

**AAMA/WDMA/CSA 101/LS.2/A440-05
TEST REPORT**

Rendered to:

INTERNATIONAL WINDOW CORPORATION

SERIES/MODEL: 8220C EL

PRODUCT TYPE: Aluminum XO Casement Window

Title	Summary of Results
Primary Product Designator	C-C40 2440 x 1525 (96 x 60)
Design Pressure	±1920 Pa (±40.10 psf)
Operating Force (in motion)	9 N (2.0 lbf)
Air Infiltration	1.5 L/s/m ² (0.30 cfm/ft ²)
Water Penetration Resistance Test Pressure	400 Pa (8.35 psf)
Uniform Load Structural Test Pressure	±2880 Pa (±60.15 psf)
Forced Entry Resistance	ASTM F 588 – Grade 10 CAWM 301

Test Completion Date: 07/09/09

Reference must be made to Report No. 90664.01-301-44, dated 08/13/09 for complete test specimen description and data.

AAMA/WDMA/CSA 101/I.S.2/A440-05 TEST REPORT

Rendered to:

INTERNATIONAL WINDOW CORPORATION
5625 East Firestone Boulevard
South Gate, California 90280

Report No.: 90664.01-301-44
Test Dates: 02/13/08
Through: 07/09/09
Report Date: 08/13/09
Expiration Date: 07/09/13

Project Summary: Architectural Testing, Inc. was contracted by International Window Corporation to perform and validate testing on a Series/Model 8220C EL, Aluminum XO Casement Window. The sample tested successfully met the performance requirements for a C-C40 2440 x 1525 (96 x 60) rating. Test specimen description and results are reported herein. The sample was provided by the client.

Test Specifications: The test specimen was evaluated in accordance with the following:

AAMA/WDMA/CSA 101/I.S.2/A440-05, *Standard/Specification for Windows, Doors, and Unit Skylights.*

CAWM 301, *Forced Entry Resistance Tests for Windows*

Test Specimen Description:

Series/Model: 8220C EL

Product Type: Aluminum XO Casement Window

Overall Size: 2440 mm (96-1/16") wide by 1525 mm (60-1/16") high

Fixed Panel Size: 1520 mm (59-13/16") wide by 1395 mm (54-15/16") high

Vent Size: 760 mm (29-15/16") wide by 1491 mm (58-11/16") high

Overall Area: 3.72 m² (40.05 ft²)

Finish: All aluminum was painted white.

Test Specimen Description: (Continued)

Frame Construction: All members were constructed of extruded aluminum. The corners were coped and secured using three #6 x 1" Phillips pan head screws. The mullion was secured using six #6 x 1" Phillips pan head screws. All screw heads and corners were sealed with caulking. All members were thermally broken (0.436") using 20% filled PVC strips crimped between the exterior and interior members.

Fixed Panel Construction: All members were constructed of extruded aluminum. The corners were mitered and secured using one #8 x 7/8" Phillips pan head screw and one #6 x 1" Phillips pan head screw at each corner with an aluminum corner key and sealed with caulking. The corner key was secured with two #6 x 3/8" Phillips self-drilling recessed pan head screws. The fixed panel was attached using brackets approximately 8-9" from each end and midspan. The brackets were secured to the frame with two #6 x 3/8" Phillips self-drilling recessed head screws and to the panel with one #8 x 1" Phillips pan head self drilling screw. The frame screws were sealed with caulking. All members were thermally broken (0.246") using 20% filled PVC strips crimped between the exterior and interior members.

Vent Construction: All members were constructed of extruded aluminum. The corners were mitered and secured using one #8 x 7/8" Phillips pan head screw and one #6 x 1" Phillips pan head screw at each corner with an aluminum corner key and sealed with caulking. The corner key was secured with two #6 x 3/8" Phillips self-drilling recessed pan head screws. All members were thermally broken (0.246") using 20% filled PVC strips crimped between the exterior and interior members.

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Single leaf gasket	1 Row	Top rail and stiles of fixed panel and vent.
Wrapped foam gasket	1 Row	All members of the frame.

Glazing Details: The window utilized 3/4" thick overall sealed insulating glass. The fixed panel insulating glass was comprised of two 3/16" thick clear annealed sheets with a U-shaped coated steel (CU) spacer system. The vent panel insulating glass was comprised of two 1/8" thick clear annealed sheets with an aluminum (A1) spacer system. The glass was exterior glazed onto a 3/8" wide x 1/16" thick glazing tape and secured with a snap-in extruded aluminum glazing bead.

Test Specimen Description: (Continued)

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
1/4" weephole	2	3" from each end of the fixed panel bottom rail.
1/4" weephole	2	1-3/4" from each end of the vent bottom rail.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Butt hinges (part# AS8200)	3	6-1/2" from each end and midspan of the jamb secured to the jamb with three #8 x 3/4" Phillips flat head screws sealed with caulking and to the vent with three #8 x 3/4" Phillips flat head screws.
Keepers (part# SP5045)	3	6-1/2" from each end and midspan of the mullion secured with three #10 x 3/4" Phillips flat head screws into the thermal break.
Multipoint lock (part# SP5526 AS5511/SP5044)	1	Mullion stile of the vent secured with two activator bar guides secured with two #10 x 3/4" Phillips flat head screws each. The handle assembly was secured the vent with two #10- 24 x 3/8" Phillips pan head screws.
Dual Arm Operator (part# Sp5533)	1	7" from the jamb secured to the sill with six #8 x 3/4" Phillips flat head screws into the thermal break and two #6 x 3/8" Phillips self-drilling recessed head screws into the metal and to the vent with two #6 x 3/8" Phillips self-drilling recessed head screws.

Reinforcement: No reinforcement was utilized.

Test Specimen Description: (Continued)

Installation: The window was installed into a 2 x 8 test buck constructed of Douglas Fir No. 2 lumber. The nailing fin was set against the test buck and secured using #6 x 1-5/8" drywall screws located 4" from each corner and 10" on center. The rough opening was 3/16" wider and taller than the window. The nailing fin was sealed to the test buck with silicone.

Test Results: The temperature during testing was 19-29°C (67-84°F). The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.1	Operating Force per ASTM E 2068		
	Open		
	Initiate motion	13 N (3.0 lbf)	Report Only
	Maintain motion	9 N (2.0 lbf)	45 N (10.1 lbf)
	Lock	53 N (12.0 lbf)	100 N (22.5 lbf)
	Close		
	Initiate motion	9 N (2.0 lbf)	Report Only
	Maintain motion	9 N (2.0 lbf)	45 N (10.1 lbf)
	Lock	44 N (10.0 lbf)	100 N (22.5 lbf)
5.3.2.1	Air Leakage Resistance per ASTM E 283		
	75 Pa (1.57 psf)	1.5 L/s/m ² (0.3 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440-05 for air leakage resistance.</i>			
5.3.3.2	Water Penetration Resistance per ASTM E 547		
	220 Pa (4.59 psf)	No leakage	No leakage
5.3.4.2	Uniform Load Deflection per ASTM E 330		
	(Deflections were taken on the mullion)		
	(Loads were held for 10 seconds)		
	1440 Pa (30.08 psf) (positive)	2.3 mm (0.09")	See Note #2
	1440 Pa (30.08 psf) (negative)	2.5 mm (0.10")	See Note #2

Note #2: The deflections reported are not limited by AAMA/WDMA/CSA 101/I.S.2/A440-05 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.4.3	Uniform Load Structural per ASTM E 330 (Permanent sets were taken on the mullion) (Loads were held for 10 seconds)		
	2160 Pa (45.11 psf) (positive)	0.0 mm (0.00")	4.5 mm (0.18") max.
	2160 Pa (45.11 psf) (negative)	0.0 mm (0.00")	4.5 mm (0.18") max.
5.3.5	Forced Entry Resistance per ASTM F 588 Type: B	Grade: 10	
	Disassembly Test	No entry	No entry
	Test B1	No entry	No entry
	Test B2	No entry	No entry
	Test B3	No entry	No entry
	Sash/Panel Manipulation Test	No entry	No entry
	Lock Hardware Manipulation Test	No entry	No entry
	Forced Entry Resistance per CAWM 301 Type: II		
	Disassembly Test	No entry	No entry
	Test A	No entry	No entry
	Test B	No entry	No entry
	Test C	No entry	No entry
	Test E	No entry	No entry
5.3.6.4.3	Sash Vertical Deflection Test		
	200 N (45.0 lbf)	2.5 mm (0.10")	15.2 mm (0.60") max.
	270 N (60.7 lbf)	3.8 mm (0.15")	15.2 mm (0.60") max.
5.3.6.6.2	Distributed Load Test		
	240 Pa (5.01 psf)	No damage	No damage
	300 Pa (6.27 psf)	No damage	No damage
<u>Optional Performance</u>			
4.4.2.6	Water Penetration Resistance per ASTM E 547 400 Pa (8.35 psf)	No leakage	No leakage

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
4.4.2.6	Uniform Load Deflection per ASTM E 330 (Deflections were taken on the mullion) (Loads were held for 10 seconds)		
	1920 Pa (40.10 psf) (positive)	4.8 mm (0.19")	See Note #2
	1920 Pa (40.10 psf) (negative)	3.8 mm (0.15")	See Note #2
4.4.2.6	Uniform Load Structural per ASTM E 330 (Permanent sets were taken on the mullion) (Loads were held for 10 seconds)		
	2880 Pa (60.15 psf) (positive)	0.3 mm (0.01")	4.5 mm (0.18") max.
	2880 Pa (60.15 psf) (negative)	0.3 mm (0.01")	4.5 mm (0.18") max.

Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen reported herein.

List of Official Observers:

<u>Name</u>	<u>Company</u>
Dennis Janzen	Architectural Testing, Inc.
Jeffery T. Osugi	Architectural Testing, Inc.
Derek Spencer	Architectural Testing, Inc.

Detailed drawings, data sheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from the original test date. At the end of this retention period, such materials shall be discarded without notice and the service life of this report will expire.

Results obtained are tested values and were secured by using the designated test methods. If test specimen contains glazing, no conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen can be made. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC.

Jeffrey T. Osugi
Technician

Kenny C. White
Laboratory Manager

JO: ms

Attachments (pages): This report is complete only when all attachments listed are included.

