

Project/Job:

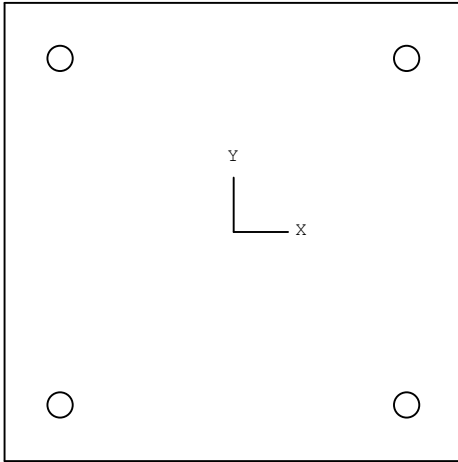
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_4#9\_NX2\_NY2\_cc2.439



Section 1 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

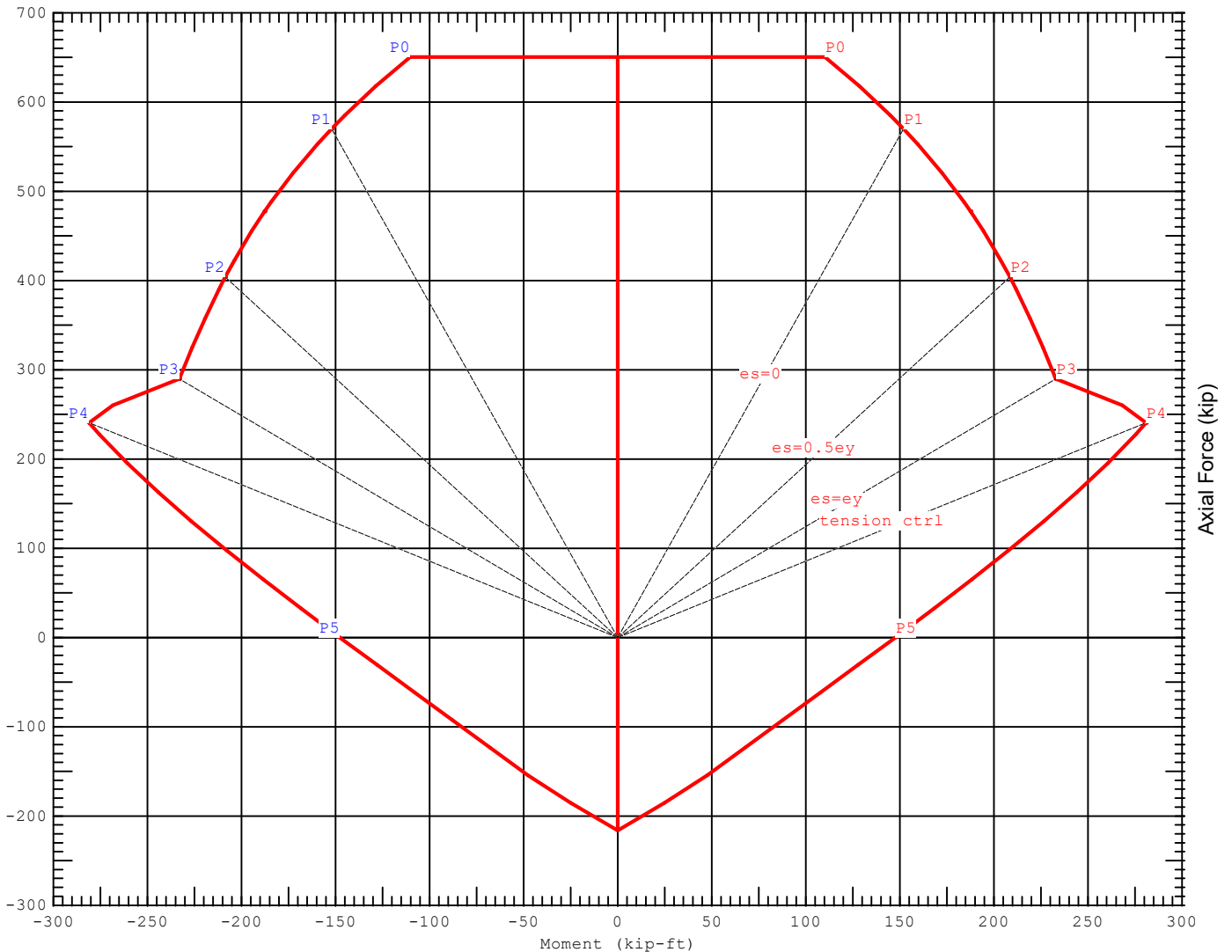
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 4 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 4.00 in<sup>2</sup>  
 Roh: 1.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.99 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	649.90	110.06	-0.00036
P1	569.51	151.65	0.00000
P2	403.63	208.09	0.00103
P3	289.54	232.45	0.00207
P4	240.24	280.34	0.00507
P5	-0.00	147.35	0.01752
Pmin	-216.00	0.00	0.20000

PT	P	My(-)	max es
P0	649.90	-110.06	-0.00036
P1	569.51	-151.65	0.00000
P2	403.63	-208.09	0.00103
P3	289.54	-232.45	0.00207
P4	240.24	-280.34	0.00507
P5	-0.00	-147.35	0.01752
Pmin	-216.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

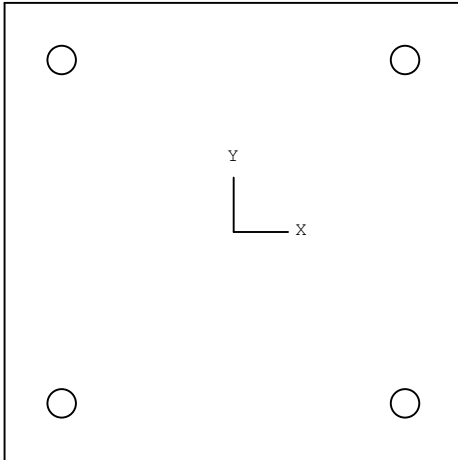
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_4#10\_NX2\_NY2\_cc2.51



Section 2 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

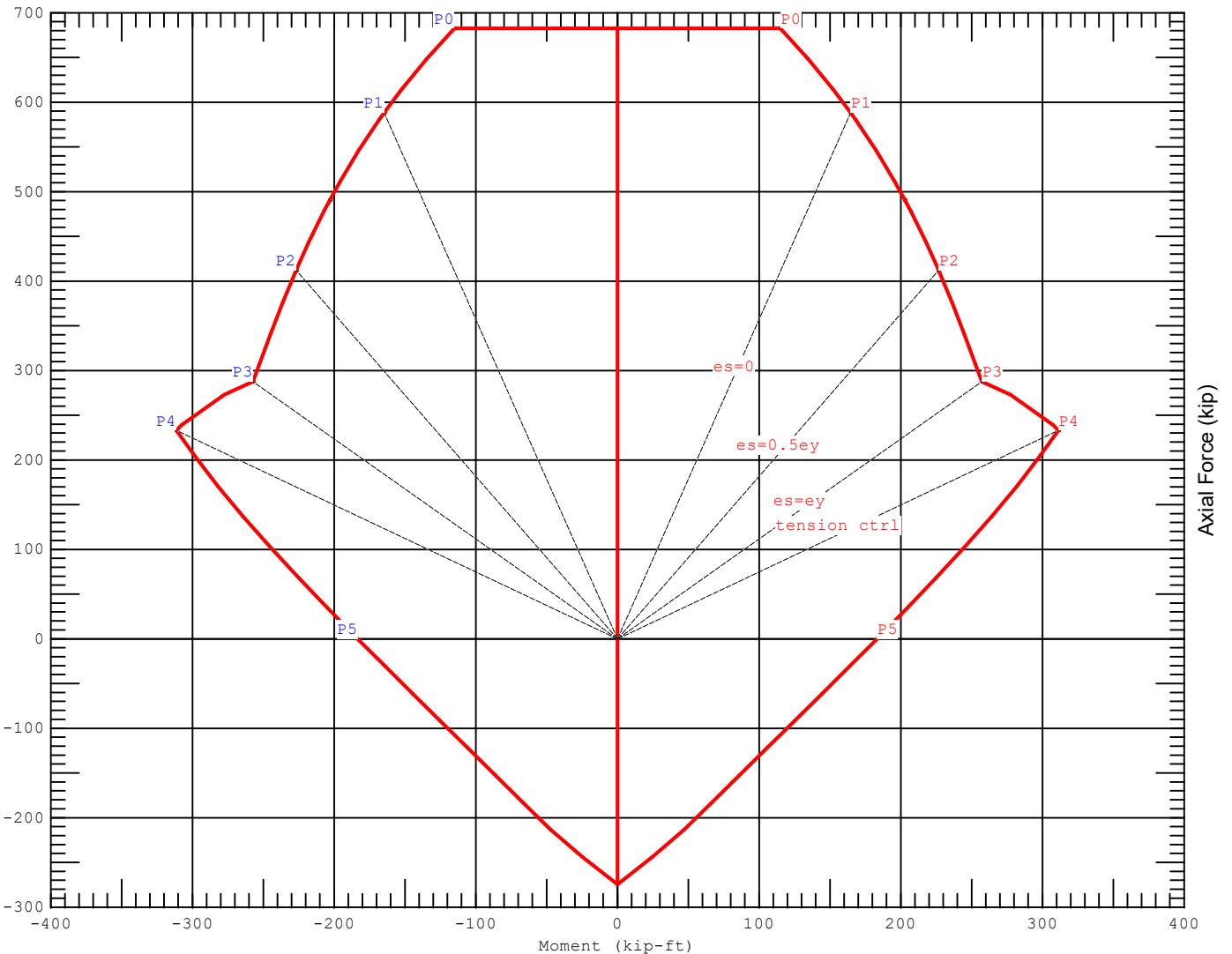
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 4 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 5.08 in<sup>2</sup>  
 Roh: 1.27%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.71 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	682.15	114.98	-0.00040
P1	587.67	164.62	0.00000
P2	411.78	226.71	0.00103
P3	287.46	257.16	0.00207
P4	232.83	311.18	0.00507
P5	-0.00	183.26	0.01527
Pmin	-274.32	0.00	0.20000

PT	P	My(-)	max es
P0	682.15	-114.98	-0.00040
P1	587.67	-164.62	0.00000
P2	411.78	-226.71	0.00103
P3	287.46	-257.16	0.00207
P4	232.83	-311.18	0.00507
P5	-0.00	-183.26	0.01527
Pmin	-274.32	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

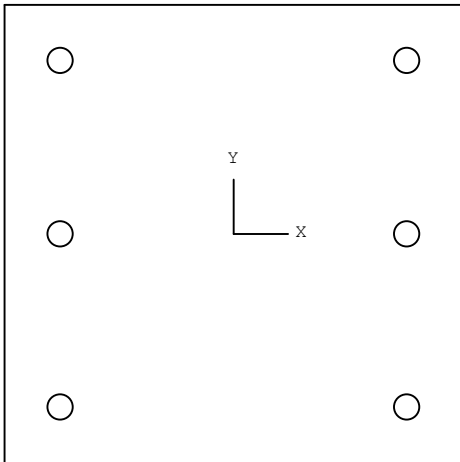
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_6#9\_NX3\_NY2\_cc2.439



Section 3 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

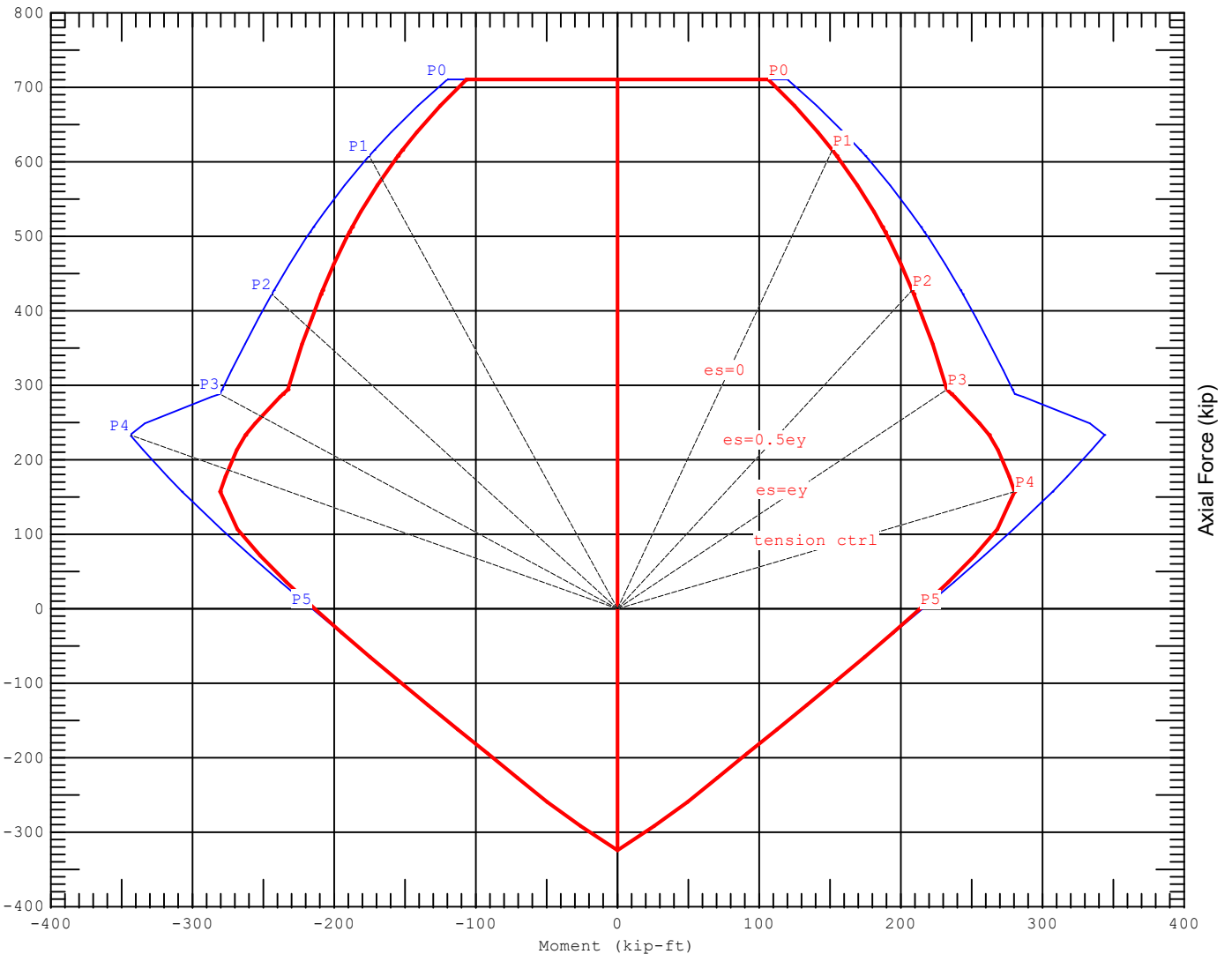
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	709.64	106.42	-0.00038
P1	614.89	151.65	0.00000
P2	426.80	208.09	0.00103
P3	293.82	232.45	0.00207
P4	156.99	280.34	0.00507
P5	-0.01	213.58	0.00999
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	709.64	-119.92	-0.00041
P1	606.85	-175.18	0.00000
P2	421.47	-243.90	0.00103
P3	287.88	-280.55	0.00207
P4	233.00	-343.83	0.00507
P5	0.01	-215.47	0.01411
Pmin	-324.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

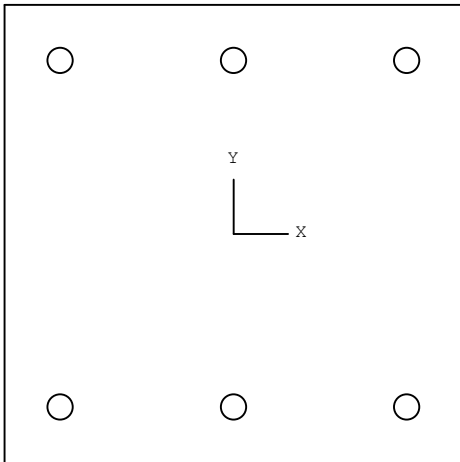
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_6#9\_NX2\_NY3\_cc2.439



Section 4 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

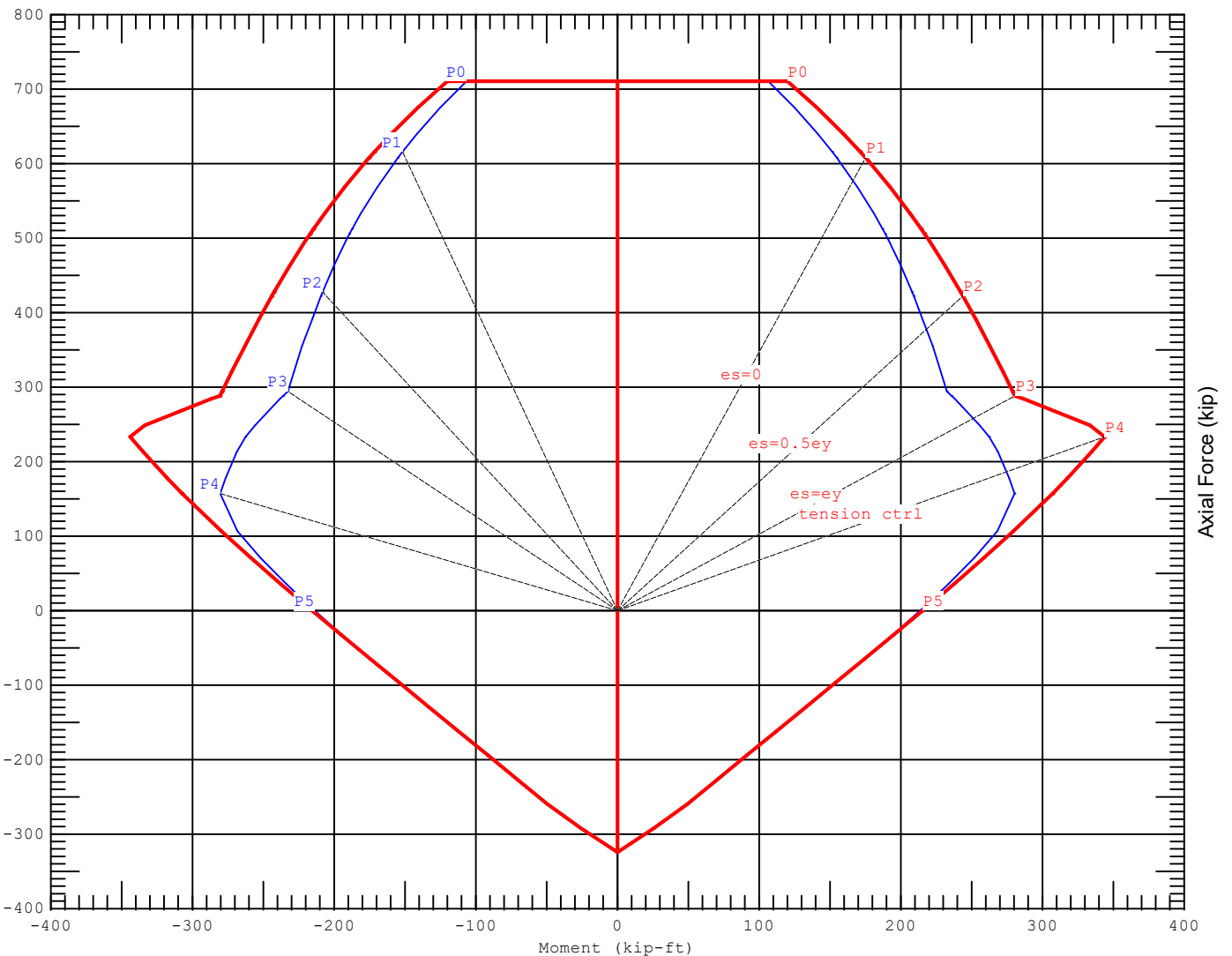
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	709.64	119.92	-0.00041
P1	606.85	175.18	0.00000
P2	421.47	243.90	0.00103
P3	287.88	280.55	0.00207
P4	233.00	343.83	0.00507
P5	0.01	215.47	0.01411
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	709.64	-106.42	-0.00038
P1	614.89	-151.65	0.00000
P2	426.80	-208.09	0.00103
P3	293.82	-232.45	0.00207
P4	156.99	-280.34	0.00507
P5	-0.01	-213.58	0.00999
Pmin	-324.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

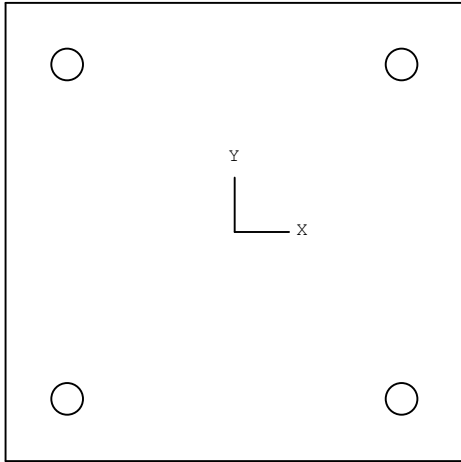
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_4#11\_NX2\_NY2\_cc2.705



Section 5 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

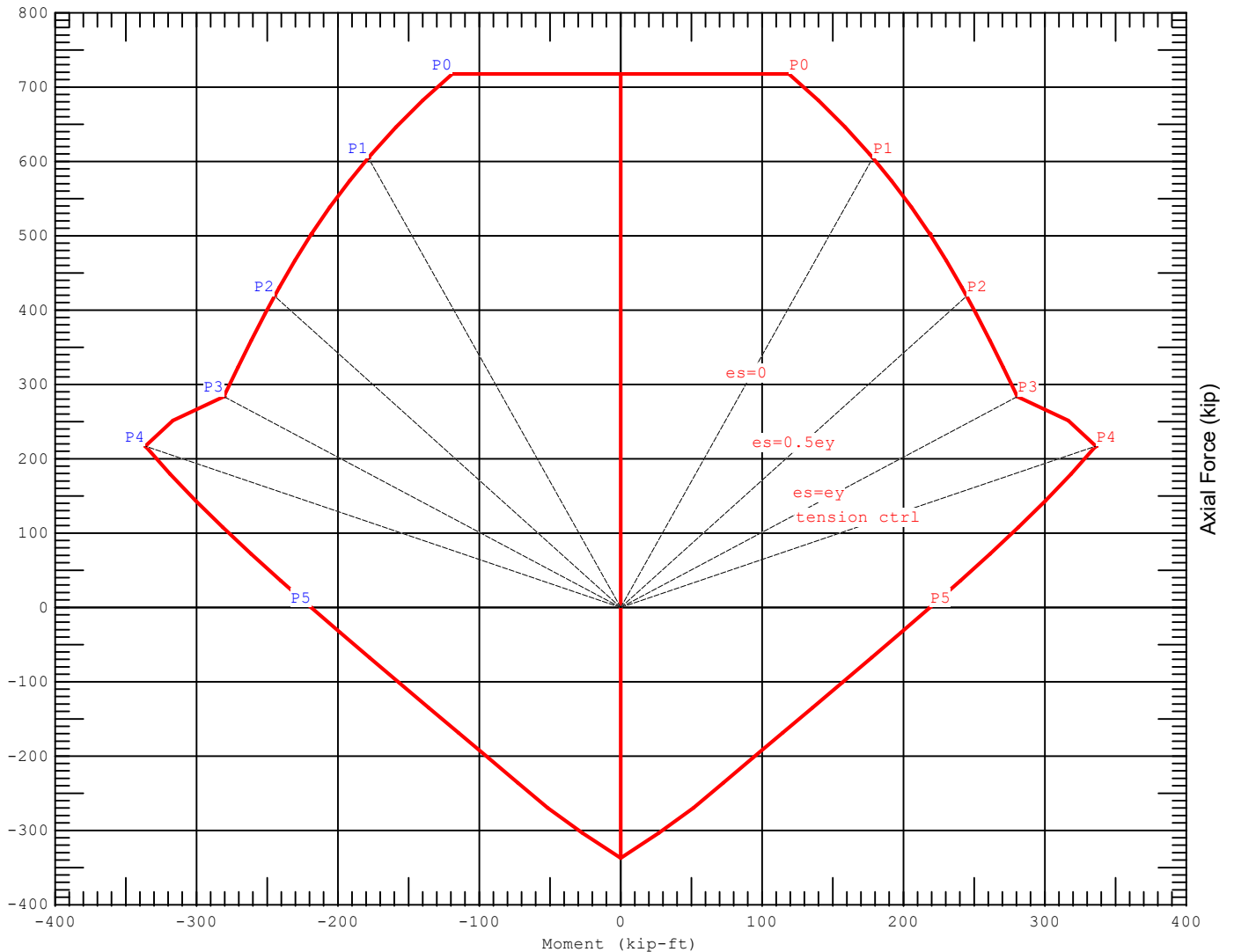
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 4 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 6.24 in<sup>2</sup>  
 Roh: 1.56%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.18 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	716.81	119.02	-0.00047
P1	603.84	178.43	0.00000
P2	418.04	244.74	0.00103
P3	283.25	280.59	0.00207
P4	216.76	336.03	0.00507
P5	0.00	218.81	0.01259
Pmin	-336.96	0.00	0.20000

PT	P	My(-)	max es
P0	716.81	-119.02	-0.00047
P1	603.84	-178.43	0.00000
P2	418.04	-244.74	0.00103
P3	283.25	-280.59	0.00207
P4	216.76	-336.03	0.00507
P5	0.00	-218.81	0.01259
Pmin	-336.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

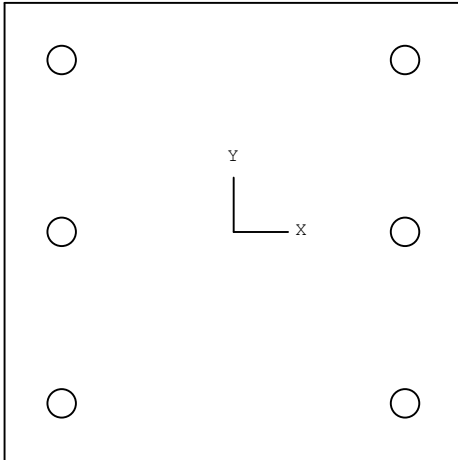
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_6#10\_NX3\_NY2\_cc2.51



Section 6 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

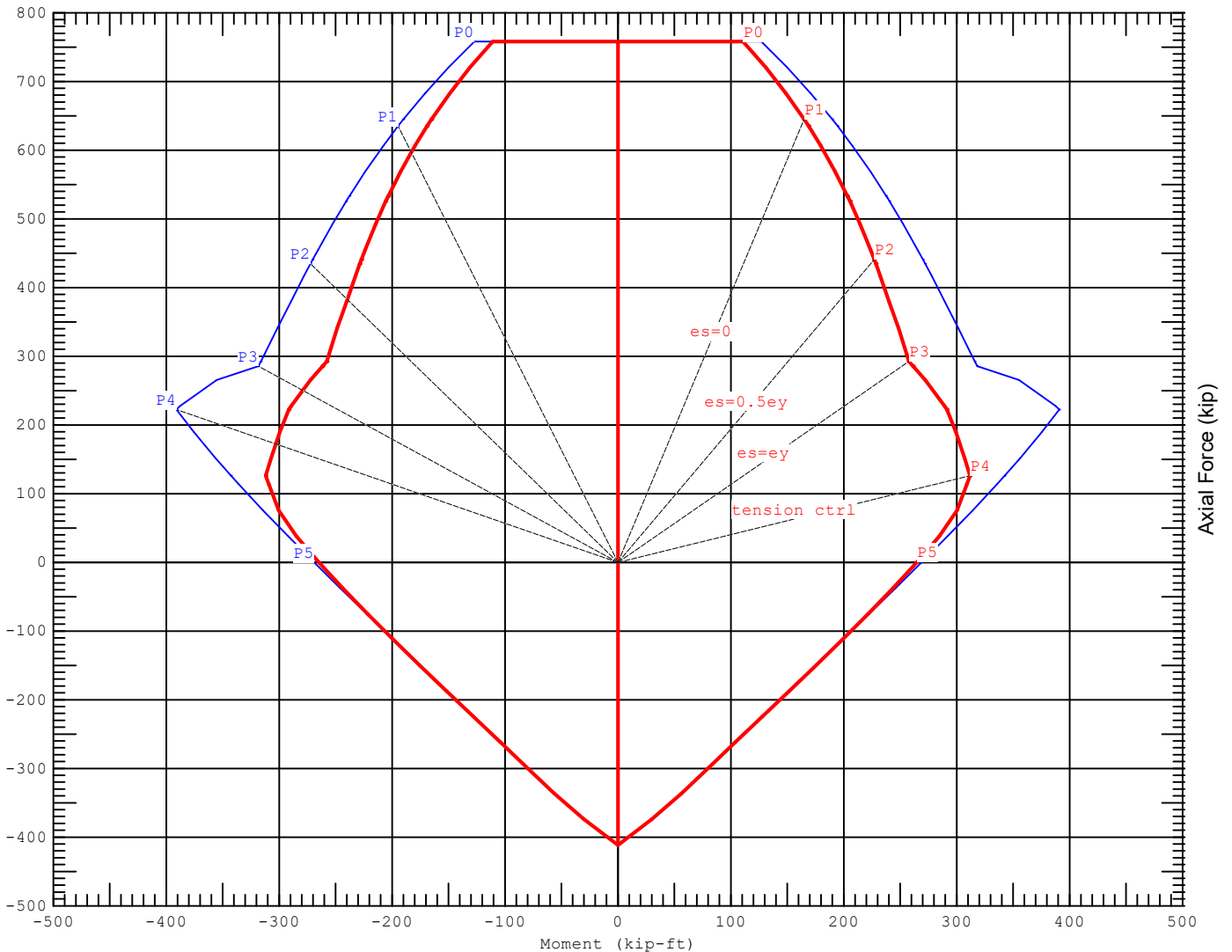
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.90%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	758.04	110.75	-0.00042
P1	644.98	164.62	0.00000
P2	440.76	226.71	0.00103
P3	292.34	257.16	0.00207
P4	125.86	311.18	0.00507
P5	0.01	264.34	0.00801
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	758.04	-126.91	-0.00048
P1	635.10	-194.22	0.00000
P2	434.44	-271.76	0.00103
P3	285.36	-317.68	0.00207
P4	222.39	-390.28	0.00507
P5	-0.01	-268.55	0.01227
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

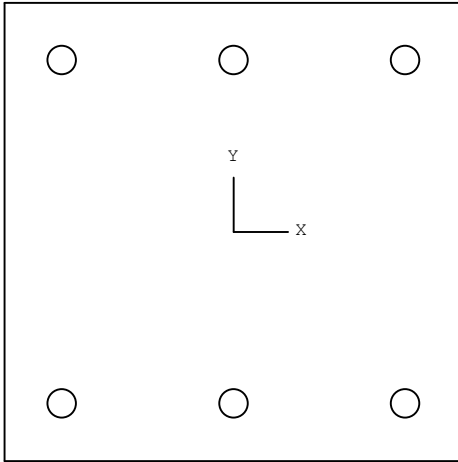
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_6#10\_NX2\_NY3\_cc2.51



Section 7 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

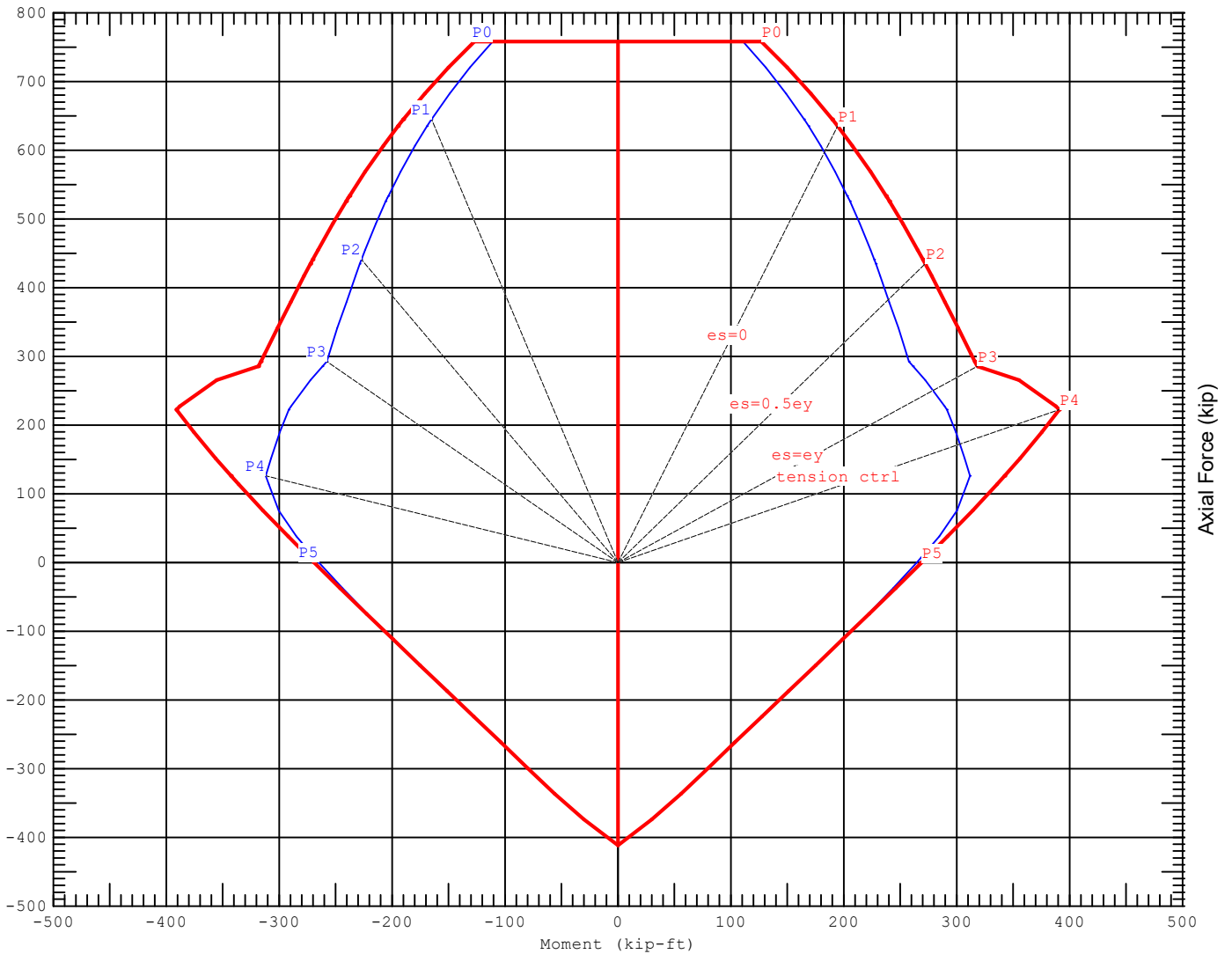
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.90%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	758.04	126.91	-0.00048
P1	635.10	194.22	0.00000
P2	434.44	271.76	0.00103
P3	285.36	317.68	0.00207
P4	222.39	390.28	0.00507
P5	-0.01	268.55	0.01227
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	758.04	-110.75	-0.00042
P1	644.98	-164.62	0.00000
P2	440.76	-226.71	0.00103
P3	292.34	-257.16	0.00207
P4	125.86	-311.18	0.00507
P5	0.01	-264.34	0.00801
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

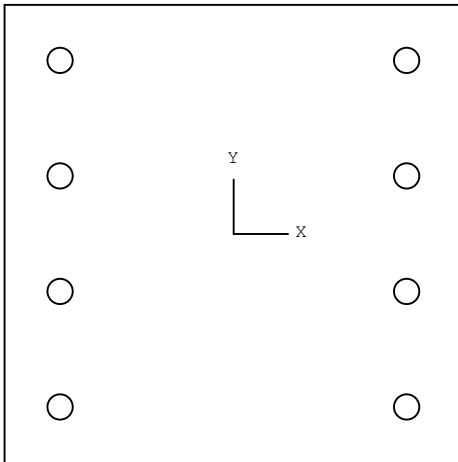
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#9\_NX4\_NY2\_cc2.439



Section 8 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

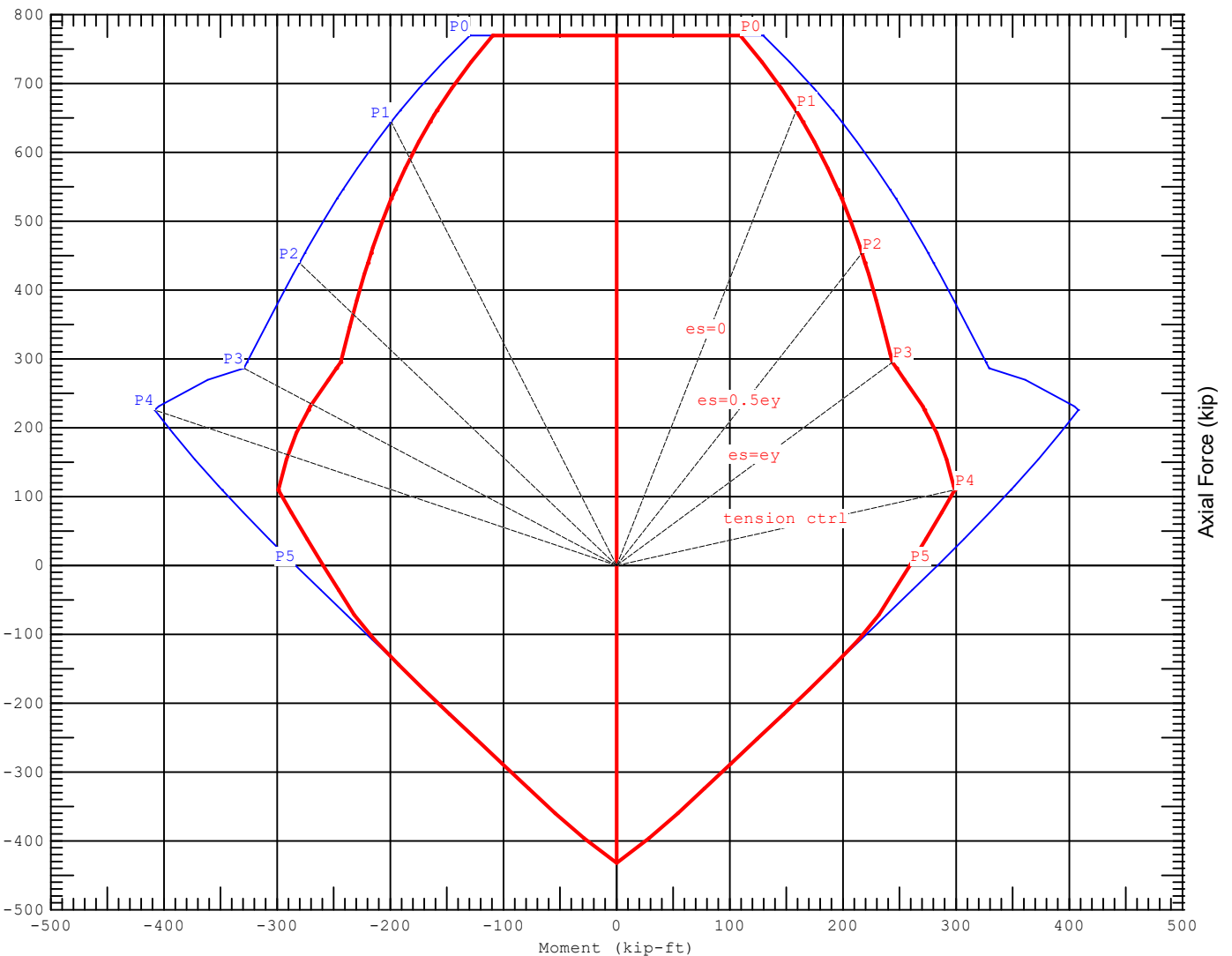
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 2.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	769.39	109.13	-0.00040
P1	660.27	158.47	0.00000
P2	453.29	216.56	0.00103
P3	294.78	243.28	0.00207
P4	109.44	298.24	0.00507
P5	-0.00	258.72	0.00707
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	769.39	-129.33	-0.00048
P1	644.20	-198.71	0.00000
P2	439.32	-279.72	0.00103
P3	286.23	-328.66	0.00207
P4	225.75	-407.31	0.00507
P5	-0.01	-283.12	0.01232
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

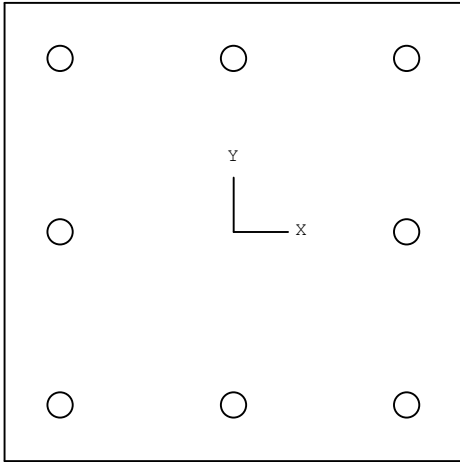
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#9\_NX3\_NY3\_cc2.439



Section 9 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

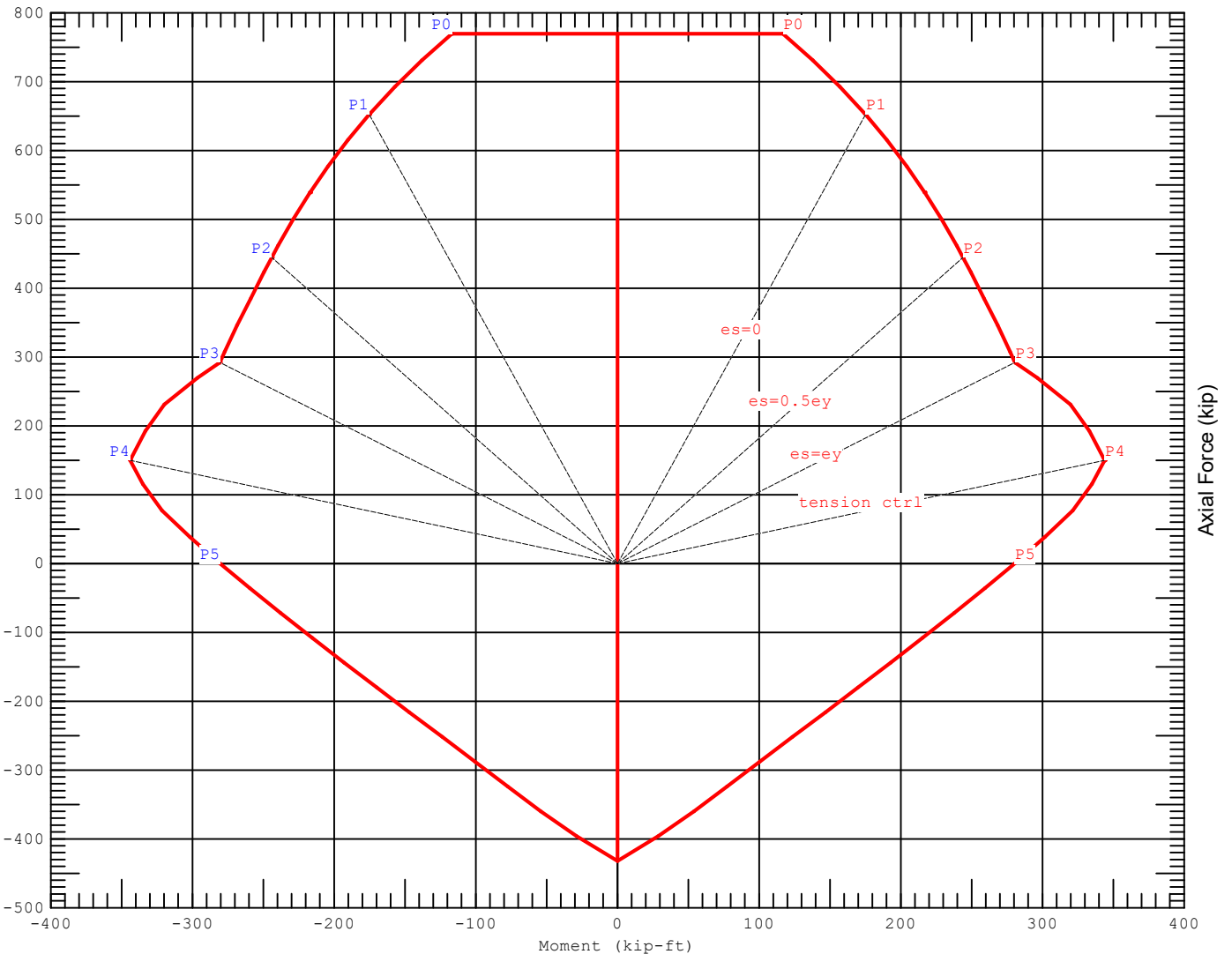
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 2.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	769.39	116.78	-0.00043
P1	652.23	175.18	0.00000
P2	444.65	243.90	0.00103
P3	292.16	280.55	0.00207
P4	149.75	343.83	0.00507
P5	-0.01	280.30	0.00895
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	769.39	-116.78	-0.00043
P1	652.23	-175.18	0.00000
P2	444.65	-243.90	0.00103
P3	292.16	-280.55	0.00207
P4	149.75	-343.83	0.00507
P5	-0.01	-280.30	0.00895
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

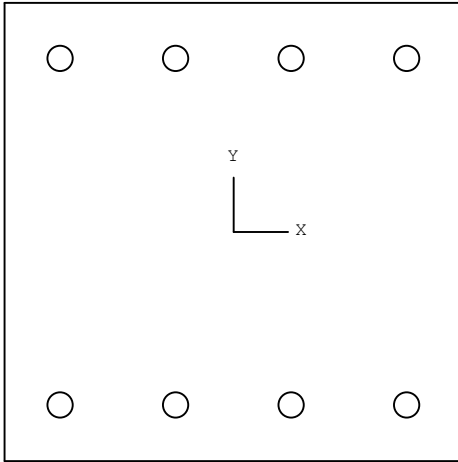
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#9\_NX2\_NY4\_cc2.439



Section 10 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

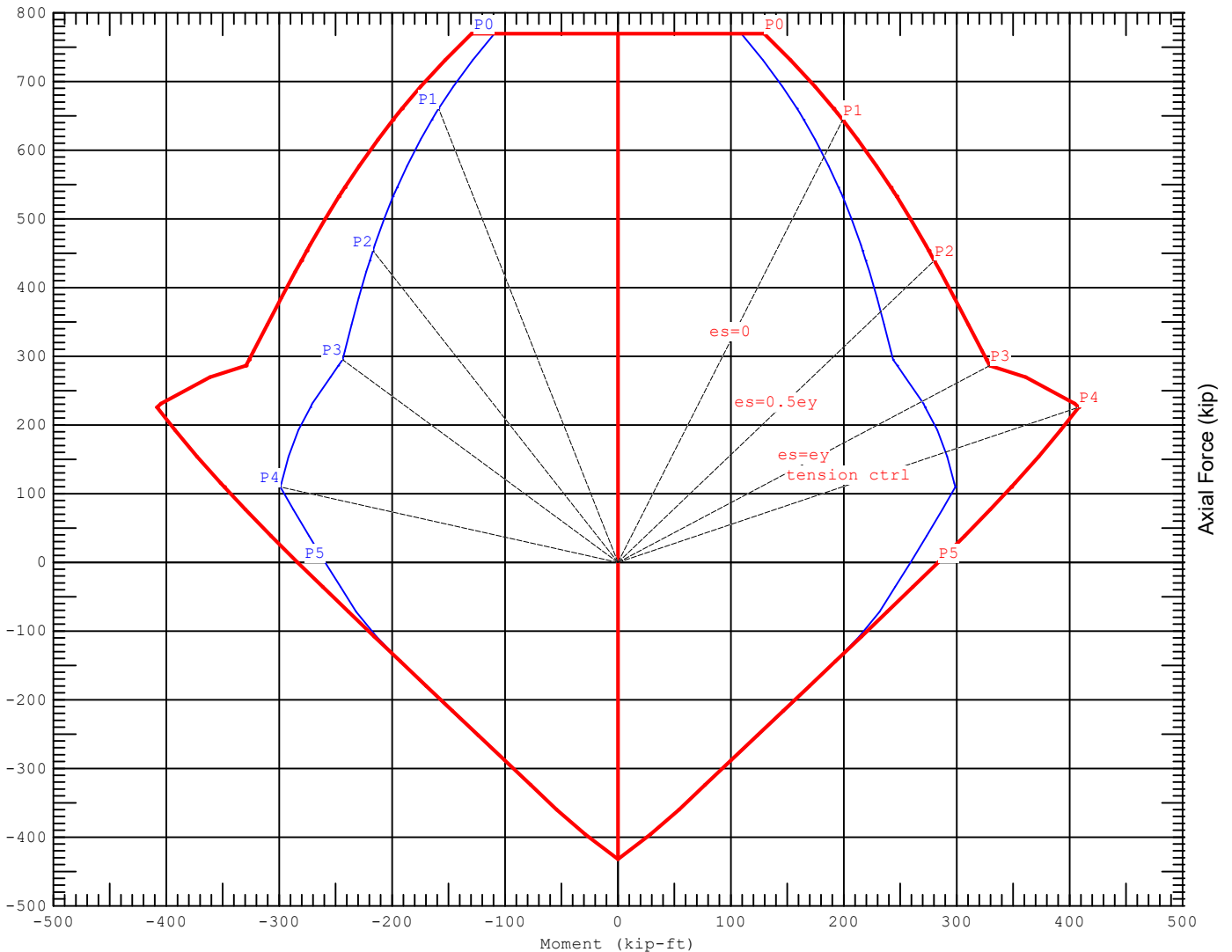
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 2.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	769.39	129.33	-0.00048
P1	644.20	198.71	0.00000
P2	439.32	279.72	0.00103
P3	286.23	328.66	0.00207
P4	225.75	407.31	0.00507
P5	-0.01	283.12	0.01232
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	769.39	-109.13	-0.00040
P1	660.27	-158.47	0.00000
P2	453.29	-216.56	0.00103
P3	294.78	-243.28	0.00207
P4	109.44	-298.24	0.00507
P5	-0.00	-258.72	0.00707
Pmin	-432.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

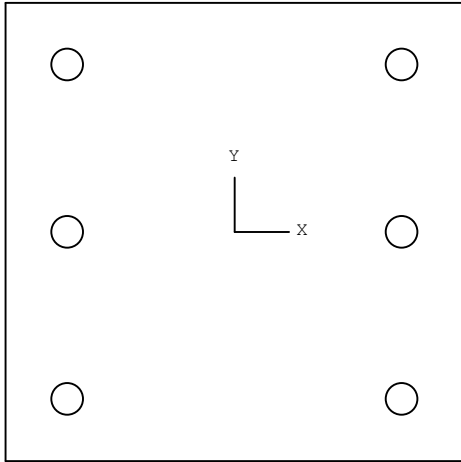
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_6#11\_NX3\_NY2\_cc2.705



Section 11 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

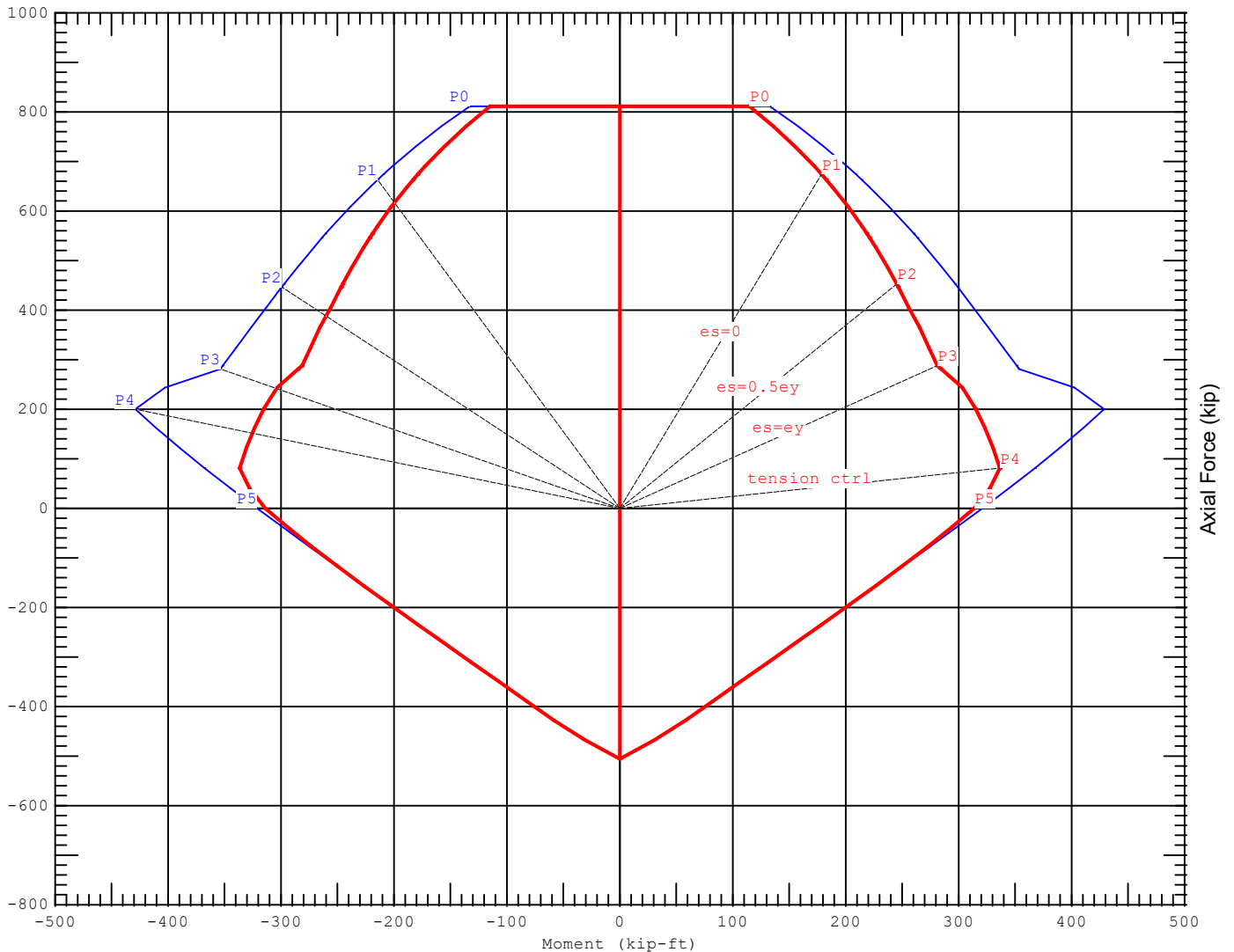
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 2.34%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	810.02	114.57	-0.00049
P1	673.09	178.43	0.00000
P2	452.11	244.74	0.00103
P3	287.31	280.59	0.00207
P4	81.14	336.03	0.00507
P5	-0.01	313.25	0.00628
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	810.01	-132.62	-0.00054
P1	662.09	-213.84	0.00000
P2	445.88	-298.65	0.00103
P3	280.66	-352.99	0.00207
P4	199.70	-428.09	0.00507
P5	-0.01	-320.56	0.01034
Pmin	-505.44	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

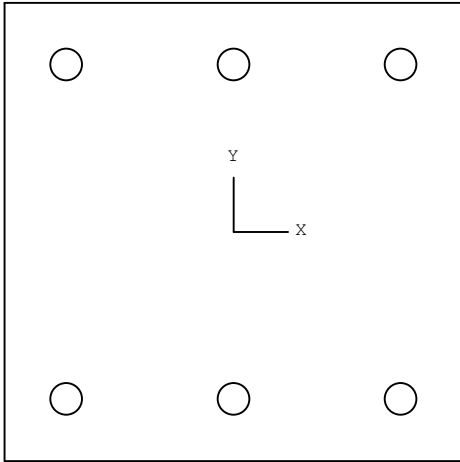
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_6#11\_NX2\_NY3\_cc2.705



Section 12 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

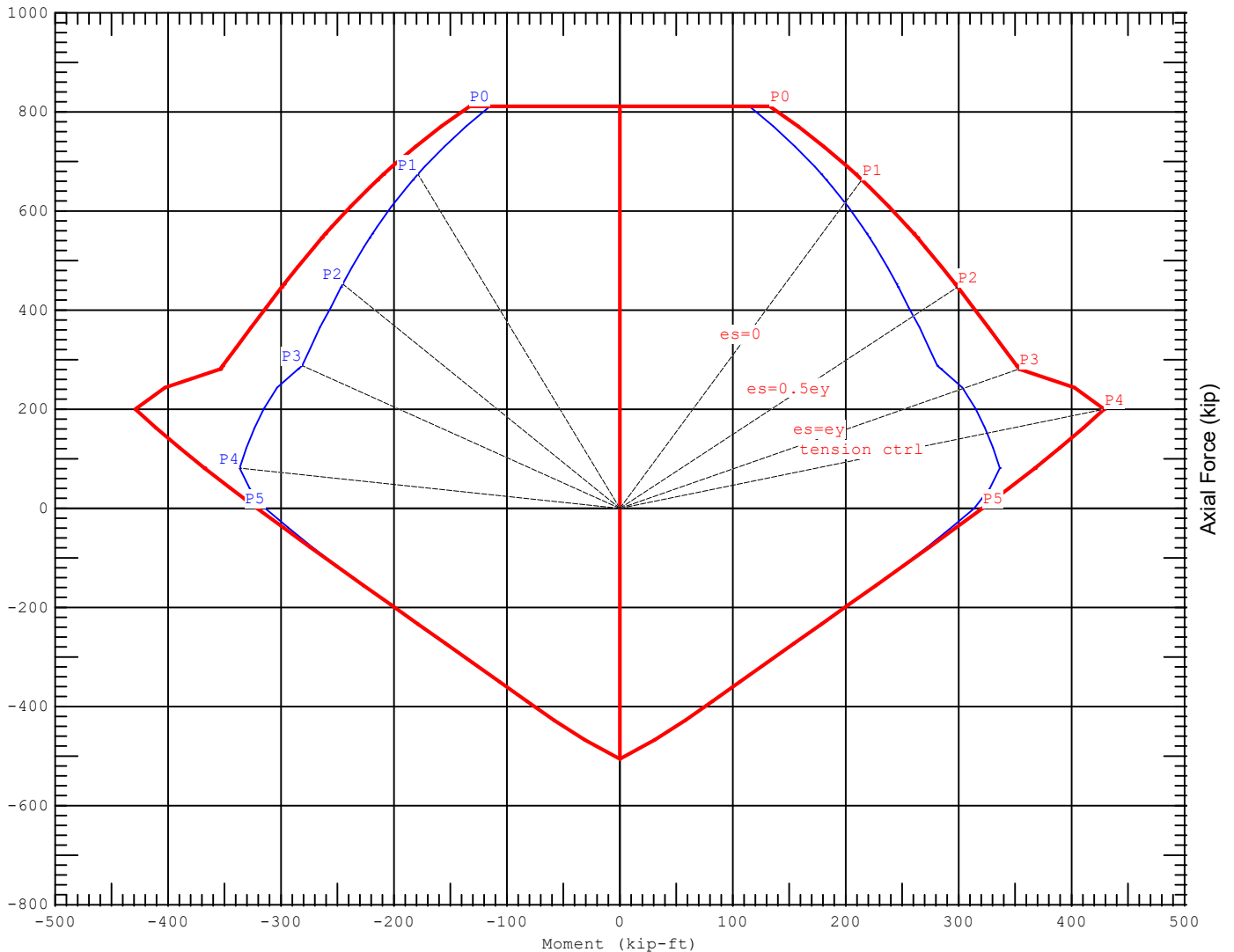
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 2.34%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	810.01	132.62	-0.00054
P1	662.09	213.84	0.00000
P2	445.88	298.65	0.00103
P3	280.66	352.99	0.00207
P4	199.70	428.09	0.00507
P5	-0.01	320.56	0.01034
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	810.02	-114.57	-0.00049
P1	673.09	-178.43	0.00000
P2	452.11	-244.74	0.00103
P3	287.31	-280.59	0.00207
P4	81.14	-336.03	0.00507
P5	-0.01	-313.25	0.00628
Pmin	-505.44	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

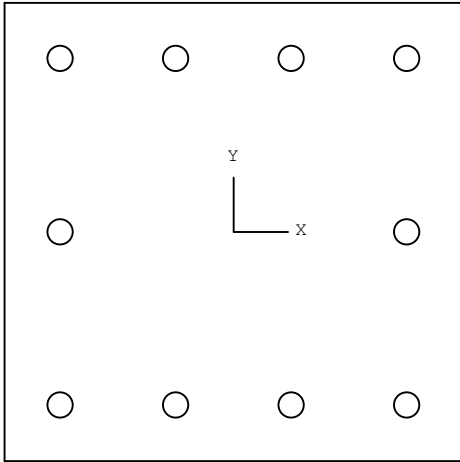
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#9\_NX3\_NY4\_cc2.439



Section 13 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

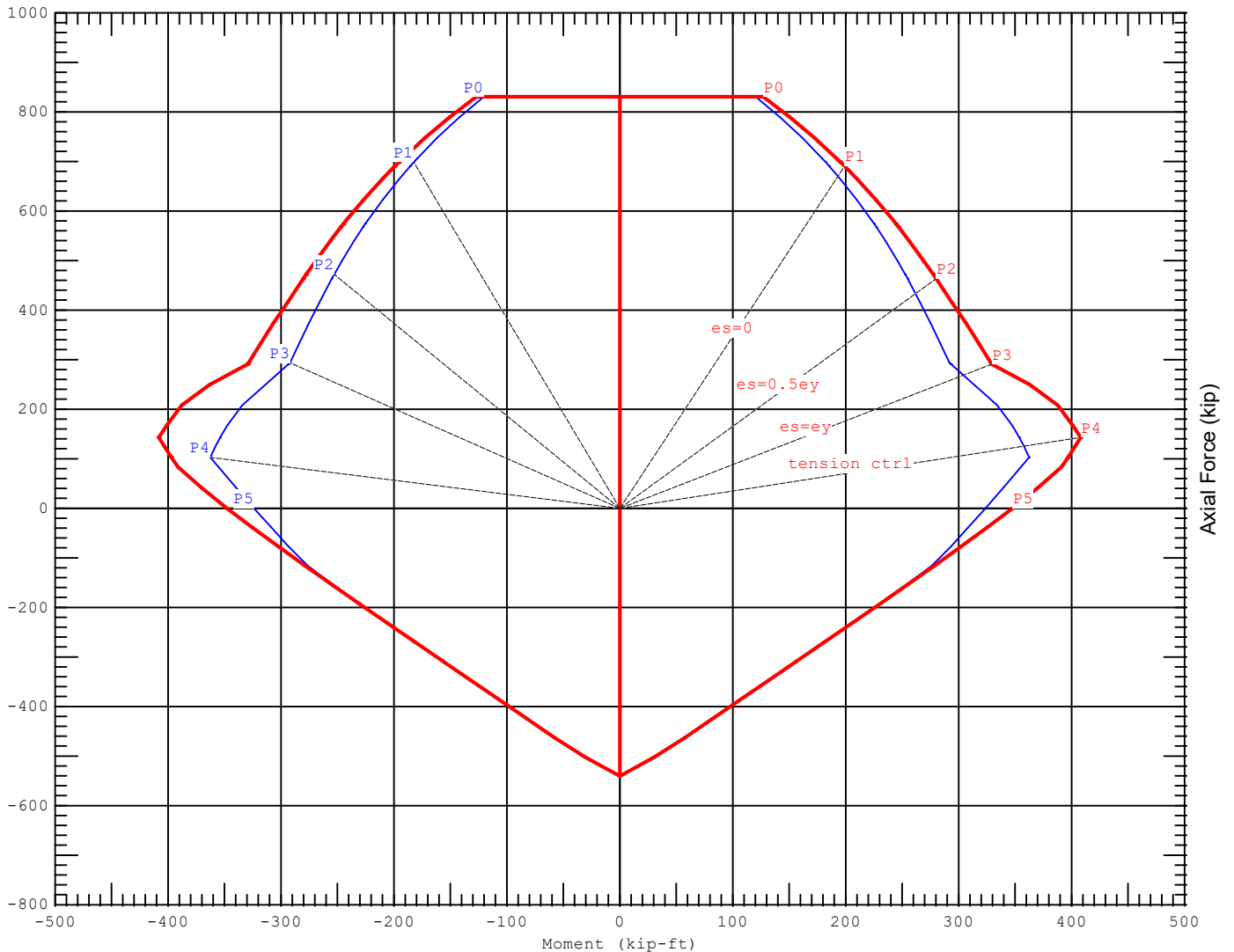
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	829.13	126.93	-0.00050
P1	689.58	198.71	0.00000
P2	462.49	279.72	0.00103
P3	290.50	328.66	0.00207
P4	142.50	407.31	0.00507
P5	-0.01	347.04	0.00824
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	829.14	-120.18	-0.00046
P1	697.61	-182.00	0.00000
P2	471.13	-252.38	0.00103
P3	293.13	-291.38	0.00207
P4	102.20	-361.72	0.00507
P5	0.01	-323.30	0.00680
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

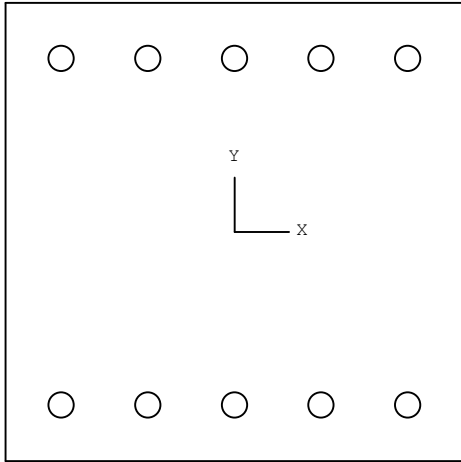
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#9\_NX2\_NY5\_cc2.439



Section 14 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

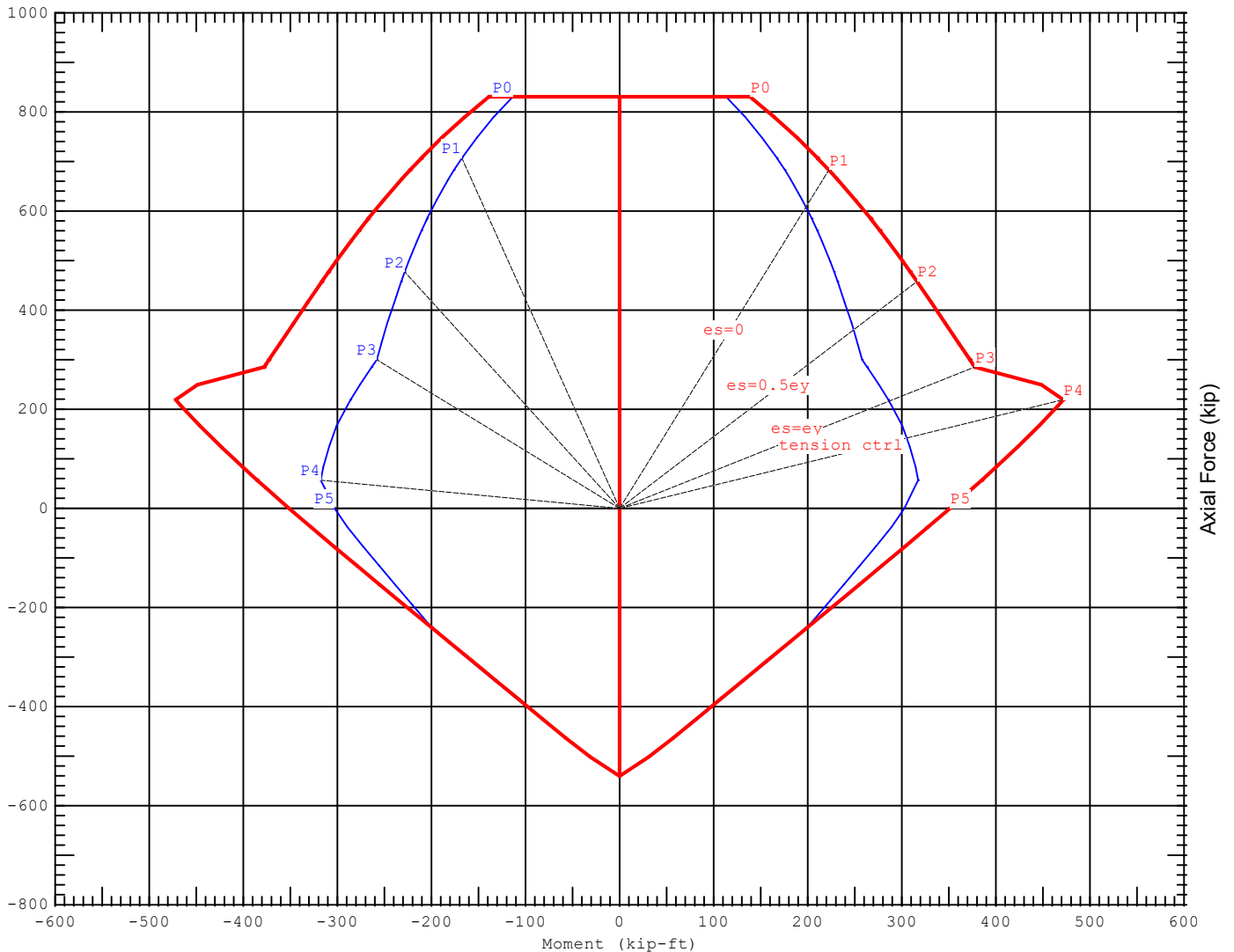
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	829.14	138.38	-0.00053
P1	681.54	222.24	0.00000
P2	457.16	315.53	0.00103
P3	284.57	376.76	0.00207
P4	218.51	470.79	0.00507
P5	-0.00	350.59	0.01111
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	829.13	-113.06	-0.00042
P1	705.65	-167.00	0.00000
P2	476.46	-227.67	0.00103
P3	299.06	-257.33	0.00207
P4	56.42	-316.71	0.00507
P5	-0.00	-302.22	0.00574
Pmin	-540.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

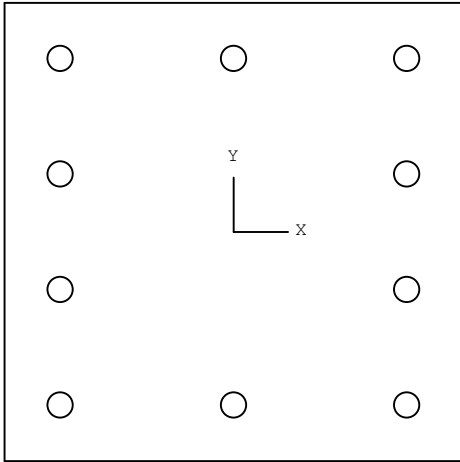
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#9\_NX4\_NY3\_cc2.439



Section 15 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

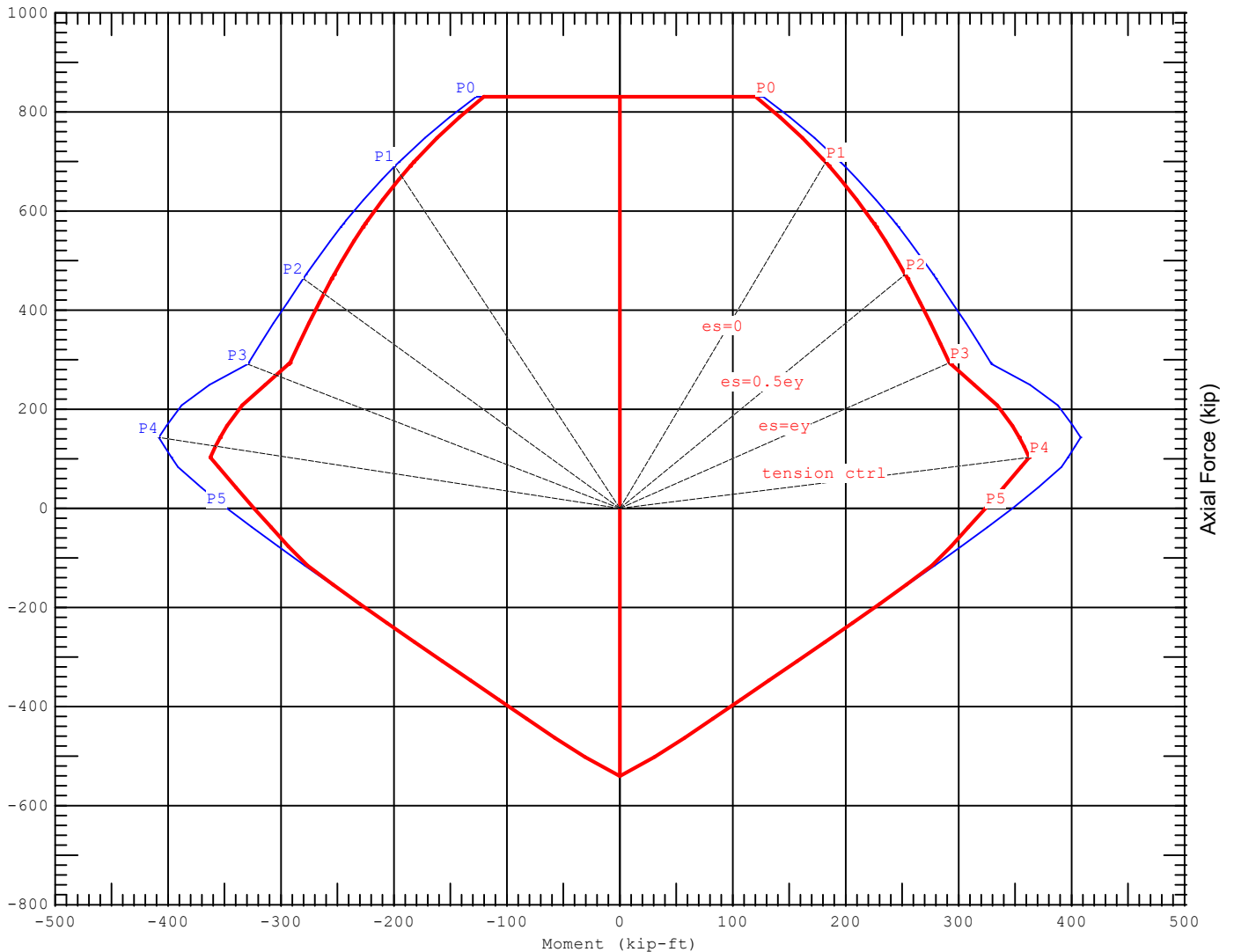
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	829.14	120.18	-0.00046
P1	697.61	182.00	0.00000
P2	471.13	252.38	0.00103
P3	293.13	291.38	0.00207
P4	102.20	361.72	0.00507
P5	0.01	323.30	0.00680
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	829.13	-126.93	-0.00050
P1	689.58	-198.71	0.00000
P2	462.49	-279.72	0.00103
P3	290.50	-328.66	0.00207
P4	142.50	-407.31	0.00507
P5	-0.01	-347.04	0.00824
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

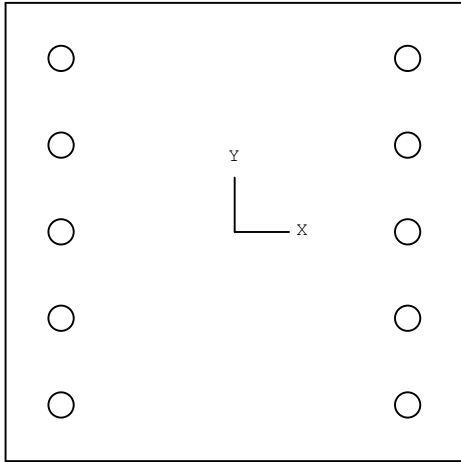
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#9\_NX5\_NY2\_cc2.439



Section 16 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

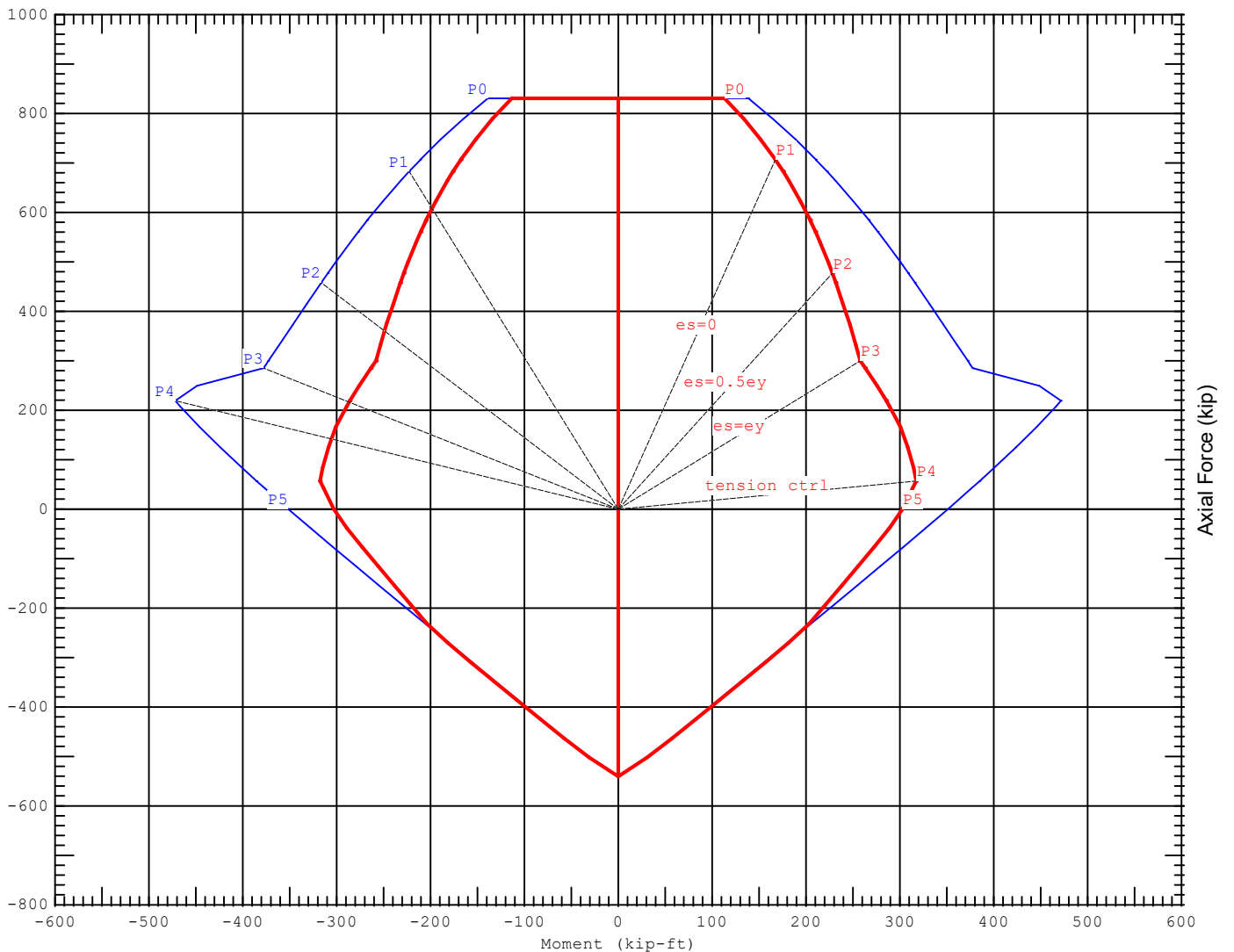
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	829.13	113.06	-0.00042
P1	705.65	167.00	0.00000
P2	476.46	227.67	0.00103
P3	299.06	257.33	0.00207
P4	56.42	316.71	0.00507
P5	-0.00	302.22	0.00574
Pmin	-540.00	-0.00	0.20000

PT	P	My(-)	max es
P0	829.14	-138.38	-0.00053
P1	681.54	-222.24	0.00000
P2	457.16	-315.53	0.00103
P3	284.57	-376.76	0.00207
P4	218.51	-470.79	0.00507
P5	-0.00	-350.59	0.01111
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

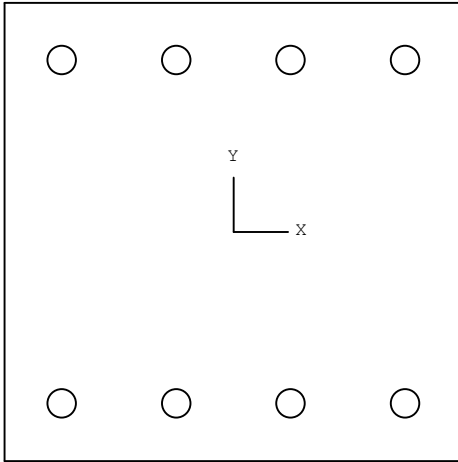
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#10\_NX2\_NY4\_cc2.51



Section 17 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.54%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

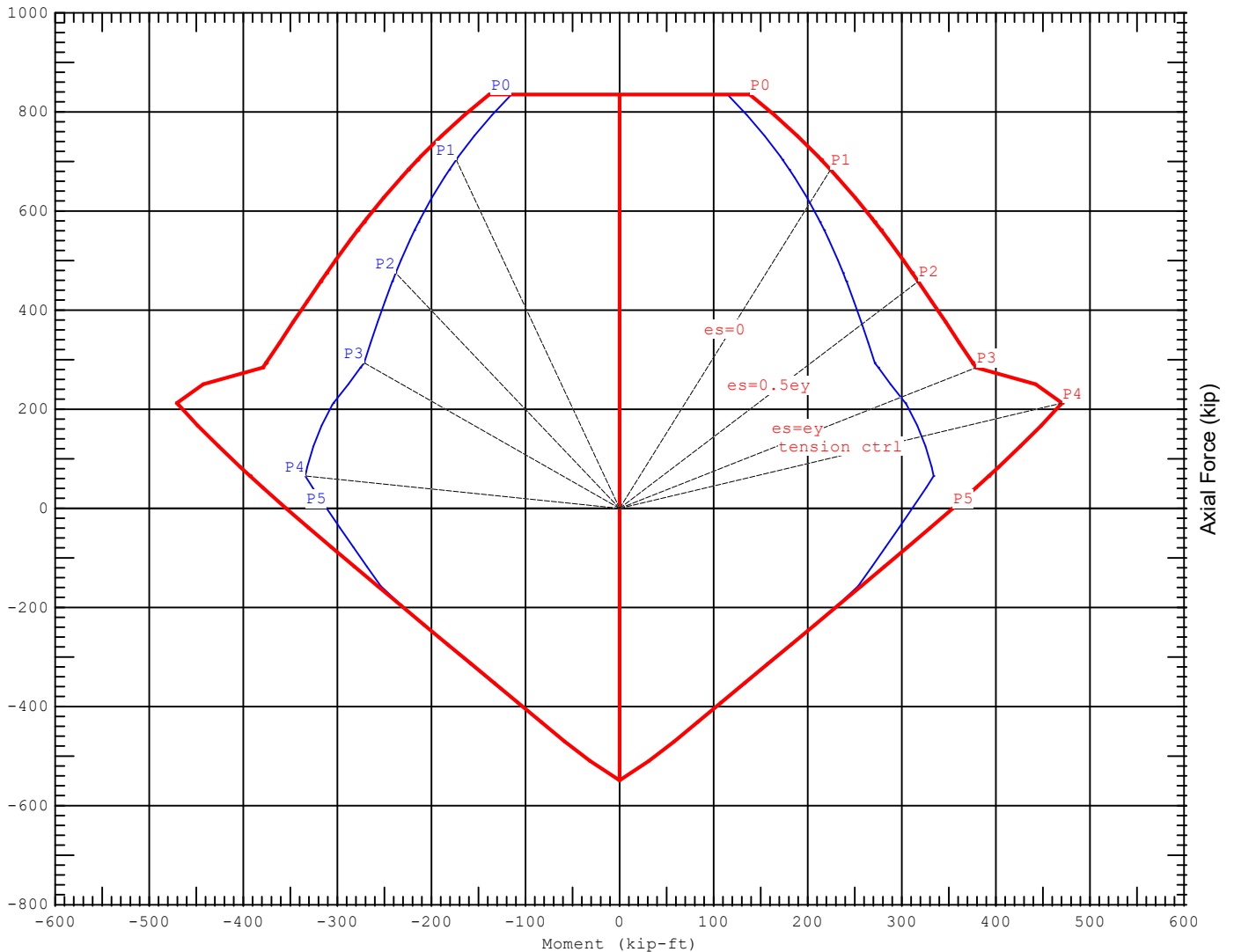
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	833.92	138.26	-0.00054
P1	682.52	223.82	0.00000
P2	457.10	316.82	0.00103
P3	283.25	378.20	0.00207
P4	211.95	469.37	0.00507
P5	-0.01	353.44	0.01072
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	833.92	-114.44	-0.00045
P1	702.28	-173.15	0.00000
P2	473.95	-237.30	0.00103
P3	293.00	-270.70	0.00207
P4	65.06	-333.35	0.00507
P5	-0.00	-310.67	0.00606
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

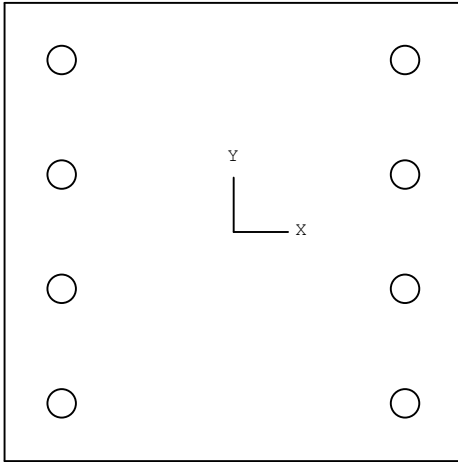
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#10\_NX4\_NY2\_cc2.51



Section 18 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

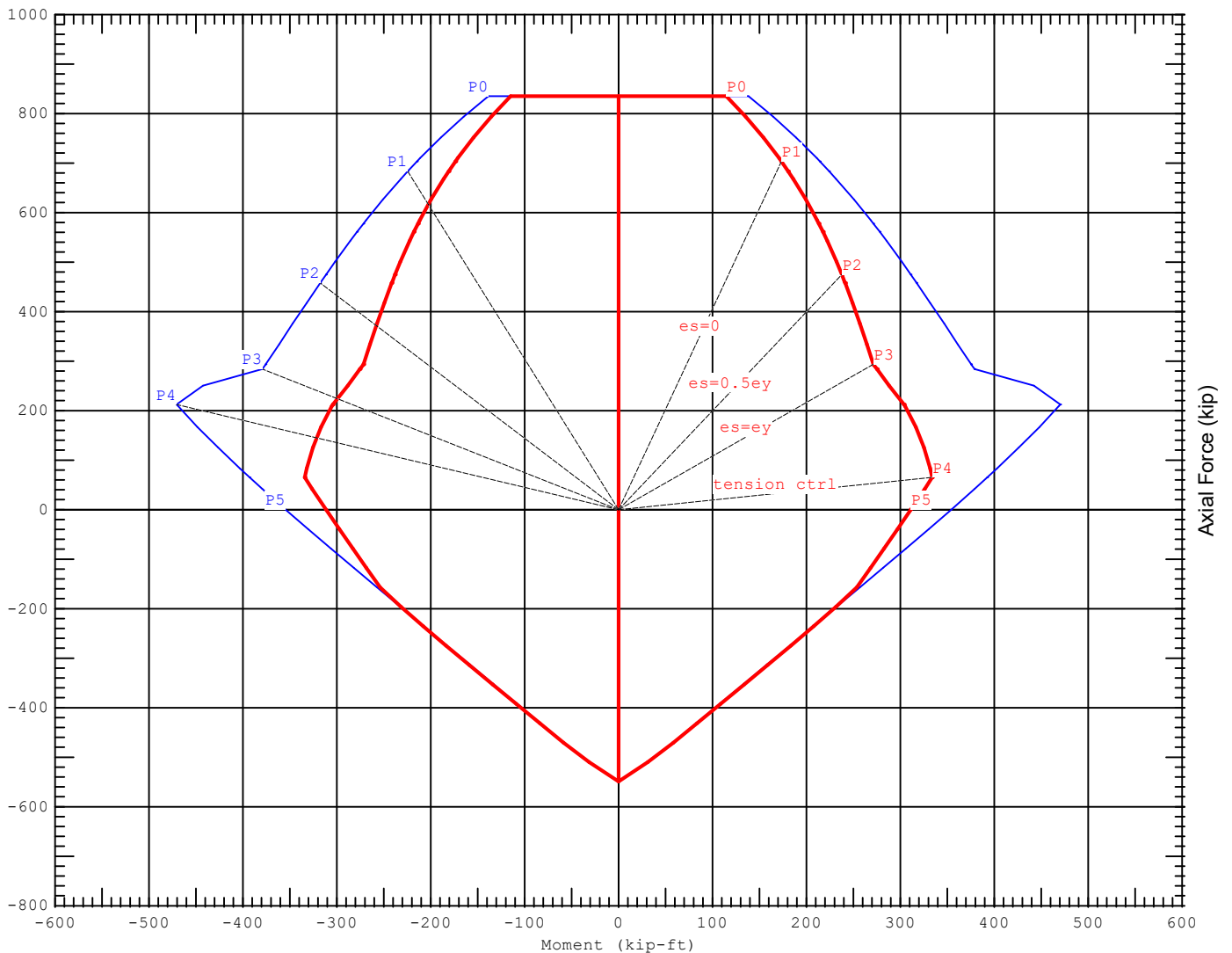
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.54%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	833.92	114.44	-0.00045
P1	702.28	173.15	0.00000
P2	473.95	237.30	0.00103
P3	293.00	270.70	0.00207
P4	65.06	333.35	0.00507
P5	-0.00	310.67	0.00606
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	833.92	-138.26	-0.00054
P1	682.52	-223.82	0.00000
P2	457.10	-316.82	0.00103
P3	283.25	-378.20	0.00207
P4	211.95	-469.37	0.00507
P5	-0.01	-353.44	0.01072
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

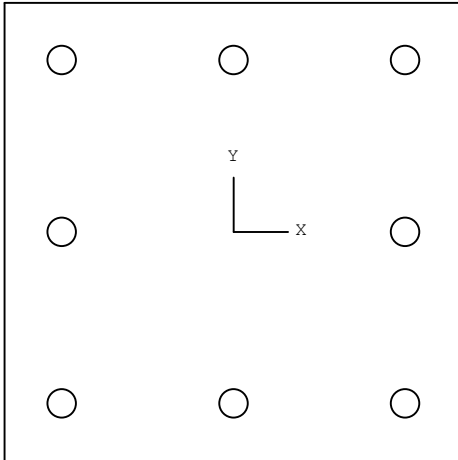
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#10\_NX3\_NY3\_cc2.51



