Farabaugh Engineering and Testing Inc.

PERFORMANCE TEST REPORT

4000 SERIES
SINGLE HUNG WINDOW

H-R35
(3'-9" X 5'-1")

FOR

DOVE INDUSTRIES
767 SANS SOUCI PARKWAY
WILKES BARRE, PA 18702

Project No. T202D-04

10/6/04

REVISED: 5/2/07

401 Wide Drive • McKeesport, PA 15135
(412) 751-4001 • FAX (412) 751-4003

PERFORMANCE TEST REPORT

Manufacturer: DOVE INDUSTRIES
767 SANS SOUCI PARKWAY
WILKES BARRE, PA 18702

Product Identification

Product Type: Single Hung Window

Series/Model #: 4000 SERIES SINGLE HUNG WINDOW

Specification: AAMA/NWWDA 101/I.S.2-97

Designation: H-R35 (45" X 61") AAMA/NWWDA 101/I.S.2-97
GRADE 35

Product Description: Attached

Test Results: Attached

Test Equipment: FET

Testing Date: 9/15/04

Detailed assembly drawings showing wall thickness of all members, corner construction and hardware application are on file and have been compared to the sample submitted. A copy of this report and test sample will be retained at FET for a period of 4 years. The results obtained apply only to the specimen tested. No conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen may be drawn form this test.

The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

Prepared by:
Paul G. Farabaugh

Approved by:
Patrick J. Farabaugh, PE

Product Description

General:
Test sample was comprised of Dove Industries, 4000 Series, Single Hung Vinyl Prime, one-over-one (tilt loading type) single hung window, with an overall master frame size measuring 45" wide X 61" high. The bottom sash measured 41-7/8" wide X 29-1/4" high overall. The frame and sash corners were of a welded, mitered type construction. The fixed meeting rail was of a coped, butt type construction with a two screw attachment at each jamb location. One extruded channel shaped steel reinforcement member filled the member hollow of the locking operable sash meeting rail. The reinforcement was attached using the locking screws and one additional screw at each lock down thru glazing track. Bottom window had an exterior screen. The perimeter of the frame used a 1-1/2" (nominal) nailing flange to secure it to the buck.

Weather-stripping:

MEMBER	WEATHERSTIPPING	QUANTITY	WIDTH X HEIGHT (INCHES)	LOCATION
Frame Header	none	0	-	none
Frame Sill	Center Fin Pile Seal	1	0.187 x .26" ht	Interior leg
Frame Jambs	none	0	-	none
Fixed Meeting Rail	Center Fin Pile Seal	1	0.187" w x .26" ht	Interior face
Bottom sash – top rail (meeting rail)	Center Fin Pile Seal	1	0.187" w x .26" ht	Exterior face
Bottom sash – bot rail (lift rail)	Bulb Foam Seal with flap	1	0.30" ht	Bottom face
Bottom sash – jamb stiles	Center Fin Pile Seal Center Fin Pile Seal	1 1	0.187" w x .26" ht 0.187" w x .26" ht	side face Exterior face

Operators and Other Hardware:
The operable sash had two block and tackle balances one per jamb. Two cam-type sweep locks were attached to the bottom sash meeting rail with keepers on fixed meeting rail. Each lock located 7-1/2 from each end. One plastic (spring loaded) tilt latch with thumb actuator was housed at each end of the top rail of the operable sash. The tilt latch housing was sided loaded into the top rail of the operable sash.. One (rectangular shaped) aluminum pivot bar was fastened with (2) screws at each end of the bottom horizontal rails of the operable sash.

Glazing System:
Each lite were interior drop glazed with 3/4" thick (nominal) insulated glass that set on perimeter bead of silicone. Each lite utilized two (0.09" nominal) thick clear annealed glass lites with a 0.57" continuous metal spacer. The glazing was set on a bead of silicone along the perimeter of the frame. A interior snap-in rigid vinyl-glazing bead secured the glass.

Weep Holes:
Two (5/16" diameter) weep holes were located down through (full height) the bottom glazing track of the operable sash, each one 3" from each end. Two (1-3/8" w x 5/16" h reduced to 1-3/16"w x 1/8"h) weeps with flaps were located on the exterior face of the sill, one 4" from each end. The top of sill corner ends just below operable track in jamb had weep opening ½" x 1-1/4" at each corner. The sill exterior leg used for the screen was cut 11/16" from each end. The sill interior leg used for the screen was cut 1-1/4" from each end.

Sealant:
Silicone sealant was applied to all the following areas:
- Perimeter of the glazing was set in continuous bead of silicone.
- Exterior face of buck that the nailing flange was set on.

Anchorage:
The screw pattern for the nailing flange into the buck was 11" c/c around the perimeter. Silicone sealant was used at nailing flange to buck location and around the perimeter.

4000 SERIES SINGLE HUNG WINDOW
Test Results

Paragraph	Test Title / Referenced Test Method	Test Results	Allowable
	Gateway Performance Requirements		
2.1.2	**Air Infiltration Test** (ASTM E-283-91) @ 1.57 psf	0.278 cfm/sf	0.30 cfm/sf
	The test specimen meets the performance levels specified in AAMA/NWWDA 101/I.S.2-97 for Air Infiltration.		
2.1.3	**Water Resistance Test** (ASTM E547-96) @ 2.86 psf (w/wo screen)	No penetration	No penetration

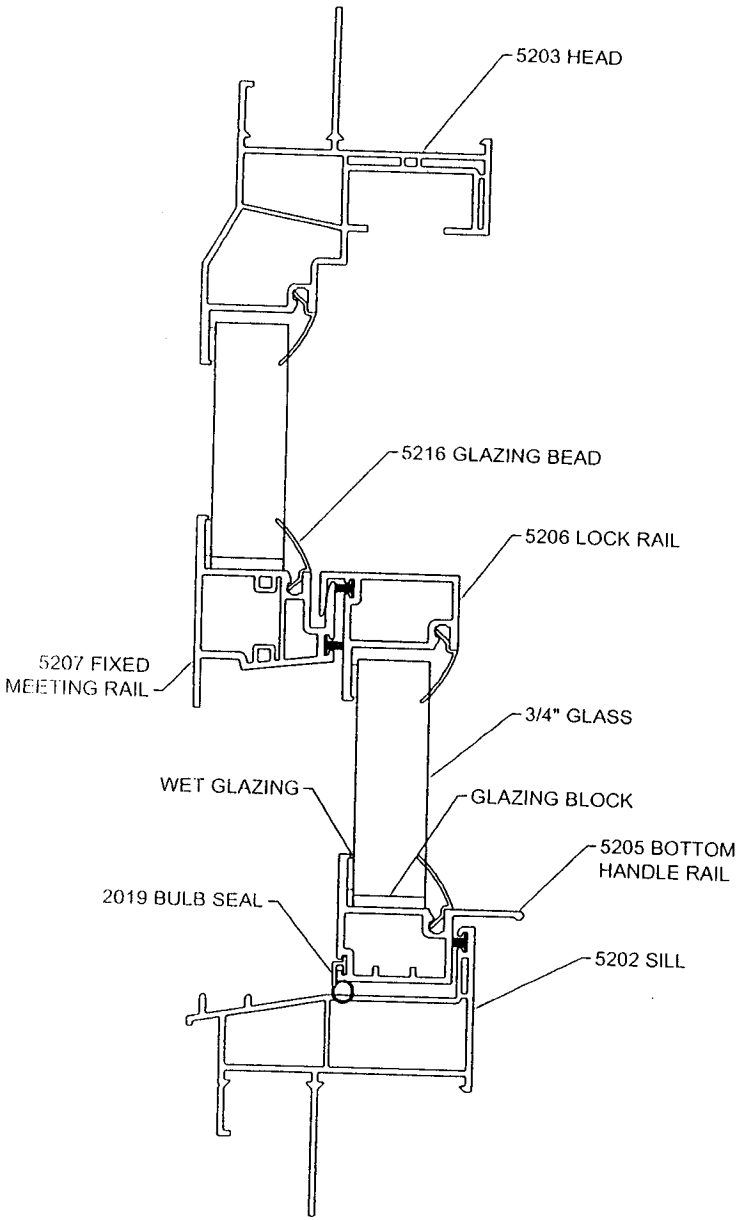
4000 SERIES SINGLE HUNG WINDOW
Test Results (cont.)

