



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

United Enertech
3101 S Orchard Knob Avenue
Chattanooga ,TN 37407

Your application for Notice of Acceptance (NOA) of:

DCFL - D - 4 Louver System

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.: 01-0904.02
EXPIRES: 01/17/2006

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: 01/17/2002

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

1. SCOPE

- 1.1** This approve extruded aluminum louvers, as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code (SFBC), 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

- 2.1** The **FL-D-4 Louver System** and its components shall be constructed in strict compliance with the following documents: Drawing No. 01-132, titled "Aluminum Louver System Model FL-D-4," prepared by Tilteco Inc., dated 05/22/01, revised on 12/04/01. 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** All permanent set components, included but not limited to embedded anchor bolts, metal shields, headers and sills, must be protected against corrosion, contamination and damage at all time.
- 3.2** Units with dimensions equal to or smaller than those shown in the approved drawings shall qualify under this approval as long as all parts and components are exactly as described in the approved drawings.

4. INSTALLATION

- 4.1** The louvers shall be installed in strict compliance with the approved drawings.
- 4.2** The installation of this product **will not** require a hurricane protection system.

5. LABELING

- 5.1** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and 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.

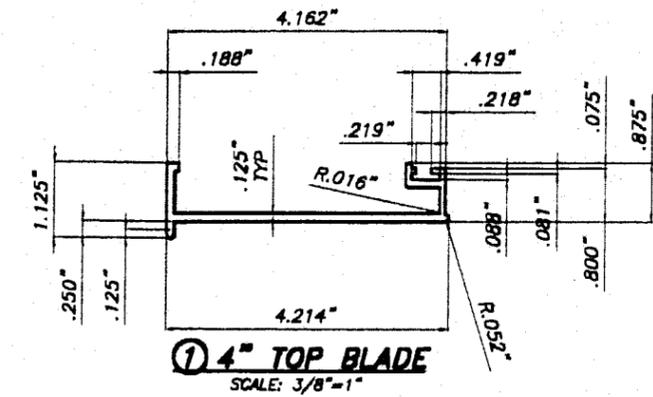

Candido Font PE., Senior Product Control Examiner
Product Control Division

NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

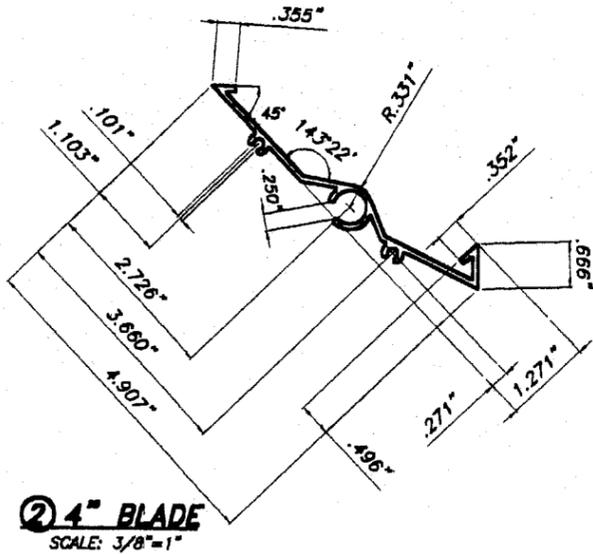
1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approval", 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.



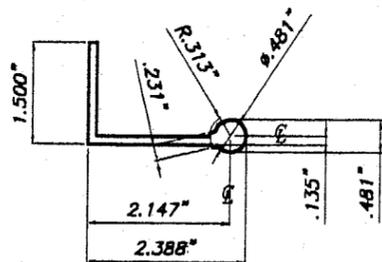
Candido Font PE., Senior Product Control Examiner
Product Control Division



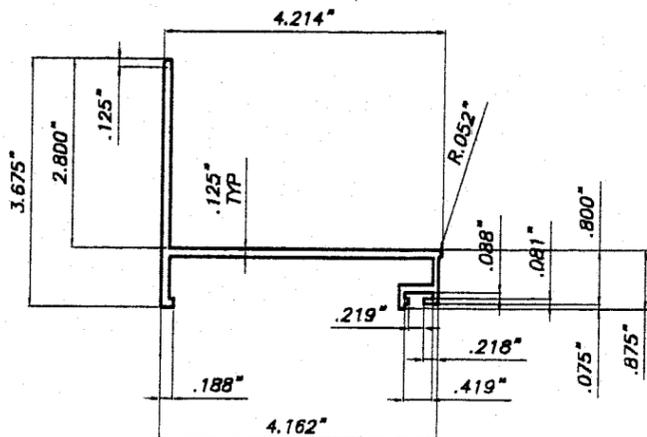
① 4" TOP BLADE
SCALE: 3/8"=1"



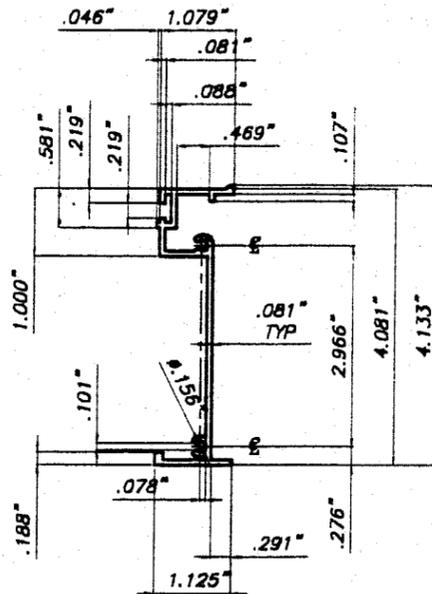
② 4" BLADE
SCALE: 3/8"=1"



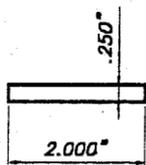
③ 4" BLADE SUPPORT
SCALE: 3/8"=1"



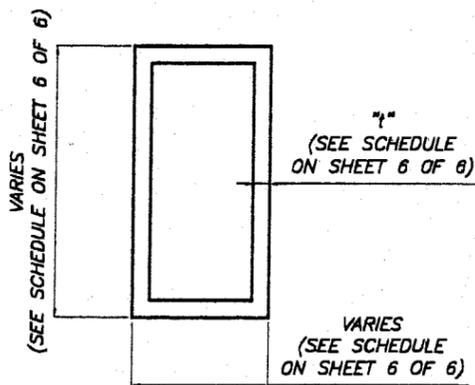
④ 4" BOTTOM BLADE
SCALE: 3/8"=1"



⑤ 4" SIDE JAMB
SCALE: 3/8"=1"



⑥ LOUVER IMPACT STRAP
SCALE: 3/8"=1"



⑦ MULLION
6063-T6 ALLOY
SCALE: 3/8"=1"

COMPONENTS
SCALE: 3/8"=1"

GENERAL NOTES:

1. ALUMINUM LOUVER SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE MIAMI-DADE COUNTY, 1994 EDITION OF THE SOUTH FLORIDA BUILDING CODE. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 6 OF ASCE 7-88, WITH 110 m.p.h. BASIC WIND SPEED. ALUMINUM LOUVER SYSTEM ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTIONS 2315 AND 2314 RESPECTIVELY OF THE ABOVE MENTIONED CODE. AS PER AMERICAN TESTING LAB REPORT # 0604.01-01.

2. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T5 ALLOY. (UNLESS OTHERWISE NOTED)

3. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES W/50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH. THRU BOLTS AT MULLION TO BE ASTM A-307 GALVANIZED STEEL OR AISI 304 SERIES STAINLESS STEEL.

4. ALL ALUMINUM COMPONENTS FRAMING SHALL BE WELDED IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY LATEST EDITION REGULATIONS USE CERTIFIED WELDERS. USE ER-5356 ELECTRODES.

5. ANCHORS TO CONCRETE/ MASONRY SHALL BE AS FOLLOWS:

NAME	DIAMETER	MIN. PENETRATION	MIN. EDGE DISTANCE (ED)	MANUFACTURER
TAPCONS	1/4"	1 3/4"	3"	ITW/BUILDEX OR ELCO TEXTRON
POWER BOLTS	SEE SPECIFICATIONS ON SHEET 6 OF 6			POWER RAWL FASTENING, INC.

6. THIS LOUVER SHALL BE ONLY INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, AND THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS OR SUPPLIES.

7. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE LOUVER SYSTEM IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE.

8. LOUVER'S MANUFACTURER STAMP SHALL BE PLACED ON THE EXPOSED SURFACE OF LOUVER BLADE (COMPONENT 2). ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABEL SHALL READ AS FOLLOWS: UNITED ENERTECH, INC. CHATTANOOGA, TN. MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.

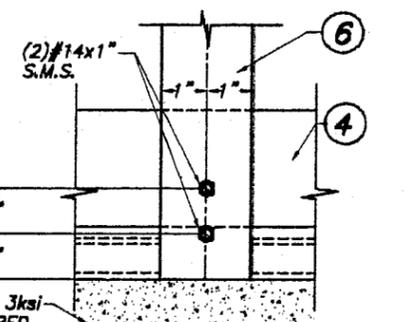
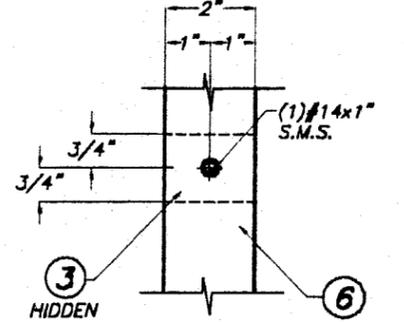
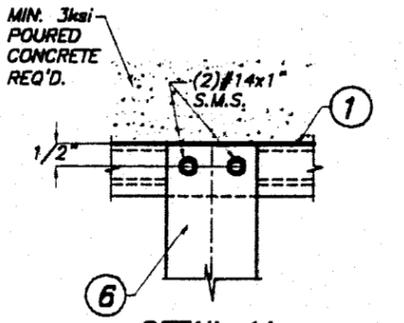
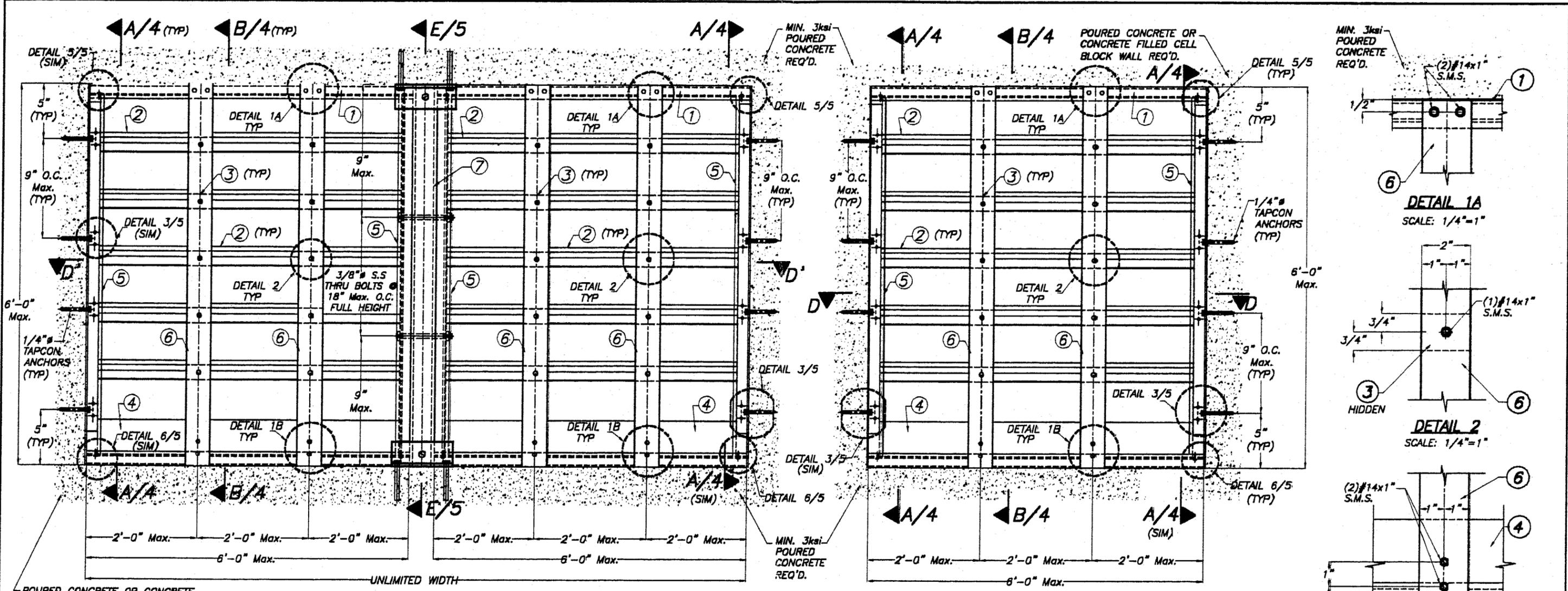
**MAXIMUM DESIGN PRESSURE RATING
+150.0, -150.0 psf.
LARGE MISSILE IMPACT RESISTANCE.**

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE **JAN 17 2002**
BY
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-0904.02