Section 19 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

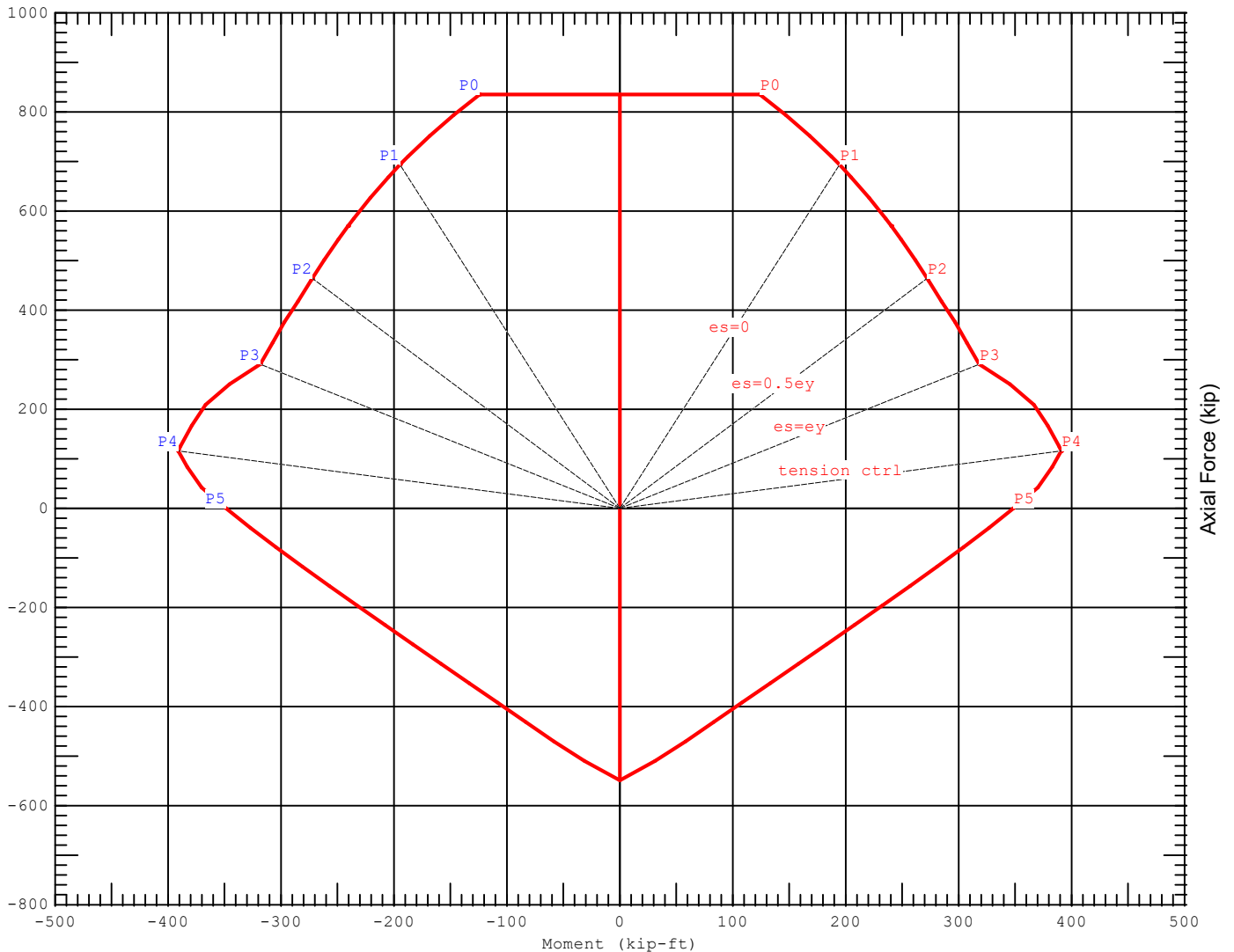
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.54%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	833.91	123.76	-0.00050
P1	692.40	194.22	0.00000
P2	463.42	271.76	0.00103
P3	290.23	317.68	0.00207
P4	115.43	390.28	0.00507
P5	0.01	348.02	0.00725
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	833.91	-123.76	-0.00050
P1	692.40	-194.22	0.00000
P2	463.42	-271.76	0.00103
P3	290.23	-317.68	0.00207
P4	115.43	-390.28	0.00507
P5	0.01	-348.02	0.00725
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

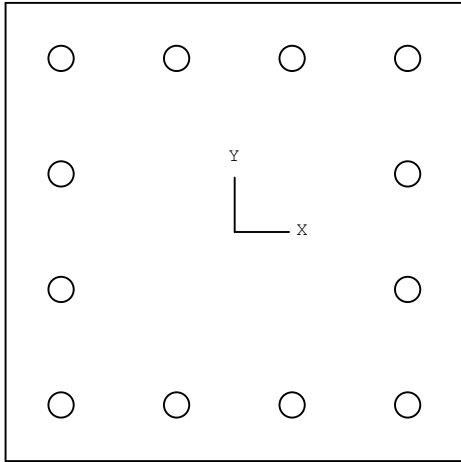
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#9\_NX4\_NY4\_cc2.439



Section 20 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

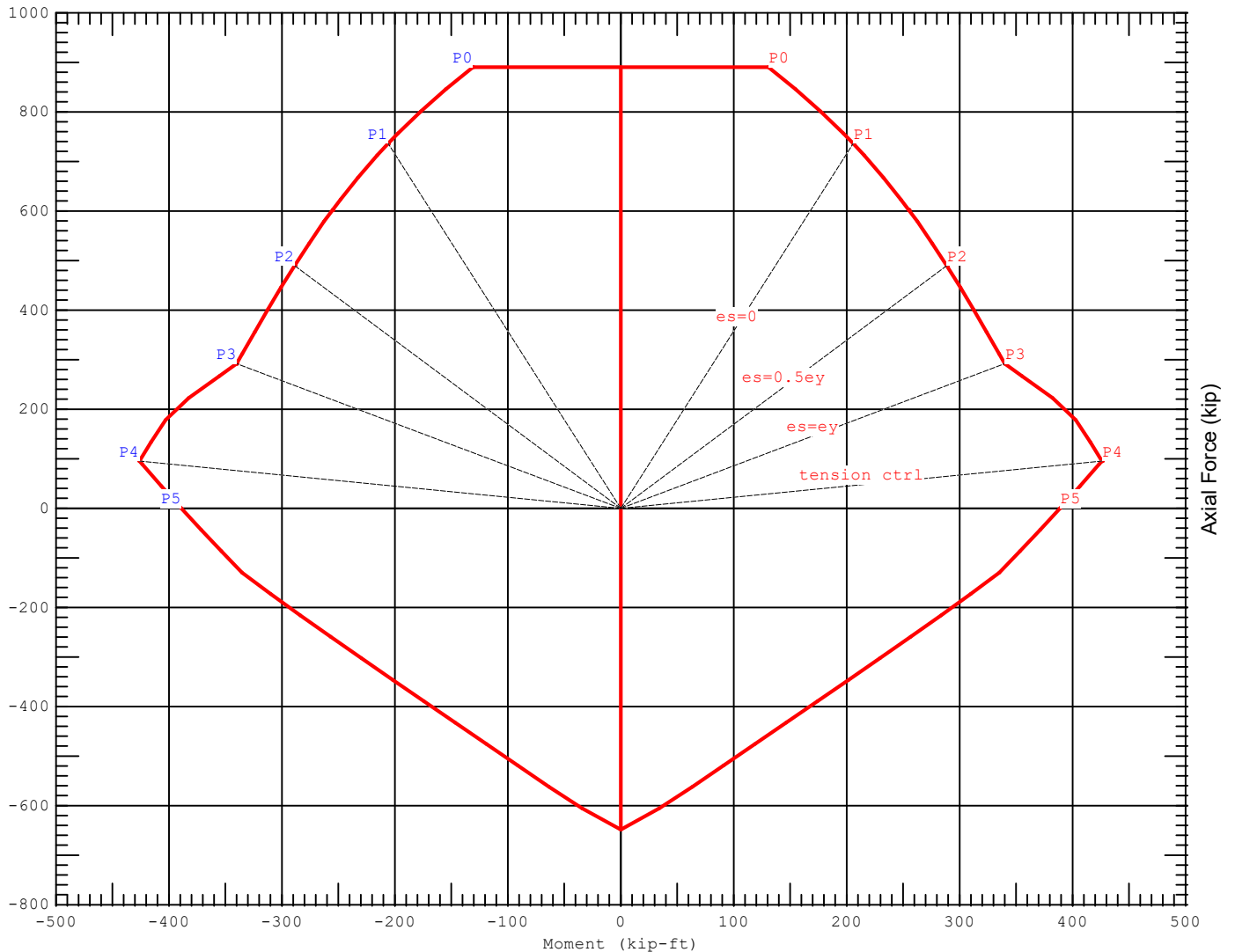
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 3.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	888.88	130.47	-0.00051
P1	734.96	205.53	0.00000
P2	488.98	288.19	0.00103
P3	291.47	339.48	0.00207
P4	94.95	425.20	0.00507
P5	0.00	388.27	0.00657
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	888.88	-130.47	-0.00051
P1	734.96	-205.53	0.00000
P2	488.98	-288.19	0.00103
P3	291.47	-339.48	0.00207
P4	94.95	-425.20	0.00507
P5	0.00	-388.27	0.00657
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

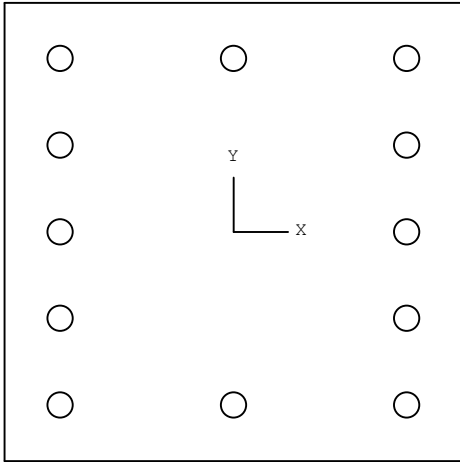
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#9\_NX5\_NY3\_cc2.439



Section 21 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

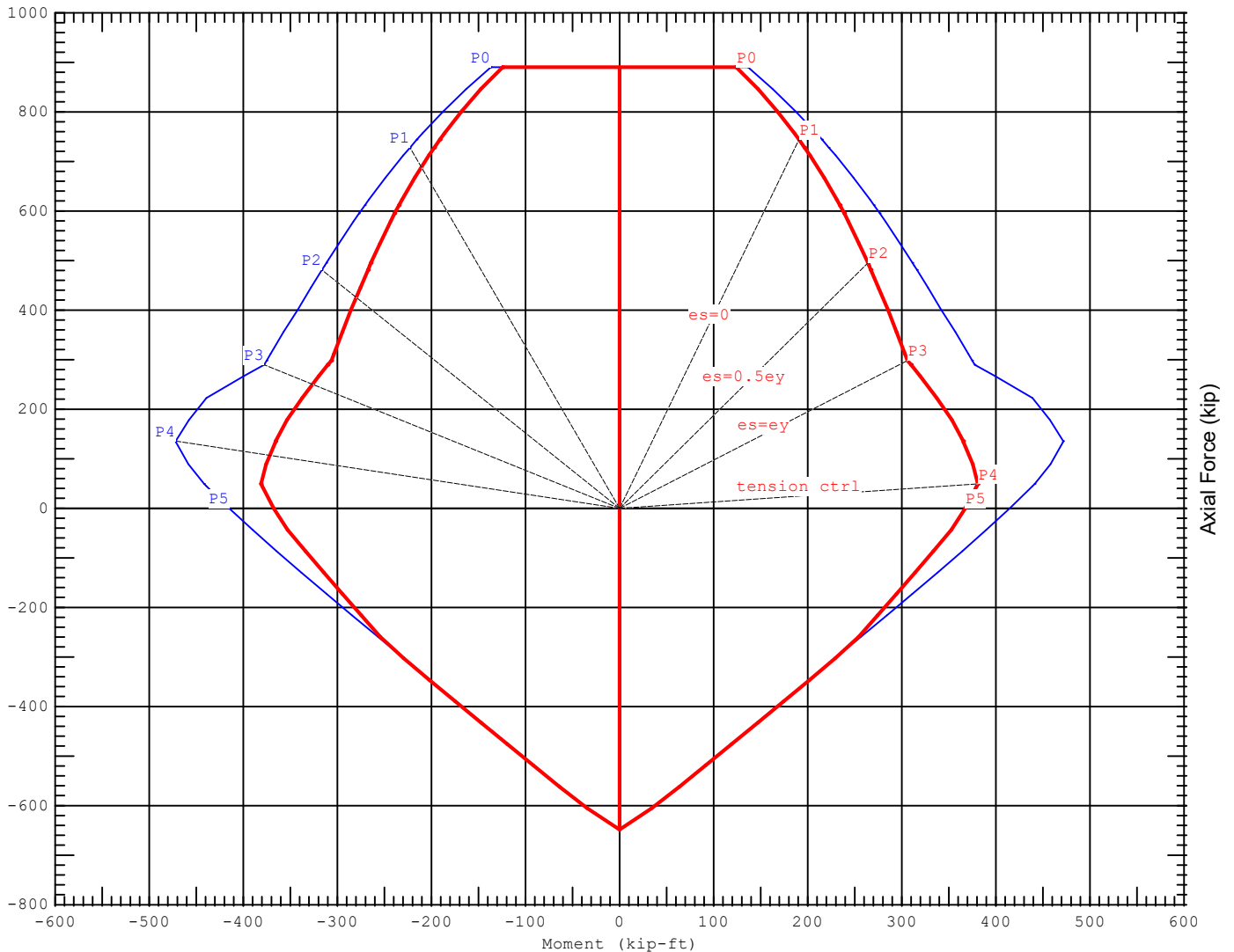
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 3.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	888.89	123.77	-0.00048
P1	743.00	190.52	0.00000
P2	494.31	263.49	0.00103
P3	297.41	305.43	0.00207
P4	49.17	380.19	0.00507
P5	0.01	366.84	0.00562
Pmin	-648.00	-0.00	0.20000

PT	P	My(-)	max es
P0	888.88	-136.51	-0.00054
P1	726.92	-222.24	0.00000
P2	480.33	-315.53	0.00103
P3	288.85	-376.76	0.00207
P4	135.26	-470.79	0.00507
P5	-0.01	-413.85	0.00771
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

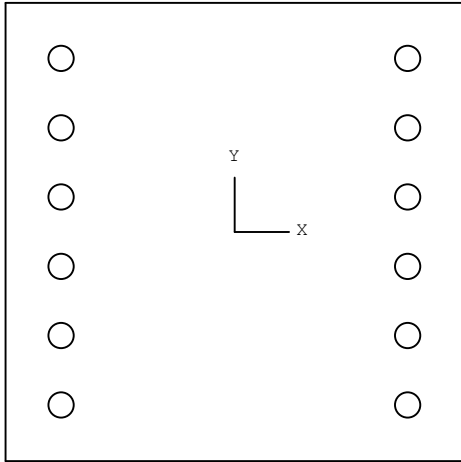
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#9\_NX6\_NY2\_cc2.439



Section 22 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

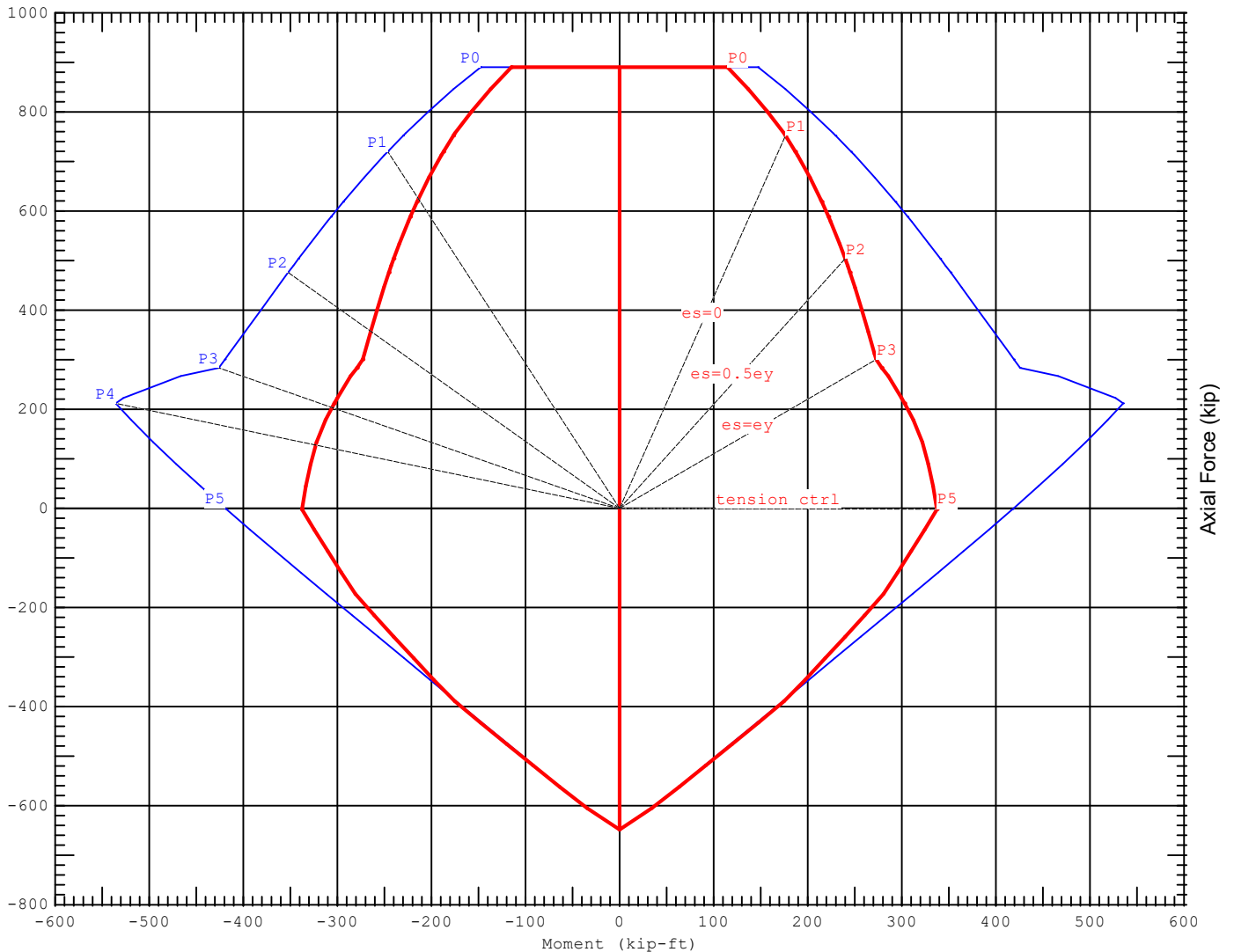
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 3.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	888.88	114.70	-0.00046
P1	751.03	176.20	0.00000
P2	502.95	239.43	0.00103
P3	300.03	272.26	0.00207
P4	-1.77	336.79	0.00507
P5	0.01	336.66	0.00505
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	888.89	-147.22	-0.00057
P1	718.88	-245.77	0.00000
P2	475.00	-351.35	0.00103
P3	282.91	-424.86	0.00207
P4	211.26	-534.28	0.00507
P5	0.00	-417.95	0.01022
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

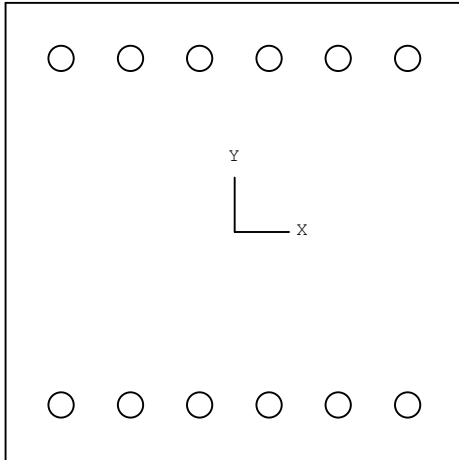
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#9\_NX2\_NY6\_cc2.439



Section 23 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

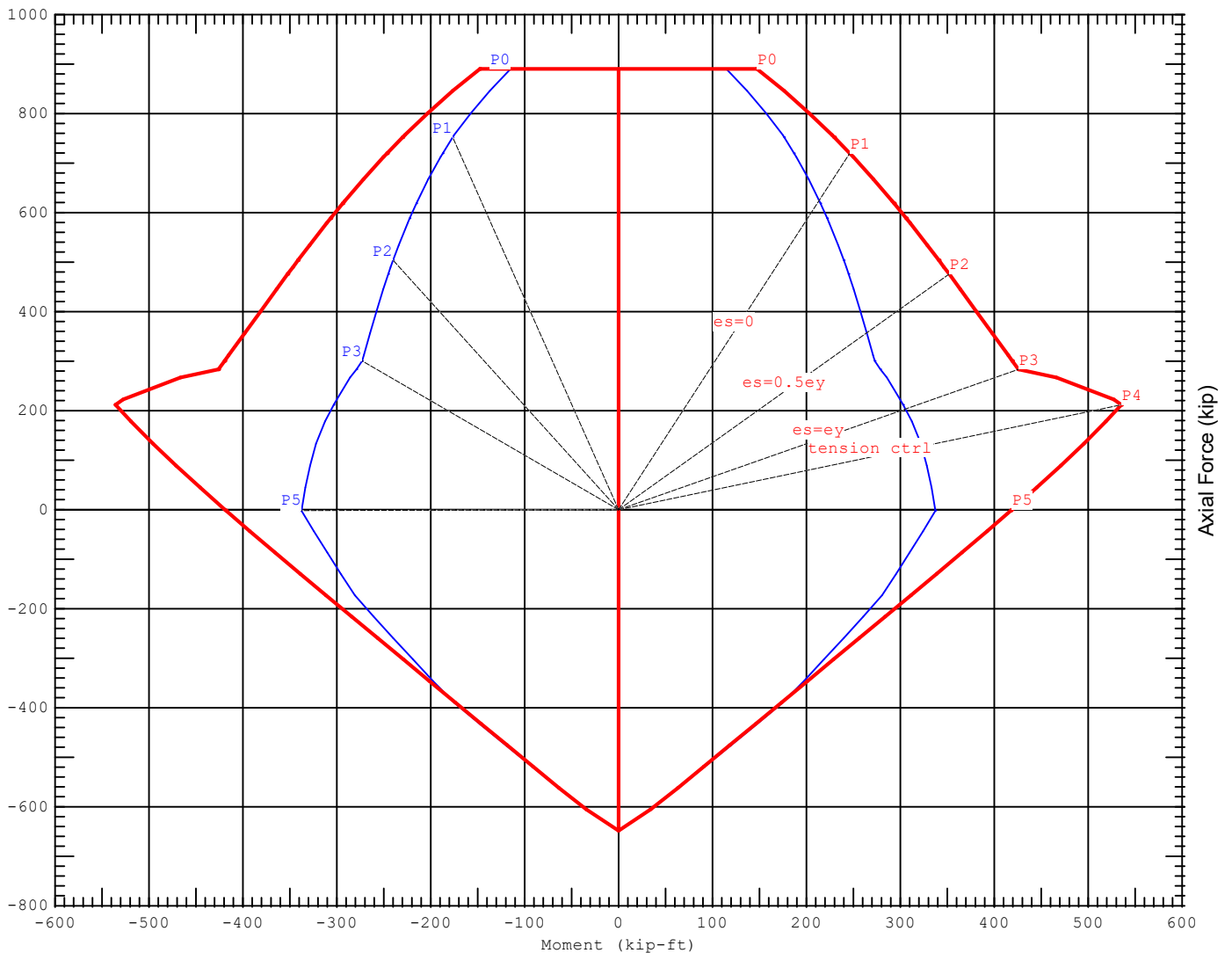
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 3.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	888.89	147.22	-0.00057
P1	718.88	245.77	0.00000
P2	475.00	351.35	0.00103
P3	282.91	424.86	0.00207
P4	211.26	534.28	0.00507
P5	0.00	417.95	0.01022
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	888.88	-114.70	-0.00046
P1	751.03	-176.20	0.00000
P2	502.95	-239.43	0.00103
P3	300.03	-272.26	0.00207
P4	-1.77	-336.79	0.00507
P5	0.01	-336.66	0.00505
Pmin	-648.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

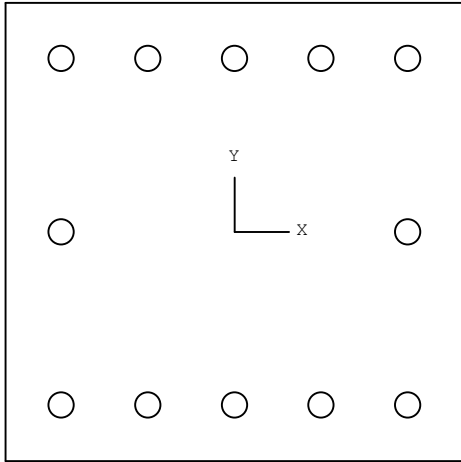
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#9\_NX3\_NY5\_cc2.439



Section 24 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

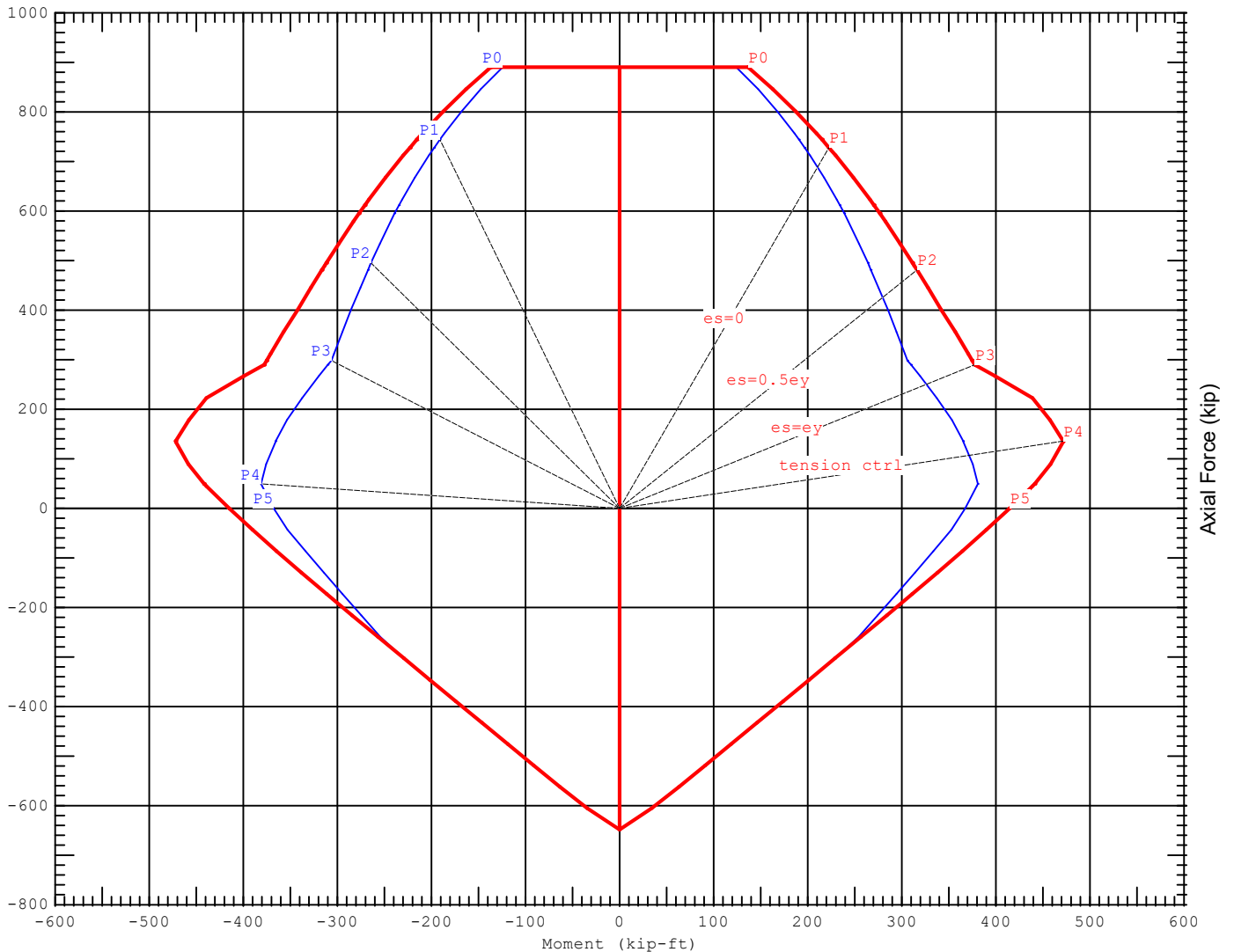
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 3.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	888.88	136.51	-0.00054
P1	726.92	222.24	0.00000
P2	480.33	315.53	0.00103
P3	288.85	376.76	0.00207
P4	135.26	470.79	0.00507
P5	-0.01	413.85	0.00771
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	888.89	-123.77	-0.00048
P1	743.00	-190.52	0.00000
P2	494.31	-263.49	0.00103
P3	297.41	-305.43	0.00207
P4	49.17	-380.19	0.00507
P5	0.01	-366.84	0.00562
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

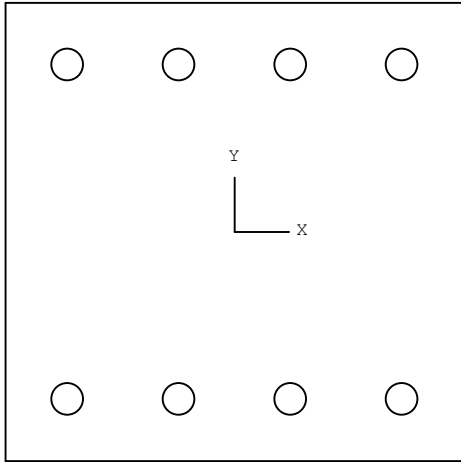
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#11\_NX2\_NY4\_cc2.705



Section 25 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

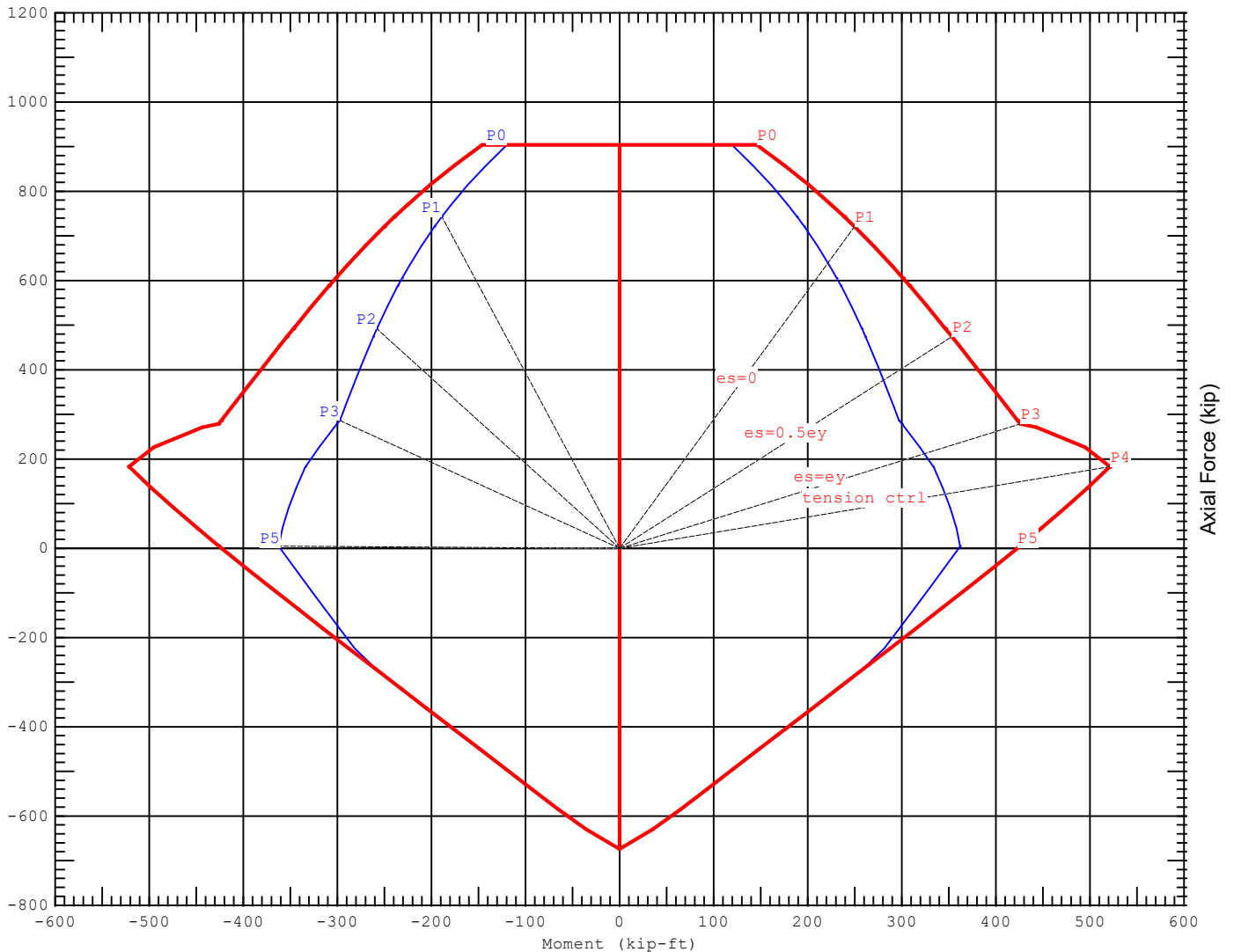
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 3.12%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	903.23	145.71	-0.00060
P1	720.35	249.26	0.00000
P2	473.71	352.55	0.00103
P3	278.08	425.39	0.00207
P4	182.65	520.14	0.00507
P5	0.00	421.89	0.00901
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	903.23	-119.24	-0.00051
P1	742.34	-188.48	0.00000
P2	491.36	-257.21	0.00103
P3	286.21	-296.53	0.00207
P4	5.04	-361.41	0.00507
P5	0.01	-359.72	0.00513
Pmin	-673.92	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

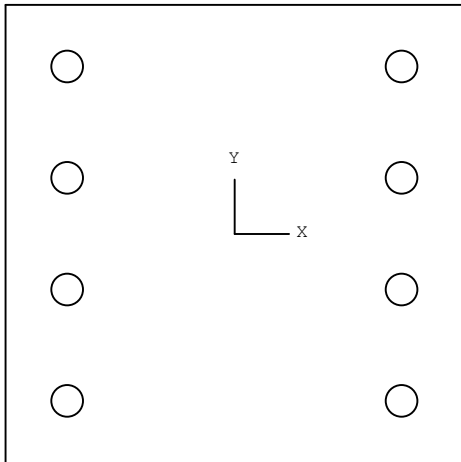
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#11\_NX4\_NY2\_cc2.705



Section 26 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

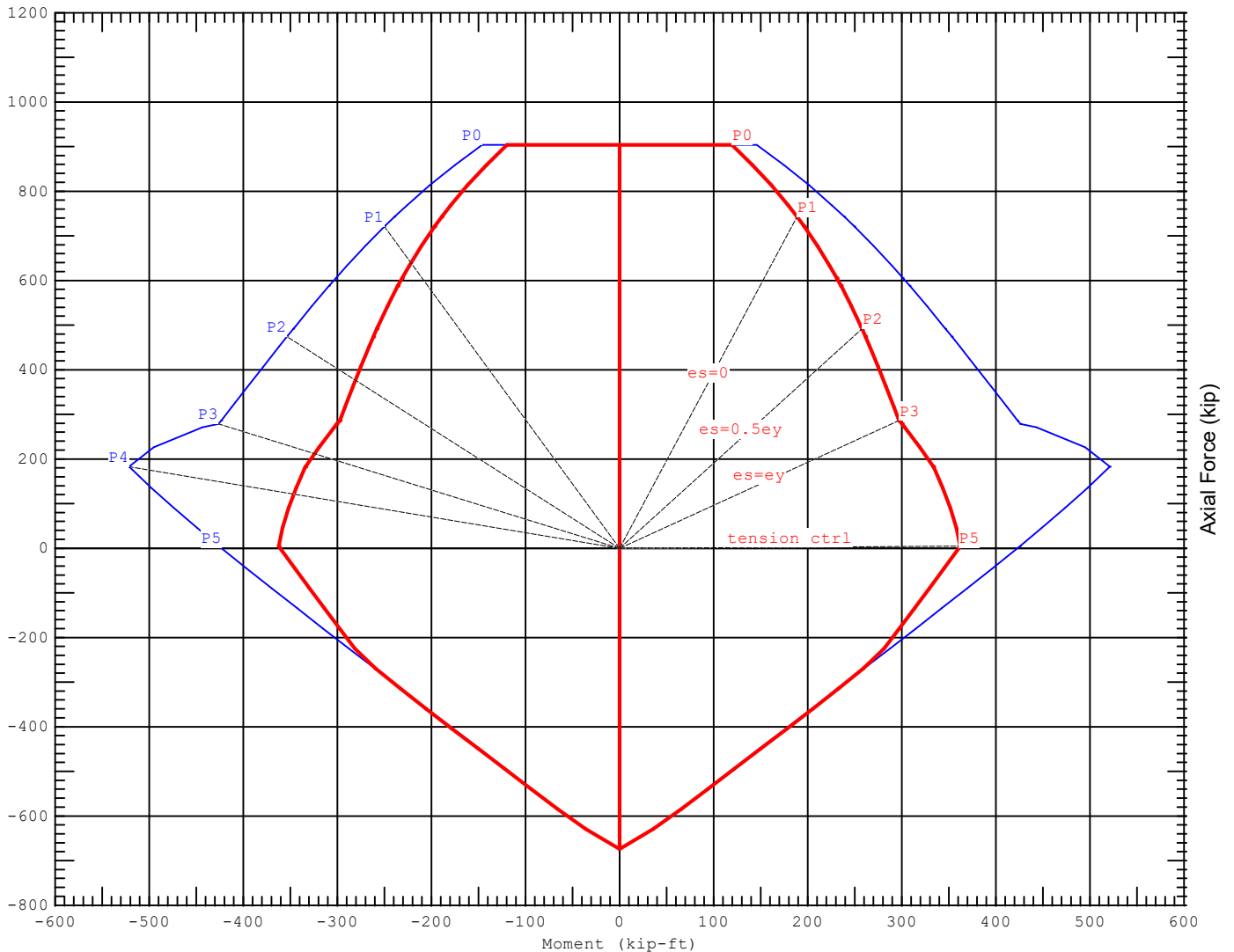
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 3.12%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	903.23	119.24	-0.00051
P1	742.34	188.48	0.00000
P2	491.36	257.21	0.00103
P3	286.21	296.53	0.00207
P4	5.04	361.41	0.00507
P5	0.01	359.72	0.00513
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	903.23	-145.71	-0.00060
P1	720.35	-249.26	0.00000
P2	473.71	-352.55	0.00103
P3	278.08	-425.39	0.00207
P4	182.65	-520.14	0.00507
P5	0.00	-421.89	0.00901
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

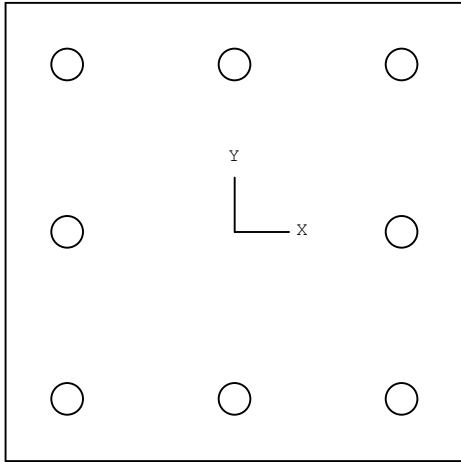
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_8#11\_NX3\_NY3\_cc2.705



Section 27 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

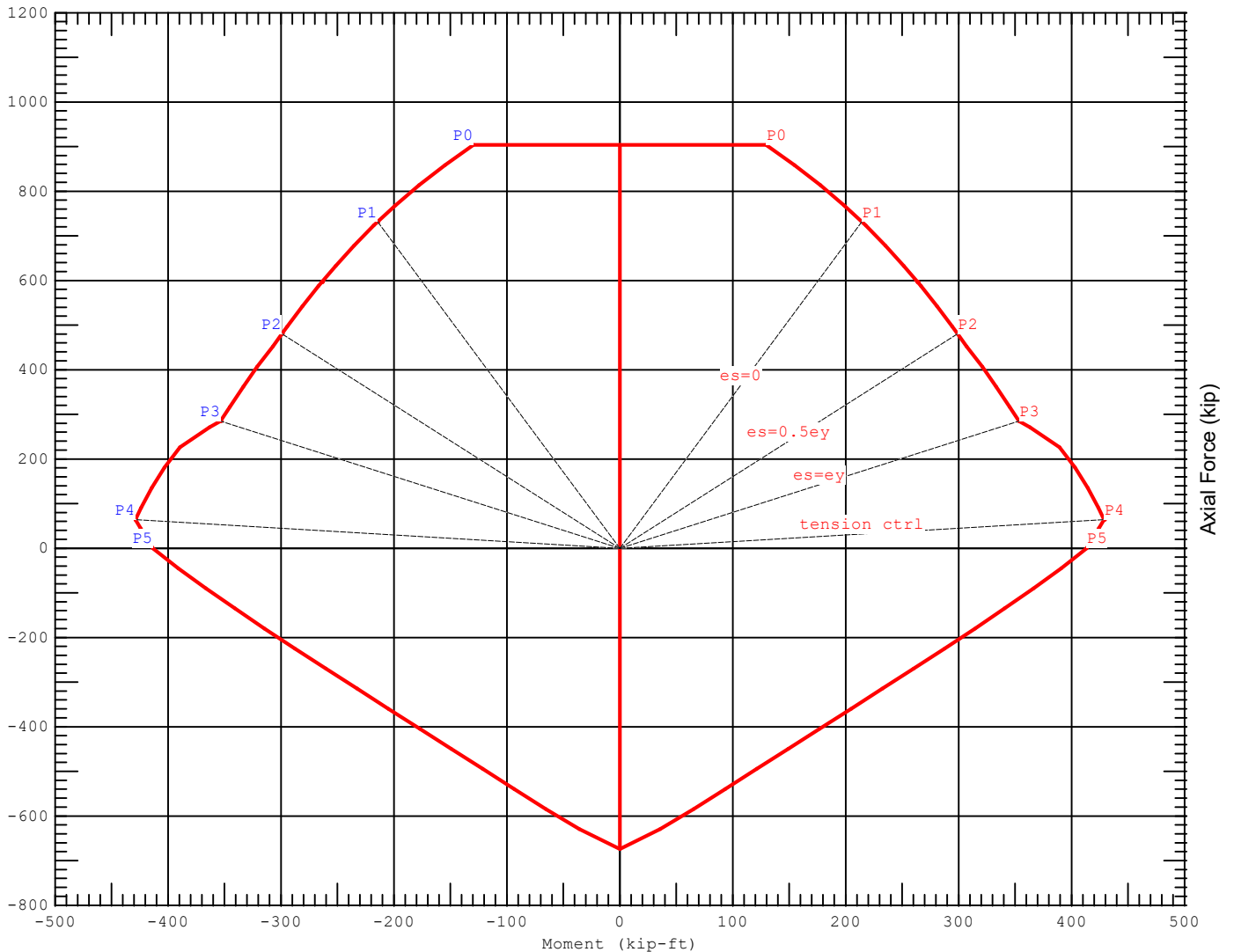
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 3.12%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	903.23	129.37	-0.00056
P1	731.34	213.84	0.00000
P2	479.95	298.65	0.00103
P3	284.73	352.99	0.00207
P4	64.08	428.09	0.00507
P5	0.00	412.58	0.00574
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	903.23	-129.37	-0.00056
P1	731.34	-213.84	0.00000
P2	479.95	-298.65	0.00103
P3	284.73	-352.99	0.00207
P4	64.08	-428.09	0.00507
P5	0.00	-412.58	0.00574
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

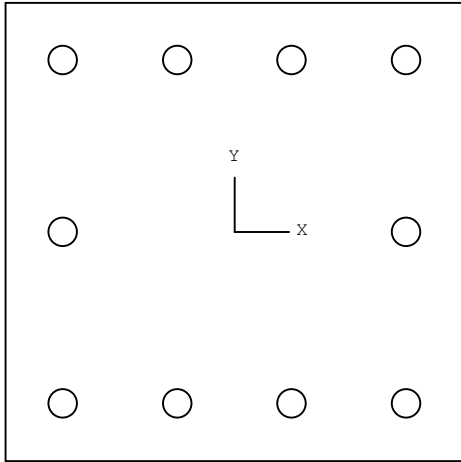
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#10\_NX3\_NY4\_cc2.51



Section 28 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

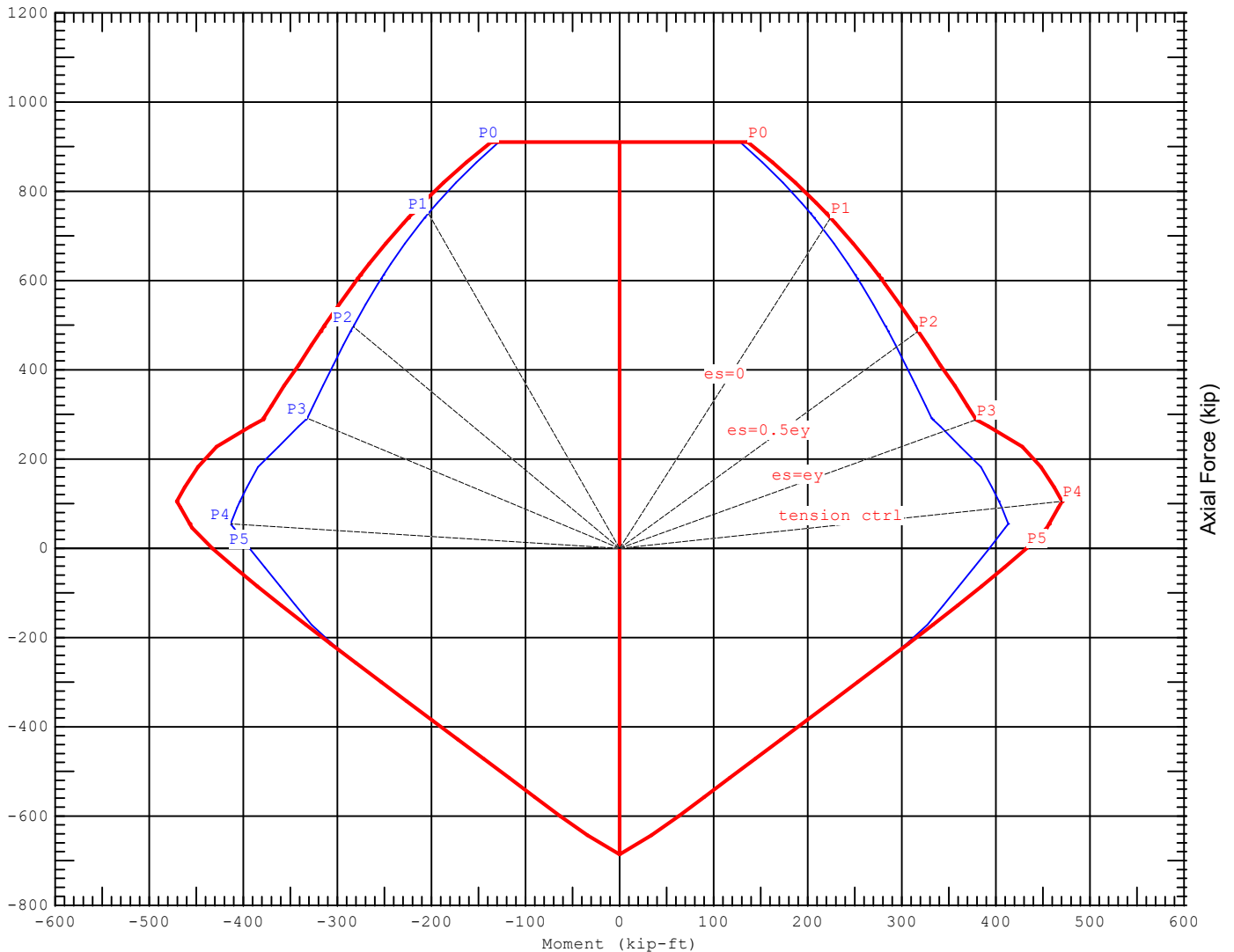
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 3.17%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	909.80	135.92	-0.00055
P1	739.83	223.82	0.00000
P2	486.08	316.82	0.00103
P3	288.13	378.20	0.00207
P4	104.99	469.37	0.00507
P5	0.01	431.87	0.00673
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	909.80	-128.12	-0.00051
P1	749.70	-202.75	0.00000
P2	496.61	-282.36	0.00103
P3	290.89	-331.22	0.00207
P4	54.63	-412.45	0.00507
P5	-0.00	-392.49	0.00583
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

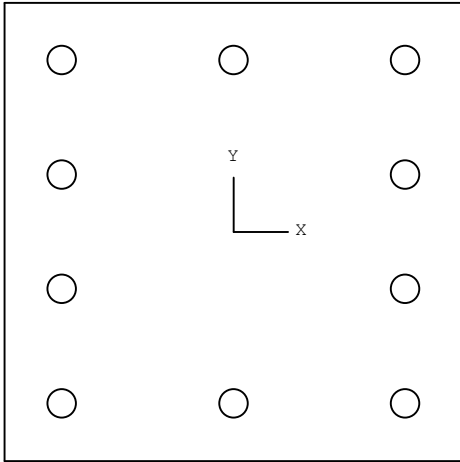
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#10\_NX4\_NY3\_cc2.51



Section 29 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

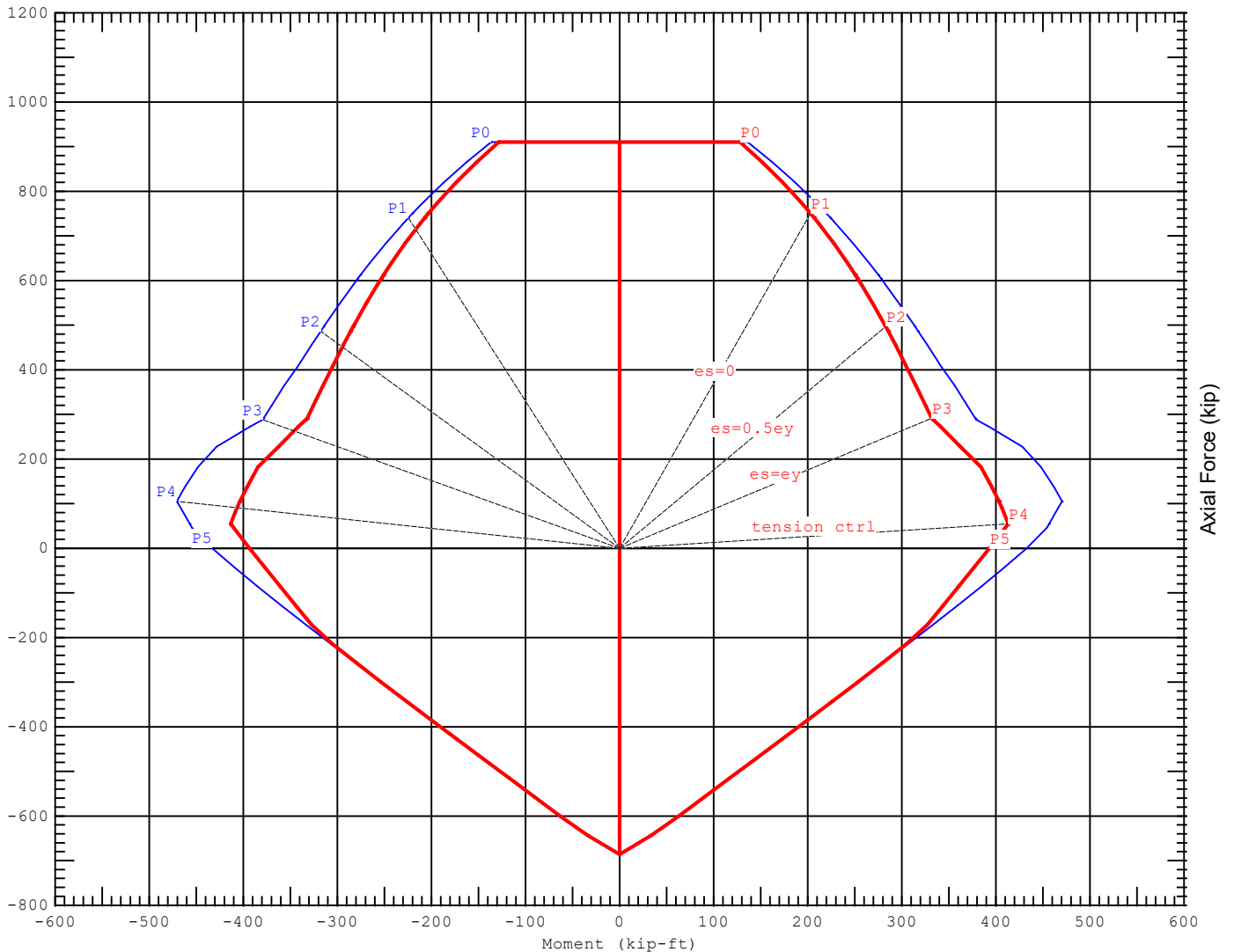
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 3.17%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	909.80	128.12	-0.00051
P1	749.70	202.75	0.00000
P2	496.61	282.36	0.00103
P3	290.89	331.22	0.00207
P4	54.63	412.45	0.00507
P5	-0.00	392.49	0.00583
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	909.80	-135.92	-0.00055
P1	739.83	-223.82	0.00000
P2	486.08	-316.82	0.00103
P3	288.13	-378.20	0.00207
P4	104.99	-469.37	0.00507
P5	0.01	-431.87	0.00673
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

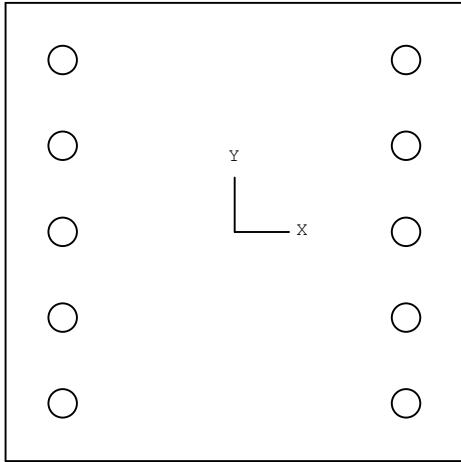
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#10\_NX5\_NY2\_cc2.51



Section 30 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

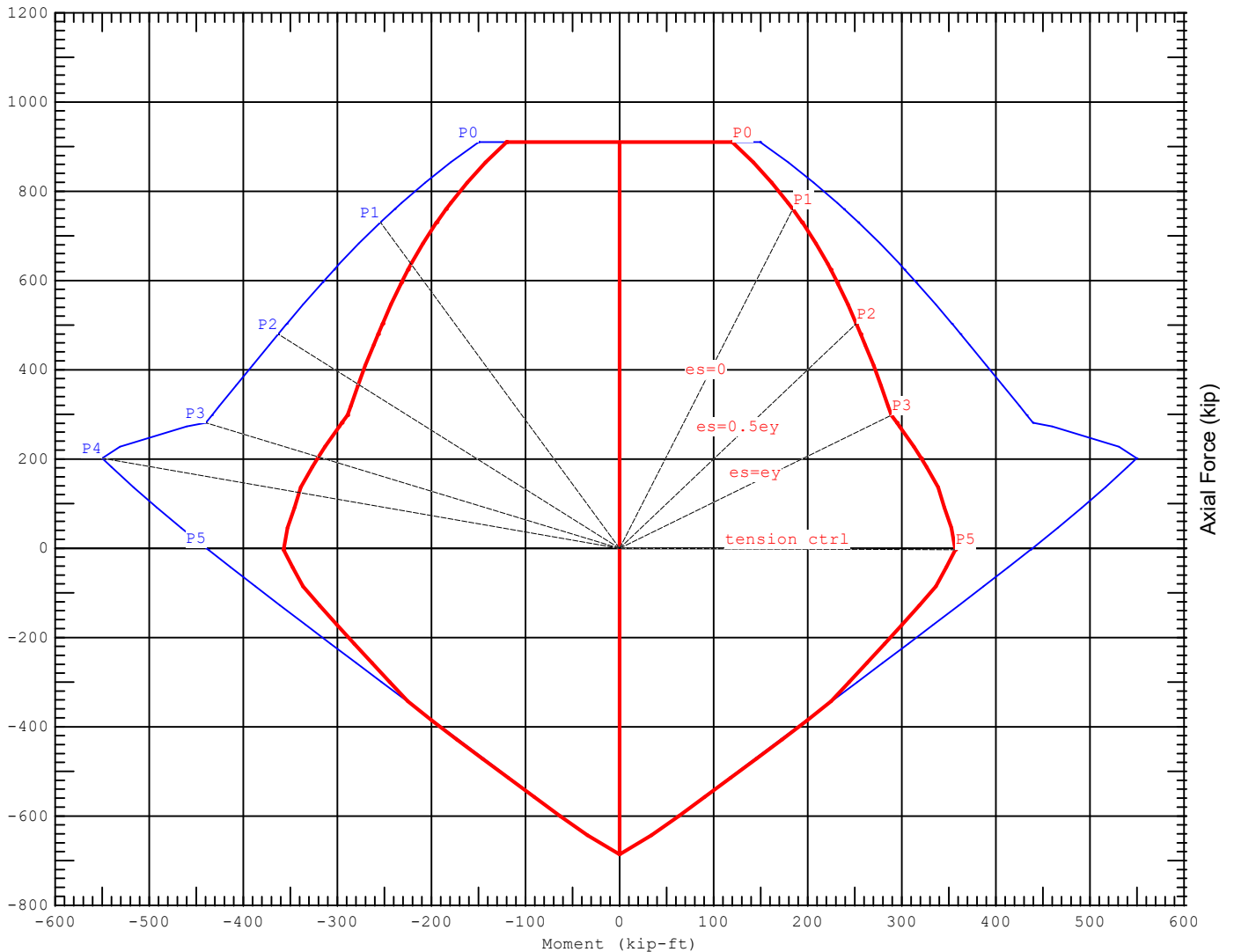
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 3.17%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	909.79	119.67	-0.00048
P1	759.58	183.81	0.00000
P2	502.94	251.21	0.00103
P3	297.87	288.29	0.00207
P4	-3.72	356.35	0.00507
P5	-0.01	356.06	0.00503
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	909.79	-149.30	-0.00059
P1	729.95	-253.42	0.00000
P2	479.76	-361.88	0.00103
P3	281.15	-438.71	0.00207
P4	201.52	-548.47	0.00507
P5	0.00	-438.15	0.00967
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

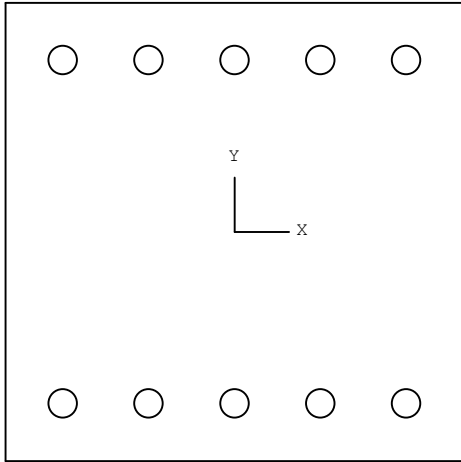
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#10\_NX2\_NY5\_cc2.51



Section 31 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 3.17%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

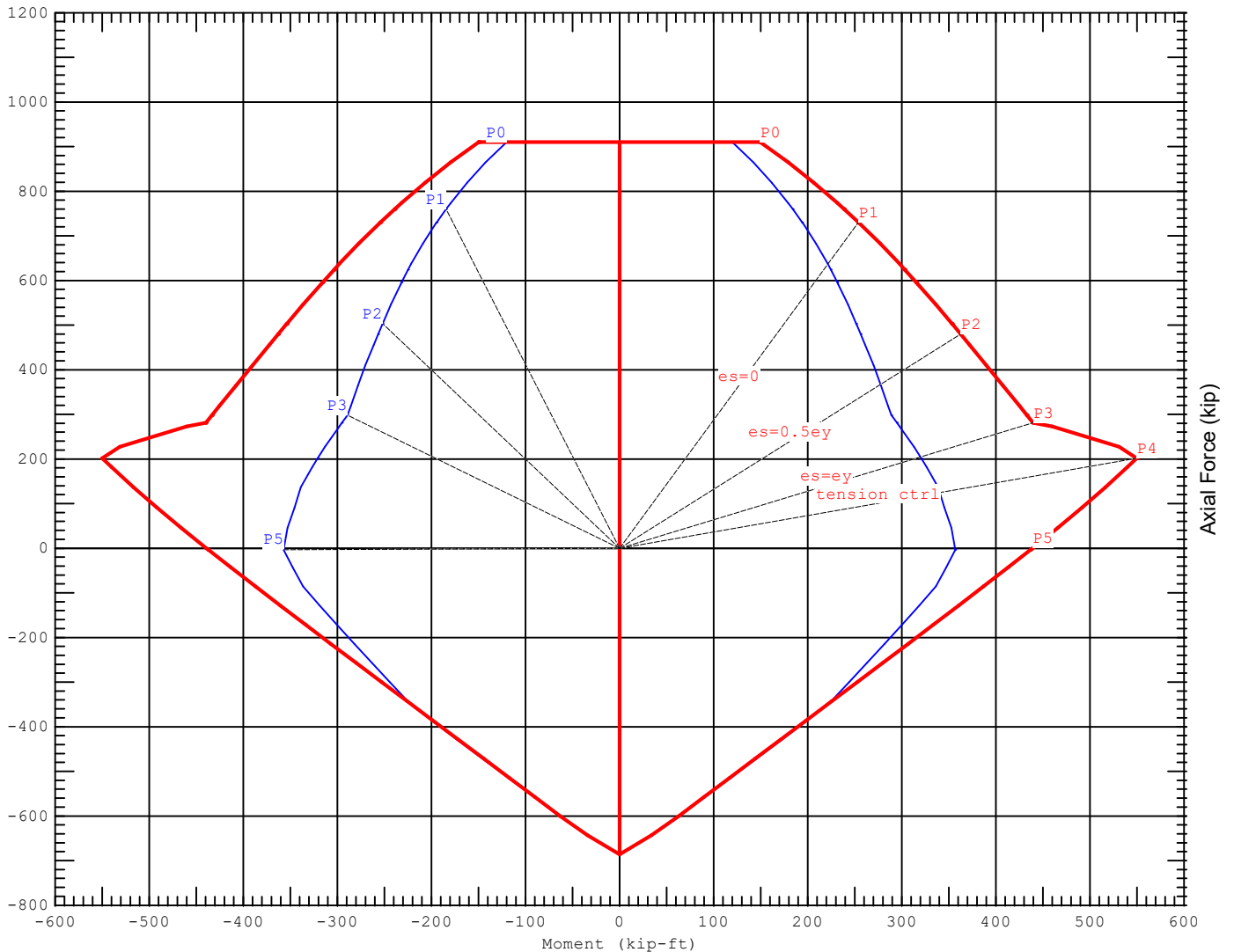
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	909.79	149.30	-0.00059
P1	729.95	253.42	0.00000
P2	479.76	361.88	0.00103
P3	281.15	438.71	0.00207
P4	201.52	548.47	0.00507
P5	0.00	438.15	0.00967
Pmin	-685.80	-0.00	0.20000

PT	P	My(-)	max es
P0	909.79	-119.67	-0.00048
P1	759.58	-183.81	0.00000
P2	502.94	-251.21	0.00103
P3	297.87	-288.29	0.00207
P4	-3.72	-356.35	0.00507
P5	-0.01	-356.06	0.00503
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

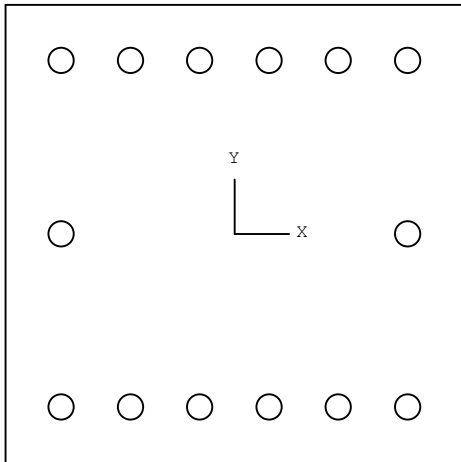
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_14#9\_NX3\_NY6\_cc2.439



Section 32 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

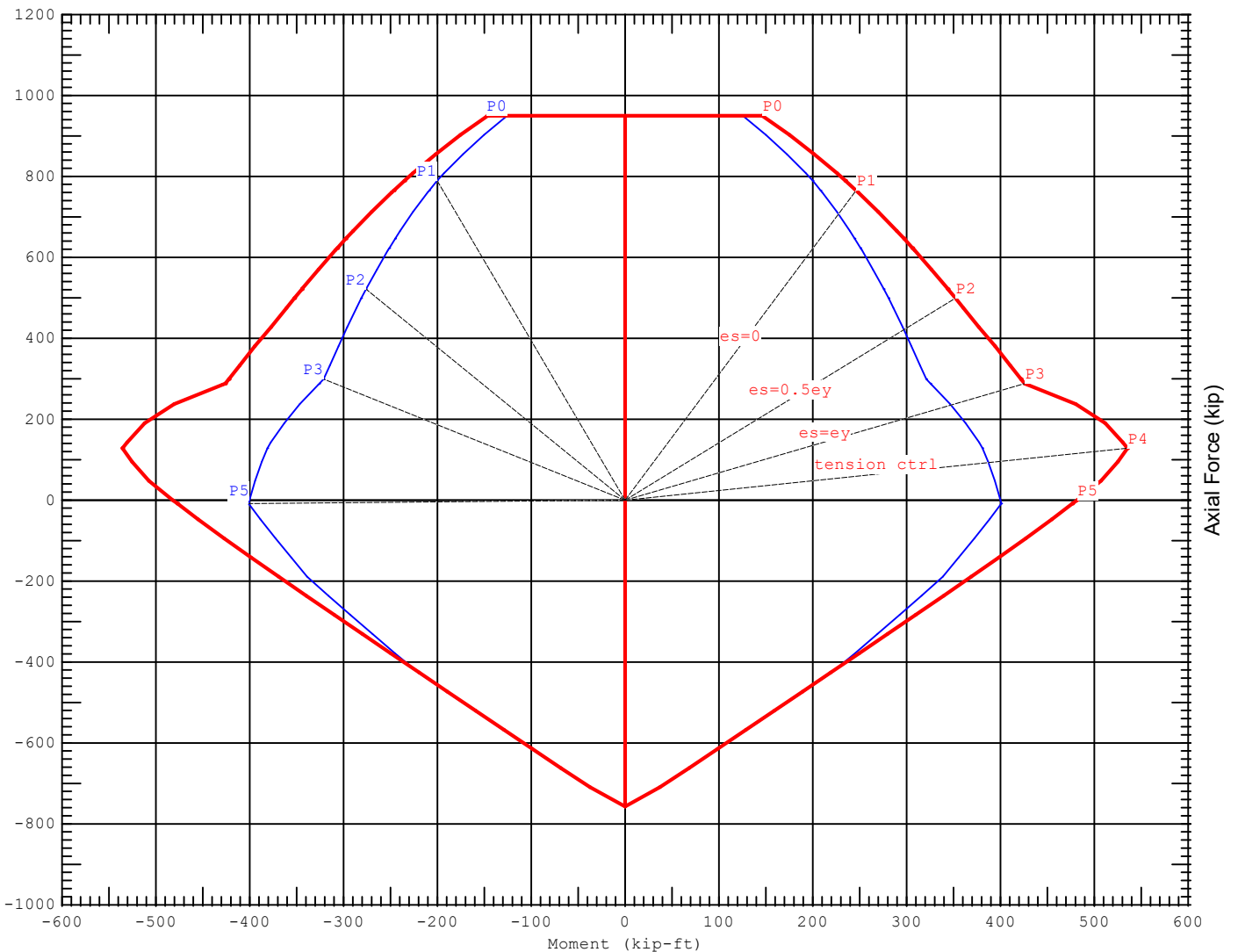
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	948.64	145.83	-0.00057
P1	764.26	245.77	0.00000
P2	498.17	351.35	0.00103
P3	287.19	424.86	0.00207
P4	128.01	534.28	0.00507
P5	0.00	480.72	0.00729
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	948.63	-125.37	-0.00050
P1	788.38	-199.73	0.00000
P2	520.79	-275.24	0.00103
P3	298.37	-320.36	0.00207
P4	-9.01	-400.27	0.00507
P5	0.00	-399.27	0.00496
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

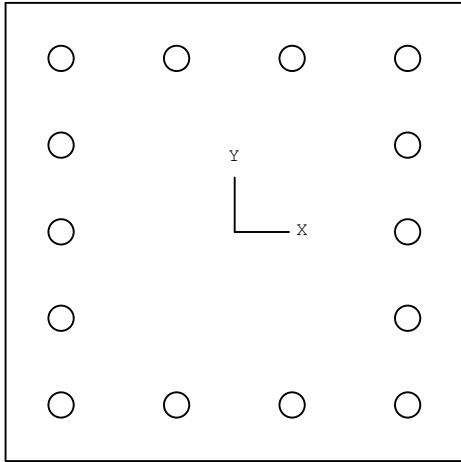
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_14#9\_NX5\_NY4\_cc2.439



Section 33 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

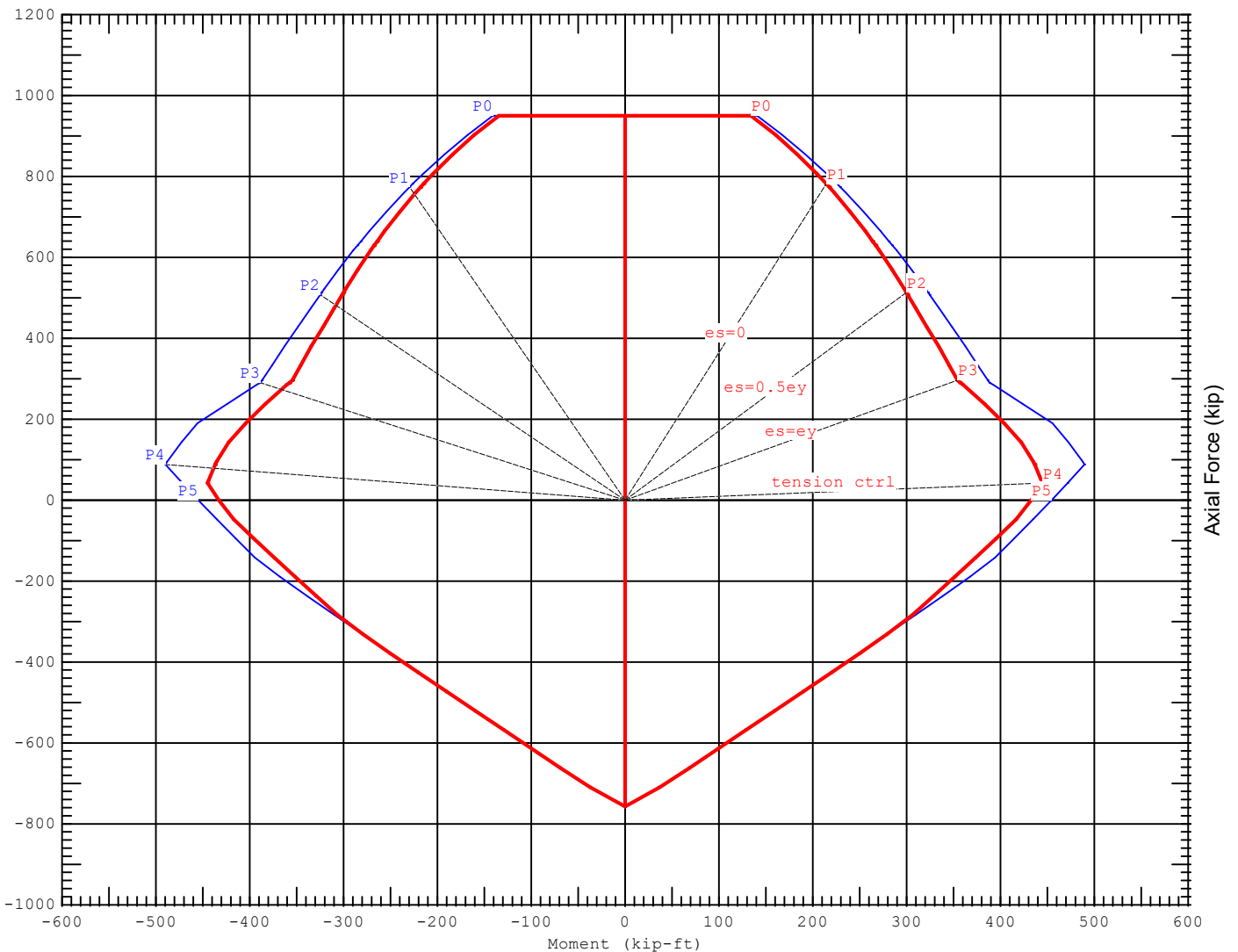
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	948.64	133.84	-0.00052
P1	780.34	214.05	0.00000
P2	512.15	299.30	0.00103
P3	295.75	353.53	0.00207
P4	41.93	443.67	0.00507
P5	0.01	431.72	0.00552
Pmin	-756.00	-0.00	0.20000

PT	P	My(-)	max es
P0	948.64	-140.40	-0.00055
P1	772.30	-229.06	0.00000
P2	506.82	-324.01	0.00103
P3	289.81	-387.58	0.00207
P4	87.71	-488.69	0.00507
P5	0.01	-453.58	0.00637
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

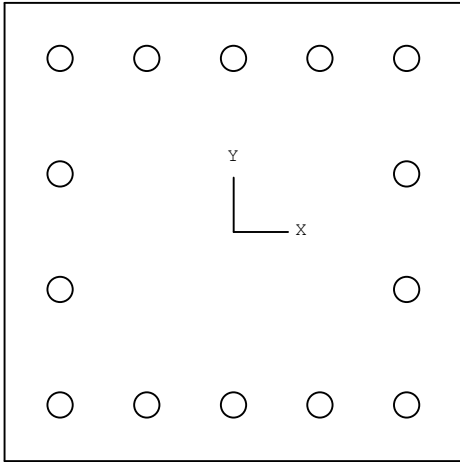
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_14#9\_NX4\_NY5\_cc2.439



Section 34 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

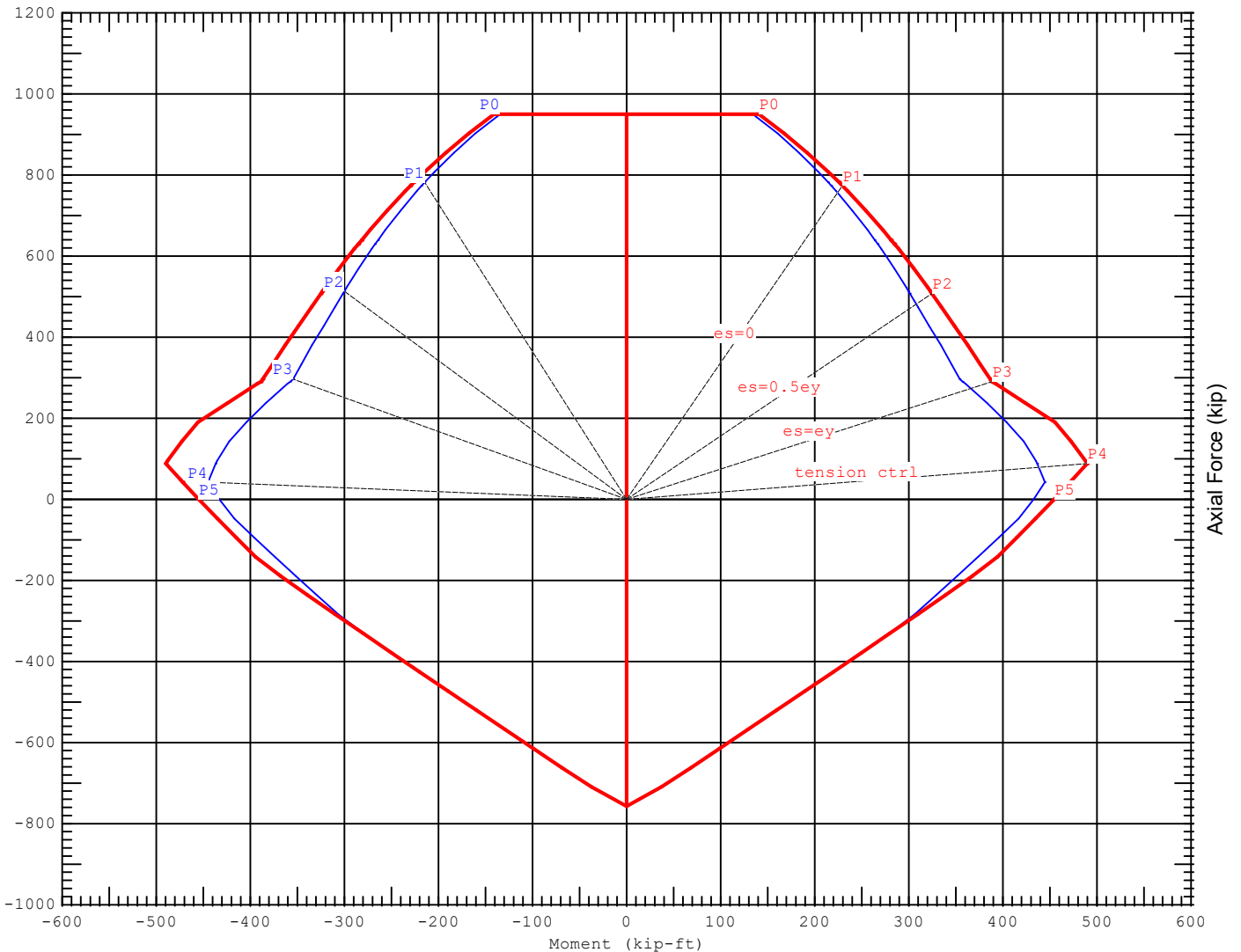
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	948.64	140.40	-0.00055
P1	772.30	229.06	0.00000
P2	506.82	324.01	0.00103
P3	289.81	387.58	0.00207
P4	87.71	488.69	0.00507
P5	0.01	453.58	0.00637
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	948.64	-133.84	-0.00052
P1	780.34	-214.05	0.00000
P2	512.15	-299.30	0.00103
P3	295.75	-353.53	0.00207
P4	41.93	-443.67	0.00507
P5	0.01	-431.72	0.00552
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

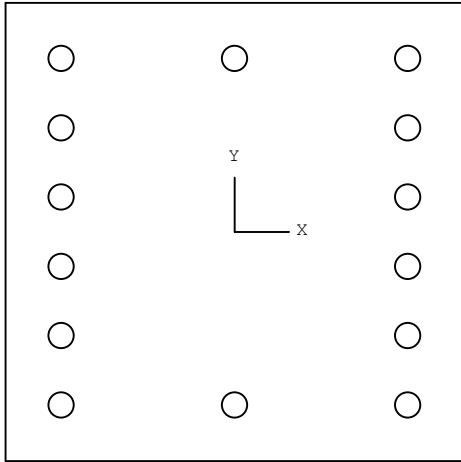
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_14#9\_NX6\_NY3\_cc2.439



Section 35 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

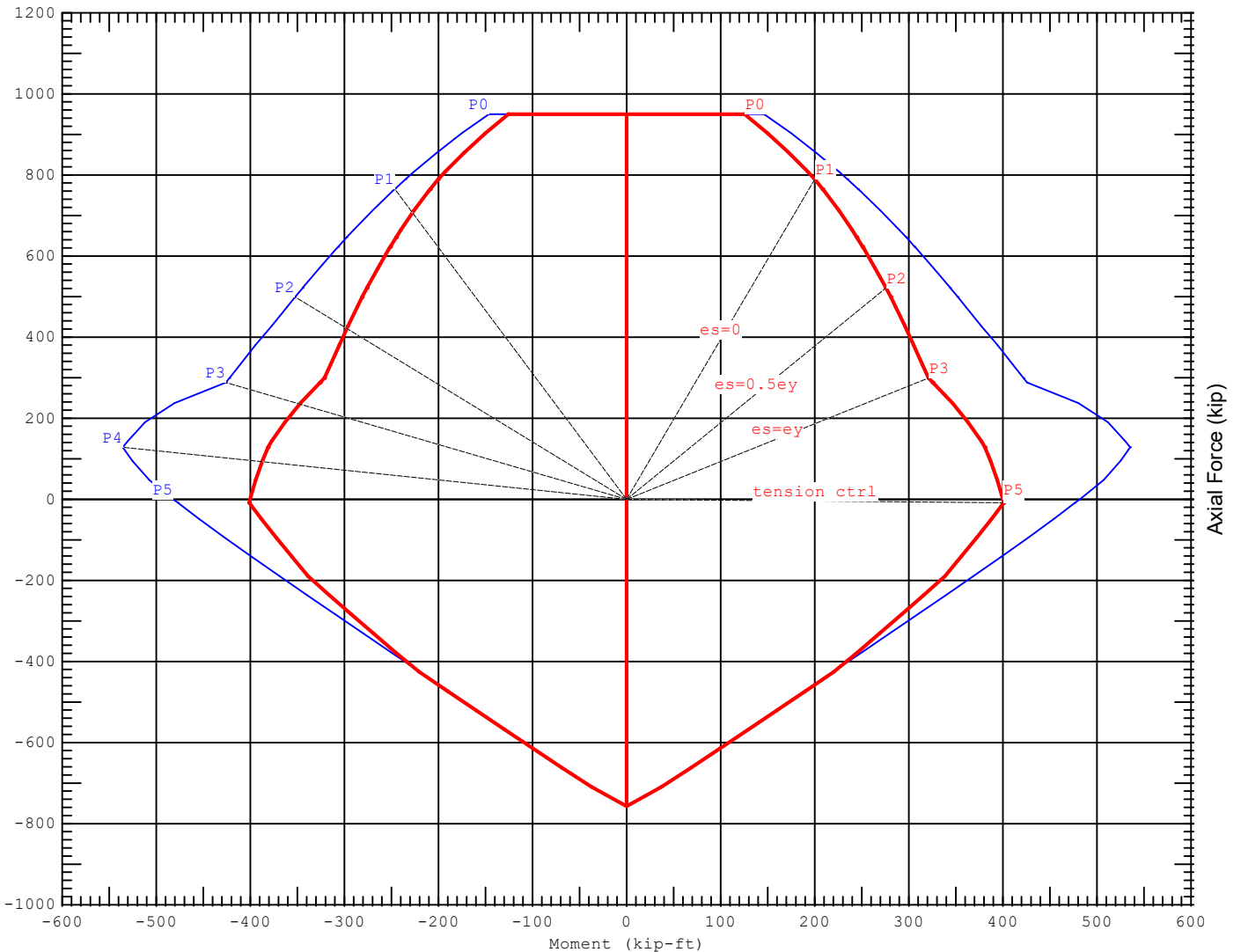
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	948.63	125.37	-0.00050
P1	788.38	199.73	0.00000
P2	520.79	275.24	0.00103
P3	298.37	320.36	0.00207
P4	-9.01	400.27	0.00507
P5	0.00	399.27	0.00496
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	948.64	-145.83	-0.00057
P1	764.26	-245.77	0.00000
P2	498.17	-351.35	0.00103
P3	287.19	-424.86	0.00207
P4	128.01	-534.28	0.00507
P5	0.00	-480.72	0.00729
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

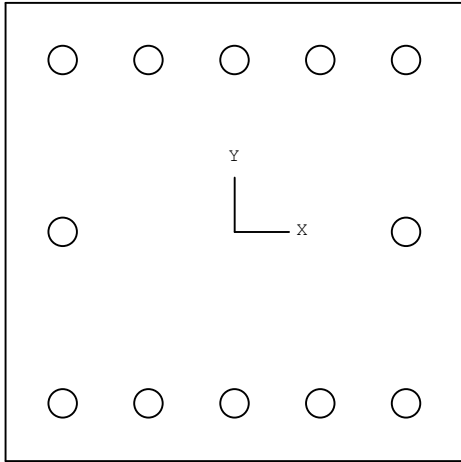
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#10\_NX3\_NY5\_cc2.51



Section 36 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

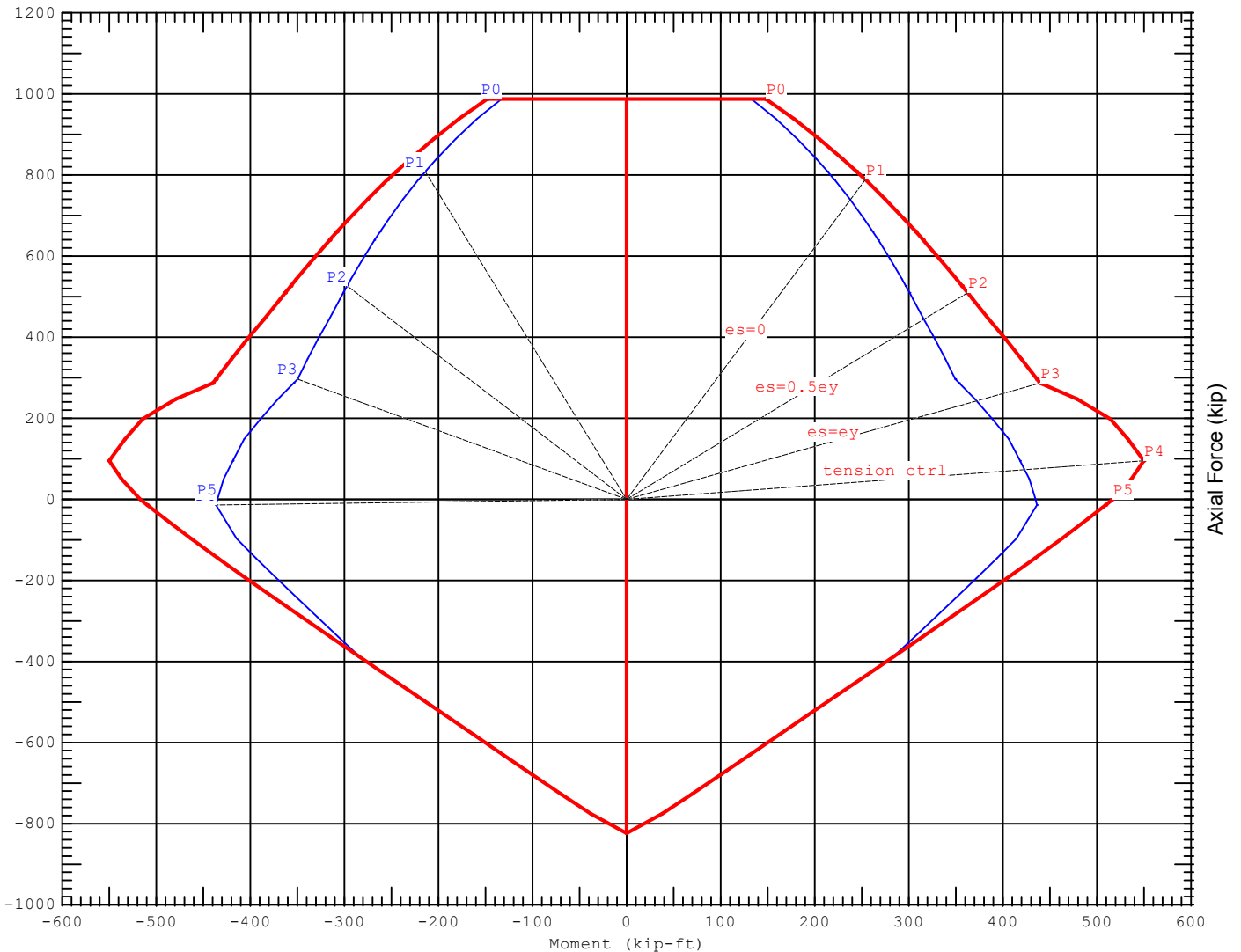
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.81%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	985.68	147.70	-0.00059
P1	787.25	253.42	0.00000
P2	508.74	361.88	0.00103
P3	286.02	438.71	0.00207
P4	94.55	548.47	0.00507
P5	-0.00	515.86	0.00633
Pmin	-822.96	-0.00	0.20000

PT	P	My(-)	max es
P0	985.68	-132.59	-0.00053
P1	807.00	-213.41	0.00000
P2	525.60	-296.27	0.00103
P3	295.77	-348.80	0.00207
P4	-14.16	-435.45	0.00507
P5	0.00	-433.80	0.00494
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

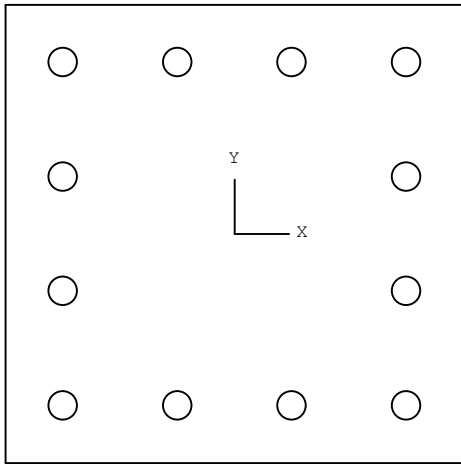
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#10\_NX4\_NY4\_cc2.51



Section 37 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

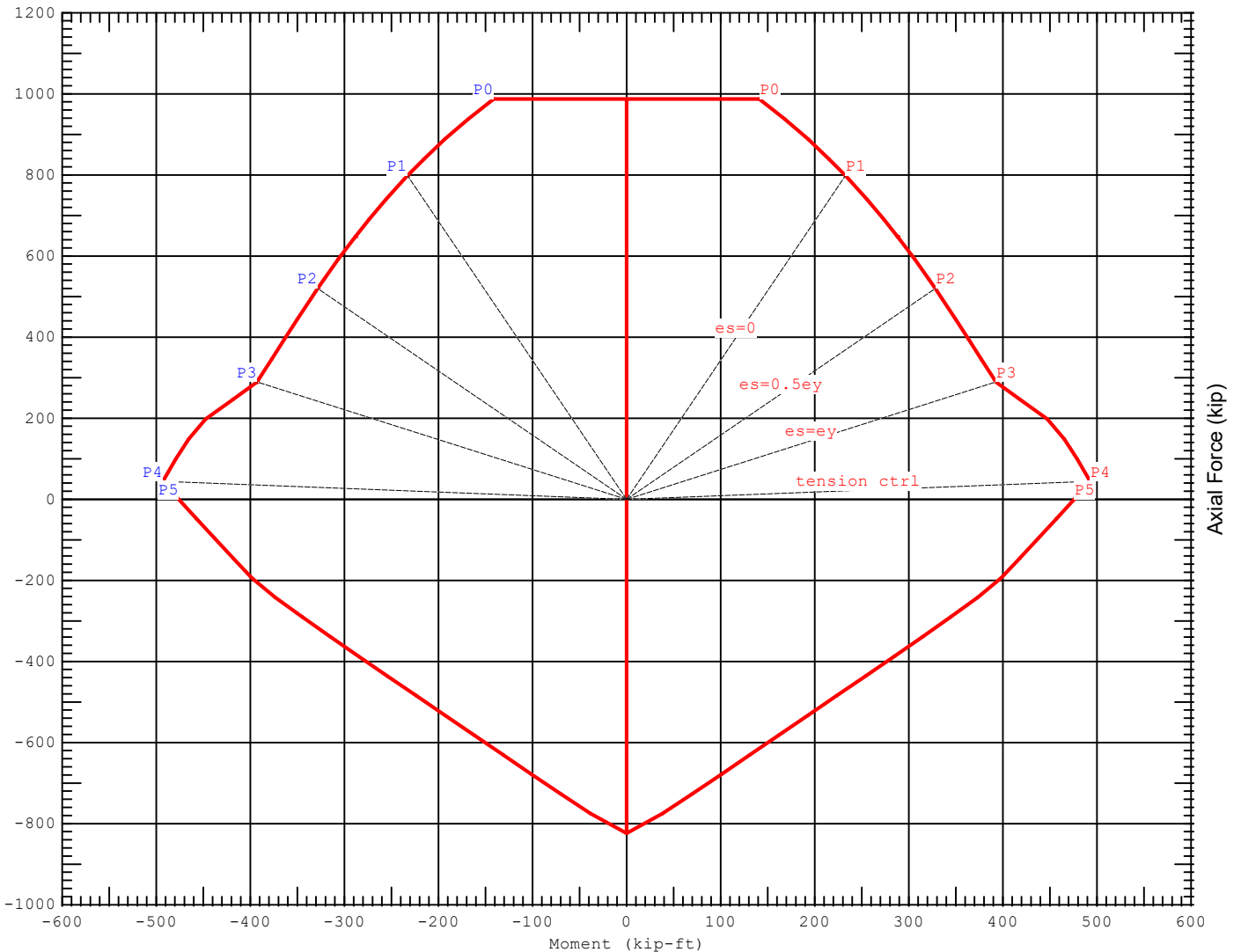
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.81%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	985.68	140.83	-0.00056
P1	797.13	232.35	0.00000
P2	519.27	327.42	0.00103
P3	288.79	391.74	0.00207
P4	44.19	491.54	0.00507
P5	-0.01	474.75	0.00564
Pmin	-822.96	0.00	0.20000

PT	P	My(-)	max es
P0	985.68	-140.83	-0.00056
P1	797.13	-232.35	0.00000
P2	519.27	-327.42	0.00103
P3	288.79	-391.74	0.00207
P4	44.19	-491.54	0.00507
P5	-0.01	-474.75	0.00564
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