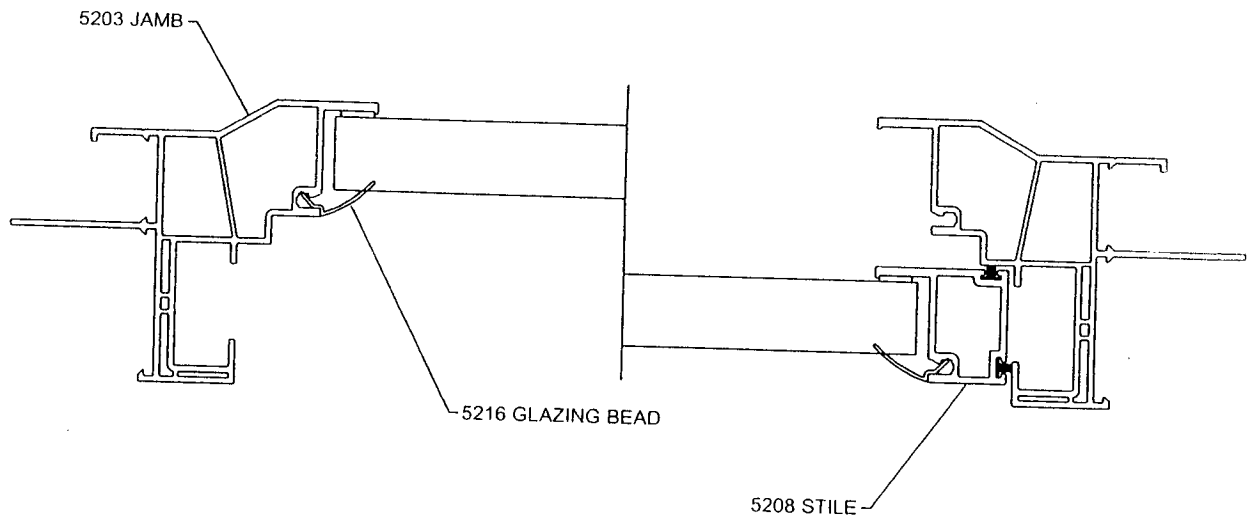
Paragraph	Test Title / Referenced Test Method	Test Results	Allowable
2.1.4.2	**Uniform Load Structural Test** (see optional performance results)		
2.1.7	**Welded Corner Test**	Meets	As Stated
2.1.8	**Forced Entry Resistance** (ASTM F588-97) Performance Level 10 Type A (Section 10)		
	Sec. 10.1 Lock Manipulation Test	No Failure	As Stated
	Sec. 10.2.1.1 Test A1	No Failure	As Stated
	Sec. 10.2.1.2 Test A2	No Failure	As Stated
	Sec. 10.2.1.3 Test A3	No Failure	As Stated
	Sec. 10.2.1.4 Test A4	No Failure	As Stated
	Sec. 10.2.1.5 Test A5	No Failure	As Stated
	Sec. 10.2.1.6 Test A6	No Failure	As Stated
	Sec. 10.2.1.7 Test A7	No Failure	As Stated
	Sec. 10.2.1.8 Lock Manipulation Test	No Failure	As Stated
	Specific Window Performance Results		
2.2.1.6.1	**Operating Force Test** bottom sash	7 lb up, 8 lb dn	30 lb
2.2.1.6.2	**Deglazing Test** (ASTM E987-88, Method B)		
	Bottom sash		
	left stile @ 50 lbf	6 %	<100%
	right stile @ 50 lbf	6 %	<100%
	top rail @ 70 lbf	13 %	<100%
	bottom rail @ 70 lbf	13 %	<100%

4000 SERIES SINGLE HUNG WINDOW
Test Results (cont.)

Paragraph	Test Title / Referenced Test Method	Test Results	Allowable
	Optional Performance Results		
4.3	**Water Resistance Test** (ASTM E547-96) @ 6.0 psf (w/wo screen)	No penetration	No penetration
4.4.2	**Uniform Load Structural Test** (ASTM E-330-97)		(0.4%xL)
	@ 52.5 psf positive	0.021" *	0.167"
	@ 52.5 psf negative	0.012" *	0.167"
	@ 52.5 psf positive	0.007" *	0.117" (stile)
	@ 52.5 psf negative	0.053" *	0.167" (bot. rail)

* - Maximum Permanent Deformations.





FARABAUGH ENGINEERING AND TESTING, INC.

PGF T202D-04

No.	REVISION	BY	DATE
6	REMOVED SCREEN NUB ON 5207; WO #265	JPP	10-15-02
5	REPLACED 5266 BEAD W/5216 BEAD; WO #0202	EAS	07-30-02
4	UPDATED 5203 & 5207; WO #0034	EAS	02-25-02
3	UPDATED 5203 & 5207; WO #1084	EAS	09-04-01
2	UPDATED 5202 & 5203 PROFILES	EAS	05-14-01
1	REVISED J-CHANNEL	EAS	04-17-01

CHELSEA BUILDING PRODUCTS, INC.
565 CEDAR WAY, OAKMONT PA 15139

PRELIMINARY PART #

TITLE: 5200 SERIES NEW CONSTRUCTION SINGLE HUNG

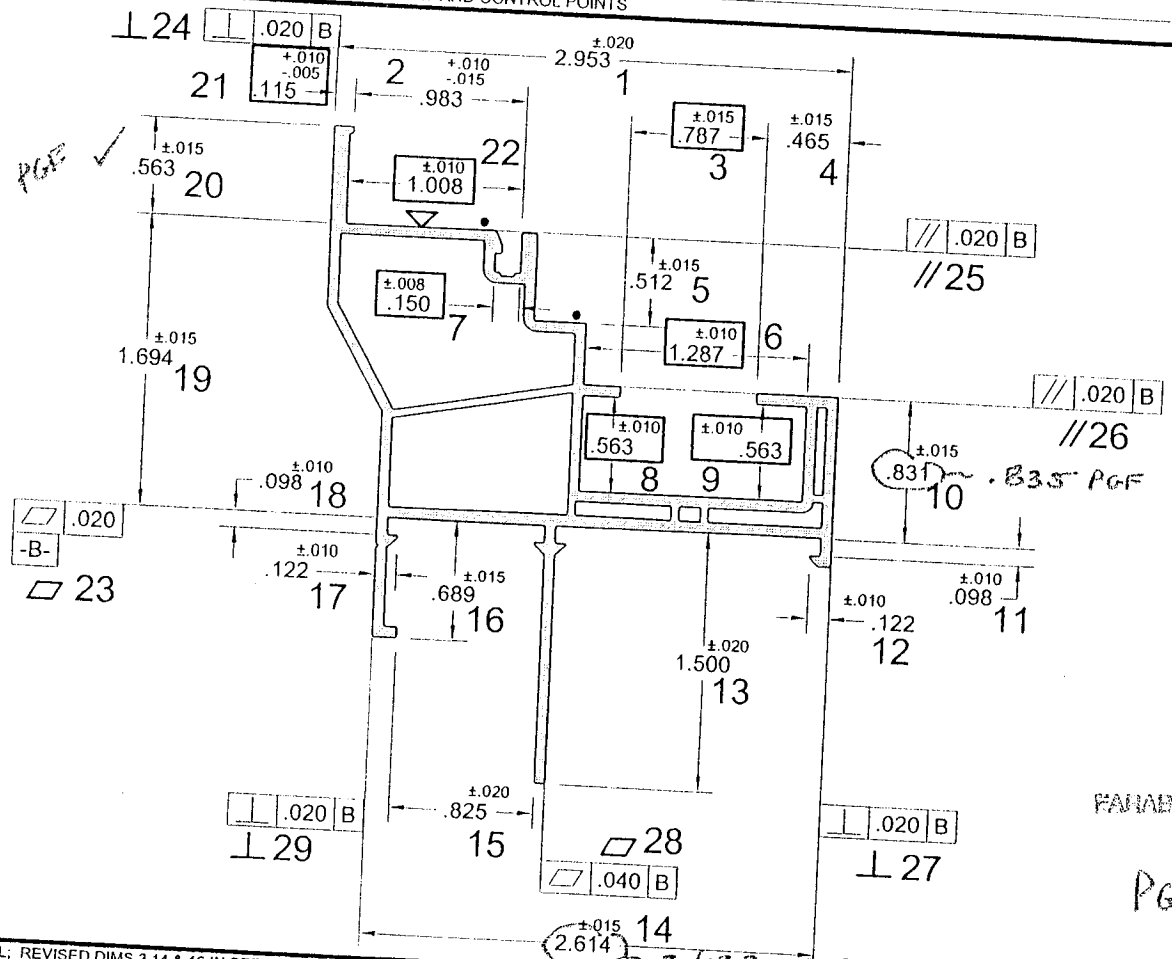
DRAWN BY:	DESIGNED BY:	DATE	SCALE
EAS		04-04-01	NTS-1
CHECKED BY:	APPROVED BY:	DRAWING No.	

