



**BUILDING CODE COMPLIANCE OFFICE (BCCO)  
PRODUCT CONTROL DIVISION**

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

**NOTICE OF ACCEPTANCE (NOA)**

**MetalTech, Inc.  
7635 West 2<sup>nd</sup> Court  
Hialeah, FL 33014**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: "Maximum Impact" 0.050" Aluminum Storm Panel Shutter**

**APPROVAL DOCUMENT:** Drawing No. 98002, titled "0.050" Maximum Impact Storm Panel", sheets 1 through 7 of 7, prepared by Ramms Engineering, Inc., dated January 10, 1998, last revision dated 01/12/2006, signed & sealed by Robert Monsour, P.E. on 01/12/2006, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

**MISSILE IMPACT RATING: Large and Small Missile Impact**

**LABELING:** Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA 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 NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises & renews NOA # 04-0621.01 and consists of this page 1, evidence submitted pages E-1 & E-2 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



*Helmy A. Makar*  
10/19/2006

**NOA No 06-0117.05  
Expiration Date: 10/22/2011  
Approval Date: 10/19/2006  
Page 1**

**MetalTech, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVALS**
  - A. DRAWINGS**

See NOA 01-0718.09
  - B. TESTS**

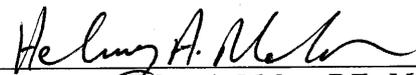
See NOA 01-0718.09
  - C. CALCULATIONS**

See NOA 01-0718.09
  - D. MATERIAL CERTIFICATIONS**

See NOA 01-0718.09
  - E. STATEMENTS**

See NOA 01-0718.09
  - F. OTHER**

NOA 01-0718.09.
  
- 2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 04-0621.01**
  - A. DRAWINGS**
    1. *None.*
  - B. TESTS**
    1. *None.*
  - C. CALCULATIONS**
    1. *None.*
  - D. QUALITY ASSURANCE**
    1. *By Miami-Dade County Building Code Compliance Office.*
  - E. MATERIAL CERTIFICATIONS**
    1. *None.*
  - F. OTHER**
    1. *NOA # 02-0312.08 cover page states the number of sheets incorrectly "sheets 1 through 18". This NOA #04-0621.01 is issued to revise NOA # 02-0312.08 and correct the number of sheets on the cover page to " sheets 1 through 7 of 7". This is the only change. This file is authorized by Mr. Ted Berman, P.E. with no fee.*



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**Helmy A. Makar, P.E., M.S.**  
**Product Control Examiner**  
**NOA No 06-0117.05**  
**Expiration Date: 10/22/2011**  
**Approval Date: 10/19/2006**

**MetalTech, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**3. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. *Drawing No. 98002, titled "0.050" Maximum Impact Storm Panel", sheets 1 through 7 of 7, prepared by Ramms Engineering, Inc., dated January 10, 1998, last revision dated 01/12/2006, signed & sealed by Robert Monsour, P.E. on 01/12/2006.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

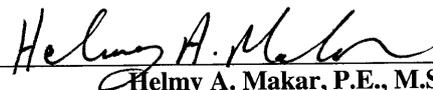
1. *Anchor analyses dated January 06, 2006, 41 pages, prepared by Ramms Engineering, Inc., signed & sealed on January 06, 2006 by Robert Monsour, P.E.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*



**Helmy A. Makar, P.E., M.S.**

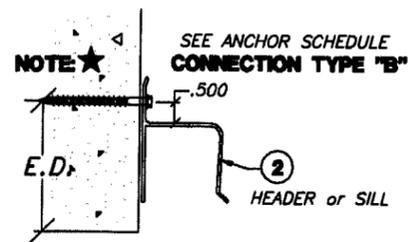
**Product Control Examiner**

**NOA No 06-0117.05**

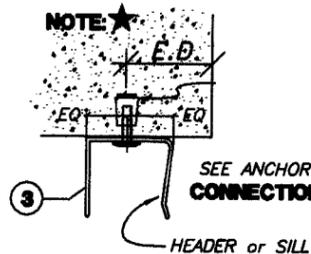
**Expiration Date: 10/22/2011**

**Approval Date: 10/19/2006**

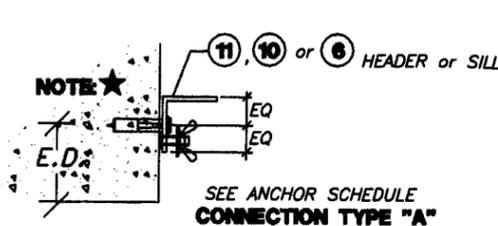




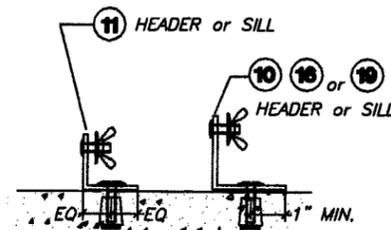
**DETAIL 1**



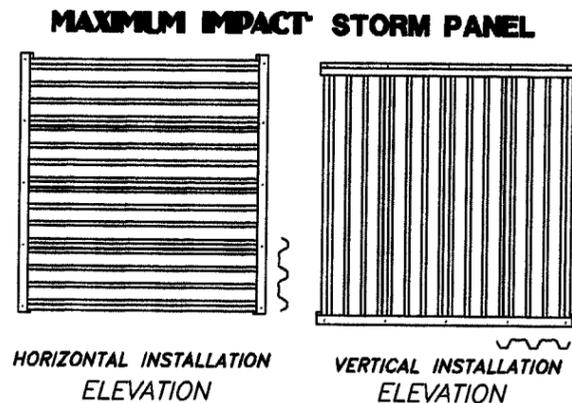
**DETAIL 2**



**DETAIL 3**

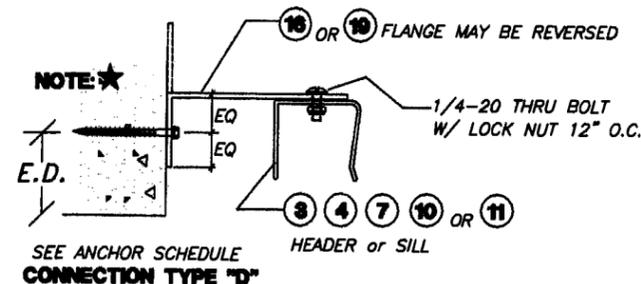


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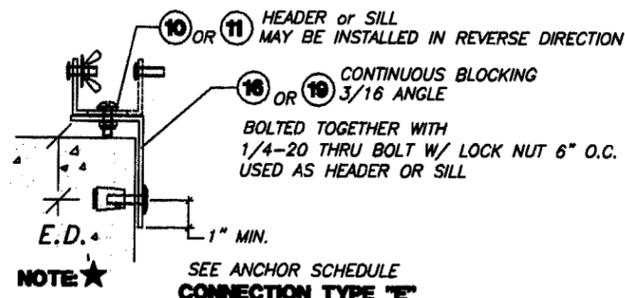