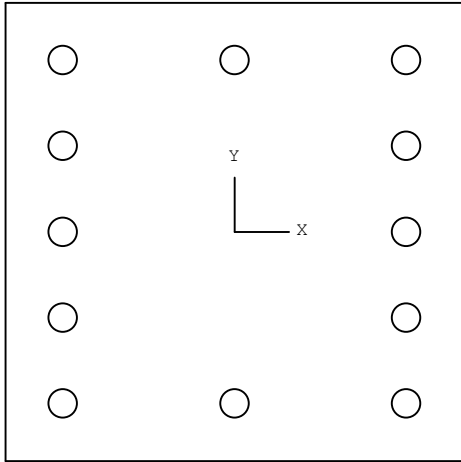
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#10\_NX5\_NY3\_cc2.51



Section 38 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

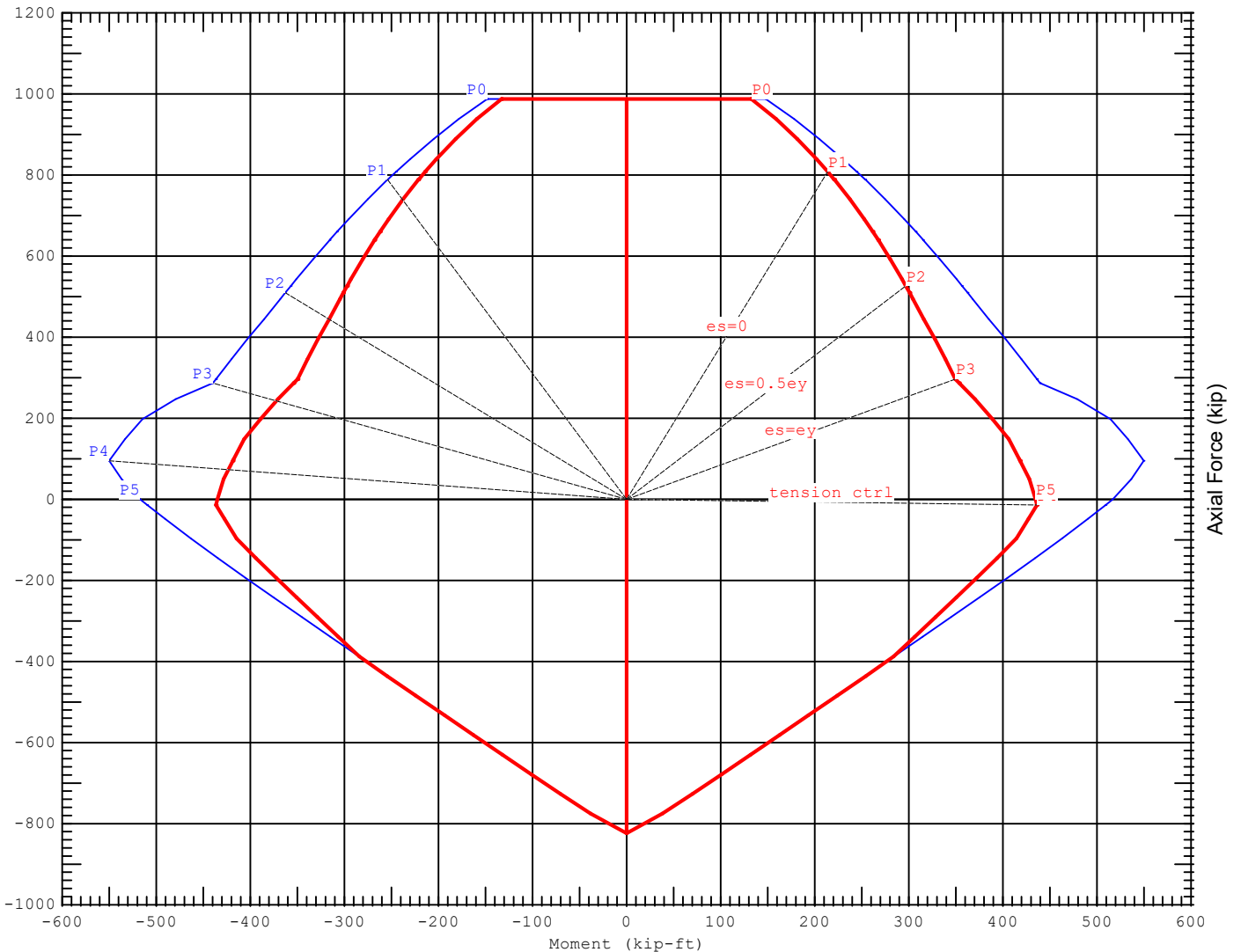
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.81%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	985.68	132.59	-0.00053
P1	807.00	213.41	0.00000
P2	525.60	296.27	0.00103
P3	295.77	348.80	0.00207
P4	-14.16	435.45	0.00507
P5	0.00	433.80	0.00494
Pmin	-822.96	0.00	0.20000

PT	P	My(-)	max es
P0	985.68	-147.70	-0.00059
P1	787.25	-253.42	0.00000
P2	508.74	-361.88	0.00103
P3	286.02	-438.71	0.00207
P4	94.55	-548.47	0.00507
P5	-0.00	-515.86	0.00633
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

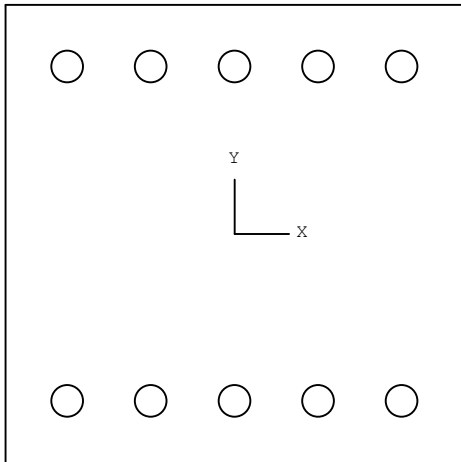
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#11\_NX2\_NY5\_cc2.705



Section 39 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

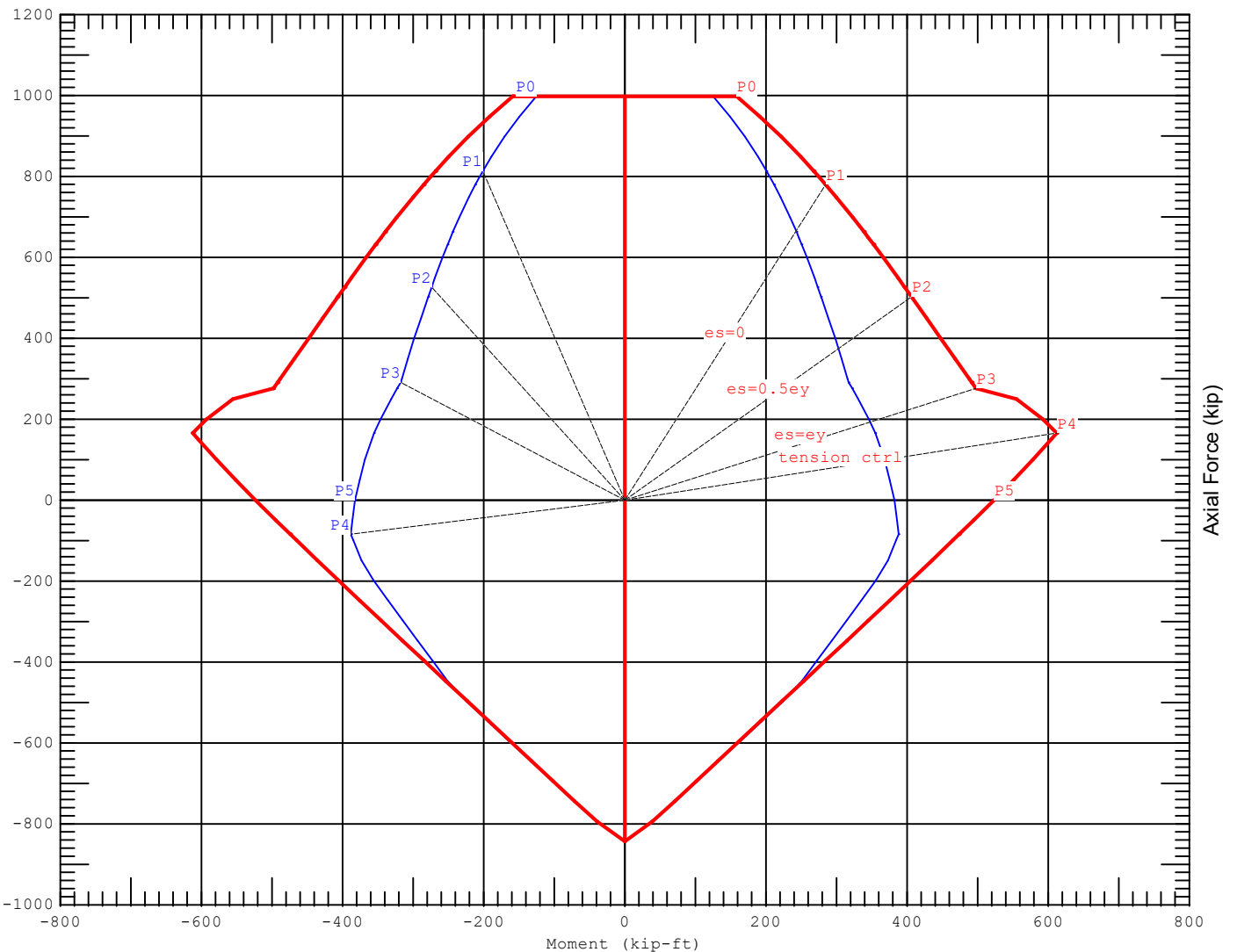
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 10 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 15.60 in<sup>2</sup>  
 Roh: 3.90%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	996.43	158.52	-0.00065
P1	778.60	284.67	0.00000
P2	501.54	406.46	0.00103
P3	275.49	497.79	0.00207
P4	165.59	612.19	0.00507
P5	-0.00	523.05	0.00811
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	996.42	-125.24	-0.00053
P1	811.59	-201.05	0.00000
P2	525.43	-273.59	0.00103
P3	290.27	-317.24	0.00207
P4	-84.39	-388.14	0.00507
P5	0.01	-382.13	0.00439
Pmin	-842.40	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

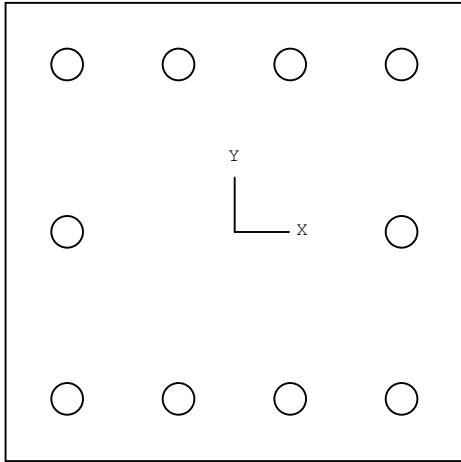
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#11\_NX3\_NY4\_cc2.705



Section 40 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

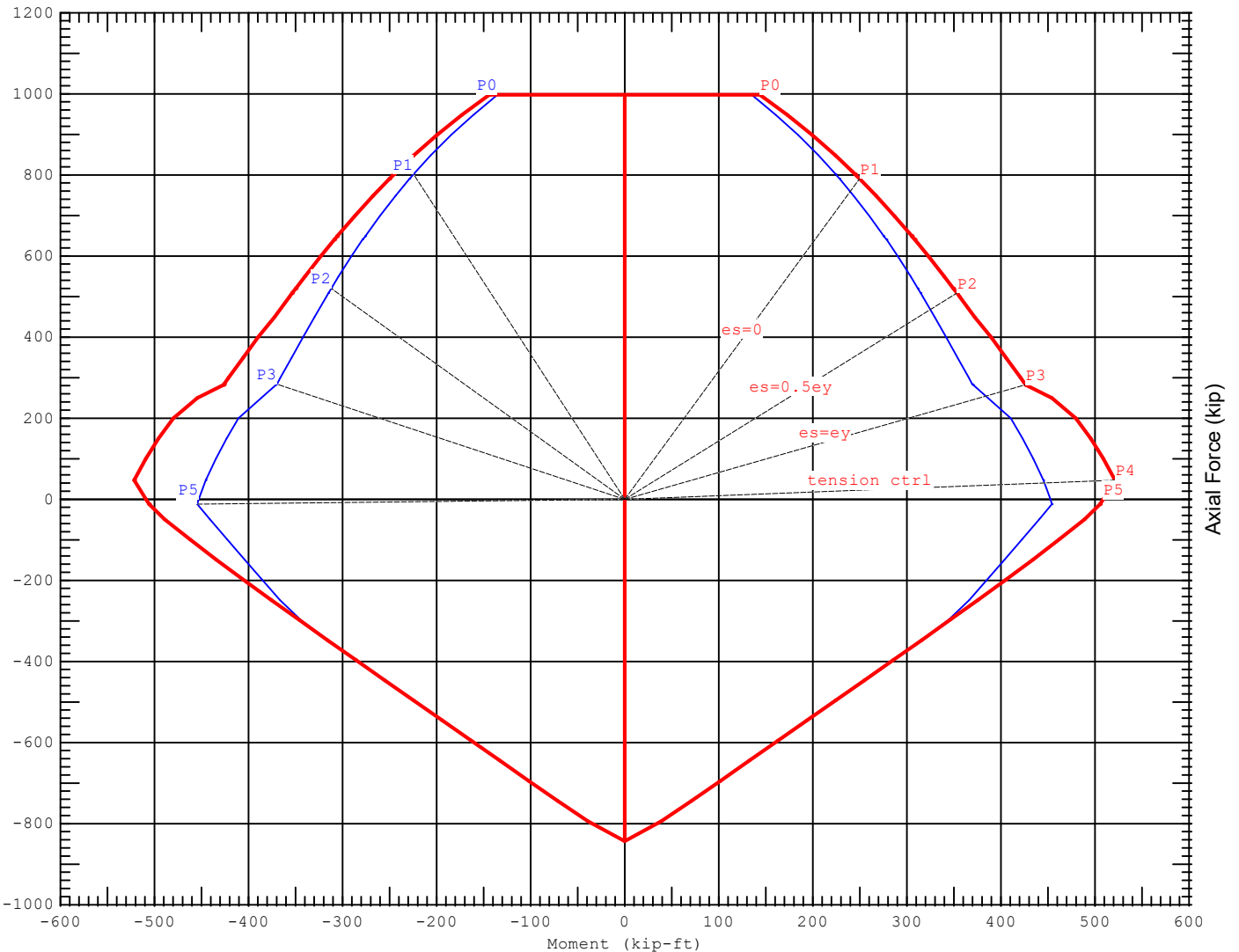
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 10 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 15.60 in<sup>2</sup>  
 Roh: 3.90%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	996.43	143.56	-0.00061
P1	789.60	249.26	0.00000
P2	507.78	352.55	0.00103
P3	282.14	425.39	0.00207
P4	47.02	520.14	0.00507
P5	-0.01	507.71	0.00553
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	996.43	-134.80	-0.00057
P1	800.59	-223.90	0.00000
P2	519.19	-311.12	0.00103
P3	283.62	-368.93	0.00207
P4	-12.02	-453.47	0.00507
P5	0.00	-451.84	0.00493
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

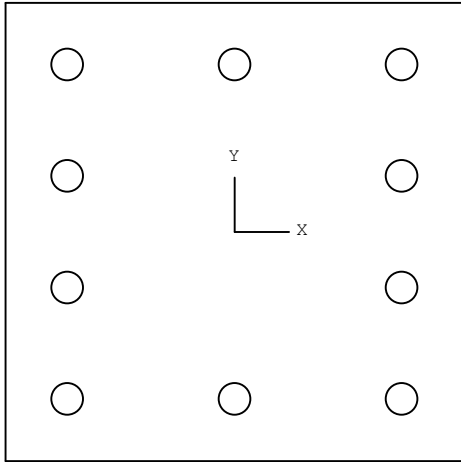
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#11\_NX4\_NY3\_cc2.705



Section 41 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

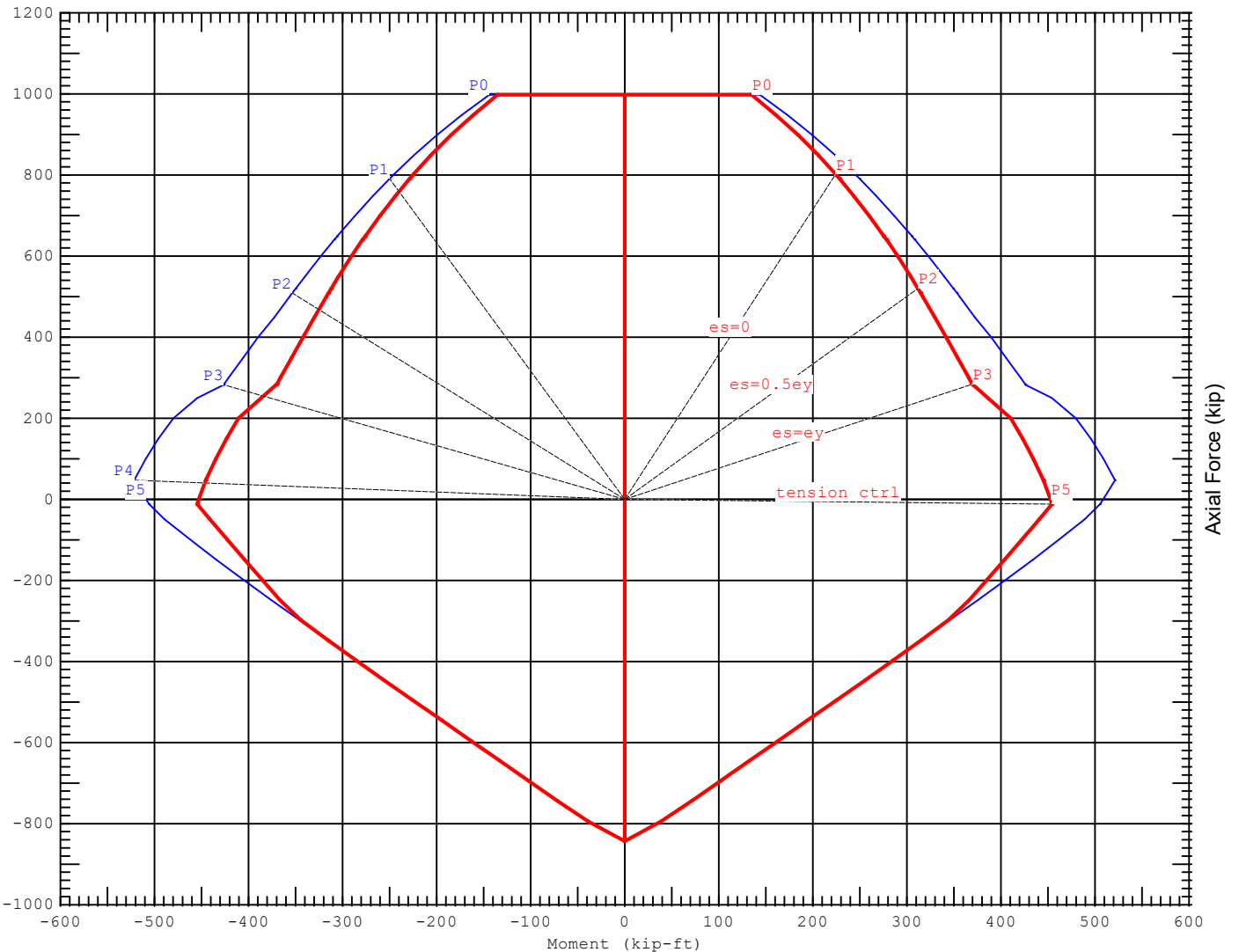
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 10 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 15.60 in<sup>2</sup>  
 Roh: 3.90%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	996.43	134.80	-0.00057
P1	800.59	223.90	0.00000
P2	519.19	311.12	0.00103
P3	283.62	368.93	0.00207
P4	-12.02	453.47	0.00507
P5	0.00	451.84	0.00493
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	996.43	-143.56	-0.00061
P1	789.60	-249.26	0.00000
P2	507.78	-352.55	0.00103
P3	282.14	-425.39	0.00207
P4	47.02	-520.14	0.00507
P5	-0.01	-507.71	0.00553
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

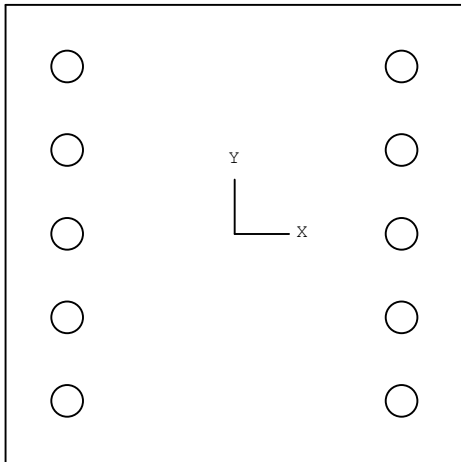
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_10#11\_NX5\_NY2\_cc2.705



Section 42 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

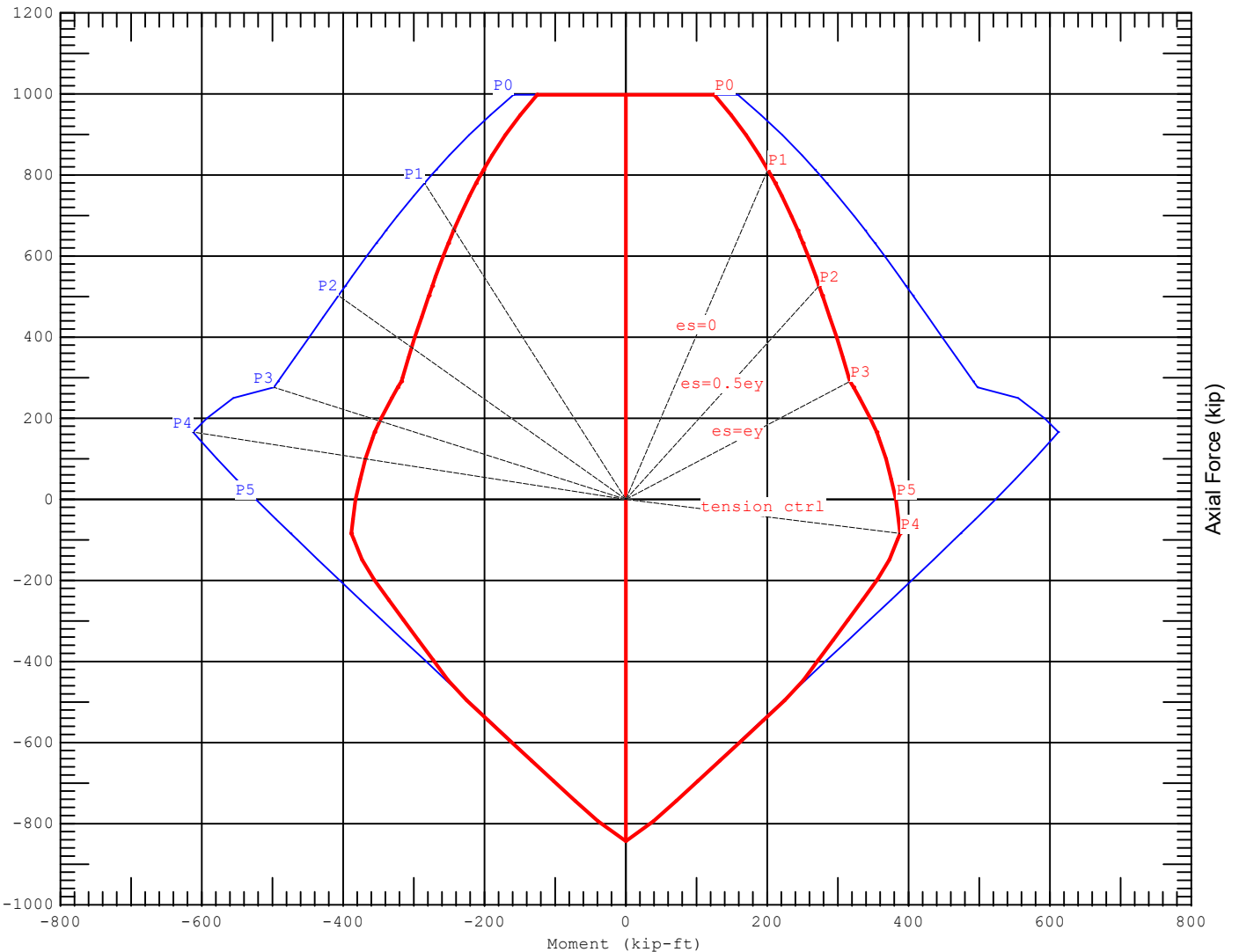
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 10 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 15.60 in<sup>2</sup>  
 Roh: 3.90%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	996.42	125.24	-0.00053
P1	811.59	201.05	0.00000
P2	525.43	273.59	0.00103
P3	290.27	317.24	0.00207
P4	-84.39	388.14	0.00507
P5	0.01	382.13	0.00439
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	996.43	-158.52	-0.00065
P1	778.60	-284.67	0.00000
P2	501.54	-406.46	0.00103
P3	275.49	-497.79	0.00207
P4	165.59	-612.19	0.00507
P5	-0.00	-523.05	0.00811
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

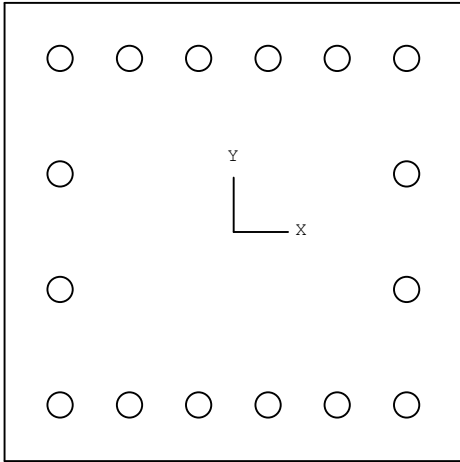
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_16#9\_NX4\_NY6\_cc2.439



Section 43 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

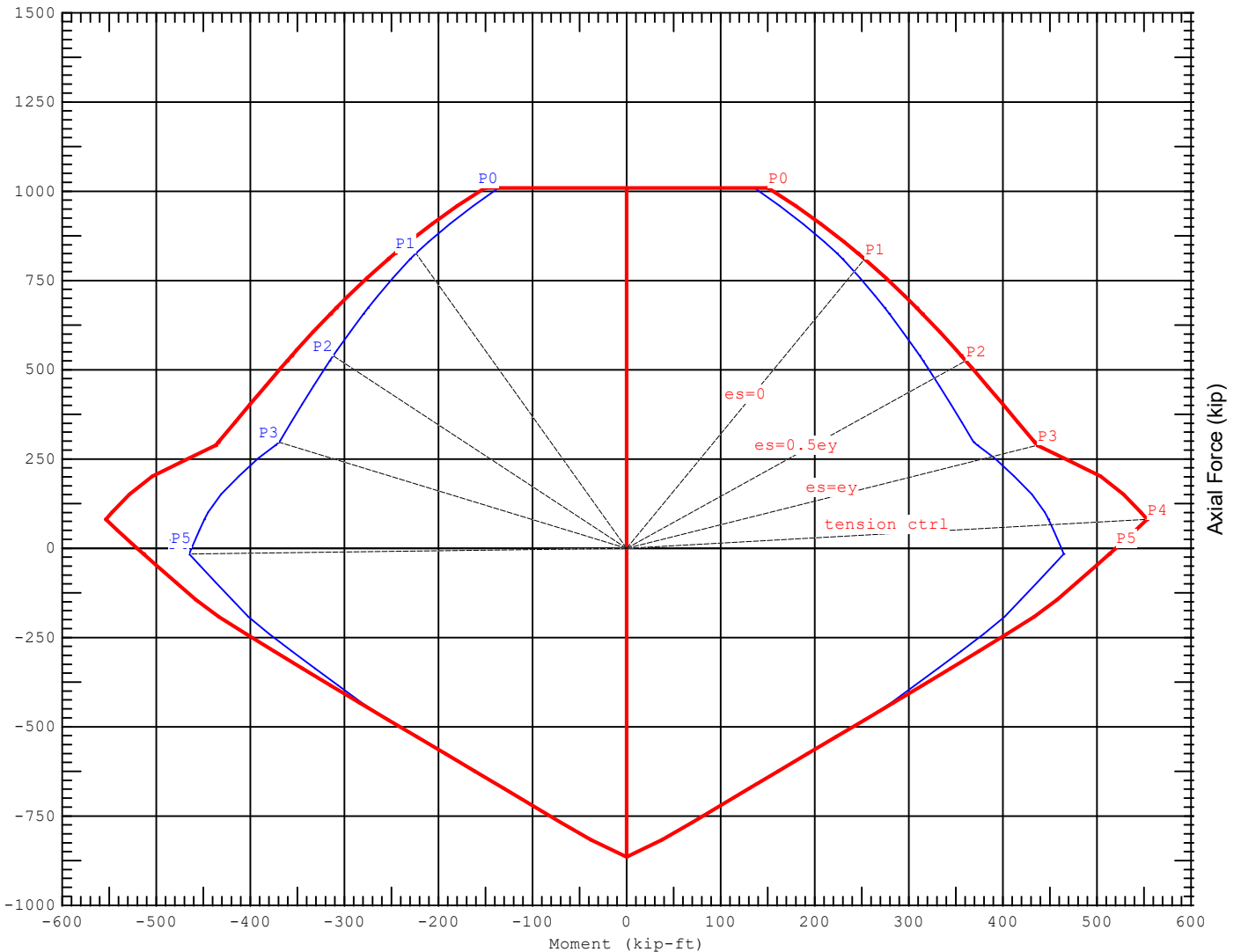
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 4.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1008.37	150.09	-0.00058
P1	809.64	252.59	0.00000
P2	524.66	359.82	0.00103
P3	288.15	435.69	0.00207
P4	80.46	552.17	0.00507
P5	0.00	519.14	0.00619
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1008.38	-135.67	-0.00054
P1	825.72	-223.26	0.00000
P2	538.64	-311.06	0.00103
P3	296.71	-368.46	0.00207
P4	-16.26	-463.76	0.00507
P5	0.00	-461.33	0.00488
Pmin	-864.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

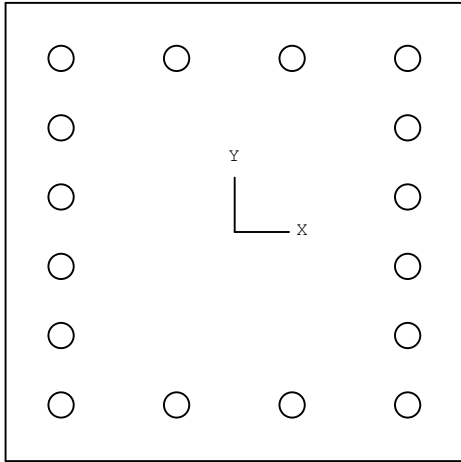
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_16#9\_NX6\_NY4\_cc2.439



Section 44 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

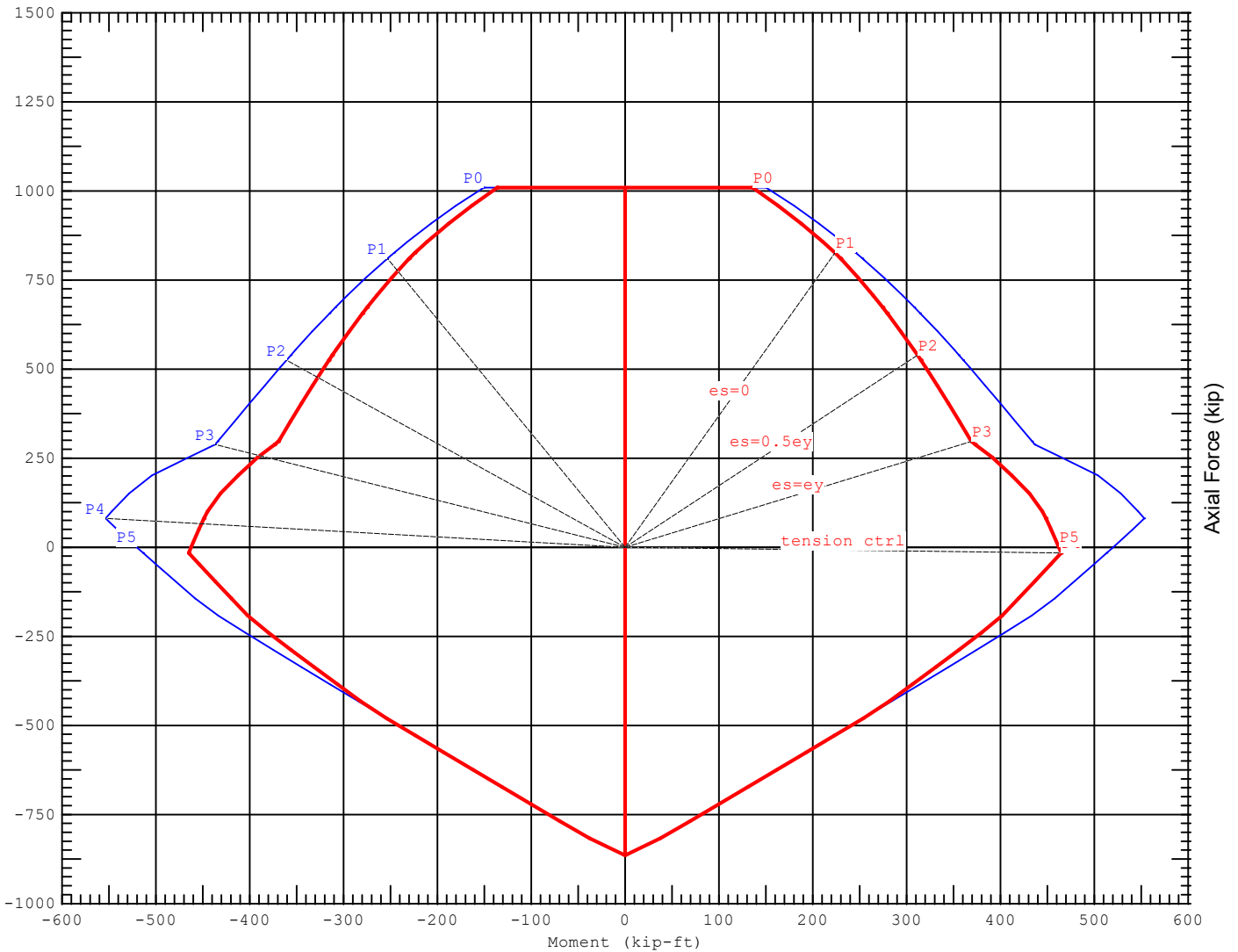
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 4.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1008.38	135.67	-0.00054
P1	825.72	223.26	0.00000
P2	538.64	311.06	0.00103
P3	296.71	368.46	0.00207
P4	-16.26	463.76	0.00507
P5	0.00	461.33	0.00488
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1008.37	-150.09	-0.00058
P1	809.64	-252.59	0.00000
P2	524.66	-359.82	0.00103
P3	288.15	-435.69	0.00207
P4	80.46	-552.17	0.00507
P5	0.00	-519.14	0.00619
Pmin	-864.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

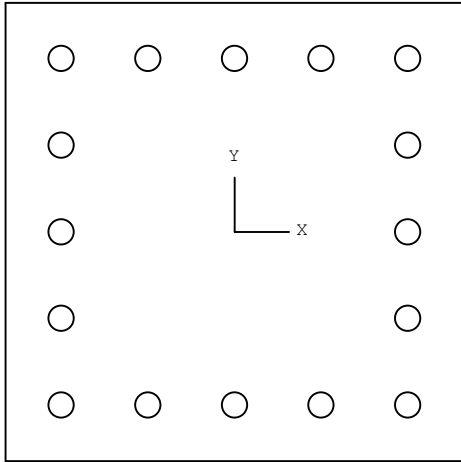
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_16#9\_NX5\_NY5\_cc2.439



Section 45 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

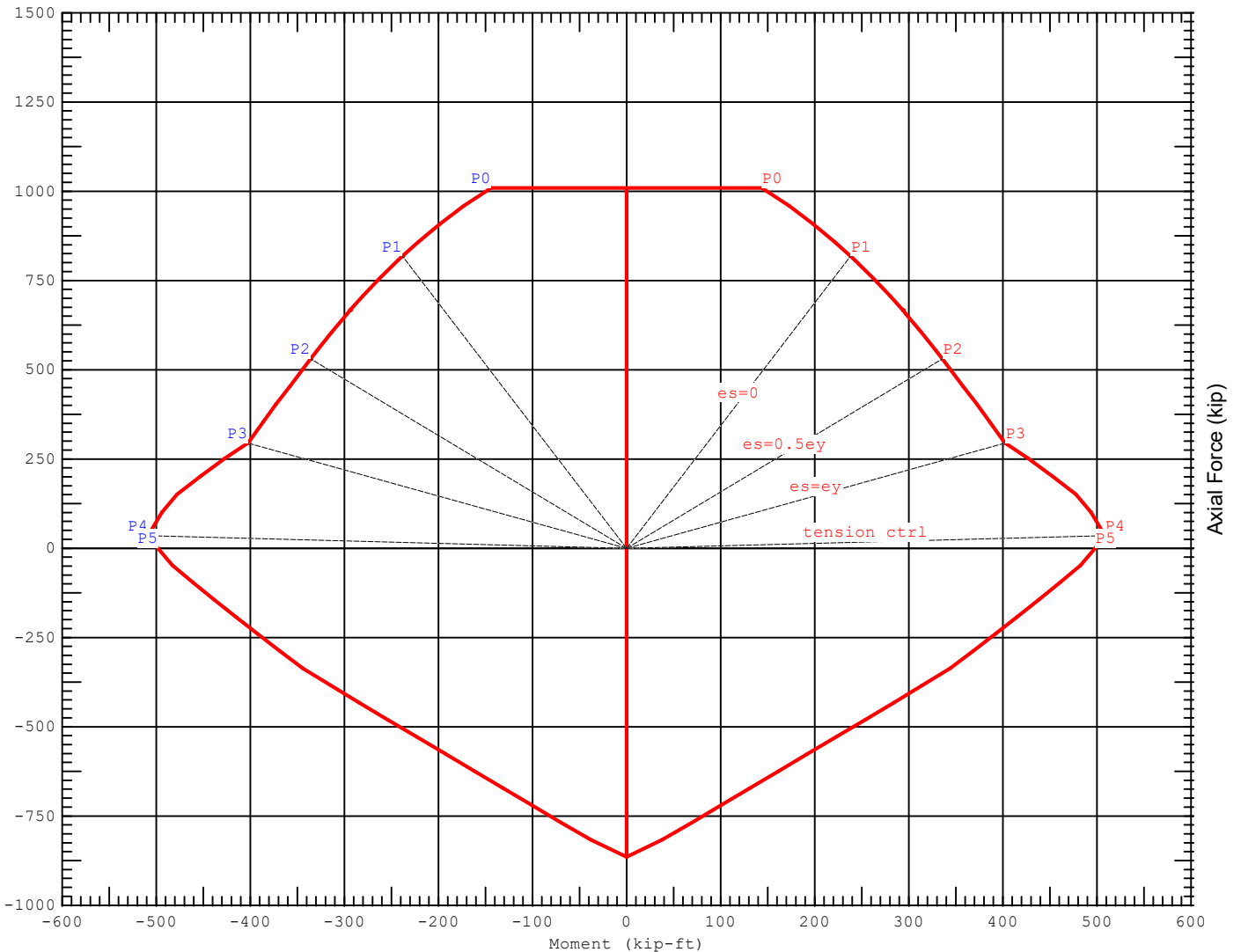
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 4.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1008.38	143.60	-0.00056
P1	817.68	237.58	0.00000
P2	529.99	335.12	0.00103
P3	294.09	401.64	0.00207
P4	34.68	507.16	0.00507
P5	0.00	496.83	0.00543
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1008.38	-143.60	-0.00056
P1	817.68	-237.58	0.00000
P2	529.99	-335.12	0.00103
P3	294.09	-401.64	0.00207
P4	34.68	-507.16	0.00507
P5	0.00	-496.83	0.00543
Pmin	-864.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

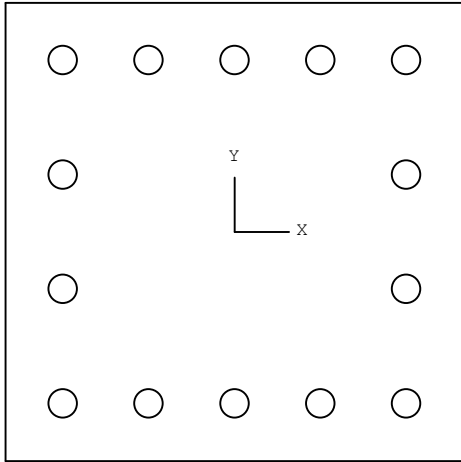
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_14#10\_NX4\_NY5\_cc2.51



Section 46 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

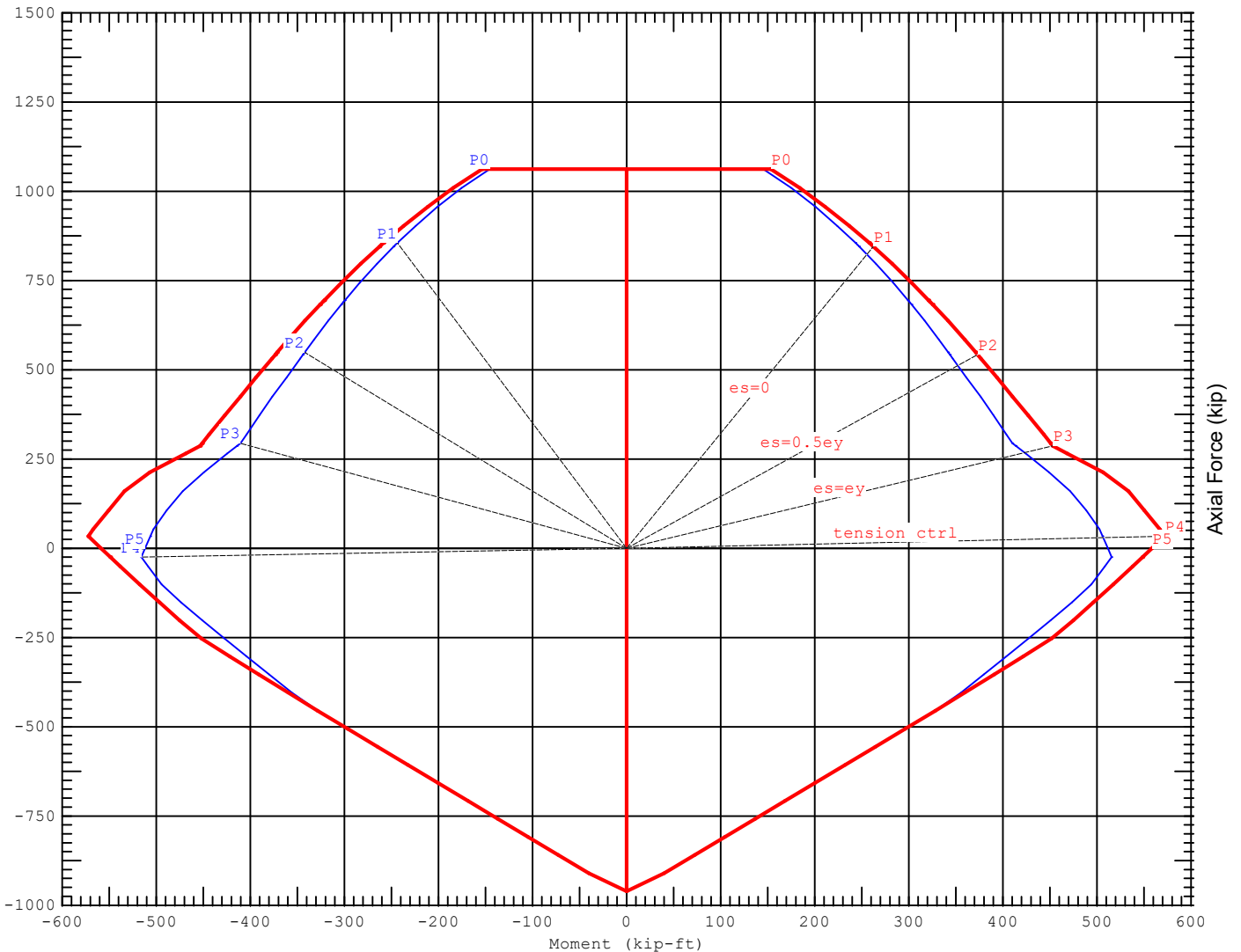
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 14 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 17.78 in<sup>2</sup>  
 Roh: 4.44%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1061.56	153.15	-0.00060
P1	844.55	261.95	0.00000
P2	541.93	372.48	0.00103
P3	286.68	452.25	0.00207
P4	33.75	570.64	0.00507
P5	-0.01	557.39	0.00548
Pmin	-960.12	0.00	0.20000

PT	P	My(-)	max es
P0	1061.55	-145.04	-0.00057
P1	854.43	-243.01	0.00000
P2	548.26	-341.33	0.00103
P3	293.66	-409.32	0.00207
P4	-24.59	-514.54	0.00507
P5	-0.00	-510.81	0.00485
Pmin	-960.12	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

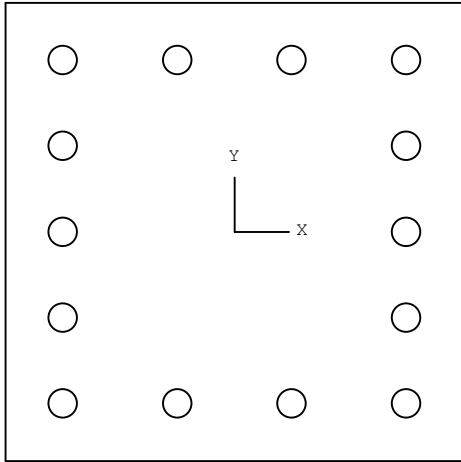
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_14#10\_NX5\_NY4\_cc2.51



Section 47 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

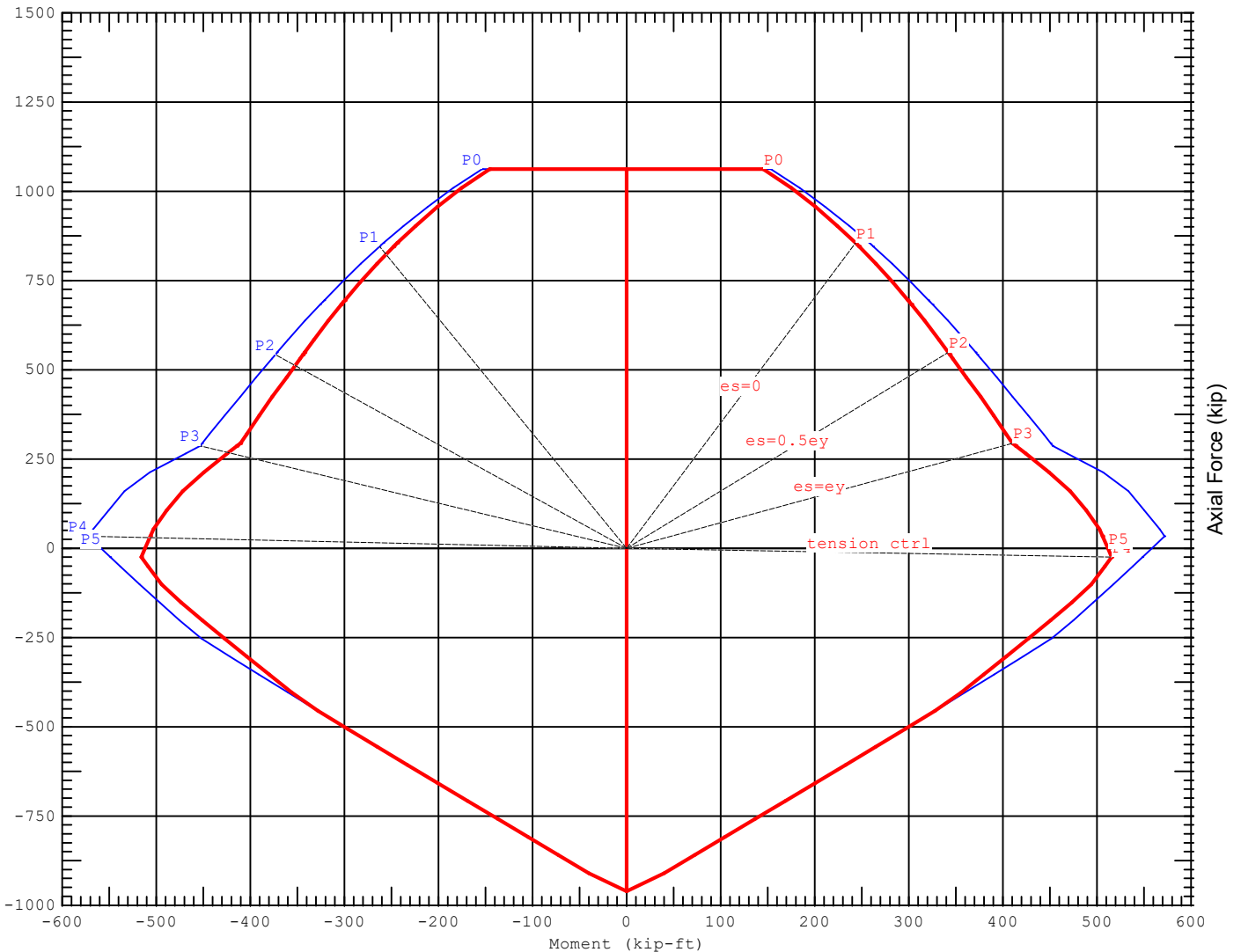
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 14 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 17.78 in<sup>2</sup>  
 Roh: 4.44%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1061.55	145.04	-0.00057
P1	854.43	243.01	0.00000
P2	548.26	341.33	0.00103
P3	293.66	409.32	0.00207
P4	-24.59	514.54	0.00507
P5	-0.00	510.81	0.00485
Pmin	-960.12	0.00	0.20000

PT	P	My(-)	max es
P0	1061.56	-153.15	-0.00060
P1	844.55	-261.95	0.00000
P2	541.93	-372.48	0.00103
P3	286.68	-452.25	0.00207
P4	33.75	-570.64	0.00507
P5	-0.01	-557.39	0.00548
Pmin	-960.12	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

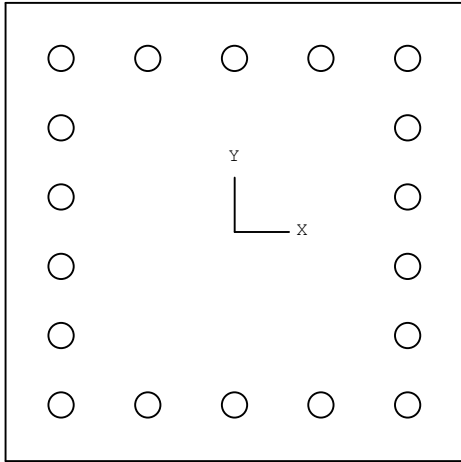
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_18#9\_NX6\_NY5\_cc2.439



Section 48 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

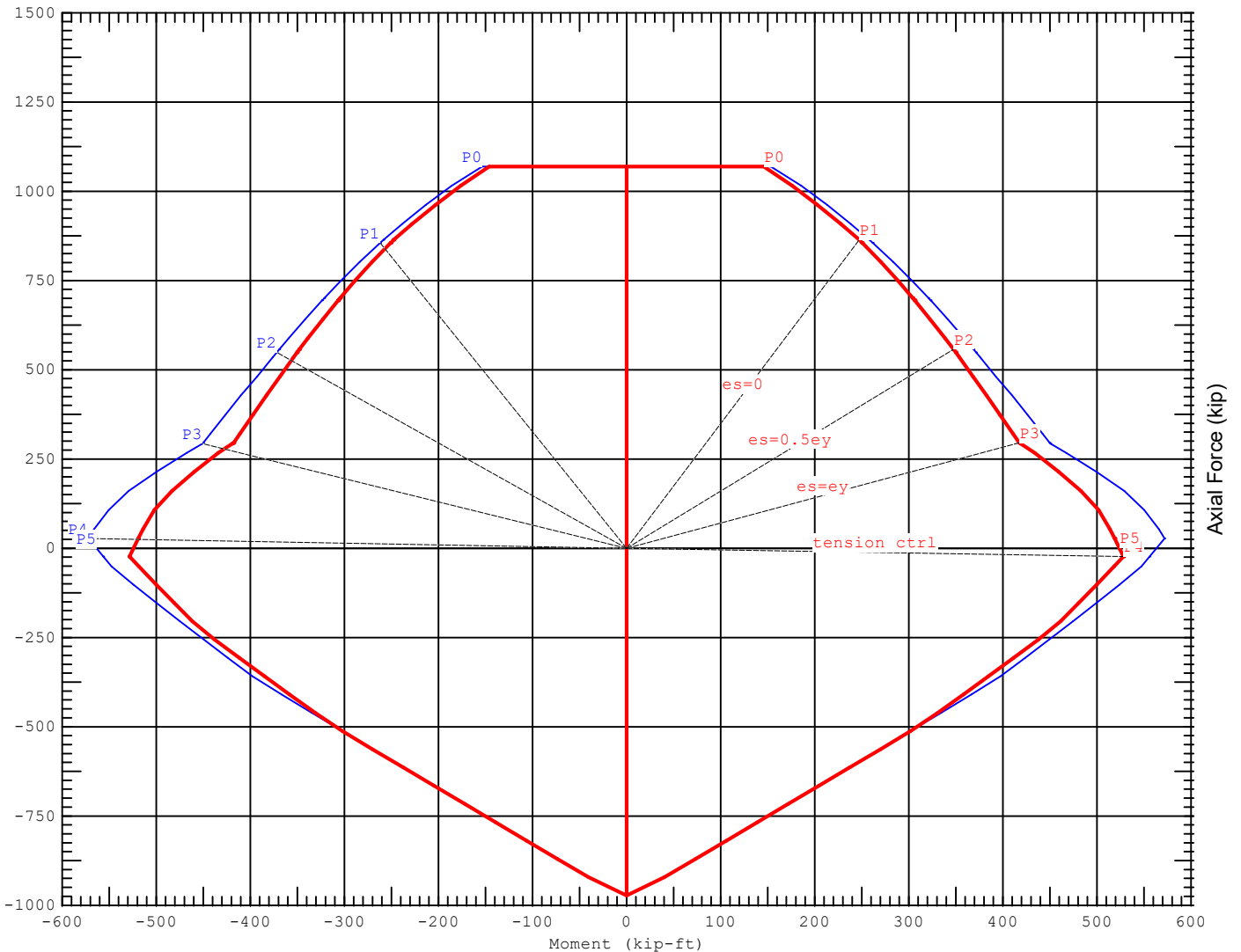
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 18 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 18.00 in<sup>2</sup>  
 Roh: 4.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1068.13	145.69	-0.00057
P1	863.06	246.79	0.00000
P2	556.48	346.87	0.00103
P3	295.06	416.56	0.00207
P4	-23.50	527.24	0.00507
P5	0.02	522.90	0.00481
Pmin	-972.00	0.00	0.20000

PT	P	My(-)	max es
P0	1068.13	-153.14	-0.00059
P1	855.02	-261.11	0.00000
P2	547.83	-370.94	0.00103
P3	292.43	-449.74	0.00207
P4	27.44	-570.64	0.00507
P5	-0.01	-562.15	0.00534
Pmin	-972.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

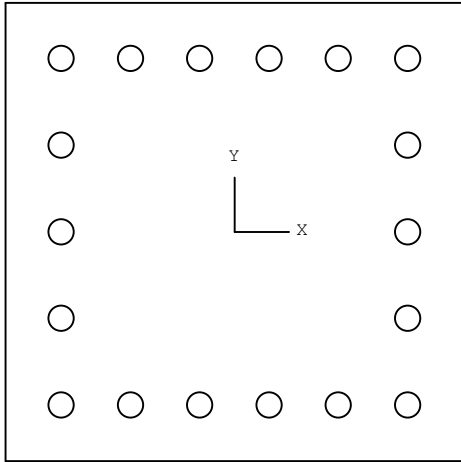
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_18#9\_NX5\_NY6\_cc2.439



Section 49 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

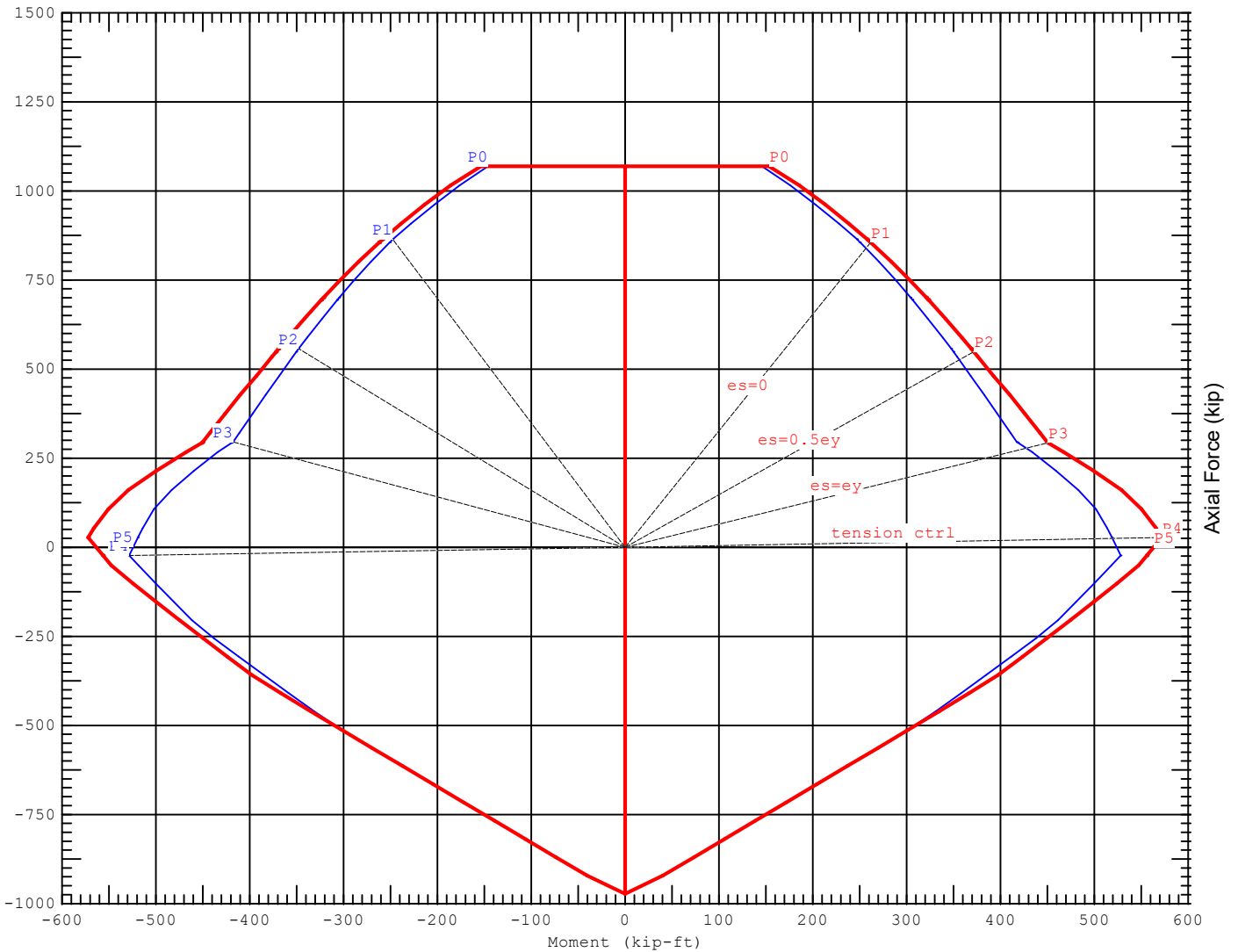
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 18 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 18.00 in<sup>2</sup>  
 Roh: 4.50%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1068.13	153.14	-0.00059
P1	855.02	261.11	0.00000
P2	547.83	370.94	0.00103
P3	292.43	449.74	0.00207
P4	27.44	570.64	0.00507
P5	-0.01	562.15	0.00534
Pmin	-972.00	0.00	0.20000

PT	P	My(-)	max es
P0	1068.13	-145.69	-0.00057
P1	863.06	-246.79	0.00000
P2	556.48	-346.87	0.00103
P3	295.06	-416.56	0.00207
P4	-23.50	-527.24	0.00507
P5	0.02	-522.90	0.00481
Pmin	-972.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

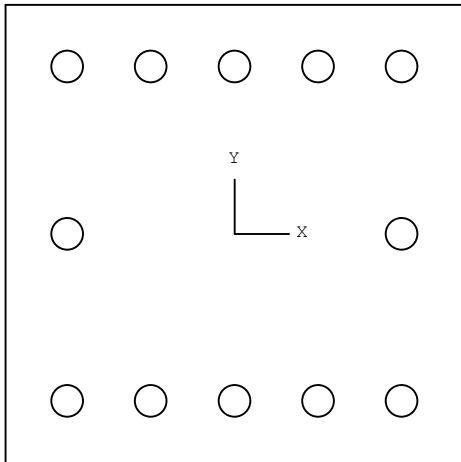
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#11\_NX3\_NY5\_cc2.705



Section 50 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

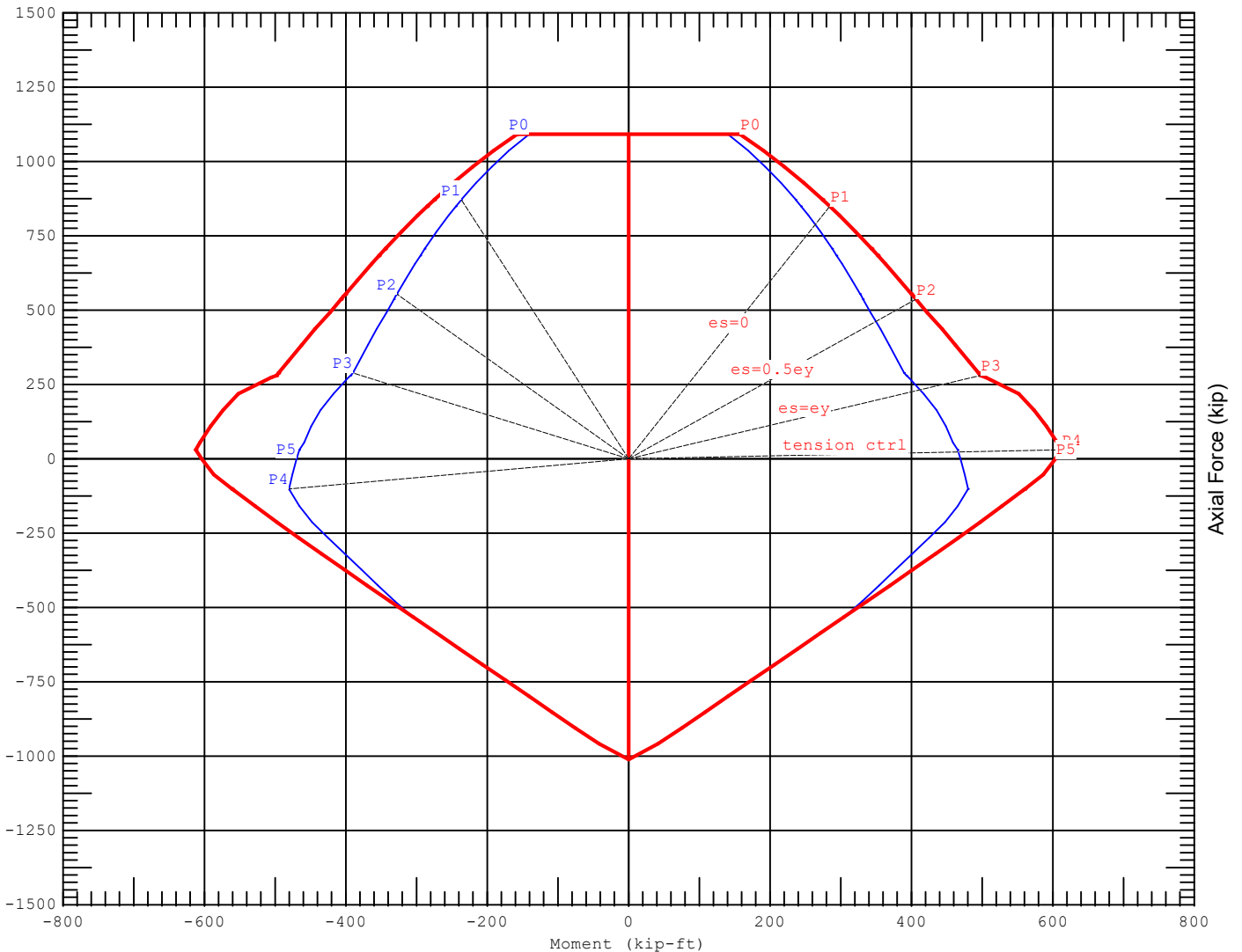
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 12 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 18.72 in<sup>2</sup>  
 Roh: 4.68%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1089.64	157.36	-0.00066
P1	847.85	284.67	0.00000
P2	535.62	406.46	0.00103
P3	279.56	497.79	0.00207
P4	29.97	612.19	0.00507
P5	-0.01	603.68	0.00534
Pmin	-1010.88	0.00	0.20000

PT	P	My(-)	max es
P0	1089.64	-140.39	-0.00059
P1	869.84	-236.47	0.00000
P2	553.26	-327.50	0.00103
P3	287.69	-389.64	0.00207
P4	-101.45	-480.20	0.00507
P5	0.01	-469.34	0.00429
Pmin	-1010.88	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

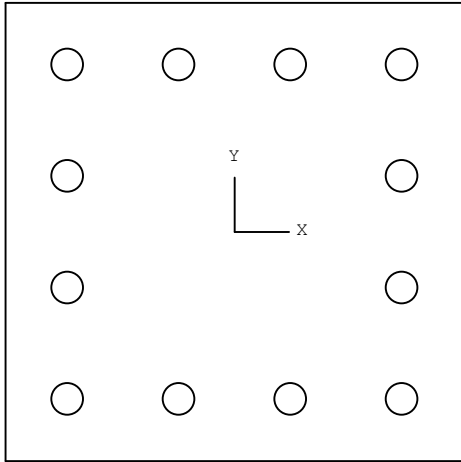
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#11\_NX4\_NY4\_cc2.705



Section 51 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

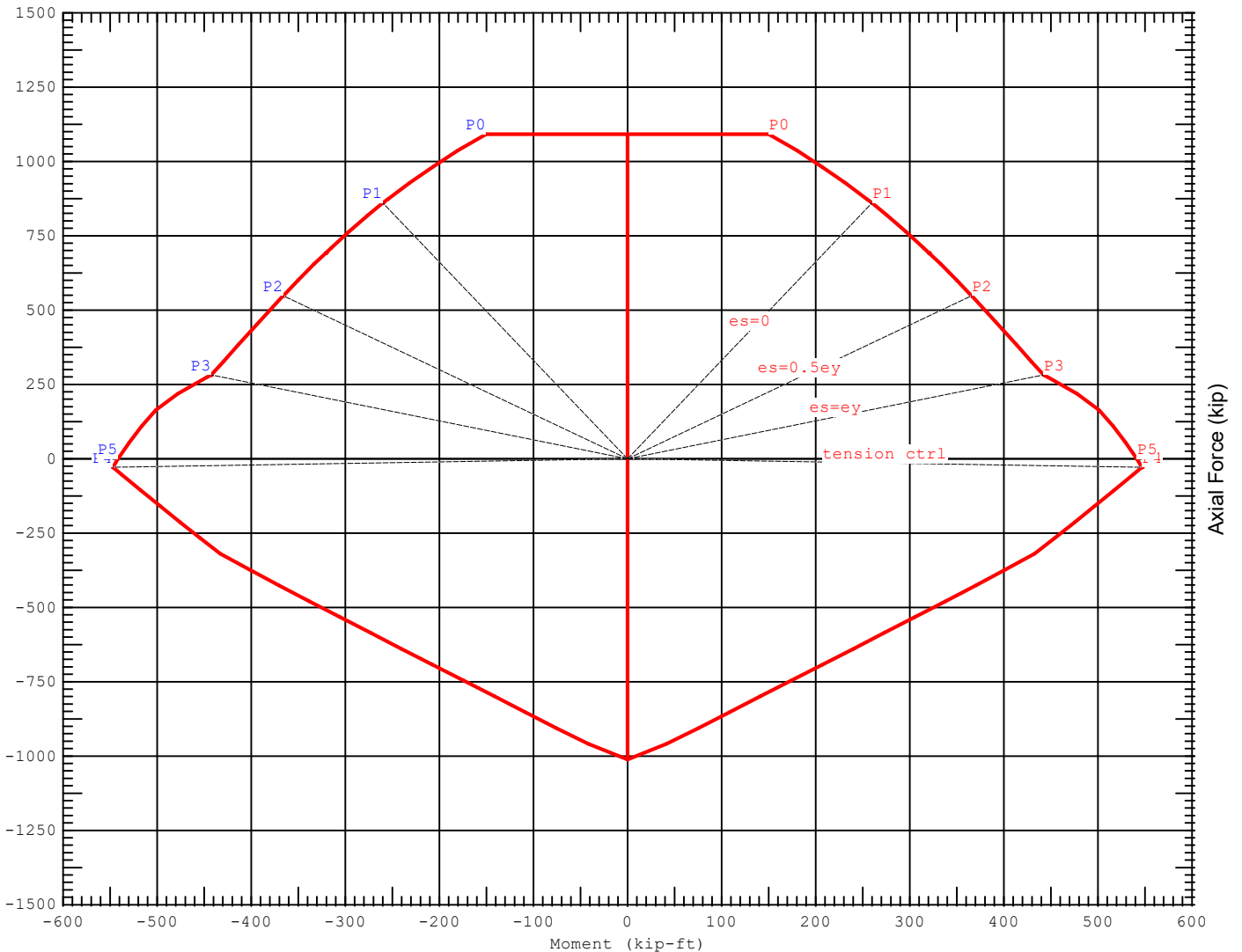
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 12 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 18.72 in<sup>2</sup>  
 Roh: 4.68%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1089.64	149.72	-0.00062
P1	858.85	259.31	0.00000
P2	547.02	365.03	0.00103
P3	281.04	441.33	0.00207
P4	-29.07	545.52	0.00507
P5	-0.01	540.27	0.00476
Pmin	-1010.88	0.00	0.20000

PT	P	My(-)	max es
P0	1089.64	-149.72	-0.00062
P1	858.85	-259.31	0.00000
P2	547.02	-365.03	0.00103
P3	281.04	-441.33	0.00207
P4	-29.07	-545.52	0.00507
P5	-0.01	-540.27	0.00476
Pmin	-1010.88	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

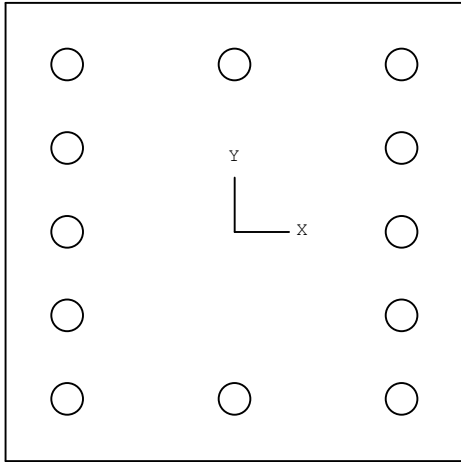
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_12#11\_NX5\_NY3\_cc2.705



Section 52 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

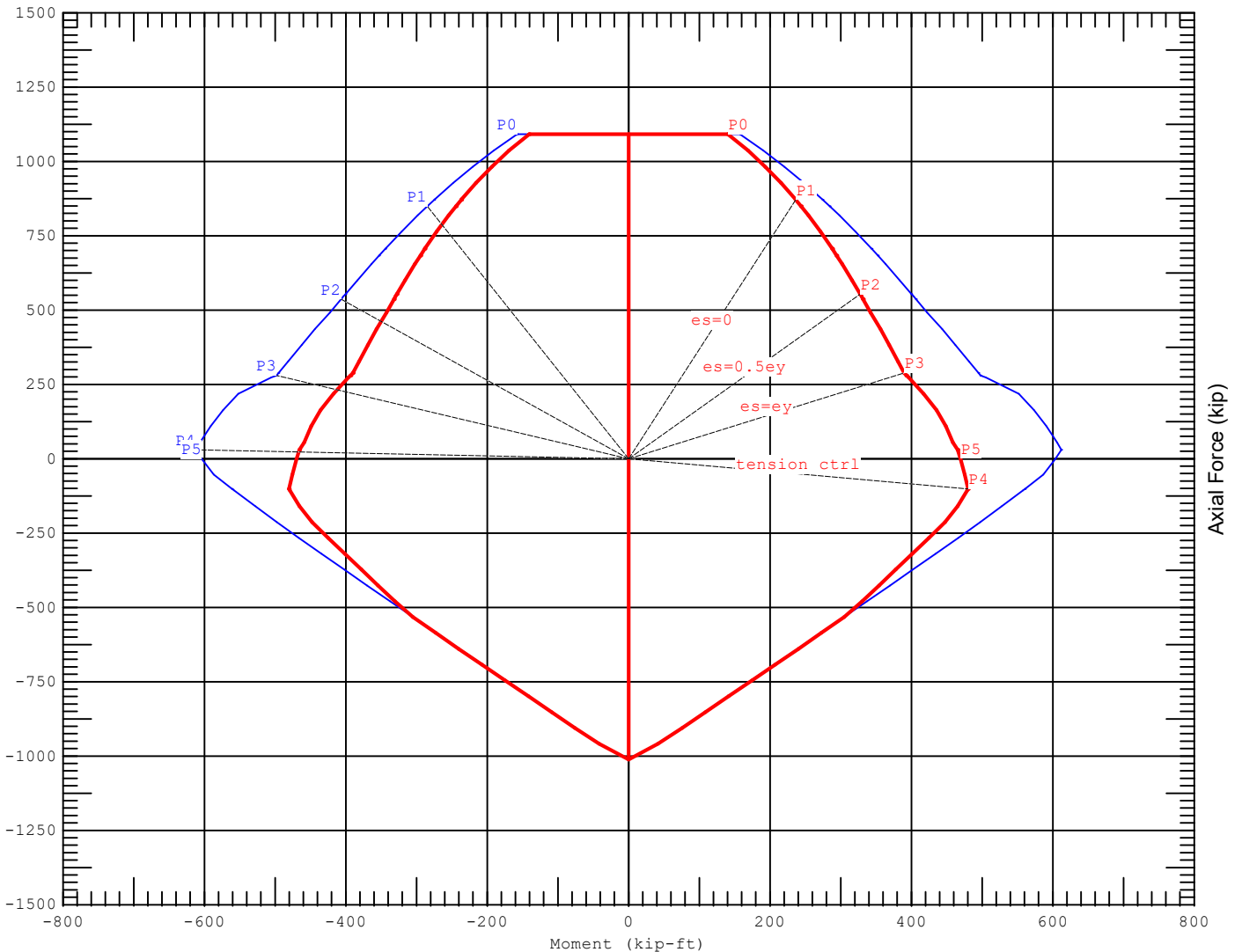
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 12 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 18.72 in<sup>2</sup>  
 Roh: 4.68%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1089.64	140.39	-0.00059
P1	869.84	236.47	0.00000
P2	553.26	327.50	0.00103
P3	287.69	389.64	0.00207
P4	-101.45	480.20	0.00507
P5	0.01	469.34	0.00429
Pmin	-1010.88	0.00	0.20000

PT	P	My(-)	max es
P0	1089.64	-157.36	-0.00066
P1	847.85	-284.67	0.00000
P2	535.62	-406.46	0.00103
P3	279.56	-497.79	0.00207
P4	29.97	-612.19	0.00507
P5	-0.01	-603.68	0.00534
Pmin	-1010.88	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

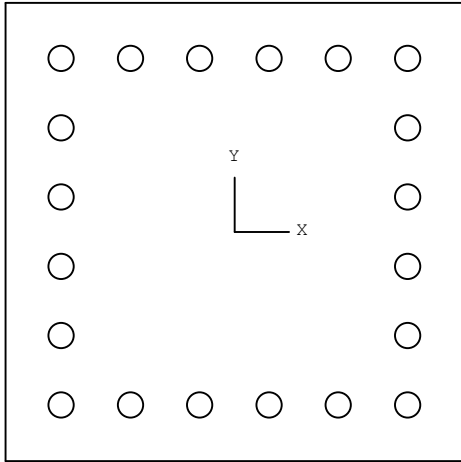
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_20#9\_NX6\_NY6\_cc2.439



Section 53 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

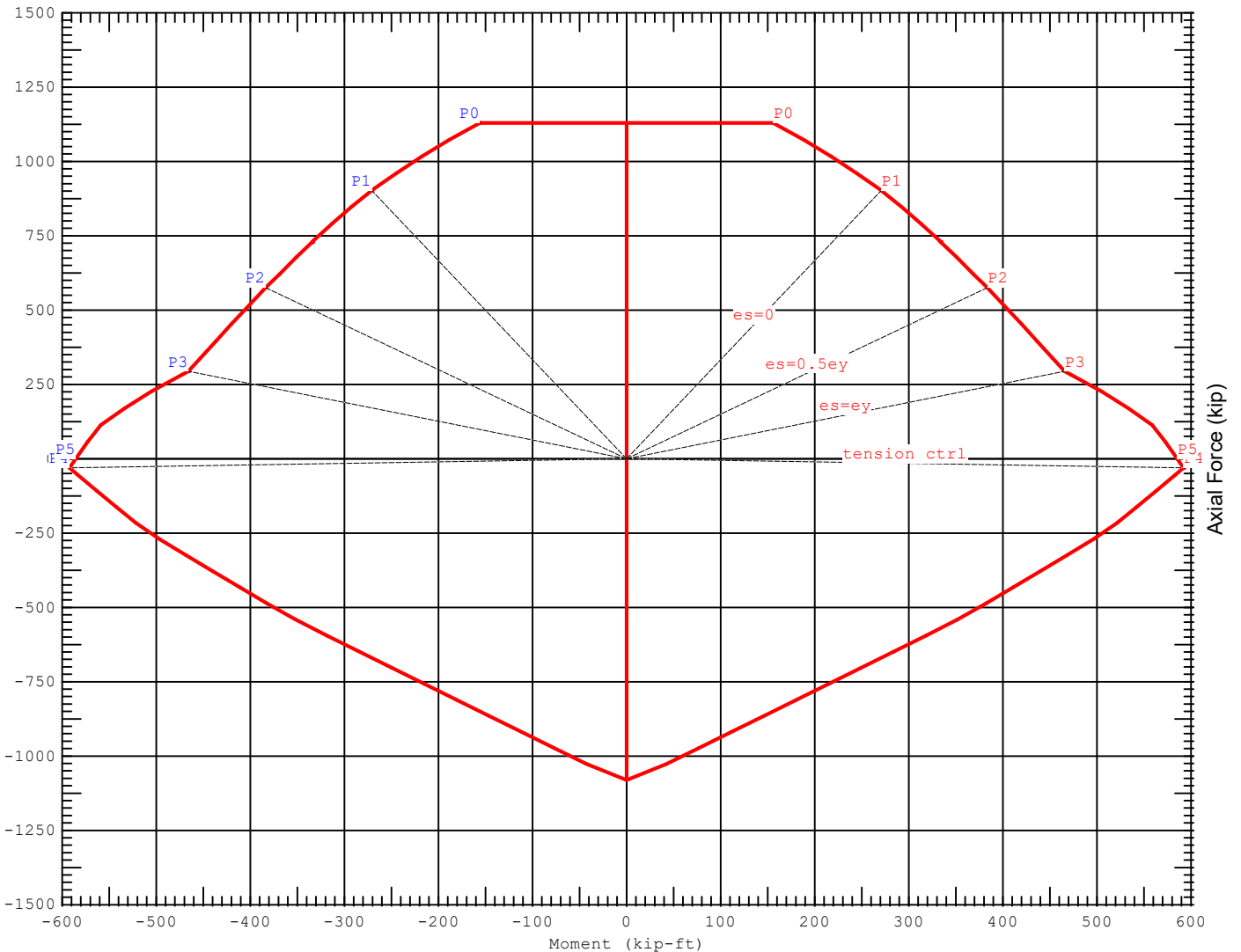
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 20 # 9  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 20.00 in<sup>2</sup>  
 Roh: 5.00%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1127.87	155.49	-0.00060
P1	900.40	270.32	0.00000
P2	574.32	382.69	0.00103
P3	293.40	464.66	0.00207
P4	-30.74	590.73	0.00507
P5	-0.02	584.06	0.00475
Pmin	-1080.00	0.00	0.20000

PT	P	My(-)	max es
P0	1127.87	-155.49	-0.00060
P1	900.40	-270.32	0.00000
P2	574.32	-382.69	0.00103
P3	293.40	-464.66	0.00207
P4	-30.74	-590.73	0.00507
P5	-0.02	-584.06	0.00475
Pmin	-1080.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

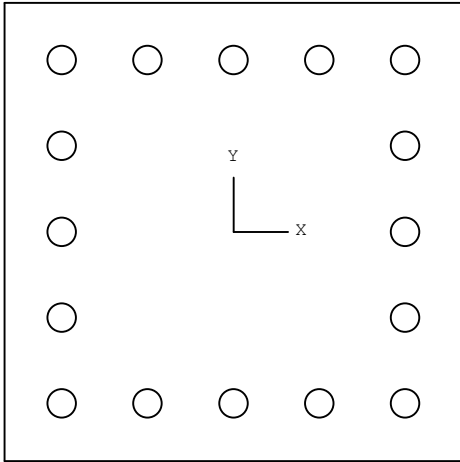
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_16#10\_NX5\_NY5\_cc2.51



Section 54 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

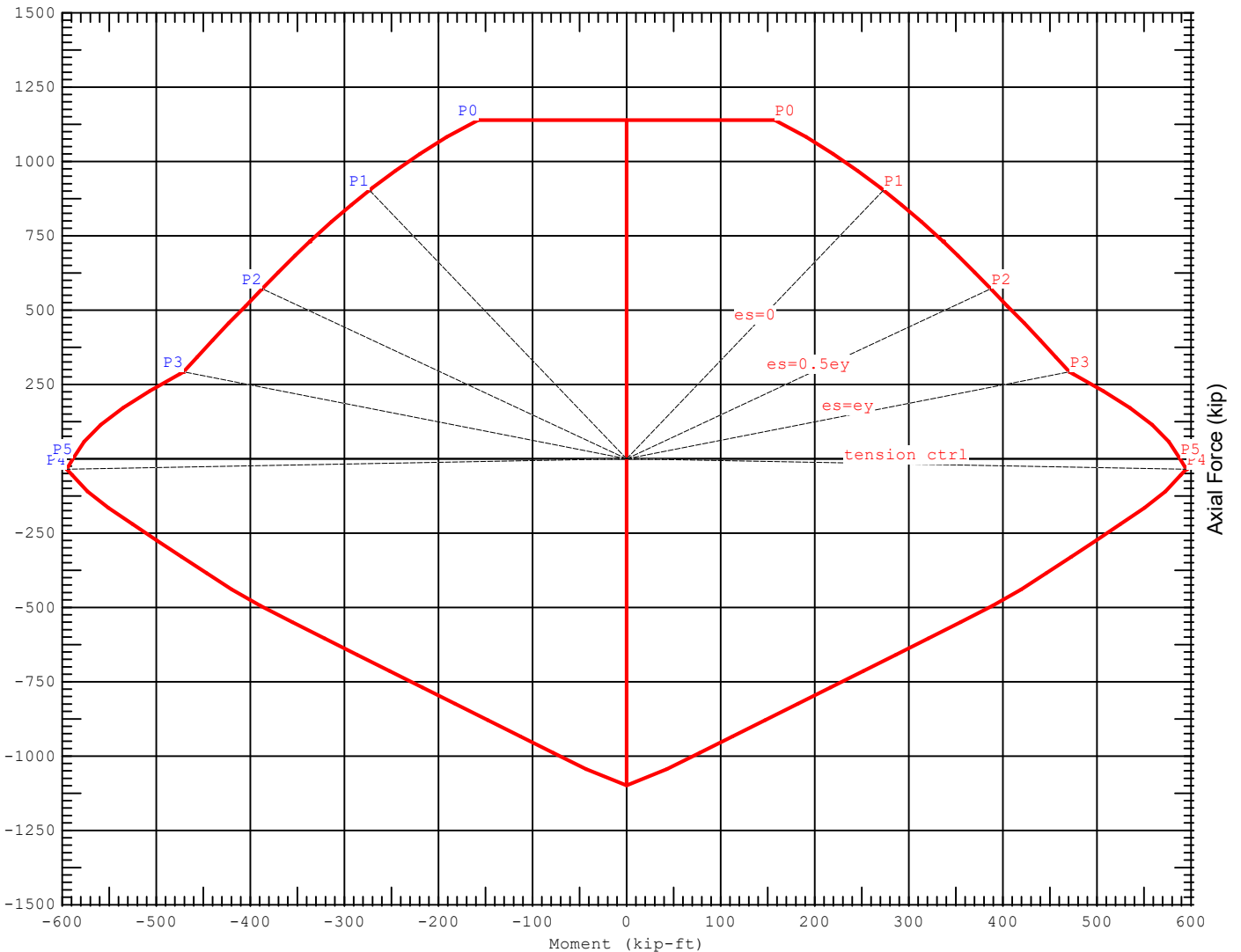
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 16 # 10  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 20.32 in<sup>2</sup>  
 Roh: 5.08%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1137.44	157.13	-0.00061
P1	901.85	272.62	0.00000
P2	570.92	386.38	0.00103
P3	291.56	469.83	0.00207
P4	-35.03	593.64	0.00507
P5	0.02	587.17	0.00477
Pmin	-1097.28	-0.00	0.20000

PT	P	My(-)	max es
P0	1137.44	-157.13	-0.00061
P1	901.85	-272.62	0.00000
P2	570.92	-386.38	0.00103
P3	291.56	-469.83	0.00207
P4	-35.03	-593.64	0.00507
P5	0.02	-587.17	0.00477
Pmin	-1097.28	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

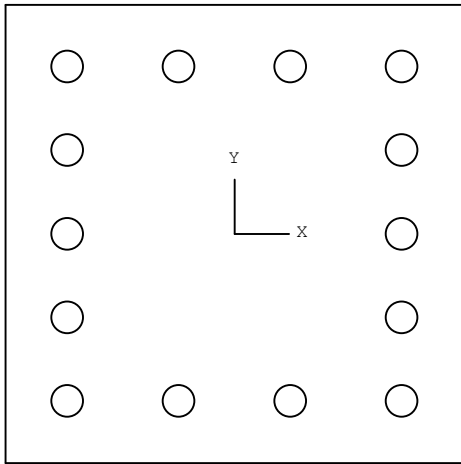
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_14#11\_NX5\_NY4\_cc2.705



Section 55 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

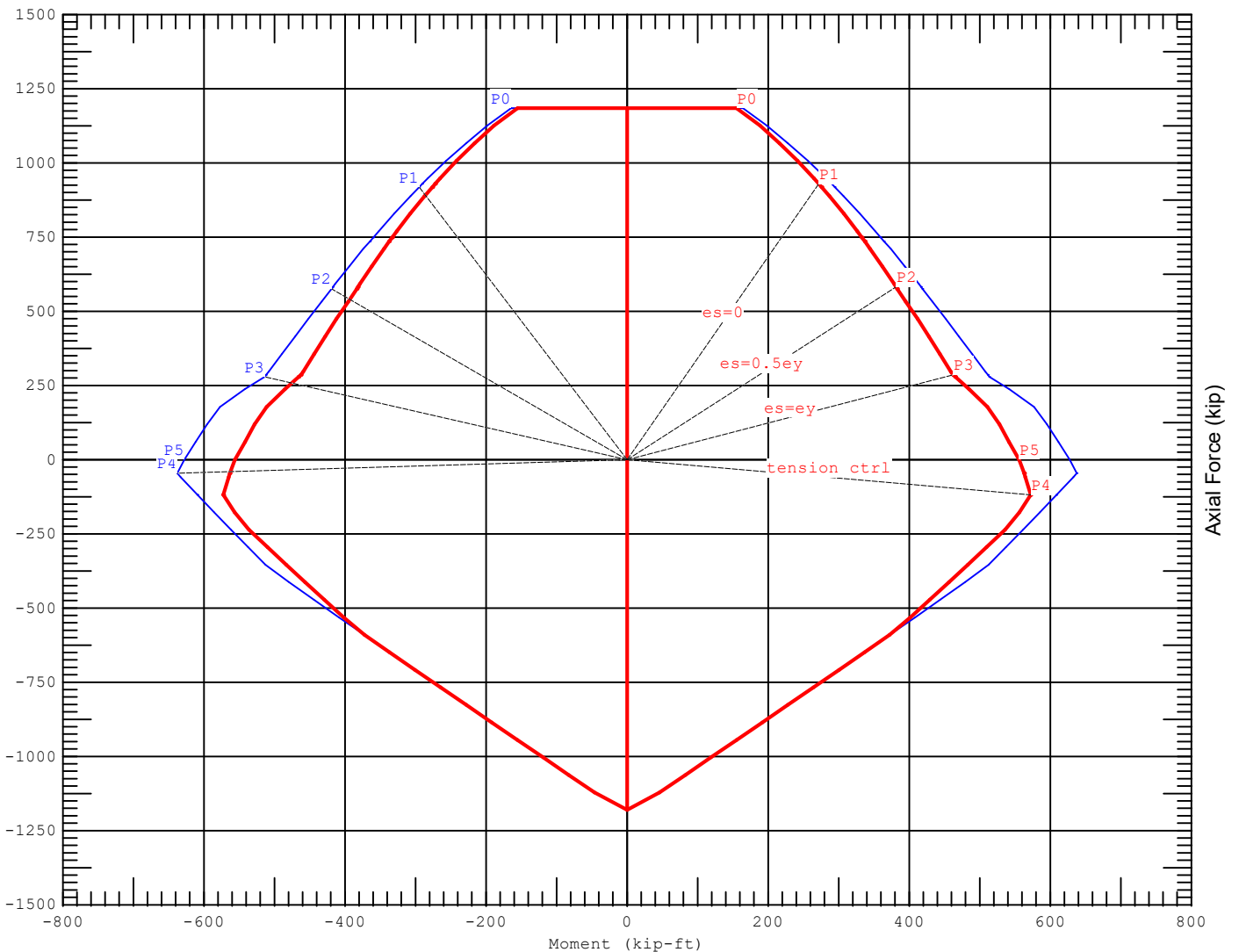
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 14 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 21.84 in<sup>2</sup>  
 Roh: 5.46%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1182.85	155.01	-0.00063
P1	928.09	271.88	0.00000
P2	581.10	381.40	0.00103
P3	285.10	462.04	0.00207
P4	-118.50	572.25	0.00507
P5	0.00	555.72	0.00421
Pmin	-1179.36	0.00	0.20000

PT	P	My(-)	max es
P0	1182.85	-164.21	-0.00066
P1	917.10	-294.73	0.00000
P2	574.86	-418.93	0.00103
P3	278.45	-513.73	0.00207
P4	-46.13	-637.57	0.00507
P5	0.01	-627.42	0.00461
Pmin	-1179.36	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

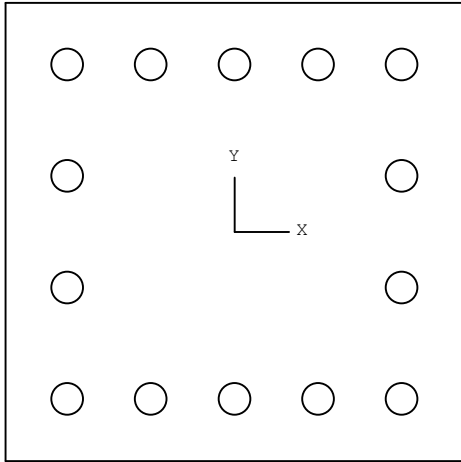
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_14#11\_NX4\_NY5\_cc2.705



