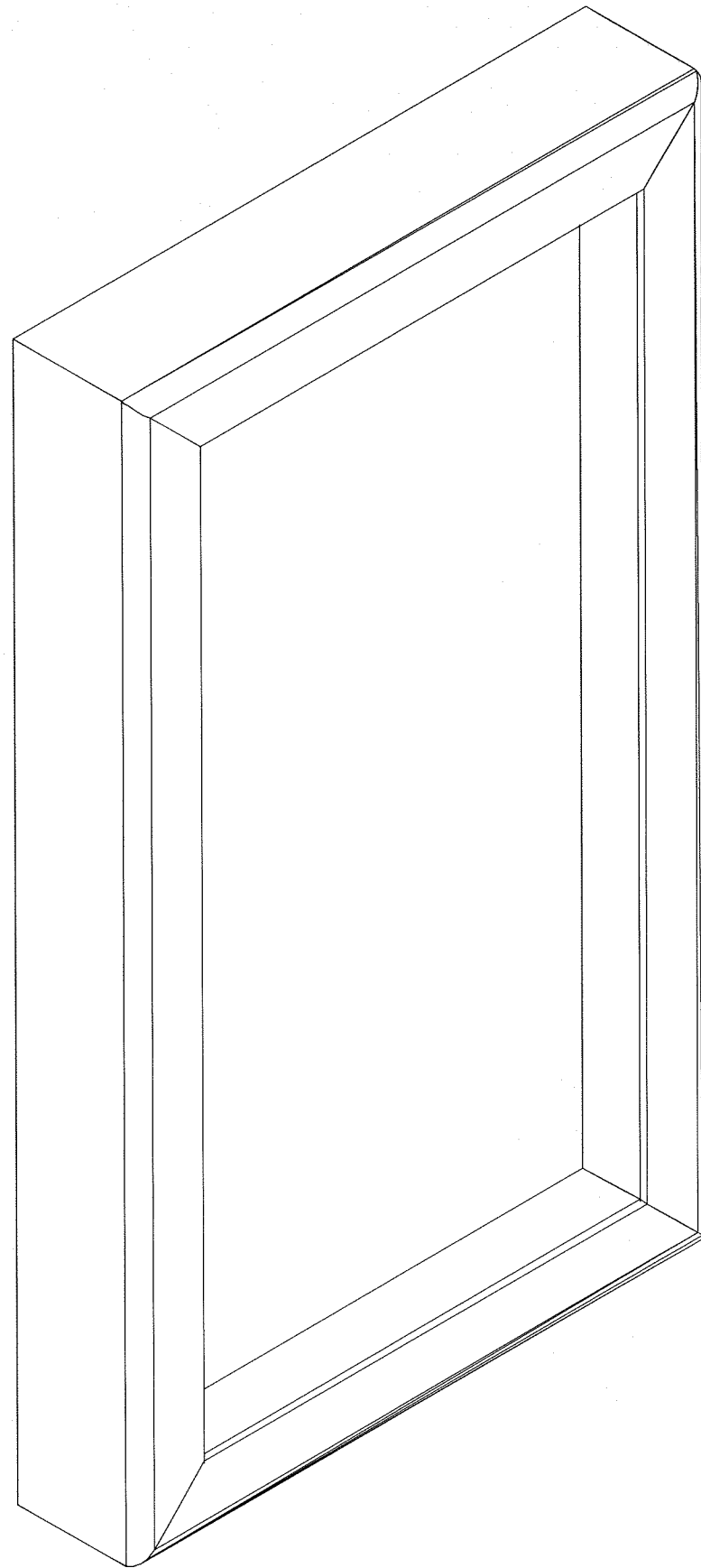


FENEX CORP M.D., INC

FIXED STAINLESS STEEL FIRE WINDOW

LARGE & SMALL MISSILE IMPACT RESISTANT



GENERAL NOTES:

- THIS SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SIXTH EDITION (2017) PER
 - ASTM E330-14, E331-00, E283-04, E1886-13a, E1996-14
 - TAS 201 / 202 / 203
 - AAMA 101-97

FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ). AS QUALIFIED IN TEST REPORTS HETI-16-5036, HETI-16-5037, HETI-16-5038 & HETI-16-5039 BY HURRICANE ENGINEERING & TESTING INC.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- UNITS GLAZED WITH 9/16" LAMINATED GLASS OR 1-5/16" INSULATED LAMINATED (HEAT STRENGTHENED) ARE LARGE MISSILE IMPACT RESISTANT AND DO NOT REQUIRE IMPACT RESISTANT SHUTTERS.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
- 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.
- ALL CONCRETE ANCHORS SPECIFIED HEREIN REFER TO ELCO CARBON STEEL 1/4" ULTRACONS. FASTENED TO 6" MIN. THICK 3,000 PSI MIN. NON-CRACKED CONCRETE (BY OTHERS) INSTALL ALL CONCRETE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.
- ALL FASTENERS INTO METAL SUBSTRATES TO BE 1/4"Ø ELCO DRIL-FLEX UNLESS NOTED OTHERWISE. ALL THRU-BOLTS AT INTERMEDIATE VERTICAL MULLIONS TO BE 1/4" DIA THRU-BOLTS WITH FENDER WASHERS AND NUT AS SHOWN HEREIN. FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3.1 BY THE ALUMINUM ASSOCIATION, INC., & ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.
- ALL EXTRUSIONS SHALL BE STEEL A36 ALLOY AND TEMPER, MANUFACTURED BY FENEX CORP INC.
- GLAZING ILLUSTRATED HEREIN UTILIZES SENTRYGLAS INTERLAYER BY KURARAY AMERICA INC. (NOA# 14-0916.11)
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
- 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.
- SAFEGUARDS MUST BE OBSERVED (NOT IN THIS CERTIFICATION)
- PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM CONTAINING THE FOLLOWING:
 FENEX CORP M.D., INC.
 601 SW 66TH TERRACE
 PEMBROKE PINES, FLORIDA 33023
 TAS 201/202/203
 APPROVED BY FLORIDA BUILDING COMMISSION
 FLORIDA PRODUCT APPROVAL NUMBER

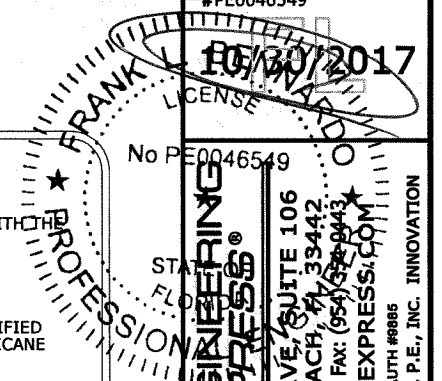
SHEET INDEX

# SHEET	DESCRIPTION
1	COVER SHEET
2	ELEVATIONS
3-4	LOADING TABLES & GLASS TYPES
5	ANCHOR TABLES
6-7	DETAILS
8	FRAME ASSEMBLY
9	PART LIST
9	TOTAL

FL#20700.1

FRANK L. BENNARDO, P.E.
#PE0046549

08/30/2017



ENGINEERING EXPRESS®
 160 SW 12th AVE, SUITE 106
 DEERFIELD BEACH, FL 33442
 Ph: (954) 354-0660 FAX: (954) 354-0443
 ENGINEERINGEXPRESS.COM
 CERT OF AUTH #6986
 A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.
 601 SW. 66TH TERRACE
 PEMBROKE PINES, FL 33023
 (954) 638-5608

FIXED STAINLESS STEEL FIRE WINDOW
 FL#20700.1

DRWN	CHKD	DATE
SSQ	AJP	08/17/16
GMD	AJP	02/15/17

REMARKS
 INT ISSUE
 REV 1

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

COPYRIGHT ENGINEERING EXPRESS

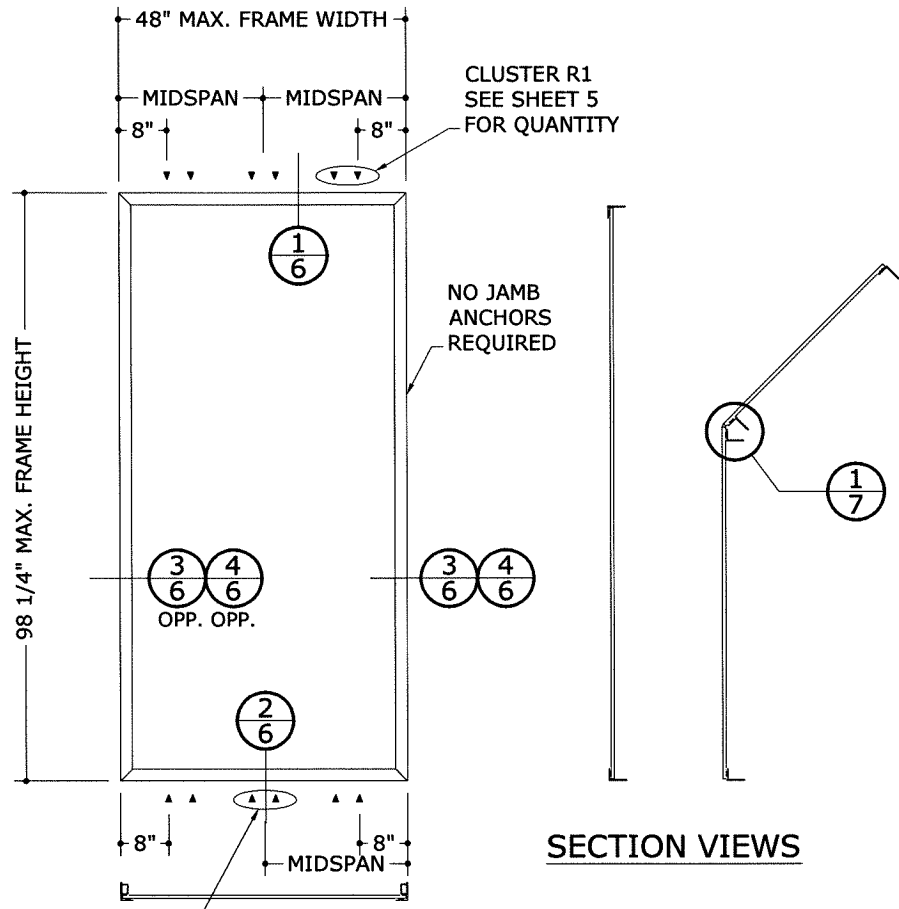
15-3002

SCALE: SEE DETAILS 01

PAGE DESCRIPTION:

