Shaun Kreidel Structural Option School Without Walls April 12, 2010 Advisor: Dr. Hanagan Final Report

APPENDIX E

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Column B-2 First Floor

D	=	dead load
L	=	live load
W	=	wind load
Ε	=	earthquake load

Geometry				Total Live Load Axial Load	81600	lb
Tributary Area	24	x	20	Roof Axial Load	38400	lb
,				Fourth Floor Axial Load	118350	lb
Materials				Third Floor Axial Load	118350	lb
				Second Floor Axial Load	109200	lb
Concrete	150	pcf		Total Axial Load	384300	lb
Steel	Grade	50				

Roof Loads

Dead Loads:

MEP	10	psf
Roof Material	20	psf
Slab/Deck	40	psf
Beams	10	psf
		1

Live Loads: 20 psf

Fourth Floor

Height 15.25 ft

Dead Loads:

Beams	20	X	60
Superimposed	15	psf	
Slab	12	in	
Column	24	x	24

Live Loads: 50 psf

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Third Floor

15.25	ft
	15.25

Dead Loads:

Beams	20	X	60
Superimposed	15	psf	
Slab	12	in	
Column	24	x	24

Live Loads: 50 psf

Second Floor

Height 20 ft

Dead Loads:

Beams	20	x	60
Superimposed	15	psf	
Slab	12	in	
Column	24	X	24

Live Loads: 50 psf