



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

## NOTICE OF ACCEPTANCE (NOA)

**Haakon Industries (Canada) LTD**  
11851 Dyke Road  
Richmond, BC, Canada V7A-4X8

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section 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 Section (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. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section 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: "Pentpak" Outdoor Style Air Handling Unit

**APPROVAL DOCUMENT:** Drawing No. 6945, titled "Outdoor Style Air Handling Unit, Pentpak", sheets 1 through 15 of 15, prepared by Haakon Industries, last revision #8 dated October 16, 2024, signed and sealed by Douglas J. Ruggiano, P.E., on October 21, 2024, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, Cheney, WA or Kingston, ON 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 #20-1005.02 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*  
11/28/24

NOA No. 24-1023.05  
Expiration Date: 03/10/2026  
Approval Date: 11/28/2024  
Page 1

**Haakon Industries (Canada) LTD**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA #10-1210.02**

**A. DRAWINGS**

1. *Drawing No. 6945, titled "Outdoor Style Air Handling Unit, Pentpak", sheets 1 through 15 of 15, prepared by Haakon Industries, last revision #1 dated January 12, 2011, signed and sealed by Douglas J. Ruggiano, P.E., on January 31, 2011.*

**B. TESTS**

1. *Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94 2) Large Missile Impact Test per FBC, TAS 201-94 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94 4) ASTM E72-05 along with marked-up drawings and installation diagram of Steel Air Handler Model Pentpak, Outdoor Unit, prepared by Intertek Testing Services NA LTD, Test Report No. 100160907COQ-008, dated November 25, 2010, signed and sealed by Rick Curkeet, P.E.*

**C. CALCULATIONS**

1. *Finite Element Analysis on Outdoor-Style air Handling Unit, dated 12/02/10, revised on 01/12/11, signed & sealed by Douglas J. Ruggiano, P.E., on 01/31/11.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building and Neighborhood Compliance Department.*

**E. MATERIAL CERTIFICATIONS**

1. *Tensile Test per ASTM E8 by Intertek Testing Services NA LTD, Test Report No. 100160907COQ-008, dated 11/25/2010, signed and sealed by Rick Curkeet, P.E.*

**F. STATEMENTS**

1. *Letter of conformance with FBC 2007 Edition, dated December 09, 2010, signed and sealed by Douglas J. Ruggiano, P.E.*
2. *No financial interest letter, dated 12/09/10, sign & sealed by D. J. Ruggiano, P.E.*
3. *Distributor Agreement.*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS NOA #15-1027.06**

**A. DRAWINGS**

1. *Drawing No. 6945, titled "Outdoor Style Air Handling Unit, Pentpak", sheets 1 through 15 of 15, prepared by Haakon Industries, last revision #3 dated July 18, 2016, signed and sealed by Douglas J. Ruggiano, P.E., on July 18, 2016.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

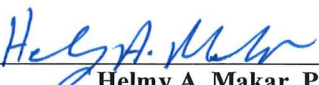
1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department Regulatory and Economic Resources (RER).*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 24-1023.05  
Expiration Date: 03/10/2026  
Approval Date: 11/28/2024



**Haakon Industries (Canada) LTD**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**F. STATEMENTS**

1. *Letter of conformance with FBC 2014 Edition, dated July 18, 2016, signed and sealed by Douglas J. Ruggiano, P.E.*

**3. EVIDENCE SUBMITTED UNDER PREVIOUS NOA #20-1005.02**

**A. DRAWINGS**

1. *Drawing No. 6945, titled "Outdoor Style Air Handling Unit, Pentpak", sheets 1 through 15 of 15, prepared by Haakon Industries, last revision #7 dated March 10, 2021, signed and sealed by Douglas J. Ruggiano, P.E., on March 15, 2021.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department Regulatory and Economic Resources (RER).*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**F. STATEMENTS**

1. *Letter of conformance with FBC 2020 Edition, dated March 15, 2021, signed and sealed by Douglas J. Ruggiano, P.E.*

**4. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. *Drawing No. 6945, titled "Outdoor Style Air Handling Unit, Pentpak", sheets 1 through 15 of 15, prepared by Haakon Industries, last revision #8 dated October 16, 2024, signed and sealed by Douglas J. Ruggiano, P.E., on October 21, 2024.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department Regulatory and Economic Resources (RER).*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**F. STATEMENTS**

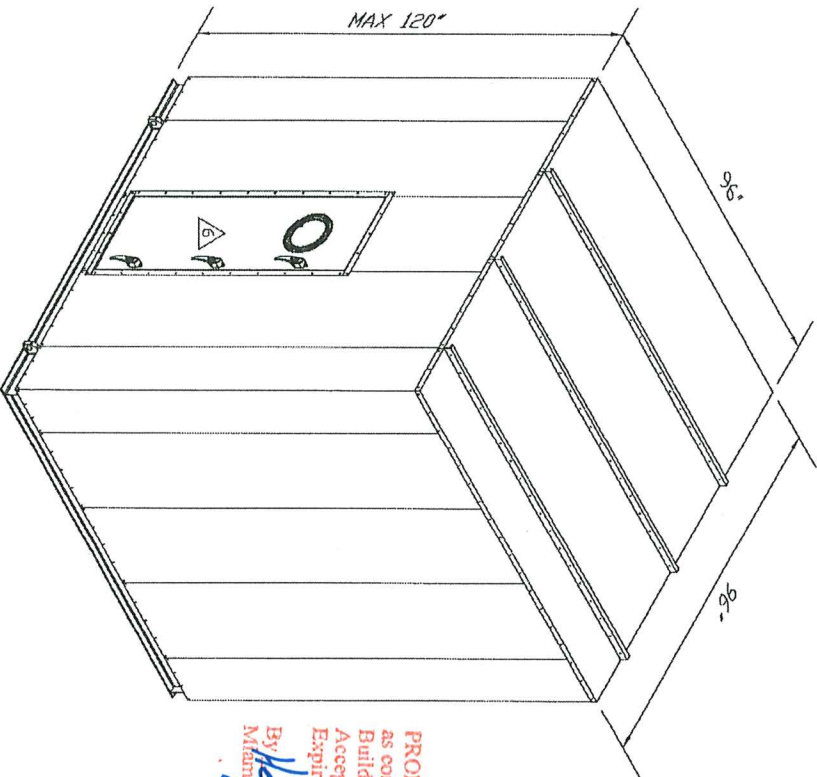
1. *Letter of conformance with FBC 2023 Edition, dated October 16, 2024, signed and sealed by Douglas J. Ruggiano, P.E., on October 21, 2024.*

  
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Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 24-1023.05  
Expiration Date: 03/10/2026  
Approval Date: 11/28/2024

# OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

- A) THIS OUTDOOR STYLE AIR HANDLING UNIT IS DESIGNED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, 2023 EDITION, INCLUDING THE PROVISIONS FOR HIGH VELOCITY HURRICANE ZONE (HVHZ).
- B) DESIGN LOADS MUST BE CALCULATED BY A PROFESSIONAL ENGINEER OR ARCHITECT FOR EACH PROJECT. THE PROJECT PRESSURE CANNOT EXCEED THE DESIGN PRESSURE LISTED.
- C) ATTACHMENT TO THE ROOF AND THE ROOF CURB TO PREVENT SLIDING AND OVERTURNING OF THE AIR HANDLING UNIT IS NOT PART OF THE SCOPE OF THIS PRODUCT APPROVAL. THEY SHALL BE REVIEWED BY THE CORRESPONDING BUILDING DEPARTMENT.
- D) THE UNIT DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE CONDITIONS DETAILED HEREIN, SITE SPECIFIC DOCUMENTS PREPARED BY A LICENSED ENGINEER WILL BE REQUIRED.
- E) DISSIMILAR MATERIALS IN CONTACT WITH EACH OTHER SHALL BE PROTECTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2023 EDITION.
- F) MECHANICAL EQUIPMENT INSIDE THE AIR HANDLING UNIT ARE NOT PART OF THIS NDA AND THEY SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.



MAXIMUM DESIGN PRESSURE  
WALL: +66 PSF / -66 PSF  
ROOF: +50 PSF / -50 PSF

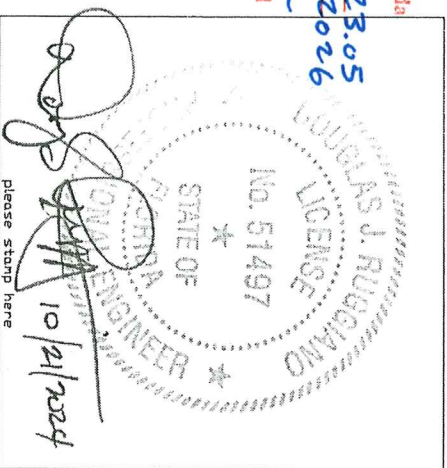
MAXIMUM NOMINAL DOOR SIZE  
WIDTH: 30"  
HEIGHT: 72"

MAXIMUM RACKING FORCE  
51.5 LBS/L.IN. OF THE WALL  
PANEL

MAXIMUM COMPRESSION FORCE  
230 LBS/L.IN. OF THE WALL  
PANEL

MAXIMUM TENSION FORCE  
26 LBS/L.IN. OF THE WALL  
PANEL

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 24-1023.05  
Expiration Date 03/10/2026  
By *[Signature]*  
Miami Product Control



