



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

**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

**Elco Construction Products, Div. of Infastech, LLC
1304 Kerr Drive
Decorah, IA 52101**

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: Ultracon® SS4 410 Series Stainless Steel Concrete and Masonry Screw Anchor

APPROVAL DOCUMENT: Drawing No. 14-1819, titled "Elco Ultracon® SS4 410 Series Stainless Steel Concrete & Masonry Screw", sheet 1 of 1, dated 08/23/2013, with last revision dated 12/20/2017, 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, city, state, model/ series and following statement: "Miami-Dade County Product Control Approved or MDCPCA", 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 # 15-0226.11 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**



Handwritten signature and date: 02/28/2018

**NOA No. 17-1227.23
Expiration Date: February 27, 2019
Approval Date: March 08, 2018
Page 1**

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS *"Submitted under NOA # 15-0226.11"*

1. Drawing No. **14-1819**, titled "Elco Ultracon[®] SS4 410 Series Stainless Steel Concrete & Masonry Screw", sheet 1 of 1, dated 08/23/2013, with last revision dated 09/29/2014, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

B. TESTS *"Submitted under NOA # 13-1205.05"*

| | <u>Test Report</u> | <u>Standard</u> | <u>Date</u> | <u>Signature</u> |
|----|--------------------|-----------------|-------------|---------------------------|
| 1. | HETI-11-A650 | ASTM E488 | 06/11/13 | Rafael E. Droz-Seda, P.E. |
| 2. | HETI-11-A666 | ASTM E488 | 06/11/13 | Rafael E. Droz-Seda, P.E. |
| 3. | HETI-11-A674 | ASTM E488 | 06/11/13 | Rafael E. Droz-Seda, P.E. |
| 4. | HETI-11-C162 | ASTM C39 | 10/17/11 | Rafael E. Droz-Seda, P.E. |
| 5. | HETI-11-C163 | ASTM C39 | 12/12/11 | Rafael E. Droz-Seda, P.E. |
| 6. | HETI-11-C164 | ASTM C39 | 10/19/11 | Rafael E. Droz-Seda, P.E. |
| 7. | HETI-11-S100 | ASTM G85 | 12/30/11 | Rafael E. Droz-Seda, P.E. |
| 8. | HETI-12-T100 | ASTM F606 | 01/24/12 | Rafael E. Droz-Seda, P.E. |
| 9. | HETI-12-T101 | ASTM F606 | 01/24/12 | Rafael E. Droz-Seda, P.E. |

C. CALCULATIONS *"Submitted under NOA # 13-1205.05"*

1. Anchor allowable load capacities calculation prepared by Engineering Express, dated 10/02/2013, signed and sealed by Frank L. Bennardo, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

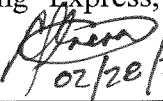
1. None.

F. STATEMENTS *"Submitted under NOA # 15-0226.11"*

1. Statement letter of code conformance to the 5th edition (2014) FBC issued by Engineering Express, dated 09/29/2014, signed and sealed by Frank L. Bennardo, P.E.

"Submitted under NOA # 13-1205.05"

2. Statement letter of code conformance to 2010 FBC issued by Engineering Express, dated 08/23/2013, signed and sealed by Frank L. Bennardo, P.E.
3. Statement letter of no financial interest issued by Engineering Express, dated 08/23/2013, signed and sealed by Frank L. Bennardo, P.E.


02/20/2018

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 17-1227.23
Expiration Date: February 27, 2019
Approval Date: March 08, 2018

Elco Construction Products, Div. of Infastech, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **14-1819**, titled "Elco Ultracon[®] SS4 410 Series Stainless Steel Concrete & Masonry Screw", sheet 1 of 1, dated 08/23/2013, with last revision dated 12/20/2017, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E..

B. TESTS

1. None.

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. Statement letter of code conformance to 6th edition (2017) FBC, prepared by Engineering Express, dated 12/21/2017, signed and sealed by Frank L. Bennardo, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 17-1227.23
Expiration Date: February 27, 2019
Approval Date: March 08, 2018

ELCO ULTRACON[®] SS4

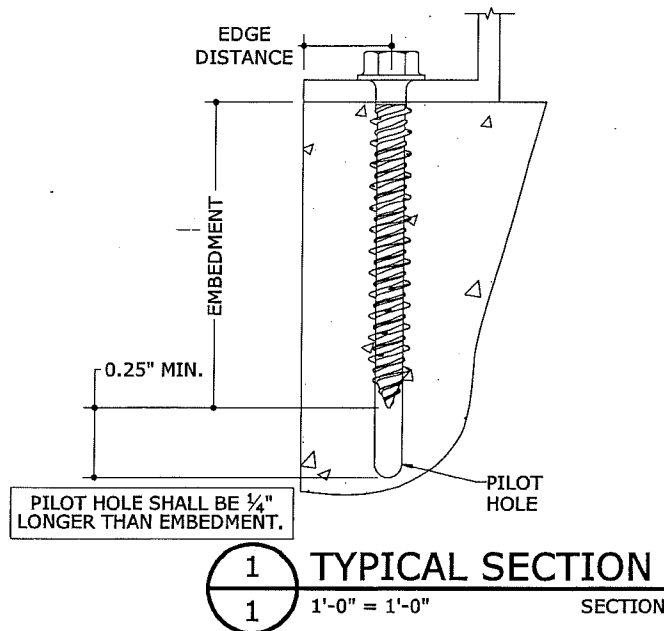
410 SERIES STAINLESS STEEL CONCRETE & MASONRY SCREW

