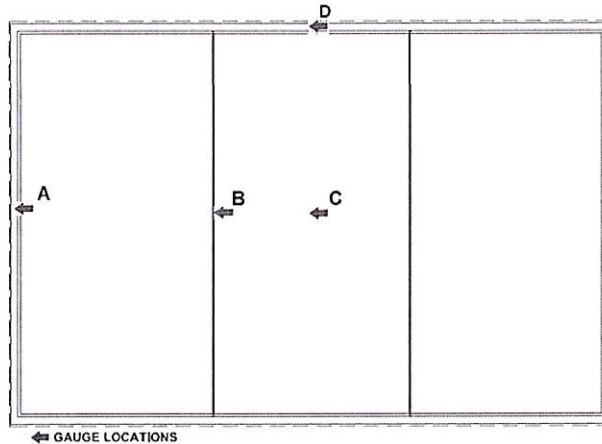
E-mail: Engdep@blackwatertesting.com

REPORT NO: BT-CON-16-002A

MIAMI-DADE CERTIFICATION #14-0911.04



04/07/2016



Specimen 2

STATIC LOAD DATA SHEET						DP psf		T= 82°F		
						High	Low			
						120	-120			
Positive Pressure										
			A		B		C		D	
Load Factor	Load psf	Load Inch Water	Defelction (in.)	Permanent Set (in.)	Defelction (in.)	Permanent Set (in.)	Defelction (in.)	Permanent Set (in.)	Defelction (in.)	Permanent Set (in.)
0.5FL	90	17.31	0.188	0.000	0.750	0.000	0.813	0.031	0.125	0.000
DP	120	23.08	0.281	0.031	0.813	0.063	1.094	0.063	0.183	0.000
FL=1.5*DP	180	34.62	0.375	0.094	1.156	0.156	1.375	0.094	0.250	0.000
Negative Pressure										
			A		B		C		D	
Load Factor	Load psf	Load Inch Water	Defelction (in.)	Permanent Set (in.)	Defelction (in.)	Permanent Set (in.)	Defelction (in.)	Permanent Set (in.)	Defelction (in.)	Permanent Set (in.)
0.5FL	90	17.31	0.250	0.000	0.813	0.063	0.938	0.031	0.125	0.000
DP	120	23.08	0.375	0.063	1.063	0.094	1.188	0.063	0.219	0.000
FL=1.5*DP	180	34.62	0.438	0.063	1.219	0.156	1.438	0.094	0.313	0.063

Specimen 2 Air Infiltration Test Results T=82°F

Test Pressure (psf)	Measured Flow (cfm/ft ²)	Allowed Flow (cfm/ft ²)
Series 3900 Butt Glazed		
6.24	0.01	0.06

Air infiltration satisfies requirements by ASTM E283-04 and TAS202-94.

Specimen 2 Water Infiltration Test Result T=82°F

Test Pressure (psf)	Test Duration (min)	Water Leakage (in ³ /sec)
18.00	15.00	NONE

The Water Infiltration Test was conducted as per ASTM E-331-00. A uniform water spray was applied to the exterior surface of the windows at a rate of 5.0 gal/ft²/hr for duration of 15 minutes.

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Test Dates: Start: 03/28/2016 End: 03/30/2016



04/07/2016

SUMMARY OF TESTING FOR "3900 BUTT GLAZED WINDOW WALL"

Client:

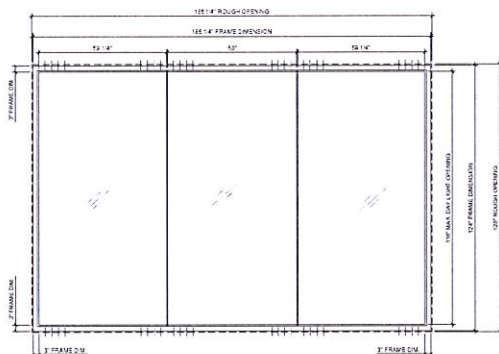
Continental Glass Systems Inc.

325 West 74 Place

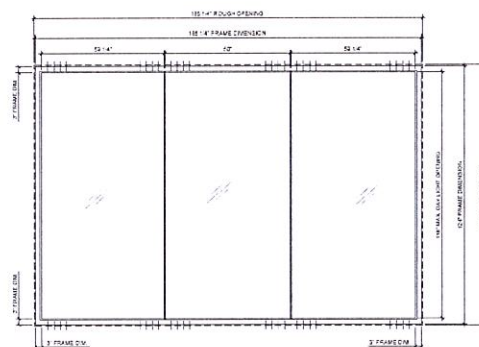
Hialeah Florida, 33014

Phone: (305) 231-1101

Fax: (305) 231-1103



Specimen 1



Specimen 2

AIR ASTM E283-04: Specimen 1 and Specimen 2 successfully passed air infiltration testing criteria per ASTM E283-04.

WATER ASTM E331-00: Specimen 1 and Specimen 2 successfully passed water infiltration testing criteria per ASTM E331-00.

WIND LOADS: Specimen 1 and Specimen 2 were subjected to static wind loads in accordance per TAS 202-94. Specimen 1 and Specimen 2 successfully completed wind loads to verify a **Design Load of +/- 120.0 PSF**.

CONCLUSION: Following testing Specimen 1 and Specimen 2 were disassembled. No failures were observed in the panes, frame, fastenings, or anchorages. **The "3900 BUTT GLAZED WINDOW WALL" products were tested in accordance with and meet the requirements to comply with Florida Building Code 2014**



Dennis Duffy, CEO

APR 18 2016

Yamil Kuri, PE. Engineer



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MIAMI-DADE CERTIFICATION #14-0911.04



04/07/2016

Test Dates: Start: 03/28/2016 End: 03/30/2016

TESTING FOR LARGE & SMALL MISSILE IMPACTS TAS 201-94(ASTM E1996-03) AND CYCLIC LOADS TAS 203-94(ASTM E1886-02) OF "3900 BUTT GLAZED WINDOW WALL"

Client:

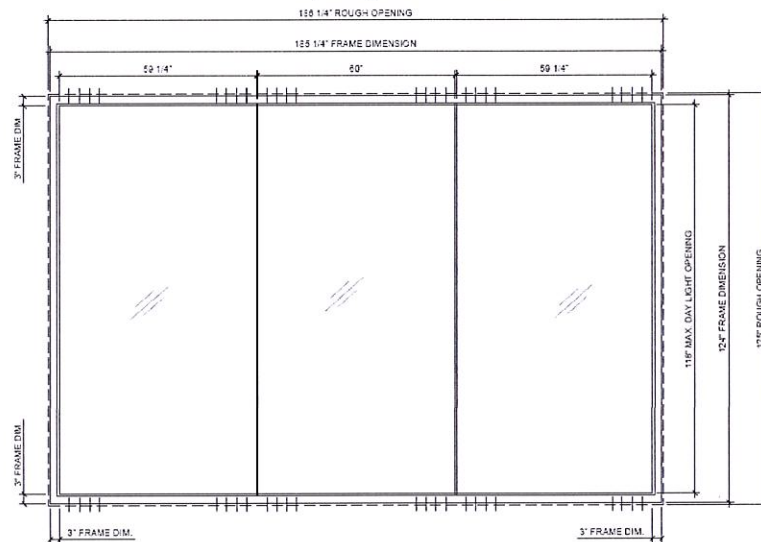
Continental Glass Systems Inc.

325 West 74 Place

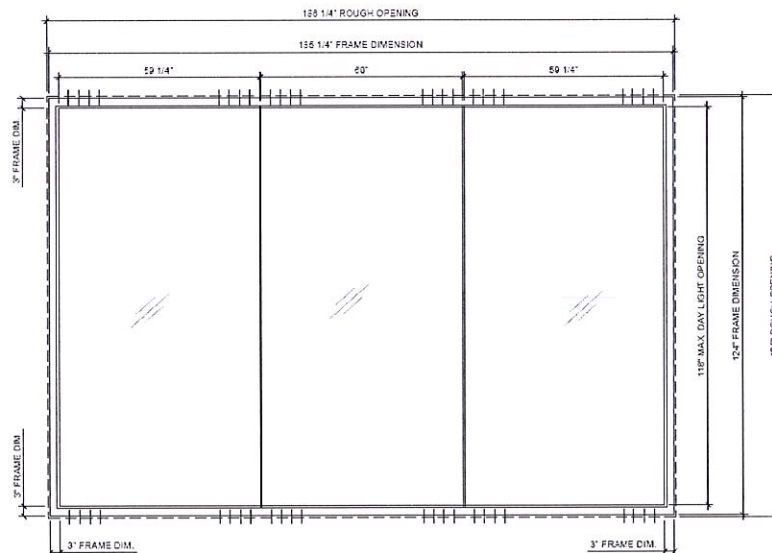
Hialeah Florida, 33014

Phone: (305) 231-1101

Fax: (305) 231-1103



Specimen 1



Specimen 2

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04/07/2016

Product Description of Specimen 1 and Specimen 2 3900 Butt Glazed Window Wall

Overall Size Specimen 1 and Specimen 2 185-1/4" w x 124" h

Rough Opening Buck Specimen 1 and Specimen 2 186-1/4" w x 125" h

Test Protocol:

Specimen 1 and Specimen 2-Air Infiltration ASTM E283-04, +/-90 psf TAS 202-94, +/-120 psf TAS 202-94, Water Infiltration ASTM E331-00, +/-180 psf TAS 202-94

Disclaimer: This is a general statement and does not supersede the specific product descriptions in this report. The specimens are in conformance with drawings provided by the manufacturer. These drawings have been marked to indicate the appropriate portions descriptive of this test series. Blackwater Testing Inc. does not take responsibility of product performance and whose only purpose is to test and gather pertinent data under test report format for the client.

Witness to Testing:

Dennis Duffy, BT CEO

Erik Coppola, BT Lab Technician

Yamil G. Kuri, P.E. Test Engineer

SPECIMEN 1 AND SPECIMEN 2 DETAILS

Glazing Detail:

Specimen 1

LMI GLASS: 1/4" Clear Temp Glass + 0.090" Sentryglas Plus Interlayer by Kuraray America, Inc. + 1/4" Clear Temp Glass + 0.090" Sentryglas Plus Interlayer by Kuraray America, Inc. + 1/2" Clear Temp. Glass

Specimen 2

SMI GLASS: 1/4" Clear Temp Glass + 0.035" Sentryglas Plus Interlayer by Kuraray America, Inc. + 1/4" Clear Temp Glass + 0.035" Sentryglas Plus Interlayer by Kuraray America, Inc. + 1/2" Clear Temp. Glass

Sealant:

Specimen 1 and Specimen 2

Perimeter Sealant: DOW CORNING-DC795 Silicone Building

BUTT-JOINT: DOW CORNING-DC795 Black Silicone Building Sealant for 3/8" glass to glass gap

Daylight Opening:

Specimen 1 and Specimen 2

X2 Outer Panels: 59-1/4" w X 118" h

X1 Center Panels: 60" w X 118" h

Testing Buck:

Specimen 1 and Specimen 2

10"x10"x1/4" HSS members Welded.

Strata:

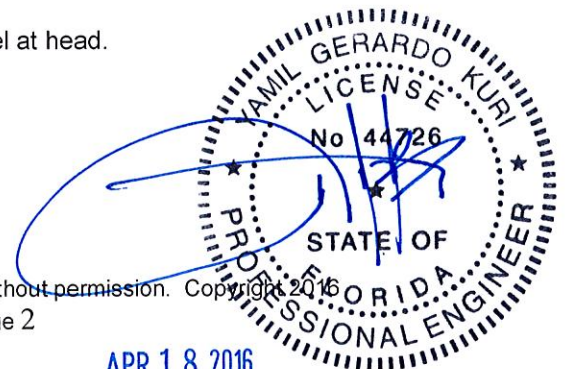
Specimen 1 and Specimen 2

The specimens was Anchored to Concrete (typical fc') at sill and Steel at head.