## PROJECT

## OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

JOB NO.	DRAWN BY	DT	DWG NO.	6945	PAGE 1 OF 15
TAG	DATE	MAR 10, 2021	TYPE	OUTDOOR	DWG UNITS IN

REVISION	6	MAR 15, 2018
REVISION	7	MAR 10, 2021
REVISION	8	OCT 16, 2024

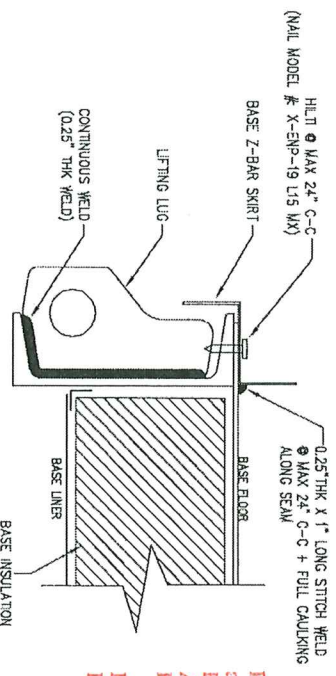




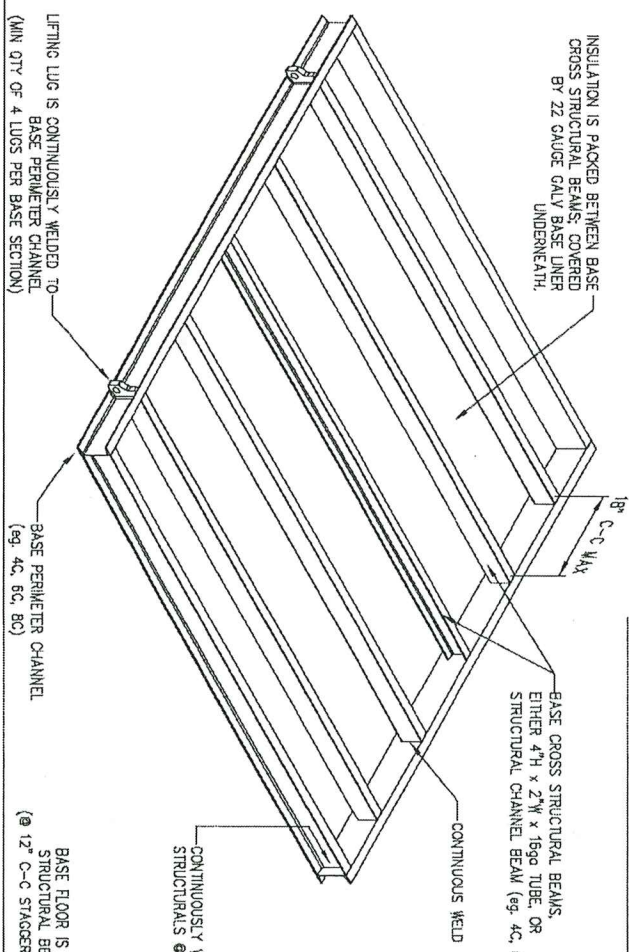
# UNIT BASE CONSTRUCTION DETAIL

## NOTES:

1. JOINTS OF BASE STRUCTURAL MEMBERS ARE CONTINUOUSLY WELDED TOGETHER, UNLESS OTHERWISE SPECIFIED.
2. CROSS STRUCTURAL MEMBERS ARE TYPICALLY AT MAX. 18" C-C.
3. BASE FLOOR IS WELDED TO BASE STRUCTURE AS SHOWN. ALL BASE FLOOR SEAMS ARE CONTINUOUSLY WELDED TOGETHER TO PREVENT LEAKAGE.
4. BASE Z-BAR SKIRT IS SECURED TO THE BASE STRUCTURE BY 0.25" THK X 1" LONG STITCH WELD AND HILT (W/ NAIL MODEL # X-ENP-19 L15 MX).
5. MAX 24" C-C STAGGERED. BASE Z-BAR SKIRT IS CONTINUOUSLY CAULKED ALONG BASE FLOOR SEAM.
6. SEE DRAWING [PAGE 11] -- UNITBASE\_STRUCTURAL\_PROPERTIES FOR MECHANICAL PROPERTIES AND DIMENSIONS OF UNITBASE COMPONENTS.



BASE Z-BAR SKIRT INSTALLATION DETAIL



INSULATION IS PACKED BETWEEN BASE CROSS STRUCTURAL BEAMS. COVERED BY 22 GAUGE GALV BASE LINER UNDERNEATH.

BASE FLOOR IS TACK WELDED TO BASE CROSS STRUCTURAL BEAMS ON UNDERSIDE OF FLOOR.

BASE FLOOR IS CONTINUOUSLY WELDED TO BASE PERIMETER CHANNEL (MIN QTY OF 4 LUGS PER BASE SECTION).

BASE PERIMETER CHANNEL (eg. 4C, 6C, 8C)

CONTINUOUSLY WELDED BASE STRUCTURALS @ JOINTS

CONTINUOUSLY WELDED BASE FLOOR SEAMS

CONTINUOUSLY WELDED CORNERS

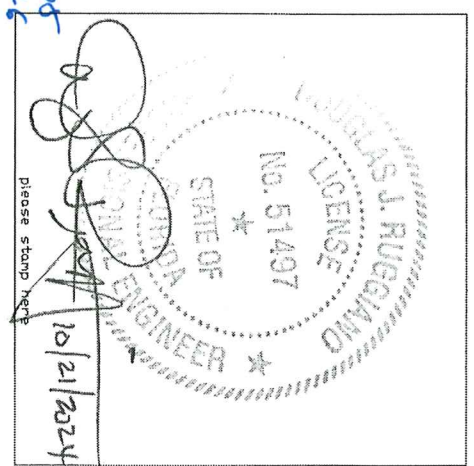
0.25" THK X 1" LONG STITCH WELD @ MAX 24" C-C (STAGGERED WITH HILT SCREWS)

FULL CAULKING BETWEEN Z-BAR AND BASE FLOOR

BASE Z-BAR SKIRT

HILT @ MAX 24" C-C (STAGGERED WITH WELD BEADS)

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 24-1083.08  
Expiration Date 01/09/2026  
By *[Signature]*  
Miami Dade Product Control



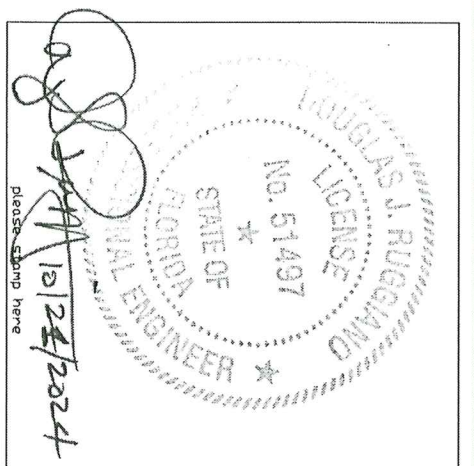
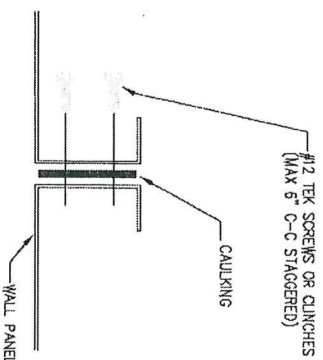
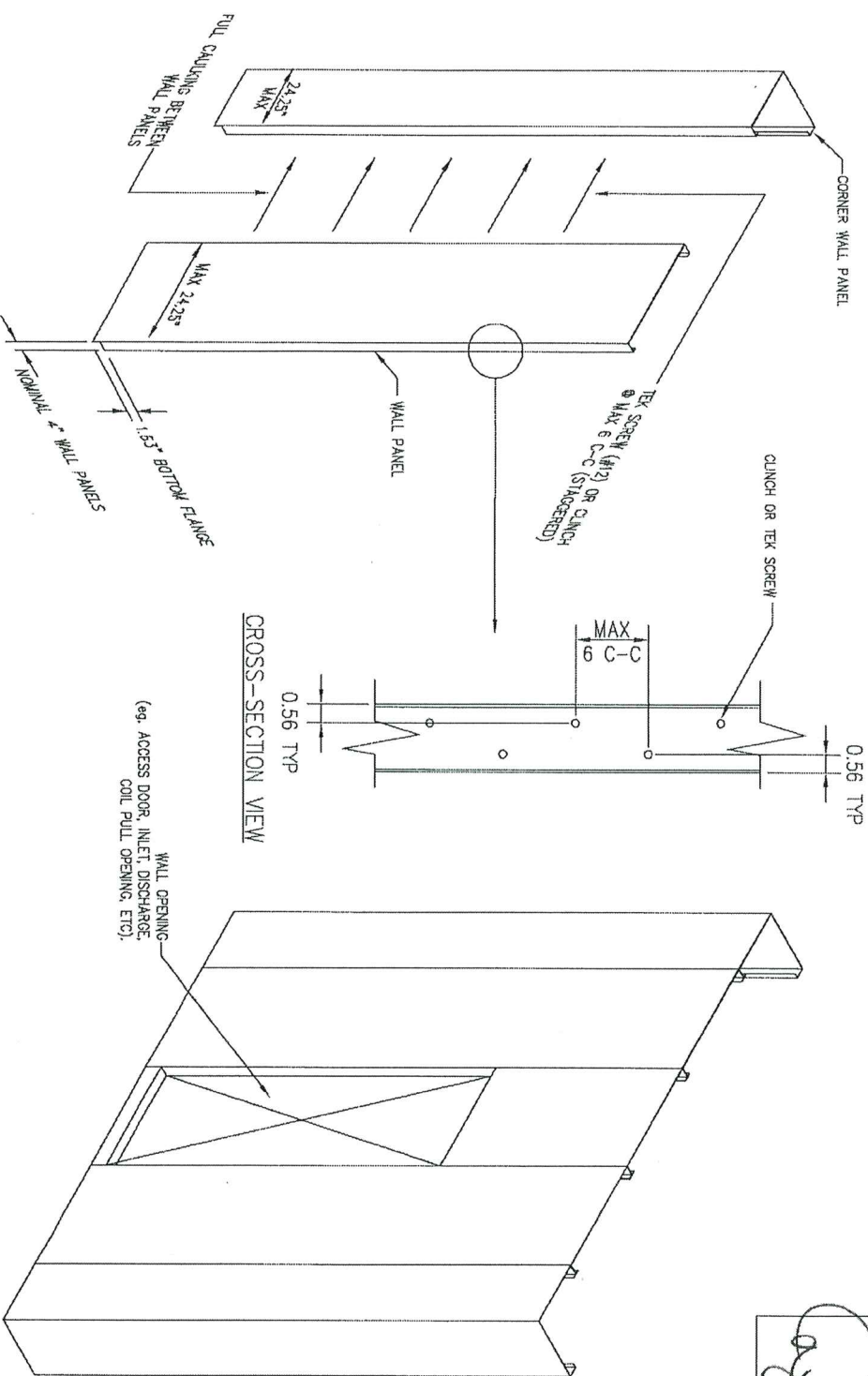
## TITLE OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

JOB NO.	DRAWN BY	DATE	DWG NO.	PAGE	REVISION	HAAKON INDUSTRIES
TAG	DY	JAN 12, 2011	6945	2 OF 15	0 (DEC 02, 2010)	11831 DYKE ROAD, BROWARD CO, FLA 33446
	DATE	JAN 12, 2011	TYPE	OUTDOOR	REVISION 1 (JAN 12, 2011)	
					REVISION 3 (JUL 18, 2016)	

# WALL PANEL CONSTRUCTION DETAIL

## NOTES:

1. WALL PANELS ARE NOMINAL 4" THK AND THEY ARE JOINED TOGETHER BY #12 TEK SCREWS OR CLINCHES @ MAX 6" C-C (STAGGERED).
2. FULL CAULKING BETWEEN PANELS IS DONE TO PREVENT AIR LEAKAGE.
3. WALL PANEL IS FABRICATED FROM 16GA GALVANEAL SHEET METAL, UNLESS OTHERWISE SPECIFIED.
4. MAXIMUM PANEL WIDTH IS 24.25".
5. SEE DRAWING [PAGE 12 --- WALL\_PANEL\_STRUCTURAL\_PROPERTIES] FOR MECHANICAL PROPERTIES AND DIMENSIONS OF TYPICAL WALL PANEL COMPONENTS.