- Appendix-A: Alteration Addendum (1)
- Appendix-B: Test Equipment (1)
- Appendix-C: Drawings (16)

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	08/13/09	N/A	Original report issue

Appendix A

Alteration Addendum

Alteration #1: Date – 02/13/08
Cause for alteration – Failure during water penetration testing.
Remedial action taken – Sealed frame corner



Appendix B


Test Equipment

Appendix C

Drawings

8220C Casement EL ER 1 3/8" Frame Dual Glazed

6/13/2006

Item #	Part Number	Description	Comments	Vendor	Vendor Part Number	Qty
F1	50535	Head Exterior	 <p>Architectural Testing, Inc Test sample complies with these details Color to match</p> <p>9 0 6 6 4</p> <p>Report# _____ Tech _____ Date AUG 13 2009</p>	Intex	50535	1
F2	50536	Head Interior		Intex	50536	1
F3	50535	Lock Jamb Exterior		Intex	50535	1
F4	50536	Lock Jamb Interior		Intex	50536	1
F5	50535	Hinge Jamb Exterior		Intex	50535	1
F6	50536	Hinge Jamb Interior		Intex	50536	1
F7	50535	Sill Exterior		Intex	50535	1
F8	50536	Sill Interior		Intex	50536	1
F10	50537	Mullion Exterior		Intex	50537	1
F11	50538	Mullion Interior		Intex	50538	1
F9	RS1801	Frame Thermal Break		Royal	RS1801	6
S1	50540	Sash Top Rail Exterior	<p>3/4" Glass Cut to 3"</p>	Intex	50540	2
S2	50541	Sash Top Rail Interior		Intex	50541	2
S3	50540	Sash Bottom Rail Exterior		Intex	50540	2
S4	50541	Sash Bottom Rail Interior		Intex	50541	2
S5	50540	Sash Sill Exterior		Intex	50540	4
S6	50541	Sash Sill Interior		Intex	50541	4
S7	RS1802	Sash Thermal Break		Royal	RS1802	8
S8	50539	Glazing Bead		Intex	50539	8
S9	50542	Picture Adaptor		Intex	50542	8
SP1	SP5533	Encore Dual arm operator	Use on sizes 2' wide and over	Truth	50.10	1
SP1	SP5537	Encore Single 6" arm operator	Butt hinges only up to 2' wide	Truth	52.11	1
SP2	SP5314	Operator gasket	Use on all operators	Truth	31882	1
SP3	SP5542	Operator bracket	Use on dyad and dual arm operators	Truth	11680 LH 11681 RH	1
SP4	SP5524	Operator track	Use on dual arm operator only	Truth	11576	1
SP5	SP5540	Operator handle pkg, Handle	Use on all operators	Truth	12613/12615	1
SP7	AS8200	Butt Hinge	Color to match	Truth	45454	2
SP7	AS8200	Butt Hinge	Color to match	Advantage	See Hinge Chart	3
SP8	SP5526	Multi point handle	Color to match	Advantage	See Hinge Chart	3
SP9	AS5511	Activator bar Assembly	Color to match	Acer	AC 24-909	1
SP10	SP5044	Activator bar guide	See Hardware List	Kemnar Wire		1
SP11	SP5045	Multi point keeper	Color to match	J&J Plastic	WH473	HL
SP14	50544	Corner Key, 1.13"	Color to match	Intex	WH471	HL
SP12	SP8216	Lock handle clip	Mill finish	Intex	50544	8
				Truth	23050	1

*HL - See hardware lists

8220C Casement EL ER 1 3/8" Frame Dual Glazed

6/13/2006

Item #	Part Number	Description	Comments	Vendor	Vendor Part Number	Qty
W1	VY6221	Top Load Glazing vinyl		Tremco	5114E	AR
W2	VY8220	Sash Rainscreen vinyl	Dual durometer weatherstrip	Bandlock	BL4056	AR
W3	FT8211	Frame Weatherstrip	Foam bulb vinyl	Aimsbury	32007	AR
G1	VY8211	3/4" Glass		Ryko		2
G2	FT3320	Setting blocks custom	4" long shore 85	Venture Tape		4
G3	VY8211	1/16" x 3/8" Glazing Tape	Standard glazing	Ryko		AR
G5	VY8211	Edge Blocks custom	6" long			6
SC1	50473	Screen frame		Intex		4
SC2	FT298x	Screen cloth		New York Wire		AR
SC3	VY2662	Screen spline	0.135 Diameter	Ryko	R2611	AR
SC4	VY2766	Screen tabs				2
SC5	SP2475	Screen spring				2
SC6	SP5532	Screen corner		DECO	#220201	4
FA1	FA5016	#8 x 3/4" Ph Undercut Flat Hd TEK	Operator to sill			4
FA2	FA5510	#8 x 1/2" Ph Flat Hd TEK	Butt hinge only up to 4' high			12
FA3	FA5510	#8 x 1/2" Ph Flat Hd TEK	Butt hinge only over 4' high			18
FA4						
FA5						
FA6	FA2390	#7 x 1/2" Ph Undercut Flat Hd SMS	Operator bracket			2
FA7	FA2390	#7 x 1/2" Ph Undercut Flat Hd SMS	Operator track			3
FA8	FA5022	#10-24 x 1/2" Ph Pan Hd MS	Lock Handle			2
FA9	FA5029	#10 x 1" Ph Pan Hd type B	Multi point keeper			HIL
FA10	FA5029	#10 x 1" Ph Pan Hd type B	Activator bar guide			HIL
FA11	FA2504	#6 X 1" Ph Pan Hd type AB	Frame assembly screws			8
FA12	FA8219	#6 x 1 1/2" Ph Pan Hd	Panel assembly screws			16
FA13	FA5510	#8 x 1/2" Ph Flat Hd TEK	PW Adaptor screw			8
FA14	FA5500	#8 x 1 1/2" Ph Pan Hd TEK	Panel to frame screw			8
LB1	LAB219	IWC Logo with instructions				1
LB2	LAB8220C14	AAMA Label				1
LB3	SP4001	NFRC Temporary Label				1
LB4	SP4003	Energy Star Label				1

*HL - See hardware lists

90664

AUG 13 2009

Tech  Date

Fast samples complete with these details

A

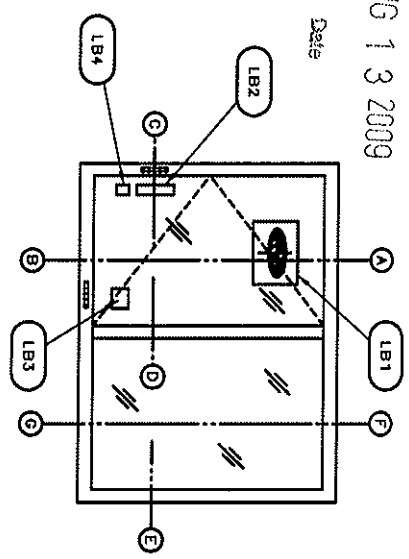
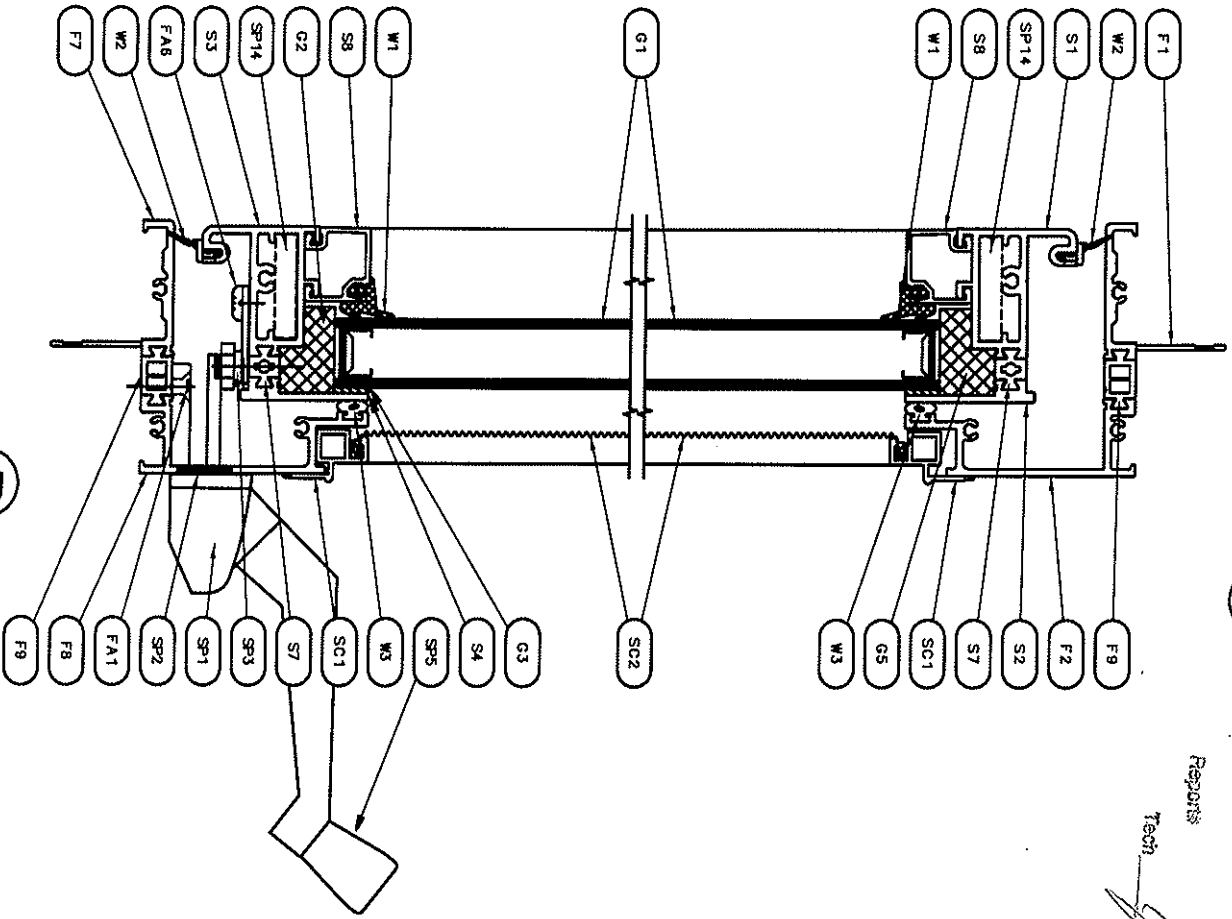
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AUG 13 2009

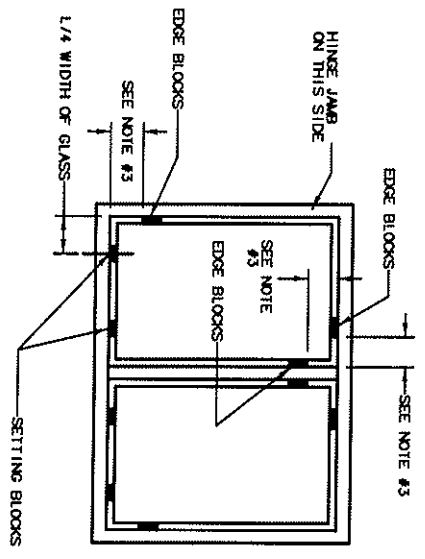
Reports

Tech

Date



ELEVATION
 (VIEW FROM THE OUTSIDE)
 NO SCALE



NOTES:

1. UNDER NO CIRCUMSTANCES SHOULD A CASEMENT HINGE WITH A SWAP STUD ATTACHMENT BE USED ON AN AWNING WINDOW.

SETTING BLOCK NOTE:

1. .85 ±5 SHORE A DIALOMETER BLOCKS CENTERED A 1/4 POINTS.
2. NEVER LESS THAN 4" LONG.