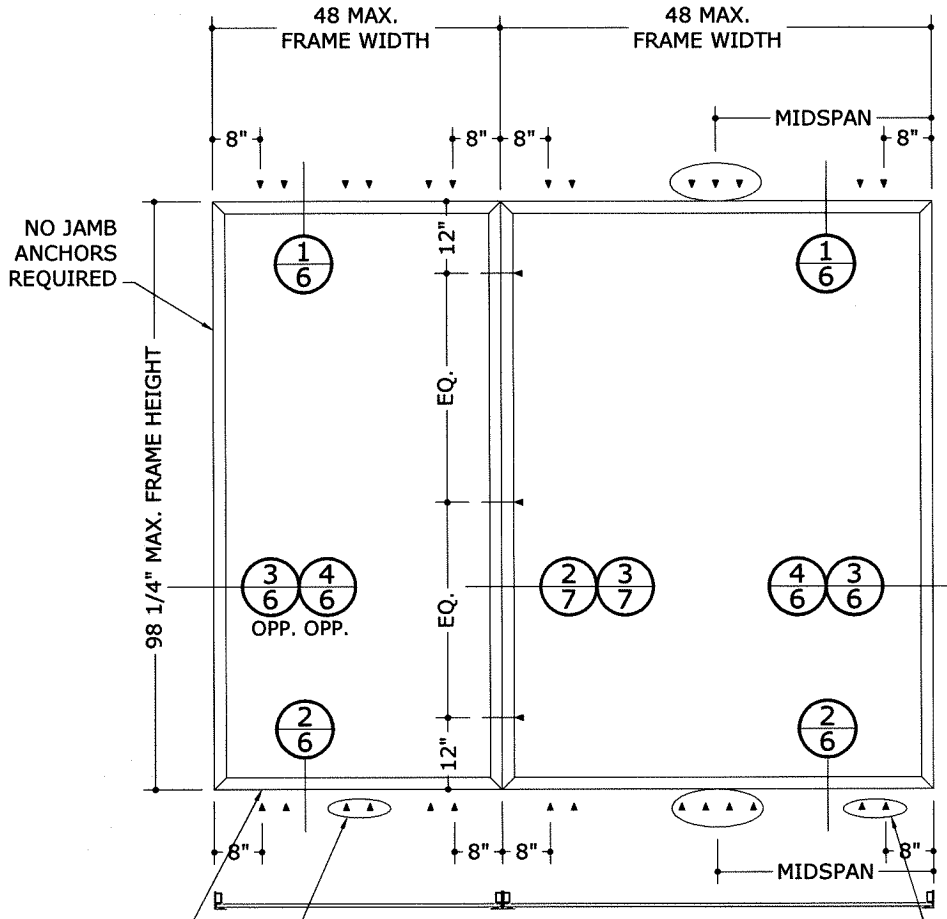
V:\Projects\15-3002 Fire Rated Impact Window\02 Product Submittal 2.16.17\2017 FBC Update\15-3002c-Dwg-FL20700.1.dwg

10/30/2017 - 1:53pm zachr



**SINGLE PANEL STEEL FRAME
FIXED WINDOW**

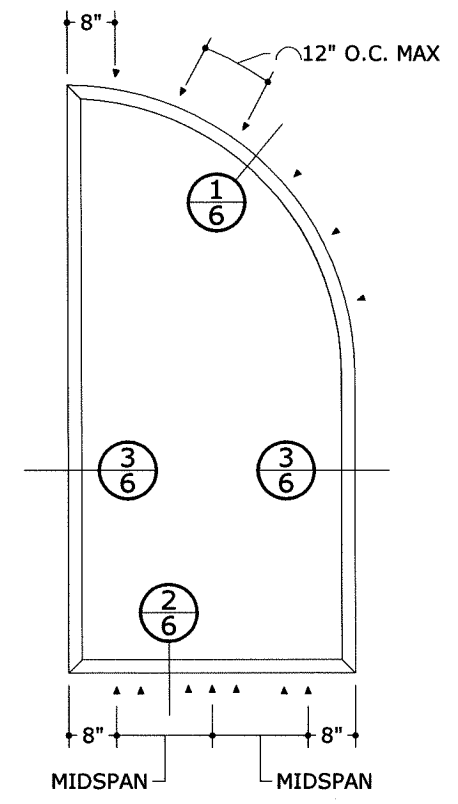
- ▲ ANCHOR TYPE: ANCHORS TO STRUCTURE SEE SHEET 5 FOR QUANTITY AND SPACING
- ▼ ANCHOR TYPE: 1/4" HEX HEAD BOLT WITH WASHERS & NUT.



PLAN VIEW

NOTE:
SIZES ARE THE MAXIMUM ALLOWED UNLESS ADDRESSED SEPARATELY UNDER SITESPECIFIC ENGINEERING PER FLORIDA BUILDING CODE 2411.3.2.4 & 1709.3.1

OTHER CONFIGURATION OPTIONS
AVAILABLE: SEE SHEET 3 & 4



SECTION VIEW

FRANK L. BENNARDO, P.E.
No PE 0046549
10/30/2017
PROFESSIONAL ENGINEER
STATE OF FLORIDA

ENGINEERING EXPRESS
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 FAX: (954) 354-0643
ENGINEERINGEXPRESS.COM
CERT OF AUTH #9886
A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.
601 SW. 66TH TERRACE
PEMBROKE PINES, FL 33023
(954) 638-5608
FIXED STAINLESS STEEL FIRE WINDOW
FL#20700.1

DRWN	CHKD	DATE
SSQ	AJP	06/17/16
GMD	AJP	02/15/17

REMARKS
INT ISSUE
REV 1

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

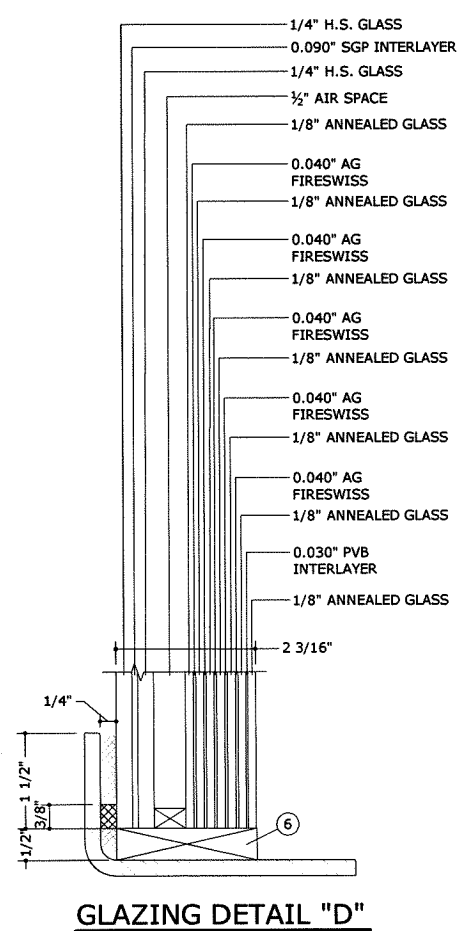
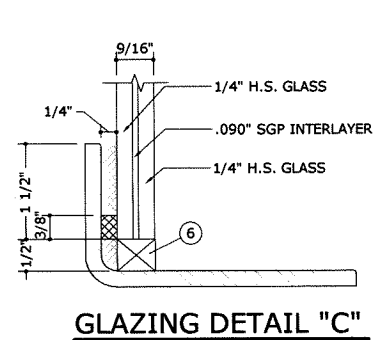
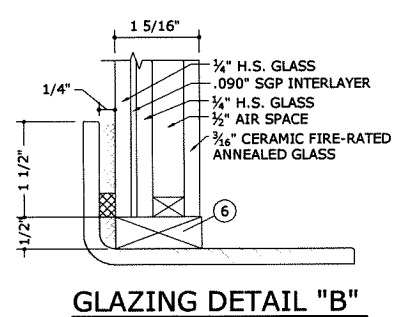
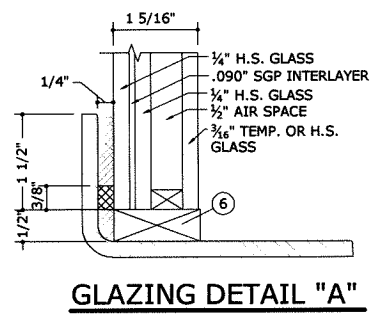
COPYRIGHT ENGINEERING EXPRESS
15-3002
SCALE: SEE DETAILS 01
PAGE DESCRIPTION:
2

V:\Projects\15-3002 Fire Rated Impact Window\02 Product Submittal 2.16.17\2017 FBC Update\15-3002-FW-FL20700.1.dwg zachr 10/30/2017 - 1:53pm

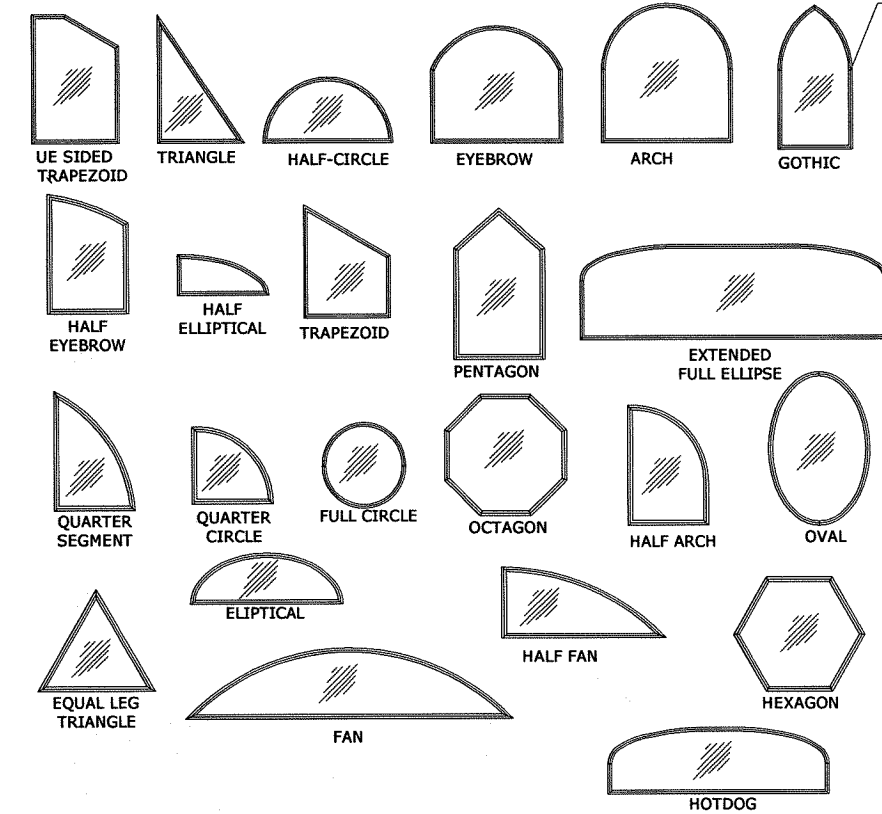
LOADING TABLES (PSF)			
NOMINAL DIMS		(+) P.S.F	(-) P.S.F
WIDTH	HEIGHT		
24	24	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	30	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	36	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	42	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	

