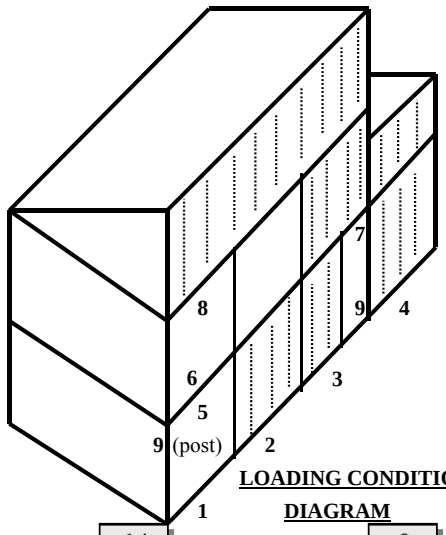
WMH STRUCTURAL CALCULATION SHEET

SERIAL NO:	17066	Truss #1	LOCATION:	Main House

STATE: ME FORMULAS AND FACTORS PER 2005 NDS



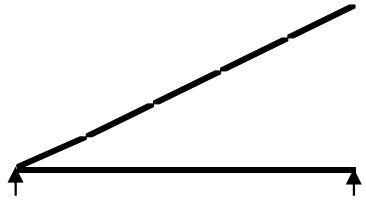
LOADING CONDITION DIAGRAM

Width (ft)= 14 Roof Pitch: 9

Truss Type: H "H" = Hinged
"C"=Cape/Storage

DESIGN LOADING (PSF)			
	LL	DL	TL
1ST FL	40	10	50
CEILING	0	7	7
2ND FL	30	10	40
ROOF-EXT	376	130	506
ROOF-MAT	289	100	389
EXT WALL	0	50	50
MAT WALL	0	40	40

TRUSS REACTIONS



R1 = 1087 lbs R2 = 836 lbs

Spacing = 24 in. o.c.

Truss: HM983404

Roof LL =Pg* 0.7*Ct*Unbal.Load (assumes Ce and I = 1.0)

(Load in psf)	Pg	*0.7	Ct	Unbal.	Rf LL
Design Snow Load	55	0.7	1.1	1.5	64
Actual Snow Load	50	0.7	1.1	1.5	58

	Top Chord		Bot. Chord		
(Load in psf)	LL	DL	LL	DL	Total
Design Load	64	10	0	10	84
Actual Load	58	10	0	10	78

Total Load Reduction Factor = Actual / Design = 78 / 84 = 0.93

Live Load Reduction Factor = Live Load / Total Load = 58 / 78 = 0.74

Adjusted Loads

W1 (tot) =	506 lbs/lf	W2 (tot) =	389 lbs/lf
W1 (live) =	376 lbs/lf	W2 (live) =	289 lbs/lf

LOAD COMBINATION SUMMARY CHART (lbs/lf)

Loading Condition	Ist Floor		1st Fl Wall		Clg	2nd Floor		2nd Fl Wall		Roof/Ext		Roof/Mate		Total-Ext		Total-Mate	
	Total	Live	Ext	Mate	Total	Total	Live	Ext	Mate	Total	Live	Total	Live	Total	Live	Total	Live
1	350	280												350	280	350	280
2	350	280	50	40	49	280	210							607	368	597	368
3	350	280	50	40	49	280	210	50	40	506	376	389	289	1068	649	953	584
4	350	280	50	40						506	376	389	289	742	492	637	427
5					49									49	0	49	0
6						280	210							280	210	280	210
7						280	210	50	40	506	376	389	289	689	439	584	374
8										506	376	389	289	506	376	389	289
9					49	280	210	50	40	506	376	389	289	739	439	633	374

Notes:

1. Floor and ceiling loads above are calculated using the following:
   [Box Width (ft)] / 2 x Design Load Example: 1st Floor = 14 / 2 x 50 = 350 lbs/lf
2. Roof loads are taken from Max Gravity Reactions listed on truss drawing and adjusted to account for spacing and Actual (required) versus Design snow load as shown above.
3. Load totals given for conditions with multiple live loads incorporate a reduction factor of .75 applied to the live loads only.