PR[redacted] NUMBER: 5203QC	DRAWN BY: EAS	APPROVED BY:	DATE:	DEVELOP	INPROCESS	PRODUCTION
PART NAME: 5203	DESCRIPTION: SINGLE HUNG JAMB	SUPPLIER/PLANT: CHELSEA BUILDING PRODUCTS				

CHELSEA BUILDING PRODUCTS, INC.
565 CEDAR WAY, OAKMONT PA 15139

NOTES:
1. MATERIAL = RIGID P.V.C.
2. FLEXIBLE P.V.C. =
3. EXTERIOR COATING =
4. LAMINATE =
5. THINNER INTERIOR WALLS =
6. WALL THICKNESS = .062
7. RADIUS = .010 R
8. LOCATION FOR IMPACT TEST
9. ANGULARITY =
10. PERPENDICULARITY =
11. PARALLELISM =
12. FLATNESS =
13. SPECIFICATION LENGTH TO ±3/8"
14. ANGULARITY TO BE ± 1°
15. PROFILE MUST MEET Q-303 PER AAMA SPECIFICATIONS
16. PROFILE MUST MEET Q-304 PER AAMA SPECIFICATIONS
17. PROFILE MUST MEET Q-901 PER AAMA SPECIFICATIONS
18. PROFILE MUST MEET Q-902 IMPACT RESISTANCE PER AAMA SPECIFICATIONS

ILLUSTRATION OF PART AND CONTROL POINTS



FANABAUGH ENGINEERING AND TESTING, INC.

PGF T202D-04

WEATHERSTRIP SPECIFICATION

POSITION	SIZE	WEATHERSTRIP TYPE

FUNCTIONAL CHECK
5266 GLAZING BEAD
BSI HIDDEN BALANCE
5286 MULLION

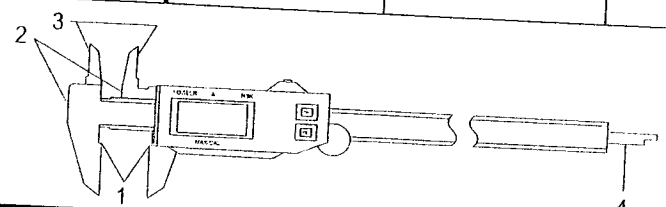
DRAWN DATE: 04-11-01

NO.	REVISION	BY	DATE
12	DIM .983 WAS CRITICAL; REVISED DIMS 3,14 & 16 IN SPEC LIST; WO #498	EAS	03-29-04
11	REVISED DIM 22; WO #487	JPP	03-09-04
10	ADDED DIM 22; WO #3233	JPP	07-02-03
9	REVISED DIMS; WO #287	JPP	10-30-02
8	REVISED GLAZING BEAD POCKET; WO #0034	EAS	02-25-02
7	ADDED DIM DOTS TO .512 DIM; WAS CALIPER MEASUREMENT	EAS	12-14-01

CUSTOMER LENGTH	CHELSEA CUT LENGTH	TOLERANCE

e the caliper diagram as your guide to measure the following control points.
asure the following control points using #1 on the caliper diagram:
asure the following control points using #2 on the caliper diagram:
asure the following control points using #3 on the caliper diagram:
asure the following control points using #4 on the caliper diagram:
quency of sampling: Process Specialist- 3 samples per shift recorded every 4 hours.
tor- 1 sample per shift recorded 1 hour after shift start.

ANY CONTROL POINTS ARE NOT IN SPEC.
ORRECTIVE ACTION REQUIRED



QC PART NUMBER:	DRAWN BY:	APPROVED BY:	DATE:	
5202QC	EAS			DEVELOP ☐ INPROCESS ☐ PRODUCTION ☐

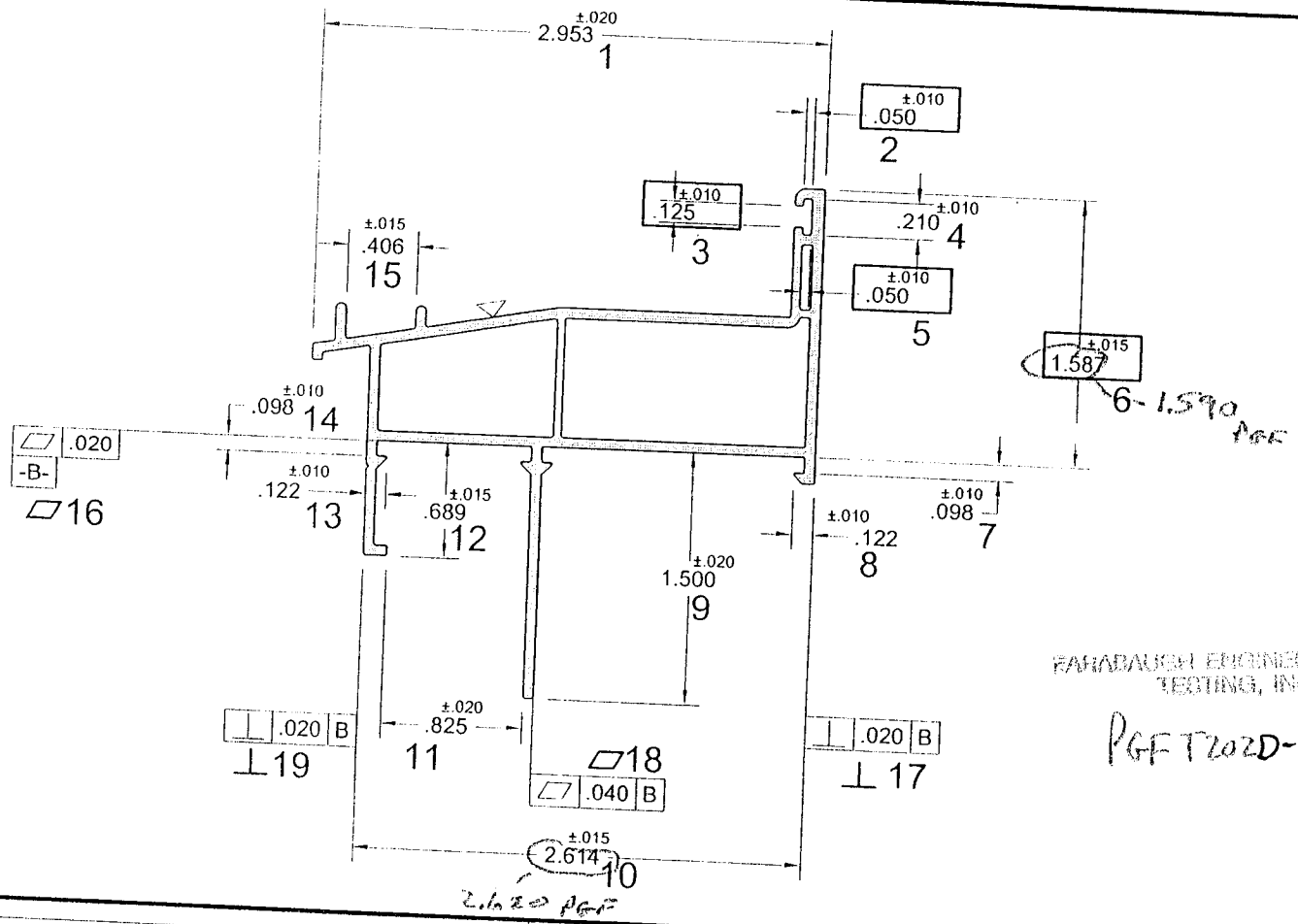
PART NAME:	DESCRIPTION:	SUPPLIER/PLANT:
5202	SINGLE HUNG SILL	CHELSEA BUILDING PRODUCTS

