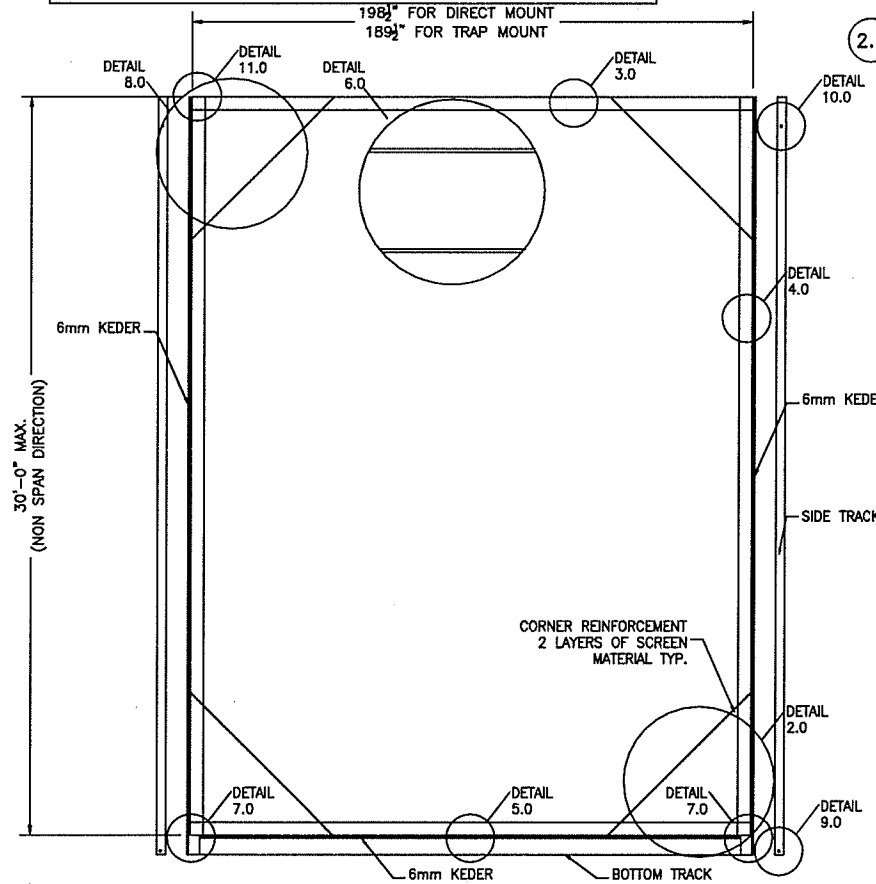


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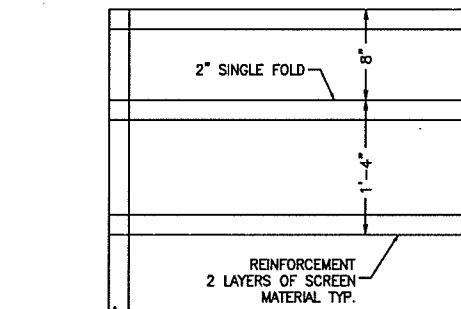
# FORCE 12 700 SERIES ROLLING SHUTTERS

MAXIMUM ALLOWABLE PRESSURES	
DESIGN PRESSURE RATING	IMPACT RATING
CONCRETE ±60.0 PSF	LARGE AND SMALL MISSILE IMPACT
FILLED CONCRETE BLOCK ±60.0 PSF	LARGE AND SMALL MISSILE IMPACT

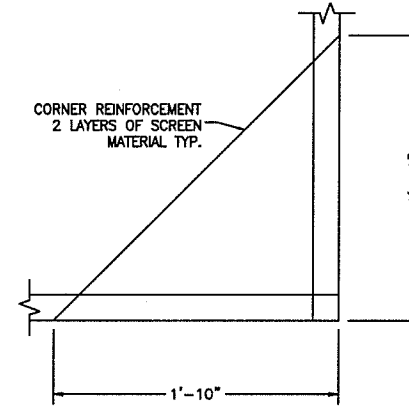
- SPAN NOTES:**
- ALLOWABLE PRESSURES SHALL NOT BE EXCEEDED.
  - PANEL WIDTHS WIDER THAN THE MAXIMUM NOTED ON THE DRAWING ARE NOT ACCEPTABLE.
  - PANEL WIDTHS LESS THAN 12" ARE NOT ACCEPTABLE.
  - ANCHOR SPACING AND HARDWARE SPACING NOT TO EXCEED VALUES OUTLINED IN ANCHOR SCHEDULE SHEET 3.