NOMINAL DIMS		(+) P.S.F	(-) P.S.F
WIDTH	HEIGHT		
24	48	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	54	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60		88	88
66		88	88
72		88	88
78		88	88
84		88	88
90		88	88
96	88	88	
24	60	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60		80	80
66		80	80
72		80	80
78		80	80
84		80	80
90		80	80
96	80	80	
24	66	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60		80	80
66		72	72
72		80	80
78		80	80
84		80	80
90		80	80
96	80	80	
24	72	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60		80	80
66		72	72
72		80	80
78		80	80
84		80	80
90		80	80
96	80	80	

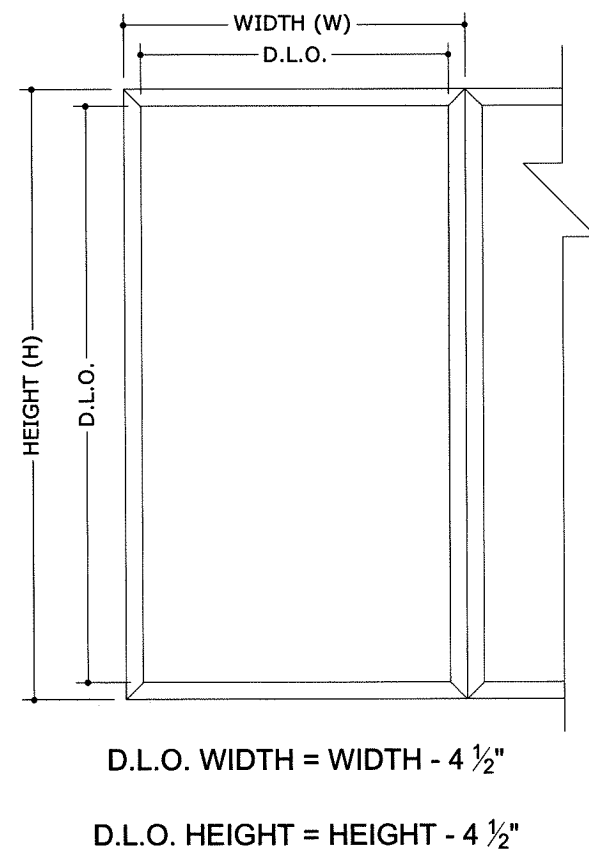
NOMINAL DIMS		(+) P.S.F	(-) P.S.F
WIDTH	HEIGHT		
24	78	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60	80	80	
24	84	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
24	90	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
24	98 1/4"	100	100
30		100	100
36		100	100
42		100	100
48 1/4"		100	100



POSSIBLE ARCHITECTURAL SHAPES: NO SHAPE MAY EXCEED SIZE OF TESTED RECTANGLE TRANSCRIBED AROUND SHAPE.



WINDOWS MAY BE INSTALLED TOGETHER AN INFINITE NUMBER OF BAYS PROVIDED EACH WINDOW SIZE DOES NOT EXCEED SIZES ON CHART



FRANK L. BENNARDO, P.E.
 No. PE0046549
 PROFESSIONAL ENGINEERING EXPRESS
 160 SW 12th Ave., Suite 106
 Deerfield Beach, FL 33442
 Ph: (954) 354-0660 Fax: (954) 354-0443
 ENGINEERINGEXPRESS.COM
 CERT. OF AUTH. #9885
 A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.
 601 SW. 66TH TERRACE
 PEMBROKE PINES, FL 33023
 (954) 638-5608
 FIXED STAINLESS STEEL FIRE WINDOW
 FL#20700.1

DRWN	CHKD	DATE
SSQ	AJP	06/17/16
GMD	AJP	02/15/17

REMARKS: INT ISSUE REV 1

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

COPYRIGHT ENGINEERING EXPRESS

15-3002

SCALE: SEE DETAILS 01

PAGE DESCRIPTION:

3 OF 9

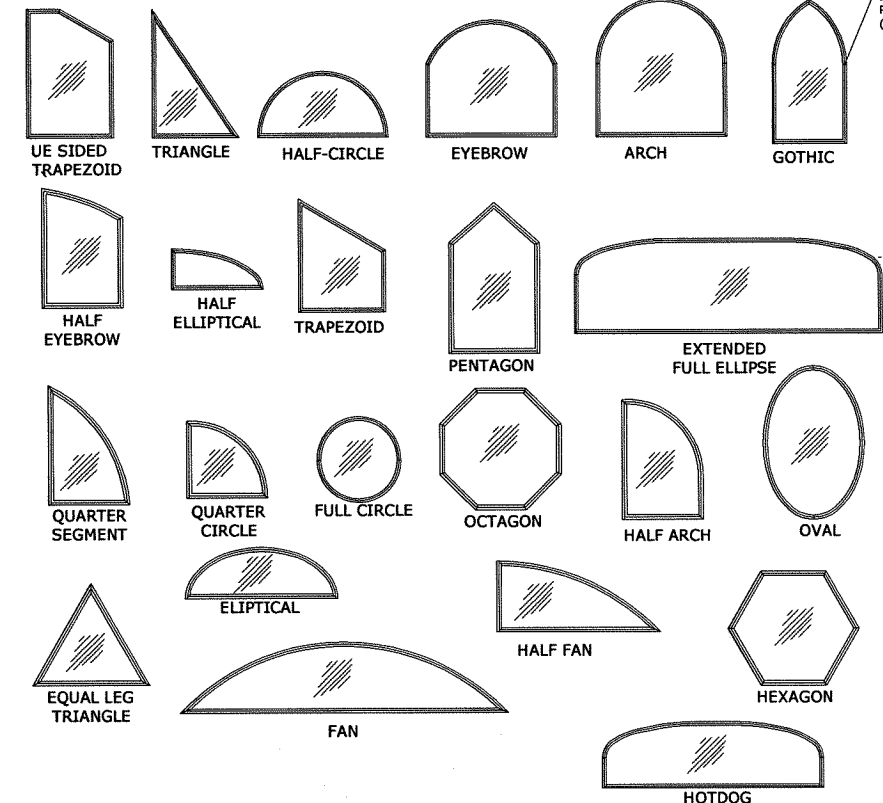
V:\Projects\15-3002 Fire Rated Impact Window\02 Product Submittal 2.16.17\2017 FBC Update\15-3002d-Dwg-FL20700.1.dwg

LOADING TABLES (PSF)			
NOMINAL DIMS			
WIDTH	HEIGHT	(+) P.S.F	(-) P.S.F
24	24	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	30	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	36	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	42	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	

NOMINAL DIMS			
WIDTH	HEIGHT	(+) P.S.F	(-) P.S.F
24	48	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		100	100
60		100	100
66		100	100
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	54	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60		88	88
66		88	88
72		88	88
78		88	88
84		88	88
90		88	88
96	88	88	
24	60	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60		80	80
66		80	80
72		80	80
78		80	80
84		80	80
90		80	80
96	80	80	
24	66	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60		80	80
66		72	72
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	
24	72	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60		80	80
66		72	72
72		100	100
78		100	100
84		100	100
90		100	100
96	100	100	

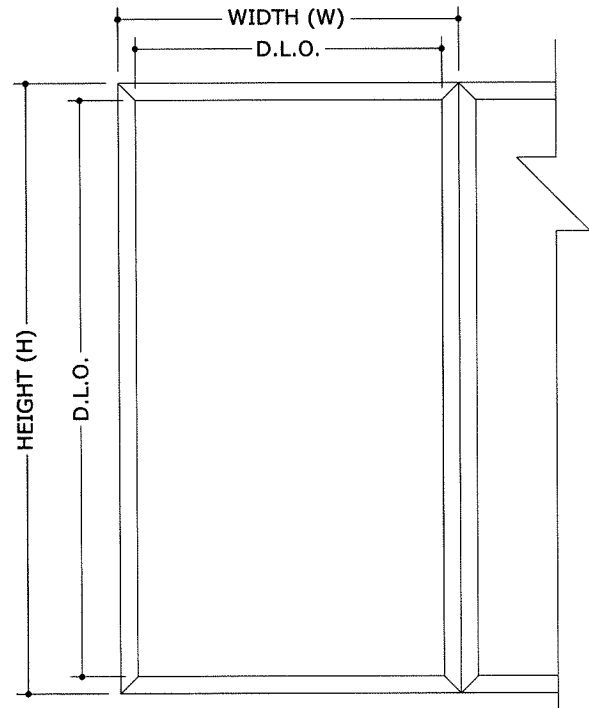
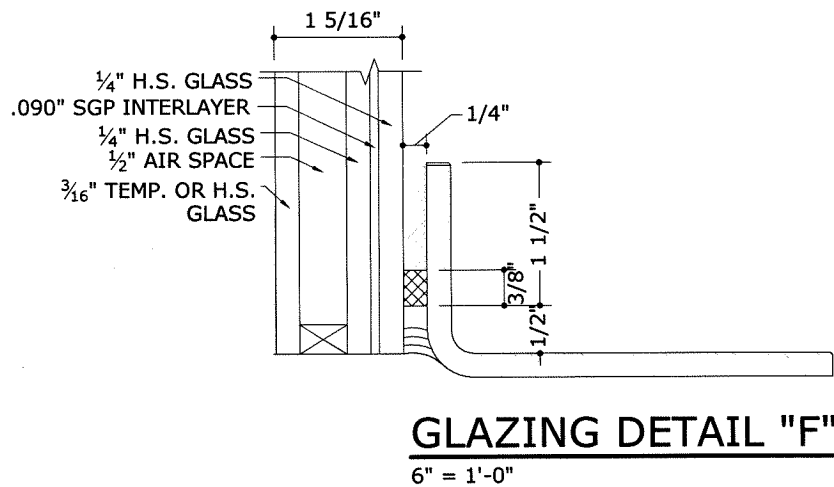
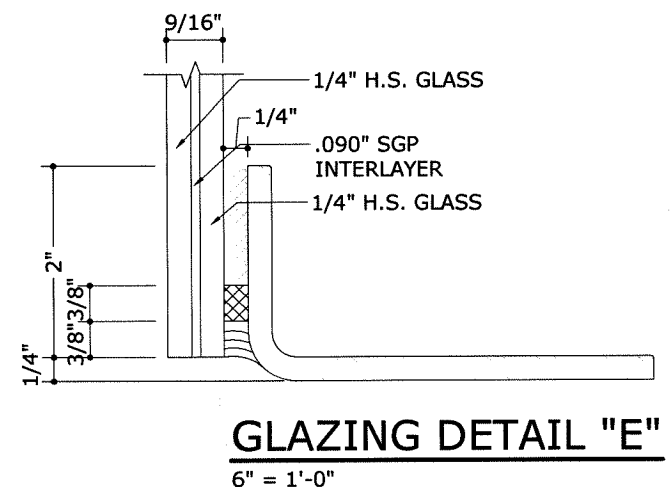
NOMINAL DIMS			
WIDTH	HEIGHT	(+) P.S.F	(-) P.S.F
24	78	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
60	80	80	
24	84	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
24	90	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88
24	98 1/4"	100	100
30		100	100
36		100	100
42		100	100
48		100	100
54		88	88

POSSIBLE ARCHITECTURAL SHAPES: NO SHAPE MAY EXCEED SIZE OF TESTED RECTANGLE TRANSCRIBED AROUND SHAPE.



