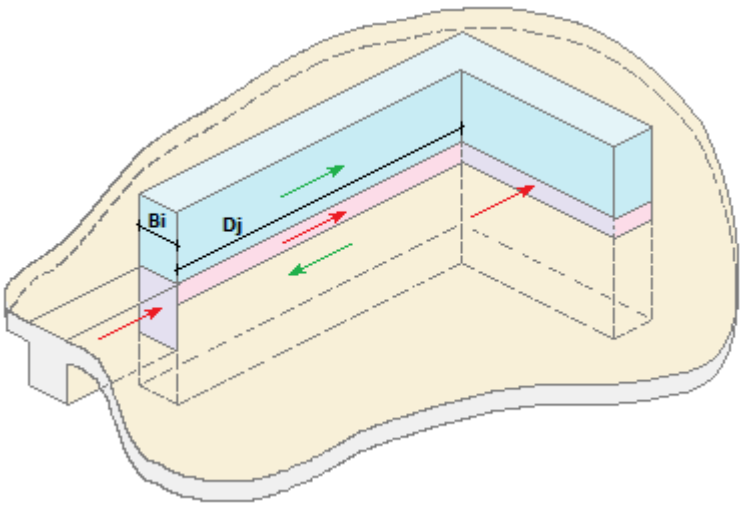
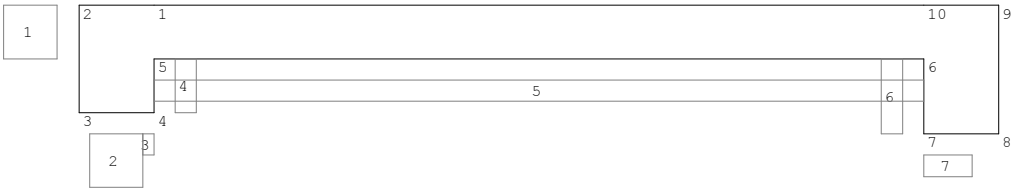
SHEARWALL-DIAPHRAGM SHEAR FORCE CHECK

Vx= (Vxbot-Vxtop), Vy= (Vxbot-Vxtop)
Vxr=∑fctd×D×L×Cosβ + min∑fcd×D×L×Sinβ
Vyr=∑fctd×D×L×Sinβ + min∑fcd×D×L×Cosβ
Pressure face condition: -> Dj/Bi>2, ∑Vpressure <
Pressure face; to shearwall shear stiffness directi
seismic +- direction is get the smallest area.



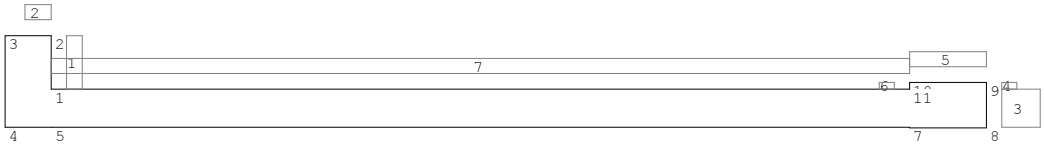
P113 panel-diaphragm seismic shear force:
Vx= (Vxbot-Vxtop)= (45.08-.0)=45.08, Vy= (Vxbot-Vxtop)= (49.85-.0)=49.85

Face no	Side no	Member no	D cm	L m	R1 m	R2 m	X1 m	Y1 m	X2 m	Y2 m	β °	Vxr	Vyr
1	2	B102	50	0.25	0.00	0.25	9.83	-0.13	9.83	0.13	270.0	0.0	16.0->
2	3	B112	50	0.25	0.05	0.30	9.88	0.38	10.13	0.38	0.0	16.0	0.0
3	3	S103	15	0.05	0.30	0.35	10.13	0.38	10.18	0.38	0.0	1.0	0.0
4	4	S103	15	0.25	0.00	0.25	10.18	0.38	10.18	0.13	90.0	75.0->	4.8
5	5	S103	15	3.60	0.00	3.60	10.18	0.13	13.78	0.13	0.0	69.0	0.0
6	6	S103	15	0.35	0.00	0.35	13.78	0.13	13.78	0.48	270.0	0.0	6.7->
7	7	S103	15	0.23	0.00	0.23	13.78	0.48	14.00	0.48	0.0	4.4	0.0
												Vr= 165.3 ✓	27.5 ✕



P118 panel-diaphragm seismic shear force:
Vx= (Vxbot-Vxtop)= (48.48-54.81)=6.32, Vy= (Vxbot-Vxtop)= (-3.44-4.1)=7.54

Face no	Side no	Member no	D cm	L m	R1 m	R2 m	X1 m	Y1 m	X2 m	Y2 m	β °	Vxr	Vyr
1	1	S107	18	0.35	0.00	0.35	0.18	9.38	0.18	9.03	90.0	0.0	8.0->
2	2	S107	18	0.17	0.00	0.17	0.18	9.03	0.00	9.03	180.0	3.9	0.0
3	8	B108	50	0.25	0.01	0.26	6.28	9.63	6.28	9.38	90.0	0.0	16.0->
4	8	S107	18	0.04	0.26	0.30	6.28	9.38	6.28	9.33	90.0	0.0	0.9->
5	9	S107	18	0.50	0.00	0.50	6.28	9.33	5.78	9.33	180.0	11.5	0.0
6	10	S107	18	0.05	0.00	0.05	5.78	9.33	5.78	9.38	270.0	18.0->	1.1
7	11	S107	18	5.60	0.00	5.60	5.78	9.38	0.18	9.38	180.0	128.7	0.0
												Vr= 162.1 ✓	26.1 ✓



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