

140 WEST FLAGLER STREET, SUITE 1107 MIAMI, FLORIDA 33130-1563 (305) 375-2902 FAX (305) 375-2908

www.miamidade.gov/buildingcode

NOTICE OF ACCEPTANCE (NOA)

Metallum Enterprises, Inc. 7500 NW 68 Street Miami, Florida 33166

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: Aluminum Roof Stand Frame Support for A/C Condensing Units.

APPROVAL DOCUMENT: Drawing No. 06-MEE-0002, titled "Aluminum A/C Stand", sheets 1 through 4 of 4, prepared by Engineering Express, dated March 09, 2007, last revision dated February 03, 2009, signed and sealed by Frank L. Bennardo, P.E., on May 13, 2010, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by Miami-Dade County Product Control Division

MISSILE IMPACT RATING: None

LABELING: Each stand frame 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 NOA # 07-0322.13 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.

MIAMI-DADE COUNTY APPROVED

Hely A. Melon 06/02/2010 NOA No. 09-0720.01 Expiration Date: June 28, 2012

Approval Date: June 02, 2010

Page 1

Metallum Enterprises, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 07-0322.13

A. DRAWINGS:

1. Drawing No 06-MEE-0002, titled "Aluminum A/C Stand", sheets 1 through 3 of 3, prepared by Engineering Express, dated 03/09/07, signed and sealed by Frank L. Bennardo, P.E.

B. TESTS:

1. None.

C. CALCULATIONS:

1. Calculation titled "Aluminum A/C Stands Calculations", dated 03/14/2007, sheets 1 through 11 of 11, signed and sealed by Frank L. Bennardo, P.E.

D. QUALITY ASSURANCE:

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

E. MATERIAL CERTIFICATIONS:

1. None.

F. STATEMENTS:

- 1. Review Request Letter issued by Metallum Enterprises, Inc., dated June 09, 2007, signed by Victor Toyos.
- 2. Code Compliance Letter issued by Engineering Express, dated March 16, 2007, signed and sealed by Frank L. Bennardo, P.E.
- 3. No financial Interest Letter issued by Engineering Express, dated March 16, 2007, signed and sealed by Frank L. Bennardo, P.E.

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS:

1. Drawing No. 06-MEE-0002, titled "Aluminum A/C Stand", sheets 1 through 4 of 4, prepared by Engineering Express, dated March 09, 2007, last revision dated February 03, 2009, signed and sealed by Frank L. Bennardo, P.E., on May 13, 2010.

B. TESTS:

1. None.

Afelmy A. Makar, P.E., M.S. Senior Product Control Examiner

enior Product Control Examiner NOA No. 09-0720.01

Expiration Date: June 28, 2012 Approval Date: June 02, 2010

Metallum Enterprises, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

C. CALCULATIONS:

1. Calculation titled "Aluminum A/C Stands Calculations", dated 03/29/2010, sheets 1 through 122 of 122, signed and sealed by Frank L. Bennardo, P.E.

