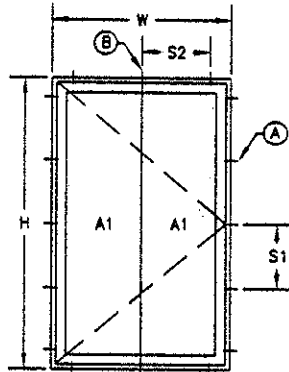


HUNG WINDOW

ANCHOR "A":
 $R = \text{PRESSURE} \times (A2 \text{ OR } A3)/2$

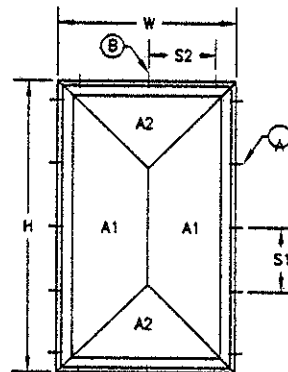
ANCHOR "B":
 $R = \text{PRESSURE} \times (((A1 \times 2) + (A3 \times 2))/2)/2$ ANCHORS
 (NOTE THAT LOAD IS CARRIED BY 2 ANCHORS
 IN THIS EXAMPLE)



CASEMENT/AWNING WINDOW

ANCHOR "A": $R = \text{PRESSURE} \times W/2 \times S1$

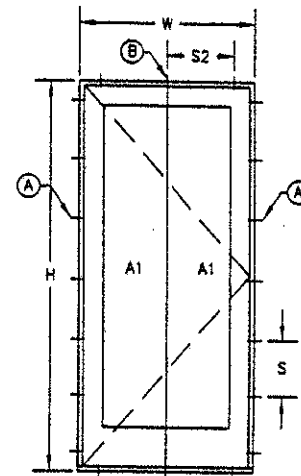
ANCHOR "B": $R = \text{PRESSURE} \times W/2 \times S2$
 (CONSERVATIVE)



FIXED WINDOW

ANCHOR "A": $R = \text{PRESSURE} \times W/2 \times S1$

ANCHOR "B": $R = \text{PRESSURE} \times W/2 \times S2$

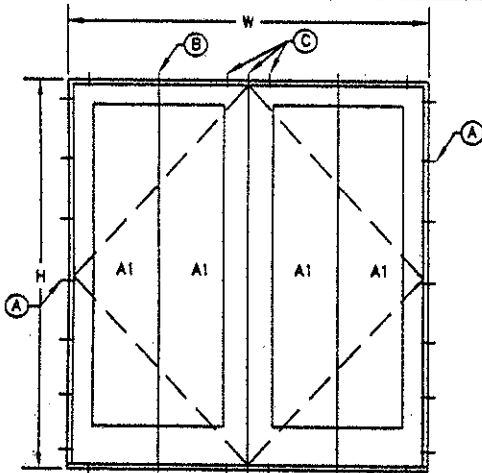


SINGLE DOOR

ANCHOR "A": $R = \text{PRESSURE} \times W/2 \times S1$

ANCHOR "B": $R = \text{PRESSURE} \times W/2 \times S2$
 (CONSERVATIVE)

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

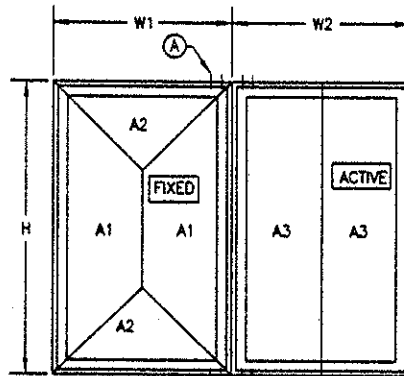


DOUBLE DOOR/WINDOW

ANCHOR "A": $R = \text{PRESSURE} \times W/2 \times S1$

ANCHOR "B": $R = \text{PRESSURE} \times W/2 \times S2$
 (CONSERVATIVE)

ANCHOR "C": $R = \text{PRESSURE} \times (W/2 \times L/2)/3$ ANCHORS
 (NOTE THAT LOAD IS CARRIED BY 3 ANCHORS
 IN THIS EXAMPLE)



MULLED UNIT

ANCHOR "A": $R = (\text{PRESSURE} \times (A1 + A3))/4$ ANCHORS

1. AREAS ARE DETERMINED PER THE INDIVIDUAL ELEVATIONS
 2. LOAD IS CARRIED BY 4 ANCHORS IN THIS EXAMPLE.

NOTES:

1. THESE FORMULAS ARE USED WHEN DETERMINING ANCHOR LOADS FOR ALL APPLICABLE WINDOW & DOOR PRODUCTS AND SHALL BE APPLICABLE TO ALL WINDOW/DOOR DRAWINGS PRODUCED BY W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
2. ALLOWABLE ANCHOR LOADS FOR CONCRETE SCREWS ARE BASED OFF ANCHOR MANUFACTURER'S PUBLISHED LOAD DATA SHEETS WITH ULTIMATE LOADS REDUCED PER SPECIFICATION REQUIREMENTS.
3. ALLOWABLE ANCHOR LOADS FOR WOOD SCREWS ARE PER M.O.S. SPECIFICATIONS.
4. ALL ANCHOR ALLOWABLE LOADS CONSIDER ALL FACTORS SUCH AS EMBEDMENT, EDGE DISTANCE, MAIN MEMBER TYPE, GRADE AND THICKNESS AND SIDE MEMBER TYPE, GRADE AND THICKNESS.
5. THE ABOVE EXAMPLES ARE SPECIFIC TO THE CONDITIONS SHOWN. WINDOW SIZE AND/OR PRESSURE DETERMINES THE POSITION AND QUANTITY OF ANCHORS. ALL ANCHORS ARE ANALYZED CONSIDERING THE LOAD TRANSFERRED TO THE INDIVIDUAL ANCHOR FROM THE SECTIONED AREAS SHOWN IN THE ELEVATIONS. WHEN AN EQUAL DISTRIBUTION OF ANCHORS IS USED, THE WORSE CASE ANCHOR IS CONSIDERED WITH ALL OTHERS BEING DUPLICATES.

SLIDING DOORS ARE THE SAME AS THE HUNG WINDOWS TURNED 90 DEGREES.

SLIDING DOORS/WINDOWS

DESIGNED BY:	W.W.S.	CHECKED BY:	W.W.S.
PLotted:	1-24	DATE:	07/11/02
NO.		REVISION DESCRIPTION	
BY			
DATE			
FRAME ANCHOR CALCULATION FORMULAS			
APPLICABLE WITH ALL PRODUCT DRAWINGS PRODUCED BY W. W. SCHAEFER ENGINEERING & CONSULTING.			
CONSULTANTS	MANUFACTURER		
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.			
800 SHIPLEY BLVD. SUITE 1000			
PALM BEACH GARDENS, FL 33408			
PHONE: 561-775-4902 FAX: 561-775-4903			
CERTIFICATION	DRAWING TITLE		
Aug 22 2007			
WARREN E. SCHAEFER P.E.			
DRAWING NO.	REV.		
1135			
SHEET NO.			
1	9	1	