



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

TKO Doors, Div. of 4Front Engineered Solutions, Inc.
N56 W24701 N. Corporate Circle
Sussex, WI 53089

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: Model TW WL Plastic Sectional Garage Door up to 10'-0" Wide x 10'-0" High

APPROVAL DOCUMENT: Drawing No. 13-TKO-0202, titled "Fiberglass Dock Doors TW WL Overhead Garage Door", sheet 1 through 7 of 7, dated 05/06/2013, with last revision dated 05/16/2014, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E., bearing the Miami-Dade County Product Control approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: A permanent label with the manufacturer's name or logo, manufacturing address, model number, the positive and negative design pressure rating, indicate impact rated if applicable, installation instruction drawing reference number, approval number (NOA), the applicable test standards, and the statement reading 'Miami-Dade County Product Control Approved' is to be located on the door's side track, bottom angle, or inner surface of a panel.

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 consists of this page 1 and evidence page E-1, as well as approval document mentioned above. The submitted documentation was reviewed by Carlos M. Utrera, P.E.



[Signature]
08/05/2014

NOA No 13-0521.04
Expiration Date: August 14, 2019
Approval Date: August 14, 2014
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. 13-TKO-0202, titled "Fiberglass Dock Doors TW WL Overhead Garage Door", sheet 1 through 7 of 7, dated 05/06/2013, with last revision dated 05/16/2014, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

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) Forced Entry Test, per FBC TAS 202-94
Along with marked-up drawings and installation diagram of Welter Weight Doors, prepared by Architectural Testing, Inc., Test Report No. D5680.01-602-18, dated 04/07/2014, signed and sealed by Shawn G. Collins, P.E.
2. 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) Forced Entry Test, per FBC TAS 202-94
Along with marked-up drawings and installation diagram of Welter Weight Doors, prepared by Architectural Testing, Inc., Test Report No. C3614.01-602-18, dated 03/28/2013, signed and sealed by Shawn G. Collins, P.E.
3. Test report on Self-ignition Temperature per ASTM D1929, Smoke Density Rating per ASTM D2843 and Rate of Burn per ASTM D635 of various plastic door components, prepared by Architectural Testing, Inc., Test Report No. C2850.01-106-18, dated 11/21/2012, signed and sealed by Gary T. Hartman, P.E.

C. CALCULATIONS

1. Jamb anchor calculations prepared by Engineering Express, dated 05/14/2013 and 05/22/2014, 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. Test report on Flame Spread Index and Smoke Developed Index per UL-723 of XEPS foam insulation, Test Report No. BRYX.R3573 dated 07/12/2010.

F. STATEMENTS

1. Statement letter of code conformance with 2010 FBC, issued by Engineering Express, dated 05/06/2013, signed and sealed by Frank L. Bennardo, P.E.
2. Statement letter of no financial interest issued by Engineering Express, dated 05/06/2013, signed and sealed by Frank L. Bennardo, P.E.


08/05/2014

Carlos M. Utrera, P.E.

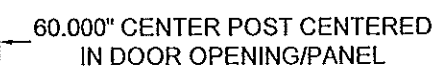
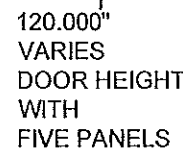
Product Control Examiner

NOA No 13-0521.04

Expiration Date: August 14, 2019

Approval Date: August 14, 2014

V:\Projects\14-1588 TKO 13 TKO-02 (Revise Per Comments)\WP1\13-TKO-02_02a Thermal Weight Sectional Door (NOA) - 1.dwg
15/23/2014 - 10:49am
kat



120.000" DOOR WIDTH/ TRACK SPACING
INTERIOR ELEVATION

SECTION A-A
SECTION SIDE VIEW

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE, FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, PER TAS 201 / 202 / 203 STANDARDS.
2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR $C_d=1.6$ HAS BEEN USED FOR WOOD ANCHOR DESIGN.
3. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 AND CHAPTER 1620 OF THE FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
4. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
5. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
6. CONTRACTOR SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
7. ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI U.O.N.
8. ALL DISSIMILAR MATERIALS IN CONTACT SHALL BE PAINTED, PLATED OR OTHERWISE INSULATED AS PRESCRIBED IN THE ABOVE-NOTED BUILDING CODE.
9. DOOR HEIGHT MAY VARY UP TO A MAXIMUM HEIGHT OF 120", PROVIDED THAT INDIVIDUAL PANEL HEIGHTS DO NOT EXCEED 24".
10. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.

