



**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**

**All Broward Hurricane Panel Co.  
450 West McNab Road  
Ft. Lauderdale ,FL 33309**

Your application for Notice of Acceptance (NOA) of:

**18 ga. Steel Storm Panel Shutter**

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.: 00-0721.05  
EXPIRES: 02/26/2004**

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: 10/12/2000**



**All Broward Hurricane Panel Company**

ACCEPTANCE No. : 00-0721.05

APPROVED : OCT 12 2000

EXPIRES : 02/26/2004

**NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS**

**1. SCOPE**

This renews the Notice of Acceptance No. 97-0318.02, which was issued on February 26, 1998. It approves an 18 ga. Galvanized Steel Storm Panel 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**

This 18 ga. Galvanized Steel Storm Panel Shutter and its components shall be constructed in strict compliance with the following documents: Drawing No. 96-242, titled "18 ga. Steel Storm Panel", prepared by Knezevich & Associates, Inc., signed and sealed by V. J. Knezevich, P.E., dated November 22, 1996, last revision #2 dated January 23, 1998, sheets 1 through 6 of 6, bearing the Miami-Dade County Product Control Approval and Renewal stamps with the Notice of Acceptance numbers and approval dates by the Miami-Dade County Product Control Division. These documents shall hereinafter be referred to as the approved drawings.

**3. LIMITATIONS**

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 times.

**4. INSTALLATION**

This 18 ga. Galvanized Steel Storm Panel Shutter and its components shall be installed in strict compliance with the approved drawings.

**5. 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".

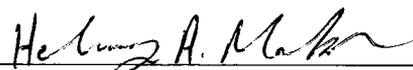
**6. BUILDING PERMIT REQUIREMENTS**

**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 documents required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.

  
\_\_\_\_\_  
Helmy A. Makar, P.E. -Product Control Examiner  
Product Control Division

**All Broward Hurricane Panel Company**

**ACCEPTANCE No. : 00-0721.05**

**APPROVED : OCT 12 2004**

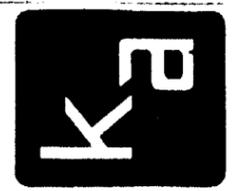
**EXPIRES : 02/26/2004**

**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 needs 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**

  
\_\_\_\_\_  
Helmy A. Makar, P.E. -Product Control Examiner  
Product Control Division

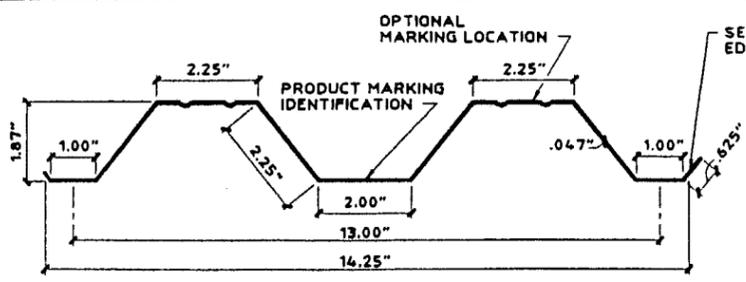


**KNEZEVICH & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS • PRODUCT TESTING  
 641 MOKENA DRIVE • MIAMI SPRINGS, FLORIDA 33166  
 MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500  
 FAX: (305) 883-9572  
 COPYRIGHT 1998 KNEZEVICH & ASSOCIATES, INC.

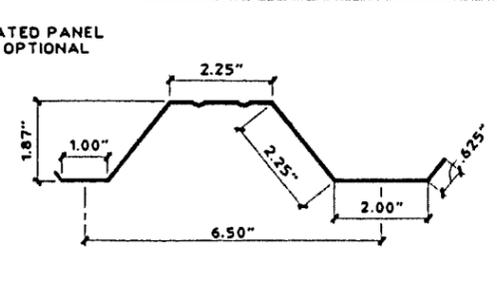
**18 GA. STEEL STORM PANEL**  
**ALL BROWARD HURRICANE PANEL, CO.**  
 460 WEST MONAR ROAD  
 FORT LAUDERDALE, FL 33308  
 (954) 574-3300

NO.	DATE	BY	DESCRIPTION
1	10/31/97	VJK	GENERAL REVISION
2	01/23/98	VJK	COUNTY COMMENTS

**V. J. KNEZEVICH**  
 PROFESSIONAL ENGINEER  
 FL License No. PE 0010983  
 JAN 26 1998  
 H-22-96  
 drawn by dg  
 design by VJK checked by VJK  
 drawing no. 96-242  
 sheet 1 of 6



**FULL PANEL**

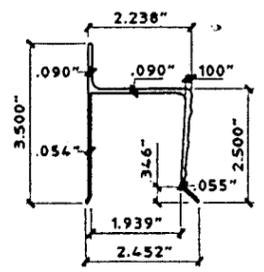


**HALF PANEL**

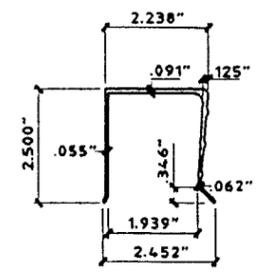
ONE HALF PANEL PER OPENING MAY BE USED AS REQUIRED TO COVER OPENING.

**1 STORM PANEL**  
SCALE: 3" = 1'-0"

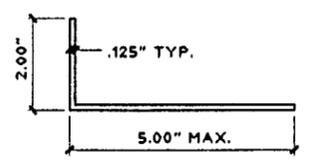
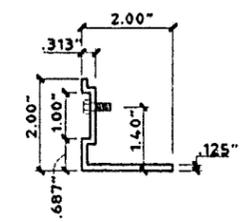
**2 "h" HEADER**  
SCALE: 3" = 1'-0"



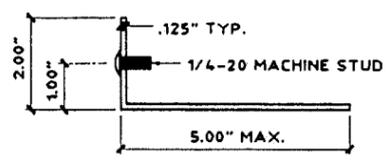
**3 "U" HEADER**  
SCALE: 3" = 1'-0"



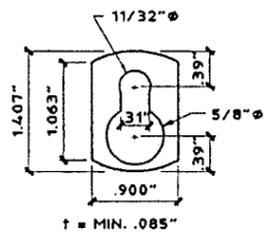
**4 "SEA" ANGLE**  
SCALE: 3" = 1'-0"



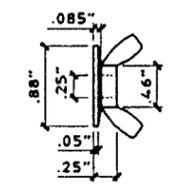
**5 ANGLE**  
SCALE: 3" = 1'-0"



**5a ANGLE**  
SCALE: 3" = 1'-0"



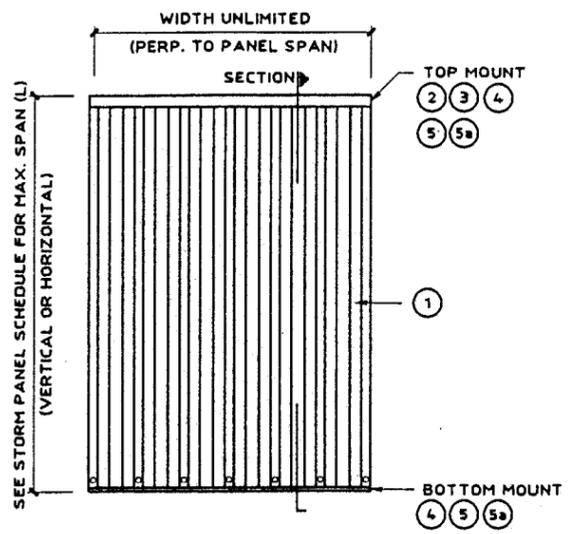
**6 "KEYHOLE" WASHER**  
SCALE: 3" = 1'-0"  
3003-H14 ALUMINUM ALLOY