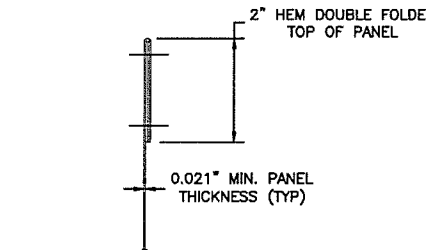
**1.0 STORM PANEL TYPICAL CONSTRUCTION**  
SCALE: NTS=1'-0"



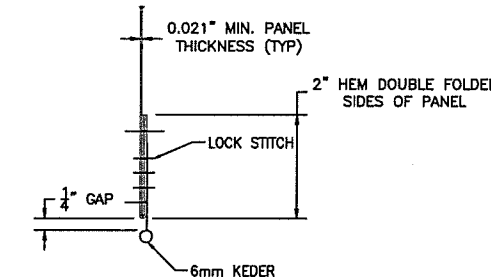
**6.0 REINFORCEMENT PATCH (OPTIONAL)**  
SCALE: NTS=1'-0"



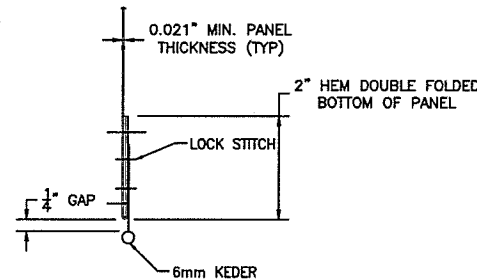
**2.0 BOTTOM CORNER REINFORCEMENT**  
SCALE: NTS=1'-0"



**3.0 PANEL PROFILE AT TOP**  
SCALE: NTS=1'-0"



**4.0 PANEL PROFILE AT SIDES**  
SCALE: NTS=1'-0"



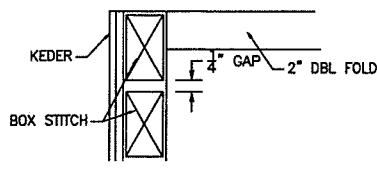
**5.0 PANEL PROFILE AT BOTTOM**  
SCALE: NTS=1'-0"

**FABRIC SPECIFICATIONS:**

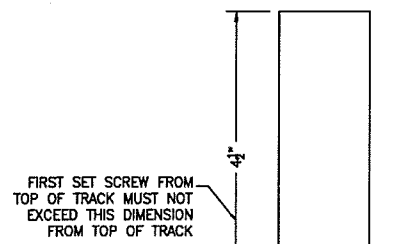
FIBER CONTENT:	100% POLYPROPYLENE
CONSTRUCTION:	3/4 BASKETWEAVE
	WARP - 60 ENDS PER INCH
	FILL - 50 ENDS PER INCH
	CALENDERED
FINISH:	7.6 OZ / SQUARE YARD
WEIGHT (ASTM D-3776):	HEAT CUT OR WOVEN
SELVAGE:	WARP - 425 LBS.
TENSILE STRENGTH:	FILL - 170 LBS.
(GRAB METHOD, ASTM D-4632):	
BURST STRENGTH (ASTM D-3786):	825 PSI
TEAR STRENGTH:	WARP - 200 LBS
(ASTM D-4533):	FILL - 170 LBS.
ABRASION RESISTANCE (ASTM D-4886):	95% STRENGTH RETAINED
PUNCTURE STRENGTH (ASTM D-4833):	190 LBS.
AIR FLOW:	230 CFM

