

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

ITW Buildex, a division of Illinois Tool Works, Inc. 155 Harlem Ave. Glenview, IL 60025

**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 Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION:** Tapcon<sup>®</sup> Concrete and Masonry Anchors with Advanced Threadform Technology<sup>TM</sup>

**APPROVAL DOCUMENT:** Drawing No. **20-31425**, titled "Tapcon Concrete Anchors with Advanced Threadform Technology", sheets 1 and 2 of 2, dated 06/16/06, with revision dated 10/20/20, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

# **MISSILE IMPACT RATING: None**

**LABELING:** Each box shall bear a permanent label with the manufacturer's name or logo, Roselle, IL or Addison, IL and 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 No. 21-0201.06 and consists of this page 1 and evidence page E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.



NOA No. 22-0524.04 Expiration Date: August 31, 2026 Approval Date: May 11, 2023 Page 1

# ITW Buildex, a division of Illinois Tool Works, Inc.

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

## 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections. *(Submitted under NOA No. 16-1222.06)*
- 2. Drawing No. 20-31425, titled "Tapcon Concrete Anchors with Advanced Threadform Technology", sheets 1 and 2 of 2, dated 06/16/06, with revision dated 10/20/20, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E. (Submitted under NOA No. 21-0201.06)

## **B. TESTS**

- Tension and Shear Resistance Test of 3/16" SS Tapcon ATFT with Climashield per ASTM E 488, prepared by C.E.L Consulting, Report No. 71B153, dated 01/31/07, signed and sealed by Lee W. Mattis, P.E. (Submitted under NOA No. 07-0315.03)
- Corrosion Resistance Test per ASTM G 85 as noted in TAS 114(E), prepared by PRI Construction Materials Technologies, Report No. ITW-004-02-01, dated 01/05/07, signed and sealed by Charles L. Thomas, P.E. (Submitted under NOA No. 07-0315.03)
- Test report on Tension and Shear Resistance, Report No. 4I131 for "Tapcon Concrete/Masonry Screw Anchors" per ASTM E 488, prepared by Cel Consulting on 04/29/05, signed and sealed by L. W. Mattis, P.E. (Submitted under NOA No. 05-1020.01)
- 4. Test report on Tension and Shear Resistance, Report No. **4I131** with Supplement 6519 for Tapcon with Advanced Threadform Technology per ASTM E 488 prepared by Cel Consulting on 05/19/05, signed and sealed by L. W. Mattis, P.E. *(Submitted under NOA No. 05-1020.01)*
- 5. Test report of corrosion resistance for fasteners, Project No. ITW-003-02-01, 02, 03 & 04, for fasteners with Tapcon Plus, Silver Climaseal, Silver Ultrashield and White Ultrashield per ASTM G85 as noted on TAS 114(E), prepared by Cel Consulting on 10/22/04 and 05/16/06, signed and sealed by C. L. Thomas, P.E. (Submitted under NOA No. 05-1020.01)

# C. CALCULATIONS

- Anchors allowable loads calculations prepared by Engineering Express, dated 08/14/12, signed and sealed by Frank L. Bennardo, P.E. (Submitted under NOA No. 12-0816.06)
- 2. Calculations addendum on new stainless steel anchors, prepared by Engineering Express, dated 03/08/07, signed and sealed by Frank L. Bennardo, P.E. *(Submitted under NOA No. 07-0315.03)*

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Manuel Pérez, P.E. Product Control Examiner NOA No. 22-0524.04 Expiration Date: August 31, 2026 Approval Date: May 11, 2023

# ITW Buildex, a division of Illinois Tool Works, Inc.

# **NOTICE OF ACCEPTANCE:** EVIDENCE SUBMITTED

#### 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

#### C. CALCULATIONS (CONTINUED)

Calculations of allowable loads for Tapcon with Advanced Threadform Technology, prepared by Engineering Express, dated 06/22/06, signed and sealed by Frank L. Bennardo, P.E.
 (Submitted under NOA No. 05-1020.01)

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

#### E. MATERIAL CERTIFICATIONS

1. None.

#### F. STATEMENTS

- Statement letter of conformance, complying with FBC 7<sup>h</sup> Edition (2020) dated 01/07/21, issued by Engineering Express, signed and sealed by Frank L. Bennardo, P.E. (Submitted under NOA No. 21-0201.06)
- Statement letter of no financial interest dated 01/07/21, issued by Engineering Express, signed and sealed by Frank L. Bennardo, P.E. (Submitted under NOA No. 21-0201.06)

#### G. OTHERS

1. Notice of Acceptance No. 16-1222.06, issued to ITW Buildex. for their Tapcon<sup>®</sup> Concrete and Masonry Anchors with Advanced Threadform Technology<sup>™</sup>, approved on 01/26/17 and expiring on 08/31/21.