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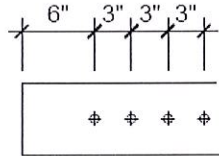
04/07/2016

Anchoring:

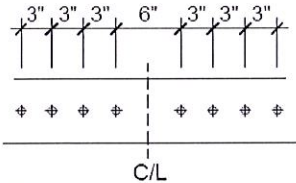
Specimen 1 and Specimen 2

Header Anchoring:

Jambs- x4 ϕ 1/4" Self Drilling Screws 3/4" Min Edge Distance

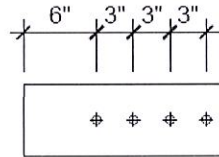


Mullion- x8 ϕ 1/4" Self Drilling Screws 3/4" Min Edge Distance

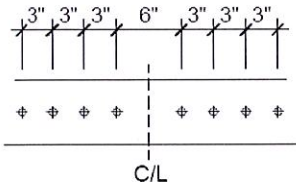


Sill Anchoring:

Jambs- ϕ 5/16" Ultracon ELCO (Fu 177KSI, Fy 155KSI) 1-3/4" Min. Embedment

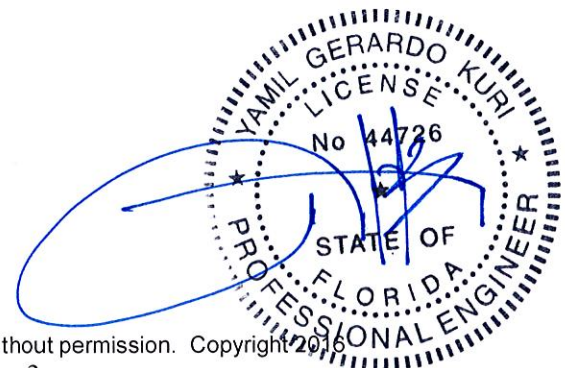


Mullion- x8 ϕ 5/16" Ultracon ELCO (Fu 177KSI, Fy 155KSI) 1-3/4" Min. Embedment



Jamb Anchoring:

Free Jambs



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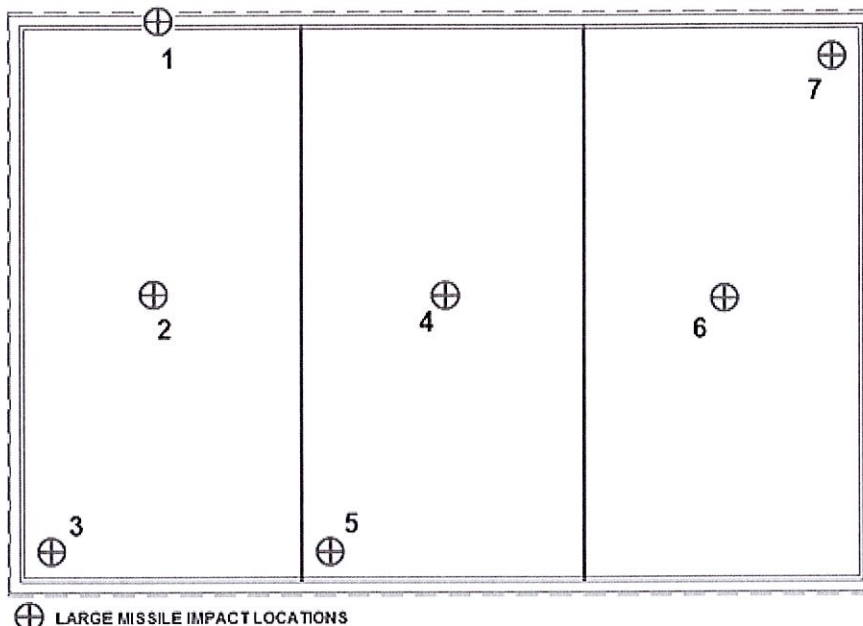
REPORT NO: BT-CON-16-002A

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04/07/2016

Test Results



Specimen 1

LARGE MISSILE IMPACT DATA SHEET

Sample	T=81°F	Location			Keyence	Results
	Shot	Area	X (in.)	Y (in.)	ft/s	Pass/Fail
Specimen 1	1	Center Header	32	123	50	Pass
Specimen 1	2	Center Glass	32	66	50.1	Pass
Specimen 1	3	Bottom Left Corner Glass	12	12	49.9	Pass
Specimen 1	4	Center Glass	96	64	50	Pass
Specimen 1	5	Bottom Left Corner Glass	72	14	50	Pass
Specimen 1	6	Center Glass	152	64	49.9	Pass
Specimen 1	7	Top Right Corner Glass	180	113	50	Pass

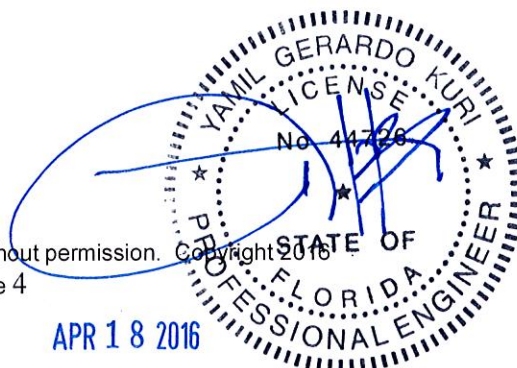
Notes:

1. Large Missile Impact with a 9.05 lb., 96 "long, S4S, 2x4, of No. 2 Southern Pine lumber.
2. Impact location is given on Cartesian Grid, right (x) and up (y) from lower left hand corner.
3. The location description is relative to the product assembly i.e. Corner, Center, and Left Center.
4. Impact velocity measured with a Keyence KV-16DR, verified by the video method.

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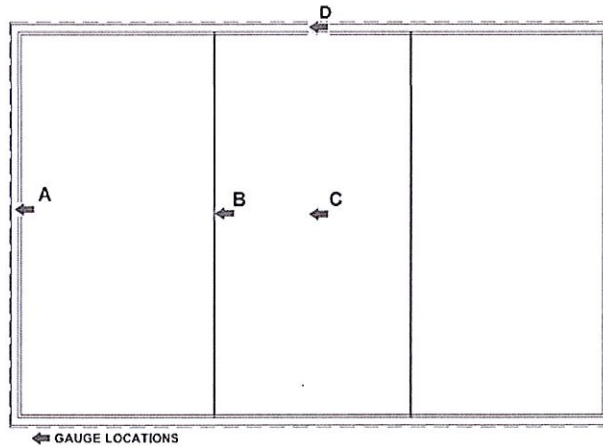
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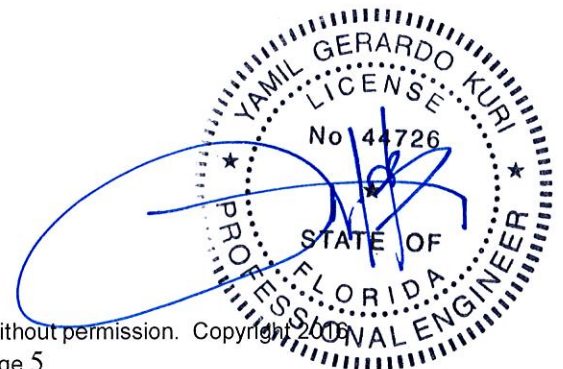
Specimen 1

CYCLIC LOAD DATA SHEET							Pd psf		T=81°F			
							High	Low				
							120	-120				
Positive Pressure												
No. of cycles	Range	Load (psf)	LOW Load (H ₂ O)	HIGH Load (H ₂ O)	A		B		C		D	
					Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)
3500	20% to 50%	60	4.62	11.54	0.125	0.000	0.438	0.000	0.500	0.000	0.063	0.000
300	0% to 60%	72	0	13.85	0.156	0.000	0.500	0.031	0.625	0.031	0.063	0.000
600	50% to 80%	96	11.54	18.46	0.219	0.000	0.683	0.031	0.813	0.063	0.094	0.000
100	30% to 100%	120	6.92	23.08	0.250	0.000	0.750	0.063	0.938	0.063	0.125	0.000
Negative Pressure												
No. of cycles	Range	Load (psf)	LOW Load (H ₂ O)	HIGH Load (H ₂ O)	A		B		C		D	
					Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)
50	30% to 100%	-120	6.92	23.08	0.313	0.000	0.875	0.063	1.000	0.063	0.156	0.000
1050	50% to 80%	-96	11.54	18.46	0.219	0.000	0.750	0.031	0.938	0.031	0.125	0.000
50	0% to 60%	-72	0	13.85	0.188	0.000	0.625	0.031	0.750	0.031	0.094	0.000
3550	20% to 50%	-60	4.62	11.54	0.156	0.000	0.500	0.031	0.625	0.031	0.094	0.000

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7341 Westport PI Suite 1A, West Palm Beach, FL 33413

Phone: 561-508-2830

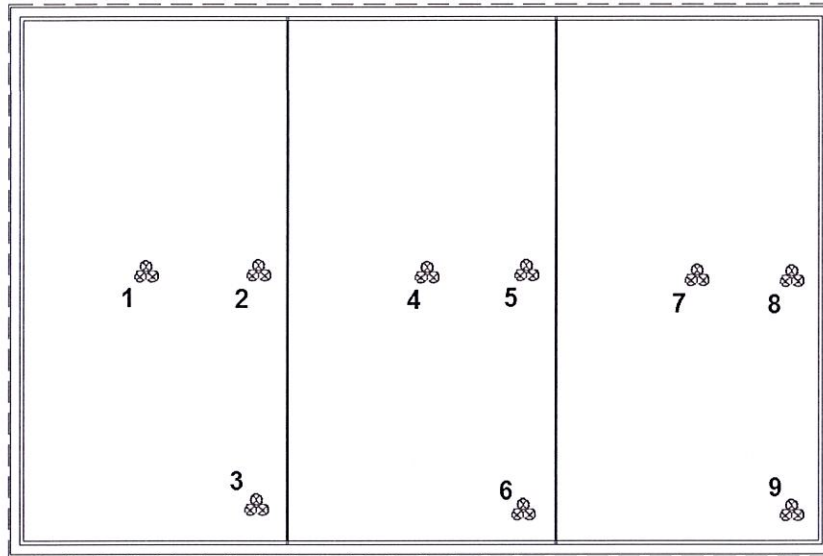
E-mail: Engdep@blackwatertesting.com

REPORT NO: BT-CON-16-002A

MIAMI-DADE CERTIFICATION #14-0911.04



04/07/2016



Small Missile Locations

Specimen 2

SMALL MISSILE IMPACT DATA SHEET

Sample	T=73°F	Location			Results
	Shot	Area	X (in.)	Y (in.)	Pass/Fail
Specimen 2	1	Center	33	64	Pass
Specimen 2	2	Middle Right	48	66	Pass
Specimen 2	3	Bottom Right	49	12	Pass
Specimen 2	4	Center	90	63	Pass
Specimen 2	5	Middle Right	114	66	Pass
Specimen 2	6	Bottom Right	112	11	Pass
Specimen 2	7	Center	147	65	Pass
Specimen 2	8	Middle Right	176	66	Pass
Specimen 2	9	Bottom Right	175	13	Pass

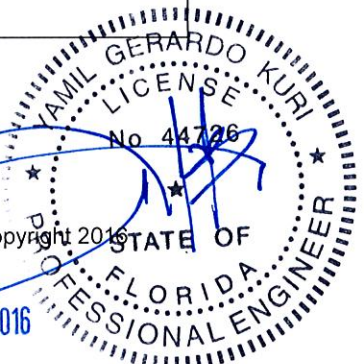
Notes:

1. Impact location is given on Cartesian Grid, right (x) and up (y) from lower left hand corner.
2. The location description is relative to the product assembly i.e. Corner, Center, and Left Center.
3. Impact velocity 130 ft/s

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BT-CON-16-002A 04/07/2016 Page 6

APR 18 2016





BLACKWATER TESTING INC.

7341 Westport Pl Suite 1A, West Palm Beach, FL 33413

Phone: 561-508-2830

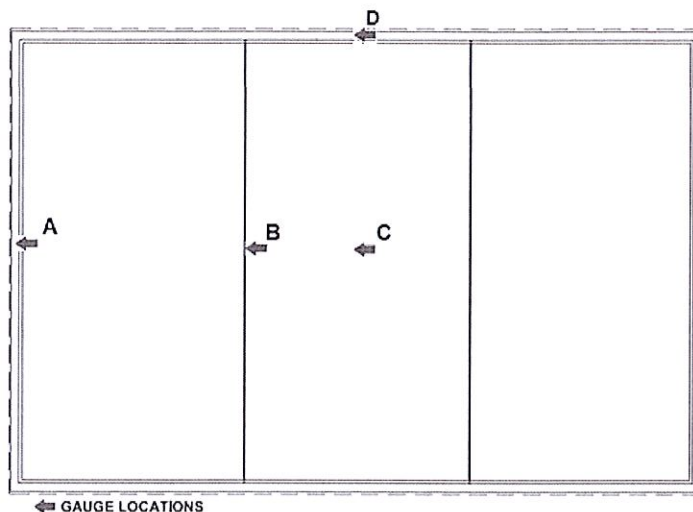
E-mail: Engdep@blackwatertesting.com

REPORT NO: BT-CON-16-002A

MIAMI-DADE CERTIFICATION #14-0911.04



04/07/2016



Specimen 2

CYCLIC LOAD DATA SHEET						Pd psf		T=73°F				
						High	Low					
						120	-120					
Positive Pressure												
No. of cycles	Range	Load (psf)	LOW Load (H ₂ O)	HIGH Load (H ₂ O)	A		B		C		D	
					Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)
3500	20% to 50%	60	4.62	11.54	0.156	0.000	0.438	0.031	0.683	0.031	0.063	0.000
300	0% to 60%	72	0	13.85	0.188	0.000	0.500	0.031	0.750	0.031	0.094	0.000
600	50% to 80%	96	11.54	18.46	0.219	0.000	0.688	0.031	0.875	0.063	0.125	0.000
100	30% to 100%	120	6.92	23.08	0.250	0.000	0.813	0.063	1.000	0.063	0.156	0.000
Negative Pressure												
No. of cycles	Range	Load (psf)	LOW Load (H ₂ O)	HIGH Load (H ₂ O)	A		B		C		D	
					Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)	Defl(in.)	Permanent Set (in.)
50	30% to 100%	-120	6.92	23.08	0.375	0.000	0.938	0.063	1.156	0.063	0.188	0.000
1050	50% to 80%	-96	11.54	18.46	0.250	0.000	0.750	0.031	0.875	0.063	0.156	0.000
50	0% to 60%	-72	0	13.85	0.219	0.000	0.625	0.031	0.750	0.063	0.094	0.000
3550	20% to 50%	-60	4.62	11.54	0.188	0.000	0.500	0.031	0.683	0.031	0.094	0.000

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BT-CON-16-002A 04/07/2016 Page 7

APR 18 2016





BLACKWATER TESTING INC.