**6a WINGNUT**  
SCALE: HALF SIZE

**GENERAL NOTES:**

- THIS STORM PANEL SHUTTER SYSTEM IS DESIGNED AND TESTED IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE 1994 EDITION.
- POSITIVE AND NEGATIVE DESIGN PRESSURE CALCULATIONS SHALL BE PERFORMED FOR SPECIFIC JOBS IN ACCORDANCE WITH ASCE 7-88 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES." TABLES SHALL BE REFERENCED AT APPROPRIATE DESIGN LOADS.
- PRODUCT MARKINGS SHALL BE WITHIN 12" OF ONE END OF THE PANEL WITH A MIN. OF ONE MARKING PER PANEL AND SHALL BE LABELED AS FOLLOWS:  
 B H P C O  
 FT. LAUDERDALE, FL  
 DADE COUNTY PRODUCT CONTROL APPROVED
- PANELS HAVE BEEN TESTED IN ACCORDANCE WITH THE DADE COUNTY PROTOCOLS PA 201, PA 202, AND PA 203. DESIGN IS BASED ON CONSTRUCTION TESTING CORPORATION (CTC) TEST REPORT No. 96-030.
- STORM PANELS SHALL BE 18 GAUGE STEEL (t = 0.049") CONFORMING TO ASTM A653, STRUCTURAL QUALITY, GRADE 40, WITH A MIN. Fy = 40 KSI AND G-60 GALVANIZED COATING. ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N.
- ALL SCREWS AND BOLTS TO BE 2024-T4 ALUMINUM ALLOY, STAINLESS STEEL, OR GALV. STEEL WITH A 33 KSI MINIMUM YIELD STRENGTH.
- TOP AND BOTTOM DETAILS MAY BE INTERCHANGED AS FIELD CONDITIONS REQUIRE. PANELS MAY ALSO BE MOUNTED WITH "SEA" STUD ANGLE OR DIRECT MOUNTED HORIZONTALLY.
- THE PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO SUSTAIN THE NEW SUPERIMPOSED LOADS AND TO VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE COMMENCING WITH THE WORK.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. EMBEDMENT LENGTHS SHALL BE AS NOTED AND DO NOT INCLUDE STUCCO OR OTHER FINISHES.
- AT LEAST ONE WARNING NOTE PER OPENING SHALL BE PLACE IN A CONSPICUOUS LOCATION ON ANY OF THE COMPONENTS OF STORM PANEL SYSTEM ADVISING THE HOME OWNER OR TENANT THAT STORM PANELS WILL NOT OFFER HURRICANE PROTECTION UNLESS ALL REINFORCING BOLTS ARE PROPERLY INSTALLED.



**7 TYPICAL ELEVATION**  
 FOR ALL INSTALLATIONS SEE TABLE 2, PAGE 5 OF 6, FOR REQUIRED SEPARATION FROM GLASS.

**PRODUCT RENEWED**

ACCEPTANCE No. 00-0721.05  
 EXPIRATION DATE 02/26/2004  
 By Helmy A. Makhadmeh  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
 DATE FEBRUARY 26 1998  
 BY Helmy A. Makhadmeh  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 91-0318.02



**KNEZEVICH & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS - PRODUCT TESTING  
 641 MORENA DRIVE-MIAMI SPRINGS, FLORIDA 33166  
 MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500  
 FAX: (305) 883-9572  
 COPYRIGHT 1998 KNEZEVICH & ASSOCIATES, INC.

**18 GA. STEEL STORM PANEL**  
**ALL BROWARD HURRICANE PANEL CO.**  
 480 WEST McNAR ROAD  
 FORT LAUDERDALE, FL 33309  
 (954) 974-3300

no.	date	description
1	03/14/97/JMK	GENERAL REVISION
2	01/23/98/JMK	COUNTY COMMENTS

**V.J. KNEZEVICH**  
 PROFESSIONAL ENGINEER  
 FL license No. PE 040933

**JAN 26 1998**  
 date 11-22-96  
 scale AS NOTED  
 design by VJK  
 checked by VJK  
 drawing no. 96-242  
 sheet 2 of 6

**PRODUCT RENEWED**

ACCEPTANCE No. 00-0721.05

EXPIRATION DATE 02/26/2004

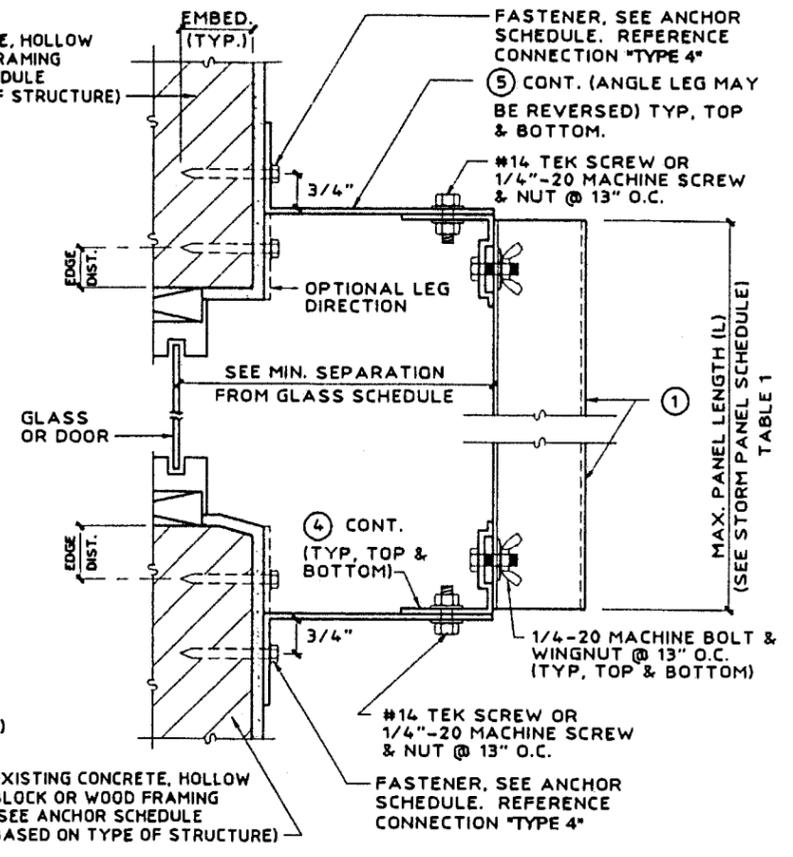
By Herling A. Mark  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE  
 SOUTH FLORIDA BUILDING CODE