- LIMITATIONS AND CONDITIONS OF USE:**
- THIS STORM PANEL HAS BEEN TESTED AND EVALUATED AS A LARGE AND SMALL MISSILE IMPACT SYSTEM IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC), THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC), AND ASCE 7-16.
  - THIS PRODUCT MEETS ASCE 7-16 REQUIREMENTS.
  - POSITIVE AND NEGATIVE DESIGN PRESSURES TO BE USED WITH THESE DRAWINGS SHALL BE DETERMINED BY OTHERS FOR SPECIFIC JOBS IN ACCORDANCE WITH THE GOVERNING CODE. WHEN CALCULATING LOAD COMBINATIONS PER ASCE 7-16, USE OF DIRECTIONALITY FACTOR  $K_d=0.85$  IS ALLOWED.
  - NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT.
  - THE DOOR SYSTEM 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.
  - PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND NEW SUPERIMPOSED LOADS.
  - PANELS SHOULD BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL AS FOLLOWS:  
**FORCE 12 - SERIES 700 - ROLLING SHUTTERS**  
HENDEE ENTERPRISES INC.  
DESIGN PRESSURE RATING:  
THIS PRODUCT IS DESIGNED IN COMPLIANCE WITH:  
ASTM E 1886-05 (LARGE MISSILE/CYCLIC LOAD)  
ASTM E 1996-09 (LARGE MISSILE/CYCLIC LOAD)  
ASTM E 330-02 (UNIFORM STATIC LOAD PRESSURE)  
IMPACT RESISTANT: LARGE AND SMALL MISSILE IMPACT
  - STORM PANELS HAVE BEEN DESIGNED AND TESTED TO THE MAXIMUM SPAN AND LOADS SHOWN ON THESE DRAWINGS. REFERENCE HURRICANE TEST LABORATORY, LLC (HTL), RIVIERA BEACH, FL, TEST REPORTS.
  - ALL BOLTS & WASHERS SHALL BE ZINC COATED, GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI.
  - THIS PRODUCT IS ONLY TO BE DEPLOYED AS TEMPORARY PROTECTION AND IS NOT TO BE LEFT IN PLACE FOR EXTENDED PERIODS OF TIME.

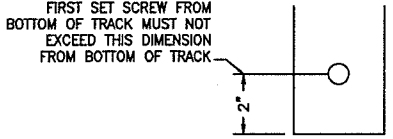
James R. Bailey  
5/5/2020  
STATE OF TEXAS  
JAMES R. BAILEY  
74911  
LICENSED PROFESSIONAL ENGINEER



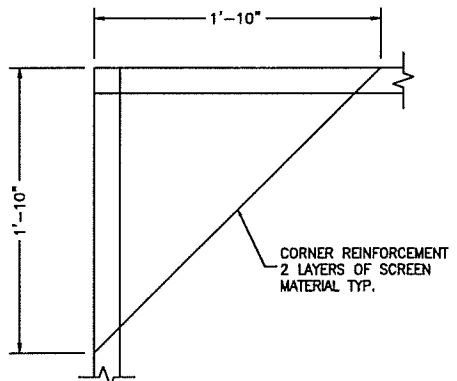
**11.0 TOP CORNER DETAIL**  
SCALE: NTS=1'-0"



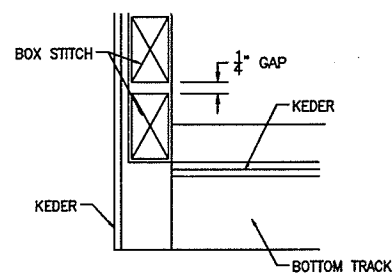
**10.0 SIDE TRACK AT TOP**  
SCALE: NTS=1'-0"



**9.0 SIDE TRACK AT BOTTOM**  
SCALE: NTS=1'-0"



**8.0 TOP CORNER REINFORCEMENT**  
SCALE: NTS=1'-0"



**7.0 BOTTOM CORNER DETAIL**  
SCALE: NTS=1'-0"

**Hendee Enterprises, Inc.**  
The Innovative Solutions Company  
P.O. Box 4298, Houston, TX 77210-4298 South Park Dr., Houston, TX 77054  
(713) 786-2322, Fax (713) 786-0484, (800) 231-7275 (Nat'l), (800) 333-3641 (Texas)  
chush@hendee.com