JOINT WELD POINTS TYP. (MAY VARY)

WINDOWS MAY BE INSTALLED TOGETHER AN INFINITE NUMBER OF BAYS PROVIDED EACH WINDOW SIZE DOES NOT EXCEED SIZES ON CHART



D.L.O. WIDTH = WIDTH - 4 1/2"
D.L.O. HEIGHT = HEIGHT - 4 1/2"

FRANK L. BENNARDO, P.E.
#PEPP46549
10/30/2017
No. E0040549
ENGINEERING EXPRESS
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
PH: (954) 354-0660 FAX: (954) 354-0443
ENGINEERINGEXPRESS.COM
CERT OF AUTH #8885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.
601 SW. 66TH TERRACE
PEMBROKE PINES, FL 33023
(954) 638-5608
FIXED STAINLESS STEEL FIRE WINDOW
FL#20700.1

DRWN	CHKD	DATE
SSQ	AJP	06/17/16
GMD	AJP	02/15/17

REMARKS
INT ISSUE
REV 1

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

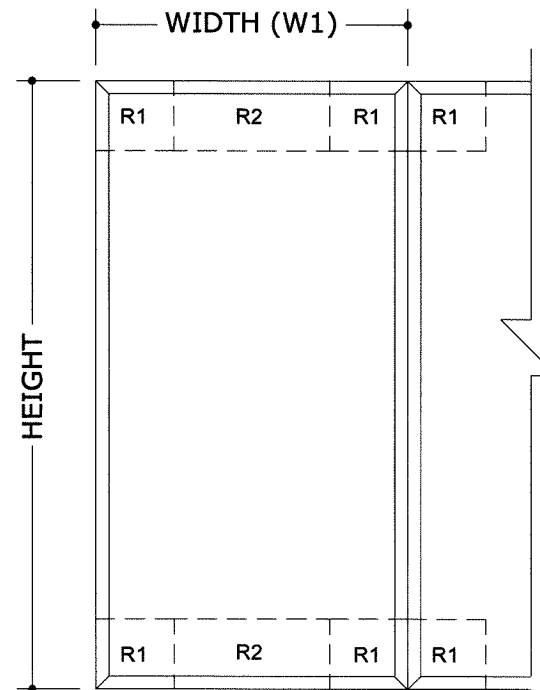
15-3002
SCALE: SEE DETAILS 01
PAGE DESCRIPTION:
4

V:\Projects\15-3002 Fire Rated Impact Window\02 Product Submittal 2.16.17\2017 FBC Update\15-3002c-Dwg-FL20700.1.dwg 10/30/2017 - 1:53pm zachr

ANCHOR TABLES (QTY)								
NOMINAL DIMS		CONCRETE		STEEL		WOOD		
WIDTH	HEIGHT	R1	R2	R1	R2	R1	R2	
24	24	2	3	2	3	2	3	
30		2	3	2	3	2	3	
36		2	3	2	3	2	3	
42		2	3	2	3	2	3	
48		2	3	2	3	2	3	
54		2	3	2	3	2	3	
60		2	3	2	3	2	3	
66		2	3	2	3	2	3	
72		2	3	2	3	2	4	
78		2	3	2	3	2	4	
84		2	3	2	3	2	4	
90		2	3	2	3	2	4	
96		2	3	2	3	2	5	
24		30	2	3	2	3	2	3
30			2	3	2	3	2	3
36			2	3	2	3	2	3
42	2		3	2	3	2	3	
48	2		3	2	3	2	3	
54	2		3	2	3	2	3	
60	2		3	2	3	2	3	
66	2		3	2	3	2	4	
72	2		3	2	3	2	4	
78	2		3	2	3	2	4	
84	2		3	2	3	2	5	
90	2		3	2	3	2	5	
96	2		3	2	3	2	6	
24	36		2	3	2	3	2	3
30			2	3	2	3	2	3
36			2	3	2	3	2	3
42		2	3	2	3	2	3	
48		2	3	2	3	2	3	
54		2	3	2	3	2	3	
60		2	3	2	3	2	4	
66		2	3	2	3	2	4	
72		2	3	2	3	2	5	
78		2	3	2	3	2	5	
84		2	3	2	3	2	5	
90		2	3	2	3	2	6	
96		2	3	2	3	2	6	
24		42	2	3	2	3	2	3
30			2	3	2	3	2	3
36			2	3	2	3	2	3
42	2		3	2	3	2	3	
48	2		3	2	3	2	3	
54	2		3	2	3	2	3	
60	2		3	2	3	2	4	
66	2		3	2	3	2	4	
72	2		3	2	3	2	5	
78	2		3	2	3	2	6	
84	2		3	2	3	2	6	
90	2		3	2	3	2	7	
96	2		3	2	3	2	7	

NOMINAL DIMS		CONCRETE		STEEL		WOOD		
WIDTH	HEIGHT	R1	R2	R1	R2	R1	R2	
24	48	2	3	2	3	2	3	
30		2	3	2	3	3	3	
36		2	3	2	3	3	3	
42		2	3	2	3	3	3	
48		2	3	2	3	3	3	
54		2	3	2	3	3	4	
60		2	3	2	3	3	4	
66		2	3	2	3	3	5	
72		2	3	2	3	3	5	
78		2	3	2	3	3	6	
84		2	3	2	3	3	7	
90		2	3	2	3	3	7	
96		2	4	2	3	3	8	
24		54	2	3	2	3	3	3
30			2	3	2	3	3	3
36			2	3	2	3	3	3
42	2		3	2	3	3	3	
48	2		3	2	3	4	3	
54	2		3	2	3	3	3	
60	2		3	2	3	3	4	
66	2		3	2	3	3	4	
72	2		3	2	3	3	5	
78	2		3	2	3	3	6	
84	2		3	2	3	3	6	
24	60		2	3	2	3	3	3
30			2	3	2	3	3	3
36			2	3	2	3	4	3
42			2	3	2	3	4	3
48			2	3	2	3	4	3
54		2	3	2	3	4	3	
60		2	3	2	3	4	4	
66		2	3	2	3	4	4	
72		2	3	2	3	4	5	
78		2	3	2	3	4	5	
24		66	2	3	2	3	3	3
30			2	3	2	3	4	3
36			2	3	2	3	4	3
42			2	3	2	3	4	3
48			2	3	2	3	5	3
54			2	3	2	3	4	3
60	2		3	2	3	4	4	
66	2		3	2	3	4	4	
24	72		2	3	2	3	4	3
30			2	3	2	3	4	3
36			2	3	2	3	5	3
42			2	3	2	3	5	3
48			3	3	2	3	5	3
54			2	3	2	3	5	3
60			2	3	2	3	5	4

NOMINAL DIMS		CONCRETE		STEEL		WOOD		
WIDTH	HEIGHT	R1	R2	R1	R2	R1	R2	
24	78	2	3	2	3	4	3	
30		2	3	2	3	4	3	
36		2	3	2	3	5	3	
42		3	3	2	3	6	3	
48		3	3	2	3	6	3	
54		3	3	2	3	6	3	
60		3	3	2	3	5	4	
24		84	2	3	2	3	4	3
30	2		3	2	3	5	3	
36	3		3	2	3	5	3	
42	3		3	2	3	6	3	
48	3		3	2	3	7	3	
54	3		3	2	3	6	3	
24	90		2	3	2	3	4	3
30			3	3	2	3	5	3
36		3	3	2	3	6	3	
42		3	3	2	3	7	3	
48		3	3	2	3	7	3	
24		98 1/4"	2	3	2	3	5	3
30			3	3	2	3	6	3
36			3	3	2	3	7	3
42	3		3	2	3	7	3	
48 1/4"	4		3	2	3	8	3	



ANCHOR TYPES	SPACING	EDGE DIST.	EMBED.
CONCRETE - 3KSI 1/4" ULTRACON	3" MIN	2 1/2" MIN	1 3/4" MIN
1/8" STEEL - A36 1/8" ALUMINUM - 6063-T5 1/4"-20 SMS GR. 5	3/4" MIN	3/4" MIN	5 PITCHES
WOOD - SYP #2 1/4" LAG SCREW	1" MIN	1 1/2" MIN	1 1/2" MIN

FRANK L. BENNARDO, P.E.
#PE0046549

10/30/2017

No PE0046549

ENGINEERING EXPRESS
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 Fax: (954) 354-0043
ENGINEERINGEXPRESS.COM

PROFESSIONAL ENGINEER
STATE OF FLORIDA

A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.
601 SW. 66TH TERRACE
PEMBROKE PINES, FL 33023
(954) 638-5608