1/4"Ø ULTRACON SS4 ALLOWABLE LOAD CAPACITIES:

| | EDGE DISTANCE | SPACING | EMBEDMENT | TENSION (LB) | SHEAR (LB) |
|--------------------------|---------------|---------|-----------|--------------|------------|
| HOLLOW BLOCK | 1" | 1-1/2" | 1-1/4" | 106 | 44 |
| | | 3" | 1-1/4" | 124 | 72 |
| | 2-1/2" | 1-1/2" | 1-1/4" | 106 | 89 |
| | | 3" | 1-1/4" | 124 | 123 |
| CONCRETE (2897 PSI MIN.) | 1" | 1-1/2" | 1" | 91 | 71 |
| | | | 1-3/4" | 144 | 103 |
| | | 3" | 1" | 163 | 74 |
| | 2-1/2" | 1-1/2" | 1" | 191 | 194 |
| | | | 1-3/4" | 339 | 505 |
| | | 3" | 1" | 236 | 263 |
| | | | 1-3/4" | 403 | 584 |
| | | | 2" | 292 | 83 |
| GROUT FILLED BLOCK | 1" | 1-1/2" | 1-1/4" | 137 | 56 |
| | | | 2" | 218 | 56 |
| | | 3" | 1-1/4" | 190 | 83 |
| | 2-1/2" | 1-1/2" | 1-1/4" | 205 | 91 |
| | | | 2" | 218 | 180 |
| | | 3" | 1-1/4" | 212 | 200 |
| | | | 2" | 386 | 302 |

NOTE:

- HOLLOW BLOCK SHALL CONFORM TO ASTM C-90 WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
- GROUT FILLED BLOCK SHALL CONFORM TO ASTM C-90 WITH A MINIMUM BLOCK COMPRESSIVE STRENGTH OF 2000 PSI AND MINIMUM GROUT COMPRESSIVE STRENGTH OF 1624 PSI
- ALLOWABLE LOAD CAPACITIES LISTED HEREIN ARE NOT VALID FOR CRACKED CONCRETE SUBSTRATES AS DETAILED IN ACI 355.2.



ULTRACON SS4 THREAD LENGTHS:

| ELCO PART LENGTH | THREAD LENGTH (MIN.) | LENGTH RANGE CODE* |
|------------------|----------------------|--------------------|
| 1 3/4" | 1 5/8" | A |
| 2 1/4" | 1 7/8" | B |
| 2 3/4" | 1 7/8" | C |
| 3 1/4" | 1 7/8" | D |
| 3 3/4" | 1 7/8" | E |
| 4" | 1 7/8" | F |

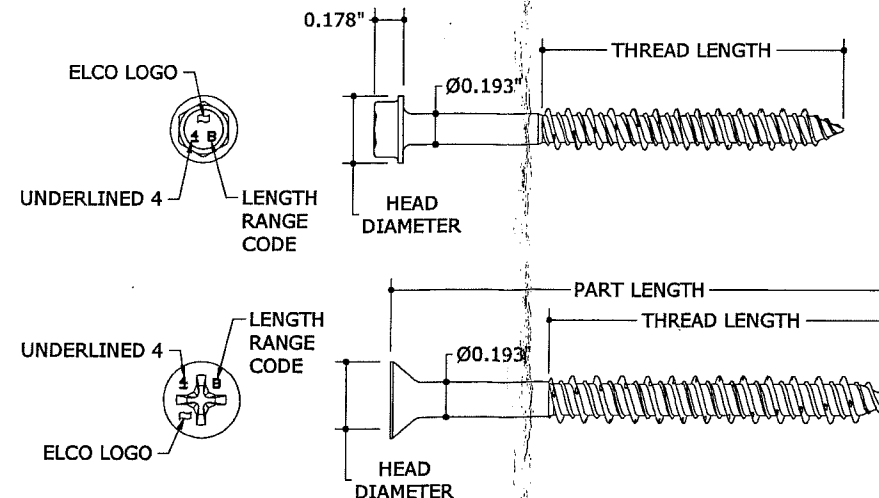
*LENGTH CODE IS MARKED ON TOP OF FASTENER HEAD, SEE ILLUSTRATION BELOW

DRIVE AND HEAD DIMENSIONS:

| DRIVE/HEAD STYLE | DRIVE | HEAD DIAMETER |
|--------------------------|----------------|---------------|
| HEX WASHER HEAD (HWH) | 5/16" HEX (AF) | 0.415" NOM. |
| PHILLIPS FLAT HEAD (PFH) | #3 PHILLIPS | 0.415" NOM. |