CHELSEA
565 CEDAR WAY, OAKMONT PA 15139

NOTES:

1. MATERIAL = RIGID P.V.C.
2. FLEXIBLE P.V.C. =
3. CAPSTOCK =
4. LAMINATE =
5. THINNER INTERIOR WALLS =
6. WALL THICKNESS = .062 ✓ PGF
7. RADIUS = .010 R
8. LOCATION FOR IMPACT TEST
9. ANGULARITY =
10. PERPENDICULARITY =
11. PARALLELISM =
12. FLATNESS =
13. SPECIFICATION LENGTH TO ±3/8"
14. ANGULARITY TO BE ± 1°
15. PROFILE MUST MEET Q-303 PER AAMA SPECIFICATIONS
16. PROFILE MUST MEET Q-304 PER AAMA SPECIFICATIONS
17. PROFILE MUST MEET Q-901 PER AAMA SPECIFICATIONS
18. PROFILE MUST MEET Q-902 IMPACT RESISTANCE PER AAMA SPECIFICATIONS

ILLUSTRATION OF PART AND CONTROL POINTS



FAHRAUKEN ENGINEERING AND TESTING, INC.
PGFT202D-04

WEATHERSTRIP SPECIFICATION

POSITION	SIZE	WEATHERSTRIP TYPE

FUNCTIONAL CHECK

5286 MULLION

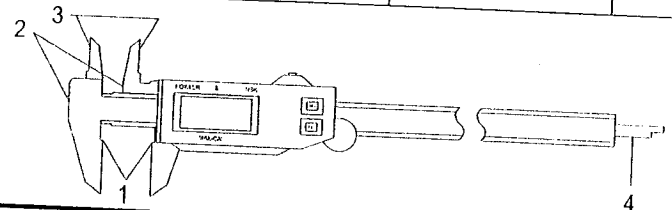
NO.	REVISION	BY	DATE
3	ADDED FUNCTIONAL CHECK; WO #1189	EAS	12-05-01
2	REVISED J-CHANNEL & FIN LOCATION	EAS	05-14-01
1	REVISED J-CHANNEL	EAS	04-17-01

CUSTOMER LENGTH	CHELSEA CUT LENGTH	TOLERANCE

DRAWN DATE: 04-11-01

Use the caliper diagram as your guide to measure the following control points.
Measure the following control points using #1 on the caliper diagram: 1,6,8,10,13
Measure the following control points using #2 on the caliper diagram: 9,12
Measure the following control points using #3 on the caliper diagram: 2,3,4,5,7,11,14,15
Measure the following control points using #4 on the caliper diagram:
Frequency of sampling: Process Specialist- 3 samples per shift recorded every 4 hours.
Auditor- 1 sample per shift recorded 1 hour after shift start.

IF ANY CONTROL POINTS ARE NOT IN SPEC.
CORRECTIVE ACTION REQUIRED



QC PRINT NUMBER: 5205QC | DRAWN BY: J.S. | APPROVED BY: | DATE:

DEVELOP | INPROCESS | PRODUCTION

PART NAME: 5205

DESCRIPTION: HANDLE RAIL/STILE

SUPPLIER/PLANT: CHELSEA BUILDING PRODUCTS

CHELSEA BUILDING PRODUCTS, INC.
565 CEDAR WAY, OAKMONT PA 15139

NOTES:

1. MATERIAL = RIGID P.V.C.
2. FLEXIBLE P.V.C. =
3. EXTERIOR COATING =
4. LAMINATE =
5. THINNER INTERIOR WALLS =
6. WALL THICKNESS = .070 ✓ PGF
7. RADIUS = .010
8. LOCATION FOR IMPACT TEST ☑
9. ANGULARITY =
10. PERPENDICULARITY =
11. PARALLELISM =
12. FLATNESS =
13. SPECIFICATION LENGTH TO ±3/8"
14. ANGULARITY TO BE ± 1°
15. PROFILE MUST MEET Q-303 PER AAMA SPECIFICATIONS
16. PROFILE MUST MEET Q-304 PER AAMA SPECIFICATIONS
17. PROFILE MUST MEET Q-901 PER AAMA SPECIFICATIONS
18. PROFILE MUST MEET Q-902 IMPACT RESISTANCE PER AAMA SPECIFICATIONS