Section 56 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

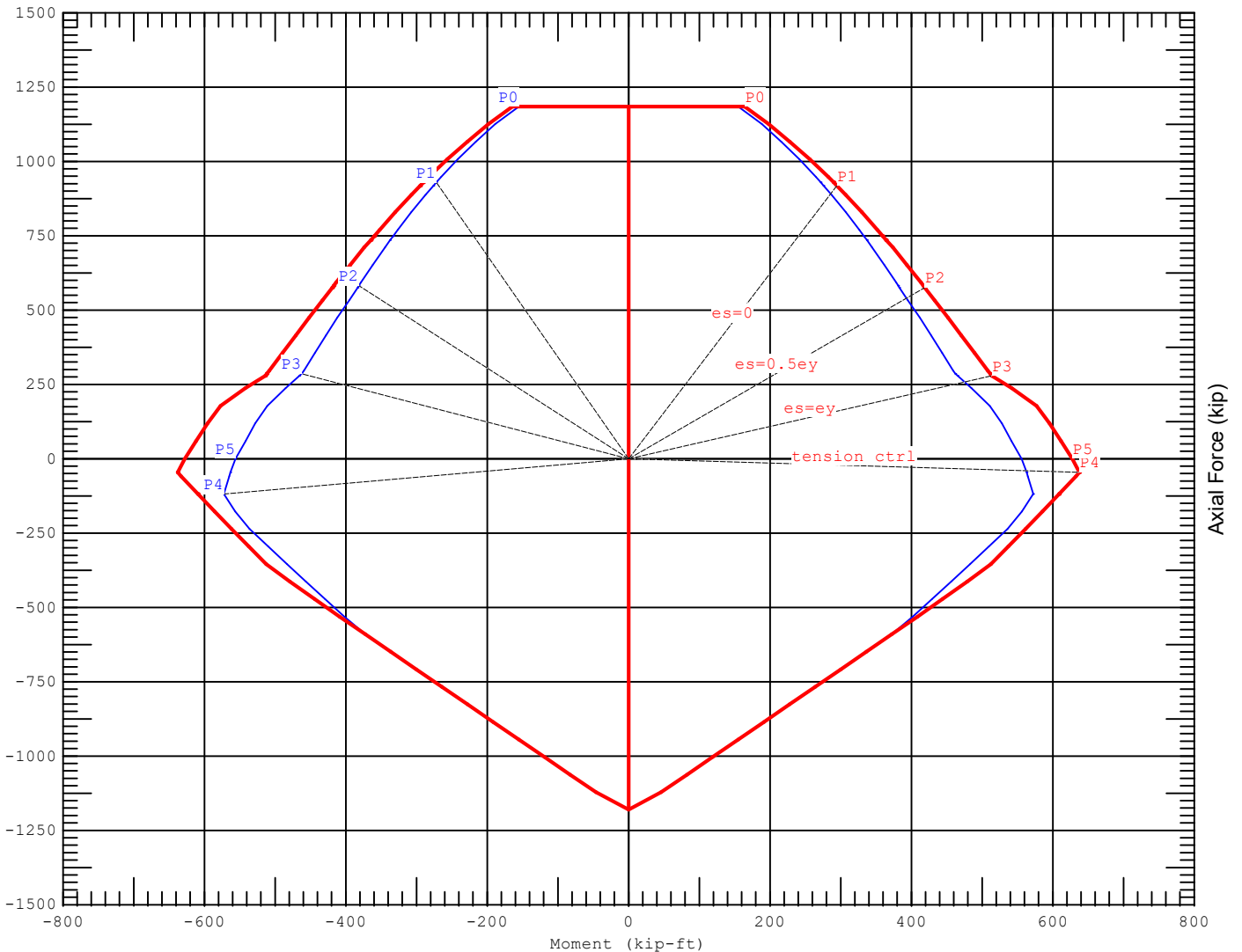
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 14 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 21.84 in<sup>2</sup>  
 Roh: 5.46%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1182.85	164.21	-0.00066
P1	917.10	294.73	0.00000
P2	574.86	418.93	0.00103
P3	278.45	513.73	0.00207
P4	-46.13	637.57	0.00507
P5	0.01	627.42	0.00461
Pmin	-1179.36	0.00	0.20000

PT	P	My(-)	max es
P0	1182.85	-155.01	-0.00063
P1	928.09	-271.88	0.00000
P2	581.10	-381.40	0.00103
P3	285.10	-462.04	0.00207
P4	-118.50	-572.25	0.00507
P5	0.00	-555.72	0.00421
Pmin	-1179.36	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

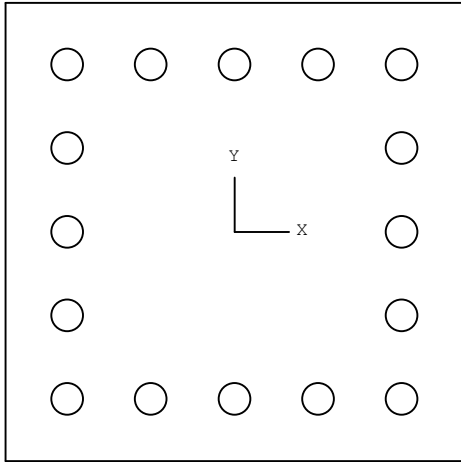
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x20\_fc3\_fy60\_16#11\_NX5\_NY5\_cc2.705



Section 57 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

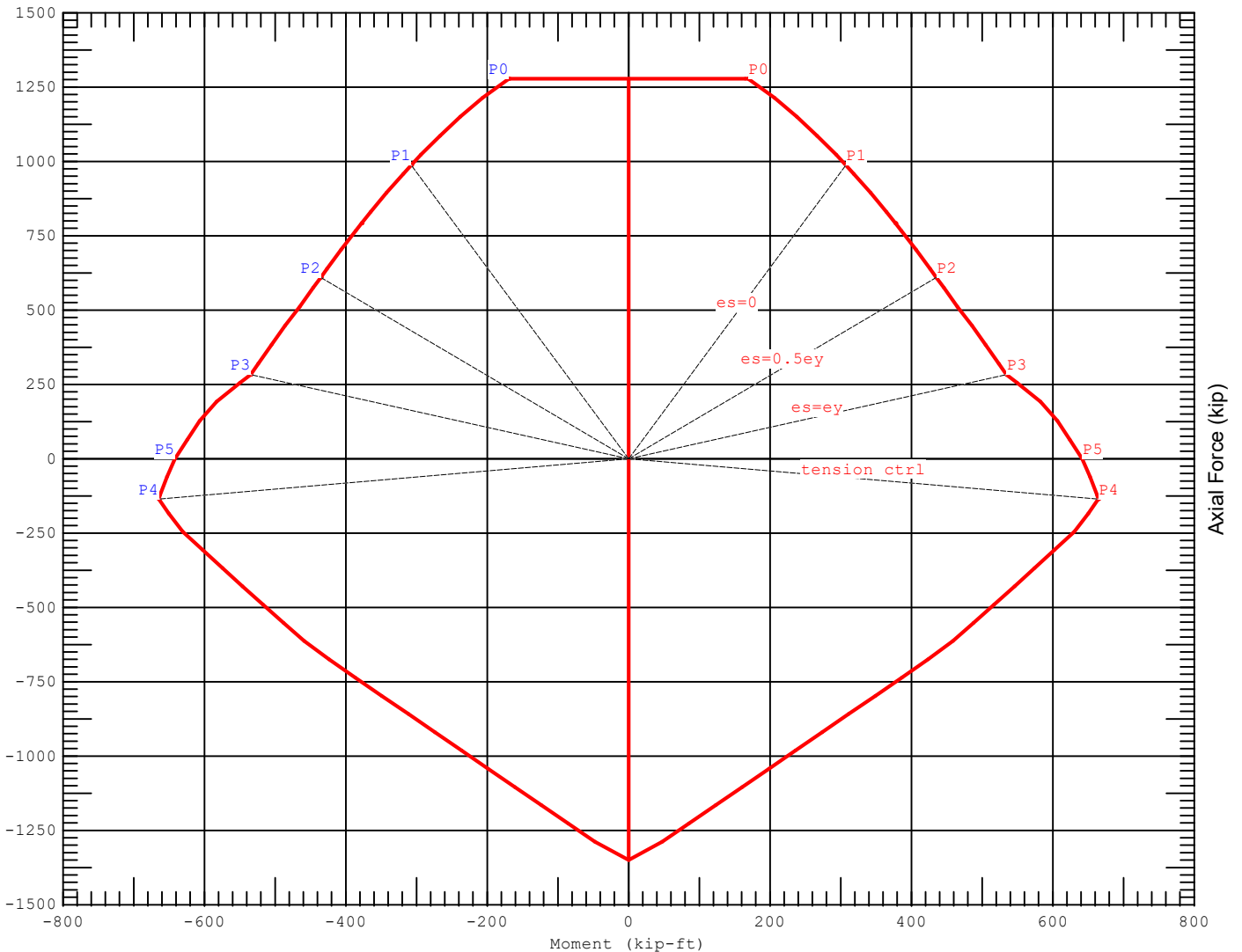
b x h: 20 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 16 # 11  
 Confinement: Tied  
 Ag: 400.00 in<sup>2</sup>  
 As: 24.96 in<sup>2</sup>  
 Roh: 6.24%  
 Ix: 13333.3 in<sup>4</sup>  
 Iy: 13333.3 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1276.05	169.26	-0.00067
P1	986.35	307.29	0.00000
P2	608.93	435.31	0.00103
P3	282.51	534.44	0.00207
P4	-135.56	664.30	0.00507
P5	-0.01	641.37	0.00413
Pmin	-1347.84	0.00	0.20000

PT	P	My(-)	max es
P0	1276.05	-169.26	-0.00067
P1	986.35	-307.29	0.00000
P2	608.93	-435.31	0.00103
P3	282.51	-534.44	0.00207
P4	-135.56	-664.30	0.00507
P5	-0.01	-641.37	0.00413
Pmin	-1347.84	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

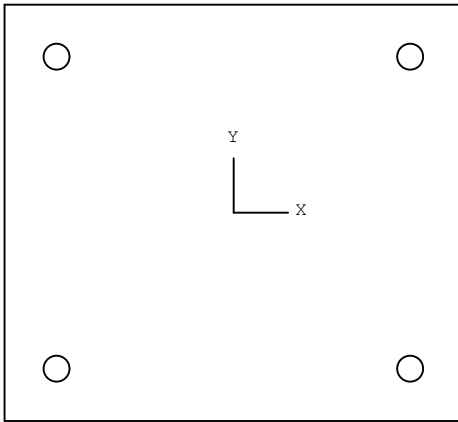
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_4#10\_NX2\_NY2\_cc2.51



Section 58 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

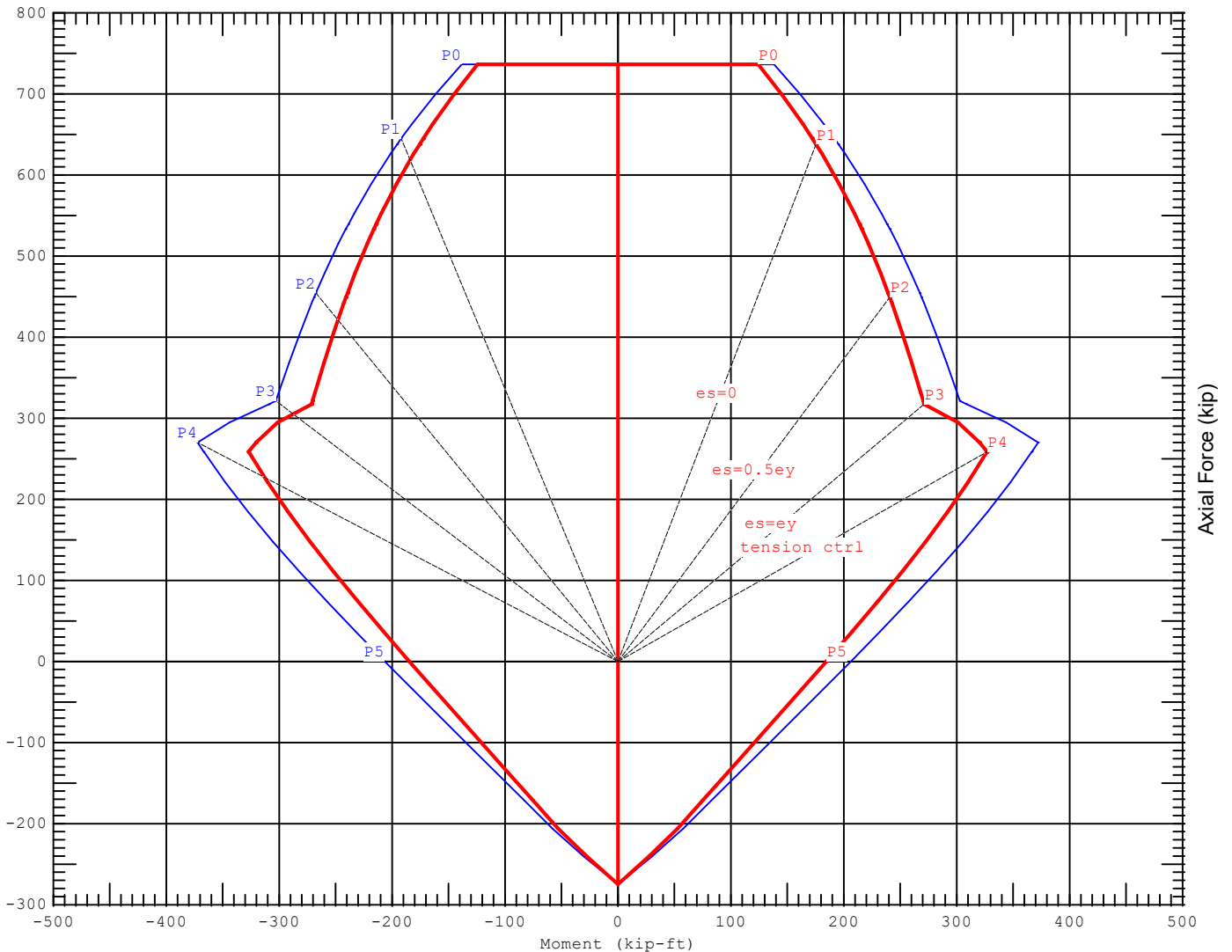
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 4 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 5.08 in<sup>2</sup>  
 Roh: 1.15%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.71 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	735.20	124.00	-0.00039
P1	636.96	175.16	0.00000
P2	448.43	240.36	0.00103
P3	316.63	270.78	0.00207
P4	258.20	326.48	0.00507
P5	0.00	184.42	0.01597
Pmin	-274.32	0.00	0.20000

PT	P	My(-)	max es
P0	735.20	-138.08	-0.00036
P1	644.03	-191.44	0.00000
P2	453.68	-266.88	0.00103
P3	320.81	-302.35	0.00207
P4	269.72	-371.48	0.00507
P5	0.01	-206.13	0.01736
Pmin	-274.32	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

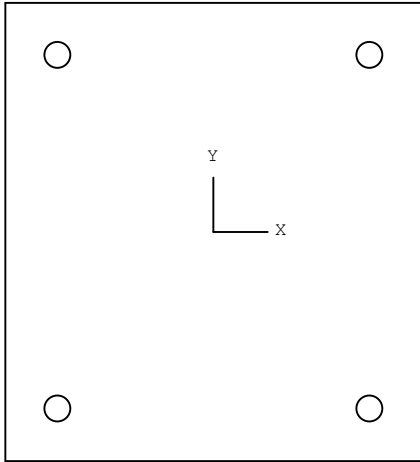
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_4#10\_NX2\_NY2\_cc2.51



Section 59 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

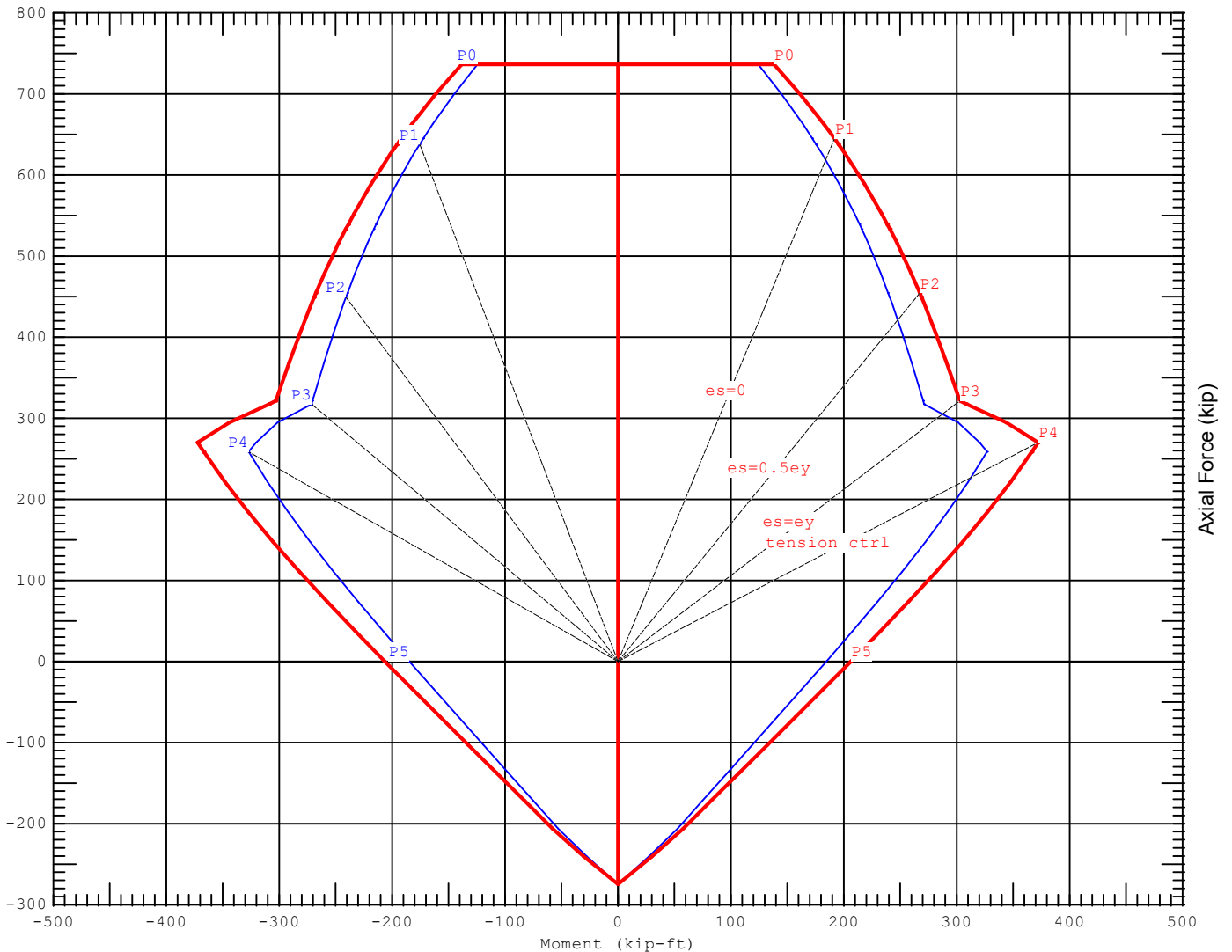
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 4 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 5.08 in<sup>2</sup>  
 Roh: 1.15%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.71 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	735.20	138.08	-0.00036
P1	644.03	191.44	0.00000
P2	453.68	266.88	0.00103
P3	320.81	302.35	0.00207
P4	269.72	371.48	0.00507
P5	0.01	206.13	0.01736
Pmin	-274.32	0.00	0.20000

PT	P	My(-)	max es
P0	735.20	-124.00	-0.00039
P1	636.96	-175.16	0.00000
P2	448.43	-240.36	0.00103
P3	316.63	-270.78	0.00207
P4	258.20	-326.48	0.00507
P5	0.00	-184.42	0.01597
Pmin	-274.32	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

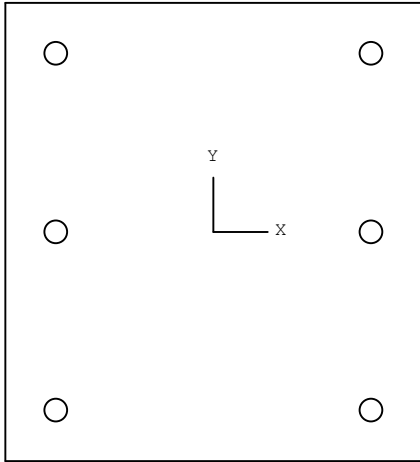
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_6#9\_NX3\_NY2\_cc2.439



Section 60 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

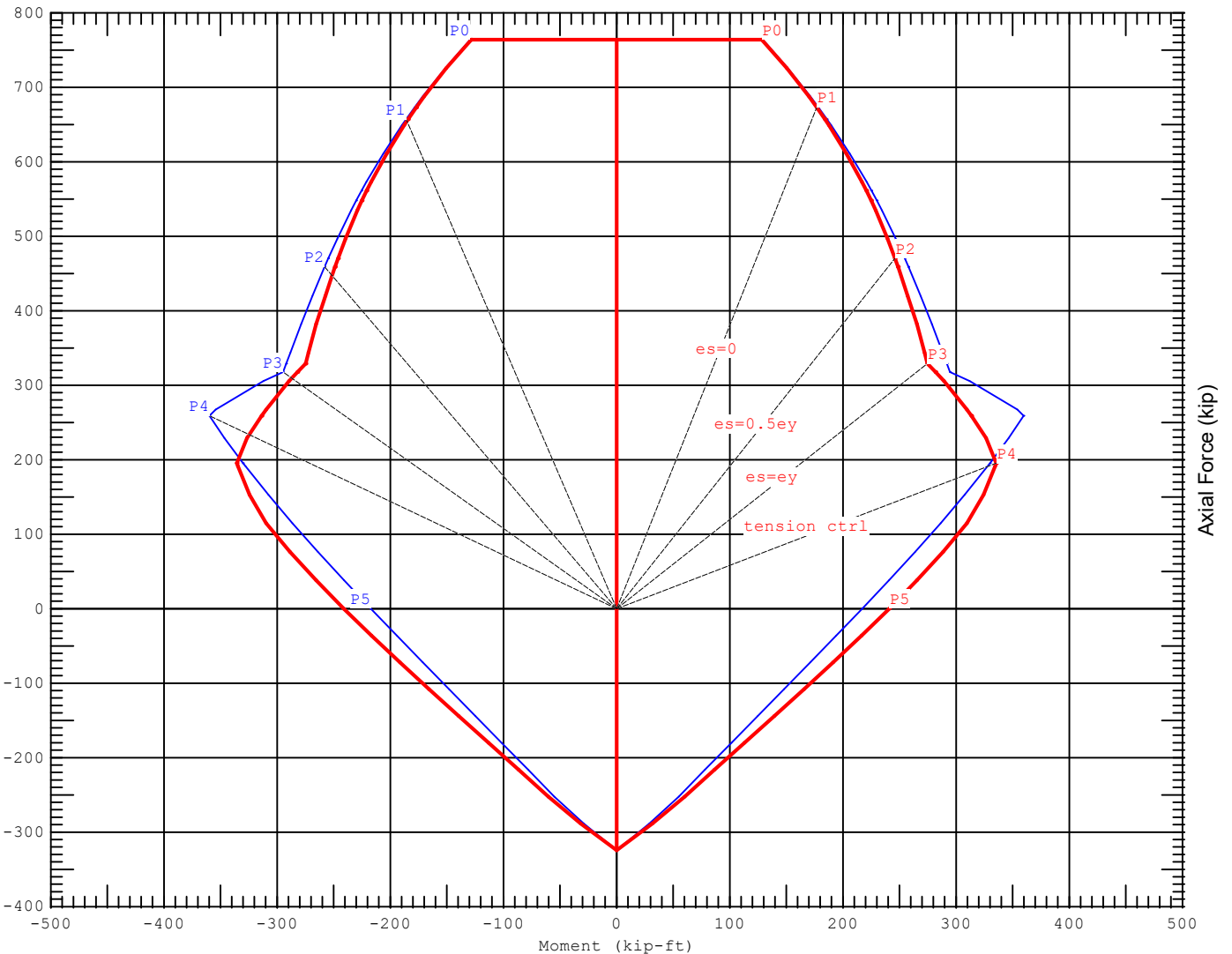
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.36%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 7.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	762.68	128.17	-0.00034
P1	672.05	176.68	0.00000
P2	469.79	245.67	0.00103
P3	328.53	274.20	0.00207
P4	194.98	335.04	0.00507
P5	0.00	240.58	0.01147
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	762.68	-129.01	-0.00040
P1	656.34	-185.64	0.00000
P2	458.27	-257.55	0.00103
P3	317.17	-294.18	0.00207
P4	258.47	-359.16	0.00507
P5	0.00	-216.65	0.01477
Pmin	-324.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

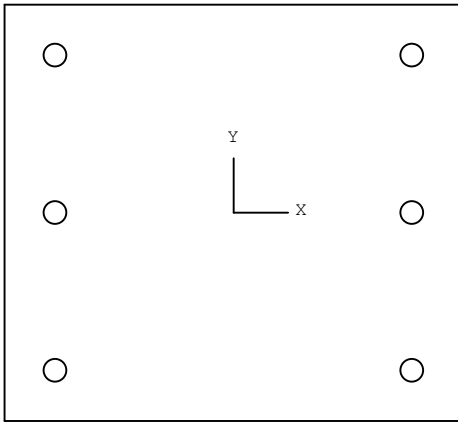
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_6#9\_NX3\_NY2\_cc2.439



Section 61 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

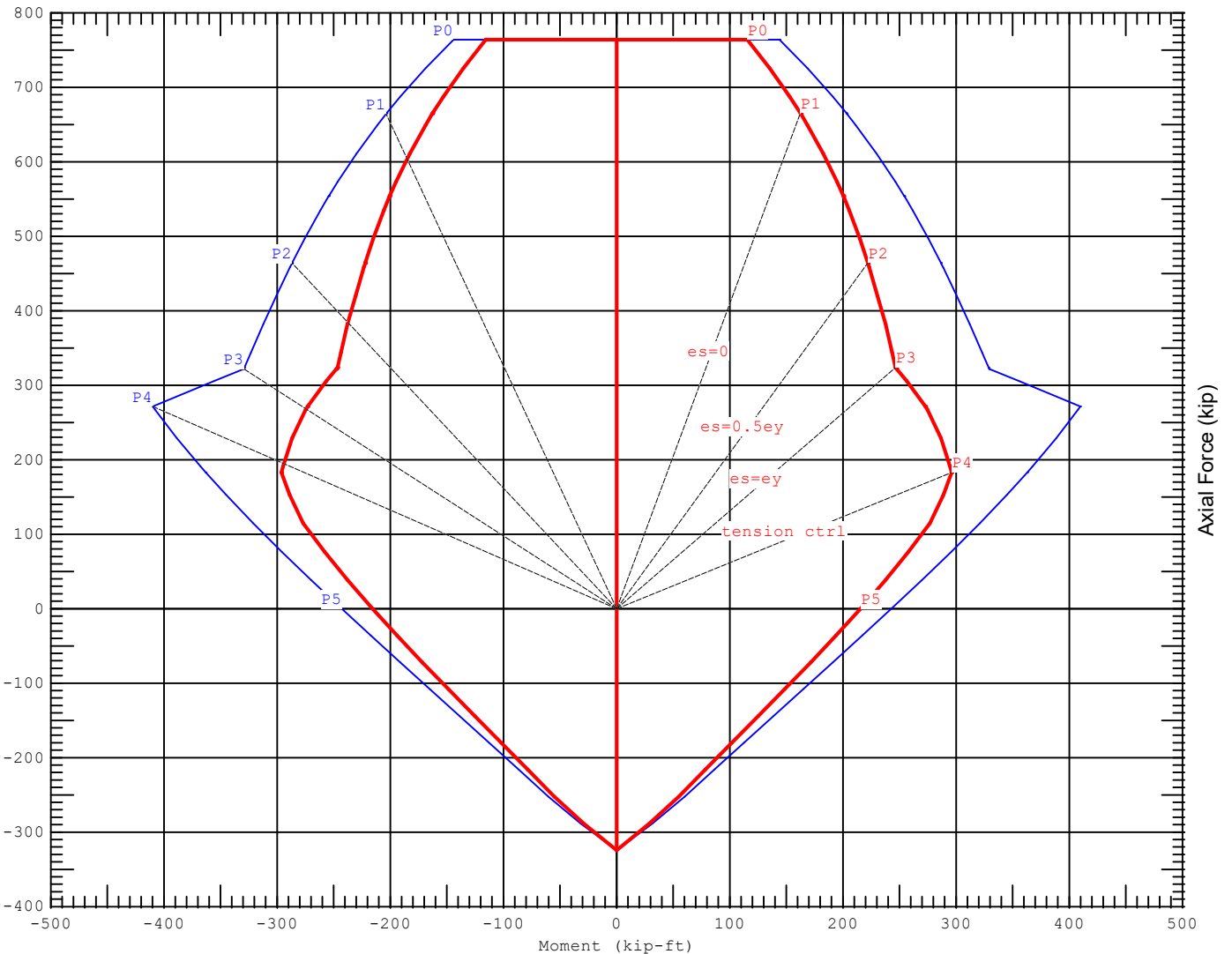
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.36%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	762.67	115.28	-0.00037
P1	664.37	162.11	0.00000
P2	463.60	221.73	0.00103
P3	323.11	246.08	0.00207
P4	182.47	295.68	0.00507
P5	-0.00	215.29	0.01079
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	762.68	-143.80	-0.00037
P1	663.21	-203.32	0.00000
P2	463.38	-286.22	0.00103
P3	321.24	-328.67	0.00207
P4	270.98	-409.06	0.00507
P5	-0.01	-242.46	0.01606
Pmin	-324.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

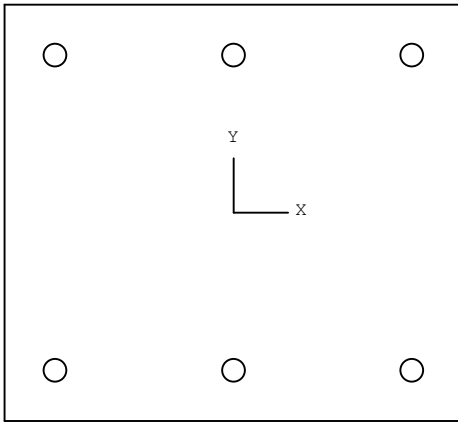
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_6#9\_NX2\_NY3\_cc2.439



Section 62 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

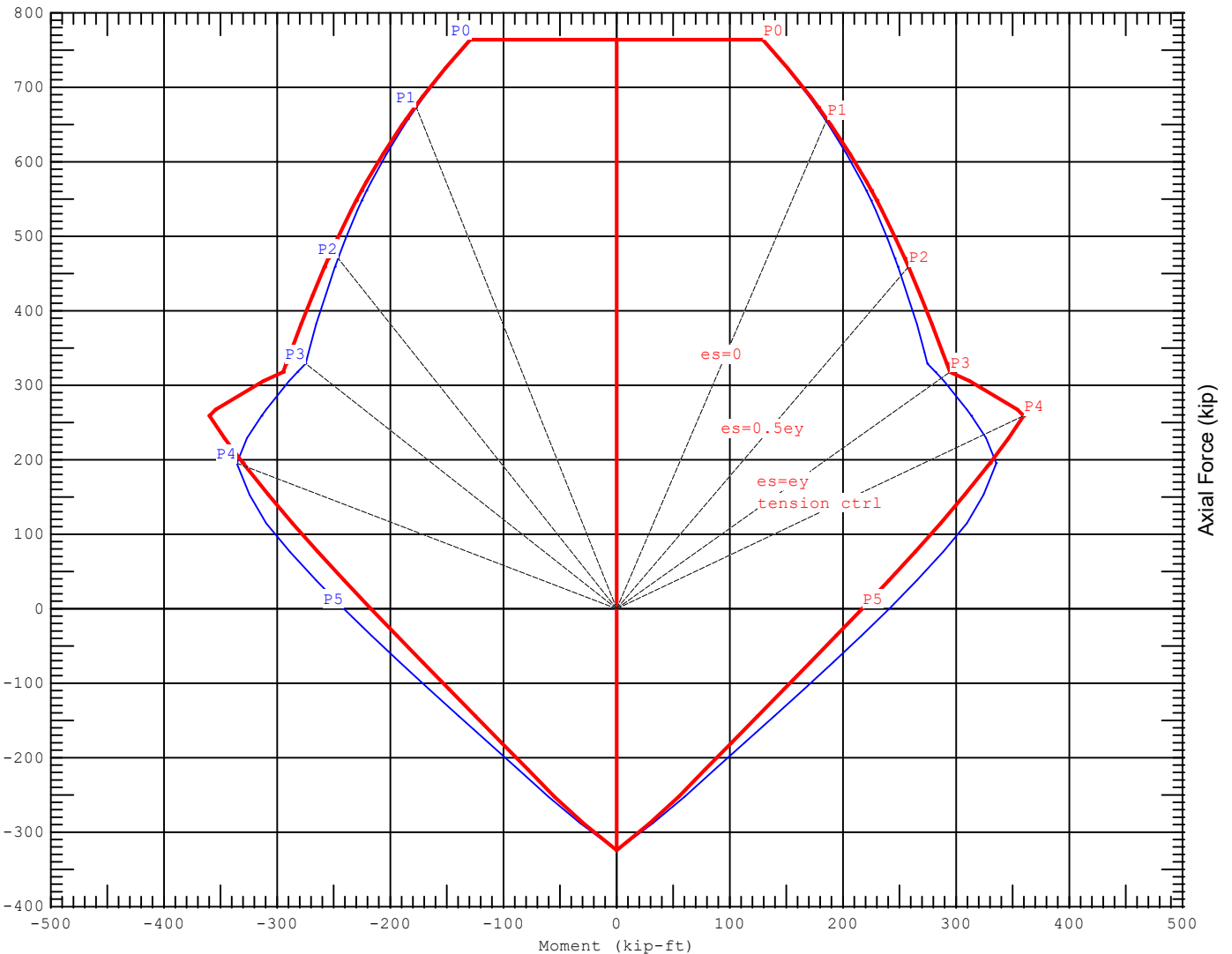
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.36%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 7.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	762.68	129.01	-0.00040
P1	656.34	185.64	0.00000
P2	458.27	257.55	0.00103
P3	317.17	294.18	0.00207
P4	258.47	359.16	0.00507
P5	0.00	216.65	0.01477
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	762.68	-128.17	-0.00034
P1	672.05	-176.68	0.00000
P2	469.79	-245.67	0.00103
P3	328.53	-274.20	0.00207
P4	194.98	-335.04	0.00507
P5	0.00	-240.58	0.01147
Pmin	-324.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

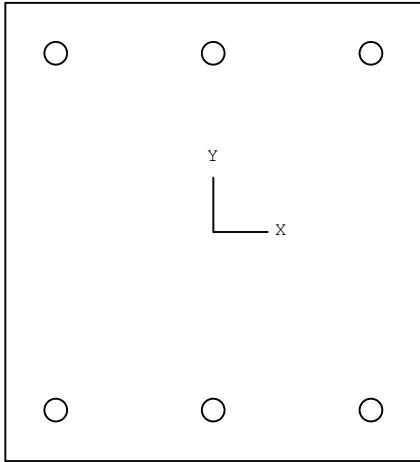
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_6#9\_NX2\_NY3\_cc2.439



Section 63 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

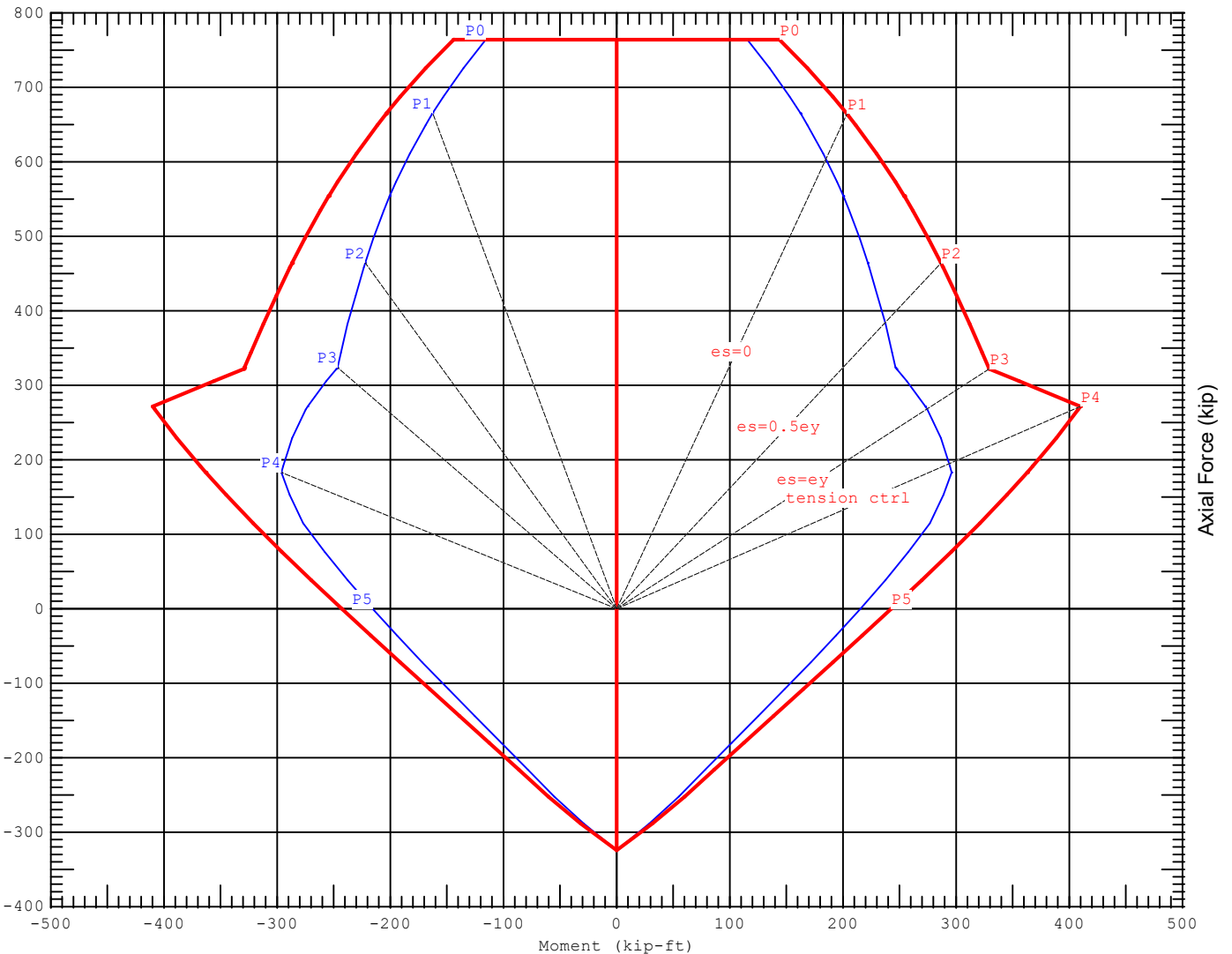
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.36%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	762.68	143.80	-0.00037
P1	663.21	203.32	0.00000
P2	463.38	286.22	0.00103
P3	321.24	328.67	0.00207
P4	270.98	409.06	0.00507
P5	-0.01	242.46	0.01606
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	762.67	-115.28	-0.00037
P1	664.37	-162.11	0.00000
P2	463.60	-221.73	0.00103
P3	323.11	-246.08	0.00207
P4	182.47	-295.68	0.00507
P5	-0.00	-215.29	0.01079
Pmin	-324.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

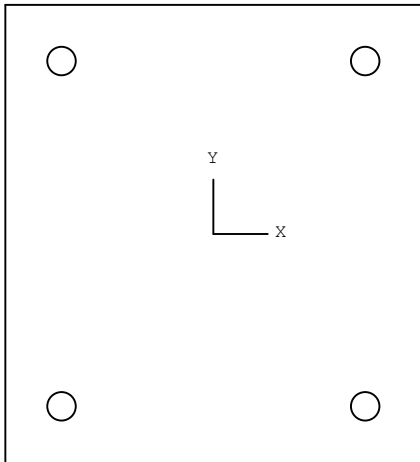
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_4#11\_NX2\_NY2\_cc2.705



Section 64 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

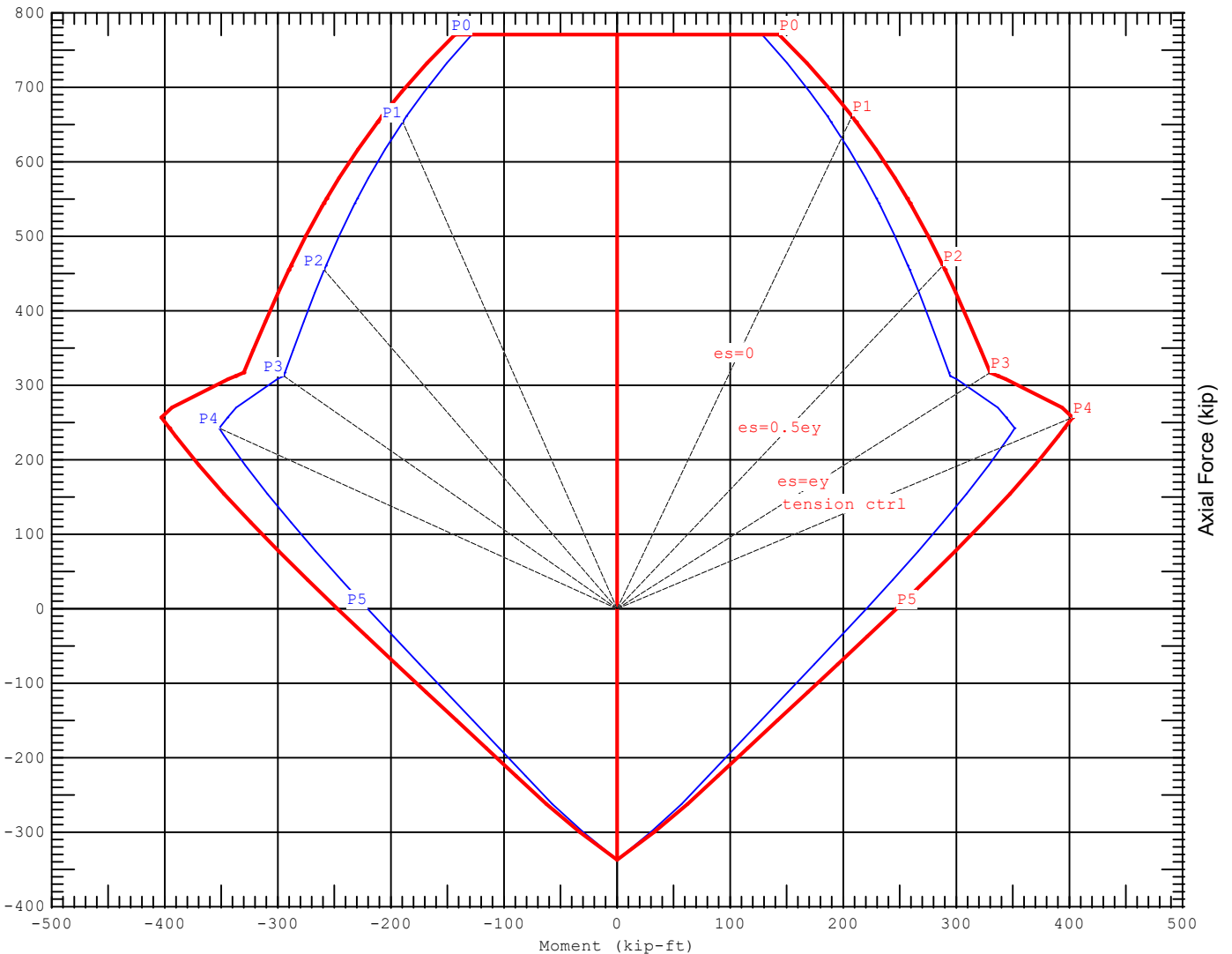
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 4 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 6.24 in<sup>2</sup>  
 Roh: 1.42%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.18 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	769.85	143.01	-0.00041
P1	660.19	207.38	0.00000
P2	459.95	287.75	0.00103
P3	316.60	329.47	0.00207
P4	256.42	402.16	0.00507
P5	-0.00	246.89	0.01439
Pmin	-336.96	0.00	0.20000

PT	P	My(-)	max es
P0	769.85	-128.11	-0.00044
P1	652.57	-189.19	0.00000
P2	454.28	-258.43	0.00103
P3	312.09	-294.17	0.00207
P4	241.85	-351.23	0.00507
P5	-0.01	-220.23	0.01353
Pmin	-336.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

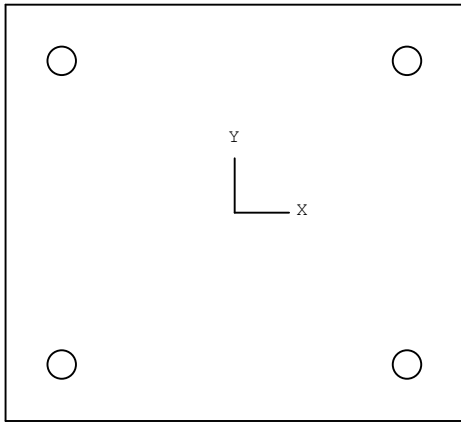
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_4#11\_NX2\_NY2\_cc2.705



Section 65 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

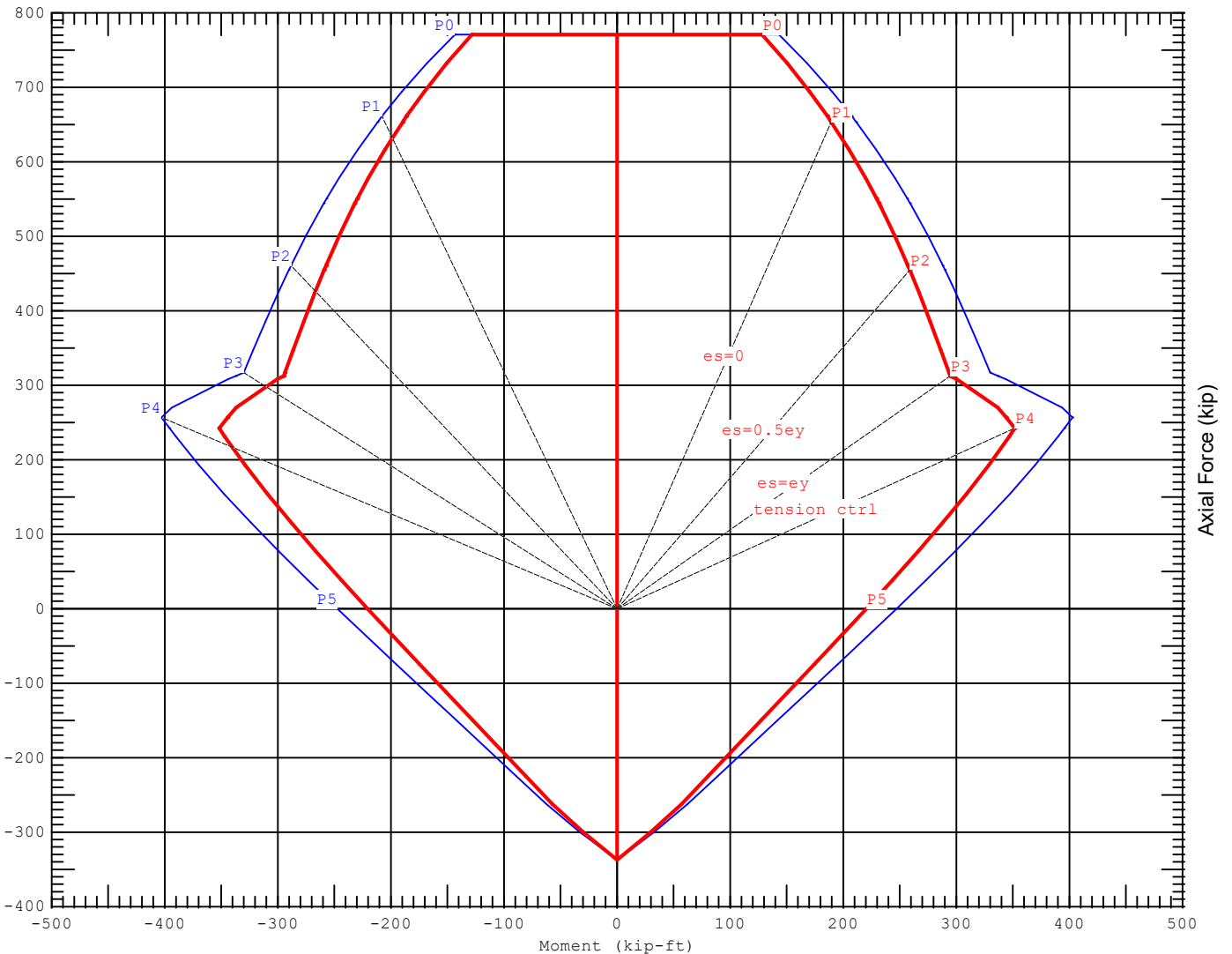
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 4 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 6.24 in<sup>2</sup>  
 Roh: 1.42%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.18 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	769.85	128.11	-0.00044
P1	652.57	189.19	0.00000
P2	454.28	258.43	0.00103
P3	312.09	294.17	0.00207
P4	241.85	351.23	0.00507
P5	-0.01	220.23	0.01353
Pmin	-336.96	0.00	0.20000

PT	P	My(-)	max es
P0	769.85	-143.01	-0.00041
P1	660.19	-207.38	0.00000
P2	459.95	-287.75	0.00103
P3	316.60	-329.47	0.00207
P4	256.42	-402.16	0.00507
P5	-0.00	-246.89	0.01439
Pmin	-336.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

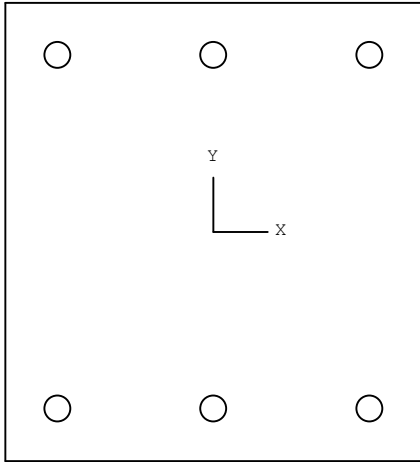
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_6#10\_NX2\_NY3\_cc2.51



Section 66 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

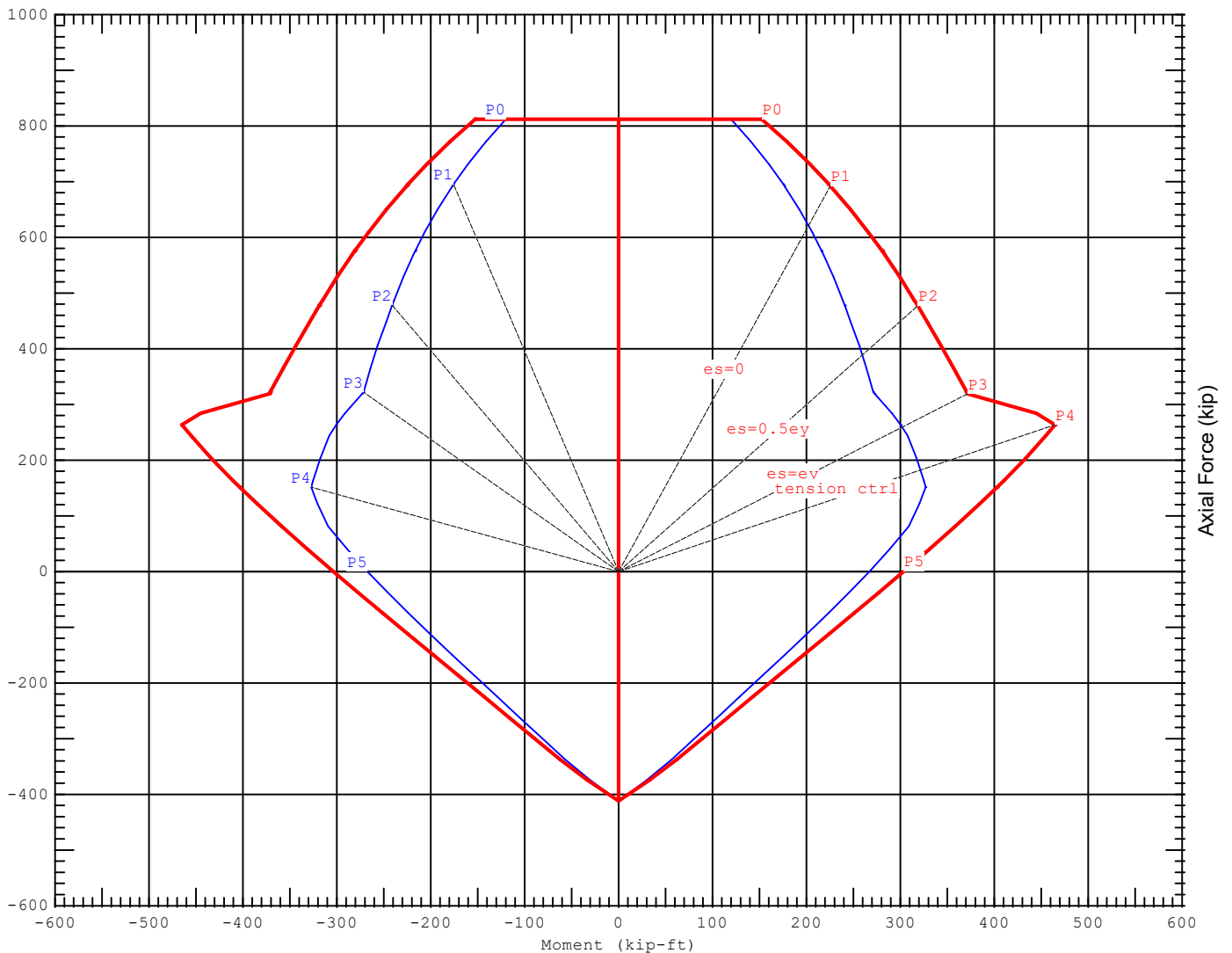
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.73%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	811.08	152.09	-0.00042
P1	691.45	224.99	0.00000
P2	476.34	317.95	0.00103
P3	318.71	370.94	0.00207
P4	263.22	463.93	0.00507
P5	0.01	302.86	0.01401
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	811.07	-119.61	-0.00041
P1	694.26	-175.16	0.00000
P2	477.41	-240.36	0.00103
P3	321.50	-270.78	0.00207
P4	151.23	-326.48	0.00507
P5	-0.01	-266.51	0.00870
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

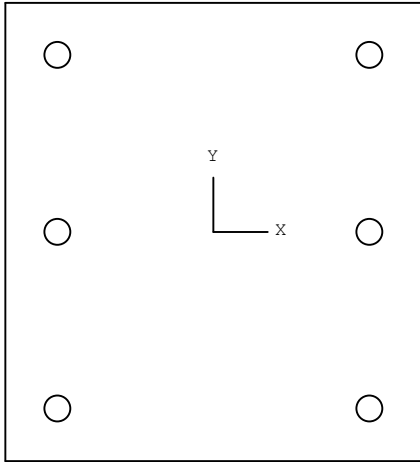
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_6#10\_NX3\_NY2\_cc2.51



Section 67 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

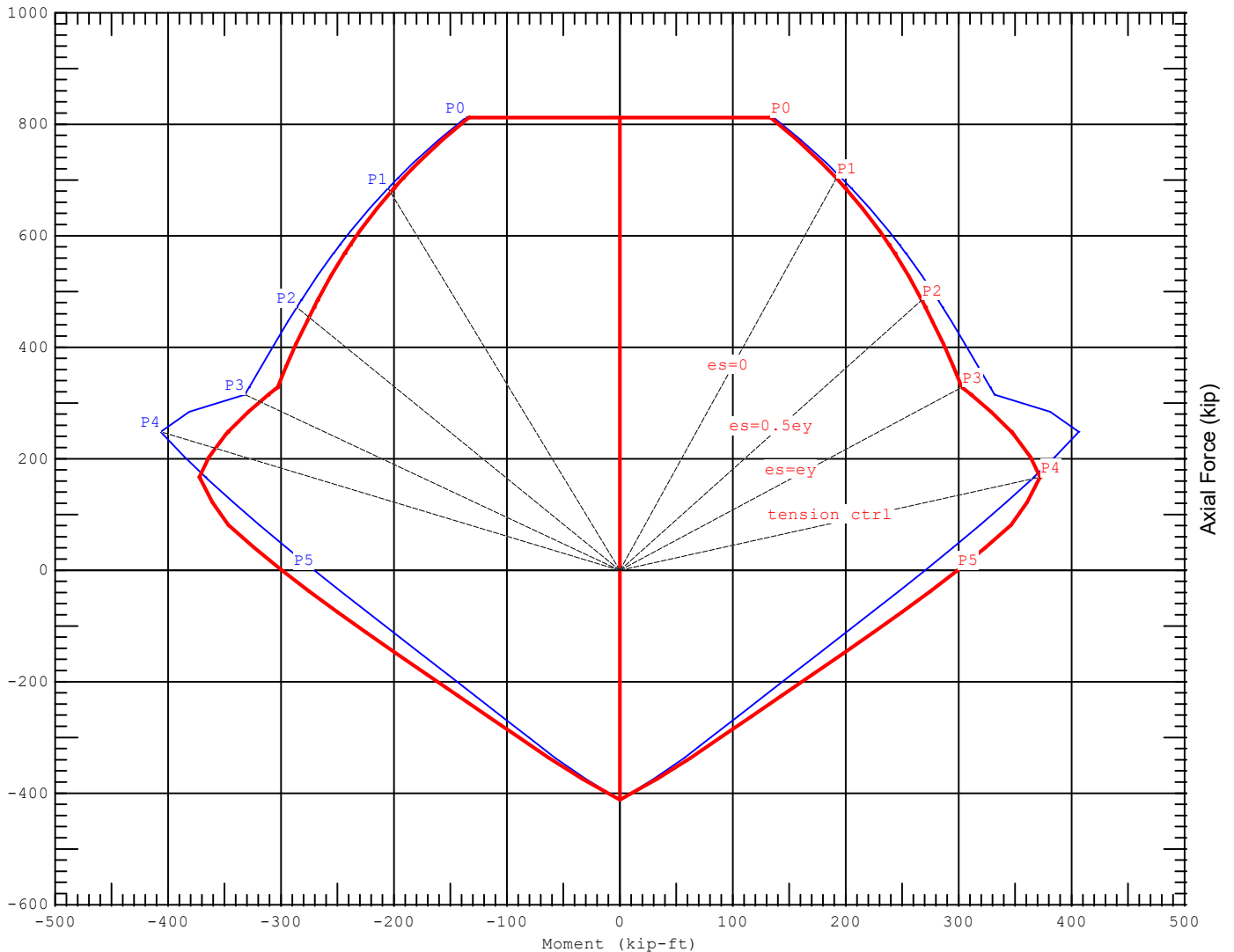
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.73%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 7.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	811.08	133.29	-0.00038
P1	702.39	191.44	0.00000
P2	484.09	266.88	0.00103
P3	327.48	302.35	0.00207
P4	166.69	371.48	0.00507
P5	0.01	298.63	0.00926
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	811.08	-136.11	-0.00047
P1	684.38	-204.76	0.00000
P2	471.09	-285.42	0.00103
P3	314.52	-331.29	0.00207
P4	247.76	-405.58	0.00507
P5	0.00	-269.89	0.01284
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

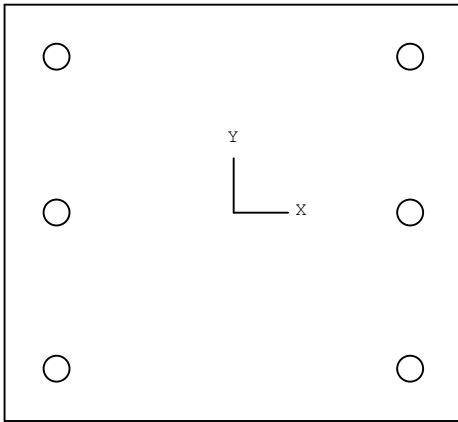
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_6#10\_NX3\_NY2\_cc2.51



Section 68 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.73%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

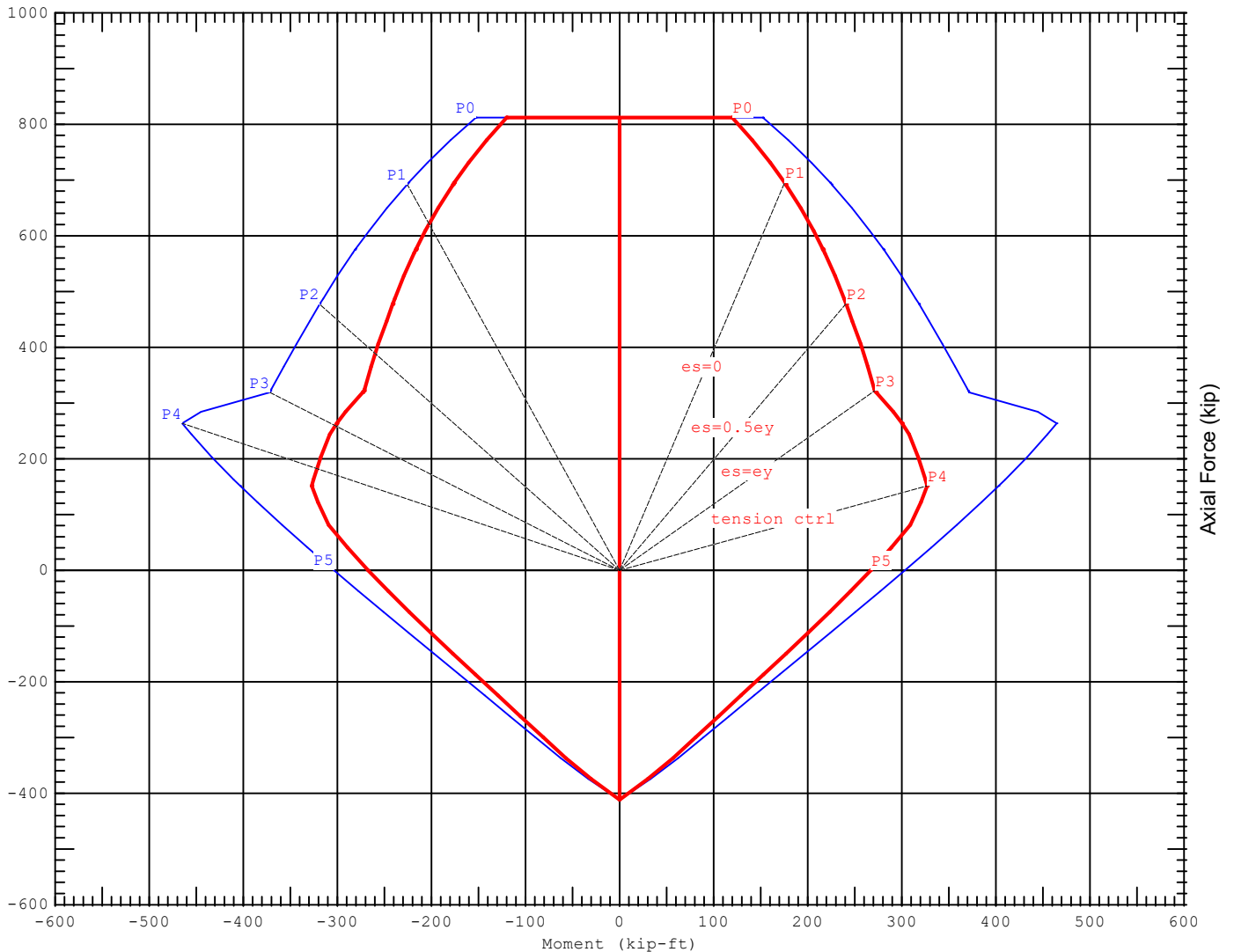
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	811.07	119.61	-0.00041
P1	694.26	175.16	0.00000
P2	477.41	240.36	0.00103
P3	321.50	270.78	0.00207
P4	151.23	326.48	0.00507
P5	-0.01	266.51	0.00870
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	811.08	-152.09	-0.00042
P1	691.45	-224.99	0.00000
P2	476.34	-317.95	0.00103
P3	318.71	-370.94	0.00207
P4	263.22	-463.93	0.00507
P5	0.01	-302.86	0.01401
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

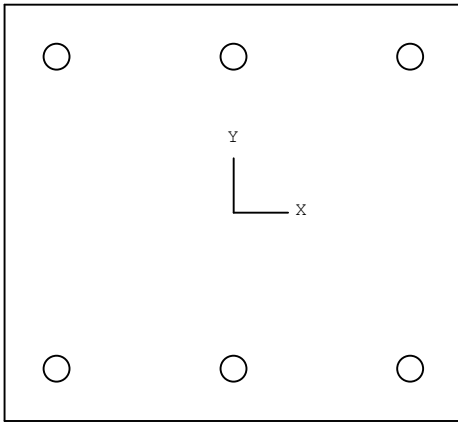
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_6#10\_NX2\_NY3\_cc2.51



Section 69 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

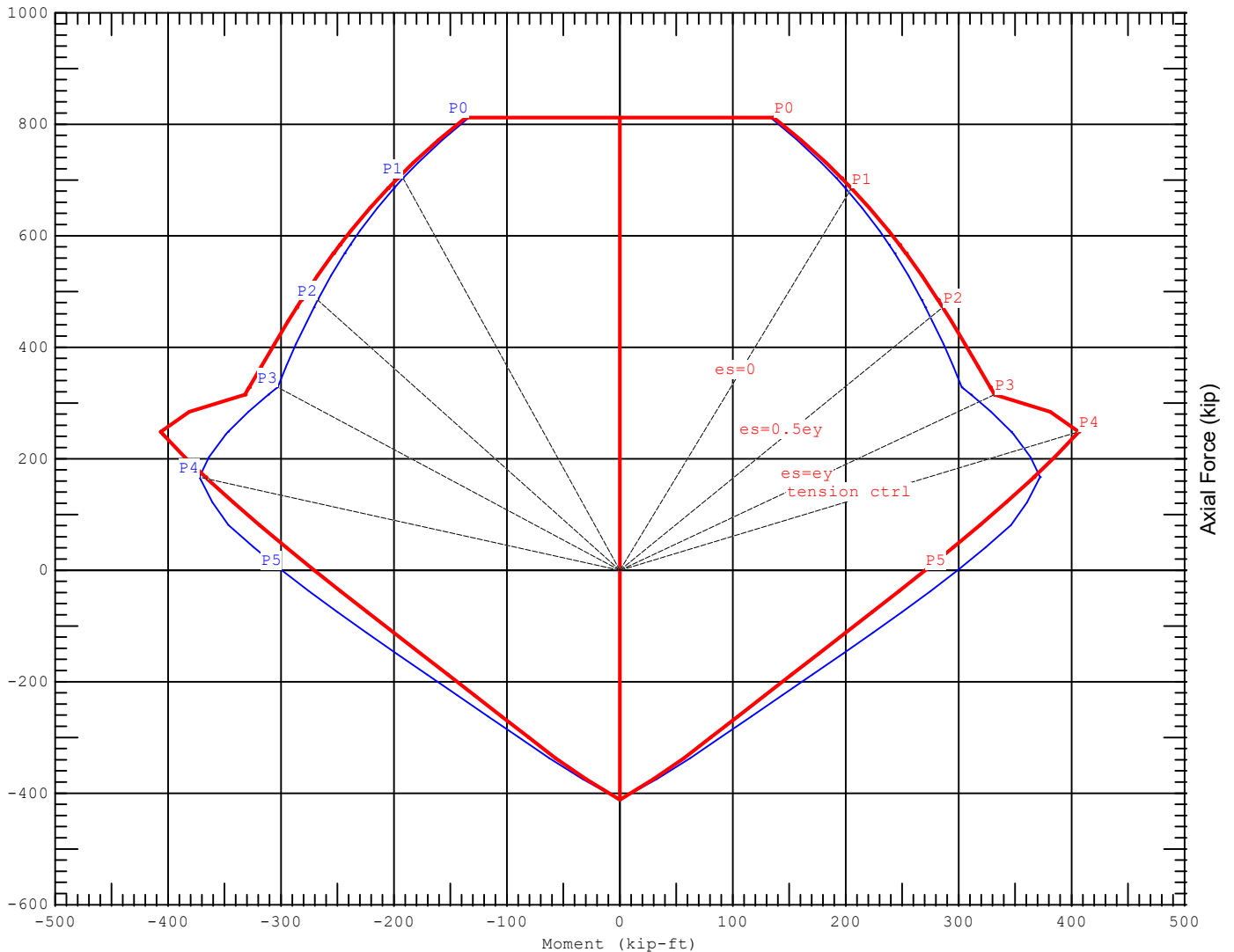
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.73%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 7.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	811.08	136.11	-0.00047
P1	684.38	204.76	0.00000
P2	471.09	285.42	0.00103
P3	314.52	331.29	0.00207
P4	247.76	405.58	0.00507
P5	0.00	269.89	0.01284
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	811.08	-133.29	-0.00038
P1	702.39	-191.44	0.00000
P2	484.09	-266.88	0.00103
P3	327.48	-302.35	0.00207
P4	166.69	-371.48	0.00507
P5	0.01	-298.63	0.00926
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

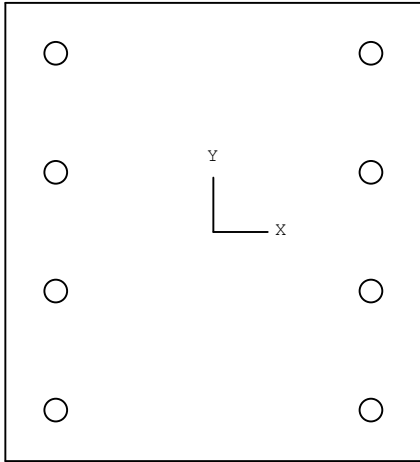
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#9\_NX4\_NY2\_cc2.439



Section 70 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

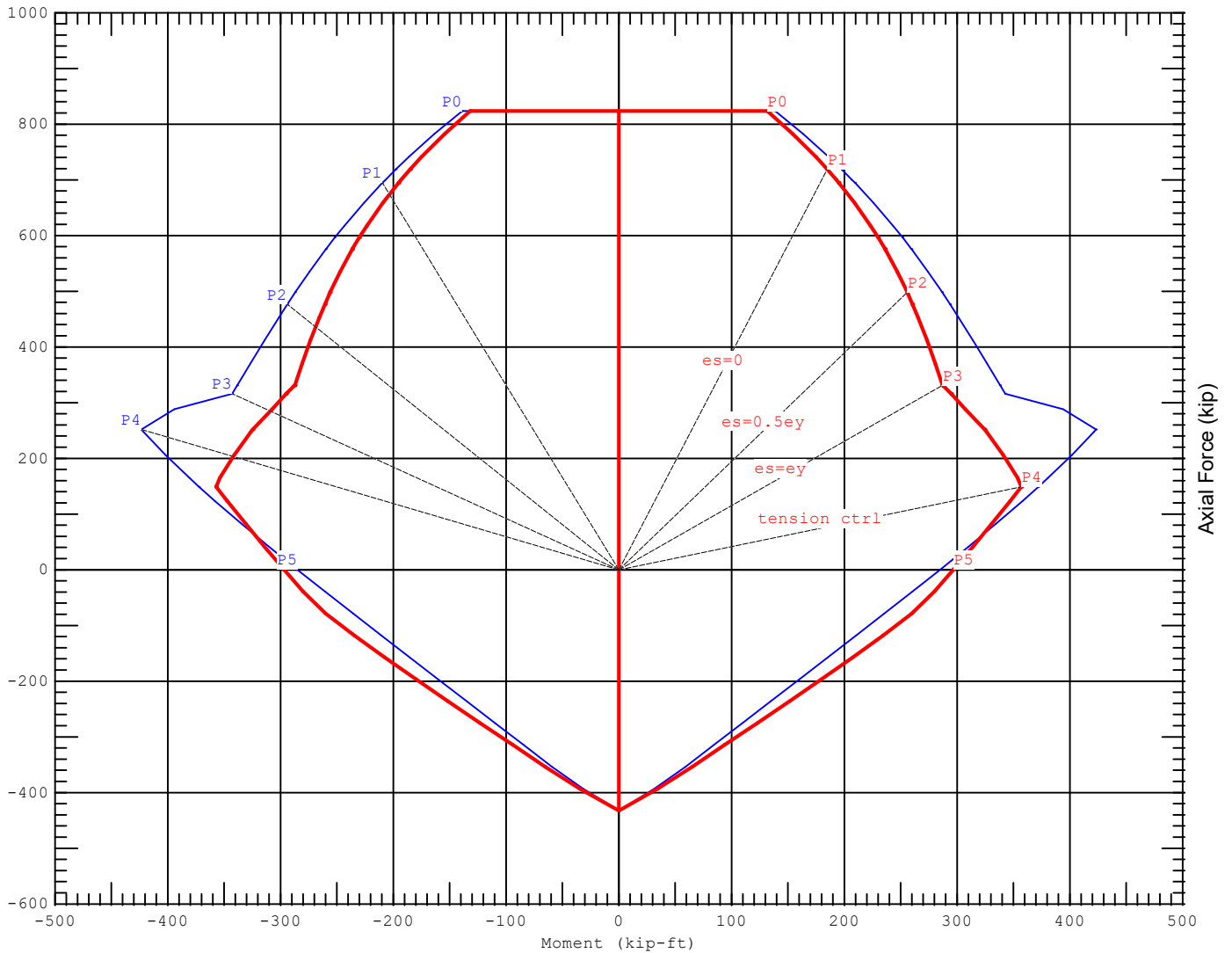
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.82%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.58 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	822.43	131.44	-0.00036
P1	718.23	184.53	0.00000
P2	497.36	255.43	0.00103
P3	330.85	286.67	0.00207
P4	148.42	356.25	0.00507
P5	0.00	296.17	0.00779
Pmin	-432.00	-0.00	0.20000

PT	P	My(-)	max es
P0	822.43	-138.59	-0.00045
P1	693.68	-209.17	0.00000
P2	476.11	-293.36	0.00103
P3	315.51	-342.28	0.00207
P4	251.23	-422.65	0.00507
P5	0.01	-284.41	0.01289
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

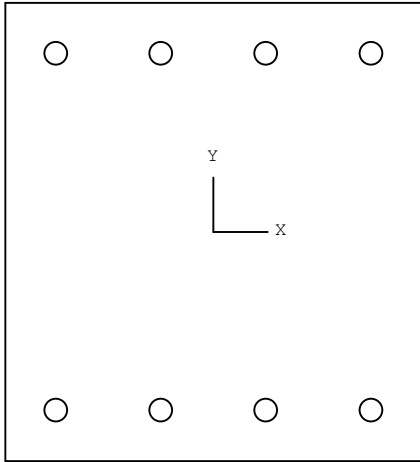
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#9\_NX2\_NY4\_cc2.439



Section 71 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

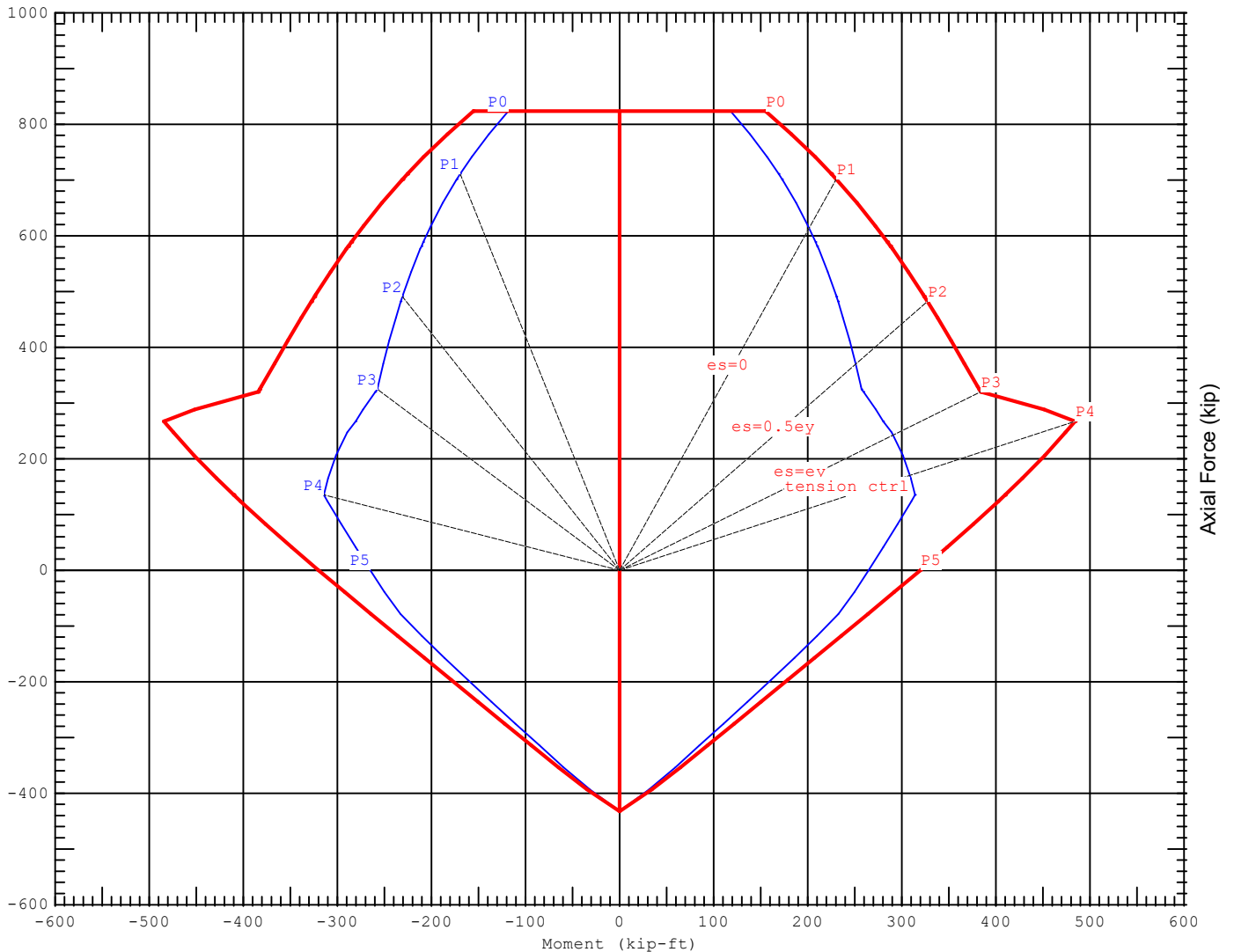
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.82%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	822.43	154.84	-0.00042
P1	700.55	229.96	0.00000
P2	481.22	326.77	0.00103
P3	319.58	383.13	0.00207
P4	266.73	483.07	0.00507
P5	0.01	319.13	0.01407
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	822.43	-117.89	-0.00039
P1	709.75	-168.93	0.00000
P2	490.09	-230.21	0.00103
P3	324.07	-256.90	0.00207
P4	134.92	-313.57	0.00507
P5	0.01	-264.21	0.00747
Pmin	-432.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

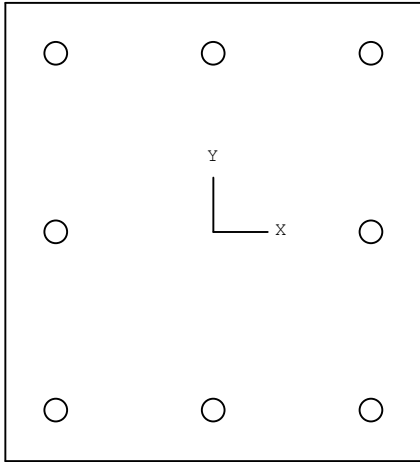
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#9\_NX3\_NY3\_cc2.439



Section 72 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

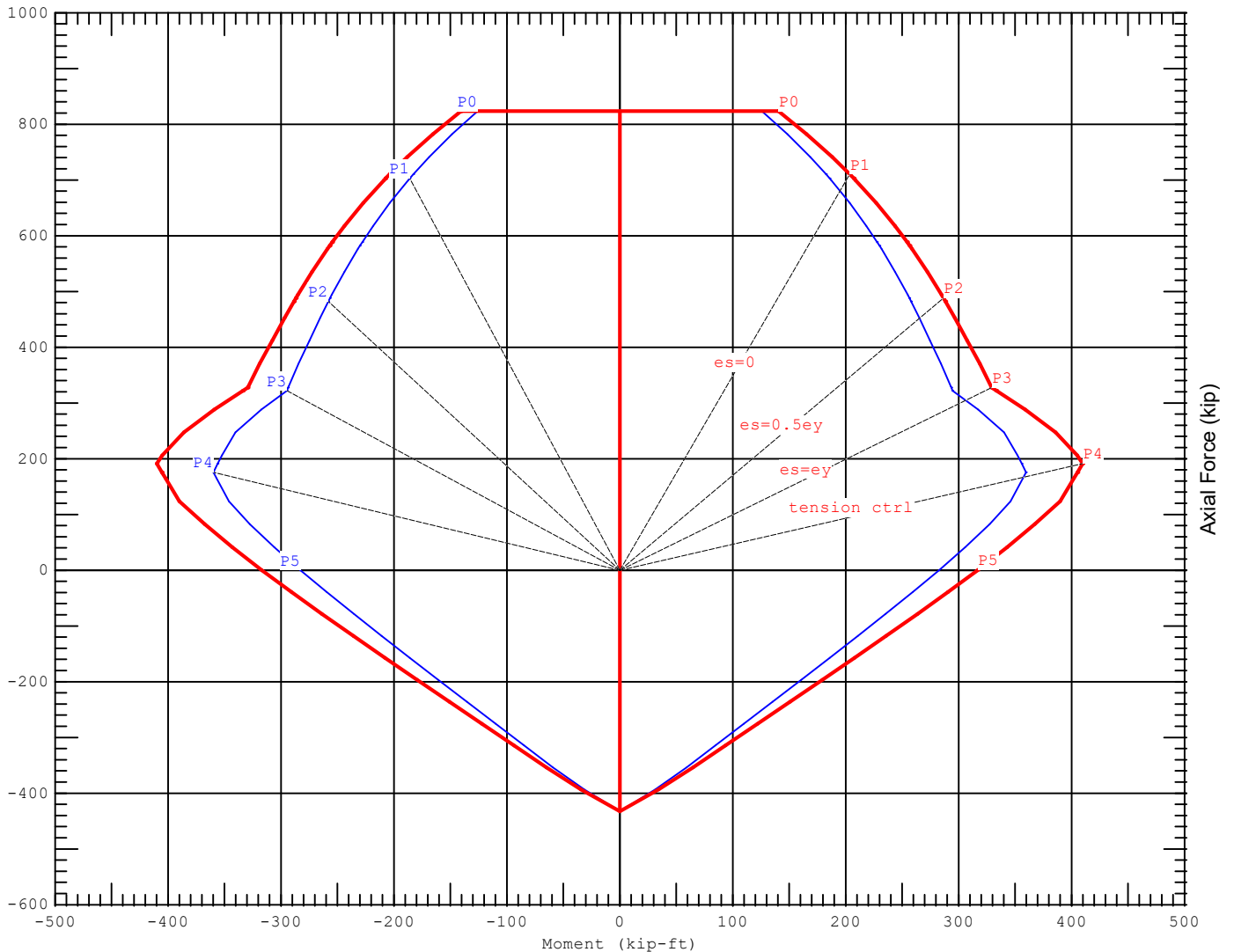
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.82%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	822.43	140.22	-0.00039
P1	709.39	203.32	0.00000
P2	487.63	286.22	0.00103
P3	326.87	328.67	0.00207
P4	190.72	409.06	0.00507
P5	0.01	316.31	0.01031
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	822.43	-125.71	-0.00042
P1	701.72	-185.64	0.00000
P2	481.44	-257.55	0.00103
P3	321.45	-294.18	0.00207
P4	175.22	-359.16	0.00507
P5	-0.01	-282.11	0.00962
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

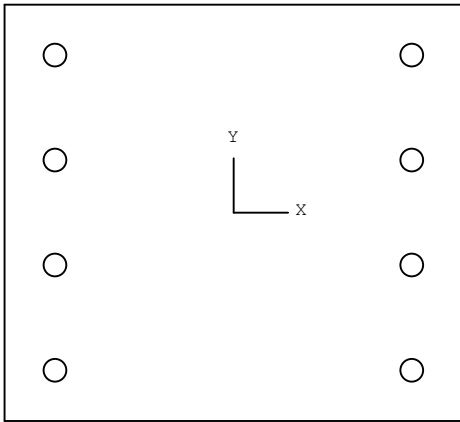
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#9\_NX4\_NY2\_cc2.439



Section 73 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

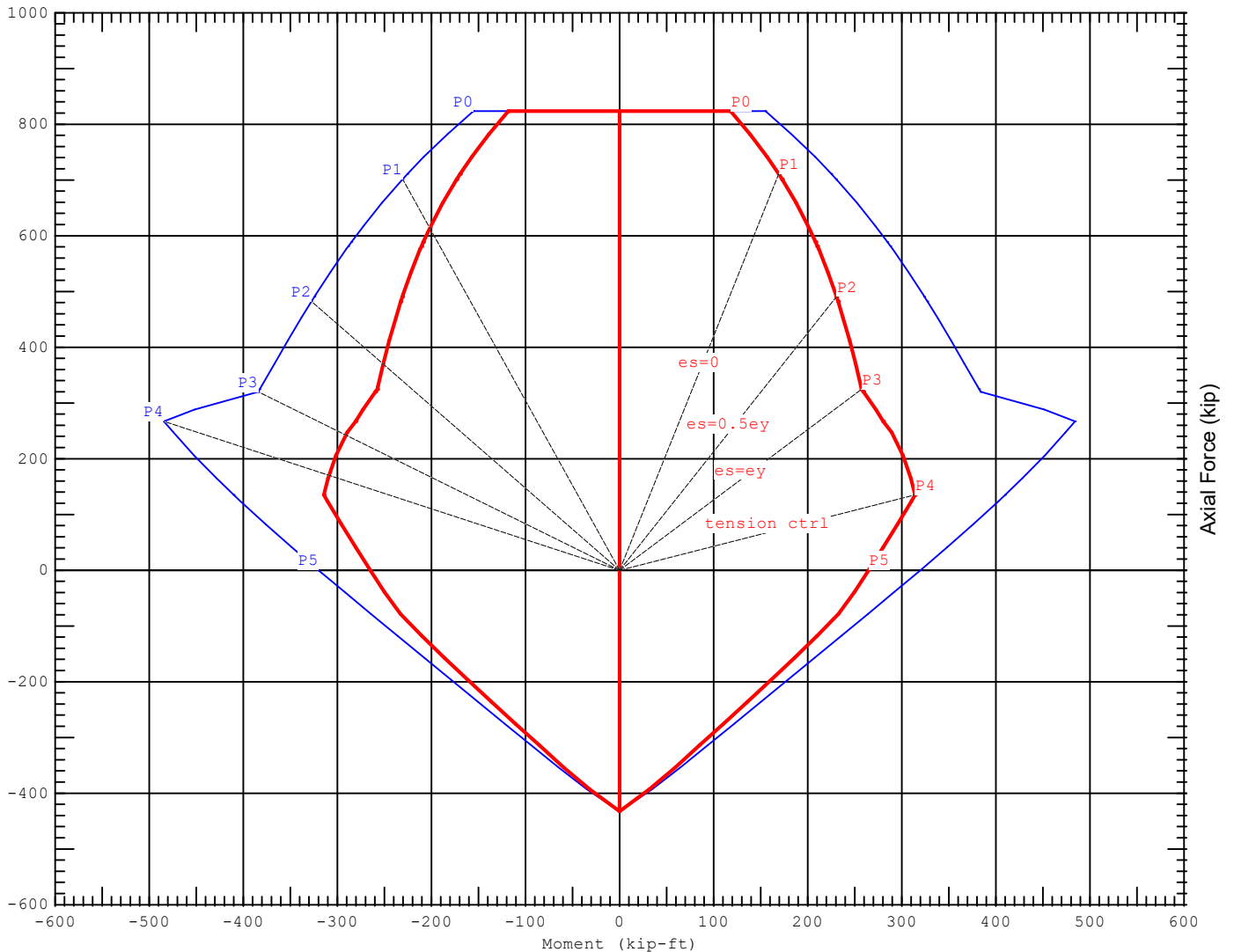
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.82%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	822.43	117.89	-0.00039
P1	709.75	168.93	0.00000
P2	490.09	230.21	0.00103
P3	324.07	256.90	0.00207
P4	134.92	313.57	0.00507
P5	0.01	264.21	0.00747
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	822.43	-154.84	-0.00042
P1	700.55	-229.96	0.00000
P2	481.22	-326.77	0.00103
P3	319.58	-383.13	0.00207
P4	266.73	-483.07	0.00507
P5	0.01	-319.13	0.01407
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

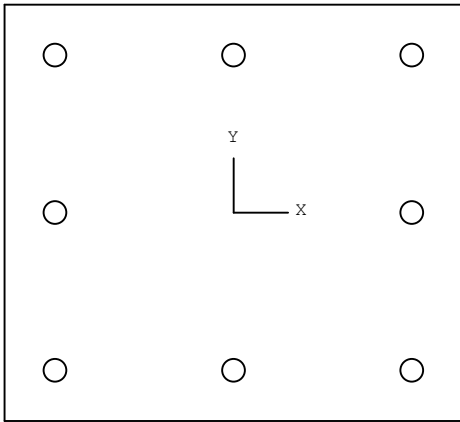
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#9\_NX3\_NY3\_cc2.439



Section 74 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

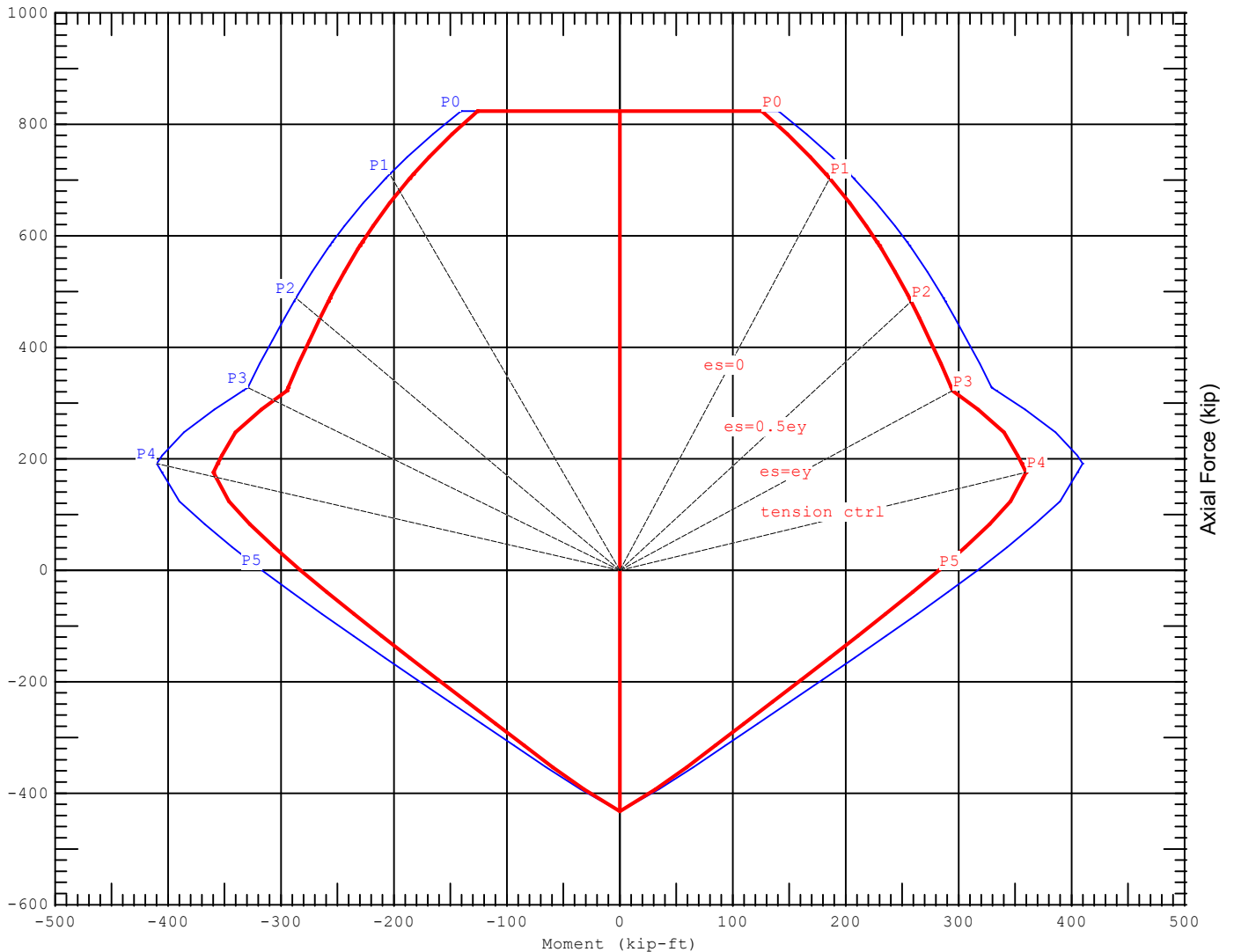
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.82%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	822.43	125.71	-0.00042
P1	701.72	185.64	0.00000
P2	481.44	257.55	0.00103
P3	321.45	294.18	0.00207
P4	175.22	359.16	0.00507
P5	-0.01	282.11	0.00962
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	822.43	-140.22	-0.00039
P1	709.39	-203.32	0.00000
P2	487.63	-286.22	0.00103
P3	326.87	-328.67	0.00207
P4	190.72	-409.06	0.00507
P5	0.01	-316.31	0.01031
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