7341 Westport Pl Suite 1A, West Palm Beach, FL 33413

Phone: 561-508-2830

E-mail: Engdep@blackwatertesting.com

REPORT NO: BT-CON-16-002A

MIAMI-DADE CERTIFICATION #14-0911.04

Test Dates: Start: 03/28/2016 End: 03/30/2016



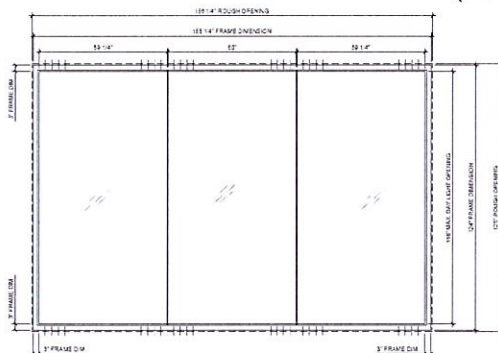
04/07/2016

SUMMARY OF TESTING FOR "3900 BUTT GLAZED WINDOW WALL"

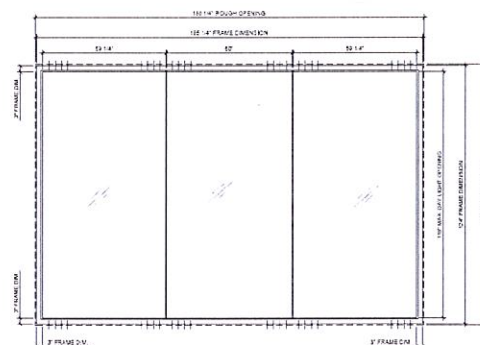
Client:

Continental Glass Systems Inc.

325 West 74 Place
Hialeah Florida, 33014
Phone: (305) 231-1101
Fax: (305) 231-1103



Specimen 1



Specimen 2

LARGE & SMALL MISSILE IMPACTS TAS 201-94: Specimen 1 was subjected to large missile impacts and Specimen 2 was subjected to small missile impacts per TAS 201-94.

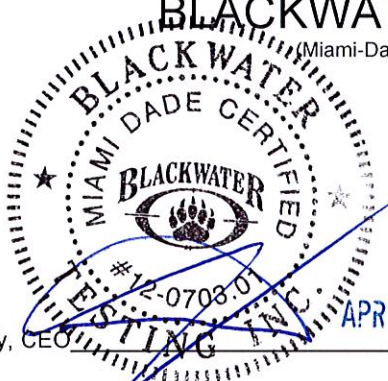
CYCLIC LOADS TAS 203-94: Specimen 1 and Specimen 2 were subjected to cyclic loads in accordance per TAS 203-94. Specimen 1 and Specimen 2 successfully completed wind loads to verify a **Design Load of +/-120.0 PSF.**

CONCLUSION: Following testing Specimen 1 and Specimen 2 were disassembled. No failures were observed in the panes, frame, fastenings, or anchorages. **The "3900 BUTT GLAZED WINDOW WALL" products were tested in accordance with and meet the requirements to comply with Florida Building Code 2014.**

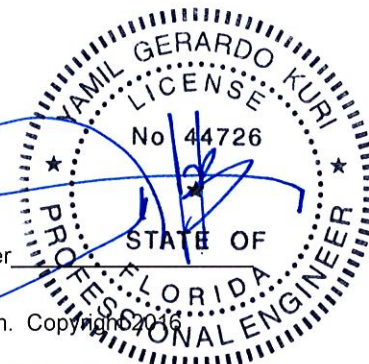
Respectfully submitted,

BLACKWATER TESTING INC.

(Miami-Dade Certification #14-0911.04)



Dennis Duffy, CEO



Yamil Kuri, PE, Engineer

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BT-CON-16-002A 04/07/2016 Page 8

APR 18 2016

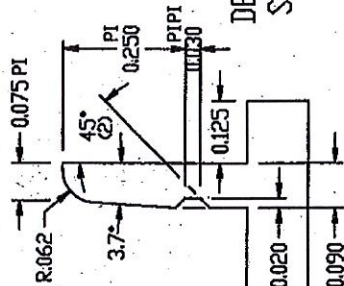
H-14844
Die Number
T-30473
Temp. Number
Design Number

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

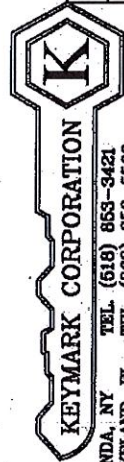
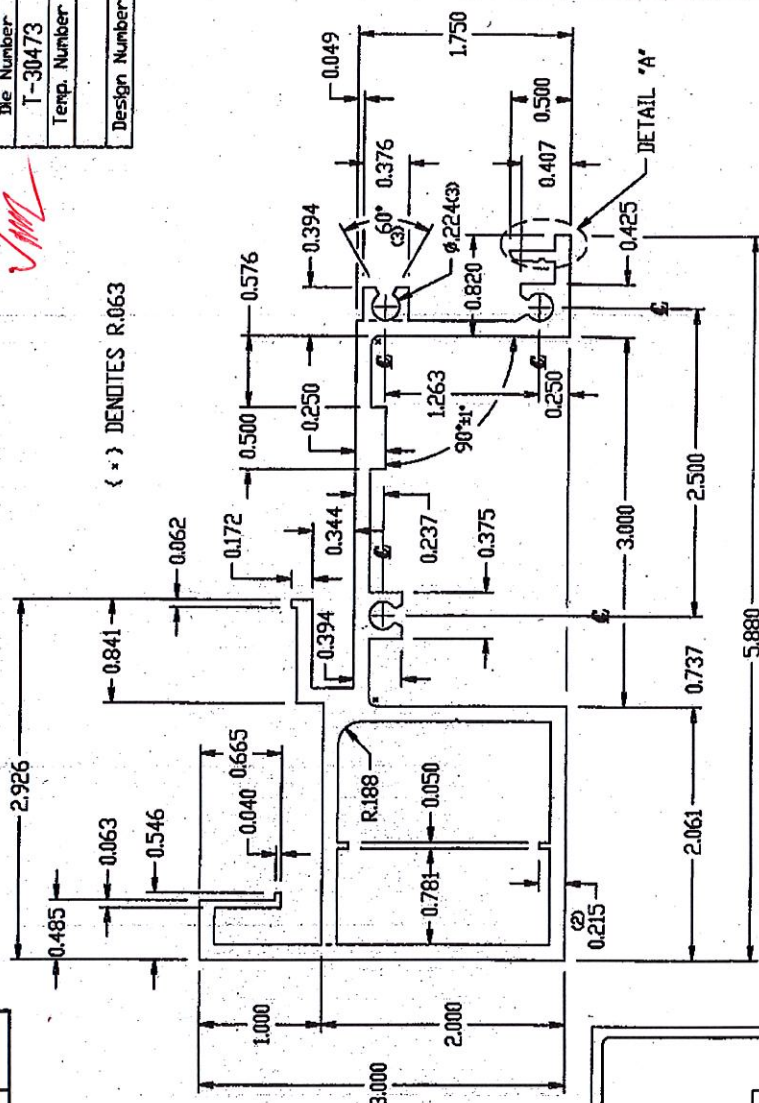
LIGHT PAINT COVERAGE EXPECTED IN THIS AREA

STRUCTURAL STREAKING IS EXPECTED

H-14844 MATES WITH:
S-57253 3900-03
S-57254 3900-07



DETAIL 'A'
SCALE 4:1



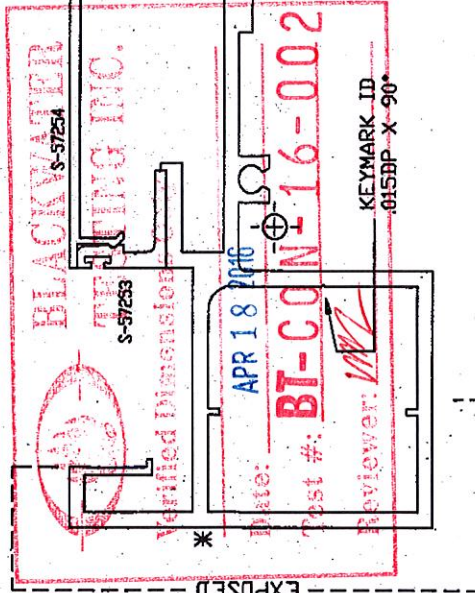
FONDA, NY TEL (518) 863-3421
LAKELAND, FL TEL (888) 868-8600
WWW.KEYMARKCORP.COM

Unspecified Wall Thickness .125
Break Ext. Corners .015 Radius or as Noted

Customer's Part Number 3900-01
Job Name JUNE SIGNATURE
Part Title HEAD & SILL

Sym.	Revisions	Date	Scale
	ALLOY		1:1
	6005A		12-03-14
	Temp		Drawn
	T-61		A.D.
	Cavity Size		Checked
			00

ACTUAL SIZE ASSEMBLY



ated	I _x = 1.498	I _y = 8.051	Alodine	Type	00
rence	S _x = 0.886	S _y = 2.323	Crmp	Factor	13
			Nil		



S-57253

Die Nummer

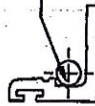
emp. Number

Design Number

S-57253 MATES WITH:
H-14844 3900-01

FOR ASSEMBLY
OFFER TO H-14844

ACTUAL SIZE
AND EXPOSED SURFACES

KEYMARK ID:
Q10DP X 90°

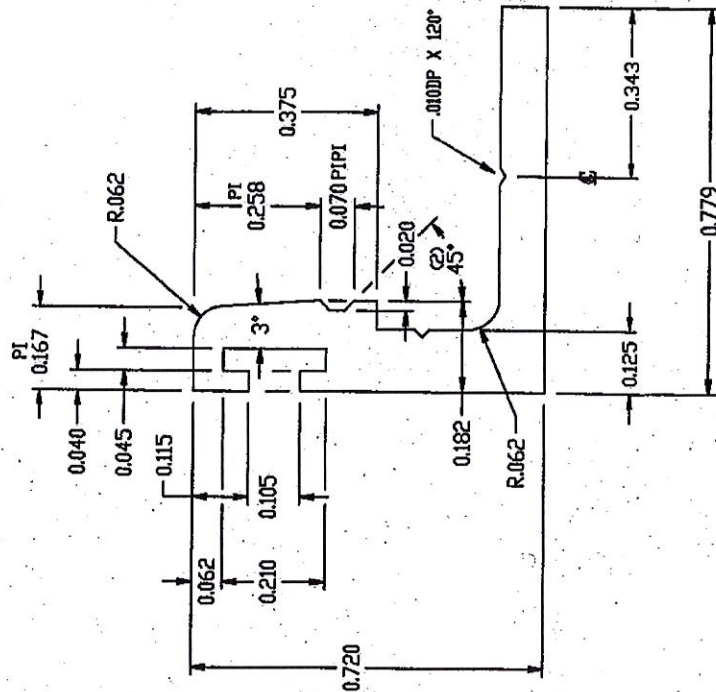
BLACKWATER ENGINEERING

Vegetables Only

APR 18 2016

Date: APR 18 2010
Test #: BT-CON-16-002

Reviewer:



This drawing is the property of Keymark Corporation and may not be redistributed without written consent.