**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No **24-1023.05**  
Expiration Date **03/10/2026**  
By **H. G. H. Miller**  
Miami Data Product Control

## TITLE OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

JOB NO.	DRAWN BY	DATE	DWG NO.	PAGE	3 OF 15	REVISION	0 (DEC 02, 2010)
TAG	DATE	JAN 12, 2011	TYPE	OUTDOOR	IN	REVISION	1 (JAN 12, 2011)
						REVISION	3 (JUL 18, 2016)

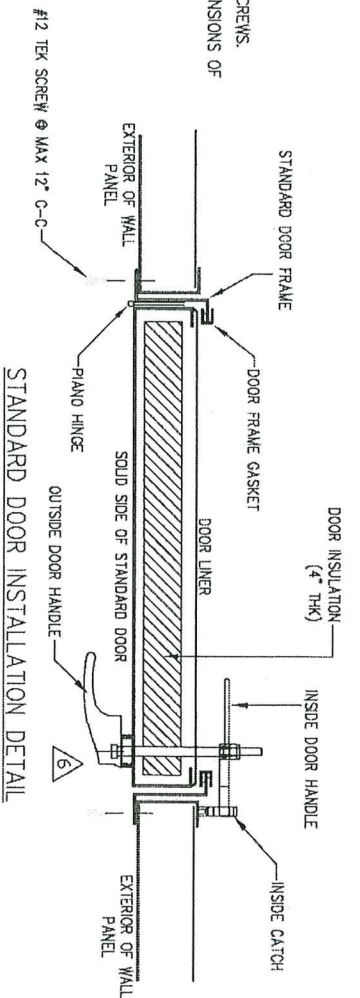
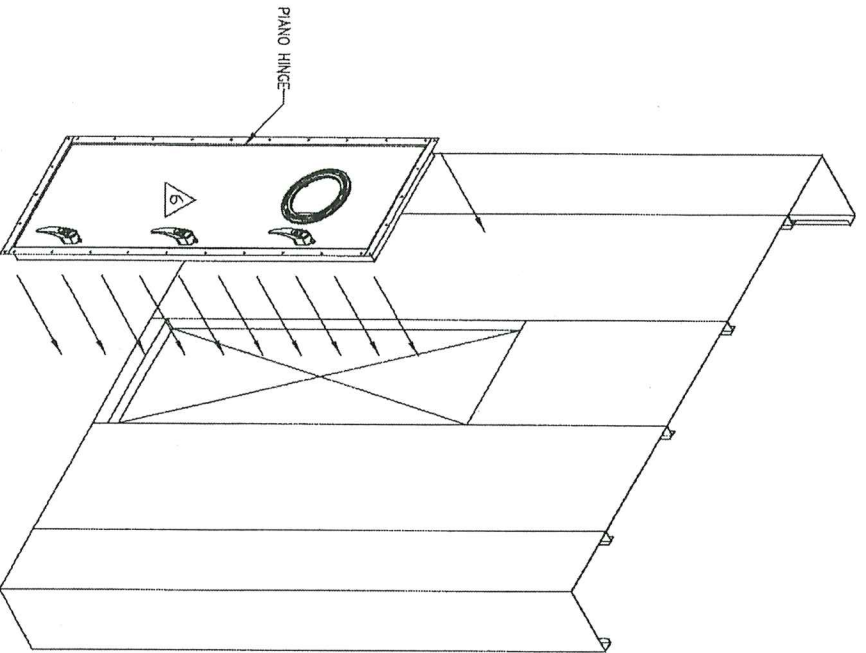




# STANDARD DOOR CONSTRUCTION DETAIL

## NOTES:

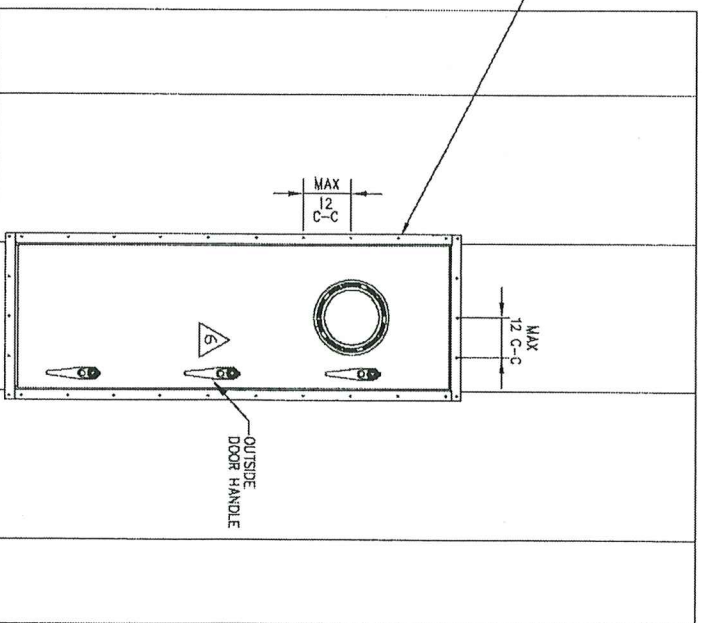
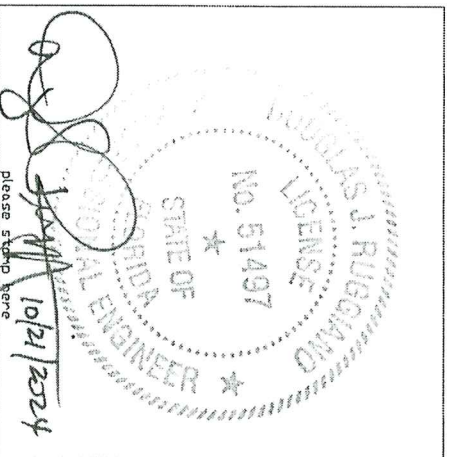
1. STANDARD DOOR (OUTWARD SWINGING) IS ATTACHED TO DOOR FRAME WITH PLANO HINGE.
2. DOOR ASSEMBLY IS ATTACHED TO EXTERIOR OF AHU AS SHOWN. TYPICALLY @ MAX 12" C-C WITH #12 TEK SCREWS.
3. SEE DRAWING [PAGE 13 --- ACCESS DOOR STRUCTURAL PROPERTIES] FOR MECHANICAL PROPERTIES AND DIMENSIONS OF ACCESS DOOR COMPONENTS.



STANDARD DOOR INSTALLATION DETAIL

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No. 21-1023.05  
Expiration Date 03/10/2026  
By Heidi Hall  
Miami Fire Product Center

DOOR FRAME IS TEK SCREWED TO  
EXTERIOR OF WALL @ MAX 12" C-C.



## TITLE OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

JOB NO.	DRAWN BY	DATE	DWG NO.	PAGE	OF
TAG	DATE	TYPE	DWG UNITS	IN	
	MAR 15, 2018	OUTDOOR	6945	4	15

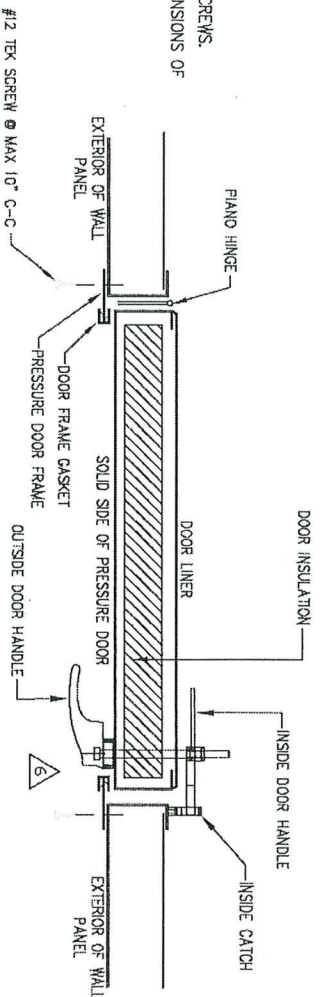
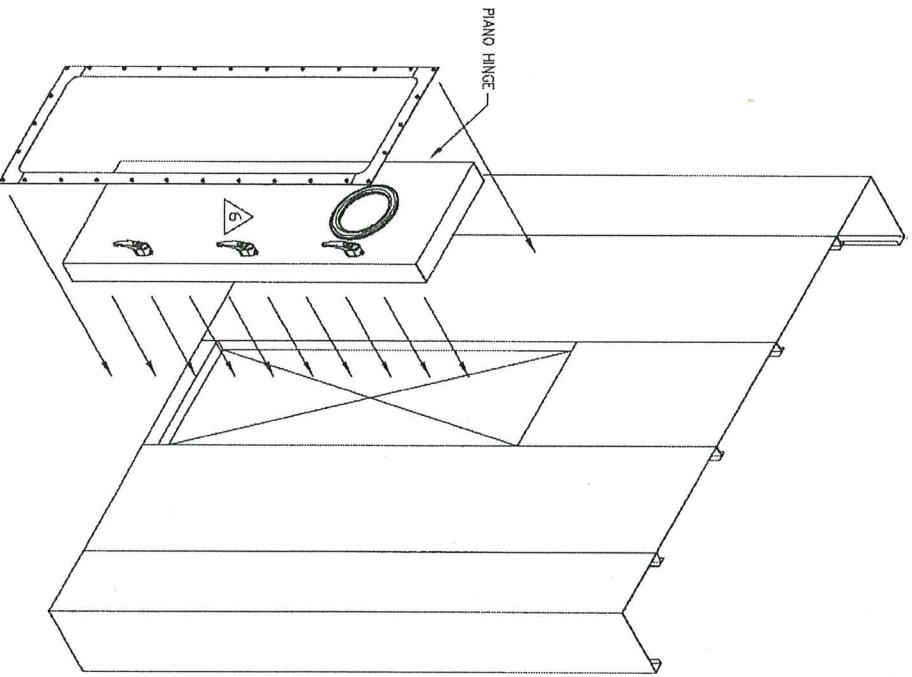
REVISION	0 (DEC 02, 2010)
REVISION	1 (JAN 12, 2011)
REVISION	3 (JUL 18, 2016)
REVISION	6 (MAR 15, 2018)