+52.0 PSF
-52.0 PSF

Approved as complying with the
Florida Building Code
Date 08/14/2014
NOAH 13-0521-04
Miami Dade Product Control
By [Signature]

FRANK L. BENNARDO, P.E.
 FRANK L. BENNARDO
 LICENSE
 05/23/2014
 NO. 46549
 STATE OF FLORIDA
EXPRESS
 160 SW 12th AVENUE, #3006
 DEERFIELD BEACH, FL 33442
 PH: (954) 354-0660 FAX: (954) 354-0443
 WWW.ENGPXP.COM
 CERT OF AUTH #9885
 A FRANK L. BENNARDO, P.E., INC. INNOVATION

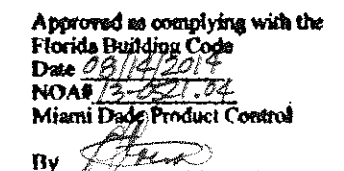
ATKO DOORS, DIVISION OF 4FRONT ENGINEERED SOLUTIONS, INC.
N56 W24701 NORTH CORPORATE CIRCLE, SUITE A
SUSSEX, WI 53089
PHONE: 1-800-575-3366 FAX: (262) 246-1301
FIBERGLASS DOCK DOORS
TW WL OVERHEAD GARAGE DOOR
MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	FLB	05/06/13
REV. PER COMMENTS	KL	FLB	05/16/14
-	-	-	-
-	-	-	-
-	-	-	-

13-TKO-02	
SCALE:	02
PAGE DESCRIPTION:	

1

FRANK L. BENNARDO, P.E.
000046549
LICENSE
NO 05/23/2014
STATE OF
FLORIDA
PROFESSIONAL
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160 SW 12th AVENUE #206
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A. FRANK L. BENNARDO, P.E., INC. INNOVATION



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FIBERGLASS DOCK DOORS
TW WL OVERHEAD GARAGE DOOR
MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	FLB	05/06/13
REV PER COMMENTS	KL	FLB	05/16/14
"	"	"	"
"	"	"	"
"	"	"	"

