

GENERAL NOTES

1. AROUND SHOWN CONSULTING ENGINEERS, INC. HAS NO CONTROL OF THE MANUFACTURING, PERFORMANCE, OR INSTALLATION OF THIS PRODUCT. THESE GENERIC PLANS WERE ENGINEERED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES AND TEST DATA PROVIDED BY THE MANUFACTURER.
2. THE WIND ABATEMENT SCREEN SYSTEM SHOWN ON THIS PRODUCT EVALUATION DOCUMENT HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2004 EDITION WITH 2006 REVISIONS. THIS WIND ABATEMENT SCREEN SYSTEM SHALL NOT BE INSTALLED IN HIGH VELOCITY HURRICANE ZONES (DUNE COUNTY/BROWARD COUNTIES); DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE ABOVE REFERENCED CODE. IN ACCORDANCE WITH ASCE 7-02, AND FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THE WIND ABATEMENT SCREEN SYSTEM WILL BE INSTALLED, THE WIND ABATEMENT SCREEN SYSTEM RESISTANCE FOR IMPACT, DETECTION AND FAILURE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.1.4 OF THE ABOVE REFERENCED CODE AND AS PER ASTM E330, E1986, & E1996 AT RESTRICTION TESTING LABORATORY, INC. PER THEIR REPORTS. (SEE LIST OF REPORTS)
3. LIMITATIONS OF USE:
 - A. THIS PRODUCT IS NOT TO BE USED IN HIGH VELOCITY HURRICANE ZONES.
 - B. MAXIMUM SIZE: 60 PSF MAX. PRESSURE @ 208" MAX. WIDTH
SEE TABLES ON SHEET 5 OF 5
 - C. IMPACT LEVEL: 9-1/4" LARGE MISSILE IMPACT
 - D. ANCHORING OR LOADING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
 - E. THIS PRODUCT CAN BE USED AS A WIND-BOGONE DEBRIS SHUTTER PRODUCT.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE EXISTING STRUCTURE IS DESIGNED TO SUPPORT THE MINIMUM LOADS SHOWN ON THE TABLES ON SHEET 5. EXISTING STRUCTURES NOT ADEQ. TO SUPPORT THESE LOADS SHALL BE EVALUATED AS A SITE SPECIFIC PROJECT. SEE NOTE # 4 OF PRODUCT EVALUATION NOTES.
5. ALL ALUMINUM EXTRUSION SHALL BE 6063-T6 ALLOY (UNLESS OTHERWISE NOTED).
6. ALL SCREEN PANELS SHALL BE PERMANENTLY LABELED WITH AT LEAST ONE LABEL STATING:
 - OPENING No. /
 - SCREEN No. /
 - F. PRODUCT APPROVAL NO. /
7. ROLL-UP SCREENS MAY BE MOTOR, WIRE PULLEY OR GEAR DRIVEN.
8. FOR DETERMINING INTERNAL PRESSURE IN THE ABOVE REFERENCED CODES, THIS PRODUCT IS CLASSIFIED AS NON-POROUS, HAVING A POROSITY OF LESS THEN 10%, FOR ALL CONDITIONS SHOWN IN THIS PRODUCT EVALUATION DOCUMENT.
9. THE ROLL-UP SCREEN SHOULD BE STORED IN THE ROLL-UP POSITION DURING NORMAL WEATHER CONDITIONS.

PRODUCT EVALUATION NOTES

1. THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
2. CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HERE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
3. THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED UNALtered (I.e. HIGHLIGHTED, MARKED ETC.) BY ANY MEANS.
4. SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