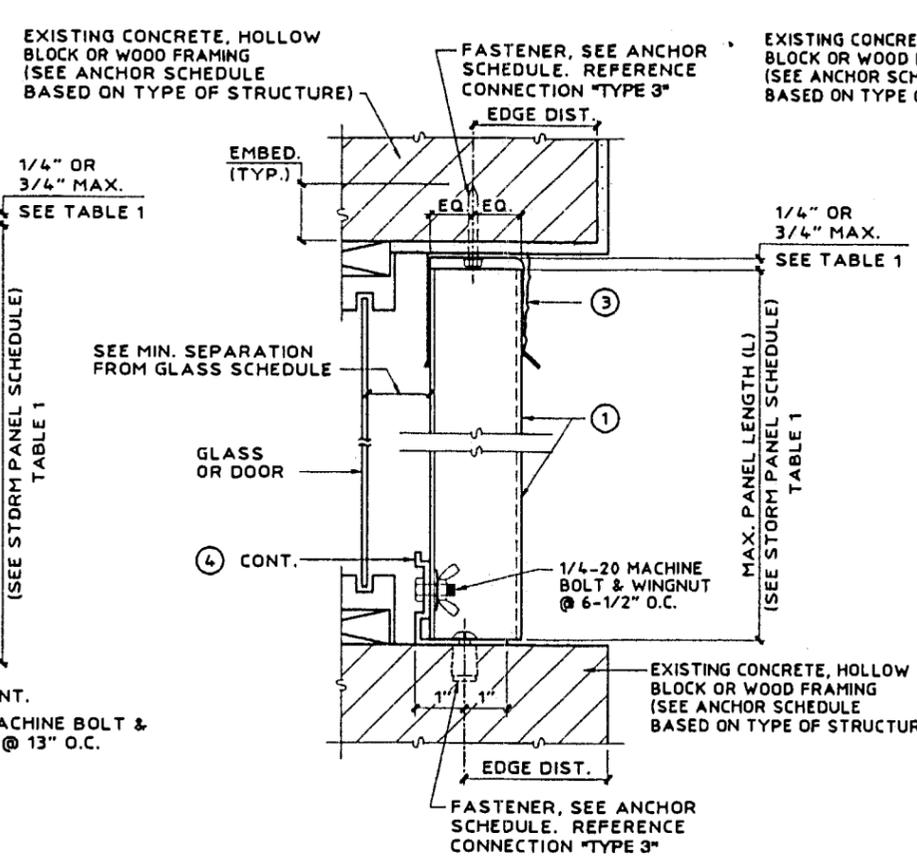
DATE FEBRUARY 26 1998

BY Herling A. Mark  
 PRODUCT CONTROL DIVISION

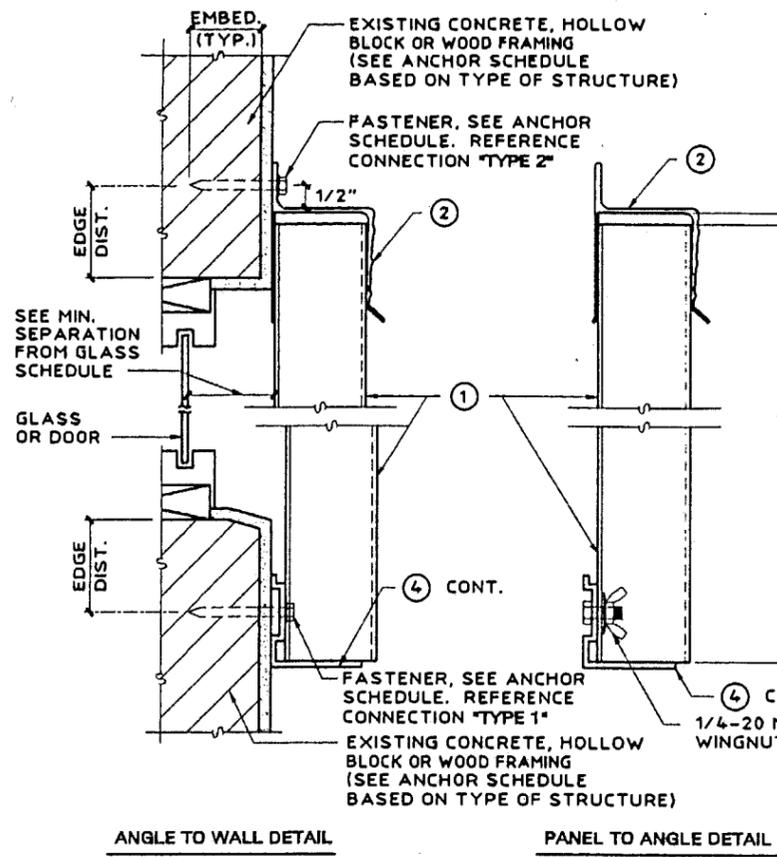
BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE No. 97-0318.02



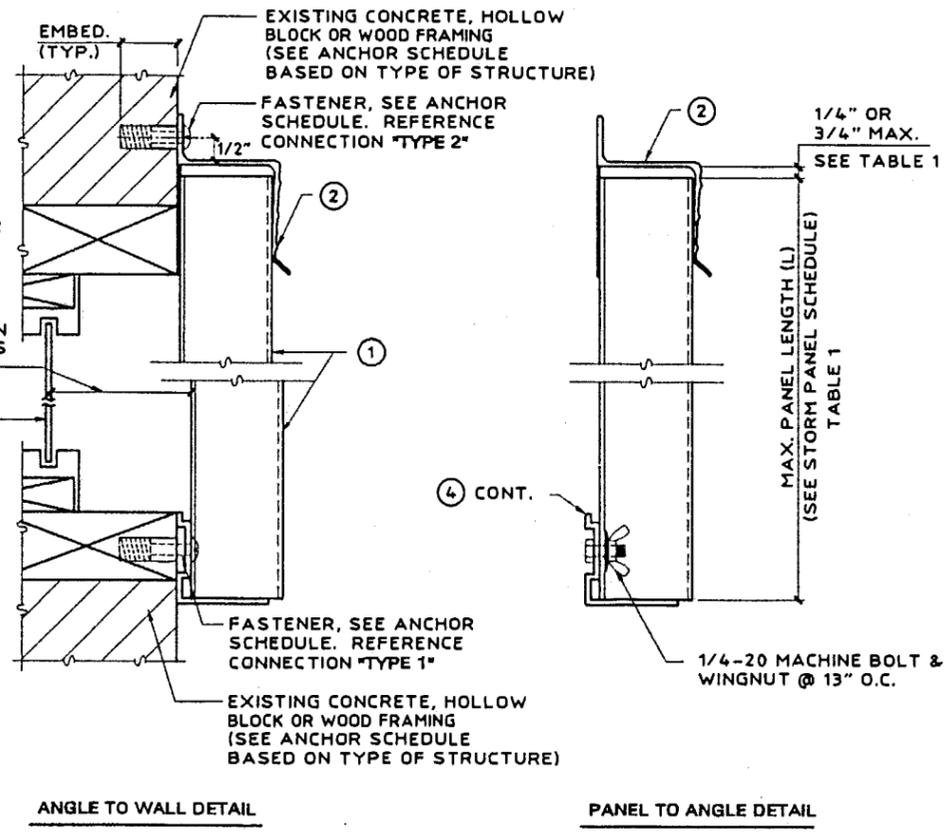
**C BUILD-OUT MOUNT SECTION**  
 SCALE: 3" = 1'-0"



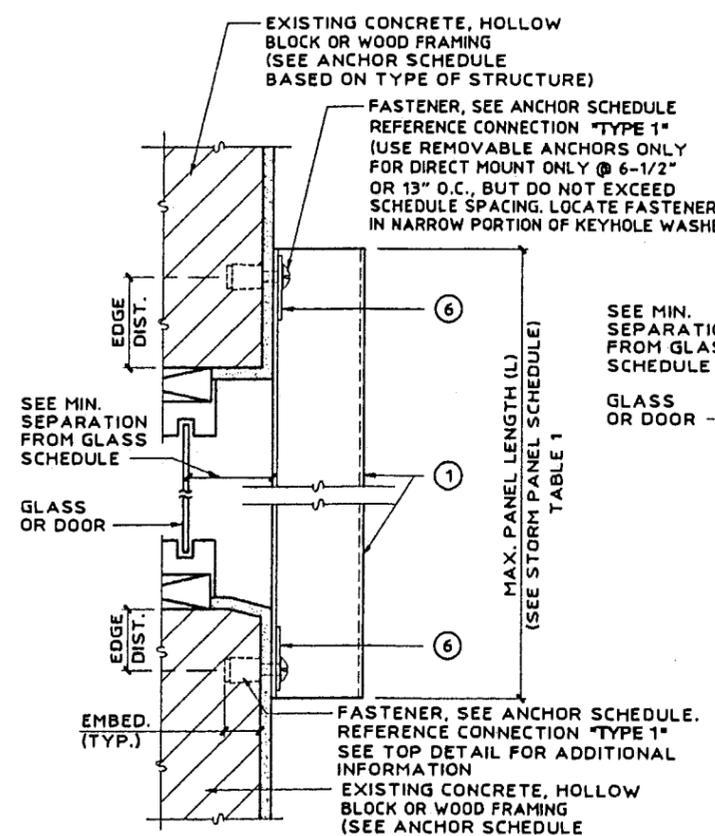
**B CEILING/INSIDE MOUNT SECTION**  
 SCALE: 3" = 1'-0"



