MIAMI-DADE

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

BUILDING CODE COMPLIANCE OFFICE
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT DIVISION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Solaroll Shade & Shutter Corp.
915 South Dixie Highway East
Pompano ,FL 33060

Your application for Notice of Acceptance (NOA) of:
Rolling Shutter, Extruded Aluminum
under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

ACCEPTANCE NO.: 01-0327.05
EXPIRES: 06/22/2006

Raul Rodriguez
Chief Product Control Division

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS
BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

APPROVED: 07/19/2001

Solaroll Shade & Shutter Corporation

ACCEPTANCE NO: 01-0327.05

APPROVED: JUL 19 2001

EXPIRES: 06/22/2006

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

1. SCOPE

This renews and revises the Notice of Acceptance No. 98-0616.09, which was issued on 08/20/98. It approves an extruded aluminum roll-up type shutter, as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County, for the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exceed the design pressure rating values indicated in the approved drawings.

2. PRODUCT DESCRIPTION

The Extruded Aluminum Roll-Up Shutter and its components shall be constructed in strict compliance with the following documents: Drawing No. 95-001, prepared by Jenkins & Charland, Incorporated, dated March 9, 1995, with latest revision on June 5, 1995, sheets 1 through 17 of 17 and Drawing No. 3-01009-D, prepared by Solar Shade & Shutter, dated 09/29/00 with no revisions, sheets 1 through 9 of 9. They bear the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division. These documents shall hereinafter be referred to as the approved drawings.

3. LIMITATIONS

3.1 Minimum slat engagement shall be 1.25".

3.2 Minimum separation from interior of slat to glass being protected shall be as shown on sheet 4 of 17.

3.3 The operating mechanism, not part of this approval shall be certified by a recognized testing agency.

3.4 All permanent set components, included but not limited to embedded anchor bolts, threaded cones, metal shields, headers and sills, must be protected against corrosion, contamination and damage at all time.

4. INSTALLATION

The extruded aluminum Roll-Up Shutter and its component shall be installed in strict compliance with the approved drawings.

5. LABELING

Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved".

6. BUILDING PERMIT REQUIREMENTS

6.1 Application for Building Permit shall be accompanied by copies of the following:

6.1.1 This Notice of Acceptance.

6.1.2 Duplicate copies of the approved drawings, as identified in Section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation.

6.1.3 Any other document required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.

Candido Font, P.E. Sr. Product Control Examiner
Product Control Division

Solaroll Shade & Shutter Corporation

ACCEPTANCE NO: 01-0327.05

APPROVED: JUL 19 2001

EXPIRES: 06/22/2006

NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

1 Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.

2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.

3. Renewals of Acceptance will not be considered if:
   a. There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes.
   b. The product is no longer the same product (identical) as the one originally approved.
   c. If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product.
   d. The engineer, who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.

4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.

5. Any of the following shall also be grounds for removal of this Acceptance:
   a. Unsatisfactory performance of this product or process.
   b. Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.

6. The Notice of Acceptance number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the Notice of Acceptance is displayed, then it shall be done in its entirety.

7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all time. The engineer need not reseal the copies.

8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.

9. This Notice of Acceptance consists of pages 1, 2 and this last page 3.

END OF THIS ACCEPTANCE

Candido Font, PE. Sr. Product Control Examiner
Product Control Division

Solaroll Shade & Shutter Corporation

ACCEPTANCE NO: 01-0327.05

APPROVED: JUL 19 2001

EXPIRES: 06/22/2006

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWING

1. *Drawing No. 95-001, prepared by Jenkins & Charland, Incorporated, dated March 9, 1995, last revised on June 5, 1995, sheets 1 through 17 of 17, signed and sealed by Gene S. Sanders, P.E.*
2. *Drawing No. 3-01-009-D, prepared by Solaroll Shade & Shutter, dated 09/29/00, with no revisions, sheets 1 through 9 of 9, signed and sealed by D. L. Fowler, PE.*

B. TEST

1. *Test report on Large Missile Impact Test and Cyclic Wind Pressure Test of extruded aluminum roll-up shutters, four specimens 64" shutter width (60" span), prepared by American Test Lab. of South Florida, Report No.ATL-0504.03-95, dated May 13, 1995, signed and sealed by Jose D. Mitrani, P.E.*
2. *Test report on Large Missile Impact Test of extruded aluminum tubular storm bars, three different designs in their corresponding max. length, prepared by American Test Lab. of South Florida, Report No.ATL-0504.02-95, dated May 13, 1995, signed and sealed by Jose D. Mitrani, P.E.*
3. *Test report on Large Missile Impact Test of extruded aluminum roll-up shutter housing, prepared by American Test Lab. of South Florida, Report No.ATL-0504.01-95, dated May 13, 1995, signed and sealed by Jose D. Mitrani, P.E.*
4. *Test report on Uniform Static Air Pressure Test of extruded aluminum roll-up shutters, five specimens 36", 48" and 64" shutter width (32", 44" and 60" span), prepared by American Test Lab. of South Florida, Report No.ATL-0414.01-95, dated May 13, 1995, signed and sealed by Jose D. Mitrani, P.E.*
5. *Test report on Uniform Static Air Pressure Test, Large Missile Impact Test and Cyclic Wind Pressure Test of aluminum roll-up shutters 48" shutter width (45" span), prepared by American Test Lab. of South Florida, Report No.ATL-0920.01-94, dated 10/08/94, signed and sealed by J D. Mitrani, P.E.*
6. *Test report on Uniform Static Air Pressure Test and Large Missile Impact Test of extruded aluminum roll-up shutters 96" shutter width (double 45" span w/storm bar), prepared by American Test Lab. of South Florida, Report No.ATL-1006.01-94, dated 10/19/94, signed and sealed by J D. Mitrani, PE.*
7. Test report on Uniform Static Air Pressure Test Per PA 202 of Roll Shutter, prepared by Hurricane Engineering & Testing Inc., Reports No. Heti 99-830A, B & C, dated 08/20/99, signed and sealed by H. M. Medina, PE.

C. CALCULATIONS:

1. *Design Calculations - Mullion and anchor calculations, dated March 10, 1995, signed and sealed by Gene S. Sanders, P.E.*

D. MATERIAL CERTIFICATIONS

1. *Mill Certification of Aluminum Alloy 6063-T6, prepared by Tifton Aluminum Company, Inc., per Die Drawing. No. SOS-114, dated March 9, 1995.*
2. *Tensile Test Report No. QCM-4JM-2621, prepared by Q C Metallurgical, Inc. dated October 26, 1994, signed and sealed by Frank Grate, P.E.*

E. STATEMENTS

1. *Letter prepared by Solaroll shade & Shutter Corporation, dated June 10, 1998, stating that there has been no changes to the aluminum roll-up shutter manufactured under NOA No. 94-1031.09.*
2. *Letter prepared by Jenkins & Charland, Incorporated, dated June 11, 1998, signed and sealed by Gene S. Sanders, P.E., stating that the original design of the rolling shutter under NOA No. 94-1031.09, took into consideration the prying action.*
3. *No change letter issued by Solaroll Shade & Shutter with no date signed by J. Tysenn*

Candido Font, P.E. Sr. Product Control Examiner
Product Control Division

SOLAROLL SHADE & SHUTTER

POMPANO BEACH, FLORIDA 33060

ROLLING SHUTTER

GENERAL NOTES

1.0 SHUTTER SYSTEM IS DESIGNED TO MEET THE REQUIREMENTS OF THE SOUTH FLORIDA BUILDING CODE, DADE COUNTY 1994 EDITION

1.1 DESIGN WIND PRESSURES SHALL BE DERIVED USING THE AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARD ASCE 7-88 USING A FASTEST MILE WIND SPEED OF 110 MPH, COASTAL EXPOSURE C. THESE CHARTS SHALL BE USED FOR LOCATIONS WITHIN EXPOSURE D DEFINED AS 1500 FT. OF LARGE BODIES OF WATER (OR 10 TIMES THE BUILDING HEIGHT WHICHEVER IS GREATER).

2.0 ALUMINUM COMPONENTS ARE DESIGNED IN ACCORDANCE WITH THE 'ALUMINUM CONSTRUCTION MANUAL'.

3.0 THE ALUMINUM ALLOYS USED TO DERIVE THESE DESIGN CHARTS ARE AS SHOWN IN THE DRAWINGS.

4.0 STEEL SURFACES IN CONTACT WITH ALUMINUM COMPONENTS SHALL BE GALVANIZED OR HAVE ONE COAT OF ZINC CHROMATE PRIMER IN ACCORDANCE WITH FEDERAL SPEC TTP-645.

5.0 THE EMBEDMENT FOR ANCHORS SHOWN IN THESE DRAWINGS IS THE REQUIRED MINIMUM PENETRATION INTO THE BASE MATERIAL OF THE SUPPORTING STRUCTURE. MINIMUN EDGE DISTANCE (3 1/2") SHOWN IN THESE DRAWINGS INCLUDE A 1/2" ALLOWANCE FOR STUCCO.

6.0 BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL OR ALUMINUM ALLOY 2024-T4 OR 7075-T6 OR PLATED STEEL.

7.0 SHUTTERS MAY BE MOTOR, GEAR DRIVEN, OR TAPE PULLEY.

8.0 DEFLECTION DESIGN CRITERIA.

8.1 STORM BARS, MULLIONS AND HEADER BARS HAVE BEEN SIZED TO LIMIT THE DEFLECTION OF THE ELEMENTS TO $\leq$ L/180 AT THE DESIGN LOAD.

8.2 SLATS HAVE BEEN SIZED TO LIMIT THE DEFLECTION AT THE DESIGN LOAD TO BE $\leq$ L/30 FOR SUCTION AND THE LESSER OF L/30 OR 2 INCHES WHEN SUBJECTED TO POSITIVE PRESSURE.

8.3 SHUTTERS SHALL BE CONFIGURED TO HAVE NO LESS THAN THE MINIMUM CLEARANCE SHOWN IN THE DESIGN CURVES BETWEEN THE UNLOADED SLAT AND GLAZING. THE MINIMUM CLEARANCE IS THE SLAT DEFLECTION PLUS 1 INCH.

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

PRODUCT MARKING

A LABEL SHALL BE PLACED ON THE BOTTOM SLAT ON THE RIGHT SIDE, WITH THE FOLLOWING STATEMENT:

1155 EXTRUDED ALUMINUM ROLLING SHUTTER
DADE COUNTY PRODUCT CONTROL APPROVED
MANUNFACTURED BY SOLAROLL SHADE & SHUTTER, CORP.

PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22/2001
By
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

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6	TRACK MOUNTING CONNECTIONS 3-4
7	MULLION WITH SINGLE TRACK OPTIONS
8	MULLION WITH DOUBLE TRACK OPTIONS
9	MULLION FASTENING SCHEDULE
10	HOUSING SIZES AND CONNECTION
11	BOTTOM HOOD HEADER DOUBLE SPAN
12	FASTENING SCHEDULE BOTTOM HOOD HEADER DOUBLE SPAN
13	BOTTOM HOOD HEADER TRIPLE SPAN
14	FASTENING SCHEDULE BOTTOM HOOD HEADER TRIPLE SPAN
15	STORM BAR OPTIONS
16	STORM BAR CONNECTIONS
17	FASTENING SCHEDULE STORM BAR OPTIONS

JENKINS & CHARLAND
3359 N.W. 53rd STREET
FORT LAUDERDALE, FL 33309
(954) 484-7777
TO THE BEST OF MY KNOWLEDGE AND ABILITY, THE COMPLETED STRUCTURE DEPICTED ON THESE PLANS COMPLIES WITH THE APPLICABLE MIAMI-DADE BUILDING CODES.

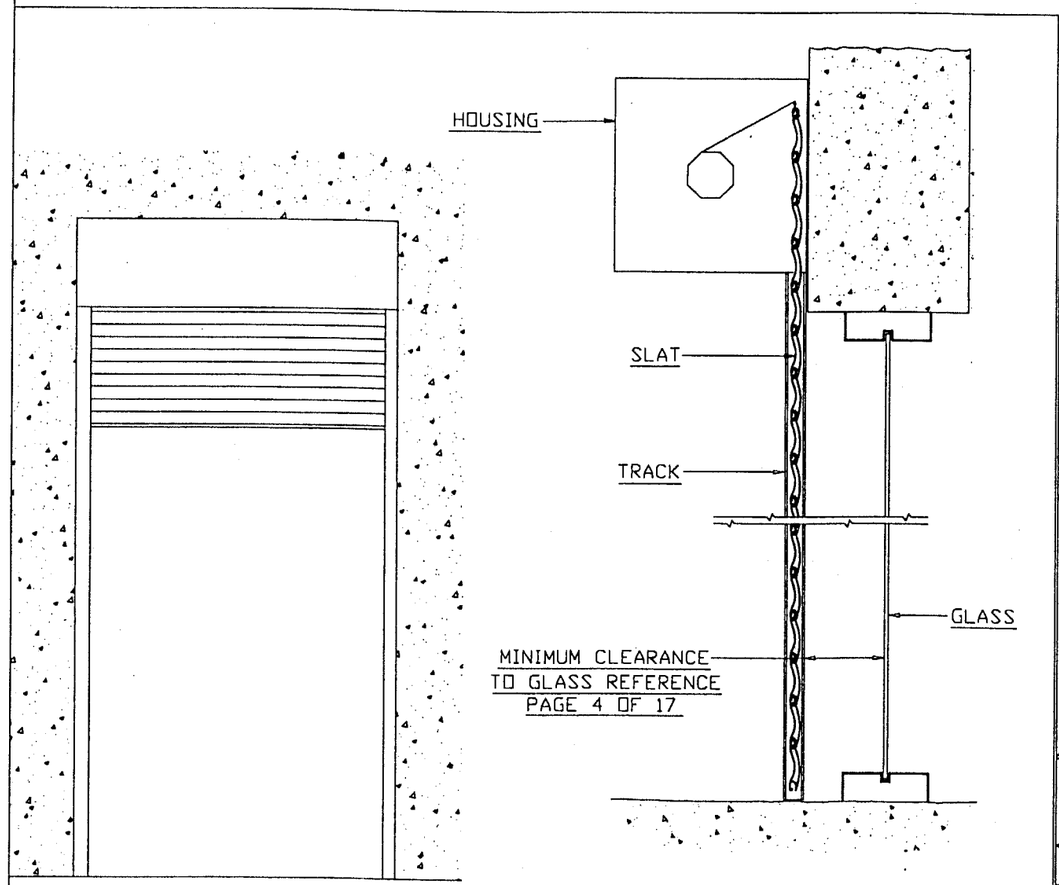
PROF. ENGINEER
GENE D. SANDERS
FLA. PE # 26590
6/7/95

American Consulting Engineers Council Member
Supporting Excellence in Engineering

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22 1995
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

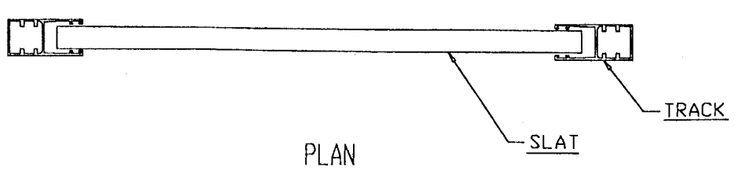
SOLAROLL SHADE & SHUTTER POMPANO BEACH, FLORIDA 33060		
SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-081	REVISED: 4-6-95
GENERAL NOTES & TABLE OF CONTENTS		PAGE NUMBER 1 OF 17

PLAN, SECTION, ELEVATION

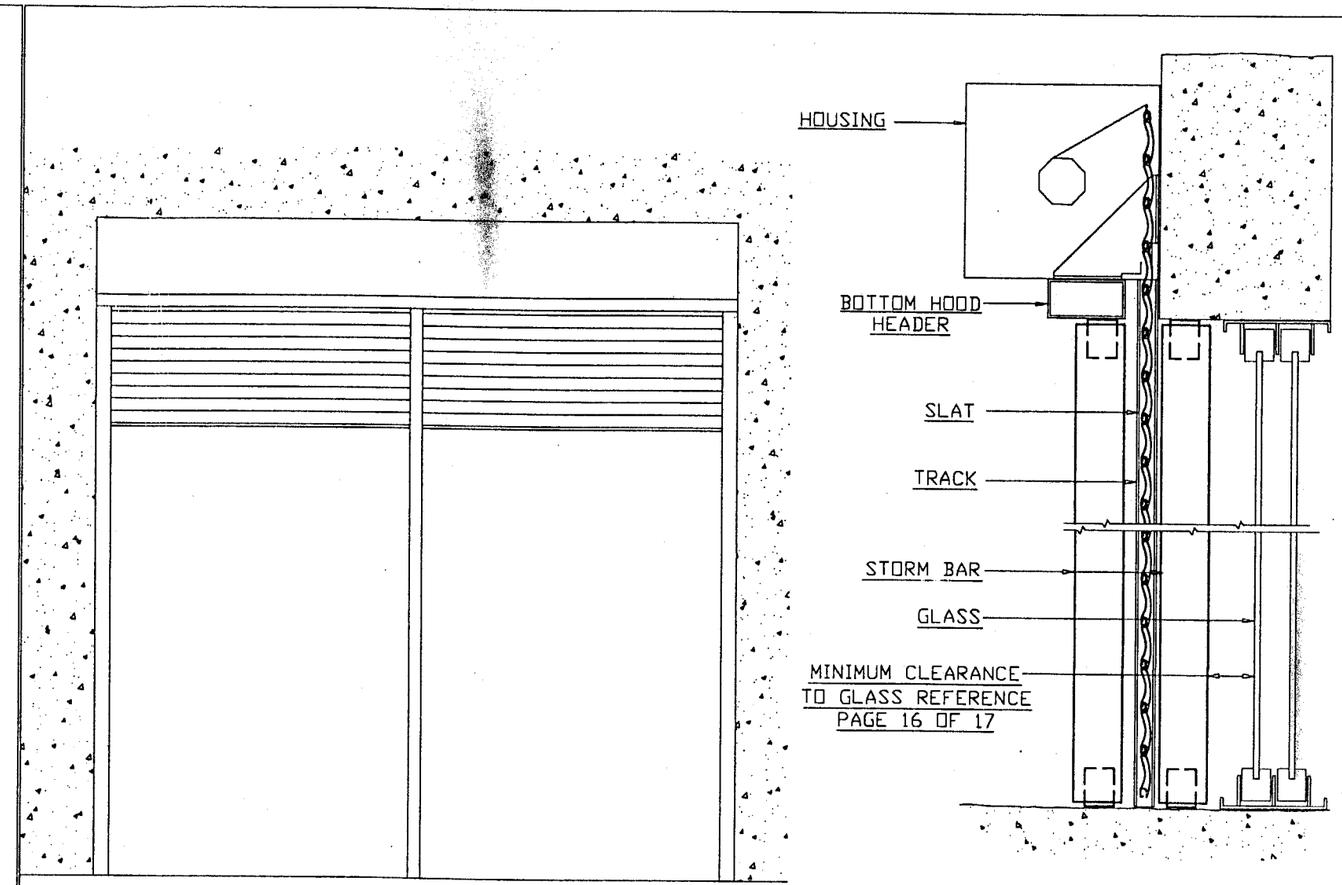


SECTION

ELEVATION

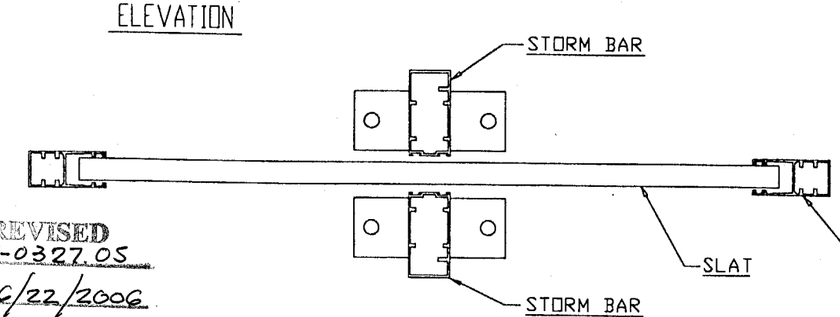


PLAN



SECTION

ELEVATION



PLAN

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE JUNE 22 19 95
BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22/2005
By
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

American Consulting Engineers Council Member
Supporting Excellence in Engineering

JENKINS & CHARLAND
3339 N.W. 33rd Street
FORT LAUDERDALE, FL. 33309
(305) 484-7777
TO THE BEST OF MY KNOWLEDGE AND ABILITY THE CONCRETE STRUCTURE ASPECTS ON THESE PLANS COMPLIES WITH THE APPLICABLE ASHRAE BUILDING CODES.
FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

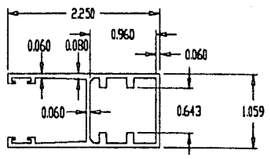
SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED 6-5-95

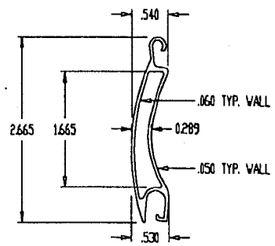
PLAN, SECTION, ELEVATION

PAGE NUMBER 2 OF 17

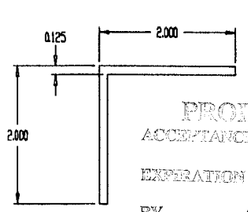
COMPONENTS



2 1/4" TRACK
ALLOY - 6061-T6

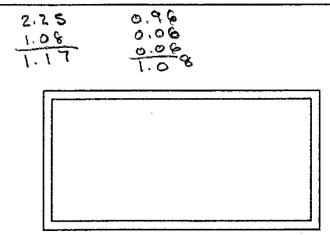


EXTRUDED ALUM. SLAT
ALLOY 6063-T6

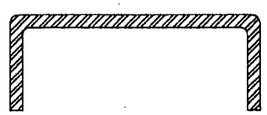


1" X 2" X 1/8"
1 1/2" X 2" X 1/8"
2" X 2" X 1/8"
2" X 3" X 1/8"
2" X 4" X 1/8"
2 1/4" X 5 1/4" X 1/8"

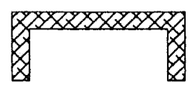
ALUMINUM ANGLE
ALLOY 6061-T6



TA-6136 1 1/2" X 3" X 1/8"
TA-6044 2" X 4" X 1/8"
RECTANGULAR ALUM. TUBE
ALLOY - 6063-T5



1 1/4"X 2 3/4"X 3/16"
1 3/4"X 3 3/4" X 3/16"
A-36 COLD ROLLED FORMED STEEL



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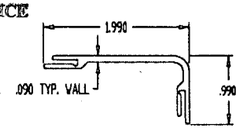
1 3/4"X 3 3/4" X 3/16"
ALUMINUM CHANNEL
ALLOY 6063-T6



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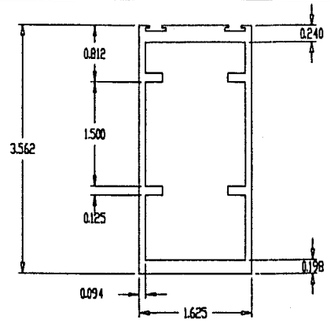
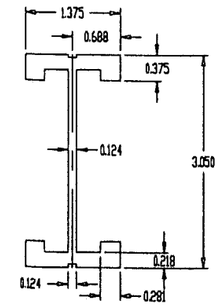
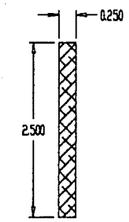


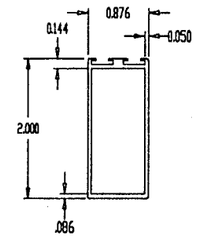
SECONDARY MEMBER
ALLOY - 6061-T6
SDS-39



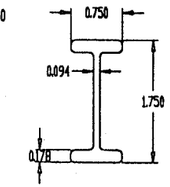
STIFFENER
SECONDARY MEMBER
ALLOY - 6061-T6
SDS-98



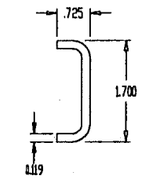
RECTANGULAR
ALUM. BAR
ALLOY - 6063-T5
TA-138