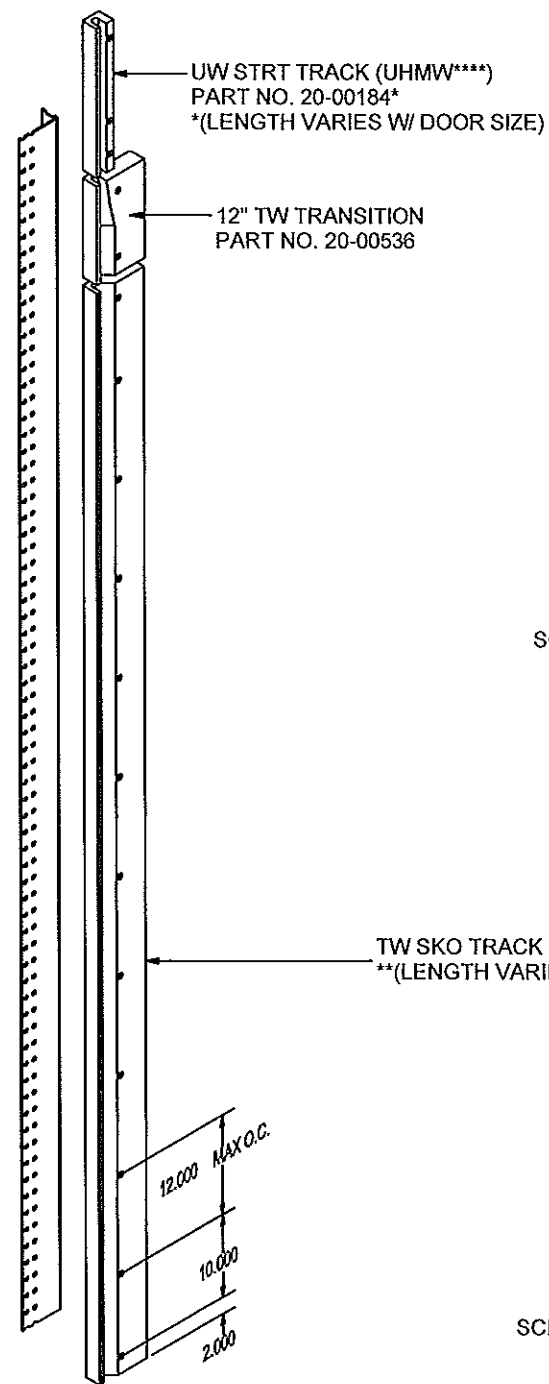
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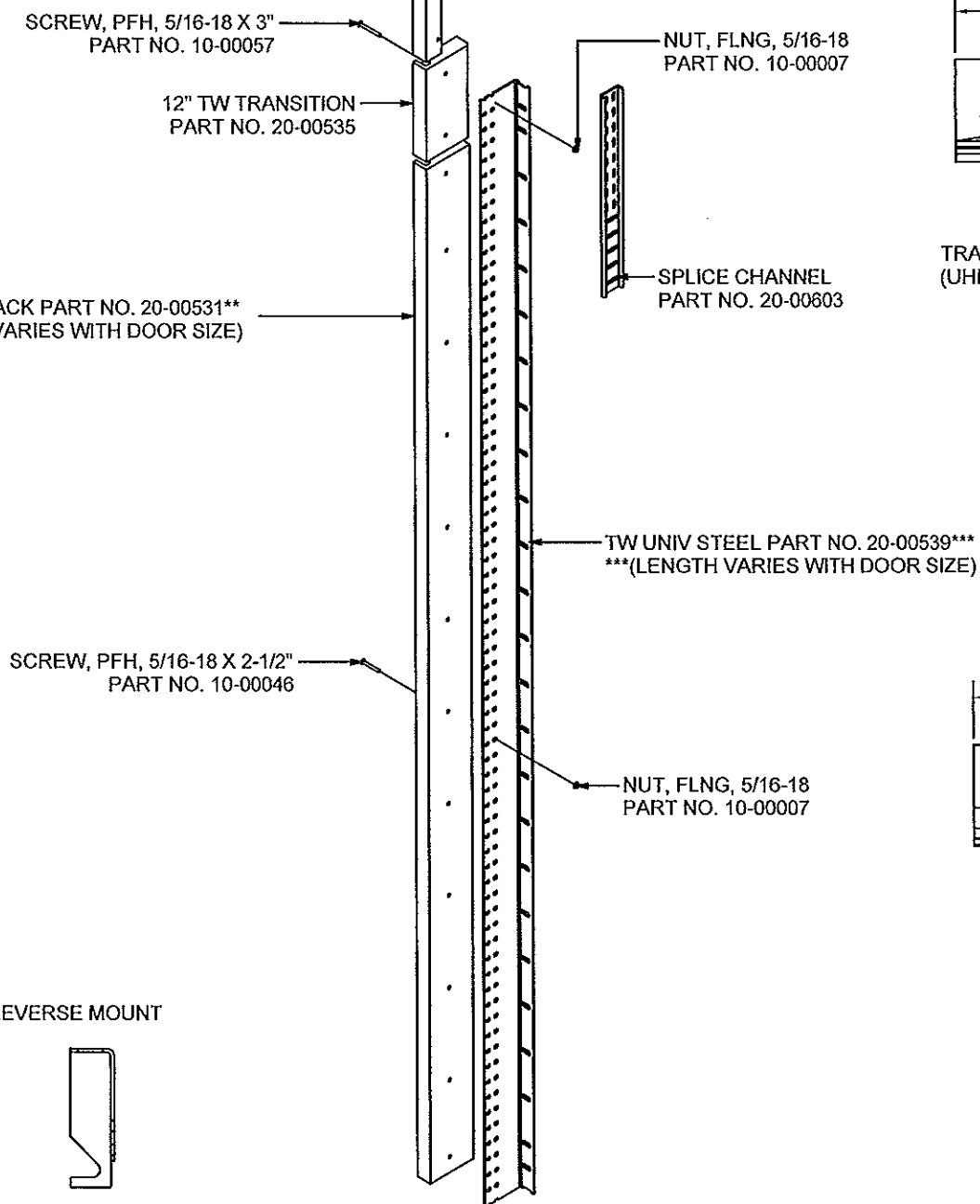
37