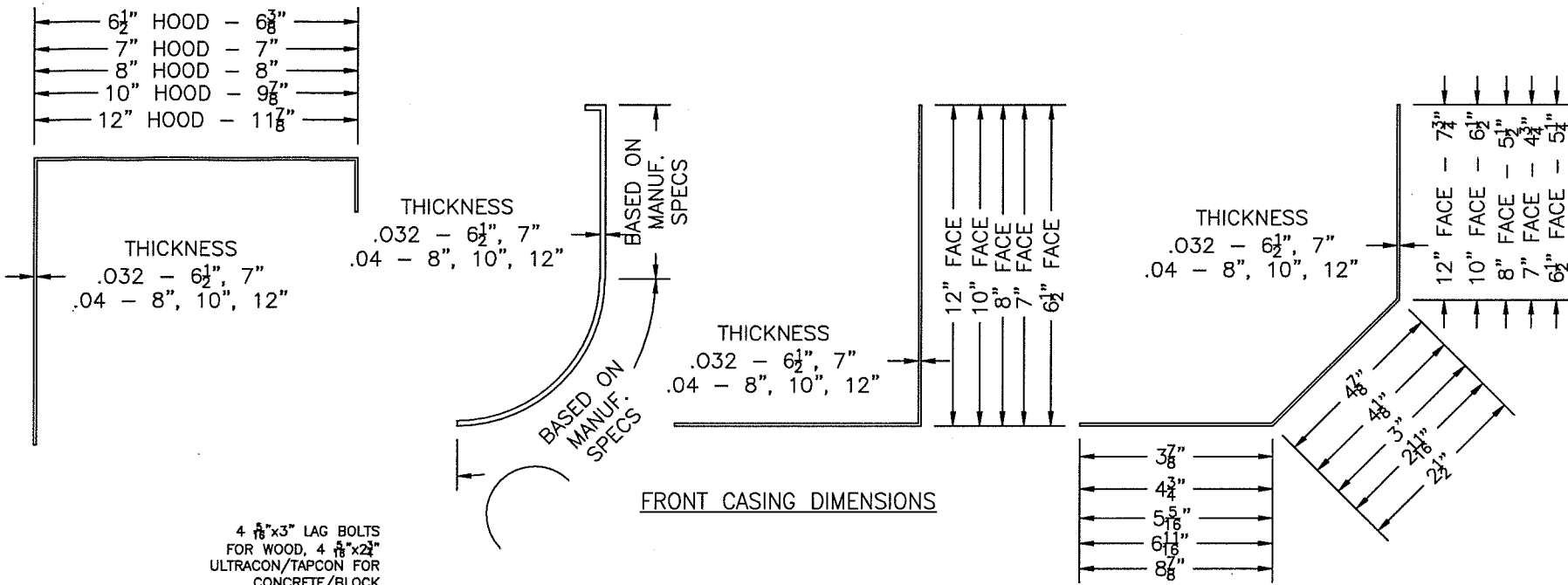
**CONSULTANTS:**  
James R. Bailey, P.E.  
Texas PE # 74911  
Platinum Risk Consulting LLC  
4931 Chapped Hill Dr.  
Missouri City, Texas 77459  
281-403-2825  
Texas Firm # 11044

**CLIENT:** HENDEE ENTERPRISES  
**LOCATION:** HOUSTON, TX  
**TITLE:** FORCE 12 - 700 SERIES - ROLLING DOORS  
**DATE:** 10/31/12  
**REVISION:** 0