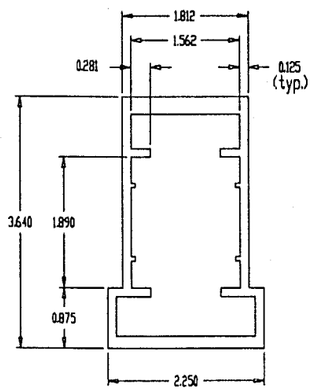
2" SPLITTRAC
ALLOY 6063-T5
SDS-7



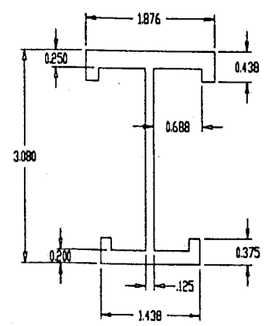
2" SPLITTRAC
STIFFENER
ALLOY 6063-T5
SDS-20



.119 THK.
A-36 COLD ROLLED
FORMED STEEL



T - MULLION
ALLOY - 6061-T6
SDS-108



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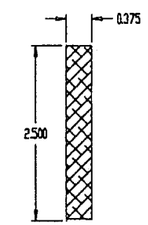
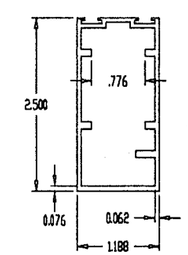
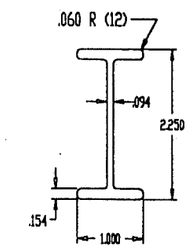


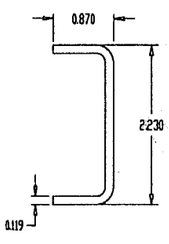
RECTANGULAR
ALUM. BAR
ALLOY - 6063-T5
TA-148



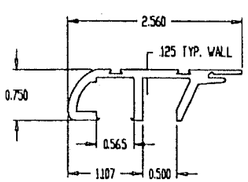
HC 2 1/2"
SPLITTRAC
ALLOY - 6063-T5
SDS-6



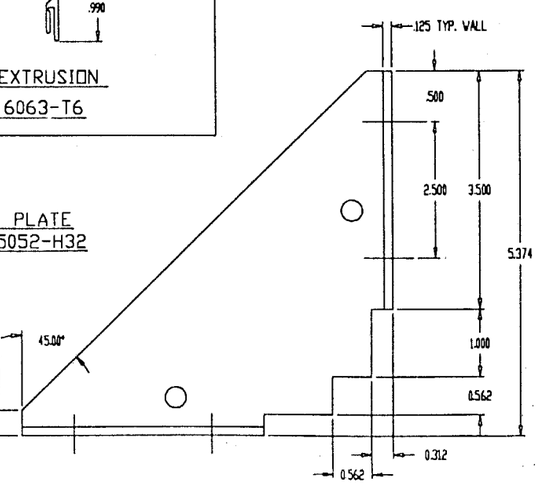
HC 2 1/2"
STIFFENER
ALLOY - 6063-T5
SDS-19



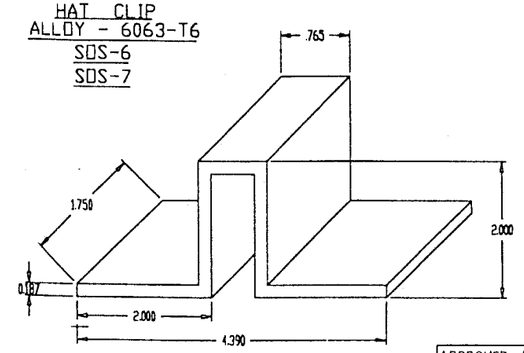
.119 THK.
A-36 COLD ROLLED
FORMED STEEL



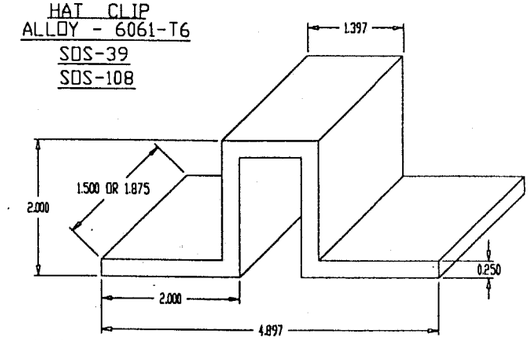
BOTTOM HOOD EXTRUSION
ALLOY 6005-T5



GUSSET PLATE
ALLOY - 5052-H32



HAT CLIP
ALLOY - 6063-T6
SDS-6
SDS-7



HAT CLIP
ALLOY - 6061-T6
SDS-39
SDS-108

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
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BY
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BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22/2001
By Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

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FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
7/6/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
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BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

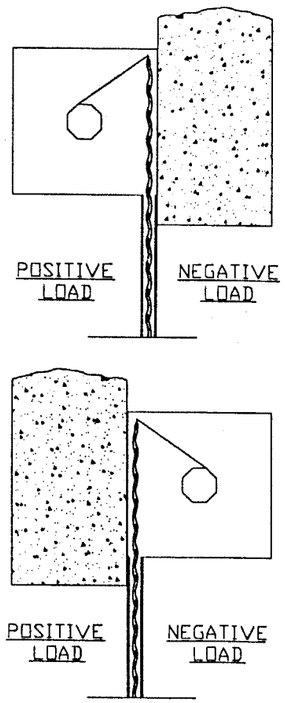
SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED 5-12-95

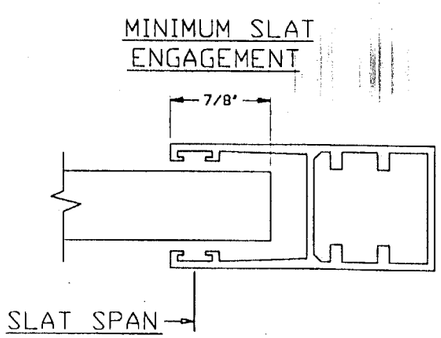
COMPONENTS

PAGE NUMBER 3 OF 17

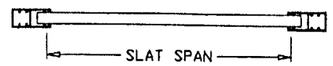
1155 EXT. SLAT

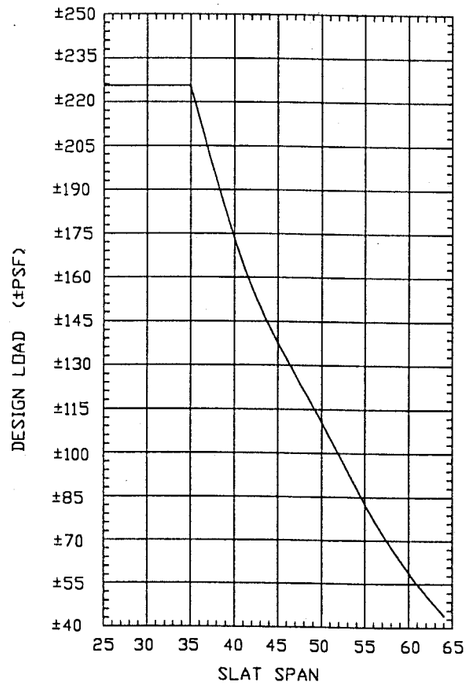


SLAT ENGAGEMENT

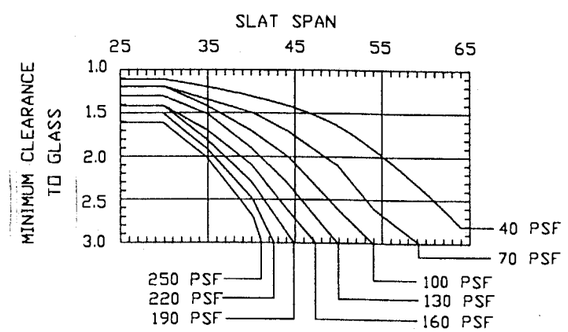


1 SINGLE SPAN



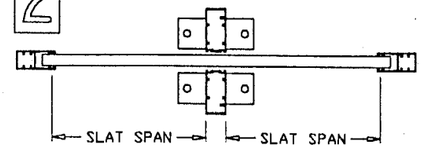


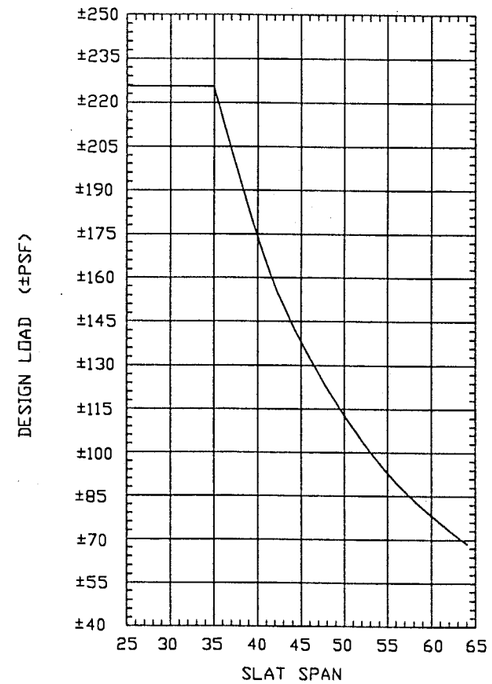
0-30' ELEVATION
MINIMUM CLEARANCE TO GLASS IS 3 1/2"
ABOVE 30' REFER TO GRAPH BELOW



THIS GRAPH INCLUDES THE 1" MINIMUM
DEFLECTION CLEARANCE TO GLASS

2 DOUBLE SPAN





NOTE:
REFER TO STORM BAR CONNECTIONS
FOR MINIMUM CLEARANCE TO GLASS

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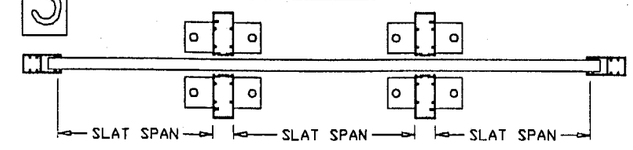
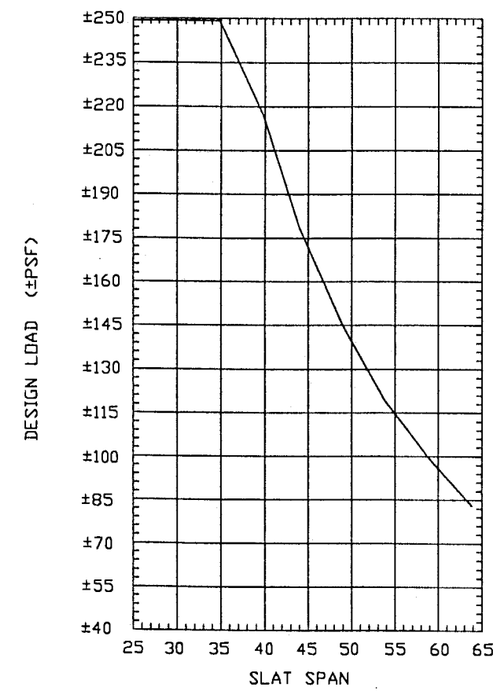
3 TRIPLE SPAN





NOTE:
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8.2 SLATS HAVE BEEN SIZED TO LIMIT THE DEFLECTION AT THE DESIGN LOAD TO BE ≤ L/30 FOR SUCTION AND THE LESSER OF L/30 OR 2 INCHES WHEN SUBJECTED TO POSITIVE PRESSURE.

8.3 SHUTTERS SHALL BE CONFIGURED TO HAVE NO LESS THAN THE MINIMUM CLEARANCE SHOWN IN THE DESIGN CURVES BETWEEN THE UNLOADED SLAT AND GLAZING. THE MINIMUM CLEARANCE IS THE SLAT DEFLECTION PLUS 1 INCH.

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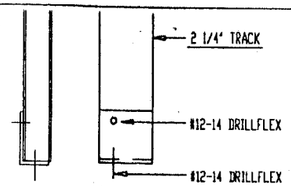
1155 EXT SLAT

PAGE NUMBER 4 OF 17

TRACK MOUNTING CONNECTIONS

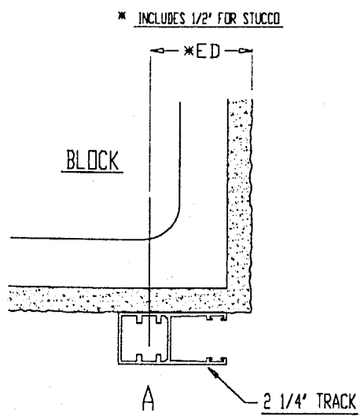


NOTE:
0 - 30' ELEVATION - FASTEN 1" X 2" X 1/8" X 2 1/4" CLIP AT BOTTOM OF 2 1/4" TRACK

FASTENER "A"

MANUF.	TYPE	DIA.	IMBED.
RAWL	TAPPER	.25	1.25
RAMSET	TAPCON	.25	1.25
WOOD SCREW	#14X2"	.25	2"

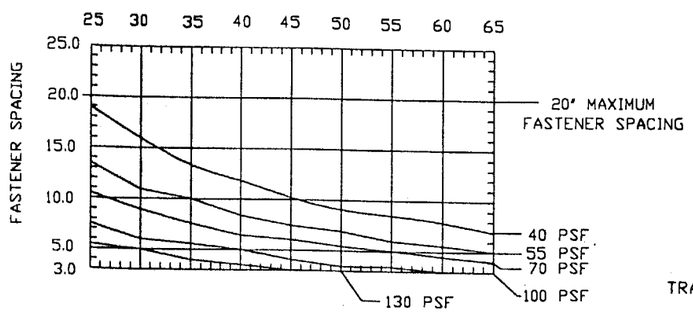
1



WALL MOUNT

FASTENING SCHEDULE

TRACK MOUNTING MASONRY CONNECTOR 'A'



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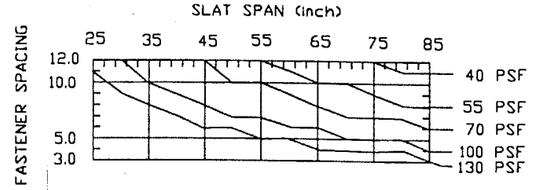
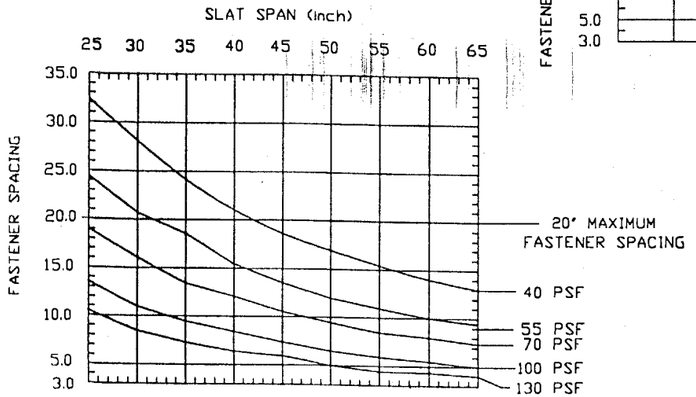
TRACK MOUNTING WOOD CONNECTOR 'A'



TRACK MOUNTING CONCRETE f'c3 CONNECTOR 'A'



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FASTENER SPACING IN MASONRY/CONCRETE

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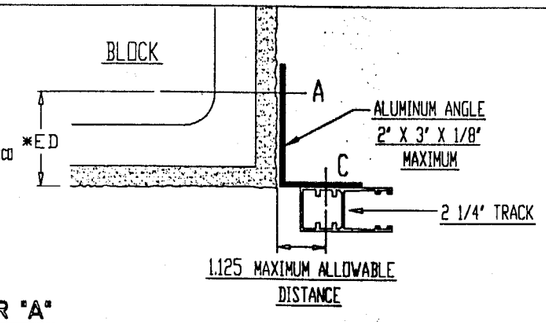
* EDGE DIST	12dia.= 3"	8dia.= 2"	5dia.= 1 1/4"
FACTOR	1.00	.71	.5

* ED = (FACTORED EDGE DISTANCE + 1/2" FOR STUCCO)

2

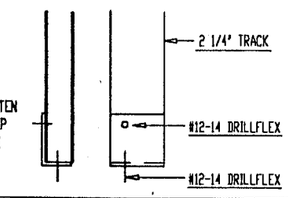


INSIDE MOUNT

FASTENER "A"

MANUF.	TYPE	DIA.	IMBED.
RAWL	TAPPER	.25	1.25
RAMSET	TAPCON	.25	1.25
RAWL	LOK-BOLT	.25	1.125
WOOD SCREW	#14X2"	.25	2"

NOTE:
0 - 30' ELEVATION - FASTEN 1" X 2" X 1/8" X 2 1/4" CLIP AT BOTTOM OF 2 1/4" TRACK

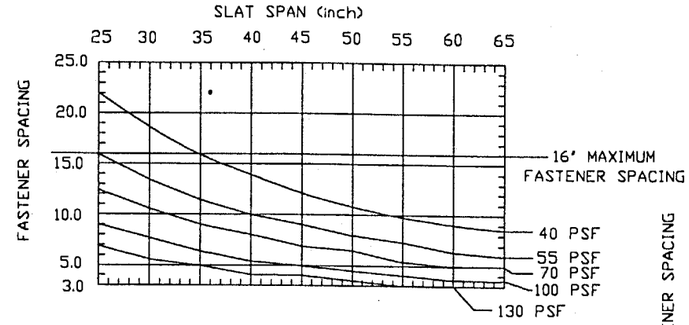


FASTENER "C"

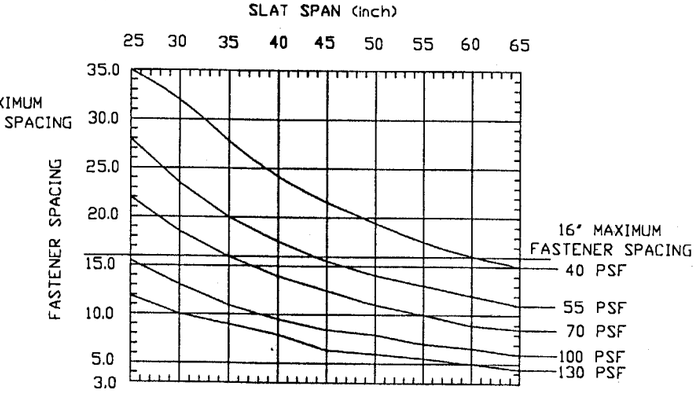
MANUF.	TYPE	DIA.	IMBED.
DRILL FLEX	TEKS	#12-14	.75
DRILL FLEX	TEKS	1/4"-14	.75
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75

FASTENING SCHEDULE

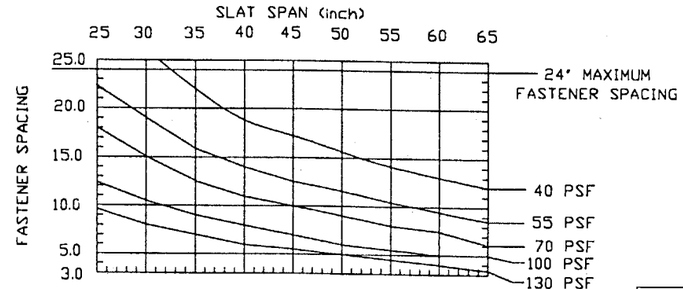
TRACK MOUNTING MASONRY CONNECTOR 'A'



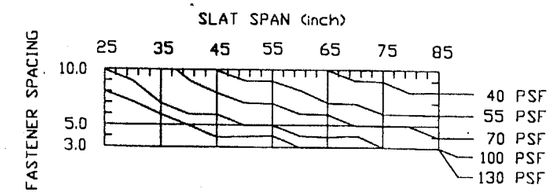
TRACK MOUNTING CONCRETE f'c3 CONNECTOR 'A'



TRACK MOUNTING ALUM. CONNECTOR 'C'



TRACK MOUNTING WOOD CONNECTOR 'A'



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6/7/95

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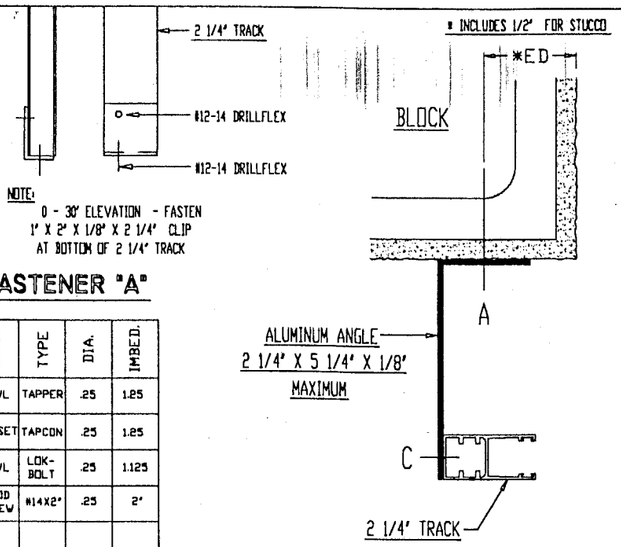
TRACK MOUNTING CONNECTIONS

PAGE NUMBER 5 OF 17

TRACK MOUNTING CONNECTIONS



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AT BOTTOM OF 2 1/4" TRACK

FASTENER "A"

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RAWL	TAPPER	.25	1.25
RAMSET	TAPCON	.25	1.25
RAWL	LOK-BOLT	.25	1.125
WOOD SCREW	#14X2"	.25	2"

3

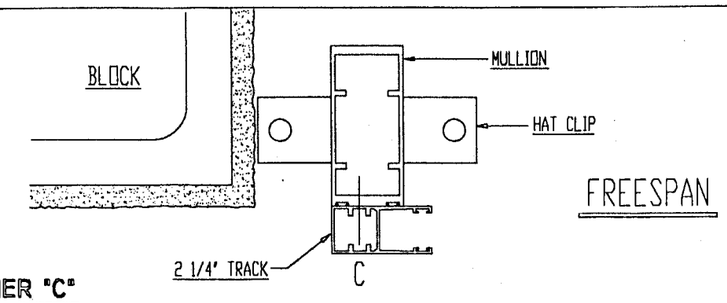
BUILDOUT

FASTENER "C"

MANUF.	TYPE	DIA.	IMBED.
DRILL FLEX	TEKS	#12-14	.75
DRILL FLEX	TEKS	1/4"-14	.75
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75

FASTENING SCHEDULE

4



FREESPAN

FASTENER "C"

MANUF.	TYPE	DIA.	IMBED.
DRILL FLEX	TEKS	#12-14	.75
DRILL FLEX	TEKS	1/4"-14	.75
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75

NOTE:
0 - 30" ELEVATION - FASTEN
1" X 2" X 1/8" X 2 1/4" CLIP
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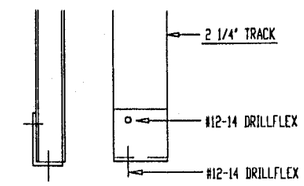

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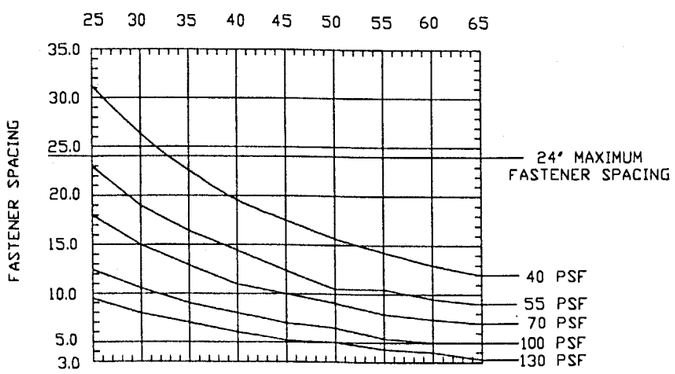
FACTOR	1.00	.71	.5

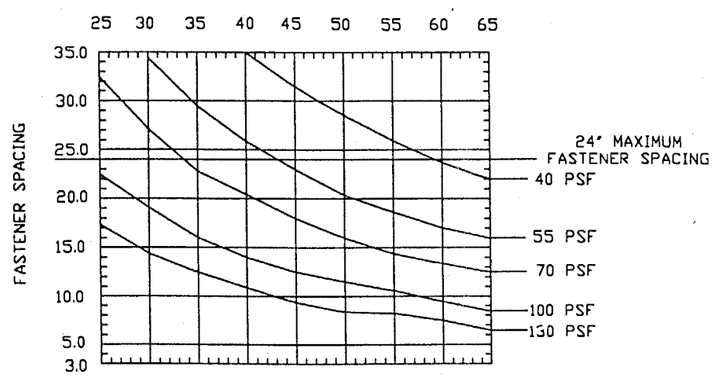
* ED = (FACTORED EDGE DISTANCE + 1/2" FOR STUCCO)