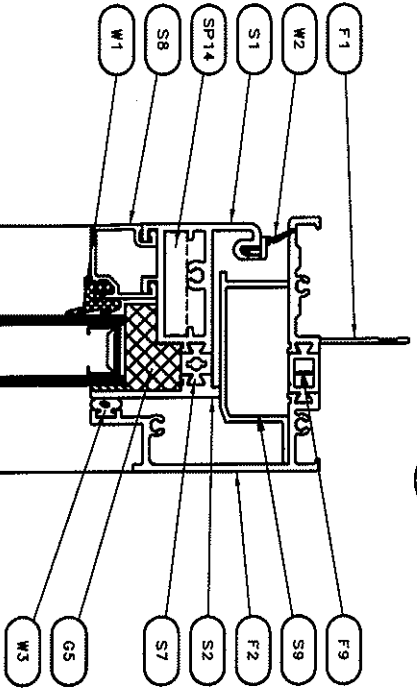
EDGE BLOCK NOTE:

1. .65 ±5 SHORE A* 6" FROM EACH EDGE. (3 REQUIRED)
2. NEVER LESS THAN 6" LONG.
3. L/8 OR 6" WHICHEVER IS GREATER.

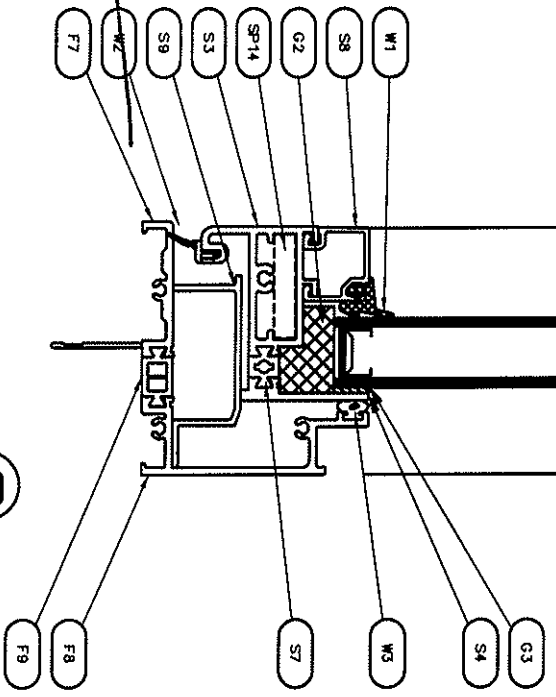
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International Aluminum Corporation DIVISION INTERNATIONAL WINDOW CORPORATION		DWG NO. 8220-11 SHEET 1 OF 3	
CASEMENT /FIX WINDOW LAYOUT (SERIES 8220)	DATE 02/20/08 FULL SIZE	REVISION DATE BY	SIGNATURE

F



G



Architectural Testing, Inc.
 Test sample complies with these details.
 Description per report.

90664

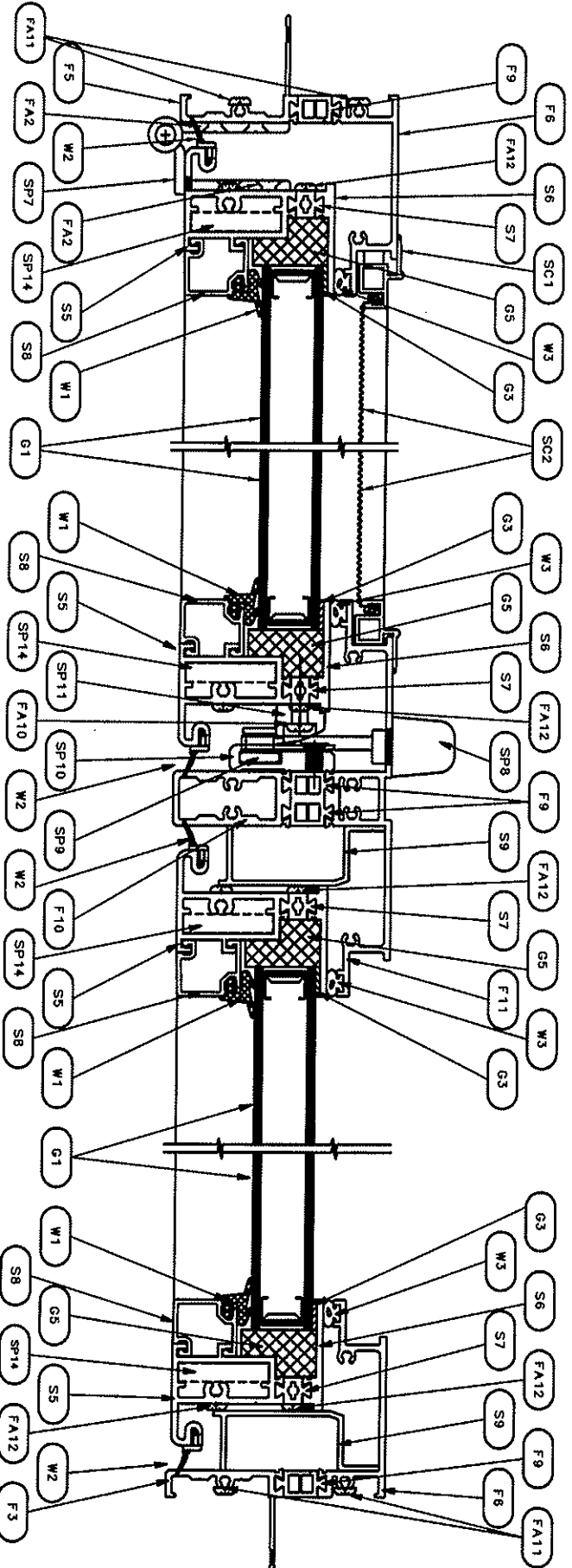
Report#

AUG 13 2009

Tech

Date

International Aluminum Corporation DIVISION INTERNATIONAL WINDOW CORPORATION		DWG NO. 8220-11 SHEET 2 OF 3
CASEMENT/FIX WINDOW LAYOUT (SERIES 8220)	DATE 02/20/08	FULL SIZE
REVISION	DATE	BY
STW	DATE	BY



Architectural Testing, Inc
Test sample correlates with these details
Detailed drawings and details

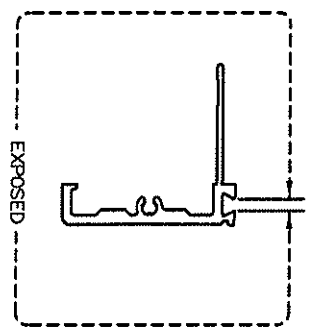
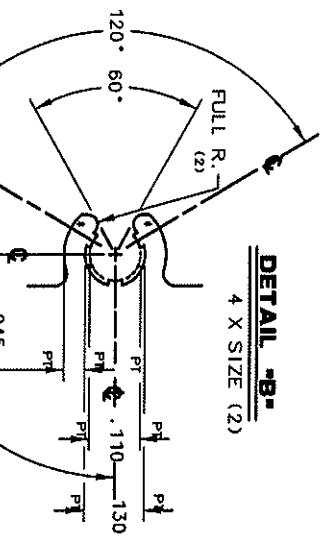
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AUG 13 2009

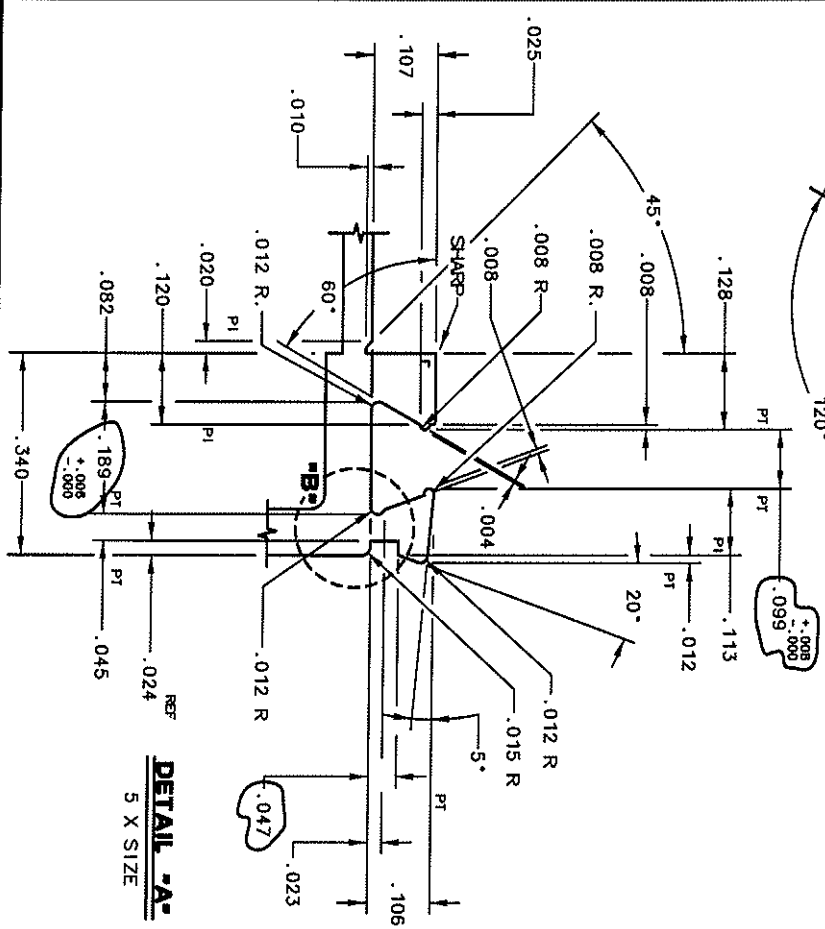
Reports
Tech 
Date

SYMBOL	REVISION	DATE	BY	CHKD	
<p>International Aluminum Corporation DIVISION OF INTERNATIONAL WINDOW CORPORATION</p>					<p>DWG NO. 8220-11 SHEET 3 OF 3</p>
<p>DATE: 02/20/08 SCALE: FULL SIZE CASEMENT / FIX WINDOW LAYOUT (SERIES 8220)</p>					

DETAIL -B-
4 X SIZE (2)