ANCHOR & EMBEDMENT NOTES

1. ALL FASTENERS SHALL BE CORROSION RESISTANT COATED CARBON STEEL, AS PER DM 50018 OR STAINLESS STEEL 304 OR 316 SERIES WITH 50 KSI YIELD POINT AND 90 KSI ULTIMATE TENSILE STRENGTH.
2. NO EMBEDMENT INTO NON-STRUCTURAL COMPONENTS SUCH AS, STUCCO, TILE, SPONGE, ETC. SHALL BE CONSIDERED AS PART OF THE EMBEDMENT.
3. THE ANCHOR SPACING ARE VALID FOR EDGE DISTANCES AND MINIMUM EMBEDMENT BELOW. FOR EDGE DISTANCES LESS THAN SPECIFIED, THE ANCHOR SPACING SHALL BE REDUCED BY THE EDGE DISTANCE. REDUCTION FACTORS SHOWN BELOW. THE EDGE DISTANCE SHALL NOT BE LESS THAN 1 1/2" IN CONCRETE OR CMU, 3/4" IN WOOD, OR MINIMUM SPECIFIED BY THE MANUFACTURER. ANCHOR SPACING SHALL NOT BE LESS THAN 3". THE MINIMUM EDGE DISTANCE FOR THE 1/4"-14 DRILL-FLX SCREW IS 1/2".

ANCHOR	CONC. & FILLED CMU (3900 PSI)		HOLLOW CMU (1800 PSI)		WOOD (S.G. = 84)	
	MIN. EDGE	MIN. EMB.	MIN. EDGE	MIN. EMB.	MIN. EDGE	MIN. EMB.
5/16" ULTRASON HPH	3 1/4"	2"	3 1/4"	1 1/4"	2"	2"

EDGE DISTANCE REDUCTION FACTORS FOR ANCHOR SPACING							
EDGE DISTANCE	10d	8d	7d	6d	5d	4d	
REDUCTION FACTOR	1.0	0.9	0.8	0.7	0.6	0.5	0.4

NOTE: D = NOMINAL ANCHOR DIAMETER

FABRIC SPECIFICATIONS

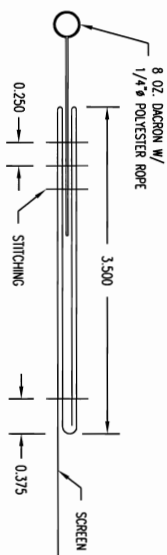
- FIBER CONTENT: 100% POLYPROPYLENE
 CONSTRUCTION: 3/4 BASKET WEAVER, WARP - 60 ENDS PER INCH, WEFT - 50 ENDS PER INCH
 FINISH: DUNEWOOD
 WEIGHT (ASTM D-3776): 7.6 - 02/SQUARE YARD
 SEWAGE: HEAT CUT OR WOVEN
 TENSILE STRENGTH (3088 METHOD, ASTM D - 4632): WARP - 540 lbs, WEFT - 475 lbs.
 BURST STRENGTH (ASTM D - 4531): WARP - 200 lbs, WEFT - 170 lbs.
 TEAR STRENGTH (ASTM D - 4531): WARP - 200 lbs, WEFT - 170 lbs.
 ABRASION RESISTANCE (ASTM D - 4886) 95% STRENGTH REMAINED
 PUNCTURE STRENGTH (ASTM D - 4832): 190 lbs.
 AIR FLOW: 230 CFM
 UV RETENTION (ASTM D-0154): 90%

SEAMING

- SIDE RAIL AND WEIGHT EDGES - 3 SINGLE ROWS OF STRAIGHT STITCH AT INTERVALS OF 1/4" USING 138 DENIER POLYESTER THREAD (SEE STITCHING DETAIL BELOW)
 OTHER SCREEN EDGES - 3 SINGLE ROWS OF STRAIGHT STITCH AT INTERVALS OF 1 1/2" USING 138 DENIER POLYESTER THREAD (SEE STITCHING DETAIL BELOW)

EDGES

- 3 1/2" QUAD FOLDED ALL AROUND THE PERIMETER THREE CONTINUOUS SEAMS



STITCHING DETAIL
SIDE RAIL AND WEIGHT EDGE - N.T.S.



STITCHING DETAIL
OTHER SCREEN EDGE - N.T.S.

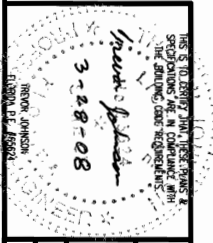
EVALUATION BASED ON:
 RESTRICTION TESTING LABORATORY, INC.