FASTENING SCHEDULE

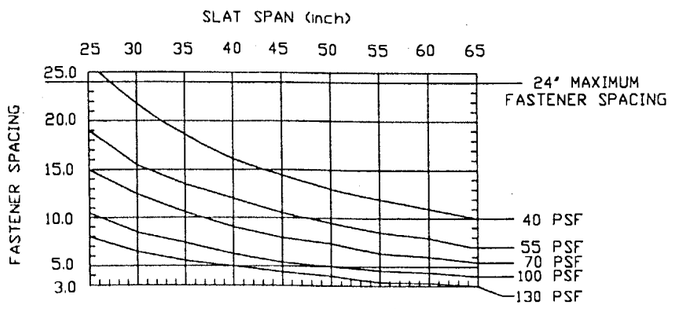
TRACK MOUNTING MASONRY
CONNECTOR "A"



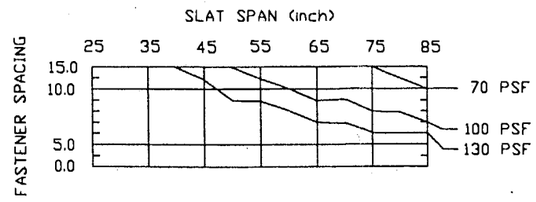
TRACK MOUNTING CONCRETE f'c3
CONNECTOR "A"



TRACK MOUNTING ALUM.
CONNECTOR "C"

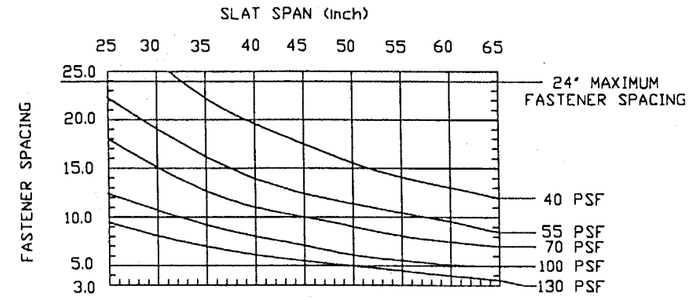


TRACK MOUNTING WOOD
CONNECTOR "A"



FASTENING SCHEDULE

TRACK MOUNTING ALUM.
CONNECTOR "C"



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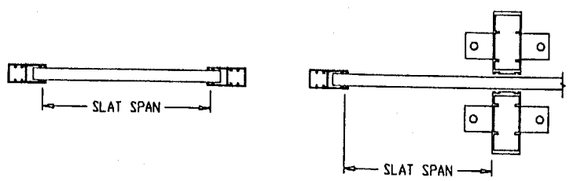
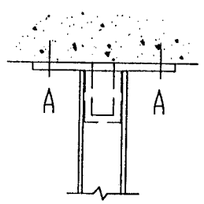
TRACK MOUNTING CONNECTIONS

PAGE NUMBER 6 OF 17

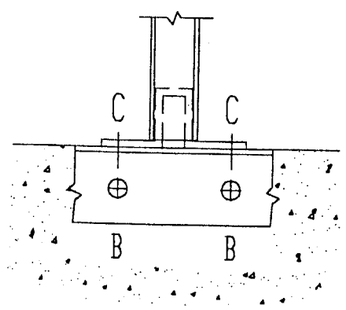
MULLION WITH SINGLE TRACK OPTIONS

SLAT SPAN

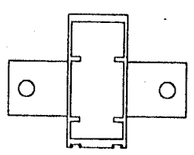




ELEVATION



ELEVATION



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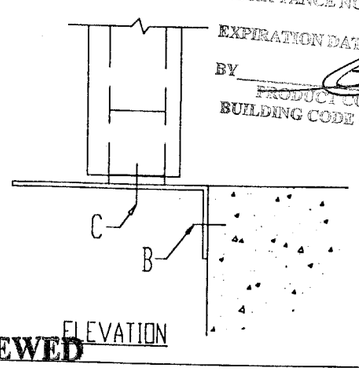
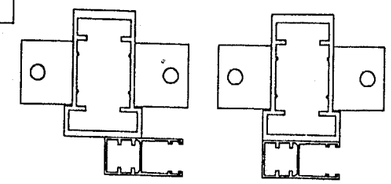


ELEVATION

NOTE:

SEE PAGE 9 OF 17
FOR FASTENING SCHEDULE
AND EDGE DISTANCE

1



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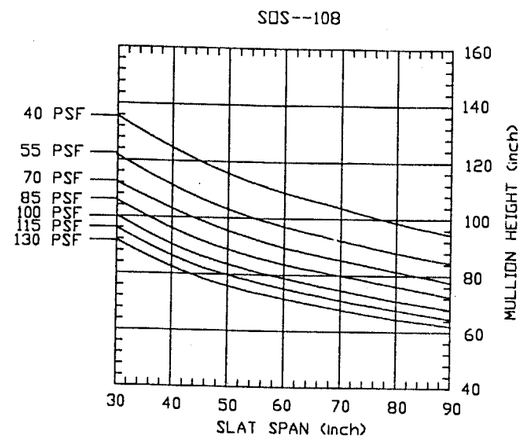

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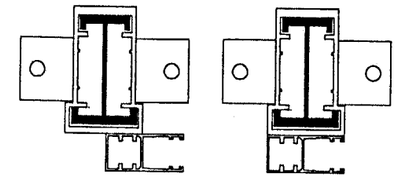

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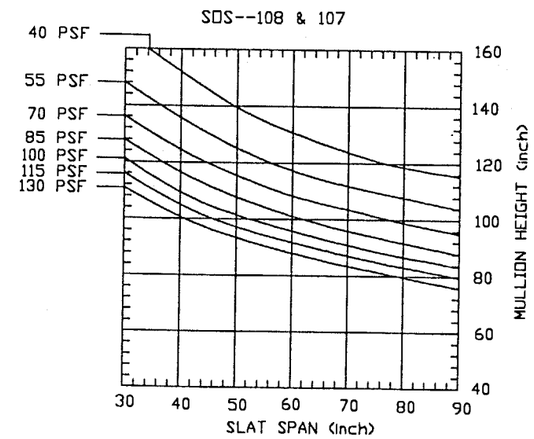

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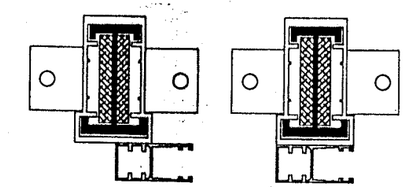

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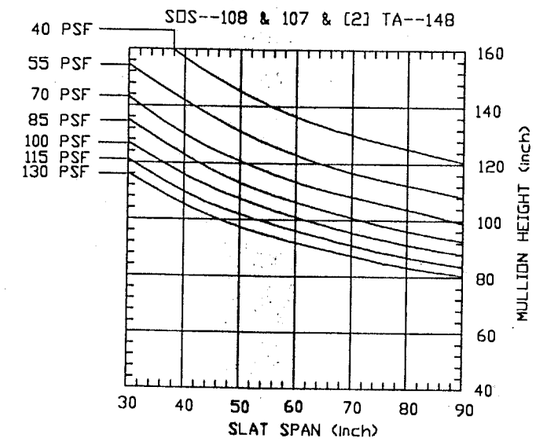

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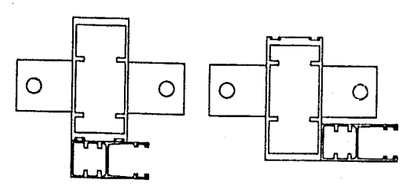
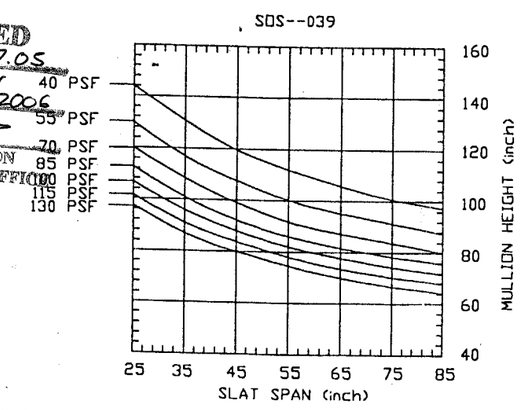


HC 3 1/2" MULLION



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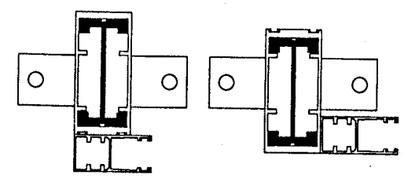

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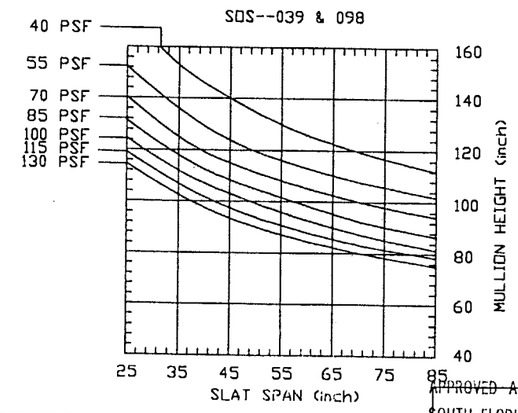

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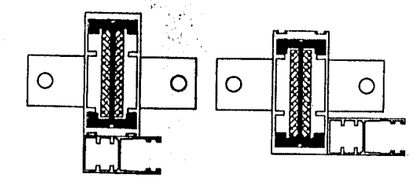
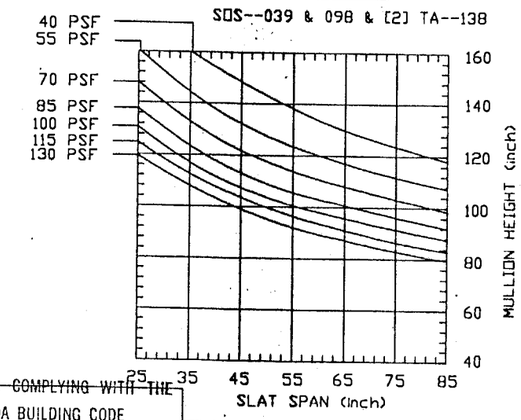


XAC 3 1/2" MULLION



PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED

ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22-2001
By Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

8.1 STORM BARS, MULLIONS AND HEADER BARS HAVE BEEN SIZED TO LIMIT THE DEFLECTION OF THE ELEMENTS TO < L/180 AT THE DESIGN LOAD.

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JENKINS & CHARLAND
3599 N.W. 83rd Avenue
FORT LAUDERDALE, FL 33309
(305) 484-7777
TO THE BEST OF MY KNOWLEDGE AND ABILITY THE COMPLETED STRUCTURE REFLECTED ON THESE PLANS COMPLIES WITH THE APPLICABLE MIAMI-DADE BUILDING CODES.
FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22 1995
BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

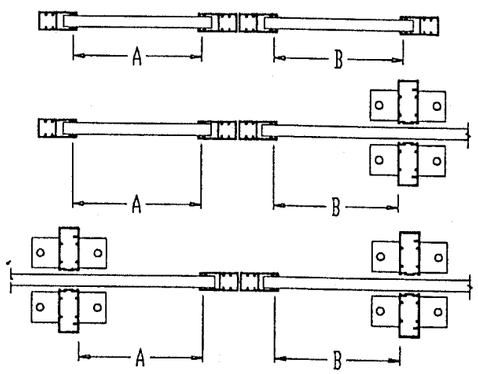
SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED: 4-6-95

MULLION WITH SINGLE TRACK OPTIONS

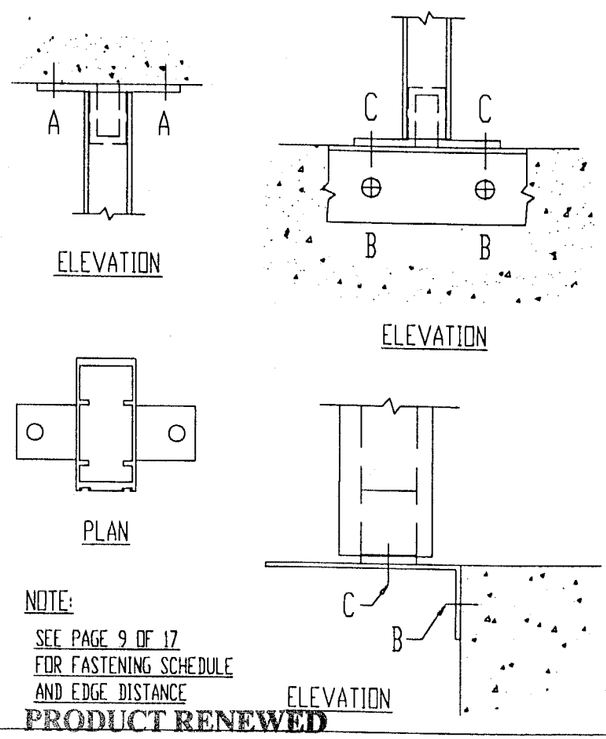
PAGE NUMBER 7 OF 17

MULLION WITH DOUBLE TRACK OPTIONS

AVERAGE SLAT SPAN



AVERAGE SLAT SPAN = $\frac{A + B}{2}$



NOTE:

SEE PAGE 9 OF 17 FOR FASTENING SCHEDULE AND EDGE DISTANCE

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
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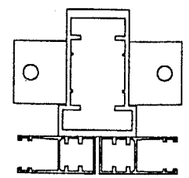
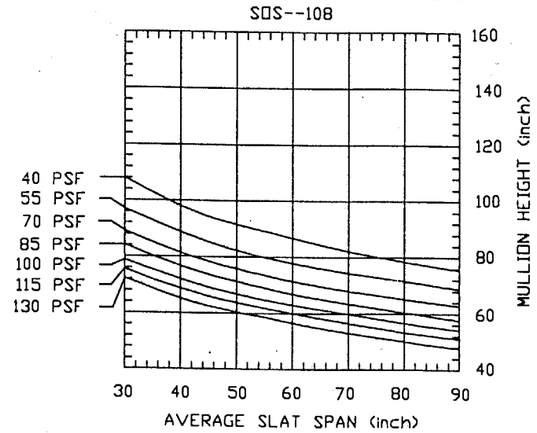
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

1

HC T MULLION





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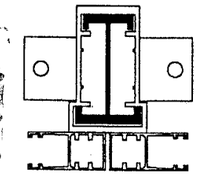

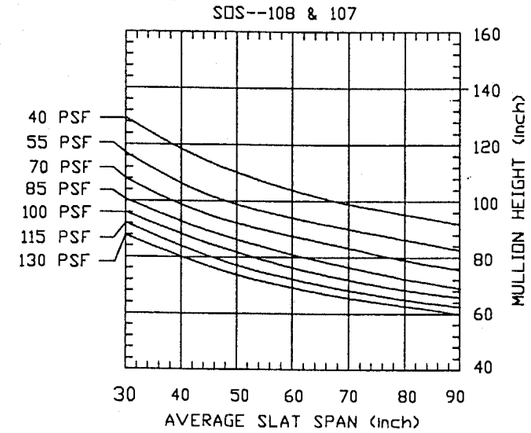

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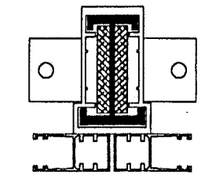

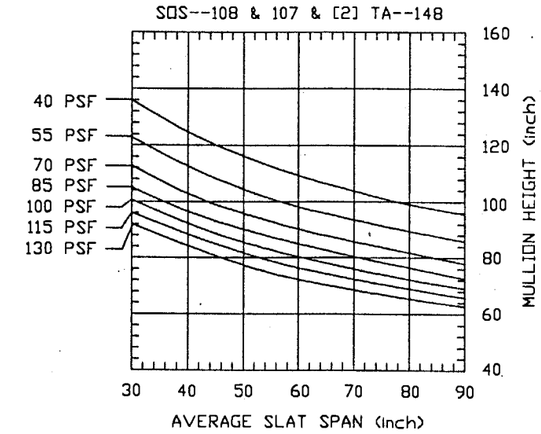

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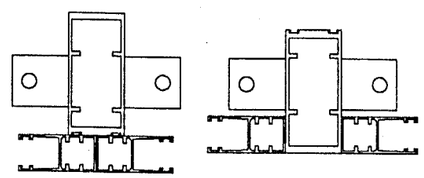
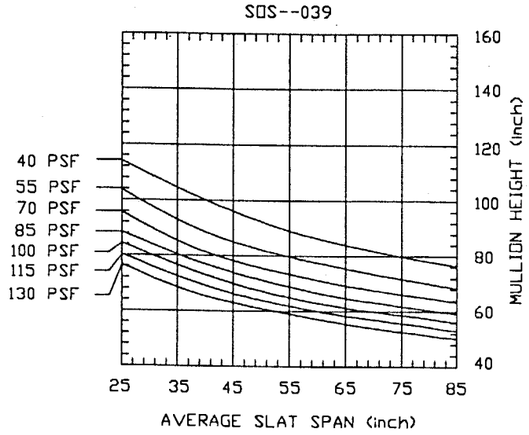
HC 3 1/2" MULLION





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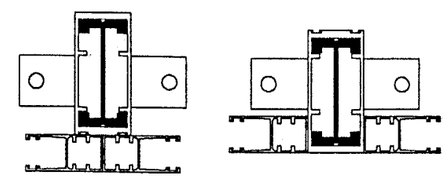
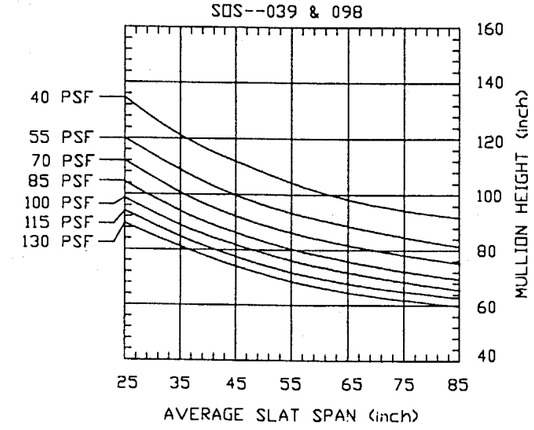
AC T 3 1/2" MULLION





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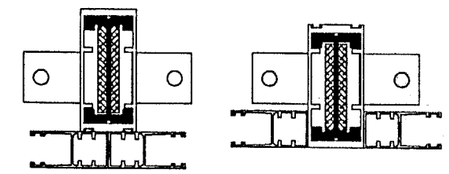
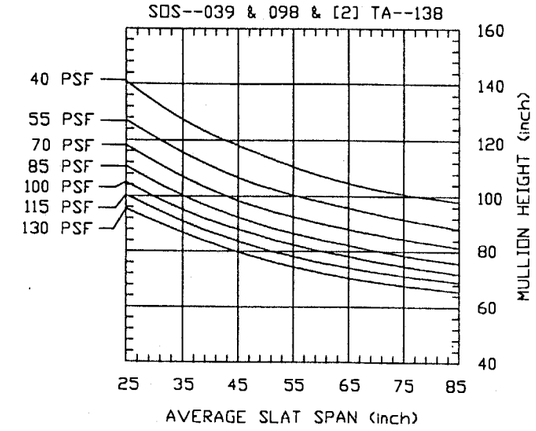
XAC T 3 1/2" MULLION





PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22-2001
By
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

8.1 STORM BARS, MULLIONS AND HEADER BARS HAVE BEEN SIZED TO LIMIT THE DEFLECTION OF THE ELEMENTS TO L/180 AT THE DESIGN LOAD.

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JENKINS & CHARLAND
3889 N.W. 83rd Street
FORT LAUDERDALE, FL 33309
(305) 484-7777

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F.B.I. No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22, 1995
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

SOLAROLL & SHADE SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED 4-6-95

MULLION WITH DOUBLE TRACK OPTIONS

FASTENING SCHEDULE

MULLION WITH DOUBLE TRACK OPTIONS

(SINGLE TRACK OPTIONS SIMILAR)

FASTENER "A"

MANUF.	TYPE	DIA.	IMBED.	MAT.	FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	2	2	2
RAWL	TAPPER	.25	1.25	MASONRY	2	2	2	—	—
RAWL	CALK-IN	1/4"-20	.875	f'c3	2	2	2	2	2
RAWL	LOK-BOLT	.25	1.125	MASONRY	2	2	2	2	2
RAWL	LOK-BOLT	.25	1.125	f'c2	2	2	2	2	—
RAWL	SPIKE	.25	.875	f'c3	2	2	2	2	2
RAWL	SPIKE	.25	.875	MASONRY	2	2	2	2	2
RAMSET	TAPCON	.25	1.5	f'c3	2	2	2	2	—
	S.S.SCR	#14	2"	WOOD	3	3	—	—	—

FASTENER "B"

MANUF.	TYPE	DIA.	IMBED.	MAT.	FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.312	1.5	MASONRY	4	4	4	—	—
RAWL	LOK-BOLT	.375	1.5	MASONRY	4	4	4	4	4
RAWL	LOK-BOLT	.312	1.5	f'c2	3	3	—	—	—
RAWL	LOK-BOLT	.375	1.625	f'c2	3	3	3	3	3
RAWL	SPIKE	.375	1.75	f'c3	3	3	3	3	3
	S.S.SCR	#14	2"	WOOD	3	3	—	—	—

FASTENER "C"

MANUF.	TYPE	DIA.	IMBED.	MAT.	FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	2	2	2	2	2
DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2

FASTENER SPACING IN MASONRY/CONCRETE

CHARTS ARE BASED ON TYPICAL EDGE DISTANCE =12dia. + 1/2" FOR STUCCO. FOR A REDUCED EDGE DISTANCE MULTIPLY DESIGN LOAD BY FACTOR BELOW. REVIEW FASTENING SCHEDULE AND SELECT FACTENER BASED ON A FACTORED DESIGN LOAD.

EDGE DIST	12dia.= 3"	8dia.= 2"	5dia.= 1 1/4"
FACTOR	1.00	1.29	1.5

EXAMPLE - DESIGN LOAD (40psf) X FACTOR (1.5) = FACTORED DESIGN LOAD (60psf)

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY [signature]
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22-2001
By [signature]
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

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(305) 484-7777
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FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
[signature]
6/7/95

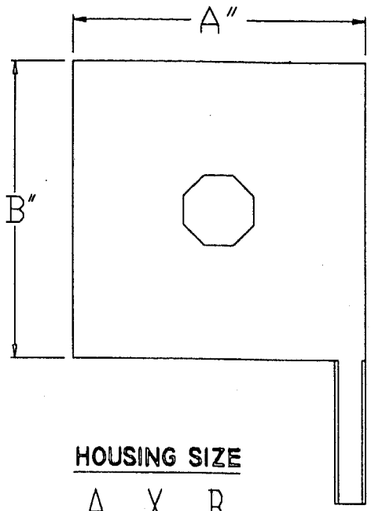
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22 1995
BY [signature]
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED: 6-5-95

FASTENING SCHEDULE
SINGLE-DOUBLE
TRACK OPTIONS

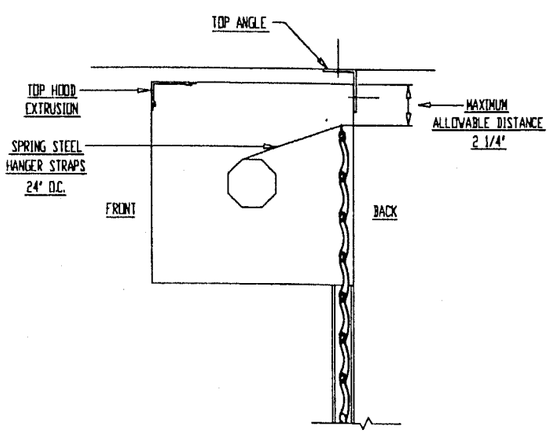
HOUSING SIZES & CONNECTIONS



HOUSING SIZE

A	X	B	A	X	B
7	x	7	11	x	11
8	x	8	12	x	12
9	x	9	13	x	13
10	x	10	14	x	14

HOUSING IMPACT

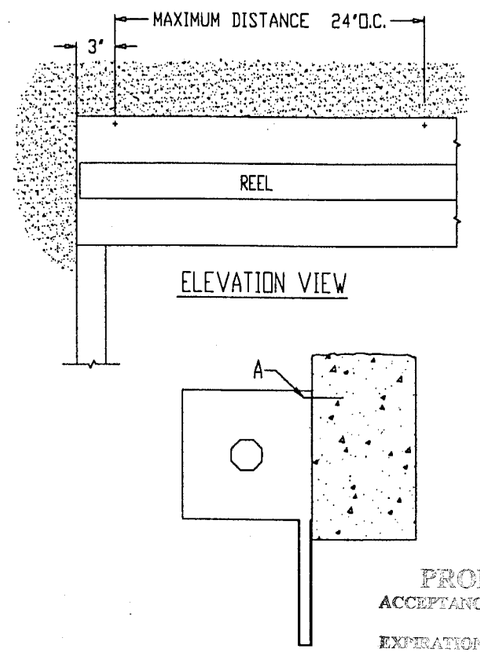


0 - 30' ELEVATION ONLY

SLATS MUST BE IN UP POSITION TO MEET THE IMPACT REQUIREMENTS FOR HOUSING (FRONT & BACK).