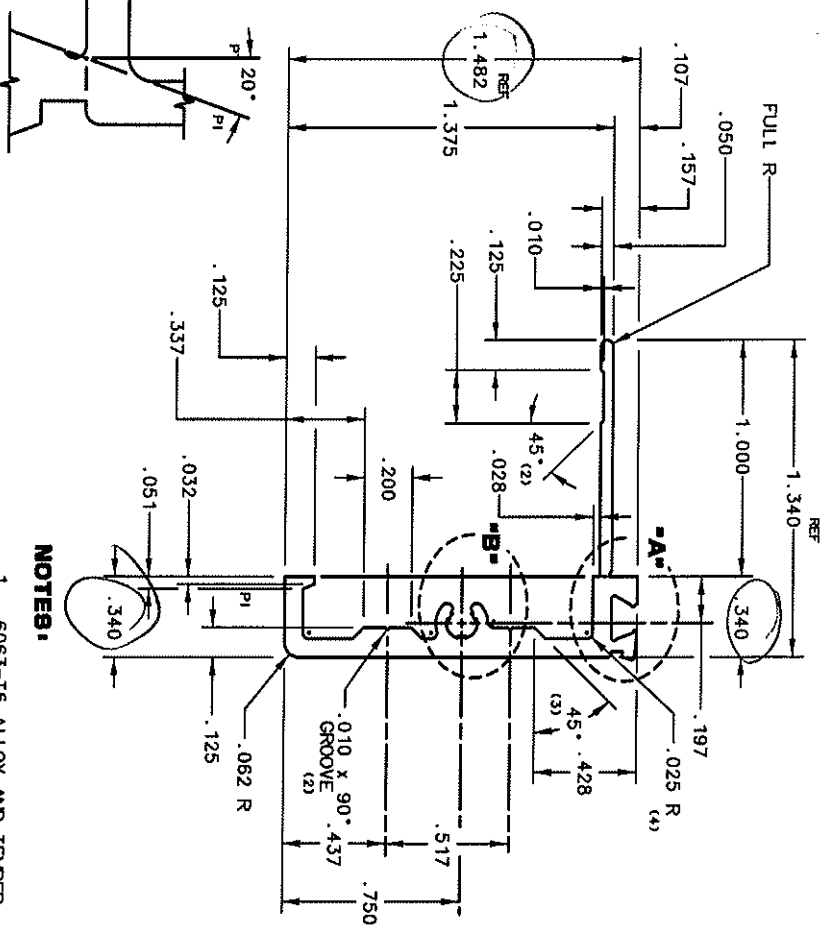


ACTUAL SIZE



DETAIL -A-
5 X SIZE

DETAIL -C-
8 X SIZE



NOTES:

- 1. 6063-T5 ALLOY AND TEMPER.
- 2. PAINT PERIMETER: 6.738"

	D CA D TX International Corporation 1000 MERIDIAN TEL. 578-2424 ALHAMBRA, CALIF. AREA CODE: 626	UNLESS OTHERWISE NOTED, ALL CORNERS ARE .015 R. AND TYPICAL WALL THICKNESS IS .078
EST. W/FT: .305 EST. PERL: 7.161 FACTOR: 23	P-NO: C-1206 CIRCLE SIZE: 2.000 GLASS: SOLID BR: 7 - 54	PERITS: 9 X 50482 BOLSTER: 3-87 DIE NO. 50535

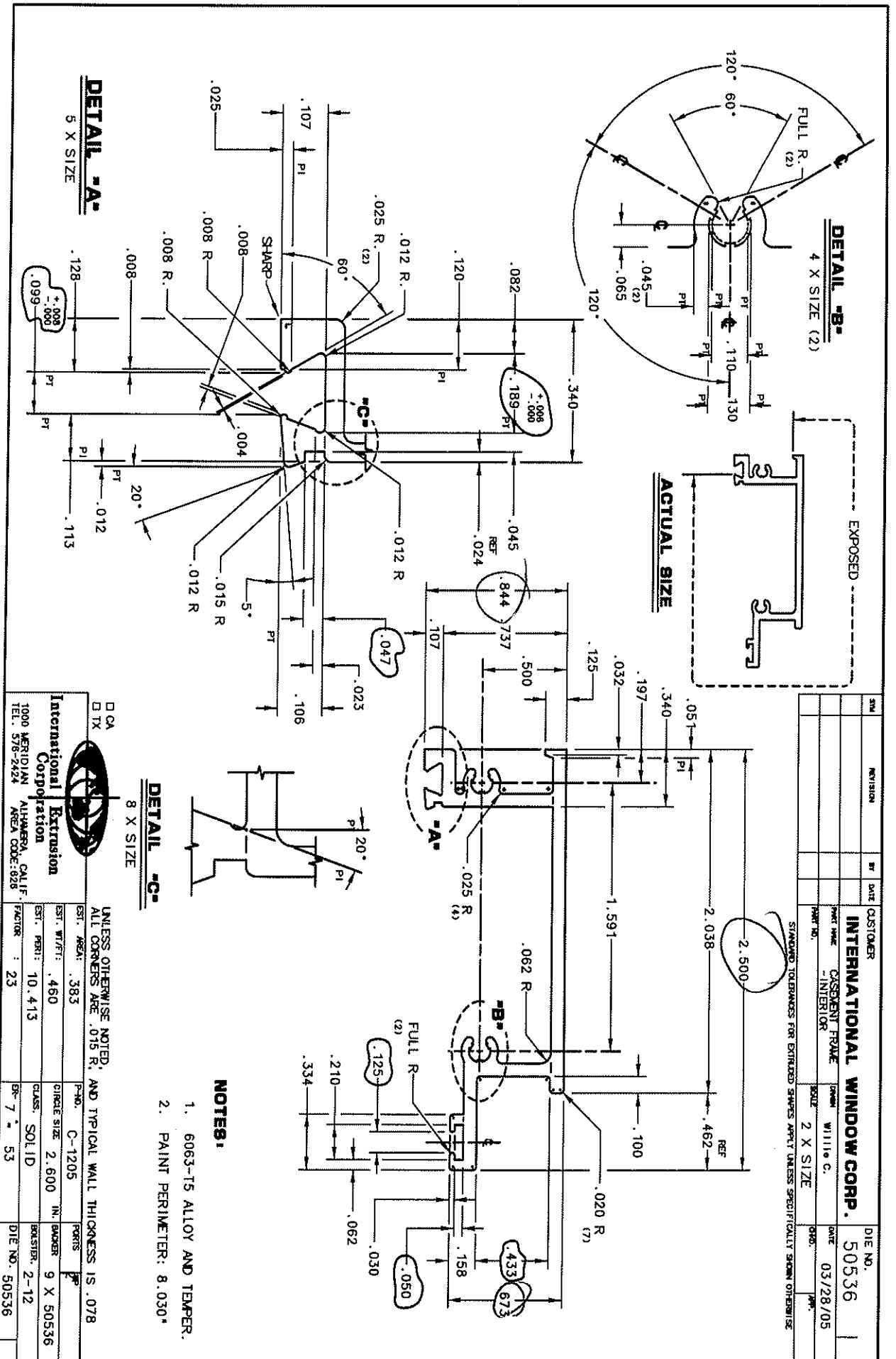
Architectural Testing, Inc
 Test sample complies with these details.
Dr. Williams and Partner

REV	DATE	CUSTOMER	DIE NO.
		INTERNATIONAL WINDOW CORP.	50535
REV	DATE	PART NAME	DRAWN
		CASEMENT FRAME - EXTERIOR	WILLIAMS
		PART NO.	SCALE 2 X SIZE
			DATE 03/28/05

STANDARD TOLERANCES FOR EXTRUDED SWAGES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE.

90664
 AUG 13 2009

Report#
 Tech *[Signature]*
 Date



- NOTES:**
- 6063-T5 ALLOY AND TEMPER.
 - PAINT PERIMETER: 8.030*

DETAIL -A-
5 X SIZE

DETAIL -B-
4 X SIZE (2)

DETAIL -C-
8 X SIZE

Architectural Testing, Inc.
Test sample compares with these details.
Drawing and notes.

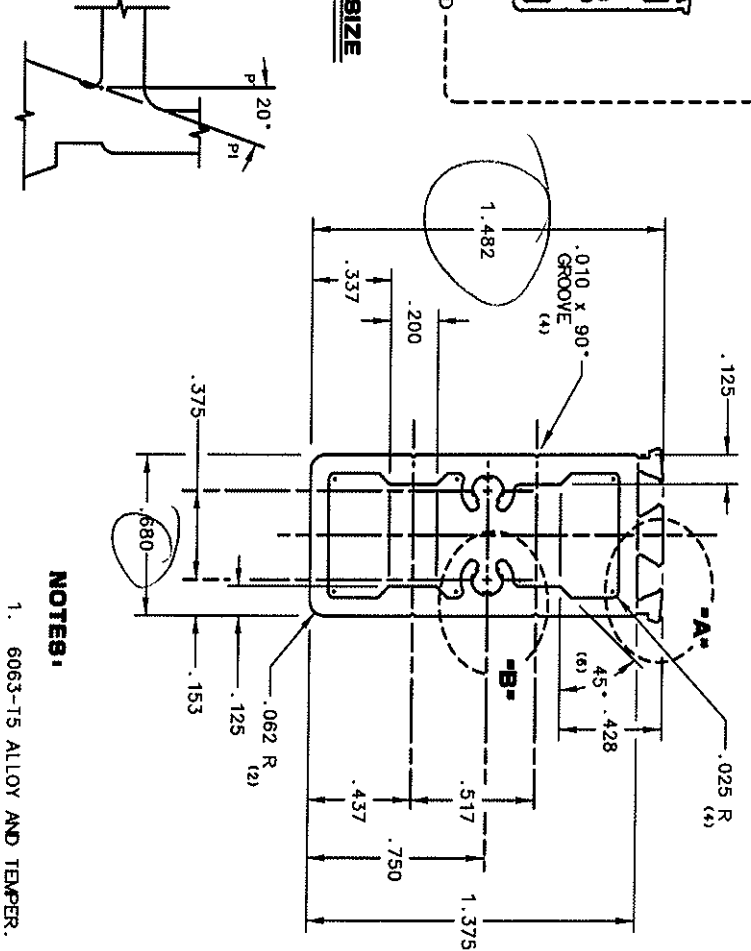
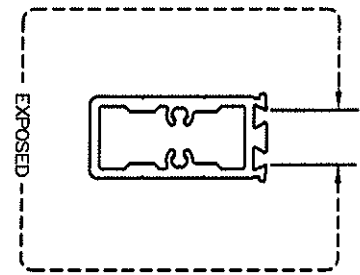
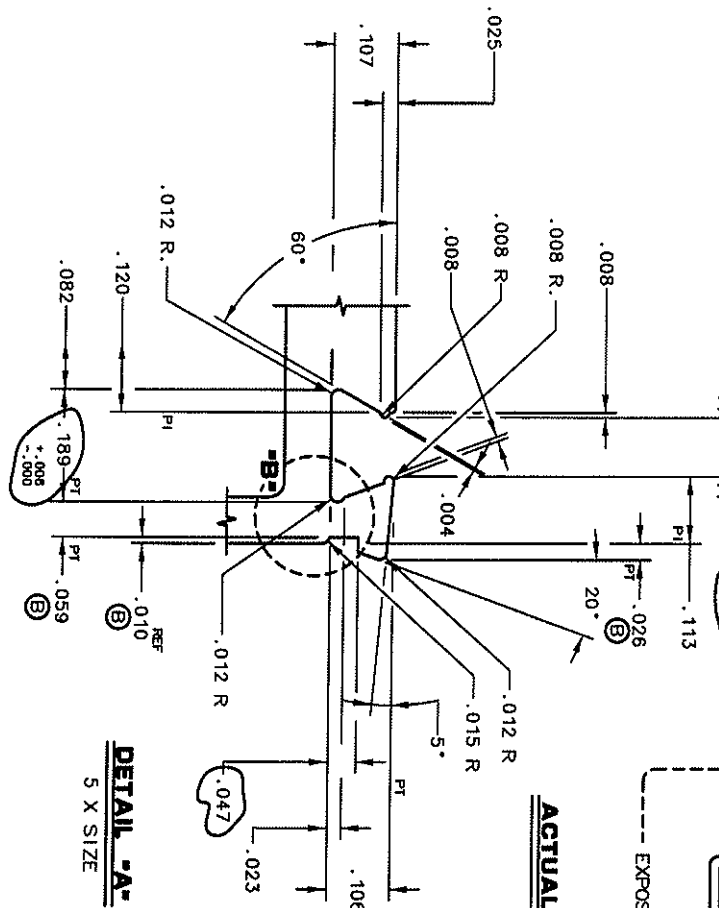
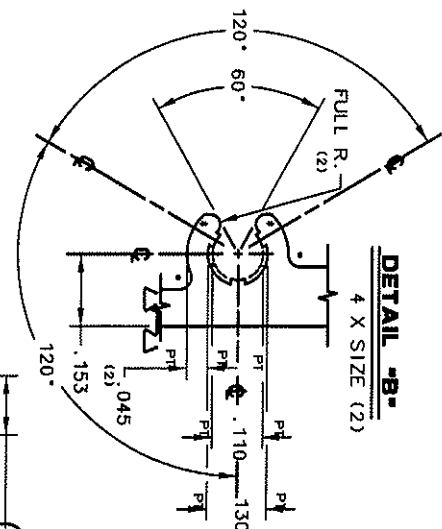
90664
AUG 13 2009
Tech *JD*
Date