LABORATORY No.	5451
DATE:	DECEMBER 8, 2007
REPORT No.	07-508
TEST PROTOCOL:	ASTM E330-02, E1886 & E1996-05
DESIGN WIND SPEED TESTED:	60 PSF
DESIGN PRESSURE TESTED:	120 PSF
MINIMUM WINDH TESTED:	150.5"
DESIGN PRESSURE TESTED:	90 PSF
STRUCTURAL LOAD TESTED:	135 PSF

LIST OF REPORTS

LABORATORY No.	4750
DATE:	DECEMBER 7, 2005
REPORT No.	05-427
TEST PROTOCOL:	ASTM E330, E1886 & E1996-02
DESIGN WIND SPEED TESTED:	60 PSF
DESIGN PRESSURE TESTED:	120 PSF
MINIMUM WINDH TESTED:	150.5"
DESIGN PRESSURE TESTED:	90 PSF
STRUCTURAL LOAD TESTED:	135 PSF

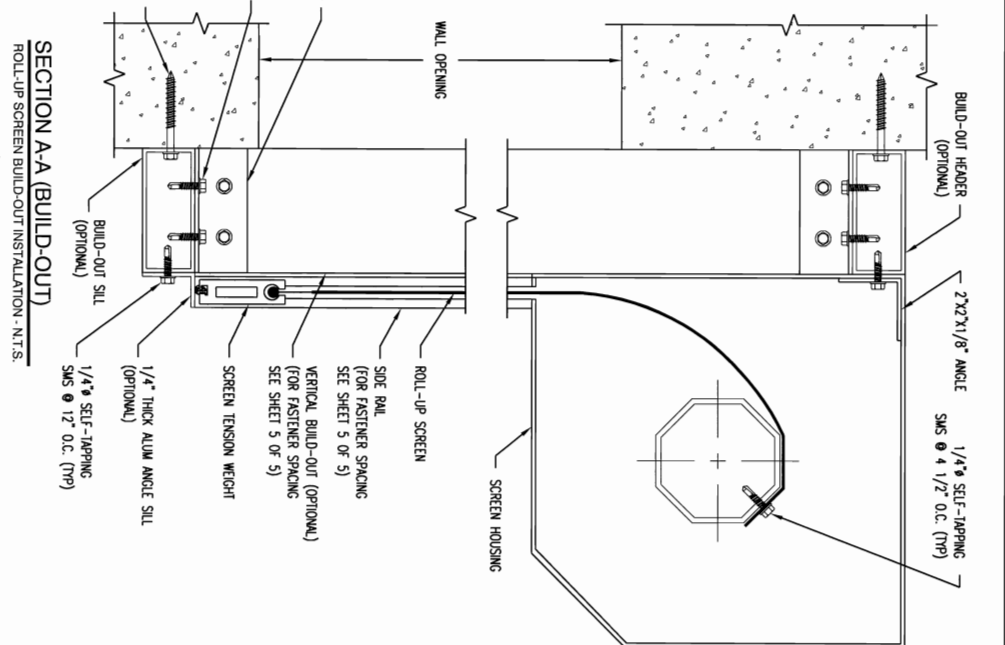
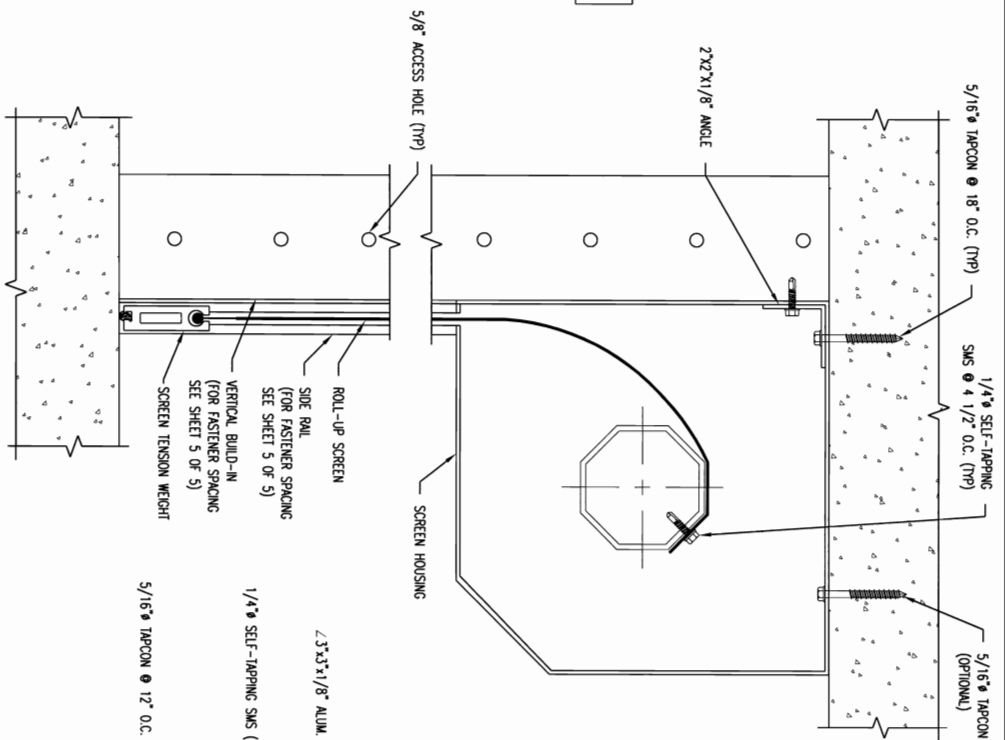
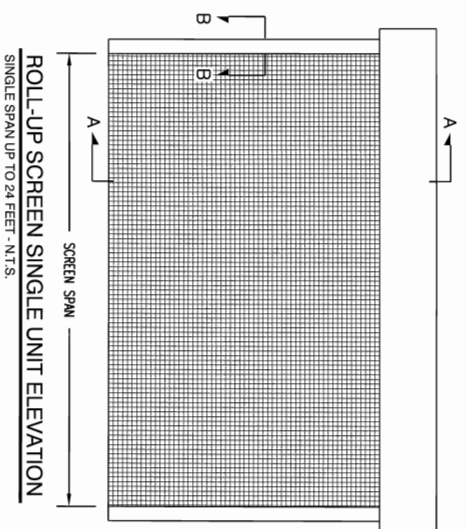
ENGINEERING REVIEW BY:
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SMART SCREEN
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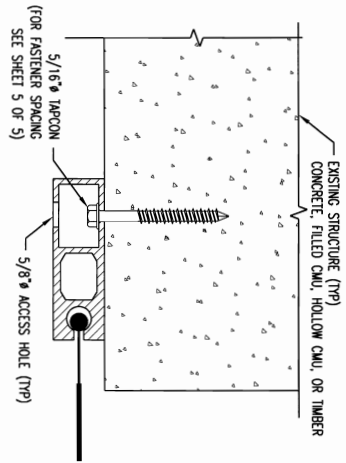
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 SCALE: N.T.S.
 SHEET: 1 OF 5