K
KEYMARK CORPORATION
DA, NY TEL (516) 853-3421

FONDA, NY TEL. (516) 853-3421
LAKELAND, FL TEL. (889) 858-5500
WWW.KEYMARKCORP.COM

Break Ext., Corners
0.15 Radius or as Noted

Unspecified	Well Thickness	0.094
ESAP	170A	

Customer
CONTINENTAL GLASS SYSTEMS

Job Name
JADE SIGNATURE

Part Title	GLAZING BRAND
1.000000	1.000000
2.000000	2.000000
3.000000	3.000000
4.000000	4.000000
5.000000	5.000000
6.000000	6.000000
7.000000	7.000000
8.000000	8.000000
9.000000	9.000000
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95.000000	95.000000
96.000000	96.000000
97.000000	97.000000
98.000000	98.000000
99.000000	99.000000
100.000000	100.000000

GLAZING DEAD	ALLOY BRONZE
--------------	-----------------

Temper	701
605A	

1-81	Cavity Size	C
------	-------------	---

[illegible]

I _x = 0.008	I _y = 0.008	Alodine ☐	Types: 00
S _x = 0.016	S _y = 0.014	Crmp ☐	Factors: 18

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

100

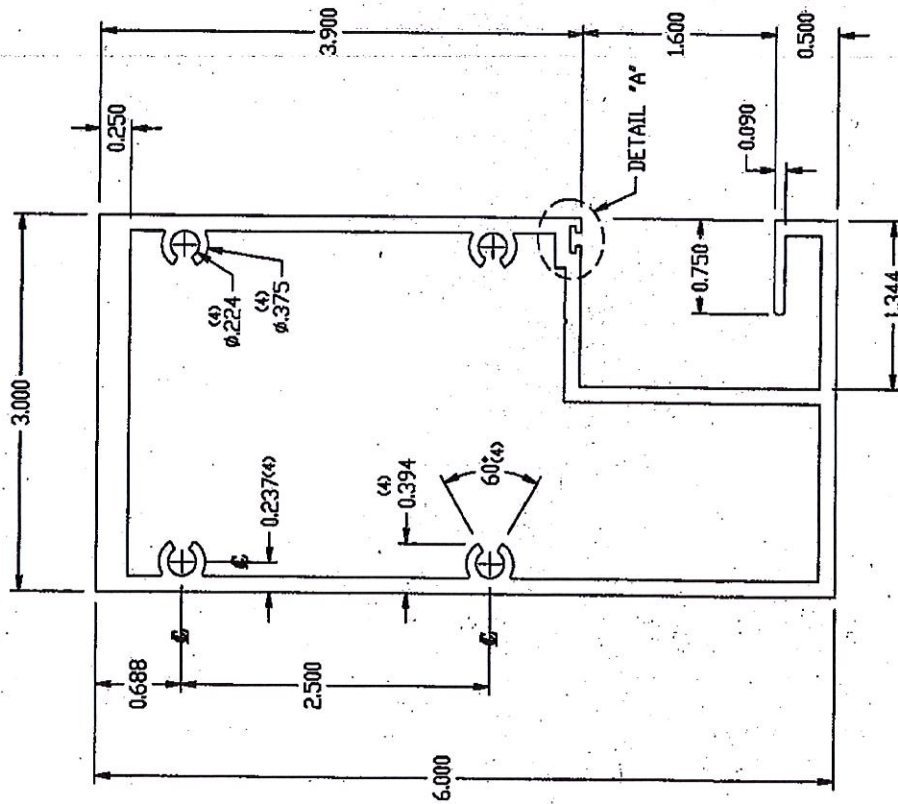
100

LIGHT PAINT COVERAGE
EXPECTED IN THIS AREA

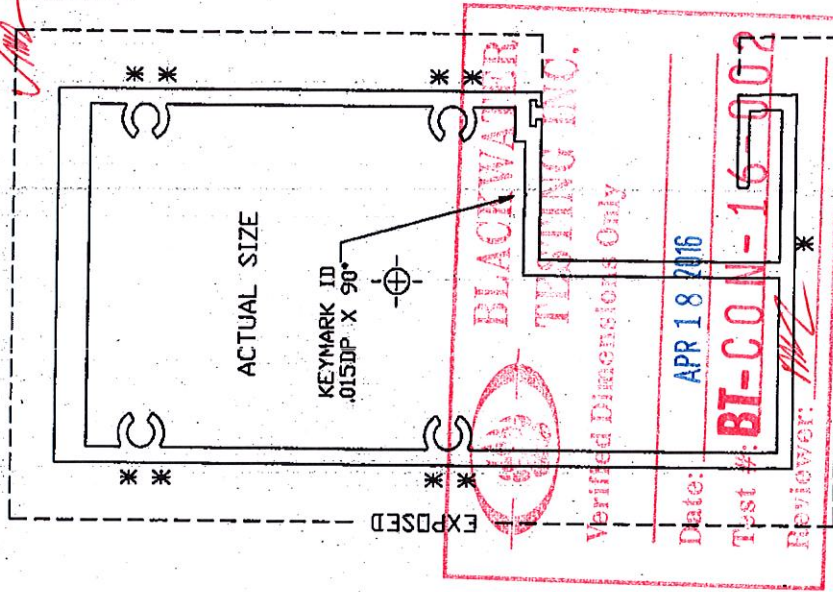
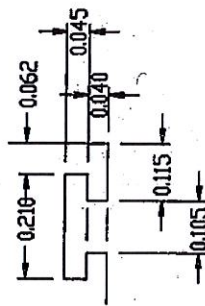
5

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

10



DETAIL "A"
SCALE 4:1



REACTING

100%
 90%
 80%
 70%
 60%
 50%
 40%
 30%
 20%
 10%
 0%

APR 18 2015

Test #: **BT-CON-16-002**

DECLARATION



FONDA, NY TEL. (518) 853-3421
LAKELAND, FL TEL. (863) 858-5500

Unspecified	Break Ext. Corners
Wall Thickness .125	M5 Radius corners Noted

Customer	Customer's
Customer	Customer's

CONTINENTAL GLASS SYSTEMS
Customer's
Part Number

Job Name: **YANG GUANGMING** 3900-04

DATE SIGNATURE	0000 01
Post Title	

For Title	Scale
BRFJ	1
JANF	2
Scale	3
AD	4

Alloy	Area (in ²)	Finish Perimeter (in)	A.D.	Date
-------	-------------------------	-----------------------	------	------

6005A	2.985	16.400	12-03-14
-------	-------	--------	----------

Temper m 04	Wt./Ft. (lbs)	Total Perimeter (in)	Drawn
	0.500	10.040	

County Sta	Charles Street Sta	43.819	A.D.
1-01	3.382		

CAVITY SIZE	CIRCLE SIZE (IN)	EXTERNAL RADIUS (IN)	CHECKED
	87	29.02	90

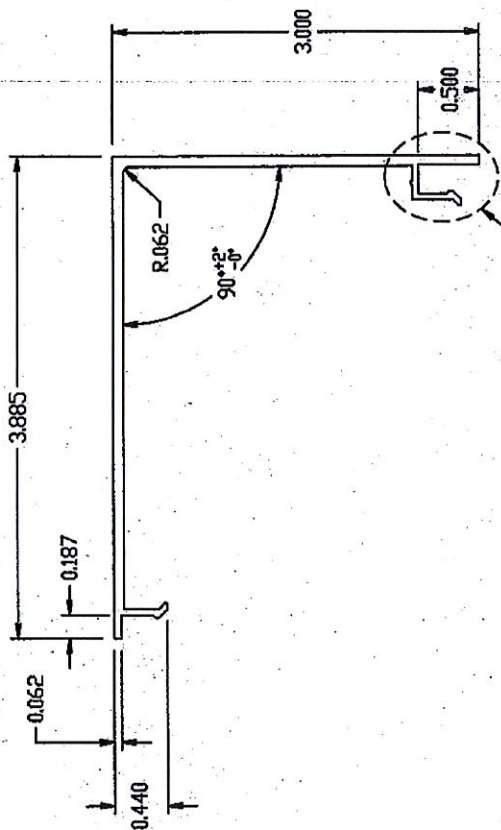
3	25.5.14	3:
---	---------	----

S-57254
Die Number
T-30478
Temp. Number
Design Number

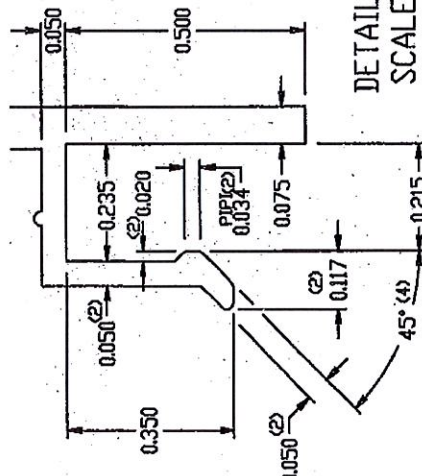
STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

STRUCTURAL STREAKING IS EXPECTED

LIGHT PAINT COVERAGE EXPECTED IN THIS AREA

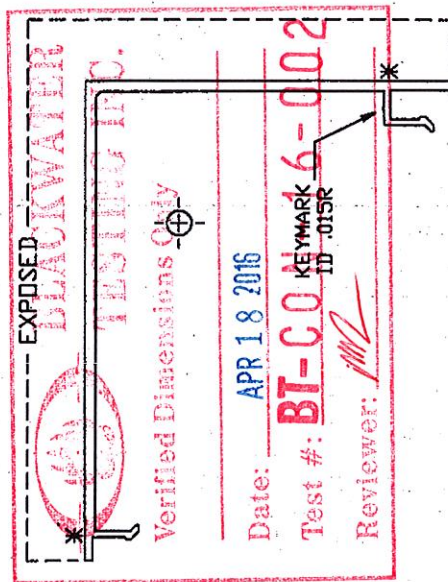


DETAIL 'A'



DETAIL 'A'
SCALE 4:1

ACTUAL SIZE



S-57254 MATES WITH
H-14844 3900-01

FOR ASSEMBLY
REFER TO H-14844



KEYMARK CORPORATION
FONDA, NY TEL. (618) 853-3421
LAKELAND, FL TEL. (863) 859-5500
WWW.KEYMARKCORP.COM

Unspecified Wall Thickness .085
Break Ext. Corners .015 Radius or as Noted

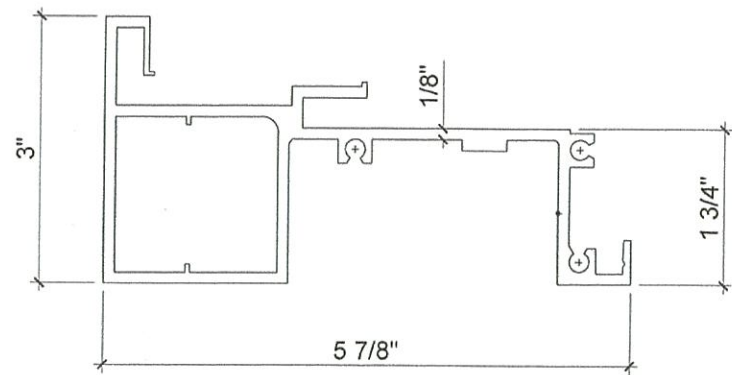
Customer's Part Number
CONTINENTAL GLASS SYSTEMS
3900-07

Job Name
JADE SIGNATURE
Part Title
COVER
Scale
1:1
Date
12-03-14
Area (sq")
0.623
Perimeter (in)
6.885
Vt/Ft (lbs)
0.748
Total Perimeter (in)
15.814
Cavity Size
4.9
Circle Size (in)
15.814
Checked
08

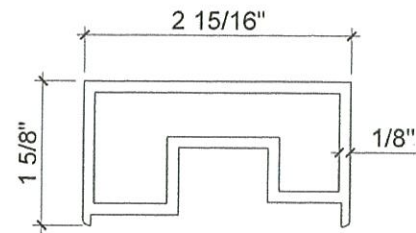
Sym.	Revisions	Date

Material	Aluminum	Type	00
Finish	Crp	Factor	21
Notes			

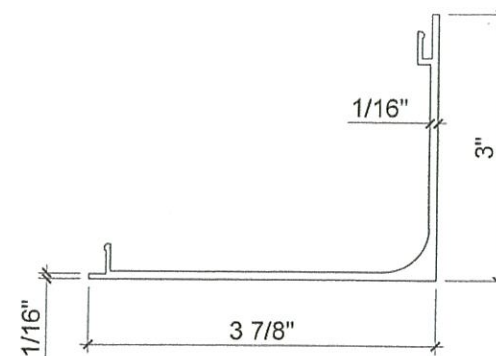
Material	Aluminum	Type	00
Finish	Crp	Factor	21
Notes			



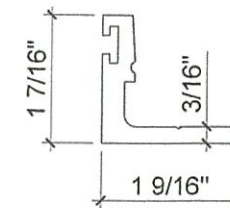
1 HEAD & SILL
3900-01 SCALE: 6"=1'



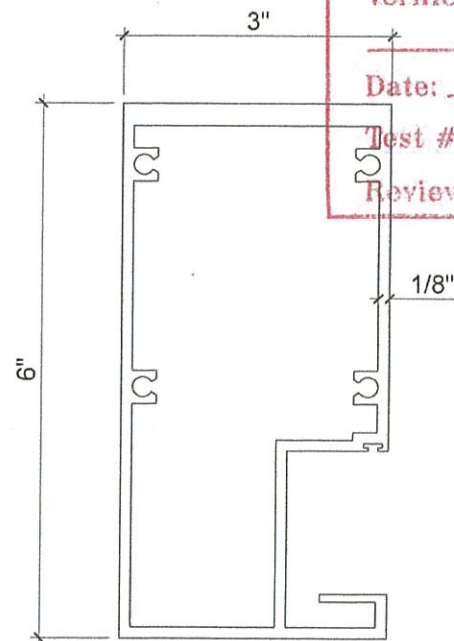
2 ADJUSTER
3900-08 SCALE: 6"=1'