D. QUALITY ASSURANCE:

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

E. MATERIAL CERTIFICATIONS:

1. None.

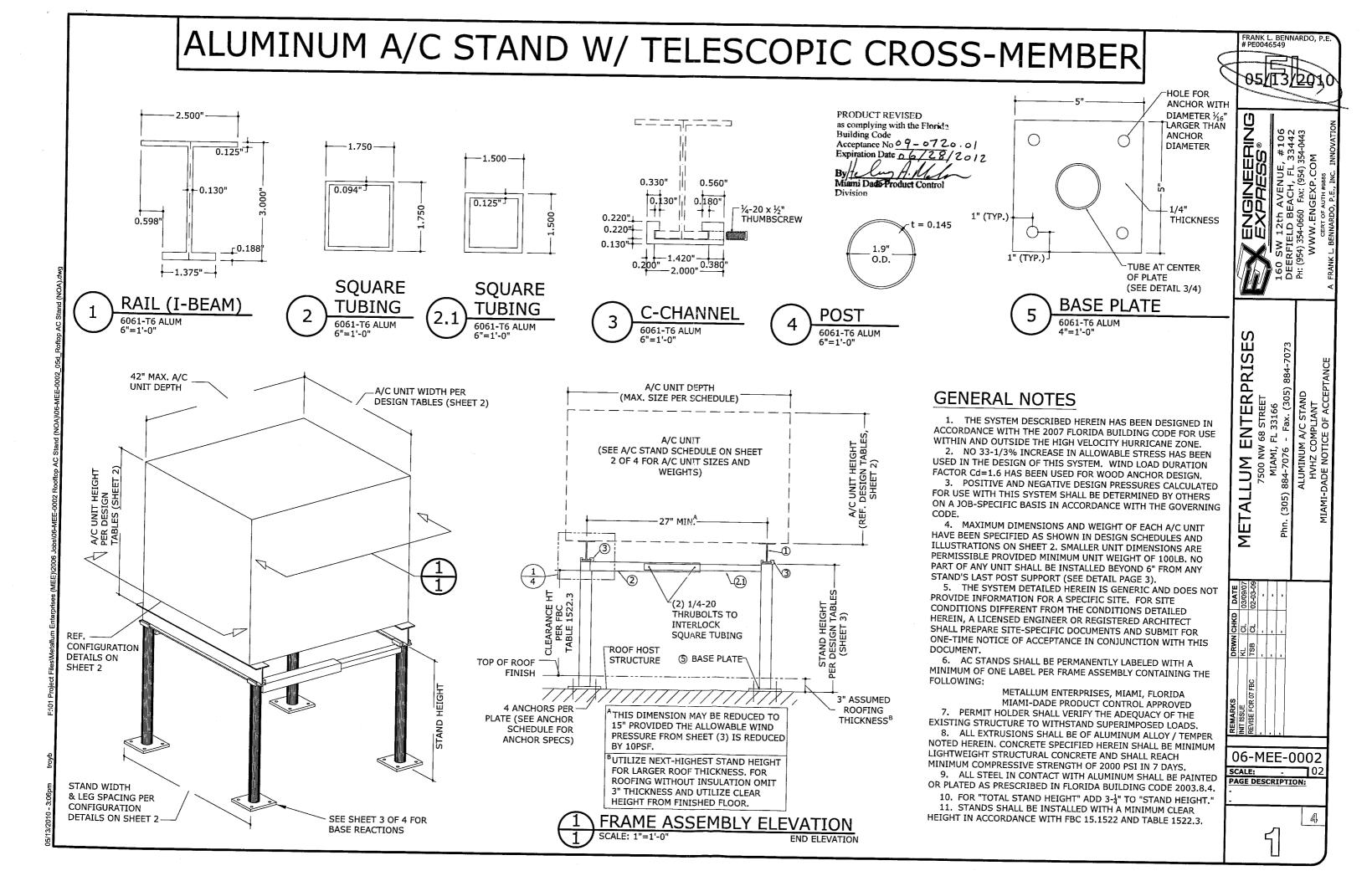
F. STATEMENTS:

1. Code Compliance Letter with the FBC 2007 issued by Engineering Express, dated March 29, 2010, signed and sealed by Frank L. Bennardo, P.E.

Hermy A. Makar, P.E., M.S. Senior Product Control Examiner

NOA No. 09-0720.01

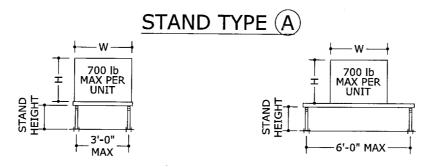
Expiration Date: June 28, 2012 Approval Date: June 02, 2010

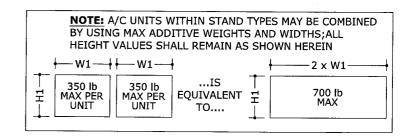


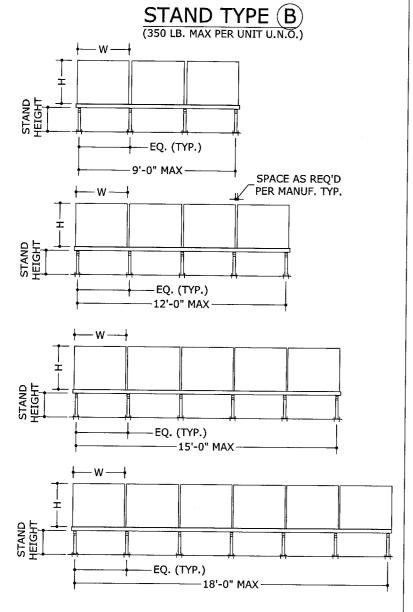
STAND AND UNIT CONFIGURATIONS (SEE SHEET 3 FOR ASSOCIATED DESIGN SCHEDULE)