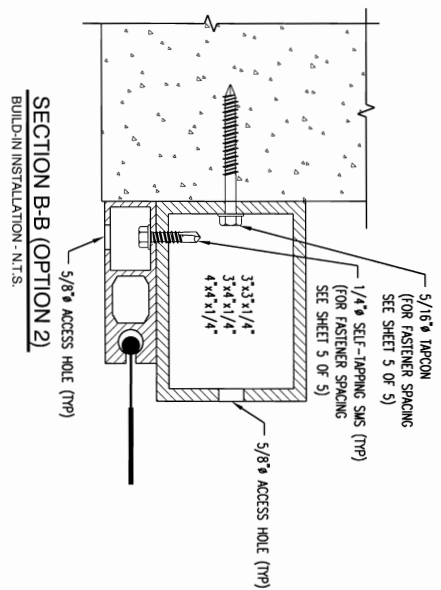
ENGINEERING REVIEW BY:
 RAYMOND JOHNSON, P.E.
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 16881 MACREGOR BLVD., SUITE 102
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 CERTIFICATE OF AUTHORIZATION: 19451



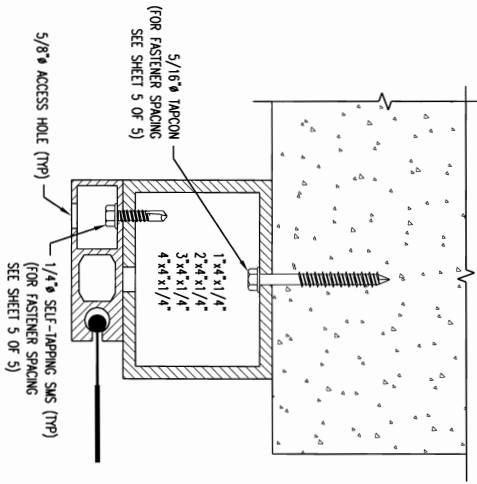
SMART SCREEN	
WIND ABATEMENT SYSTEM	
STORM SMART INDUSTRIES	
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Ph: (239) 278-9092 www.stormsmi.com	
DATE: 3/28/08	DWG. No.: 2
SCALE: N.T.S.	SHEET: 2 OF 5



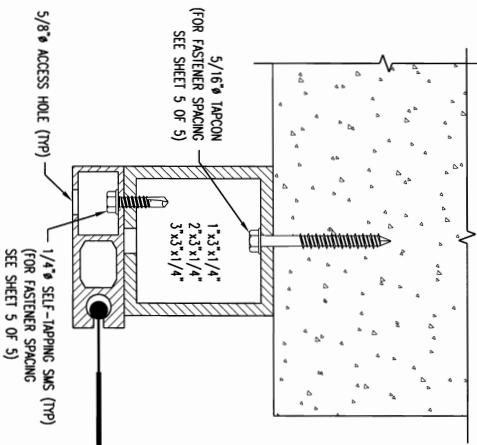
SECTION B-B (OPTION 1)
WALL MOUNT INSTALLATION - N.T.S.



SECTION B-B (OPTION 2)
BUILD-IN INSTALLATION - N.T.S.

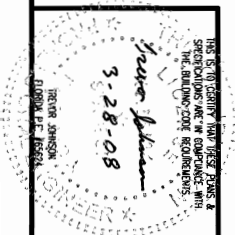


SECTION B-B (OPTION 3A)
4" BUILD-OUT INSTALLATION - N.T.S.



SECTION B-B (OPTION 3B)
3" BUILD-OUT INSTALLATION - N.T.S.

ENGINEERING REVIEW BY:
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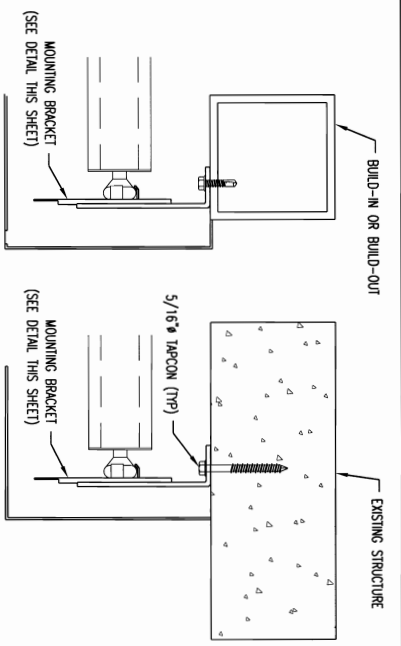


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DATE: 3/28/08
SCALE: N.T.S.