TW WL LOWER TRACK ASSEMBLY

LEFT HAND SIDE TRACK

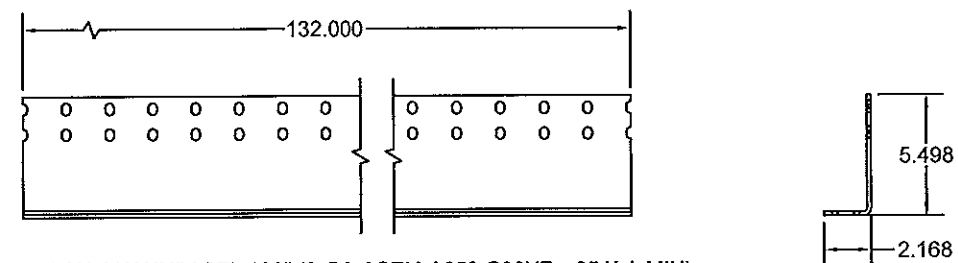
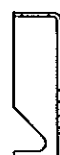
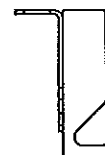


RIGHT HAND SIDE TRACK

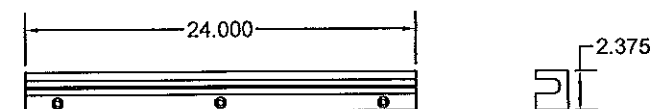


STANDARD MOUNT

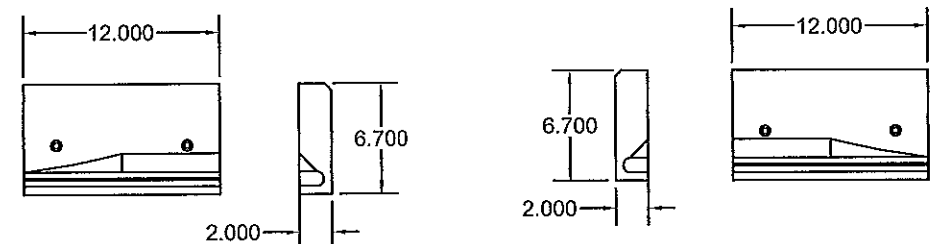
REVERSE MOUNT



TRACK, TW UNIV STL 132" (8-GA ASTM A653 G90)(Fy=35 Ksi, MIN)
PART NO. 20-00539
TRACK, TW UNIV STL 132" S/S (8-GA TYPE 304 SS)(Fy=30 Ksi, MIN)
PART NO. 20-02249