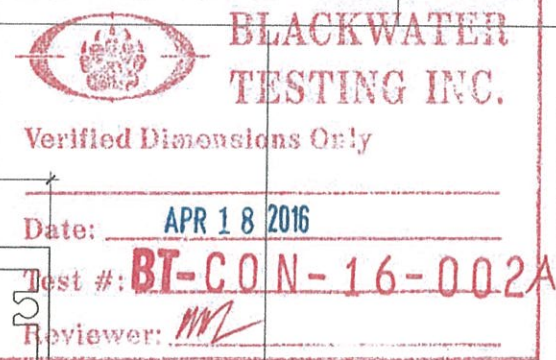
3 COVER
3900-07 SCALE: 6"=1'



4 GLAZING BEAD
3900-03 SCALE: 6"=1'



5 JAMB
3900-04 SCALE: 6"=1'

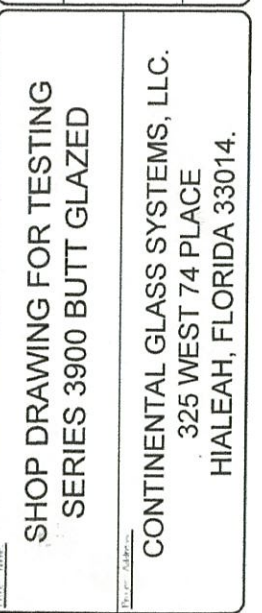


BILL OF MATERIALS

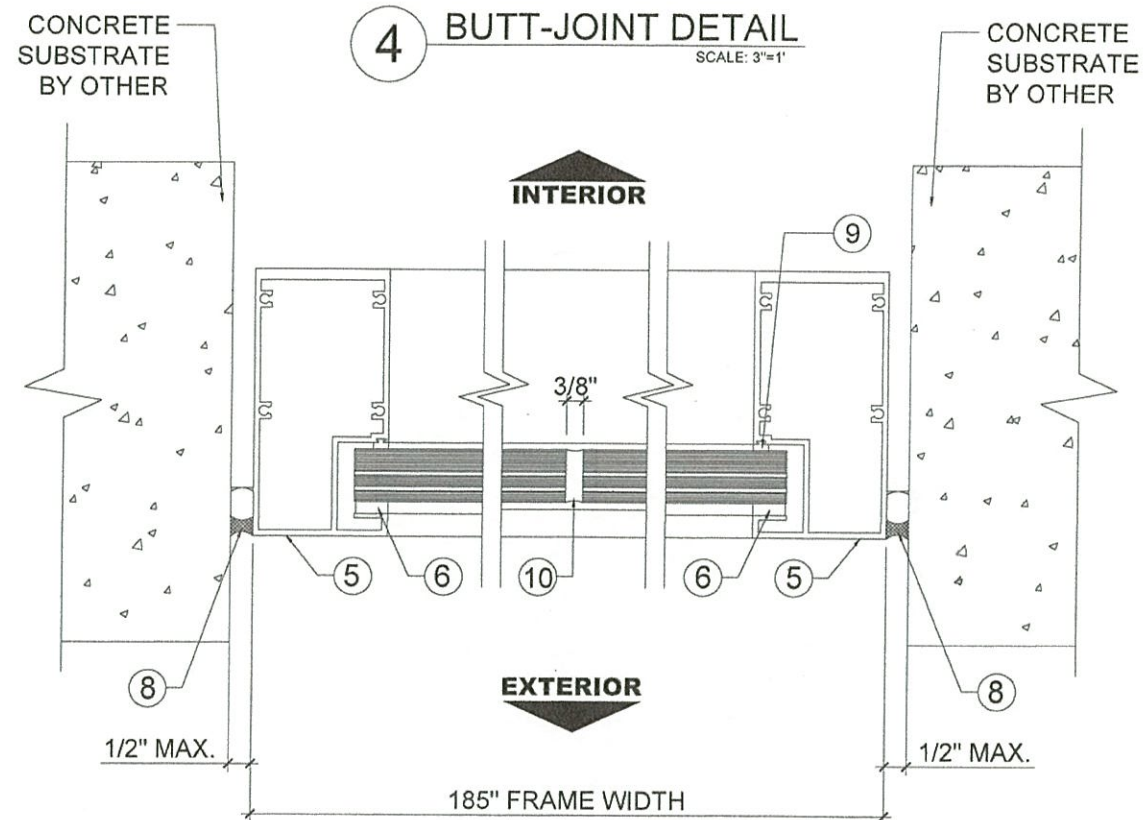
ITEM#	PROFILE	DESCRIPTION	MATERIAL	MANUFACTURER
1	3900-01	HEAD/SILL	ALUM. 6005-T5	-
2	3900-08	ADJUSTER	ALUM. 6005-T5	-
3	3900-07	COVER	ALUM. 6063-T6	-
4	3900-03	GLAZING BEAD	ALUM. 6005-T5	-
5	3900-04	JAMB	ALUM. 6005-T5	-
6	-	DOW CORNING DC795 STRUCTURAL SEALANT	SILICONE	DOW CORNING
7	-	1/4" X 3/4" X 4" SETTING BLOCK	SILICONE	-
8	-	DOW CORNING CONT. PERIMETER SEALANT AND BRACKER ROD DC790 OR DC795	SILICONE	DOW CORNING
9	-	GASKET	POLYPROPYLENE/ SANTOPRENE	ULTRA FAB
10	-	DOW CORNING DC795 SILICONE BUILDING SEALANT- BLACK	SILICONE	DOW CORNING



No.	Revision	Date



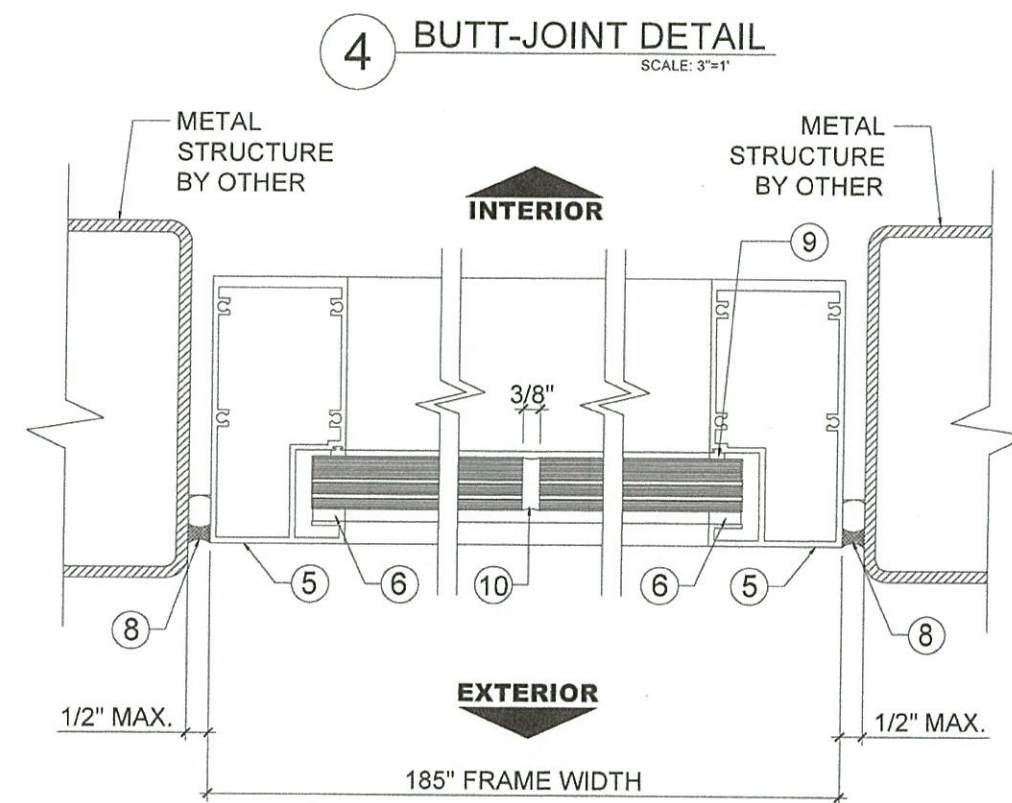
EXTRUSIONS
02
MM
L.O.H
02-19-2016
8 OF 8



3 JAMB DETAIL
SCALE: 3"=1'

MASONRY
JAMB

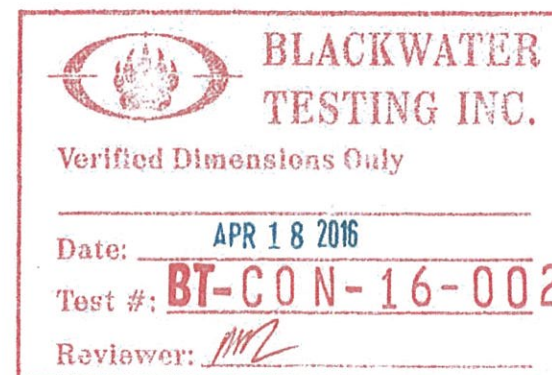
5 JAMB DETAIL
SCALE: 3"=1'



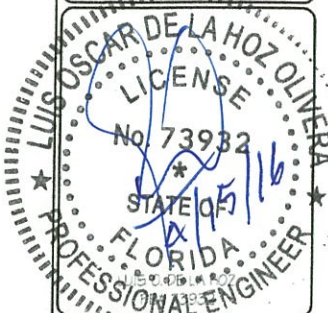
3 JAMB DETAIL
SCALE: 3"=1'

STEEL TUBE
JAMB

5 JAMB DETAIL
SCALE: 3"=1'



TADEOS ENGINEERING LLC.
CA# 31229
14750 NW 77th Ct, Suite 306
Miami Lakes, FL 33016
Phone: (305) 903-8816
tadeos@tadeos.com



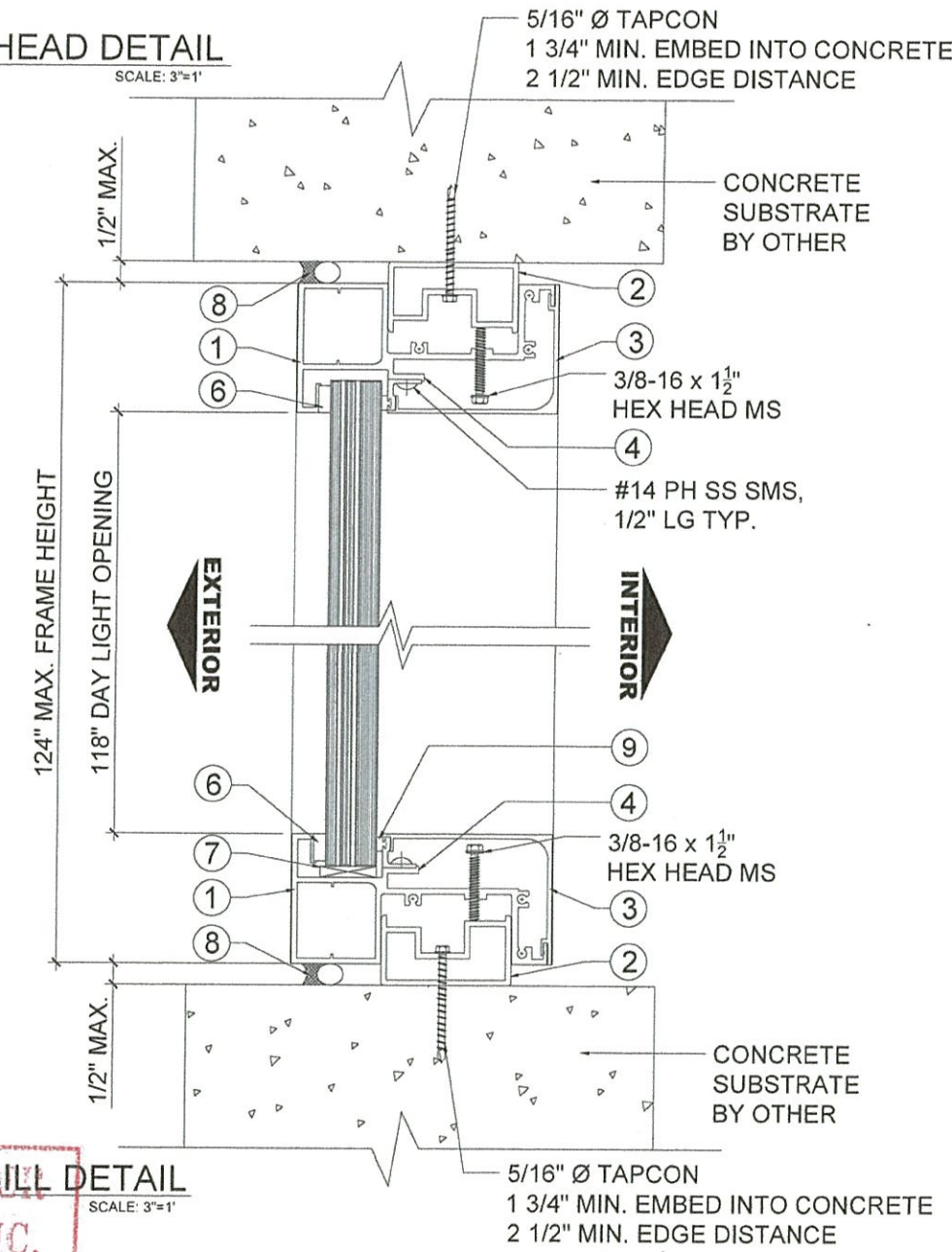
No.	Revision	Date

SHOP DRAWING FOR TESTING
SERIES 3900 BUTT GLAZED
CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE
HIALEAH, FLORIDA 33014.