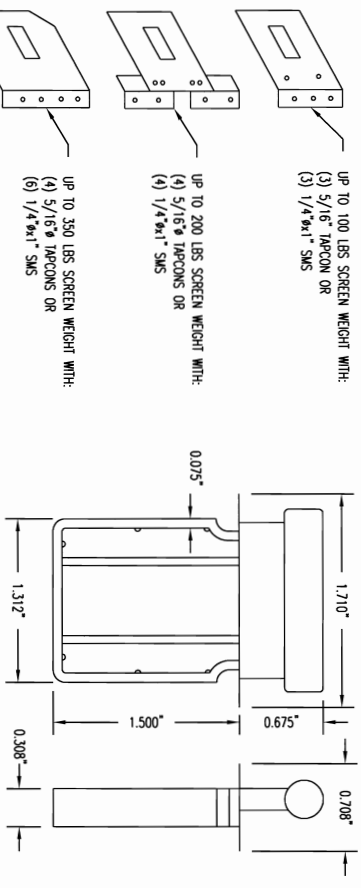
DMC. No.: 3
REV.:
SHEET: 3 OF 5



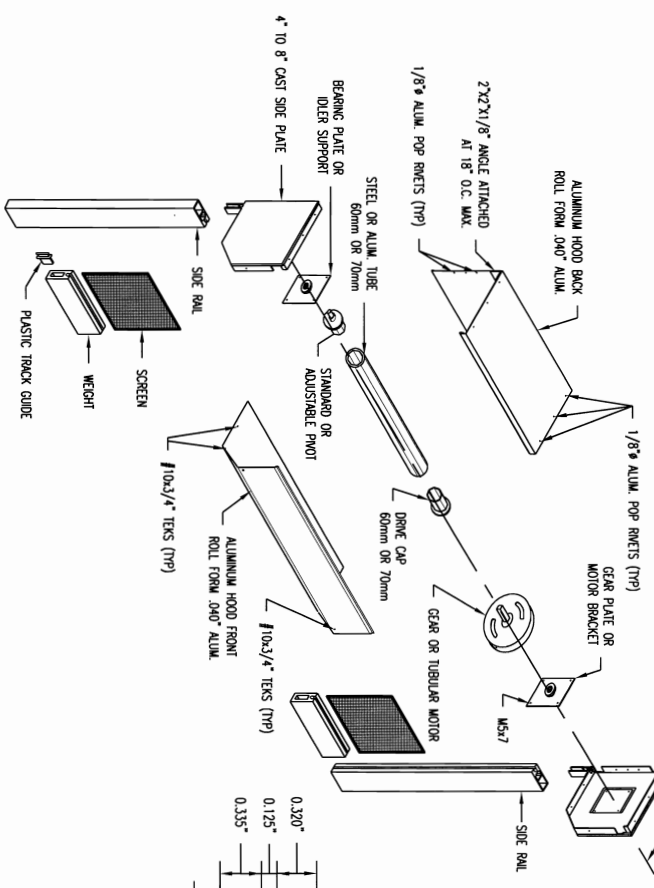
MOUNTING BRACKET INSTALLATION
ROLL-UP SCREEN - N.T.S.



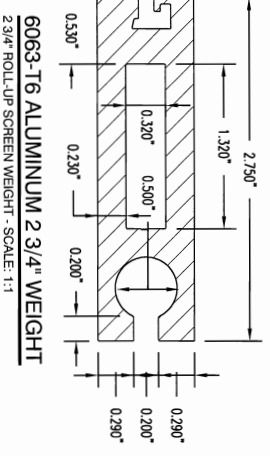
ALUMINUM BOX COVER
ROLL-UP SCREEN INSTALLATION - N.T.S.



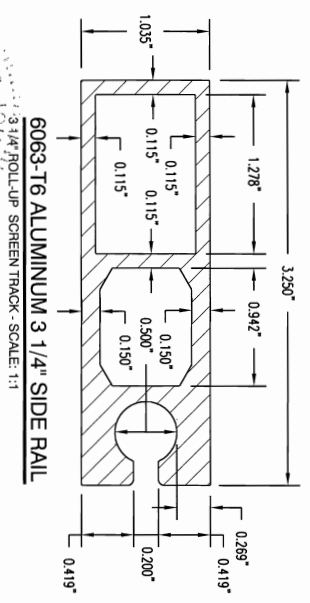
PLASTIC TRACK GUIDE FOR WEIGHT
ROLL-UP SCREEN INSTALLATION - SCALE: 1:1



END CAP COMPONENTS AND ASSEMBLY DETAIL
ROLL-UP SCREEN INSTALLATION - N.T.S.



6063-T6 ALUMINUM 2 3/4" WEIGHT
2 3/4" ROLL-UP SCREEN WEIGHT - SCALE: 1:1

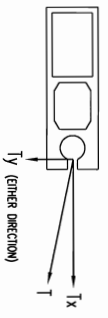


6063-T6 ALUMINUM 3 1/4" SIDE RAIL
3 1/4" ROLL-UP SCREEN TRACK - SCALE: 1:1

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CERTIFICATE OF AUTHORIZATION: 19451

THIS IS TO CERTIFY THAT THESE PLANS & SPECIFICATIONS ARE IN ACCORDANCE WITH THE CURRENT CODE REQUIREMENTS.
Trevor Johnson
3-28-08
Trevor Johnson
Florida P.E. #5664

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DATE: 3/28/08
DWG. No.: 4
REV.:
SCALE: N.T.S.
SHEET: 4 OF 5