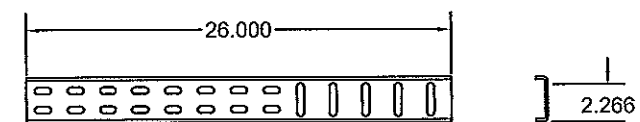


UW STRT TRACK (UHMW****)
PART NO. 20-00184

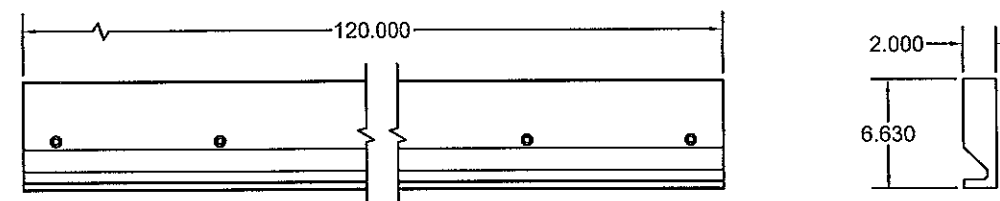


TRACK, TW, 12" TRN SKO>STRT LH
(UHMW****) PART NO. 20-00536

TRACK, TW, 12" TRN SKO>STRT RH
(UHMW****) PART NO. 20-00535

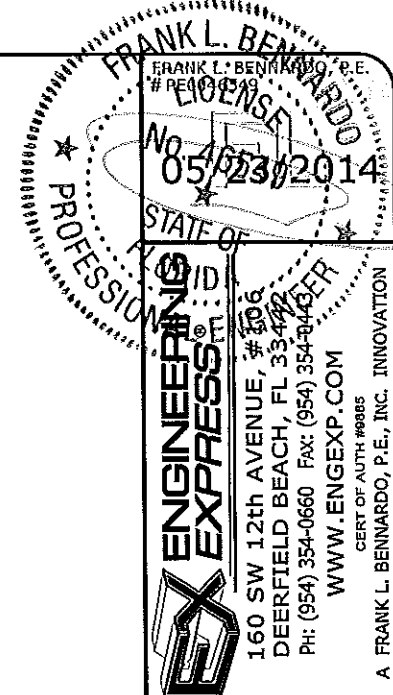


SPLICE CHANNEL (8-GA ASTM A653 G90)(Fy=35 Ksi MIN)
PART NO. 20-00603
SPLICE CHANNEL S/S (8-GA TYPE 304 SS)(Fy=30 Ksi, MIN)
PART NO. 20-01083



TRACK, TW, SKO 120" (UHMW****)
PART NO. 20-00531

****UHMW (ULTRA-HIGH-MOLECULAR-WEIGHT POLYETHYLENE)



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FIBERGLASS DOCK DOORS
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MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DATE	DRWN	CHKD
INIT ISSUE	05/06/13	KL	FLB
REV. PER COMMENTS	06/18/14	KL	FLB

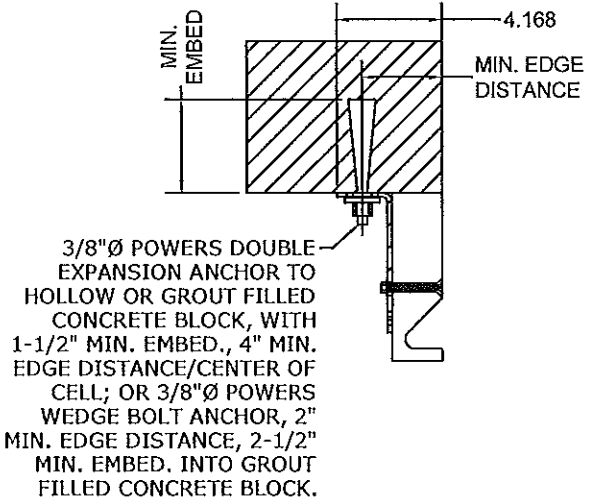
13-TKO-02

SCALE: 02
PAGE DESCRIPTION:

Approved as complying with the
Florida Building Code
Date 08/14/2014
NOA# 13-2321-04
Miami Dade Product Control
By *[Signature]*

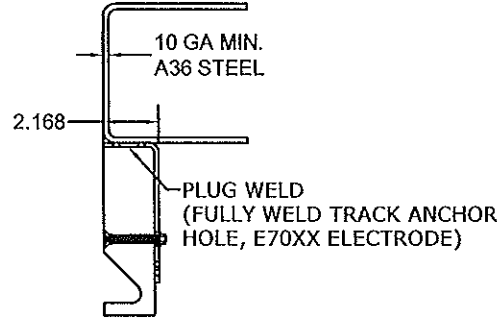
TRACK ANCHOR MOUNTING

ANGLE TO BLOCK/ CONCRETE
(STANDARD MOUNT)



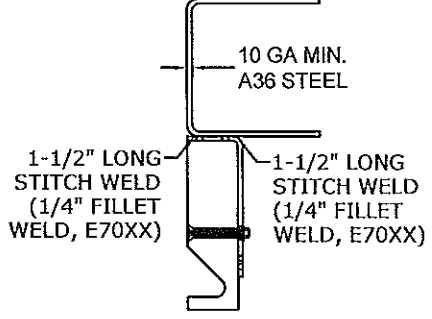
(SEE ANCHORING NOTES)

ANGLE TO STEEL WITH PLUG WELD
(REVERSE MOUNT)