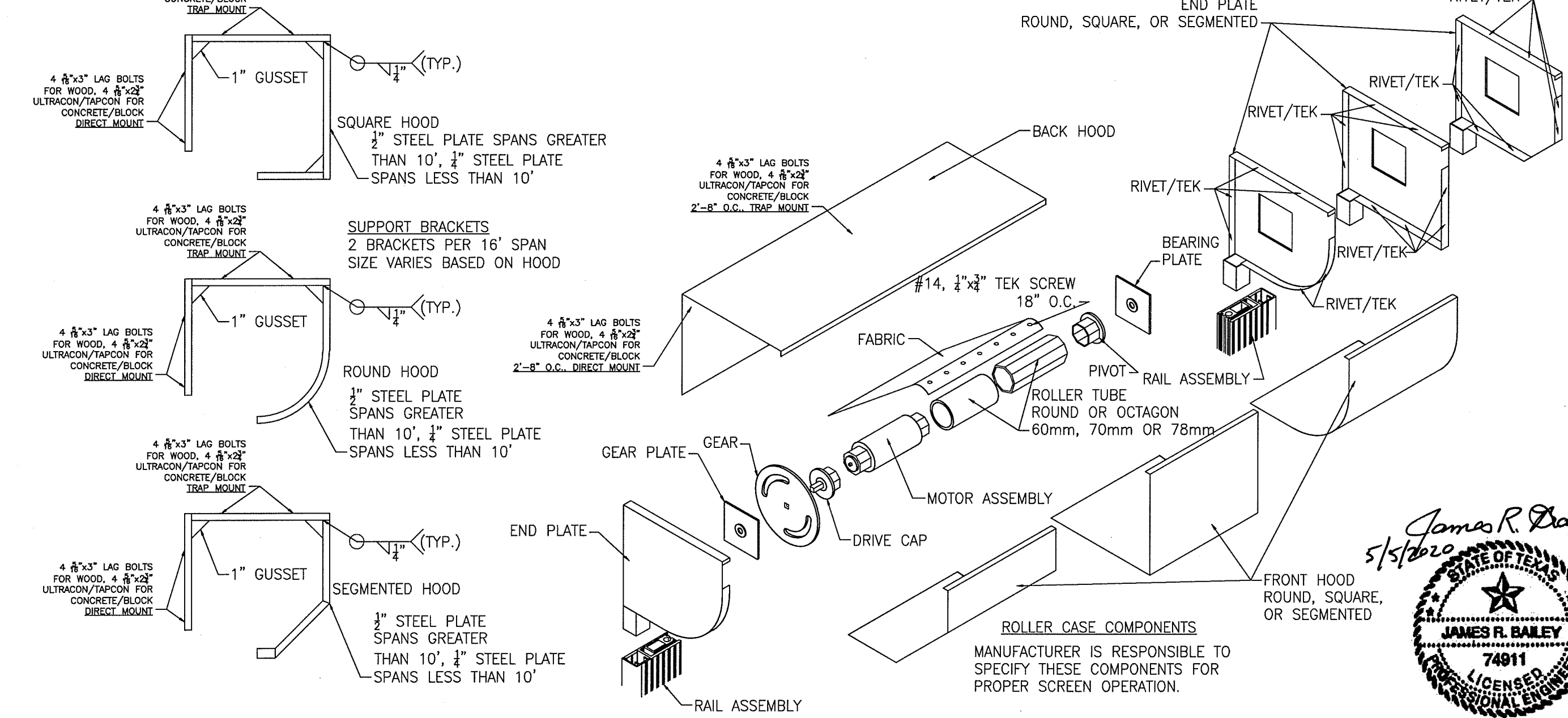
REV	DATE	DESCRIPTION
0	10/31/12	TEXAS DEPARTMENT OF INSURANCE SUBMITTAL

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**DRAWN BY:** MG/AD  
**FILE NAME:** 700 SERIES  
**JOB NUMBER:** -  
**DOCUMENT DATE:** 11/18/08

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BILL OF MATERIAL (SHIPPING LIST)		
ITEM	DESCRIPTION	DESCRIPTION
1	BACK HOOD	STEEL OR ALUM.
2	FRONT HOOD	STEEL OR ALUM.
3	END PLATE	CAST ALUM.
4	GEAR PLATE	STEEL
5	GEAR	STEEL
6	DRIVE CAP	PVC W/ STEEL OR CAST ALUM.
7	MOTOR ASSEMBLY	-
8	ROLLER TUBE	STEEL OR ALUM.
9	PIVOT	PVC W/ STEEL OR CAST ALUM.
10	BEARING PLATE	STEEL
11	SUPPORT BRACKET	STEEL
12	RIVETS	ALUM.
13	TEK SCREWS	GALVANIZED, STAINLESS, OR ZINC PLATED STEEL
14	LAG BOLTS	GALVANIZED, STAINLESS, OR ZINC PLATED STEEL
15	ULTRACON/TAPCON	GALV., ZINC PLATED, OR COATED STEEL
16	RAIL ASSEMBLY	ALUM. 6063
17	BOTTOM TRACK	ALUM. 6063