INTERNATIONAL Extrusion Corporation
1000 MERIDIAN ALHAMBRA, CALIF.
TEL. 578-2424 AREA CODE: 928

UNLESS OTHERWISE NOTED, ALL CORNERS ARE .015 R. AND TYPICAL WALL THICKNESS IS .078

EST. AREA:	.383	P-NO.:	C-1205	PORTS:	
EST. WT/LF:	.460	CIRCLE SIZE:	2.600	IN. BACKER:	9 X 50536
EST. PERI:	10.413	CLASS:	SOLID	ROSTER:	2-12
FACTOR:	23	GR-7:	53	DIE NO.:	50536

STL	REV	DATE	CUSTOMER	DIE NO.
B	MODIFIED DETAIL "A"	RT 10/04	INTERNATIONAL WINDOW CORP.	H50537
			CASSEMENT MULTITON	WILLIE G.
			EXTERIOR	DATE 03/28/05
			SOUL	
			2 X SIZE	
STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE				



- NOTES:**
- 6063-T5 ALLOY AND TEMPER.
 - PAINT PERIMETER: 6.738"
 - OUTSIDE PERIMETER: 5.015

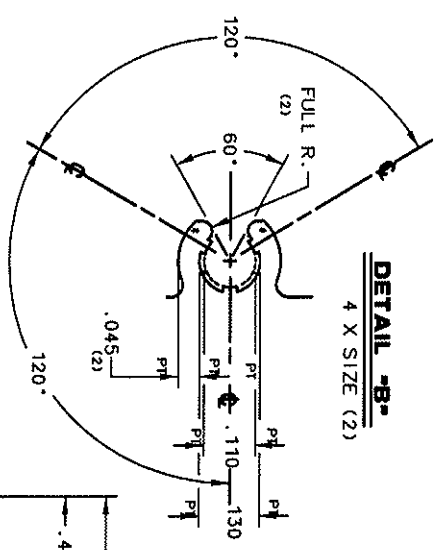
<p>International Extrusion Corporation 1000 MERIDIAN ALHAMBRA, CALIF. TEL: 578-2424 AREA CODE: 925</p>	<p>UNLESS OTHERWISE NOTED, ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .078</p> <p>EST. MEAN: 416 (B)</p> <p>EST. WT/LF: .499 (B)</p> <p>EST. PERI: 9.683 (B)</p> <p>Factor: 19 (B)</p>	<p>P-NO: C-1212</p> <p>CIRCLE SIZE: 1.700</p> <p>CLASS: SOLID</p> <p>BR: 7 - 49</p>	<p>PERI: 9.683</p> <p>IN. BACKER: 9 X 5 1/2</p> <p>BOASTER: 12 X 19028</p> <p>DIE NO.: H50537</p>
---	---	---	---

Architectural Testing, Inc
Test sample complies with these details.
Drawn: [Signature]

9 0 6 6 4
AUG 1 3 2009

Report# [Signature]
Tech [Signature]
Date

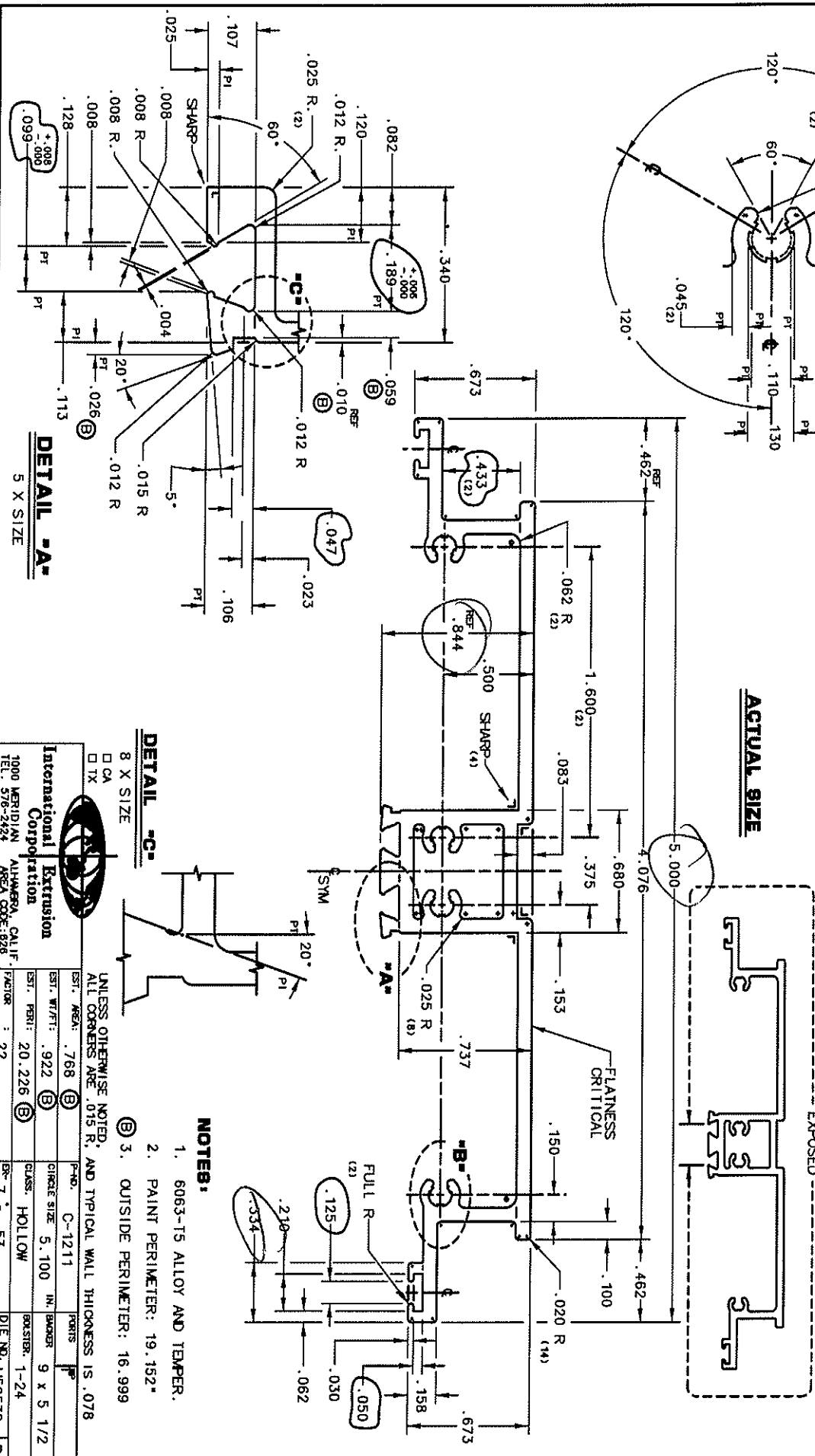
DETAIL -B-
4 X SIZE (2)



ACTUAL SIZE

EXPOSED

REV.	REVISION	BY	DATE	CUSTOMER	DIE NO.
B	MODIFIED DETAIL -A- RT		10/04/05	INTERNATIONAL WINDOW CORP.	H50538
				CASSELL KILBURN	
				-INTERIOR	
				WILLIE C.	
				2 X SIZE	
				DATE	03/29/05
				DRG.	
				REV.	



NOTES:

1. 6063-T5 ALLOY AND TEMPER.
2. PAINT PERIMETER: 19.152"
3. OUTSIDE PERIMETER: 16.999

UNLESS OTHERWISE NOTED, ALL CORNERS ARE .075 R, AND TYPICAL WALL THICKNESS IS .078

DETAIL -A-
5 X SIZE

DETAIL -B-
4 X SIZE

DETAIL -C-
8 X SIZE

□ CA
□ TX

International Extrusion Corporation
1000 MERIDIAN ALHAMBRA, CALIF.
TEL. 578-2424 AREA CODE: 826

EST. AREA:	EST. WT/LF:	EST. PERI:	EST. FACTOR:	P-NO.	CIRCLE SIZE	CLASS.	HOLLOW	DR-7	DIE NO.
.768	.922	20.226	22	C-1211	5.100	HOLLOW		53	H50538

Architectural Testing, Inc.
Test sample conforms with these details.
Deviations are noted.

