

Company: Company

Project: IE HECTOR MANUEL VIDES BALLESTEROS (MÓDULO 6)

File: C:\IE REGIDOR\MOD6.rcb

Engineer: Name

9:45:58 a. m. 27/06/2025

REDUNDANCY ANALYSIS

STORY-STRENGTH REDUCTION DUE TO REMOVAL OF CRITICAL ELEMENT

Story	E A R T H Q U A K E - X				E A R T H Q U A K E - Y			
	Vi	Vi/Vb	Crit.Element	Ve/Vi	Vi	Vi/Vb	Crit.Element	Ve/Vi
2	17.7	0.35	BEM:G (2-5)	0.32	14.4	0.29	-	-
1	50.1	1.00	BEM:B (2-3)	0.17	50.1	1.00	BEM:5 (G-E)	0.16
MAXIMA				0.32				0.16

NOTE: Shear values are divided by R

Removal of any critial element on any story supporting more than 35% Vb (Base Shear) would not reduce the story strength by more than 33%. Thus SEISMIC FORCE-RESISTING SYSTEM SEEMS REDUNDANT!!
It should be investigated if removal of critical element would induce Extreme Torsional Irregularity (1bP)

Proposed Reduction Factor for Lack of Redundancy: Ørx = 1 Øry = 1