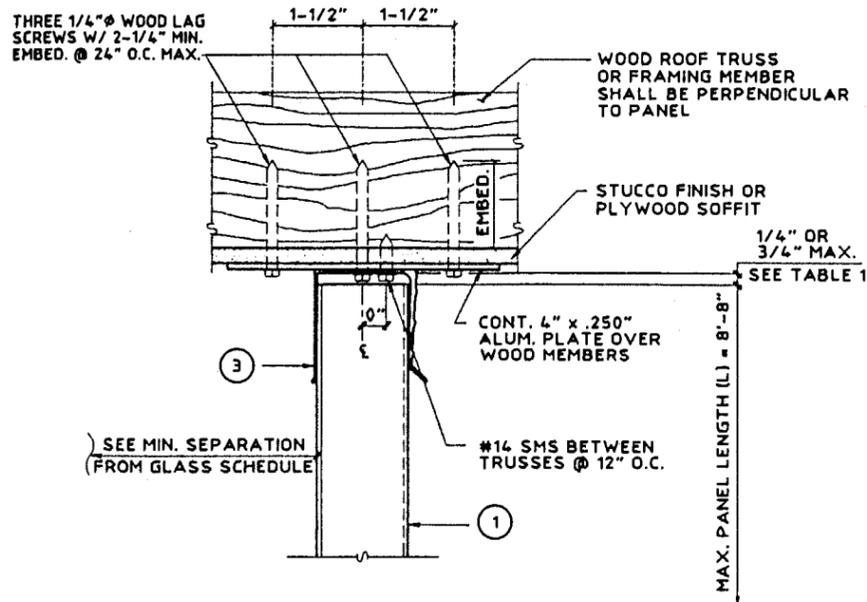
**A WALL MOUNT SECTION**  
 SCALE: 3" = 1'-0"



**E WALL MOUNT SECTION**  
 SCALE: 3" = 1'-0"

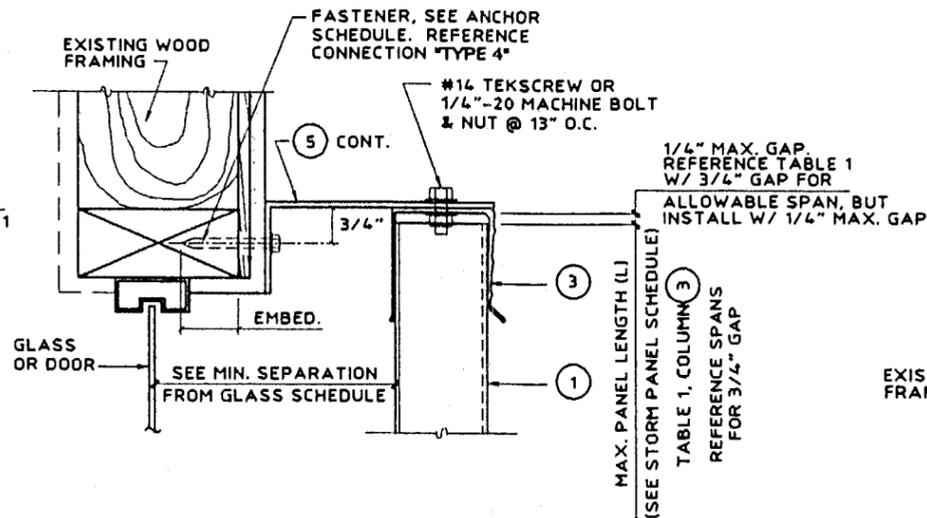


**D DIRECT MOUNT SECTION**  
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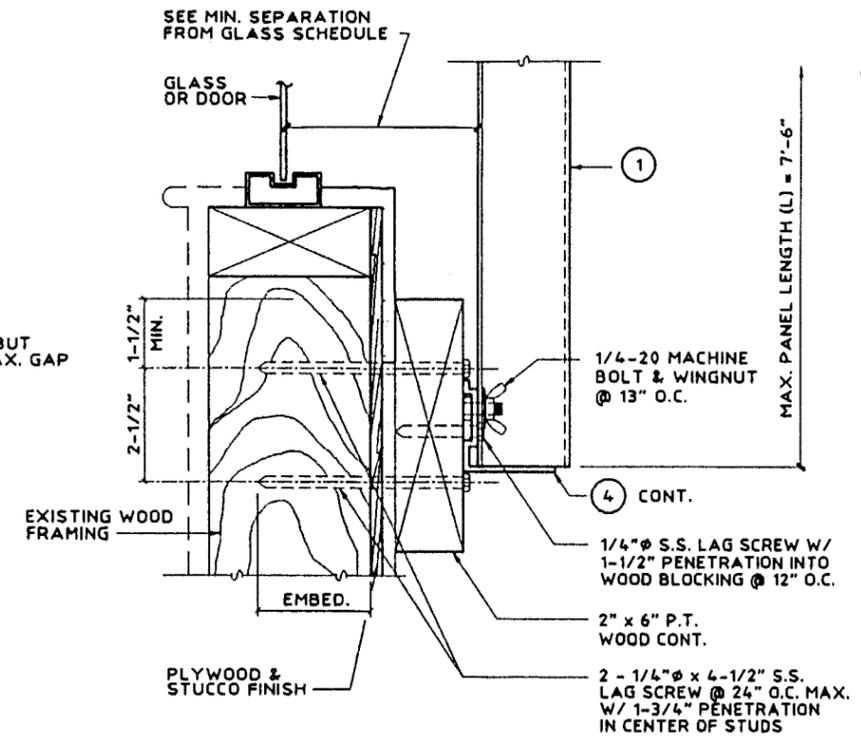


(MAX DESIGN LOAD ± 62 PSF)