Manuel Perez, P.E. Product Control Examiner NOA No. 22-0524.04 Expiration Date: August 31, 2026 Approval Date: May 11, 2023

# ITW Buildex, a division of Illinois Tool Works, Inc.

# **NOTICE OF ACCEPTANCE:** EVIDENCE SUBMITTED

#### 2. NEW EVIDENCE SUBMITTED

#### A. DRAWINGS

1. None.

## **B. TESTS**

Test report on Corrosion Resistance (Salt Spray) per ASTM G 85-11, Annex A5, 140 cycles (280 hours) as detailed in TAS 114, Appendix E of: 3/16" x 2-3/4" & 1/4" x 2-3/4" Blue Tapcon, and 3/16" x 1-3/4" & 1/4" x 2-3/4" White Tapcon Flat Head Anchors, prepared by PRI Construction Materials Technologies, LLC, Test Report No. PRI-2415T0001, dated 10/14/21 thru 11/10/21 and signed and sealed by Duc Thanh Nguyen, P.E.

## C. CALCULATIONS

1. None.

## D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

## E. MATERIAL CERTIFICATIONS

1. None.

# F. STATEMENTS

- 1. Name change request to legal enterprise name of Illinois Tool Works, Inc. of which Buildex was and is a wholly owned brand and division of Illinois Tool Works, Inc., dated January 20, 2023 signed by Henry Schniedermeier, Engineering Manager, ITW Construction – Residential & Renovation
- 2. Affidavit affirming that Illinois Tool Works, Inc. (the Company) is a Delaware corporation, having its shares traded at the New York Stock Exchange (NYSE) and that the assets and business operations known as ITW Buildex are owned directly by the Company and are referred to as: ITW Buildex, a division of Illinois Tool Works, Inc., dated January 25, 2023, signed by Phillip McGovern, Assistant Secretary, Illinois Tool Works, Inc.
- 3. Affidavit from ITW Commercial Construction North America stating that corrosion coatings tested are equivalent to the corrosion coatings listed in above NOA's, dated May 3, 2022, signed by Christopher Horst, Project Engineer, ITW Construction Residential & Renovations, on behalf of ITW Commercial Construction North America.

# G. OTHERS

1. Notice of Acceptance No. 21-0201.06, issued to ITW Buildex for their Tapcon<sup>®</sup> Concrete and Masonry Anchors with Advanced Threadform Technology<sup>™</sup>, approved on 05/06/21 and expiring on 08/31/26.

> Manuel Pérez, P.E. Product Control Examiner NOA No. 22-0524.04 Expiration Date: August 31, 2026 Approval Date: May 11, 2023

# **TWBUILDEX** TAPCON<sup>®</sup> with ADVANCED THREADFORM TECHNOLOGY™ CONCRETE & MASONRY ANCHOR

# GENERAL NOTES:

1. THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE SEVENTH EDITION (2020), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, AND THE FOLLOWING STANDARDS: ASTM E488, ASTM G85, & TAS 114.

ANCHOR INSTALLATION SHALL BE MADE IN 2. ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS NOTICE OF ACCEPTANCE

3. CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS, WITH STRENGTH PROPERTIES AS SPECIFIED HEREIN. CONCRETE BLOCK SHALL CONFORM TO ASTM C-90.

ANCHORS REPRESENTED IN TABLES 1-4 ARE MANUFACTURED FROM HEAT-TREATED STEEL WITH AN ALTERNATING HIGH-LOW ADVANCED THREADFORM TECHNOLOGY, ANCHOR YIELD STRENGTH Fy=100 KSI ULTIMATE STRENGTH Fu=125 KSI. HEAT TREATED STEEL ANCHORS SHALL HAVE THE CORROSION-RESISTANT COATINGS AS DESCRIBED BELOW IN COMPLIANCE WITH THE FLORIDA BUILDING CODE:

SILVER & WHITE ULTRASHIELD **BLUE & SILVER CLIMASEAL** 

ANCHORS REPRESENTED IN TABLE 5 ARE OF 410 STAINLESS STEEL ALLOY WITH AN ALTERNATING HIGH-LOW ADVANCED THREADFORM TECHNOLOGY AND SHALL HAVE A CLIMASHIELD CORROSION-RESISTANT COATING IN COMPLIANCE WITH THE FLORIDA BUILDING CODE. ANCHOR YIELD STRENGTH Fy=100 KSI, ULTIMATE STRENGTH Fu=125 KSI.