\*\*ALL RIVETS TO BE 1/4" OR #6 OR #8 TEK SCREWS

**Herdee Enterprises, Inc.**  
 The Innovative Solutions Company  
 P.O. Box 4286, Houston, TX 77210-4286 South Point Dr., Houston, TX 77054  
 (713) 748-3332, Fax (713) 748-0484, (800) 333-3641 (texas)  
 chush@herdee.com

**CONSULTANTS:**  
 James R. Bailey, P.E.  
 Texas PE # 74911  
 Platinum Risk Consulting LLC  
 4931 Chappell Hill Dr.  
 Missouri City, Texas 77459  
 281-403-2825  
 Texas Firm # 11044

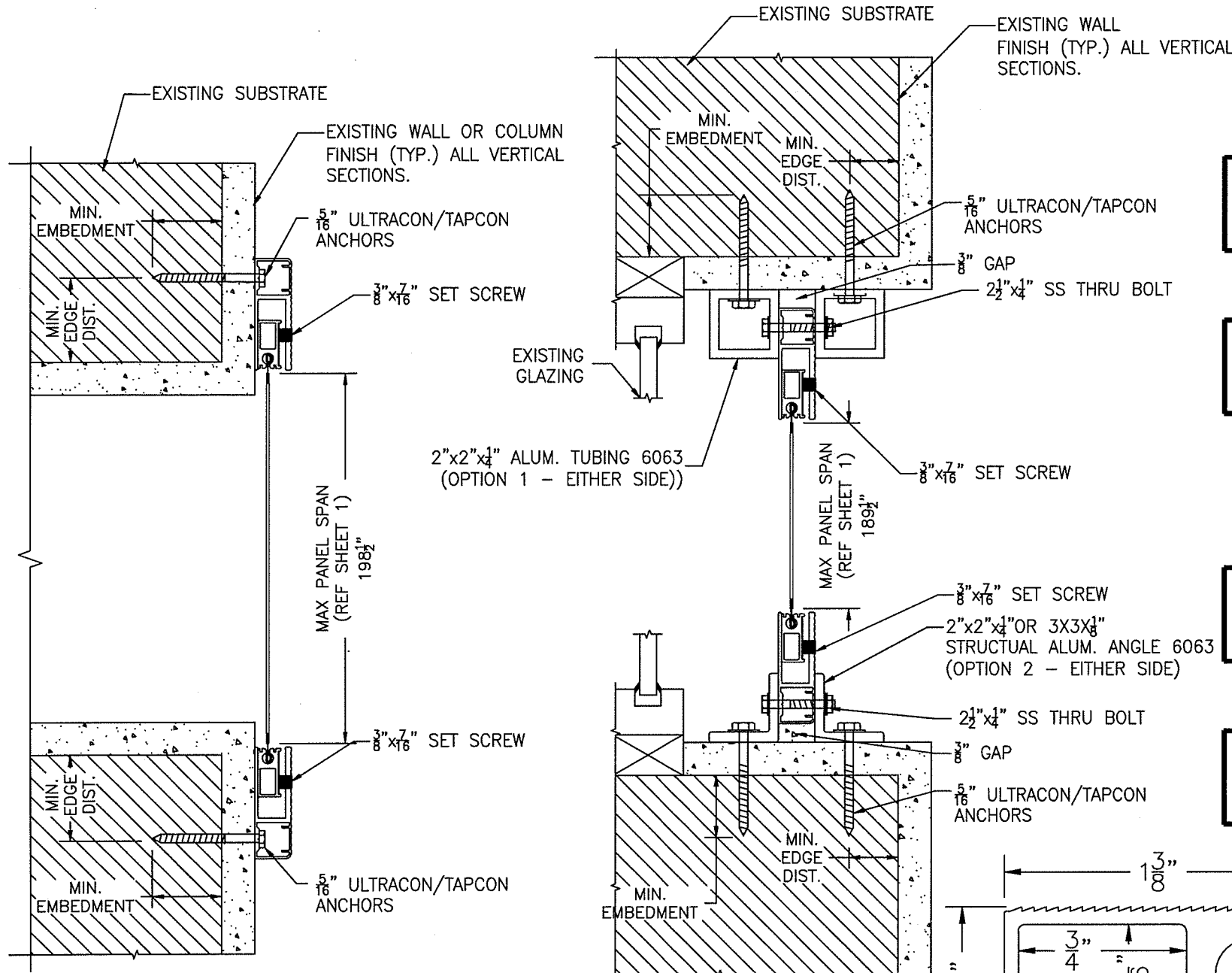
**CLIENT:** HENDEE ENTERPRISES  
**LOCATION:** HOUSTON, TX  
**TITLE:** FORCE 12 - 700 SERIES - ROLLING DOORS  
**DATE:** 10/31/12  
**REVISION:** 0