**F** SOFFIT CONNECTION DETAIL  
SCALE: 3" = 1'-0"

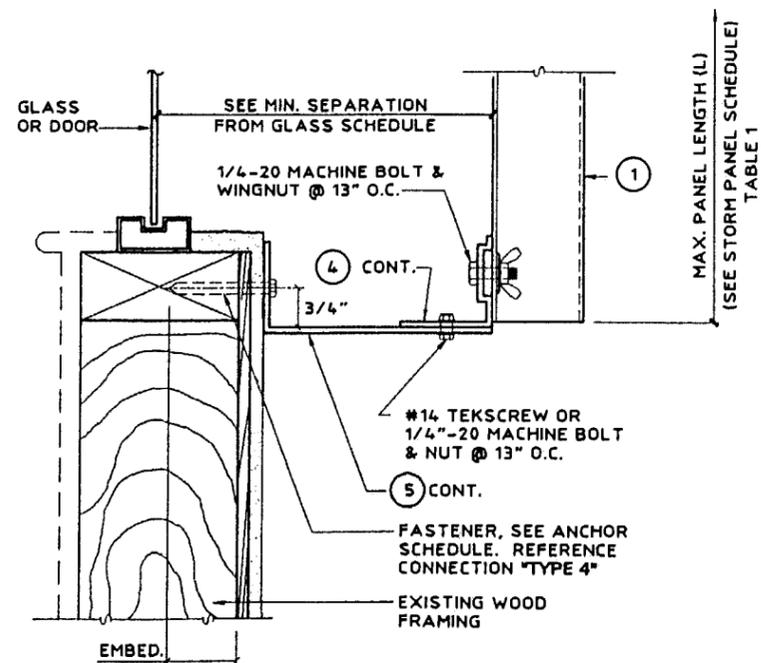


**G** BUILD-OUT SECTION  
SCALE: 3" = 1'-0"



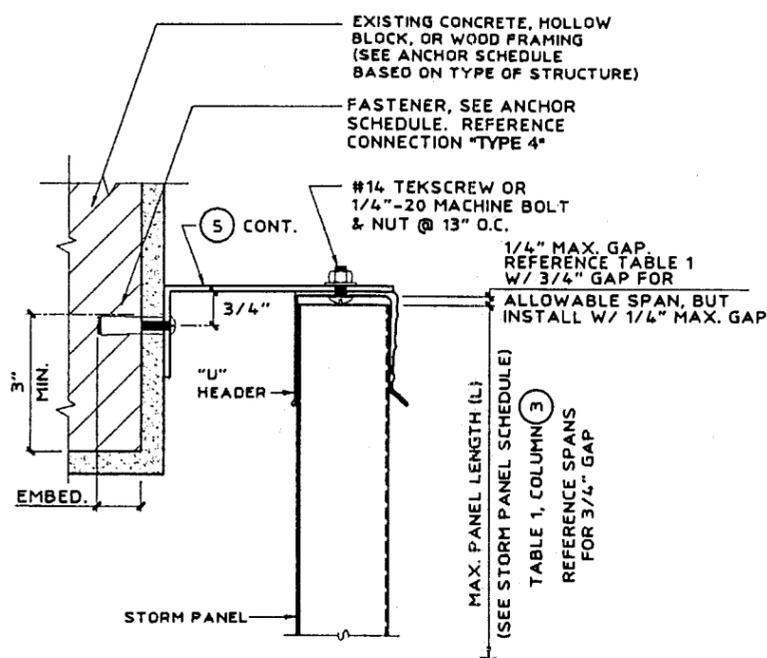
(MAX DESIGN LOAD ± 72 PSF)

**H** ALT. WALL MOUNT SECTION  
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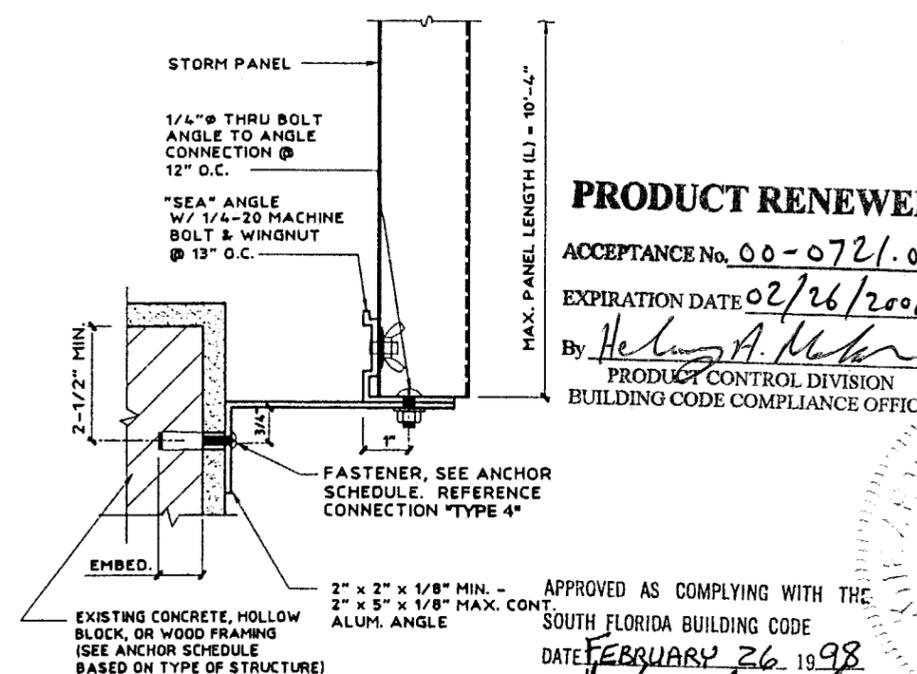


**NOTE:**  
- DIRECTION OF 2" LEG OF PIECE (5) MAY BE REVERSED IF ANGLE IS RAISED SO THAT THE 2" LEG IS FASTENED TO CONTINUOUS HORIZONTAL WOOD STUD.

**I** BUILD-OUT SECTION  
SCALE: 3" = 1'-0"



**J** ANGLE BUILD-OUT  
SCALE: 3" = 1'-0"

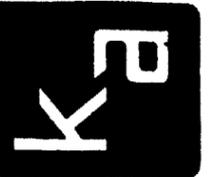


(MAX. DESIGN LOAD ± 72 PSF)

**K** ANGLE BUILD-OUT  
SCALE: 3" = 1'-0"

**PRODUCT RENEWED**  
ACCEPTANCE No. 00-0721.05  
EXPIRATION DATE 02/26/2004  
By *Helmut A. M...*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE *FEBRUARY 26, 1998*  
BY *Helmut A. M...*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. *97-0318.02*



**KNEZEVICH & ASSOCIATES, INC.**  
CONSULTING ENGINEERS • PRODUCT TESTING  
641 MOKENA DRIVE • MIAMI SPRINGS, FLORIDA 33166  
MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500  
FAX: (305) 883-9572  
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**18 GA. STEEL STORM PANEL**  
**AL BROWARD HURRICANE PANEL, CO.**  
460 WEST MAGNAB ROAD  
FORT LAUDERDALE, FL 33308  
(954) 574-3900

no.	date	description
1	03/14/97	JMK GENERAL REVISION
2	01/23/98	JMK COUNTY COMMENTS

**V.J. KNEZEVICH**  
PROFESSIONAL ENGINEER  
FL License No. PE 0010283

*JAN 26 1998*  
date 11-22-96  
scale AS NOTED drawn by GG  
design by VJK checked by VJK  
drawing no. 96-242  
sheet 3 of 6

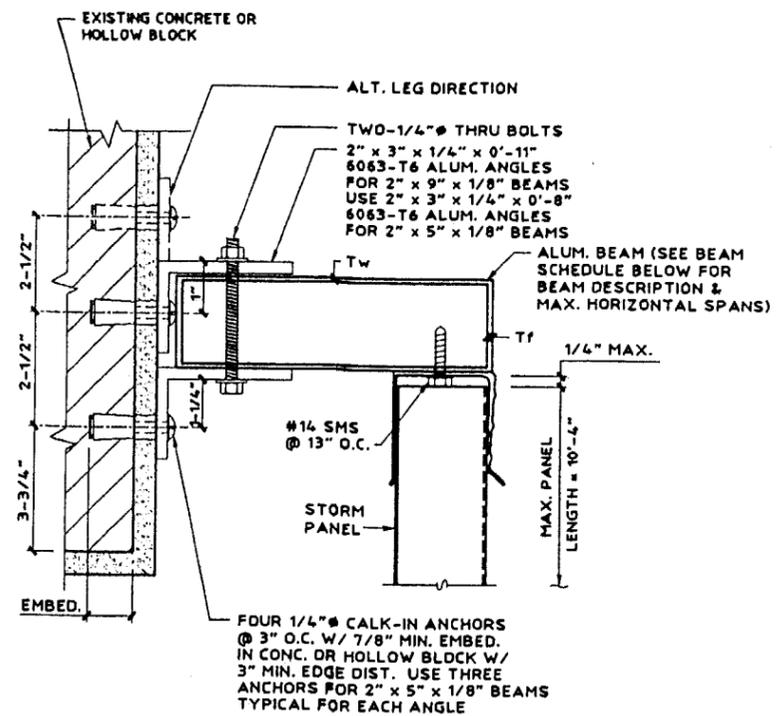


**KNEZEVICH & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS • PRODUCT TESTING  
 641 MOKENA DRIVE, MIAMI SPRINGS, FLORIDA 33166  
 MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500  
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**18 GA. STEEL STORM PANEL**  
**ALL BROWARD HURRICANE PANEL, CO.**  
 450 WEST McANAB ROAD  
 FORT LAUDERDALE, FL 33308  
 (866) 974-9900