90664

AUG 13 2009

Report

Date

Test

[Signature]

NOTE:

1. MATERIAL: 20% FILLED PVC.
2. STANDARD TOL - ± .004 UNLESS OTHERWISE NOTED.
3. TYPICAL WALL THICKNESS = .062 ^{+.015} _{-.000}
4. AREA : .112
5. DIE RS1801



ACTUAL SIZE



Architectural Testing, Inc
Test sample complies with these details
(Deviation are noted)

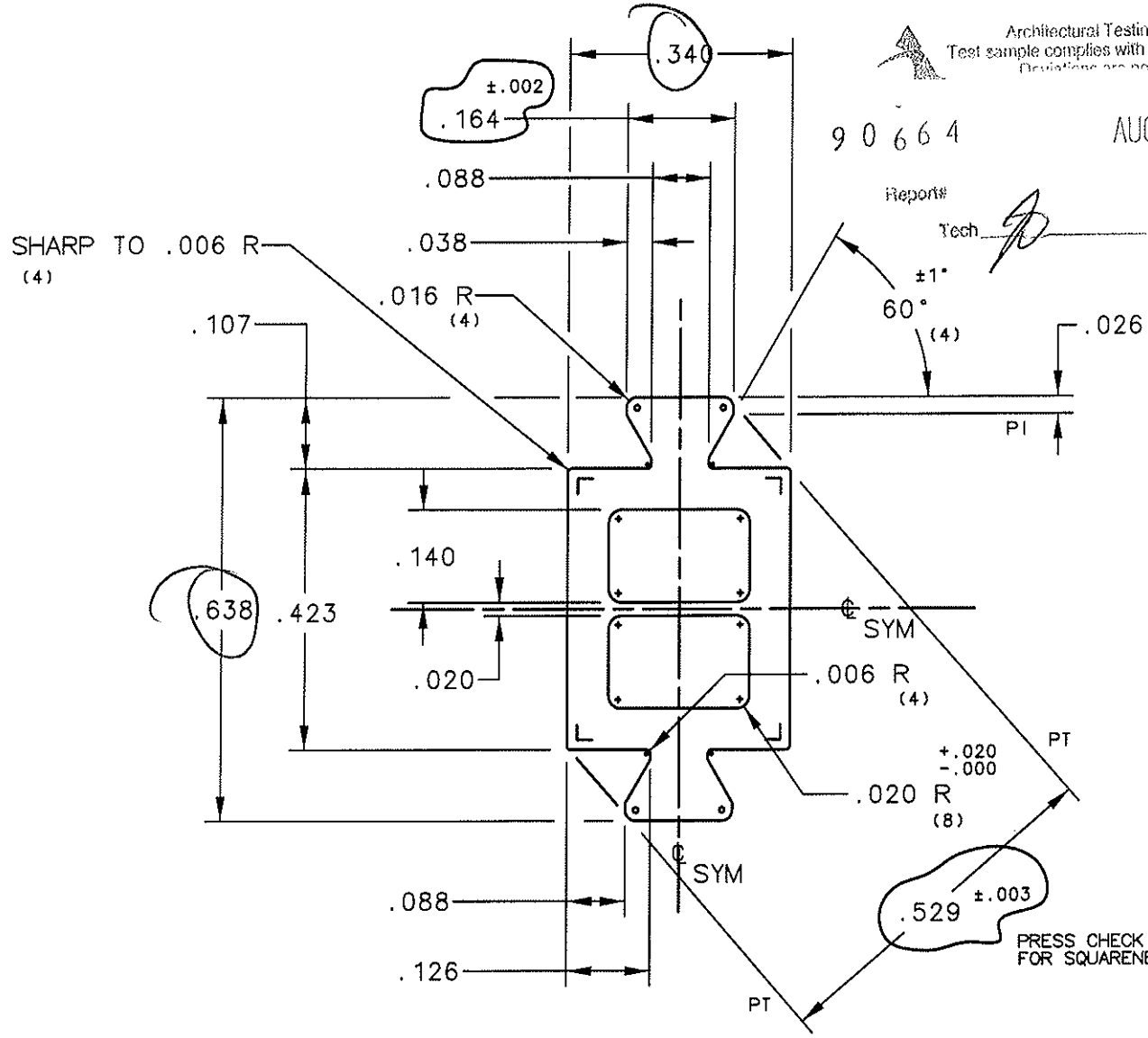
9 0 6 6 4

AUG 13 2009

Reports

Date

Tech

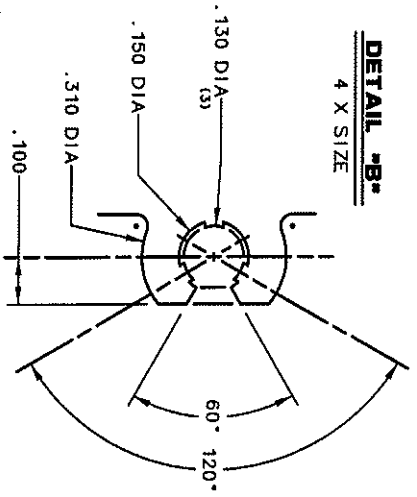
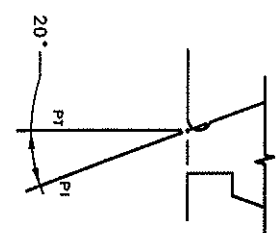


International Aluminum Corporation
DIVISION **INTERNATIONAL WINDOW CORP.**

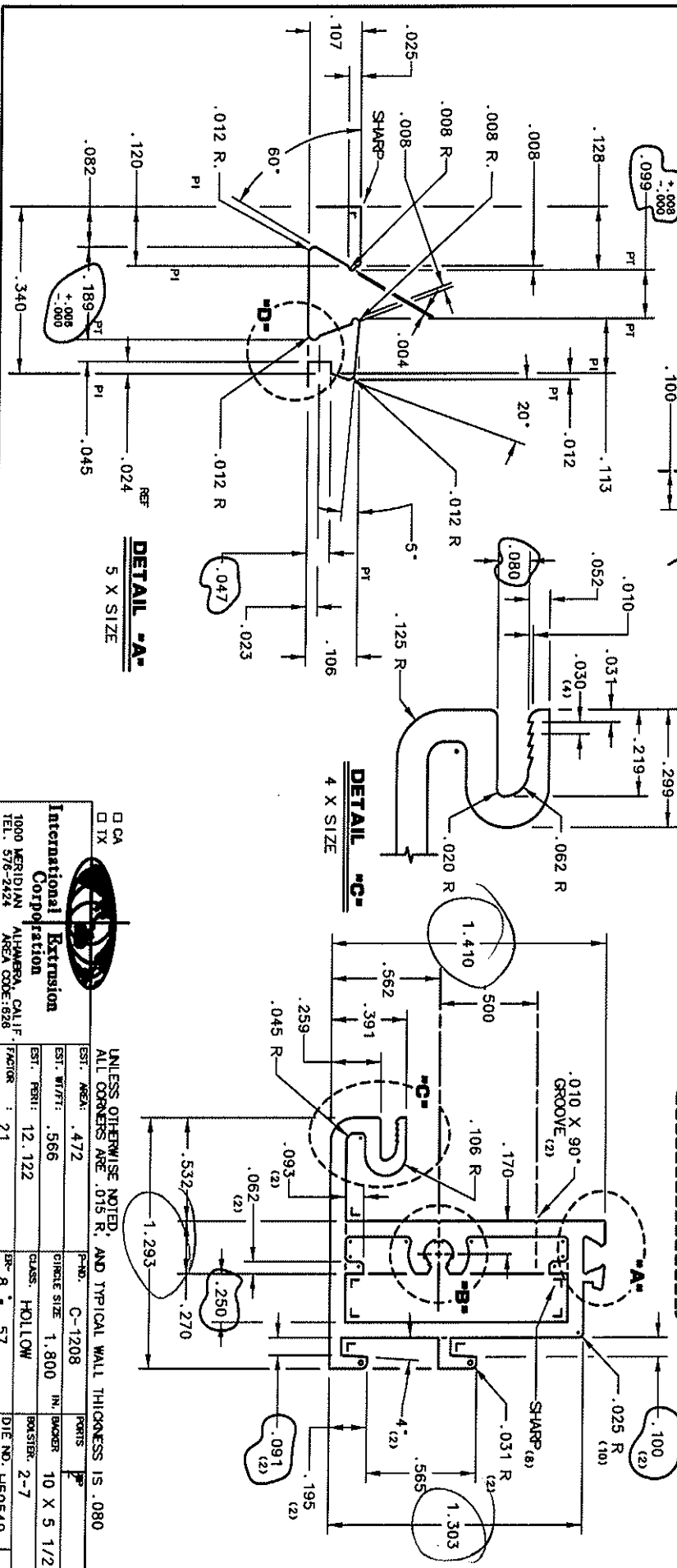
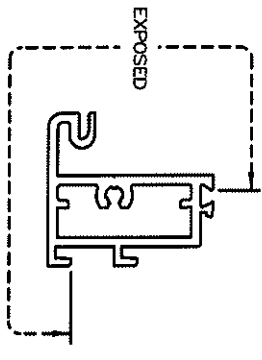
DRWN BY: Willie c.	16.2 MM STRIP	DWG NO.
DATE: 01/05/05	(SERIES 8220) HS/VINYL FOLDER	8220-028
SCALE: 4 X SIZE		

REV	REVISION	BY	DATE	CUSTOMER	DIE NO.
				INTERNATIONAL WINDOW CORP.	H50540
				PART NAME: CASSETT SASH - EXTERIOR	DATE: 03/29/05
				PART NO.:	REV.:
				SCALE: 2X SIZE	APP.:

STANDARD TOLERANCES FOR EXTRUDED SASHES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE



- NOTES:**
- 6063-T5 ALLOY AND TEMPER.
 - PAINT PERIMETER: 7.499"
 - FITS WITH C-1209, DIE#



Architectural Testing, Inc
Test sample complies with these details.
Date: 8/13/03

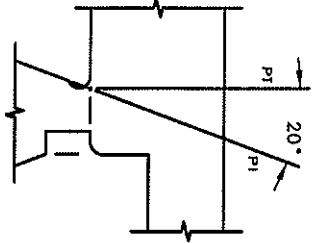
Report# 90664
Date AUG 13 2003

Tech: [Signature]

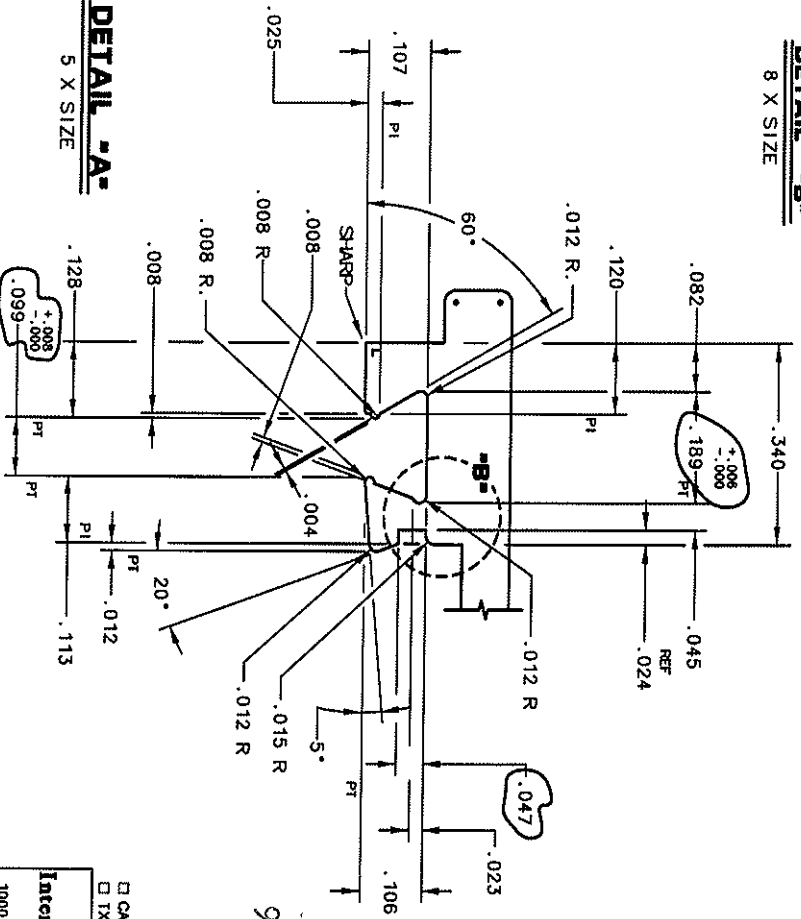
□ CA	□ TX				
International Extusion Corporation 1000 VERIDIAN ALHAMBRA, CALIF. TEL. 578-2424 AREA CODE: 628					
UNLESS OTHERWISE NOTED, ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .080					
EST. AREA:	.472	P-NO:	C-1208	PARTS:	1
EST. Wt/Ft:	.566	GIRTH SIZE:	1.800	IN. BACKER:	10 X 5 1/2
EST. PERM:	12.122	CLASS:	HOLLOW	POSTER:	2-7
FACTOR:	21	DR:	8	DIE NO.:	H50540

REV	REVISION	BY	DATE	CUSTOMER	DIE NO.
				INTERNATIONAL WINDOW CORP.	50541
				PART NAME: CASSEMENT SASH - INTERIOR	DATE: 03/28/05
				PART NO.	DRG. NO.
				SCALE: 2 X SIZE	DATE: 03/28/05

STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE.

