LIST OF FIGURES

Figure 3.1 Main Window of the Load Analysis Program

Figure 3.2

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For stories between the 20th and 10th stories from the top

linear interpolation between 1.0 and 0.8

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Analysis of Loads on Buildings - [l	Untitled]	_ 🗆 🗵
E ile <u>S</u> tructure Wind <u>E</u> arthquake	S <u>n</u> ow ⊻iew <u>W</u> indow <u>H</u> elp	_ 8 ×
□ ☞ 🖬 📍 🚭 🔋		
Project Information Project Name: Description:		
Designer:	Project Number:	
Building Geometry Width = 60.0 ft Roof Pitch = 8/12 Mean Roof Height = 43.0 Max Roof Height = 44.0 Building Classification = 1	Length = 138.0 ft Roof Slope = 33.7 degrees) ft) ft	<u>×</u>
For Help, press F1		M
		K

Figure 3-2: Main Window of the Load Analysis Program With a Untilted Project Once a working projecting entry, several pull-down menus are displayed on the menu PIEP PAGE

The check box labeled "Exposure C," when selected (checked), instructs the program to use the exposure C condition. Recall that in the ASCE 7-93 Standard, components and

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tributary areas of 10 and 100. Therefore, those values can be used in fitting the correct equation.

Preview from Notesale.co.uk Page 41 of 97 conditional statements to determine the wall pressure coefficient, Cp. Based upon the roof

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Initial Data

The Initial Data dialog box is shown in Figure 3-10. Using Figure 9-1 of ASCE 7-93, the effective peak acceleration, A

Preview from Notesale.co.uk Page 43 of 97 factor, C_d , are obtained from Table 9.3-2 of ASCE 7-93. The fundamental periods are

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Ground Snow Load	×
Using Figures 5, 6 and 7 and Table 17 (pgs 24-27) determine the appropriate Ground Snow Load for your structure.	
If structure is in Alaska, mark the adjacent checkbox and use Table 17, pg 27 to determine Alaska the appropriate Ground Snow Load.	
Unobstructed warm roof (slippery?): 🔲 Yes 📃 🛄 K]
<u>G</u> round Snow Load (psf)= 25 <u>C</u> ancel	
<u>H</u> elp	

Ι	Figure (3-13: Ground Snow Load D	ialog Box	;o.uk
Preview	Therm N.f. P	Table 19, pp 21 Table 19, pp 2	97 Ct © 1.0 © 1.1 © 1.2	×
	 *Se	ee Table 19, pg 27 for notes.	<u>H</u> elp	

Figure 3-14: Thermal Factor Dialog Box

these calculations were also the same. Output from the Excel spreadsheet for Example 1 is in Appendix B.

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A.2 Using Standard Controls

A.4 Example 1-Two Story Residential Building

This step-by-step example is a rectangular, 2 story residential building (house) for which

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Analysis of Loads on Buildings - [Example]				le1.jot)]			- D ×	
<u>File</u>	tructure	Wind	<u>E</u> arthquake	S <u>n</u> ow	⊻iew	$\underline{W} indow$	<u>H</u> elp		_ 8 ×
	J 🣍	<u>I</u> mp Wi	portance Facti ind Speed	or					
		Int	ernal <u>P</u> ressure						-
		<u>E</u> x	posure						

Figure A-14: Wind Speed Command

	Wind Speed Using Fig. 1, pg 13 or Table 7, pg 12 Enter the Basic Wind Speed.	
	Basic Wind <u>Speed</u> (mph) = 75	Cancel
	Figure A-15: Example 1 Wind	Speedling CO.UK
3. Select the Interest PIEV	Pressure Command From 6	Vind pull-down menu (See Figure A-

Main Wind Force Resisting System Design Pressures

Roof Design Values (Parallel to Ridge)

Winward Roof(s) = -22.1 psf Leeward Roof(s) = -22.1 psf

Wall Design Values

Leeward Wall(s) = -16.4 psf Side Wall(s) = -22.1 psf Winward Wall(s)

Elevation	Design Pressure			
82.0 ft	26.4 psf			
72.0 ft.	25.1 psf			
62.0 ft.	23.8 psf			
52.0 ft.	22.4 psf			
42.0 ft.	20.8 psf			
32.0 ft.	18.9 psf			
22.0 ft.	16.7 psf			
15.0 ft.	14.8 psf			
	Elevation 82.0 ft 72.0 ft. 62.0 ft. 52.0 ft. 42.0 ft. 32.0 ft. 22.0 ft. 15.0 ft.			

Roof Design Values (Normal to Ridge) Winward Roof(s) = -24.5 psf Leeward Roof(s) = -22.1 psf

Figure B-8: Example 2 Wind Load Calculations (Societad) NO 697 Preview from 89 of 97 Page 89 of 97

Table B-2: Components and Cladding Manual Wall Calculation Results

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Velocity pressure, $q = q_h$ (evaluated at mean roof height) $q_h \neq \text{TD02563(072)}$ Y

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