NO.	DATE	DESCRIPTION
1	03/14/97	GENERAL REVISION
2	01/23/98	COUNTY COMMENTS

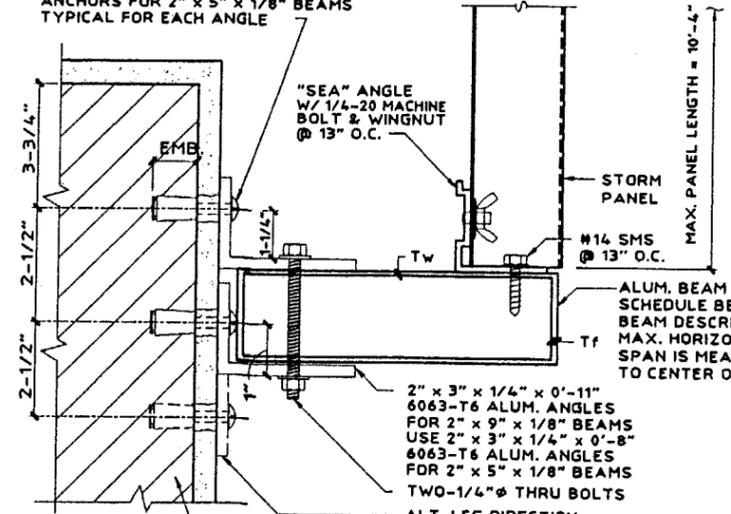
**V.J. KNEZEVICH**  
 PROFESSIONAL ENGINEER  
 FL License No. PE 0010983  
**JAN 26 1998**  
 date 11-22-98  
 scale AS NOTED drawn by 00  
 design by VJK checked by VJK  
 drawing no. 96-242  
 sheet 4 of 6



(MAX. DESIGN LOAD ± 72 PSF)

**L STORM PANEL SUPPORT BEAM**  
 SCALE: 3" = 1'-0"

FOUR 1/4" Ø CALK-IN ANCHORS @ 3" O.C. W/ 7/8" MIN. EMBED. IN CONC. OR HOLLOW BLOCK W/ 3" MIN. EDGE DIST. USE THREE ANCHORS FOR 2" x 5" x 1/8" BEAMS TYPICAL FOR EACH ANGLE

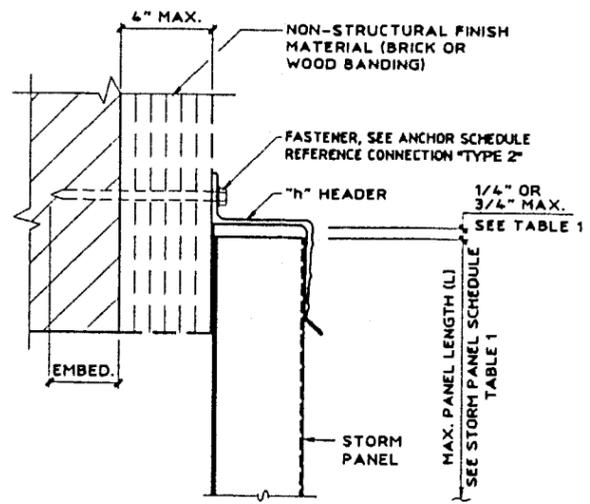


BEAM SCHEDULE		
DESCRIPTION	PANEL SPAN	BEAM SPAN
2" x 5"	6'-0"	8'-11"
T <sub>w</sub> = .125"		
T <sub>f</sub> = .125"	10'-4"	7'-5"
2" x 9"	6'-0"	14'-6"
T <sub>w</sub> = .072"		
T <sub>f</sub> = .224"	10'-4"	12'-1"

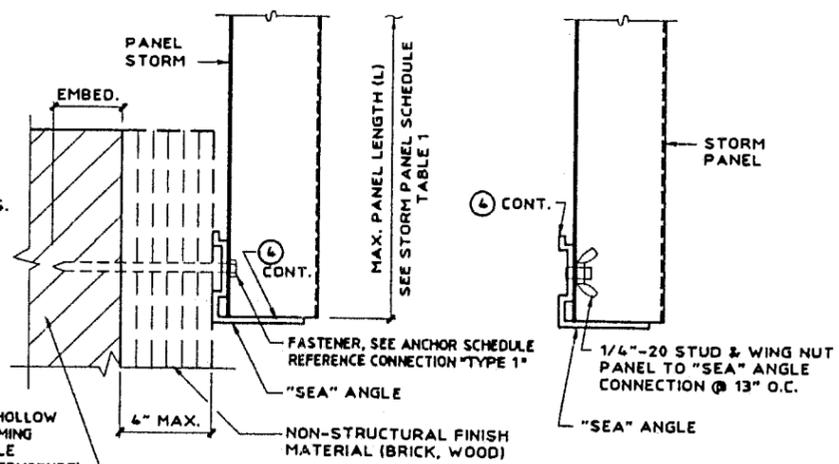
(MAX. DESIGN LOAD ± 72 PSF)

**O STORM PANEL SUPPORT BEAM**  
 SCALE: 3" = 1'-0"

NOTE: THIS DETAIL MAY BE USED AT TOP OR BOTTOM OF PANEL.



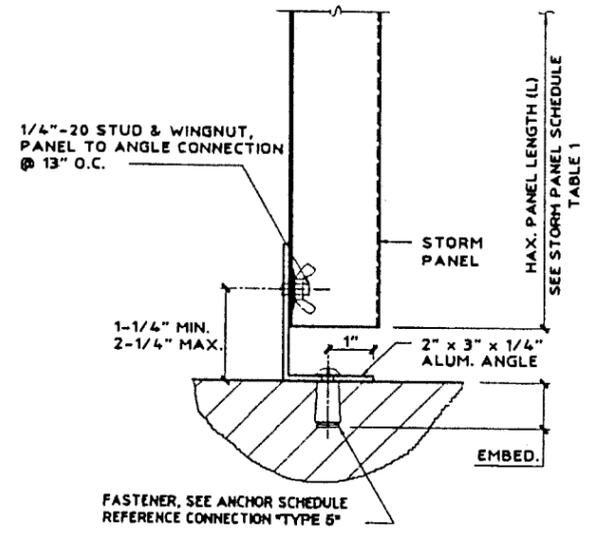
**M WALL MOUNT**  
 SCALE: 3" = 1'-0"