FIXED STAINLESS STEEL FIRE WINDOW
FL#20700.1

DRWN	CHKD	DATE
SSQ	AJP	06/17/16
GMD	AJP	02/15/17

REMARKS
INT ISSUE
REV 1

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

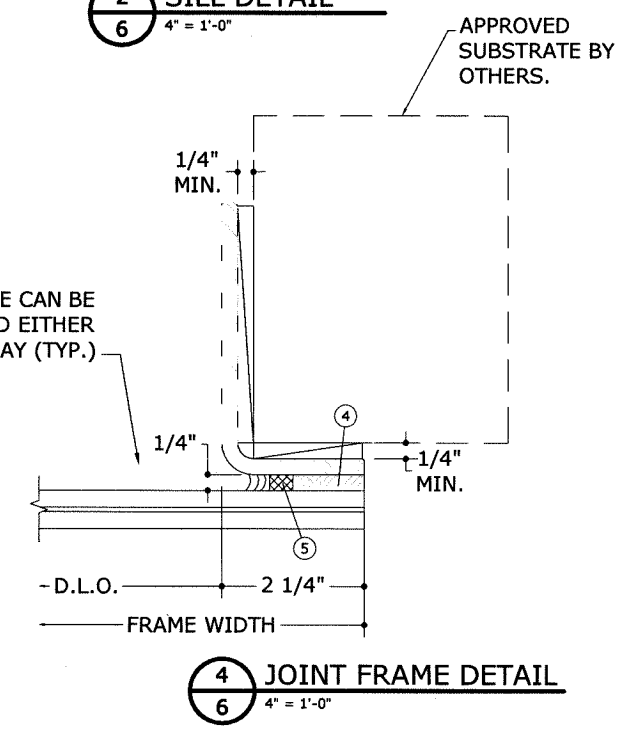
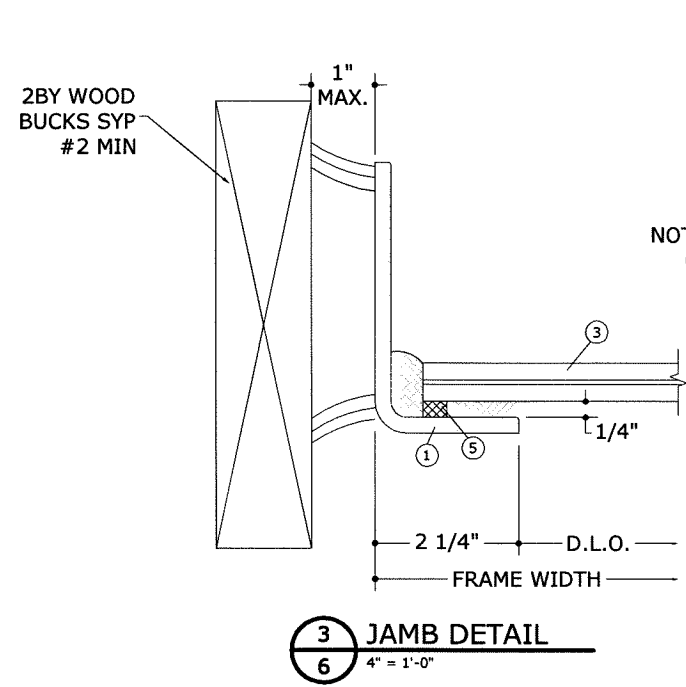
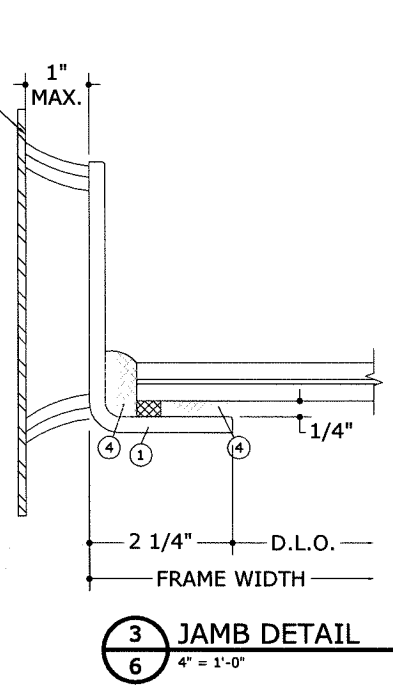
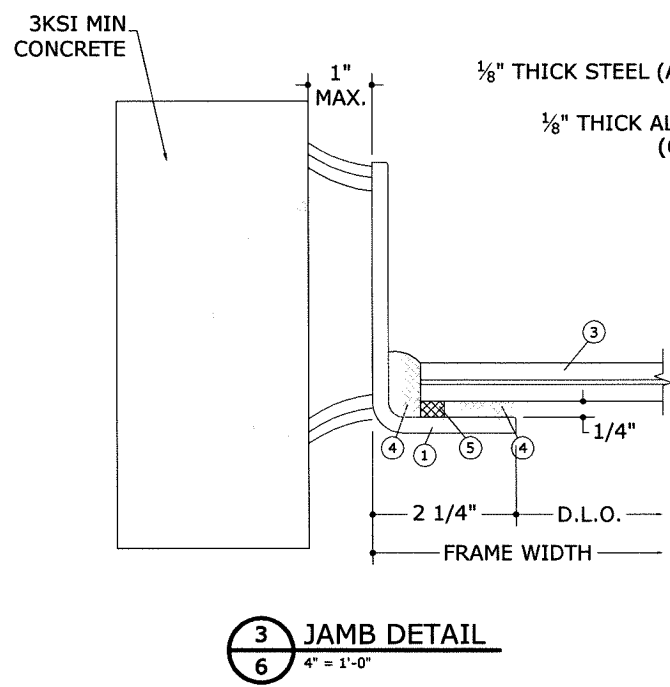
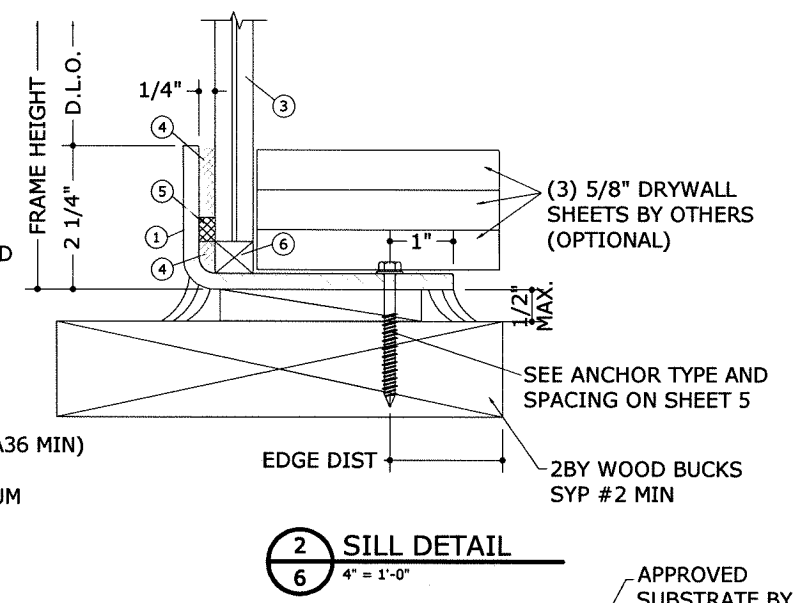
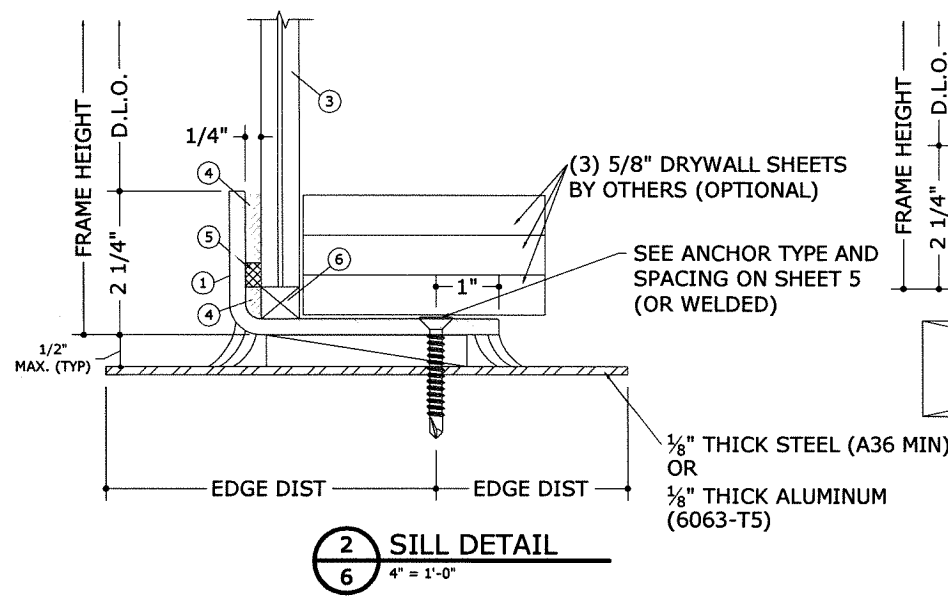
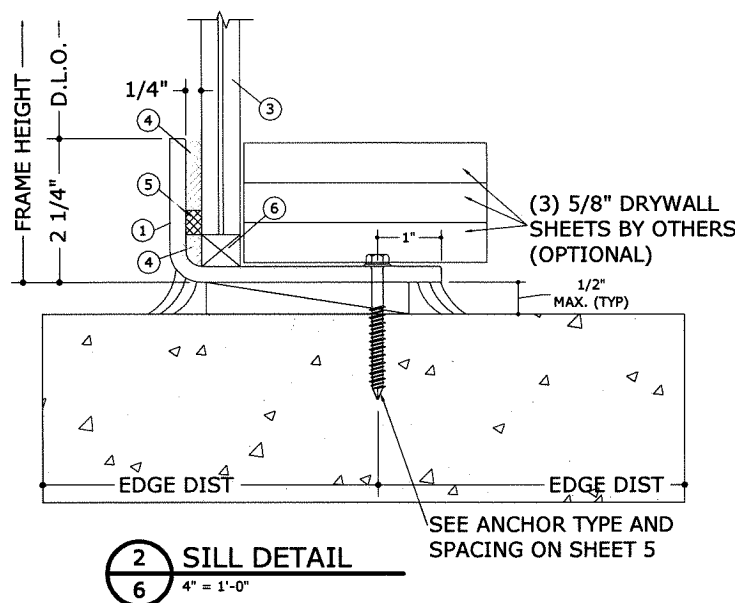
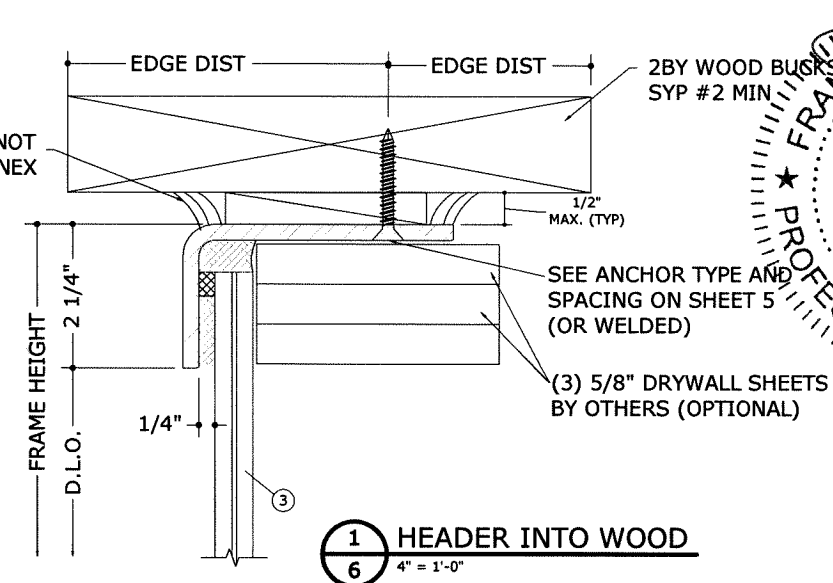
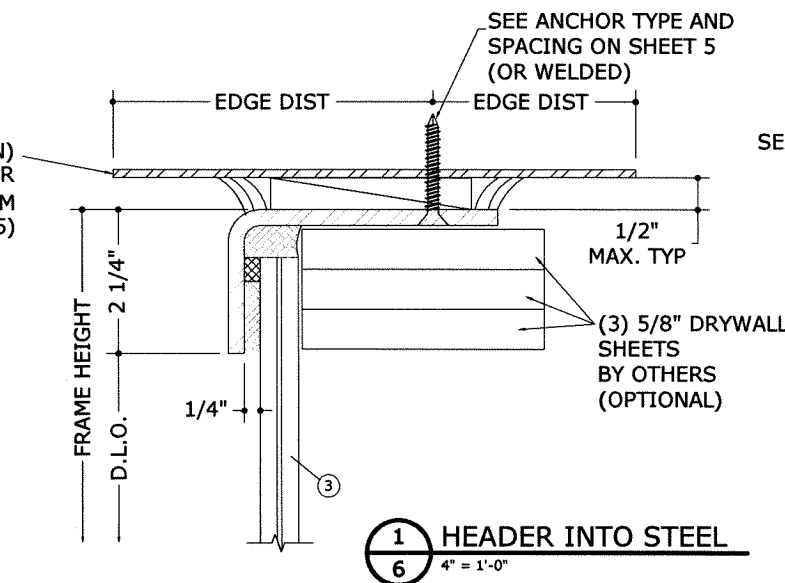
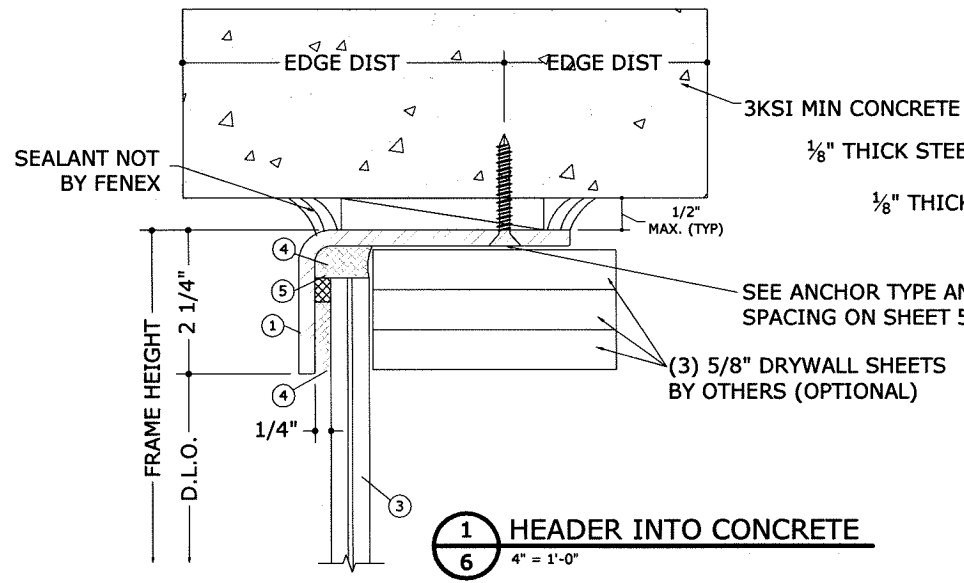
COPYRIGHT ENGINEERING EXPRESS