**DESCRIPTION:** DEPARTMENT OF INSURANCE SUBMITTAL  
**DATE:** 10/31/12  
**BY:** [Signature]  
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5/5/2020  
 James R. Bailey  
**STATE OF TEXAS**  
**JAMES R. BAILEY**  
 74911  
**PROFESSIONAL ENGINEER**

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**DRAWN BY:** MG/AD  
**FILE NAME:** 700 SERIES  
**JOB NUMBER:** -  
**DOCUMENT DATE:** 11/18/08  
**SHEET:**  
 2 OF 3

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**CONCRETE (3500 psi)**

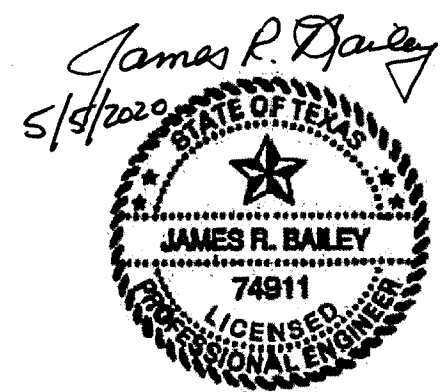
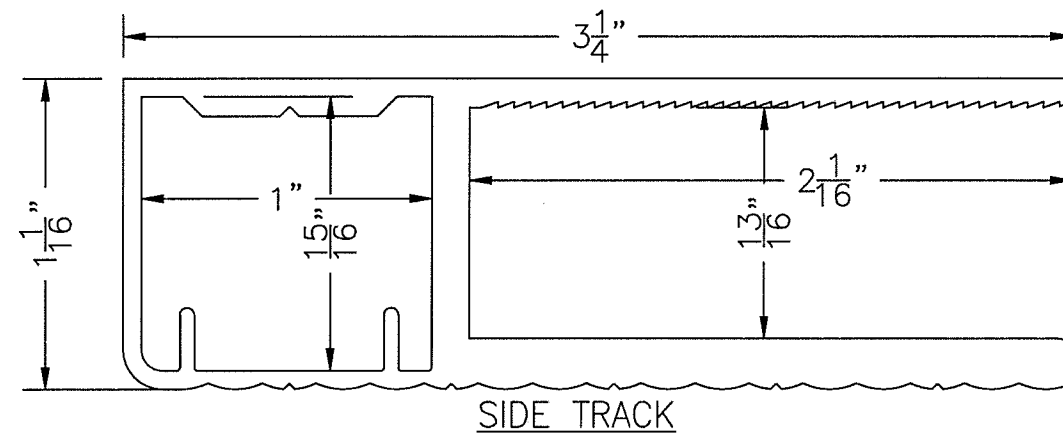
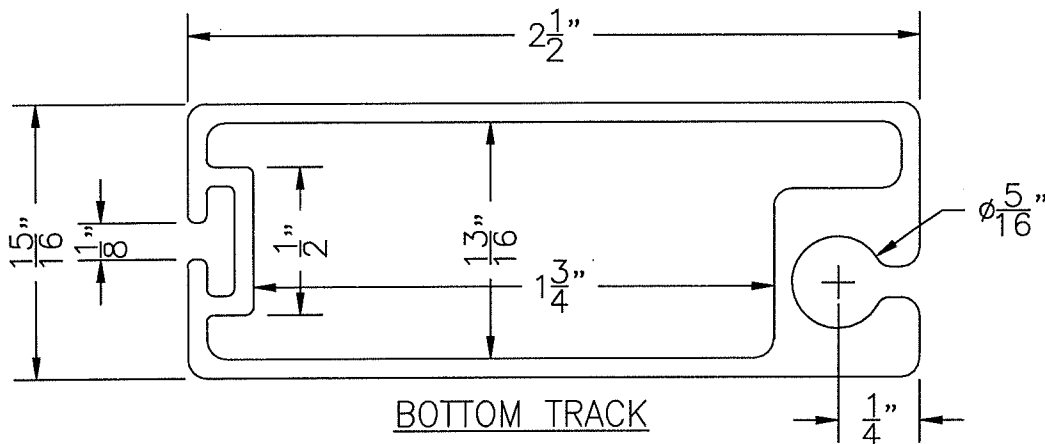
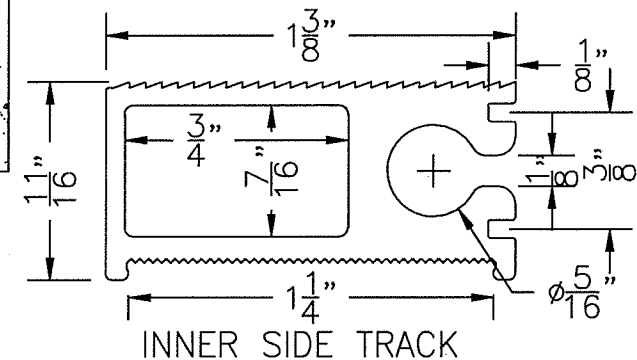
	UNIFORM LOAD (psf)	ULTRACON/TAPCON ANCHOR SPACING (5/16" x 2 1/2")	MINIMUM EDGE DISTANCE	MINIMUM EMBEDMENT	3/8" x 7/16" SET SCREW SPACING (O.C.)
DIRECT MOUNT PANEL SPANS UP TO 198 1/2"	27	12"	3 1/4"	2 1/2"	6"
	35	11"	3 1/4"	2 1/2"	6"
	45	10"	3 1/4"	2 1/2"	6"
	53	9"	3 1/4"	2 1/2"	6"
TRAP MOUNT PANEL SPANS UP TO 189 1/2"	27	12"	2 1/4"	3"	6"
	35	11"	2 1/4"	3"	6"
	45	10"	2 1/4"	3"	6"
	55	9"	2 1/4"	3"	6"