HORIZONTAL INSTALLATION ELEVATION

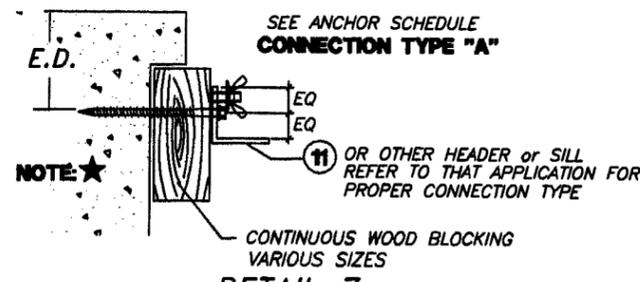
VERTICAL INSTALLATION ELEVATION



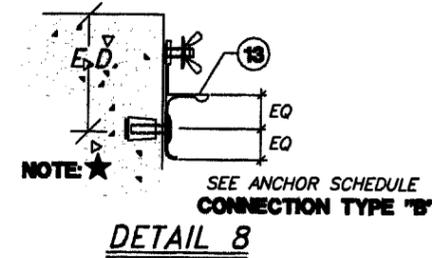
**DETAIL 5**



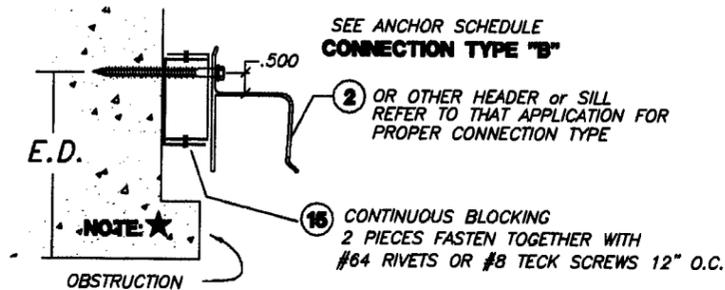
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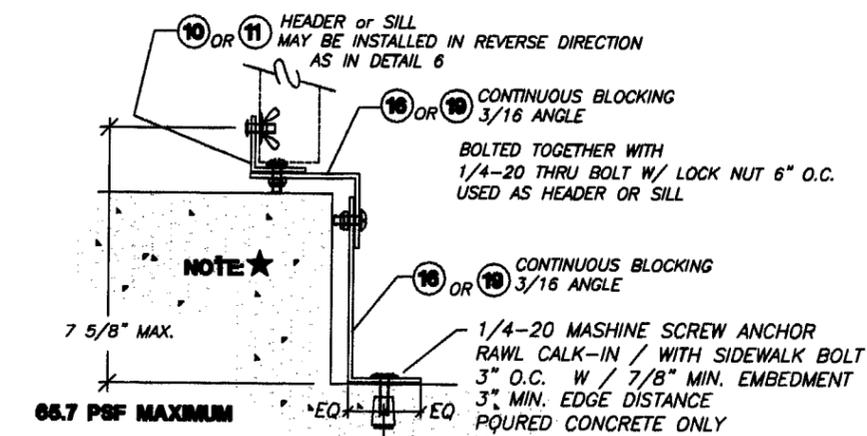
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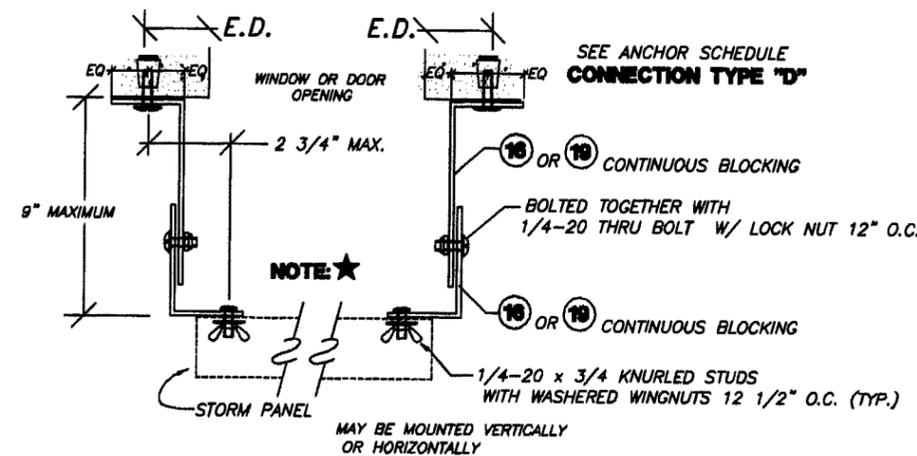
**DETAIL 8**



**DETAIL 9**



**DETAIL 10**

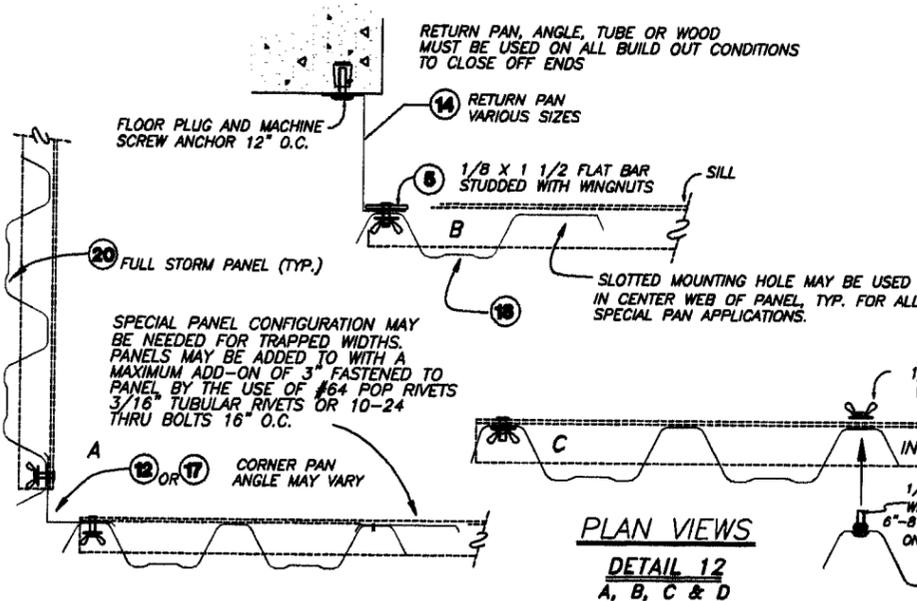


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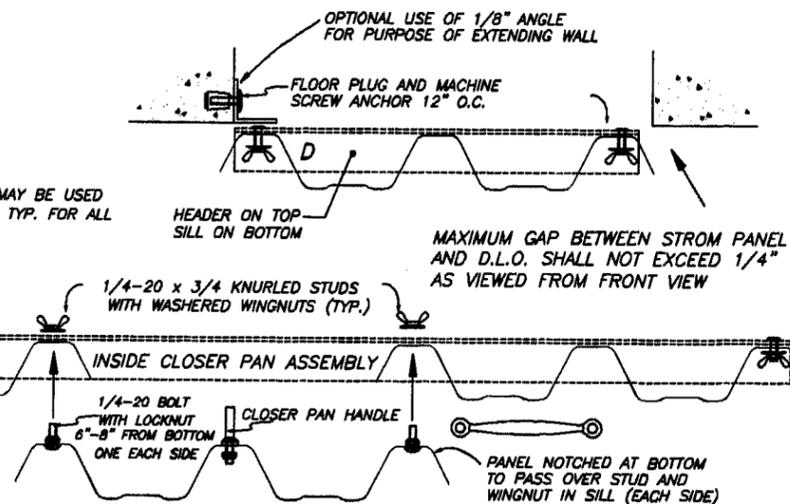
**NOTE: ★**