DETAIL 3	
Project No.	02
Design	M.M.
Checker	L.O.H.
Issue Date	02-19-2016
Sheet No.	7 OF 8

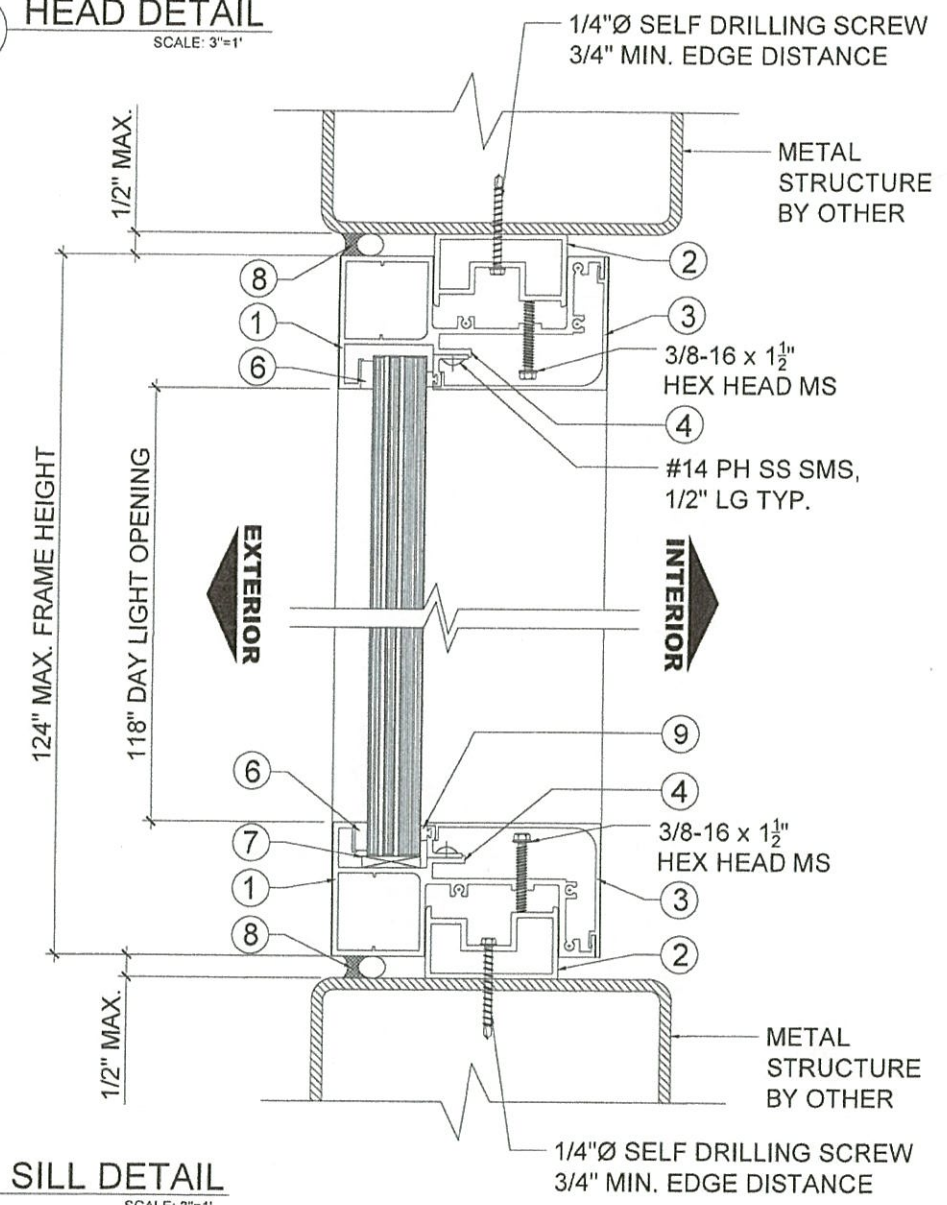
2 HEAD DETAIL

SCALE: 3"=1"



2 HEAD DETAIL

SCALE: 3"=1"



1 SILL DETAIL

SCALE: 3"=1"

1 SILL DETAIL

SCALE: 3"=1"

BLACKWATER TESTING INC.
Verified Dimensions Only
Date: **APR 18 2016**
Test #: **BT-CON-16-002A**
Reviewer: *MLC*

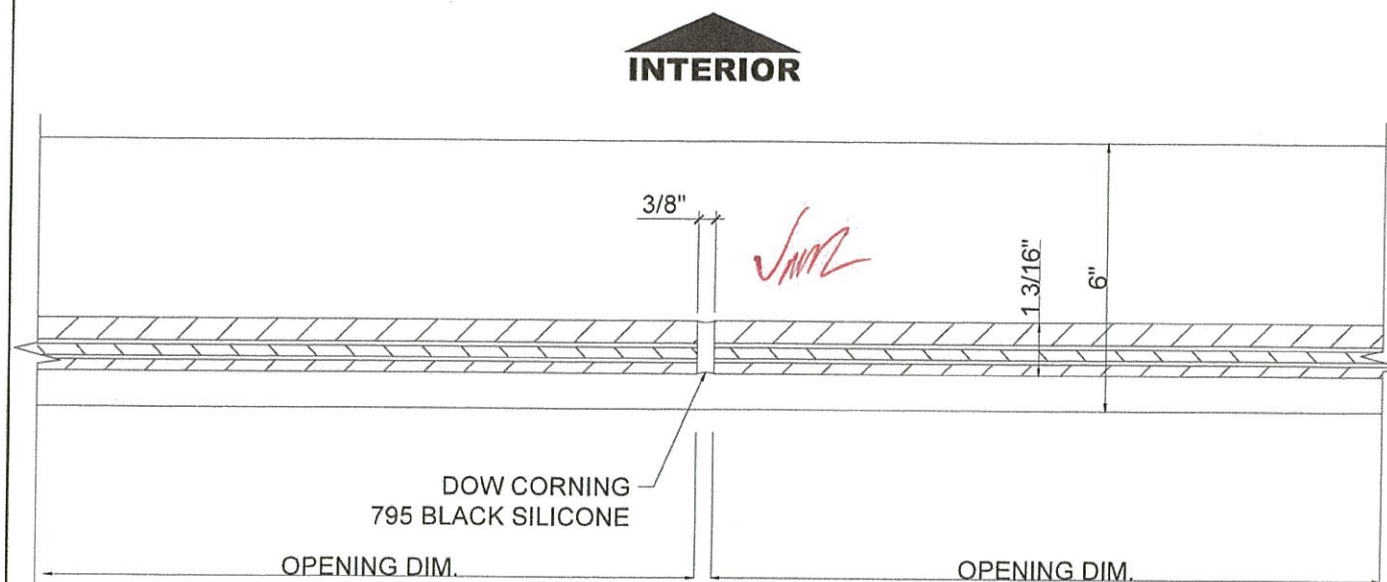
TADEOS ENGINEERING LLC.
CA# 31229
14750 NW 77th Ct, Suite 306
Miami Lakes, FL 33016
Phone: (305) 903-8816
jg@tadeos.com

OSCAR DE LA HOZ OLIVERA
LICENSE
No. 73932
STATE OF FLORIDA
PROFESSIONAL ENGINEER

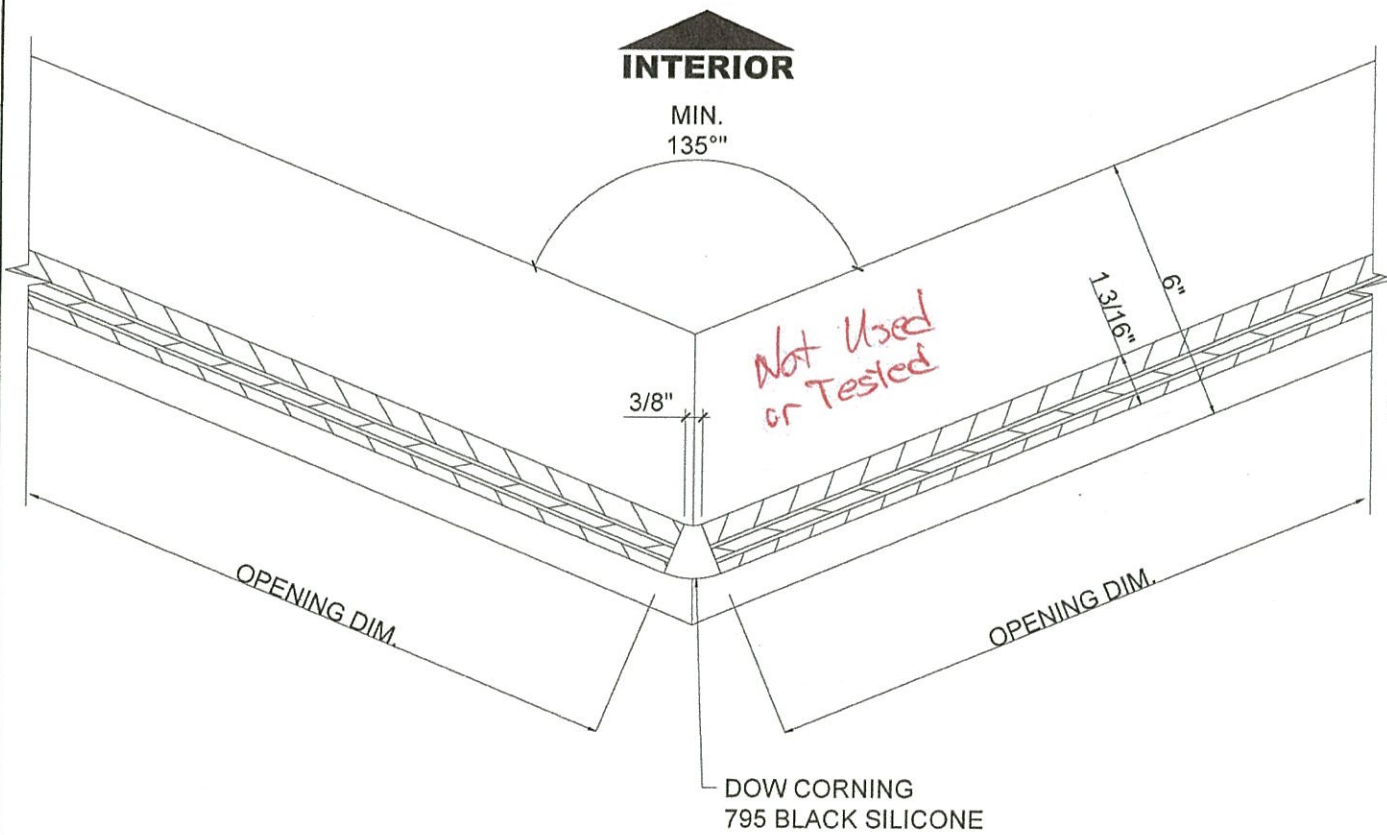
No.	Revision	Date

SHOP DRAWING FOR TESTING
SERIES 3900 BUTT GLAZED
CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE
HIALEAH, FLORIDA 33014.