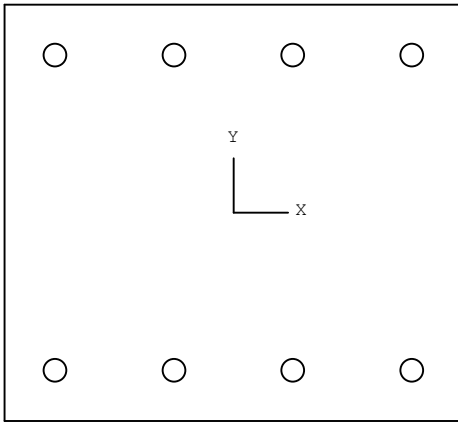
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#9\_NX2\_NY4\_cc2.439



Section 75 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

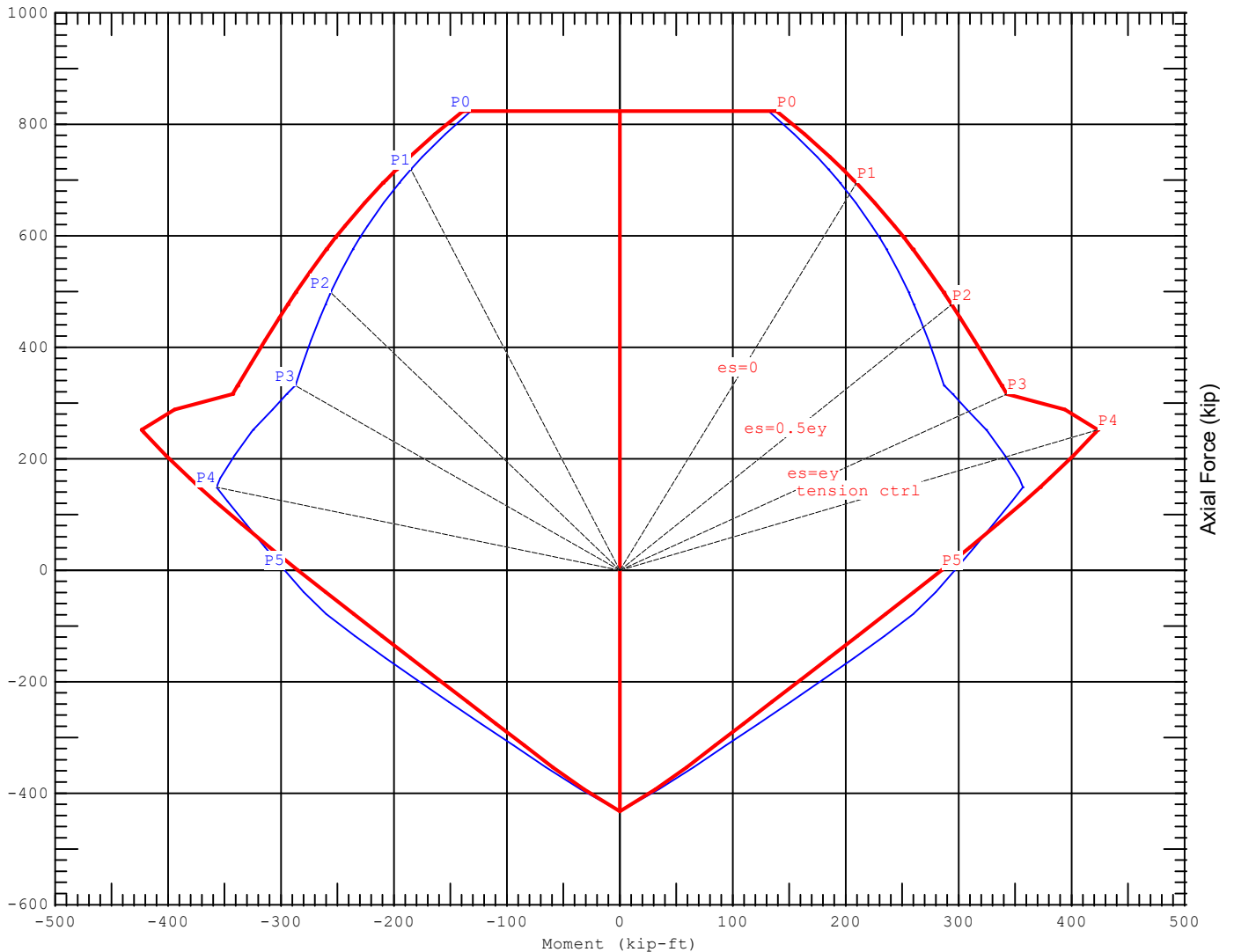
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.82%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.58 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	822.43	138.59	-0.00045
P1	693.68	209.17	0.00000
P2	476.11	293.36	0.00103
P3	315.51	342.28	0.00207
P4	251.23	422.65	0.00507
P5	0.01	284.41	0.01289
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	822.43	-131.44	-0.00036
P1	718.23	-184.53	0.00000
P2	497.36	-255.43	0.00103
P3	330.85	-286.67	0.00207
P4	148.42	-356.25	0.00507
P5	0.00	-296.17	0.00779
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

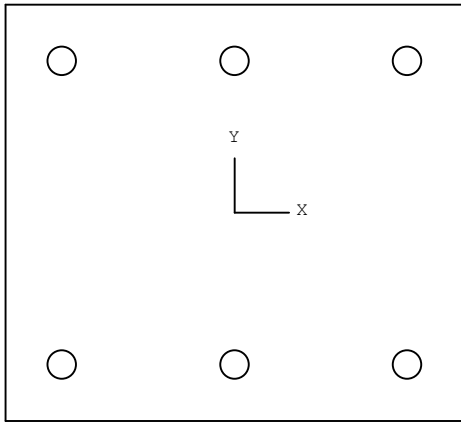
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_6#11\_NX2\_NY3\_cc2.705



Section 76 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

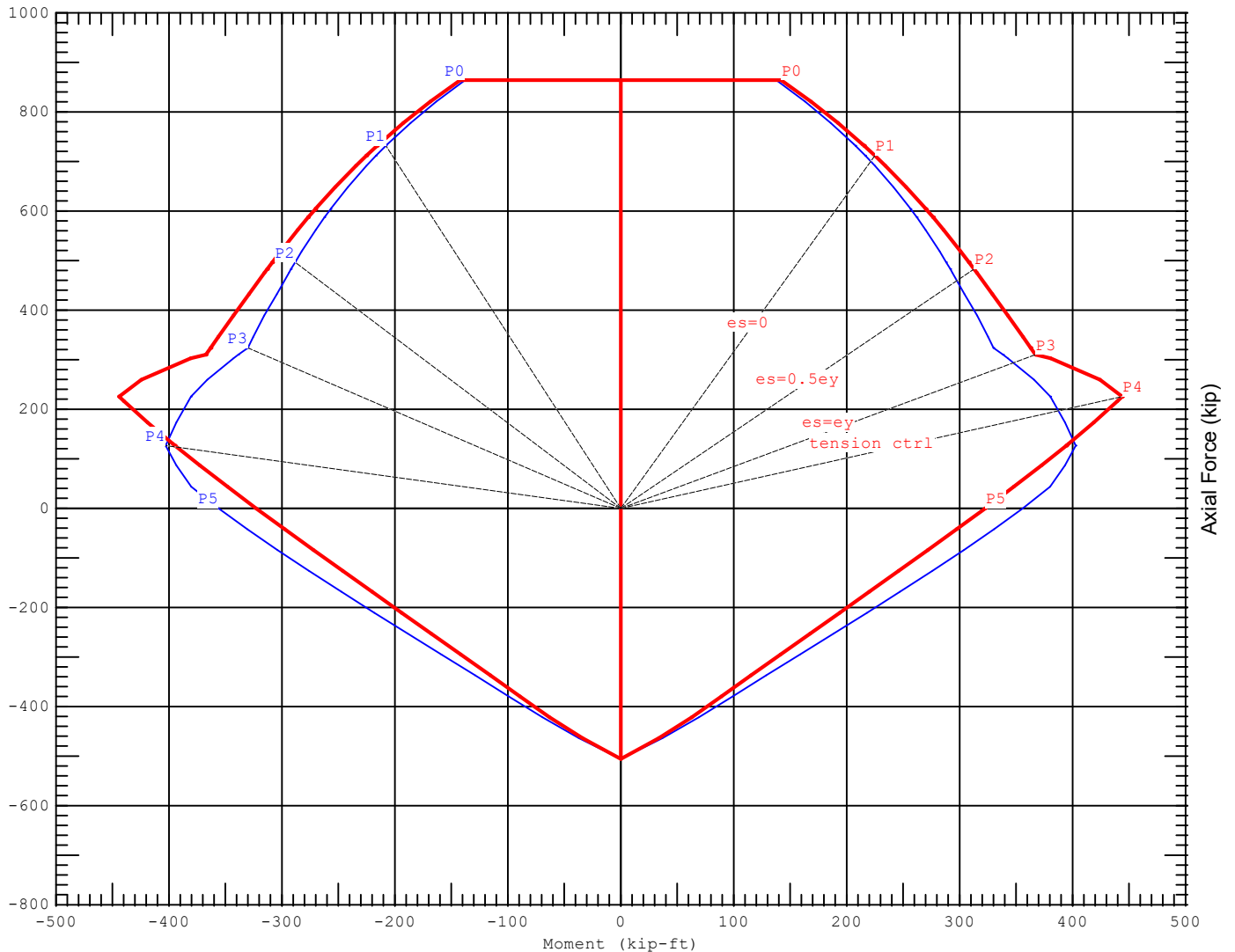
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 2.13%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	863.06	141.86	-0.00052
P1	710.83	224.61	0.00000
P2	482.11	312.34	0.00103
P3	309.50	366.57	0.00207
P4	224.79	443.28	0.00507
P5	0.01	322.17	0.01082
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	863.06	-137.63	-0.00043
P1	730.87	-207.38	0.00000
P2	495.94	-287.75	0.00103
P3	323.08	-329.47	0.00207
P4	126.13	-402.16	0.00507
P5	0.00	-355.38	0.00736
Pmin	-505.44	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

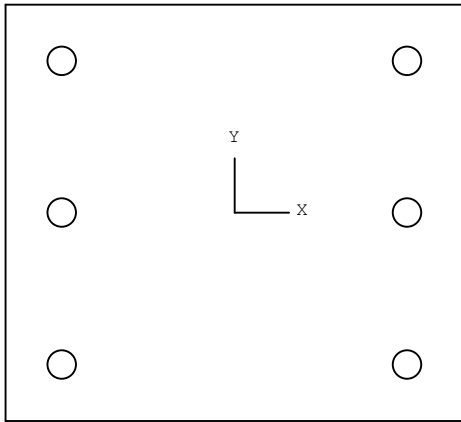
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_6#11\_NX3\_NY2\_cc2.705



Section 77 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

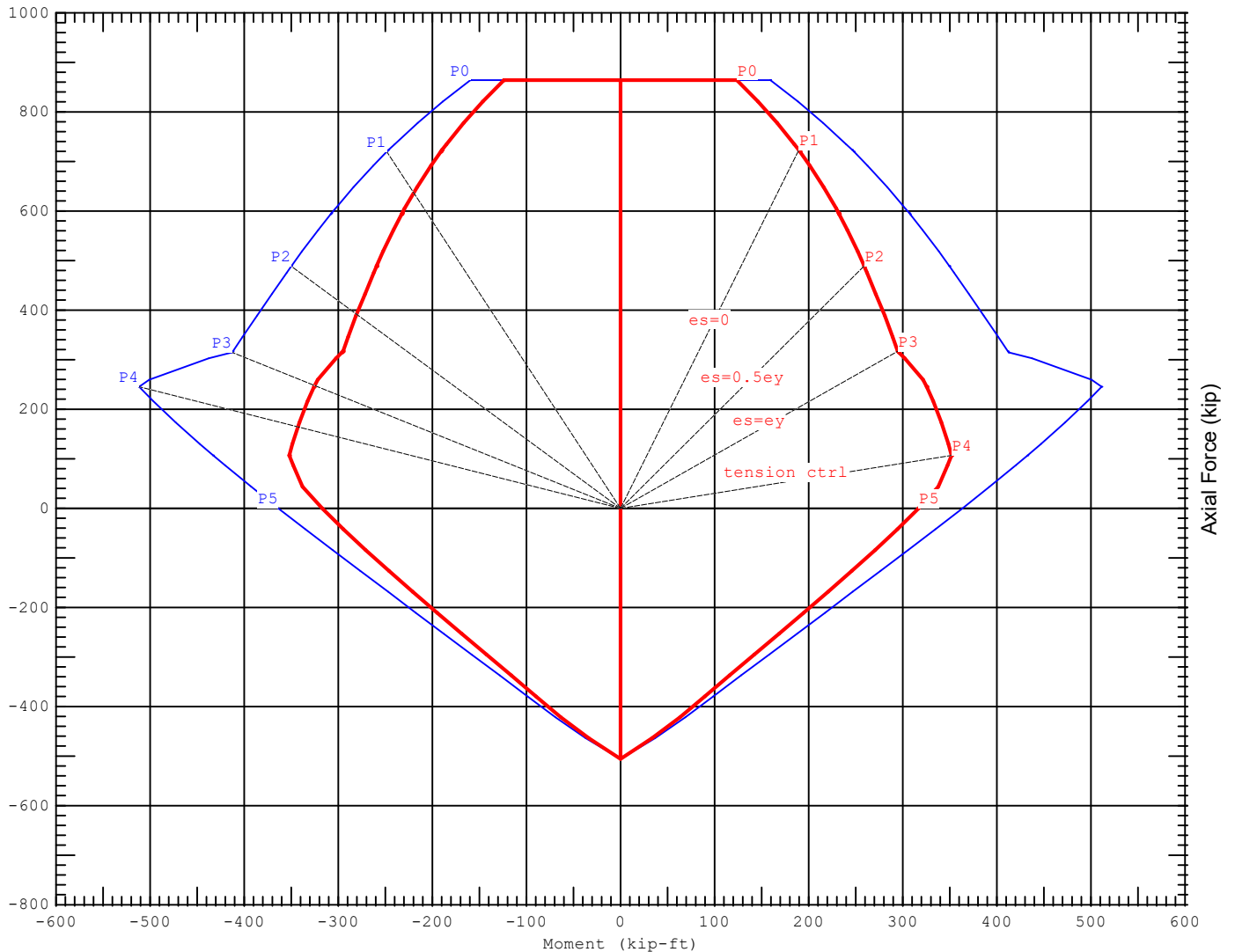
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 2.13%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	863.05	123.41	-0.00048
P1	721.82	189.19	0.00000
P2	488.35	258.43	0.00103
P3	316.16	294.17	0.00207
P4	106.22	351.23	0.00507
P5	0.01	316.13	0.00687
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	863.06	-159.06	-0.00050
P1	718.45	-247.65	0.00000
P2	487.78	-349.05	0.00103
P3	314.02	-411.79	0.00207
P4	244.69	-510.51	0.00507
P5	0.01	-362.69	0.01188
Pmin	-505.44	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

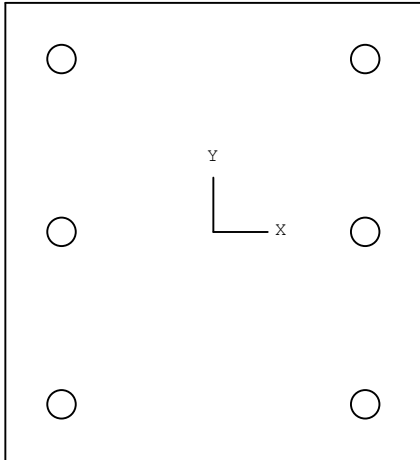
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_6#11\_NX3\_NY2\_cc2.705



Section 78 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

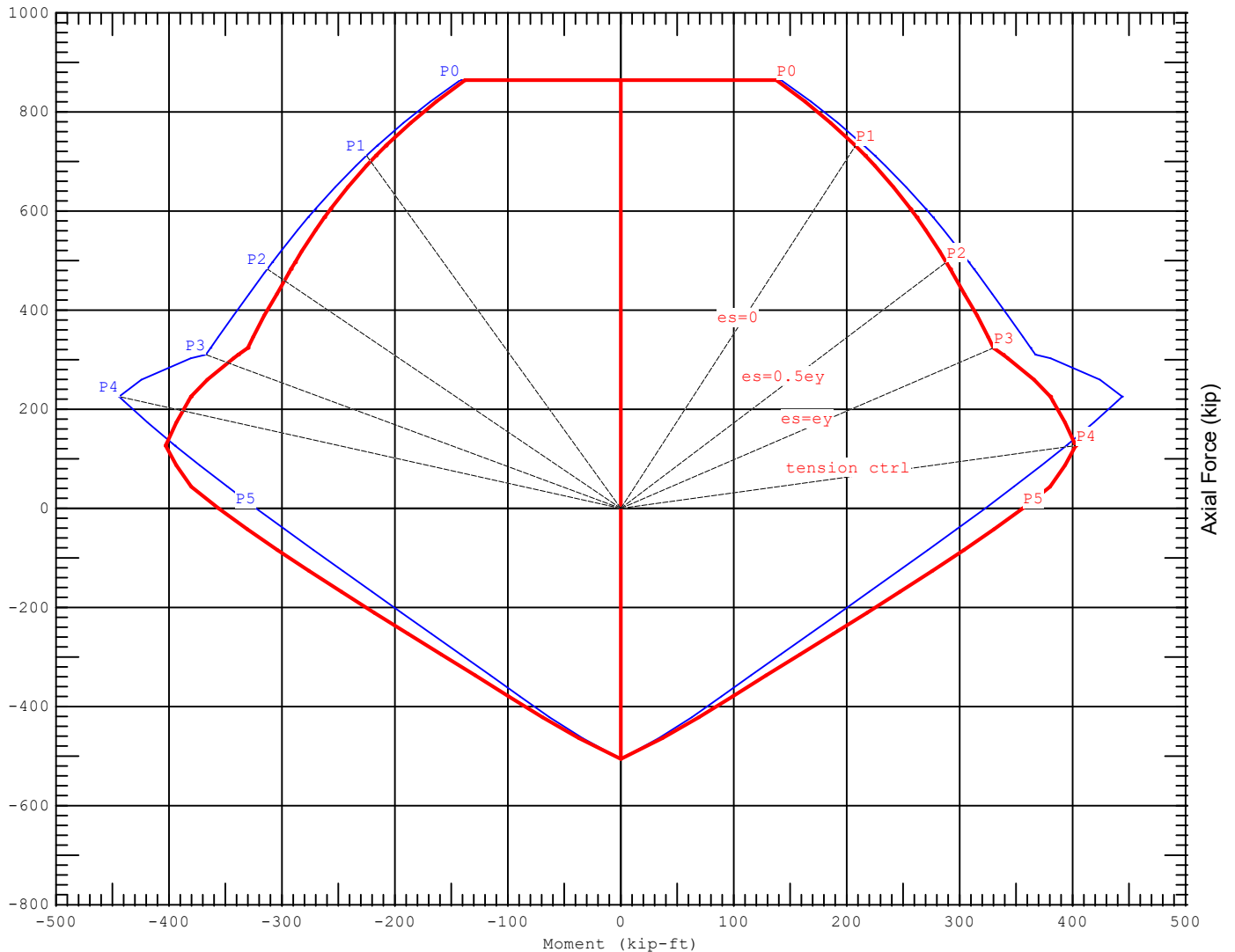
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 2.13%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	863.06	137.63	-0.00043
P1	730.87	207.38	0.00000
P2	495.94	287.75	0.00103
P3	323.08	329.47	0.00207
P4	126.13	402.16	0.00507
P5	0.00	355.38	0.00736
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	863.06	-141.86	-0.00052
P1	710.83	-224.61	0.00000
P2	482.11	-312.34	0.00103
P3	309.50	-366.57	0.00207
P4	224.79	-443.28	0.00507
P5	0.01	-322.17	0.01082
Pmin	-505.44	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

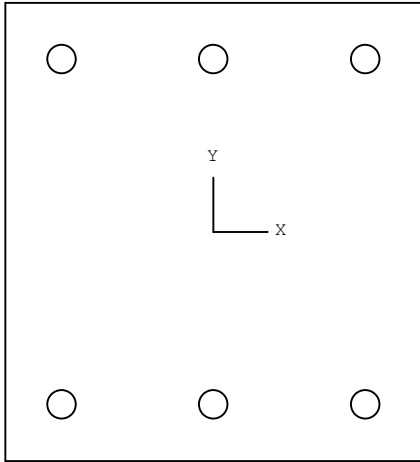
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_6#11\_NX2\_NY3\_cc2.705



Section 79 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

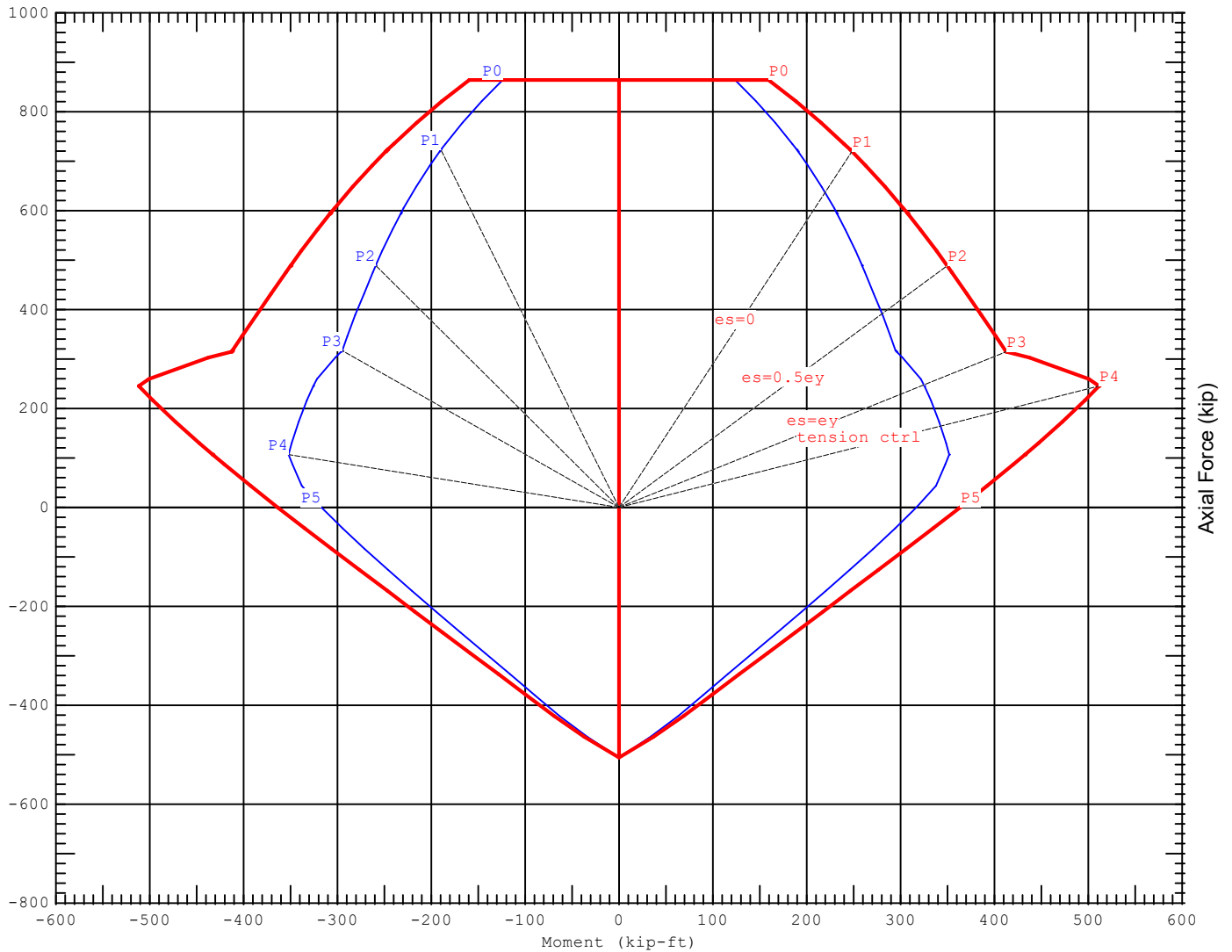
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 2.13%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	863.06	159.06	-0.00050
P1	718.45	247.65	0.00000
P2	487.78	349.05	0.00103
P3	314.02	411.79	0.00207
P4	244.69	510.51	0.00507
P5	0.01	362.69	0.01188
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	863.05	-123.41	-0.00048
P1	721.82	-189.19	0.00000
P2	488.35	-258.43	0.00103
P3	316.16	-294.17	0.00207
P4	106.22	-351.23	0.00507
P5	0.01	-316.13	0.00687
Pmin	-505.44	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

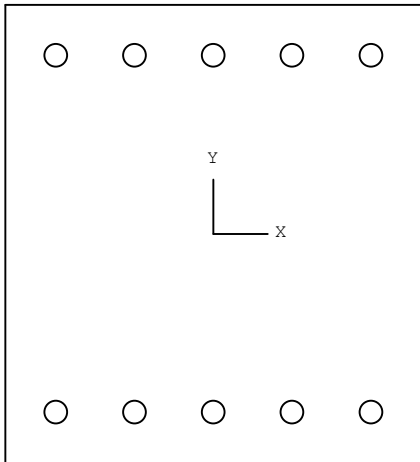
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#9\_NX2\_NY5\_cc2.439



Section 80 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

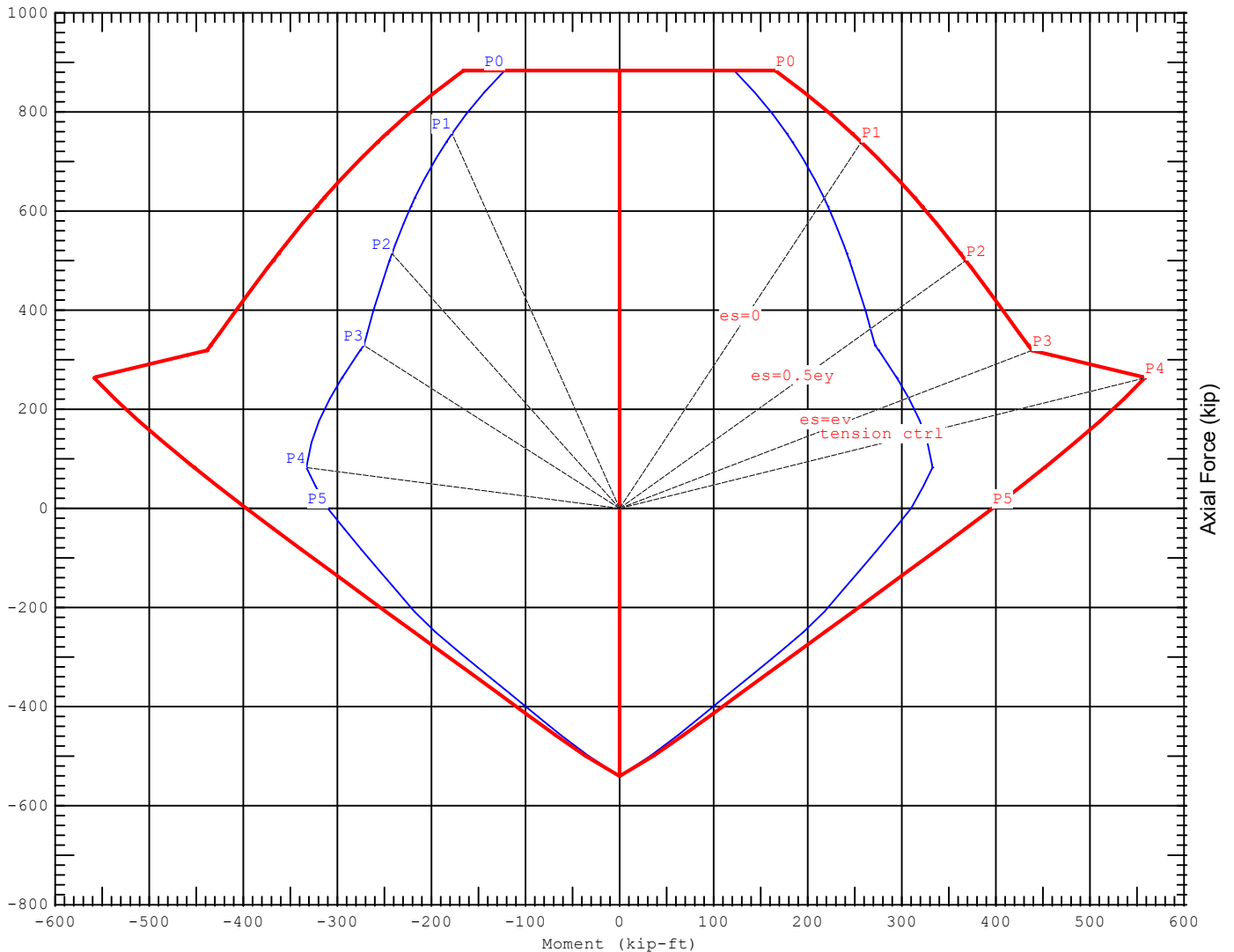
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.27%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	882.18	165.44	-0.00049
P1	737.89	256.60	0.00000
P2	499.06	367.33	0.00103
P3	317.92	437.59	0.00207
P4	262.47	557.08	0.00507
P5	0.00	395.59	0.01272
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	882.18	-121.85	-0.00041
P1	755.14	-177.46	0.00000
P2	513.26	-241.32	0.00103
P3	328.35	-270.95	0.00207
P4	81.89	-332.04	0.00507
P5	0.01	-309.20	0.00608
Pmin	-540.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

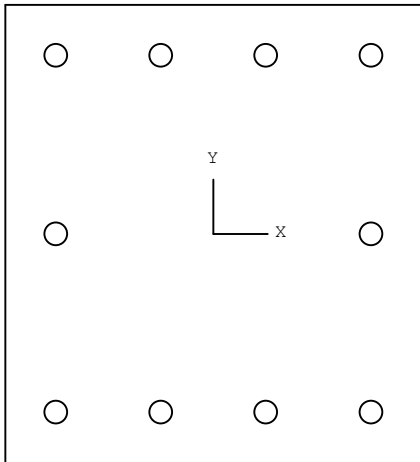
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#9\_NX3\_NY4\_cc2.439



Section 81 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

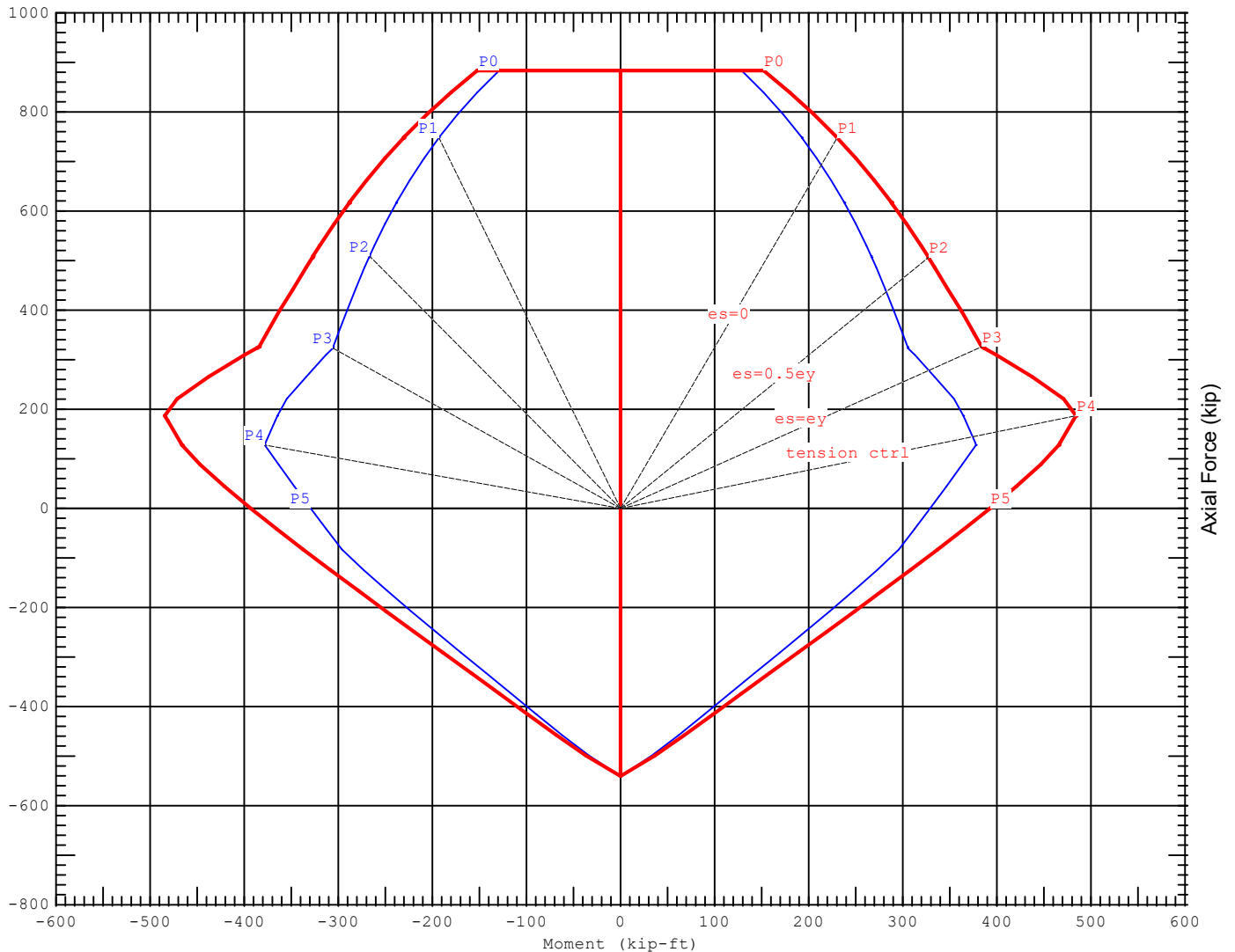
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.27%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	882.18	151.78	-0.00043
P1	746.73	229.96	0.00000
P2	505.47	326.77	0.00103
P3	325.21	383.13	0.00207
P4	186.47	483.07	0.00507
P5	0.01	392.06	0.00952
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	882.18	-128.61	-0.00043
P1	747.10	-192.46	0.00000
P2	507.93	-266.02	0.00103
P3	322.41	-305.00	0.00207
P4	127.67	-377.06	0.00507
P5	-0.01	-328.52	0.00717
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

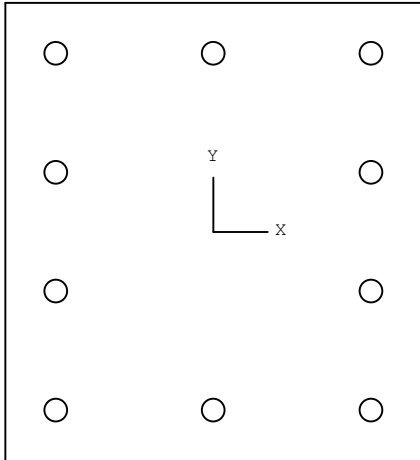
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#9\_NX4\_NY3\_cc2.439



Section 82 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

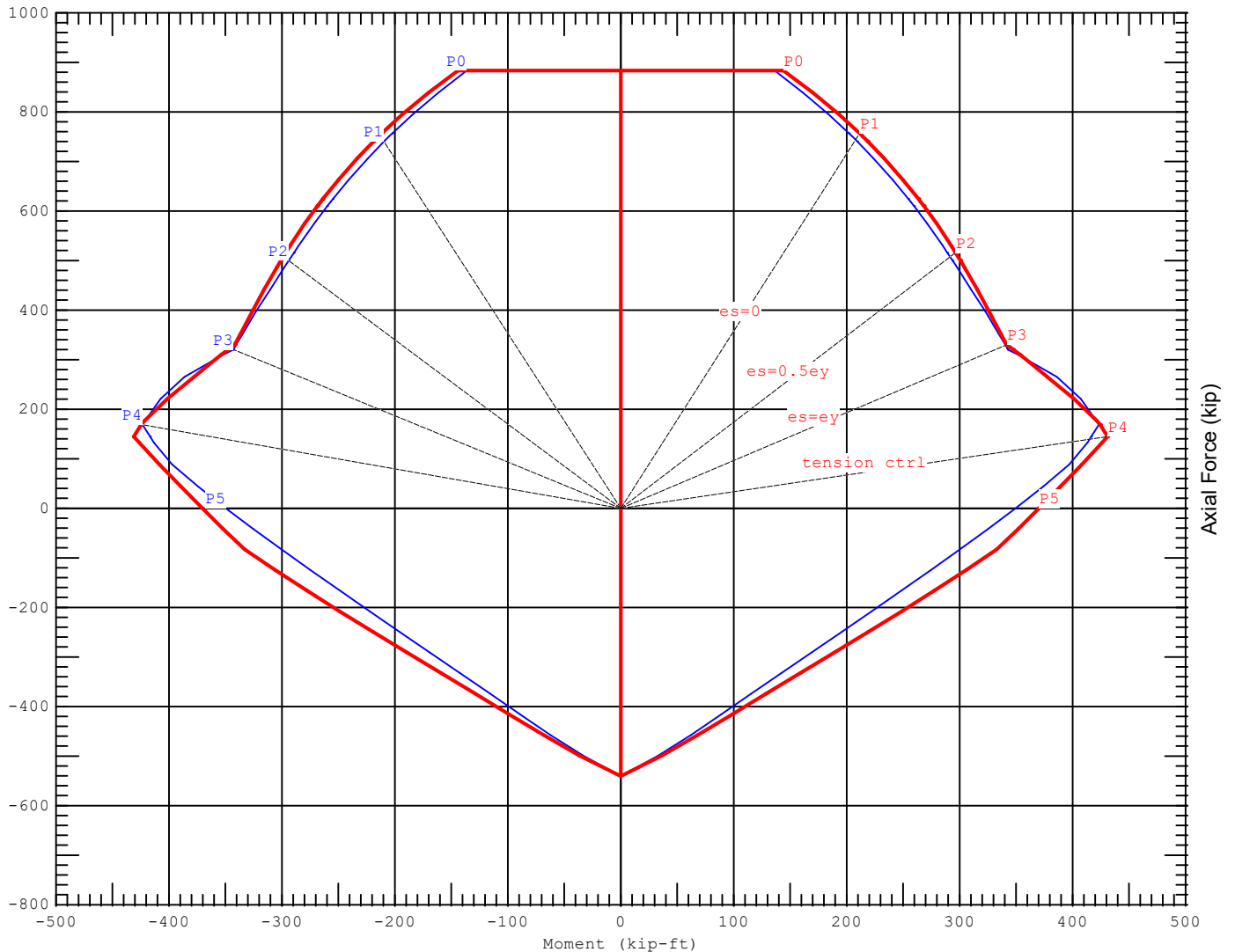
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.27%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.58 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	882.18	143.82	-0.00041
P1	755.58	211.17	0.00000
P2	515.20	295.99	0.00103
P3	329.19	341.14	0.00207
P4	144.17	430.26	0.00507
P5	-0.01	369.63	0.00754
Pmin	-540.00	-0.00	0.20000

PT	P	My(-)	max es
P0	882.18	-135.95	-0.00048
P1	739.06	-209.17	0.00000
P2	499.28	-293.36	0.00103
P3	319.79	-342.28	0.00207
P4	167.98	-422.65	0.00507
P5	0.01	-348.93	0.00882
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

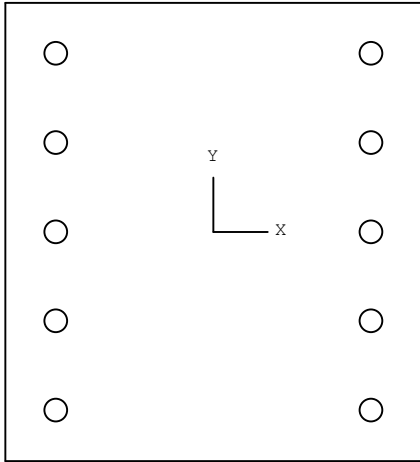
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#9\_NX5\_NY2\_cc2.439



Section 83 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

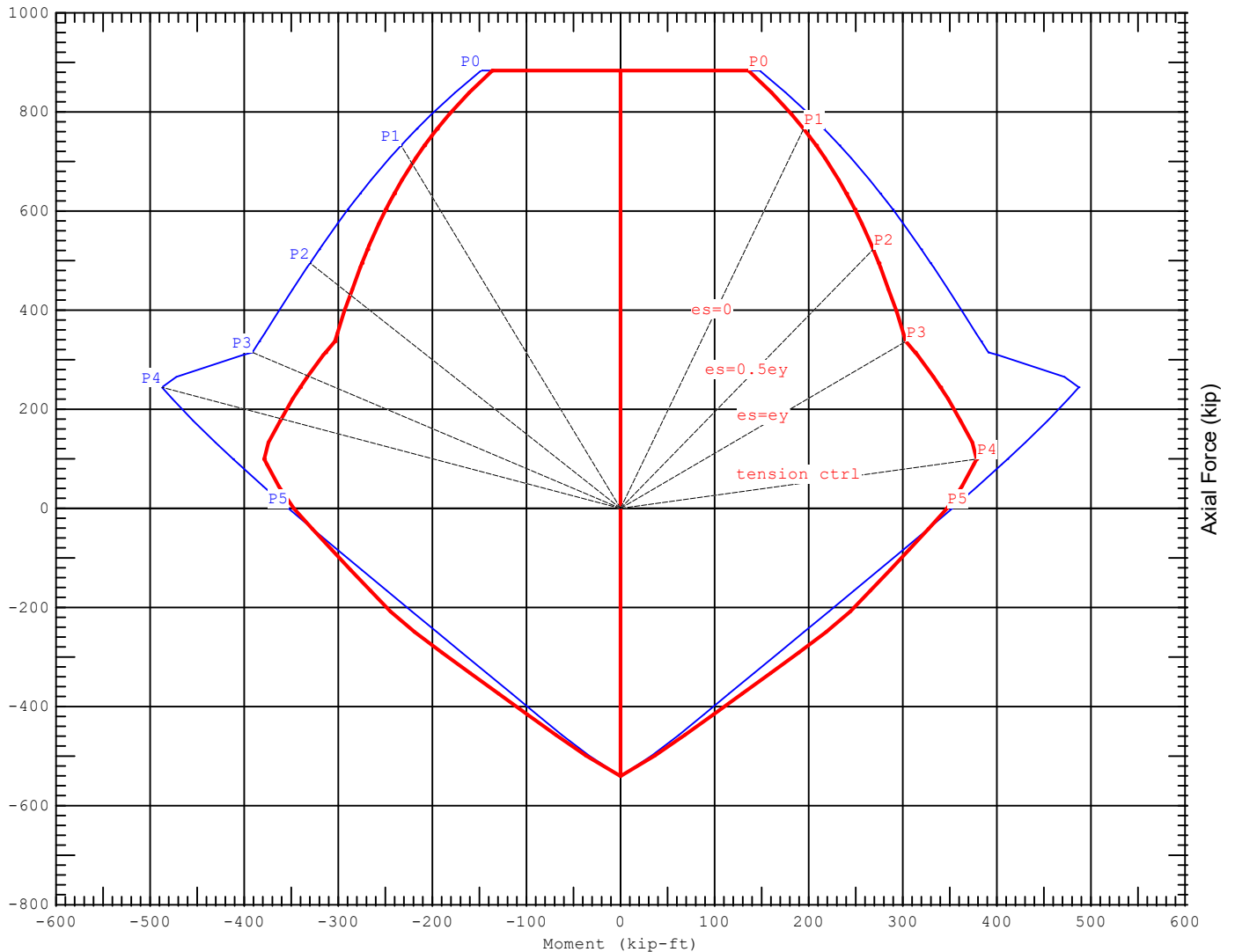
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.27%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.15 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	882.18	135.64	-0.00038
P1	764.42	194.34	0.00000
P2	521.61	268.23	0.00103
P3	336.49	302.85	0.00207
P4	98.89	377.81	0.00507
P5	-0.00	346.24	0.00637
Pmin	-540.00	-0.00	0.20000

PT	P	My(-)	max es
P0	882.17	-147.74	-0.00051
P1	731.02	-232.70	0.00000
P2	493.95	-329.18	0.00103
P3	313.85	-390.38	0.00207
P4	243.98	-486.13	0.00507
P5	0.01	-351.94	0.01161
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

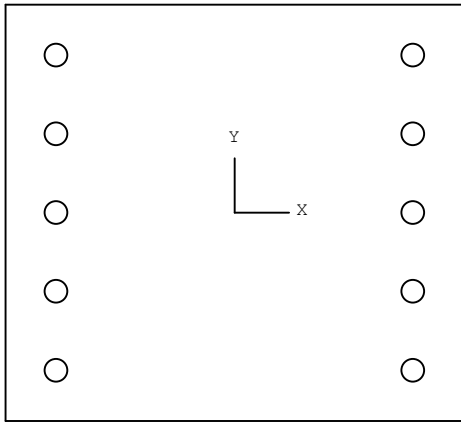
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#9\_NX5\_NY2\_cc2.439



Section 84 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

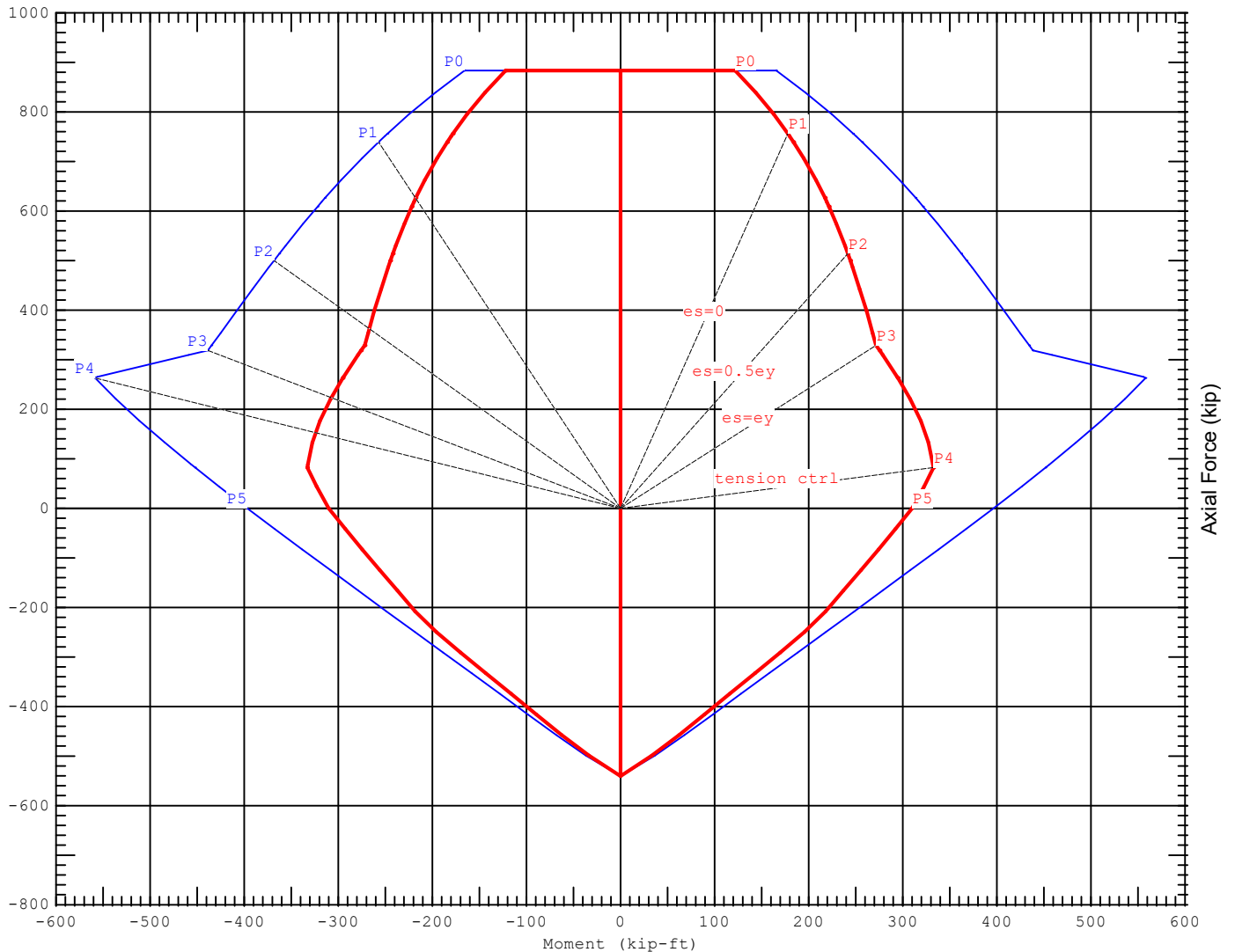
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.27%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	882.18	121.85	-0.00041
P1	755.14	177.46	0.00000
P2	513.26	241.32	0.00103
P3	328.35	270.95	0.00207
P4	81.89	332.04	0.00507
P5	0.01	309.20	0.00608
Pmin	-540.00	-0.00	0.20000

PT	P	My(-)	max es
P0	882.18	-165.44	-0.00049
P1	737.89	-256.60	0.00000
P2	499.06	-367.33	0.00103
P3	317.92	-437.59	0.00207
P4	262.47	-557.08	0.00507
P5	0.00	-395.59	0.01272
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

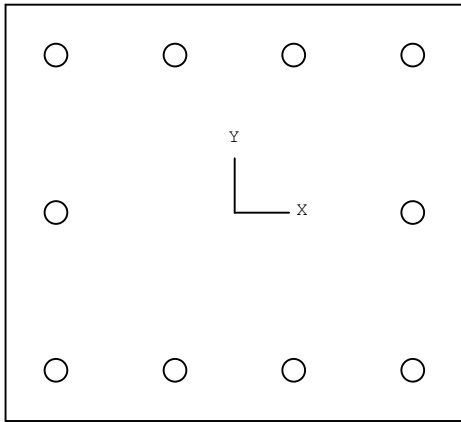
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#9\_NX3\_NY4\_cc2.439



Section 85 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

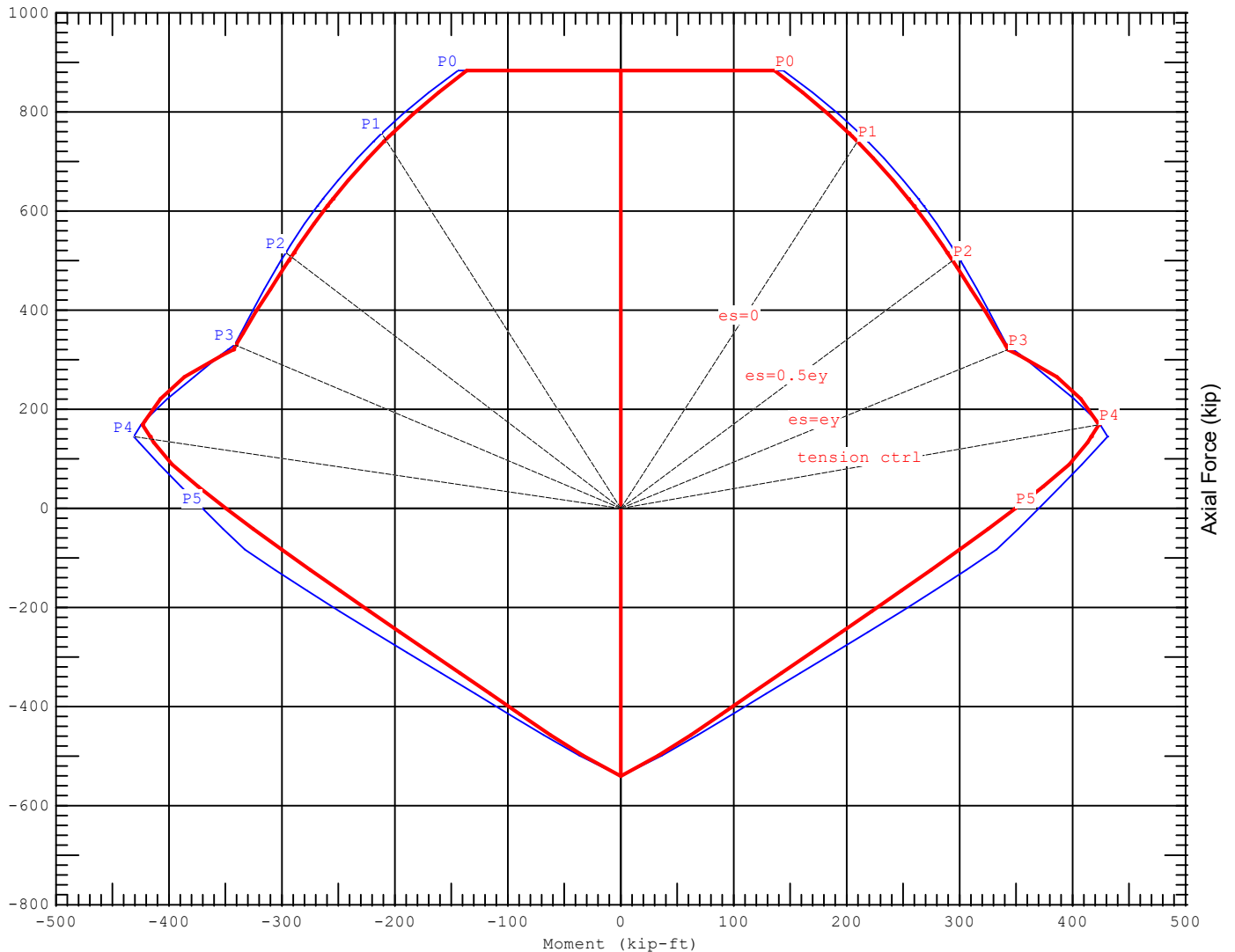
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.27%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.58 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	882.18	135.95	-0.00048
P1	739.06	209.17	0.00000
P2	499.28	293.36	0.00103
P3	319.79	342.28	0.00207
P4	167.98	422.65	0.00507
P5	0.01	348.93	0.00882
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	882.18	-143.82	-0.00041
P1	755.58	-211.17	0.00000
P2	515.20	-295.99	0.00103
P3	329.19	-341.14	0.00207
P4	144.17	-430.26	0.00507
P5	-0.01	-369.63	0.00754
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

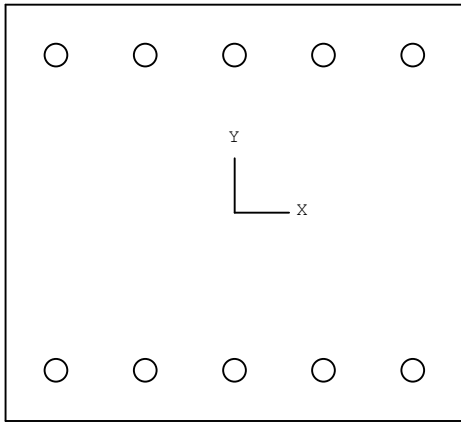
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#9\_NX2\_NY5\_cc2.439



Section 86 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

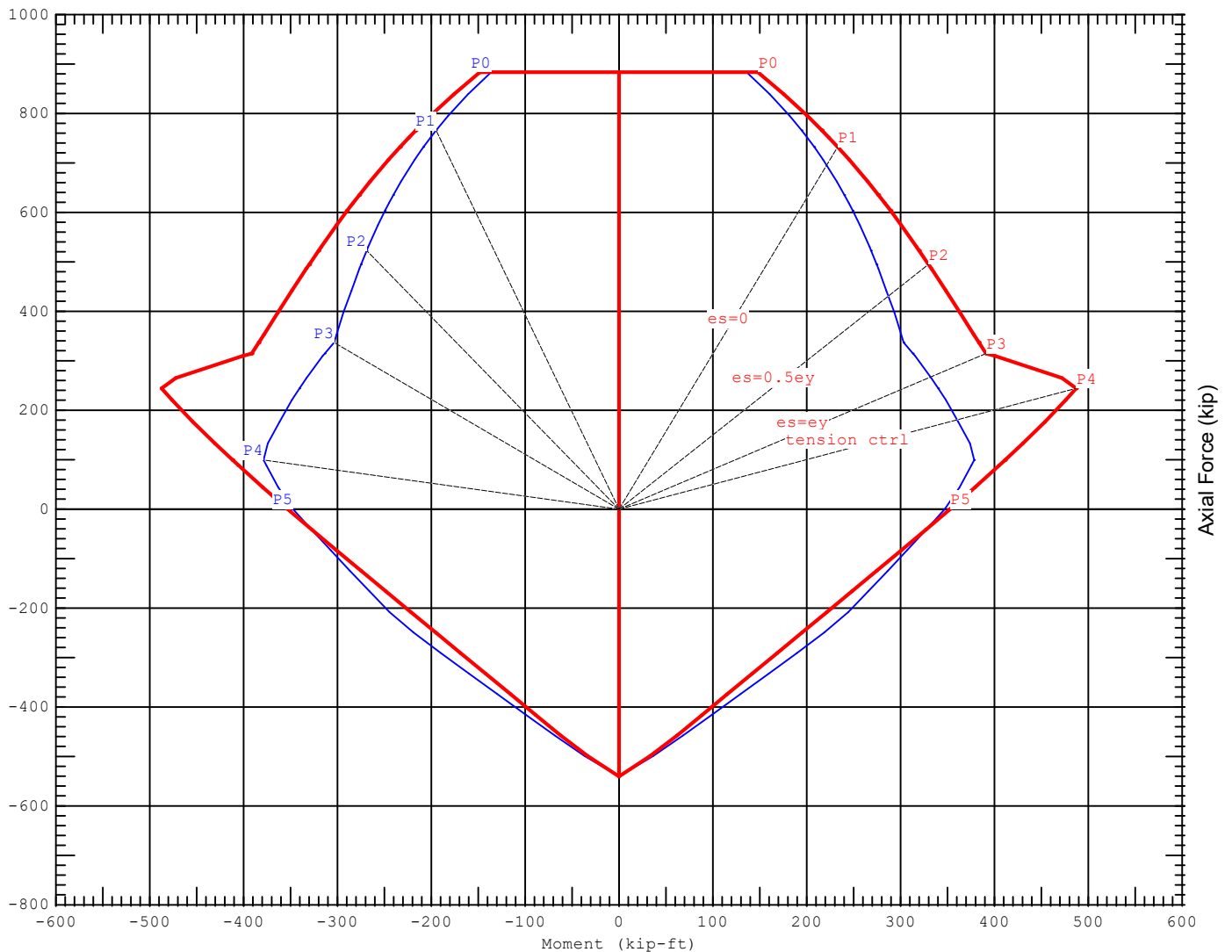
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.27%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.15 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	882.17	147.74	-0.00051
P1	731.02	232.70	0.00000
P2	493.95	329.18	0.00103
P3	313.85	390.38	0.00207
P4	243.98	486.13	0.00507
P5	0.01	351.94	0.01161
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	882.18	-135.64	-0.00038
P1	764.42	-194.34	0.00000
P2	521.61	-268.23	0.00103
P3	336.49	-302.85	0.00207
P4	98.89	-377.81	0.00507
P5	-0.00	-346.24	0.00637
Pmin	-540.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

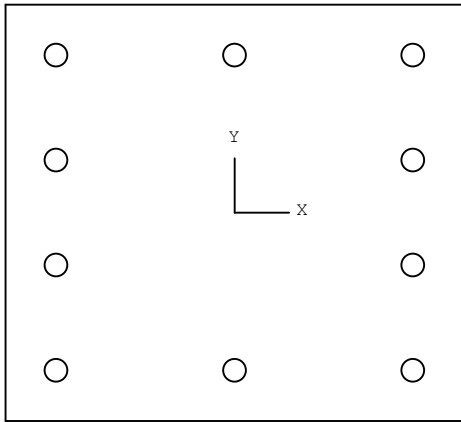
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#9\_NX4\_NY3\_cc2.439



Section 87 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

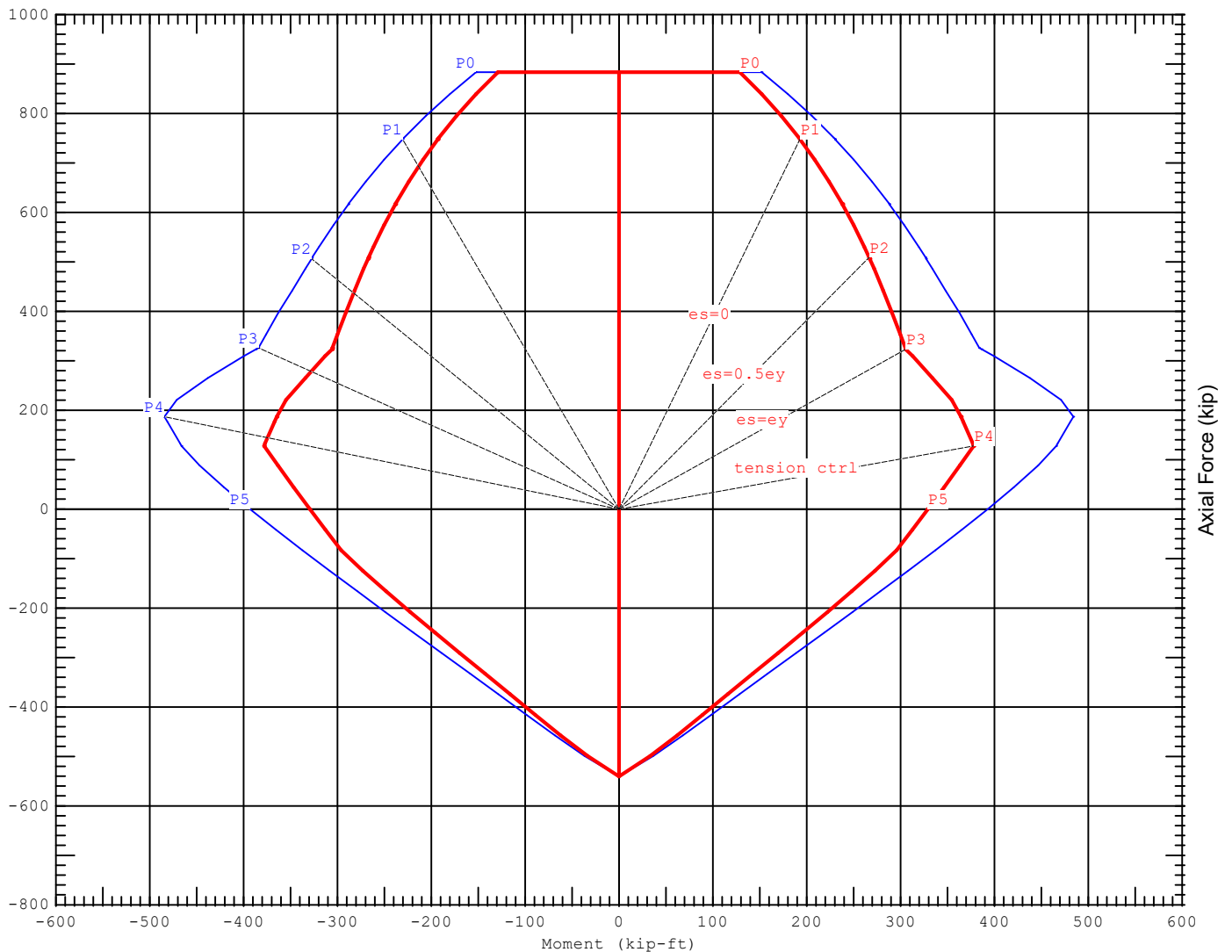
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.27%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	882.18	128.61	-0.00043
P1	747.10	192.46	0.00000
P2	507.93	266.02	0.00103
P3	322.41	305.00	0.00207
P4	127.67	377.06	0.00507
P5	-0.01	328.52	0.00717
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	882.18	-151.78	-0.00043
P1	746.73	-229.96	0.00000
P2	505.47	-326.77	0.00103
P3	325.21	-383.13	0.00207
P4	186.47	-483.07	0.00507
P5	0.01	-392.06	0.00952
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

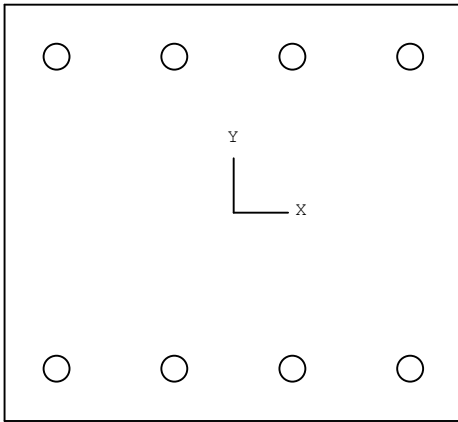
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#10\_NX2\_NY4\_cc2.51



Section 88 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

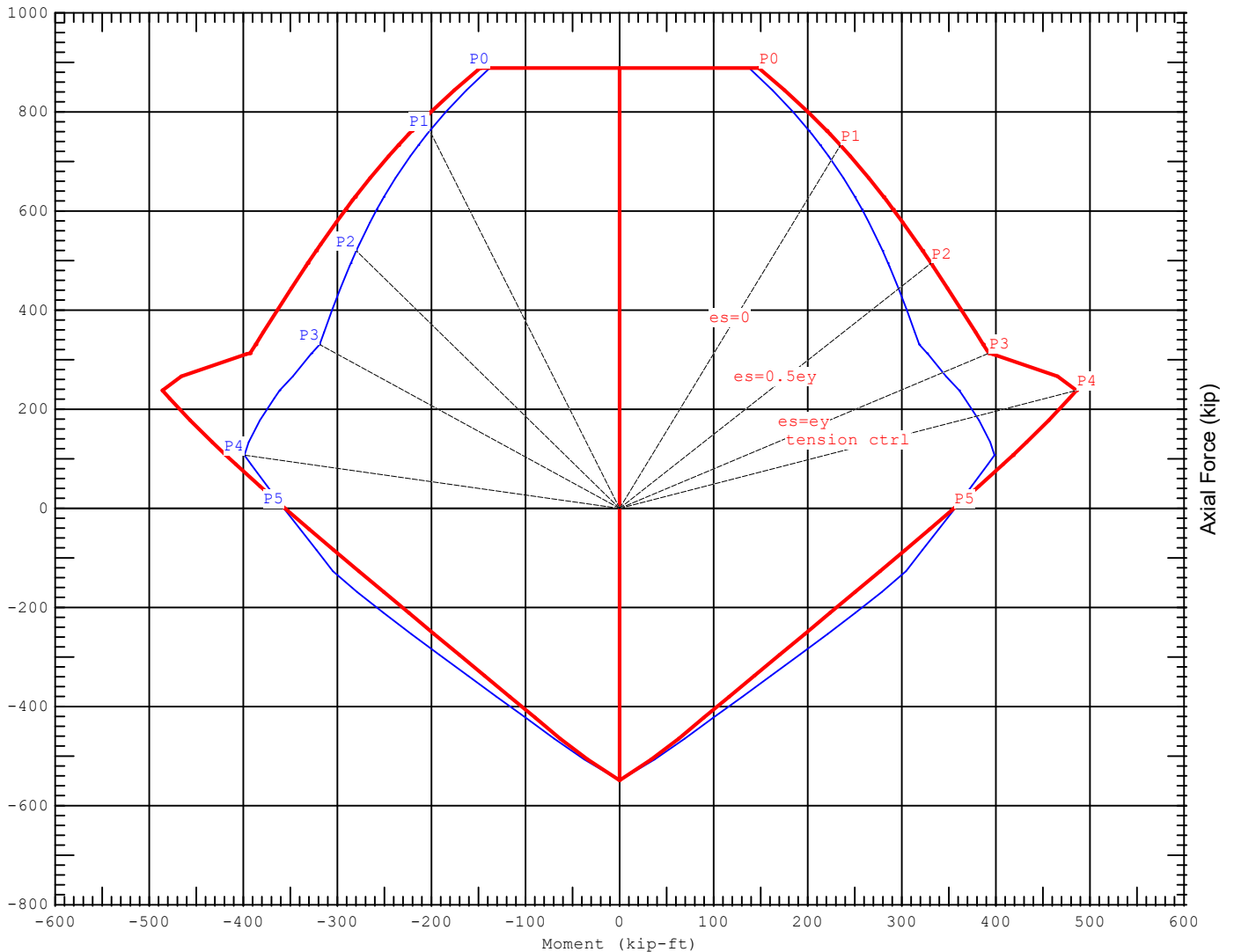
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.31%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.39 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	886.95	147.61	-0.00052
P1	731.81	234.36	0.00000
P2	493.75	330.48	0.00103
P3	312.42	391.81	0.00207
P4	237.32	484.67	0.00507
P5	0.01	354.87	0.01121
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	886.96	-137.69	-0.00040
P1	760.75	-201.28	0.00000
P2	518.70	-279.11	0.00103
P3	329.93	-317.98	0.00207
P4	107.20	-397.85	0.00507
P5	-0.00	-355.92	0.00671
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

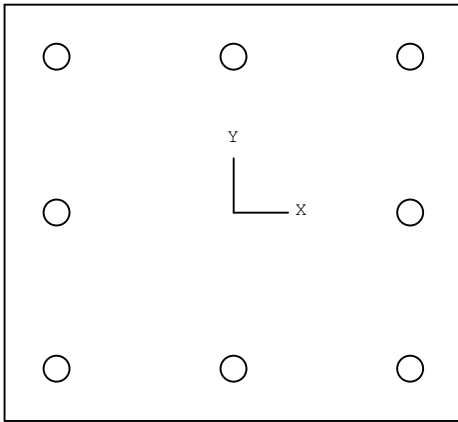
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#10\_NX3\_NY3\_cc2.51



Section 89 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

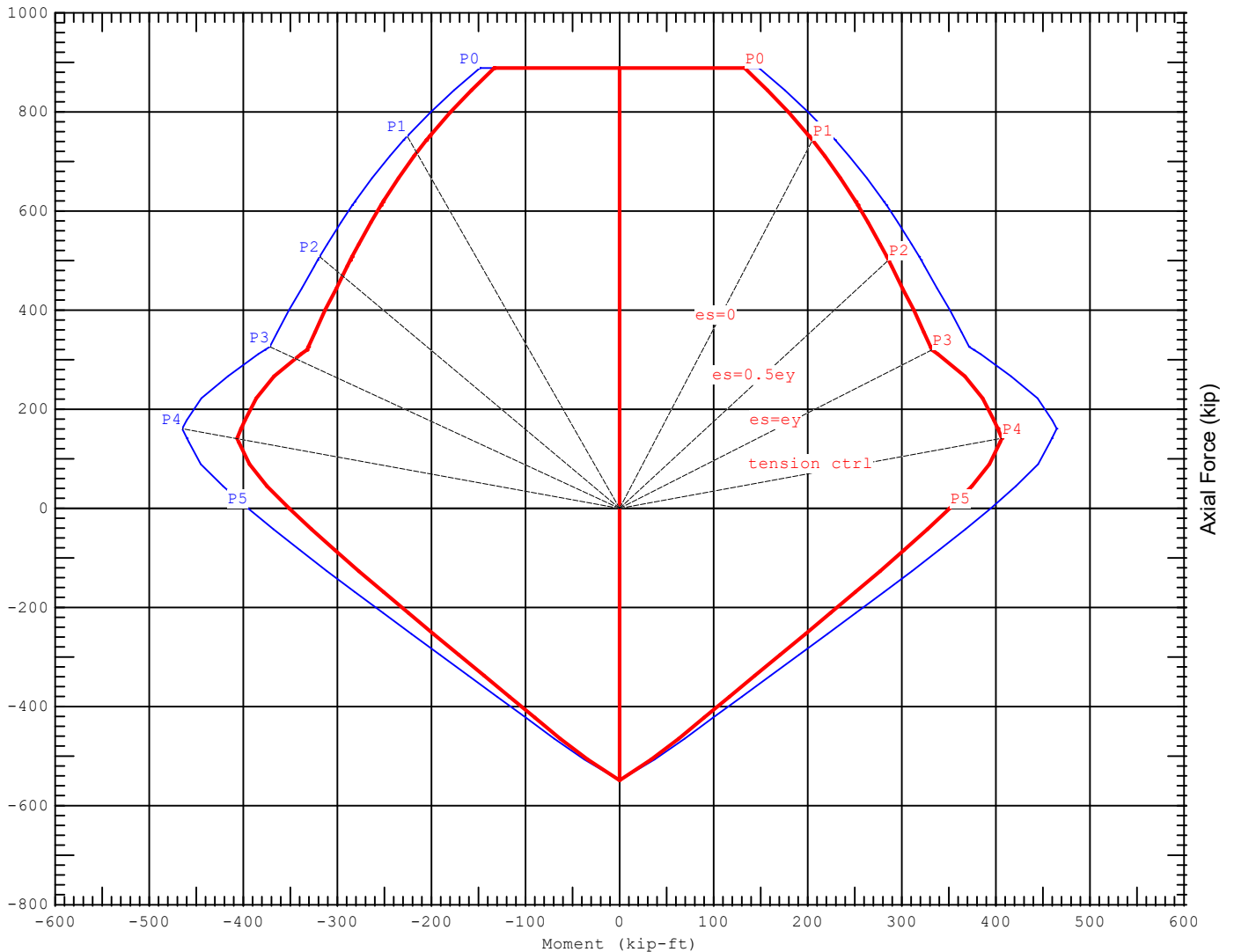
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.31%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	886.95	132.71	-0.00048
P1	741.68	204.76	0.00000
P2	500.07	285.42	0.00103
P3	319.40	331.29	0.00207
P4	140.80	405.58	0.00507
P5	0.01	350.27	0.00783
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	886.96	-148.13	-0.00044
P1	749.81	-224.99	0.00000
P2	506.75	-317.95	0.00103
P3	325.37	-370.94	0.00207
P4	160.19	-463.93	0.00507
P5	-0.00	-393.74	0.00843
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

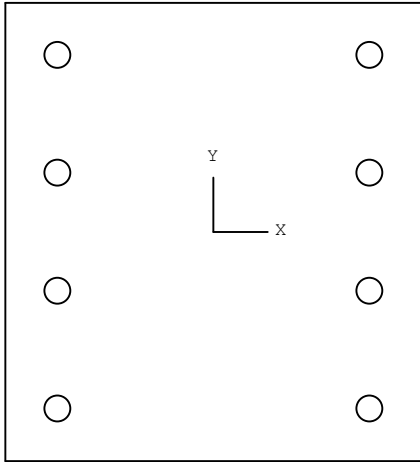
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#10\_NX4\_NY2\_cc2.51



Section 90 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

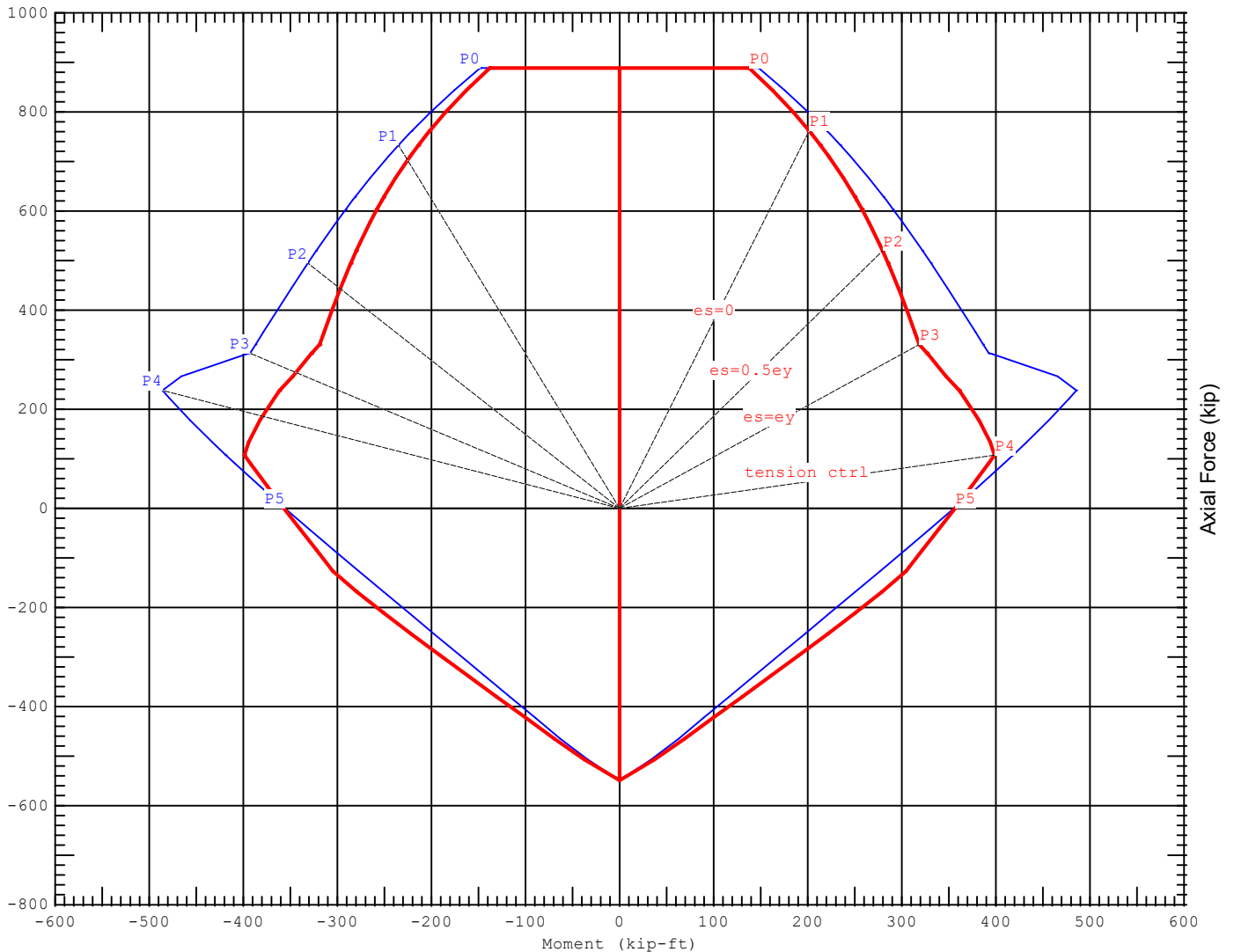
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.31%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.39 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	886.96	137.69	-0.00040
P1	760.75	201.28	0.00000
P2	518.70	279.11	0.00103
P3	329.93	317.98	0.00207
P4	107.20	397.85	0.00507
P5	-0.00	355.92	0.00671
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	886.95	-147.61	-0.00052
P1	731.81	-234.36	0.00000
P2	493.75	-330.48	0.00103
P3	312.42	-391.81	0.00207
P4	237.32	-484.67	0.00507
P5	0.01	-354.87	0.01121
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

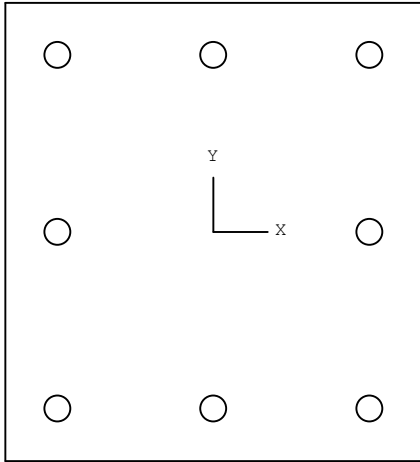
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#10\_NX3\_NY3\_cc2.51



Section 91 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

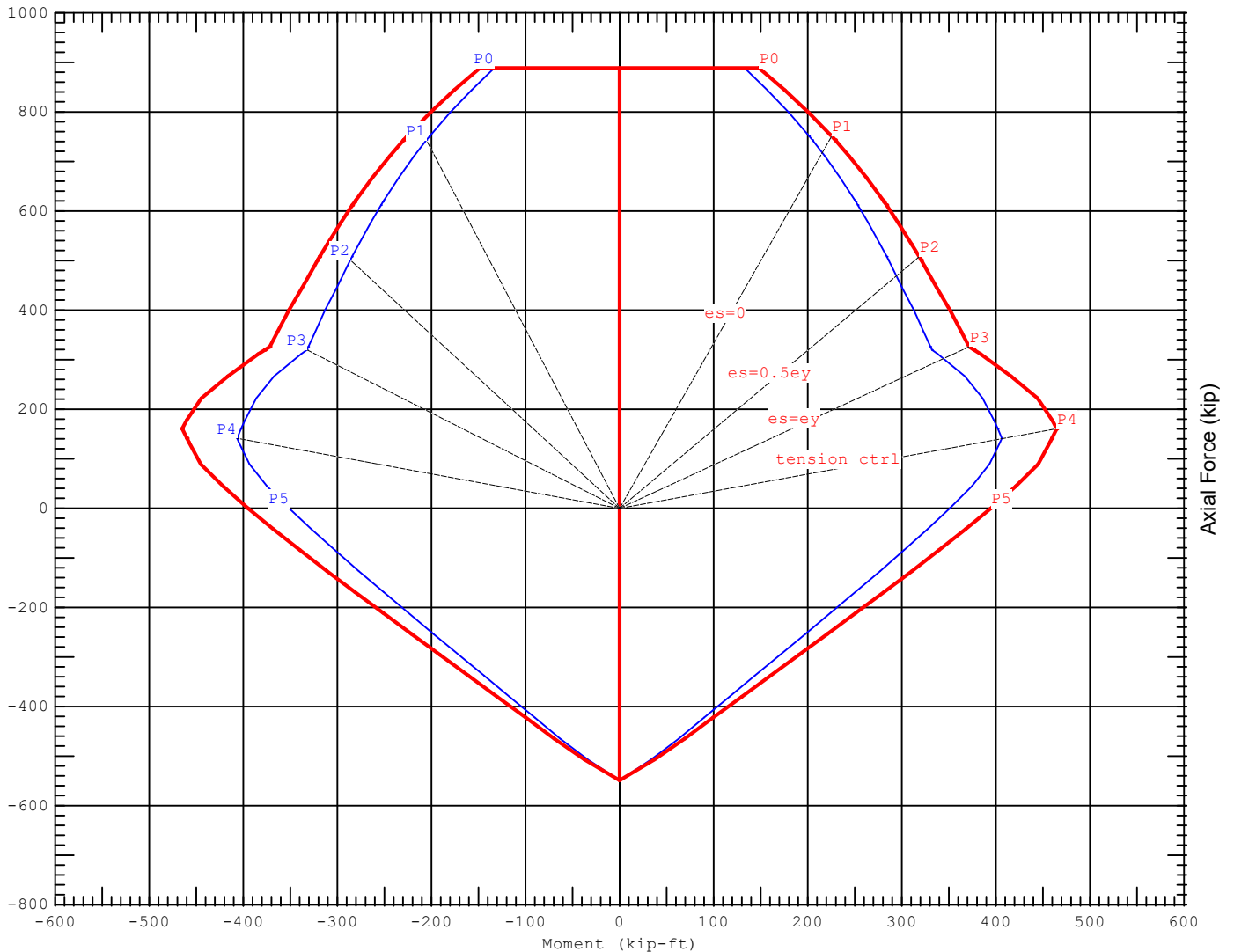
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.31%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	886.96	148.13	-0.00044
P1	749.81	224.99	0.00000
P2	506.75	317.95	0.00103
P3	325.37	370.94	0.00207
P4	160.19	463.93	0.00507
P5	-0.00	393.74	0.00843
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	886.95	-132.71	-0.00048
P1	741.68	-204.76	0.00000
P2	500.07	-285.42	0.00103
P3	319.40	-331.29	0.00207
P4	140.80	-405.58	0.00507
P5	0.01	-350.27	0.00783
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

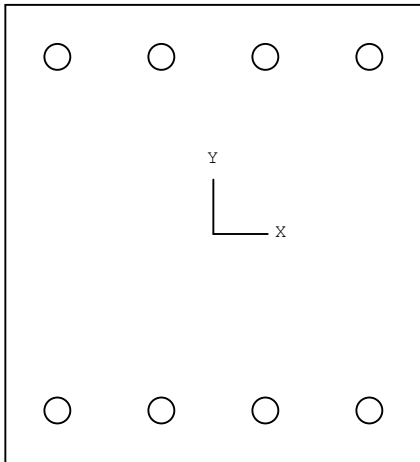
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#10\_NX2\_NY4\_cc2.51



Section 92 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

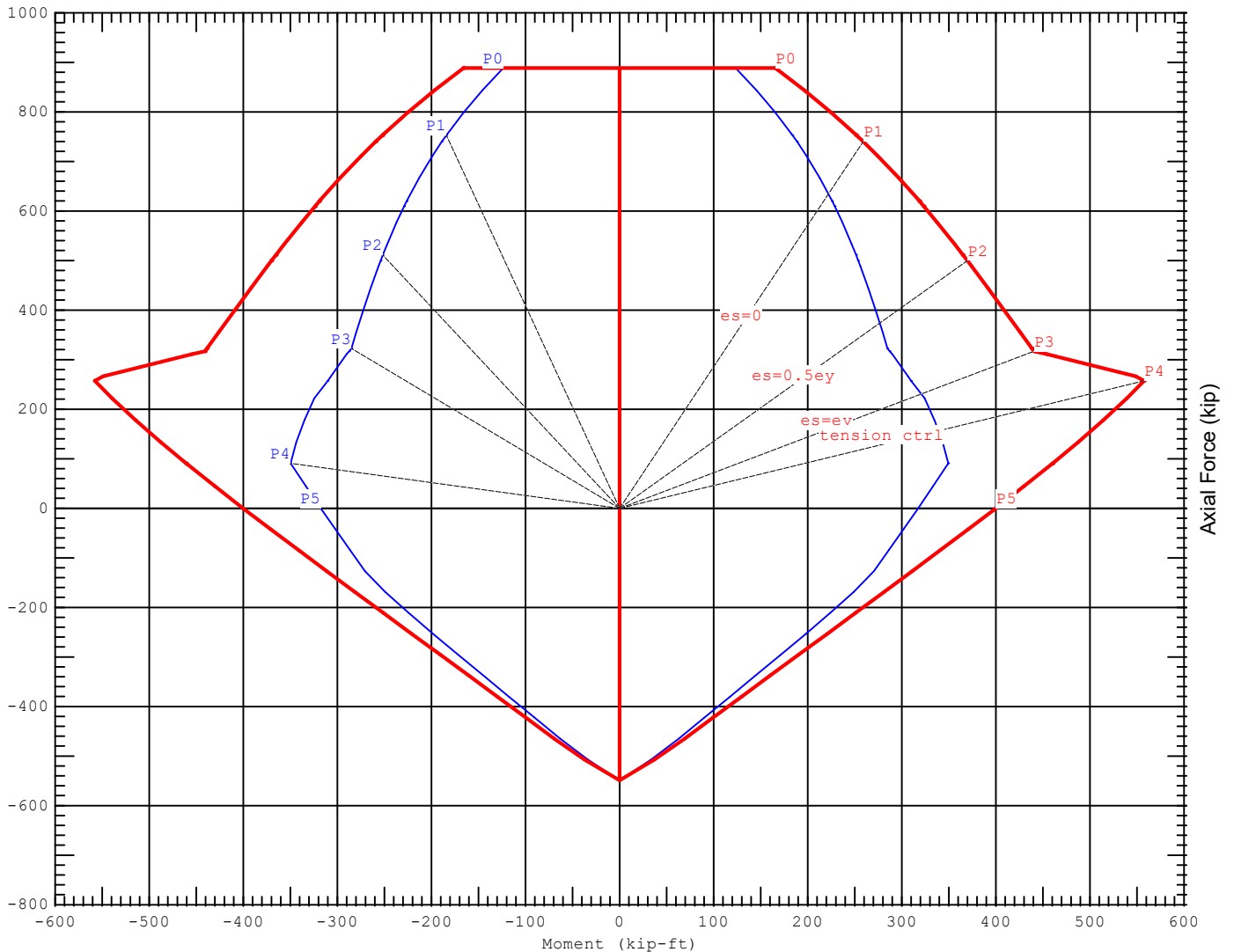
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.31%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	886.95	165.41	-0.00050
P1	738.88	258.54	0.00000
P2	499.00	369.03	0.00103
P3	316.60	439.54	0.00207
P4	256.72	556.37	0.00507
P5	-0.00	399.16	0.01229
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	886.96	-123.13	-0.00043
P1	751.56	-183.69	0.00000
P2	510.60	-250.96	0.00103
P3	322.17	-284.32	0.00207
P4	90.43	-348.65	0.00507
P5	0.00	-316.71	0.00641
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

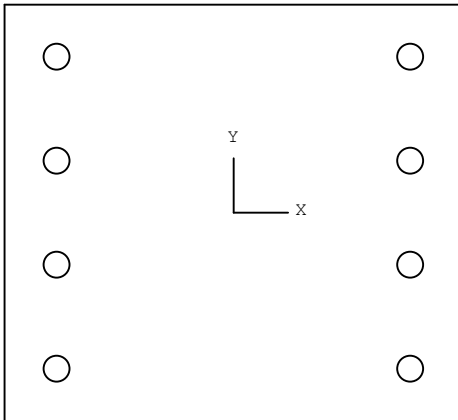
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#10\_NX4\_NY2\_cc2.51



Section 93 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

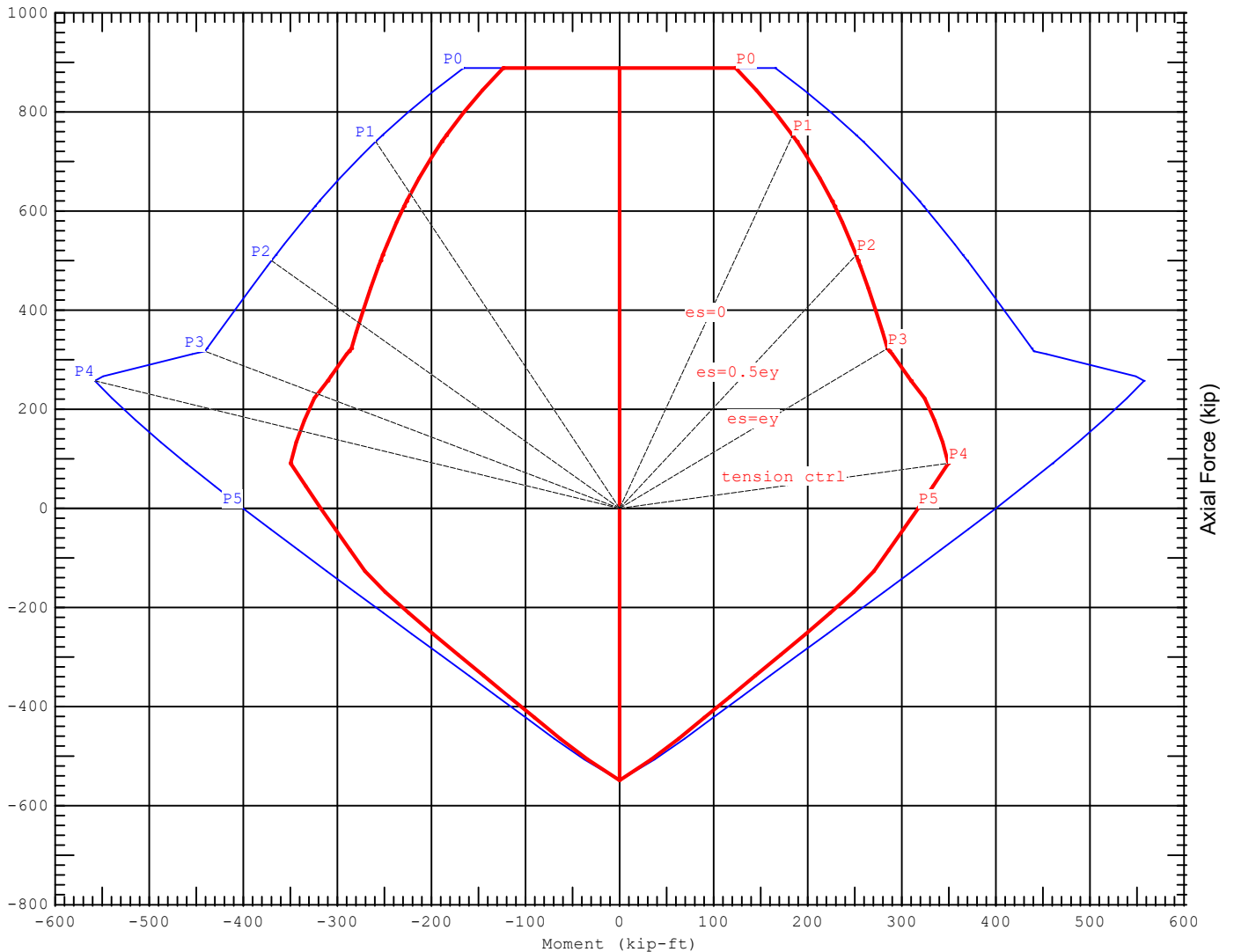
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.31%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	886.96	123.13	-0.00043
P1	751.56	183.69	0.00000
P2	510.60	250.96	0.00103
P3	322.17	284.32	0.00207
P4	90.43	348.65	0.00507
P5	0.00	316.71	0.00641
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	886.95	-165.41	-0.00050
P1	738.88	-258.54	0.00000
P2	499.00	-369.03	0.00103
P3	316.60	-439.54	0.00207
P4	256.72	-556.37	0.00507
P5	-0.00	-399.16	0.01229
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

