Company: PDelta Ingenieria Estructural S.A.S **Engineer: Ing. Osvaldo Guzman A**
Project: P046-2024 - PLAZA DOÑA CEIBA (CAMERINOS) **5:28:28 p. m. 26/06/2024**
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R E D U N D A N C Y A N A L Y S I S

STORY-STRENGTH REDUCTION DUE TO REMOVAL OF CRITICAL ELEMENT

	E A R T H Q U A K E - X				E A R T H Q U A K E - Y			
Story	Vi	Vi/Vb	Crit.Element	Ve/Vi	Vi	Vi/Vb	Crit.Element	Ve/Vi
1	5.1	1.00	BEM:1(A-B)	0.24	5.1	1.00	BEM:B(3-2)	0.23
MAXIMA				0.24				0.23

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