MAXIMUN HOUSING TESTED 10 X 10 X 198" (SEE DETAIL ABOVE)

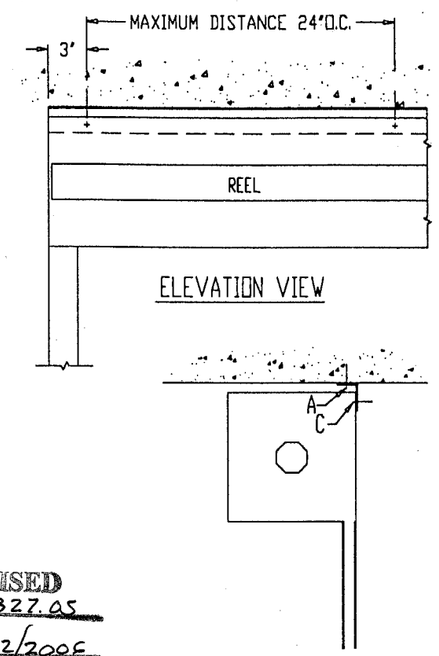
1 SURFACE MOUNT



FASTENER "A"

MANUF.	TYPE	DIA.	IMBED.	MAT.
RAWL	TAPPER	.25	1.25	MASONRY
RAWL	TAPPER	.25	1.5	F'c3
RAMSET	TAPCON	.25	1.25	MASONRY
RAMSET	TAPCON	.25	1.5	F'c3
	SCREW	#14	2"	WOOD

2 CEILING MOUNT



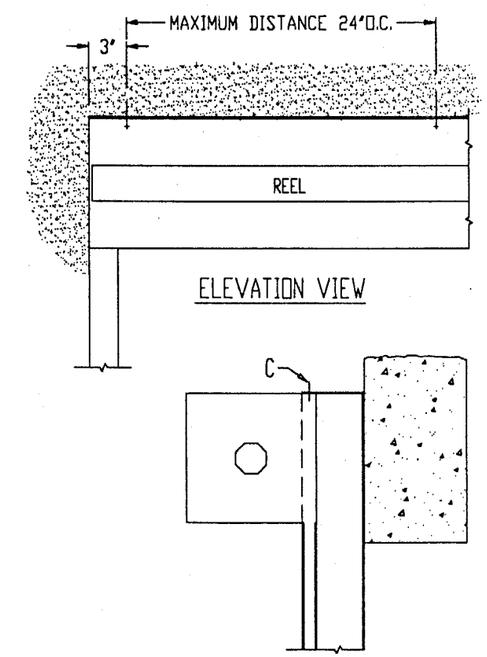
FASTENER "A"

MANUF.	TYPE	DIA.	IMBED.	MAT.
RAWL	TAPPER	.25	1.25	MASONRY
RAWL	TAPPER	.25	1.5	F'c3
RAMSET	TAPCON	.25	1.25	MASONRY
RAMSET	TAPCON	.25	1.5	F'c3
	SCREW	#14	2"	WOOD

FASTENER "C"

MANUF.	TYPE	DIA.	IMBED.	MAT.
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.
DRILL FLEX	TEKS	#12-14	.75	ALUM.
DRILL FLEX	TEKS	1/4"-14	.75	ALUM.

3 ANGLE BUILDOUT



FASTENER "C"

MANUF.	TYPE	DIA.	IMBED.	MAT.
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.
DRILL FLEX	TEKS	#12-14	.75	ALUM.
DRILL FLEX	TEKS	1/4"-14	.75	ALUM.
	SCREW	#14	2"	WOOD

PRODUCT REVISED
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BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED
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FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

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DATE JUNE 22, 1995
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PRODUCT CONTROL DIVISION
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SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED 5-12-95

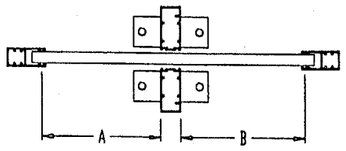
HOUSING SIZES & CONNECTIONS

PAGE NUMBER 11 OF 17

BOTTOM HOOD HEADER DOUBLE SPAN

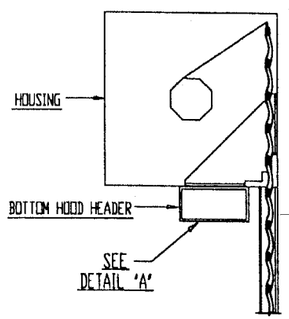
AVERAGE SLAT SPAN

DOUBLE SPAN



AVERAGE SLAT SPAN = $\frac{A + B}{2}$

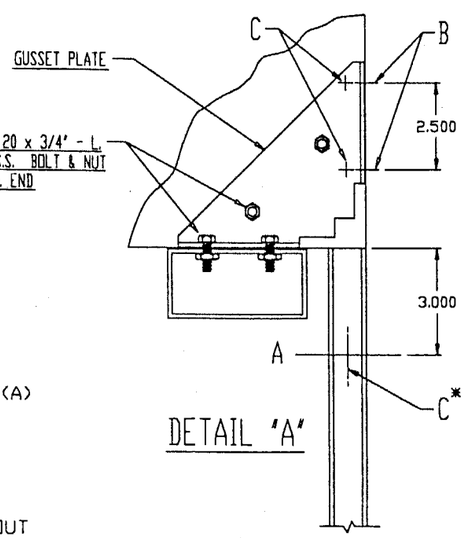
PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE



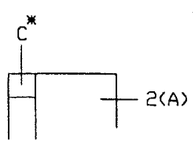
NOTE:
SEE PAGE 12 OF 17 FOR FASTENING SCHEDULE AND EDGE DISTANCE

PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22-2001
By Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

1/4" - 20 x 3/4" - L
18-8 S.S. BOLT & NUT
(2) EA. END

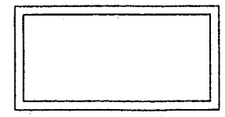


DETAIL 'A'

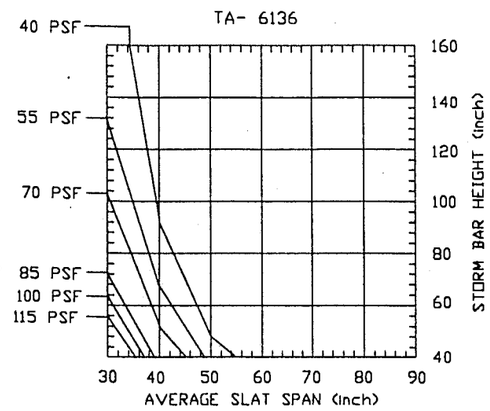


NOTE:
FOR ANGLE BUILDOUT 2 (A) FASTENERS ATTACHED TO ANGLE. SEE FASTENING SCHEDULE FOR A, C, AND C*

1



HC 1 1/2" X 3"
BOTTOM HOOD EXTRUSION



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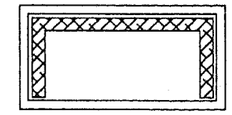
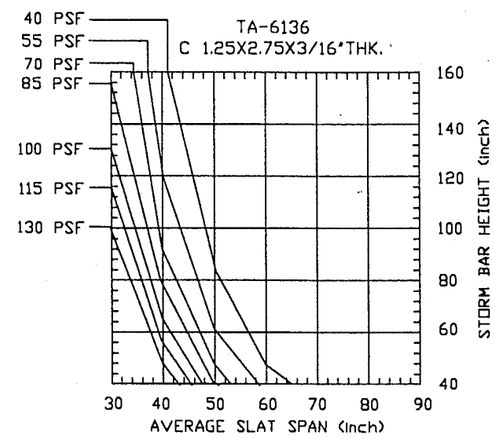


AC 1 1/2" X 3"
BOTTOM HOOD EXTRUSION



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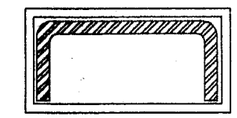
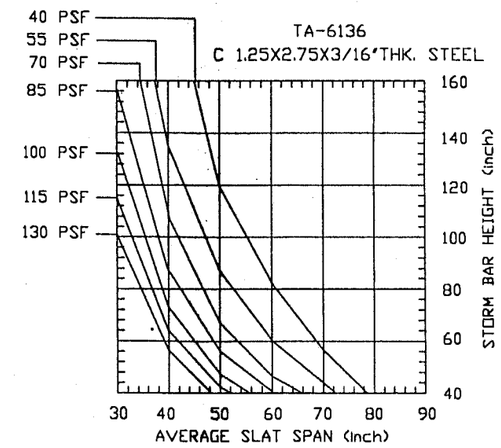


SC 1 1/2" X 3"
BOTTOM HOOD EXTRUSION



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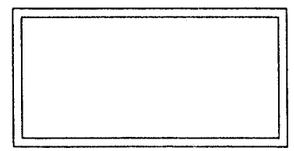
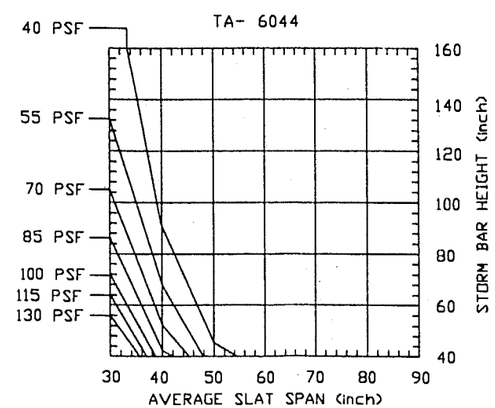


HC 2" X 4"
BOTTOM HOOD EXTRUSION



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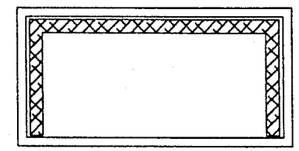
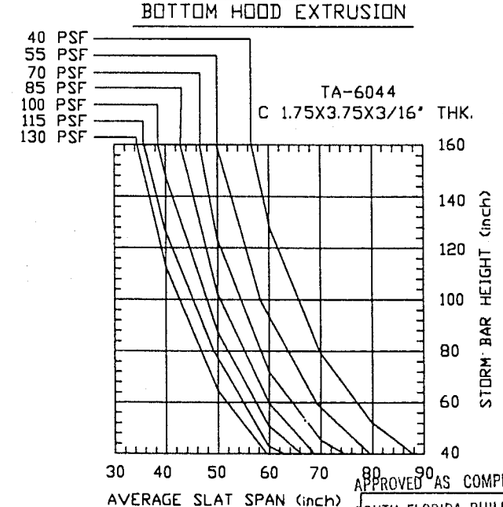


AC 2" X 4"
BOTTOM HOOD EXTRUSION



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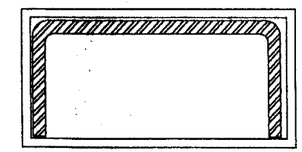
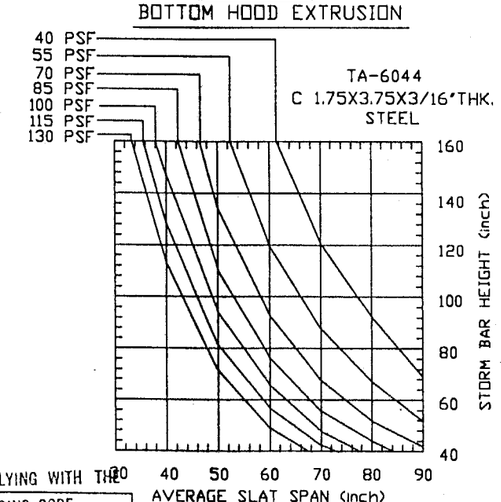


SC 2" X 4"
BOTTOM HOOD EXTRUSION



8.1 STORM BARS, MULLIONS AND HEADER BARS HAVE BEEN SIZED TO LIMIT THE DEFLECTION OF THE ELEMENTS TO L/180 AT THE DESIGN LOAD.

American Consulting Engineers Council Member
Supporting Excellence in Engineering

JENKINS & CHARLAND
3339 N.W. 33rd Street
FORT LAUDERDALE, FL 33309
(305) 484-7777
TO THE BEST OF MY KNOWLEDGE AND ABILITY, THE COMPLETED STRUCTURE DEPICTED ON THESE PLANS COMPLIES WITH THE APPLICABLE MINIMUM BUILDING CODES.
FILE #

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22, 1995
BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED 4-6-95

BOTTOM HOOD HEADER
DOUBLE SPAN

PAGE NUMBER 11 OF 17

FASTENING SCHEDULE
BOTTOM HOOD HEADER DOUBLE SPAN

FASTENER A
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 1-3)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	1	1	1	1	1
RAWL	LOK-BOLT	.25	1.125	MASONRY	1	1	1	1	1
RAWL	LOK-BOLT	.25	1.125	f'c2	1	1	1	1	1
	S.S.SCR	#14	2"	WOOD	3	3	—	—	—

FASTENER B
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 1-3)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	2	2	2
RAWL	TAPPER	.25	1.25	MASONRY	2	2	2	2	2
RAMSET	TAPCON	.25	1.5	f'c3	2	2	2	2	2
RAMSET	TAPCON	.25	1.25	MASONRY	2	2	2	2	2
	S.S.SCR	#14	2"	WOOD	2	2	—	—	—

FASTENER C-C*
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 1-3)

FAST.	MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
C	DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
C	DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
C	BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
C*	BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	1	1	1	1	1

FASTENER SPACING IN MASONRY/CONCRETE

CHARTS ARE BASED ON TYPICAL EDGE DISTANCE =12dia. + 1/2" FOR STUCCO. FOR A REDUCED EDGE DISTANCE MULTIPLY DESIGN LOAD BY FACTOR BELOW. REVIEW FASTENING SCHEDULE AND SELECT FACTENER BASED ON A FACTORED DESIGN LOAD.

EDGE DIST	12dia.= 3"	8dia.= 2"	5dia.= 1 1/4"
FACTOR	1.00	1.29	1.5

EXAMPLE - DESIGN LOAD (40psf) X FACTOR (1.5) = FACTORED DESIGN LOAD (60psf)

FASTENER A
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 4-6)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	1	1	1	—	—
RAWL	LOK-BOLT	.3125	1.5	MASONRY	1	—	—	—	—
RAWL	LOK-BOLT	.3125	1.5	f'c2	1	1	—	—	—
RAWL	LOK-BOLT	.375	1.625	f'c2	1	1	1	1	1
RAWL	LOK-BOLT	.375	1.5	MASONRY	1	1	1	—	—
RAWL	LOK-BOLT	.5	2.25	f'c2	1	1	1	1	1
RAWL	LOK-BOLT	.5	1.5	MASONRY	1	1	1	1	1
RAWL	SPIKE	.5	2.5	f'c3	1	1	1	1	1
	S.S.SCR	#14	2"	WOOD	4	4	—	—	—

FASTENER B
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 4-6)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	2	2	2
RAWL	TAPPER	.25	1.25	MASONRY	2	2	2	2	2
RAMSET	TAPCON	.25	1.5	f'c3	2	2	2	2	2
RAMSET	TAPCON	.25	1.25	MASONRY	2	2	2	—	—
	S.S.SCR	#14	2"	WOOD	2	2	—	—	—

FASTENER C-C*
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 4-6)

FAST.	MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
C	DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
C	DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
C	BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
C*	BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	1	1	1	1	1

FASTENER A
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 7-8)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.5	1.5	MASONRY	1	1	1	—	—
RAWL	LOK-BOLT	.5	2.25	f'c2	1	1	1	1	1
RAWL	SPIKE	.375	1.75	f'c3	1	1	1	—	—
RAWL	SPIKE	.5	2.5	f'c3	1	1	1	1	1
	S.S.SCR	#24	2.625	WOOD	3	3	—	—	—

FASTENER B
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 7-8)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.25	MASONRY	2	2	2	—	—
RAWL	TAPPER	.25	1.5	f'c2	2	2	2	2	2
RAMSET	TAPCON	.25	1.5	f'c3	2	2	2	2	2
	S.S.SCR	#14	2"	WOOD	2	2	—	—	—

FASTENER C-C*
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 7-8)

FAST.	MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
C	DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
C	DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
C	BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
C*	BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	1	1	2	2	2

FASTENER A
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 9-10)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.5	2.25	f'c2	1	1	1	1	1
RAWL	LOK-BOLT	.5	1.5	MASONRY	1	—	—	—	—
RAWL	SPIKE	.5	2.5	f'c3	1	1	1	1	1

FASTENER B
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 9-10)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	2	2	2
RAWL	TAPPER	.25	1.25	MASONRY	2	—	—	—	—
RAMSET	TAPCON	.25	1.5	f'c3	2	2	2	2	2

FASTENER C-C*
BOTTOM HOOD HEADER DOUBLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 9-10)

FAST.	MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
C	DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
C	DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
C	BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
C*	BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	2	2	2	2	2

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22-2001
By Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

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SANDERS & SANDERS
3339 N.W. 33rd Street
FORT LAUDERDALE, FL 33309
(305) 484-7777

TO THE BEST OF MY KNOWLEDGE AND ABILITY THE COMPUTED STRUCTURE SUPPORTS ON THESE PLANS COMPLIES WITH THE APPLICABLE HUD/FHA 515.3295 CODES.
FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22 1995
BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED 6-5-95

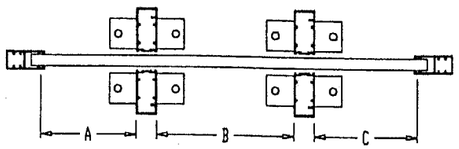
FASTENING SCHEDULE
BOTTOM HOOD HEADER
DOUBLE SPAN

PAGE NUMBER 12 OF 17

BOTTOM HOOD HEADER
TRIPLE SPAN

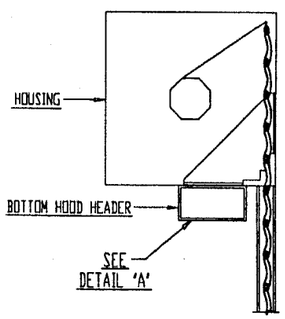
AVERAGE SLAT SPAN

TRIPLE SPAN



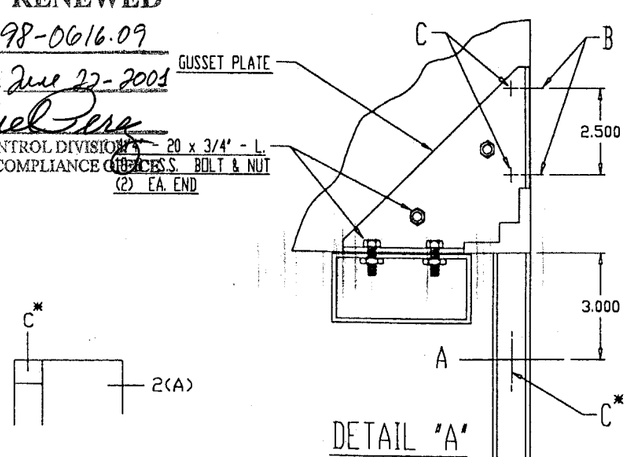
AVERAGE SLAT SPAN = $\frac{A + B + C}{3}$

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE



NOTE:
SEE PAGE 14 OF 17
FOR FASTENING SCHEDULE
AND EDGE DISTANCE

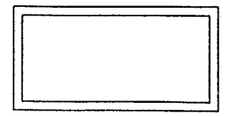
PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22-2001
By
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE



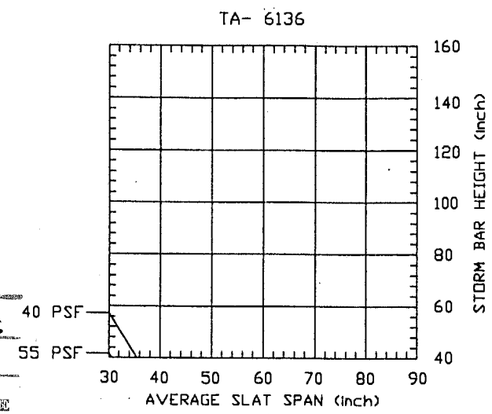
DETAIL "A"

NOTE:
FOR ANGLE BUILDOUT
2 (A) FASTENERS ATTACHED
TO ANGLE. SEE FASTENING
SCHEDULE FOR A, C, AND C*

1



HC 1 1/2" X 3"
BOTTOM HOOD EXTRUSION



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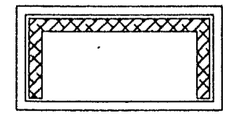
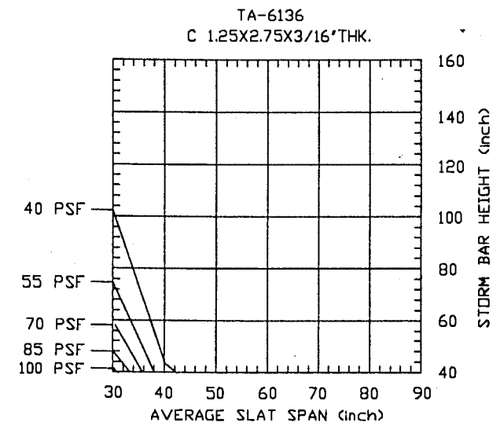


AC 1 1/2" X 3"
BOTTOM HOOD EXTRUSION



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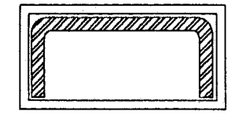
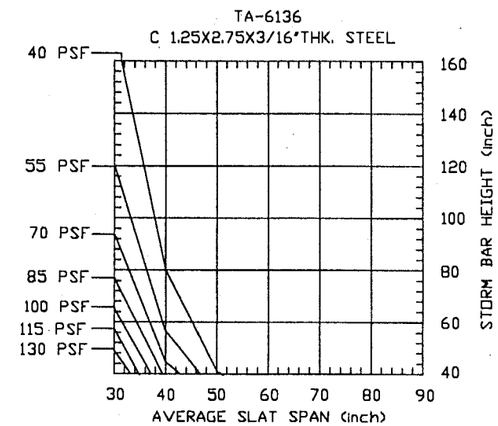


SC 1 1/2" X 3"
BOTTOM HOOD EXTRUSION



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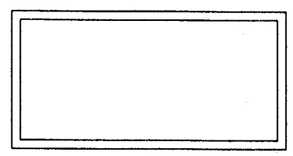
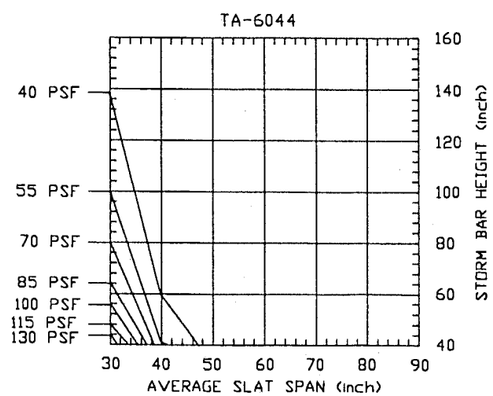


HC 2" X 4"
BOTTOM HOOD EXTRUSION



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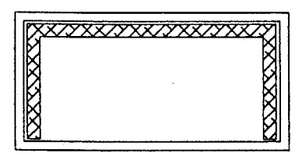
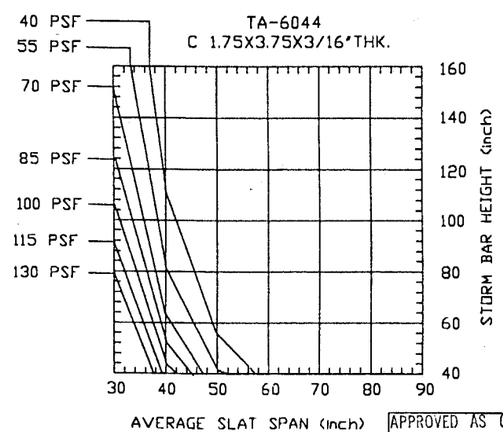


AC 2" X 4"
BOTTOM HOOD EXTRUSION



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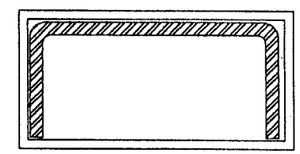
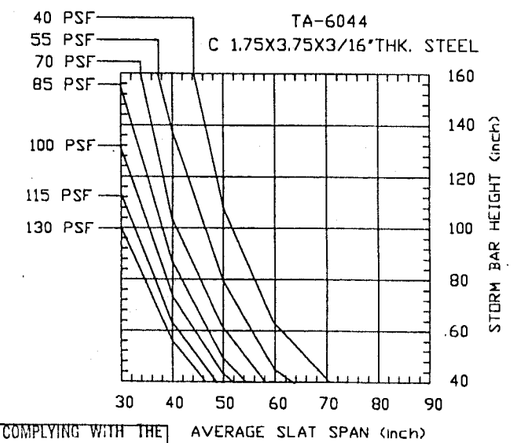


SC 2" X 4"
BOTTOM HOOD EXTRUSION



8.1 STORM BARS, MULLIONS AND HEADER BARS HAVE BEEN SIZED TO LIMIT THE DEFLECTION OF THE ELEMENTS TO L/180 AT THE DESIGN LOAD.