**ANGLE TO WALL DETAIL**

**PANEL TO ANGLE DETAIL**

**P WALL MOUNT**  
 SCALE: 3" = 1'-0"



**N FLOOR MOUNT**  
 SCALE: 3" = 1'-0"

**PRODUCT RENEWED**

ACCEPTANCE No. 00-0721.05

EXPIRATION DATE 02/26/2004

By Herb A. M...  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE

DATE FEBRUARY 26 1998

BY Herb A. M...  
 PRODUCT CONTROL DIVISION

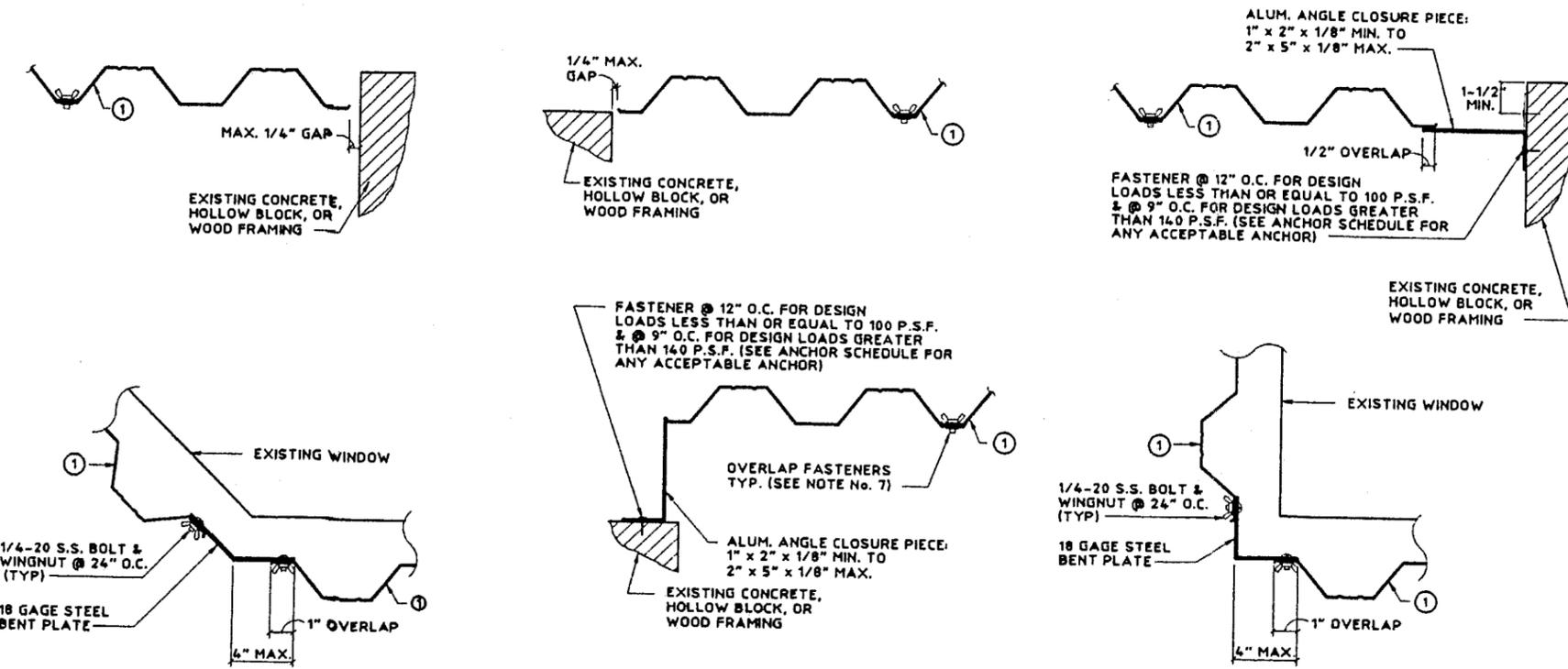
BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 97-0318.02

TABLE 1 STORM PANEL MAX. SPAN SCHEDULE		
NEGATIVE DESIGN LOAD W (PSF)	ANY MOUNTING CONDITIONS (MAX. 1/4" SPACE BETWEEN PANEL AND HEADER)	
	(A) L MAX. (FT-IN)	(B) L MAX. (FT-IN)
30.0	13 - 4	13 - 3
35.0	12 - 10	12 - 9
40.0	12 - 5	12 - 4
45.0	12 - 1	11 - 11
50.0	11 - 9	11 - 3
55.0	11 - 6	10 - 9
60.0	11 - 3	9 - 11
62.0	11 - 2	9 - 7
65.0	11 - 0	9 - 2
70.0	10 - 7	8 - 6
72.0	10 - 4	8 - 3
75.0	9 - 11	7 - 11
80.0	9 - 3	7 - 5
90.0	8 - 3	6 - 7
100.0	7 - 5	5 - 11
110.0	6 - 9	5 - 5
120.0	6 - 2	4 - 11
130.0	5 - 8	4 - 7
140.0	5 - 3	4 - 3
150.0	4 - 11	3 - 11
160.0	4 - 7	3 - 8
170.0	4 - 4	3 - 6
180.0	4 - 1	3 - 3
190.0	3 - 11	3 - 1
200.0	3 - 8	2 - 11

TABLE 2 MIN. SEPARATION FROM GLASS SCHEDULE			
POSITIVE DESIGN LOAD (W) (PSF)	ACTUAL SHUTTER SPAN (L) (FT - IN)	MINIMUM SEPARATION FOR INSTALLATIONS 30' OR LESS ABOVE GRADE (INCHES)	MINIMUM SEPARATION FOR INSTALLATIONS GREATER THAN 30' ABOVE GRADE (INCHES)
30.0	7 - 8	2-3/4	1-3/8
	10 - 9	2-3/4	2
	13 - 4	3-5/8	3
40.0	7 - 8	2-3/4	1-5/8
	10 - 9	2-3/4	2-1/4
	12 - 5	3-5/8	3
50.0	7 - 8	2-3/4	1-5/8
	10 - 9	2-3/4	2-5/8
	11 - 9	3-5/8	3
60.0	7 - 8	2-3/4	1-3/4
	10 - 9	2-3/4	2-3/4
	11 - 3	3-5/8	3
70.0	7 - 8	2-3/4	1-3/4
	10 - 7	2-7/8	2-7/8
	7 - 8	2-3/4	1-7/8
80.0	9 - 3	2-3/4	2-3/8
	7 - 8	2-3/4	1-7/8
	8 - 3	2-3/4	2-1/8
100.0	7 - 5	2-3/4	1-7/8

NOTES:

- REFERENCE APPROPRIATE SPAN TABLE BASED ON MOUNTING CONDITION IN FIELD.  
- COLUMN (A) MAY BE USED FOR ANY DETAILED CONDITIONS, INCLUDING DIRECT MOUNT. IF HEADER IS USED, MAX. GAP EQUALS 1/4".  
- COLUMN (B) MAY BE USED FOR ANY DETAILED CONDITIONS, IF HEADER IS USED, MAX. GAP EQUALS 3/4".
- FOR DESIGN LOADS BETWEEN TABULATED VALUES, USE NEXT HIGHER LOAD OR LINEAR INTERPOLATION MAY BE USED TO DETERMINE ALLOWABLE SPANS.
- ENTER TABLE 1 WITH NEGATIVE DESIGN LOAD TO DETERMINE MAX. PANEL SPAN.
- ENTER TABLE 2 WITH POSITIVE DESIGN LOAD TO DETERMINE MIN. SEPARATION FROM GLASS.



CLOSURE DETAILS (PLAN VIEWS)

SCALE: 1-1/2" = 1'-0"

PRODUCT RENEWED

ACCEPTANCE No. 00-0721.05

EXPIRATION DATE 02/26/2004

By *Helmut A. Mader*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE

DATE FEBRUARY 26, 1998

By *Helmut A. Mader*

PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE

ACCEPTANCE No. 97-0318.02



KNEZEVICH & ASSOCIATES, INC.  
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18 GA. STEEL STORM PANEL  
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Revisions	no.	date	description
	1	10/14/97	GENERAL REVISION
	2	01/23/98	COUNTY COMMENTS