WEATHERSTRIP SPECIFICATION

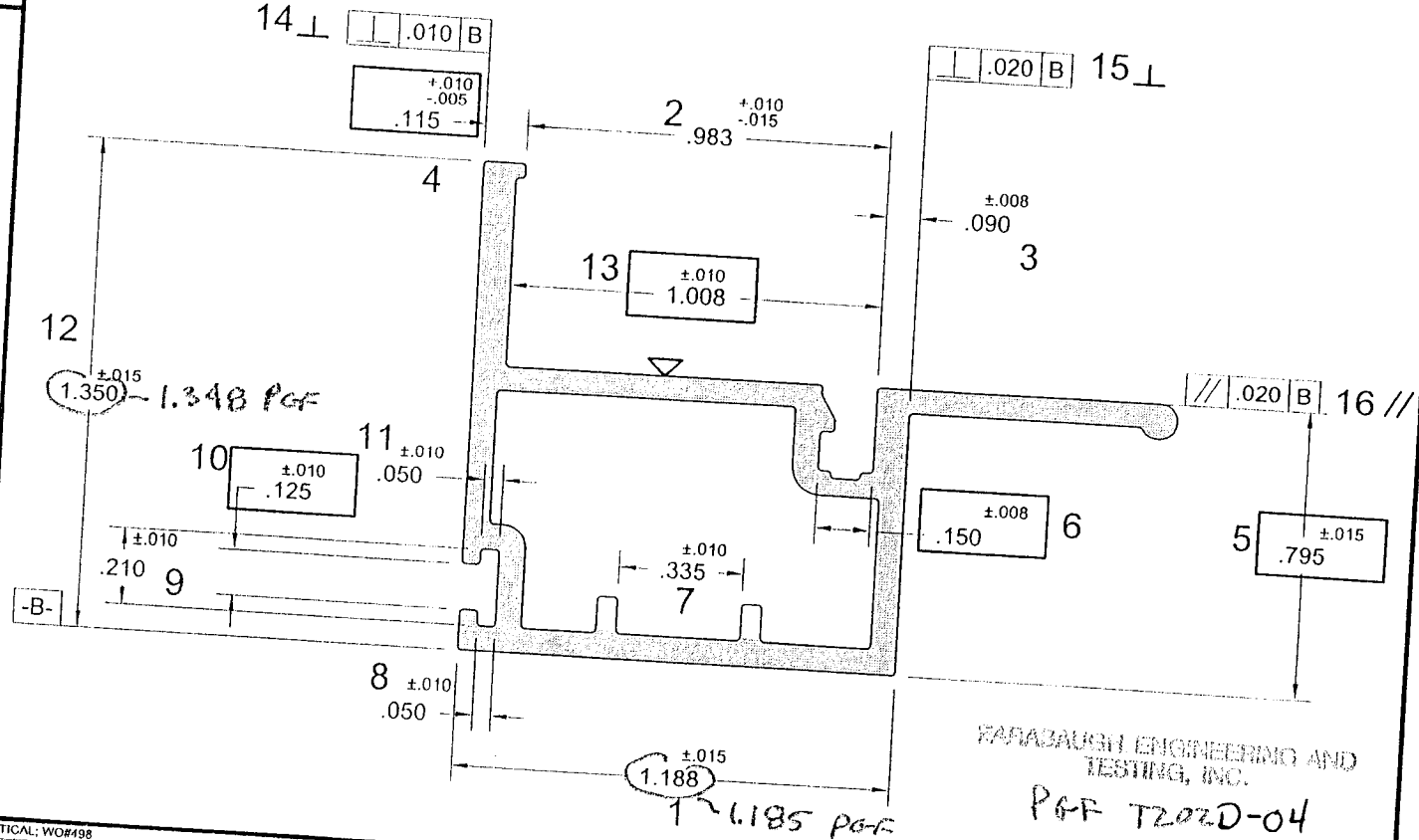
SITION	SIZE	WEATHERSTRIP TYPE

FUNCTIONAL CHECK

216A GLAZING BEAD

AWN DATE: 04-10-01

ILLUSTRATION OF PART AND CONTROL POINTS

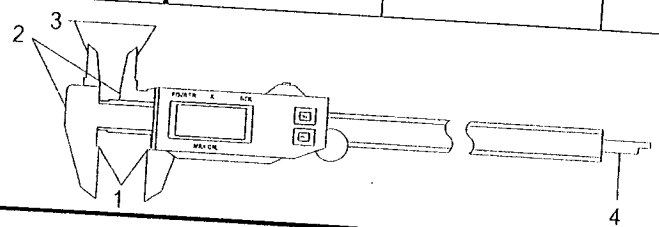


FARABAUGH ENGINEERING AND TESTING, INC.
PGF T202D-04

NO.	REVISION	BY	DATE
7	DIM .983 WAS CRITICAL; WO#498	EAS	03-26-04
6	REVISED DIM 13; WO#487	JPP	03-09-04
5	ADDED DIM 13; WO#3233	JPP	07-02-03
4	REVISED DIMS; WO#287	JPP	10-31-02
3	REVISED DIMENSIONS	BLG	10/15/02
2	ADDED FUNCTIONAL CHECK; WO #1084	EAS	09-06-01

CUSTOMER LENGTH	CHELSEA CUT LENGTH	TOLERANCE

the caliper diagram as your guide to measure the following control points.
sure the following control points using #1 on the caliper diagram:
sure the following control points using #2 on the caliper diagram:
ure the following control points using #3 on the caliper diagram:
ure the following control points using #4 on the caliper diagram:
ency of sampling: Process Specialist- 3 samples per shift recorded every 4 hours.
or- 1 sample per shift recorded 1 hour after shift start.
ANY CONTROL POINTS ARE NOT IN SPEC.
RRECTIVE ACTION REQUIRED



C PF[redacted]UME[redacted] | 5206QC | DRAWN BY: J.S. | APPROVED BY: | DATE: | DEVELOP | INPROCESS | PRODUCTION

PART NAME: 5206

DESCRIPTION: LOCK RAIL/STILE

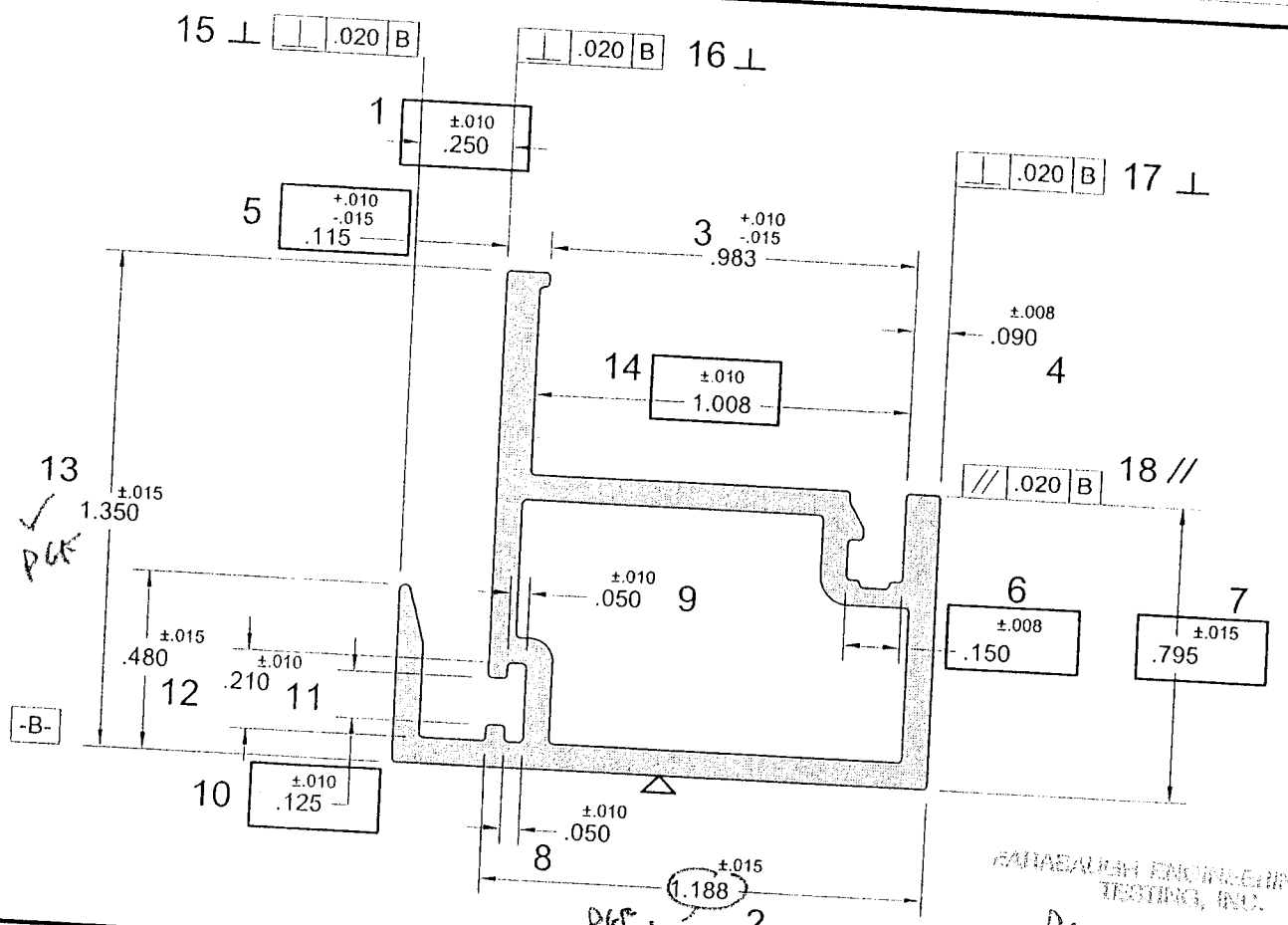
SUPPLIER/PLANT: CHELSEA BUILDING PRODUCTS

CHELSEA BUILDING PRODUCTS, INC.
565 CEDAR WAY, OAKMONT PA 15139

NOTES:

1. MATERIAL = RIGID P.V.C.
2. FLEXIBLE P.V.C. =
3. EXTERIOR COATING =
4. LAMINATE =
5. THINNER INTERIOR WALLS =
6. WALL THICKNESS = .070
7. RADIUS = .010
8. LOCATION FOR IMPACT TEST
9. ANGULARITY =
10. PERPENDICULARITY =
11. PARALLELISM =
12. FLATNESS =
13. SPECIFICATION LENGTH TO ±3/8"
14. ANGULARITY TO BE ± 1°
15. PROFILE MUST MEET Q-303 PER AAMA SPECIFICATIONS
16. PROFILE MUST MEET Q-304 PER AAMA SPECIFICATIONS
17. PROFILE MUST MEET Q-901 PER AAMA SPECIFICATIONS
18. PROFILE MUST MEET Q-902 IMPACT RESISTANCE PER AAMA SPECIFICATIONS

ILLUSTRATION OF PART AND CONTROL POINTS



WEATHERSTRIP SPECIFICATION

POSITION	SIZE	WEATHERSTRIP TYPE

FUNCTIONAL CHECK

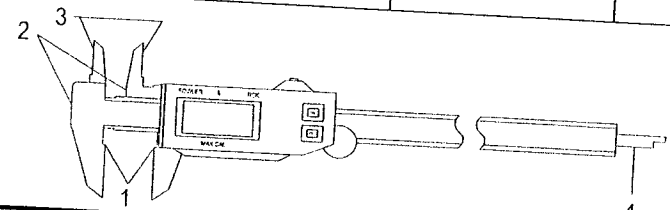
5216A GLAZING BEAD

DRAWN DATE: 04-10-01

NO.	REVISION	BY	DATE
7	DIM .983 WAS CRITICAL; WO#498	EAS	03-26-04
6	REVISED DIM 14; WO#487	JPP	03-09-04
5	ADDED DIM 14; WO#3233	JPP	07-02-03
4	REVISED DIMS; WO#287	JPP	10-31-02
3	REVISED DIMENSIONS	BLG	10/15/02
2	ADDED FUNCTIONAL CHECK; WO #1084	EAS	09-06-01

CUSTOMER LENGTH	CHELSEA CUT LENGTH	TOLERANCE

e the caliper diagram as your guide to measure the following control points.
asure the following control points using #1 on the caliper diagram:
asure the following control points using #2 on the caliper diagram:
asure the following control points using #3 on the caliper diagram:
asure the following control points using #4 on the caliper diagram:
quency of sampling: Process Specialist- 3 samples per shift recorded every 4 hours.
itor- 1 sample per shift recorded 1 hour after shift start.
ANY CONTROL POINTS ARE NOT IN SPEC.
ORRECTIVE ACTION REQUIRED



CANADALIAH ENGINEERING AND TESTING, INC.

QC PRINT NUMBER: 5207QC | DRAWN BY: J.S. | APPROVED BY: | DATE: | DEVELOP | INPROCESS | PRODUCTION

PART NAME: 5207

DESCRIPTION: FIXED MEETING RAIL/STILE

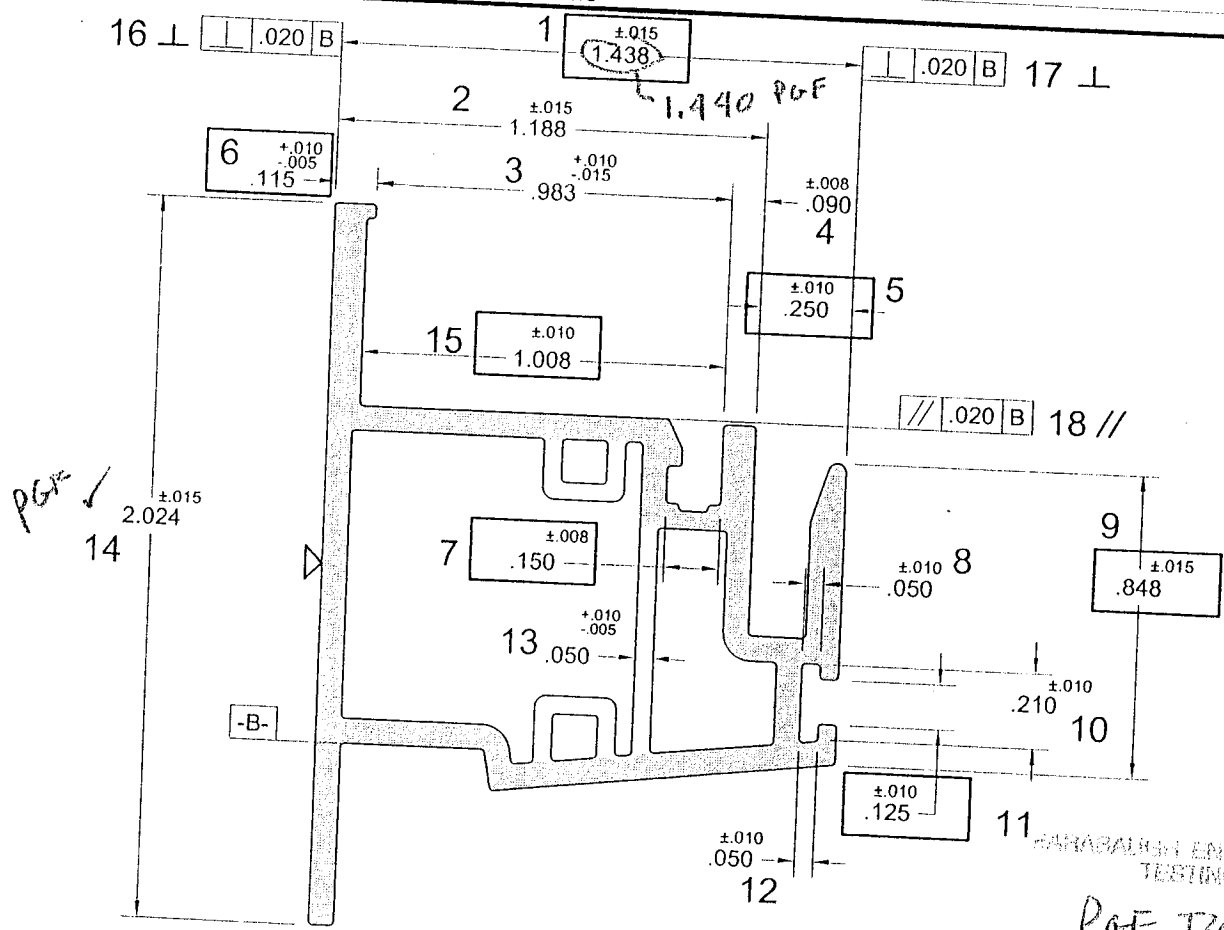
SUPPLIER/PLANT: CHELSEA BUILDING PRODUCTS

CHELSEA BUILDING PRODUCTS, INC.
565 CEDAR WAY, OAKMONT PA 15139

NOTES:

1. MATERIAL = RIGID P.V.C.
2. FLEXIBLE P.V.C. =
3. EXTERIOR COATING =
4. LAMINATE =
5. THINNER INTERIOR WALLS =
6. WALL THICKNESS = .070 ✓ pdf
7. RADIUS = .010
8. LOCATION FOR IMPACT TEST
9. ANGULARITY =
10. PERPENDICULARITY =
11. PARALLELISM =
12. FLATNESS =
13. SPECIFICATION LENGTH TO ±3/8"
14. ANGULARITY TO BE ± 1°
15. PROFILE MUST MEET Q-303 PER AAMA SPECIFICATIONS
16. PROFILE MUST MEET Q-304 PER AAMA SPECIFICATIONS
17. PROFILE MUST MEET Q-901 PER AAMA SPECIFICATIONS
18. PROFILE MUST MEET Q-902 IMPACT RESISTANCE PER AAMA SPECIFICATIONS

ILLUSTRATION OF PART AND CONTROL POINTS



PARABOLIN ENGINEERING AND TESTING, INC.

pdf T202D-04

WEATHERSTRIP SPECIFICATION

POSITION	SIZE	WEATHERSTRIP TYPE

FUNCTIONAL CHECK

5216A GLAZING BEAD

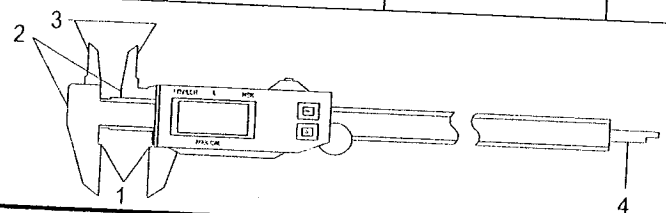
DRAWN DATE: 04-10-01

NO.	REVISION	BY	DATE
9	DIM .983 WAS CRITICAL; WO#498	EAS	03-26-04
8	REVISED DIM 15; WO#487	JPP	03-09-04
7	ADDED DIM 15; WO#3233	JPP	07-02-03
6	REVISED DIMS; WO#287	JPP	10-31-02
5	REVISED DIMENSIONS	BLG	10/21/02
4	REMOVED SCREEN NUB; WO #265	JPP	10-15-02

CUSTOMER LENGTH	CHELSEA CUT LENGTH	TOLERANCE

e the caliper diagram as your guide to measure the following control points.
asure the following control points using #1 on the caliper diagram:
asure the following control points using #2 on the caliper diagram:
asure the following control points using #3 on the caliper diagram:
asure the following control points using #4 on the caliper diagram:
quency of sampling: Process Specialist- 3 samples per shift recorded every 4 hours.
litor- 1 sample per shift recorded 1 hour after shift start.