PILOT HOLES FOR ALL INSTALLATIONS SHALL HAVE A 6 DEPTH 1/4" LONGER THAN INDICATED EMBEDMENT DEPTH WITH THE FOLLOWING PILOT HOLE SPECIFICATIONS:

3/16" ANCHORS: 5/32" TAPCON DRILL BIT 6.1

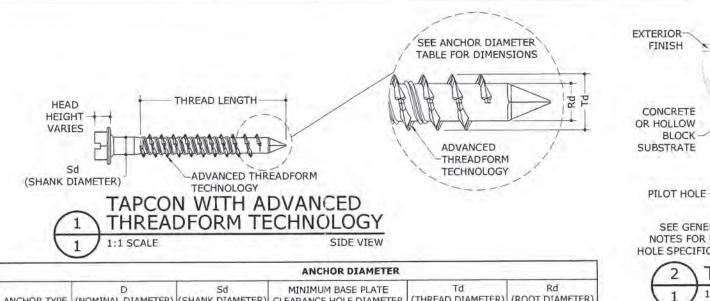
1/4" ANCHORS: 3/16" TAPCON DRILL BIT 62 ALLOWABLE LOAD SHOWN=ULTIMATE LOAD DIVIDED BY 4.0 FOR SOLID NON-CRACKED CONCRETE SUBSTRATES, 5.0 FOR HOLLOW BLOCK SUBSTRATES, NO ALLOWABLE STRESS INCREASE HAS BEEN USED IN PREPARATION OF THIS DOCUMENT

8. ANCHORS SHALL NOT BE INSTALLED IN CRACKED CONCERED SUBSTRATES, AS DEFINED IN ACI 355.2. 9. ANCHOR EDGE DISTANCES, EMBEDMENTS, AND SPACINGS BELOW THOSE SHOWN IN DESIGN TABLES HEREIN ARE NOT ACCEPTABLE.

10. ALLOWABLE LOAD CAPACITIES TO SUBSTRATES THAT ARE NOT SHOWN IN THE DESIGN TABLES LISTED HEREIN ARE OUTSIDE THE SCOPE OF THIS CERTIFICATION AND SHALL BE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. 11. ANCHOR VALUES LISTED HEREIN ARE DETERMINED THROUGH TESTING REPORT DATA AND CHECKED FOR CONSISTENCY WITH EACH TEST PERFORMED.

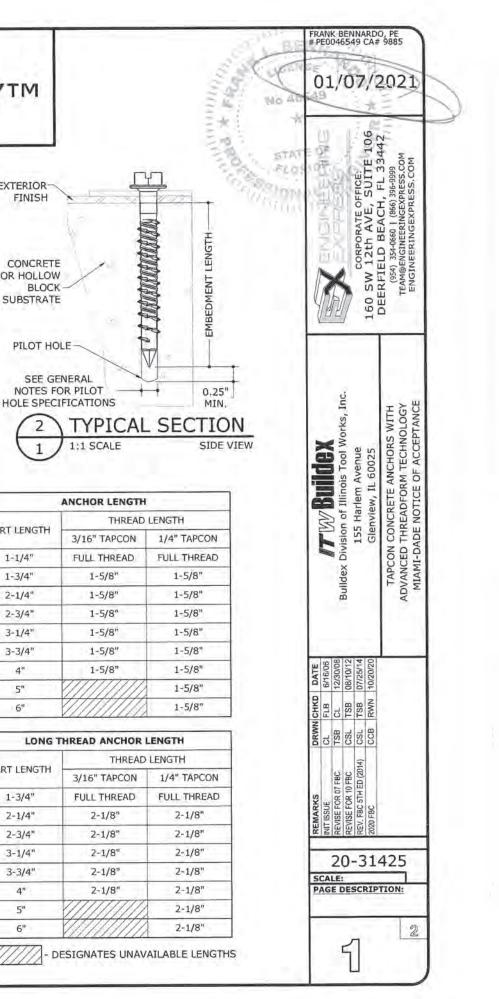
12. REFERENCE THE FOLLOWING TEST REPORTS:

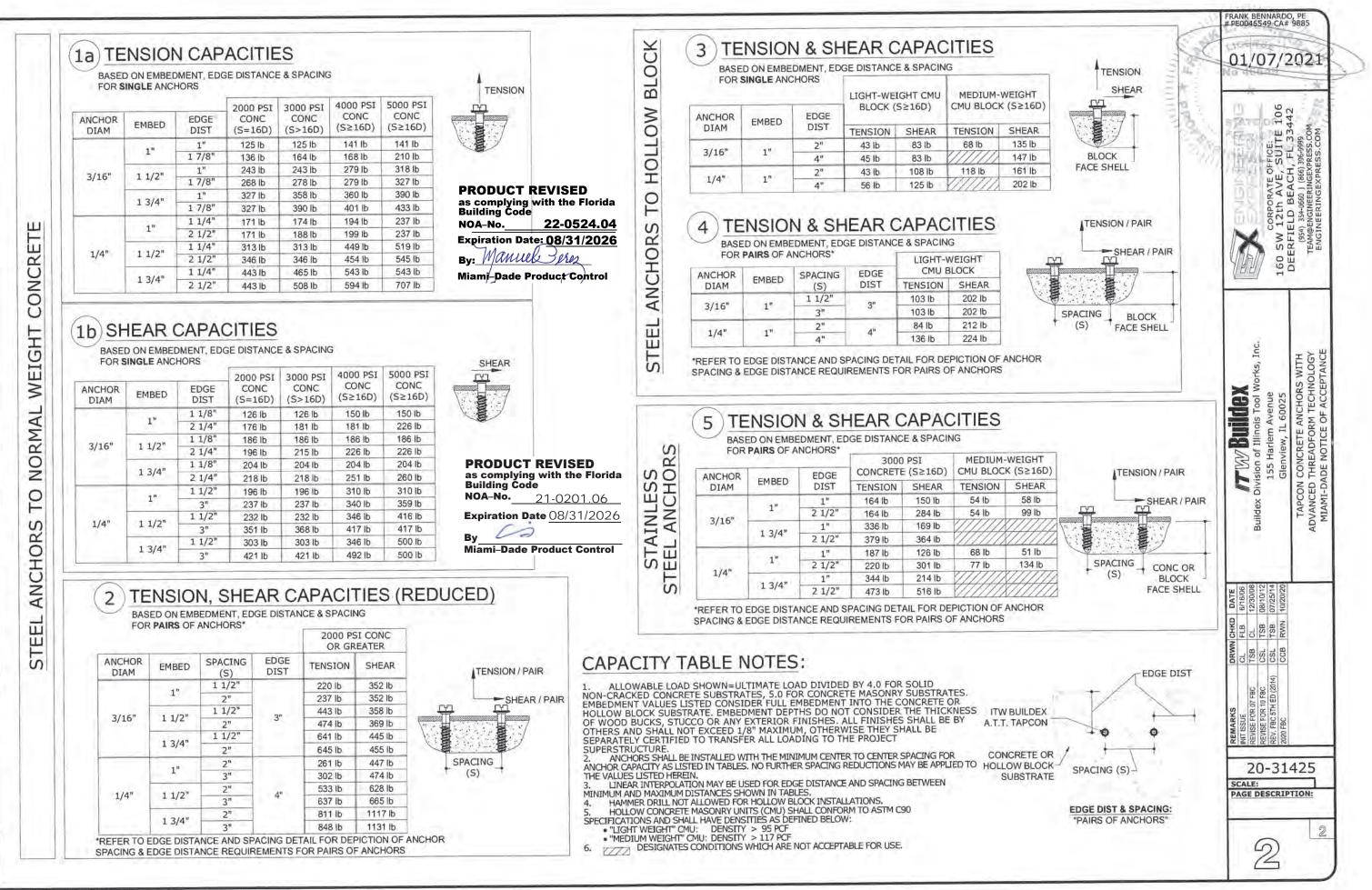
- CEL CONSULTING
- •• #4I131werc (4/29/2005)
- •• #4I131werc SUPPLEMENT 6519 (5/19/2006) ·· #71B153 (01/31/2007)
- PRI ASPHALT TECHNOLOGIES, INC.
- •• #ITW-002-02-01 (12/1/2004)
- •• #ITW-003-02-02 (6/15/2006)
- #ITW-003-02-03 (6/15/2006)
  #ITW-003-02-04 (6/15/2006)
  PRI CONSTRUCTION MATERIALS TECHNOLOGIES, INC.
- •• #ITW-004-02-01 (11/14/2006)



ANCHOR TYPE	D (NOMINAL DIAMETER)	Sd (SHANK DIAMETER)	MINIMUM BASE PLATE CLEARANCE HOLE DIAMETER	Td (THREAD DIAMETER)	Rd (ROOT DIAMETER)
3/16" TAPCON	0.1875"	0.145"	0.250"	CONTACT ITW BUILDEX FOR SPECIFIC ANCHOR DIAMETER INFORMATION	
1/4" TAPCON	0.250"	0.190"	0.3125"		







V:\Projects\20-31425 - NOA16-1222.06 - Tapcon Concrete & Masonty Anchors

1 - 1:07pm rickn V:\Projects\20-31425 - NO