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE TO WITH STAND THE ADDITIONAL LOADS AND INSURE PROPER ANCHORAGE. SHUTTER SYSTEM MAY BE INTSALL INTO WOOD, CONCRETE, MASONRY.

WHEN ANCHORING TO WOOD, THE WOOD MUST BE A MINIMUM 2 X 4 EQUAL TO #2 SOUTHERN PINE WITH 0.55 SPECIFIC GRAVITY AND STRUCTURALLY PART OF THE FRAMING STRUCTURE OR SUCURELY ATTACHED TO FRAMING STRUCTURE



**PLAN VIEWS  
DETAIL 12  
A, B, C & D**



*Robert S. Monsour*  
**ROBERT S. MONSOUR, PE**  
 EB-0006024  
 RAMMS ENGINEERING, INC.

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No 06-0117-05  
 Expiration Date 10/22/2011  
 By *Helmy A. Matar*  
 Miami Desk Product Control Division

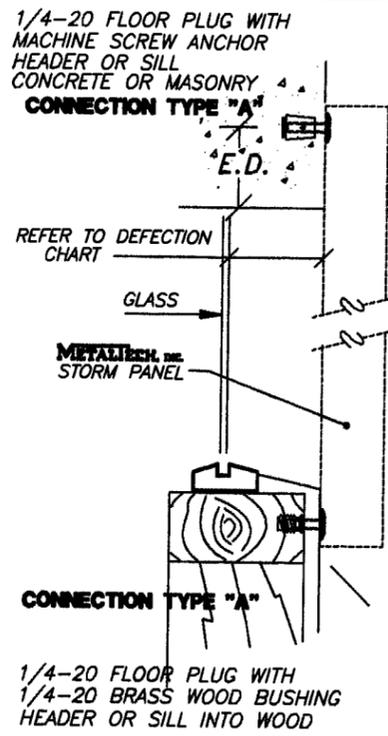
BUILDING CODE COMPLIANCE

REVISIONS	BY
09/11/98	SP
01/12/06	SP

**RAMMS ENGINEERING, INC.**  
*Structural Design*  
 2100 W. 76th STREET, SUITE 311  
 HIALEAH, FLORIDA 33016  
 EB 0006024

**METALTECH, INC.**  
 7635 W. SECOND CT. HIALEAH, FL 33014  
 EST. 1957  
 EXCITED WORLD-WIDE

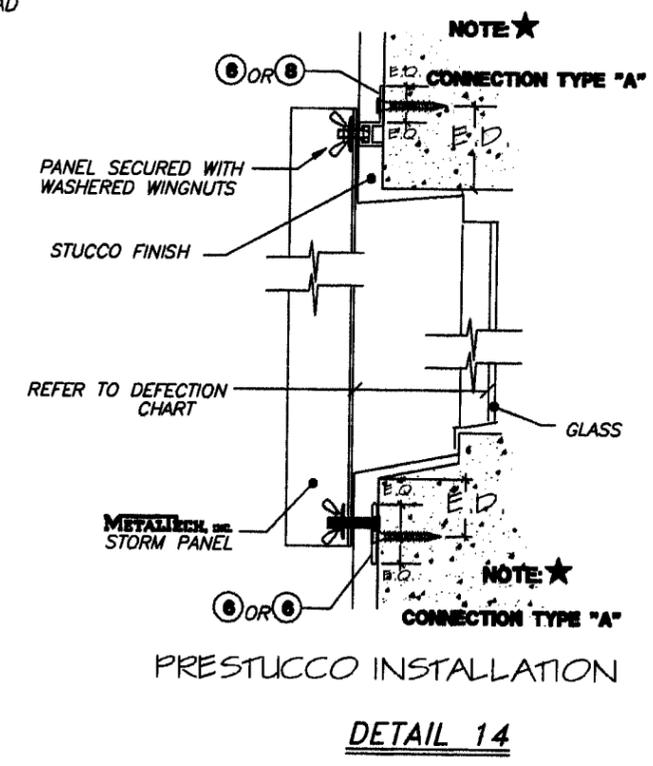
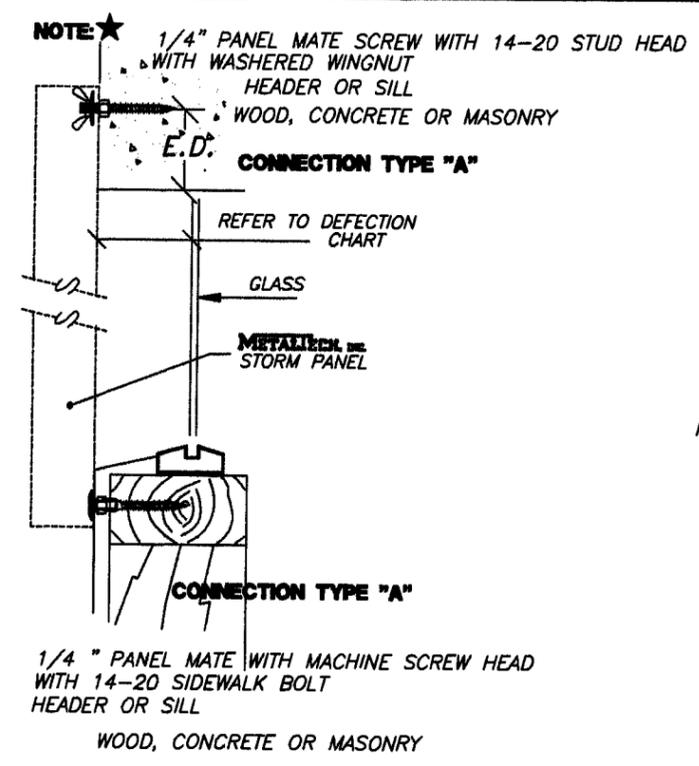
DATE	BY
SEP / JRB / RSM	APPROVED
DATE: 01/10/98	
SCALE: SHOWN	
JOB: 98002	
SHEET: 2	