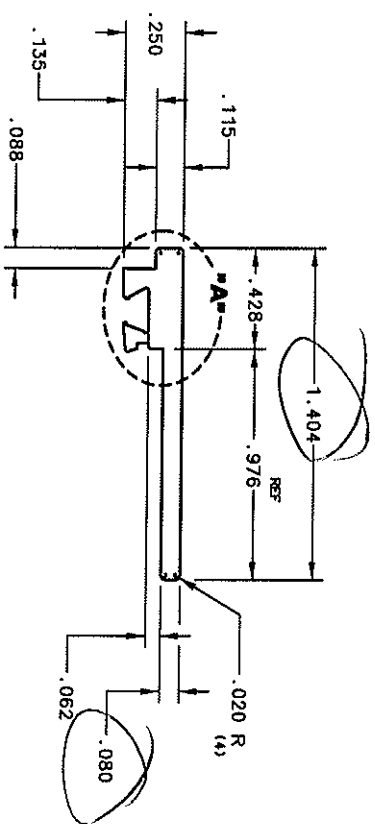
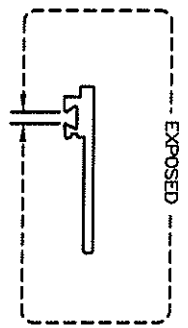


DETAIL -B-
8 X SIZE



DETAIL -A-
5 X SIZE

ACTUAL SIZE



Architectural Testing, Inc.
Test sample complies with these details.
Detailed drawings available upon request.

90664

AUG 13 2009

NOTES:

- 6063-T5 ALLOY AND TEMPER.
- PAINT PERIMETER: 3.231"

Reports

Tech

Date

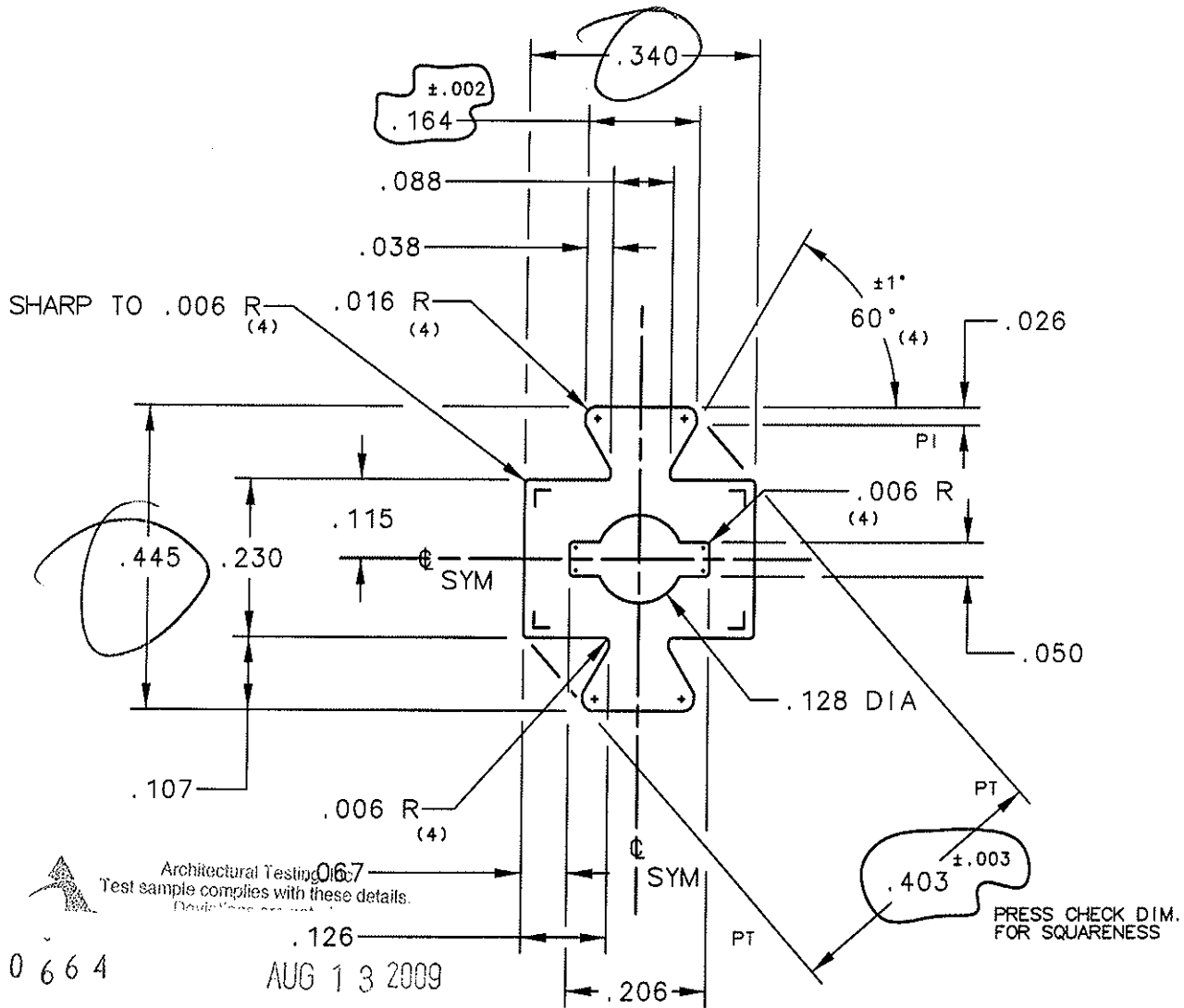
<input type="checkbox"/> CA	<input type="checkbox"/> TX	International Extrusion Corporation 1000 MERIDIAN ALHAMBRA, CALIF. TEL: 578-2424 FAX: 578-2425 AREA CODE: 928		EST. AREA: .156	P-NO: C-1207	PARTS	PP
UNLESS OTHERWISE NOTED, ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .015				EST. WGT: .187	CIRCLE SIZE: 1.500	IN. BACKER: 9 X 5285	
				EST. PERI: 3.628	CLASS: SOLID	ROSTER: 4-9	
				FACTOR: 19	SP: 7	66	DIE NO: 50541

NOTE :

1. MATERIAL: 20% FILLED PVC.
2. STANDARD TOL - $\pm .004$ UNLESS OTHERWISE NOTED.
3. AREA : .089
4. DIE RS1802



ACTUAL SIZE



Architectural Testing
 Test sample complies with these details.
 Drawings are correct.

90664

AUG 13 2009

Report#

Date

Tech

International Aluminum Corporation
 DIVISION **INTERNATIONAL WINDOW CORP.**

DRWN BY: Willie C.

11.28 MM STRIP

DWG NO.

DATE: 01/19/05

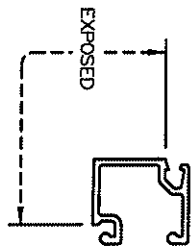
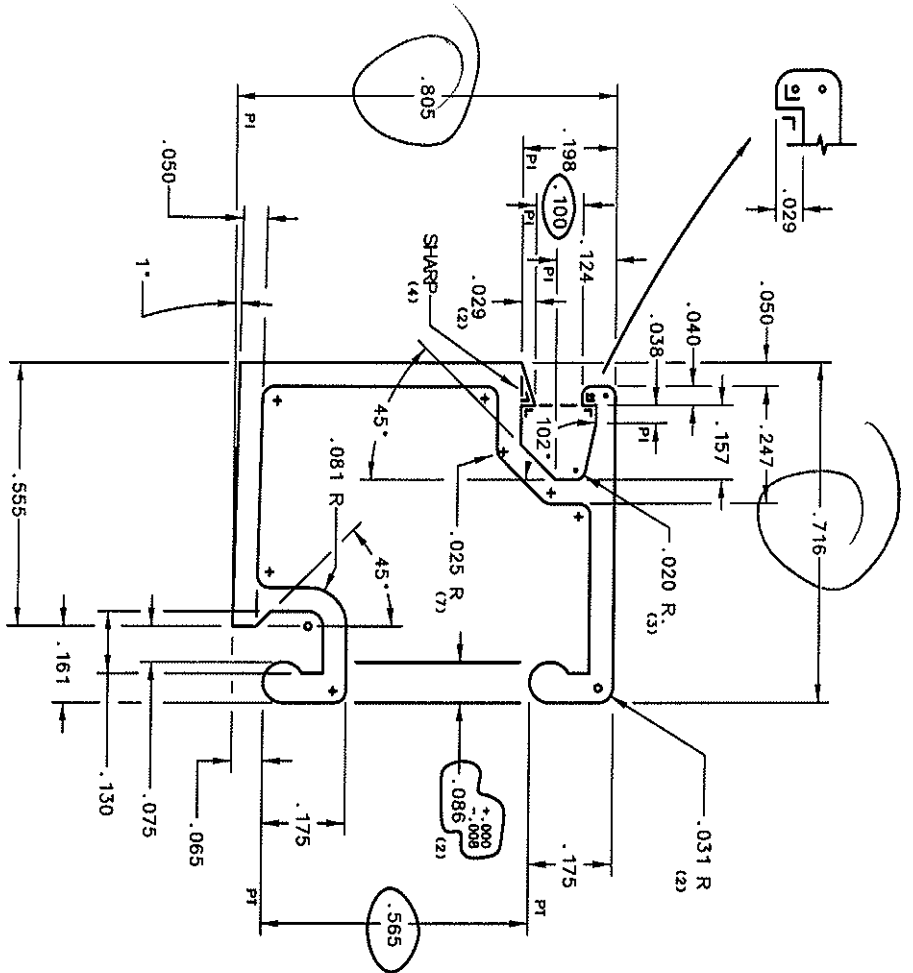
(SERIES 8220) HS/VINYL FOLDER

8220-029

SCALE: 4 X SIZE

S/N	REVISION	BY	DATE	CUSTOMER	DIE NO.
				INTERNATIONAL WINDOW CORP.	50539
				CASEMENT GLASS STOP	
				OWNER: Willie G. SOUL	DATE: 03/29/05
				4 X SIZE	

STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE.