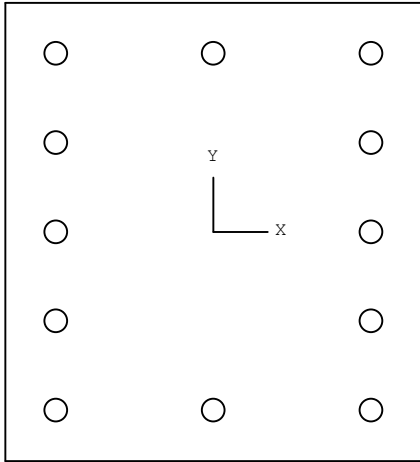
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#9\_NX5\_NY3\_cc2.439



Section 94 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

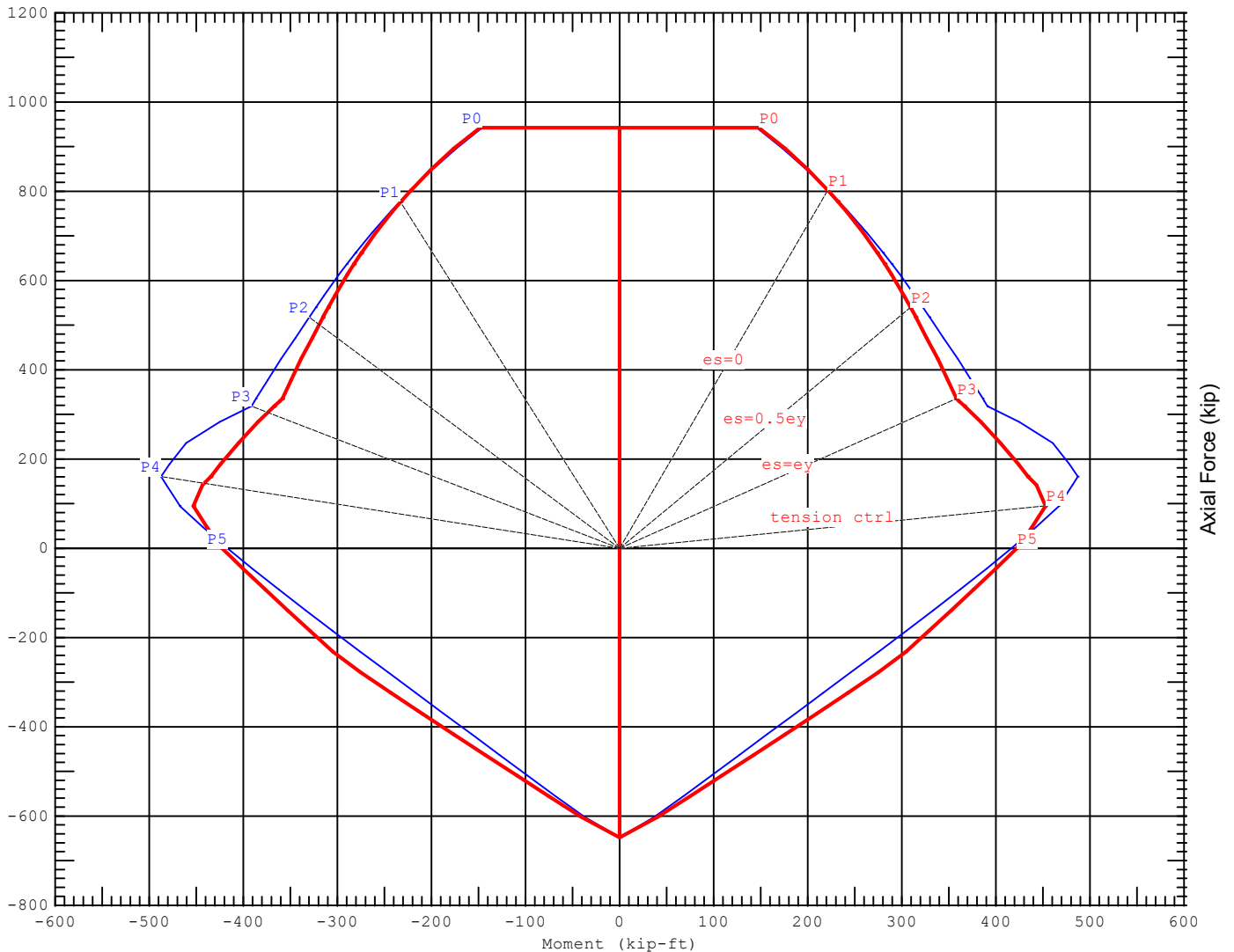
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.15 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	147.72	-0.00042
P1	801.76	220.98	0.00000
P2	539.45	308.78	0.00103
P3	334.83	357.32	0.00207
P4	94.63	451.83	0.00507
P5	-0.01	421.28	0.00621
Pmin	-648.00	-0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-145.60	-0.00052
P1	776.40	-232.70	0.00000
P2	517.13	-329.18	0.00103
P3	318.13	-390.38	0.00207
P4	160.73	-486.13	0.00507
P5	-0.01	-415.75	0.00823
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

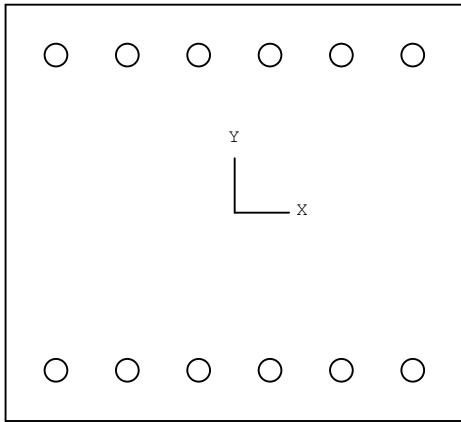
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#9\_NX2\_NY6\_cc2.439



Section 95 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

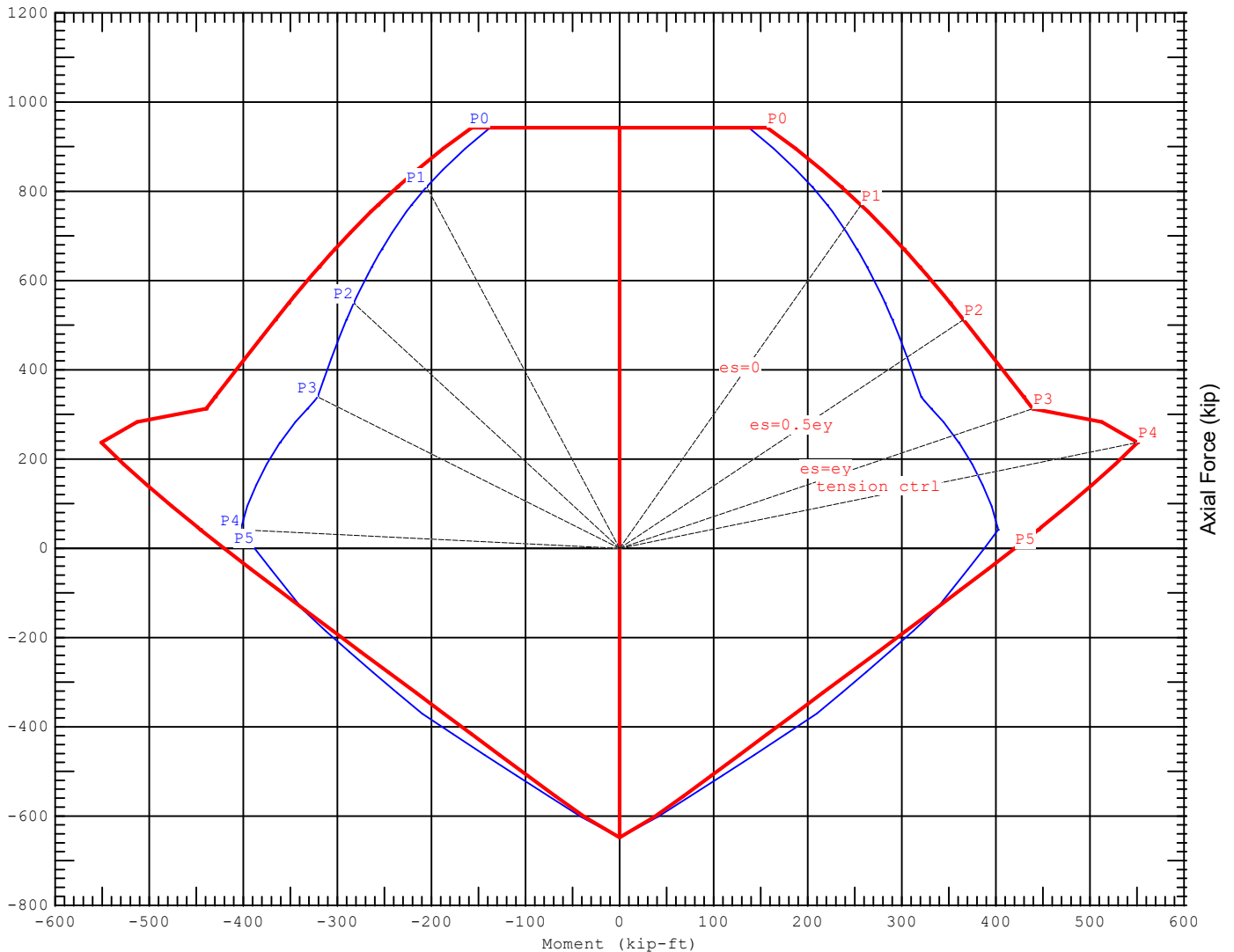
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.30 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	156.66	-0.00055
P1	768.36	256.23	0.00000
P2	511.80	364.99	0.00103
P3	312.20	438.49	0.00207
P4	236.74	549.62	0.00507
P5	-0.01	419.33	0.01067
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-137.25	-0.00041
P1	809.40	-204.42	0.00000
P2	549.18	-281.77	0.00103
P3	338.81	-320.04	0.00207
P4	41.60	-401.51	0.00507
P5	0.01	-386.91	0.00565
Pmin	-648.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

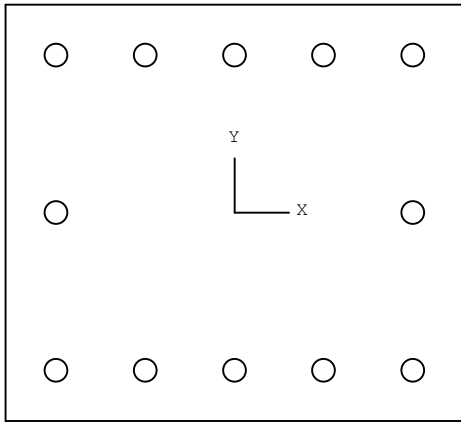
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#9\_NX3\_NY5\_cc2.439



Section 96 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

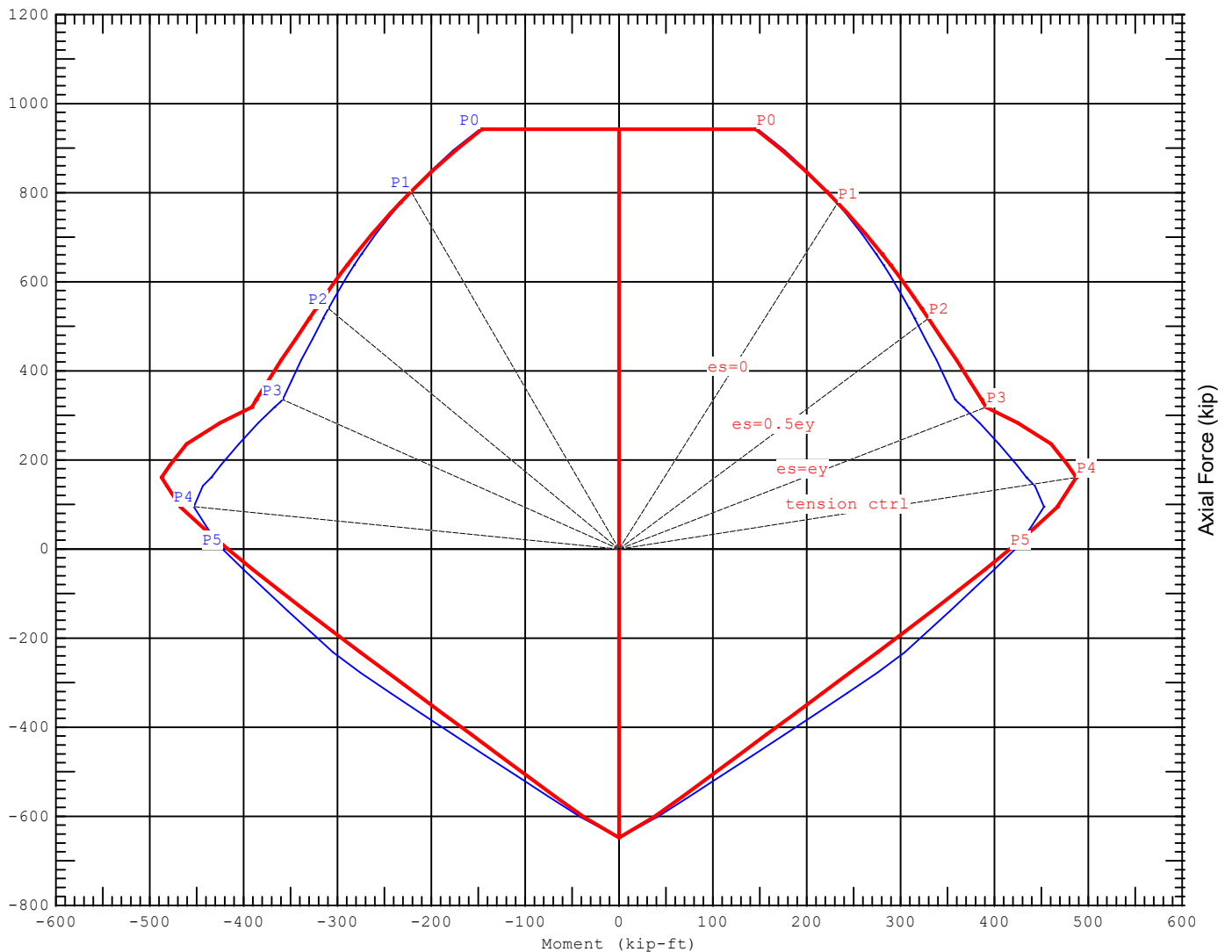
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.15 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	145.60	-0.00052
P1	776.40	232.70	0.00000
P2	517.13	329.18	0.00103
P3	318.13	390.38	0.00207
P4	160.73	486.13	0.00507
P5	-0.01	415.75	0.00823
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-147.72	-0.00042
P1	801.76	-220.98	0.00000
P2	539.45	-308.78	0.00103
P3	334.83	-357.32	0.00207
P4	94.63	-451.83	0.00507
P5	-0.01	-421.28	0.00621
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

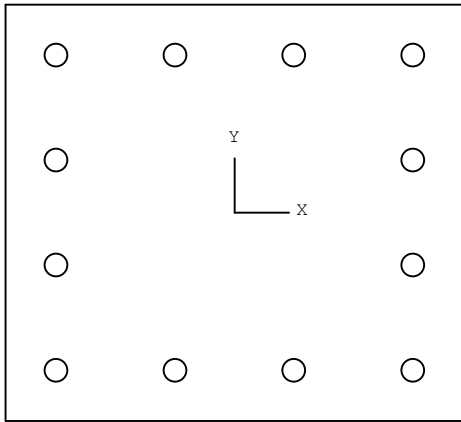
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#9\_NX4\_NY4\_cc2.439



Section 97 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

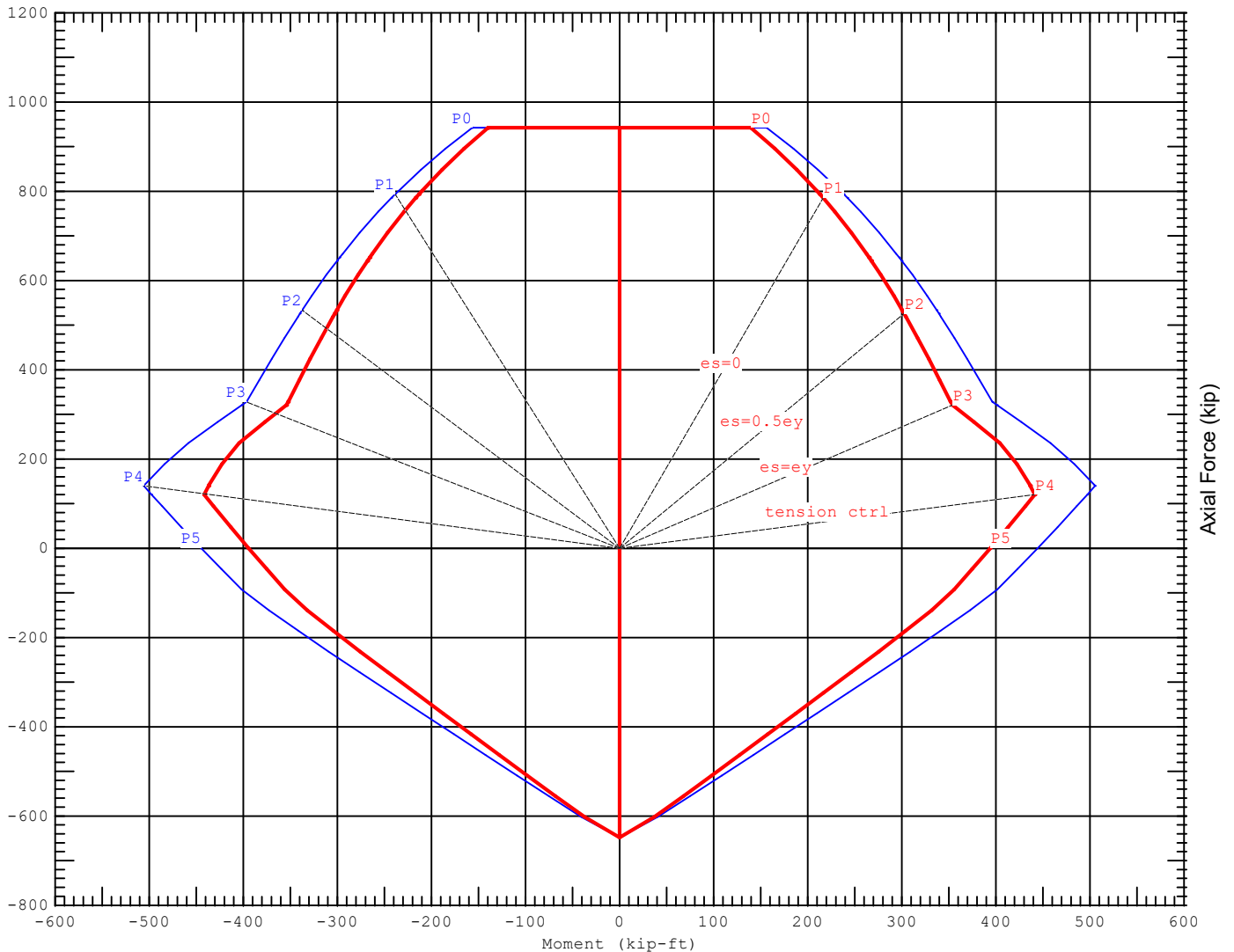
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	139.31	-0.00049
P1	784.44	215.99	0.00000
P2	525.77	301.84	0.00103
P3	320.75	353.11	0.00207
P4	120.43	440.54	0.00507
P5	0.00	393.28	0.00692
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-156.21	-0.00046
P1	792.92	-237.81	0.00000
P2	533.04	-336.54	0.00103
P3	327.54	-395.60	0.00207
P4	139.92	-504.28	0.00507
P5	0.02	-443.51	0.00732
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

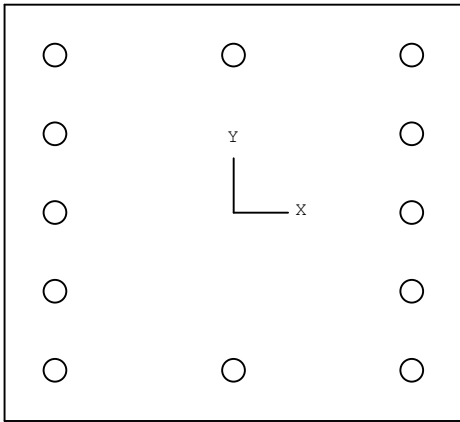
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#9\_NX5\_NY3\_cc2.439



Section 98 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

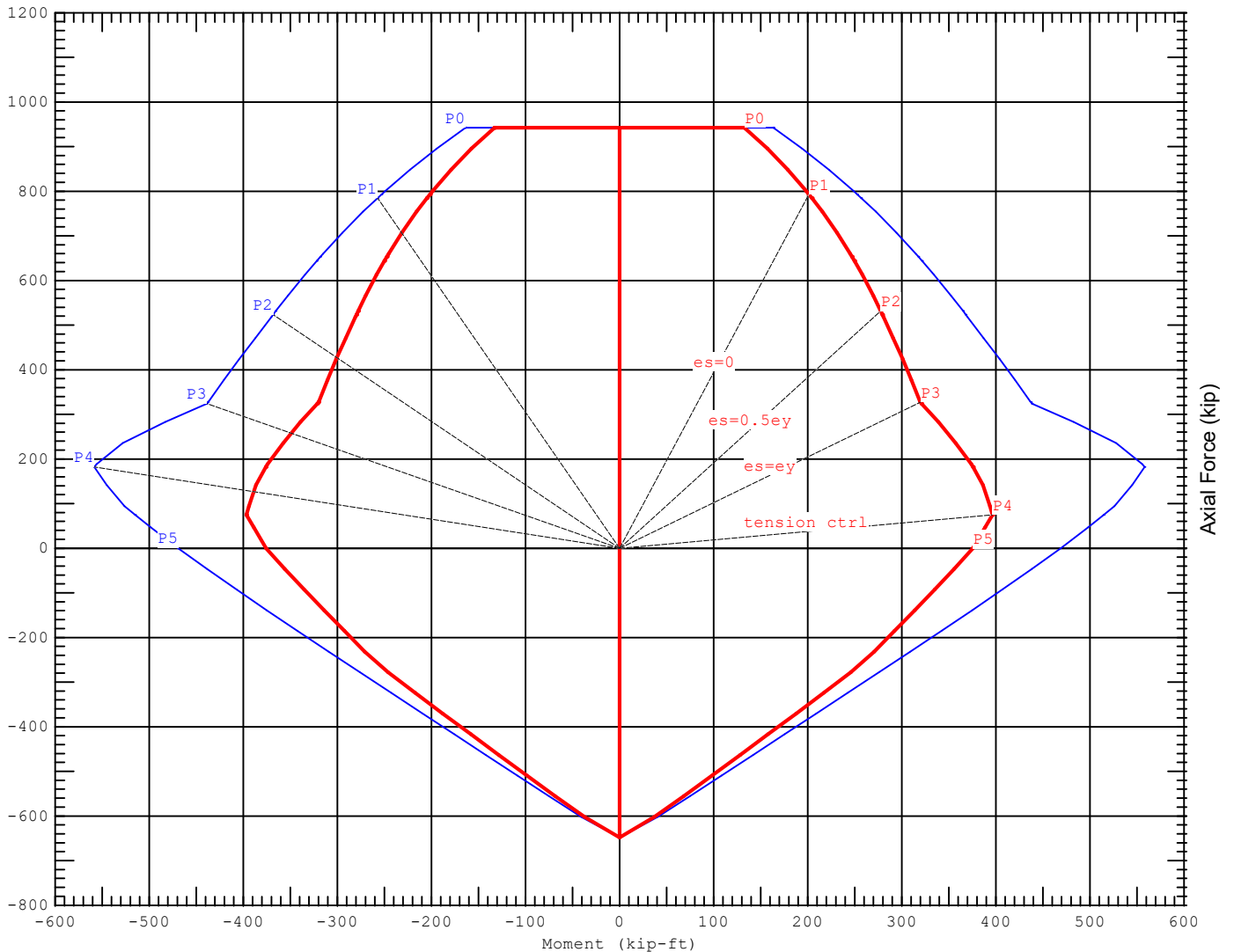
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.92	132.63	-0.00046
P1	792.48	200.98	0.00000
P2	531.10	277.13	0.00103
P3	326.69	319.06	0.00207
P4	74.65	395.53	0.00507
P5	-0.00	374.90	0.00589
Pmin	-648.00	-0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-163.19	-0.00050
P1	784.08	-256.60	0.00000
P2	523.32	-367.33	0.00103
P3	323.56	-437.59	0.00207
P4	182.21	-557.08	0.00507
P5	0.00	-467.86	0.00892
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

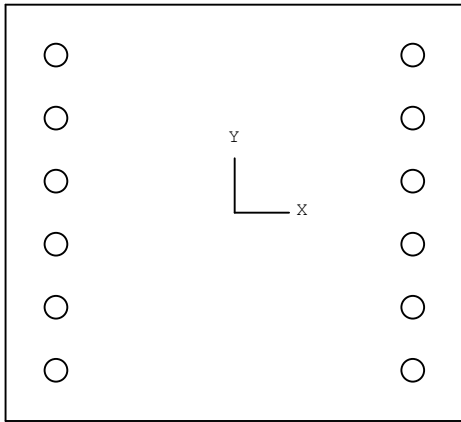
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#9\_NX6\_NY2\_cc2.439



Section 99 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

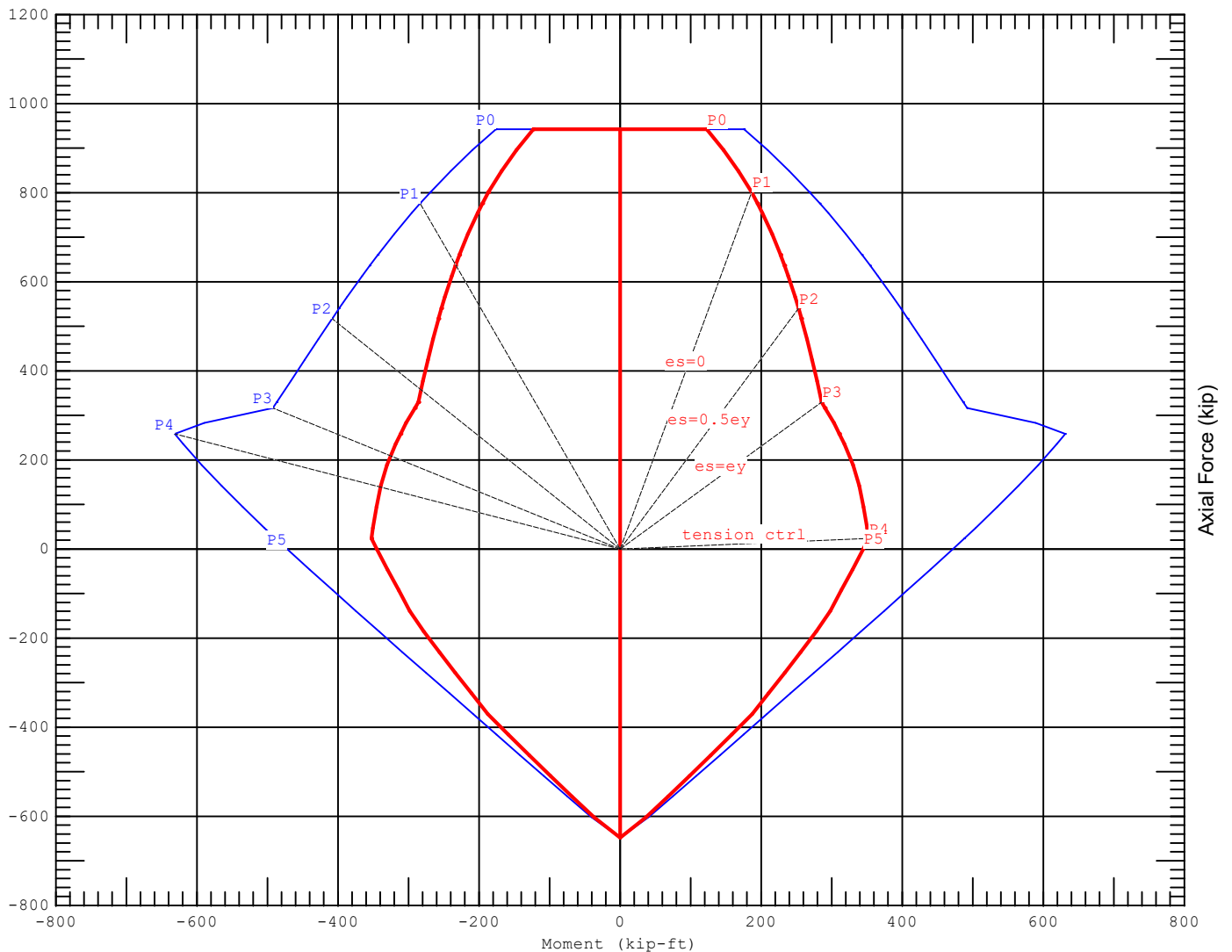
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	123.04	-0.00044
P1	800.52	186.66	0.00000
P2	539.75	253.07	0.00103
P3	329.31	285.88	0.00207
P4	23.71	352.13	0.00507
P5	0.00	344.70	0.00541
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-175.72	-0.00053
P1	775.24	-283.24	0.00000
P2	516.91	-407.88	0.00103
P3	316.26	-492.06	0.00207
P4	258.22	-631.10	0.00507
P5	-0.00	-471.95	0.01172
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

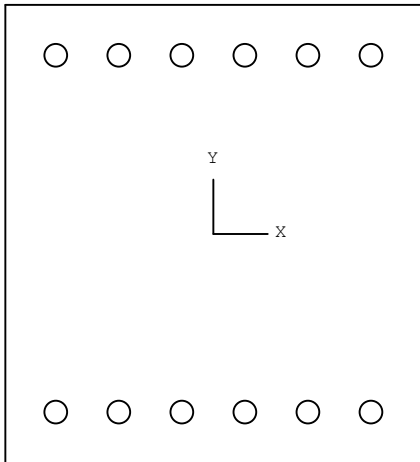
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#9\_NX2\_NY6\_cc2.439



Section 100 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

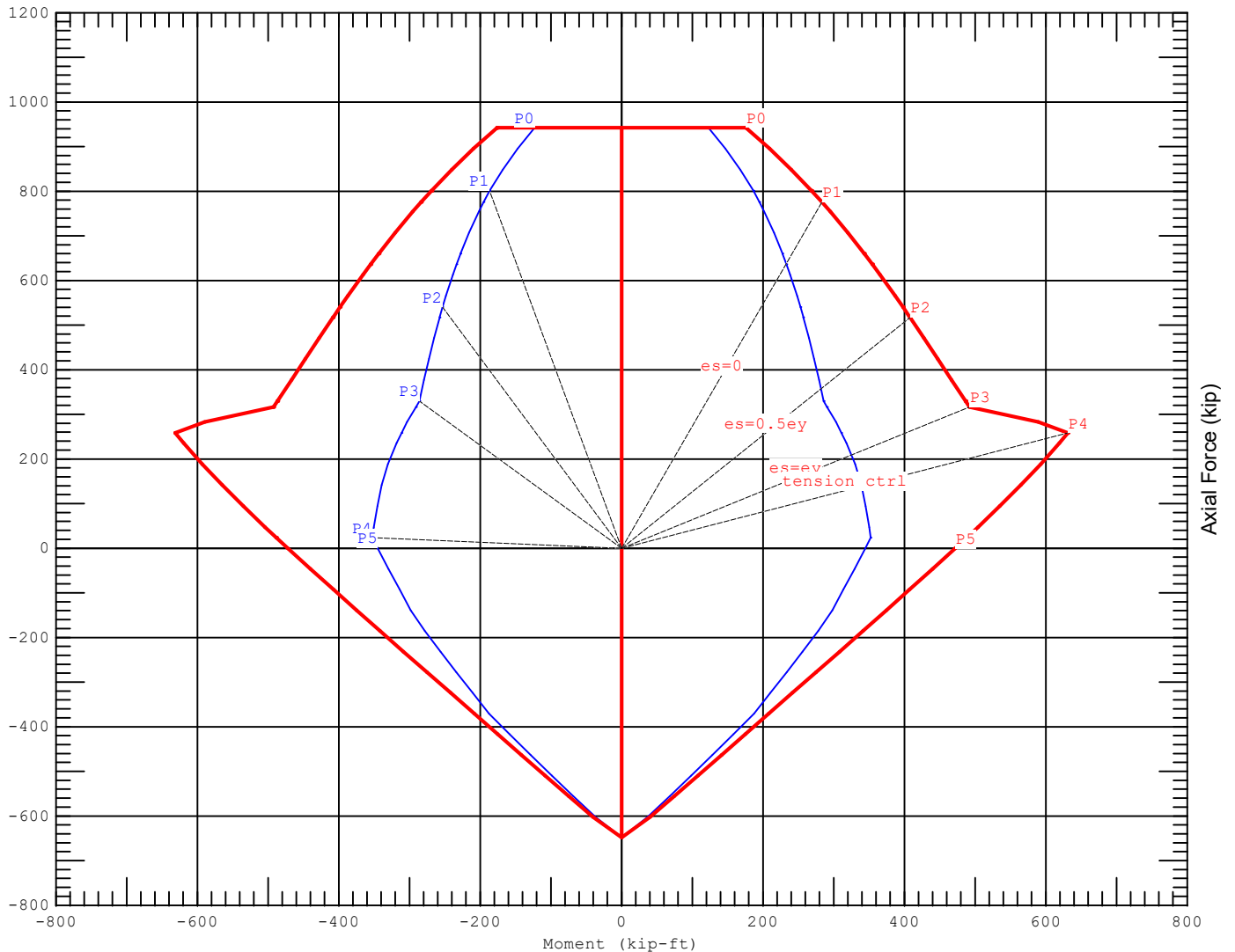
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	175.72	-0.00053
P1	775.24	283.24	0.00000
P2	516.91	407.88	0.00103
P3	316.26	492.06	0.00207
P4	258.22	631.10	0.00507
P5	-0.00	471.95	0.01172
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-123.04	-0.00044
P1	800.52	-186.66	0.00000
P2	539.75	-253.07	0.00103
P3	329.31	-285.88	0.00207
P4	23.71	-352.13	0.00507
P5	0.00	-344.70	0.00541
Pmin	-648.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

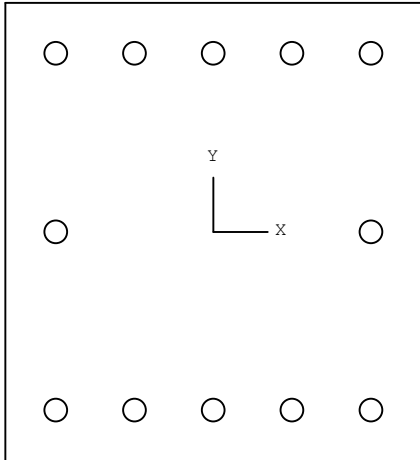
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#9\_NX3\_NY5\_cc2.439



Section 101 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

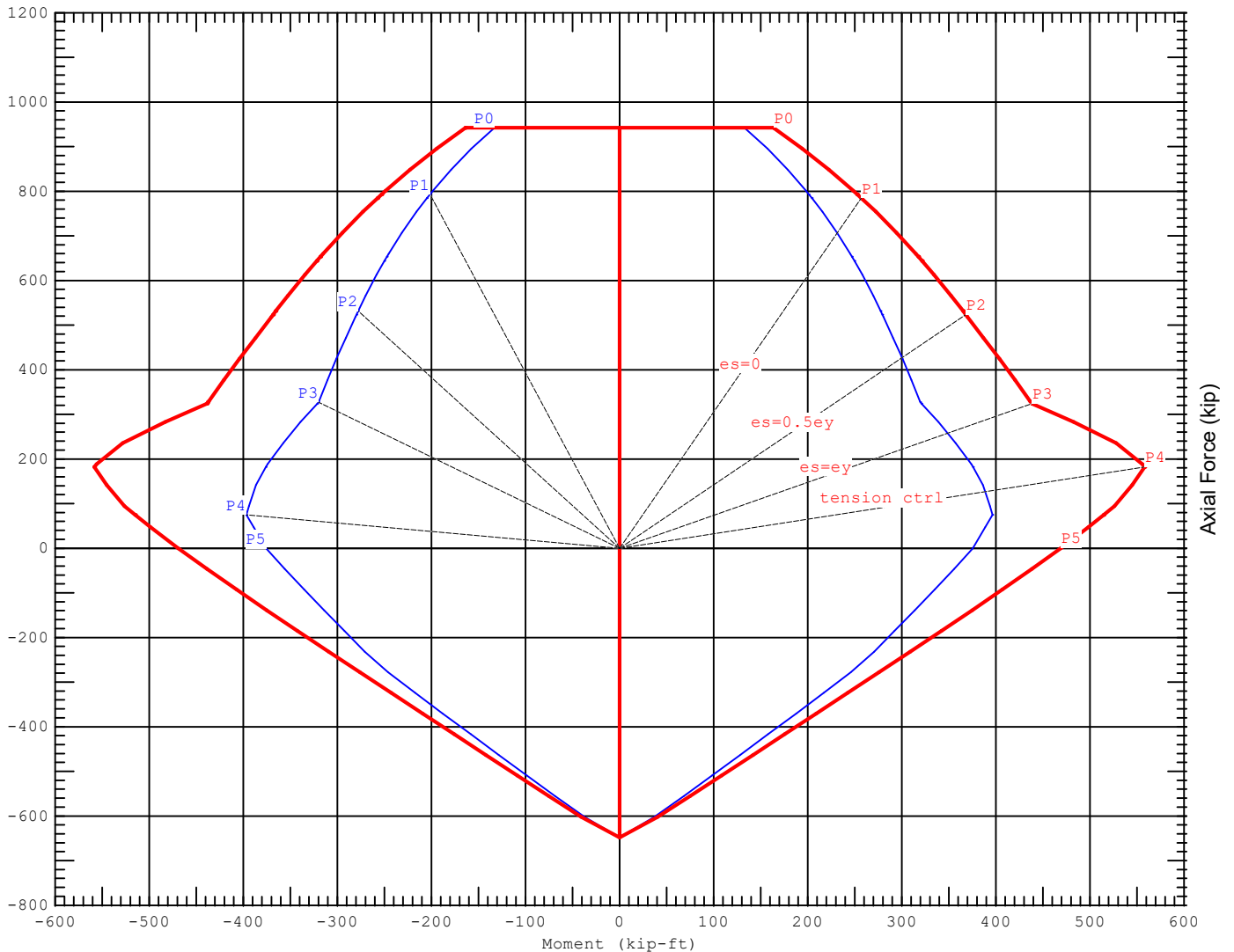
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	163.19	-0.00050
P1	784.08	256.60	0.00000
P2	523.32	367.33	0.00103
P3	323.56	437.59	0.00207
P4	182.21	557.08	0.00507
P5	0.00	467.86	0.00892
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	941.92	-132.63	-0.00046
P1	792.48	-200.98	0.00000
P2	531.10	-277.13	0.00103
P3	326.69	-319.06	0.00207
P4	74.65	-395.53	0.00507
P5	-0.00	-374.90	0.00589
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

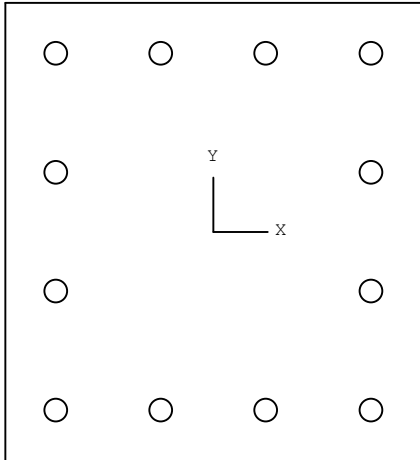
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#9\_NX4\_NY4\_cc2.439



Section 102 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

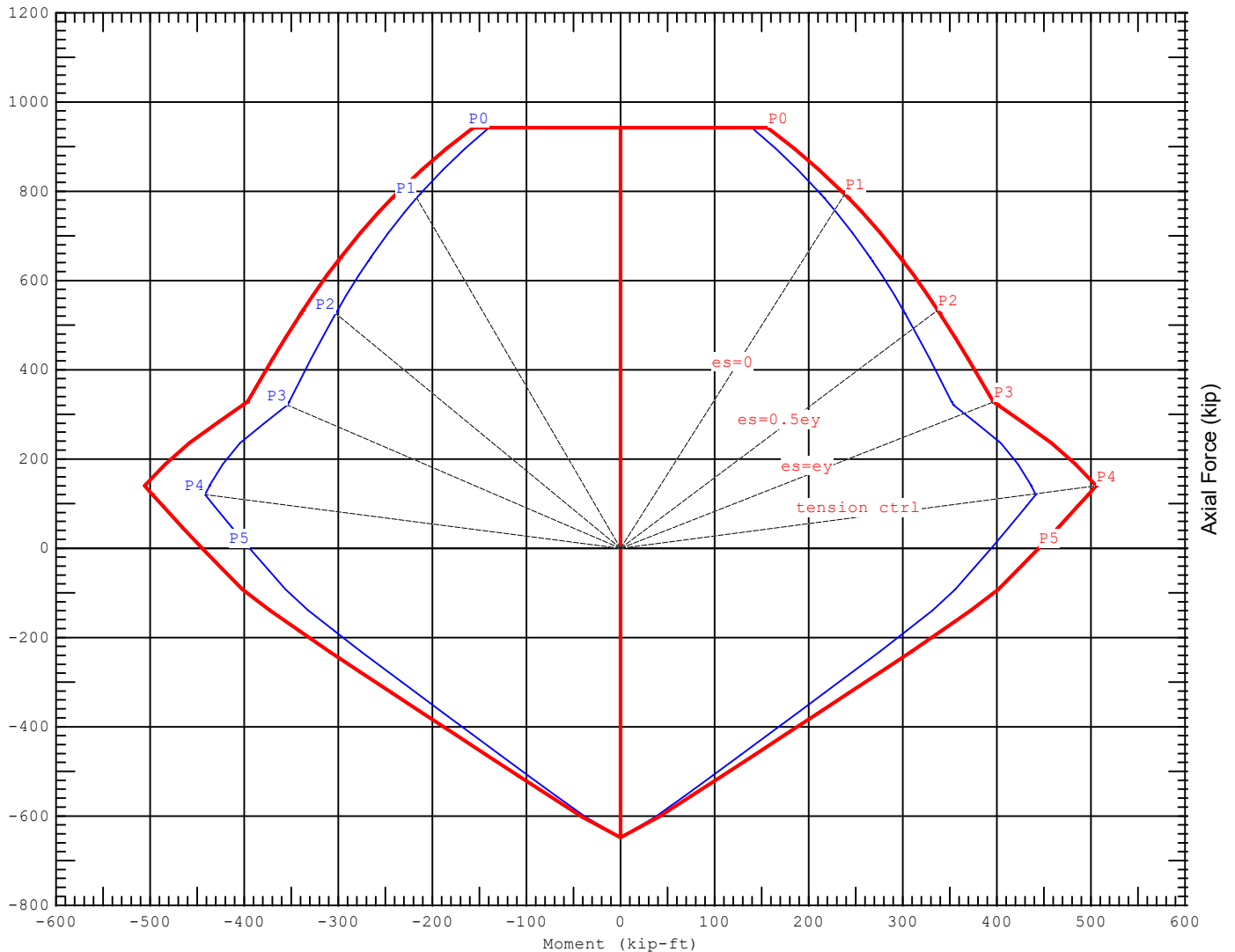
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	156.21	-0.00046
P1	792.92	237.81	0.00000
P2	533.04	336.54	0.00103
P3	327.54	395.60	0.00207
P4	139.92	504.28	0.00507
P5	0.02	443.51	0.00732
Pmin	-648.00	-0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-139.31	-0.00049
P1	784.44	-215.99	0.00000
P2	525.77	-301.84	0.00103
P3	320.75	-353.11	0.00207
P4	120.43	-440.54	0.00507
P5	0.00	-393.28	0.00692
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

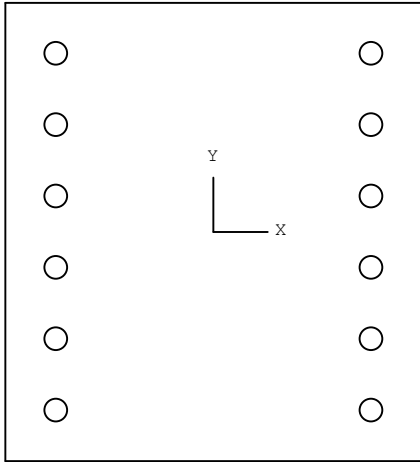
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#9\_NX6\_NY2\_cc2.439



Section 103 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

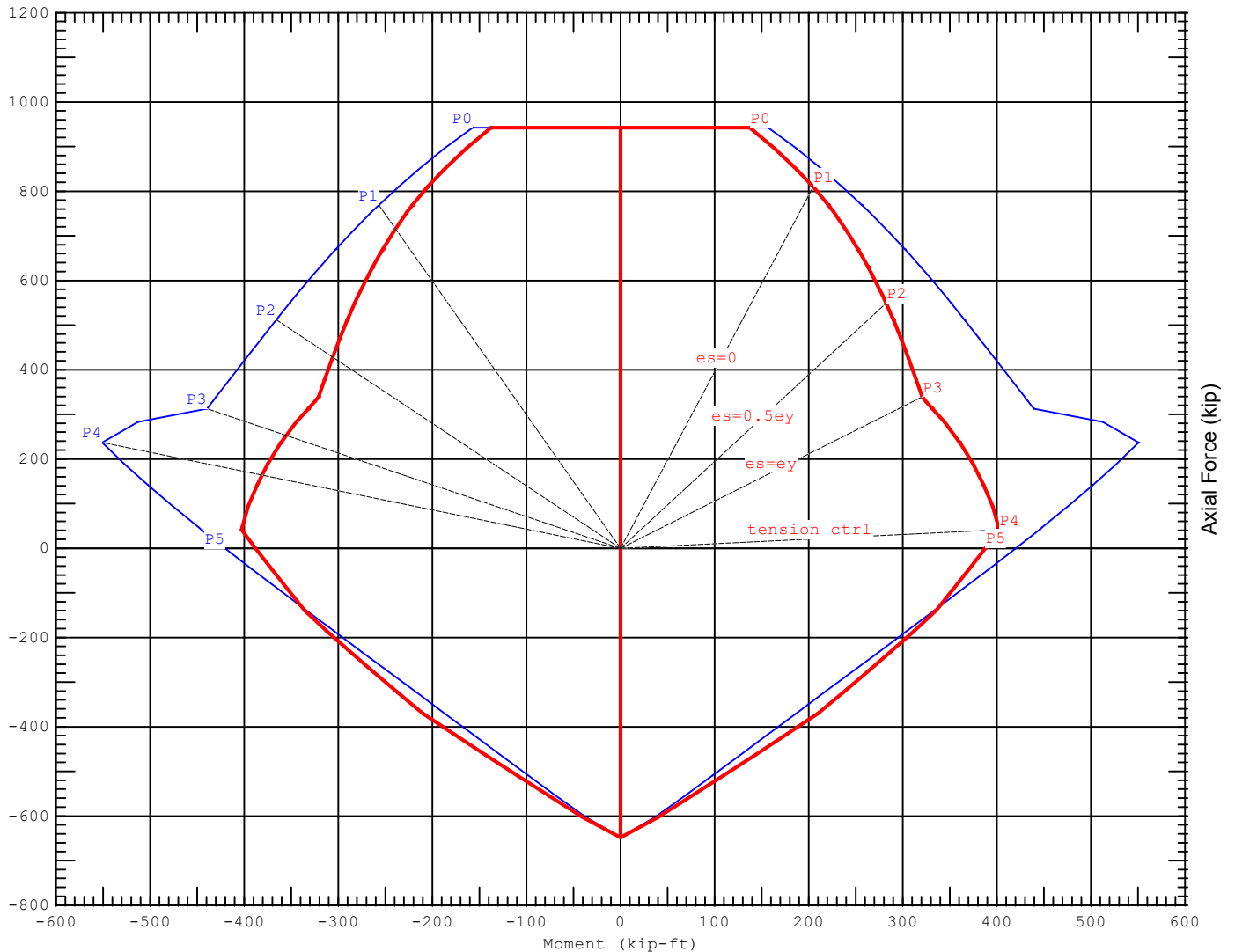
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.73%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.30 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	941.93	137.25	-0.00041
P1	809.40	204.42	0.00000
P2	549.18	281.77	0.00103
P3	338.81	320.04	0.00207
P4	41.60	401.51	0.00507
P5	0.01	386.91	0.00565
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	941.93	-156.66	-0.00055
P1	768.36	-256.23	0.00000
P2	511.80	-364.99	0.00103
P3	312.20	-438.49	0.00207
P4	236.74	-549.62	0.00507
P5	-0.01	-419.33	0.01067
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

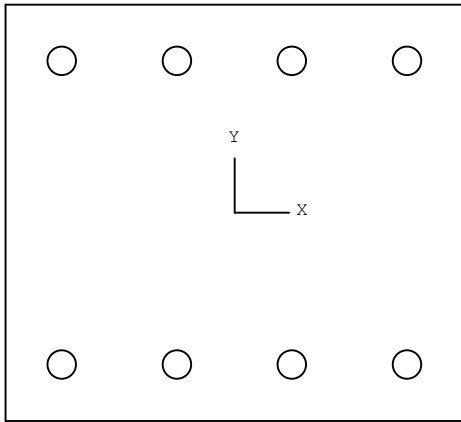
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#11\_NX2\_NY4\_cc2.705



Section 104 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

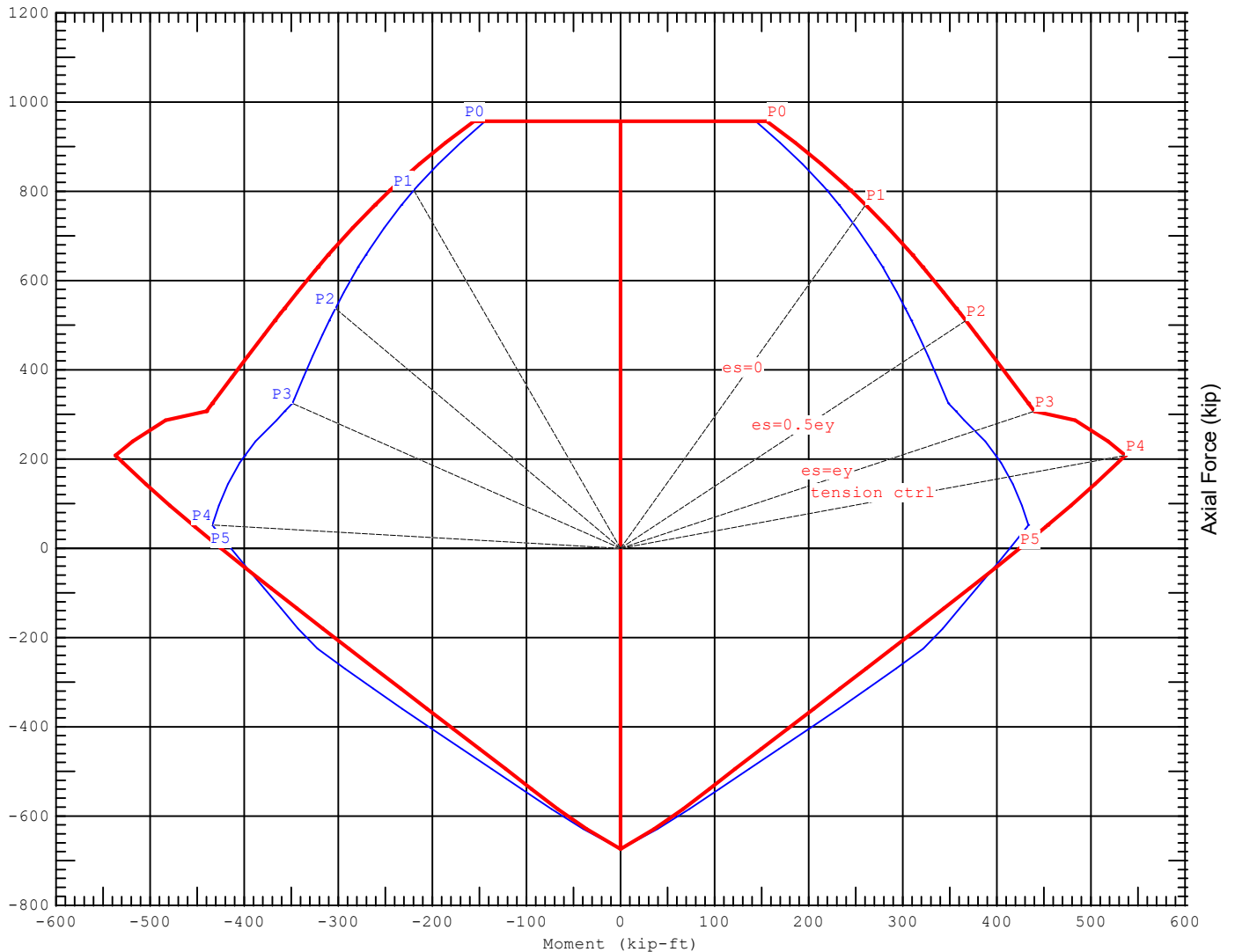
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.84%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.12 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	956.27	155.09	-0.00058
P1	769.08	260.02	0.00000
P2	509.95	366.25	0.00103
P3	306.92	438.97	0.00207
P4	207.74	535.33	0.00507
P5	-0.00	423.58	0.00943
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	956.27	-143.55	-0.00047
P1	801.55	-219.03	0.00000
P2	537.11	-302.23	0.00103
P3	324.39	-347.96	0.00207
P4	51.81	-432.65	0.00507
P5	0.01	-413.04	0.00573
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

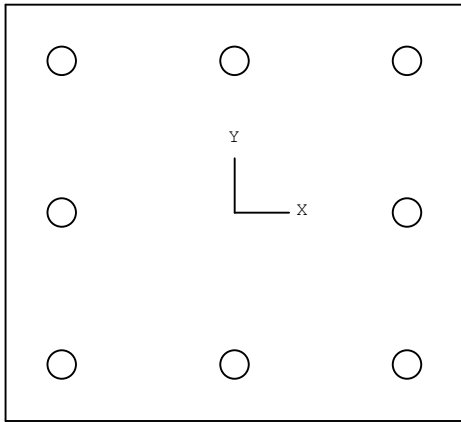
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#11\_NX3\_NY3\_cc2.705



Section 105 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

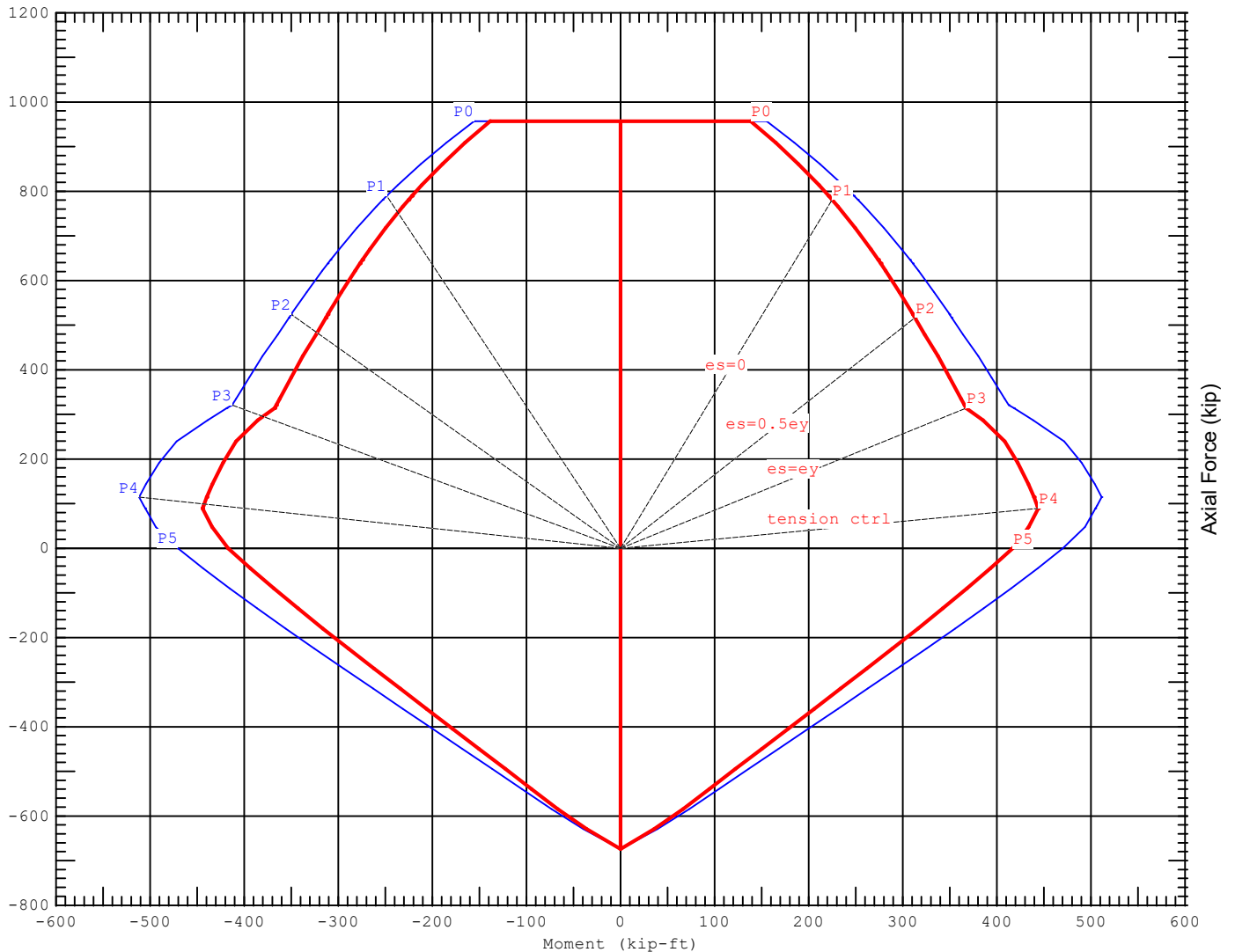
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.84%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	956.27	138.28	-0.00054
P1	780.07	224.61	0.00000
P2	516.18	312.34	0.00103
P3	313.57	366.57	0.00207
P4	89.17	443.28	0.00507
P5	-0.02	415.97	0.00622
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	956.26	-155.26	-0.00051
P1	789.13	-247.65	0.00000
P2	523.78	-349.05	0.00103
P3	320.50	-411.79	0.00207
P4	114.40	-510.51	0.00507
P5	0.00	-469.26	0.00673
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

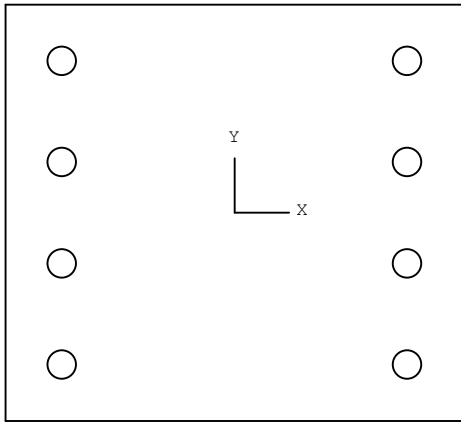
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_8#11\_NX4\_NY2\_cc2.705



Section 106 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

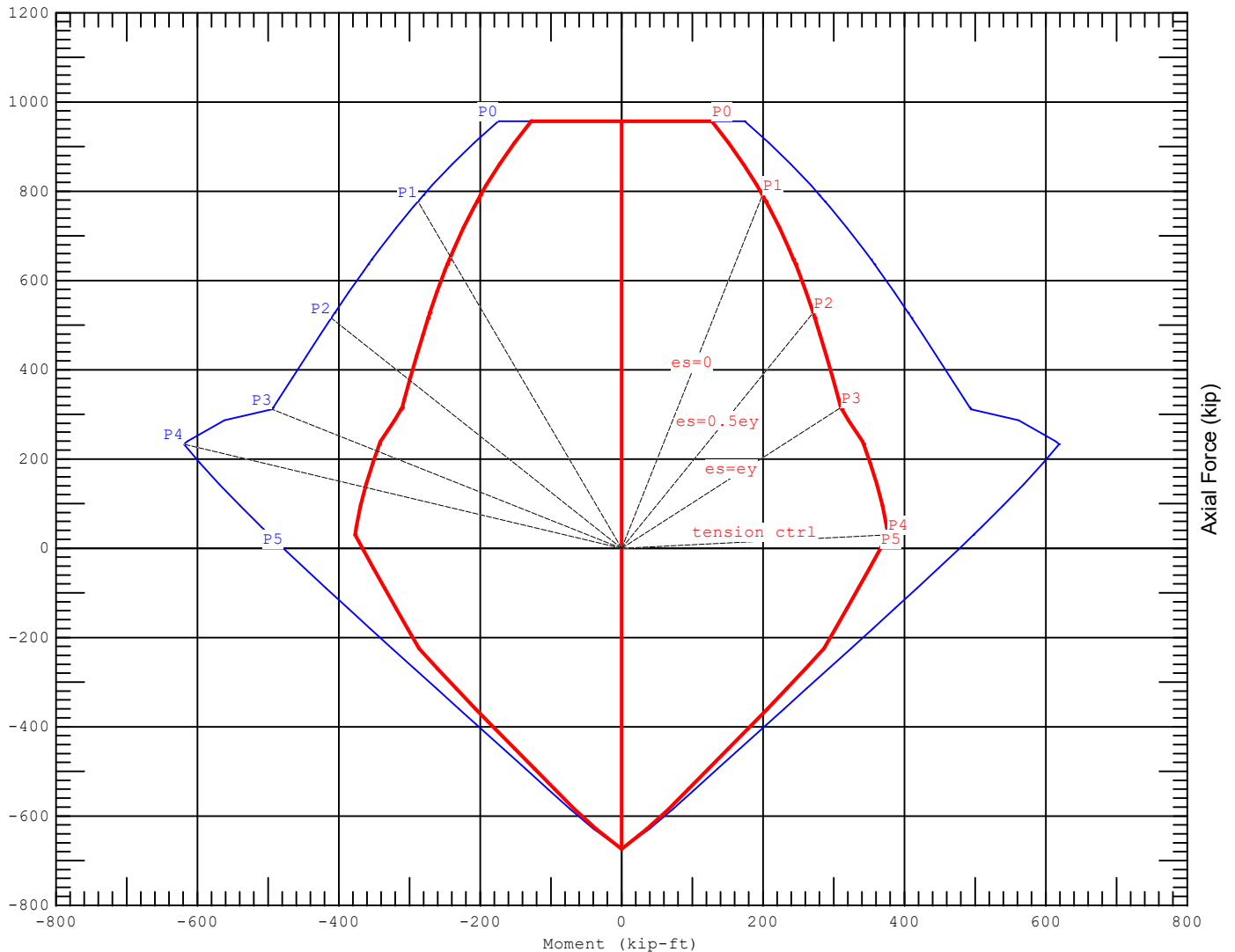
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.84%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	956.27	127.83	-0.00050
P1	791.07	199.24	0.00000
P2	527.59	270.91	0.00103
P3	315.05	310.11	0.00207
P4	30.13	376.61	0.00507
P5	-0.00	366.33	0.00544
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	956.26	-174.36	-0.00056
P1	776.70	-287.92	0.00000
P2	515.62	-410.34	0.00103
P3	311.43	-494.12	0.00207
P4	232.96	-618.86	0.00507
P5	-0.01	-478.04	0.01040
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

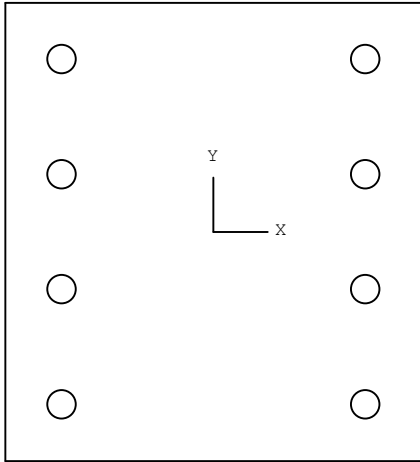
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#11\_NX4\_NY2\_cc2.705



Section 107 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

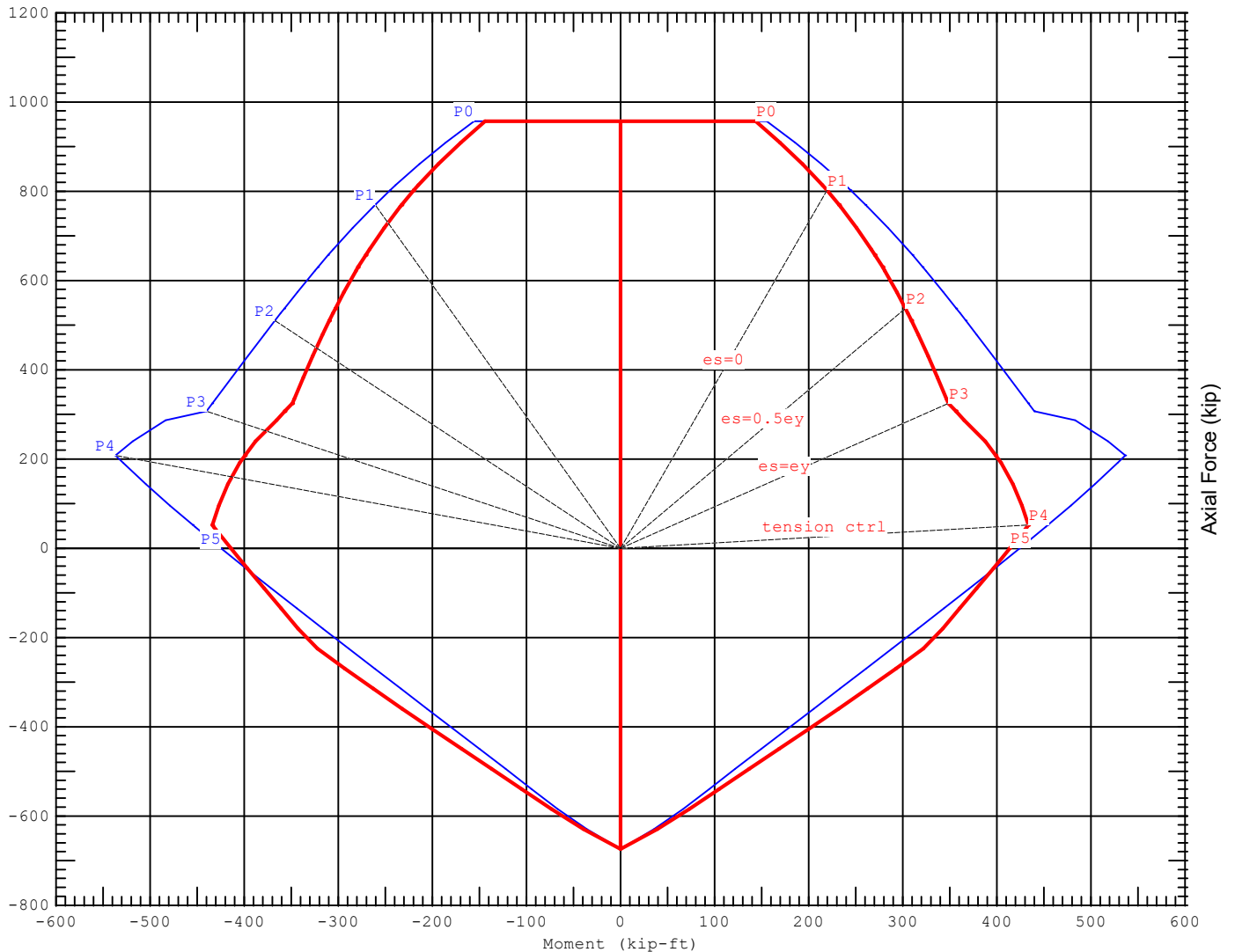
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.84%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.12 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	956.27	143.55	-0.00047
P1	801.55	219.03	0.00000
P2	537.11	302.23	0.00103
P3	324.39	347.96	0.00207
P4	51.81	432.65	0.00507
P5	0.01	413.04	0.00573
Pmin	-673.92	-0.00	0.20000

PT	P	My(-)	max es
P0	956.27	-155.09	-0.00058
P1	769.08	-260.02	0.00000
P2	509.95	-366.25	0.00103
P3	306.92	-438.97	0.00207
P4	207.74	-535.33	0.00507
P5	-0.00	-423.58	0.00943
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

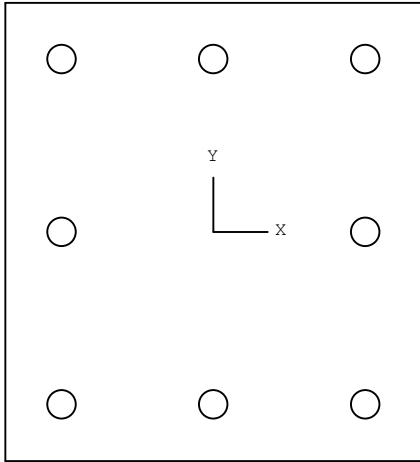
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#11\_NX3\_NY3\_cc2.705



Section 108 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

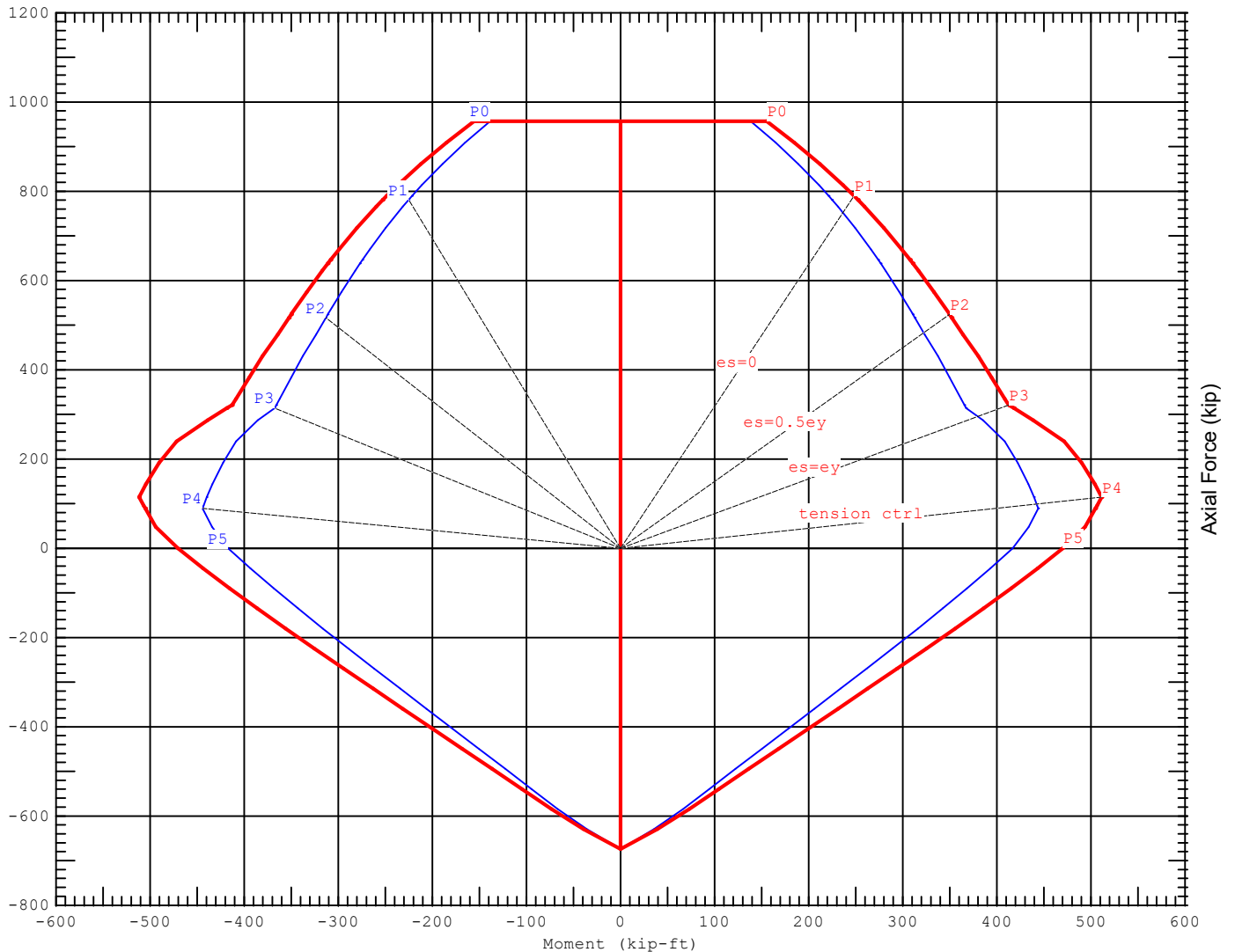
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.84%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	956.26	155.26	-0.00051
P1	789.13	247.65	0.00000
P2	523.78	349.05	0.00103
P3	320.50	411.79	0.00207
P4	114.40	510.51	0.00507
P5	0.00	469.26	0.00673
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	956.27	-138.28	-0.00054
P1	780.07	-224.61	0.00000
P2	516.18	-312.34	0.00103
P3	313.57	-366.57	0.00207
P4	89.17	-443.28	0.00507
P5	-0.02	-415.97	0.00622
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

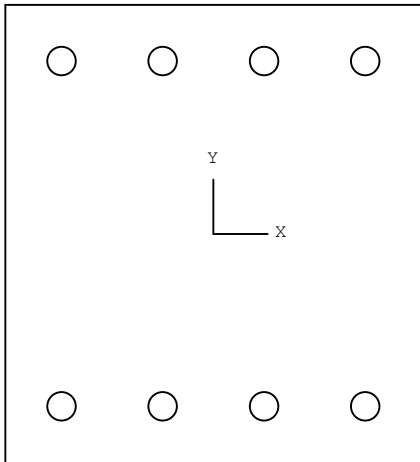
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_8#11\_NX2\_NY4\_cc2.705



Section 109 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

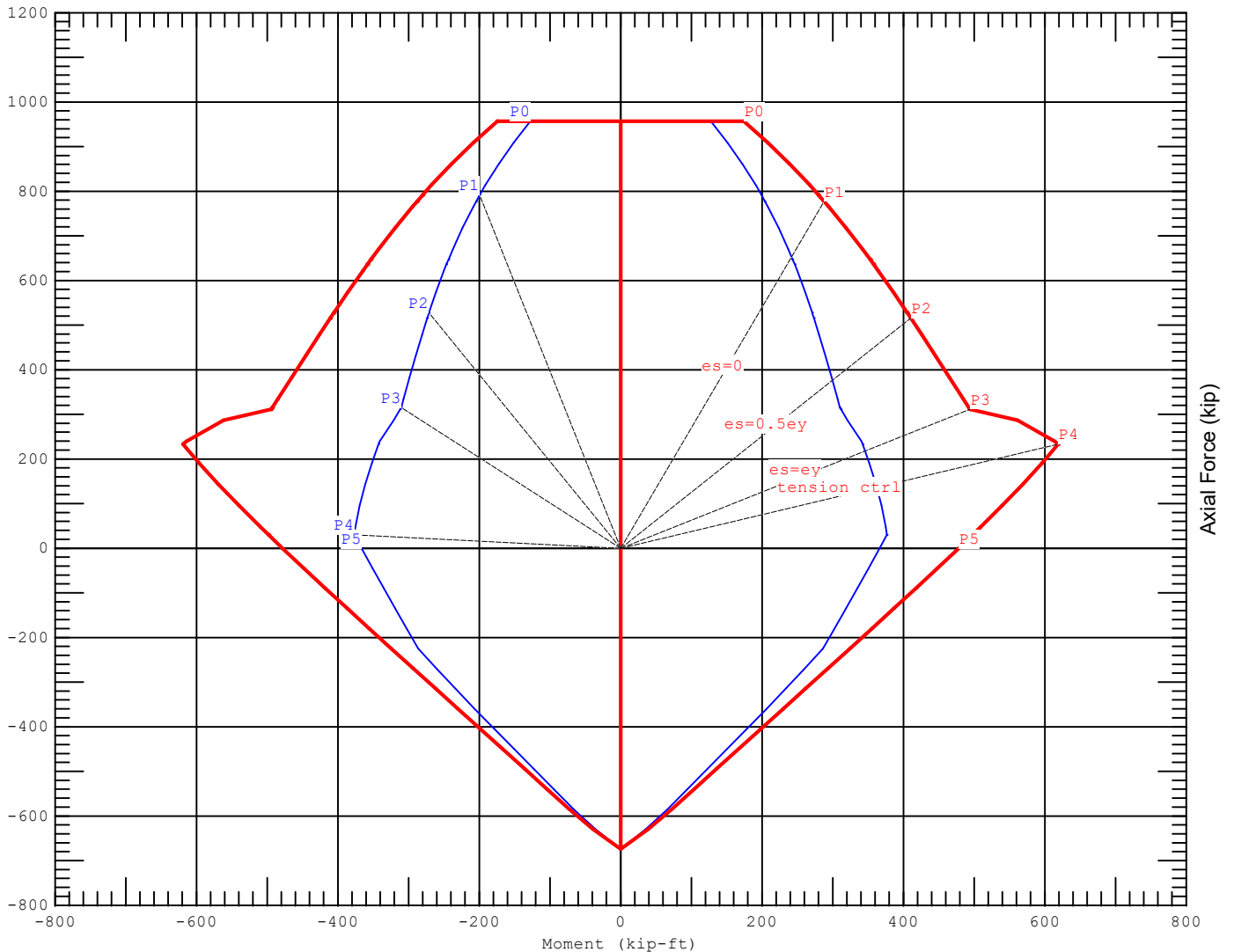
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.84%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	956.26	174.36	-0.00056
P1	776.70	287.92	0.00000
P2	515.62	410.34	0.00103
P3	311.43	494.12	0.00207
P4	232.96	618.86	0.00507
P5	-0.01	478.04	0.01040
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	956.27	-127.83	-0.00050
P1	791.07	-199.24	0.00000
P2	527.59	-270.91	0.00103
P3	315.05	-310.11	0.00207
P4	30.13	-376.61	0.00507
P5	-0.00	-366.33	0.00544
Pmin	-673.92	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

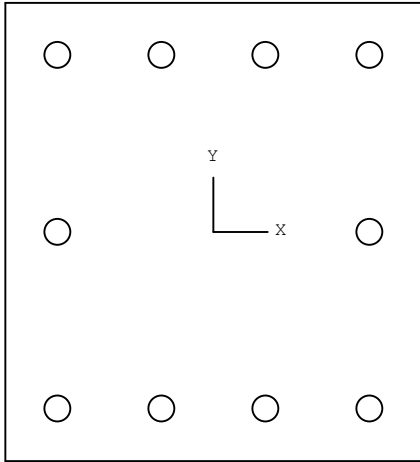
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#10\_NX3\_NY4\_cc2.51



Section 110 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

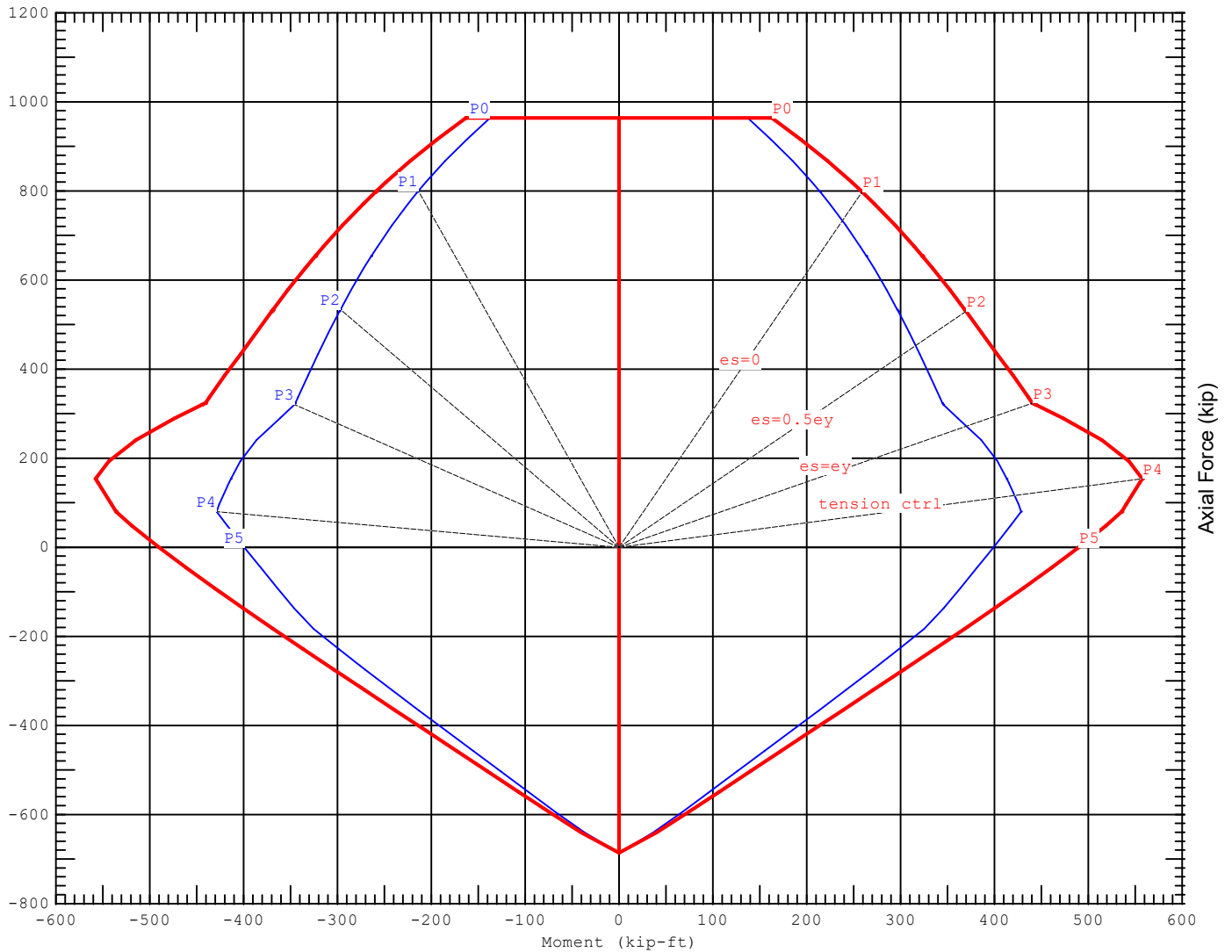
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.89%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	962.83	162.61	-0.00051
P1	797.24	258.54	0.00000
P2	529.41	369.03	0.00103
P3	323.27	439.54	0.00207
P4	153.69	556.37	0.00507
P5	-0.01	489.01	0.00784
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	962.84	-136.85	-0.00050
P1	798.99	-213.29	0.00000
P2	533.26	-296.02	0.00103
P3	320.06	-344.83	0.00207
P4	80.00	-427.75	0.00507
P5	-0.01	-398.21	0.00616
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

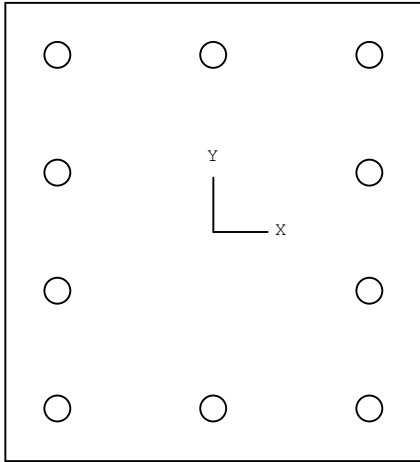
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#10\_NX4\_NY3\_cc2.51



Section 111 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

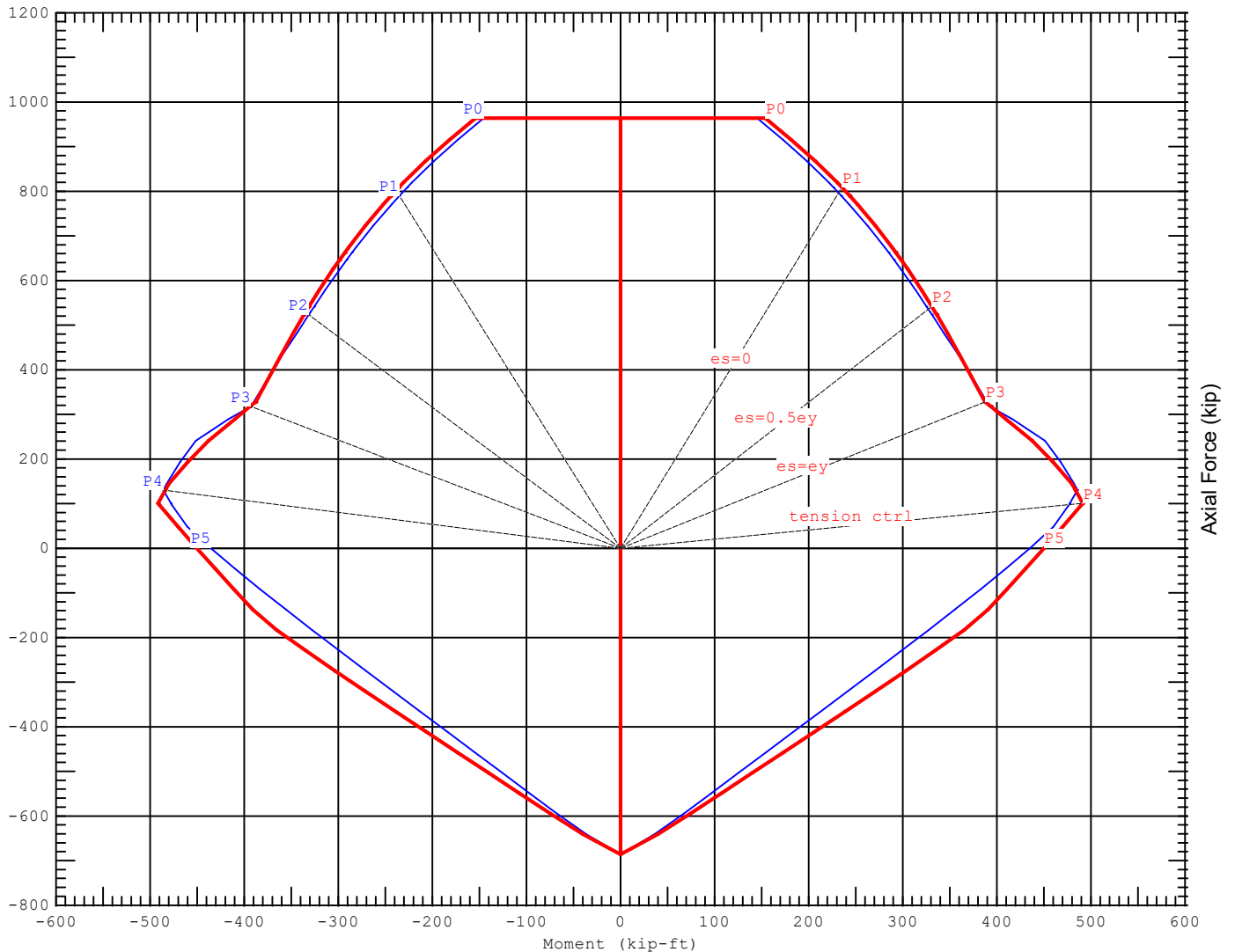
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.89%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.39 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	962.83	153.60	-0.00047
P1	808.17	234.83	0.00000
P2	541.36	330.19	0.00103
P3	327.82	386.57	0.00207
P4	100.71	490.30	0.00507
P5	0.01	449.12	0.00650
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	962.84	-144.95	-0.00053
P1	789.11	-234.36	0.00000
P2	522.73	-330.48	0.00103
P3	317.29	-391.81	0.00207
P4	130.36	-484.67	0.00507
P5	0.00	-434.12	0.00723
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

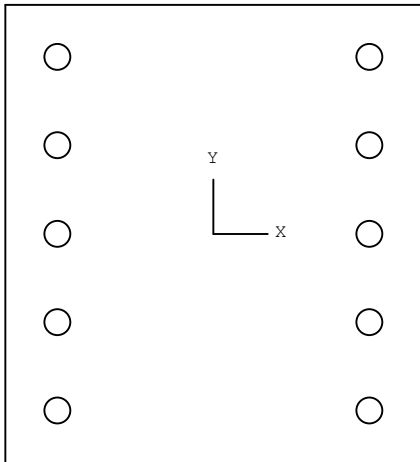
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#10\_NX5\_NY2\_cc2.51



Section 112 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

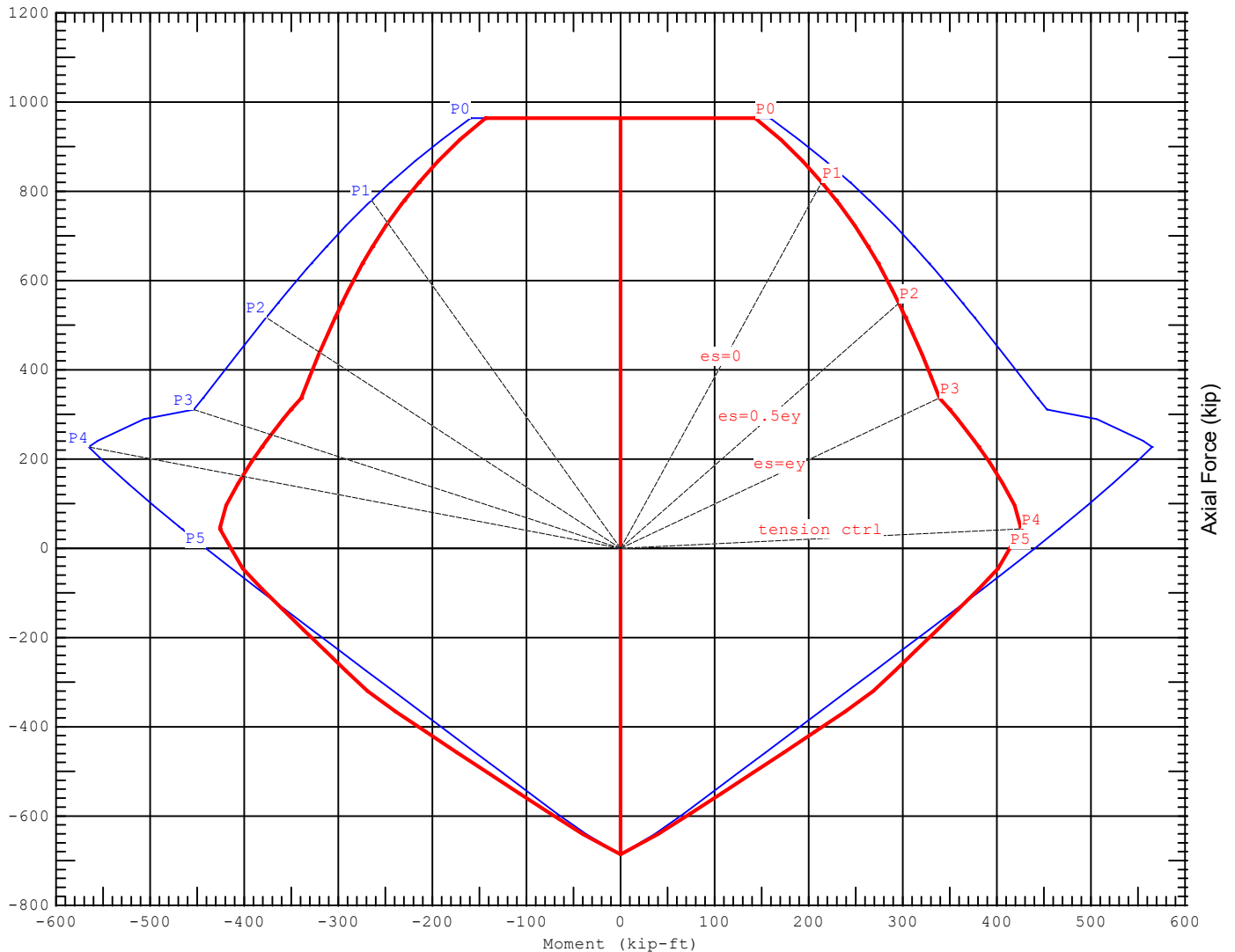
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.89%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.97 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	962.83	142.94	-0.00043
P1	819.11	213.57	0.00000
P2	549.11	295.16	0.00103
P3	336.59	338.26	0.00207
P4	43.02	424.78	0.00507
P5	-0.00	412.98	0.00549
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	962.83	-158.75	-0.00057
P1	779.23	-263.96	0.00000
P2	516.41	-375.54	0.00103
P3	310.31	-452.32	0.00207
P4	226.89	-563.77	0.00507
P5	0.00	-439.63	0.01010
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

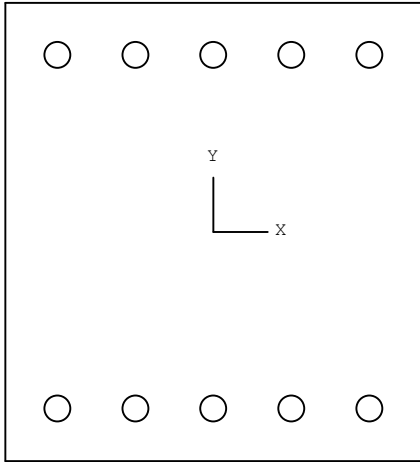
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#10\_NX2\_NY5\_cc2.51



Section 113 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

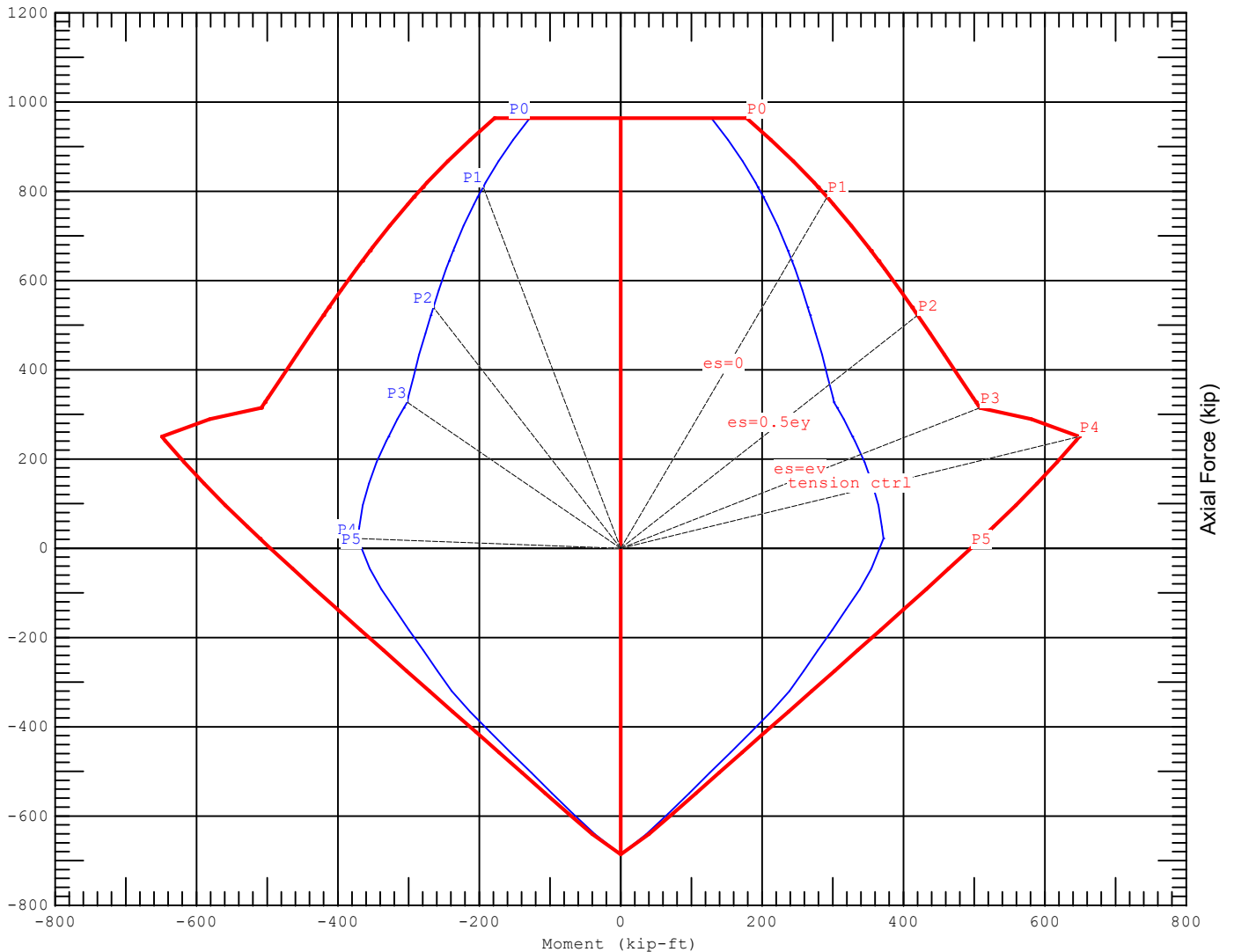
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.89%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	962.84	178.22	-0.00054
P1	786.30	292.10	0.00000
P2	521.66	420.10	0.00103
P3	314.50	508.14	0.00207
P4	250.22	648.81	0.00507
P5	-0.00	495.30	0.01112
Pmin	-685.80	-0.00	0.20000

PT	P	My(-)	max es
P0	962.84	-128.41	-0.00046
P1	808.86	-194.35	0.00000
P2	539.58	-264.87	0.00103
P3	327.04	-301.90	0.00207
P4	21.65	-371.65	0.00507
P5	-0.01	-366.26	0.00528
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

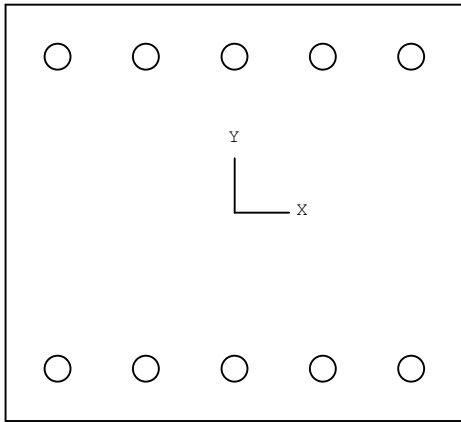
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#10\_NX2\_NY5\_cc2.51



Section 114 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

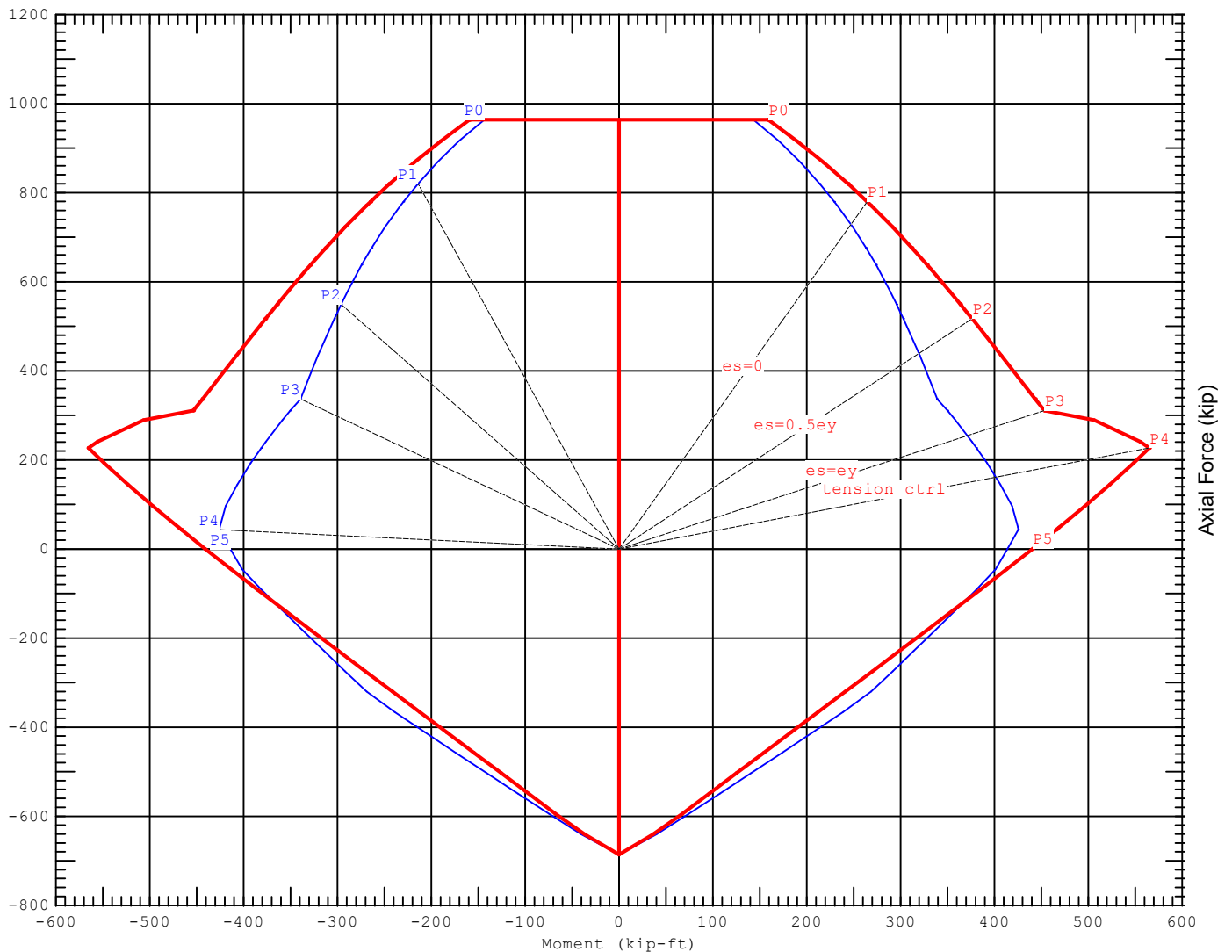
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.89%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.97 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	962.83	158.75	-0.00057
P1	779.23	263.96	0.00000
P2	516.41	375.54	0.00103
P3	310.31	452.32	0.00207
P4	226.89	563.77	0.00507
P5	0.00	439.63	0.01010
Pmin	-685.80	-0.00	0.20000

PT	P	My(-)	max es
P0	962.83	-142.94	-0.00043
P1	819.11	-213.57	0.00000
P2	549.11	-295.16	0.00103
P3	336.59	-338.26	0.00207
P4	43.02	-424.78	0.00507
P5	-0.00	-412.98	0.00549
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

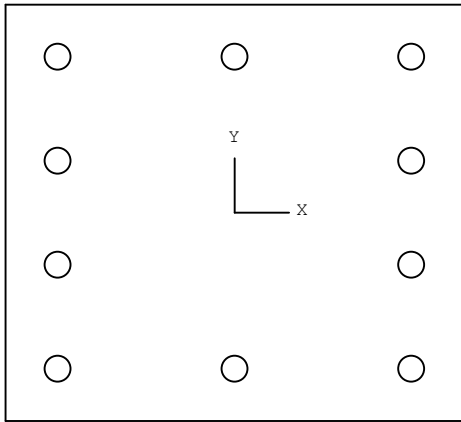
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#10\_NX4\_NY3\_cc2.51



Section 115 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

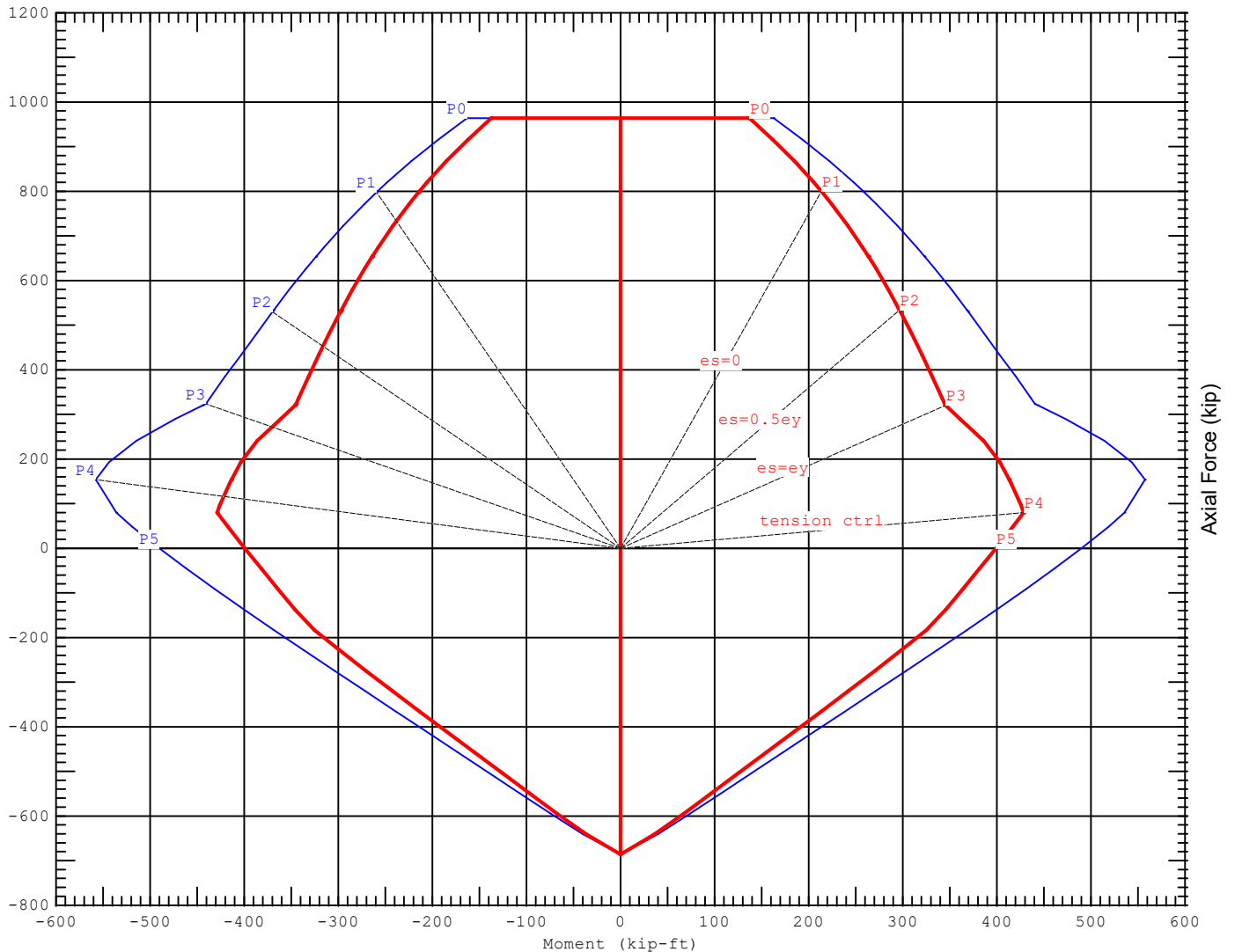
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.89%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	962.84	136.85	-0.00050
P1	798.99	213.29	0.00000
P2	533.26	296.02	0.00103
P3	320.06	344.83	0.00207
P4	80.00	427.75	0.00507
P5	-0.01	398.21	0.00616
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	962.83	-162.61	-0.00051
P1	797.24	-258.54	0.00000
P2	529.41	-369.03	0.00103
P3	323.27	-439.54	0.00207
P4	153.69	-556.37	0.00507
P5	-0.01	-489.01	0.00784
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

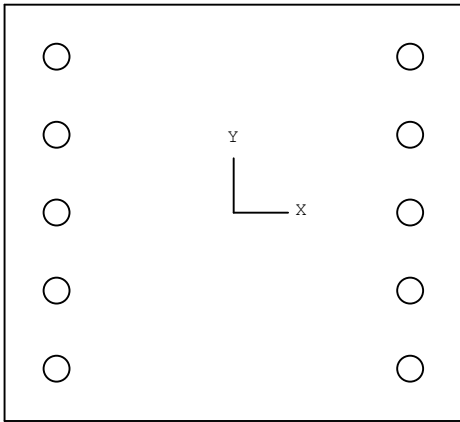
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#10\_NX5\_NY2\_cc2.51



Section 116 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

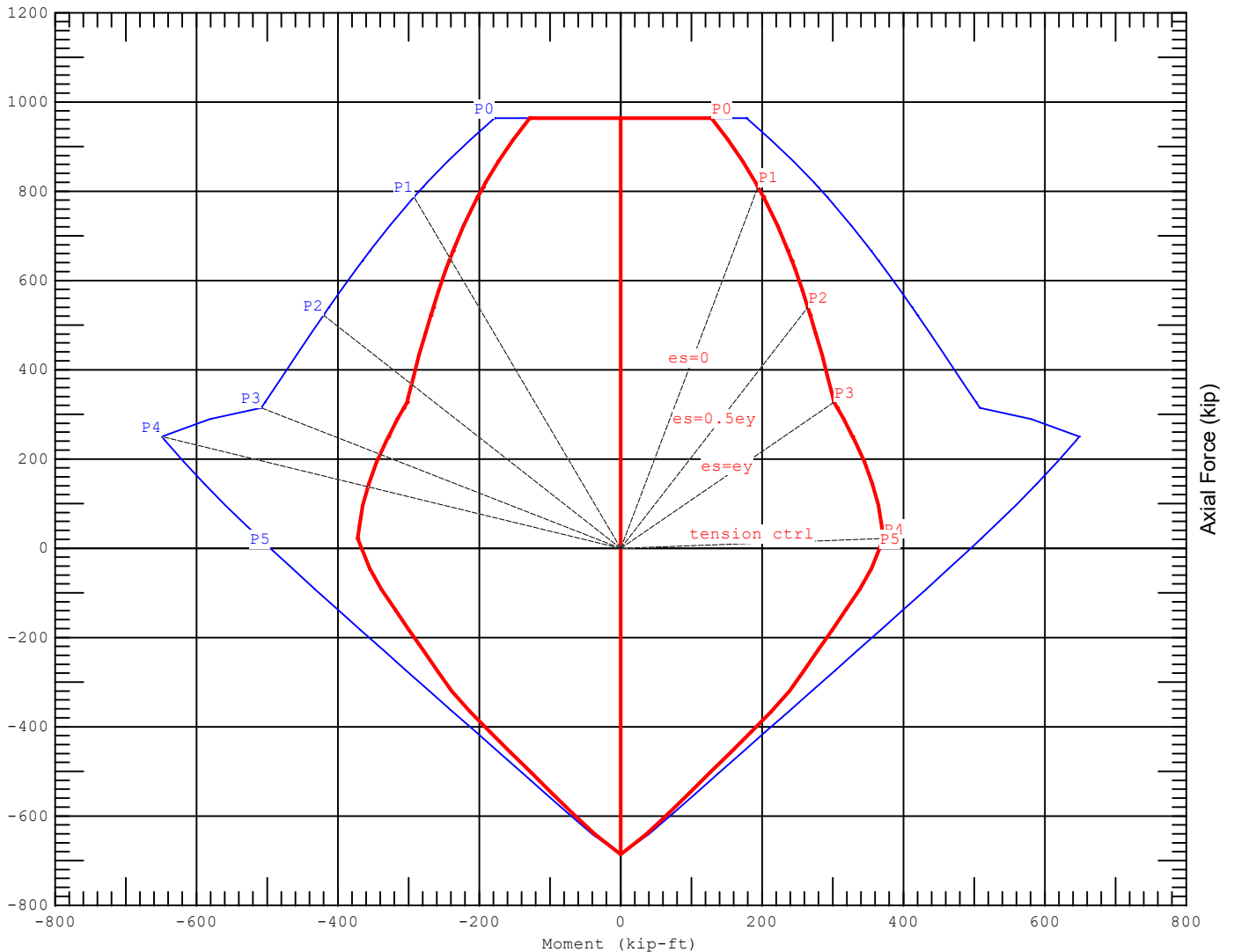
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.89%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	962.84	128.41	-0.00046
P1	808.86	194.35	0.00000
P2	539.58	264.87	0.00103
P3	327.04	301.90	0.00207
P4	21.65	371.65	0.00507
P5	-0.01	366.26	0.00528
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	962.84	-178.22	-0.00054
P1	786.30	-292.10	0.00000
P2	521.66	-420.10	0.00103
P3	314.50	-508.14	0.00207
P4	250.22	-648.81	0.00507
P5	-0.00	-495.30	0.01112
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

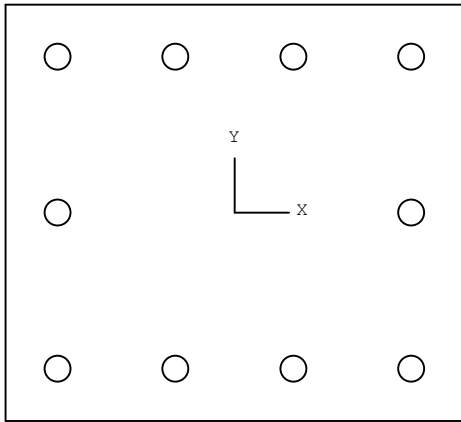
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#10\_NX3\_NY4\_cc2.51



Section 117 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

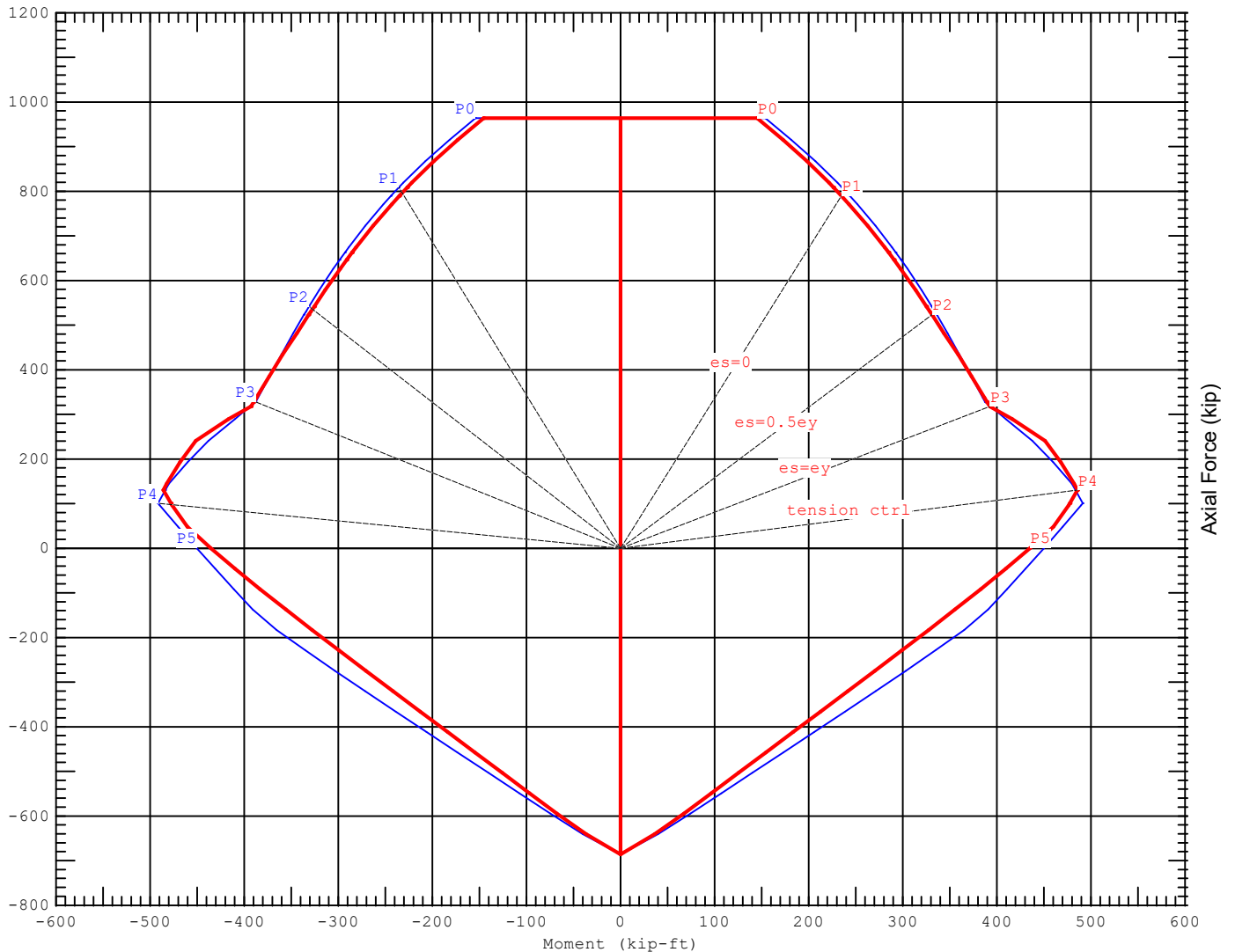
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.89%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.39 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	962.84	144.95	-0.00053
P1	789.11	234.36	0.00000
P2	522.73	330.48	0.00103
P3	317.29	391.81	0.00207
P4	130.36	484.67	0.00507
P5	0.00	434.12	0.00723
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	962.83	-153.60	-0.00047
P1	808.17	-234.83	0.00000
P2	541.36	-330.19	0.00103
P3	327.82	-386.57	0.00207
P4	100.71	-490.30	0.00507
P5	0.01	-449.12	0.00650
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

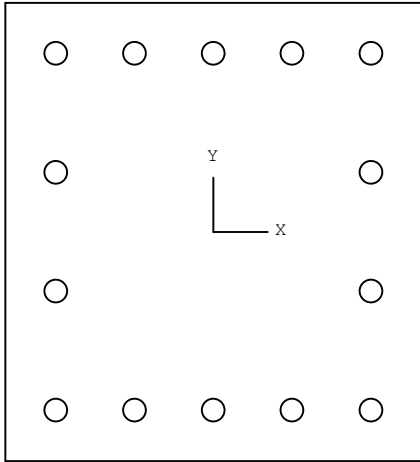
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#9\_NX4\_NY5\_cc2.439



Section 118 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

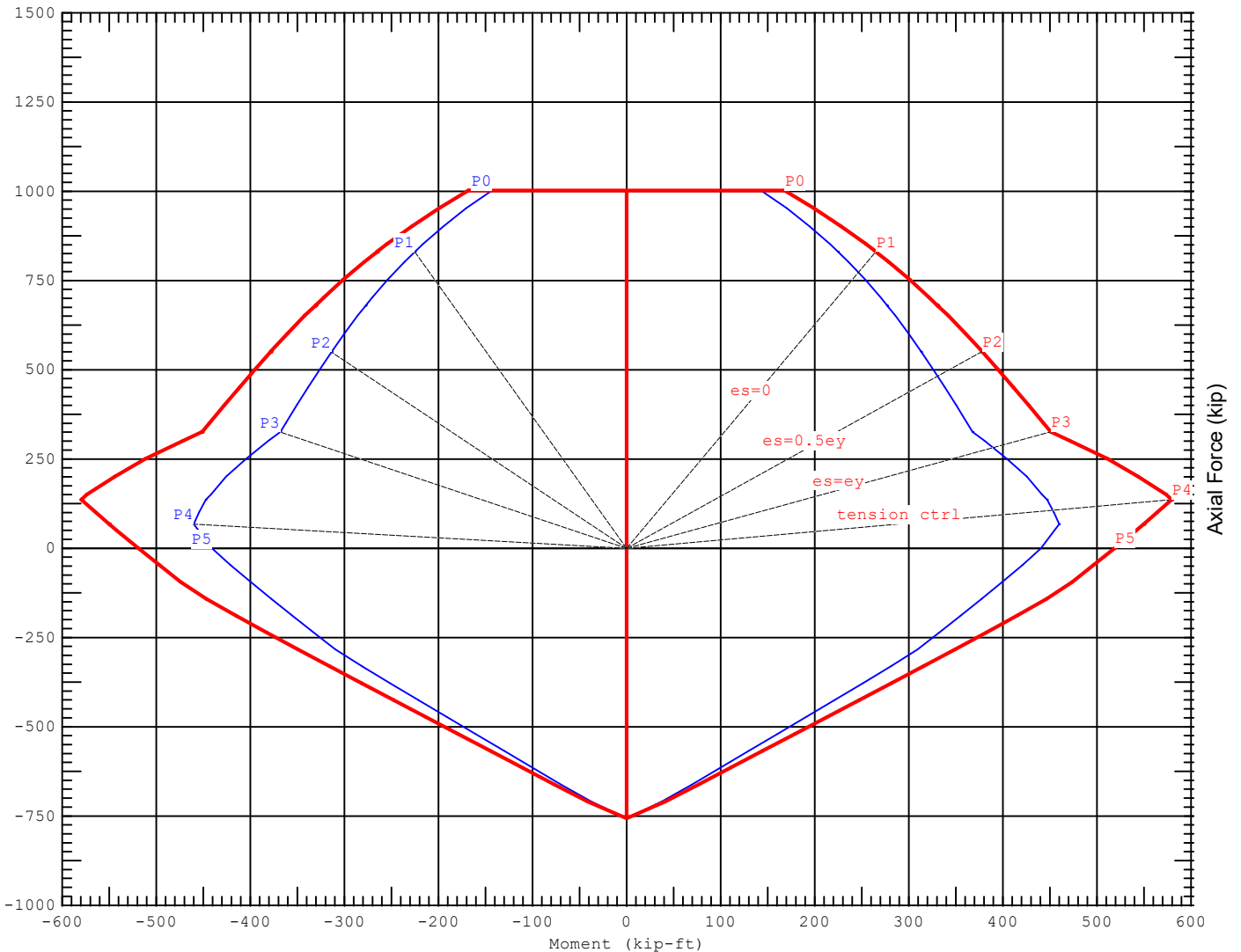
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.18%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1001.68	167.70	-0.00050
P1	830.26	264.45	0.00000
P2	550.88	377.09	0.00103
P3	325.88	450.07	0.00207
P4	135.66	578.29	0.00507
P5	0.01	517.70	0.00712
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	1001.67	-142.75	-0.00050
P1	829.82	-224.51	0.00000
P2	548.94	-312.95	0.00103
P3	325.03	-367.16	0.00207
P4	67.40	-459.01	0.00507
P5	-0.01	-439.49	0.00578
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

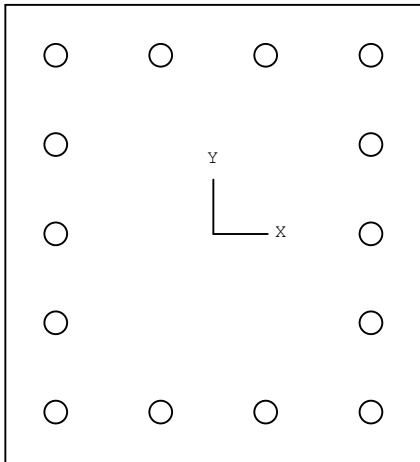
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#9\_NX5\_NY4\_cc2.439



Section 119 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

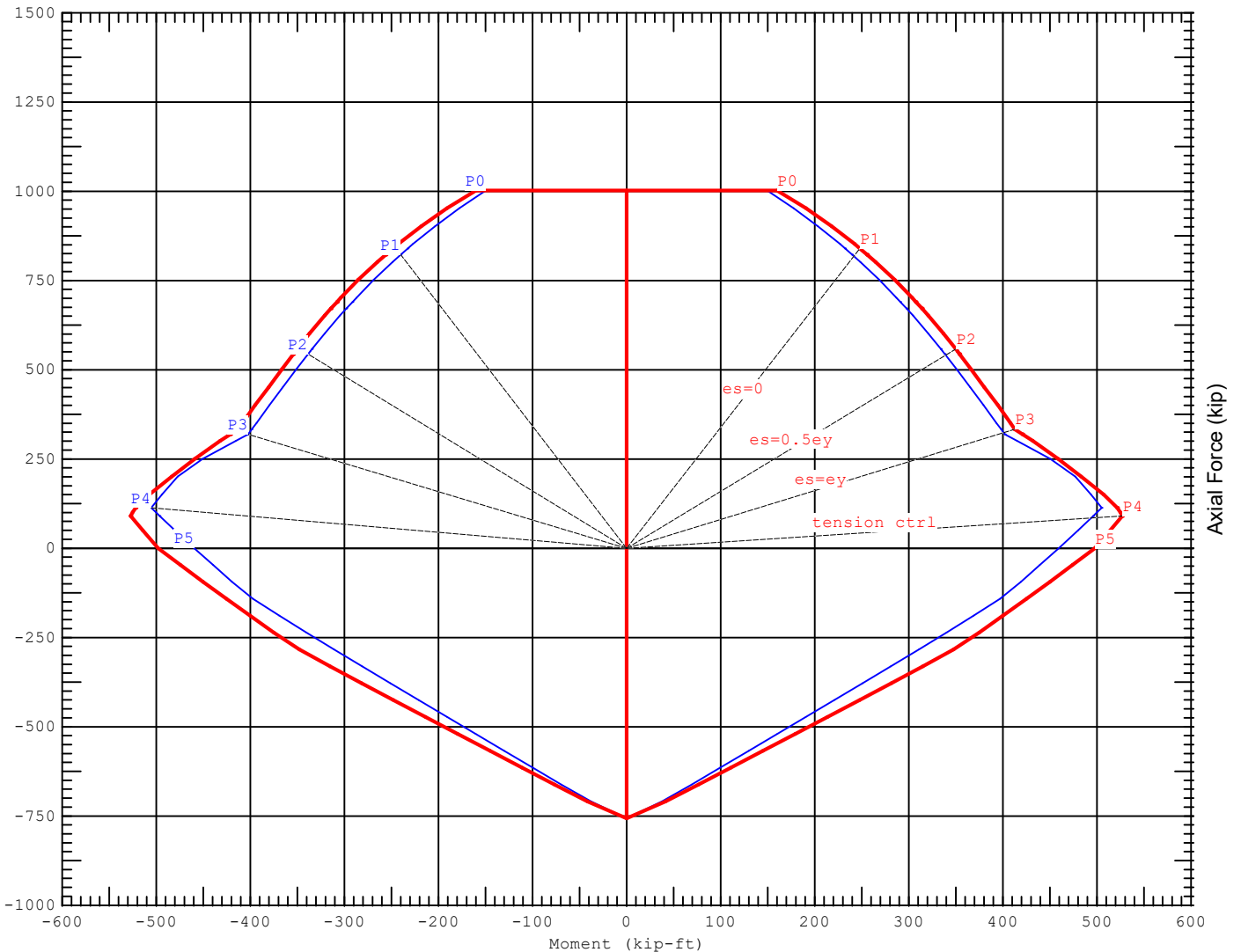
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.18%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.15 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1001.68	159.76	-0.00048
P1	839.10	247.62	0.00000
P2	557.29	349.34	0.00103
P3	333.17	411.78	0.00207
P4	90.38	525.84	0.00507
P5	-0.00	496.51	0.00608
Pmin	-756.00	-0.00	0.20000

PT	P	My(-)	max es
P0	1001.68	-149.31	-0.00053
P1	821.78	-239.52	0.00000
P2	543.61	-337.65	0.00103
P3	319.10	-401.21	0.00207
P4	113.18	-504.03	0.00507
P5	0.00	-458.38	0.00670
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

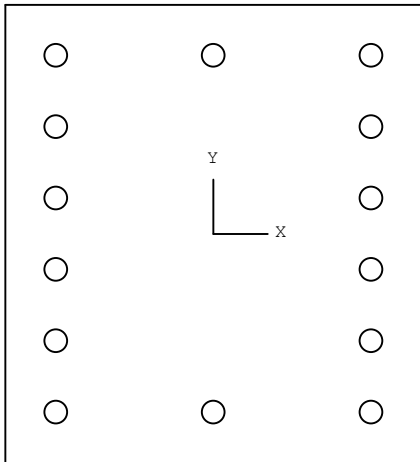
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#9\_NX6\_NY3\_cc2.439



Section 120 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

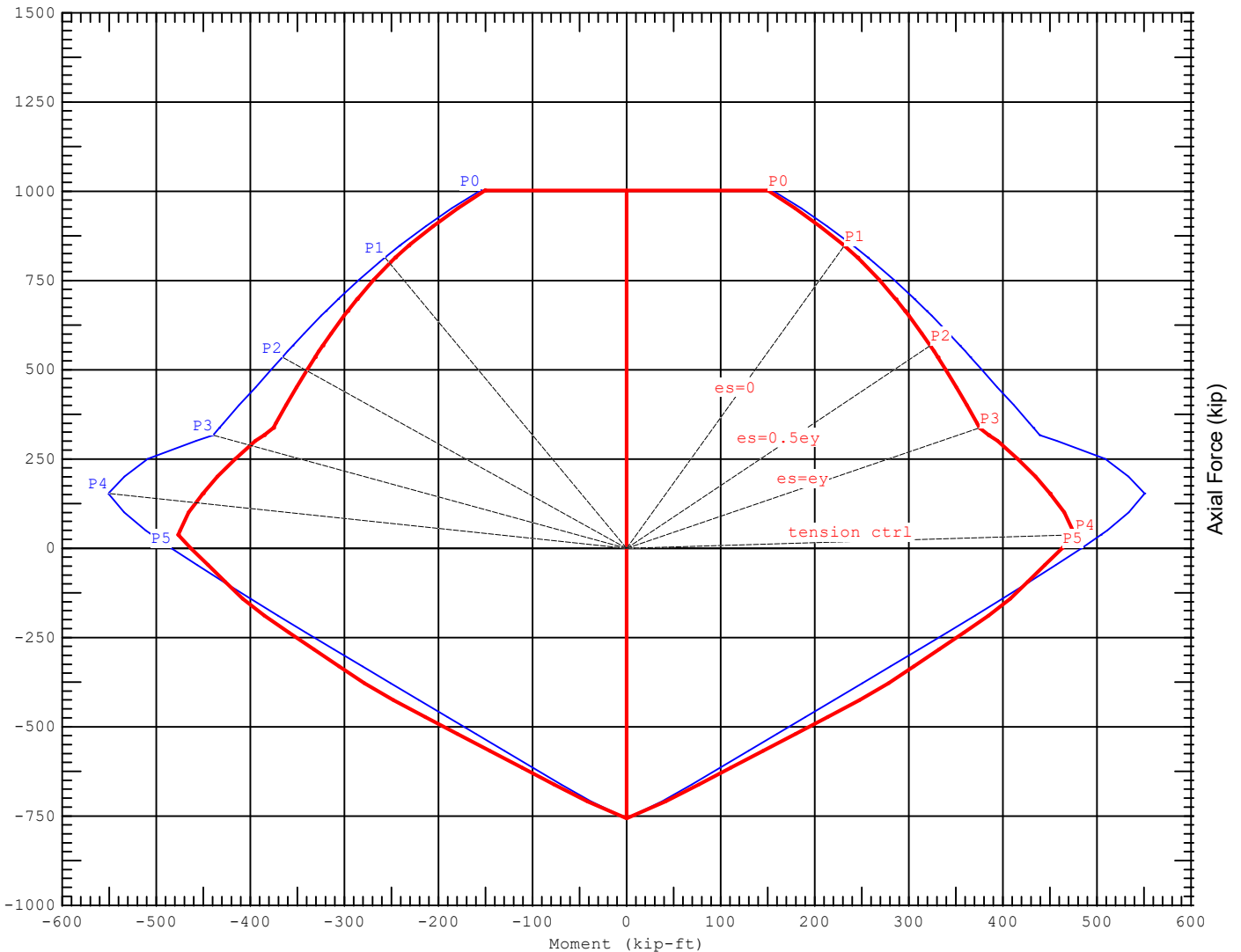
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.18%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.30 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1001.67	150.00	-0.00046
P1	846.75	231.06	0.00000
P2	567.02	322.32	0.00103
P3	337.15	374.51	0.00207
P4	37.35	475.53	0.00507
P5	0.02	461.90	0.00557
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	1001.67	-155.01	-0.00055
P1	813.74	-256.23	0.00000
P2	534.97	-364.99	0.00103
P3	316.48	-438.49	0.00207
P4	153.49	-549.62	0.00507
P5	0.01	-482.63	0.00776
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

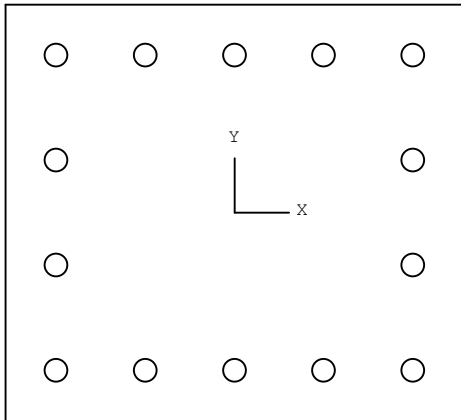
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#9\_NX4\_NY5\_cc2.439



Section 121 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

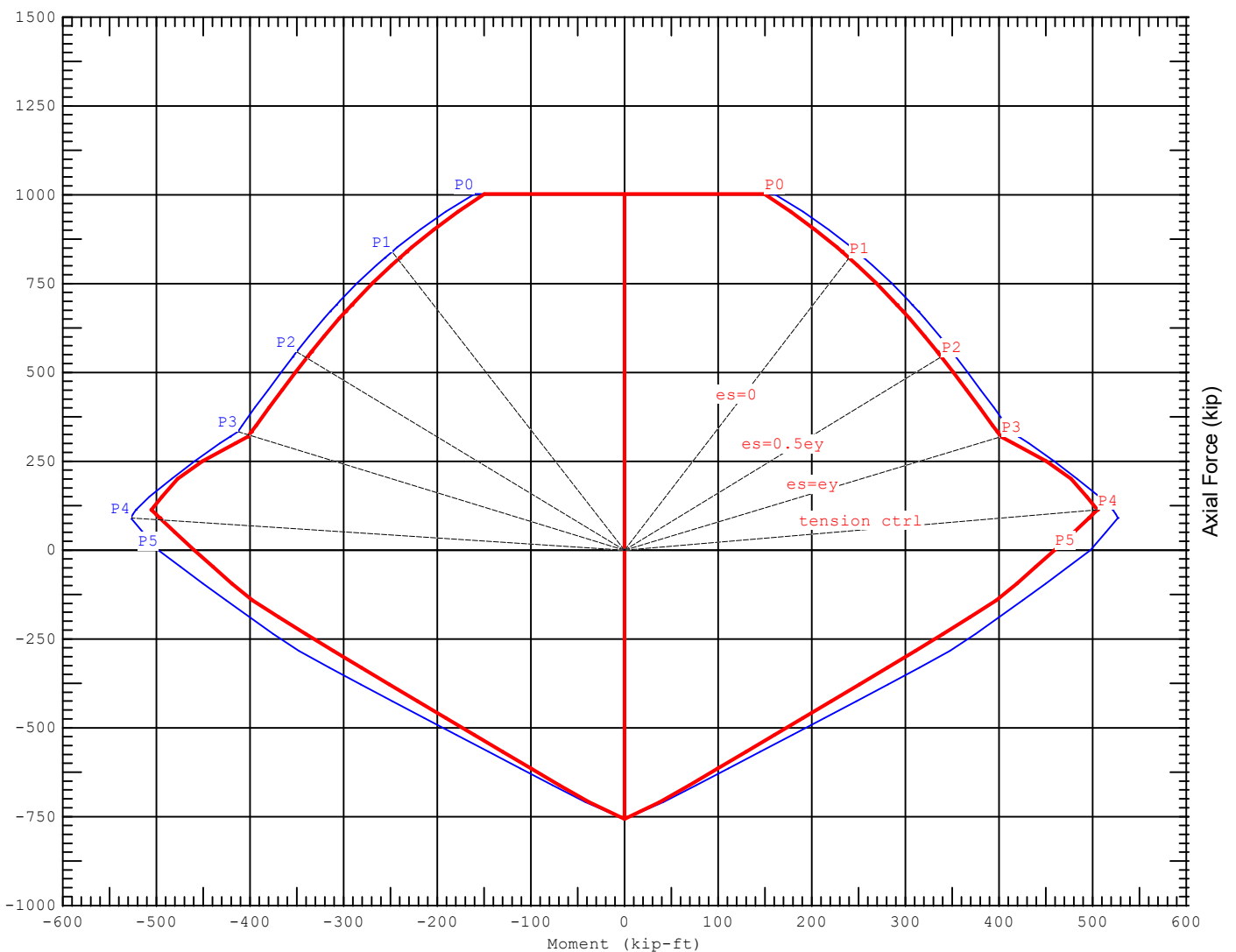
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.18%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.15 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1001.68	149.31	-0.00053
P1	821.78	239.52	0.00000
P2	543.61	337.65	0.00103
P3	319.10	401.21	0.00207
P4	113.18	504.03	0.00507
P5	0.00	458.38	0.00670
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	1001.68	-159.76	-0.00048
P1	839.10	-247.62	0.00000
P2	557.29	-349.34	0.00103
P3	333.17	-411.78	0.00207
P4	90.38	-525.84	0.00507
P5	-0.00	-496.51	0.00608
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

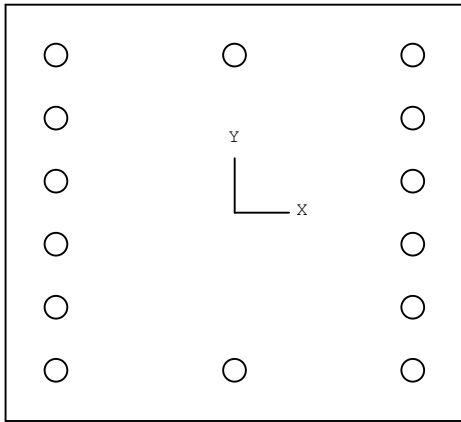
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#9\_NX6\_NY3\_cc2.439



Section 122 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

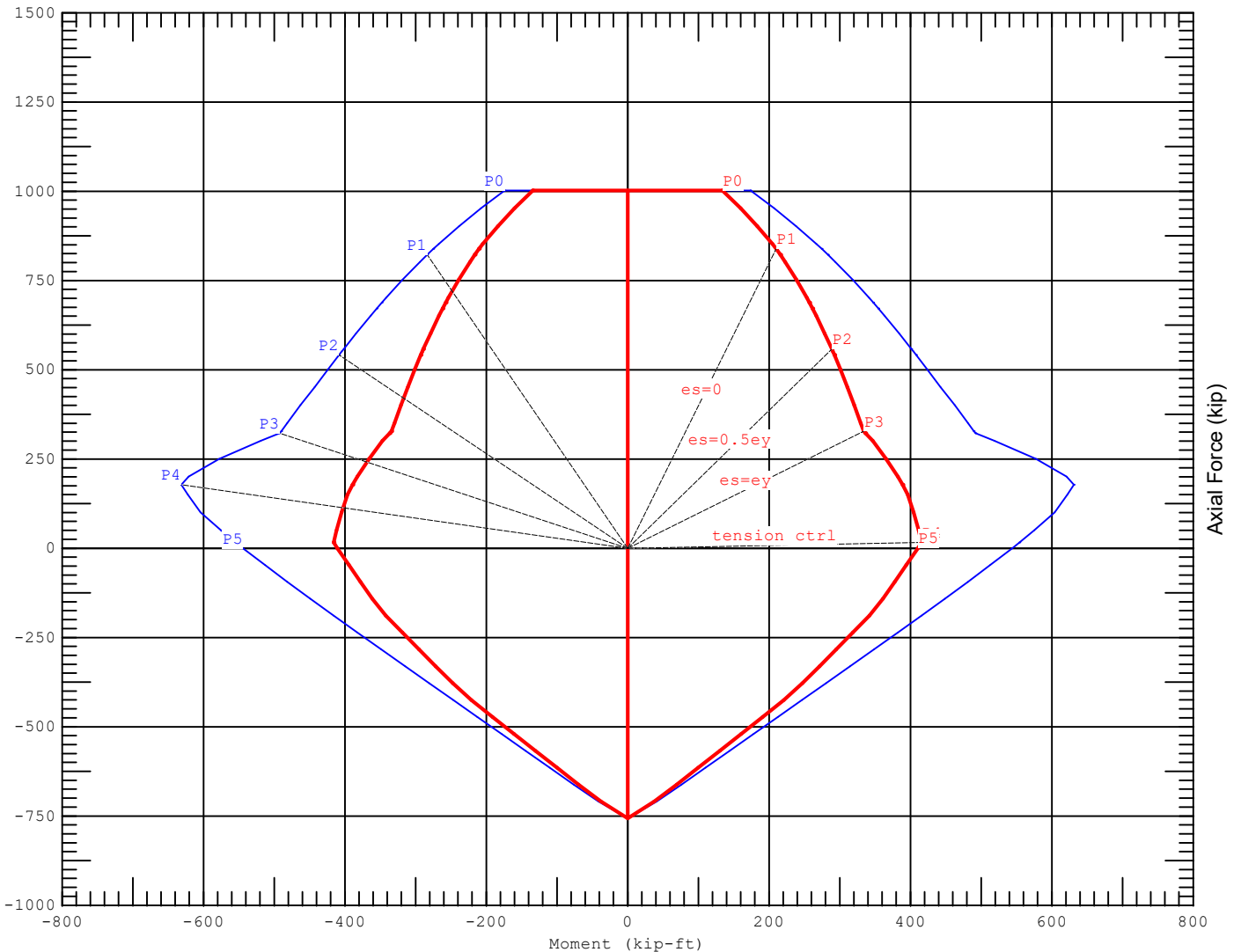
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.18%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1001.67	134.08	-0.00049
P1	837.86	210.19	0.00000
P2	557.59	288.89	0.00103
P3	327.66	333.98	0.00207
P4	16.46	415.61	0.00507
P5	0.02	410.28	0.00531
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	1001.68	-173.99	-0.00053
P1	821.42	-283.24	0.00000
P2	541.16	-407.88	0.00103
P3	321.90	-492.06	0.00207
P4	177.96	-631.10	0.00507
P5	-0.01	-543.71	0.00846
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

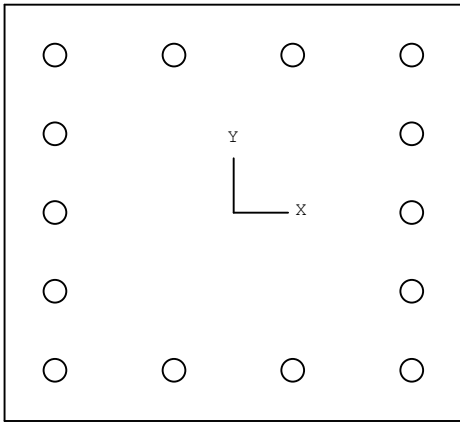
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#9\_NX5\_NY4\_cc2.439



Section 123 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

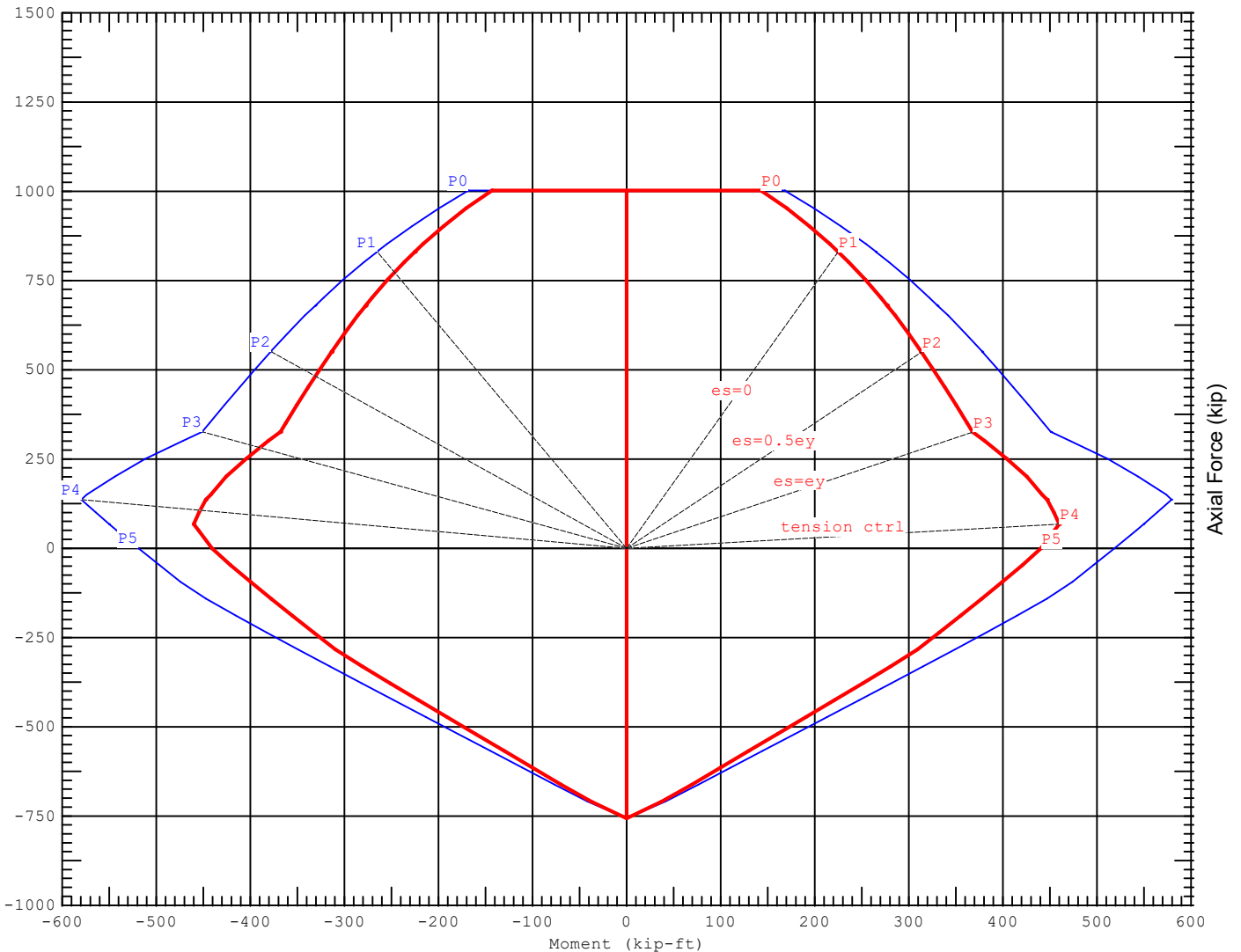
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.18%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1001.67	142.75	-0.00050
P1	829.82	224.51	0.00000
P2	548.94	312.95	0.00103
P3	325.03	367.16	0.00207
P4	67.40	459.01	0.00507
P5	-0.01	439.49	0.00578
Pmin	-756.00	-0.00	0.20000

PT	P	My(-)	max es
P0	1001.68	-167.70	-0.00050
P1	830.26	-264.45	0.00000
P2	550.88	-377.09	0.00103
P3	325.88	-450.07	0.00207
P4	135.66	-578.29	0.00507
P5	0.01	-517.70	0.00712
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

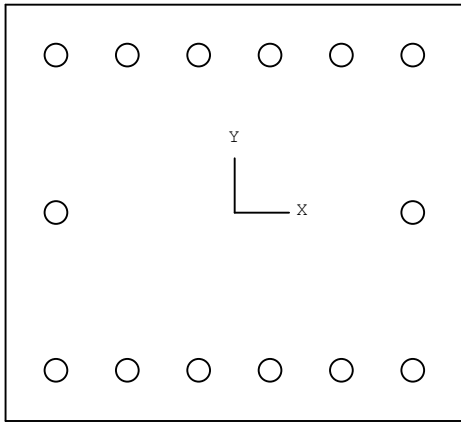
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#9\_NX3\_NY6\_cc2.439



Section 124 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

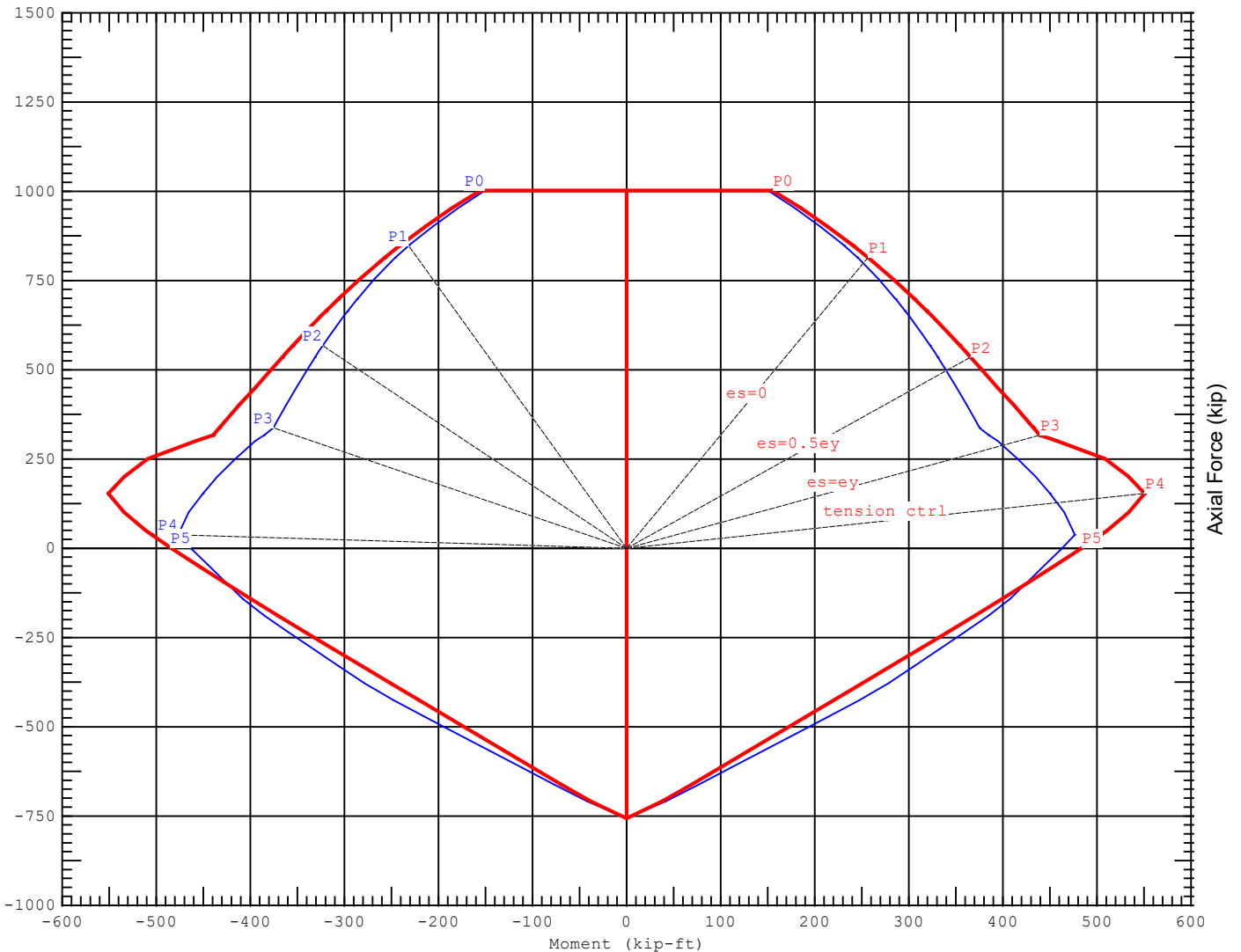
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.18%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.30 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1001.67	155.01	-0.00055
P1	813.74	256.23	0.00000
P2	534.97	364.99	0.00103
P3	316.48	438.49	0.00207
P4	153.49	549.62	0.00507
P5	0.01	482.63	0.00776
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	1001.67	-150.00	-0.00046
P1	846.75	-231.06	0.00000
P2	567.02	-322.32	0.00103
P3	337.15	-374.51	0.00207
P4	37.35	-475.53	0.00507
P5	0.02	-461.90	0.00557
Pmin	-756.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

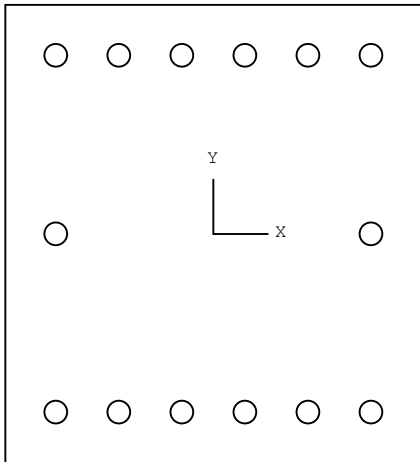
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#9\_NX3\_NY6\_cc2.439



Section 125 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

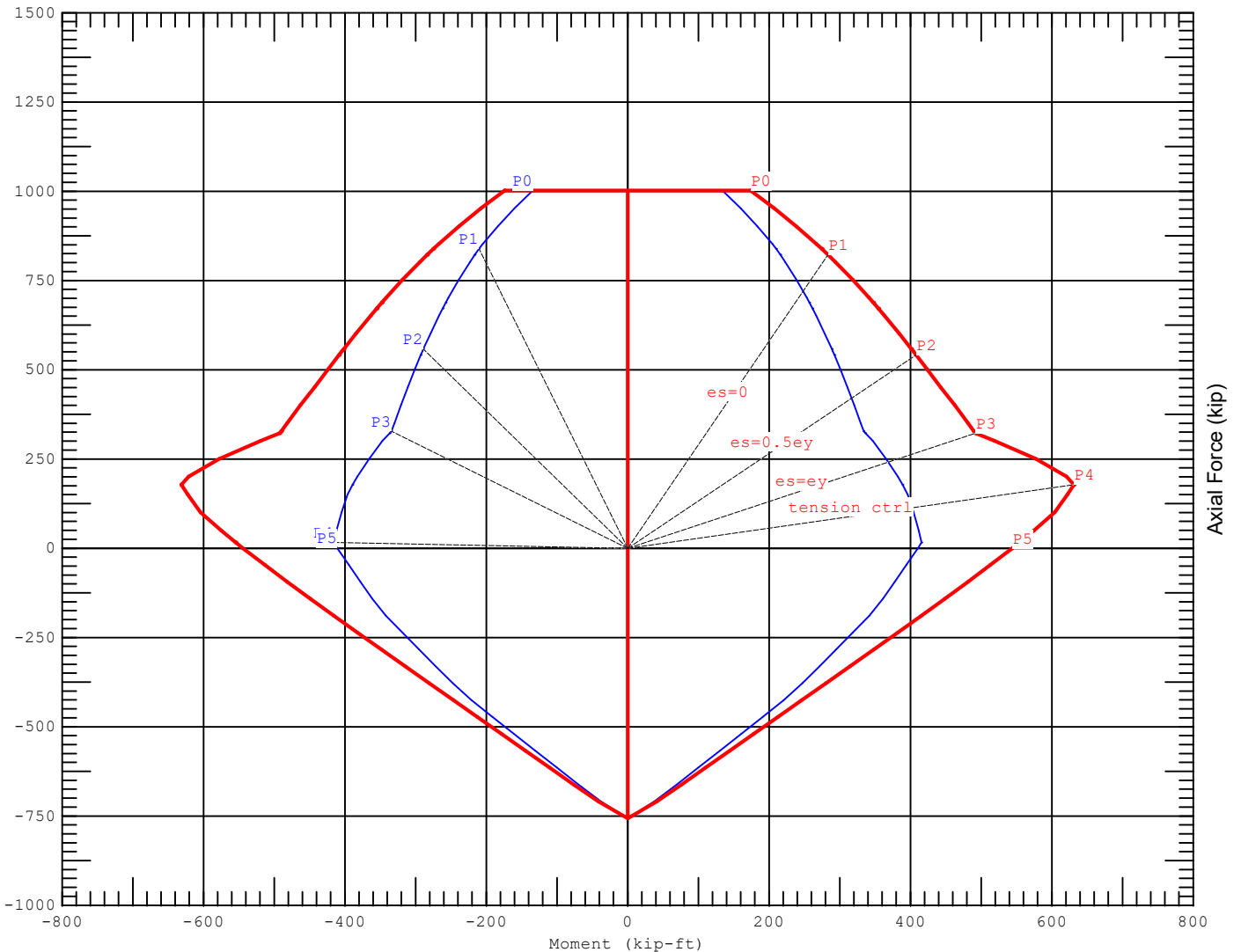
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 3.18%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1001.68	173.99	-0.00053
P1	821.42	283.24	0.00000
P2	541.16	407.88	0.00103
P3	321.90	492.06	0.00207
P4	177.96	631.10	0.00507
P5	-0.01	543.71	0.00846
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	1001.67	-134.08	-0.00049
P1	837.86	-210.19	0.00000
P2	557.59	-288.89	0.00103
P3	327.66	-333.98	0.00207
P4	16.46	-415.61	0.00507
P5	0.02	-410.28	0.00531
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

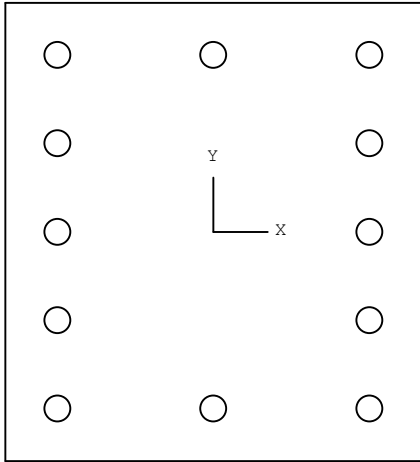
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#10\_NX5\_NY3\_cc2.51



Section 126 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.46%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.97 in

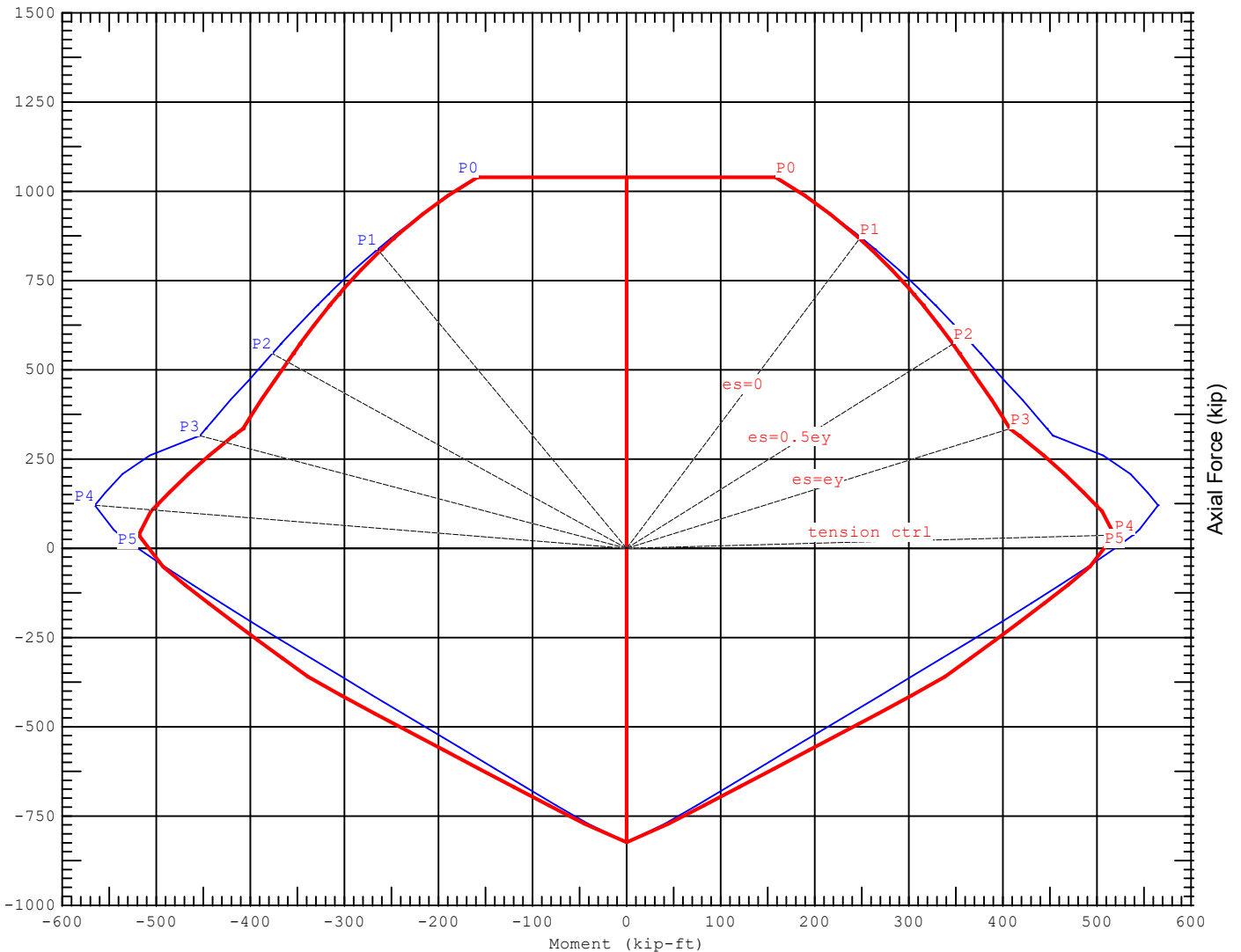
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1038.72	158.32	-0.00049
P1	866.53	247.13	0.00000
P2	571.77	346.23	0.00103
P3	334.48	406.85	0.00207
P4	36.52	517.22	0.00507
P5	0.00	506.59	0.00541
Pmin	-822.96	0.00	0.20000

PT	P	My(-)	max es
P0	1038.72	-156.81	-0.00057
P1	836.53	-263.96	0.00000
P2	545.39	-375.54	0.00103
P3	315.19	-452.32	0.00207
P4	119.92	-563.77	0.00507
P5	-0.00	-518.09	0.00678
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

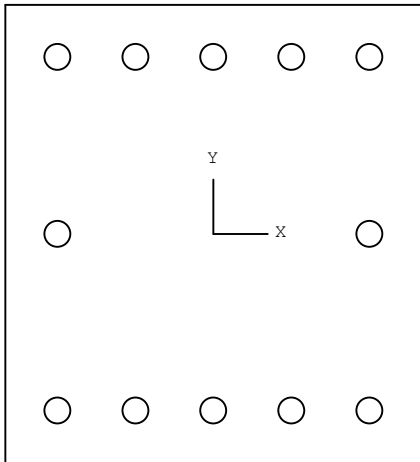
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#10\_NX3\_NY5\_cc2.51



Section 127 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

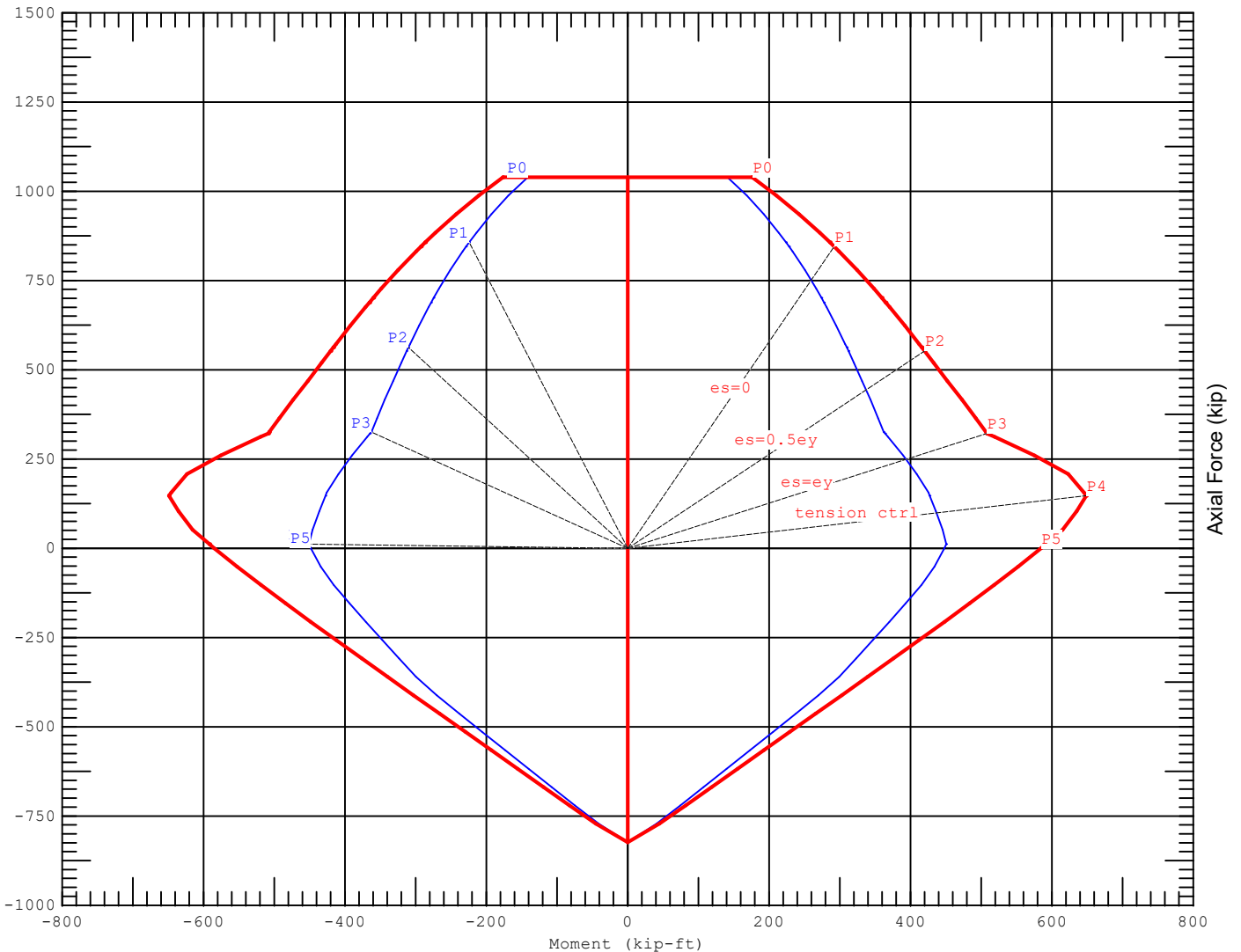
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.46%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1038.71	176.25	-0.00055
P1	844.66	292.10	0.00000
P2	552.07	420.10	0.00103
P3	321.16	508.14	0.00207
P4	147.20	648.81	0.00507
P5	-0.00	584.44	0.00740
Pmin	-822.96	-0.00	0.20000

PT	P	My(-)	max es
P0	1038.72	-141.39	-0.00051
P1	856.29	-223.95	0.00000
P2	562.24	-309.93	0.00103
P3	324.93	-362.41	0.00207
P4	11.21	-450.75	0.00507
P5	0.00	-447.78	0.00517
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

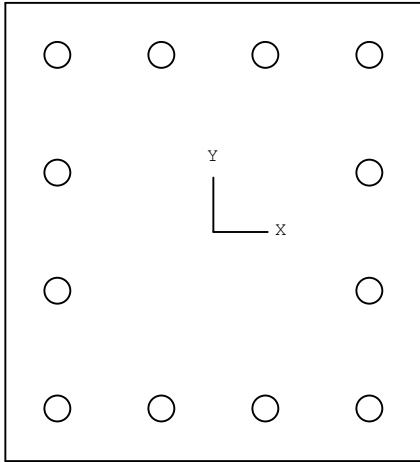
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#10\_NX4\_NY4\_cc2.51



Section 128 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.46%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

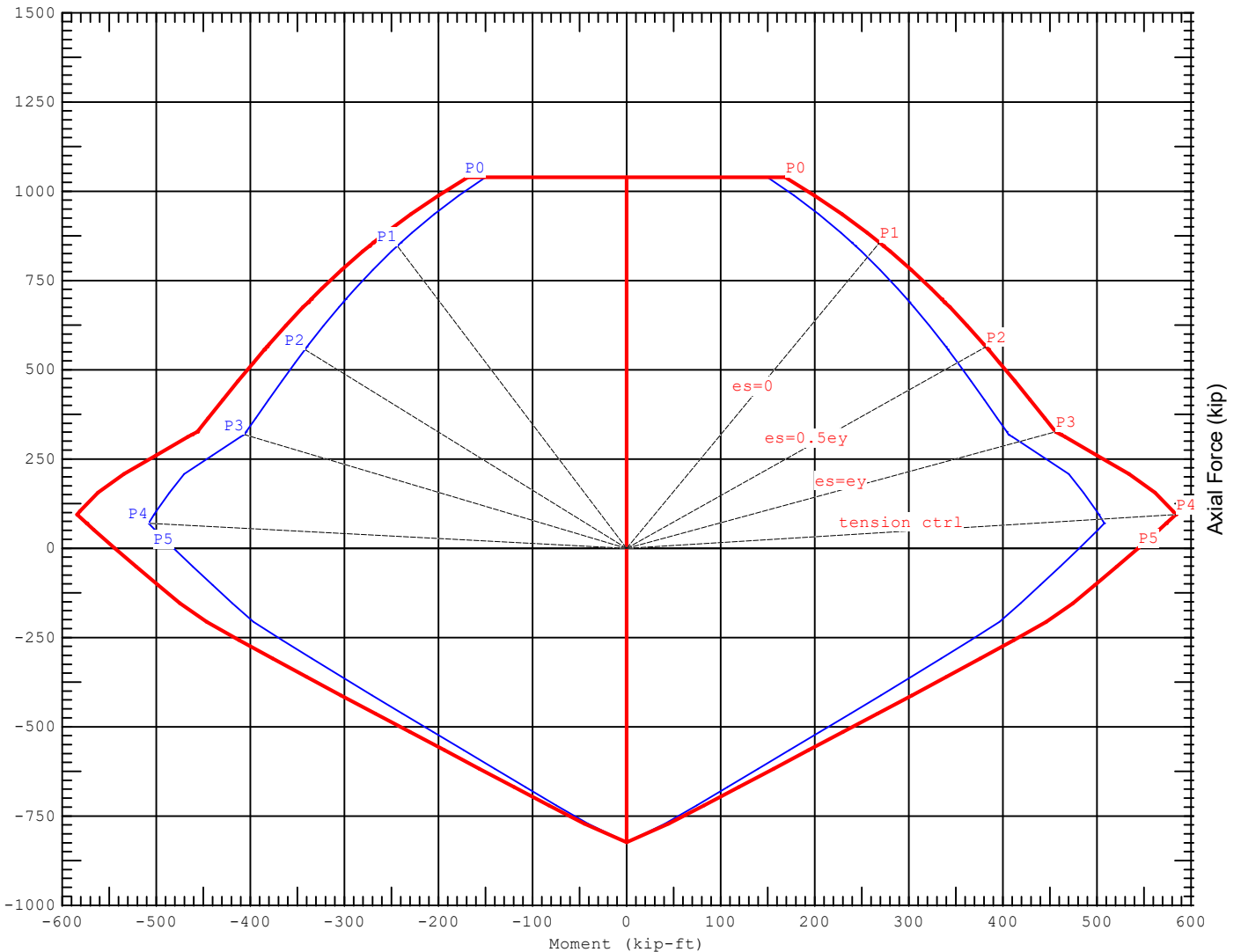
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1038.72	168.30	-0.00052
P1	855.60	268.38	0.00000
P2	564.02	381.26	0.00103
P3	325.72	455.17	0.00207
P4	94.21	582.74	0.00507
P5	0.00	542.75	0.00632
Pmin	-822.96	0.00	0.20000

PT	P	My(-)	max es
P0	1038.72	-149.63	-0.00054
P1	846.41	-242.89	0.00000
P2	555.92	-341.08	0.00103
P3	317.96	-405.35	0.00207
P4	69.56	-506.84	0.00507
P5	-0.01	-480.19	0.00595
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

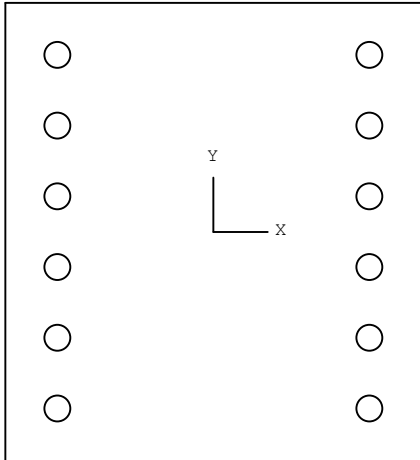
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#10\_NX6\_NY2\_cc2.51



Section 129 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

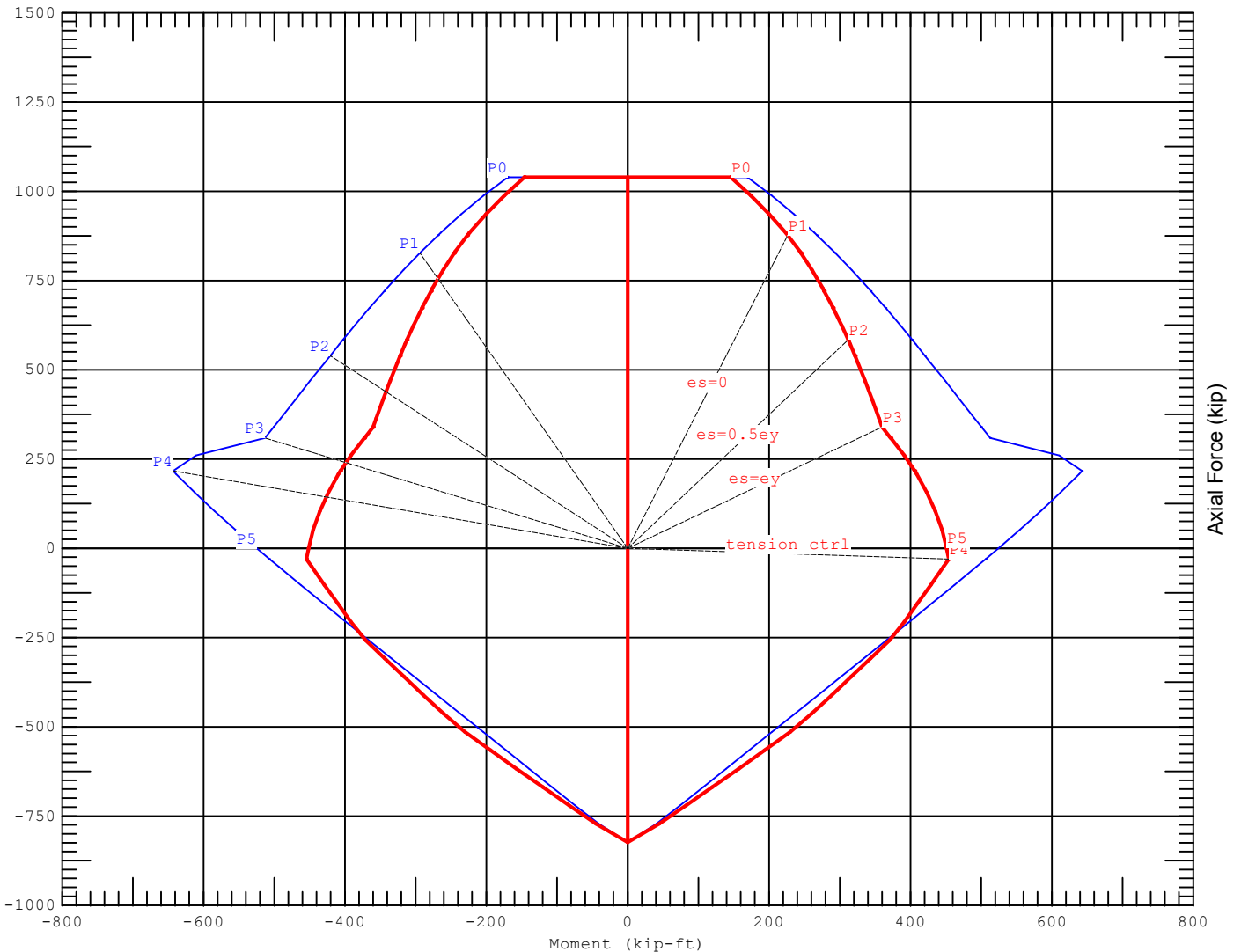
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.46%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.13 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1038.72	145.80	-0.00046
P1	876.42	226.41	0.00000
P2	583.72	312.12	0.00103
P3	339.04	359.80	0.00207
P4	-30.07	454.27	0.00507
P5	0.01	451.25	0.00476
Pmin	-822.96	0.00	0.20000

PT	P	My(-)	max es
P0	1038.71	-169.66	-0.00061
P1	826.66	-293.56	0.00000
P2	539.06	-420.60	0.00103
P3	308.21	-512.84	0.00207
P4	216.45	-642.87	0.00507
P5	-0.01	-524.28	0.00929
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

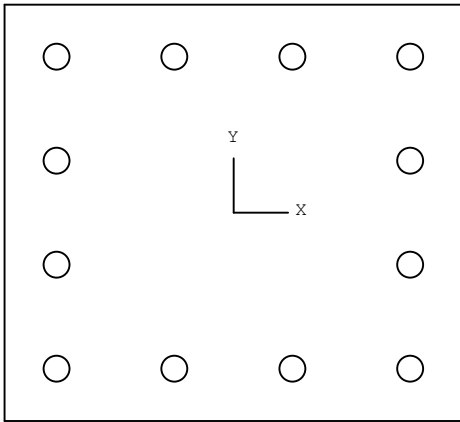
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#10\_NX4\_NY4\_cc2.51



Section 130 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

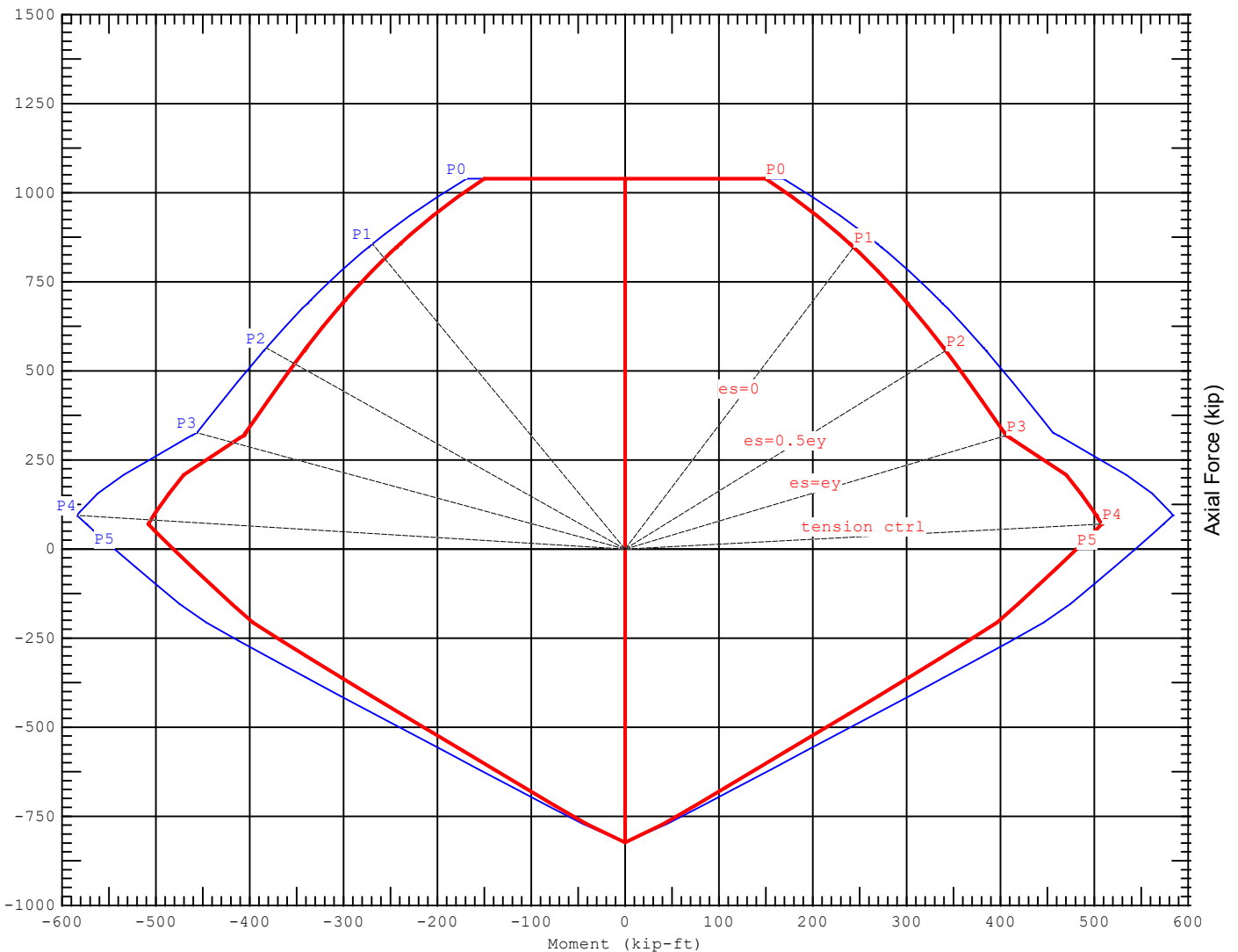
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.46%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1038.72	149.63	-0.00054
P1	846.41	242.89	0.00000
P2	555.92	341.08	0.00103
P3	317.96	405.35	0.00207
P4	69.56	506.84	0.00507
P5	-0.01	480.19	0.00595
Pmin	-822.96	0.00	0.20000

PT	P	My(-)	max es
P0	1038.72	-168.30	-0.00052
P1	855.60	-268.38	0.00000
P2	564.02	-381.26	0.00103
P3	325.72	-455.17	0.00207
P4	94.21	-582.74	0.00507
P5	0.00	-542.75	0.00632
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

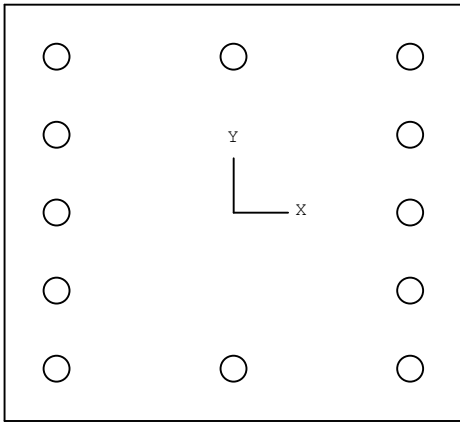
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#10\_NX5\_NY3\_cc2.51