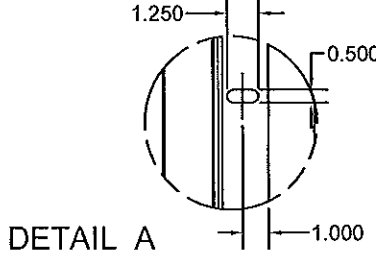
(SEE ANCHORING NOTES)

ANGLE TO STEEL WITH STITCH WELD
(REVERSE MOUNT)



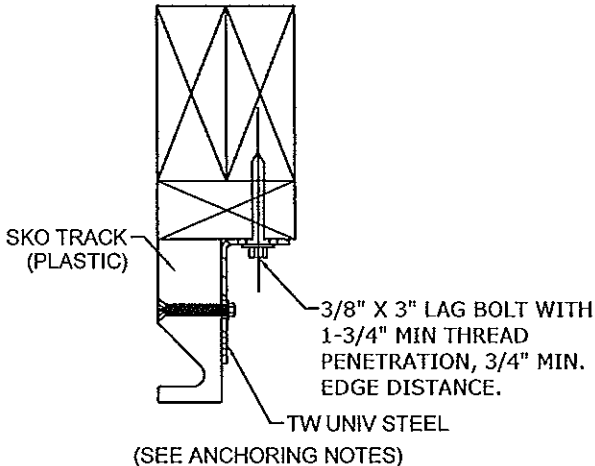
(SEE ANCHORING NOTES)

STEEL ANGLE
TRACK ANCHOR SLOT



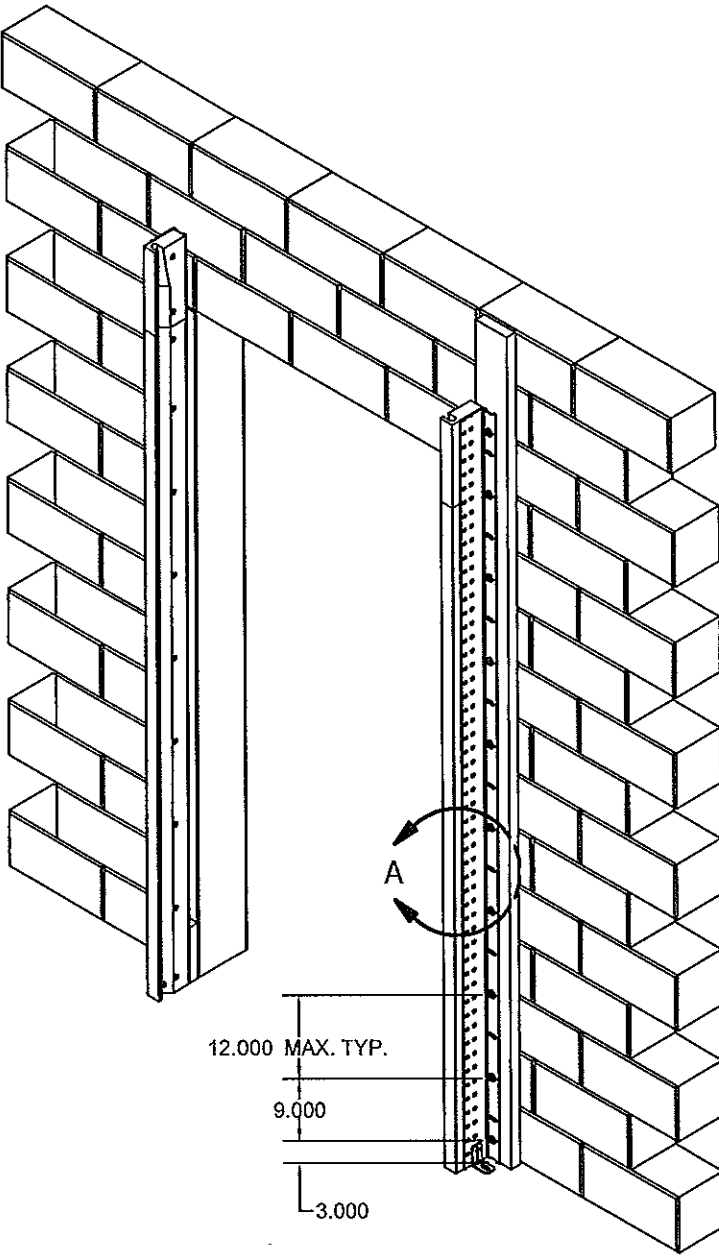
DETAIL A

(SEE ANCHORING NOTES)



(SEE ANCHORING NOTES)

TEST MOUNTING ON WOOD



ANCHORING NOTES:

1. THIS SYSTEM SHALL BE ANCHORED WITH ANCHORS IN ACCORDANCE WITH THE ANCHORING METHODS SHOWN HEREIN, WITH A MINIMUM OF (2) ANCHORS LOCATED 3" AND 12" MAX FROM THE BOTTOM OF THE TRACK AND 12" O.C. MAX THEREAFTER.
2. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
3. WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, ANCHOR SHALL BE LOCATED IN CENTER OF NOMINAL 2x (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING).
4. WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY.
5. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR DETAIL. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
6. WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
7. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
8. MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.

Approved as complying with the
Florida Building Code
Date 08/14/2014
NOA# 13-0521.04
Miami Dade Product Control
By

FRANK L. BENNARDO
P.E. 00048549
05/23/2014
LICENSE
STATE OF FLORIDA
ENGINEERING
EXPRESS
160 SW 12th Avenue, Suite 300
Deerfield Beach, FL 33442
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A FRANK L. BENNARDO, P.E., INC. INNOVATION

TKO DOORS, DIVISION OF 4FRONT ENGINEERED SOLUTIONS, INC.
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FIBERGLASS DOCK DOORS
TW WL OVERHEAD GARAGE DOOR
MIAMI-DADE NOTICE OF ACCEPTANCE

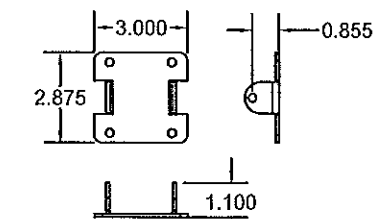
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INIT ISSUE	KL	FLB	05/06/13
REV. PER COMMENTS	KL	FLB	05/16/14

13-TKO-02
SCALE: 02
PAGE DESCRIPTION:

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1. FIXED PLUNGERS, SPRING PLUNGERS, HANDLES, AND TPU BRACKETS ARE MOUNTED TO THE PANEL USING:
(4) 1/4-20 X 3.00" CARRIAGE BOLTS AND (4) 1/4-20 FLANGE NUTS.
2. HINGE SETS ARE MOUNTED TO THE PANELS USING:
(4) 1/4-20 X 3.00" CARRIAGE BOLTS AND 1/4-20 FLANGE NUTS.
3. PANEL PLATES ARE MOUNTED TO THE PANELS USING:
(12) 1/4-20 X 3.00" CARRIAGE BOLTS AND 1/4-20 FLANGE NUTS.
4. SLIDE LOCKS ARE MOUNTED TO THE PANELS USING:
(4) #14 X 3/4" TEK SCREWS.

The drawing shows a cross-section of a cable bracket. It has a U-shaped profile with a central channel for a cable. A small, rectangular component is shown being inserted into the bracket, likely to secure the cable in place.

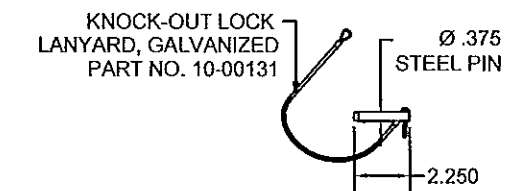


1" DIA
PULL RING

$\varnothing 0.375$

2.250

KNOCK-OUT LOCK PIN, WINDLOAD
12L14 CARBON STEEL ZINC PLATED
PART NO. 10-00237



6.000

3.500

0.375 THK
BASE PLATE

0.250

0.625

2

2

WALL BRACKET, WINDLOAD
A36 STEEL, ZINC PLATED
PART NO. 35-00057

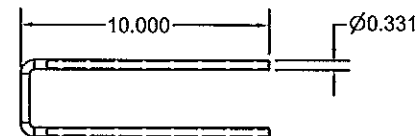
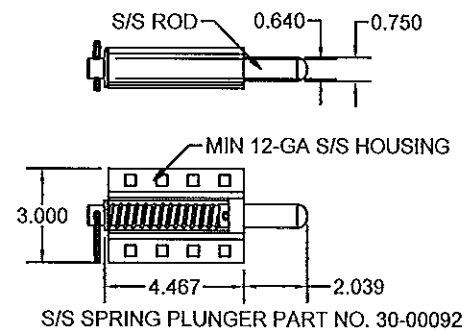


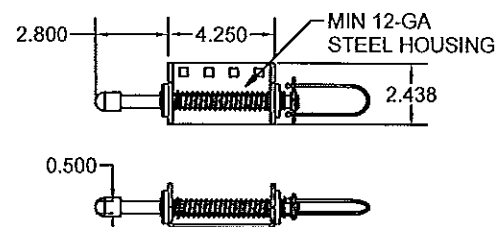
Diagram showing the connection of two door frames. The note indicates: "LENGTH VARIES WITH DOOR SIZE".

HEIGHT VARIES WITH DOOR SIZE

J



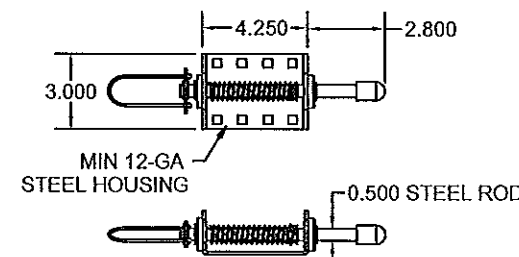
Technical drawing of a vertical plate. The overall height is 7.500. The width of the top section is 4.500. The thickness of the plate is 0.74. The drawing shows a series of holes: two rows of three holes each near the top, and two rows of three holes each further down. A U-shaped feature is shown on the right side.



Technical drawing of the slide lock assembly showing front and side views with dimensions:

- Front View (Top):**
 - Overall width: 4.250 + 3.400 = 7.650
 - Overall height: 3.000
 - Top section height: 0.750
 - Top section width: 4.250
 - Bottom section width: 3.400
- Side View (Bottom):**
 - Overall height: 0.250

12-GA STEEL HOUSING
SLIDE LOCK PART NO. 30-00004
OR
12-GA STAINLESS STEEL
SLIDE LOCK PART NO. 30-00091



4.500

3.117

3.828

10-GA HRPO* CLEAR ZINC
HANDLE PART NO. 20-00613

Technical drawing of a mechanical part. The drawing shows a side view of a component with a rectangular base and a smaller rectangular feature on top. The dimensions are: 3.938 (width of the base), 1.500 (width of the top feature), and 2.205 (height of the base).

*HRPO- HOT ROLLED, PICKLED & OILED STEEL
ASTM A1011 Fy=30 Ksi MIN

By [Signature]

TKO DOORS, DIVISION OF 4FRONT ENGINEERED SOLUTIONS, INC.

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FIBERGLASS DOCK DOORS

TW WL OVERHEAD GARAGE DOOR
MIAMI-DADE NOTICE OF ACCEPTANCE

EXPRESS[®] ENGINEERING

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DEERFIELD BEACH, FL 33442

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WWW.ENGEXP.COM

CERT OF AUTH #9885

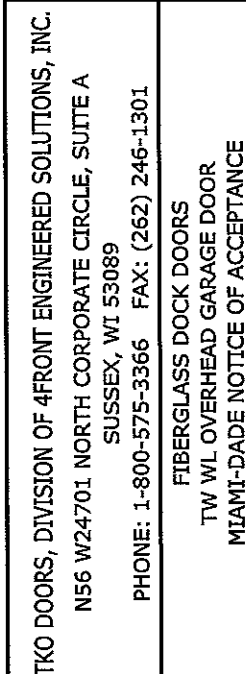
REMARKS	DRWN	CHKD	DATE
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REV. REV. COMMENTS	KI	ETB	05/16/14

13-TKO-02

SCALE: 02
PAGE DESCRIPTION:

7

FRANK L. BENNARDO, P.E.
P.E. 0006549
LICENSE
No. 465423/2014
STATE OF FLORIDA
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DEERFIELD BEACH, FL 33442ER
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REMARKS	DRWN	CHKD	DATE
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By [Signature]