**FILLED CONCRETE BLOCK (1800 psi)**

	UNIFORM LOAD (psf)	ULTRACON/TAPCON ANCHOR SPACING (5/16" x 2 1/2")	MINIMUM EDGE DISTANCE	MINIMUM EMBEDMENT	3/8" x 7/16" SET SCREW SPACING (O.C.)
DIRECT MOUNT PANEL SPANS UP TO 198 1/2"	27	12"	3 1/4"	2 1/2"	6"
	35	10"	3 1/4"	2 1/2"	6"
	45	8"	3 1/4"	2 1/2"	6"
	53	7"	3 1/4"	2 1/2"	6"
TRAP MOUNT PANEL SPANS UP TO 189 1/2"	27	12"	2 1/4"	3"	6"
	35	11"	2 1/4"	3"	6"
	45	10"	2 1/4"	3"	6"
	55	9"	2 1/4"	3"	6"

**BILL OF MATERIAL (SHIPPING LIST)**

ITEM	DESCRIPTION	DESCRIPTION
1	BOTTOM TRACK	ALUM. 6063
2	INNER SIDE TRACK	ALUM. 6063
3	SIDE TRACK	ALUM. 6063
4	2"x2"x1/4" TUBING	ALUM. 6063
5	1/4" THRU BOLT	STAINLESS STEEL
6	SET SCREW	STAINLESS STEEL, ZINC PLATED, OR PAINTED
7	ULTRACON/TAPCON	GALV., ZINC PLATED, OR COATED STEEL



**Hendee Enterprises, Inc.**  
The Innovative Solutions Company  
P.O. Box 4288, Houston, TX 77210-4288 6300 South Park Dr., Houston, TX 77054  
(713) 748-5222, Fax (713) 748-0444, (800) 231-7275 (toll free), (800) 353-3441 (texas)  
chush@hendee.com

**CONSULTANTS:**  
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**DESCRIPTION:** TEXAS DEPARTMENT OF INSURANCE SUBMITTAL  
**DATE:** 10/31/12

**CHECKED BY:**  
**DRAWN BY:** MG/AD  
**FILE NAME:** 700 SERIES  
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**SHEET:**  
3 OF 3