

COLUMN MARK: K2      1ST. FLOOR  
 $b_c = 800$   
 $h_c = 375$   
Concrete: C60       $f_{cu} = 60.0$

Vertical Load: DL = 435.742      LL = 158.151

	Mxlmin	Mxlmax	Mxrmin	Mxrmax	Mylmin	Mylmaxn	Myrmin	Myrmax
D+L	-51.644	-12.975	-234.554	-113.827	-245.709	-185.086	-309.321	-172.036
D+L(W)	-37.799	-13.080	-190.634	-120.417	-203.592	-165.681	-309.321	-172.036
D Only	-32.536	-15.405	-166.111	-124.502	-180.944	-150.716	-240.850	-172.036

Soil Load:    Dirc.      M<sub>sxl</sub>      M<sub>sxr</sub>      M<sub>syl</sub>      M<sub>syr</sub>      N<sub>s</sub>  
---      -1.505      2.069      -2.050      0.000      0.694

Wind Load:    Dirc.      M<sub>wxl</sub>      M<sub>wxr</sub>      M<sub>wyl</sub>      M<sub>wyr</sub>      N<sub>w</sub>  
X-X      -16.842      12.178      -0.575      0.000      6.879  
Y-Y      -37.591      30.959      -116.732      0.000      30.818  
U-U      -28.416      21.580      -31.411      0.000      15.769  
V-V      6.392      -3.544      -41.443      0.000      4.568

Dyna.Load:    Dirc.      M<sub>nxl</sub>      M<sub>nxr</sub>      M<sub>nyl</sub>      M<sub>nyr</sub>      N<sub>n</sub>  
X-X      -9.965      7.100      -0.411      0.000      3.474  
Y-Y      -7.940      6.104      -23.548      0.000      5.223  
U-U      -10.806      7.945      -12.181      0.000      5.020  
V-V      1.073      -0.435      -17.278      0.000      1.455

ALONG X-X: D-Wy(/)      N<sub>c</sub> = 392.596

BEAM (LHS): 1B10	BEAM (RHS): 1B11
$b = 375$	$b = 375$
$h = 700$	$h = 700$
Bars: 2Y25 (Bot)	Bars: 6Y25 (Top)
$A_s = 982$	$A_s = 2945$
$d = 662.5$	$d = 662.5$
$M = 41.776$	$M = -211.070$
$T = 1.25A_s f_y = 564.505$	$T = 1.25A_s f_y = 1693.515$

$V_{jhx} = 1693.515 + 564.505 = 2258.020$   
 $V_{jvx} = (h_b/b_c)V_{jhx} = 1975.767$   
 $C_j = V_{jhx}/(V_{jhx}+V_{jhy}) = 0.571$   
 $b_j = h_c + 0.5b_c = 775.0$     Use 375.0  
 $V_{jhx}/b_j/b_c = 7.527 < 0.25f_{cu}$     OK.  
 $A_{jh} = V_{jhx}/(0.87f_{yh})[0.5 - C_j N/(b_c h_c f_{cu})] = 2751$   
Provide: 9Y10 4Legs.  
 $A_{jv} = (0.4V_{jvx} - C_j N)/(0.87f_{yv}) = 1414$   
Provide: 7Y12 2Legs.

ALONG Y-Y: D-Wy(/)      N<sub>c</sub> = 392.596

BEAM (LHS): 1B17	BEAM (RHS): 1Bc18
$b = 375$	$b = 375$
$h = 700$	$h = 550$
Bars: 2Y25 (Bot)	Bars: 4Y25 (Top)
$A_s = 982$	$A_s = 1963$
$d = 662.5$	$d = 512.5$
$M = 15.954$	$M = -240.850$
$T = 1.25A_s f_y = 564.505$	$T = 1.25A_s f_y = 1129.010$

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$V_{jhy} = 1129.010 + 564.505 = 1693.515$   
 $V_{jvy} = (h_b/h_c)V_{jhy} = 3161.228$   
 $C_j = V_{jhy}/(V_{jhx} + V_{jhy}) = 0.429$   
 $b_j = b + 0.5h_c = 562.5$   
 $V_{jhy}/b_j/h_c = 8.029 < 0.25f_{cu}$  OK.  
 $A_{jh} = V_{jhy}/(0.87f_{yh})[0.5 - C_jN/(b_ch_cf_{cu})] = 2076$   
Provide: 9Y10 3Legs.  
 $A_{jv} = (0.4V_{jvy} - C_jN)/(0.87f_{yv}) = 2739$   
Provide: 5Y20 2Legs.

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