LOADS ON EXISTING STRUCTURE
ROLL-UP INSTALLATIONS

LOADS ON EXISTING STRUCTURE FROM SCREEN SYSTEM			LOADS ON EXISTING STRUCTURE FROM SCREEN SYSTEM		
T ₁ = PARALLEL LOADS (PLF)			T ₁ = PERPENDICULAR LOADS (PLF)		
SCREEN SPAN	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)	SCREEN SPAN	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)
3'-0"	404	358	3'-0"	91	75
4'-0"	488	433	4'-0"	121	101
5'-0"	565	501	5'-0"	151	125
6'-0"	637	565	6'-0"	180	150
7'-0"	704	626	7'-0"	210	176
8'-0"	769	683	8'-0"	240	201
9'-0"	831	737	9'-0"	270	225
10'-0"	890	790	10'-0"	300	250
11'-0"	947	841	11'-0"	330	275
12'-0"	1002	890	12'-0"	360	300
13'-0"	1056	938	13'-0"	390	325
14'-0"	1108	984	14'-0"	420	350
15'-0"	1159	1029	15'-0"	450	375
16'-0"	1208	1073	16'-0"	480	400
17'-0"	1256	1116	17'-0"	510	425
18'-0"	1303	1158	18'-0"	540	450
19'-0"	1350	1200	19'-0"	570	475
20'-0"	1395	1240	20'-0"	600	500
21'-0"	1440	1280	21'-0"	630	525
22'-0"	1483	1319	22'-0"	660	550
23'-0"	1526	1357	23'-0"	690	575
24'-0"	1569	1395	24'-0"	720	600

DIRECT MOUNT
MAXIMUM DESIGN PRESSURE OF A ROLL-UP SCREEN FOR ANY LENGTH ATTACHED WITH 5/8" HH ELCO ULTRACON @ 4' O.C.

SCREEN SPANS UP TO	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)	TIMBER PRESSURE (PSF)
8'-0"	60	60	60
9'-0"	60	57	60
10'-0"	60	51	60
11'-0"	60	47	60
12'-0"	60	43	60
13'-0"	60	40	60
14'-0"	60	37	60
15'-0"	60	34	60
16'-0"	60	32	58
17'-0"	60	30	55
18'-0"	60	29	52
19'-0"	60	27	49

DIRECT MOUNT
MAXIMUM DESIGN PRESSURE OF A ROLL-UP SCREEN FOR ANY LENGTH ATTACHED WITH 5/8" HH ELCO ULTRACON HH @ 6' O.C.

SCREEN SPANS UP TO	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)	TIMBER PRESSURE (PSF)
4'-0"	60	60	60
5'-0"	60	60	60
6'-0"	60	54	60
7'-0"	60	46	60
8'-0"	60	40	60
9'-0"	60	36	60
10'-0"	60	32	57
11'-0"	60	30	52
12'-0"	60	27	48
13'-0"	60	25	44
14'-0"	60	23	41
15'-0"	60	22	38
16'-0"	58	20	36
17'-0"	54	19	34
18'-0"	51	18	32
19'-0"	49	17	30

DIRECT MOUNT
MAXIMUM DESIGN PRESSURE OF A ROLL-UP SCREEN FOR ANY LENGTH ATTACHED WITH 5/8" HH ELCO ULTRACON @ 8' O.C.

SCREEN SPANS UP TO	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)	TIMBER PRESSURE (PSF)
4'-0"	60	36	60
5'-0"	60	29	49
6'-0"	60	24	41
7'-0"	59	21	35
8'-0"	52	18	31
9'-0"	46	16	27
10'-0"	41	15	25
11'-0"	38	13	23
12'-0"	34	12	21
13'-0"	32	11	19
14'-0"	30	11	18
15'-0"	28	10	17
16'-0"	26	9	16
17'-0"	25	9	15
18'-0"	23	8	14
19'-0"	22	8	13

MOUNTED TO BUILD-OUTS & BUILDINGS
MAXIMUM DESIGN PRESSURE OF A ROLL-UP SCREEN FOR ANY LENGTH ATTACHED WITH 1/4" - 14 HH ELCO DRILL-FLEX

SCREEN SPANS UP TO	@ 4' O.C. PRESSURE (PSF)	@ 6' O.C. PRESSURE (PSF)
17'-0"	60	60
18'-0"	60	57
19'-0"	60	54
24'-0"	60	-

4' BUILD-OUTS
MAXIMUM DESIGN PRESSURE OF A ROLL-UP SCREEN FOR ANY LENGTH ATTACHED WITH 5/8" HH ELCO ULTRACON @ 4' O.C.

