

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

# NOTICE OF ACCEPTANCE (NOA)

Plenums of Florida, Inc. P O Box 1890 Pinellas Park, FL 33780

# 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: TC42A, 43A, 44 Series Steel Roof-Curb for Trane Rooftop Units

**APPROVAL DOCUMENT:** Drawing No. 15-187-TC Series-ER-6th, titled "Steel Roof curbs for Trane Rooftop Units", sheets 1 through 11 of 11, prepared by James L. Buckner, P.E., dated March 28, 2016, last revision dated November 13, 2023, signed and sealed by James L. Buckner, P.E., 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: None

**LABELING:** Each roof-curb shall bear a permanent label with the manufacturer's name or logo, Pinellas Park, Florida 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 #22-0407.02 and consists of this page 1, evidence submitted pages E-1, E-2, and E-3 as well as approval document mentioned above.

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



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NOA No. 23-1122.10 Expiration Date: 05/04/2027 Approval Date: 02/22/2024 Page 1

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

# 1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 15-1221.02

#### A. DRAWINGS

1. Drawing No. 15-187-TC Series-ER, titled "Steel Roof curbs for Trane Rooftop Units", sheets 1 through 11 of 11, prepared by James L. Buckner, P.E., dated March 28, 2016, last revision #1 dated April 07, 2017, signed and sealed by James L. Buckner, P.E.

# B. TESTS

1. None.

# C. CALCULATIONS

1. Calculation titled "Test Analysis", dated March 28, 2016, 14 sheets, signed and sealed by James L. Buckner, P.E.

# D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

# E. MATERIAL CERTIFICATIONS

1. None.

# 2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 18-0516.08

# A. DRAWINGS

1. Drawing No. 15-187-TC Series-ER, titled "Steel Roof curbs for Trane Rooftop Units", sheets 1 through 11 of 11, prepared by James L. Buckner, P.E., dated March 28, 2016, last revision dated April 15, 2018, signed and sealed by James L. Buckner, P.E.

# B. TESTS

1. None.

# C. CALCULATIONS

1. None.

# D. QUALITY ASSURANCE

- *1. By Miami-Dade County Department of Regulatory and Economic Resources.*
- E. MATERIAL CERTIFICATIONS
  - 1. None.

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

Product Control Section Supervisor NOA No. 23-1122.10 Expiration Date: 05/04/2027 Approval Date: 02/22/2024

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

# 3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 21-0312.15

#### A. DRAWINGS

1. Drawing No. 15-187-TC Series-ER-6th, titled "Steel Roof curbs for Trane Roof top Units", sheets 1 through 11 of 11, prepared by James L. Buckner, P.E., dated 03/28/16, last revision dated 03/11/21, signed/sealed by James L. Buckner, P.E.

#### B. TESTS

1. None.

# C. CALCULATIONS

1. None.

# **D. QUALITY ASSURANCE**

1. By Miami-Dade County Department of Regulatory and Economic Resources.

# E. MATERIAL CERTIFICATIONS

1. None.

# F. STATEMENTS

1. FBC, 2020 Edition Compliance Letter prepared by James L. Buckner, P.E., dated March 11, 2021, signed and sealed by James L. Buckner, P.E.

# 4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 22-0407.02

# A. DRAWINGS

1. None.

# **B. TESTS**

1. None.

C. CALCULATIONS

1. None.

# D. QUALITY ASSURANCE

*1. By Miami-Dade County Department of Regulatory and Economic Resources.* 

# E. MATERIAL CERTIFICATIONS

1. None.

# F. STATEMENTS

1. FBC, 2020 Edition Compliance Letter prepared by James L. Buckner, P.E., dated March 11, 2021, signed and sealed by James L. Buckner, P.E.

Helmy A. Makar, P.E., M.S. Product Control Section Supervisor NOA No. 23-1122.10 Expiration Date: 05/04/2027 Approval Date: 02/22/2024

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 5. NEW EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing No. 15-187-TC Series-ER-6th, titled "Steel Roof curbs for Trane Rooftop Units", sheets 1 through 11 of 11, prepared by James L. Buckner, P.E., dated March 28, 2016, last revision dated November 13, 2023.

# B. TESTS

1. None.

# C. CALCULATIONS

1. None.

# D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

# E. MATERIAL CERTIFICATIONS

1. None.

#### F. STATEMENTS

1. FBC, 2023 Edition Compliance Letter prepared by James L. Buckner, P.E., dated 11/09/2023, signed and sealed by James L. Buckner, P.E.

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

Product Control Section Supervisor NOA No. 23-1122.10 Expiration Date: 05/04/2027 Approval Date: 02/22/2024

**Engineering Report & Drawings** 

Of

# Plenums of Florida, Inc.

# "TC Series" Trane Roof Curbs

# **Steel Roof Curbs for Trane Rooftop Units**

For

# Miami-Dade Notice of Acceptance (N.O.A.)

Category: Roof Sub - Category: Curb

# Prepared by:

# James L. Buckner, P.E.

# Florida Professional Engineer # 31242

Report No.: 15-187-TC Series-ER-6th Rev Date: 4 / 15 / 18 Report : 20-255-TC Series-ER-7th Rev Date 3 / 11 / 2021 Report 23-589-TC\_Series-ER-8<sup>th</sup> Rev 11/13/23

#### Contents:

Cover PagePage 1Product & Evaluation ScopePage 2 - 3Installation DrawingsPage 4 - 5Assembly DrawingsPage 6 - 7ComponentsPage 8 - 11

PRODUCT REVISED as complying with the Florida **Building Code** Acceptance No Z3 122.10 Expiration Date 05 027 By ne 1Ne Miami Dade Product Control

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Plenums "TC Series" Trane Roof Curbs ENGINEERING REPORT

#### CBUCK Engineering Specialty Structural Engineering CBUCK, Inc. COA #8064 www.cbuckinc.net (561) 491-9927 1374 Community Drive

Jupiter, FL 33458

#### MANUFACTURER:

Plenums of Florida, Inc. P.O. Box 1890 Pinellas Park, FL 33780

DATE:	3 / 28 / 16
PAGE #:	1 OF 11
REPORT #:	15-187-TC Series-ER-6th
PROJECT #:	15-187
DRAWN BY:	YD
<b>REVISION</b> :	11/13/2023

#### 1.0 Product:

- 1.1 Manufacturer:
  1.2 Product Name:
- L.2 Product Name
- 1.3 Category:
- 1.4 Subcategory:

#### 2.0 Evaluation Scope:

#### 2.1 Evaluation Criteria:

Florida Building Code (FBC) 8th Edition (2023)

Code Section: High Velocity Hurricane Zone (HVHZ)

Roof

Curb

Plenums of Florida, Inc. "TC Series" Trane Roof Curbs

Miami-Dade Department Of Regulatory And Economic Resources, Product Control Section Checklist and Criteria

# 2.2 Properties Evaluated:

Assembly Wind Resistance (Curb & Simulated Trane Unit) Uplift & Vertical Down Lateral Overturning

**Component Material Properties** 

#### 2.3 Limits of Evaluation:

This product is limited to compliance with the criteria in section 2.1 and properties in section 2.2 of this report.

#### 3.0 Evaluated Uses:

Roof Curbs attached to building structural to support Trane rooftop mechanical units.

# 4.0 Assembly Description:

# 4.1 General:

"TC Series" are steel roof curbs to support Trane rooftop mechanical units. Curb perimeter walls 16 gauge minimum.

#### 4.2 Curb Dimensions:

#### 4.3 Curb Assembly & Components:

See Pages 6 - 11

R/A S/A		Plenums Curb Model #	A	В	с	D	E	F	G	
		TC42A	37-7/16"	61-13/16"	14-9/16"	8-3/8"	16-3/4"	25-3/16"	17-7/8"	
		ТС43А	46-3/8"	80-1/2"	18-1/4"	8-5/8"	18-1/2"	34-3/8"	34-3/8"	
1-1/2'		TC44	56-3/8"	80-1/2"	18-1/2"	8-5/8"	18-1/2"	34-3/8"	34-3/8"	
ENGI	ums "TC Series" <sup>-</sup>	Trane Roof	Curbs			as complying with the Florida Building Code Acceptance No 23-1122.10 Expiration Date 05/04/2027 By Har J. A. Markow Miami Dad Product Control				
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STATE OF Specialty Structural Engine Specialty Structural Engine CBUCK, Inc. COA # www.cbuckinc.net (561) 491-9927 1374 Community Drive							PAGE #: 2 OF 11 REPORT #: 15-187-TC Series-ER-6th			
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#### 5.0 Curb Steel Supports:

- The building support structural is designed by others and shall have the following minimum Characteristics: Structural Support (Beam, Purlin, Bar Joist)
- 5.1 Type:
- 5.2 Material: Steel
- 5.3 Top Flange Size: 3" Minimum Width
- 5.4 Top Flange Thickness: 1/4" Minimum
- 5.5 Yield Strength: 33 ksi Minimum
- 5.6 Support Location: Curb perimeter

Design of support by others

#### 6.0 Performance:

6.1 Maximum Lateral Design Pressure:	<b>87</b> PSF (ASD) Applied to Curb & Trane Unit Vertical Walls
6.2 Maximum Uplift Design Pressure:	<b>102</b> PSF (ASD) Applied to Curb/Unit Assembly

#### 7.0 Installation:

Each curb panel shall be fastened to horizontal supports with 3/8" bolts and nuts spaced 16" o.c. maximum. All screws, bolts, nuts and washers shall be corrosion resistant steel per FBC, HVHZ of 60 ksi minimum tensile strength.

The connection of the steel supports to the existing supporting structure is not part of this product control approval and it shall be submitted to permitting jurisdiction for review and approval.

Refer to Drawings on pages 4 through 8 of this report for supplemental installation and components guide.

#### 8.0 Limitations of Use:

- 8.1 The curbs shall be supported by structural steel support complying with the Miami-Dade (Florida High velocity zone) code.
- 8.2 The engineer of record or architect shall verify that the building structure is capable of resisting the superimposed loads from the system and that the supporting structure is capable of providing lateral stability to carry the wind loads to the building foundation.

#### **Code Compliance** 9.0

9.1 The Roof Curbs in this report meet the High Velocity Hurricane Zone (HVHZ) Requirements of the Florida Building Code, 8<sup>th</sup> Edition (2023) for the properties evaluated.

#### 10.0 Identification:

10.1 Each roof-curb shall bear a permanent label with the manufacturer's name or logo, manufacturing plant's city, state and the statement reading "Miami-Dade County Product Control Approved".

# 11.0 Reference Data:

- 11.1 ASTM E72 Strength Test
  - **PRODUCT REVISED** Report No.: T292-15 Report Date: 10/30/15, Revision Date: 12/14/15as complying with the Florida By: Farabaugh Engineering & Testing, Inc.
- 11.2 Test Analysis, Titled Test Analysis for NOA #15-1221.02, dated: 3/28/16 signed and sealed by James L. Buckner P.E.

BUCKA ICENSO Plenums "TC Series" Trane Roof Curbs **ENGINEERING REPORT** No 31242 N 3/28/16 DATE: MANUFACTURER: CBUCK Engineering 41 PAGE #: 3 OF 11 STATE OF Speciality Structural Engineering Plenums of Florida, Inc. 15-187-TC Series-ER-6th CBUCK, Inc. COA #8064 **REPORT #:** P.O. Box 1890 ONAL www.cbuckinc.net PROJECT #: 15-187 (561) 491-9927 Pinellas Park, FL 33780 DRAWN BY: YD 1374 Community Drive Jupiter, FL 33458 REVISION: 11/13/2023



PLENUMS OF FLORIDA, INC. "TC Series" Trane Roof Curb **INSTALLATON DRAWINGS Curb to Support** Trane Corporation Mechanical Unit Attachment Design to Curb by Others Plenums Steel Curb Wall 3/8" Thru Bolts with nuts to Min. 3" Wide Steel Support @ 16" o.c. Maximum Spacing 12" Max. from Curb Corner On all Four Sides of Curb Steel Support (Beam, Purlin, Barjoist) Typical Curb Perimeter Section NOTES: 1. REFER TO MANUFACTURER INSTALLTION INSTRUCTIONS FOR SUPPLEMENTAL DETAILS PRODUCT REVISED as complying with the Florida Building Code Acceptance No23 - 1/22. (0) 04/2027 Expiration Date 05 No 3' Mi oduct Control JAMES L. BUCK Plenums "TC Series" Trane Roof Curbs NUNEER-**ENGINEERING REPORT** DATE: 3/28/16 MANUFACTURER: CBUCK Engineering PAGE #: 5 OF 11 Speciality Structural Engineering FLORIDA Plenums of Florida, Inc. CBUCK, Inc. COA #8064 **REPORT #:** 15-187-TC Series-ER-6th 0 SIONAL www.cbuckinc.net P.O. Box 1890 **PROJECT #:** 15-187 1111111 (561) 491-9927 Pinellas Park, FL 33780 DRAWN BY: YD 1374 Community Drive Jupiter, FL 33458 REVISION: 11/13/2023 11/9/23





# **COMMON COMPONENTS**

		IRB TO STEEL SUPPORT BOLT		
	Type: Diameter: Tensile Strength: Corrosion Resistance:	Used to secure Curb to Structural Support Hex Head Thru Bolts w/ Washers & Nuts 3/8" Minimum 60 ksi Minimum Zinc Plated Steel per ANSI/ASME B18.2.1 & SAE J429 Specifications or Per FBC HVHZ		
			*	
	Type: Size: Tensile Strength: Corrosion Resistance:	Used to assemble Curb Hex Head Thru Bolts w/ Washers & Nuts 1/4"-20 × 5/8" Minimum 60 ksi Minimum Zinc Plated Steel per ANSI/ASME B18.2.1 & SAE J429 Specifications or Per FBC HVHZ		
	Type: Size: Corrosion Resistance:	TEK SCREW Used to assemble Curb Hex Washer Head, Self-Drilling Tek Screws #10 × 1/2" Minimum Zinc Plated Steel per ANSI/ASME B18.6.3 & SAE J78 Specifications or per FBC HVHZ		
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