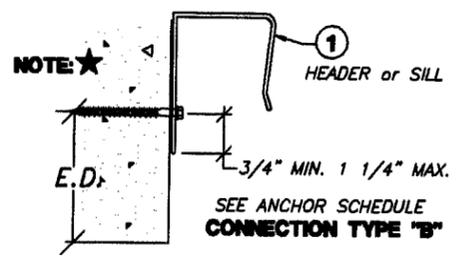
**NOTE:**  
THE METALTECH STORM PANEL MAY BE INSTALLED WITHOUT THE USE OF AN EXTRUDED HEADER OR SILL. THE SHUTTER MAY BE ANCHORED DIRECTLY TO THE STRUCTURE WITH THE USE OF ONE OR A COMBINATION OF DETAIL 13

**NOTE:**★

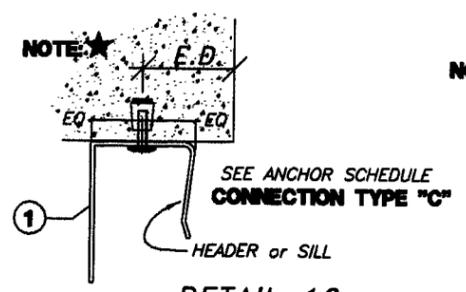
**DETAIL 13**



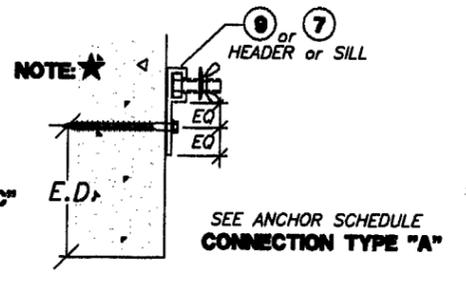
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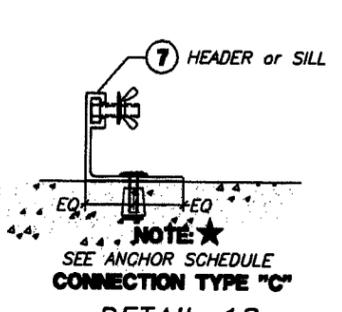
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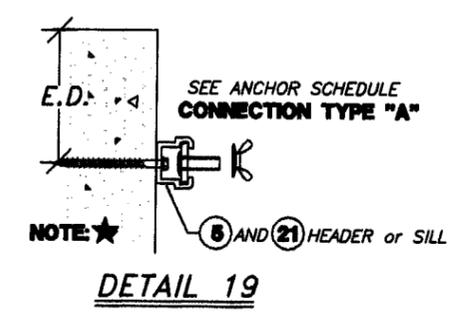
**DETAIL 16**



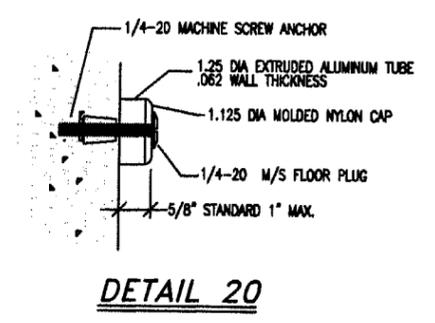
**DETAIL 17**



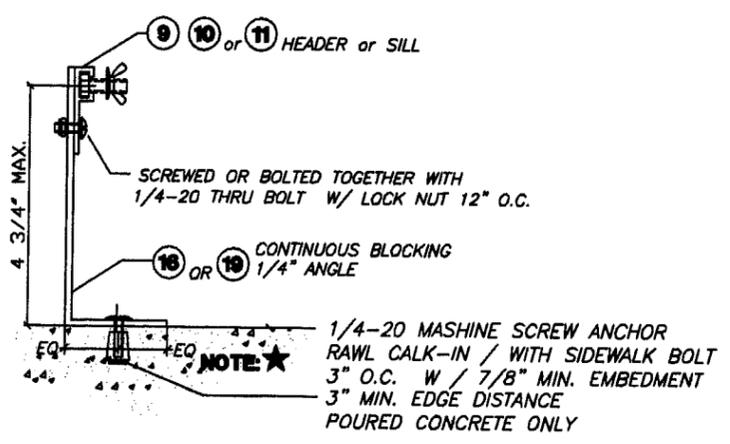
**DETAIL 18**



**DETAIL 19**



**DETAIL 20**



**59.5 PSF MAXIMUM / PANEL HEIGHT 100\"/>**

**DETAIL 21**

ADJUSTABLE HEADER OR SILL

**NOTE:**★

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE TO WITH STAND THE ADDITIONAL LOADS AND INSURE PROPER ANCHORAGE. SHUTTER SYSTEM MAY BE INTSALL INTO WOOD, CONCRETE, MASONRY.

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*Robert S. Monsour*  
 ROBERT S. MONSOUR, PE  
 EB-0006024  
 RAMMS ENGINEERING, INC.

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 06-0117-05  
 Expiration Date 10/22/2011  
 By *Helmut A. Mader*  
 Miami Dade Product Control  
 Division

BUILDING CODE COMPLIANCE

REVISIONS	BY
09/11/98	SP
01/12/06	SP

RAMMS ENGINEERING, INC.  
*Structural Design*  
 2100 W. 76th STREET, SUITE 311  
 HIALEAH, FLORIDA 33016  
 EB 0006024

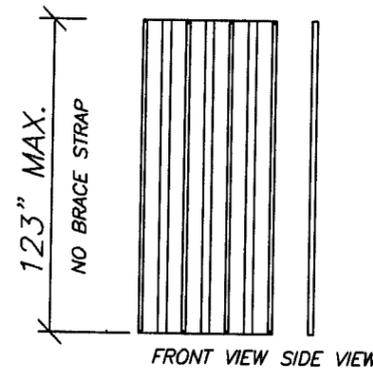
**METALTECH, INC.**  
 7635 W. SECOND CT. HIALEAH, FL 33014  
 EST. 1957  
 EXPANDED WORLD-WIDE

DATE	BY	REVISION
SEP / JRB / RSM		APPROVED
01/10/97		SCALE
		SHOWN
		JOB
		98002
		SHEET
		3
		7

MAXIMUM IMPACT STORM PANEL

THE METALTECH STORM PANELS MAY BE INSTALLED WITH OR WITHOUT THE HORIZONTAL BRACE STRAP. REFER TO PANEL DEFLECTION CHARTS.