15-3002

SCALE: SEE DETAILS 01

PAGE DESCRIPTION:

V:\Projects\15-3002 Fire Rated Impact Window\02 Product Submittal 2.16.17\2017 FBC Update\15-3002-dwg-FL20700.1.dwg



FRANK L. BENNARDO, P.E.
#PE0046549
10/30/2017
No PE0046549

PROFESSIONAL ENGINEER

ENGINEERING EXPRESS
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 Fax: (954) 354-0443
ENGINEERINGEXPRESS.COM

CERT OF AUTH #8885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.
601 SW. 66TH TERRACE
PEMBROKE PINES, FL 33023
(954) 638-5608

FIXED STAINLESS STEEL FIRE WINDOW
FL#20700.1

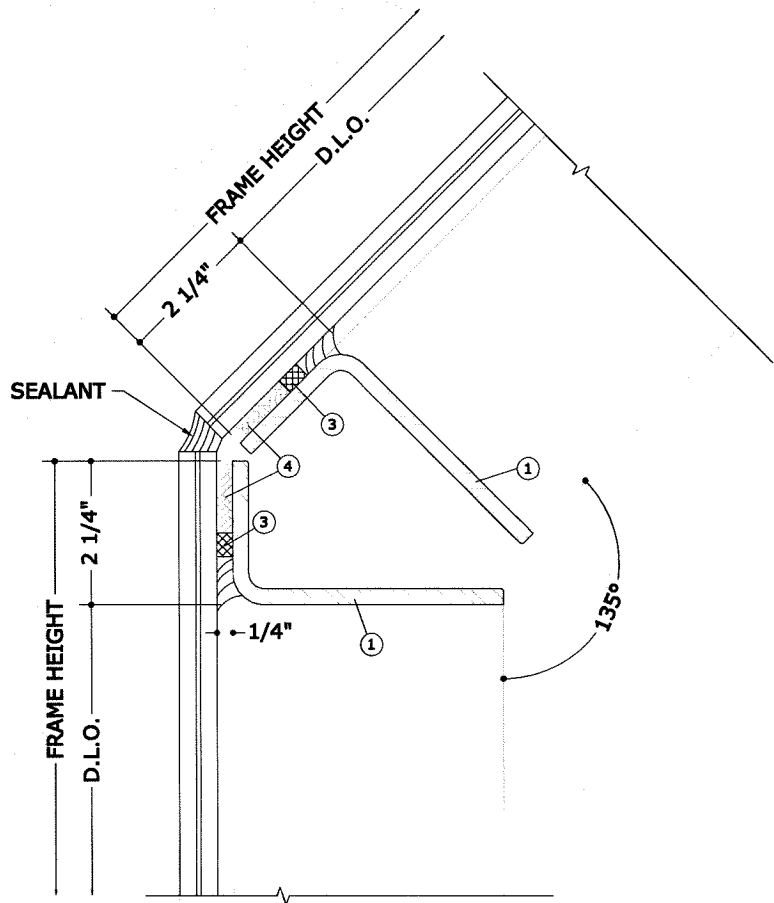
DRWN	CHKD	DATE
SSQ	AJP	06/17/16
GMD	AJP	02/15/17

REMARKS
INT ISSUE
REV 1

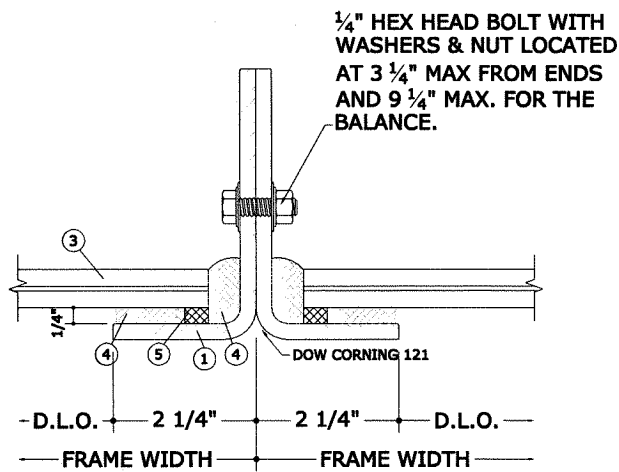
THIS DOCUMENT IS THE PROPERTY OF FRANK L. BENNARDO, P.E. AND SHALL NOT BE REPRODUCED IN WHOLE OR PART WITHOUT WRITTEN CONSENT OF FRANK L. BENNARDO, P.E. * ALTERATIONS, ADDITIONS, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION.

COPYRIGHT ENGINEERING EXPRESS
15-3002
SCALE: SEE DETAILS 01
PAGE DESCRIPTION:

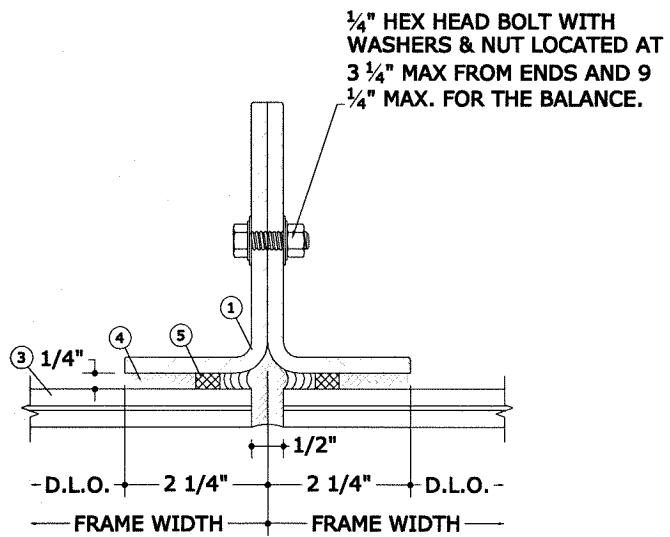




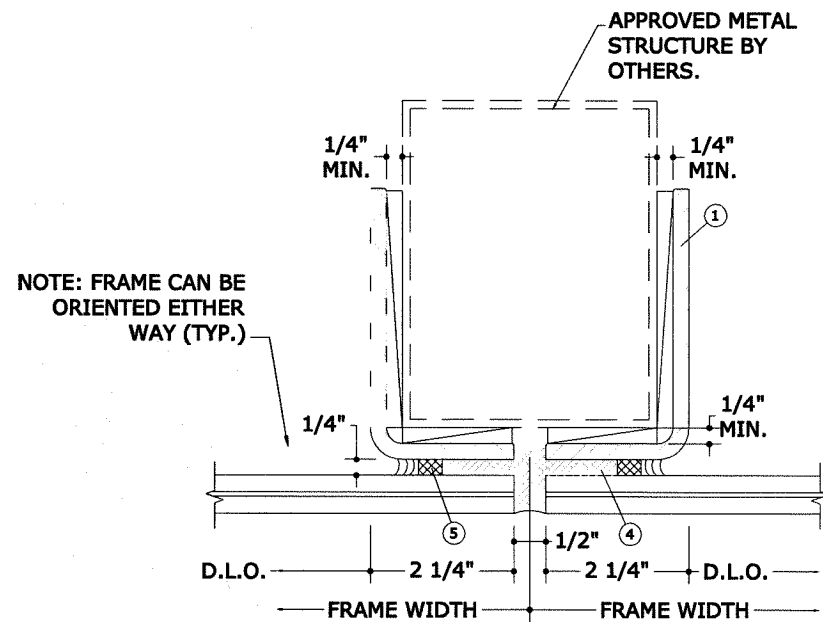
1 FRAME ANGLED JOINT
7 4" = 1'-0"



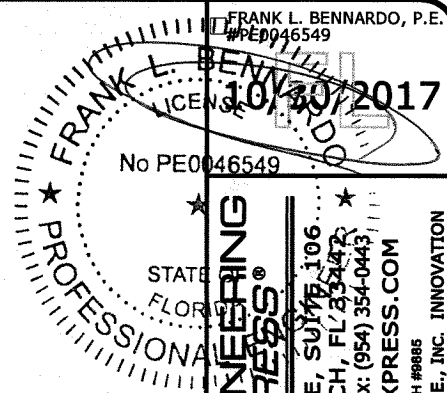
2 JOINT FRAME DETAIL
7 4" = 1'-0"



3 JOINT FRAME DETAIL
7 4" = 1'-0"



4 JOINT FRAME DETAIL
7 4" = 1'-0"



ENGINEERING EXPRESS
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 Fax: (954) 354-0443
ENGINEERINGEXPRESS.COM
CERT OF AUTH #9885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.