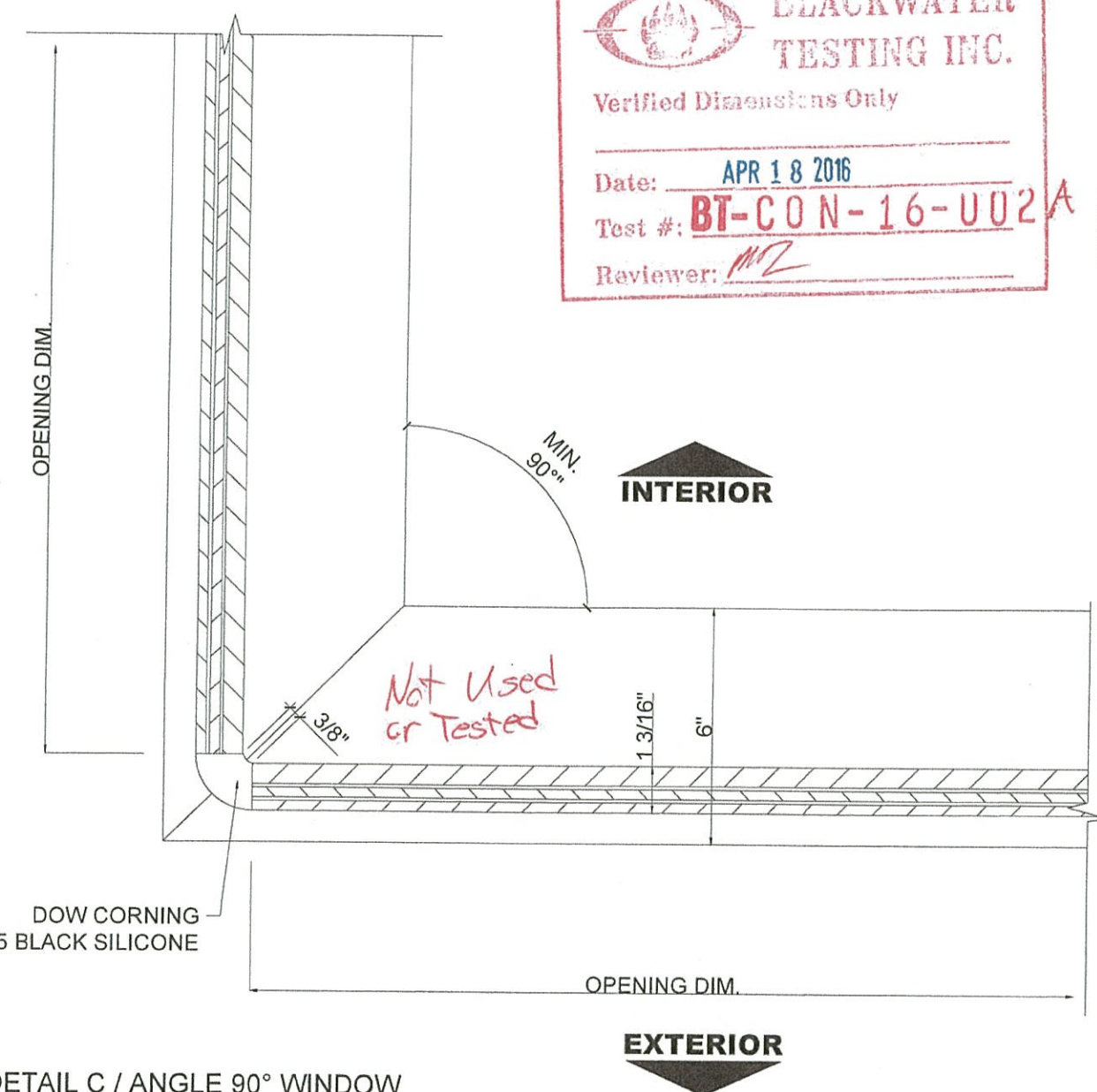
DETAIL 2
02
M.M
L.O.H
02-19-2016
6 OF 8



DETAIL A / IN-LINE MULTIPANEL
SCALE: 3"=1'-0"



DETAIL B / NEO-ANGLE WINDOW
SCALE: 3"=1'-0"



DETAIL C / ANGLE 90° WINDOW
SCALE: 3"=1'-0"

BLACKWATER TESTING INC.
Verified Dimensions Only

Date: APR 18 2016
Test #: BT-CON-16-U02A
Reviewer: MZ

TADEOS ENGINEERING LLC.
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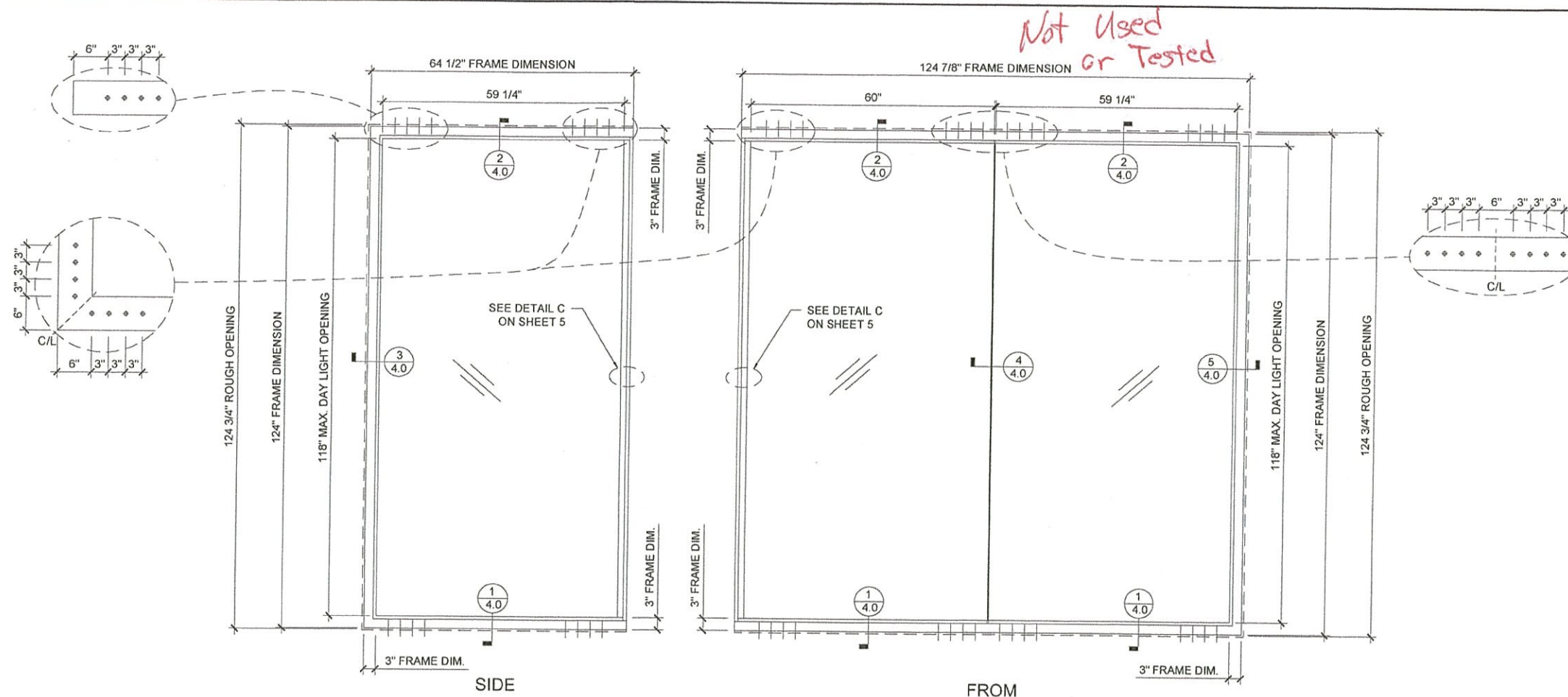


No.	Revision	Date

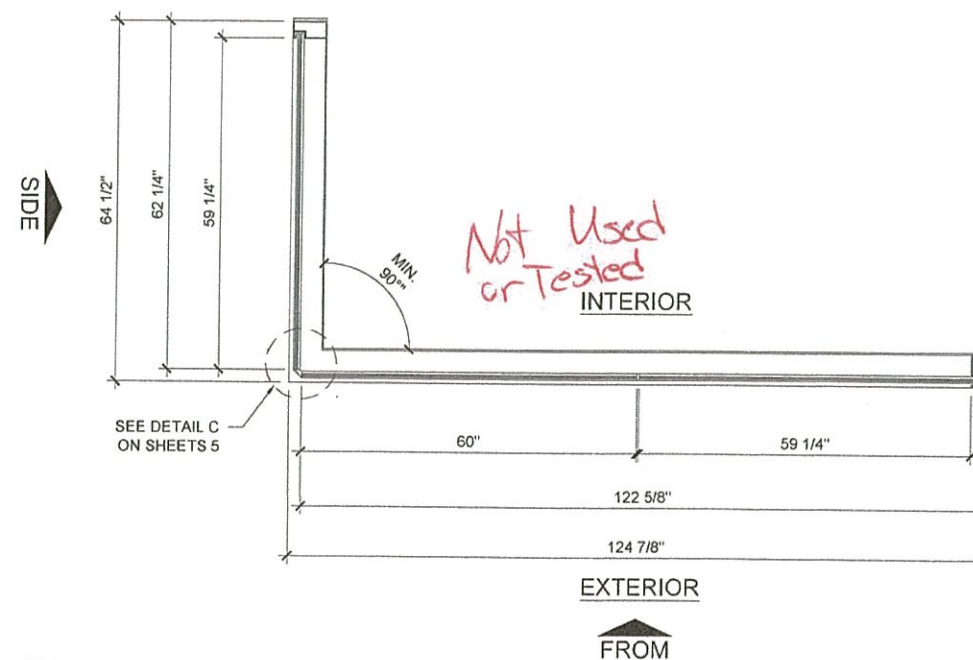
SHOP DRAWING FOR TESTING
SERIES 3900 BUTT GLAZED

CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE
HIALEAH, FLORIDA 33014.

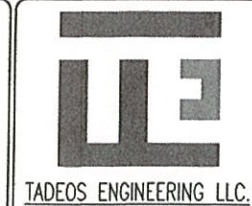
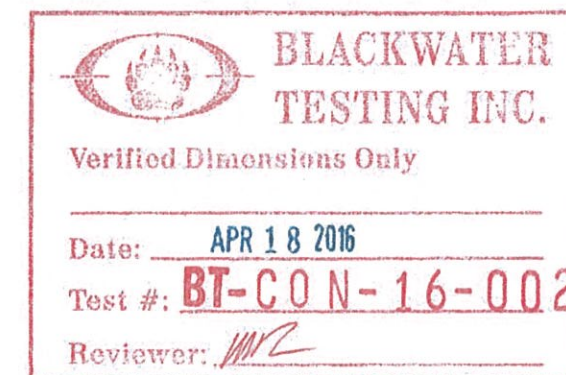
DETAIL 1	
Sheet No.	02
Project	M.M.
Division	L.O.H.
Issue Date	02-19-2016
Sheet No.	5 OF 8



ANGLE 90° WINDOW ELEVATION VIEW
SCALE: 3/8"=1'-0"



ANGLE 90° WINDOW PLAN VIEW
SCALE: 3/8"=1'-0"



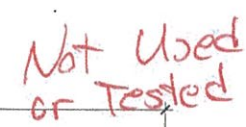
No.	Revision	Date

SHOP DRAWING FOR TESTING
SERIES 3900 BUTT GLAZED

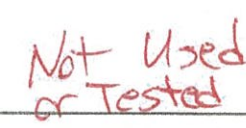
CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE
HIALEAH, FLORIDA 33014.

ELEVATION 3

Project No.	02
Drawn	M.M.
Checked	L.O.H.
Issue Date	02-19-2016
Sheet No.	4 OF 8



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



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



BLACKWATER
TESTING INC.

Verified Dimensions Only

Date: **APR 18 2016**

Test #: **BT-CON-16-002** A

Reviewer: NWZ



TADEOS ENGINEERING LLC.

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Mami Lakes, FL 33016

Phone: (305) 903-8816.