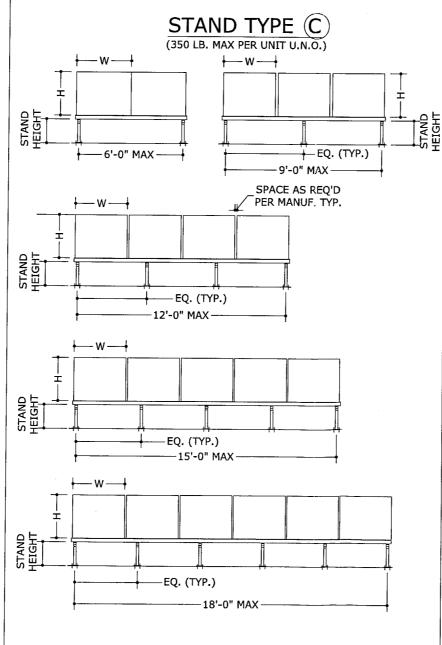
(CONFIGURATIONS ARE SHOWN FOR ILLUSTRATION ONLY; SPECIFIC ELEVATIONS MAY VARY)

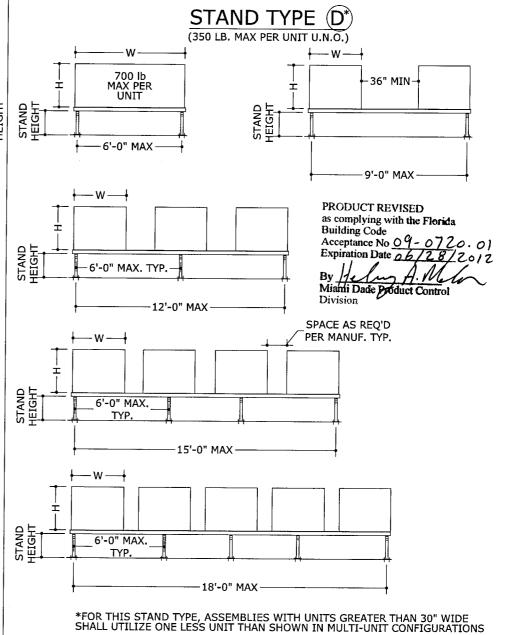
NOTE: USE ANY COMBINATION OF UNITS TO FIT STAND PER MANUFACTURER'S REQUIREMENTS. THE NUMBER OF UNITS MAY BE LESS THAN SHOWN, BUT MAY NOT EXCEED CONFIGURATION LIMITS AS SHOWN. WHEN USING MULTIPLE SIZES ON ONE STAND, UTILIZE MAXIMUM UNIT SIZE TO DETERMINE ALLOWABLE DESIGN FROM TABLES ON SHEET 3.











METALLUM ENTERPRISES CHKD 06-MEE-0002

SCALE: - 02
PAGE DESCRIPTION:

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DESIGN SCHEDULES

DESIGN SCHEDULE 1

(TYPICAL INSTALLATION OVER VARIOUS SUBSTRATES - SEE ANCHOR TYPES):