V.J. KNEZEVICH  
PROFESSIONAL ENGINEER

FL License No. PE 0010983

APR 26 1998

11-22-96

scale AS NOTED  
design by VJK  
checked by VJK

drawing no. 96-242

sheet 5 of 6



ANCHOR SCHEDULE																																										
FASTENER SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS																																										
EXISTING STRUCTURE	ANCHOR TYPE	LOAD (W) PSF MAX. (SEE NOTE 1)	2" EDGE DISTANCE															3" EDGE DISTANCE																								
			SPANS UP TO 7'-8" (SEE NOTE 1)					SPANS UP TO 10'-6" (SEE NOTE 1)					SPANS UP TO 13'-4" (SEE NOTE 1)					SPANS UP TO 7'-8" (SEE NOTE 1)					SPANS UP TO 10'-6" (SEE NOTE 1)					SPANS UP TO 13'-4" (SEE NOTE 1)														
			CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE														
			1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5					
MIN. 3,000 PSI CONCRETE	1/4" ITW TAPCON W/ 1-1/4" MIN. EMBEDMENT	48	13	4	9	7	7	13	3	7	5	5	12	5	4	4	13	5	11	8	8	13	3	8	6	6	13	6.5	4	4												
		62	13	3	7	5	5	12	5	4	4	9	4	3	3	13	3	9	6	6.5	13	6.5	4	4	11	5	3	3														
		72	13	6	4	4	10	4	3	3	8	3	3	13	3	7	5	5	12	5	4	4	9	4	3	3																
		110	9	4	3	3	7	3	3	5	3	3	10	5	3	3	7	3	3	6	3	3	3	3	3	3																
		200	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3																
	1/4" RAWL CALK-IN W/ 7/8" EMBEDMENT & 1/4-20 S.S. MACHINE SCREW	48	13	6.5	10	10	8	13	4	7	7	6	13	3	5	6	4	13	8	13	13	12	13	5	11	9	8	13	4	9	7	7										
		62	13	5	8	8	6	13	3	5	6	4	13	4	4	3	13	6	12	10	9	13	4	9	7	6.5	13	3	7	6	5											
		72	13	4	6.5	7	5	13	3	5	5	4	12	4	4	3	13	5	10	9	8	13	4	7	6.5	5	13	3	6	5	4											
		110	13	4	4	3	10	3	3	8	3	3	13	3	7	5	5	13	5	4	3	10	4	3	3	10	4	3	3													
		200	7	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3															
	1/4" ELCO MALE "PANEL MATE" W/ 1-1/4" MIN. EMBEDMENT	48	13	3	7	5	5	12	5	4	3	10	4	3	3	13	3	8	6	6	13	6	4	4	10	4	3	3														
		62	13	5	4	4	9	4	3	3	7	3	3	13	6	4	4	10	4	3	3	8	3	3	8	3	3															
72		11	4	3	3	8	3	3	6.5	3	3	12	5	4	4	8	4	3	3	6.5	3	3	3	3	3																	
110		7	3	3	3	5	3	3	4	3	3	7	3	3	5	3	3	5	3	3	4	3	3	4	3	3																
200		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3																	
HOLLOW CONCRETE BLOCK	1/4" ITW TAPCON W/ 1-1/4" MIN. EMBEDMENT	48	11	5	3	4	8	4	3	3	6	3	3	13	6.5	4	4	9	4	3	3	7	3	3																		
		62	9	4	3	3	6.5	3	3	5	3	3	10	5	3	3	7	3	3	6	3	3	3	3																		
		72	7	3	3	3	5	3	3	4	3	3	8	4	3	3	6.5	3	3	5	3	3	3	3																		
		110	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3																		
	200	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3																		
	1/4" RAWL CALK-IN W/ 7/8" EMBEDMENT & 1/4-20 S.S. MACHINE SCREW	48	13	3	6	5	4	11	4	3	3	8	3	3	13	3	9	6	6.5	13	6.5	4	4	11	5	3	3															
		62	11	4	3	3	8	3	3	6.5	3	3	13	3	7	4	5	10	5	3	3	8	4	3	3																	
		72	10	4	3	3	7	3	3	5	3	3	12	6	4	4	9	4	3	3	7	3	3	3																		
		110	6.5	3	3	3	4	3	3	3	3	3	8	4	3	3	6	3	3	4	3	3	3	3																		
	200	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3																		
	1/4" ELCO MALE "PANEL MATE" W/ 1-1/4" MIN. EMBEDMENT	48	13	3	7	5	5	12	5	4	3	10	4	3	3	13	3	8	6	6	13	6	4	4	10	4	3	3														
		62	13	5	4	4	9	4	3	3	7	3	3	13	6	4	4	10	4	3	3	8	3	3	8	3	3															
72		11	4	3	3	8	3	3	6.5	3	3	12	5	4	4	8	4	3	3	6.5	3	3	3	3	3																	
110		7	3	3	3	5	3	3	4	3	3	7	3	3	5	3	3	5	3	3	4	3	3	4	3	3																
200	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3																		

ANCHOR SCHEDULE																																				
FASTENER SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS																																				
EXISTING STRUCTURE	ANCHOR TYPE	LOAD (W) PSF MAX. (SEE NOTE 1)	3/4" EDGE DISTANCE																																	
			SPANS UP TO 7'-8" (SEE NOTE 1)					SPANS UP TO 10'-6" (SEE NOTE 1)					SPANS UP TO 13'-4" (SEE NOTE 1)																							
			CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE																							
			1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5														
WOOD	1/4" WOOD LAG W/ 1-3/4" MIN. THREAD EMBEDMENT SHEAR PARALLEL TO WOOD GRAIN	48	13	7	9	11	7	13	5	7	8	5	13	4	5	6.5	4	13	4	5	6.5	4	13	4	5	3										
		62	13	5	7	9	6	13	4	5	6.5	4	13	3	4	5	3	13	3	4	5	3	13	3	4	3										
		72	13	4	6	7	5	13	3	4	5	3	13	3	4	5	3	13	3	4	5	3	13	3	4	3										
		110	13	3	4	5	3	11	3	3	3	9	3	3	9	3	3	5	3	3	3	3	3	3	3	3										
		200	8	3	3	3	3	6	3	3	3	5	3	3	5	3	3	3	3	3	3	3	3	3	3	3										
	1/4" WOOD LAG W/ 1-3/4" MIN. THREAD EMBEDMENT SHEAR PERPENDICULAR TO WOOD GRAIN	48	13	7	7	11	6.5	13	5	5	8	4	13	4	4	6.5	3	13	4	4	6.5	3	13	4	4	3										
		62	13	5	6	9	5	13	4	4	6.5	3	13	3	3	5	3	13	3	3	5	3	13	3	3	5										
		72	13	4	5	7	4	13	3	3	5	3	13	3	3	5	3	13	3	3	5	3	13	3	3	5										
		110	13	3	3	5	3	11	3	3	3	9	3	3	9	3	3	3	3	3	3	3	3	3	3	3										
		200	8	3	3	3	3	6	3	3	3	5	3	3	5	3	3	3	3	3	3	3	3	3	3	3										
	5/16" WOOD BUSHING W/ 5/8" MIN. EMBEDMENT & 1/4-20 S.S. MACHINE SCREW	48	12	5	4	4	9	4	3	3	7	3	3	3	3	3	3	3	3	3	3	3	3	3	3											
		62	9	4	3	3	7	3	3	3	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3											
72		8	3	3	3	6	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3												
110	5	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3													
200	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3													

**ANCHOR NOTES:**

- SPANS & LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE SHUTTER SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN TABLE 1, SHEET 5
- ENTER TABLE BASED ON THE EXISTING STRUCTURE MATERIAL, ANCHOR TYPE AND EDGE DISTANCE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN.
- EXISTING STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. REFERENCE ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE AND APPROPRIATE CONNECTION TYPE. SEE CONNECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH OR STUCCO.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, WOOD FRAMING CONDITIONS VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD.
- WHERE LAG SCREWS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2"x4" (MIN.) WOOD STUD. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING. WOOD STUD SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY. LAG SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD.
- MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT), U.O.N.
- DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
- \* DESIGNATES ANCHOR CONDITIONS WHICH ARE REMOVABLE BY REMOVING MACHINE SCREW, NUT OR WASHERED WINGNUT. REMOVABLE ANCHORS ARE REQUIRED FOR DIRECT MOUNT @ 6-1/2" OR 13" O.C. MAX. SPACING ONLY. SPACINGS SHALL NOT EXCEED VALUE SPECIFIED IN ANCHOR SCHEDULE. LOCATE FASTENER IN NARROW PORTION OF KEYHOLE SLOT.

**PRODUCT RENEWED**  
 ACCEPTANCE No. 00-0721.05  
 EXPIRATION DATE 02/26/2004  
 By Heung A. Moh  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE  
 SOUTH FLORIDA BUILDING CODE  
 DATE FEBRUARY 26 1998  
 BY Heung A. Moh  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 97-0318.02

**KNEZEVICH & ASSOCIATES, INC.**  
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revisions	col	date	by	description
	1	03/14/97	VJK	GENERAL REVISION
	2	10/23/98	VJK	COUNTY COMMENTS

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 JAN 26 199