JENKINS & CHARLAND
3800 N.W. 82nd Avenue
Fort Lauderdale, FL 33309
(305) 484-7777
TO THE BEST OF MY KNOWLEDGE AND ABILITY THE COMPLETED STRUCTURE INSPECTED BY THESE PLANS COMPLIES WITH THE APPLICABLE FLORIDA BUILDING CODES.
FILE No.

American Consulting Engineers Council Member
Supporting Excellence in Engineering

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22, 1995
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED 3-9-95

BOTTOM HOOD HEADER
TRIPLE SPAN

PAGE NUMBER 13 OF 17

FASTENING SCHEDULE
BOTTOM HOOD HEADER TRIPLE SPAN

FASTENER A
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 1-3)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.375	1.625	f'c2	1	1	1	1	1
RAWL	LOK-BOLT	.5	1.5	MASONRY	1	1	1	1	1
RAWL	LOK-BOLT	.5	2.25	f'c2	1	1	1	1	1
RAWL	SPIKE	.375	1.75	f'c3	1	1	1	1	1
	S.S.SCR	#24	2.625	WOOD	3	3	—	—	—

FASTENER B
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 1-3)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	2	2	2
RAWL	TAPPER	.25	1.25	MASONRY	2	2	2	2	2
RAMSET	TAPCON	.25	1.5	f'c3	2	2	2	2	2
	S.S.SCR	#14	2"	WOOD	2	2	—	—	—

FASTENER C-C*
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 1-3)

FAST.	MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
C	DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
C	DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
C	BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
C*	BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	1	1	1	1	1

FASTENER A
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 4-6)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.5	2.25	f'c2	1	1	1	1	—
RAWL	LOK-BOLT	.5	2.25	f'c4	1	1	1	1	1
RAWL	SPIKE	.5	2.5	f'c3	1	1	1	1	1
	S.S.SCR	#24	2.625	WOOD	4	4	—	—	—

FASTENER B
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 4-6)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	2	2	2
RAWL	LOK-BOLT	.25	1.5	MASONRY	2	2	2	2	—
RAWL	LOK-BOLT	.3125	1.5	MASONRY	2	2	2	2	2
RAMSET	TAPCON	.25	1.5	f'c3	2	2	2	2	2
	S.S.SCR	#24	2.625	WOOD	2	2	—	—	—

FASTENER C-C*
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 4-6)

FAST.	MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
C	DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
C	DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
C	BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
C*	BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	2	2	2	2	2

FASTENER A
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 7-8)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.5	2.25	f'c4	1	1	1	—	—
RAWL	SPIKE	.5	2.5	f'c3	1	1	1	—	—
RAWL	SPIKE	.5	2.5	f'c4	1	1	1	1	1
	S.S.SCR	#24	2.625	WOOD	5	6	—	—	—

FASTENER B
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 7-8)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	—	—	—
RAWL	LOK-BOLT	.375	1.625	f'c2	2	2	2	2	2
RAWL	LOK-BOLT	.375	1.5	MASONRY	2	2	—	—	—
RAWL	SPIKE	.375	1.75	f'c3	2	2	2	2	2
	S.S.SCR	#24	2.625	WOOD	2	2	—	—	—

FASTENER C-C*
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 7-8)

FAST.	MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
C	DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
C	DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
C	BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
C*	BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	2	2	3	3	3

FASTENER A
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 9-10)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.5	2.25	f'c4	1	1	—	—	—
RAWL	SPIKE	.5	2.5	f'c3	1	1	—	—	—
RAWL	SPIKE	.5	2.5	f'c4	1	1	1	1	1

FASTENER B
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 9-10)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	—	—	—
RAWL	LOK-BOLT	.375	1.625	f'c2	2	2	2	2	2
RAWL	LOK-BOLT	.375	1.5	MASONRY	2	2	—	—	—
RAWL	SPIKE	.375	1.75	f'c3	2	2	2	2	2

FASTENER C-C*
BOTTOM HOOD HEADER TRIPLE SPAN
FOR STORM BAR OPTIONS (GRAPHS 9-10)

FAST.	MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
C	DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
C	DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
C	BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	3	3	3	3	3
C*	BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	2	2	3	3	3

FASTENER SPACING IN MASONRY/CONCRETE

CHARTS ARE BASED ON TYPICAL EDGE DISTANCE =12dia. + 1/2" FOR STUCCO. FOR A REDUCED EDGE DISTANCE MULTIPLY DESIGN LOAD BY FACTOR BELOW. REVIEW FASTENING SCHEDULE AND SELECT FACTENER BASED ON A FACTORED DESIGN LOAD.

EDGE DIST	12dia.= 3"	8dia.= 2"	5dia.= 1 1/4"
FACTOR	1.00	1.29	1.5

EXAMPLE - DESIGN LOAD (40psf) X FACTOR (1.5) = FACTORED DESIGN LOAD (60psf)

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22-2001
By
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

American Consulting Engineers Council Member
Supporting Excellence in Engineering

SCHWEBKE-SHIAMAK
3359 N.W. 53rd Street
FORT LAUDERDALE, FL 33309
(305) 484-1777

TO THE BEST OF MY KNOWLEDGE AND BELIEF THE COMPLETED STRUCTURE REPRESENTED ON THESE PLANS COMPLIES WITH THE APPLICABLE MIAMI-DADE BUILDING CODES.

FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 23 19 95
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

SOLARGUARD SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

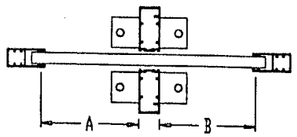
SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED 6-5-95

FASTENING SCHEDULE
BOTTOM HOOD HEADER
TRIPLE SPAN

STORM BAR OPTIONS

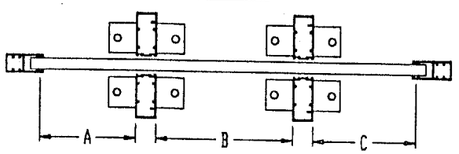
AVERAGE SLAT SPAN

DOUBLE SPAN



AVERAGE SLAT SPAN = $\frac{A + B}{2}$

TRIPLE SPAN



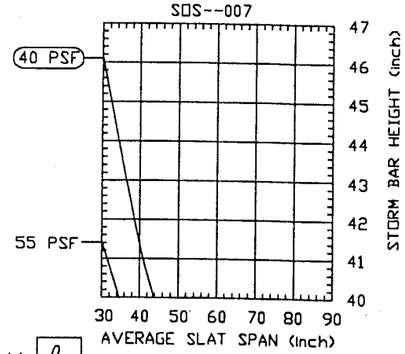
AVERAGE SLAT SPAN = $\frac{A + B + C}{3}$

NOTE:

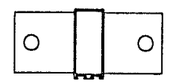
✳ (40 PSF) THESE STORMBARS CAN NOT BE USED BETWEEN 0 - 30' ELEVATION IF SUBJECT TO IMPACT REQUIREMENTS FOR STORMBARS.

✳ 1

HC 2 STORM BAR
SDS--007

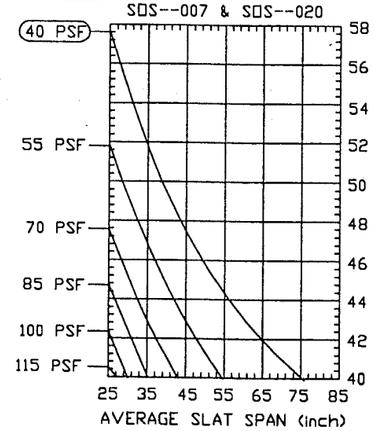


HC 2 STORM BAR

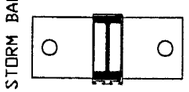


✳ 2

AC 2 STORM BAR
SDS--007 & SDS--020

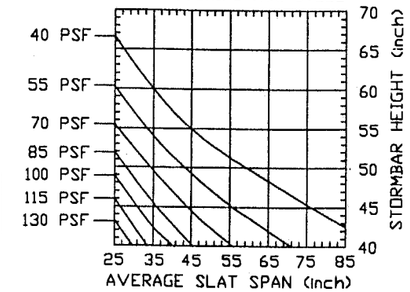


AC 2 STORM BAR

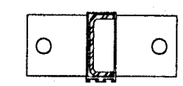


3

SC 2 STORM BAR
SDS--007
C .75X1.75X1/8"THK. STEEL

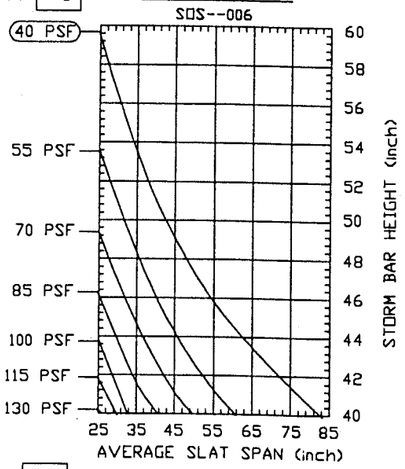


SC 2 STORM BAR

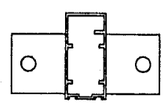


✳ 4

HC 2 1/2" STORM BAR
SDS--006

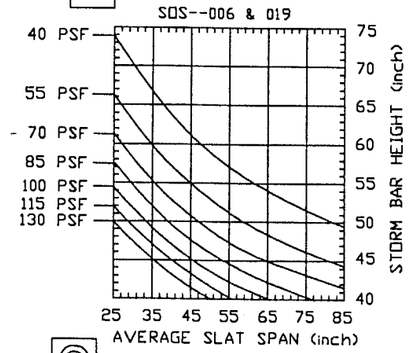


HC 2 1/2" STORM BAR

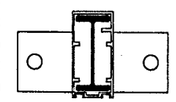


5

AC 2 1/2" STORM BAR
SDS--006 & 019

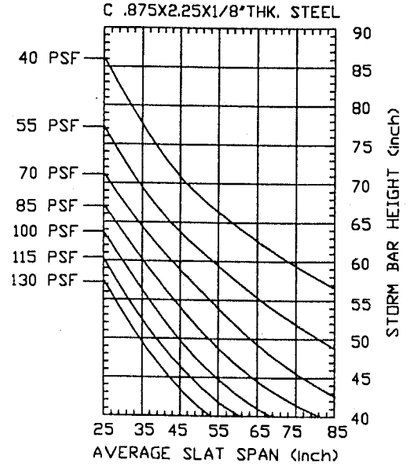


AC 2 1/2" STORM BAR

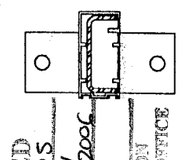


6

SC 2 1/2" STORM BAR
SDS--006
C .875X2.25X1/8"THK. STEEL

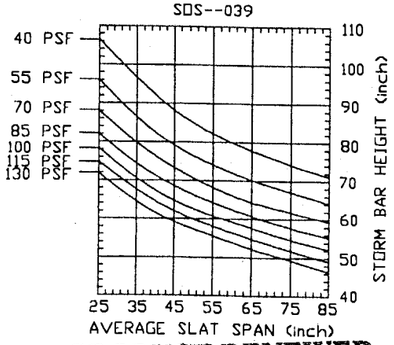


SC 2 1/2" STORM BAR

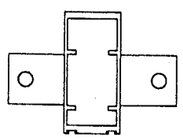


7

HC 3 1/2" STORM BAR
SDS--039

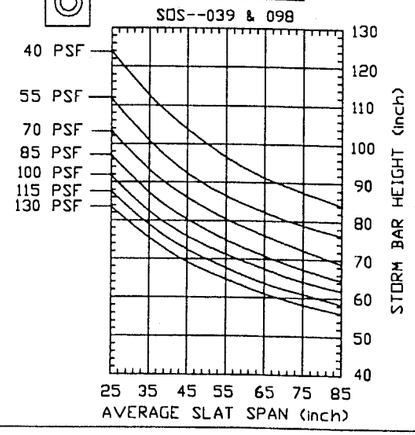


HC 3 1/2" STORM BAR

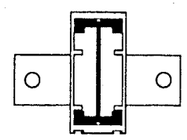


8

AC 3 1/2" STORM BAR
SDS--039 & 098

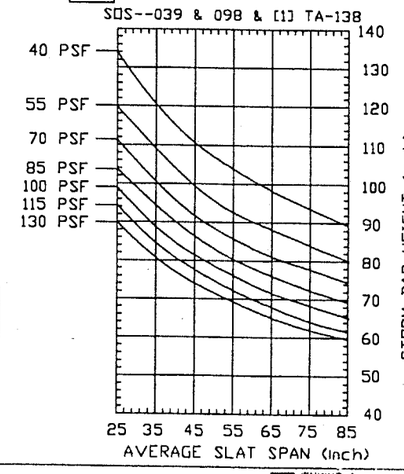


AC 3 1/2" STORM BAR

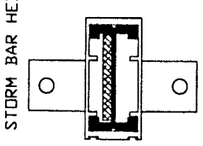


9

XAC 3 1/2" STORM BAR
SDS--039 & 098 & [1] TA-138

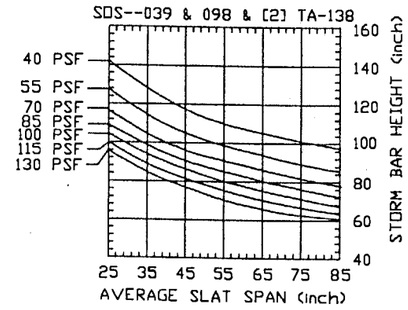


XAC 3 1/2" STORM BAR

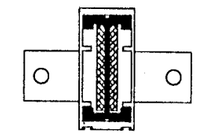


10

XXAC 3 1/2" STORM BAR
SDS--039 & 098 & [2] TA-138



XXAC 3 1/2" STORM BAR



PRODUCT RENEWED

ACCEPTANCE No. 98-0616.09.
EXPIRATION DATE June 22-2001.
By Manuel Seiz
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

8.1 STORM BARS, MULLIONS AND HEADER BARS HAVE BEEN SIZED TO LIMIT THE DEFLECTION OF THE ELEMENTS TO L/180 AT THE DESIGN LOAD.

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(305) 484-7777
TO THE BEST OF MY KNOWLEDGE AND ABILITY THE COMPLETED STRUCTURE REFERED ON THESE PLANS COMPLIES WITH THE APPLICABLE MINIMUM BUILDING CODES.
FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22, 1995
BY Manuel Seiz
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

PRODUCT REVISED
ACCEPTANCE NO. 01-0227.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

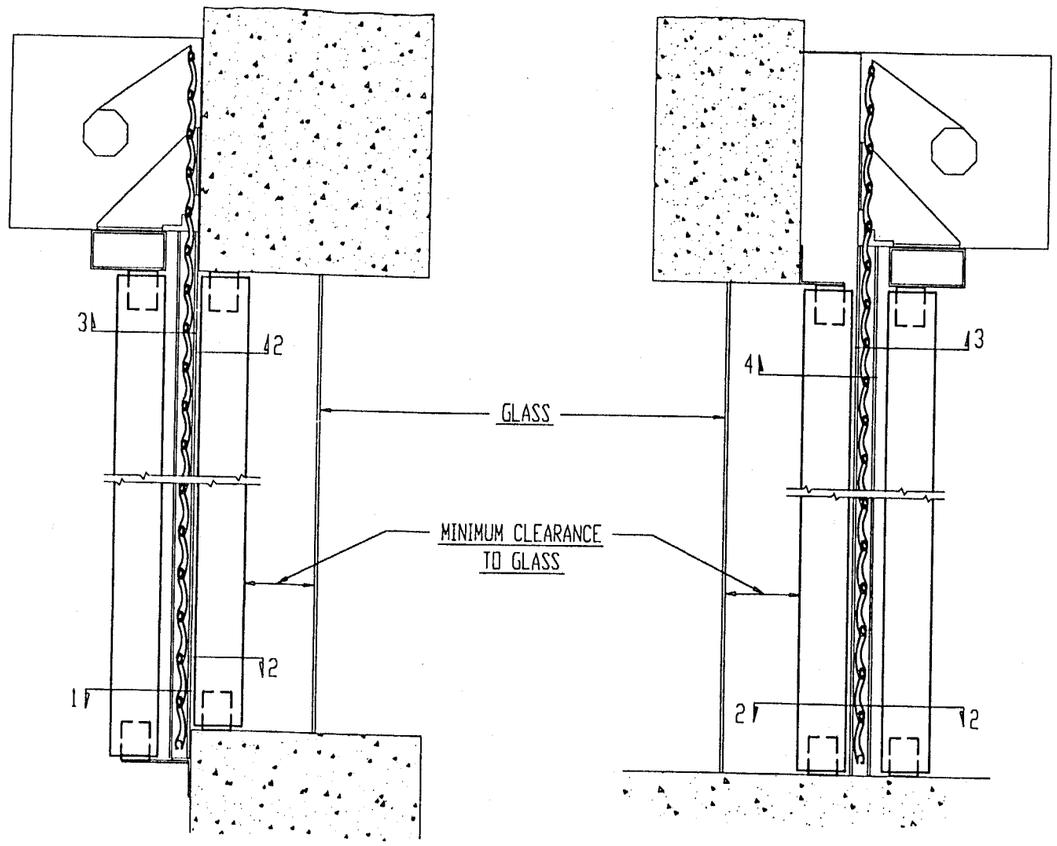
SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED: 5-12-95

STORM BAR OPTIONS

PAGE NUMBER 15 OF 17

STORM BAR CONNECTIONS



MINIMUM CLEARANCE

1 1/4' FOR STORM BAR HEIGHT ≤ 45'

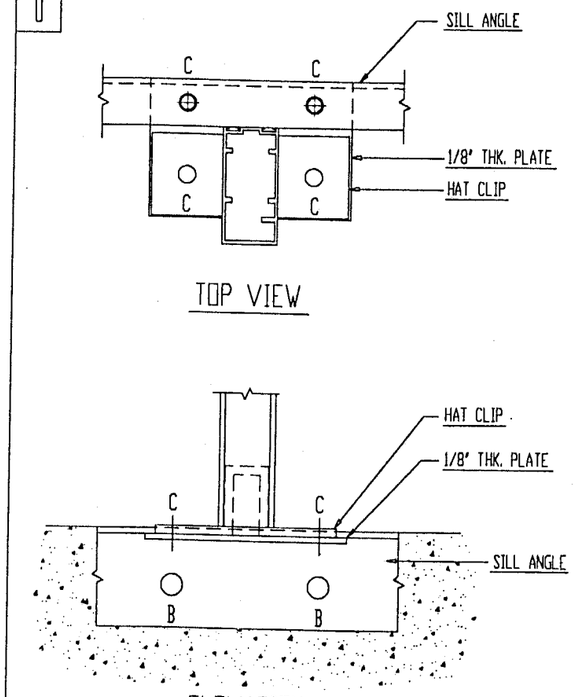
1 1/2' FOR STORM BAR HEIGHT ≤ 90'

1 3/4' FOR STORM BAR HEIGHT ≤ 135'

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED
ACCEPTANCE No. 98-0616.09
EXPIRATION DATE June 22 2001
By
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

1



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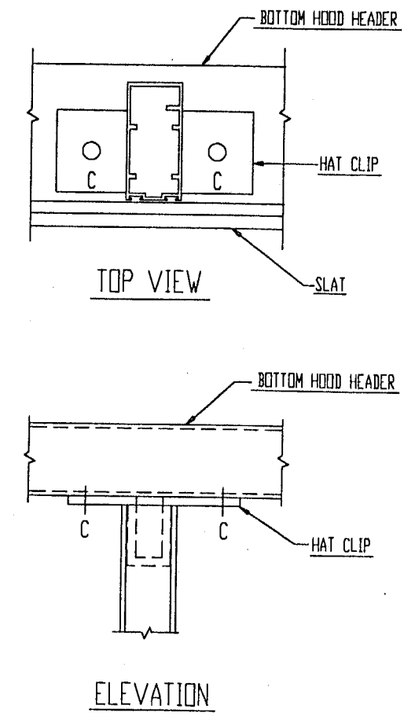
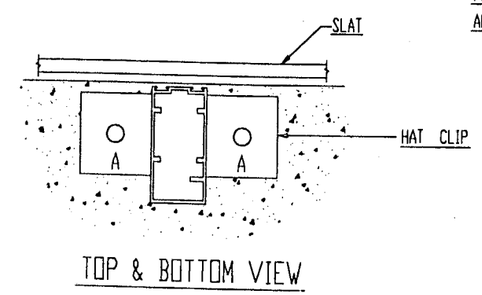


NOTE:
SEE PAGE 17 OF 17
FOR FASTENING SCHEDULE
AND EDGE DISTANCE

2



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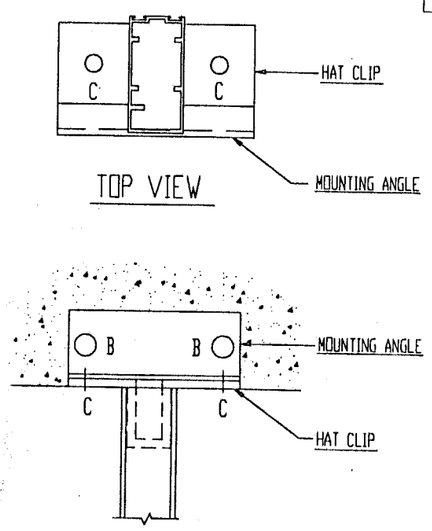

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE JUNE 22 1995
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO 94-1031.09

American Consulting Engineers Council Member
Supporting Excellence In Engineering

JENKINS & CHARLAND
3559 N.W. 53rd STREET
FORT LAUDERDALE, FL. 33309
(305) 484-7777

TO THE BEST OF MY KNOWLEDGE AND ABILITY, THE COMPLETED STRUCTURE DEPICTED ON THESE PLANS COMPLIES WITH THE APPLICABLE MINIMUM BUILDING CODES.
FILE No.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED: 4-6-95

STORM BAR CONNECTIONS

PAGE NUMBER
16 OF 17

FASTENING SCHEDULE
STORM BAR OPTIONS

FASTENER SPACING IN MASONRY/CONCRETE

CHARTS ARE BASED ON TYPICAL EDGE DISTANCE =12dia. + 1/2" FOR STUCCO. FOR A REDUCED EDGE DISTANCE MULTIPLY DESIGN LOAD BY FACTOR BELOW. REVIEW FASTENING SCHEDULE AND SELECT FACTENER BASED ON A FACTORED DESIGN LOAD.

