

Project Information		
Project: Quality Control	Location: Tampa, FL	Date: 07/21/17
Client: Eriksson Software	Designer: FCH	Job #: 3
Description: Verification Problem 3 - Insulated Wall Panel	Specification: ACI 318-14	

Utilization format: Utilization (Demand / Capacity)

Panel Properties		
f_{ci} : 3.5 ksi	ΔT : 30.0 F°	Min. Prestress: 234.5 psi
f_c : 5.0 ksi	Initial Bow: 0.0 in	% Losses Initial: 0.84
Δ Max: 0.12/-0.08 in	Δ_{lim} : 1.3 in	% Losses Final: 7.81
Stress Limits (final/initial), psi: Compression: 2000/2100 Tension: -849/-355		

Stage: Stripping		
Face Inserts: Qty: 4	Shear: 2.3 k	Tension: 4.0 k
Shear Utilization: 0.13 (2.2 k / 16.6 k)	Max Comp. Stress: 387 psi	
Flexure Utilization: 0.17 (7.8 k-ft / -45.5 k-ft)	Max Tension Stress: 0 psi	

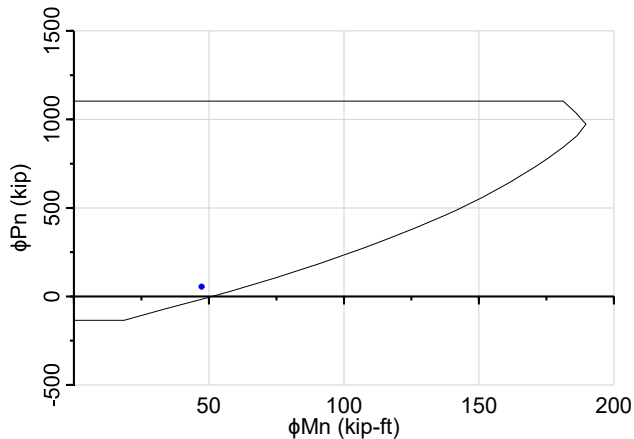
Stage: Handling		
Shear Utilization: 0.14 (2.4 k / 16.6 k)	Max Comp. Stress: 395 psi	
Flexure Utilization: 0.18 (8.4 k-ft / -45.5 k-ft)	Max Tension Stress: 0 psi	

Stage: Erection		
Face Inserts: Qty: 2	Shear: 2.4 k	Tension: 4.1 k
Edge Inserts: Qty: 2	Shear: 1.5 k	Tension: 6.6 k
Shear Utilization: 0.22 (3.7 k / 16.6 k)	Max Comp. Stress: 673 psi	
Flexure Utilization: 0.57 (13.3 k-ft / 23.2 k-ft)	Max Tension Stress: -131 psi	

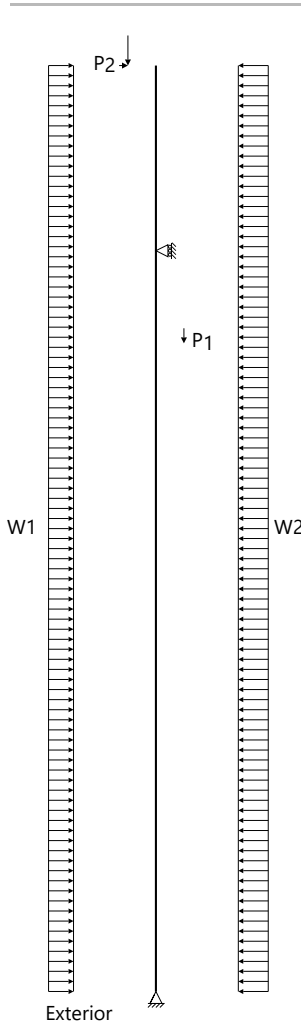
Stage: In-Place		
Shear LC: 1.2 D + 1.0 L + 0.5 R + 1.0 T + 1.0 W + 1.6 H + 0.9 H		
Flexure LC: 1.2 D + 1.0 L + 1.6 R + 1.0 T + 1.6 H + 0.9 H		
Shear Utilization: 0.24 (-9.5 k / 39.7 k)	Max Comp. Stress: 999 psi	
Flexure Utilization: 0.74 (47.3 k-ft / 64.0 k-ft)	Max Tension Stress: -266 psi	

Loading [ID - Load Case - Direction - Magnitude (k / klf)]	
P1 Dy 10.0 Ly 10.0 Ry 10.0	P2 Dx 5.0 Dy 22.0 Lx 2.0 Ly 10.0 Rx 2.0 Ry 10.0
W1 Wp 0.1	W2 Ws 0.12

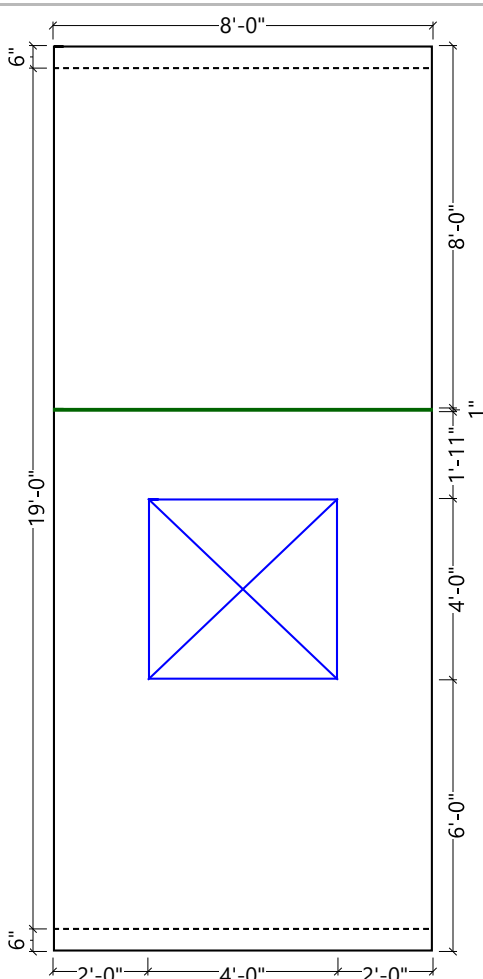
Interaction Diagram (Controlling Section @ 0.80L / 192 in)



Structural Model



Front Elevation - Not to Scale



Show Limits Same Scale for Stresses