UNIT DIMENSIONS		MAX	MIN CLEARANCE HEIGHT	ALLOWABLE WIND PRESSURES								MAX. BASE	MAX. BASE	MAX. BASE	MAX. BASE
W	H	STAND HEIGHT	(SEE GEN NOTE #11)	STAND TYPE (A)		STAND TYPE (B)		STAND TYPE © 3 4 1 2		STAND TYPE (D) [3] [4] [1] [2]		MOMENT (M)	SHEAR (V)	UPLIFT (T)	GRAVITY (C)
24 in	24 in		18 in	150.0 PSF	134.1 PSF	150.0 PSF	84.6 PSF	123.5 PSF	68.1 PSF	123.5 PSF	68.1 PSF	267 LB-FT	247 LB	317 LB	542 LB
30 in	30 in	18 in		150.0 PSF	84.2 PSF	98.5 PSF	53.1 PSF	78.7 PSF	42.8 PSF	78.7 PSF	42.8 PSF	266 LB-FT	246 LB	380 LB	595 LB
35.9 in	24 in] 10		150.0 PSF	89.6 PSF	103.3 PSF	56.5 PSF	82.6 PSF	45.5 PSF	103.3 PSF	56.5 PSF	267 LB-FT	247 LB	327 LB	542 LB
35.9 in	36 in			109.5 PSF	57.6 PSF	68.3 PSF	36.3 PSF	54.6 PSF	29.2 PSF	68,3 PSF	36,3 PSF	265 LB-FT	246 LB	449 LB	648 LB
24 in	24 in		24 in	150.0 PSF	112.1 PSF	124.7 PSF	70.7 PSF	99.7 PSF	56.9 PSF	99.7 PSF	56.9 PSF	268 LB-FT	200 LB	299 LB	513 LB
36 in	24 in			133.3 PSF	74.7 PSF	83.2 PSF	47.2 PSF	66.5 PSF	38.0 PSF	83.2 PSF	47.2 PSF	268 LB-FT	200 LB	314 LB	513 LB
30 in	30 in	24 in		127.5 PSF	70.6 PSF	79.6 PSF	44.6 PSF	63.6 PSF	35.9 PSF	63.6 PSF	35.9 PSF	267 LB-FT	199 LB	358 LB	556 LB
36 in	36 in	24 111	24 111	88.3 PSF	48.3 PSF	55.1 PSF	30.5 PSF	44.0 PSF		55.1 PSF	30.5 PSF	266 LB-FT	199 LB	400 LB	599 LB
42 in	42 in			64.6 PSF	35.0 PSF	40.3 PSF		32.2 PSF		40.3 PSF		265 LB-FT	198 LB	443 LB	641 LB
37 in	54 in			56.7 PSF	30.0 PSF	35.3 PSF		28,2 PSF		35.3 PSF		263 LB-FT		527 LB	725 LB
24 in	24 in		· •	150.0 PSF	96.5 PSF	104.8 PSF	60.9 PSF	83.7 PSF	49.0 PSF	83.7 PSF	49.0 PSF	268 LB-FT	168 LB	281 LB	495 LB
36 in	24 in	32 in		112.0 PSF	64.3 PSF	69.9 PSF	38.8 PSF	55.8 PSF	32.7 PSF	69.9 PSF	40,6 PSF	268 LB-FT	168 LB	296 LB	495 LB
30 in	30 in			107.2 PSF	60.9 PSF	66.9 PSF	38.4 PSF	53.4 PSF	30.9 PSF	53.4 PSF	30.9 PSF		167 LB	333 LB	531 LB
36 in	36 in	3∠ I⊓		74.2 PSF	41.8 PSF	46.3 PSF	26.3 PSF	37.0 PSF		46,3 PSF	26.3 PSF			369 LB	567 LB
42 in	42 in			54.5 PSF	30.3 PSF	34.1 PSF	///////	27.3 PSF		33.9 PSF	///////	267 LB-FT	167 LB	406 LB	606 LB
37 in	54 in			47.9 PSF	26.0 PSF	29.9 PSF				29.8 PSF				400 LB	642 LB

(LINEAR INTERPOLATION MAY BE UTILIZED TO DETERMINE INTERMEDIATE VALUES BETWEEN UNIT DIMENSIONS AND/OR STAND HEIGHTS.)

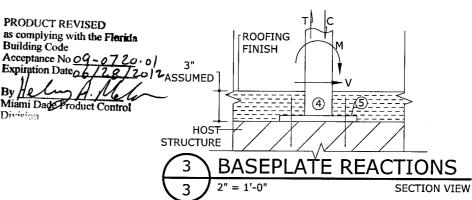
DESIGN SCHEDULE 2

(TYPICAL INSTALLATION OVER CONCRETE SUBSTRATE WITH 4" ADDITIONAL CONCRETE TOPPING/OVERPOUR OVER AC MOUNT BASEPLATE - DETAIL 2/3):

(STAND ASSEMBLIES FOR THIS SCHEDULE SHALL BE TYPICALLY INSTALLED OVER EXISTING CONCRETE HOST USING ANCHOR TYPE (3), WITH THE ADDITION OF MINIMUM 4" CONCRETE COVER OVER FULL AREA OF EACH BASEPLATE. CONCRETE SPECIFIED HEREIN SHALL BE MINIMUM LIGHTWEIGHT STRUCTURAL CONCRETE AND SHALL REACH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI IN 7 DAYS.)