ANY CONTROL POINTS ARE NOT IN SPEC.
ORRECTIVE ACTION REQUIRED



QC PRINT NUMBER:	DRAWN BY:	APPROVED BY:	DATE:	
5208QC	J.S.			DEVELOP / INPROCESS / PRODUCTION

PART NAME:	DESCRIPTION:	SUPPLIER/PLANT:
5208	RAIL/STILE	CHELSEA BUILDING PRODUCTS

CHELSEA BUILDING PRODUCTS, INC.
565 CEDAR WAY, OAKMONT PA 15139

NOTES:

1. MATERIAL = RIGID P.V.C.
2. FLEXIBLE P.V.C. =
3. EXTERIOR COATING =
4. LAMINATE =
5. THINNER INTERIOR WALLS =
6. WALL THICKNESS = .070 ✓ PGF
7. RADIUS = .010
8. LOCATION FOR IMPACT TEST
9. ANGULARITY =
10. PERPENDICULARITY =
11. PARALLELISM =
12. FLATNESS =
13. SPECIFICATION LENGTH TO ±3/8"
14. ANGULARITY TO BE ± 1°
15. PROFILE MUST MEET Q-303 PER AAMA SPECIFICATIONS
16. PROFILE MUST MEET Q-304 PER AAMA SPECIFICATIONS
17. PROFILE MUST MEET Q-901 PER AAMA SPECIFICATIONS
18. PROFILE MUST MEET Q-902 IMPACT RESISTANCE PER AAMA SPECIFICATIONS

WEATHERSTRIP SPECIFICATION

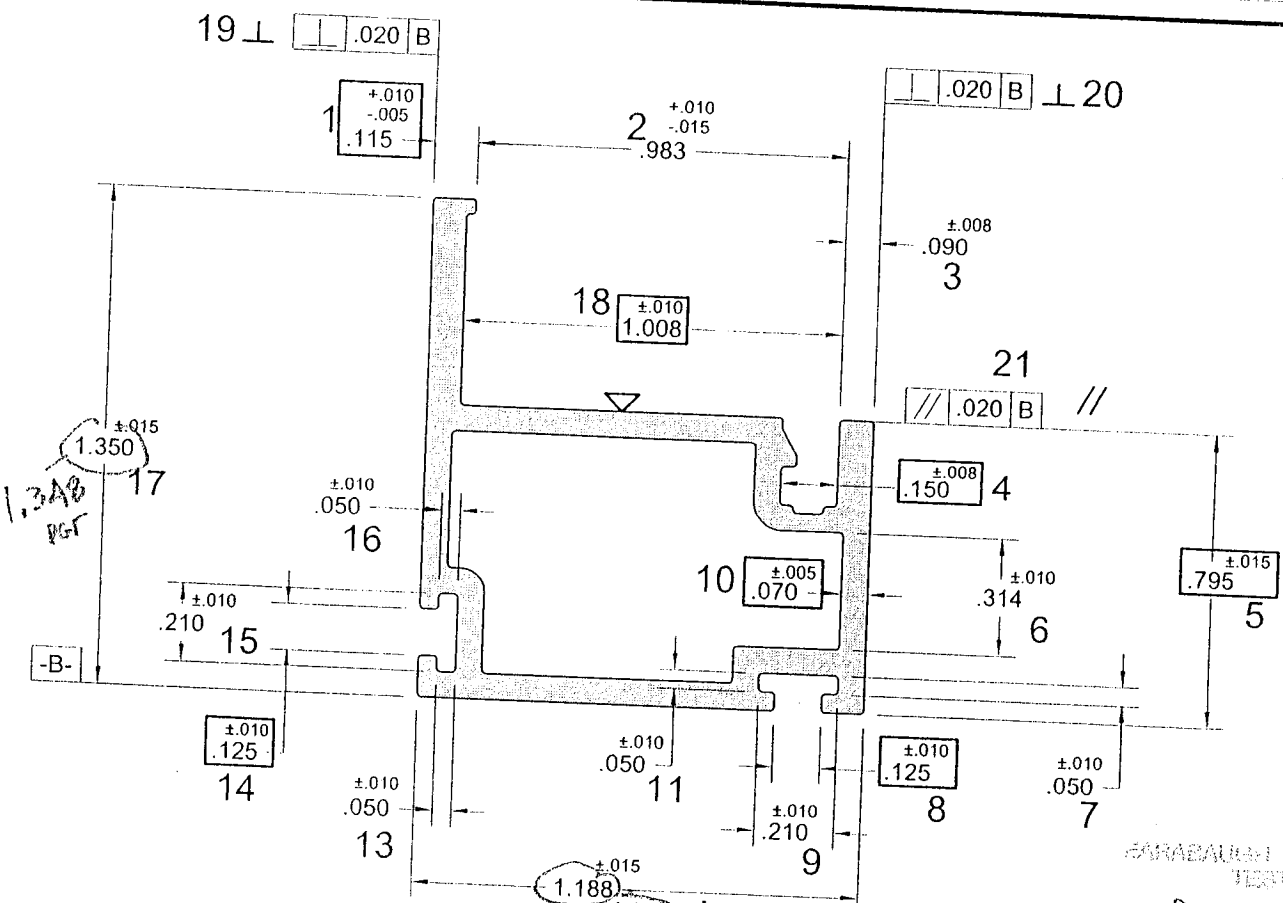
POSITION	SIZE	WEATHERSTRIP TYPE

FUNCTIONAL CHECK

5216A GLAZING BEAD

DRAWN DATE: 04-10-01

ILLUSTRATION OF PART AND CONTROL POINTS

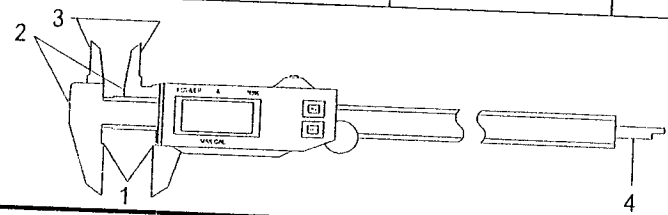


PGF T202D-04

NO.	REVISION	BY	DATE
7	DIM .983 WAS CRITICAL; WO#498	EAS	03-26-04
6	REVISED DIM 18; WO#487	JPP	03-09-04
5	ADDED DIM 18; WO#3233	JPP	07-02-03
4	REVISED DIMENSIONS	JPP	10-23-02
3	REVISED DIMENSIONS	BLG	10/15/02
2	ADDED FUNCTIONAL CHECK; WO #1084	EAS	09-06-01

CUSTOMER LENGTH	CHELSEA CUT LENGTH	TOLERANCE

the caliper diagram as your guide to measure the following control points.
sure the following control points using #1 on the caliper diagram: 1,3,6,8,17
sure the following control points using #2 on the caliper diagram:
sure the following control points using #3 on the caliper diagram: 4,5,7,9,10,11,12,13,14,15,16
sure the following control points using #4 on the caliper diagram:
uency of sampling: Process Specialist- 3 samples per shift recorded every 4 hours.
tor- 1 sample per shift recorded 1 hour after shift start.
ANY CONTROL POINTS ARE NOT IN SPEC.
ORRECTIVE ACTION REQUIRED