# .050 ALUMINUM MAXIMUM IMPACT STORM PANEL

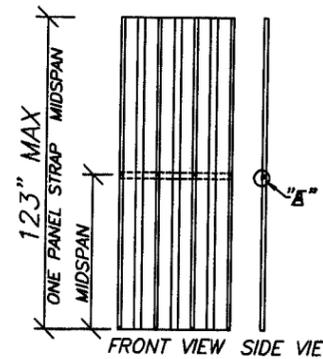


123" MAX. PANEL HEIGHT  
NO PANEL STRAP  
IS REQUIRED

**PANEL DEFLECTION CHART  
WITHOUT HORIZONTAL STRAP**

PANEL HEIGHT	0"-68"	over 68"-96"	over 96"-123"
WALL MOUNT	2 5/8"	3 5/8"	4"
INSIDE MOUNT	2 5/8"	3 5/8"	4"
BUILD OUT	2 5/8"	3 5/8"	4"

MINIMUM DISTANCE BETWEEN GLASS AND PANEL



123" MAX. PANEL HEIGHT  
ONE PANEL STRAP  
LOCATED MIDSPAN

**PANEL DEFLECTION CHART  
WITH HORIZONTAL STRAP**

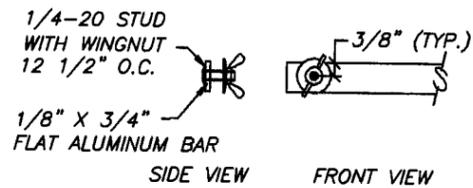
PANEL HEIGHT	0"-107"	over 107"-123"
WALL MOUNT	2 13/16"	3 3/16"
INSIDE MOUNT	2 13/16"	3 3/16"
BUILD OUT	2 13/16"	3 3/16"

MINIMUM DISTANCE BETWEEN GLASS AND PANEL

## .050 ALUM

DESIGN PRESSURE	PANEL SPAN
44.40	123"
47.81	120"
51.23	117"
58.06	112"
61.47	110"
66.85	106"
71.46	102"
75.30	97"
81.45	90"
86.83	84"
91.44	80"

## HORIZONTAL BRACE STRAP



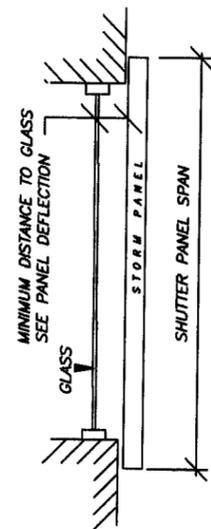
DETAIL "E"



MAXIMUM GAP BETWEEN PANEL  
AND HEADER IS 1/4" (TYP.)

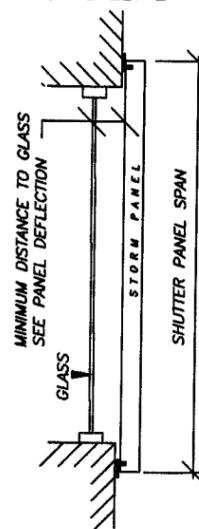
DETAIL "F"

DETAIL 13 ON SHEET 3



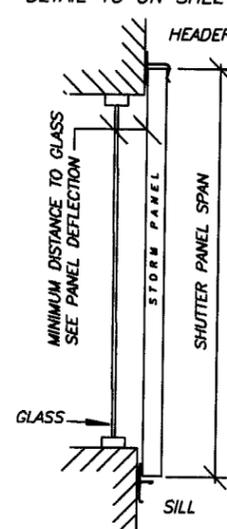
DETAIL 13 ON SHEET 3

DETAIL 3, 4, & 8  
ON SHEET 2



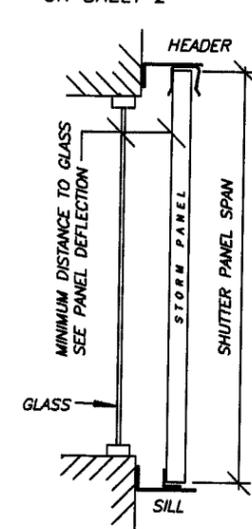
DETAIL 3, 4, & 8  
ON SHEET 2

DETAIL 1 ON SHEET 2  
DETAIL 15 ON SHEET 3



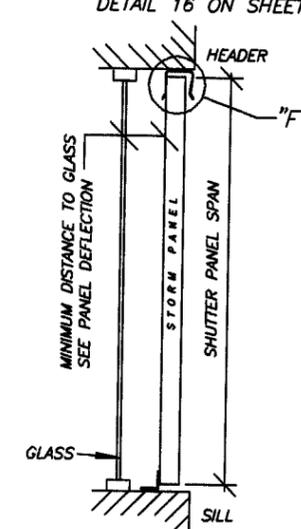
DETAILS 3, 4 AND 8  
ON SHEET 2

DETAILS 5, 7, 9, 10 AND 11  
ON SHEET 2

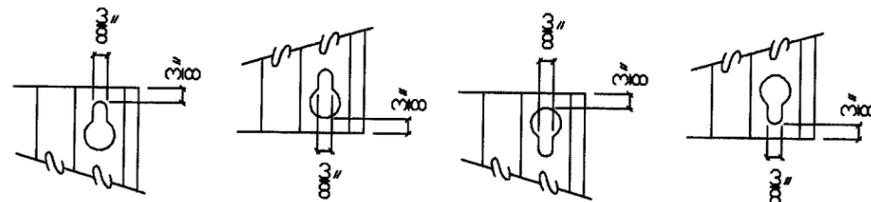


DETAILS 5, 7, 9, 10 AND 11  
ON SHEET 2

DETAIL 2 ON SHEET 2  
DETAIL 16 ON SHEET 3



DETAIL 4 ON SHEET 2



## WALL MOUNT

ANCHORING PANEL  
TOP & BOTTOM  
NO HDR. OR SILL

## WALL MOUNT

ANCHORING PANEL  
TOP & BOTTOM  
WITH STUDDED HDR/SILL

## WALL MOUNT

WITH HDR. AND SILL

## BUILD OUT

WITH HDR. AND SILL

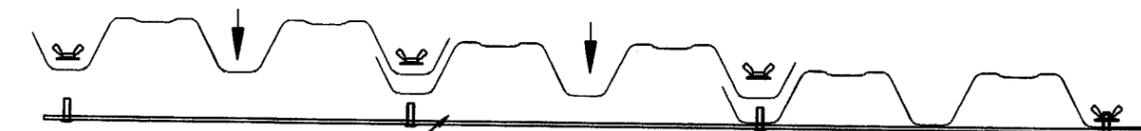
## INSIDE MOUNT

WITH HDR. AND SILL

## TYPICAL SECTION VIEWS

FASTENER MUST BE IN NARROW PORTION OF KEY HOLE  
MOUNTING HOLE MAY ALSO BE A 9/16" DIA. CIRCLE

DETAIL "G"



HORIZONTAL BRACE STRAP  
HEADER AND SILL

PANELS MAY RUN CONTINUOUS BY WIDTH  
EITHER HORIZONTALLY OR VERTICALLY

EXPLODED ASSEMBLY

*Robert S. Monsour*  
11/20/06  
11/25/05

ROBERT S. MONSOUR, PE  
EB-0006024  
RAMMS ENGINEERING, INC.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 06-0117-05  
Expiration Date 10/22/2011  
By *Helmut A. Meier*  
Miami Dad Product Control  
Division

BUILDING CODE COMPLIANCE

REVISIONS	BY
09/11/98	SP

RAMMS ENGINEERING, INC.  
*Structural Design*  
2100 W. 76th STREET, SUITE 311  
HIALEAH, FLORIDA 33016  
EB 0006024

**METALTECH, INC.**  
EST. 1957  
7635 W. SECOND CT. HIALEAH, FL 33014  
ESTABLISHED WORLD-WIDE

DATE	SEP/JRB
APPROVED	APPROVED
DATE	01/10/98
SCALE	SHOWN
QTY	98002
SHEET	4
TOTAL SHEETS	7

# ANCHOR SCHEDULE

ANCHOR SPACING vs DESIGN PRESSURE AND CONNECTION TYPE			UP TO 59.6 PSF										UPTO 71.5 PSF																													
			POURED CONCTETE					CONCRETE BLOCK					POURED CONCTETE					CONCRETE BLOCK																								
			CONECTION TYPE	A	B	C	D	E	CONECTION TYPE	A	B	C	D	E	CONECTION TYPE	A	B	C	D	E	CONECTION TYPE	A	B	C	D	E																
ANCHOR TYPE	PANEL	E.D.																																								
	68" SPAN	3"	16	13	8	13	13	16	13	10	13	13	16	13	7	13	13	16	13	8	13	13	16	13	5	13	13	14	13	4	13	13	14	13	4	13	13					
		2"	16	13	7	13	13	16	13	8	13	13	16	13	7	13	13	16	13	5	13	13	16	13	4	13	13	16	13	4	13	13	16	13	4	13	13					
		1 1/4"	16	13	5	13	13	16	13	6	13	13	16	13	6	13	13	16	13	6	13	13	16	13	6	13	13	14	13	4	13	13	14	13	4	13	13					
	88" SPAN	3"	16	13	6	13	13	16	13	7	13	13	14	6	5	9	10	14	6	5	9	10	12	6	4	8	9	11	5	3	7	8	11	5	3	7	8	11	5	3	7	8
		2"	15	11	5	13	13	15	11	6	13	13	12	6	4	8	9	12	6	4	8	9	12	6	4	8	9	12	6	4	8	9	12	6	4	8	9	12	6	4	8	9
		1 1/4"	13	10	4	13	13	13	10	5	13	13	13	10	5	13	13	12	6	4	8	9	12	6	4	8	9	12	6	4	8	9	12	6	4	8	9	12	6	4	8	9
	105" span	3"	14	6	5	9	10	14	7	6	9	10	11	4	4	5	4	11	4	4	5	4	10	4	4	5	4	9	3	3	4	3	9	3	3	4	3	9	3	3	4	3
		2"	12	6	4	8	9	12	6	5	8	9	10	4	4	5	4	10	4	4	5	4	10	4	4	5	4	10	4	4	5	4	10	4	4	5	4	10	4	4	5	4
		1 1/4"	11	5	3	7	8	11	5	4	7	8	9	3	3	4	3	9	3	3	4	3	9	3	3	4	3	9	3	3	4	3	9	3	3	4	3	9	3	3	4	3
	123" span	3"	11	4	4	5	4	12	4	5	5	4																														
		2"	10	4	4	5	4	10	4	4	5	4																														
		1 1/4"	9	3	3	4	3	9	3	3	4	3																														
	68" SPAN	3"	16	13	7	13	13	13	13	6	13	13	15	13	6	13	13	11	11	5	11	11	13	13	5	13	13	10	10	4	10	10	12	12	4	12	12	9	9	3	9	9
		2"	15	13	6	13	13	12	12	5	12	12	13	13	5	13	13	10	10	4	10	10	12	12	4	12	12	9	9	3	9	9	11	5	5	7	8					
		1 1/4"	14	13	5	13	13	10	10	4	10	10	12	12	4	12	12	9	9	3	9	9	12	12	4	12	12	9	9	3	9	9	11	5	5	7	8					
	88" SPAN	3"	13	10	6	13	13	10	8	5	10	10	11	5	5	7	8	8	4	4	5	6	10	5	4	6	7	9	4	3	6	6	7	3	3	5	5					
		2"	12	9	5	12	12	9	7	4	9	9	10	5	4	6	7	9	4	3	6	6	9	4	3	6	6	7	3	3	5	5	9	4	3	6	6					
		1 1/4"	11	8	4	11	11	8	6	3	8	8	9	4	3	6	6	7	3	3	4	5	8	3	3	4	3	6	3	3	4	3	8	3	3	4	3					
	105" span	3"	11	5	5	7	8	8	4	4	5	6	9	3	4	4	3	7	3	3	3	3	8	3	3	4	3	6	3	3	4	3	8	3	3	4	3					
		2"	10	5	4	7	7	7	4	3	5	6	8	3	3	4	3	6	3	3	3	3	8	3	3	4	3	6	3	3	4	3	8	3	3	4	3					
		1 1/4"	9	4	3	6	7	7	3	3	4	5	8	3	3	4	3	6	3	3	3	3	8	3	3	4	3	6	3	3	4	3	8	3	3	4	3					
	123" span	3"	9	3	4	4	3	7	3	3	3	3																														
		2"	8	3	3	4	3	6	3	3	3	3																														
		1 1/4"	8	3	3	4	3	6	3	3	3	3																														
	68" SPAN	3"	16	13	11	13	13	16	13	7	13	13	16	13	9	13	13	13	13	6	13	13	16	13	8	13	13	12	12	5	12	12	16	13	6	13	13					
		2"	16	13	9	13	13	14	13	6	13	13	16	13	8	13	13	12	12	5	12	12	16	13	6	13	13	12	12	5	12	12	16	13	6	13	13					
		1 1/4"	16	13	8	13	13	13	13	5	13	13	16	13	6	13	13	10	10	4	10	10	16	13	6	13	13	10	10	4	10	10	16	13	6	13	13					
	88" SPAN	3"	16	13	9	13	13	12	9	5	12	12	16	8	7	11	12	10	5	4	6	7	16	8	7	11	12	10	5	4	6	7	15	7	6	10	11					
		2"	16	13	7	13	13	11	8	4	11	11	15	7	6	10	11	9	4	4	6	6	15	7	6	10	11	9	4	4	6	6	14	7	5	9	10					
		1 1/4"	16	13	6	13	13	10	7	4	10	10	14	7	5	9	10	8	4	3	5	6	14	7	5	9	10	8	4	3	5	6	15	7	6	10	11					
	105" span	3"	16	8	7	11	13	10	5	4	7	8	15	5	6	7	5	8	3	4	4	3	13	5	5	6	5	8	3	4	4	3	12	4	4	5	4					
		2"	16	7	6	10	12	9	4	4	6	7	13	5	5	6	5	8	3	4	4	3	13	5	5	6	5	8	3	4	4	3	12	4	4	5	4					
		1 1/4"	14	7	5	9	10	8	4	3	5	6	12	4	4	5	4	7	3	3	3	3	12	4	4	5	4	7	3	3	3	3	12	4	4	5	4					
	123" span	3"	15	5	6	7	5	8	3	4	4	3																														
		2"	13	5	5	6	5	8	3	3	4	3																														
		1 1/4"	12	4	4	5	4	7	3	3	3	3																														
	68" SPAN	3"	16	13	12	13	13	16	13	7	13	13	16	13	10	13	13	13	13	6	13	13	16	13	9	13	13	12	12	5	12	12	16	13	7	13	13					
		2.5"	16	13	10	13	13	14	13	6	13	13	16	13	9	13	13	10	10	4	10	10	16	13	7	13	13	10	10	4	10	10	16	13	7	13	13					
		2"	16	13	8	13	13	13	13	5	13	13	16	13	7	13	13	10	10	4	10	10	16	13	7	13	13	10	10	4	10	10	16	13	7	13	13					
	88" SPAN	3"	16	13	9	13	13	12	9	5	12	12	16	10	8	13	13	10	5	4	6	7	16	10	8	13	13	10	5	4	6	7	16	9	7	12	13					
		2.5"	16	13	8	13	13	11	8	5	11	11	16	9	7	12	13	9	4	4	6	6	16	9	7	12	13	9	4	4	6	6	16	8	5	11	12					
		2"	16	13	6	13	13	10	7	4	10	10	16	8	5	11	12	8	4	3	5	6	16	8	5	11	12	8	4	3	5	6	16	8	5	11	12					
	105" span	3"	16	10	8	13	13	10	5	4	7	8	16	6	7	8	3	8	3	4	4	3	16	6	7	8	3	8	3	4	4	3	16	6	6	8	3					
		2.5"	16	9	7	13	13	9	4	4	6	7	16	6	6	8	3	8	3	3	4	3	16	6	6	8	3	8	3	3	4	3	16	6	6	8	3					
		2"	16	8	5	11	13	8	4	3	5	6	14	5	4	7	3	7	3	3	3	3	14	5	4	7	3	7	3	3	3	3	14	5	4	7	3					
	123" span	3"	16	6	7	8	7	8	3	4	4	3																														
		2.5"	16	6	6	8	6	8	3	3	4	3																														
		2"	14	5	4	7	5	7	3	3	3	3																														