SCREEN SPANS UP TO	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)	TIMBER PRESSURE (PSF)
8'-0"	60	41	60
9'-0"	60	33	60
10'-0"	60	30	60
11'-0"	60	28	60
12'-0"	60	26	60
13'-0"	60	24	56
14'-0"	60	21	49
15'-0"	60	20	46
16'-0"	60	19	44
17'-0"	60	18	42
18'-0"	60	17	40
19'-0"	60	16	38
20'-0"	60	15	37
21'-0"	60	14	35
22'-0"	60	13	34
23'-0"	60	12	33
24'-0"	60	11	32

3' BUILD-OUTS
MAXIMUM DESIGN PRESSURE OF A ROLL-UP SCREEN FOR ANY LENGTH ATTACHED WITH 5/8" HH ELCO ULTRACON @ 4' O.C.

SCREEN SPANS UP TO	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)	TIMBER PRESSURE (PSF)
8'-0"	60	39	60
9'-0"	60	35	60
10'-0"	60	32	60
11'-0"	60	29	60
12'-0"	60	27	60
13'-0"	60	25	58
14'-0"	60	23	54
15'-0"	60	21	51
16'-0"	60	21	48
17'-0"	60	20	45
18'-0"	60	19	43
19'-0"	60	18	41
20'-0"	60	17	39
21'-0"	60	16	38
22'-0"	60	15	36
23'-0"	60	15	35
24'-0"	58	15	33

4' BUILDINGS
MAXIMUM DESIGN PRESSURE OF A ROLL-UP SCREEN FOR ANY LENGTH ATTACHED WITH 5/8" HH ELCO ULTRACON @ 4' O.C.

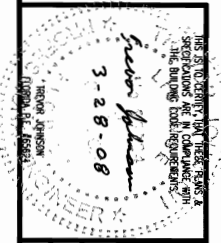
SCREEN SPANS UP TO	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)	TIMBER PRESSURE (PSF)
8'-0"	60	45	60
9'-0"	60	40	60
10'-0"	60	36	60
11'-0"	60	33	60
12'-0"	60	30	60
13'-0"	60	28	60
14'-0"	60	26	60
15'-0"	60	25	60
16'-0"	60	23	60
17'-0"	60	22	57
18'-0"	60	21	54
19'-0"	60	20	51
20'-0"	60	19	49
21'-0"	60	18	47
22'-0"	60	17	45
23'-0"	60	17	43
24'-0"	60	16	41

3' BUILDINGS
MAXIMUM DESIGN PRESSURE OF A ROLL-UP SCREEN FOR ANY LENGTH ATTACHED WITH 5/8" HH ELCO ULTRACON @ 4' O.C.

SCREEN SPANS UP TO	CONC. & FILLED CMU PRESSURE (PSF)	HOLLOW CMU PRESSURE (PSF)	TIMBER PRESSURE (PSF)
8'-0"	60	42	60
9'-0"	60	37	60
10'-0"	60	34	60
11'-0"	60	31	60
12'-0"	60	29	60
13'-0"	60	27	60
14'-0"	60	25	60
15'-0"	60	23	59
16'-0"	60	22	56
17'-0"	60	21	53
18'-0"	60	20	50
19'-0"	60	19	48
20'-0"	60	18	46
21'-0"	60	17	44
22'-0"	60	17	42
23'-0"	58	16	41
24'-0"	56	16	39

NOTE: LOADS AND FASTENING SCHEDULES ARE FOR ATTACHING THE SIDE RAILS, BUILD-OUTS, OR BUILDINGS TO THE EXISTING STRUCTURE

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SMART SCREEN
WIND ABATEMENT SYSTEM
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DATE: 3/28/08 DMC No. 5 REV.:
SCALE: N.T.S. SHEET: 5 OF 5