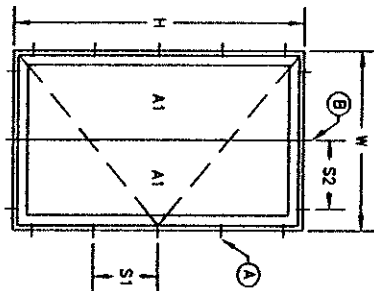


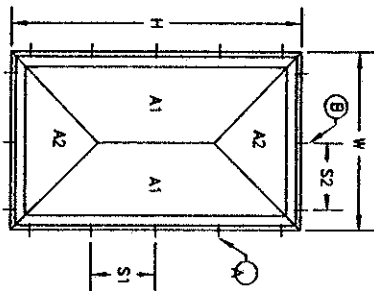
HINGE WINDOW

ANCHOR 'A':
 $R = \text{PRESSURE } X (A2 \text{ OR } A3) / 2$
 ANCHOR 'B':
 $R = \text{PRESSURE } X ((A1 \times 2) + (A3 \times 2)) / 2 / 2$
 ANCHORS
 (NOTE THAT LOAD IS CARRIED BY 2 ANCHORS IN THIS EXAMPLE)



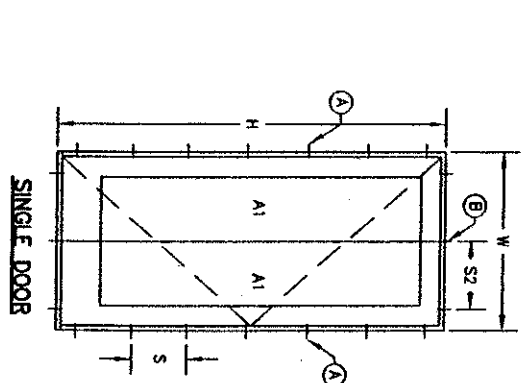
CASEMENT/awning WINDOW

ANCHOR 'A': $R = \text{PRESSURE } X W / 2 \times S1$
 ANCHOR 'B': $R = \text{PRESSURE } X W / 2 \times S2$
 (CONSERVATIVE)



FIXED WINDOW

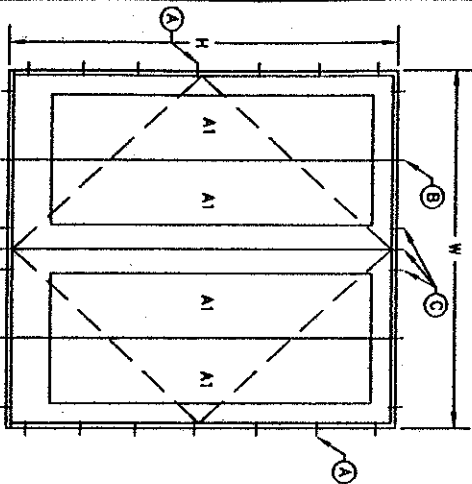
ANCHOR 'A': $R = \text{PRESSURE } X W / 2 \times S1$
 ANCHOR 'B': $R = \text{PRESSURE } X W / 2 \times S2$



SINGLE DOOR

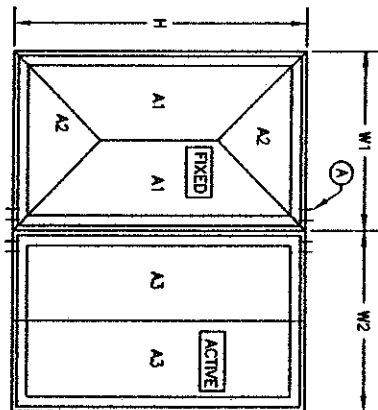
ANCHOR 'A': $R = \text{PRESSURE } X W / 2 \times S1$
 ANCHOR 'B': $R = \text{PRESSURE } X W / 2 \times S2$
 (CONSERVATIVE)

NOTE: IF HINGE SCREENS PENETRATE THE SUPPORTING SUBSTRATE, THEY ARE CONSIDERED TO SUPPORT THE DOOR BASED ON THE EFFECTIVE LOAD AREA OF THE HINGE. IN THIS CASE, FRAME SCREENS MAY NOT BE REQUIRED (SEE DRAWINGS FOR REQUIREMENTS)



DOUBLE DOOR/WINDOW

ANCHOR 'A': $R = \text{PRESSURE } X W / 2 \times S1$
 ANCHOR 'B': $R = \text{PRESSURE } X W / 2 \times S2$
 (CONSERVATIVE)
 ANCHOR 'C': $R = \text{PRESSURE } X (W / 2 \times L / 2) / 3$
 ANCHORS
 (NOTE THAT LOAD IS CARRIED BY 3 ANCHORS IN THIS EXAMPLE)



MULLED UNIT

ANCHOR 'A': $R = (\text{PRESSURE } X (A1 + A2) / 2) / 4$
 ANCHORS
 1. AREAS ARE DETERMINED PER THE INDIVIDUAL ELEVATIONS
 2. LOAD IS CARRIED BY 4 ANCHORS IN THIS EXAMPLE

SLIDING DOORS ARE THE SAME AS THE HINGE WINDOWS TURNED 90 DEGREES

SLIDING DOORS/WINDOWS

- NOTES:
1. THESE FORMULAS ARE USED WHEN DETERMINING ANCHOR LOADS FOR ALL APPLICABLE WINDOW & DOOR DRAWINGS. CONSULT THE DRAWINGS FOR ALL WINDOW/DOOR DRAWINGS PRODUCED BY W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
 2. ALLOWABLE ANCHOR LOADS FOR CONCRETE SCREENS ARE BASED ON ANCHOR MANUFACTURER'S PUBLISHED LOAD DATA SHEETS WITH ULTIMATE LOADS REDUCED PER SPECIFICATION REQUIREMENTS.
 3. ALLOWABLE ANCHOR LOADS FOR WOOD SCREENS ARE PER A.I.A.S. SPECIFICATIONS.
 4. ALL ANCHOR ALLOWABLE LOADS CONSIDER ALL FACTORS SUCH AS EMBEDMENT, EDGE DISTANCE, AND MEMBER TYPE, GRADE AND THICKNESS AND SEE MEMBER THE GRADE AND THICKNESS.
 5. THE ANCHOR ALLOWABLE LOADS SHOWN IN THIS DRAWING ARE BASED ON THE ASSUMPTIONS THAT THE LOAD TRANSFERRED TO THE INDIVIDUAL ANCHOR FROM THE SCREENED AREA IS CONSIDERED EQUAL TO THE LOAD TRANSFERRED TO THE INDIVIDUAL ANCHOR FROM THE SCREENED AREA. THE WORSE CASE ANCHOR IS CONSIDERED WITH ALL OTHERS BEING DUPLICATES.

CERTIFICATION WARREN W. SCHAEFER, P.E. NO. 44136		DRAWING TITLE FRAME ANCHOR CALCULATION FORMULAS		CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 800 SANDHURST DRIVE, SUITE 2038 FLEMING HILLS, N.C. 28633 PHONE: 561-775-4802 FAX: 561-775-4803		MANUFACTURER APPLICABLE WITH ALL PRODUCT DRAWINGS PRODUCED BY W. W. SCHAEFER ENGINEERING & CONSULTING.	
DRAWING NO. 1135 SHEET NO. 1 OF 1	AUG 02 2002	NO.	REVISION DESCRIPTION	BY	DATE	DATE 07/11/02	CHECKED BY W. W. SCHAEFER