EDGE DIST	12dia.= 3"	8dia.= 2"	5dia.= 1 1/4"
FACTOR	1.00	1.29	1.5

EXAMPLE - DESIGN LOAD (40psf) X FACTOR (1.5) = FACTORED DESIGN LOAD (60psf)

FASTENER A
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 1-3)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.25	MASONRY	2	2	2	2	2
RAWL	TAPPER	.25	1.5	f'c3	2	2	2	2	2
RAWL	CALK-IN	1/4"-20	.875	MASONRY	2	—	2	—	—
RAWL	CALK-IN	1/4"-20	.875	f'c3	2	2	2	2	2
RAWL	LOK-BOLT	.25	1.125	MASONRY	2	2	2	2	2
RAWL	LOK-BOLT	.25	1.125	f'c2	2	2	2	2	2
RAWL	SPIKE	.1875	1.25	f'c3	2	2	2	2	2
RAWL	SPIKE	.1875	1.25	MASONRY	2	2	2	2	2
	S.S.SCR	#24	2.625	WOOD	3	3	—	—	—

FASTENER B
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 1-3)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	3	4	4	4	4
RAWL	CALK-IN	1/4"-20	.875	f'c3	3	3	3	3	3
RAMSET	TAPCON	.25	1.5	f'c3	4	4	4	4	4
RAWL	LOK-BOLT	.3125	1.5	f'c2	4	4	4	4	4
RAWL	LOK-BOLT	.375	1.625	f'c2	3	3	3	3	3
RAWL	LOK-BOLT	.3125	1.5	MASONRY	4	4	4	4	4
	S.S.SCR	#24	2.625	WOOD	3	4	—	—	—

FASTENER C
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 1-3)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	2	2	2	2	2
	BOLT JACK NUT	1/4"-20	.75	ALUM.	2	2	2	2	2

FASTENER A
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 4-6)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	2	2	2	2	—
RAWL	CALK-IN	3/8"-16	1.25	f'c4	2	2	2	2	2
RAWL	SPIKE	.25	1.25	f'c3	2	2	2	2	—
RAWL	SPIKE	.375	1.75	f'c3	2	2	2	2	2
RAWL	LOK-BOLT	.3125	1.5	f'c2	2	2	2	—	—
RAWL	LOK-BOLT	.375	1.625	f'c2	2	2	2	2	2
RAWL	LOK-BOLT	.375	1.5	MASONRY	2	2	2	2	—
	S.S.SCR	#24	2.625	WOOD	3	4	—	—	—

FASTENER B
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 4-6)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	TAPPER	.25	1.5	f'c3	4				
RAWL	CALK-IN	1/4"-20	.875	f'c3	4	4	4	—	—
RAMSET	LOK-BOLT	.375	1.625	f'c2	4	4	4	—	—
RAWL	LOK-BOLT	.375	1.5	MASONRY	4	—	—	—	—
RAWL	SPIKE	.375	1.75	f'c3	3	3	4	4	4
	S.S.SCR	#24	2.625	WOOD	4	5	—	—	—

FASTENER C
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 4-6)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	2	2	2	2	2
	BOLT JACK NUT	1/4"-20	.75	ALUM.	2	2	2	2	2

FASTENER A
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 7-10)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.375	1.625	f'c3	2	2	—	—	—
RAWL	LOK-BOLT	.5	2.25	f'c2	2	2	2	2	2
RAWL	CALK-IN	3/8"-16	1.25	f'c4	2	2	2	2	2
RAWL	SPIKE	.375	1.75	f'c3	2	2	2	2	2
	S.S.SCR	#24	2.625	WOOD	6	6	—	—	—

FASTENER B
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 7-10)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
RAWL	LOK-BOLT	.5	2.25	f'c4	3	3	3	3	4
RAWL	CALK-IN	3/8"-16	1.25	f'c4	3	3	3	4	4
RAWL	SPIKE	.5	2.5	f'c3	3	3	3	4	4
	S.S.SCR	#24	2.625	WOOD	7	8	—	—	—

FASTENER C
STORM BAR CONNECTIONS FOR
STORM BAR OPTIONS (GRAPHS 7-10)

MANUF.	TYPE	DIA.	IMBED.	MAT.	# FASTENERS REQUIRED (P.S.F.) 40	55	70	100	130
DRILL FLEX	TEKS	#12-14	.75	ALUM.	2	2	2	2	2
DRILL FLEX	TEKS	1/4"-14	.75	ALUM.	2	2	2	2	2
BOLT & NUT	410 S.S. STEEL	1/4"-20	.75	ALUM.	2	2	2	2	2
BOLT & NUT	410 S.S. STEEL	3/8"-16	.75	ALUM.	2	2	2	2	2
	BOLT JACK NUT	1/4"-20	.75	ALUM.	2	4	4	4	4

PRODUCT REVISED
ACCEPTANCE NO. 01-0327.05
EXPIRATION DATE 06/22/2006
BY _____
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

PRODUCT RENEWED
ACCEPTANCE No. 98-0609.09
EXPIRATION DATE June 22 - 2001.
By Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

American Consulting Engineers Council Member
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JENSEN & CHANCANI
3555 N.W. 83rd Avenue
FORT LAUDERDALE, FL. 33309
(305) 484-7777

TO THE BEST OF MY KNOWLEDGE AND ABILITY THE COMPLETED STRUCTURE DEPICTED ON THESE PLANS COMPLIES WITH THE APPLICABLE MINIMUM BUILDING CODES.

PROF. ENGINEER
GENE S. SANDERS
FLA. PE # 26590
6/7/95

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE JUNE 22 1995
BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 94-1031.09

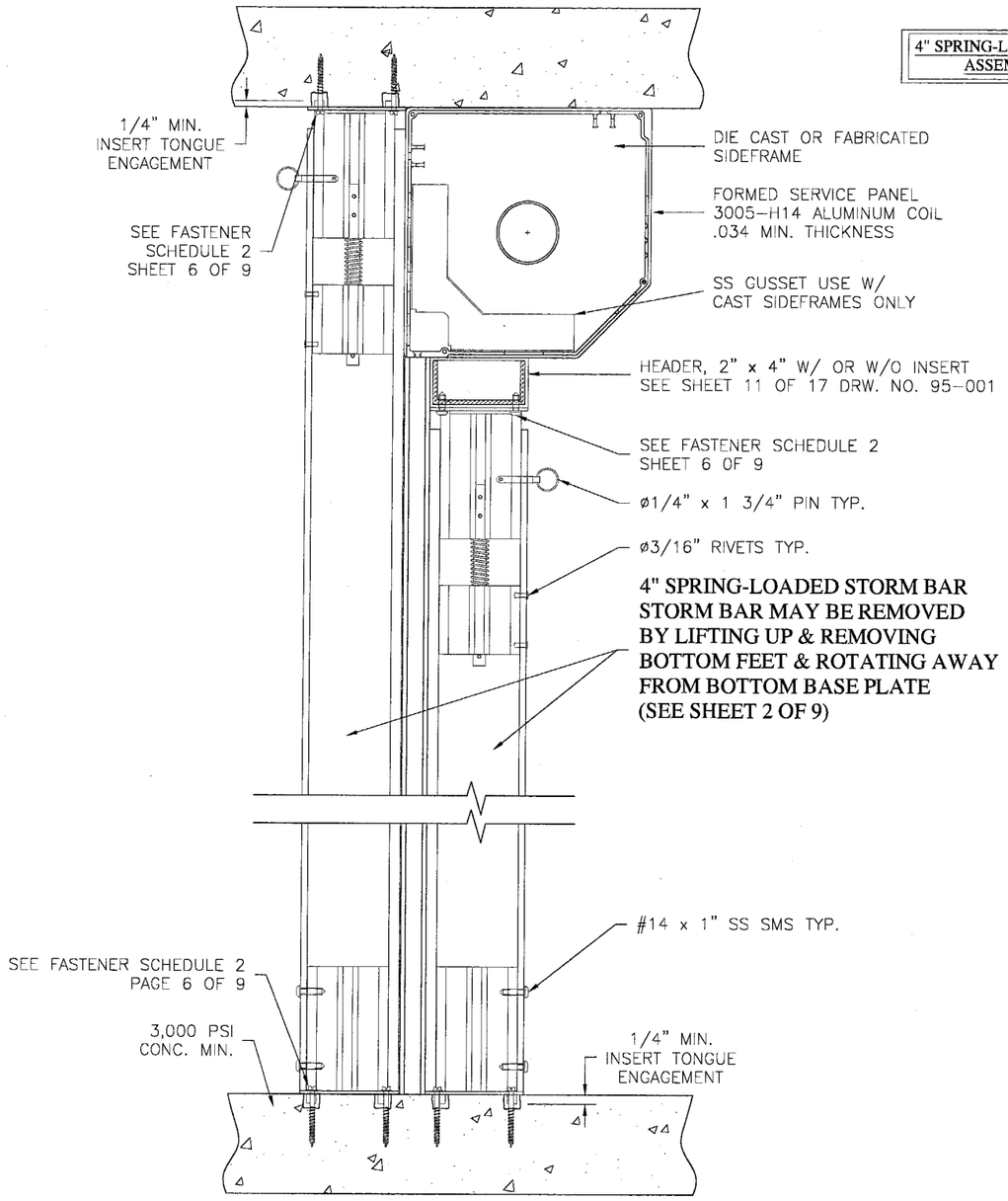
SOLAROLL SHADE & SHUTTER
POMPANO BEACH, FLORIDA 33060

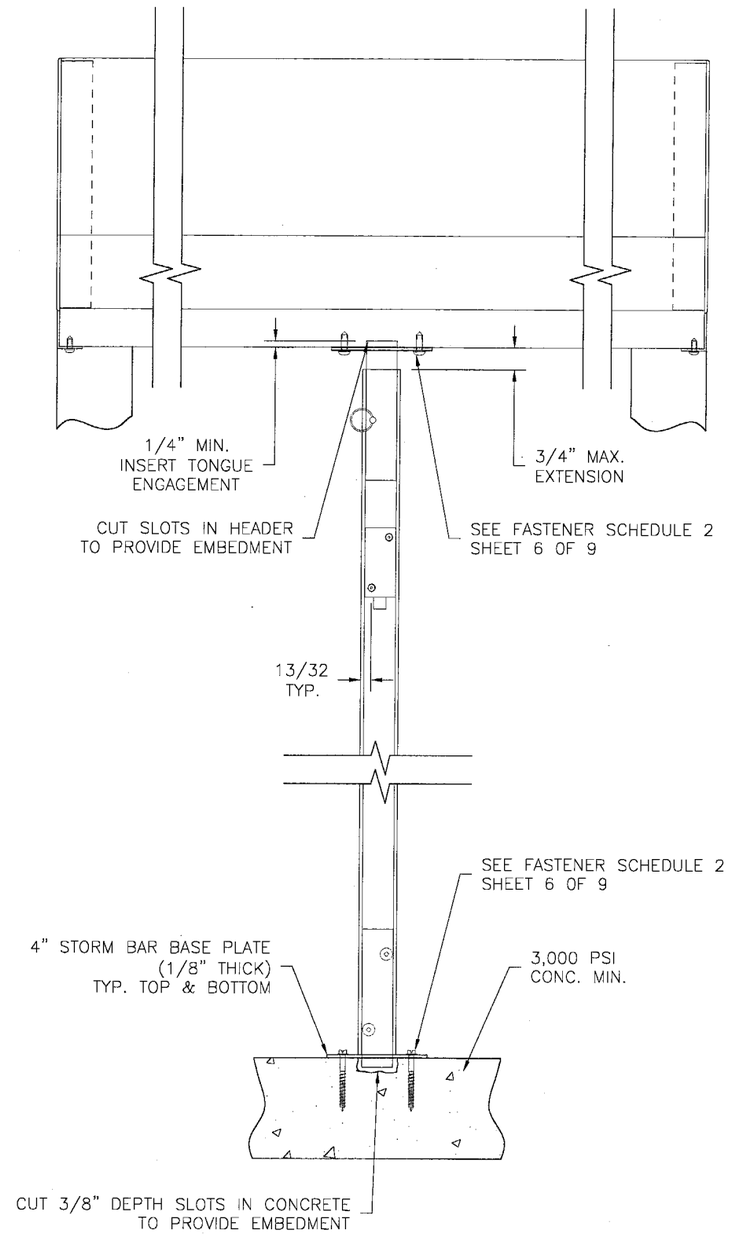
SCALE:	DRAWING NUMBER	DRAWN BY: VICKERY
DATE: 3-9-95	95-001	REVISED: 6-5-95

FASTENING SCHEDULE
STORM BAR OPTIONS

PAGE NUMBER 17 OF 17

4" SPRING-LOADED STORM BAR ASSEMBLY DETAIL





NOTES:
1. SEE PAGE 3 OF 9 FOR ALLOWABLE SPANS.
2. ADHESIVE WARNING LABELS SHALL BE PLACED ON THE BOTTOM SIDE OF HEADER WITHIN 6" OF STORM BAR.
3. THIS SPRING-LOADED STORM BAR CAN ONLY BE USED WITH NOA 01-0327.05.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE 07/19/2001
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-0327.05

D.L. Fowler
Professional Engineer
Florida License No.
PE0050458
5/25/01

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915 S. DIXIE HIGHWAY EAST
POMPANO BEACH, FL 33060

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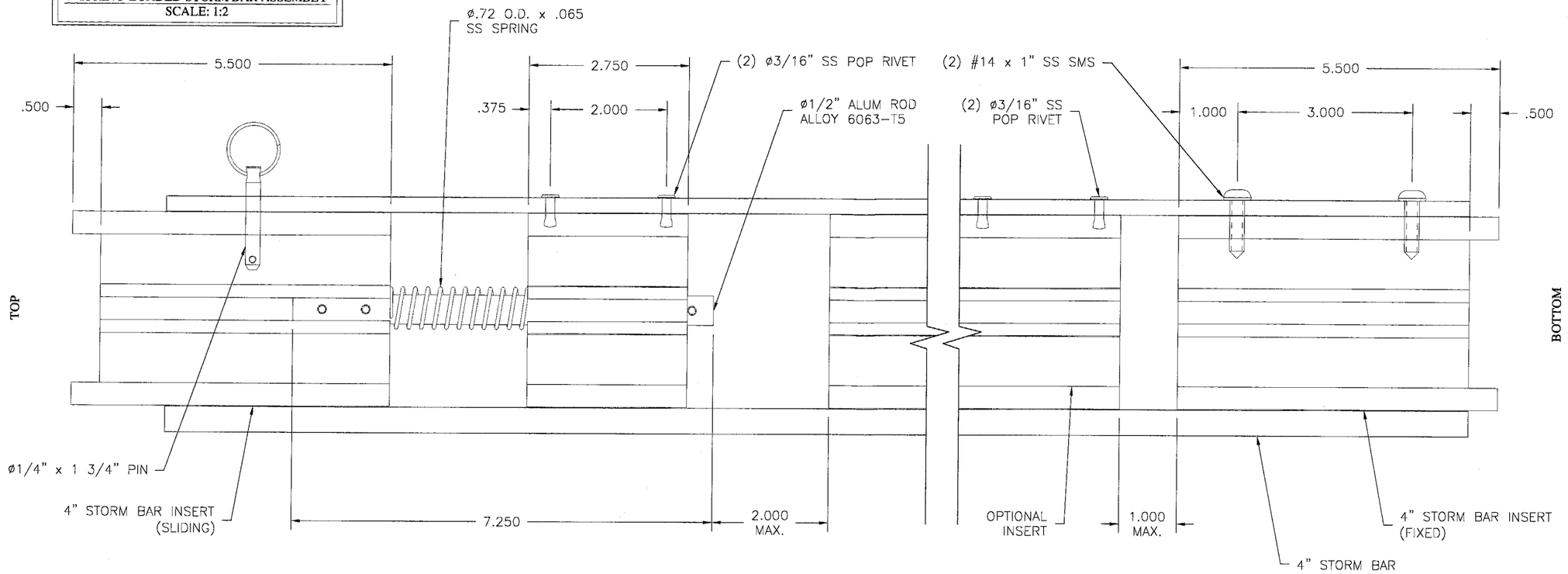
THIRD ANGLE PROJECTION

ASCE 7-88
DADE COUNTY

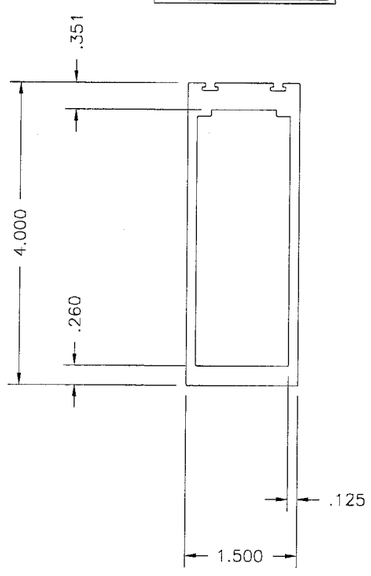
TITLE:
ROLL-UP SHUTTER
PRODUCT APPROVAL
3 & 4 INCH SPRING-LOADED STORM BAR

DRAWN: PMW	DATE: 9-29-00	
CHECKED:	DATE:	
APPROVED:	DATE:	
SIZE: B	DRAWING NO: 3-01-009-D	REV: B
FSCM NO:	SCALE: 2" = 1'-0"	SHEET 1 OF 9

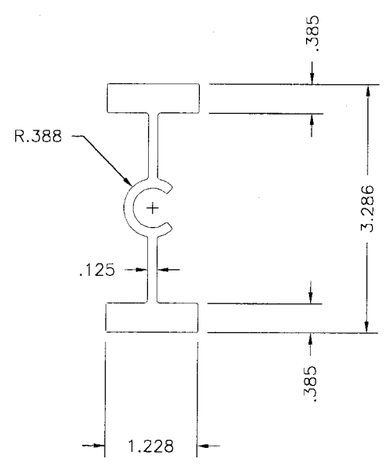
4" SPRING-LOADED STORM BAR ASSEMBLY
SCALE: 1:2



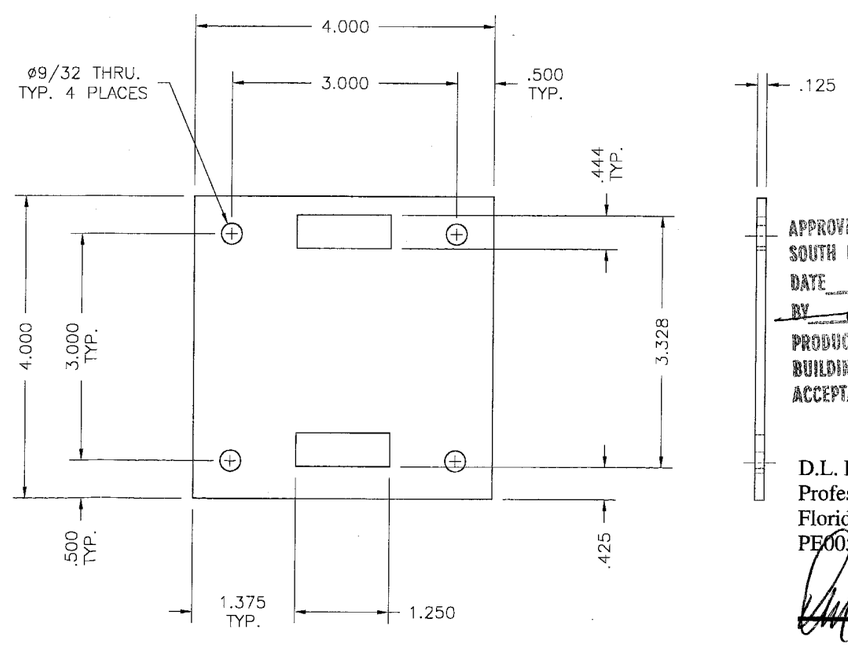
4" STORM BAR
ALLOY 6005-T5



4" STORM BAR INSERT
ALLOY 6063-T6



4" STANDARD BASE PLATE
ALLOY 6061-T6 OR 6005-T5



APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE 07/19/2001
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-0327.05

D.L. Fowler
Professional Engineer
Florida License No.
PE0050458

5/25/01

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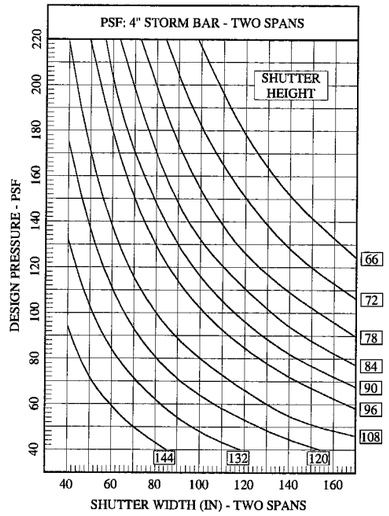
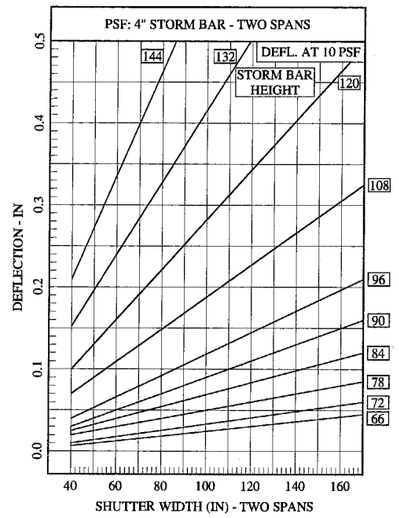
THIRD ANGLE PROJECTION

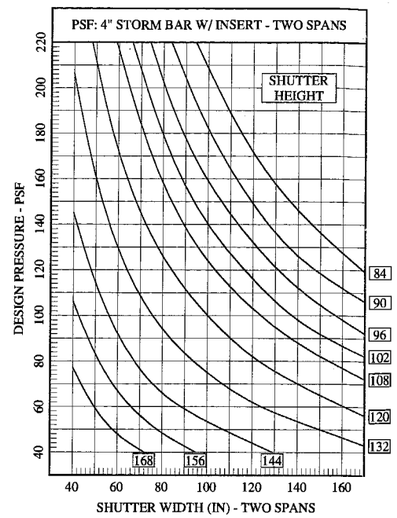
ASCE 7-88
DADE COUNTY

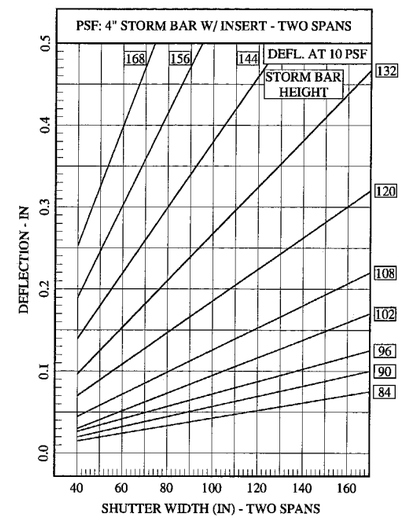
TITLE:
ROLL-UP SHUTTER
PRODUCT APPROVAL
3 & 4 INCH SPRING-LOADED STORM BAR

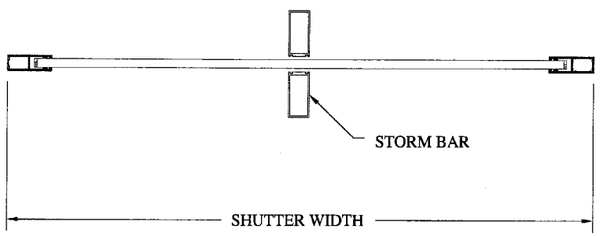
DRAWN: PTW	DATE: 9-29-00	REV: B	
CHECKED:	DATE:		
APPROVED:	DATE:		
SIZE: B	DRAWING NO: 3-01-009-D	SCALE: 1:2	SHEET 2 OF 9
ESCM NO:			