601 SW. 66TH TERRACE
PEMBROKE PINES, FL 33023
(954) 638-5608

FIXED STAINLESS STEEL FIRE WINDOW
FL#20700.1

REMARKS	DRWN	CHKD	DATE
INT ISSUE	SSQ	AJP	06/17/16
REV 1	GMD	AJP	02/15/17

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

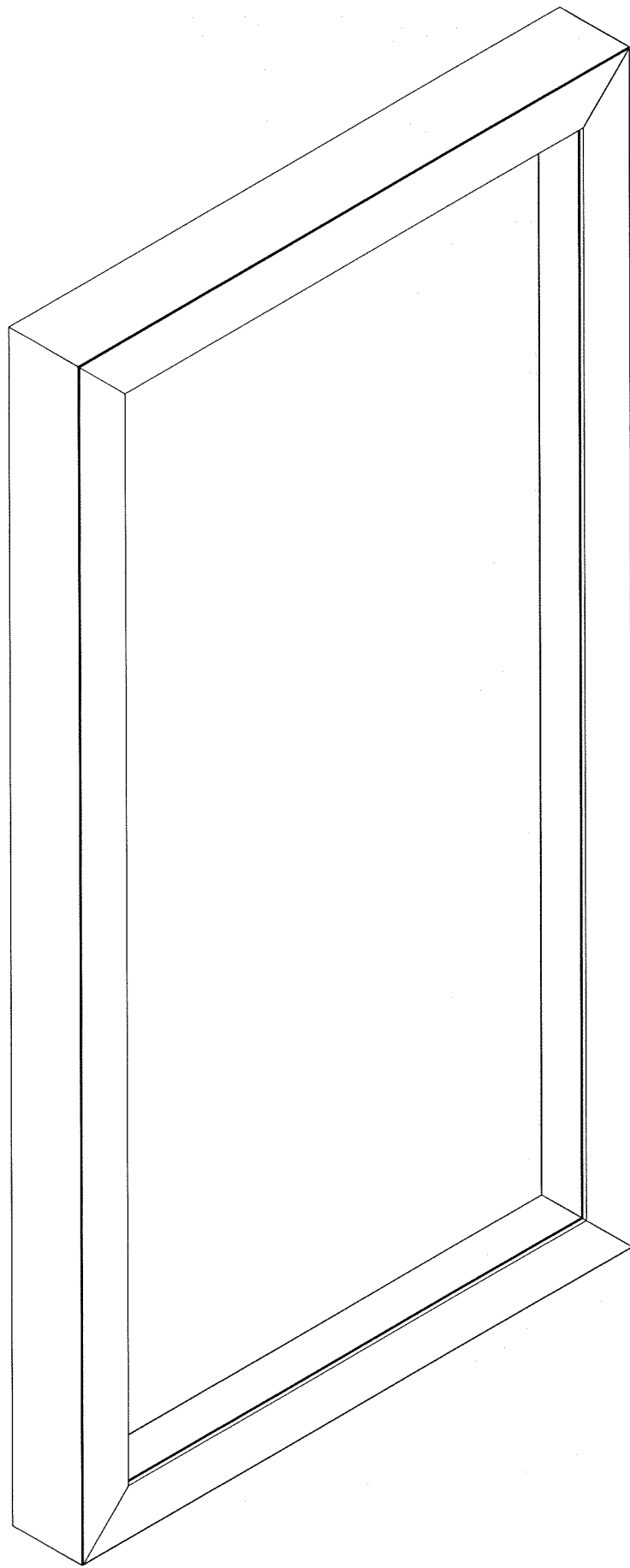
COPYRIGHT ENGINEERING EXPRESS

15-3002

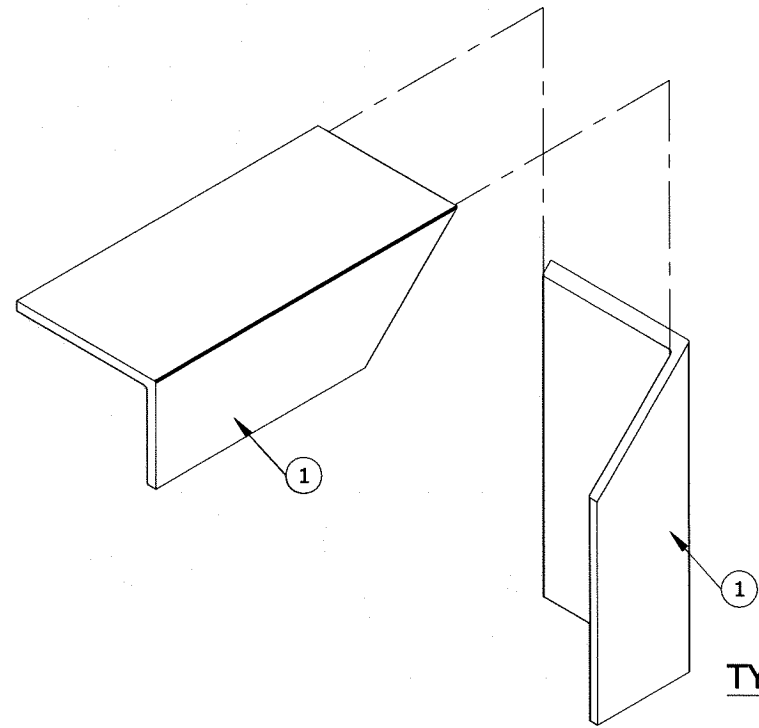
SCALE: SEE DETAILS 01

PAGE DESCRIPTION:

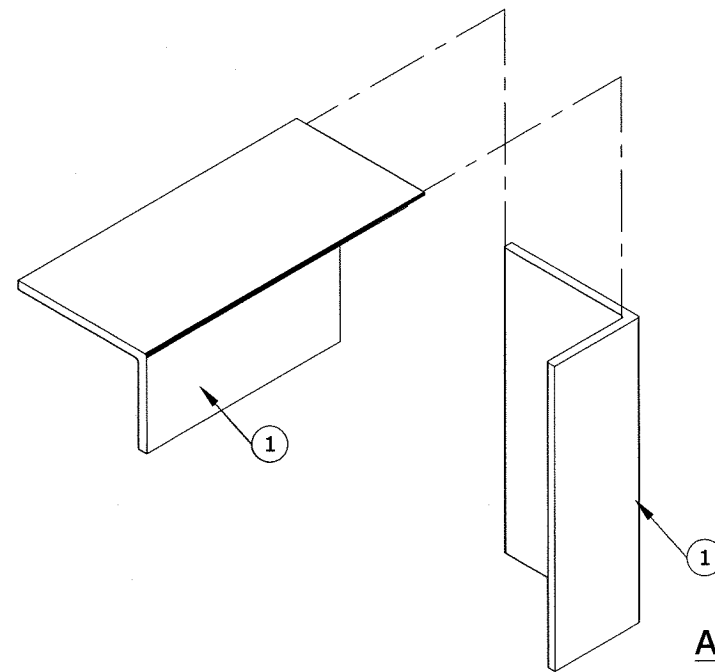
V:\Projects\15-3002 Fire Rated Impact Window\02 Product Submittal 2.16.17\2017 FBC Update\15-3002a-Dwg-FL20700.1.dwg
 10/30/2017 - 1:53pm zachr



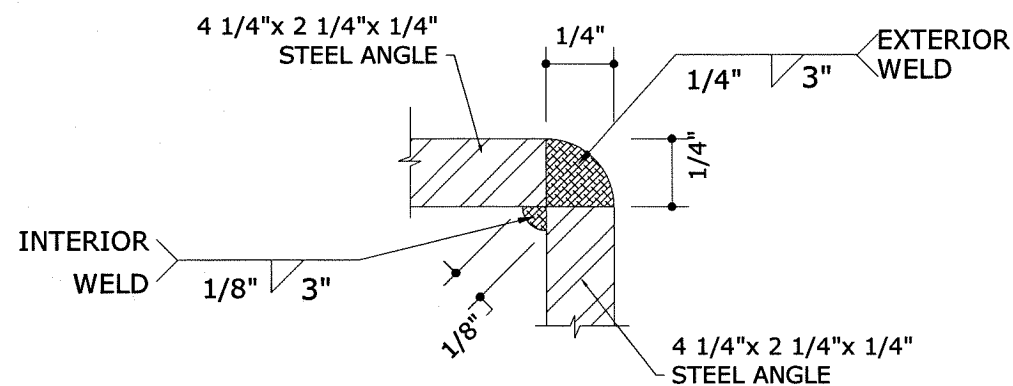
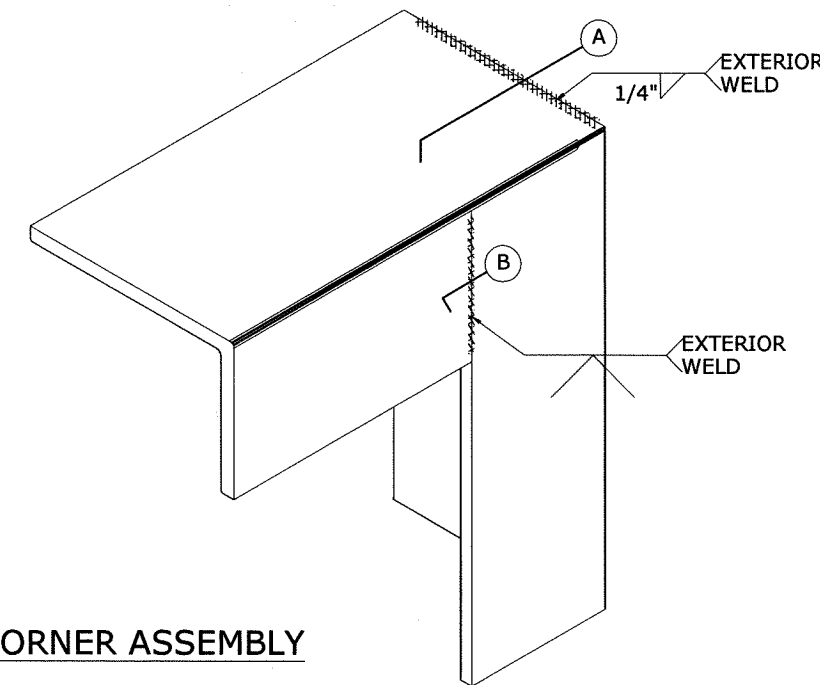
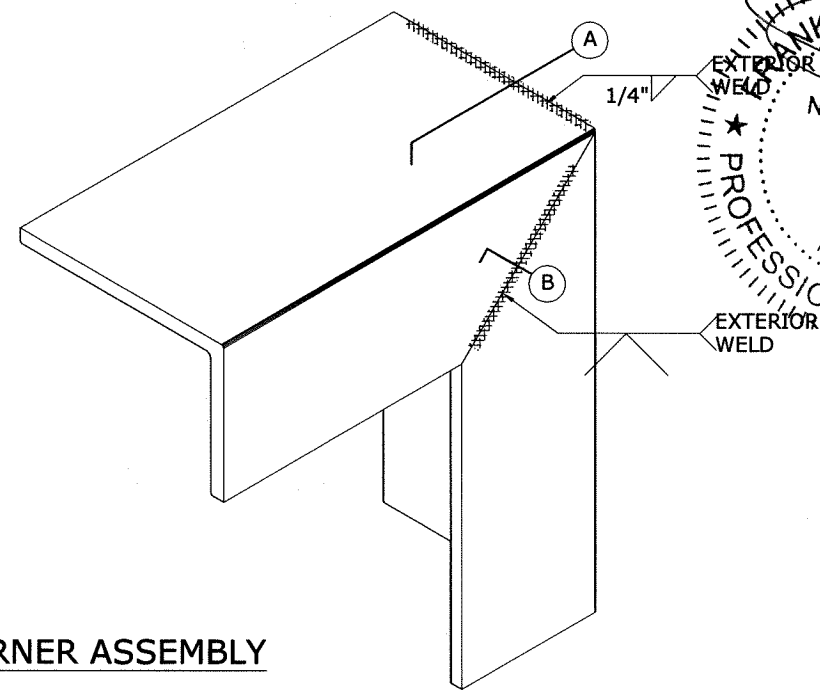
FIXED WINDOW ASSEMBLY (TYP.)