MIAMI-DADE COUNTY

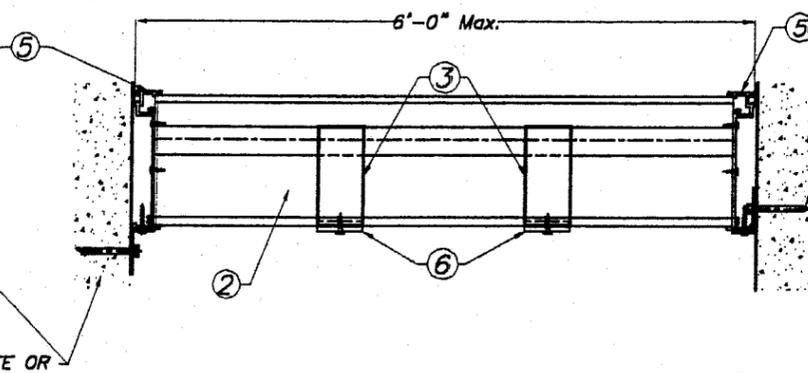
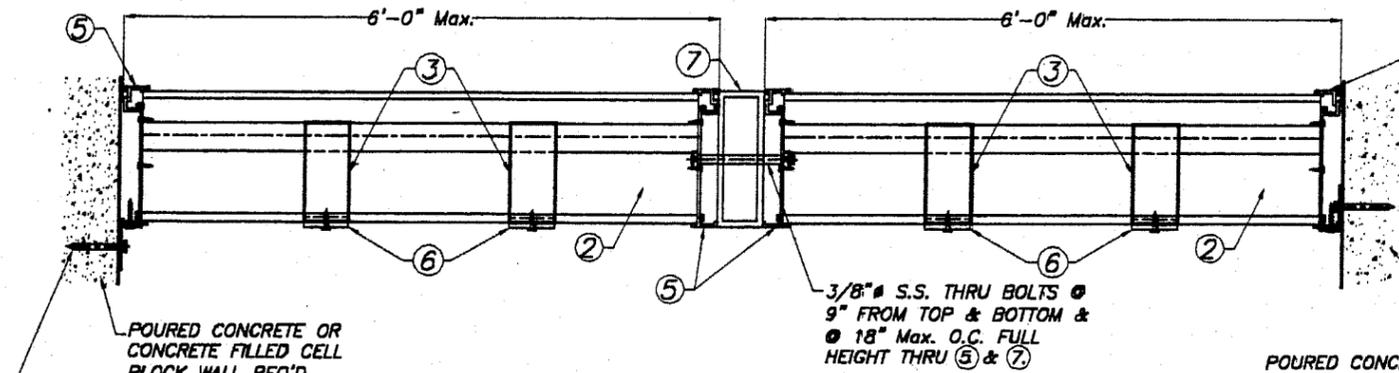
TILECO Inc.		ALUMINUM LOUVER SYSTEM MODEL FL-D-4		AS SHOWN SCALE	
TILLIT TESTING & ENGINEERING COMPANY 6595 N.W. 36th St., Ste. 217, VERO BEACH, FL 33168 Phone: (305)871-1330 Fax: (305)871-1331		UNITED ENERTECH, INC. 3101 SOUTH ORCHARD KNOB AVE. CHATTANOOGA, TN, 37407		5/22/01 DATE	
EB-0006719 WALTER A. TILLIT, Jr., P. E. FLORIDA Lic. # 44167				01-132 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	12/6/01	3		
2			4		
					SHEET 1 OF 6

Signature
12/5/01



MULTIPLE UNITS HORIZONTALLY EXPANDED (INSIDE ELEVATION)
SCALE: 1/8"=1"

SINGLE UNIT (INSIDE ELEVATION)
SCALE: 1/8"=1"



1/4" # TAPCON ANCHORS AT 5" FROM TOP & BOTTOM & @ 9" O.C. MAX. FULL HEIGHT (TYP).

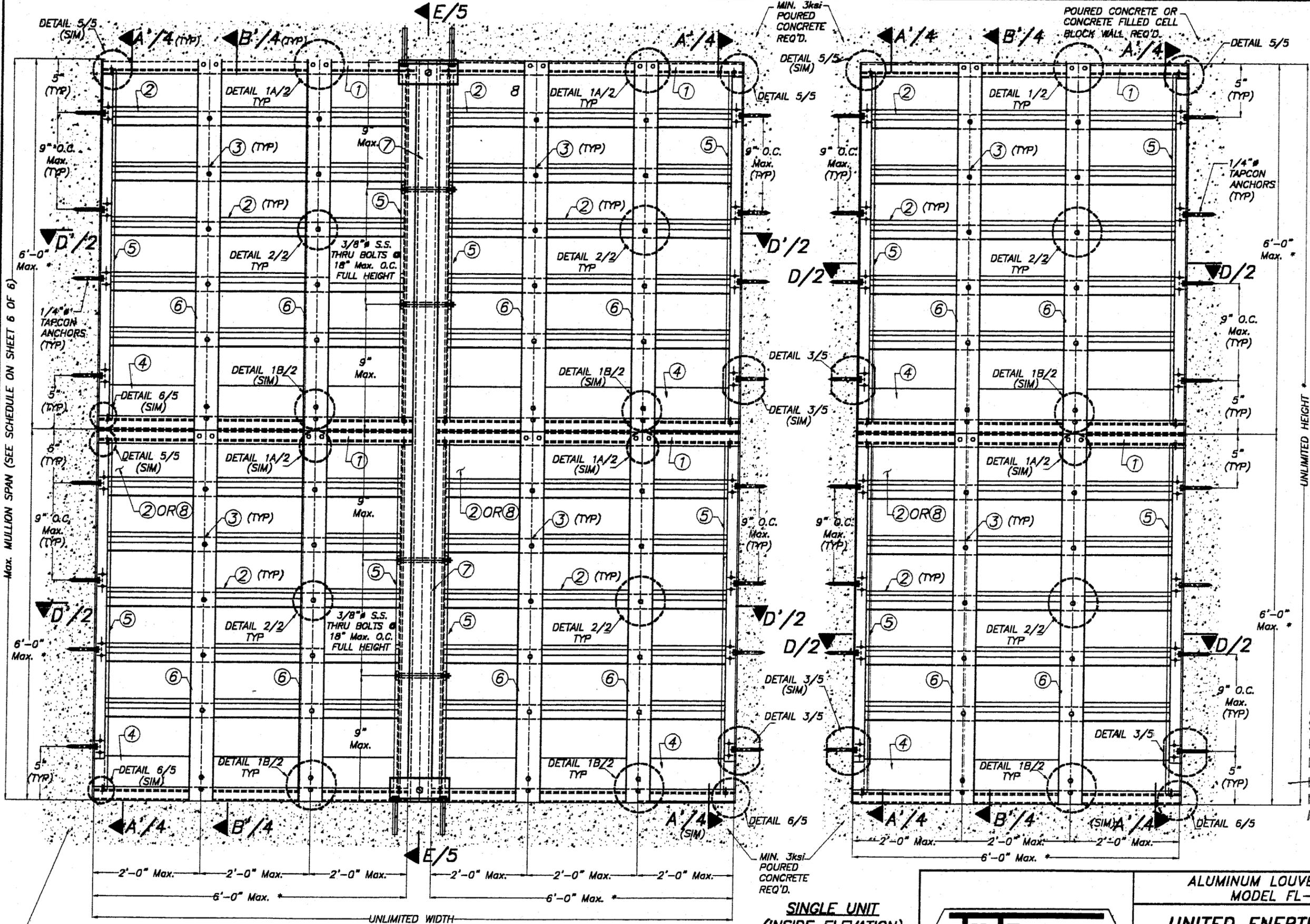
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE **JAN 17 2002**
BY *[Signature]*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. **01-0904.02**

MIAMI-DADE COUNTY

1/4" # TAPCON ANCHORS AT 5" FROM TOP & BOTTOM & @ 9" O.C. MAX. FULL HEIGHT (TYP).

[Signature]
1/25/01

<p>TILECO Inc. TILLIT TESTING & ENGINEERING COMPANY 6585 N.W. 38th St., Ste. 217, VIRGINIA GARDENS, FL 33186 Phone: (305)871-1530 Fax: (305)871-1531 EB-0006719 WALTER A. TILLIT Jr. P. E. FLORIDA Lic. # 44167</p>		<p>ALUMINUM LOUVER SYSTEM MODEL FL-D-4</p>		<p>AS SHOWN SCALE</p>	
		<p>UNITED ENERTECH, INC. 3101 SOUTH ORCHARD KNOB AVE. CHATTAHOOGA, TN, 37407</p>		<p>5/22/01 DATE</p>	
<p>12/4/01 GENERAL</p>		<p>3</p>		<p>01-132 DRAWING No</p>	
<p>2</p>		<p>4</p>		<p>SHEET 2 OF 8</p>	



* NUMBER OF LOUVER PANEL UNITS NEEDED TO ACHIEVE THE OPENING HEIGHT AND WIDTH MAY VARY HOWEVER MAXIMUM UNIT HEIGHT AND WIDTH SHALL NO EXCEED 6'-0".

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE **JAN 17 2002**
 BY *[Signature]*
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 01-0904.02

MULTIPLE UNITS HORIZONTALLY & VERTICALLY EXPANDED (INSIDE ELEVATION)

SCALE: 1/8"=1"

SINGLE UNIT (INSIDE ELEVATION)
 SCALE: 1/8"=1"

[Signature]
 1/25/01

TILECO INC.
 TILLIT TESTING & ENGINEERING COMPANY
 6595 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33186
 Phone : (305)871-1330 Fax : (305)871-1331
 EB-0006719
 WALTER A. TILLIT Jr. P. E.
 FLORIDA Lic. # 44187

ALUMINUM LOUVER SYSTEM MODEL FL-D-4
UNITED ENERTECH, INC.
 3101 SOUTH ORCHARD KNOB AVE.
 CHATTANOOGA, TN, 37407

MIAMI-DADE COUNTY

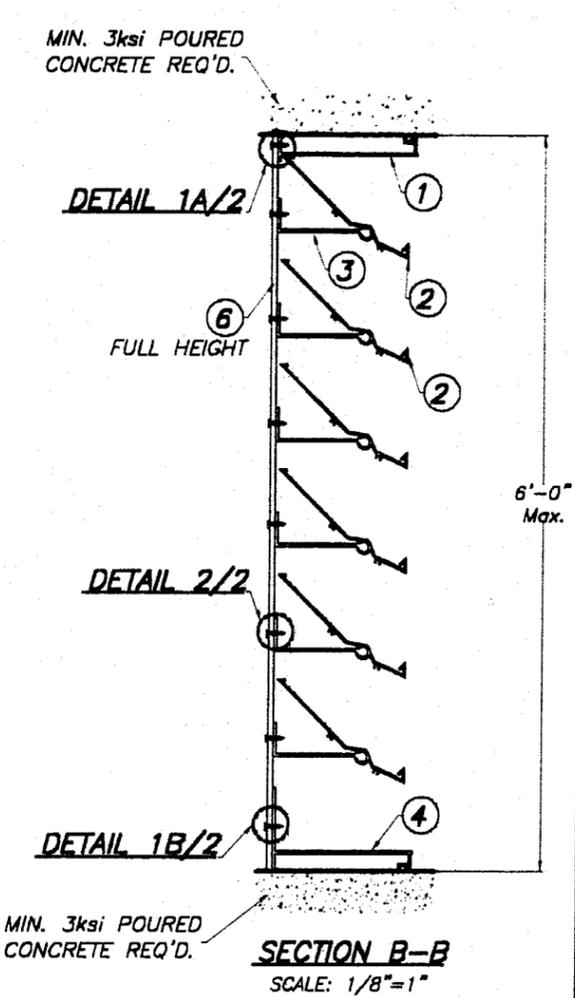
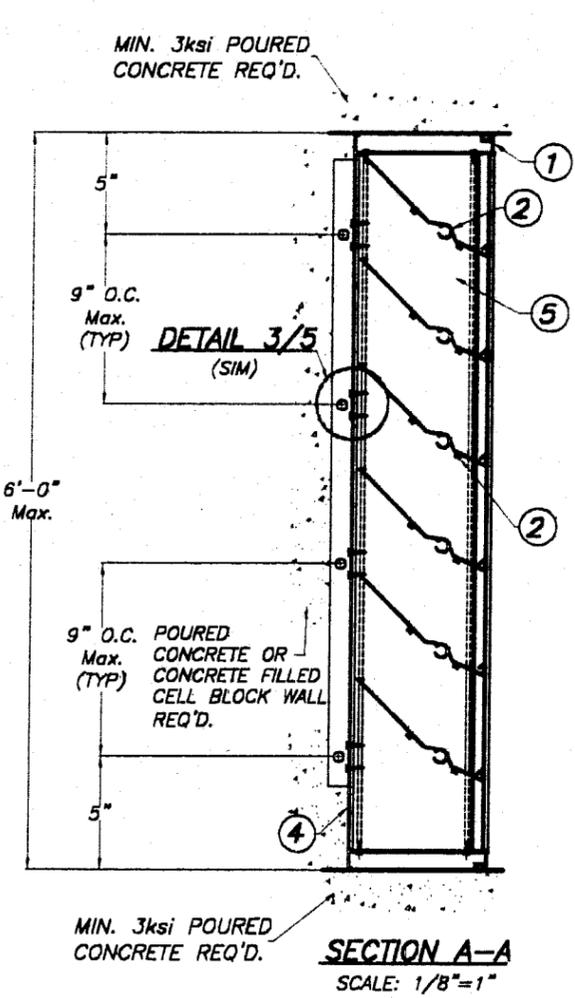
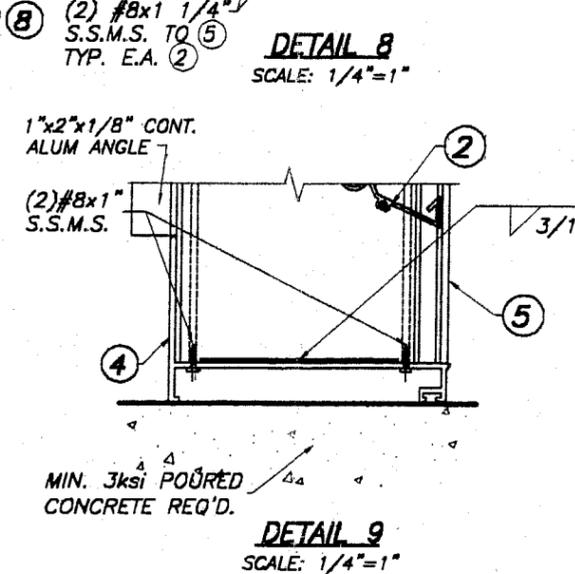
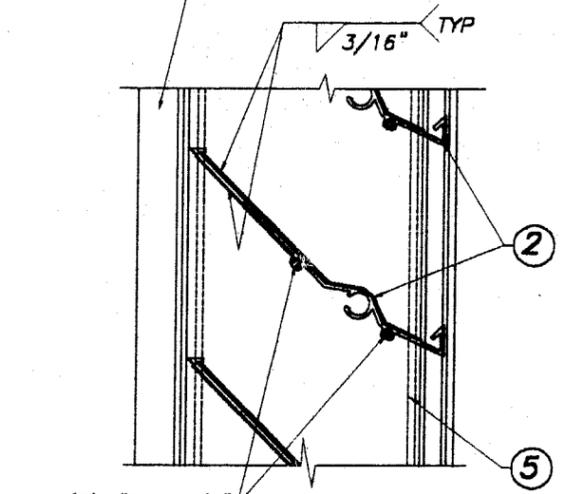
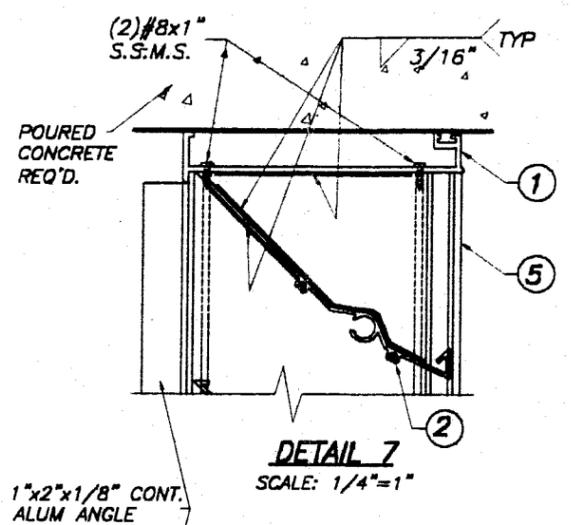
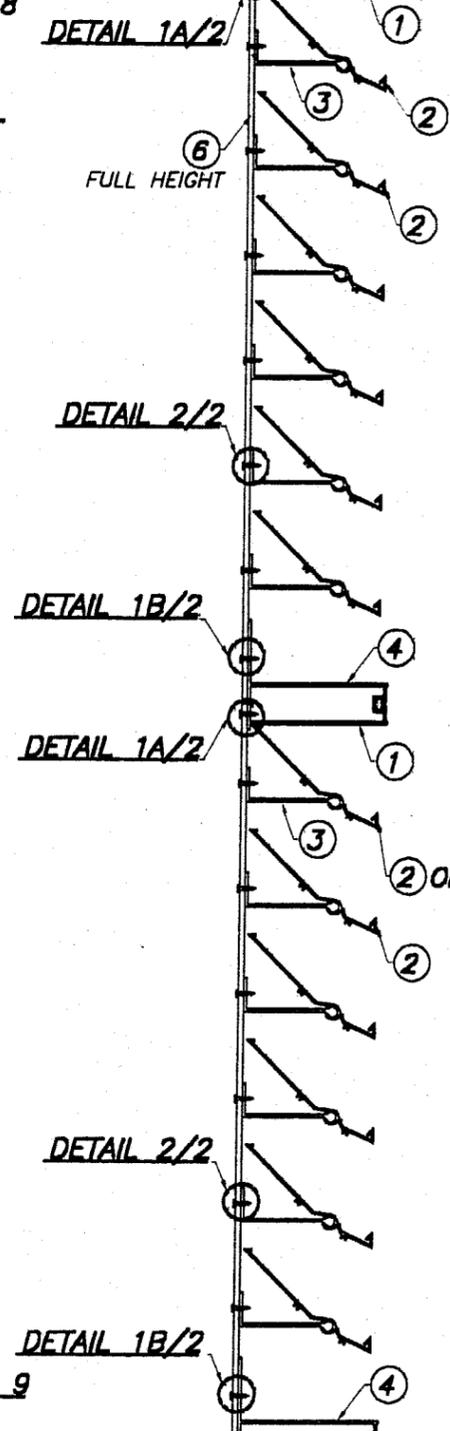
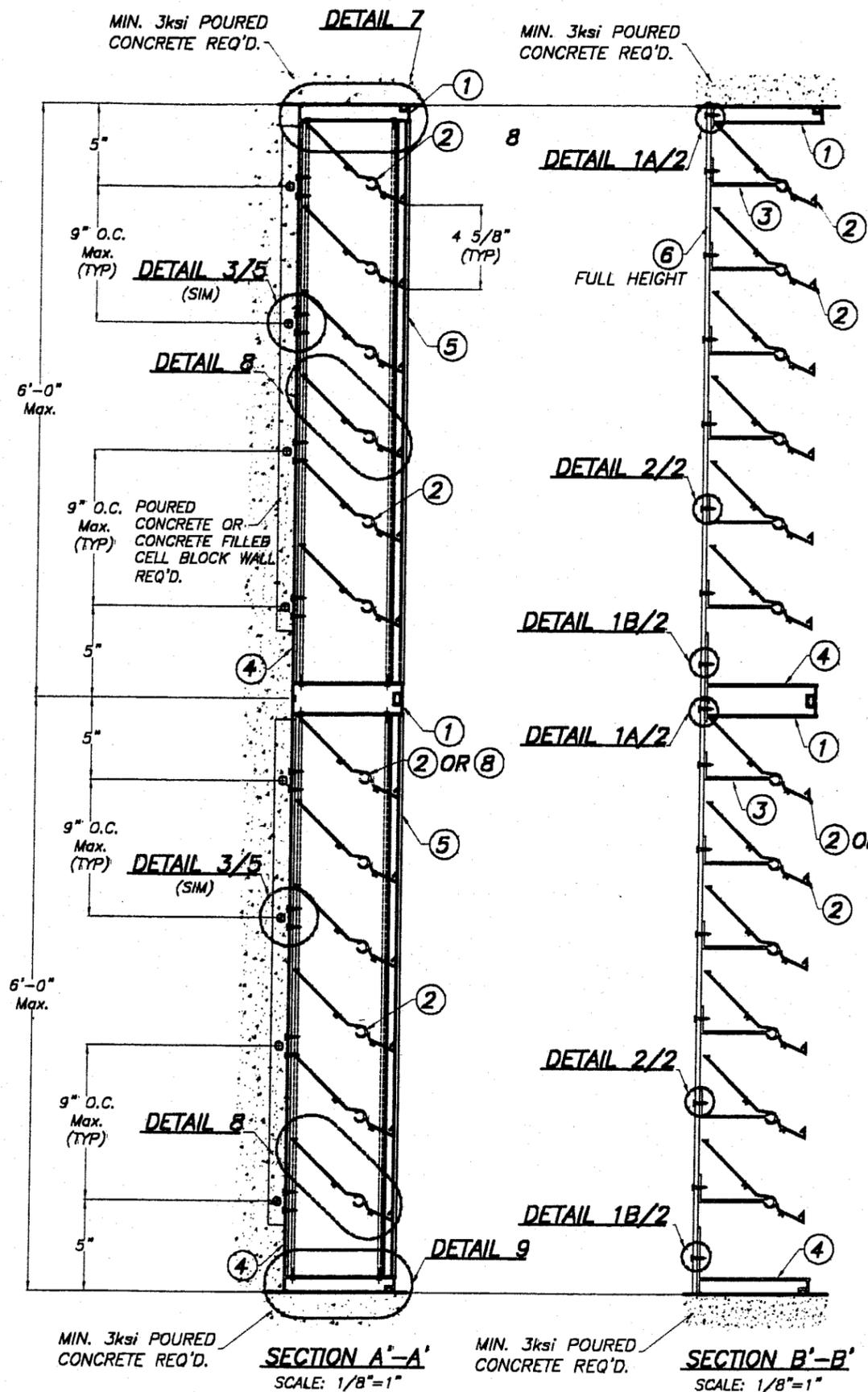
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2	-	-	4	-	-

AS SHOWN SCALE
 5/22/01 DATE
 01-132 DRAWING No
 SHEET 3 OF 6

Max. MULLION SPAN (SEE SCHEDULE ON SHEET 6 OF 6)

UNLIMITED HEIGHT *

UNLIMITED WIDTH



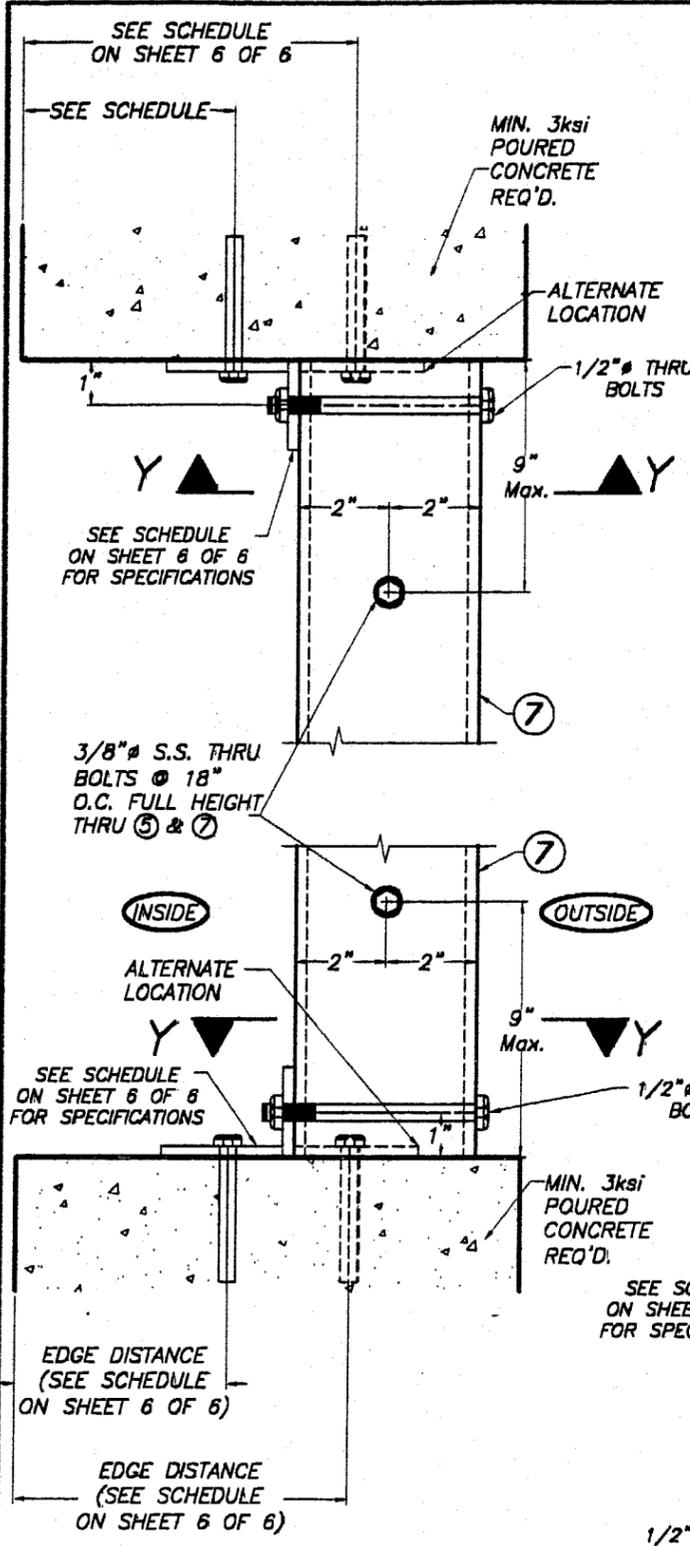
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
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 BY
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 BUILDING CODE COMPLIANCE OFFICE
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MIAMI-DADE COUNTY

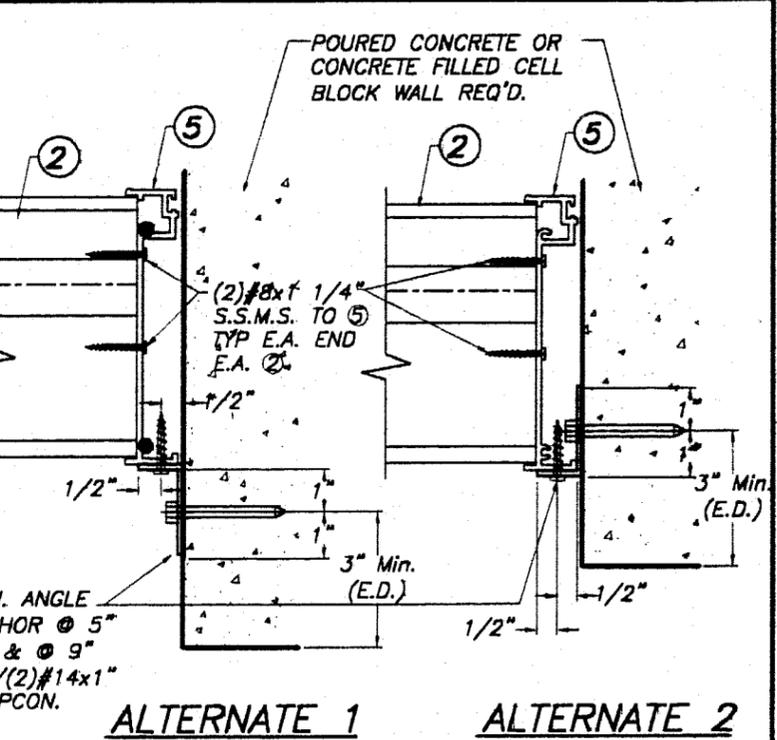
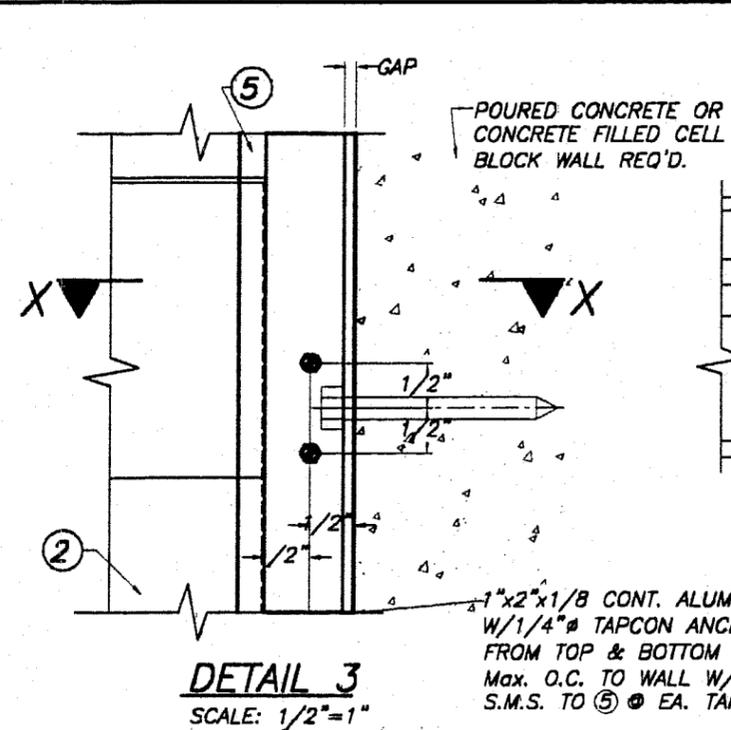
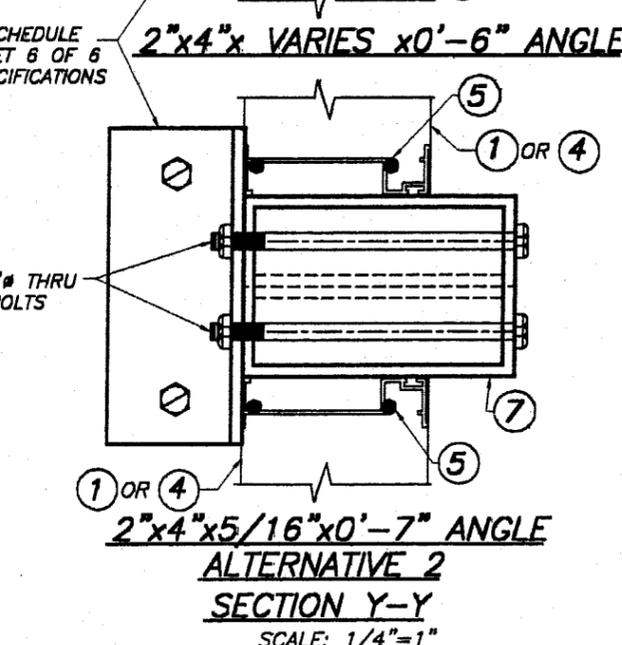
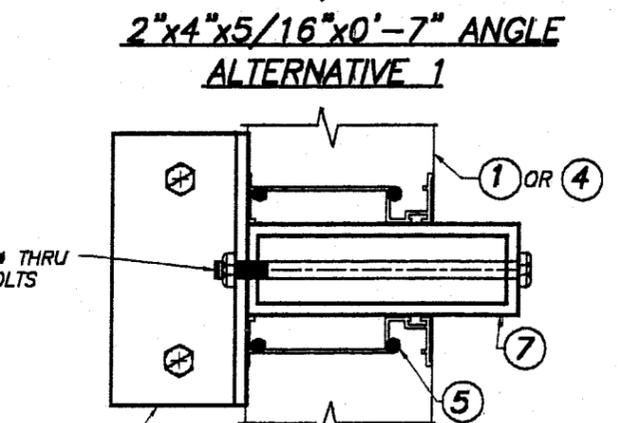
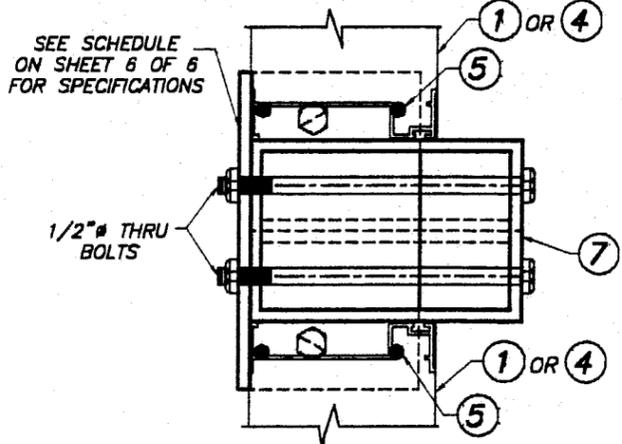
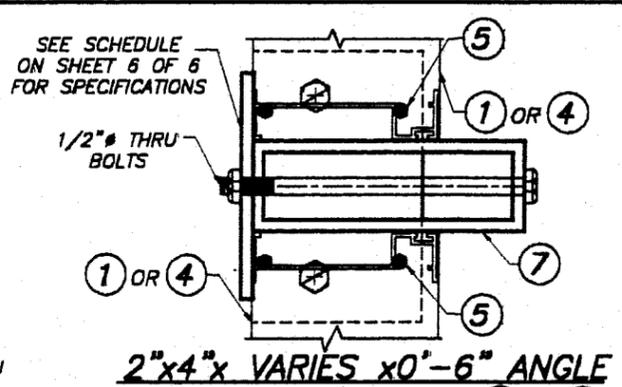
1/25/02

 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6585 N.W. 38th St., Ste. 217, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 EB-0006719 WALTER A. TILLIT JR., P. E. FLORIDA Lic. # 44167		ALUMINUM LOUVER SYSTEM MODEL FL-D-4		AS SHOWN SCALE	
		UNITED ENERTECH, INC. 3101 SOUTH ORCHARD KNOB AVE. CHATTANOOGA, TN, 37407		5/22/01 DATE	
				01-132 DRAWING No	
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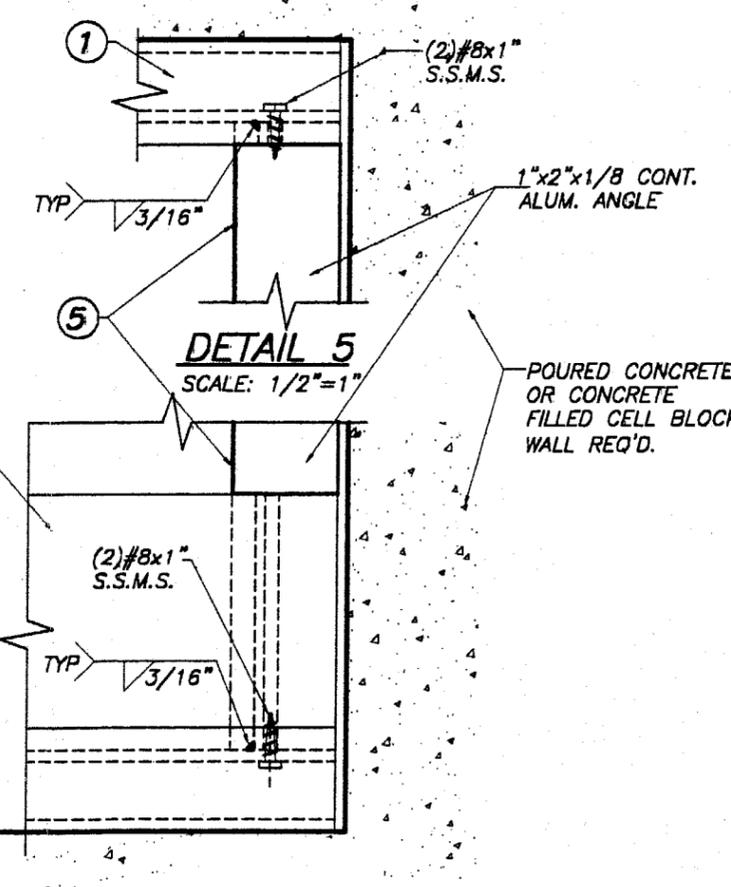
SHEET 4 OF 6



SECTION E-E
SCALE: 1/4"=1"



SECTION X-X
SCALE: 1/4"=1"



DETAIL 6
SCALE: 1/2"=1"

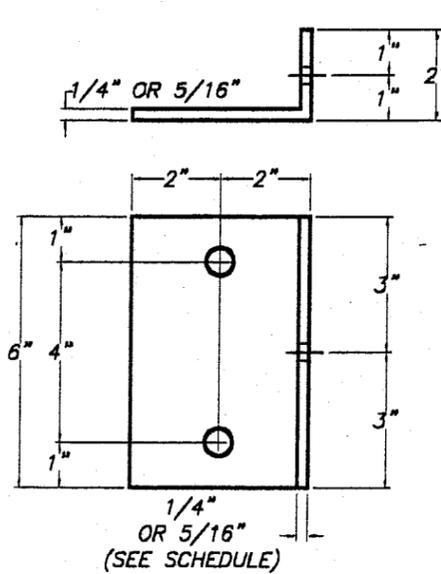
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE **JAN 17 2002**
BY *[Signature]*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 01-090402

MIAMI-DADE COUNTY

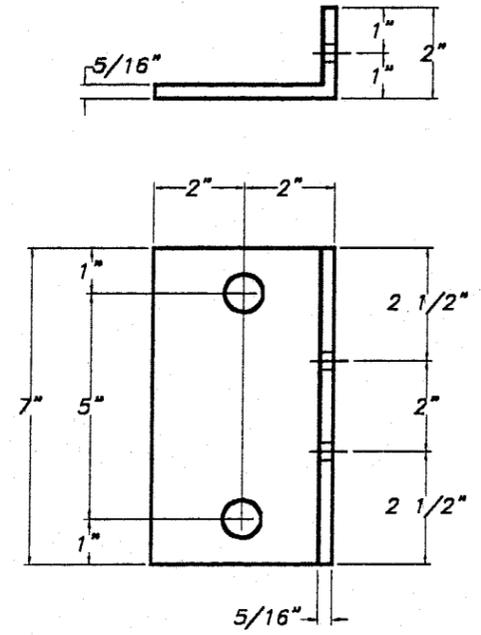
<p>TILECO INC. TILLIT TESTING & ENGINEERING COMPANY 6595 N.W. 38th. St., Ste. 217, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 EB-0006719 WALTER A. TILLIT Jr., P. E. FLORIDA Lic. # 44187</p>		<p>ALUMINUM LOUVER SYSTEM MODEL FL-D-4</p>		AS SHOWN SCALE					
		<p>UNITED ENERTECH, INC. 3101 SOUTH ORCHARD KNOB AVE. CHATTANOOGA, TN, 37407</p>		5/22/01 DATE					
<p>12/5/01</p>		<p>1</p>	<p>GENERAL</p>	<p>12/4/01</p>	<p>3</p>	<p>2</p>	<p>4</p>	<p>101-132</p>	<p>DRAWING No</p>
								<p>SHEET 5 OF 6</p>	

**MAXIMUM MULLION HEIGHT (FT) AND CORRESPONDING MULLION SIZE W/
CONNECTION SCHEDULE.**

Max. MULLION HEIGHT @ 150 psf & 6'-0" Max. CLEAR SPACING BETWEEN MULLIONS	Min. MULLION SIZE REQ'D.	REQUIREMENTS INSTALLATION FOR MULLION CONNECTION				
		ANGLE	TRAPPED			THRU BOLT
			ANCHORS SIZE	MIN. EMBEDMENT (IN)	MIN. EDGE DISTANCE (E.D.)	
6'-0"	2"x4"x1/4"	2"x4"x1/4"x0'-6"	(2) 1/2" ϕ POWER BOLTS	3"	4"	(1) 1/2" ϕ
6'-0"	2"x6"x1/4"	2"x4"x1/4"x0'-6"	(2) 1/2" ϕ POWER BOLTS	3"	4"	(1) 1/2" ϕ
7'-11"	2"x6"x1/4"	2"x4"x5/16"x0'-6"	(2) 1/2" ϕ POWER BOLTS	3"	6"	(1) 1/2" ϕ
9'-2"	4"x6"x1/4" OR (2) 2"x6"x1/4"	2"x4"x5/16"x0'-7"	(2) 5/8" ϕ POWER BOLTS	4"	7 1/2"	(2) 1/2" ϕ
12'-0"	4"x8"x1/4"	2"x4"x5/16"x0'-7"	(2) 5/8" ϕ POWER BOLTS	4"	7 1/2"	(2) 1/2" ϕ



**2"x4"x1/4"x0'-6" OR
2"x4"x5/16"x0'-6"
ALUM. ANGLE**



**2"x4"x5/16"x0'-7"
ALUM. ANGLE**

David
1/2/01

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE **JAN 17 2002**
BY *[Signature]*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. **01-0904.02**
MIAMI-DADE COUNTY

 TILTECO inc. <small>TILLIT TESTING & ENGINEERING COMPANY 6595 N.W. 36th. St., Ste. 217, VIRGINIA GARDENS, FL 33186 Phone : (305)871-1530 . Fax : (305)871-1531 EB-0006719 WALTER A. TILLIT Jr. P. E. FLORIDA Lic. # 44167</small>		ALUMINUM LOUVER SYSTEM MODEL FL-D-4		AS SHOWN SCALE	
		UNITED ENERTECH, INC. <small>3101 SOUTH ORCHARD KNOB AVE. CHATTANOOGA, TN, 37407</small>		5/22/01 DATE	
				01-132 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	GENERAL	12/4/01	3	-	-
2	-	-	4	-	-

SHEET 5 OF 8