ACTUAL SIZE

NOTES:

- 6063-T5 ALLOY AND TEMPER.
- FITS WITH C-1208; DIE#
- PAINT PERIMETER: 1.152*

Architectural Testing, Inc
Test sample complies with these details.
Discontinued



International Corporation
1000 MERIDIAN
TEL. 578-2824
ALHAMBRA, CALIF.
AREA CODE: 628

UNLESS OTHERWISE NOTED, ALL CORNERS ARE .075 R, AND TYPICAL WALL THICKNESS IS .050		P-NO. C-1209		PORTS
EST. AREA:	.144	CIRCLE SIZE	1,000	BACKER 8 X 17978
EST. WT/FT:	.173	GLASS:	SOLID	ROASTER: 4-9
EST. PERIM:	5.494	BR:	6 * 52	DIE NO. 50539
FACTOR:	32			

90664

Reprints

Teach

Date

AUG 13 2009

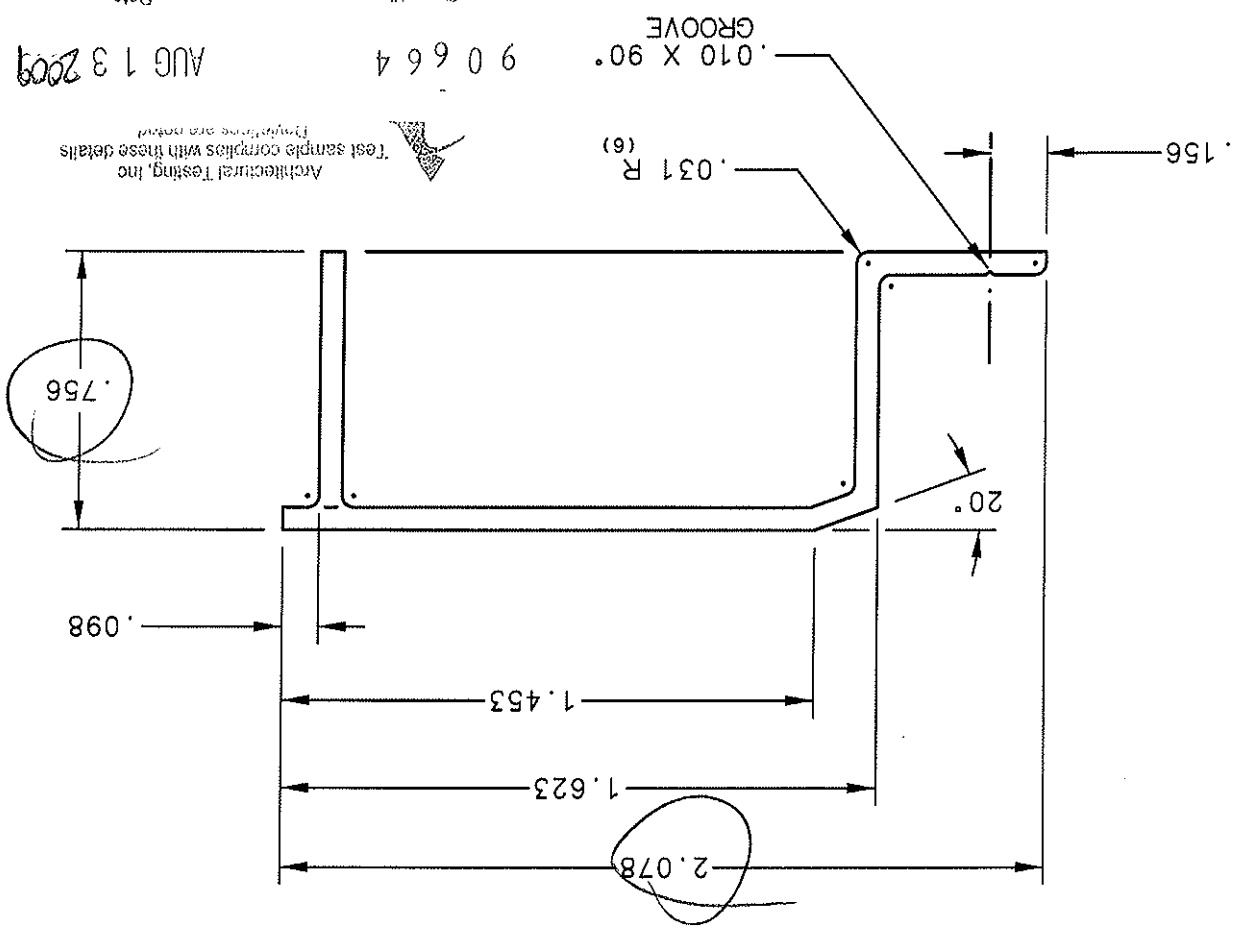
International Extrusion Corporation
 1000 MERIDIAN ALHAMBRA, CALIF. AREA CODE: 626
 TEL. 576-2424



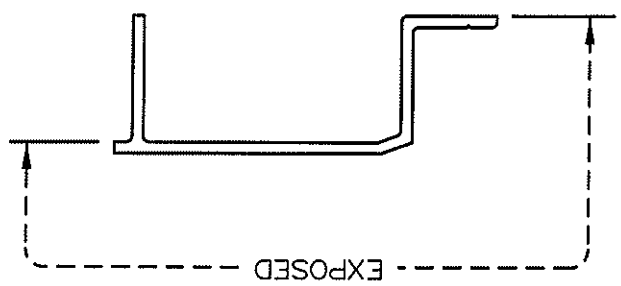
CA
 TX

EST. AREA: .212	P-NO. C-1213	PORTS	MP
EST. WT/FT: .254	CIRCLE SIZE 2.300 IN.	BACKER	9 X 50542
EST. PERI: 6.904	CLASS. SOLID	BOLSTER	3-6
FACTOR: 27	ER-7 = 64	DIE NO.	50542

UNLESS OTHERWISE NOTED, ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .062



ACTUAL SIZE



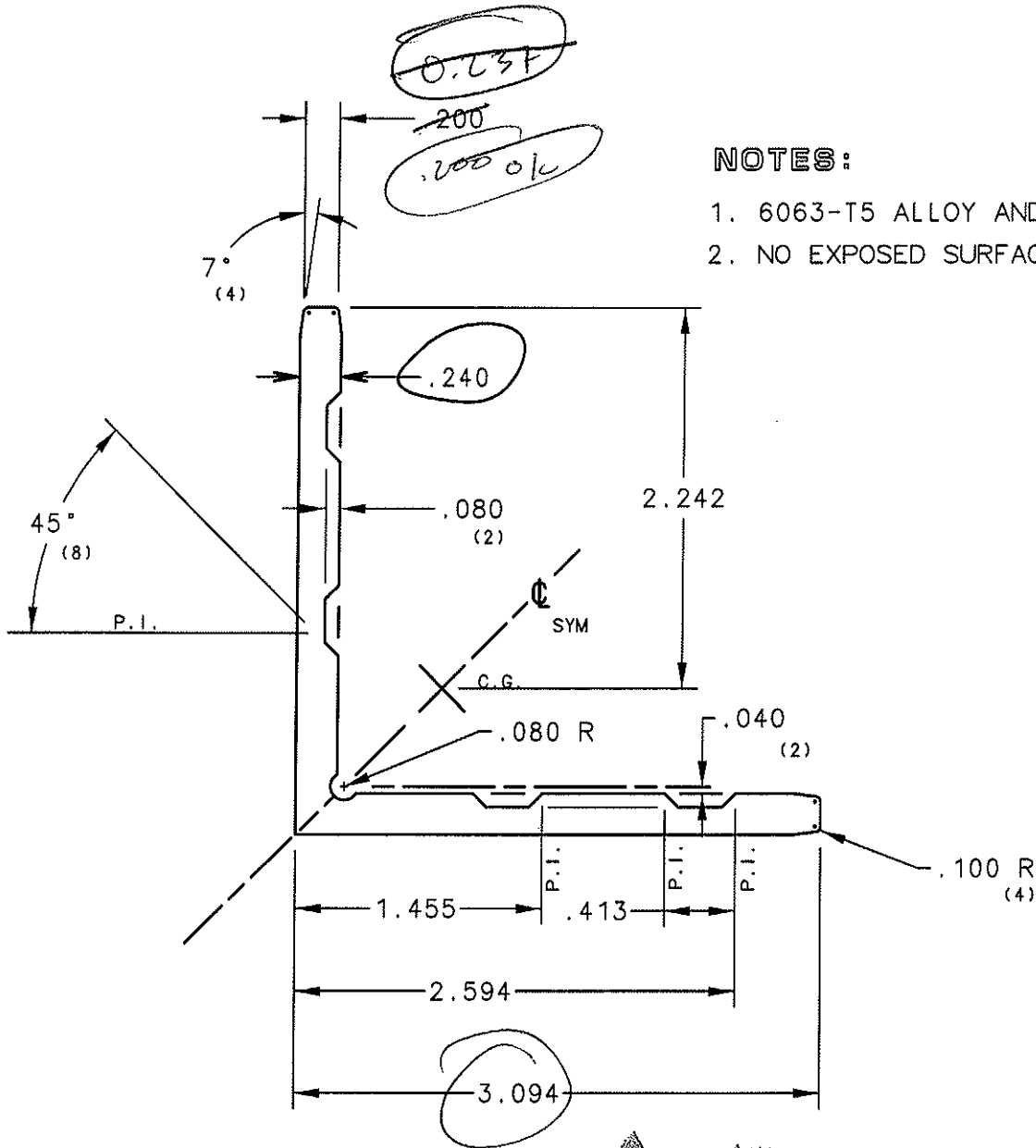
- NOTES:**
1. 6063-15 ALLOY AND TEMPER.
 2. PAINT PERIMETER: 2.826"

STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE

SYM	REVISION	BY	DATE	CUSTOMER
				INTERNATIONAL WINDOW CORP.
				DIE NO. 50542
				PART NAME CASEMENT PICTURE WINDOW SPACER
				DRAWN Willie C.
				DATE 03/30/05
				SCALE 2 X SIZE
				CHD. App.

SYM	REVISION	BY	DATE	CUSTOMER	DIE NO.				
						INTERNATIONAL WINDOW CORP.	50544		
				PART NAME	SERIES 6222C	DRAWN	LMH	DATE	04/05/2005
					CORNER KEY				
				PART NO.		SCALE	FULL SIZE	CHKD.	APP.

STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE



NOTES:

- 6063-T5 ALLOY AND TEMPER
- NO EXPOSED SURFACE

Architectural Testing, Inc
 Test sample complies with these details
 Deviations are noted

90664

AUG 13 2005

Repost#

Tech: *[Signature]*

Date

- CA
- TX



UNLESS OTHERWISE NOTED,
 ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS

International Extrusion Corporation

1000 MERIDIAN ALHAMBRA, CALIF.
 TEL. 576-2424 AREA CODE: 626

EST. AREA:	1.307	P-NO.	IW-116	PORTS ₁	WP	4582
EST. WT/FT:	1.568	CIRCLE SIZE	4.400	IN.	BACKER	8 X 4582
EST. PERI:	12.603	CLASS.	SOLID		BOLSTER.	1 - 57
FACTOR	: 8	ER-	8	41	DIE NO.	50544