TYP. CORNER ASSEMBLY

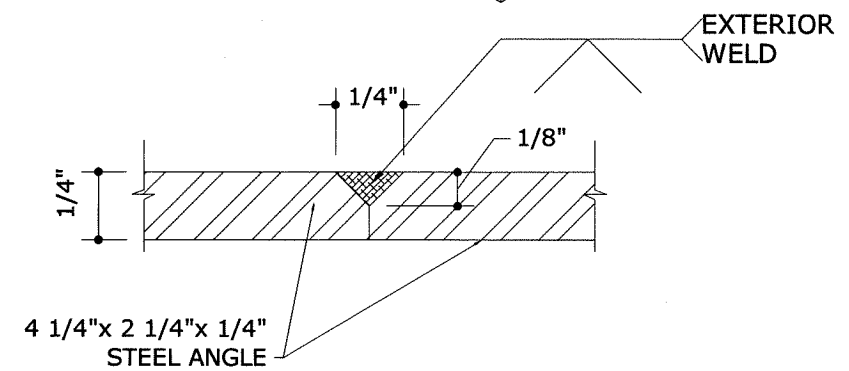


ALT. CORNER ASSEMBLY



WELD SECTION "A"

TYP. CORNER WELDING DETAILS



WELD SECTION "B"

FRANK L. BENNARDO, P.E.
 No PE0046549
 10/30/2017
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA
ENGINEERING EXPRESS
 160 SW 12th AVE, SUITE 106
 DEERFIELD BEACH, FL 33442
 PH: (954) 354-0660 FAX: (954) 354-0443
 ENGINEERINGEXPRESS.COM
 CERT OF AUTH #8886
 A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.

601 SW. 66TH TERRACE
 PEMBROKE PINES, FL 33023
 (954) 638-5608

FIXED STAINLESS STEEL FIRE WINDOW
 FL #20700.1

DRWN	CHKD	DATE
SSQ	AJP	06/17/16
GMD	AJP	02/15/17

REMARKS
 INT ISSUE
 REV 1

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

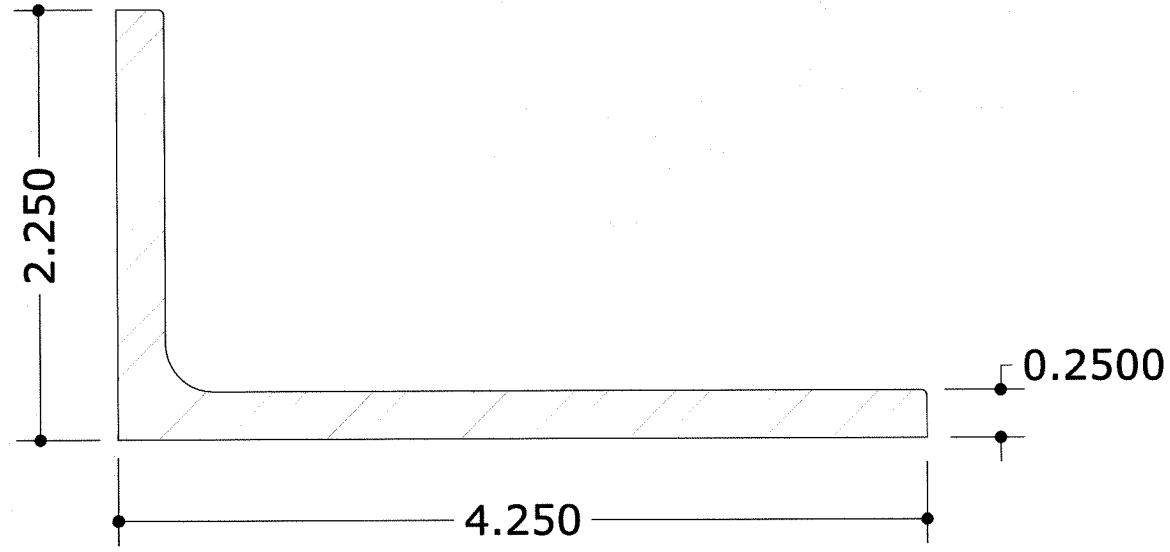
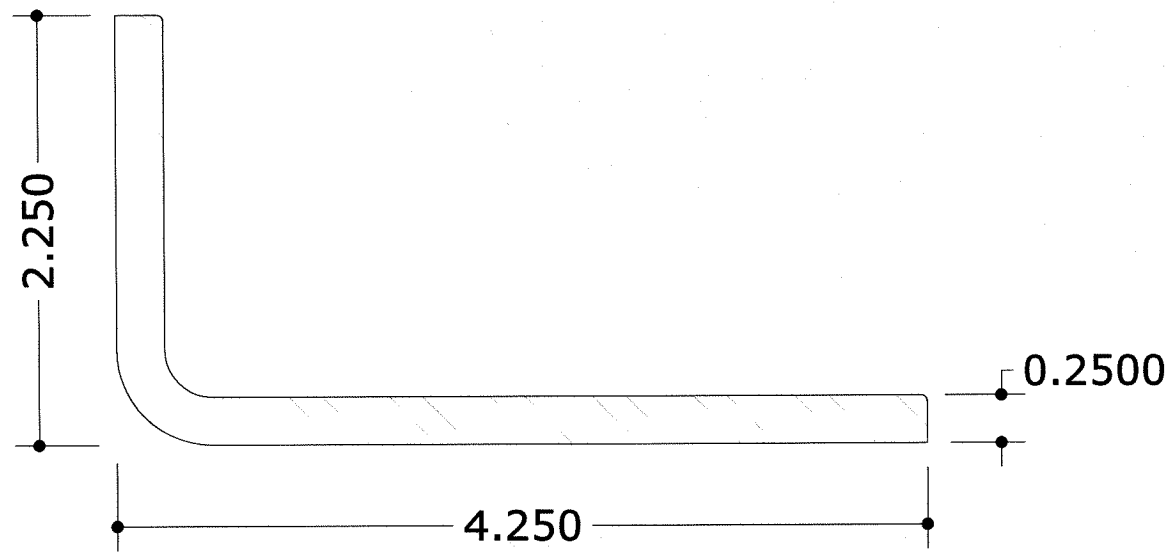
COPYRIGHT ENGINEERING EXPRESS

15-3002

SCALE: SEE DETAILS 01

PAGE DESCRIPTION:

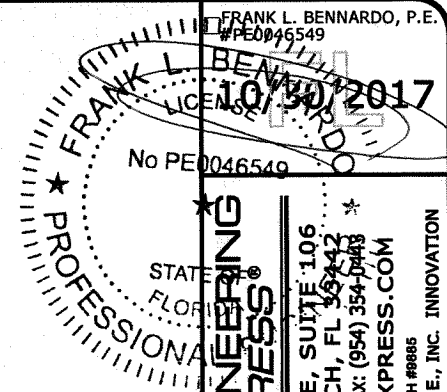




MATERIAL SCHEDULE

ITEM	PART	DESCRIPTION	MATERIAL	REMARKS
①	-	4 1/4"x 2 1/4"x 1/4" ANGLE	304 STAINLESS STEEL OR A36 STEEL	WINDOW FRAME
②	-	NOT USED	N/A	
③	-	1/4" HS, 0.090" INTERLAYER, 1/4" HS.	SENTRYGLASS	
④	-	DOW CORNING 121 OR EQUIVALENT*	SILICONE	GLAZING SEALANT
⑤	GT-14	1/4"x 3/8" GLAZING TAPE	ANEMOSTAT GLAZING TAPE	SPACER
⑥	-	1/2" GLAZING SETTING BLOCK, 2" LONG, 80 DUROMETER MIN. (2) PER GLASS AT 1/4 POINTS		GLAZING BLOCK

* = EQUIVALENT TO BE APPROVED ON A SITE SPECIFIC BASIS BY REGISTERED FLORIDA ENGINEER



ENGINEERING EXPRESS
 160 SW 12th AVE, SUITE 106
 DEERFIELD BEACH, FL 33442
 Ph: (954) 354-0660 Fax: (954) 354-7443
 ENGINEERINGEXPRESS.COM
 CERT OF AUTH #8885
 A FRANK L. BENNARDO, P.E., INC. INNOVATION

FENEX CORP M.D., INC.
 601 SW. 66TH TERRACE
 PEMBROKE PINES, FL 33023
 (954) 638-5608
 FIXED STAINLESS STEEL FIRE WINDOW
 FL#20700.1

REMARKS	DRWN	CHKD	DATE
INT ISSUE	SSQ	AJP	08/17/16
REV 1	GMD	AJP	02/15/17

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

COPYRIGHT ENGINEERING EXPRESS
15-3002
 SCALE: SEE DETAILS **01**
 PAGE DESCRIPTION:
 OF 9