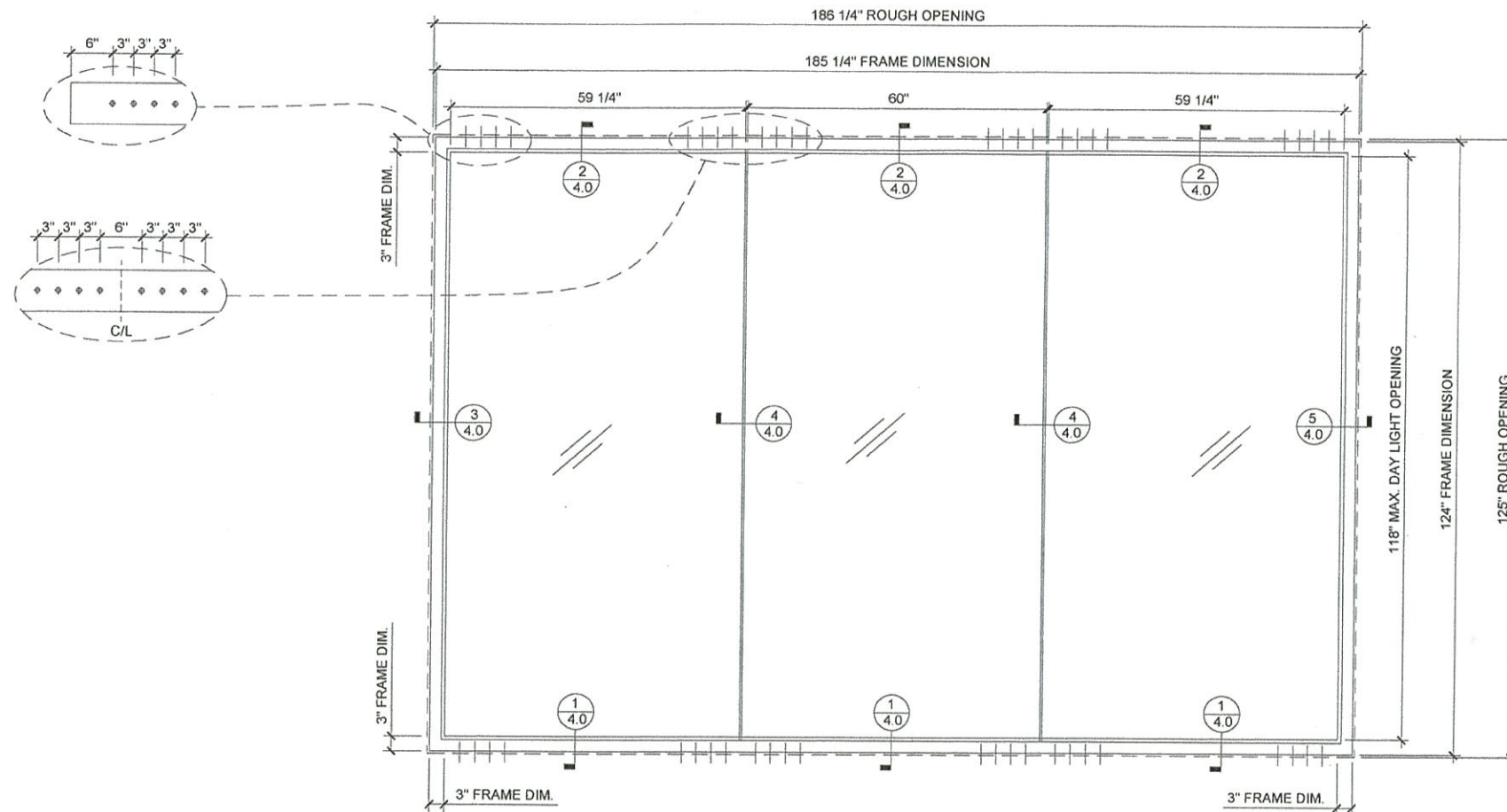
daelshoz@yahoo.de

[illegible]

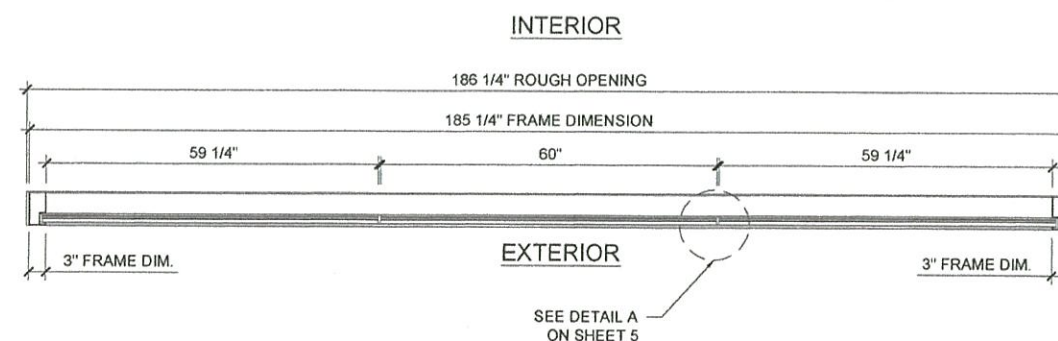
CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE
HIALEAH, FLORIDA 33014.

ELEVATION 2

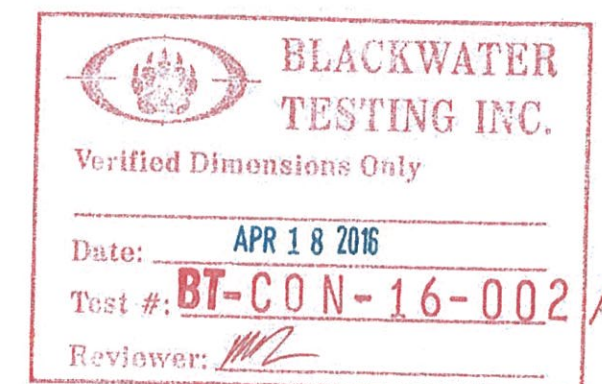
<u>Document No.</u>	02
<u>Drawn</u>	M.M
<u>Checked</u>	L.O.H
<u>Issue Date</u>	02-19-2016
<u>Sheet No.</u>	3 OF 8



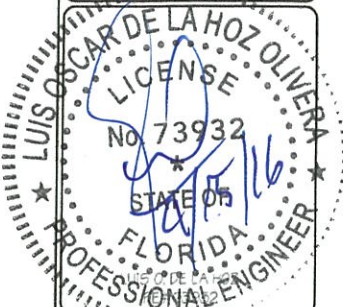
IN-LINE MULTIPANEL WINDOW ELEVATION VIEW
SCALE: 3/8"=1'-0"



IN-LINE MULTIPANEL WINDOW PLAN VIEW
SCALE: 3/8"=1'-0"



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tadeos@tadeos.com



No.	Revision	Date

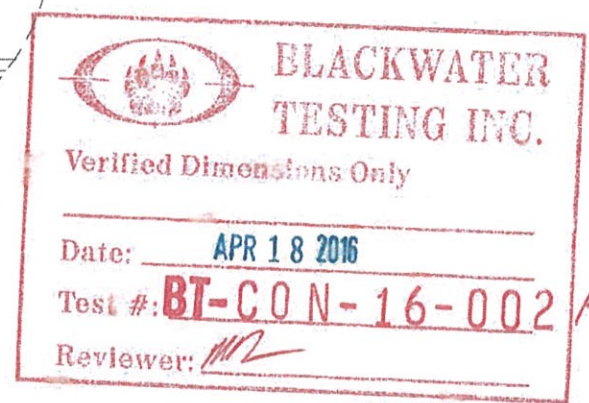
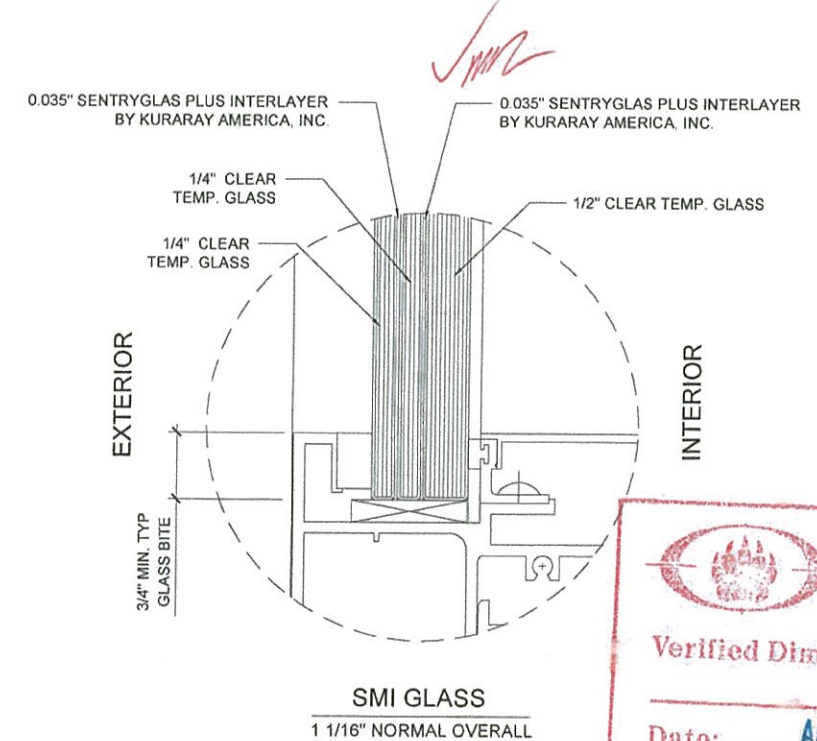
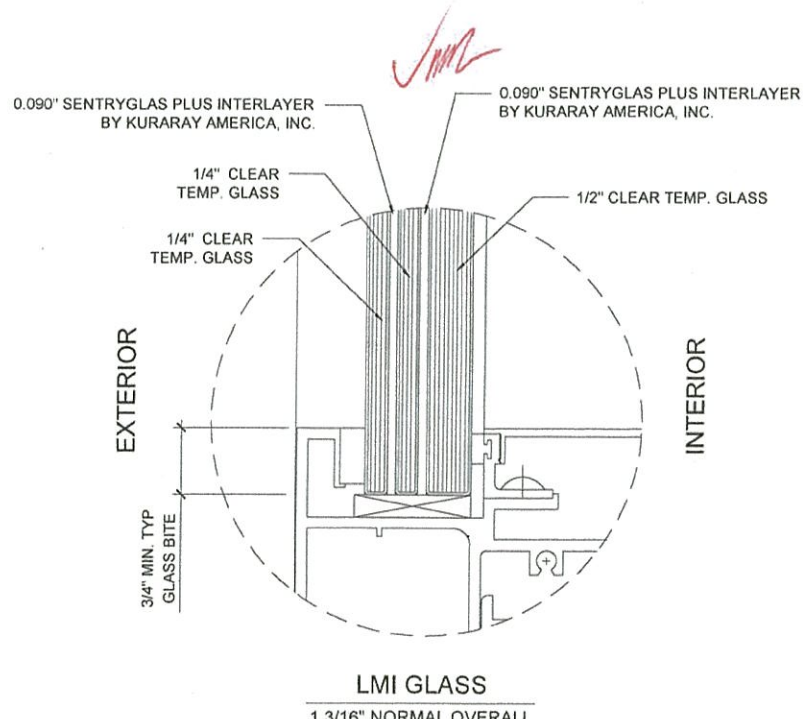
SHOP DRAWING FOR TESTING
SERIES 3900 BUTT GLAZED

CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE
HIALEAH, FLORIDA 33014.

ELEVATION 1

Project No.	02
Design	M.M
Check	L.O.H
Issue Date	02-19-2016
Sheet No.	2 OF 8

CONTINENTAL GLASS SYSTEMS, LLC.
SERIES 3900 BUTT GLAZED
LARGE AND SMALL MISSILE IMPACT (LMI/SMI)



-WIND PRESURE:

MAXIMUM ALLOWABLE DESIGN PRESSURE (MULTI-SPAN CURTAIN WALL)
+120.0 PSF / -120.0 PSF

-TEST PROTOCOL

-TAS 201-94 : IMPACT TEST.

-TAS 202-94: CRITERIA FOR TESTING IMPACT AND NONIMPACT
RESISTANT BUILDING ENVELOPE.
COMPONENTS UNING UNIFORM STATIC AIR PRESURE.

-TAS 203-94: CRITERIA FOR TESTING PRODUCTS SUBJECT TO CYCLIC
WIND PRESSURE LOADING.

-SEALANTS:

- PERIMETER: DOW CORNING 790/795 SILICONE BUILDING SEALANT
- BUTT-JOINT: DOW CORNING 795 BLACK SILICONE BULDING SEALANT

-TYPICAL ANCHORS:

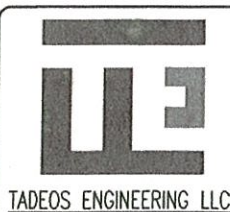
TYPE 'A'- 5/16" DIA. ULTRACON BY 'ELCO' (Fu 177 KSI, Fy=155 KSI)
DIRECTLY INTO CONCRETE OR MASONRY
1-3/4" MIN. EMBED INTO CONCRETE.

TYPE 'B'- 1/4" DIA. SELF DRILLING SCREWS (GRADE 5 CRS)
INTO MIAMI-DADE COUNTRY APPROVED MULLIONS (1/8"THK. MIN)
INTO METAL STRUCTURES
STEEL: 1/8" THK. MIN. (6063-T5 MIN.)
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

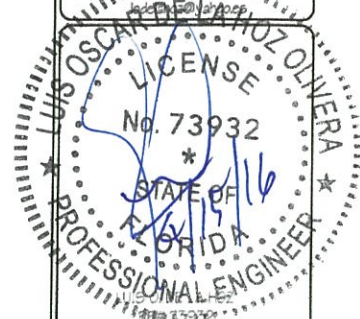
TYPE 'C'- #14 SMS OR SELF DRILLING SCREWS (GRADE 5 CRS)
INTO MIAMI-DADE COUNTRY APPROVED MULLIONS
(1/8" THK. MIN.) INTO METAL STRUCTURE.

TYPICAL EDGE DISTANCE

INTO CONCRETE = 2-1/2" MIN.
INTO METAL STRUCTURE = 3/4" MIN.



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Fax: (305) 903-8817



No.	Revision	Date

SHOP DRAWING FOR TESTING
SERIES 3900 BUTT GLAZED

CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE
HIALEAH, FLORIDA 33014.

COVER

Project No.	02
Company	M.M
Division	L.O.H
Issue Date	02-19-2016
Sheet No.	1 OF 8