# PRESSURE DOOR CONSTRUCTION DETAIL

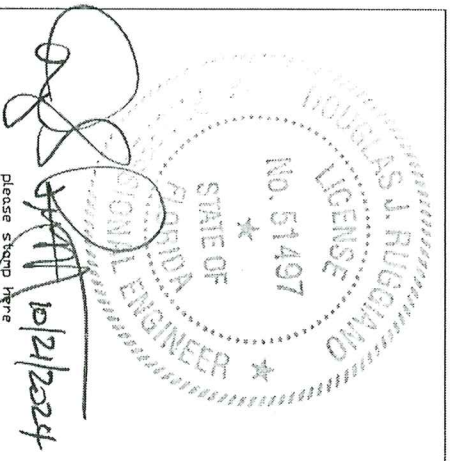
## NOTES:

1. PRESSURE DOOR (INWARD SWINGING) IS ATTACHED TO DOOR FRAME WITH PLANO HINGE.
2. DOOR ASSEMBLY IS ATTACHED TO EXTERIOR OF AHU AS SHOWN. TYPICALLY @ MAX 10" C-C WITH #12 TEK SCREWS.
3. SEE DRAWING [PAGE 13] ACCESS DOOR [STRUCTURAL PROPERTIES] FOR MECHANICAL PROPERTIES AND DIMENSIONS OF ACCESS DOOR COMPONENTS.

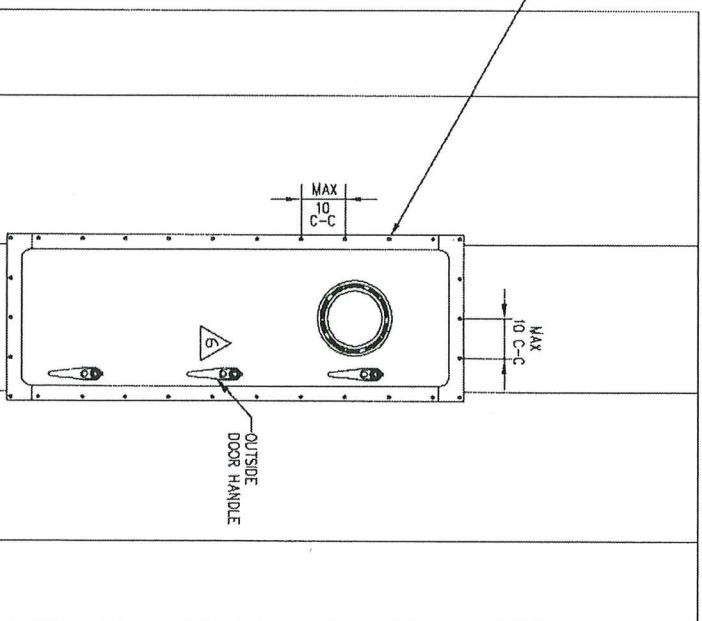


PRESSURE DOOR INSTALLATION DETAIL

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 24-1023-05  
Expiration Date 03/07/2025  
By *H. A. Miller*  
Miami Door Product Control



DOOR FRAME IS TEK SCREWED TO  
EXTERIOR OF WALL @ MAX 10" C-C

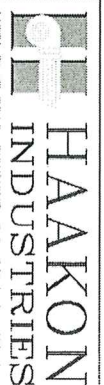


## TITLE

OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

JOB NO.	DRAWN BY	DATE	DWG NO.	PAGE	5 OF 15
TAC	DATE	MAR 15, 2018	TYPE	OUTDOOR	DWG UNITS
					IN

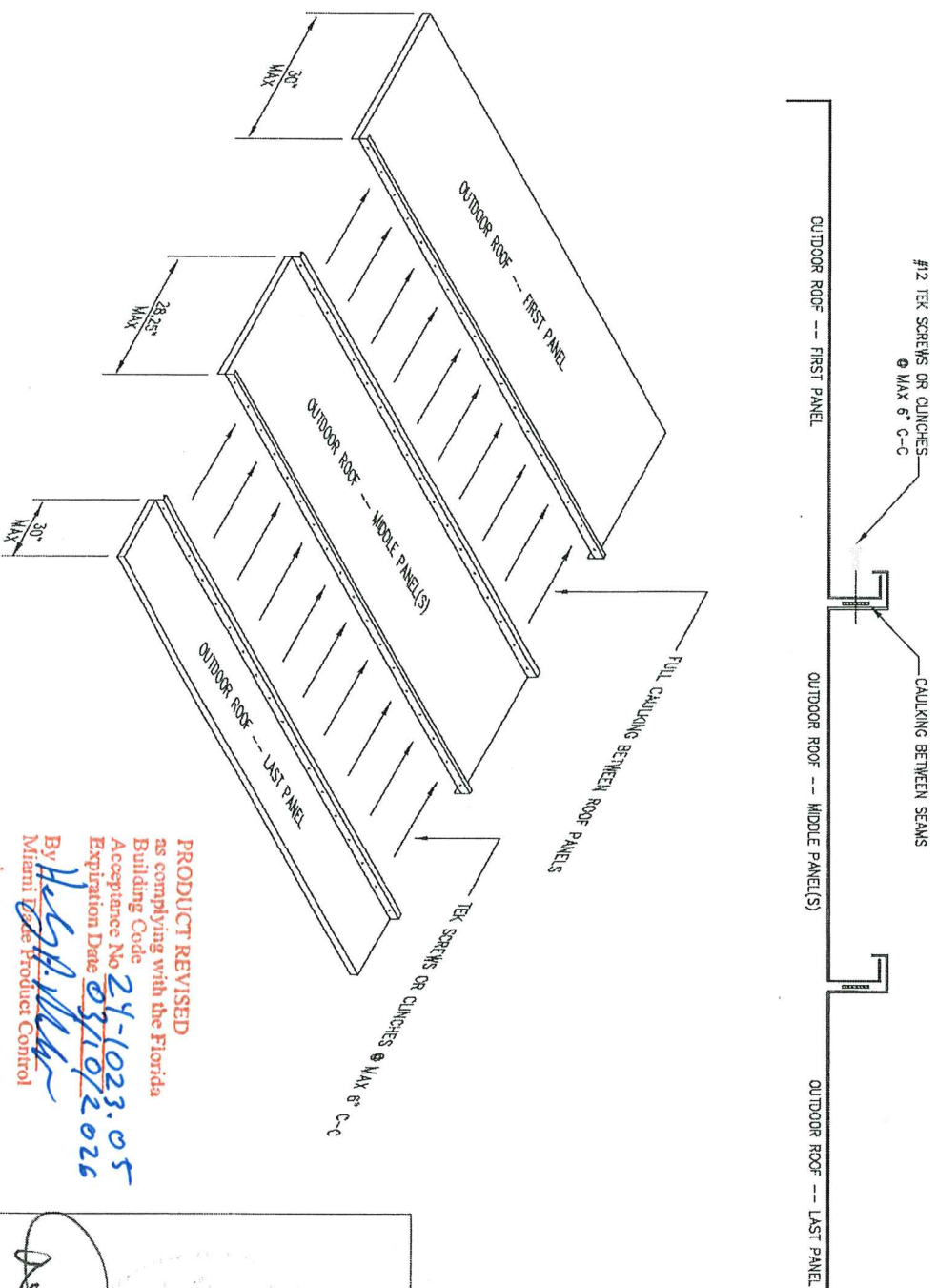
REVISION	0 (DEC 02, 2010)
REVISION	1 (JAN 12, 2011)
REVISION	3 (JUL 18, 2016)
REVISION	6 (MAR 15, 2018)



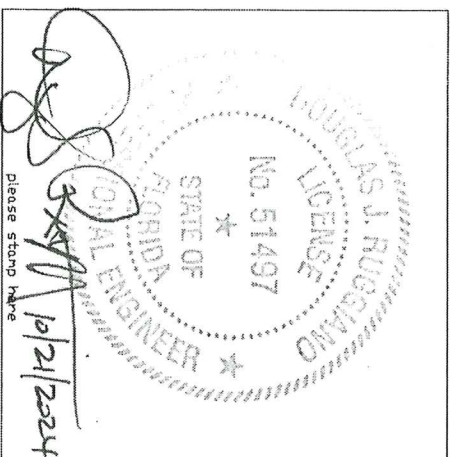


NOTES:

1. OUTDOOR ROOF PANELS ARE JOINED TOGETHER BY TEK SCREWS OR CLINCHES @ MAX 6" C-C.
2. FULL CAULKING BETWEEN ROOF PANELS IS DONE TO PREVENT AIR LEAKAGE.
3. OUTDOOR ROOF PANEL IS FABRICATED FROM 16GA GALVANEALD SHEET METAL, UNLESS OTHERWISE SPECIFIED.
4. SEE DRAWING [PAGE 14 --- OUTDOOR\_ROOF\_PANEL\_STRUCTURAL\_PROPERTIES] FOR MECHANICAL PROPERTIES AND DIMENSIONS OF TYPICAL OUTDOOR ROOF COMPONENTS.



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 24-1023.05  
Expiration Date 03/19/2026  
By Heidi A. Miller  
Miami-Dade Product Control



# OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

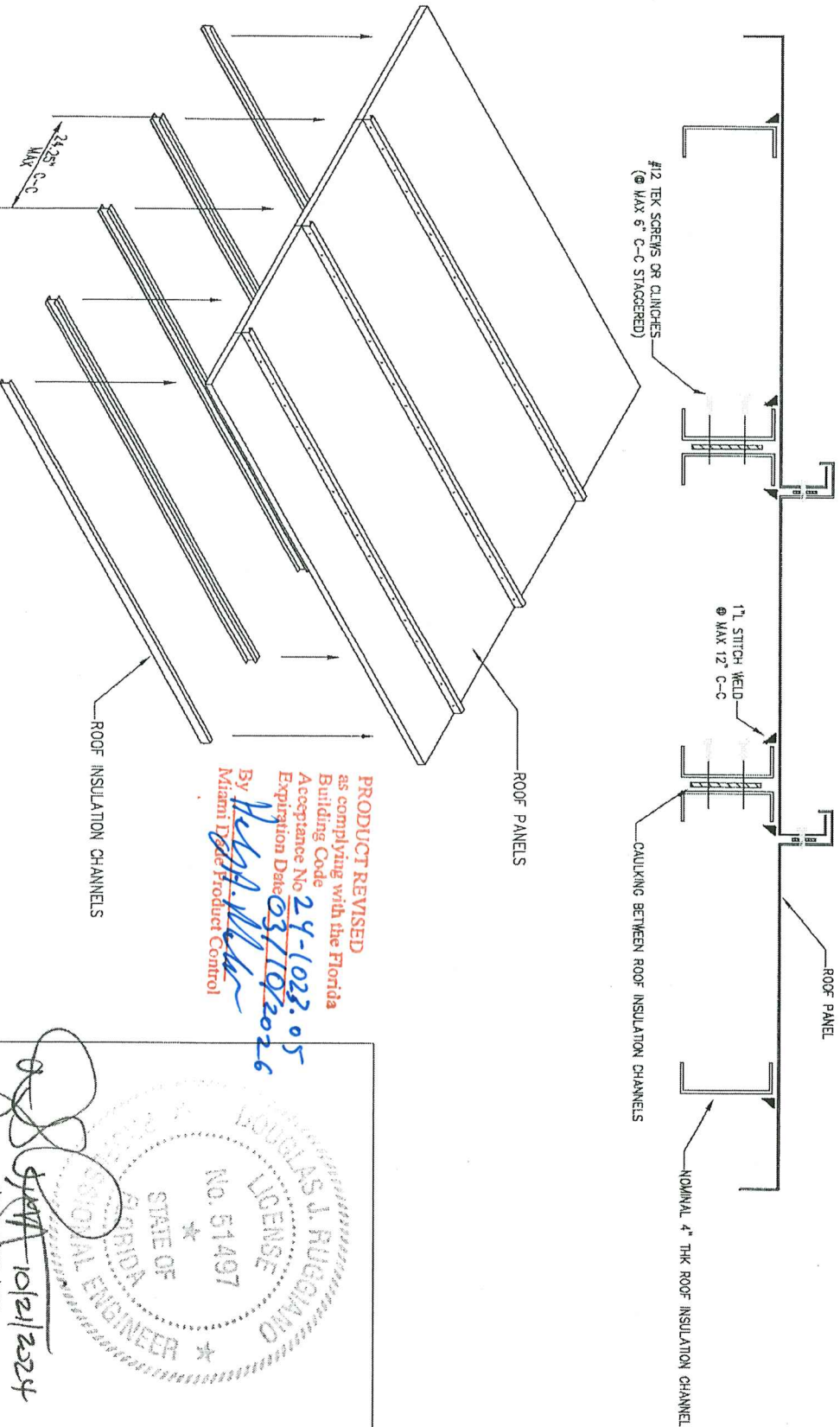
TITLE	OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK				REVISION	0 (DEC 02, 2010)
JOB NO.	DRAWN BY	DWG NO.	PAGE	OF	REVISION	1 (JAN 12, 2011)
TAG	DATE	TYPE	DWG UNITS	IN	REVISION	3 (JUL 18, 2016)
	JAN 12, 2011	OUTDOOR	6	15		

**HAAKON INDUSTRIES**  
11571 DUNE ROAD, INCHONON, B.C. CANADA V7A 4R8

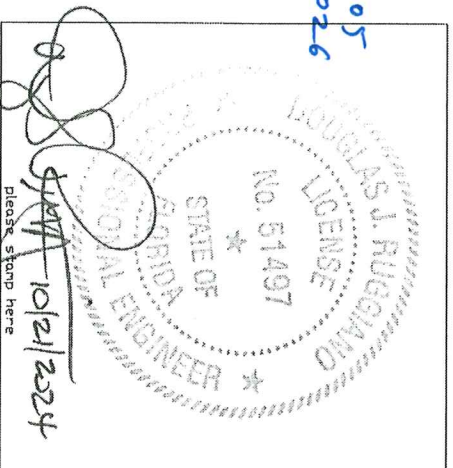
# OUTDOOR ROOF INSULATION CHANNEL CONSTRUCTION DETAIL

## NOTES:

1. ROOF INSULATION CHANNELS ARE JOINED TOGETHER BY #12 TEK SCREWS OR CLINCHES @ MAX 6" C-C.
2. ROOF INSULATION CHANNELS ARE TACK WELDED TO UNDERSIDE OF ROOF PANEL @ MAX 12" C-C.
3. ROOF INSULATION CHANNEL IS FABRICATED FROM 16GA GALVANEAL SHEET METAL, UNLESS OTHERWISE SPECIFIED.
4. SEE DRAWING [PAGE 14] --- OUTDOOR\_ROOF\_PANEL\_STRUCTURAL\_PROPERTIES FOR MECHANICAL PROPERTIES AND DIMENSIONS OF TYPICAL ROOF INSULATION CHANNELS.



**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No. **24-1023.05**  
Expiration Date **03/19/2026**  
By **Heather Miller**  
Miami Trade Product Control



## TITLE OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

JOB NO.	DRAWN BY	DATE	DATE	DWG NO.	PAGE	7 OF 15	IN	REVISION	0 (DEC 02, 2010)
TAG	DATE	JAN 12, 2011	DATE	TYPE	OUTDOOR	DWG UNITS	IN	REVISION	1 (JAN 12, 2011)
								REVISION	3 (JUL 18, 2016)



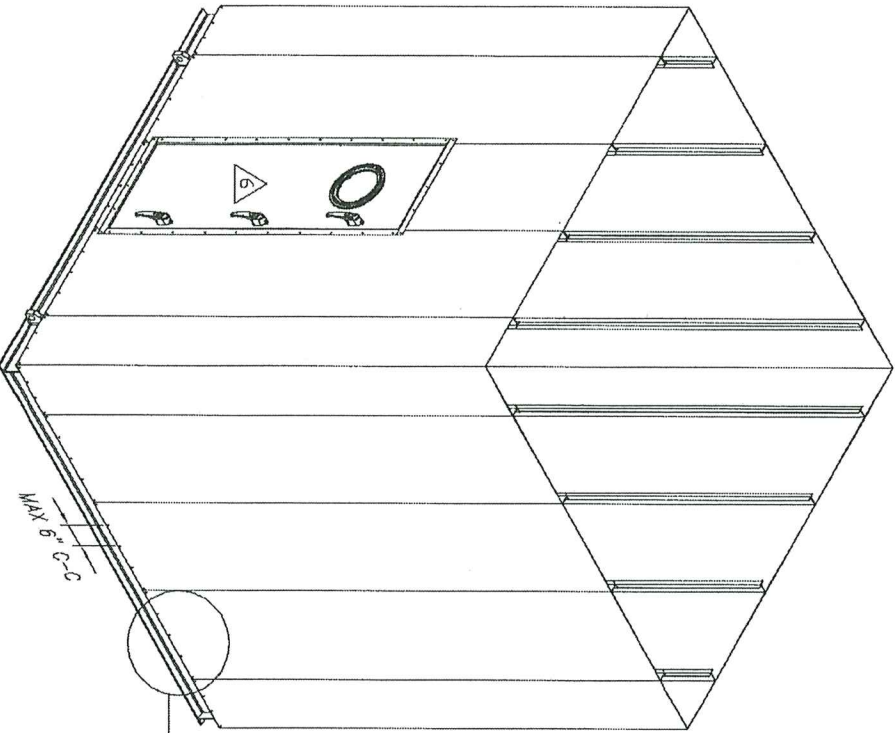
11800 D-KE ROAD, RICHMOND, B.C. CANADA V7A 4N8



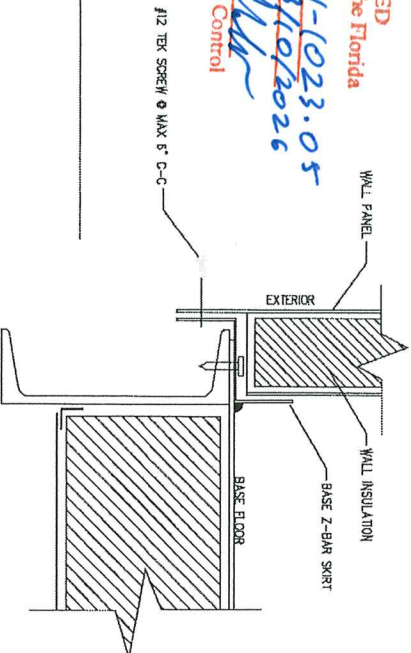
# WALL PANEL TO UNITBASE CONSTRUCTION DETAIL

## NOTES:

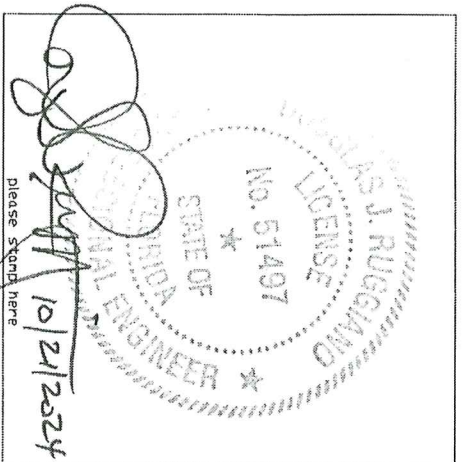
1. BOTTOM FLANGE OF WALL PANEL IS ATTACHED TO BASE Z-BAR SKIRT WITH #12 TEK SCREWS @ MAX 6" C-C.



**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No 24-1023.05  
Expiration Date 03/10/2026  
By Heidi A. Miller  
Miami Design Product Control



WALL PANEL TO UNITBASE INSTALLATION DETAIL



## PROJECT OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

JOB NO.	DRAWN BY	DY	DWG NO.	PAGE	8 OF 15	REVISION	0 (DEC 02, 2010)
TAG	DATE	MAR 15, 2018	TYPE	OUTDOOR	DWG UNITS	IN	REVISION 1 (JAN 12, 2011)
							REVISION 3 (JUL 18, 2016)
							REVISION 6 (MAR 15, 2018)

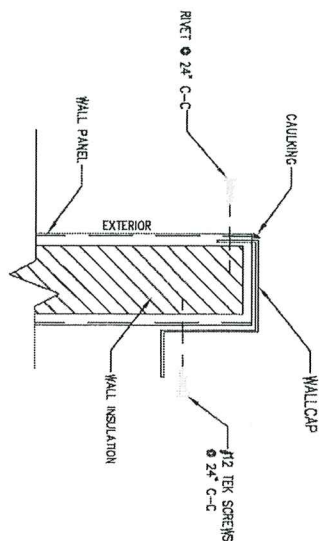
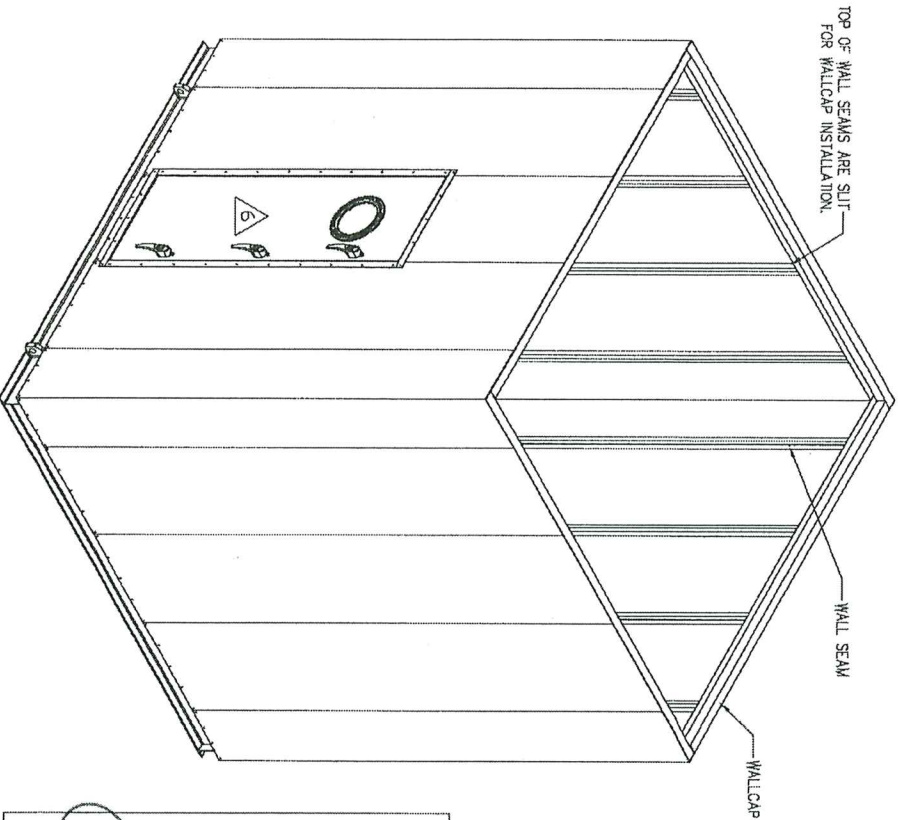


11825 DYKE ROAD, RICHMOND, B.C. CANADA V7A 4Z8

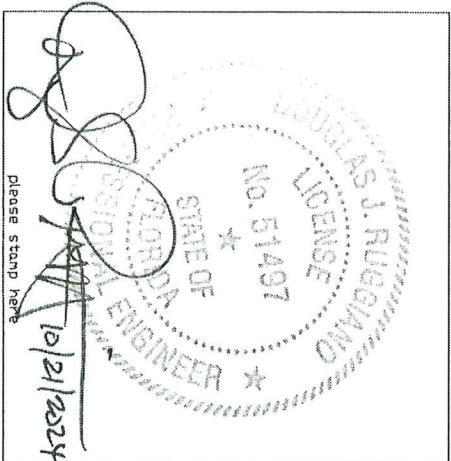
# WALLCAP INSTALLATION DETAIL

## NOTES:

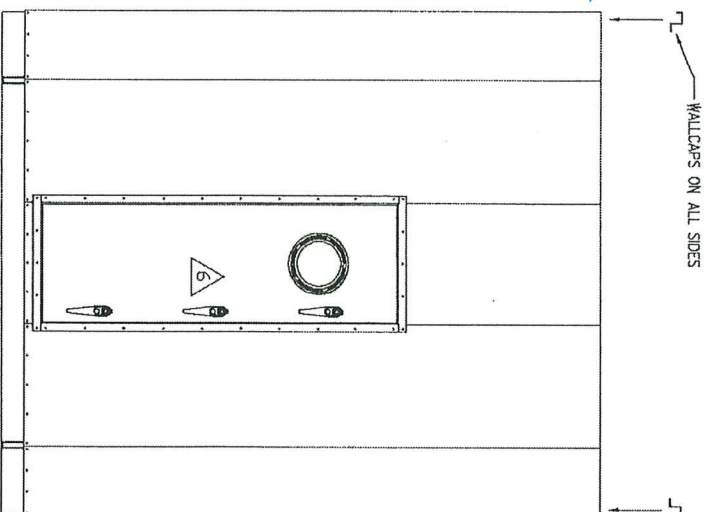
1. WALLCAPS ARE INSTALLED ON TOP OF WALLS AS SHOWN. WALLCAPS ARE USED TO SUPPORT ROOF.
2. SEE DRAWING [PAGE 15 -- WALLCAP\_STRUCTURAL\_PROPERTIES] FOR MECHANICAL PROPERTIES AND DIMENSIONS OF WALLCAP.



## WALLCAP INSTALLATION DETAIL



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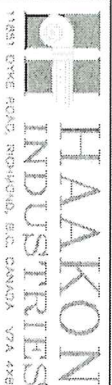


## PROJECT

OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

JOB NO.	DRAWN BY	DY	DWG NO.	PAGE	9 OF 15
TAC	DATE	MAR 15, 2018	TYPE	OUTDOOR	DWG UNITS
					IN

REVISION	0 (DEC 02, 2010)
REVISION	1 (JAN 12, 2011)
REVISION	3 (JUL 18, 2016)
REVISION	6 (MAR 15, 2018)

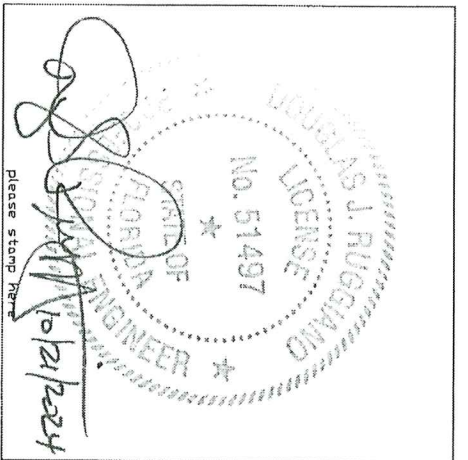
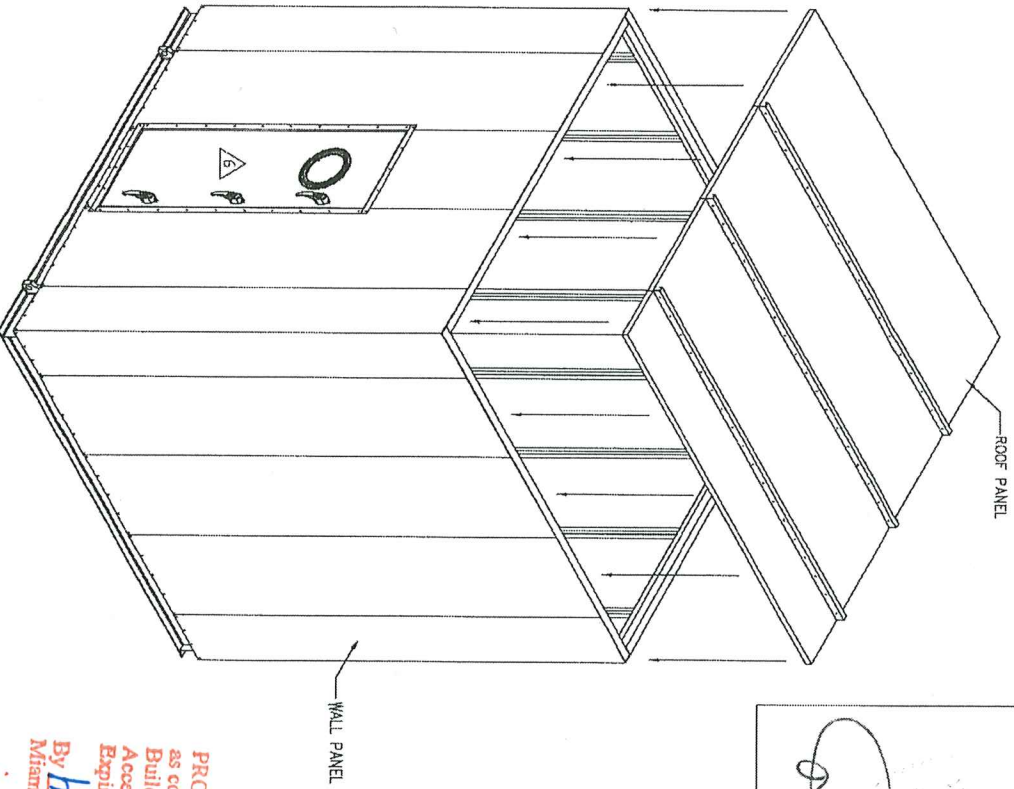




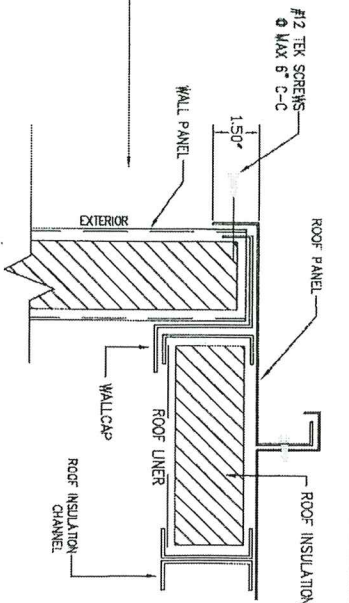
# ROOF INSTALLATION DETAIL

## NOTES:

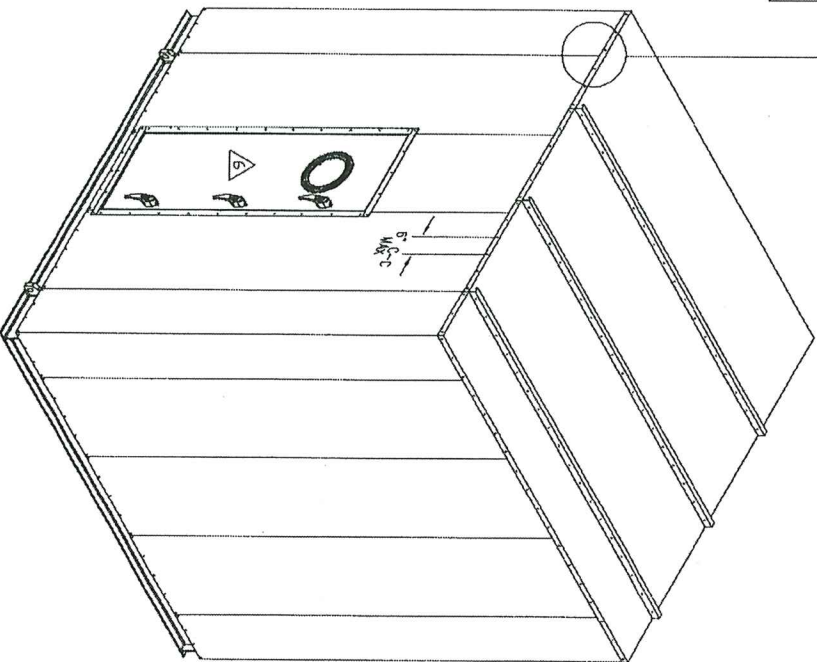
1. ROOF PANEL IS ATTACHED TO WALL WITH #12 TEK SCREENS @ MAX 6" C-C.



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ROOF INSTALLATION DETAIL

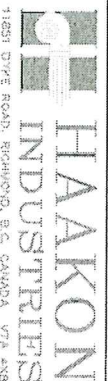


## PROJECT

OUTDOOR STYLE AIR HANDLING UNIT, PENTPAK

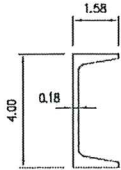
JOB NO.	DRAWN BY	DATE	DWG NO.	PAGE	10 OF 15
TAG	DATE	MAR 15, 2018	TYPE	OUTDOOR	DWG UNITS

REVISION	0 (DEC 02, 2010)
REVISION	1 (JAN 12, 2011)
REVISION	3 (JUL 18, 2016)
REVISION	6 (MAR 15, 2018)



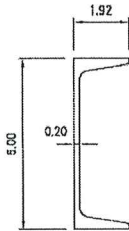
# Mechanical Properties of Typical Unitbase Components

## (A) CROSS-SECTION OF C4X5.4 CHANNEL



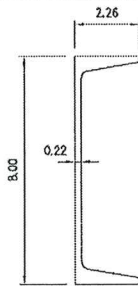
Material: ASTM A36 Mild Steel  
Weight Per Foot: 5.4 lbs/ft  
Cross-Section Area: 1.59 in<sup>2</sup>  
Yield Tensile Stress: 36 kpsi  
Ultimate Tensile Stress: 58 kpsi  
Modulus of Elasticity (E):  $29 \times 10^6$  psi  
Modulus of Rigidity (G):  $11.2 \times 10^6$  psi

## (B) CROSS-SECTION OF C6X8.2 CHANNEL



Material: ASTM A36 Mild Steel  
Weight Per Foot: 8.2 lbs/ft  
Cross-Section Area: 2.40 in<sup>2</sup>  
Yield Tensile Stress: 36 kpsi  
Ultimate Tensile Stress: 58 kpsi  
Modulus of Elasticity (E):  $29 \times 10^6$  psi  
Modulus of Rigidity (G):  $11.2 \times 10^6$  psi

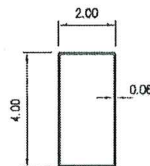
## (C) CROSS-SECTION OF C8X11.5 CHANNEL



Material: ASTM A36 Mild Steel  
Weight Per Foot: 11.5 lbs/ft  
Cross-Section Area: 3.38 in<sup>2</sup>  
Yield Tensile Stress: 36 kpsi  
Ultimate Tensile Stress: 58 kpsi  
Modulus of Elasticity (E):  $29 \times 10^6$  psi  
Modulus of Rigidity (G):  $11.2 \times 10^6$  psi

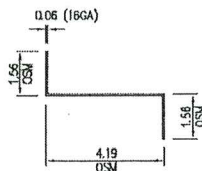
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By *[Signature]*  
Miami Data Product Control

## (D) CROSS-SECTION OF 4x2x16ga TUBE



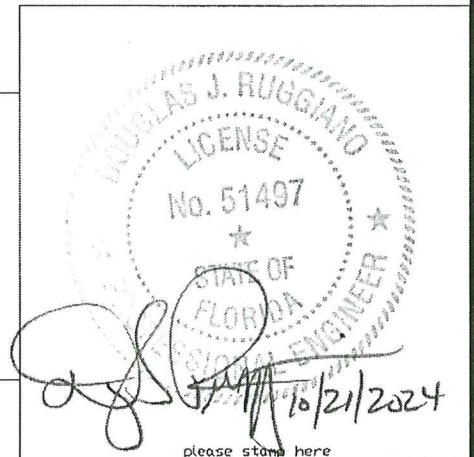
Material: ASTM A36 Hot Rolled Tubing  
Weight Per Foot: 2.5 lbs/ft  
Cross-Section Area: 0.734 in<sup>2</sup>  
Yield Tensile Stress: 36 kpsi  
Ultimate Tensile Stress: 58 kpsi  
Modulus of Elasticity (E):  $29 \times 10^6$  psi  
Modulus of Rigidity (G):  $11.2 \times 10^6$  psi

## (E) BREAK PROFILE OF BASE Z-BAR SKIRT



Material: 16ga Galvaleneated Sheet Metal Steel  
Cross-Section Area: 0.449 in<sup>2</sup>  
Yield Tensile Stress: 36 kpsi  
Ultimate Tensile Stress: 58 kpsi  
Modulus of Elasticity (E):  $29 \times 10^6$  psi  
Modulus of Rigidity (G):  $11.2 \times 10^6$  psi

NOTE:  
1. ALL DIMENSIONS ARE IN INCHES.



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TITLE OUTDOOR STYLE AIR HANDLING UNIT, PENTAK



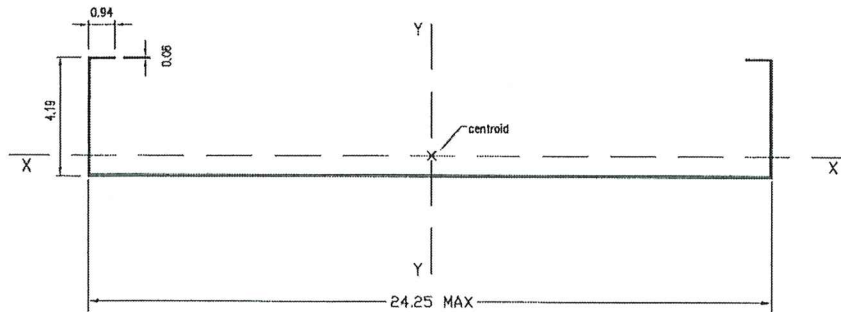
JOB NO.	DRAWN BY DY	DWG NO. 6945	PAGE 11 OF 15	REVISION 1 (JAN 12, 2011)
TAG	DATE JAN 12, 2011	TYPE OUTDOOR	DWG UNITS IN	REVISION 3 (JUL 18, 2016)



# Mechanical Properties of Typical Wall Panels

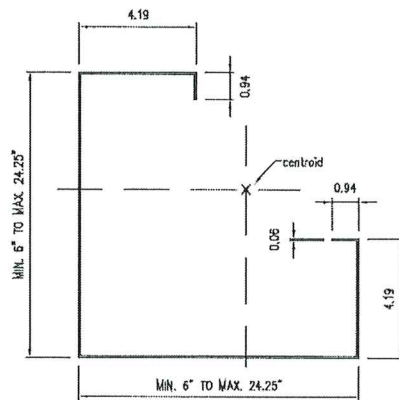
## (A) BREAK PROFILE OF NOMINAL 4" WALL PANEL

Material: 16ga Galvanealed Sheet Metal Steel



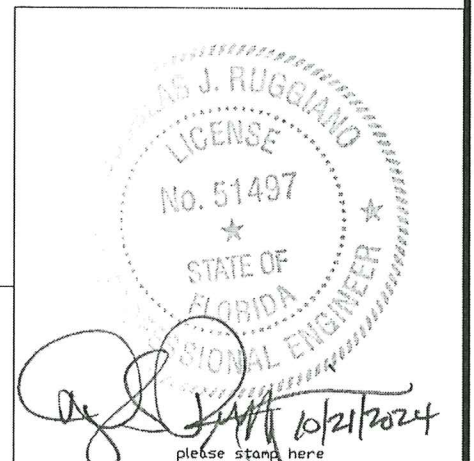
## (B) BREAK PROFILE OF NOMINAL 4" CORNER PANEL

Material: 16ga Galvanealed Sheet Metal Steel



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By *Helga A. Miller*  
Miami Data Product Control

NOTE:  
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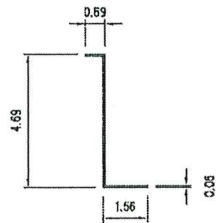


JOB NO.	DRAWN BY DY	DWG NO. 6945	PAGE 12 OF 15	REVISION 1 (JAN 12, 2011)
TAC	DATE JAN 12, 2011	TYPE OUTDOOR	DWG UNITS IN	REVISION 3 (JUL 18, 2016)

# Mechanical Properties of Typical Door Components

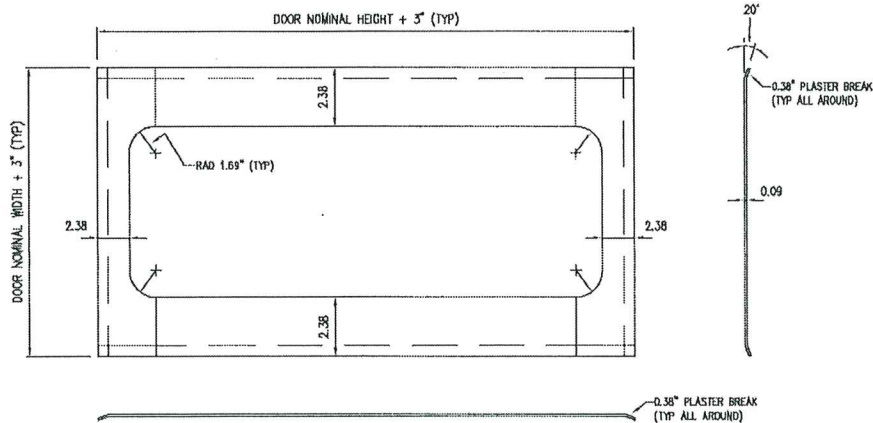
## (A) BREAK PROFILE OF DOOR FRAME FOR STANDARD DOOR

Material: 16ga Galvanealed Sheet Metal Steel



## (B) BREAK PROFILE OF DOOR FRAME FOR PRESSURE DOOR

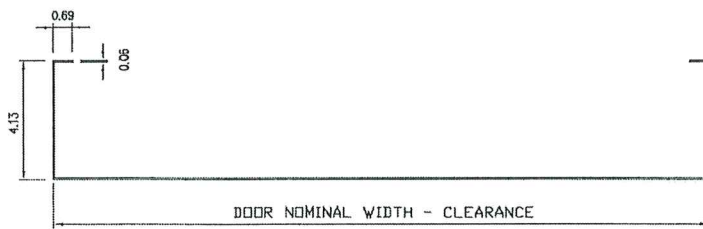
Material: 12ga Galvanealed Sheet Metal Steel



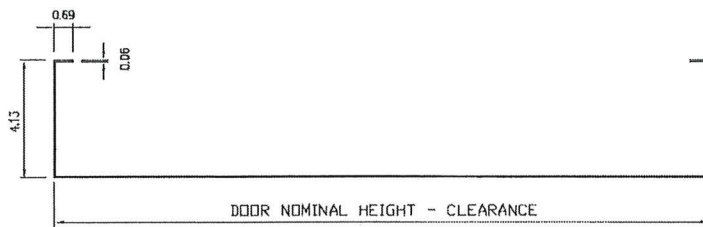
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## (C) BREAK PROFILE OF ACCESS DOOR

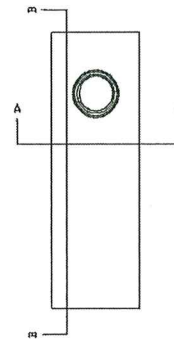
Material: 16ga Galvanealed Sheet Metal Steel



SECTION A-A



SECTION B-B



NOTE:  
1. ALL DIMENSIONS ARE IN INCHES.

*[Signature]* 10/21/2024  
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Douglas J. Ruggiano  
LICENSE  
No. 51497  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

TITLE OUTDOOR STYLE AIR HANDLING UNIT, PENTAK

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INDUSTRIES  
11851 DYKE ROAD, RICHMOND, B.C. CANADA V7A 4K8

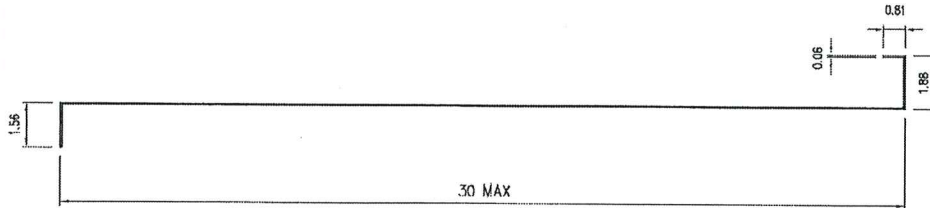
JOB NO.	DRAWN BY DY	DWG NO. 6945	PAGE 13 OF 15	REVISION 1 (JAN 12, 2011)
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# Mechanical Properties of Typical Outdoor Roof Components

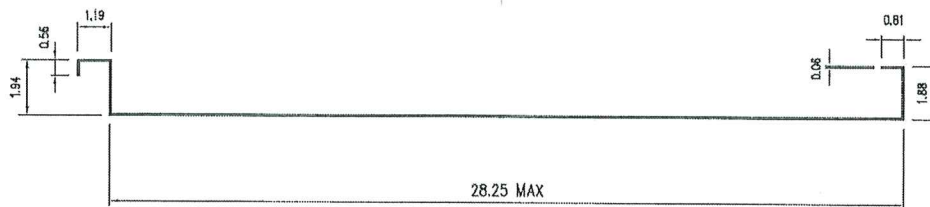
## (A) BREAK PROFILE OF TYPICAL OUTDOOR ROOF PANEL -- FIRST PANEL

Material: 16ga Galvanealed Sheet Metal Steel



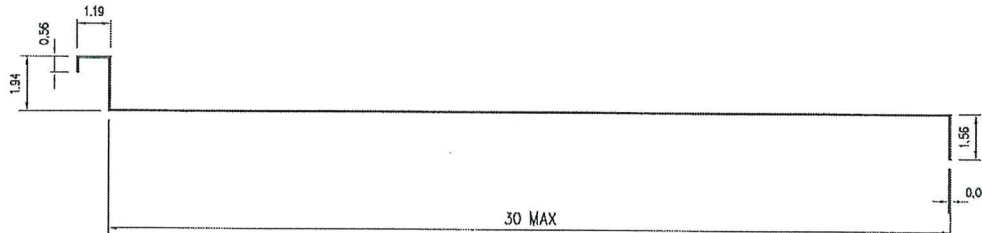
## (B) BREAK PROFILE OF TYPICAL OUTDOOR ROOF PANEL -- MIDDLE PANEL(S)

Material: 16ga Galvanealed Sheet Metal Steel



## (C) BREAK PROFILE OF TYPICAL OUTDOOR ROOF PANEL -- LAST PANEL

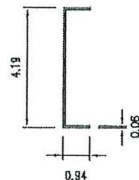
Material: 16ga Galvanealed Sheet Metal Steel



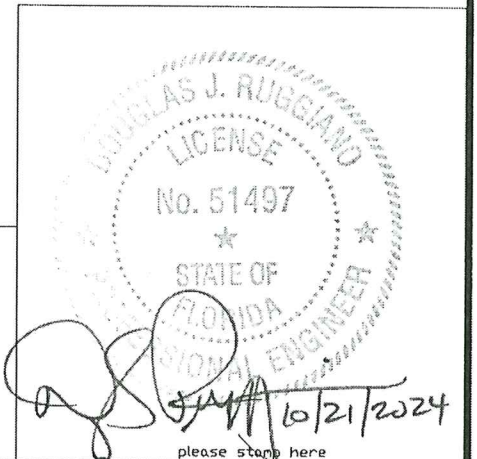
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## (D) BREAK PROFILE OF TYPICAL ROOF INSULATION CHANNEL

Material: 16ga Galvanealed Sheet Metal Steel



NOTE:  
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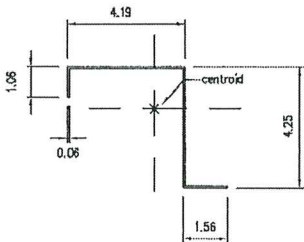
**HAAKON**  
INDUSTRIES  
11851 DYRL ROAD, RICHMOND, B.C. CANADA V7A 4X8

JOB NO.	DRAWN BY DY	DWG NO. 6945	PAGE 14 OF 15	REVISION 1 (JAN 12, 2011)
TAG	DATE JAN 12, 2011	TYPE OUTDOOR	DWG UNITS IN	REVISION 3 (JUL 18, 2016)

# Mechanical Properties of Wallcap

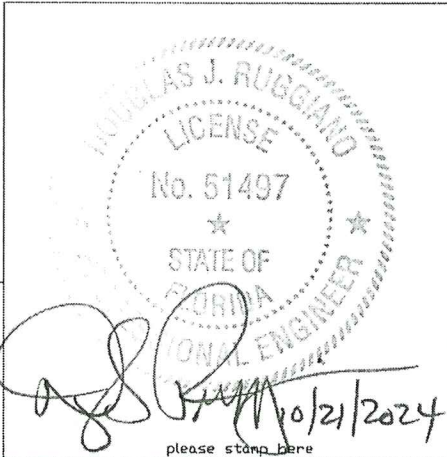
(A) BREAK PROFILE OF WALLCAP


Material: 16ga Galvanealed Sheet Metal Steel



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JOB NO.	DRAWN BY DY	DWG NO. 6945	PAGE 15 OF 15	REVISION 1 (JAN 12, 2011)		
TAG	DATE JAN 12, 2011	TYPE OUTDOOR	DWG UNITS IN	REVISION 3 (JUL 18, 2016)		