UNIT DIMENSIONS W H			MIN CLEARANCE HEIGHT (SEE GEN NOTE #11)	ALLOWABLE WIND PRESSURES					MAX,	MAX.	MAX.	MAX.
		MAX STAND HEIGHT		STAND TYPE (A)	STAND TYPE (B)	STAND TYPE ©	STAND TYPE (D)		BASE MOMENT (M)	BASE SHEAR (V)	BASE UPLIFT (T)	BASE GRAVITY (C)
24 in	24 in		18 in	150.0 PSF	150.0 PSF	150.0 PSF	150.0 PSF		324 LB-FT	300 LB	396 LB	621 LB
30 in	30 in	18 in		150.0 PSF	127.4 PSF	101.9 PSF	101.9 PSF		344 LB-FT	319 LB	504 LB	719 LB
35.9 in	24 in			150.0 PSF	133.1 PSF	106.5 PSF	133.1 PSF		344 LB-FT	319 LB	433 LB	613 LB
35.9 in	36 in			142.0 PSF	88.7 PSF	71.0 PSF	88.7 PSF		344 LB-FT	319 LB	575 LB	755 LB
24 in	24 in	24 in	24 in	150.0 PSF	146.8 PSF	117.5 PSF	117.5 PSF		315 LB-FT	235 LB	359 LB	574 LB
36 in	24 in			150.0 PSF	97.9 PSF	78.3 PSF	97.9 PSF	3	315 LB-FT	235 LB	359 LB	574 LB
30 in	30 in			150.0 PSF	94.0 PSF	75.2 PSF	75.2 PSF		315 LB-FT	235 LB	425 LB	626 LB
36 in	36 in	24111		104.4 PSF	65.3 PSF	52.2 PSF	65.3 PSF		315 LB-FT	235 LB	478 LB	678 LB
42 in	42 in			76.7 PSF	47.9 PSF	38.4 PSF	47.9 PSF		315 LB-FT	235 LB	530 LB	730 LB
37 in	54 in			67.7 PSF	42.3 PSF	33.9 PSF	42.3 PSF		315 LB-FT		635 LB	835 LB
24 in	24 in		30 in	150.0 PSF	115.9 PSF	92.8 PSF	92.8 PSF	1	296 LB-FT		315 LB	530 LB
36 in	24 in			123.7 PSF	77.3 PSF	61.8 PSF	77.3 PSF		296 LB-FT	186 LB	330 LB	530 LB
30 in	30 in	32 in		118.7 PSF	74.2 PSF	59.4 PSF	59.4 PSF		296 LB-FT	186 LB	371 LB	571 LB
36 in	36 i n			82.4 PSF	51.5 PSF	41.2 PSF	51.5 PSF		296 LB-FT	186 LB	412 LB	612 LB
42 in	42 in			60.6 PSF	37.9 PSF	30.3 PSF	37.9 PSF		296 LB-FT		453 LB	653 LB
37 in	54 in			53.5 PSF	33.4 PSF	26.7 PSF	33.4 PSF	- 1			536 LB	736 LB
LINEAR INTERPOLATION MAY BE UTILIZED TO DETERMINE INTERMEDIATE VALUES BETWEEN UNIT DIMENSIONS AND/OR STAND HEIGHTS.)												

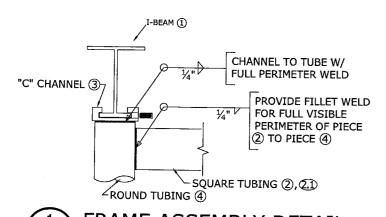
APPROVED UNIT AND CONFIGURATION (SHEET 2). 6" MAX 18" MAX -METALLUM ENTERPRISES **ENDPOST DETAIL ELEVATION VIEW** ROOFING FINISH, CONCRETE TOPPING 3" ASSUMED OVER EACH BASEPLATE, 4" DEEP CONC. HOST --ÁNCHÓR CONC. TOPPING OPTION SECTION VIEW

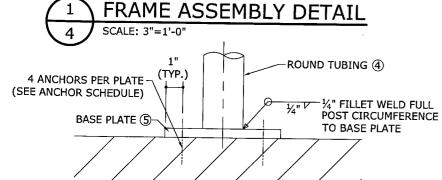


FRANK L. BENNARDO, P.I # PE0046549 05/13/2010

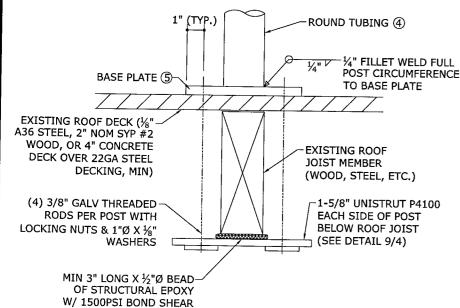
06-MEE-0002 SCALE: SCALE: PAGE DESCRIPTION:

3





BASE PLATE DETAIL (REF DESIGN SCHEDULE)



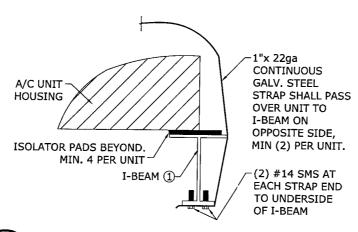


ANCHOR SCHEDULE

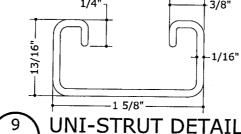
ANCHOR TYPE	HOST STRUCTURE	ANCHOR DESCRIPTION
1	WOOD	3/8" LAG SCREW WITH 3-1/2" MIN THREAD PENETRATION TO WOOD FRAMING & MIN 1" EDGE DISTANCE
2	STEEL	#12 ITW BUILDEX TEKS SELF-DRILLING SCREWS W/ BONDED WASHER TO STRUCTURAL STEEL MEMBERS (1/8" MIN THICKNESS)
3	CONCRETE	1/4" POWERS WEDGE-BOLT CONCRETE ANCHOR WITH 2-1/2" MIN EMBEDMENT & 3" MIN EDGE DISTANCE
4	STEEL	3/8" SAE GRADE 2 GALVANIZED BOLT W/ NUT & WASHER TO STRUCTURAL STEEL MEMBERS (1/8" MIN THICKNESS)

ANCHOR NOTES:

- 1. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- 2. ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE FOR EACH ANCHOR.
- WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY.
- 4. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES ROOFING FINISHES.
- 5. WHERE EXISTING STRUCTURE IS WOOD TRUSSES, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD TRUSS MEMBERS, NOT INTO PLYWOOD.



ALT. A/C UNIT TIE-DOWN DETAIL 1/4'



SCALE: N.T.S. MODEL: P4100

Miami Dade Product Control

PRODUCT REVISED

as complying with the Florida Building Code

Acceptance No 09 - 0720-01 Expiration Date 06/28/20/2 LOCKING NUTS & 1"Ø X 1/8"

WASHERS ALT. BASE PLATE

ATTACHMENT DETAIL SCALE: 3"=1'-0'

2"x2"x.093"x2" 6063-T6 ALÚM. ANGLE OR 1.5"x22GA (0.031x" MIN) GALVANIZED STEEL STRAP. MIN 4 PER UNIT 1 AT EACH CORNER.

UTILIZE (4) #14 S.S. TEK SCREWS EACH LEG AND FASTEN TO A/C HOUSING FRAME.

05/13/201

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ISOLATOR PADS BEYOND. MIN. 4 PER UNIT

ISOLATOR PADS BEYOND.

MIN. 4 PER UNIT

(3) 1/4 "Ø S.S. THRU BOLTS WHERE A\C UNIT A/C UNIT HOUSING FRAMING IS ACCESSIBLE. FASTEN A/C FRAMING (0.094" MIN) DIRECTLY TO I-BEAM W/ THREE 1/4"Ø BOLTS @ EACH CORNER. I-BEAM 1)

ALT. A/C UNIT TIE-DOWN DETAIL

A/C UNIT TIE-DOWN DETAIL

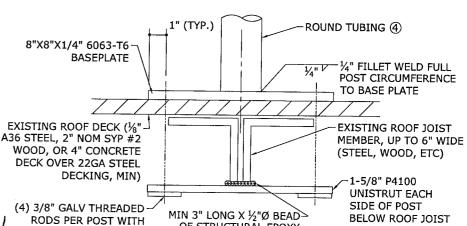
A/C UNIT HOUSING-

I-BEAM (1)-

22GA (0.031") MIN

1"x 22 GAGE GALVANIZED STRAP W-90° TWIST 8 PER UNIT. 1 EACH SIDE OF A/C UNIT HOUSING **EACH CORNER (2 TOTAL** 22GA (0.031") MIN PER CORNER). FASTEN TÓ 459 W/ (4) #14 S.S. SMS TO MAX. A/C UNIT & I-BEAM ISOLATOR PADS BEYOND. MIN. 4 PER UNIT - I-BEAM ①

ALT. A/C UNIT TIE-DOWN DETAIL



OF STRUCTURAL EPOXY

W/ 1500PSI BOND SHEAR

06-MEE-0002 (SEE DETAIL 9/4)

SCALE: 02
PAGE DESCRIPTION: