STRUCTURAL NOTES:

1. THIS NON-POROUS SYSTEM HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2014 (FIFTH EDITION) OF THE FLORIDA BUILDING CODE (FBC) FOR USE WITHIN THE HIGH VELOCITY HURRICANE ZONE (MIAMI-DADE/ BROWARD COUNTIES). IT MAY BE INSTALLED IN WIND ZONE 4 AND/OR ESSENTIAL FACILITIES IN WIND ZONES 1,2,3 OR 4 WITH STORM BARS AS NOTED ON SHEET 2 OF 10. THE ADEQUACY FOR IMPACT, DEFLECTION AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 (HVHZ) OF THE ABOVE REFERENCED CODE, AND AS PER TAS 201, TAS 202 AND TAS 203 AS LISTED HEREIN AS WELL AS ADDITIONAL STANDARDS AS MENTIONED ELSEWHERE ON SHEET 1 OF 10.
2. DESIGN PRESSURE REQUIREMENTS OF A SPECIFIC SITE SHALL BE DETERMINED BY OTHERS IN CONFORMANCE TO SECTION 1609 OF THE FBC FOR A BASIC WIND SPEED (ALLOWABLE STRESS DESIGN) AS REQUIRED BY THE JURISDICTION WHERE THE SYSTEM WILL BE INSTALLED. ULTIMATE DESIGN LOADS (UDL) DETERMINED BY ASCE 7-10 SHALL BE REDUCED TO ALLOWABLE STRESS DESIGN LOADS (ASD) BY MULTIPLYING THE UDL BY 0.6 TO COMPARE THEM TO THE ASD PRESSURE RATINGS SHOWN ON SHEET 2. USE OF DIRECTIONALITY FACTOR Kd=0.85 IS ALLOWED.
3. IMPACT AND FATIGUE RESISTANCE HAS BEEN DETERMINED IN ACCORDANCE WITH THE FBC SECTION 1609.1.2. LARGE MISSILE AS LISTED HEREIN.
4. NO 33-1/3% INCREASE IN ALLOWABLE STRESS INCREASE HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. A 1.6 WIND LOAD DURATION FACTOR WAS USED TO CALCULATE SCREW SPACINGS FOR LAG SCREWS INTO WOOD.
5. THIS PRODUCT EVALUATION DOCUMENT (PED) DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS TO BE USED IN CONJUNCTION WITH THIS DOCUMENT.
6. THE CONTRACTOR AND / OR PERMIT HOLDER IS TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS SYSTEM, INCLUDING VERIFYING THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND THE NEW SUPERIMPOSED LOADS SHOWN BELOW AND THE SOUNDNESS OF THE STRUCTURE WHERE THE SYSTEM IS TO BE ATTACHED TO ENSURE PROPER ANCHORAGE.
7. SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA LICENSED ENGINEER OR ARCHITECT WHO WILL BECOME THE ENGINEER OF RECORD (EOR) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE PED. THE ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE PED ENGINEER SHALL SUBMIT TO THIS ENGINEER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
8. THIS PED SHALL BEAR THE DATE AND ORIGINAL SEAL OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT REGARDLESS OF ITS AVAILABILITY FROM THE FLORIDA PRODUCT APPROVAL WEBSITE.
9. THIS SYSTEM MAY ALSO BE INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN HEREIN.
10. <RESERVED>
11. CORRUGATED PANEL LIMITATIONS OF USE:
    THE MAXIMUM SIZE SHALL BE 25 PSF MAX. PRESSURE @135 INCHES MAXIMUM WIDTH (CENTER / CENTER OF WALL FASTENERS). SEE TABLES ON SHEET 2 of 10.
12. FLAT PANEL LIMITATIONS OF USE:
    THE MAXIMUM ALLOWABLE DESIGN PRESSURES ARE: +60PSF/-60PSF. SEE TABLES ON SHEET 2 OF 10.
13. FOR DETERMINING INTERNAL PRESSURE IN THE ABOVE REFERENCED CODES, THIS PRODUCT IS CLASSIFIED AS NON-POROUS WITH A POROSITY OF LESS THAN 10% FOR THE CONDITIONS SHOWN IN THIS PRODUCT EVALUATION DOCUMENT. CLEAR PANELS MUST COMPLETELY COVER AN OPENING IN ALL DIRECTIONS. SEE END CAP BUILD OUT DETAIL ON SHEET 8 OF 10.
14. ALL SCREWS TO BE STAINLESS STEEL 304 OR GALVANIZED A307 STEEL. ALL BOLTS TO BE ASTM A307, GALVANIZED OR 304 SERIES STAINLESS STEEL.
15. PANEL OR PANELS CAN BE USED ADJACENT TO OTHER APPROVED CORRUGATED SYSTEMS.
16. SUPPORTBRACKETS AND ANCHORS :
    A. ANCHORS INTO THE SUPPORT SUBSTRUCTURE (WALL, CEILINGS, BEAMS AND FLOORS) SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
    B. THE ANCHOR SPACING SHOWN ON SHEETS 2, 6, 7, 8& 9 of 10, INDICATED FOR 1/4" and 3/8" DIAMETERS REFER TO CENTER OF SUPPORTING BRACKETS.
    C. THE ANCHOR SPACING CHARTS ARE BASED ON A REMOVAL BRACKET SYSTEM USING MALE PANELMATES WITH WINGNUTS, FEMALE PANELMATES, SAMMY'S AND DROP-IN ANCHORS WITH SIDEWALK BOLTS. TAPCONS OF THE SAME SIZE MAY BE SUBSTITUTED FOR PERMANENT BRACKET INSTALLATIONS. ITW MAXI-SET TAPCONS MAY BE USED.
    D. ANCHOR MINIMUM EMBEDMENT AND EDGE DISTANCES OF ELCO ULTRACONS, ITW TAPCONS OR ALL POINTS TAPCONS.

SUBSTRUCTURE	EMBEDMENT	EDGE DISTANCE
HOLLOW BLOCK	1-1/4 INCH	12 D OR PER MANUFACTURER'S SPECIFICATIONS
GROUT FILLED OR 1KSI CONCRETE	1-3/4 INCH	12 D OR PER MANUFACTURER'S SPECIFICATIONS
4 1KSI CONCRETE OR 2 1KSI CONCRETE	1-3/4 INCH	12 D OR PER MANUFACTURER'S SPECIFICATIONS
WOOD OR TIMBER	8 D	3/4 INCH

    E. NO EMBEDMENT INTO NON-STRUCTURAL MATERIAL SUCH AS STUCCO, SIDING AND PAVERS SHALL BE INCLUDED AS PART OF THE EMBEDMENT REQUIREMENT.
17. STEEL SURFACES TO BE PLACED IN CONTACT WITH ALUMINUM SHALL BE GIVEN ONE COAT OF ZINC CHROMATE PRIMER IN ACCORDANCE WITH FEDERAL SPEC NO.: TTP-645, OR BE GALVANIZED.
18. MAXIMUM DESIGN PRESSURE VERSUS PANEL SPAN SHOWN ON SHEET 2 of 10. INTERPOLATION IS ALLOWED IN BETWEEN TWO SPANS TO OBTAIN SPACINGS NOT LISTED.
19. ALL ALUMINUM ALLOYS SHALL BE 6063-T6, 6061-T5, 6061-T6 OR 6005-T5.
20. ANCHORING OR LOADING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
21. TRACKS MAY BE CURVED TO FOLLOW THE INSTALLATION PROFILE AROUND ARCHES AND RADII.
22. PANEL'S MANUFACTURER LABEL SHALL BE PLACED ON A READILY AND VISIBLE LOCATION ON THE PANEL. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABEL SHALL READ AS FOLLOWS:
    ULTRATEK WORLWIDE
    3801 N. Washington Blvd.
    Sarasota, FL 34234
    FLORIDA PRODUCT APPROVAL NUMBER: FL-XXXX. OPENING NO.: XX
23. THIS DOCUMENT IN ITS ENTIRETY WILL BE CONSIDERED INVALID IF IT IS ALTERED BY ANY MEANS OR DOES NOT BEAR THE DATE AND ORIGINAL SEAL OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

POLYCARBONATE SOURCES			
TYPICAL PROPERTIES	STANDARD	RESULT	
		SABIC LEXAN 309 RESIN	BAYER MAKROLON 3109
MECHANICAL			
TENSILE YIELD STRENGTH	ASTM D638	9.5 ksi	9.4 ksi
FLEXURAL STRENGTH AT YIELD	ASTM D790	12.5 ksi	12.5 ksi
FLEXURAL MODULUS	ASTM D790	345 ksi	340 ksi
IMPACT:			
NOTCHED IZOD	ASTM D256	17 ft-lb/in	18 ft-lb/in
FIRE BURNING CHARACTERISTICS:			
SMOKE DENSITY	ASTM D2843	64.5% MAX.	47.20%
RATE OF BURNING	ASTM D635	C-1 CLASS	C-1 CLASS
SELF IGNITION	ASTM D1929	980 deg. F	1040 deg. F
WEATHERING:	ASTM G155		
TENSILE STRENGTH AFTER WEATHERING	ASTM 638	8.840 ksi	9.302 ksi
TENSILE STRESS BEFORE WEATHERING	ASTM 638	8.880 ksi	8.461 ksi
PHYSICAL:			
SPECIFIC GRAVITY	ASTM D792	0.043 lb/in^3	0.043 lb/in^3

TEST REPORTS

UNIFORM STATIC AIR PRESSURE (TAS 202, E330-02)

HETI 07-4198	04/30/2007
HETI 07-4202/32	04/30/2007
HETI 07-4252	06/13/2007
HETI 07-4285	07/27/2007
HETI 08-2048/50/52	10/10/2008
HETI 09-2507A	01/28/2009
HETI 09-2508A	01/28/2009
B9069.01-401-18	04/26/2012
BT-ULTK-13-001A	09/24/2013
BT-ULTK-13-001B	09/24/2013

LARGE MISSILE & CYCLIC LOADING (TAS 201, TAS 203)

HETI 07-4199/04/05	04/30/2007
HETI 07-4233/54	04/30/2007
HETI 07-4233/86	07/27/2009
HETI 08-2049	10/10/2008
HETI 09-2507B	01/28/2009
HETI 09-2508B	01/28/2009
B9069.01-401-18	04/26/2012
BT-ULTK-13-001A	09/24/2013 plus ASTM E1886-02, E1996-02
BT-ULTK-13-001B	09/24/2013 plus ASTM E1886-02, E1996-02

TENSILE TEST (ASTM D638-03)

HETI 07-T750	09/07/2007
HETI 09-T104/05	01/28/2009

EVALUATION BASED ON:
ARCHITECTURAL TESTING INC.

REPORT NO.: 85753.01-401-44
REPORT DATE: 12-21-2011
TEST PROTOCOL: ASTM E 1886-05 (IMPACT & CYCLIC TEST METHOD)
ASTM E 1996-05 (IMPACT STANDARD SPECIFICATION)
ASTM E 330-02 (STATIC TEST METHOD)
DESIGN PRESSURE: 60 PSF W/ MISSLE LEVEL D AND WIND ZONE 4.
TEST PRESSURE: 90 PSF
OVERALL SPAN: 9'-1" (109 INCHES)

EVALUATION BASED ON:
ARCHITECTURAL TESTING INC.

REPORT NO.: A3398.01-401-44
REPORT DATE: 09/08/10
TEST PROTOCOL: ASTM E 1886-05 (IMPACT & CYCLIC TEST METHOD)
ASTM E 1996-05 (IMPACT STANDARD SPECIFICATION)
ASTM E 330-02 (STATIC TEST METHOD)
DESIGN PRESSURE: 60 PSF W/ MISSLE LEVEL D AND WIND ZONE 4.
TEST PRESSURE: 90 PSF
OVERALL SPAN: 9'-1" (109 IN.)
CTR/CTR FASTENERS, 8'-9" (105 IN.) INSIDE TO INSIDE FRAME.

JOHN HENRY KAMPMANN JR. LICENSE No. 47516 STATE OF FLORIDA PROFESSIONAL ENGINEER DATE: 4/30/15 , PE

CA #6752
WWW.MEAENGINEERS.COM
MEA ENGINEERS, INC.
2352 Apoloosa Circle
Sarasota, Florida 34240
(941) 922-3854 CA-6072

REV.	DESCRIPTION
1	XX/XX/XX - - RESERVED.

Project Name: Ultratek Worldwide Inc.
3801 N. Washington Blvd.
Sarasota, FL 34234
PHONE: (941) 924-2265
www.ultratekworldwide.com

Description: CLEARTEK STORM PANEL SYSTEM (HVHZ)

Drawn: JK
Project #: 15-50
Scale: NOTED
Date: 4/30/15
Sheet No.: 1/10

CORRUGATED PANEL TABLES

CORRUGATED

SPAN LOAD TABLE DIRECT MOUNT PANELS AT BOTH ENDS	
MAX. SPAN - IN.	MAX. DESIGN LOAD
60"	75.0
72"	60.0
84"	55.0
96"	52.0
108"	35.0
120"	32.0
132"	30.0
135"	25.0

MOUNT WITH FASTENERS AT MAX. 13 INCH O.C.

CORRUGATED

SPAN LOAD TABLE DIRECT MOUNT PANELS AT ONE END ONLY	
MAX. SPAN - IN.	MAX. DESIGN LOAD
60"	60.0
72"	50.0
84"	45.0
96"	40.0
102"	22.0

STORM BARS FOR WIND ZONE 4 AND ESSENTIAL FACILITES

1. STORM BARS REQUIRED 12" FROM EDGE AND EVERY 18 " IN THE FIELD.
2. LENGTH OF STORM BARS SAME AS LENGTH OF PANELS.
3. MAXIMUM OPENING SIZE IS 80 INCHES.
4. MAXIMUM PRESSURE IS 60 PSF.
5. WITH ABOVE CRITERIA, MAXIMUM DEFLECTION IS 0.85 INCHES. PANEL IS TO BE INSTALLED NO CLOSER THAN 2 INCHES FROM GLAZING.
6. STORM BARS (2"x2"x1/8" RECT. TUBE) FIT IN CORREGATION BETWEEN PANEL AND BUILDING AND ARE TO BE USED ONLY WITH ALTERNATE "A" CORRIGATED PANEL SHOWN ON SHT. 5 OF 10..

LAG–WOOD	SAMMY (CST)–WOOD	PANEL MATE (MALE FASTENER)	PANEL MATE (FEMALE)	SIDEWALK BOLTS FASTENAL 1/4–20X1 FASTENAL 3/8–16X1	POWERS HOLLOW SET DROP–IN OR LEAD ANCHOR
WINGNUT– PAT.PEND.	SAMMY (CST) CONC.	ALL POINTS,ITW BULDEX TAPCON ANCHOR INCLUDING: MAXISET, SCOTS, 410SS	POWERS FLANGED LIP DROP–IN	POWERS SMOOTH WALL DROP–IN	PANELMATE INSERT

TYPICAL FASTENERS/ANCHORS - 1/4" AND 3/8" (1)
N.T.S.

FLAT PANEL TABLES

DESIGN PRESSURE 30 PSF		4000 PSI CONCRETE	2000 PSI CONCRETE	HOLLOW BLOCK	WOOD
	Span(in.)				
1/4" FASTENERS	105	11	11	9	7
	86	11	11	10	9
	67	11	11	11	11
	48	11	11	11	11
	Span(in.)				
3/8" FASTENERS	105	11	11	11	10
	86	11	11	11	11
	67	11	11	11	11
	48	11	11	11	11

DESIGN PRESSURE 40 PSF		4000 PSI CONCRETE	2000 PSI CONCRETE	HOLLOW BLOCK	WOOD
	Span(in.)				
1/4" FASTENERS	105	10	9	7	6
	86	11	11	8	7
	67	11	11	10	9
	48	11	11	11	11
	Span(in.)				
3/8" FASTENERS	105	11	11	11	8
	86	11	11	11	10
	67	11	11	11	11
	48	11	11	11	11

DESIGN PRESSURE 50 PSF		4000 PSI CONCRETE	2000 PSI CONCRETE	HOLLOW BLOCK	WOOD
	Span(in.)				
1/4" FASTENERS	105	9	8	6	5
	86	10	9	7	6
	67	11	11	9	8
	48	11	11	11	10
	Span(in.)				
3/8" FASTENERS	105	11	11	11	7
	86	11	11	11	8
	67	11	11	11	10
	48	11	11	11	11

DESIGN PRESSURE 60 PSF		4000 PSI CONCRETE	2000 PSI CONCRETE	HOLLOW BLOCK	WOOD
	Span(in.)				
1/4" FASTENERS	105	7	7	6	4
	86	9	8	6	5
	67	11	10	7	7
	48	11	11	10	9
	Span(in.)				
3/8" FASTENERS	105	11	11	11	6
	86	11	11	11	7
	67	11	11	11	9
	48	11	11	11	11

GLASS SEPARATION SCHEDULE NOTES:

1) GLASS SEPARATION SCHEDULE PROVIDES MINIMUM SEPARATION DISTANCE REQUIRED BETWEEN EXTERIOR FACE OF GLAZING (OR OTHER PRODUCT BEING PROTECTED) AND INTERIOR FACE OF INSTALLED STORM PANEL.
2) SEPARATION DISTANCE PER THIS SCHEDULE IS REQUIRED FOR USE WITH POSITIVE LOADS ONLY.
3) SIDE BRACKET IS AN EXTRA BRACKET ADDED HALFWAY ACROSS SPAN ON BOTH SIDES.

Minimum Glass Separation Schedule for ClearTek Flat Panels			
Positive Load (psf)	Span Less Than	Minimum Separation from Glass	Minimum Separation from Glass With Side Bracket (See Note 3)
30	49"	2.25"	2.25"
	70.5"	3.35"	2.47"
	92"	4.44"	2.68"
40	49"	2.25"	2.25"
	70.5"	-	2.69"
	92"	-	3.12"
50	49"	2.43"	2.25"
	70.5"	-	3.03"
	92"	-	3.80"
60	49"	3.00	2.25"
	70.5"	-	3.08"
	92"	-	3.90"

Minimum Glass Separation Schedule for Corrugated Panels	
Direct Mount Panels at One End Only	
Max. Span - In.	Min. Separation
60	6.125
72	6.56
84	7
96	7.06
102	7.125

JOHN HENRY KAMPMANN JR. LICENSE No. 47516 STATE OF FLORIDA PROFESSIONAL ENGINEER
John H. Kampmann Jr., PE
FL License #47516
DATE: 4/25/15

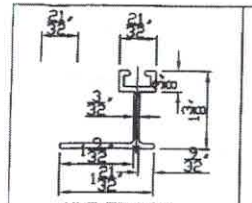
CA #4752
WWW.MEAENGINEERS.COM
MEA ENGINEERS, INC.
2352 Applerose Circle
Sarasota, FL 34240
(941) 922-3854 CA-9072

REV.	DESCRIPTION
1	XX/XX/XX - RESERVED.

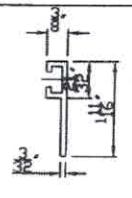
Project Name: Ultratek Worldwide Inc.
3891 N. Washington Blvd
Sarasota, FL 34234
PHONE: (941) 924-2285
www.ultratekworldwide.com

Description: CLEARTEK STORM PANEL SYSTEM (HVHZ)

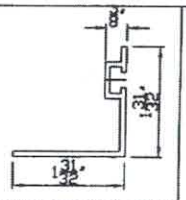
Drawn By:	JK
Job No.	15-50
Scale:	NOTED
Date:	4/30/15
Sheet No.	2/10



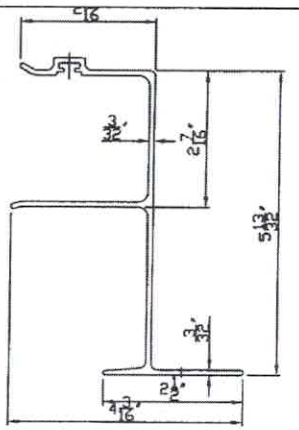
1" F-TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



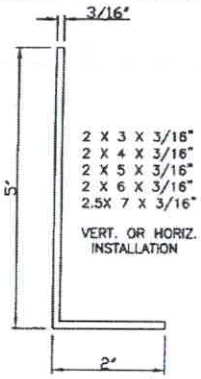
FLAT F-TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



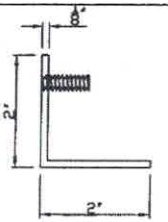
REVERSE E TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



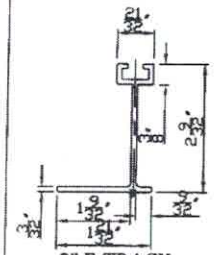
3" H -TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



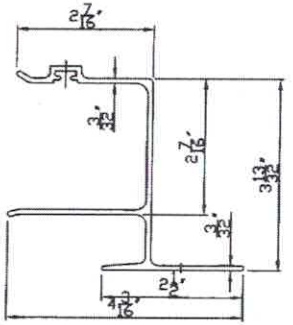
BUILT-OUT ANGLES
ALUMINUM (6061-T6)
SCALE: 1:2



STUDDED ANGLE
ALUMINUM (6061-T6)
SCALE: 1:2



2" F-TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



1" H -TRACK
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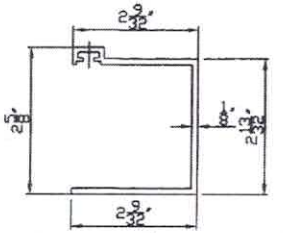
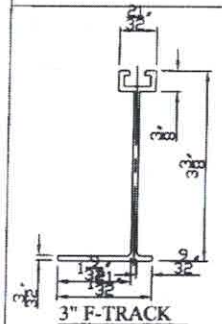
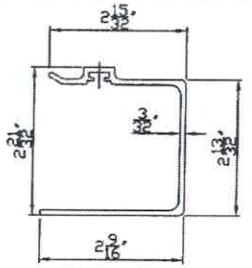
SCALE: 1:2



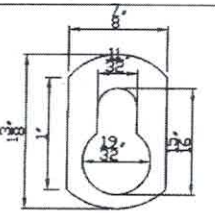
U -TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



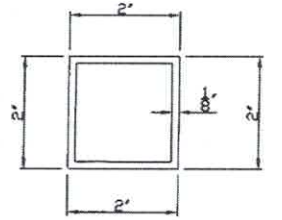
3" F-TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



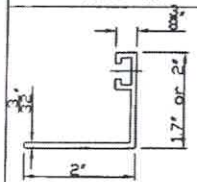
U -TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



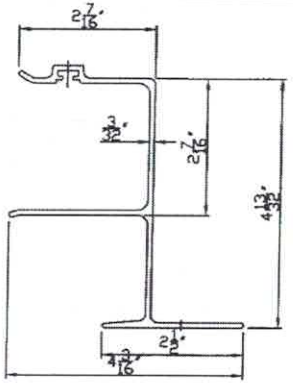
KEYHOLE WASHER
ALUMINUM (6063-T6)
SCALE: 1"=1'-0"



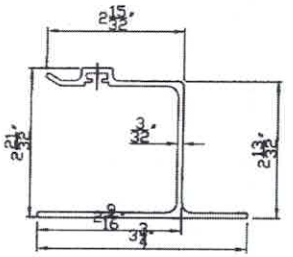
STORM BAR
ALUMINUM (6061-T6)
SCALE: 1:2



E-TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



2" H -TRACK
ALUMINUM (6061-T6)
SCALE: 1:2



STD H-TRACK
ALUMINUM (6061-T6)
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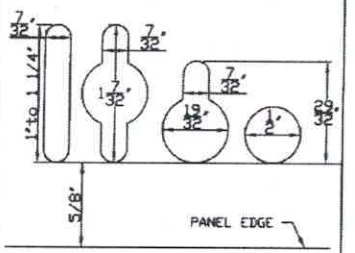

KEYHOLE DETAIL OPTIONS
ALT. FIELD DRILL 3/8" OR 5/8" HOLE W/ KEYHOLE WASHER
SCALE: 1"=1'-0"

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2352 Apollosso Circle
Sarasota, Florida 34240
(941) 922-3864 CA-8072

REV.	DESCRIPTION
1	XX/XX/XX - RESERVED.

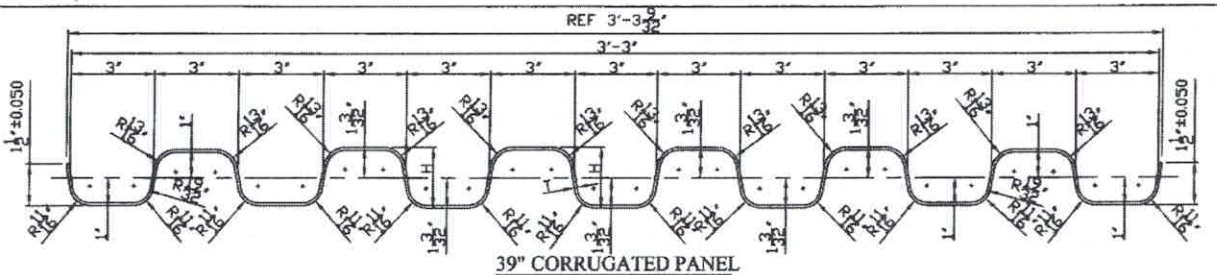
Project Name:
Ultratek Worldwide Inc.
3801 N. Washington Blvd.
Sarasota, FL. 34234
PHONE: (941) 924-2285
www.ultratekworldwide.com

Description:
CLEARTEK
STORM PANEL SYSTEM
(HVHZ)

JK
F15-50
NOTED
4/30/15

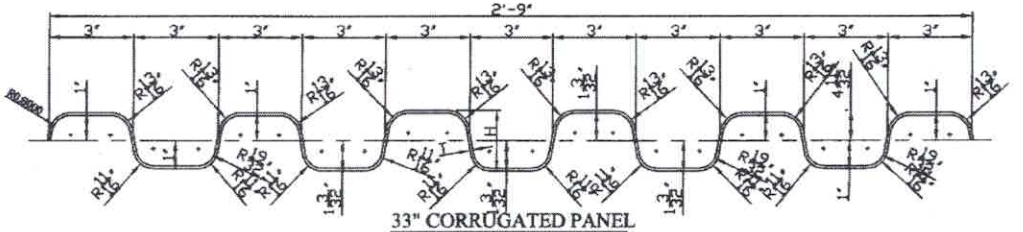
Sheet No.:
3/10

JOHN L. CHAMPMANN JR.
LICENSE
No. 47516
STATE OF FLORIDA
PROFESSIONAL ENGINEER
JOHN L. CHAMPMANN JR., PE
FL. REGISTRATION NO. 47516
DATE: 4/30/15



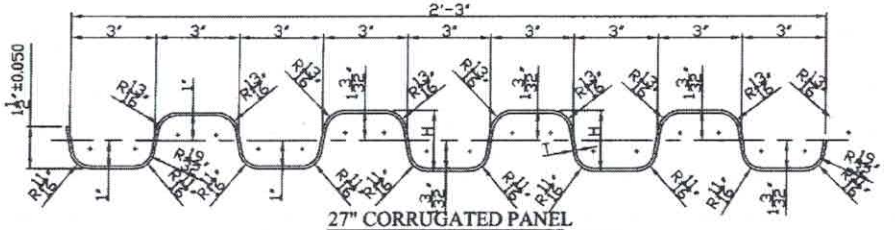
39" CORRUGATED PANEL

(GE LEXAN 103/BAYER MAKROLON 3103/POLYONE/SPARTECH)
Fu = 9367 PSI, Fy = 91346 PSI
SCALE: 3" = 1'-0"



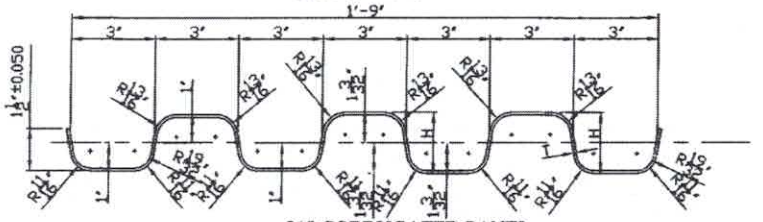
33" CORRUGATED PANEL

(GE LEXAN 103/BAYER MAKROLON 3103/POLYONE/SPARTECH)
Fu = 9367 PSI, Fy = 91346 PSI
SCALE: 3" = 1'-0"



27" CORRUGATED PANEL

(GE LEXAN 103/BAYER MAKROLON 3103/POLYONE/SPARTECH)
Fu = 9367 PSI, Fy = 91346 PSI
SCALE: 3" = 1'-0"



21" CORRUGATED PANEL

(GE LEXAN 103/BAYER MAKROLON 3103/POLYONE-SUNGUARD)
Fu = 9367 PSI, Fy = 91346 PSI
SCALE: 3" = 1'-0"

NOTE :
1) THICKNESS : 2.36 mm TO 2.50 mm ±0.05
2) MATERIAL : (GE LEXAN 103/BAYER MAKROLON 3103/POLYONE-SUNGUARD)
3) THE DIMENSION "H" MUST BE 53.3 ~ 55.0 mm .
4) ALL INCLINED PLANE THE THICKNESS "T" MUST BE MINIMUM 2.10 mm
5) PANELS MAY BE BENT ALONG CORRUGATION TO MATCH CURVED OR ANGLED OPENINGS
6) PANEL RADII MAY VARY BETWEEN 0.1 TO 0.6in.
7) ALL PANELS MAY BE CUT TO DECREASE ITS WIDTH.
8) TRACK MAY BE CURVED TO FOLLOW THE INSTALLATION PROFILE AROUND ARHES AND RADII.
9) HEIGHT OF WAVE MAY VARY DOWN TO 0.75 INCH.
10) PANELS MAY BE BENT OR CURVED TO ACCOMMODATE CURVED OR MITERED GLASS
11) PANEL WIDTH MAY VARY BY 5%.

JOHN HENRY KAMPMANN JR. LICENSE No. 47516 STATE OF FLORIDA PROFESSIONAL ENGINEER
Kampmann PE
DATE: 4/30/15

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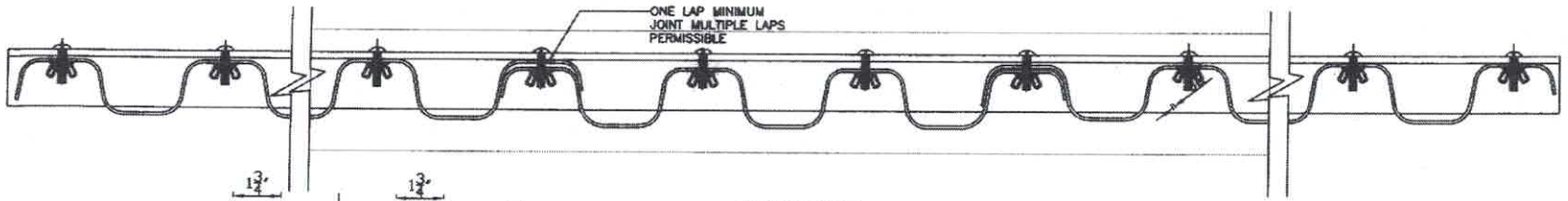
MEA ENGINEERS, INC.
2352 Apoxbasa Circle
Sarasota, Florida 34240
(941) 922-3864 FX-6072

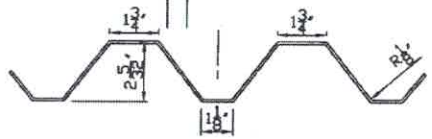
REV.	DESCRIPTION
1	XX/XX/XX - RESERVED.

Project Name: Ultratek Worldwide Inc.
3801 N. Washington Blvd
Sarasota, FL 34234
PHONE: (941) 924-2285
www.ultratekworldwide.com

Description: CLEARTEK STORM PANEL SYSTEM (HVHZ)

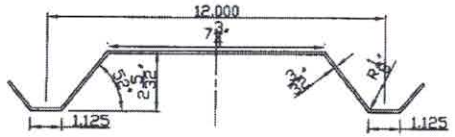
Drawn By:	JK
Project #:	15-50
Scale:	NOTED
Date:	4/30/15
Sheet No.:	4/10





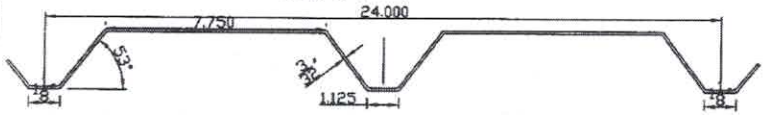
ALTERNATE "A" 12" CORRIGATED PANEL

(GE LEXAN 103/BAYER MAKROLON 3103/POLYONE/SPARTECH)
Fu = 9367 PSI, Fy = 91346 PSI
SCALE: 3" = 1'-0"



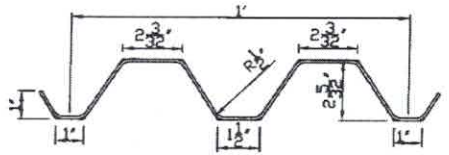
ALTERNATE "B" 12" CORRIGATED PANEL

(GE LEXAN 103/BAYER MAKROLON 3103/POLYONE/SPARTECH)
Fu = 9367 PSI, Fy = 91346 PSI
SCALE: 3" = 1'-0"



ALTERNATE "C" 24" CORRIGATED PANEL

(GE LEXAN 103/BAYER MAKROLON 3103/POLYONE/SPARTECH)
Fu = 9367 PSI, Fy = 91346 PSI
SCALE: 3" = 1'-0"

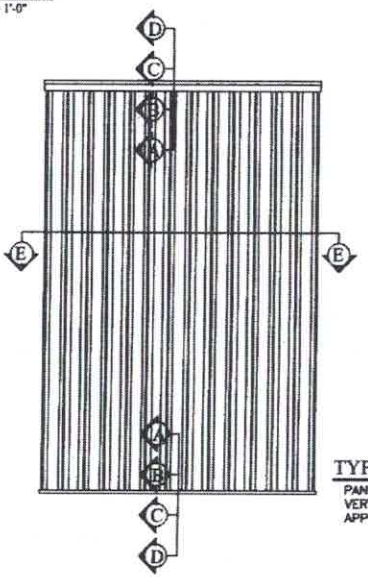


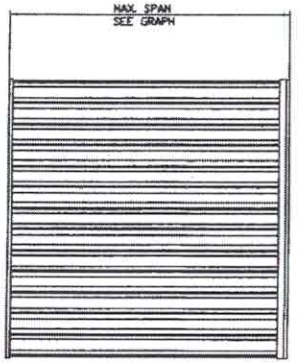
ALTERNATE "D" CORRIGATED PANEL

(GE LEXAN 103/BAYER MAKROLON 3103/POLYONE/SPARTECH)
Fu = 9367 PSI, Fy = 91346 PSI
SCALE: 3" = 1'-0"

SECTION E-E

SCALE: 3" = 1'-0"





TYPICAL ELEVATION

PANELS CAN BE INSTALLED
VERTICALLY OR HORIZONTALLY USING
APPLICABLE ANCHORING DETAILS

ALTERNATE PANEL NOTE:

1) ALTERNATE PANEL 'B' AND 'C' MAY ONLY BE USED AS A DIRECT MOUNT AT BOTH ENDS.

JOHN HENRY KAMPMANN JR. LICENSE No. 47516 STATE OF FLORIDA
PROFESSIONAL ENGINEER
FL
DATE: 4/30/15

CA #9752
WWW.MEAENGINEERS.COM
MEA ENGINEERS, INC.
2352 Appaloosa Circle
Sarasota, Florida 34240
(941) 922-3854 Cell-6072

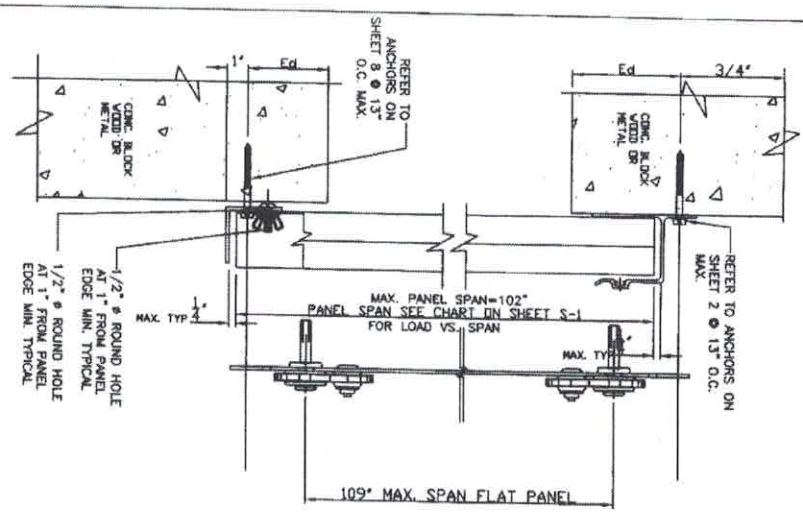
REV.	DESCRIPTION
1	XX/XX/XX -- RESERVED.

Project Name: Ultratek Worldwide Inc.
3801 N. Washington Blvd.
Sarasota, FL 34234
PHONE: (941) 924-2285
www.ultratekworldwide.com

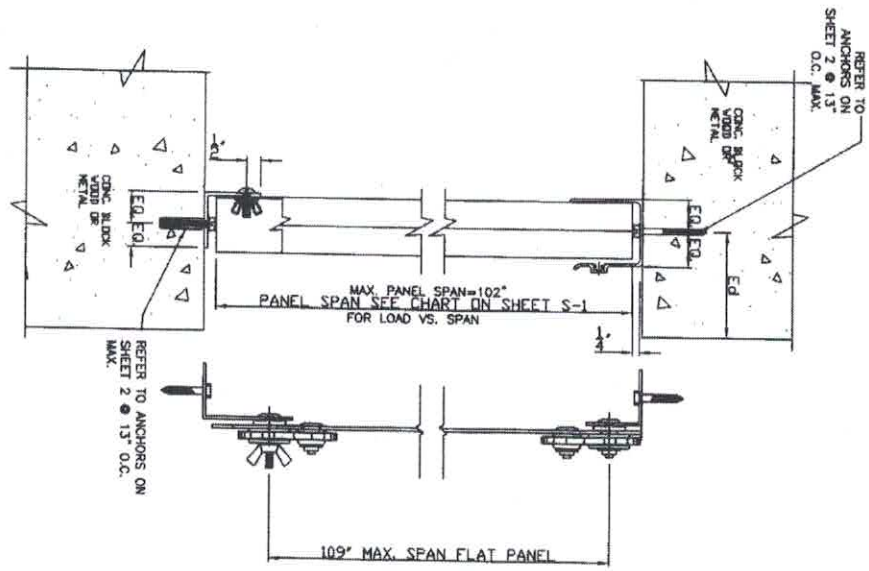
Description: CLEARTEK STORM PANEL SYSTEM (HVHZ)

Drawn By:	JK
Project #:	15-50
Scale:	NOTED
Date:	4/30/15
Sheet #:	5/10

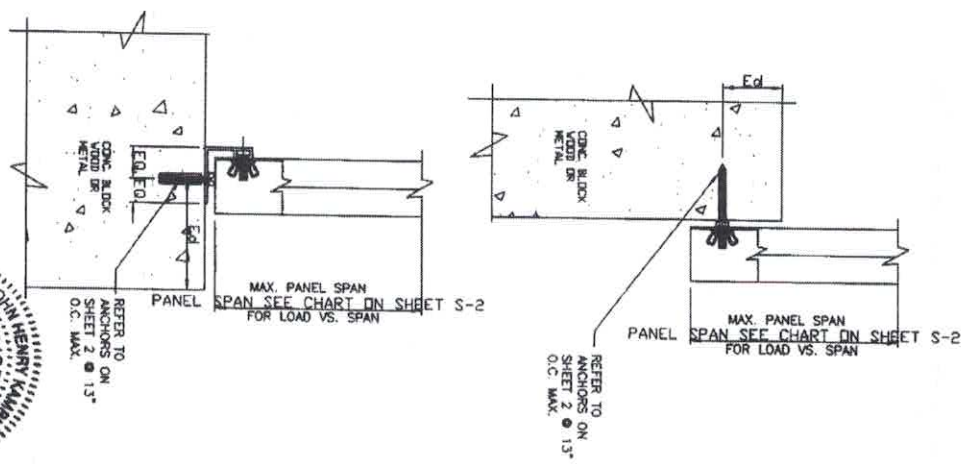
SECTION A-A



SECTION B-B



SECTION C-C



JOHN HENRY HAMPMANN JR. LICENSE No. 47516 STATE OF FLORIDA PROFESSIONAL ENGINEER

6/10

Description:	CLEARTEK STORM PANEL SYSTEM (HVHZ)
Drawn By:	JK
Project No.:	15--50
Date:	4/30/15
Scale:	NOTED

Project Name: Ultratek Worldwide Inc.
3801 N. Washington Blvd.
Sarasota, FL 34234
PHONE: (941) 924-2285
www.ultratekworldwide.com

REV.	DESCRIPTION
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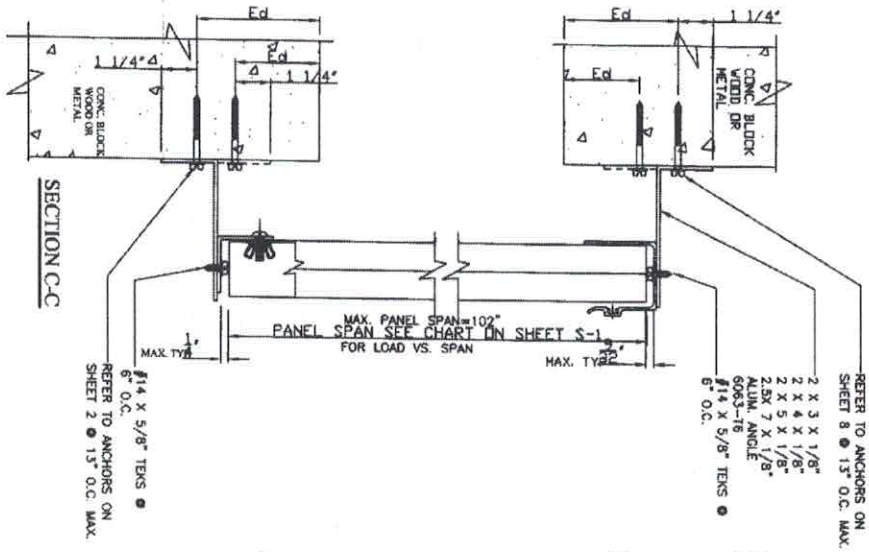
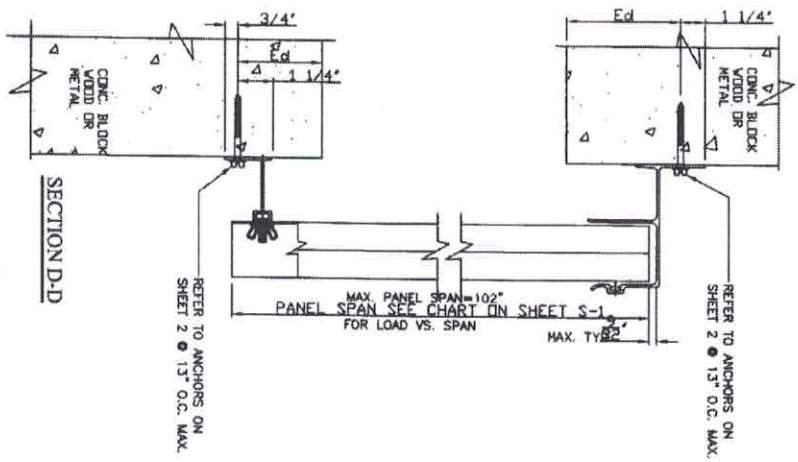
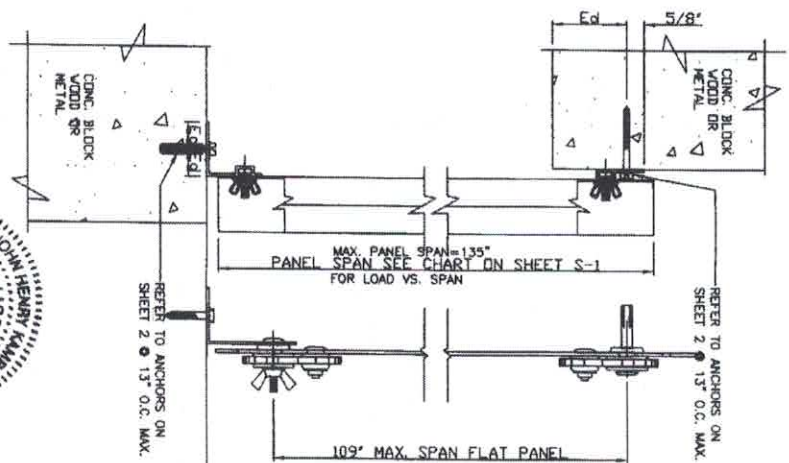
WWW.MEAENGINEERS.COM
MEA ENGINEERS, INC.
2352 Appaloosa Circle
Sarasota, Florida 34240
(941) 922-3854 CA-8072







JOHN HENRY CAMMANN JR. LICENSE No. 47518 STATE OF FLORIDA PROFESSIONAL ENGINEER

7/10	
Description:	CLEARTEK STORM PANEL SYSTEM (HVHZ)
Drawn:	JK
Project No:	P15-50
Scale:	NOTED
Date:	4/30/15

Project Name: Ultratek Worldwide Inc.
3801 N. Washington Blvd.
Sarasota, FL. 34234
PHONE: (941) 924-2285
www.ultratekworldwide.com

REV.	DESCRIPTION
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MEA ENGINEERS, INC.
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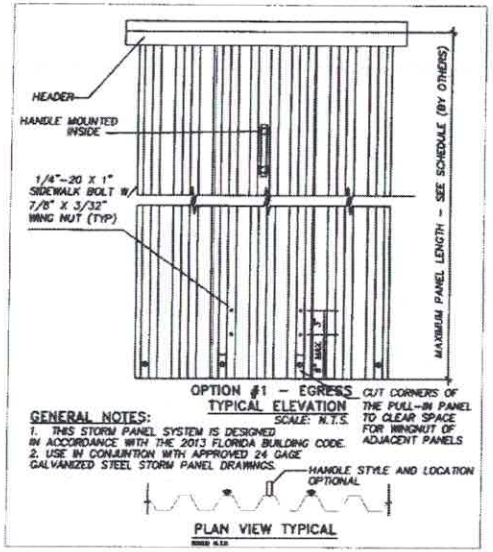
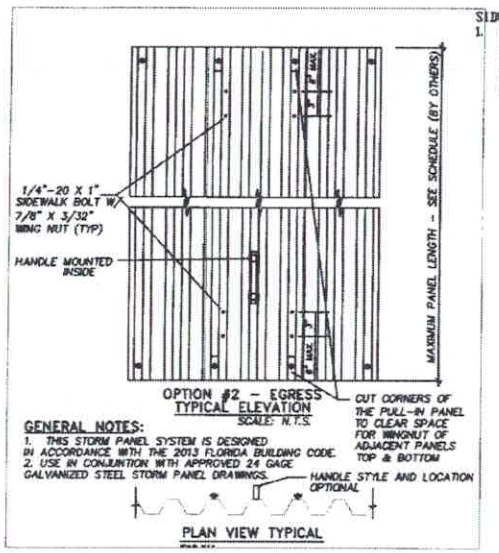
Sarasota, Florida 34240
(941) 922-3854 CA-8072



OPTION #1 - EGRESS
TYPICAL ELEVATION
SCALE: N.T.S.

PLAN VIEW TYPICAL

GENERAL NOTES:
1. THIS STORM PANEL SYSTEM IS DESIGNED IN ACCORDANCE WITH THE 2013 FLORIDA BUILDING CODE.
2. USE IN CONJUNTION WITH APPROVED 24 GAGE GALVANIZED STEEL STORM PANEL DRAWINGS.

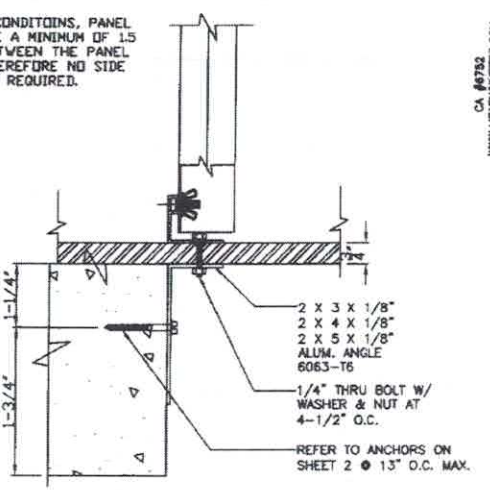


OPTION #2 - EGRESS
TYPICAL ELEVATION
SCALE: N.T.S.

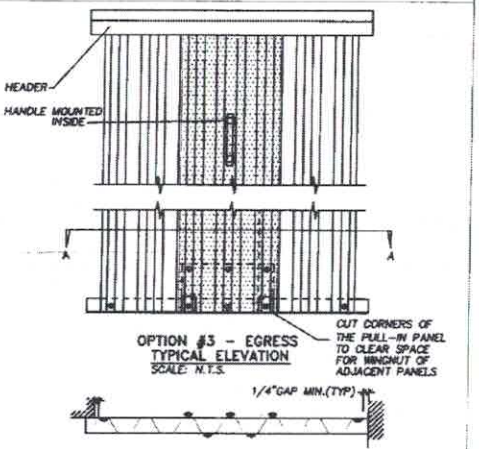
PLAN VIEW TYPICAL

GENERAL NOTES:
1. THIS STORM PANEL SYSTEM IS DESIGNED IN ACCORDANCE WITH THE 2013 FLORIDA BUILDING CODE.
2. USE IN CONJUNTION WITH APPROVED 24 GAGE GALVANIZED STEEL STORM PANEL DRAWINGS.

SIDE CLOSURE NOTE:
1. FOR WALL MOUNT CONDITIONS, PANEL OVERLAP SHALL BE A MINIMUM OF 1.5 TIMES THE GAP BETWEEN THE PANEL AND THE WALL; THEREFORE NO SIDE CLOSURES WILL BE REQUIRED.



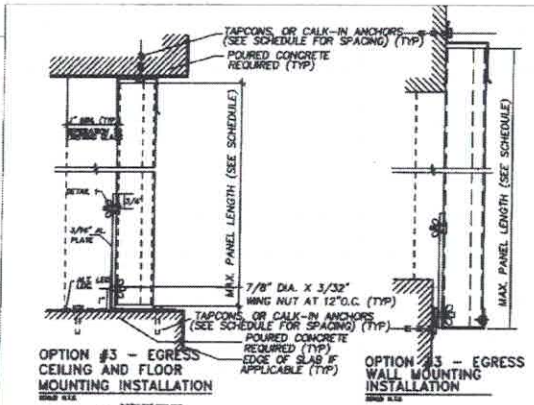
COUNTER TOP CONDITION
SCALE: 3" = 1'-0"
(PASS THRU WINDOW)
MAX. SHUTTER HEIGHT=6 FT.



OPTION #3 - EGRESS
TYPICAL ELEVATION
SCALE: N.T.S.

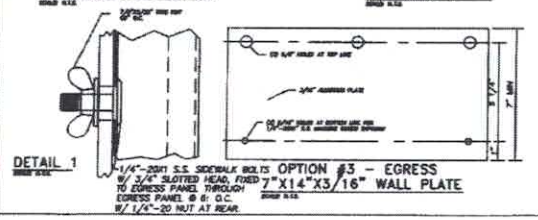
SECTION A-A
SCALE: N.T.S.

GENERAL NOTES:
1. THIS STORM PANEL SYSTEM IS DESIGNED IN ACCORDANCE WITH THE 2013 FLORIDA BUILDING CODE.
2. USE IN CONJUNTION WITH APPROVED 24 GAGE GALVANIZED STEEL STORM PANEL DRAWINGS.
3. SEE THIS SHEET FOR ADDITIONAL INFORMATION



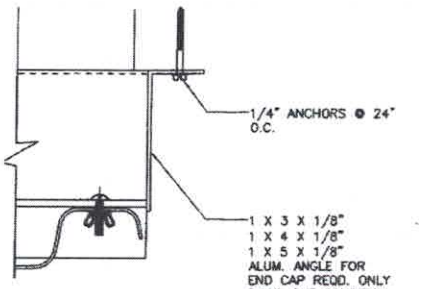
OPTION #3 - EGRESS
CEILING AND FLOOR
MOUNTING INSTALLATION

OPTION #3 - EGRESS
WALL MOUNTING
INSTALLATION



DETAIL 1

OPTION #3 - EGRESS



END CAP BUILT-OUT CONDITION DETAIL 'A'
SCALE: 3" = 1'-0"

JOHN HENRY KAMPMANN JR. LICENSE No. 47516 STATE OF FLORIDA PROFESSIONAL ENGINEER
John H. Kampmann Jr. P.E.
FL LICENSE NO. 47516
DATE: 4/30/15

CA #6752
WWW.MEAENGINEERS.COM

MEA ENGINEERS, INC.
2352 Applegate Circle
Sarasota, Florida 34240
(941) 922-3854 Cell-9072

REV.	DESCRIPTION
1	XX/XX/XX - RESERVED.

Project Name: Ultratek Worldwide Inc.
3301 N. Washington Blvd.
Sarasota, FL 34234
PHONE: (941) 924-2255
www.ultratekworldwide.com

Description: CLEARTEK STORM PANEL SYSTEM (HVHZ)

Drawn: JK
Project #: 15-50
Scale: NOTED
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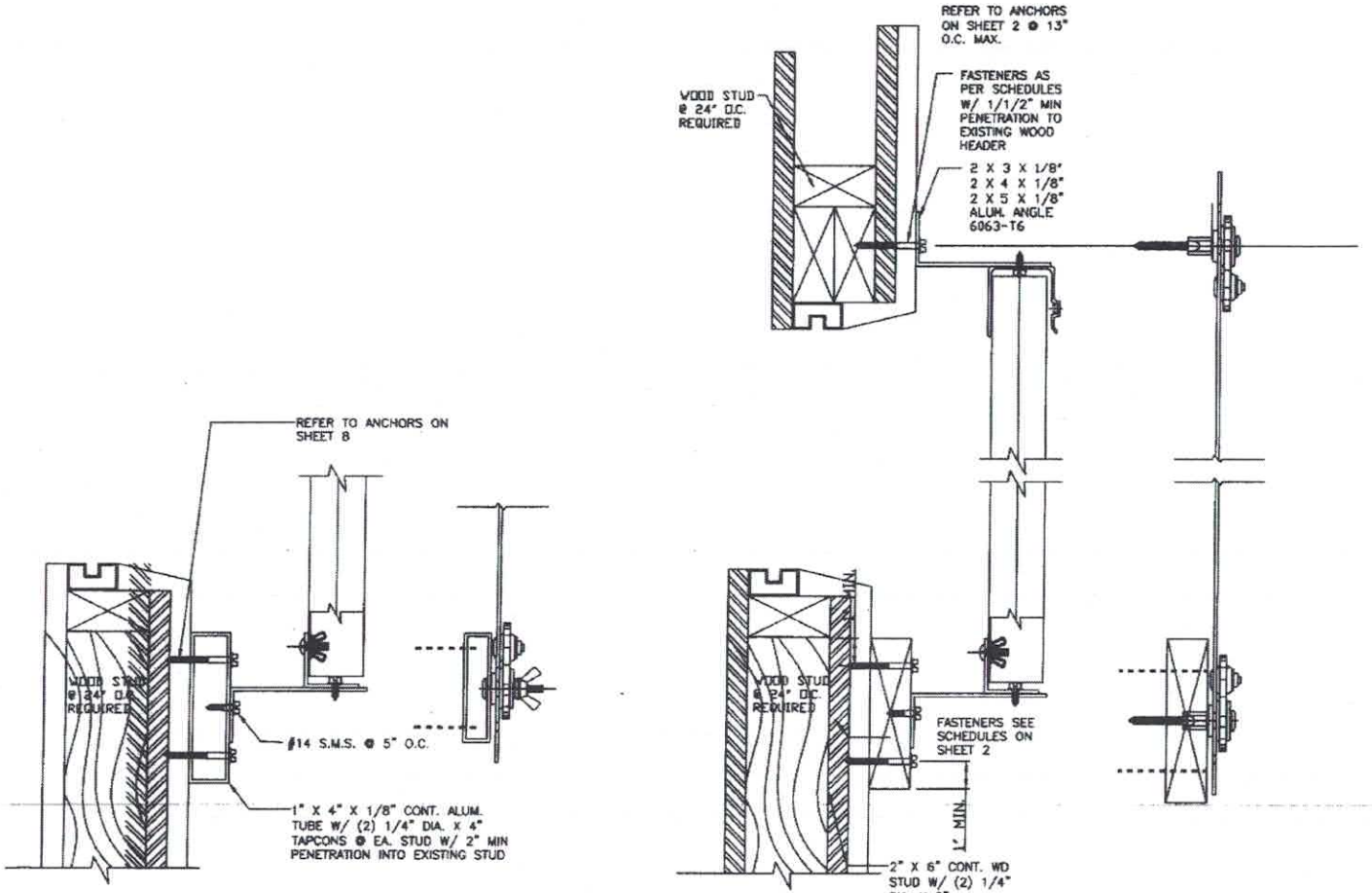

INSTALLATION DETAILS ON EXISTING WOOD STUDS

ABOVE DETAILS SHOW CONNECTIONS OF 2X6 BUCK & 1X4 ALUM. TUBE TO WOOD STUDS TO PROVIDE A CONTINUOUS SURFACE FOR A SHUTTER INSTALLATION.
FOR INSTALLATION DETAILS OF HEADER/SILL TO CONTINUOUS WOOD MEMBERS SEE SHEETS 6 THROUGH 9.

JOHN HENRY KAMPMANN JR. LICENSE No. 47516 STATE OF FLORIDA
John H. Kampmann Jr., PE
FL License No. 47516
DATE:

CA #6752
WWW.MEAENGINEERS.COM
MEA ENGINEERS, INC.
2352 Apalopsa Circle
Punta Gorda, FL 33950
(941) 922-3864 CA-8072

REV.	DESCRIPTION
1	XX/XX/XX - RESERVED.

Project Name: Ultratek Worldwide Inc.
3801 N. Washington Blvd.
Sarasota, FL 34234
PHONE: (941) 924-2285
www.ultratekworldwide.com

Description: CLEARTEK STORM PANEL SYSTEM (HVHZ)

Drawn:	JK
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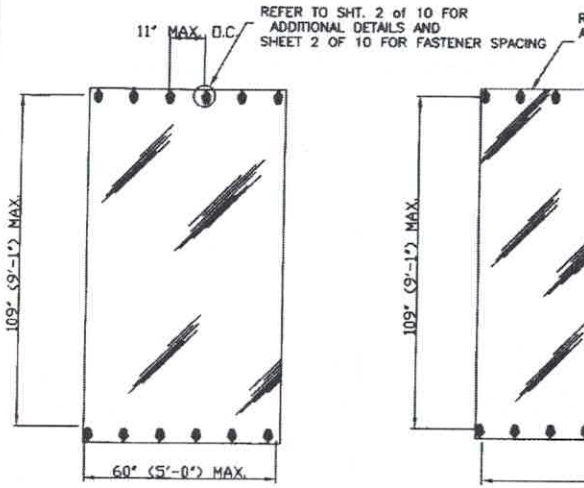
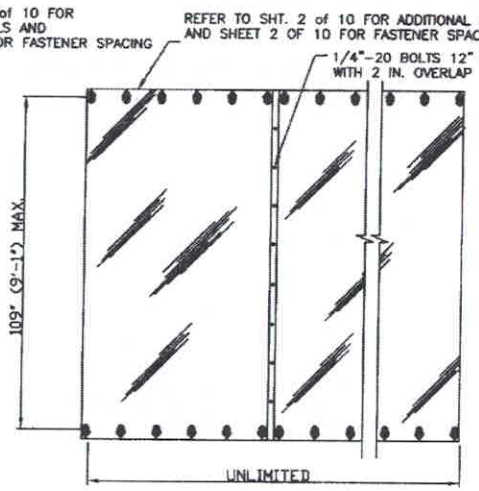
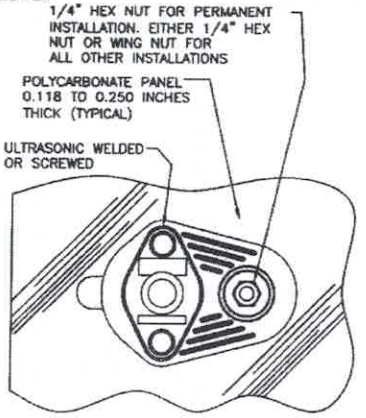


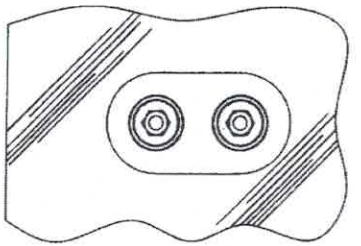
TYPICAL TWO-SIDED INSTALLATION
VERTICAL OR HORIZONTAL INSTALLATION N.T.S.



TYPICAL OVERLAP INSTALLATION
VERTICAL OR HORIZONTAL INSTALLATION N.T.S.



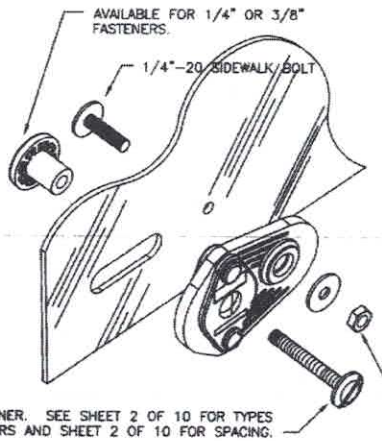
CLEARTEK STRETCH BRACKET
VERTICAL OR HORIZONTAL INSTALLATION 1/2"=1"



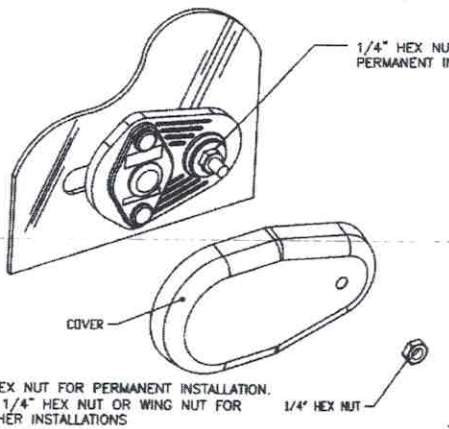
CLEARTEK ALT. STRETCH BRACKET
VERTICAL OR HORIZONTAL INSTALLATION 1/2"=1"

NOTE:

1. SIDE COURTESY STRETCH BRACKETS MAY BE USED.
2. STITCHING OF PANELS CAN BE SUBSTITUTED BY SOLID PANELS AS LONG AS THE SPAN REQUIREMENTS ARE MET.
3. STRETCH BRACKETS MAY BE USED ON ARCHED PANEL SECTIONS.
4. PANELS MAY BE CURVED AND/OR CUT TO FOLLOW THE PROFILE AROUND CIRCLES, ARCHES AND ANY OTHER IRREGULAR-SHAPED OPENINGS.
5. STORM BAR MULTIPLIER
   (# OF STORM BARS +1) X SPAN CHART
6. PANEL EDGES CAN BE BENT TO INCREASE RIGIDITY.
7. AN OPTIONAL UV AND/OR SOLAR EXTERNAL LAYER MAY BE ADDED ONTO THE SYSTEM.



TYPICAL ATTACHMENT DETAIL
VERTICAL OR HORIZONTAL INSTALLATION 1/2"=1"



OPTIONAL COVER DETAIL
VERTICAL OR HORIZONTAL INSTALLATION 1/2"=1"

JOHN HENRY KAMPMANN JR. LICENSE No. 47516 STATE OF FLORIDA
John H. Kampmann Jr. P.E.
FL License No. 47516
DATE:

CA #8752
WWW.MEAENGINEERS.COM
MEA ENGINEERS, INC.
2352 Appaloosa Circle
Sarasota, Florida 34240
(941) 922-3854 CA-8972

REV.	DESCRIPTION
1	XX/XX/XX - RESERVED.

Project Name:
Ultratek Worldwide Inc.
3801 N. Washington Blvd.
Sarasota, FL. 34234
PHONE: (941) 924-2283
www.ultratekworldwide.com

Description:
CLEARTEK
STORM PANEL SYSTEM
(HVHZ)

Drawn	JK
Project #	15-50
Scale	NOTED
Date	4/30/15
Sheet No.	10/10