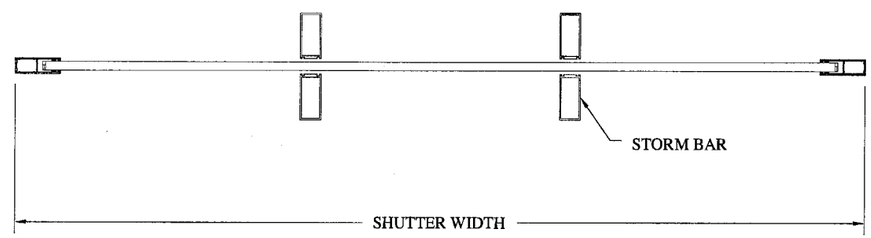




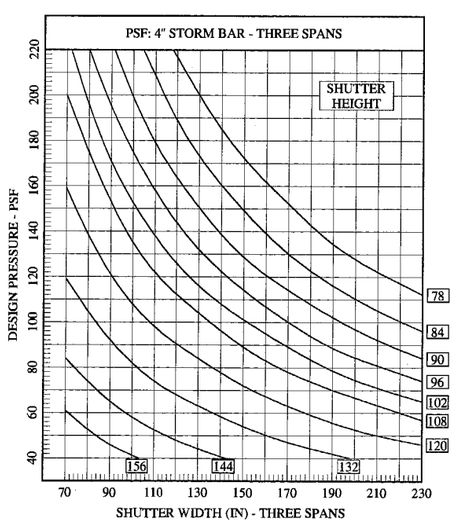


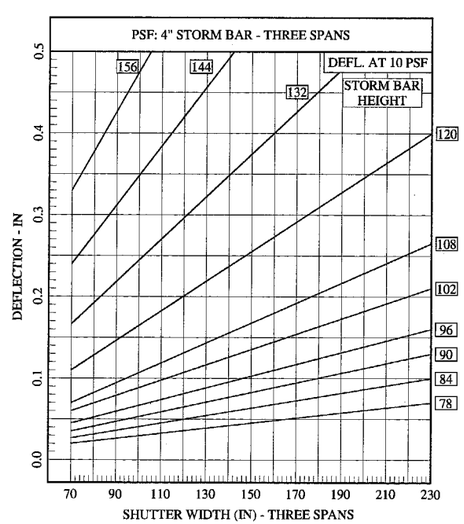


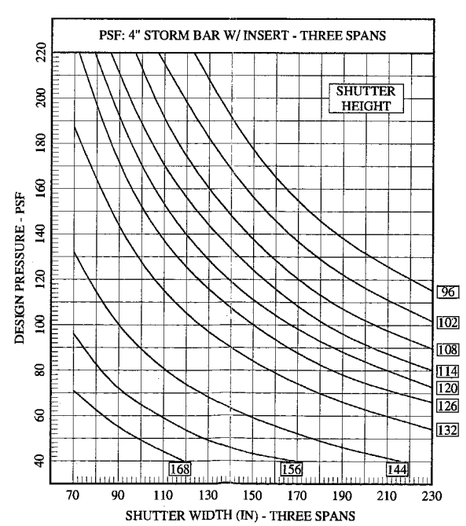
TWO SPANS

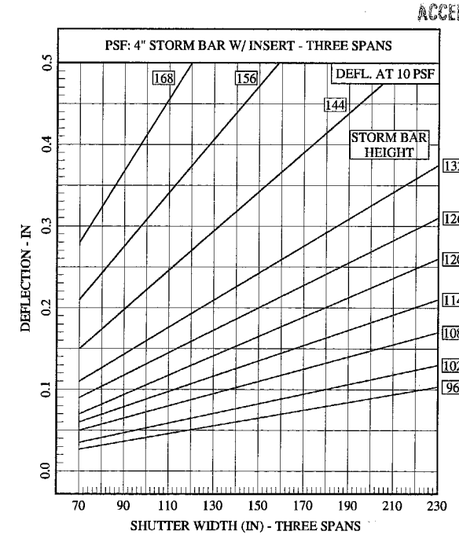


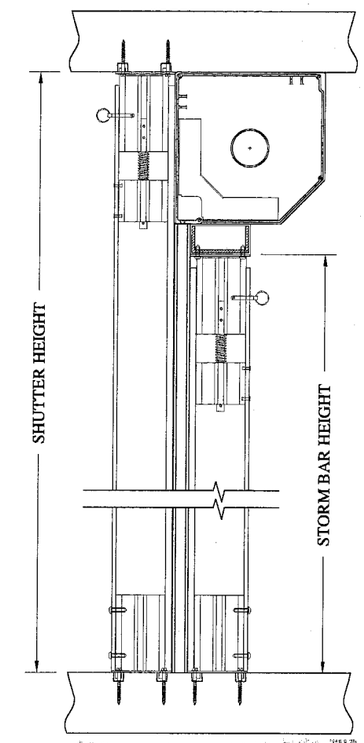
THREE SPANS











APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE 07/19/2001
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-0327.05

D.L. Fowler
Professional Engineer
Florida License No.
PE0050458

5/25/01

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915 S. DIXIE HIGHWAY EAST
POMPANO BEACH, FL 33060

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THIRD ANGLE PROJECTION

ASCE 7-88
DADE COUNTY

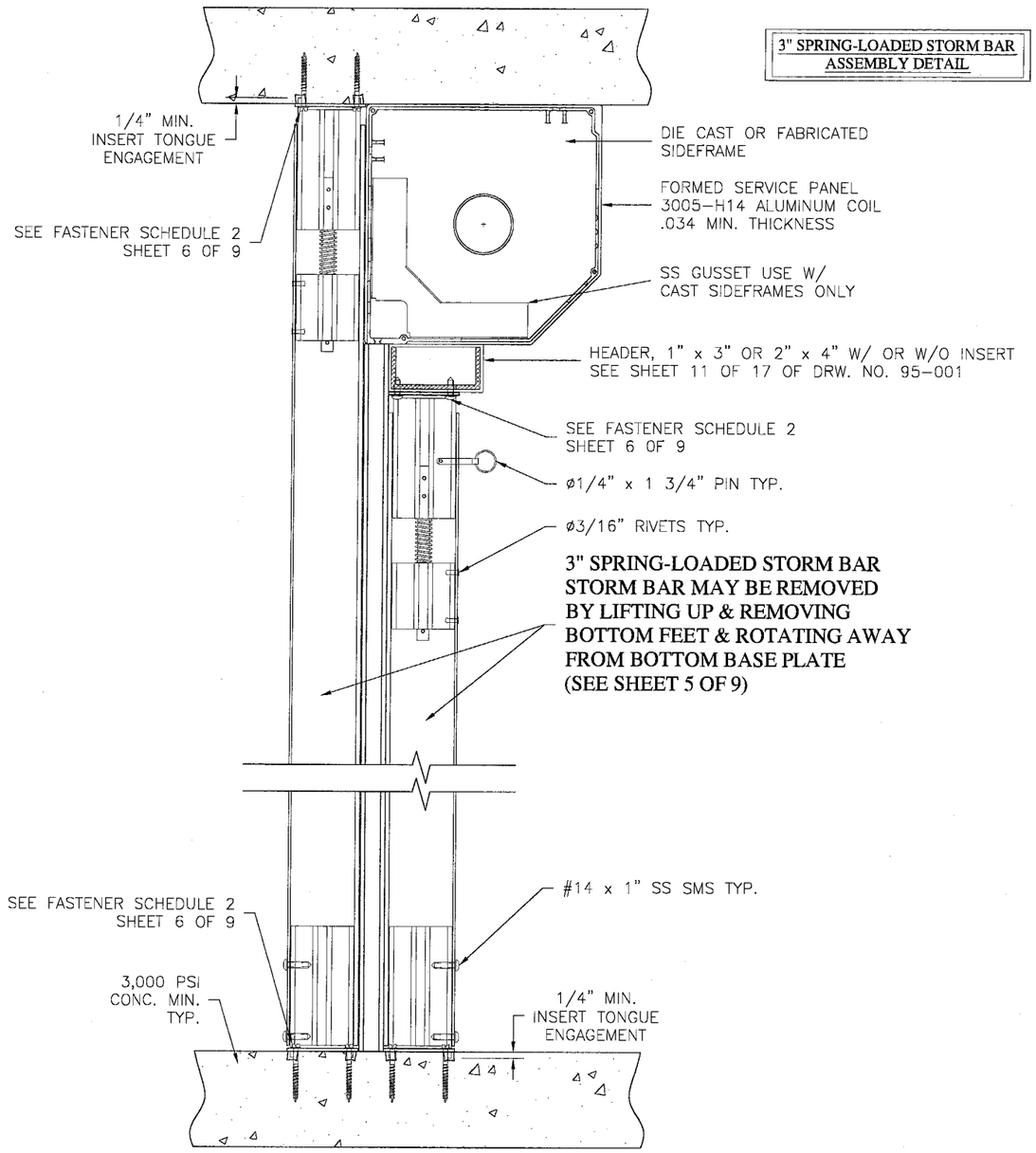
TITLE:

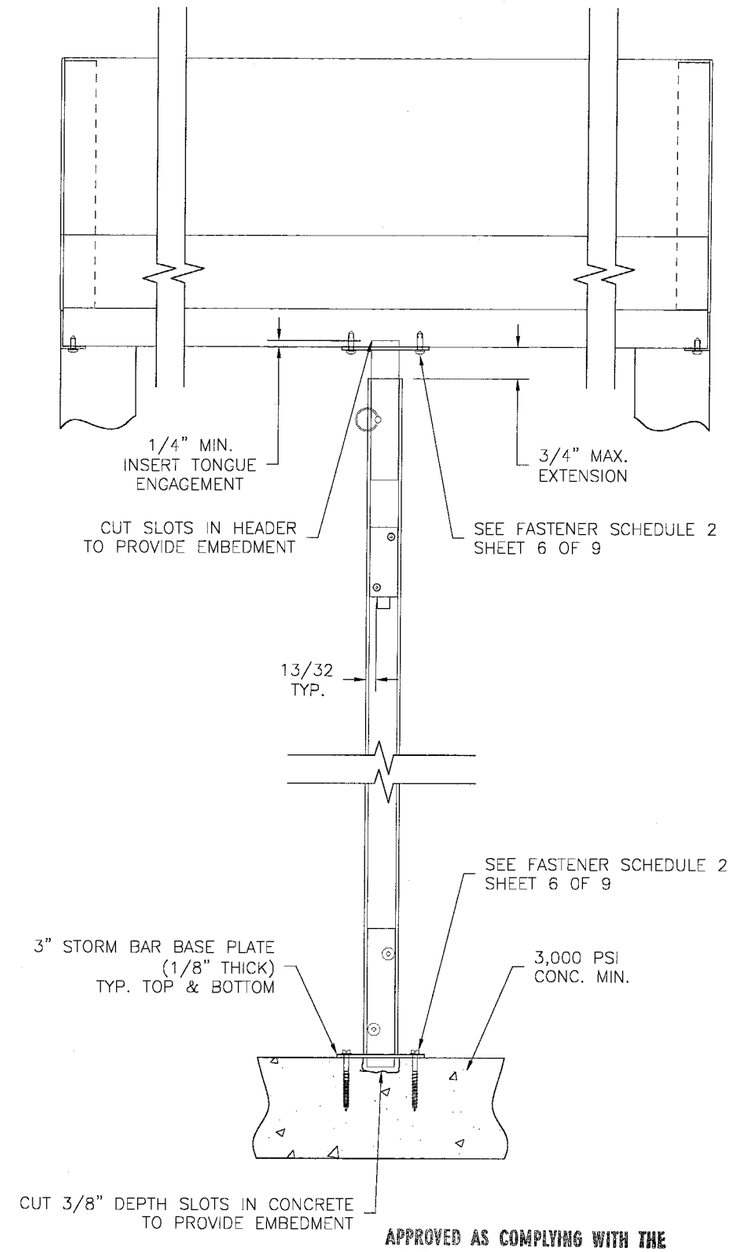
ROLL-UP SHUTTER
PRODUCT APPROVAL

3 & 4 INCH SPRING-LOADED STORM BAR

DRAWN: PTW	DATE: 9-29-00	REV: B	
CHECKED:	DATE:		
APPROVED:	DATE:		
SIZE: B	DRAWING NO: 3-01-009-D	SCALE: 1:2	SHEET 3 OF 9
FSCM NO:			

3" SPRING-LOADED STORM BAR ASSEMBLY DETAIL





NOTES:
1. SEE PAGE 7 OF 9 FOR ALLOWABLE SPANS.
2. ADHESIVE WARNING LABELS SHALL BE PLACED ON THE BOTTOM SIDE OF HEADER WITHIN 6" OF STORM BAR.
3. THIS SPRING-LOADED STORM BAR CAN ONLY BE USED WITH NOA 01-0327.05.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE 07/19/2001
BY
PRODUCT CONTROL BRANCH
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-0327.05

D.L. Fowler
Professional Engineer
Florida License No.
PE0050458
5/25/01

SOLAROLL SHADE & SHUTTER
915 S. DIXIE HIGHWAY EAST
POMPANO BEACH, FL 33060

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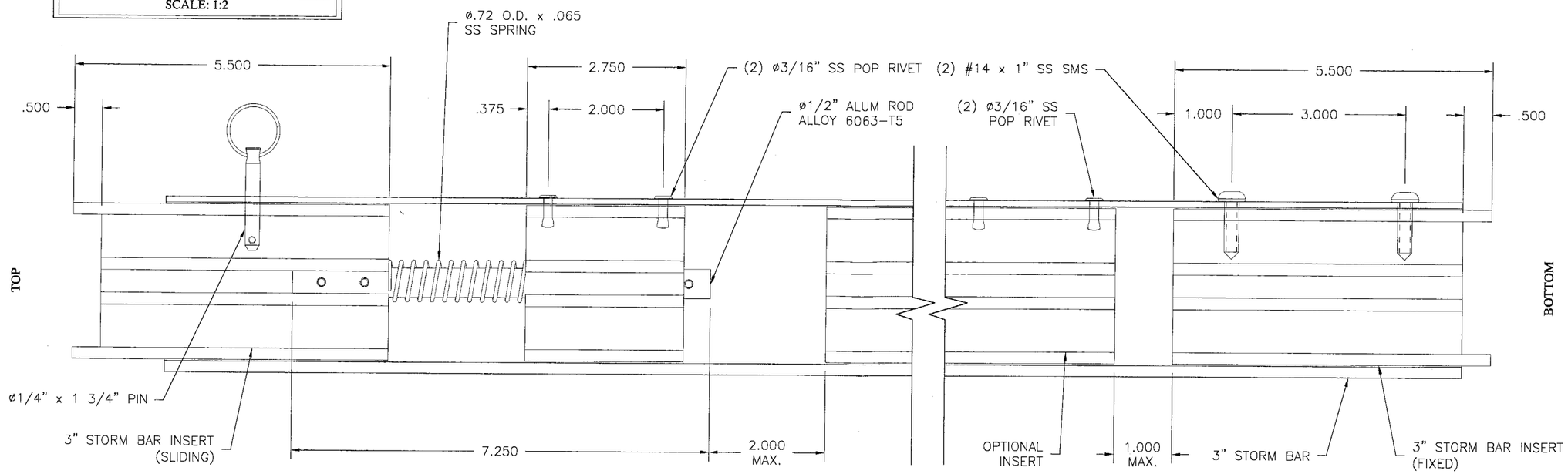
THIRD ANGLE PROJECTION

ASCE 7-88
DADE COUNTY

TITLE:
ROLL-UP SHUTTER
PRODUCT APPROVAL
3 & 4 INCH SPRING-LOADED STORM BAR

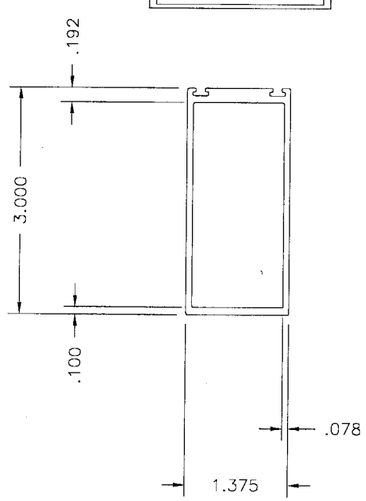
DRAWN: PTW	DATE: 9-29-00	
CHECKED:	DATE:	
APPROVED:	DATE:	
SIZE: B	DRAWING NO: 3-01-009-D	REV: B
FSCM NO:	SCALE: 2" = 1'-0"	SHEET 4 OF 9

3" SPRING-LOADED STORM BAR ASSEMBLY
SCALE: 1:2

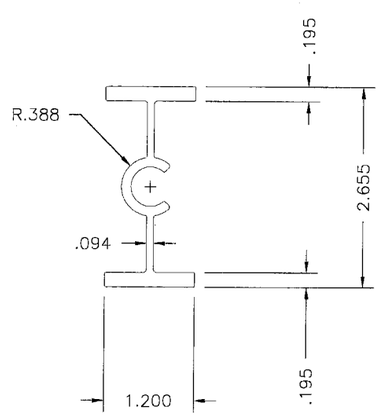


APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE 07/19/2001
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-0327.05

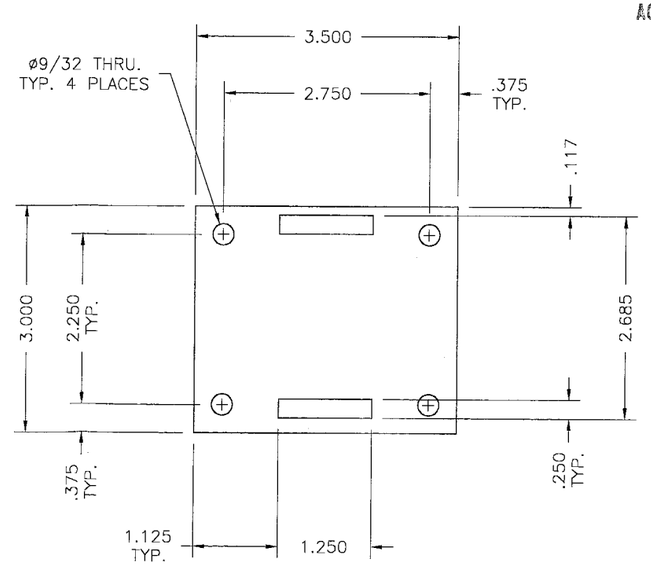
3" STORM BAR
ALLOY 6005-T5

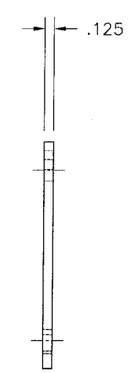


3" STORM BAR INSERT
ALLOY 6005-T5



3" STANDARD BASE PLATE
ALLOY 6061-T6





D.L. Fowler
Professional Engineer
Florida License No.
PE0050458

5/25/11

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915 S. DIXIE HIGHWAY EAST
POMPANO BEACH, FL 33060

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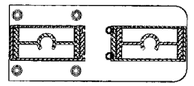
THIRD ANGLE PROJECTION

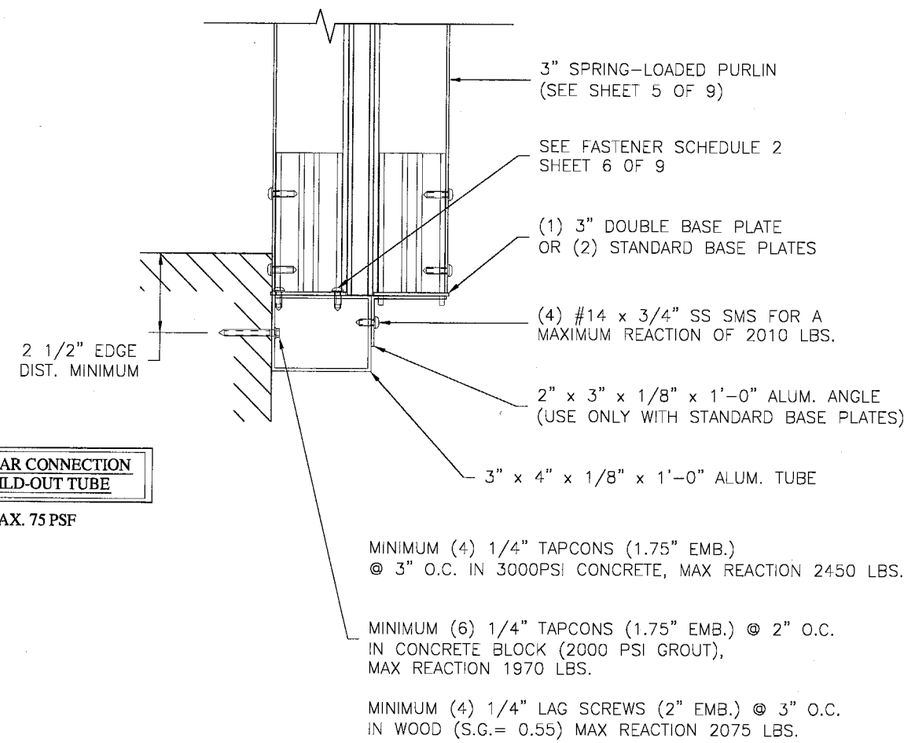
ASCE 7-88
DADE COUNTY

TITLE:
ROLL-UP SHUTTER
PRODUCT APPROVAL
3 & 4 INCH SPRING-LOADED STORM BAR

DRAWN: PTW	DATE: 9-29-00	
CHECKED:	DATE:	
APPROVED:	DATE:	
SIZE: B	DRAWING NO: 3-01-009-D	REV: B
FSCM NO:	SCALE: 1:2	SHEET 5 OF 9

3" SPRING-LOADED STORM BAR TO BUILD-OUT TUBE





STORM BAR CONNECTION TO BUILD-OUT TUBE

MAX. 75 PSF

TYPICAL ANCHORS
A - 1/4 ITW TAPCON 1.75 EMB 3000PSI
A - 1/4 ITW TAPCON 1.25 EMB C.BLOCK
E - 1/4 LAG SCREW 2" EMB S.G = 0.55
F - # 14 ITW SS SMS FULL 1/8 PLATE
NOTE: EMBEDMENT INTO CONCRETE
BEYOND STUCCO, TILES, ECT

------ FASTENER SCHEDULE 2 ------

STORM BAR CONNECTIONS			
ANCHORS PER SIDE	ANCHOR TYPE	BASE MATERIAL	CONNECTION CAPCITY (LBS)
1	A	CONC.	1162
	A	BLOCK	704
	E	WOOD	616
	F	METAL	1661
2	A	CONC.	2234
	A	BLOCK	1408
	E	WOOD	1232
	F	METAL	3322
3 *	A	CONC.	3486
	A	BLOCK	2112
	E	WOOD	1848
	F	METAL	4983
4 *	A	CONC.	4648
	A	BLOCK	2816
	E	WOOD	2464
	F	METAL	6644
5 *	A	CONC.	5810
	A	BLOCK	3520
	E	WOOD	3080
	F	METAL	8305

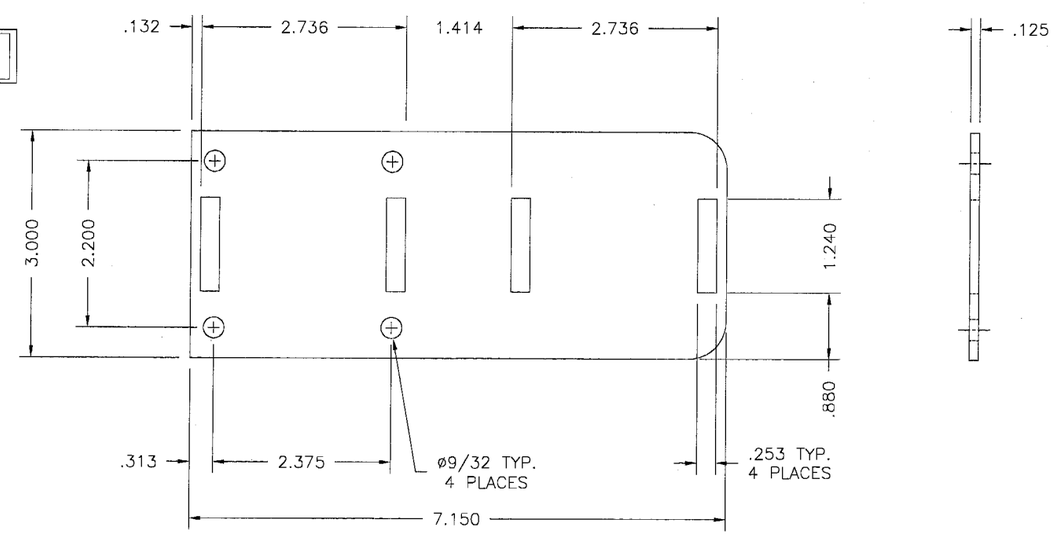
* WILL REQUIRE NON STANDARD BASE PLATE FOR CONC./BLOCK.