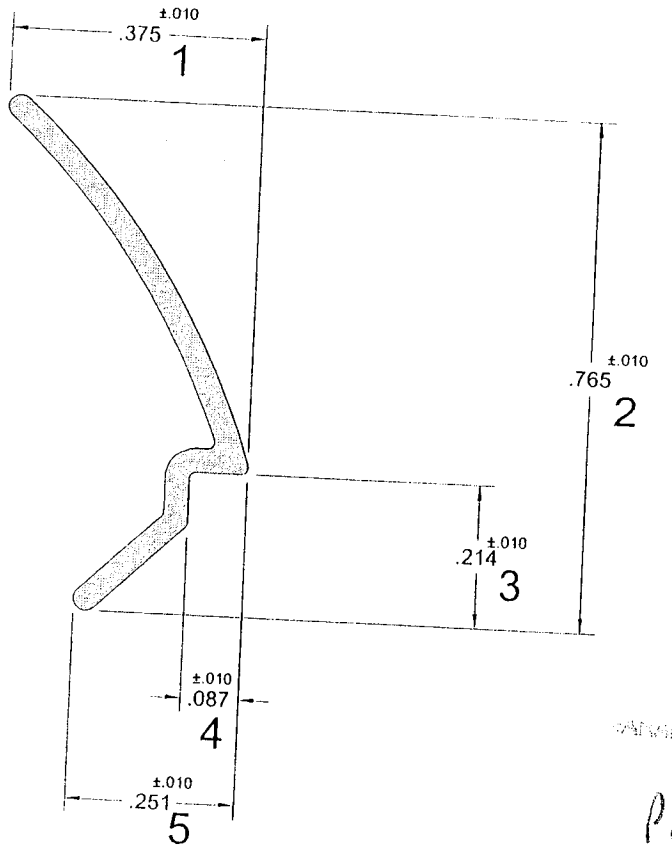
QC P[redacted] NUM[redacted]	5216QC	DRAWN BY: EAS	APPROVED BY:	DATE:	DEVELOP	INPROCESS	PRODUCTION
PART NAME: 5216	DESCRIPTION: GLAZING BEAD	SUPPLIER/PLANT: CHELSEA BUILDING PRODUCTS					

CHELSEA BUILDING PRODUCTS, INC.
565 CEDAR WAY, OAKMONT PA 15139

NOTES:

1. MATERIAL = RIGID P.V.C.
2. FLEXIBLE P.V.C. =
3. EXTERIOR COATING =
4. LAMINATE =
5. THINNER INTERIOR WALLS =
6. WALL THICKNESS = .035 .042 per
7. RADIUS = .010 R
8. LOCATION FOR IMPACT TEST
9. ANGULARITY =
10. PERPENDICULARITY =
11. PARALLELISM =
12. FLATNESS =
13. SPECIFICATION LENGTH TO ±3/8"
14. ANGULARITY TO BE ± 1°
15. PROFILE MUST MEET Q-303 PER AAMA SPECIFICATIONS
16. PROFILE MUST MEET Q-304 PER AAMA SPECIFICATIONS
17. PROFILE MUST MEET Q-901 PER AAMA SPECIFICATIONS
18. PROFILE MUST MEET Q-902 IMPACT RESISTANCE PER AAMA SPECIFICATIONS

ILLUSTRATION OF PART AND CONTROL POINTS



WEATHERSTRIP SPECIFICATION

POSITION	SIZE	WEATHERSTRIP TYPE

FUNCTIONAL CHECK

5203 JAMB
5204 FRAME
5231 FRAME
5241 FRAME
5207 MEETING RAIL
5208 STILE

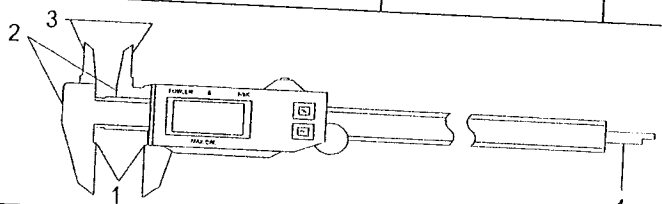
DRAWN DATE: 06-18-02

NO.	REVISION	BY	DATE
2	DIM. #1 .375 WAS .379, PER WO#290	BLG	10/30/02
2	DIM. #2 .765 WAS .775	BLG	10/22/02
1	DIM. #1 WAS .353 AND DIM #2 WAS .750	BLG	7/22/02

CUSTOMER LENGTH	CHELSEA CUT LENGTH	TOLERANCE

Use the caliper diagram as your guide to measure the following control points.
Measure the following control points using #1 on the caliper diagram: 1,2,5
Measure the following control points using #2 on the caliper diagram: 4
Measure the following control points using #3 on the caliper diagram:
Measure the following control points using #4 on the caliper diagram:
Frequency of sampling: Process Specialist- 3 samples per shift recorded every 4 hours.
Editor- 1 sample per shift recorded 1 hour after shift start.

IF ANY CONTROL POINTS ARE NOT IN SPEC.
CORRECTIVE ACTION REQUIRED



[redacted] TESTING, INC.

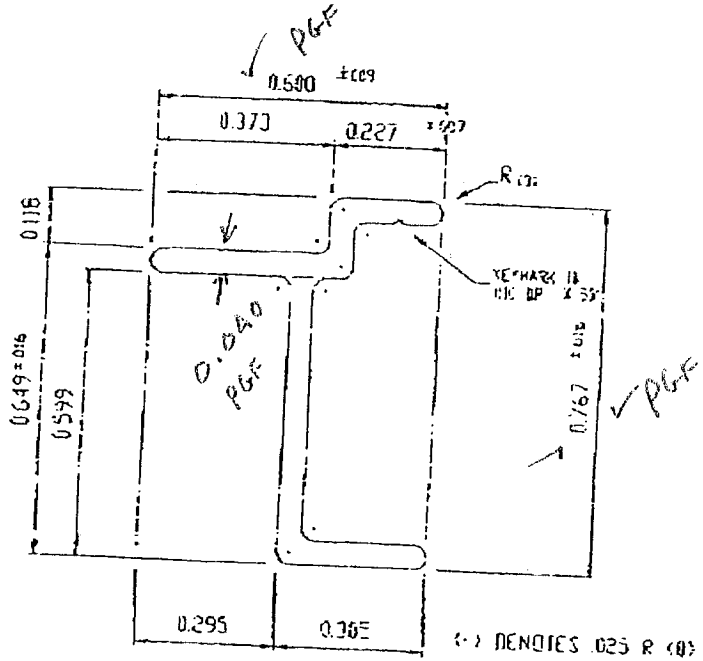
PGF T2020-04

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

S-22052
Die Number

ACTUAL SIZE

NO EXPOSED SURFACES



RANABAUGH ENGINEERING AND TESTING, INC.

Ref T20 20-04

KEYMARK CORPORATION
FONDA NEW YORK
TELEPHONE (518) 853-3421
FAX ENG(518)853-3435 SALES(518)853-3130

Spr	Revisions	Date
1	PRINT REVISION	03-02-94

Unspecified Wall Thickness .050 +.003 -.003
Break & Corners .015 Radius or as Noted

Customer
Job Name
Part Title: S.H. LOCK RAIL STRETCHER
Customer's Part Number
Scale 4:1
Date 02-21-94
Drawn AH
Checked

Alloy	Est. Area	Finish Perimeter
6063	.078 in²	0.000 in
Temper	Est. Weight	Est. Perimeter
T-6	.054 lbs/ft	3.102 in
Cavity Size	Circle Size	Exterior Perimeter
-	0-1 in	3.102 in

I_x =	I_y =	Factor	Type Of Finish
S_x =	S_y =	34	Mill ■ Anc. □ Brnz. □ Chrm. □ Satin ■ Semi-Matte □ Gloss Matte □ Glass