THREAD AND SHANK DIMENSIONS:

| FASTENER DIMENSION | DIAMETER |
|------------------------------|-------------|
| HIGH THREAD DIAMETER | 0.257" NOM. |
| LOW THREAD DIAMETER | 0.209" NOM. |
| MINOR DIAMETER (THREAD ROOT) | 0.174" NOM. |
| UNTHREADED SECTION DIAMETER | 0.193" |



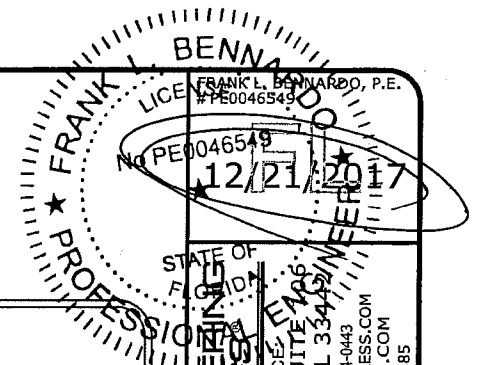
GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE SIXTH EDITION (2017) FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, AND THE FOLLOWING STANDARDS: ASTM E488, ASTM C39, TAS 114, ASTM G85.
- ULTRACON SS4 SCREW ANCHORS SHALL BE 410 SERIES STAINLESS STEEL WITH A SILVER STALGARD CORROSION RESISTANT COATING, ANCHOR YIELD STRENGTH $F_y=164$ KSI, ANCHOR ULTIMATE STRENGTH $F_u=190$ KSI.
- ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS NOTICE OF ACCEPTANCE.
- PILOT HOLES FOR ANCHORS TESTED WERE MADE WITH A 3/16" DRILL BIT WITH A DIAMETER OF 0.206"Ø (+0.000/-0.008).
- ALLOWABLE LOADS SHOWN HEREIN HAVE BEEN CALCULATED DIRECTLY FROM THE TEST REPORTS REFERENCED BELOW PER THE FOLLOWING:
 - ULTIMATE LOAD DIVIDED BY 4.0 FOR SOLID NON-CRACKED CONCRETE SUBSTRATES.
 - ULTIMATE LOAD DIVIDED BY 5.0 FOR HOLLOW BLOCK & GROUT FILLED BLOCK SUBSTRATES.
- NO ALLOWABLE STRESS INCREASE HAS BEEN USED IN PREPARATION OF THIS DOCUMENT.
- CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS, WITH STRENGTH PROPERTIES AS SPECIFIED HEREIN. HOLLOW AND GROUT-FILLED CONCRETE BLOCK SHALL CONFORM TO ASTM C-90.
- ANCHOR EDGE DISTANCE AND SPACING SHALL BE MEASURED FROM THE CENTERLINE OF EACH ANCHOR.
- ANCHOR EDGE DISTANCES, EMBEDMENT, AND SPACING BELOW THOSE SHOWN IN DESIGN TABLES HEREIN ARE NOT ACCEPTABLE.
- 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.
- ANCHOR VALUES LISTED HEREIN ARE DETERMINED THROUGH TESTING REPORT DATA AND CHECKED FOR CONSISTENCY WITH EACH TEST PERFORMED.
- REFERENCE THE FOLLOWING TEST REPORTS:
 - HURRICANE ENGINEERING & TESTING, INC.
 - #HETI-11-A650 (06/11/13)
 - #HETI-11-A666 (06/11/13)
 - #HETI-11-A674 (06/11/13)
 - #HETI-11-C164 (10/19/11)
 - #HETI-11-C162 (10/17/11)
 - #HETI-11-C163 (12/12/11)
 - #HETI-11-S100 (12/30/11)
 - #HETI-12-T100 (01/24/12)
 - #HETI-12-T101 (01/24/12)
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- ALTERATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 17-1227.23

Expiration Date 02/27/2019

By *[Signature]*
Miami-Dade Product Control



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E: HELLO@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM
CERT OF AUTH #9885

ELCO
ELCO CONSTRUCTION PRODUCTS, INFASTECH (DECORAH) LLC
1304 KERR DRIVE
DECORAH, IA 52101
ULTRACON SS4 CONCRETE & MASONRY SCREWS
MIAMI-DADE NOTICE OF ACCEPTANCE

| DRWN/CHKD | DATE |
|-----------|----------|
| KL | 08/23/13 |
| FLB | 09/29/14 |
| IRVN | 12/20/17 |

REMARKS
INIT ISSUE
2014 FBC
2017 FBC

THIS DOCUMENT IS THE PROPERTY OF FRANK L. BENARDO, P.E. AND SHALL NOT BE REPRODUCED IN WHOLE OR PART WITHOUT WRITTEN CONSENT OF FRANK L. BENARDO, P.E. - ALTERATIONS, ADDITIONS, DELETIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION.

14-1819
SCALE:
PAGE DESCRIPTION:
1