SLAT TOTAL LENGTH AND MINIMUM WIND VELOCITY & PRESSURE AT WHICH REMOVABLE STORM BARS ARE TO BE INSTALLED.

SLAT LENGTH* (IN)	PRESSURE # / FT ^{2}	WIND VELOCITY (MPH)
40	879	258
50	401	174
60	212	127
70	123	96
80	77	76
90	51	62
100	35	51
110	25	43
120	19	38
130	14	33
140	11	29
150	9	26
160	7	23
170	5	19
180	5	19
190	4	17
200	3	15
210	3	15
220	2	12
230	2	12

* SLAT TOTAL LENGTH IS CONSIDERED THE SAME AS THE SHUTTER WIDTH.

3" DOUBLE BASE PLATE
ALLOY 6061-T6



APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE 07/19/2001
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-0327.05

D.L. Fowler
Professional Engineer
Florida License No.
PE0050458

5/25/01

SOLAROLL

SOLAROLL SHADE & SHUTTER
915 S. DIXIE HIGHWAY EAST
POMPANO BEACH, FL 33060

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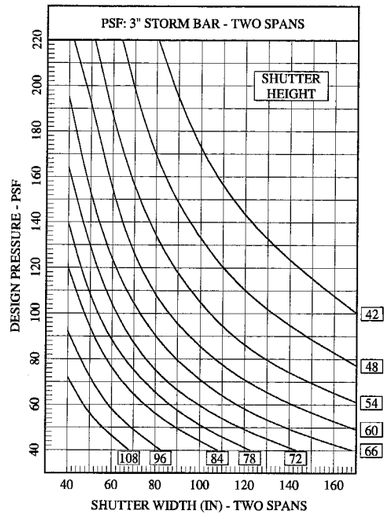
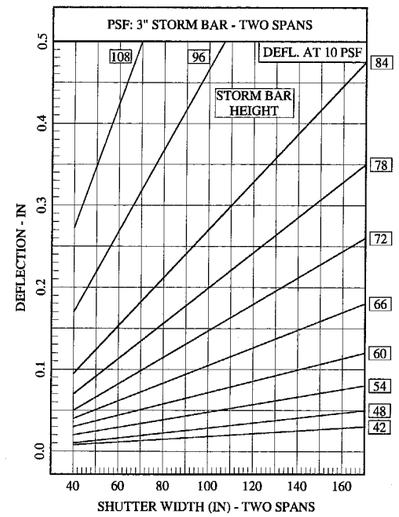
THIRD ANGLE PROJECTION

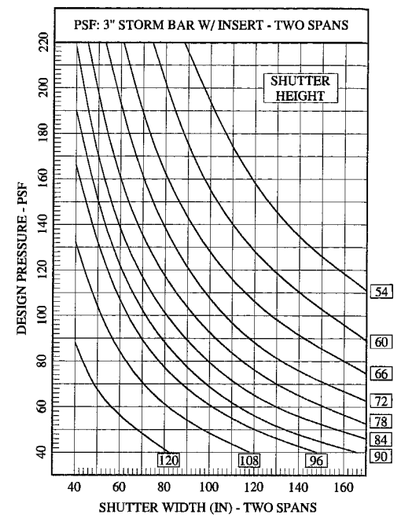
ASCE 7-88
DADE COUNTY

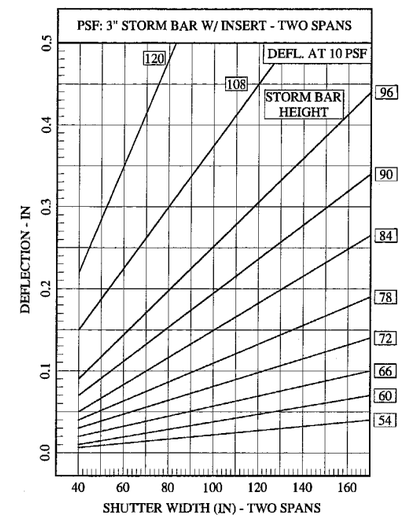
TITLE:
ROLL-UP SHUTTER
PRODUCT APPROVAL
3 & 4 INCH SPRING-LOADED STORM BAR

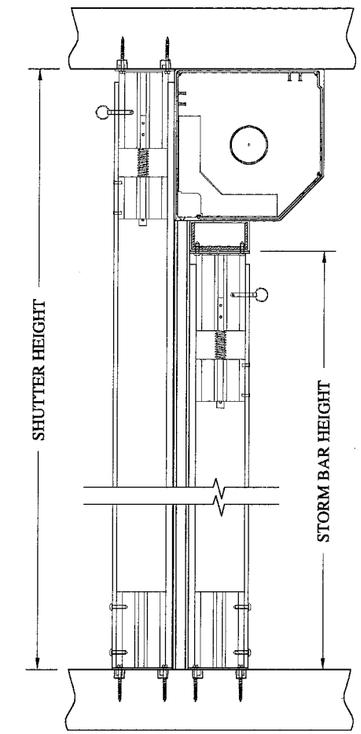
DRAWN: PTW DATE: 9-29-00
CHECKED: DATE:
APPROVED: DATE:
SIZE: B DRAWING NO: 3-01-009-D REV: B
ESCM NO: SCALE: 2" = 1'-0" / 1:2
SHEET 6 OF 9

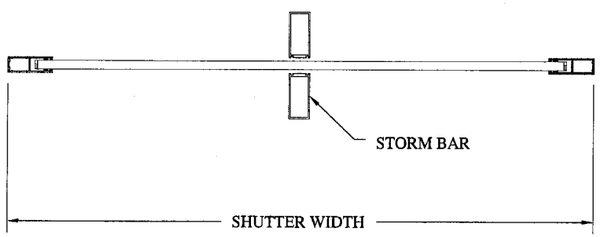




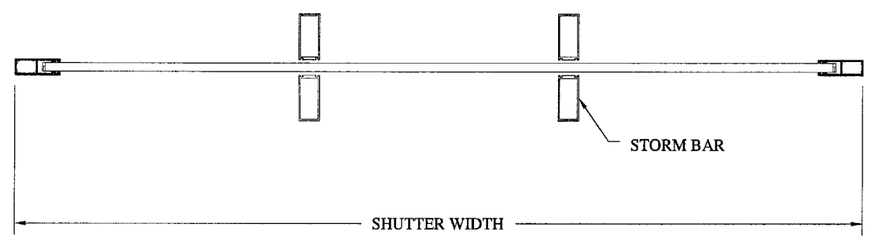




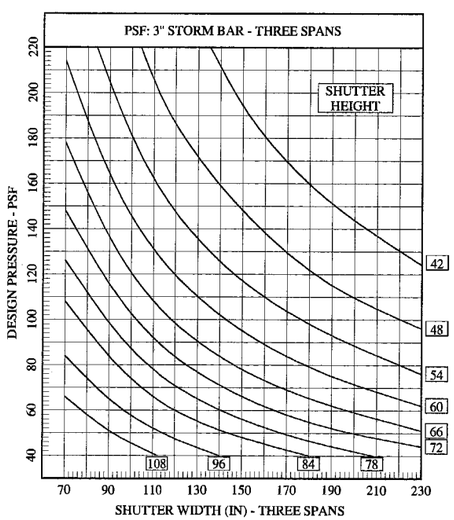


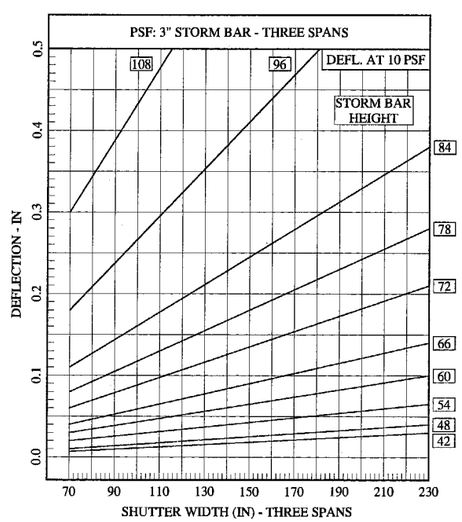


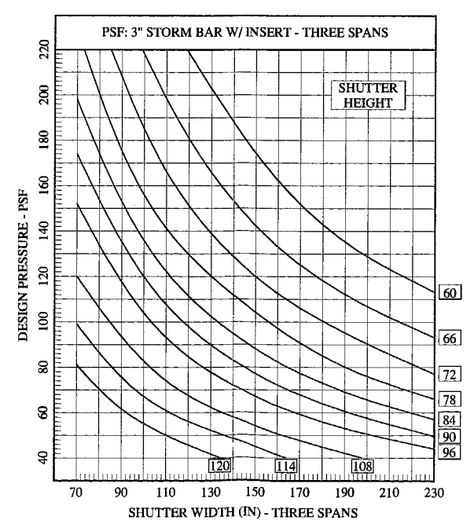
TWO SPANS

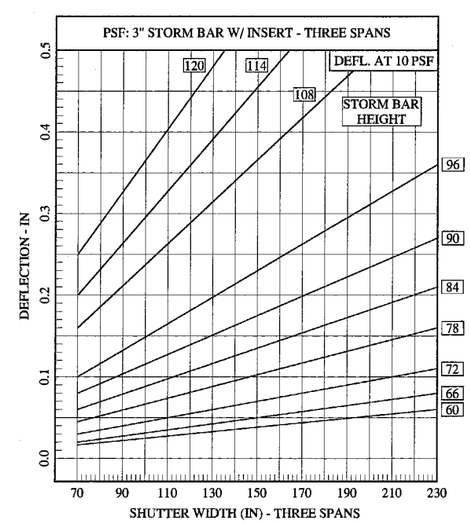


THREE SPANS









PRODUCT CONFORMS WITH THE SOUTH FLORIDA BUILDING CODE
DATE 07/19/2001
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-0322.05

D.L. Fowler
Professional Engineer
Florida License No.
PE0050458

5/25/01

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915 S. DIXIE HIGHWAY EAST
POMPANO BEACH, FL 33060

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THIRD ANGLE PROJECTION

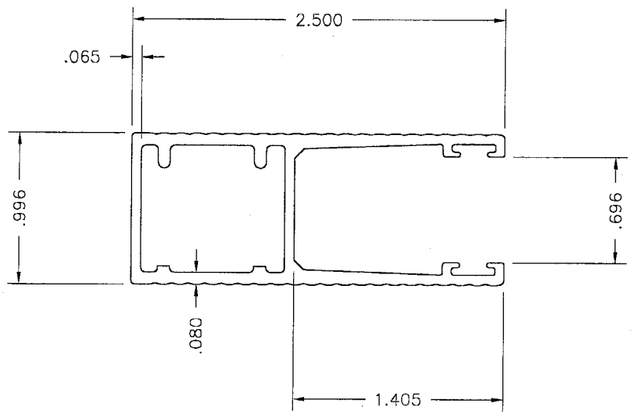
ASCE 7-88
DADE COUNTY

TITLE:

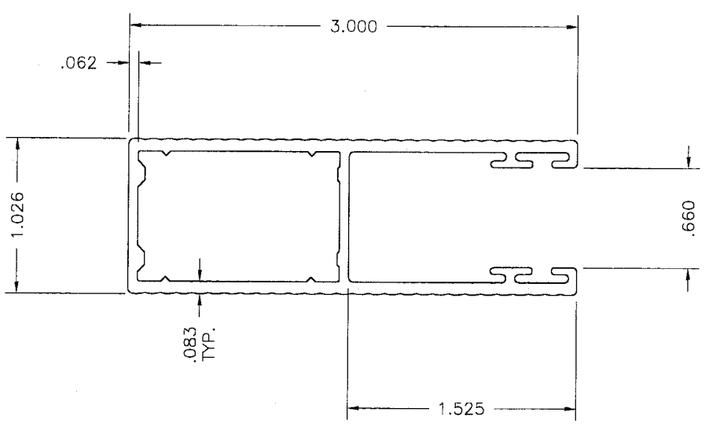
ROLL-UP SHUTTER
PRODUCT APPROVAL
3 & 4 INCH SPRING-LOADED STORM BAR

DRAWN: PNW	DATE: 9-29-00	
CHECKED:	DATE:	
APPROVED:	DATE:	
SIZE: B	DRAWING NO: 3-01-009-D	REV: B
FSCM NO:	SCALE: 2" = 1'-0" / 1:2	SHEET 7 OF 9

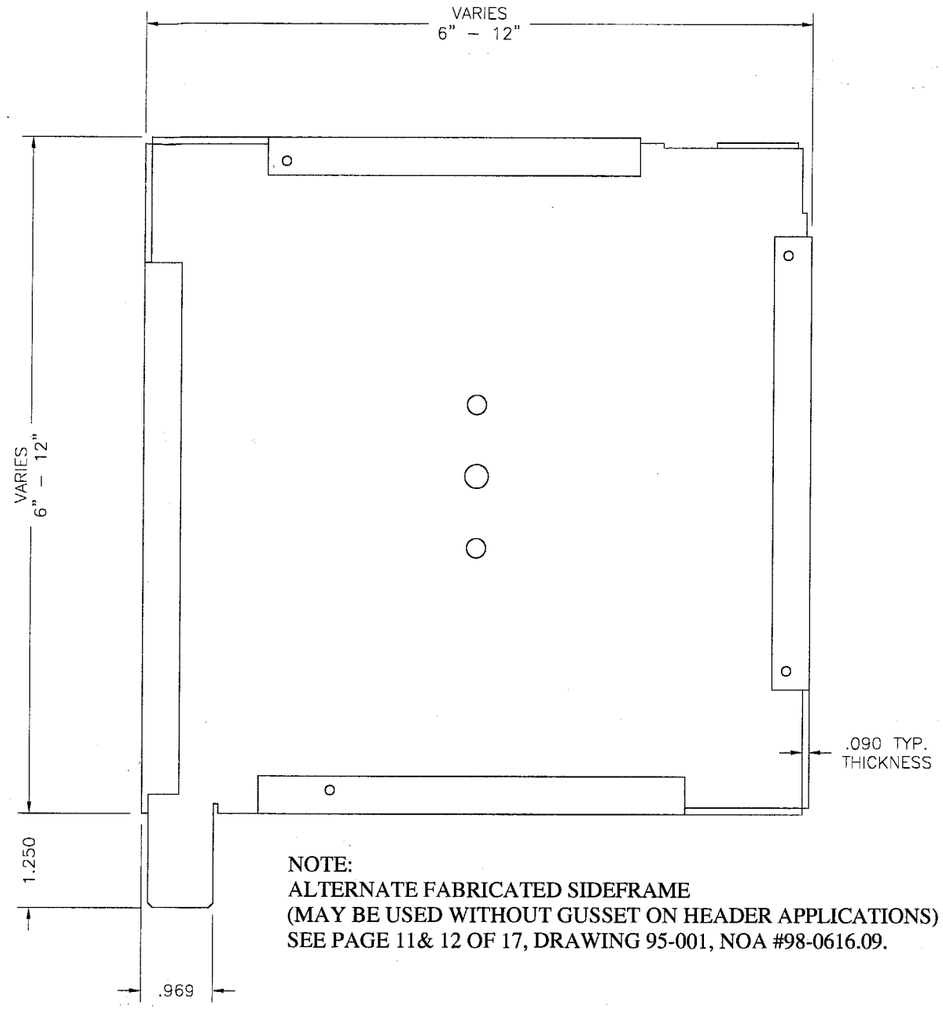
ALTERNATE TRACK
ALLOY 6061-T6
SCALE 1:1



ALTERNATE TRACK (220PSF MAX)
ALLOY 6063-T6
SCALE 1:1



ALTERNATE
FABRICATED SIDEFRAME
ALLOY 5052-H32



NOTE:
ALTERNATE FABRICATED SIDEFRAME
(MAY BE USED WITHOUT GUSSET ON HEADER APPLICATIONS)
SEE PAGE 11& 12 OF 17, DRAWING 95-001, NOA #98-0616.09.

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
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BY
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BUILDING CODE COMPLIANCE OFFICE
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D.L. Fowler
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Florida License No.
PE0050458
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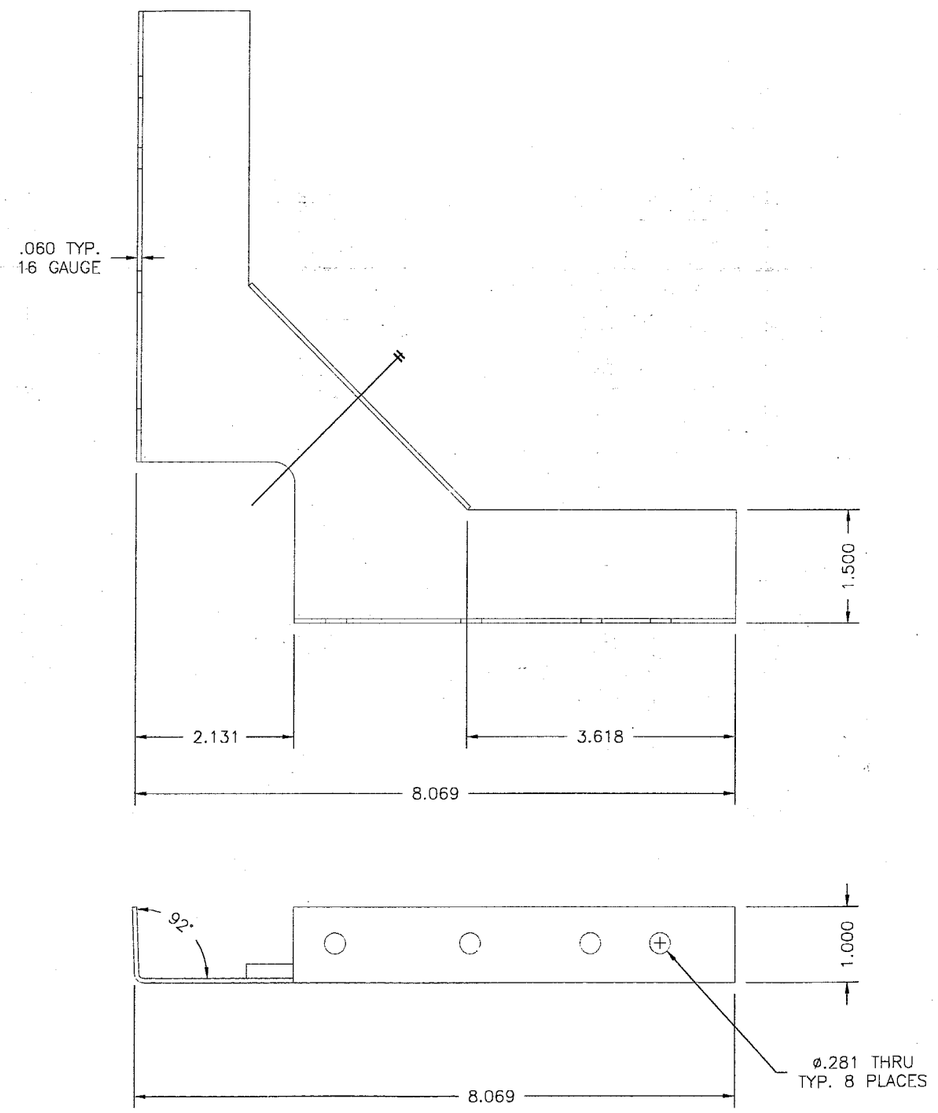
THIRD ANGLE PROJECTION

ASCE 7-88
DADE COUNTY

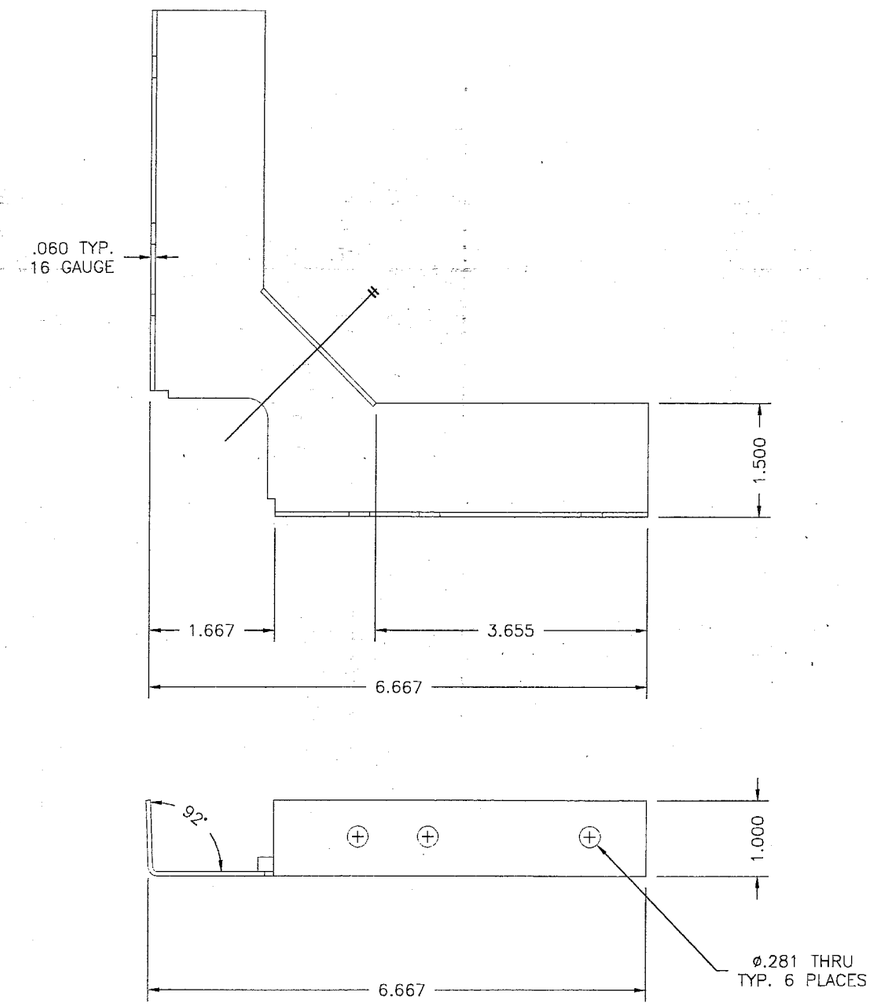
TITLE:
ROLL-UP SHUTTER
PRODUCT APPROVAL
ALTERNATE MATERIALS

DRAWN: PMW	DATE: 9-29-00	SIZE: B	DRAWING NO: 3-01-009-D
CHECKED:	DATE:	REV: B	
APPROVED:	DATE:	SCALE: 1:2, U.O.N.	
FSCM NO:		SHEET 8 OF 9	

ALTERNATE
12" DIE CAST SIDEFRAME INTERNAL GUSSET
ALLOY 5052-H32



ALTERNATE
10" DIE CAST SIDEFRAME INTERNAL GUSSET
ALLOY 5052-H32



APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE 07/19/2001
BY
PRODUCT CONTROL BUREAU
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO 01-0327.05

D.L. Fowler
Professional Engineer
Florida License No.
PE0050458
5/25/11

SOLAROLL

SOLAROLL SHADE & SHUTTER
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THIRD ANGLE PROJECTION

ASCE 7-88
DADE COUNTY

TITLE:
ROLL-UP SHUTTER
PRODUCT APPROVAL
ALTERNATE MATERIALS

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CHECKED:	DATE:	REV: B	
APPROVED:	DATE:	SCALE: 1:2	
FSCM NO:		SHEET 9 OF 9	