**NOTES:**  
**SPANS AND LOADS SHOWN IN THIS SCHEDULE ARE FOR DETERMINING ANCHOR SPACING ONLY. FOR ALLOWABLE SPANS VS. DESIGN LOADS REFER TO SHEET 4.**

MINIMUM ENBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO AND/OR WALL FINISHES.

SHADED AREAS REPRESENT ANCHOR CONDITIONS THAT ARE NOT ACCEPTABLE.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE TO WITH STAND THE ADDITIONAL LOADS AND INSURE PROPER ANCHORAGE. SHUTTER SYSTEM MAY BE INTSALL INTO WOOD, CONCRETE OR MASONRY .

REVISIONS	BY
09/11/98	SP
01/06/06	SP

**RAMMS ENGINEERING, INC.**  
*Structural Design*  
 2100 W. 78th STREET, SUITE 311  
 HIALEAH, FLORIDA 33016  
 EB 0006024

**METALTECH, INC.**  
 7635 W. SECOND CT. HIALEAH, FL 33014  
 EST. 1957  
 EXPANDED WORLD-WIDE

Monson  
 1/12/06  
 11955

ROBERT S. MONSOUR, PE  
 EB-0006024  
 RAMMS ENGINEERING, INC.

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No 06-0117-05  
 Expiration Date 10/22/2011  
 By Helmut A. Mehn  
 Miami Code Product Control  
 Division

BUILDING CODE COMPLIANCE

SEP/JRB  
 APPROVED  
 DATE: 01/10/98  
 SCALE: SHOWN  
 JOB: 98002  
 SHEET: 5  
 OF: 7

# ANCHOR SCHEDULE

ANCHOR SPACING vs DESIGN PRESSURE AND CONNECTION TYPE			UP TO 81.5 PSF										UPTO 91.4 PSF									
			POURED CONCTETE					CONCRETE BLOCK					POURED CONCTETE					CONCRETE BLOCK				
			ANCHOR TYPE	PANEL	E.D.	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B
	68" SPAN	3"	15	10	6	13	13	16	10	7	13	13	13	7	5	9	11	13	7	6	9	11
		2"	14	9	5	13	13	14	9	6	13	13	12	6	4	8	9	12	6	5	8	10
		1 1/4"	12	8	4	12	12	12	8	4	12	12	11	5	3	7	9	11	5	4	7	9
	88" SPAN	3"	12	4	5	6	5	12	5	5	6	5	11	3	4	5	3	11	4	5	5	3
		2"	11	4	4	5	4	11	4	4	5	5	9	3	3	4	3	10	3	4	4	3
		1 1/4"	10	4	3	5	4	10	4	3	5	4	9	3	3	4	3	9	3	3	4	3
	105" span	3"																				
		2"																				
		1 1/4"																				
	123" span	3"																				
		2"																				
		1 1/4"																				
	68" SPAN	3"	13	8	5	12	13	9	6	4	9	9	11	5	5	8	9	8	4	4	6	7
		2"	11	7	5	11	11	8	5	4	8	8	10	5	4	7	8	8	4	3	5	6
		1 1/4"	10	7	4	10	10	8	5	3	7	8	9	4	3	6	7	7	3	3	4	5
	88" SPAN	3"	10	4	4	5	4	7	3	3	4	3	9	3	4	4	3	8	3	3	3	3
		2"	9	3	3	4	4	7	3	3	3	3	8	3	3	3	3	7	3	3	3	3
		1 1/4"	8	3	3	4	3	6	3	3	3	3	7	3	3	3	5	6	3	3	3	3
	105" span	3"																				
		2"																				
		1 1/4"																				
	123" span	3"																				
		2"																				
		1 1/4"																				
	68" SPAN	3"	16	13	8	13	13	11	7	5	11	11	16	8	7	12	13	10	5	4	7	8
		2"	16	11	7	13	13	10	6	4	10	10	16	8	6	10	12	9	4	4	6	7
		1 1/4"	16	10	6	13	13	9	6	3	9	9	14	7	5	9	11	8	4	3	5	6
	88" SPAN	3"	15	6	6	8	6	9	3	4	4	4	14	4	6	6	4	8	3	3	3	3
		2"	14	5	5	7	6	8	3	3	4	3	12	4	5	5	4	7	3	3	3	3
		1 1/4"	12	5	4	6	5	7	3	3	4	3	11	4	4	5	3	6	3	3	3	3
	105" span	3"																				
		2"																				
		1 1/4"																				
	123" span	3"																				
		2"																				
		1 1/4"																				
	68" SPAN	3"	16	13	9	13	13	11	7	5	11	11	16	10	8	13	13	10	5	4	7	8
		2.5"	16	13	7	13	13	10	7	4	10	10	16	9	7	13	13	9	4	4	6	7
		2"	16	12	6	13	13	9	6	3	9	9	16	8	5	12	13	8	4	3	5	6
	88" SPAN	3"	16	7	7	9	8	9	3	4	4	4	16	5	6	7	5	8	3	3	3	3
		2.5"	16	6	6	8	7	8	3	3	4	3	15	5	5	6	5	7	3	3	3	3
		2"	15	6	4	8	6	7	3	3	4	3	13	4	4	6	4	6	3	3	3	3
	105" span	3"																				
		2.5"																				
		2"																				
	123" span	3"																				
		2.5"																				
		2"																				

**NOTES:**

**SPANS AND LOADS SHOWN IN THIS SCHEDULE ARE FOR DETERMINING ANCHOR SPACING ONLY. FOR ALLOWABLE SPANS VS. DESIGN LOADS REFER TO SHEET 4.**

MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO AND/OR WALL FINISHES.

SHADED AREAS REPRESENT ANCHOR CONDITIONS THAT ARE NOT ACCEPTABLE.

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REVISIONS	BY
09/11/98	SP
01/06/06	SP

**RAMMS ENGINEERING, INC.**  
*Structural Design*  
 2100 W. 76th STREET, SUITE 311  
 HIALEAH, FLORIDA 33016  
 EB 0006024

**METALTECH, INC.**  
 7635 W. SECOND CT. HIALEAH, FL 33014  
 EST. 1957  
 EXCELLED WORLD-WIDE

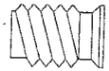
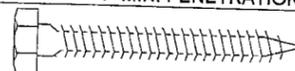
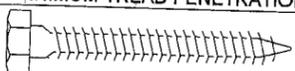
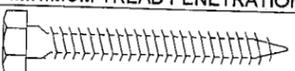
**BUILDING CODE COMPLIANCE**  
 SEP/JRB/RSM  
 DATE: 01/10/98  
 SHEET SHOWN: 98002  
 SHEET: 6  
 OF 7

Monson  
 11/10/06  
 WAS

ROBERT S. MONSOUR, PE  
 EB-0006024  
 RAMMS ENGINEERING, INC.

PRODUCT REVISED  
 to comply with the Florida  
 Building Code  
 Acceptance No. 06-0117-05  
 Expiration Date 10/22/2011  
 By Helmut A. Monson  
 Miami Dade Product Control  
 Division

# ANCHOR SCHEDULE

WOOD APPLICATIONS			UP TO 59.5 PSF					UP TO 71.5 PSF					UP TO 81.5 PSF					UP TO 91.4 PSF				
ANCHOR TYPE	DIA.	SPAN	CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE				
			A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
 BRASS WOOD BUSHING 1" MIN. PENETRATION	1/4-20	68" SPAN	14	13	5	13	13	12	12	5	12	12	10	7	4	10	10	9	4	4	6	7
		88" SPAN	11	8	4	11	11	9	4	3	6	7	8	3	3	4	3	7		3	3	
		105" SPAN	9	4	4	6	7	8	3	3	4	3										
		123" SPAN	8	3	3	4	3															
 WOOD LAGS 1" MINIMUM TREAD PENETRATION	1/4"	68" SPAN	16	13	8	13	13	15	13	6	13	13	14	9	6	13	13	12	6	5	8	9
		88" SPAN	14	11	6	13	13	12	6	5	8	9	10	4	4	5	4	9	3	4	4	3
		105" SPAN	12	6	5	8	9	10	4	4	5	4										
		123" SPAN	10	4	3	5	4															
 WOOD LAGS 1" MINIMUM TREAD PENETRATION	5/16"	68" SPAN	16	13	10	13	13	16	13	8	13	13	16	10	7	13	13	14	7	6	9	11
		88" SPAN	16	13	7	13	13	14	7	6	9	10	12	5	5	6	5	11	4	5	5	3
		105" SPAN	14	7	6	9	10	12	4	5	6	4										
		123" SPAN	12	4	5	6	4															
 WOOD LAGS 1" MINIMUM TREAD PENETRATION	3/8"	68" SPAN	16	13	11	13	13	16	13	9	13	13	16	12	8	13	13	16	8	7	11	13
		88" SPAN	16	13	9	13	13	16	8	7	10	12	14	5	6	7	6	13	4	6	5	4
		105" SPAN	16	8	7	11	12	14	5	6	6	5										
		123" SPAN	13	5	6	6	5															
 WOOD LAGS 1" MINIMUM TREAD PENETRATION	7/16	68" SPAN	16	13	12	13	13	16	13	10	13	13	16	13	9	13	13	16	9	8	12	13
		88" SPAN	16	13	9	13	13	16	8	8	12	13	16	6	7	8	7	14	5	6	6	4
		105" SPAN	16	9	8	12	13	15	5	7	7	6										
		123" SPAN	15	5	7	7	6															
 1/4" ELCO PANEL MATES 1 7/8" MIN. THREAD PENETRATION	1/4"	68" SPAN	16	13	8	13	13	15	13	6	13	13	14	9	6	13	13	12	6	5	8	9
		88" SPAN	14	11	6	13	13	12	6	5	8	9	10	4	4	5	4	9	3	4	4	3
		105" SPAN	12	6	5	8	9	10	4	4	5	4										
		123" SPAN	10	4	3	5	4															
 VERIOUS HEAD TYPES 1/4" MASONRY SCREWS 1 7/8" MIN. THREAD PENETRATION	1/4"	68" SPAN	16	13	8	13	13	15	13	6	13	13	14	9	6	13	13	12	6	5	8	9
		88" SPAN	14	11	6	13	13	12	6	5	8	9	10	4	4	5	4	9	3	4	4	3
		105" SPAN	12	6	5	8	9	10	4	4	5	4										
		123" SPAN	10	4	3	5	4															

**NOTES:**

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WHEN ANCHORING TO WOOD, THE WOOD MUST BE A MINIMUM 2 X 4 EQUAL TO #2 SOUTHERN PINE 0.55 SPECIFIC GRAVITY AND STRUCTURALLY PART OF THE FRAMING STRUCTURE OR SUCURELY ATTACHED TO FRAMING STRUCTURE

SHADED AREAS REPRESENT ANCHOR CONDITIONS THAT ARE NOT ACCEPTABLE.

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*Mon Sour*  
1/10/06  
1/10/05

ROBERT S. MONSOUR, PE  
EB-0006024  
RAMMS ENGINEERING, INC.

PRODUCT REVISED  
to comply with the Florida  
Building Code  
Acceptance No. 06-0117-05  
Expiration Date 10/22/2011  
By: *Heather A. M...*  
Miami Building Control  
Division

BUILDING CODE COMPLIANCE

REVISIONS	BY
09/11/98	SP
01/06/06	SP

RAMMS ENGINEERING, INC.  
*Structural Design*  
 2100 W. 76th STREET, SUITE 311  
 HIALEAH, FLORIDA 33016  
 EB 0006024

**METALTECH, INC.**  
 7635 W. SECOND CT. HIALEAH, FL 33014  
 EST. 1957  
 WORLD-WIDE

SEP/JRB/RSM
DATE: 01/10/98
SCALE: SHOWN
98002
7