Section 131 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

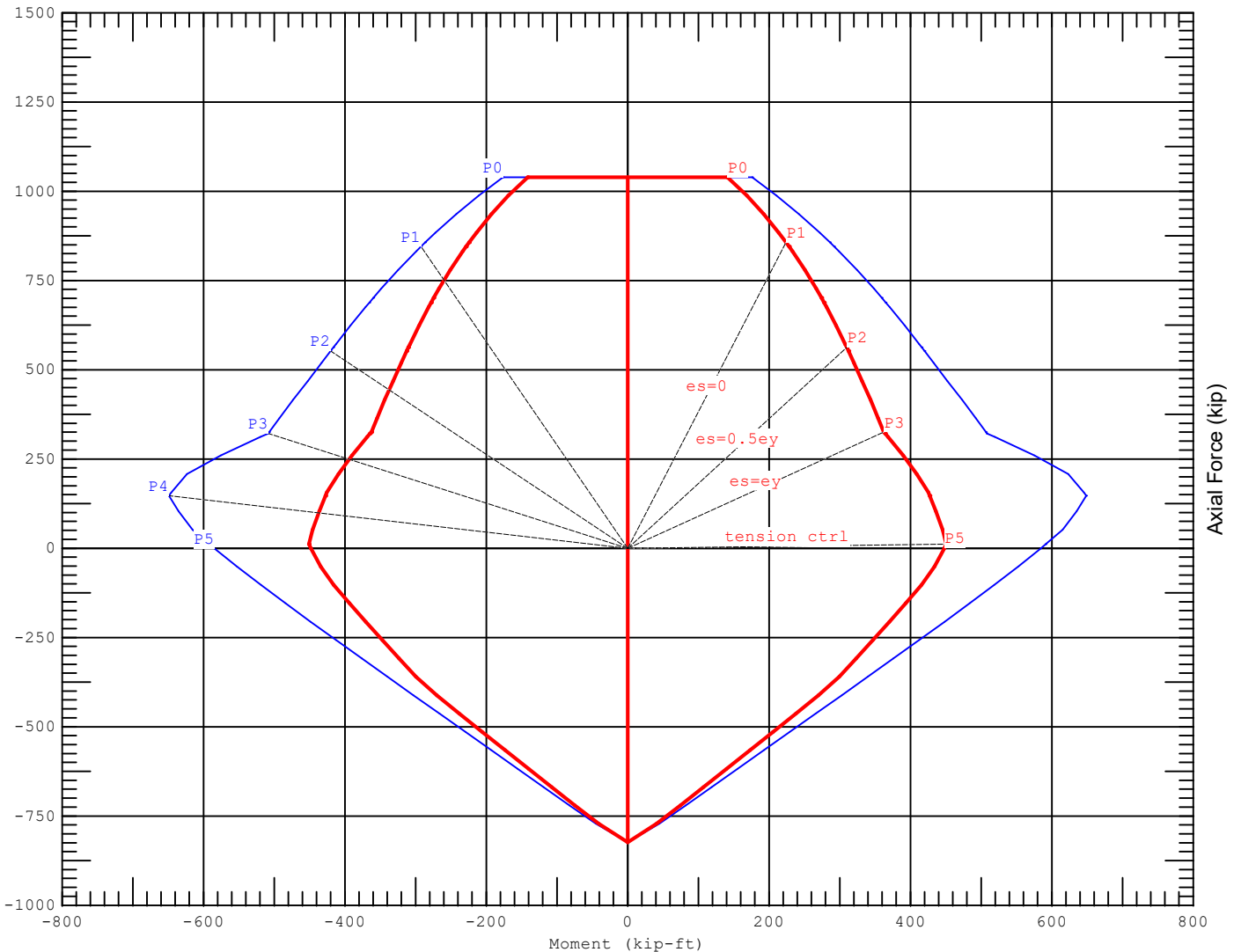
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.46%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1038.72	141.39	-0.00051
P1	856.29	223.95	0.00000
P2	562.24	309.93	0.00103
P3	324.93	362.41	0.00207
P4	11.21	450.75	0.00507
P5	0.00	447.78	0.00517
Pmin	-822.96	0.00	0.20000

PT	P	My(-)	max es
P0	1038.71	-176.25	-0.00055
P1	844.66	-292.10	0.00000
P2	552.07	-420.10	0.00103
P3	321.16	-508.14	0.00207
P4	147.20	-648.81	0.00507
P5	-0.00	-584.44	0.00740
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

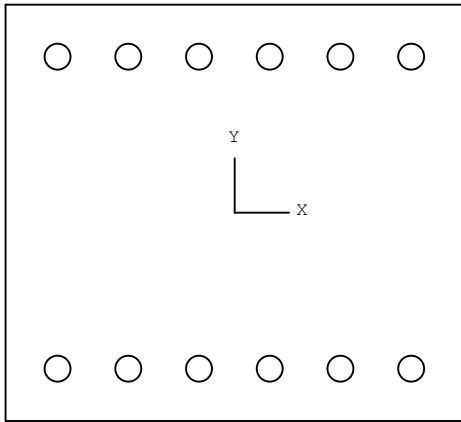
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#10\_NX2\_NY6\_cc2.51



Section 132 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

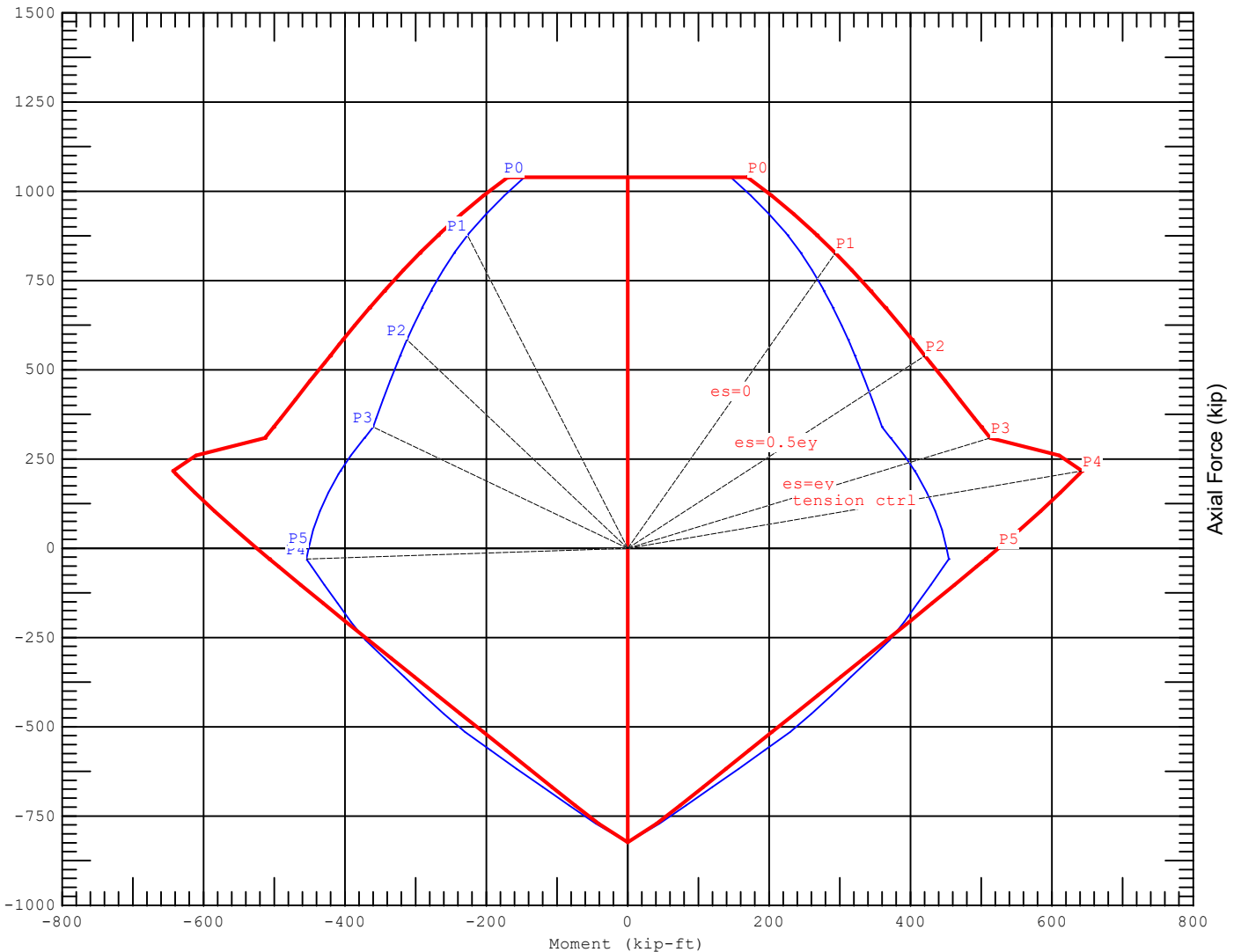
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.46%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.13 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1038.71	169.66	-0.00061
P1	826.66	293.56	0.00000
P2	539.06	420.60	0.00103
P3	308.21	512.84	0.00207
P4	216.45	642.87	0.00507
P5	-0.01	524.28	0.00929
Pmin	-822.96	-0.00	0.20000

PT	P	My(-)	max es
P0	1038.72	-145.80	-0.00046
P1	876.42	-226.41	0.00000
P2	583.72	-312.12	0.00103
P3	339.04	-359.80	0.00207
P4	-30.07	-454.27	0.00507
P5	0.01	-451.25	0.00476
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

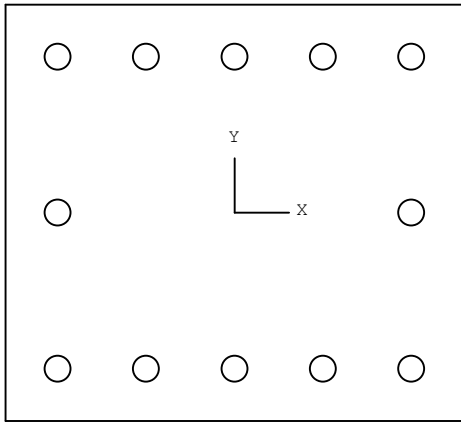
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#10\_NX3\_NY5\_cc2.51



Section 133 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 12 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.24 in<sup>2</sup>  
 Roh: 3.46%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.97 in

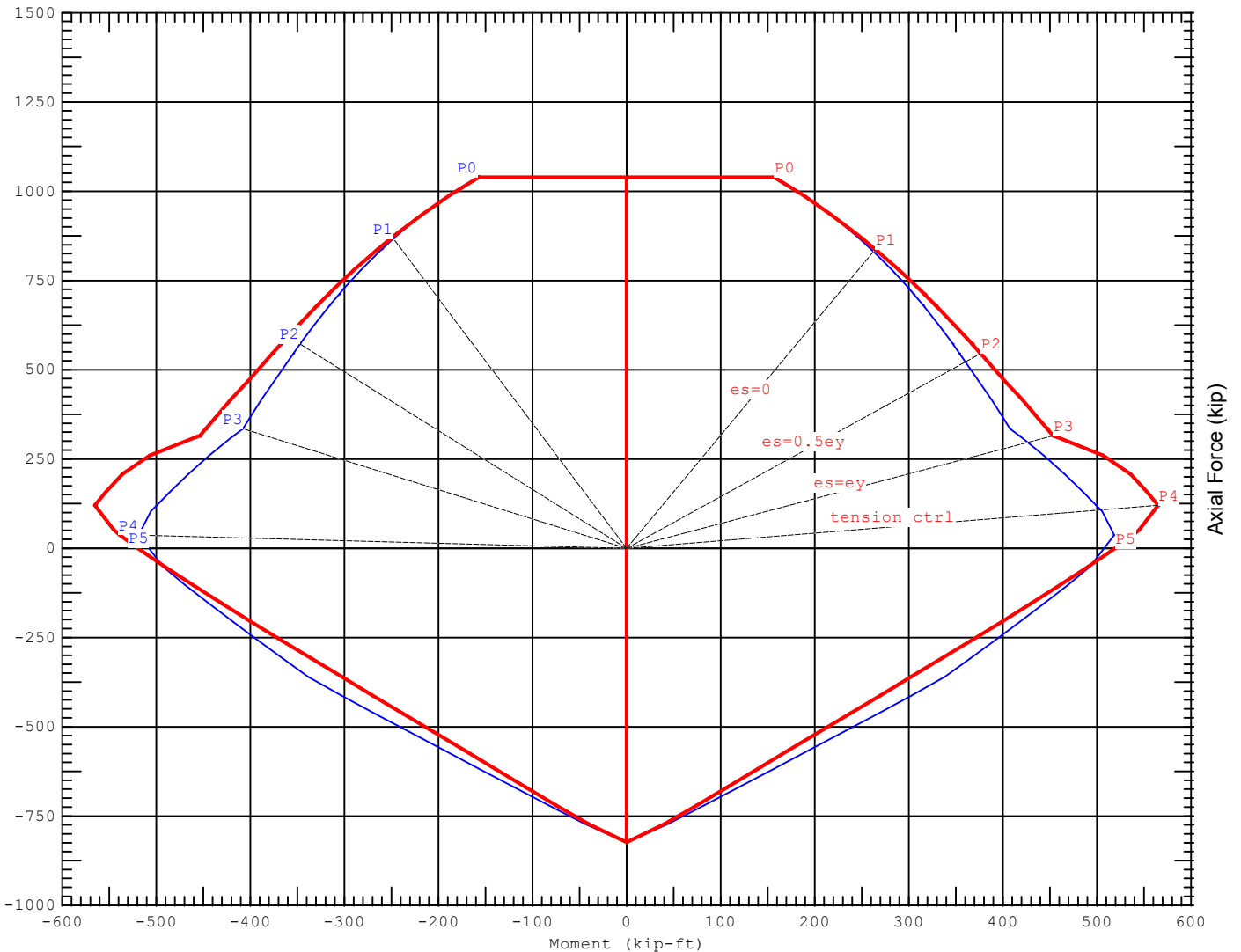
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1038.72	156.81	-0.00057
P1	836.53	263.96	0.00000
P2	545.39	375.54	0.00103
P3	315.19	452.32	0.00207
P4	119.92	563.77	0.00507
P5	-0.00	518.09	0.00678
Pmin	-822.96	-0.00	0.20000

PT	P	My(-)	max es
P0	1038.72	-158.32	-0.00049
P1	866.53	-247.13	0.00000
P2	571.77	-346.23	0.00103
P3	334.48	-406.85	0.00207
P4	36.52	-517.22	0.00507
P5	0.00	-506.59	0.00541
Pmin	-822.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

Engineer:

Date & Time: 05/18/2026 18:41

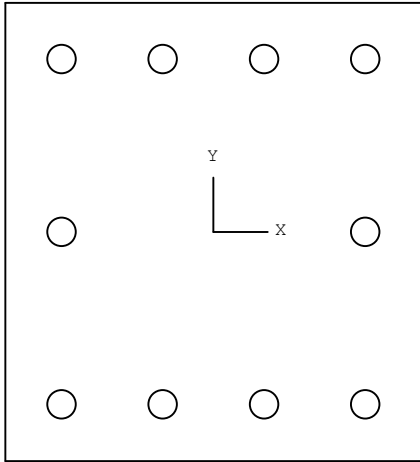
# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#11\_NX3\_NY4\_cc2.705

Code: ACI 318-19  
Strength reduction: Auto  
Neutral axis steps: 250  
Biaxial angle steps: 16  
Axial capacity steps: 20  
Excl. displ'd concrete: Yes

b x h: 20 x 22 in  
fc: 3.00 kip/in<sup>2</sup>  
fy: 60.00 kip/in<sup>2</sup>  
Cover (t.c): 2.705 in  
Bars: 10 # 11  
Confinement: Tied  
Ag: 440.00 in<sup>2</sup>  
As: 15.60 in<sup>2</sup>  
Roh: 3.55%  
Ix: 17746.7 in<sup>4</sup>  
Iy: 14666.7 in<sup>4</sup>  
X0: 0.00 in  
Y0: 0.00 in  
Clear spacing: 3.45 in



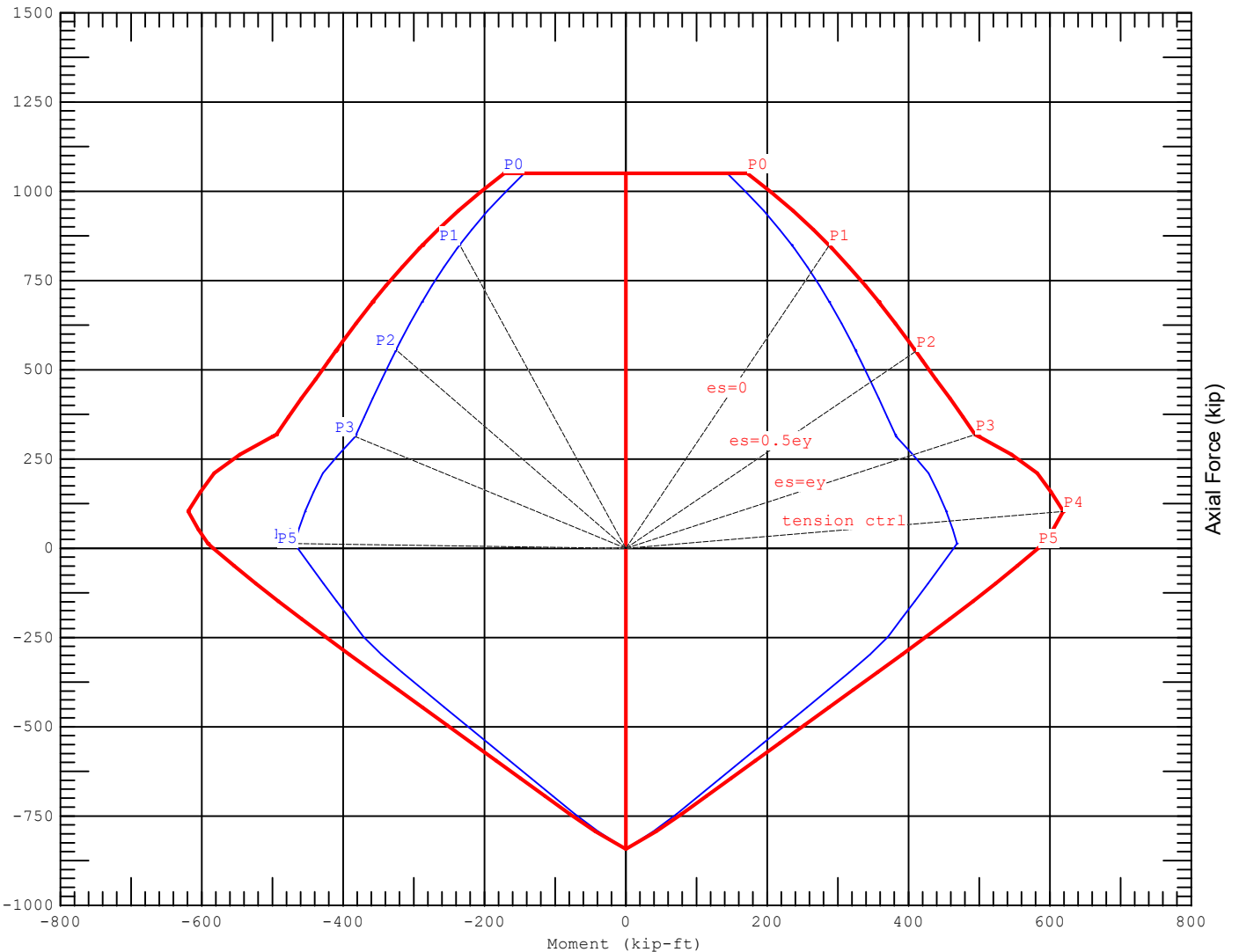
Section 134 of 238

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1049.47	171.74	-0.00057
P1	847.38	287.92	0.00000
P2	551.61	410.34	0.00103
P3	317.91	494.12	0.00207
P4	102.67	618.86	0.00507
P5	0.01	583.44	0.00629
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	1049.47	-143.44	-0.00055
P1	849.32	-234.66	0.00000
P2	555.43	-324.81	0.00103
P3	312.46	-382.51	0.00207
P4	13.07	-468.66	0.00507
P5	0.00	-463.97	0.00522
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

Engineer:

Date & Time: 05/18/2026 18:41

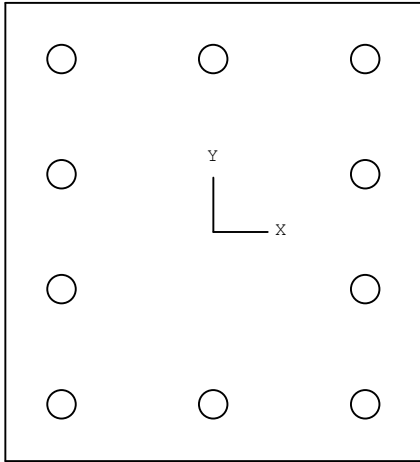
# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#11\_NX4\_NY3\_cc2.705

Code: ACI 318-19  
Strength reduction: Auto  
Neutral axis steps: 250  
Biaxial angle steps: 16  
Axial capacity steps: 20  
Excl. displ'd concrete: Yes

b x h: 20 x 22 in  
fc: 3.00 kip/in<sup>2</sup>  
fy: 60.00 kip/in<sup>2</sup>  
Cover (t.c): 2.705 in  
Bars: 10 # 11  
Confinement: Tied  
Ag: 440.00 in<sup>2</sup>  
As: 15.60 in<sup>2</sup>  
Roh: 3.55%  
Ix: 17746.7 in<sup>4</sup>  
Iy: 14666.7 in<sup>4</sup>  
X0: 0.00 in  
Y0: 0.00 in  
Clear spacing: 4.12 in



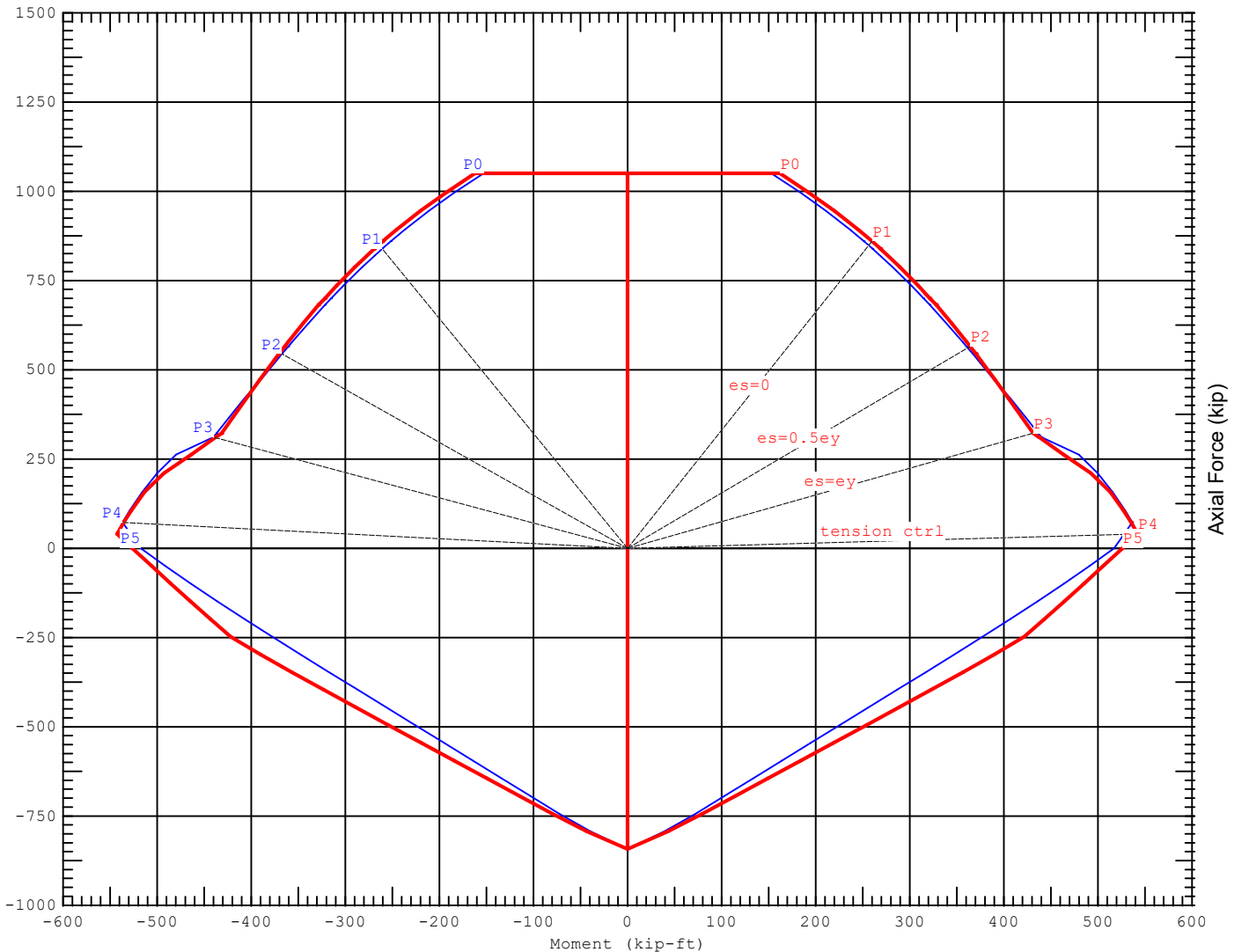
Section 135 of 238

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1049.47	161.63	-0.00053
P1	859.81	259.30	0.00000
P2	564.94	363.52	0.00103
P3	321.81	430.29	0.00207
P4	40.08	541.00	0.00507
P5	0.00	525.05	0.00554
Pmin	-842.40	-0.00	0.20000

PT	P	My(-)	max es
P0	1049.47	-152.54	-0.00059
P1	838.33	-260.02	0.00000
P2	544.02	-366.25	0.00103
P3	310.98	-438.97	0.00207
P4	72.11	-535.33	0.00507
P5	0.00	-515.96	0.00576
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

Engineer:

Date & Time: 05/18/2026 18:41

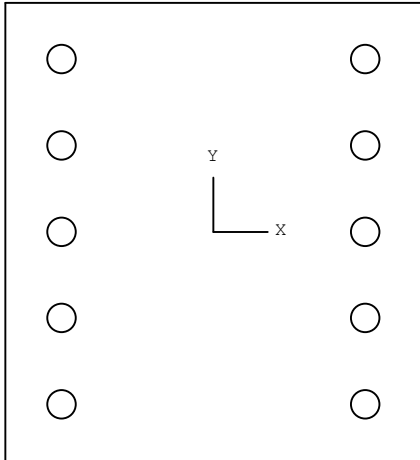
# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#11\_NX5\_NY2\_cc2.705

Code: ACI 318-19  
Strength reduction: Auto  
Neutral axis steps: 250  
Biaxial angle steps: 16  
Axial capacity steps: 20  
Excl. displ'd concrete: Yes

b x h: 20 x 22 in  
fc: 3.00 kip/in<sup>2</sup>  
fy: 60.00 kip/in<sup>2</sup>  
Cover (t.c): 2.705 in  
Bars: 10 # 11  
Confinement: Tied  
Ag: 440.00 in<sup>2</sup>  
As: 15.60 in<sup>2</sup>  
Roh: 3.55%  
Ix: 17746.7 in<sup>4</sup>  
Iy: 14666.7 in<sup>4</sup>  
X0: 0.00 in  
Y0: 0.00 in  
Clear spacing: 2.74 in



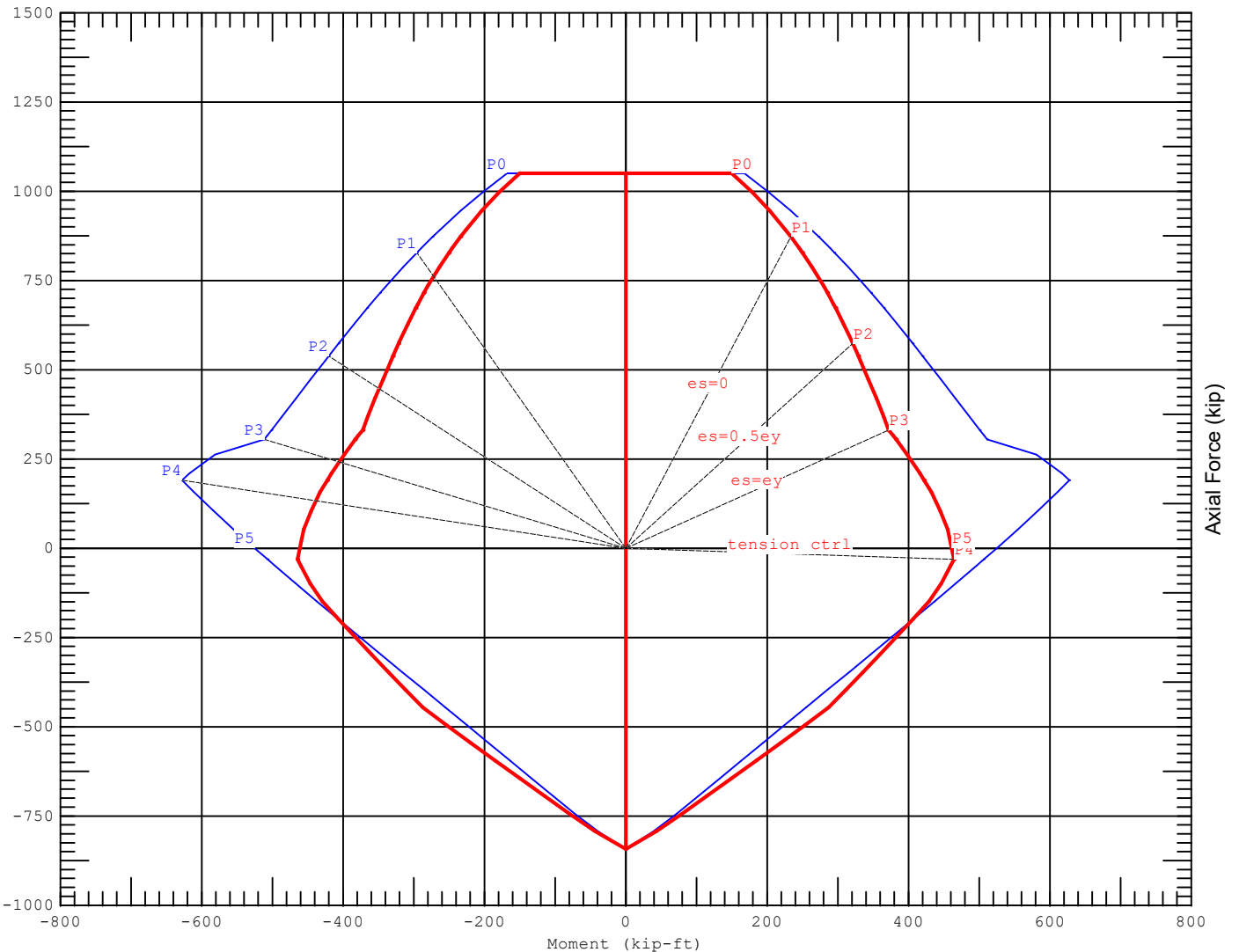
Section 136 of 238

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1049.47	149.93	-0.00049
P1	872.23	233.60	0.00000
P2	573.10	321.22	0.00103
P3	330.87	371.98	0.00207
P4	-31.41	464.17	0.00507
P5	0.02	461.22	0.00481
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	1049.47	-167.99	-0.00063
P1	827.33	-295.43	0.00000
P2	537.78	-420.15	0.00103
P3	304.33	-511.37	0.00207
P4	190.68	-627.39	0.00507
P5	0.01	-524.79	0.00848
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

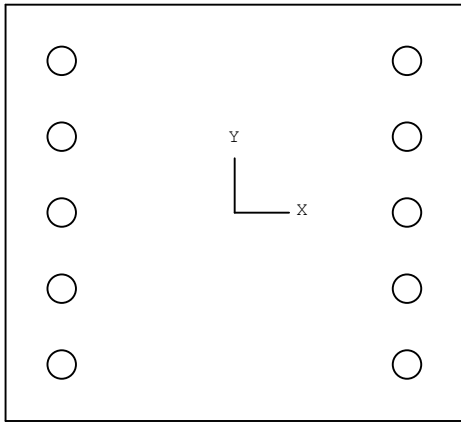
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#11\_NX5\_NY2\_cc2.705



Section 137 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

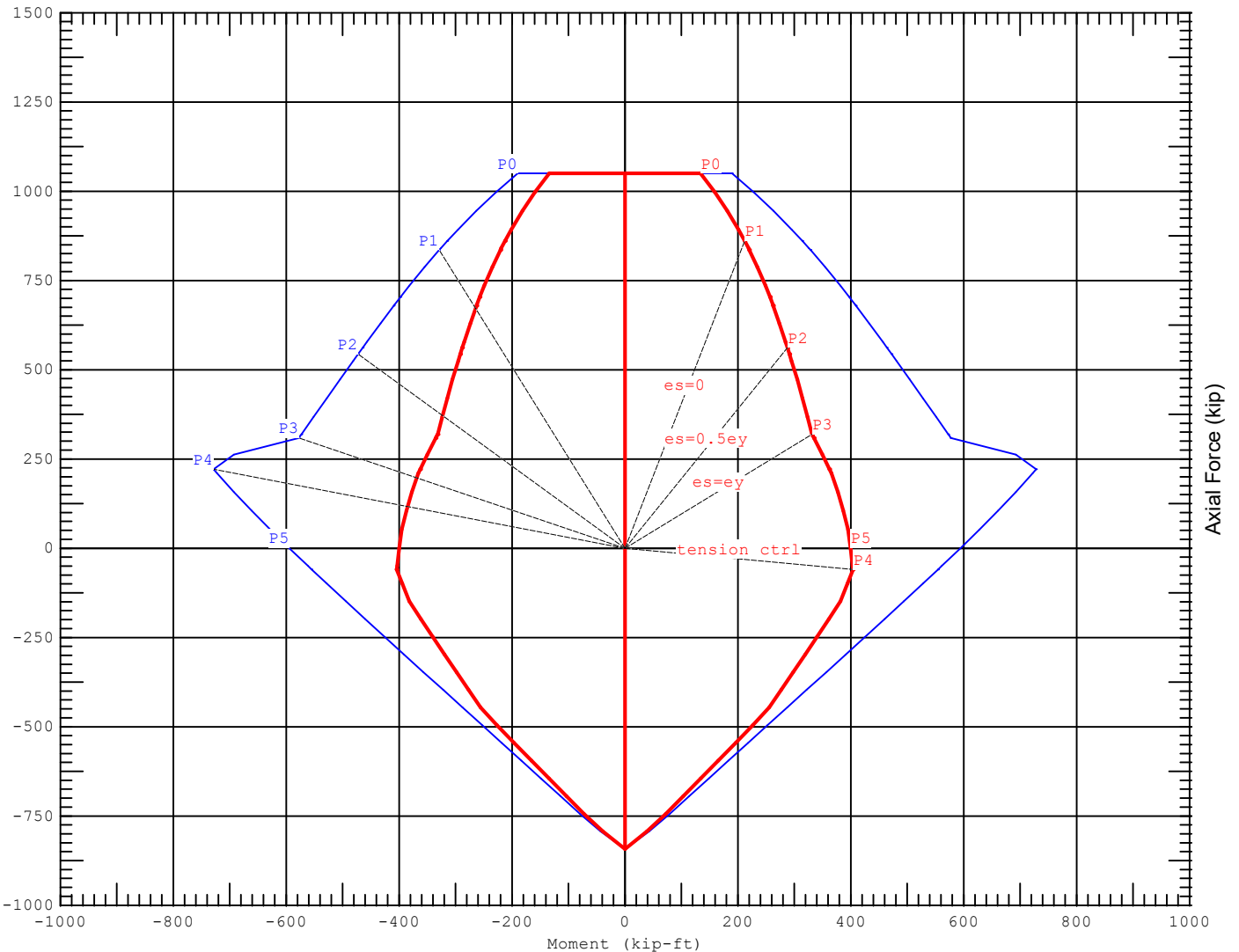
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 10 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.60 in<sup>2</sup>  
 Roh: 3.55%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1049.47	133.90	-0.00052
P1	860.32	211.81	0.00000
P2	561.66	287.28	0.00103
P3	319.11	330.82	0.00207
P4	-59.30	403.34	0.00507
P5	0.01	399.28	0.00460
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	1049.47	-189.24	-0.00061
P1	834.96	-328.18	0.00000
P2	543.45	-471.64	0.00103
P3	308.84	-576.44	0.00207
P4	221.23	-727.22	0.00507
P5	0.01	-593.26	0.00940
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

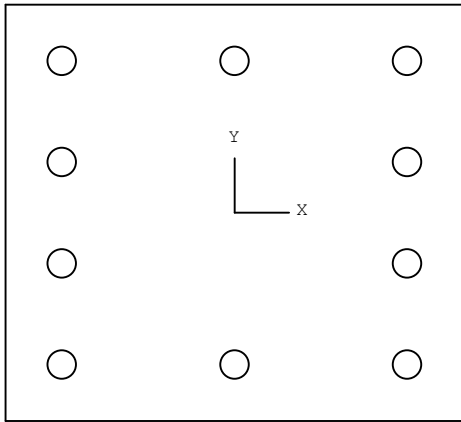
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#11\_NX4\_NY3\_cc2.705



Section 138 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

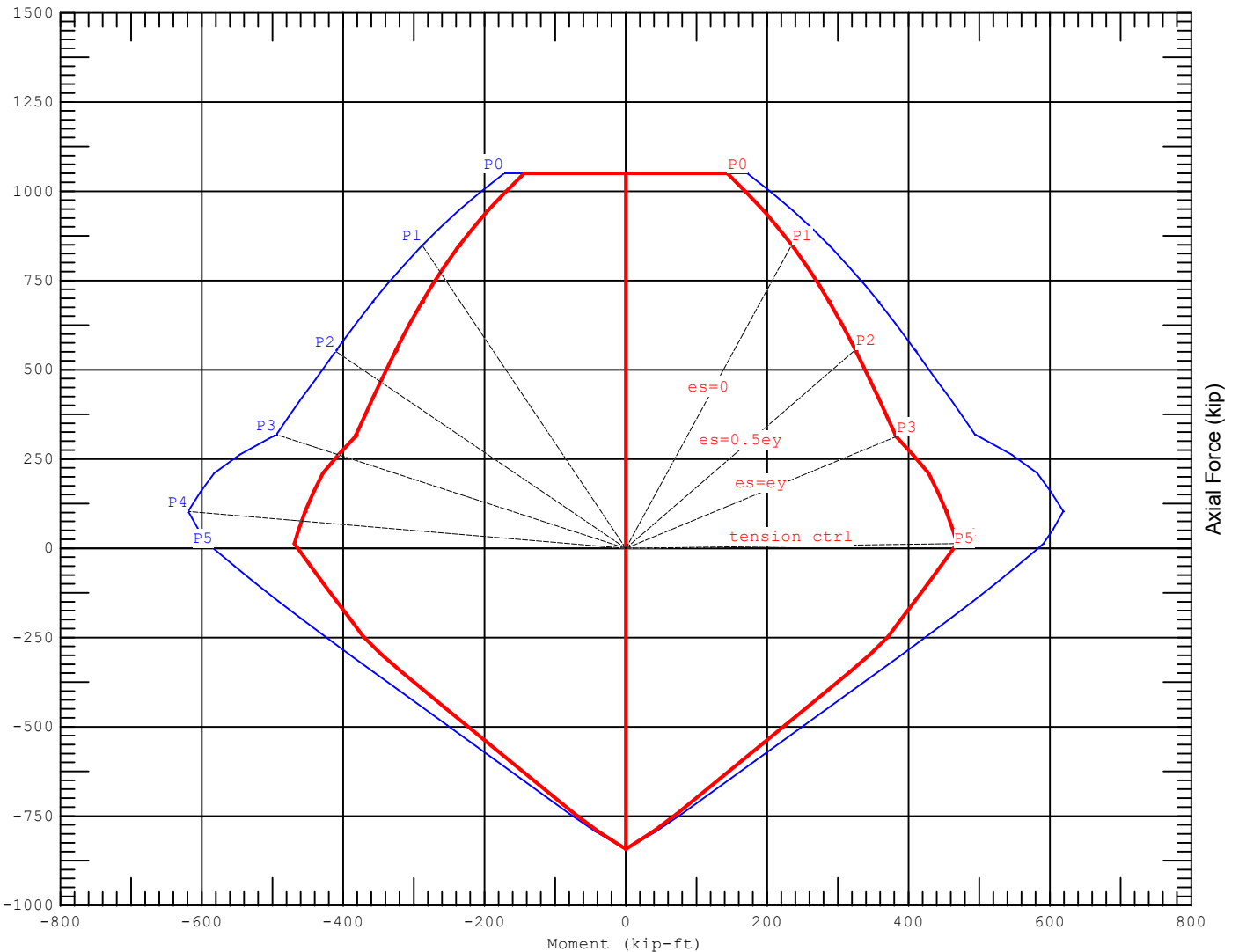
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 10 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.60 in<sup>2</sup>  
 Roh: 3.55%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1049.47	143.44	-0.00055
P1	849.32	234.66	0.00000
P2	555.43	324.81	0.00103
P3	312.46	382.51	0.00207
P4	13.07	468.66	0.00507
P5	0.00	463.97	0.00522
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	1049.47	-171.74	-0.00057
P1	847.38	-287.92	0.00000
P2	551.61	-410.34	0.00103
P3	317.91	-494.12	0.00207
P4	102.67	-618.86	0.00507
P5	0.01	-583.44	0.00629
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

Engineer:

Date & Time: 05/18/2026 18:41

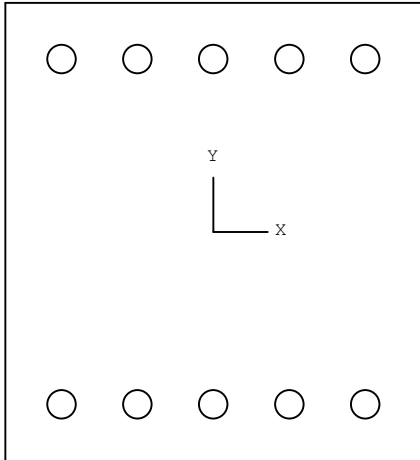
# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_10#11\_NX2\_NY5\_cc2.705

Code: ACI 318-19  
Strength reduction: Auto  
Neutral axis steps: 250  
Biaxial angle steps: 16  
Axial capacity steps: 20  
Excl. displ'd concrete: Yes

b x h: 20 x 22 in  
fc: 3.00 kip/in<sup>2</sup>  
fy: 60.00 kip/in<sup>2</sup>  
Cover (t.c): 2.705 in  
Bars: 10 # 11  
Confinement: Tied  
Ag: 440.00 in<sup>2</sup>  
As: 15.60 in<sup>2</sup>  
Roh: 3.55%  
Ix: 17746.7 in<sup>4</sup>  
Iy: 14666.7 in<sup>4</sup>  
X0: 0.00 in  
Y0: 0.00 in  
Clear spacing: 2.24 in



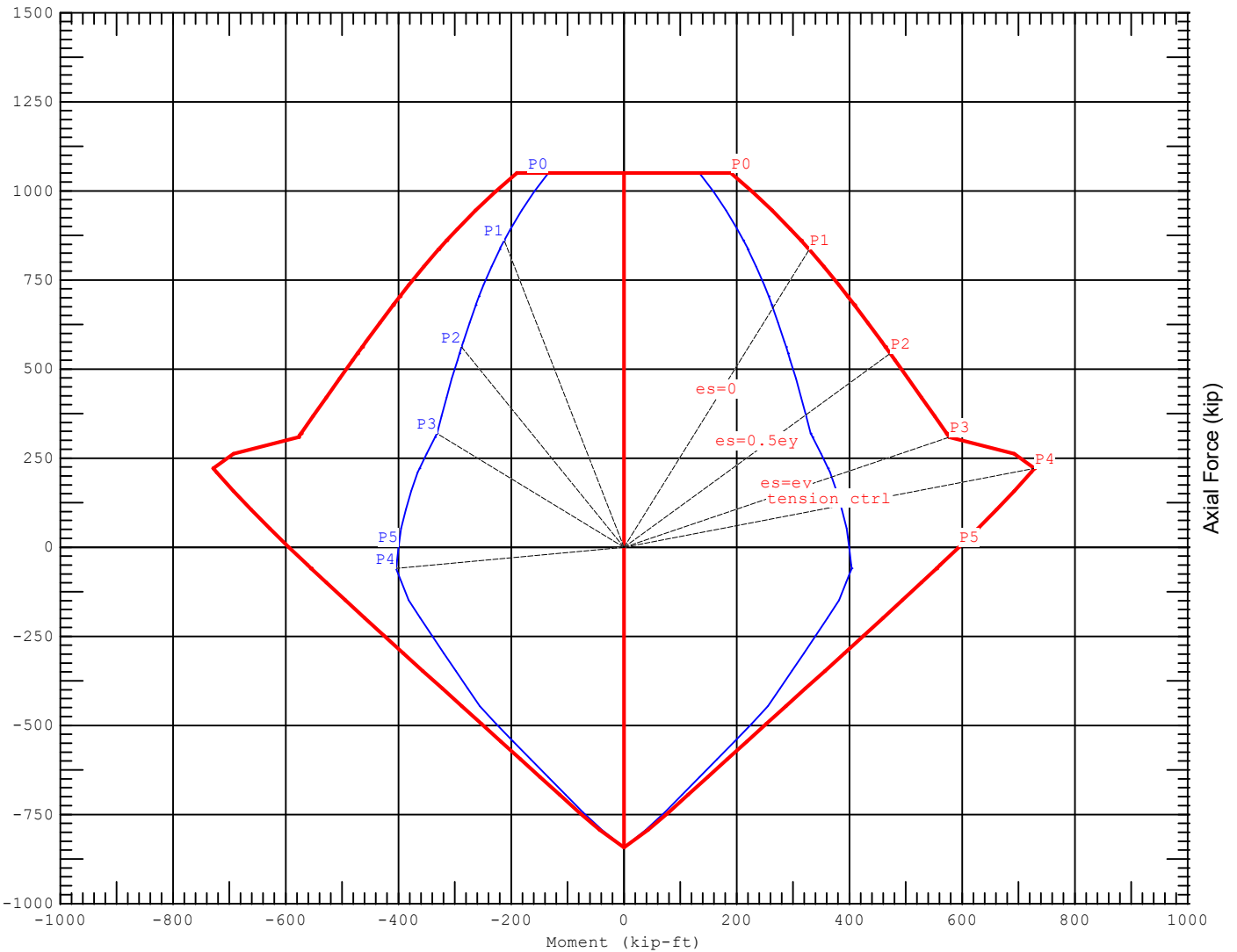
Section 139 of 238

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1049.47	189.24	-0.00061
P1	834.96	328.18	0.00000
P2	543.45	471.64	0.00103
P3	308.84	576.44	0.00207
P4	221.23	727.22	0.00507
P5	0.01	593.26	0.00940
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	1049.47	-133.90	-0.00052
P1	860.32	-211.81	0.00000
P2	561.66	-287.28	0.00103
P3	319.11	-330.82	0.00207
P4	-59.30	-403.34	0.00507
P5	0.01	-399.28	0.00460
Pmin	-842.40	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

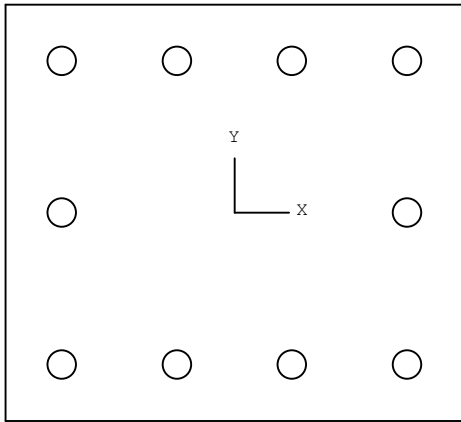
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#11\_NX3\_NY4\_cc2.705



Section 140 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

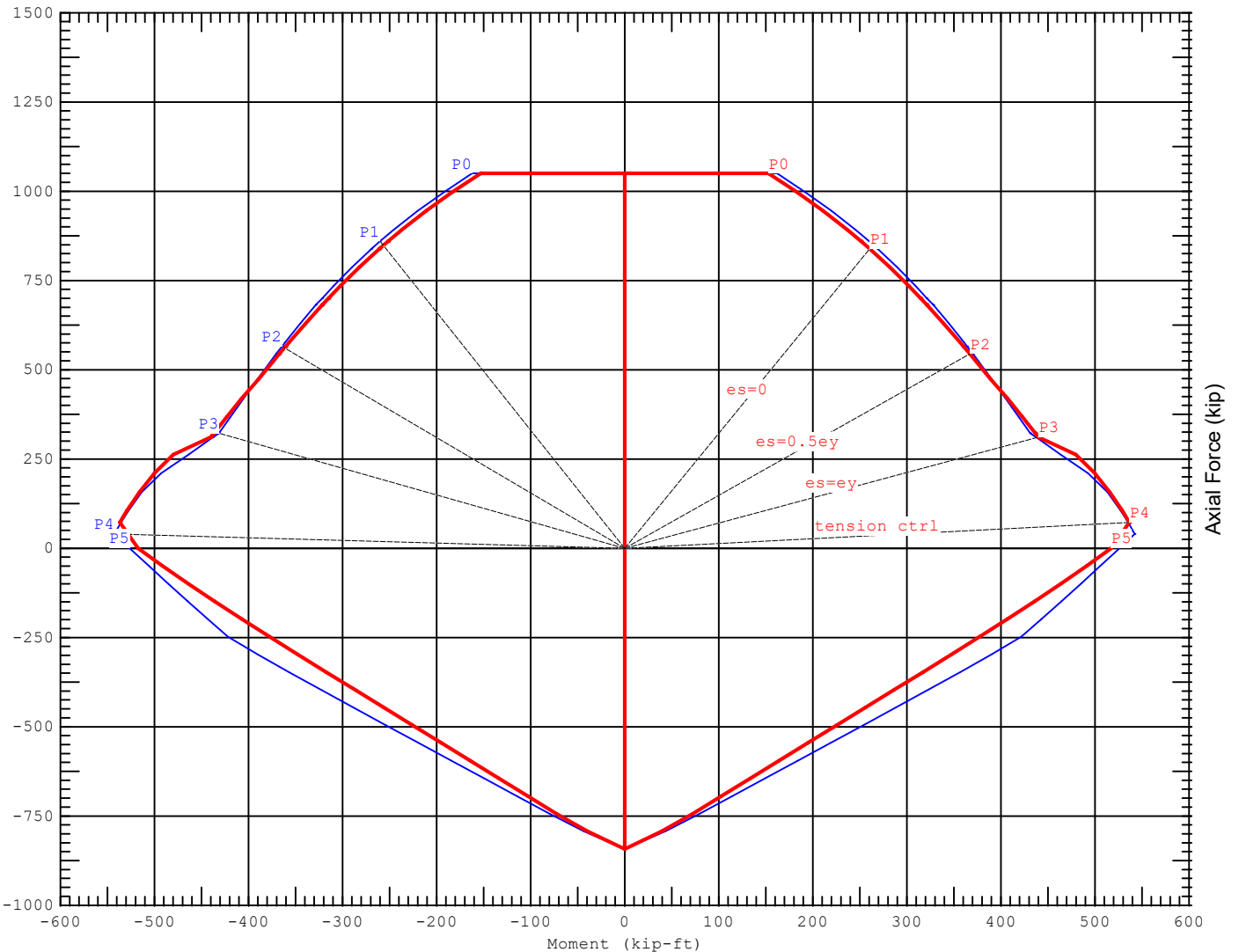
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 10 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.60 in<sup>2</sup>  
 Roh: 3.55%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.12 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1049.47	152.54	-0.00059
P1	838.33	260.02	0.00000
P2	544.02	366.25	0.00103
P3	310.98	438.97	0.00207
P4	72.11	535.33	0.00507
P5	0.00	515.96	0.00576
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	1049.47	-161.63	-0.00053
P1	859.81	-259.30	0.00000
P2	564.94	-363.52	0.00103
P3	321.81	-430.29	0.00207
P4	40.08	-541.00	0.00507
P5	0.00	-525.05	0.00554
Pmin	-842.40	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

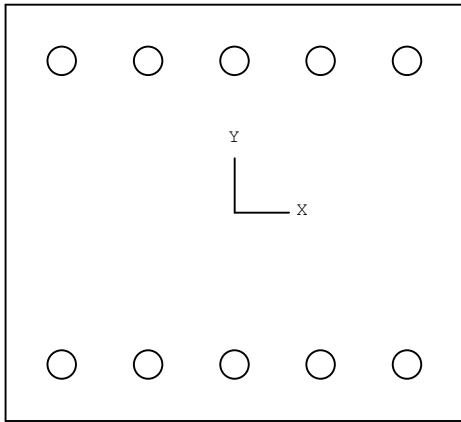
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_10#11\_NX2\_NY5\_cc2.705



Section 141 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 10 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 15.60 in<sup>2</sup>  
 Roh: 3.55%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.74 in

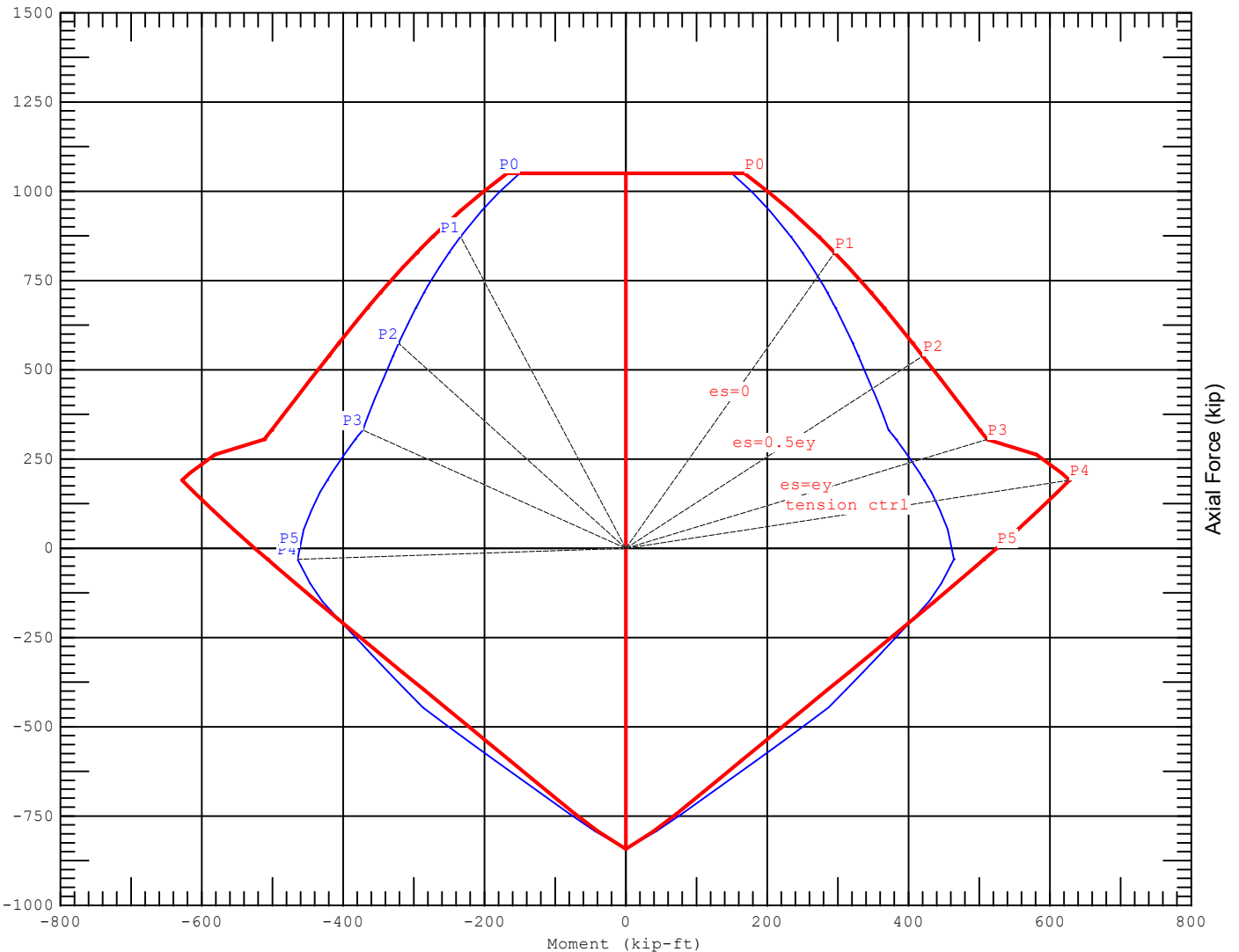
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1049.47	167.99	-0.00063
P1	827.33	295.43	0.00000
P2	537.78	420.15	0.00103
P3	304.33	511.37	0.00207
P4	190.68	627.39	0.00507
P5	0.01	524.79	0.00848
Pmin	-842.40	0.00	0.20000

PT	P	My(-)	max es
P0	1049.47	-149.93	-0.00049
P1	872.23	-233.60	0.00000
P2	573.10	-321.22	0.00103
P3	330.87	-371.98	0.00207
P4	-31.41	-464.17	0.00507
P5	0.02	-461.22	0.00481
Pmin	-842.40	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

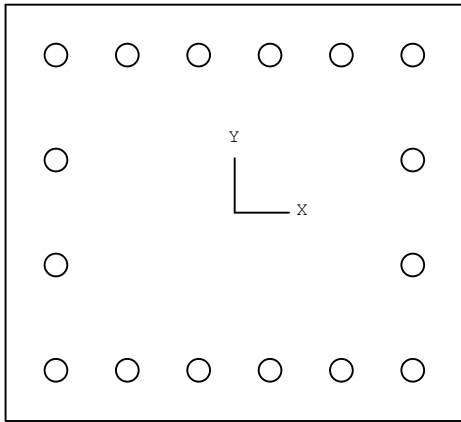
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_16#9\_NX4\_NY6\_cc2.439



Section 142 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

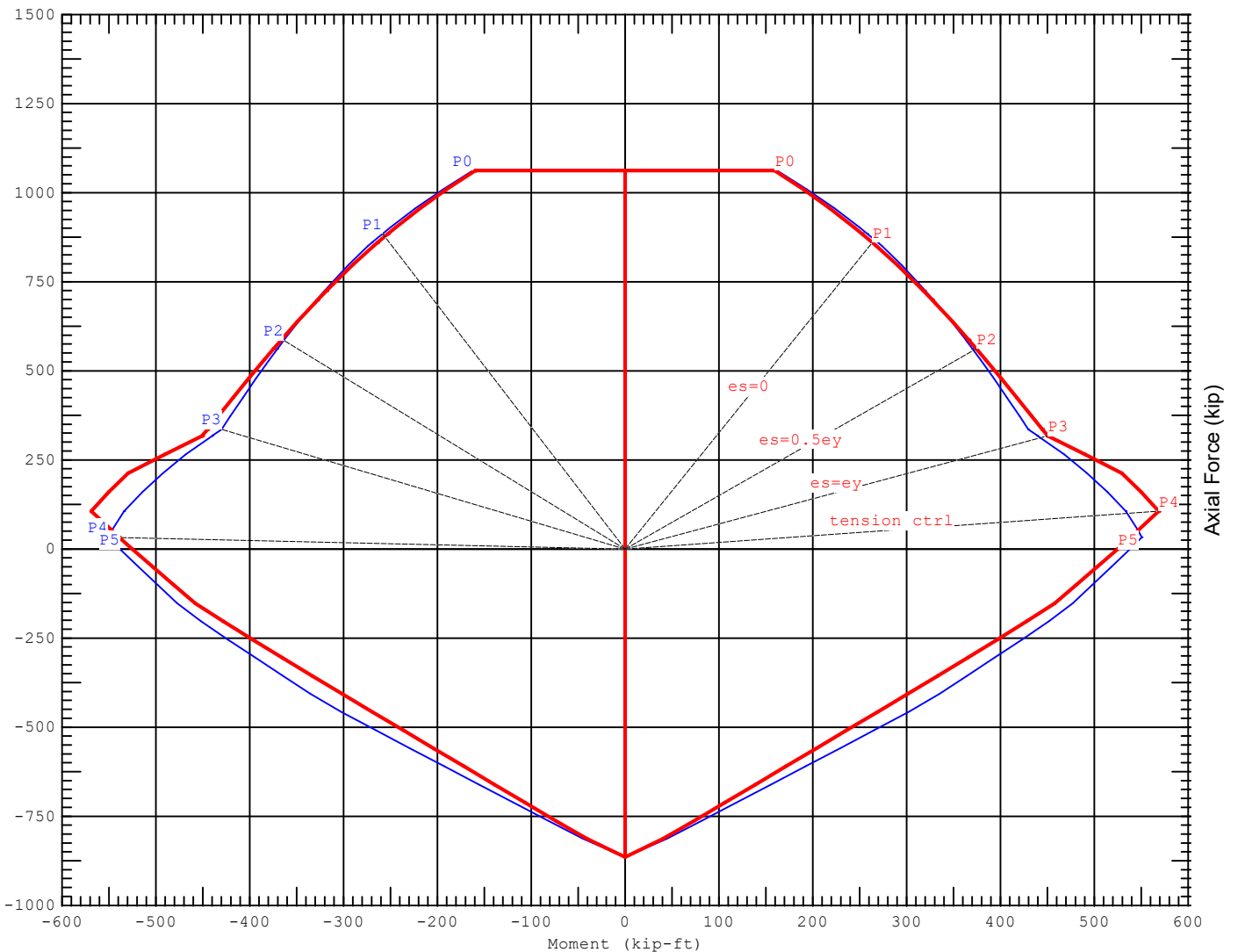
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 3.64%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.30 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1061.41	159.06	-0.00056
P1	859.12	263.05	0.00000
P2	561.46	373.47	0.00103
P3	317.44	449.31	0.00207
P4	105.94	567.51	0.00507
P5	-0.00	523.76	0.00651
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1061.42	-161.90	-0.00050
P1	884.09	-257.70	0.00000
P2	584.86	-362.87	0.00103
P3	335.49	-428.97	0.00207
P4	33.09	-549.54	0.00507
P5	-0.00	-536.84	0.00545
Pmin	-864.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

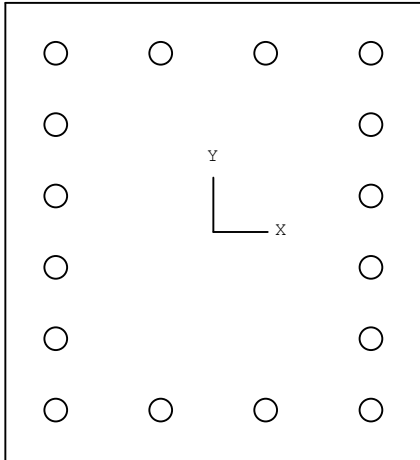
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_16#9\_NX6\_NY4\_cc2.439



Section 143 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

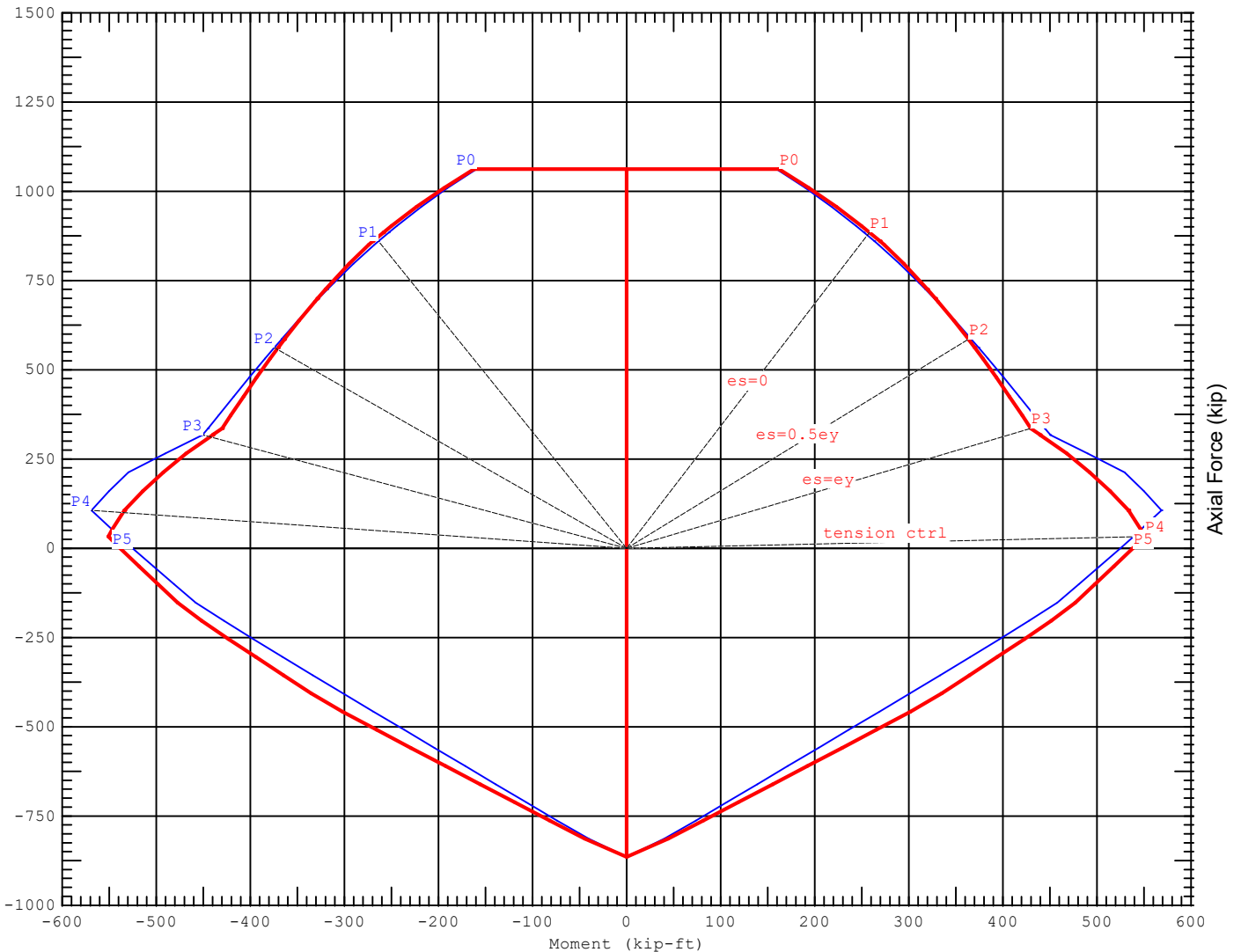
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 3.64%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.30 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1061.42	161.90	-0.00050
P1	884.09	257.70	0.00000
P2	584.86	362.87	0.00103
P3	335.49	428.97	0.00207
P4	33.09	549.54	0.00507
P5	-0.00	536.84	0.00545
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1061.41	-159.06	-0.00056
P1	859.12	-263.05	0.00000
P2	561.46	-373.47	0.00103
P3	317.44	-449.31	0.00207
P4	105.94	-567.51	0.00507
P5	-0.00	-523.76	0.00651
Pmin	-864.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

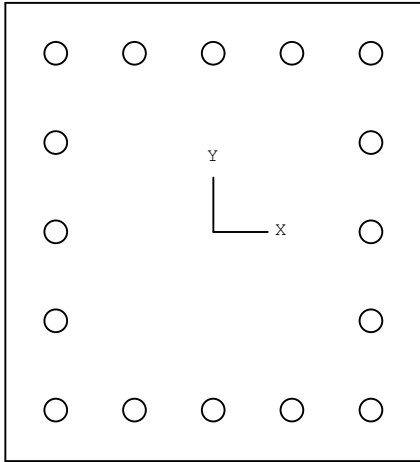
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_16#9\_NX5\_NY5\_cc2.439



Section 144 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

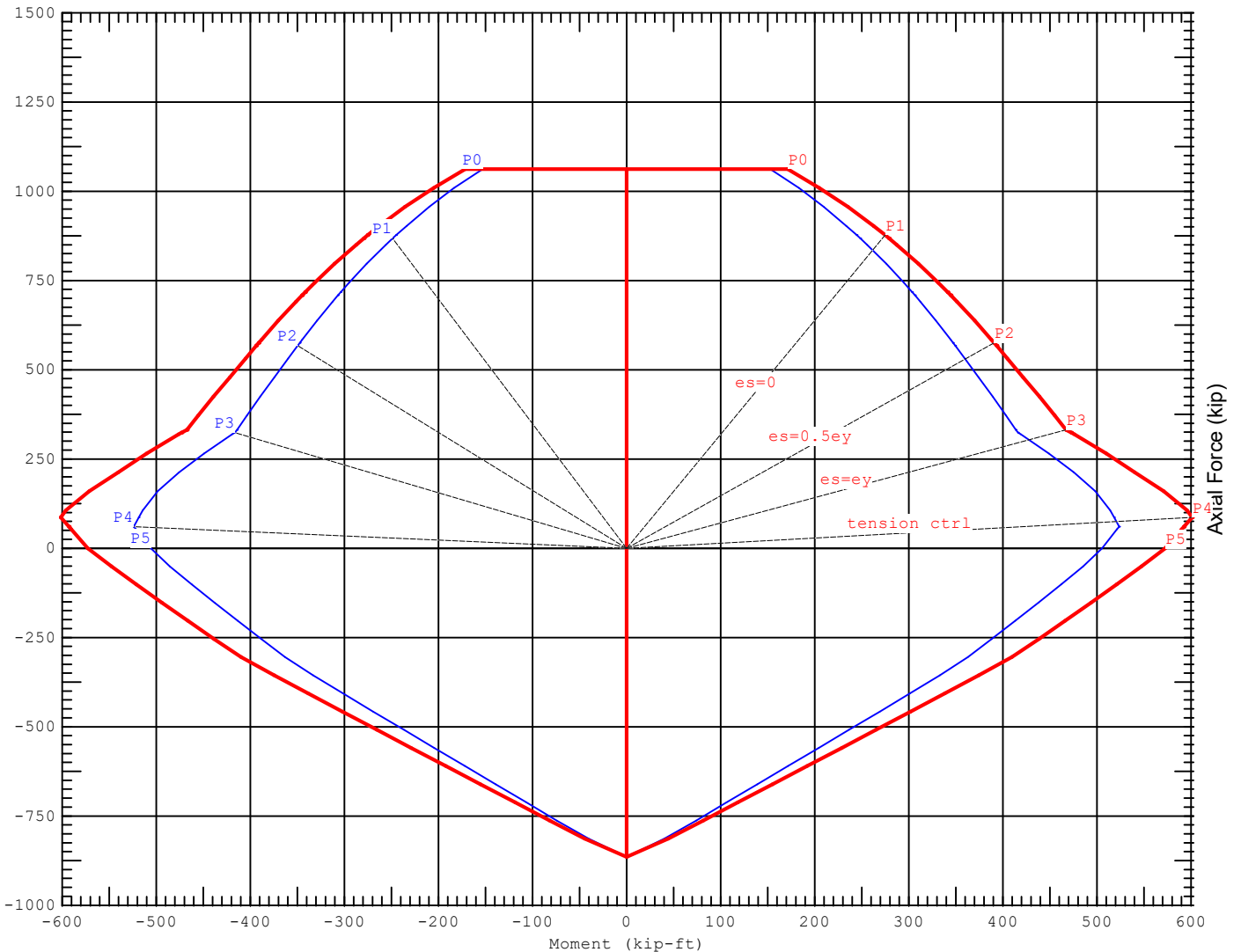
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 3.64%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1061.42	171.06	-0.00052
P1	876.44	274.26	0.00000
P2	575.14	389.89	0.00103
P3	331.51	466.25	0.00207
P4	86.13	599.86	0.00507
P5	-0.00	571.33	0.00597
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1061.42	-152.57	-0.00054
P1	867.16	-248.04	0.00000
P2	566.79	-348.77	0.00103
P3	323.38	-415.26	0.00207
P4	60.16	-522.50	0.00507
P5	0.00	-504.35	0.00568
Pmin	-864.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

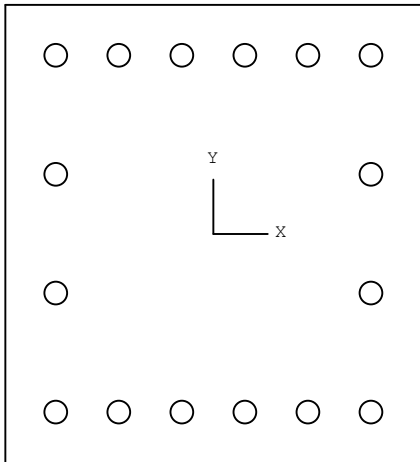
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_16#9\_NX4\_NY6\_cc2.439



Section 145 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

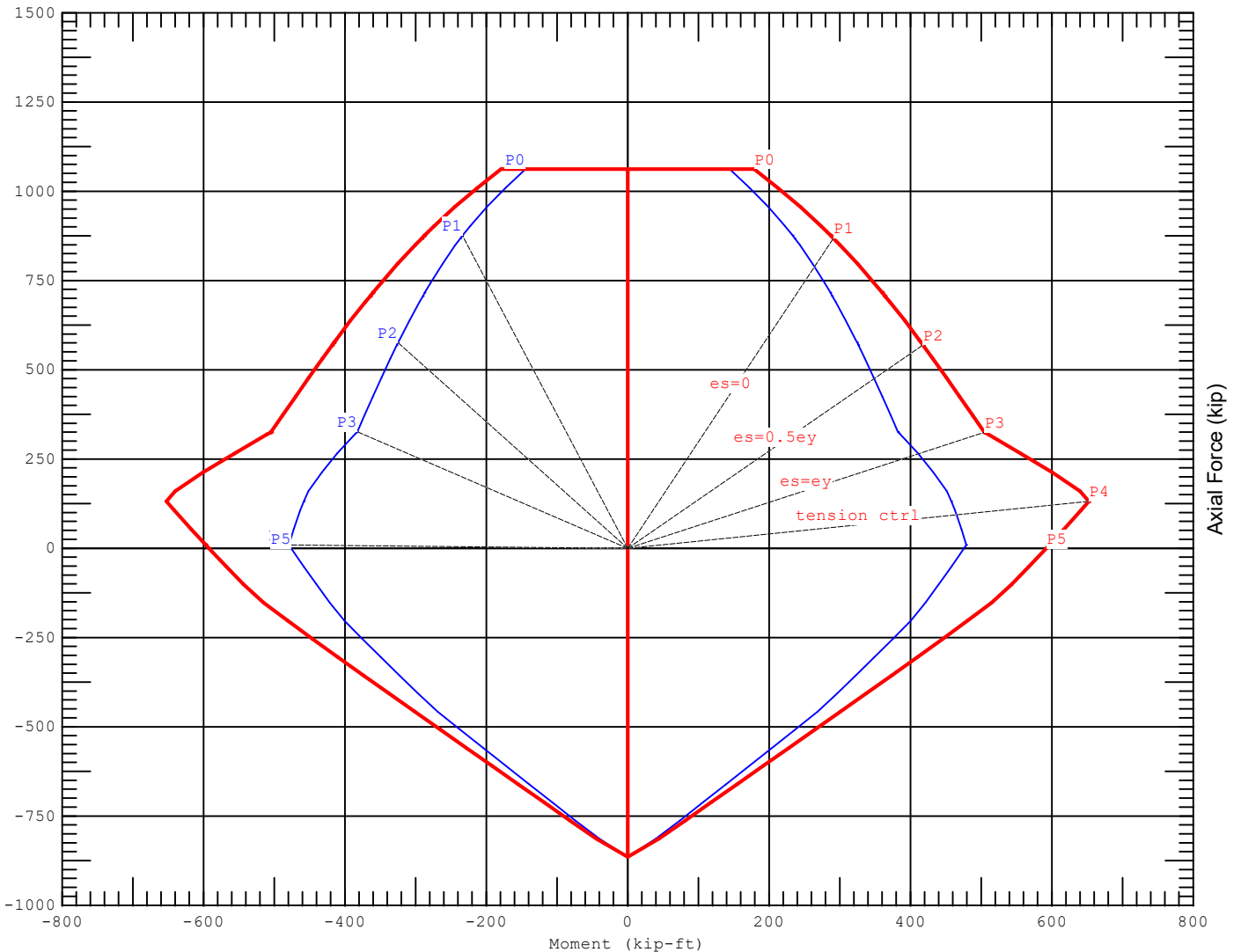
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 3.64%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1061.42	178.89	-0.00054
P1	867.60	291.09	0.00000
P2	568.73	417.64	0.00103
P3	324.22	504.53	0.00207
P4	131.41	652.31	0.00507
P5	-0.01	592.16	0.00695
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1061.42	-144.41	-0.00052
P1	875.20	-233.72	0.00000
P2	575.43	-324.70	0.00103
P3	326.00	-382.08	0.00207
P4	9.22	-479.09	0.00507
P5	-0.01	-475.90	0.00517
Pmin	-864.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

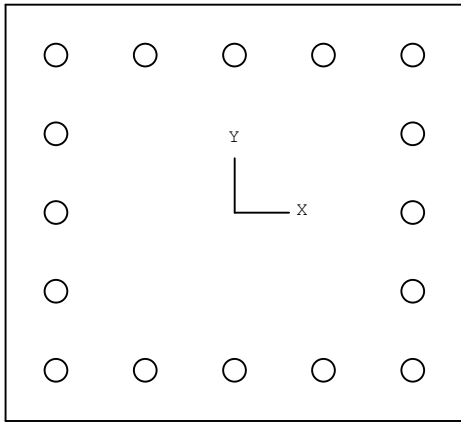
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_16#9\_NX5\_NY5\_cc2.439



Section 146 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

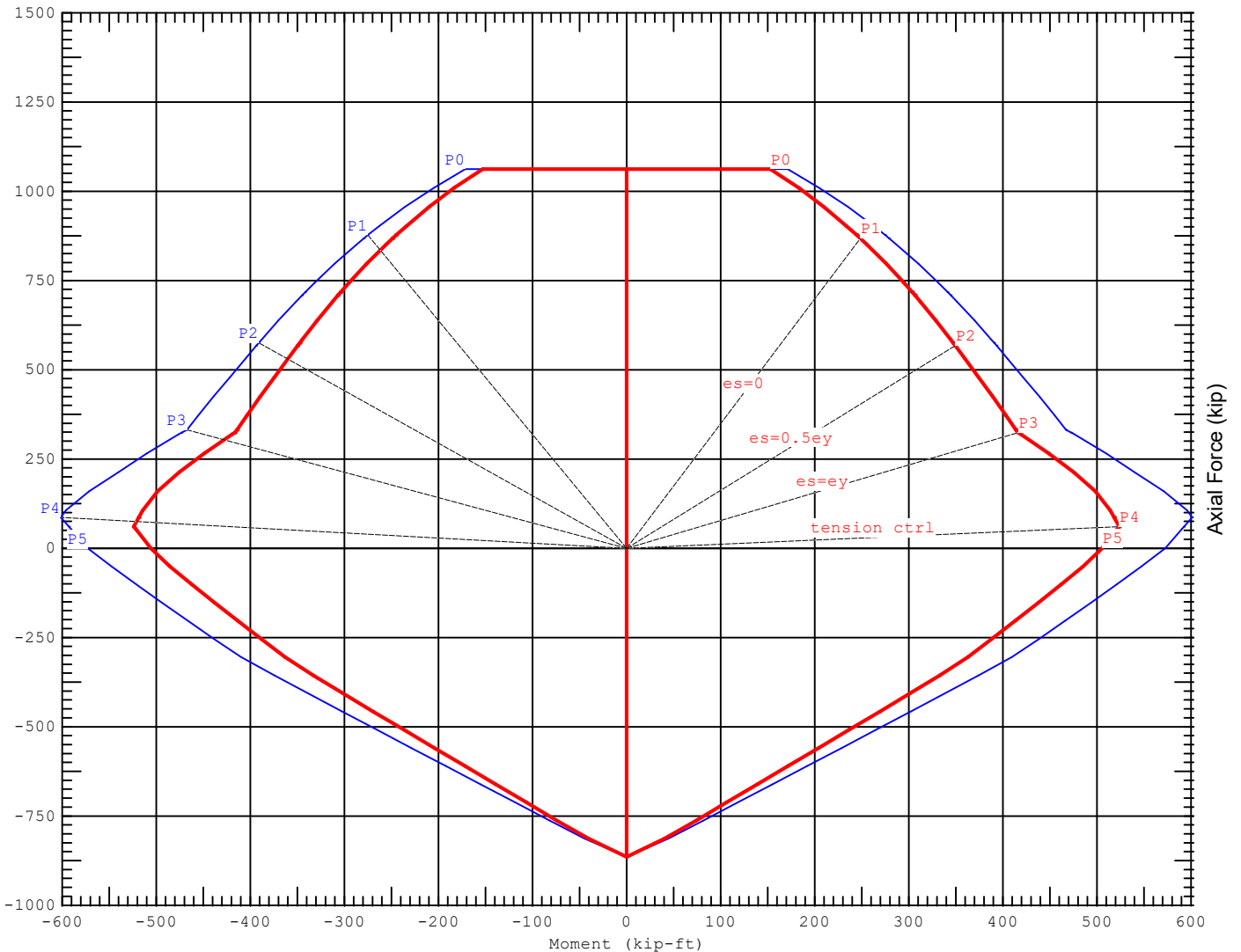
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 3.64%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1061.42	152.57	-0.00054
P1	867.16	248.04	0.00000
P2	566.79	348.77	0.00103
P3	323.38	415.26	0.00207
P4	60.16	522.50	0.00507
P5	0.00	504.35	0.00568
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1061.42	-171.06	-0.00052
P1	876.44	-274.26	0.00000
P2	575.14	-389.89	0.00103
P3	331.51	-466.25	0.00207
P4	86.13	-599.86	0.00507
P5	-0.00	-571.33	0.00597
Pmin	-864.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

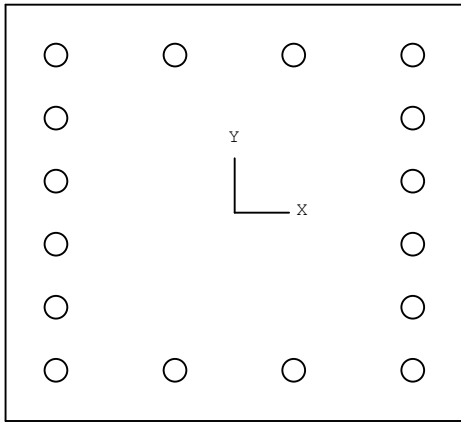
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_16#9\_NX6\_NY4\_cc2.439



Section 147 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 16 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 16.00 in<sup>2</sup>  
 Roh: 3.64%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

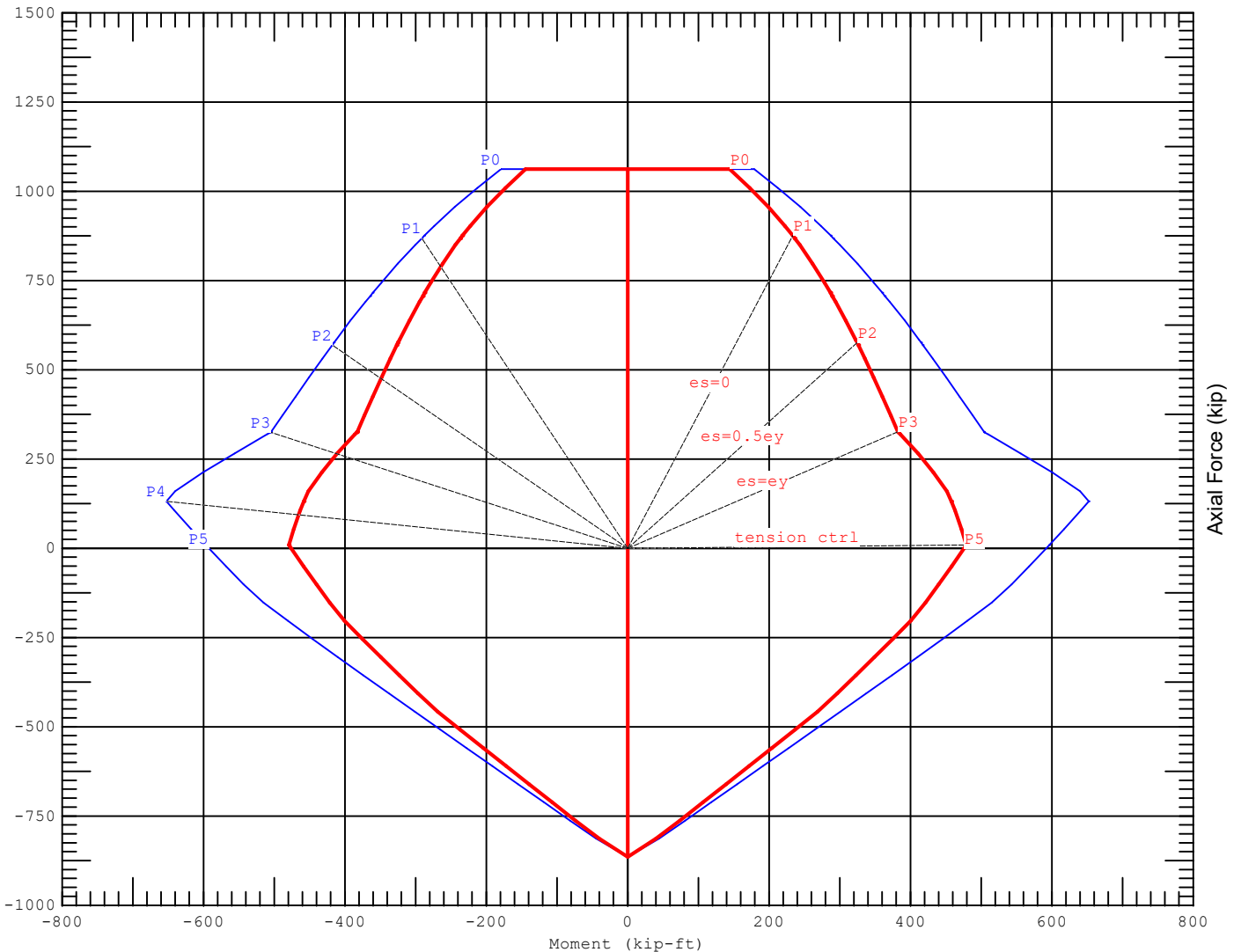
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1061.42	144.41	-0.00052
P1	875.20	233.72	0.00000
P2	575.43	324.70	0.00103
P3	326.00	382.08	0.00207
P4	9.22	479.09	0.00507
P5	-0.01	475.90	0.00517
Pmin	-864.00	0.00	0.20000

PT	P	My(-)	max es
P0	1061.42	-178.89	-0.00054
P1	867.60	-291.09	0.00000
P2	568.73	-417.64	0.00103
P3	324.22	-504.53	0.00207
P4	131.41	-652.31	0.00507
P5	-0.01	-592.16	0.00695
Pmin	-864.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

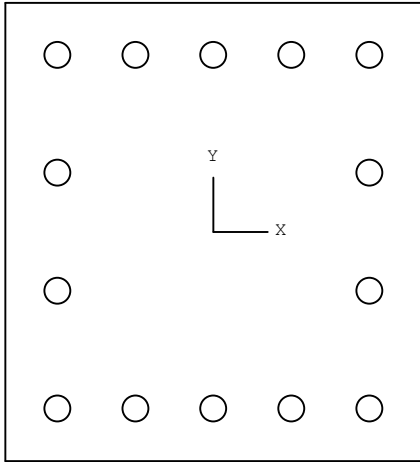
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#10\_NX4\_NY5\_cc2.51



Section 148 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

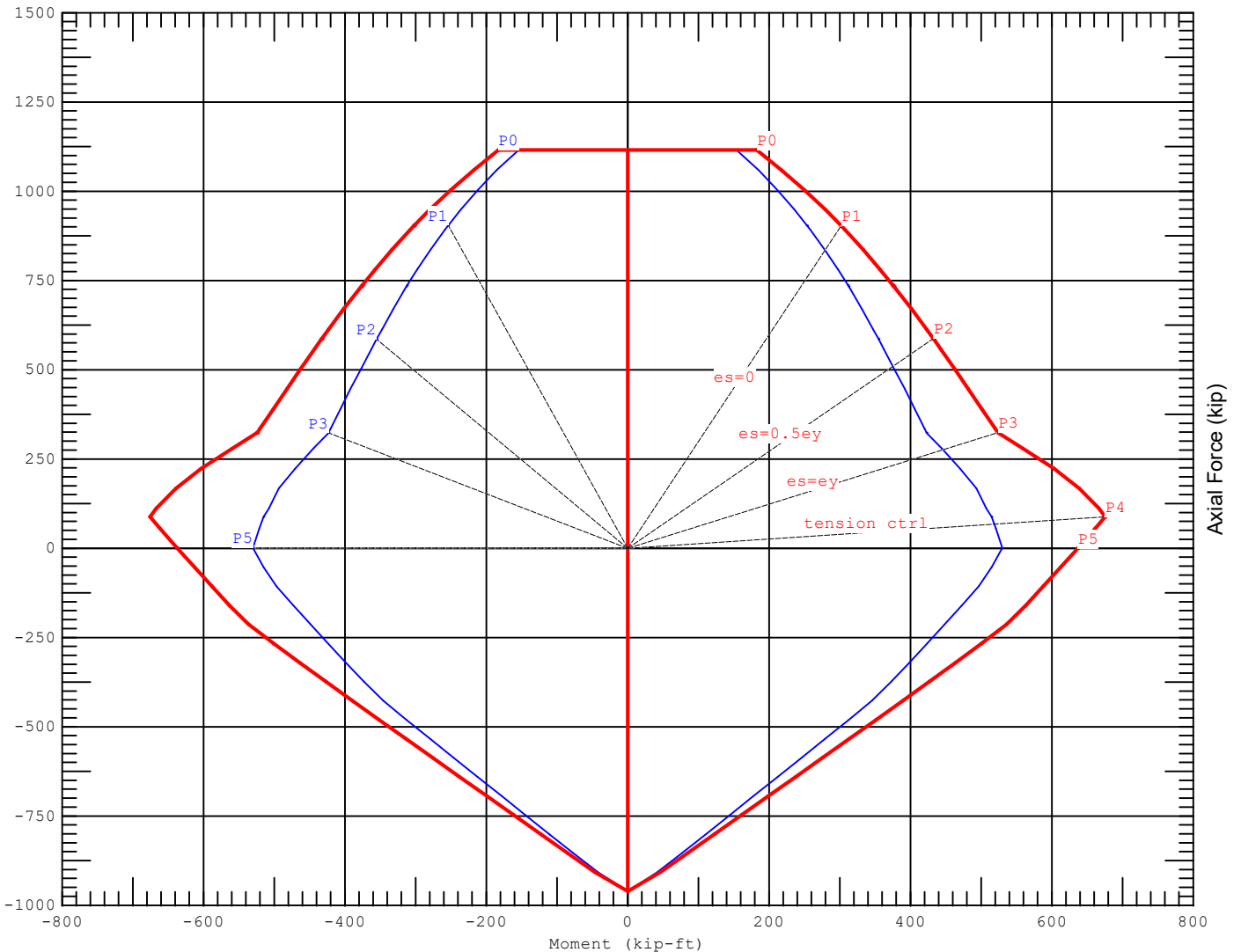
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 14 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 17.78 in<sup>2</sup>  
 Roh: 4.04%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1114.59	182.53	-0.00056
P1	903.02	301.94	0.00000
P2	586.68	432.34	0.00103
P3	323.61	523.76	0.00207
P4	87.71	675.18	0.00507
P5	-0.01	636.74	0.00617
Pmin	-960.12	-0.00	0.20000

PT	P	My(-)	max es
P0	1114.60	-153.89	-0.00056
P1	903.71	-253.56	0.00000
P2	584.90	-354.98	0.00103
P3	322.83	-422.93	0.00207
P4	0.78	-529.84	0.00507
P5	0.01	-529.63	0.00508
Pmin	-960.12	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

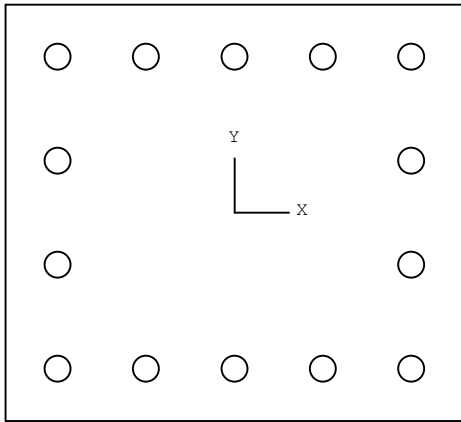
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#10\_NX4\_NY5\_cc2.51



Section 149 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 14 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 17.78 in<sup>2</sup>  
 Roh: 4.04%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.97 in

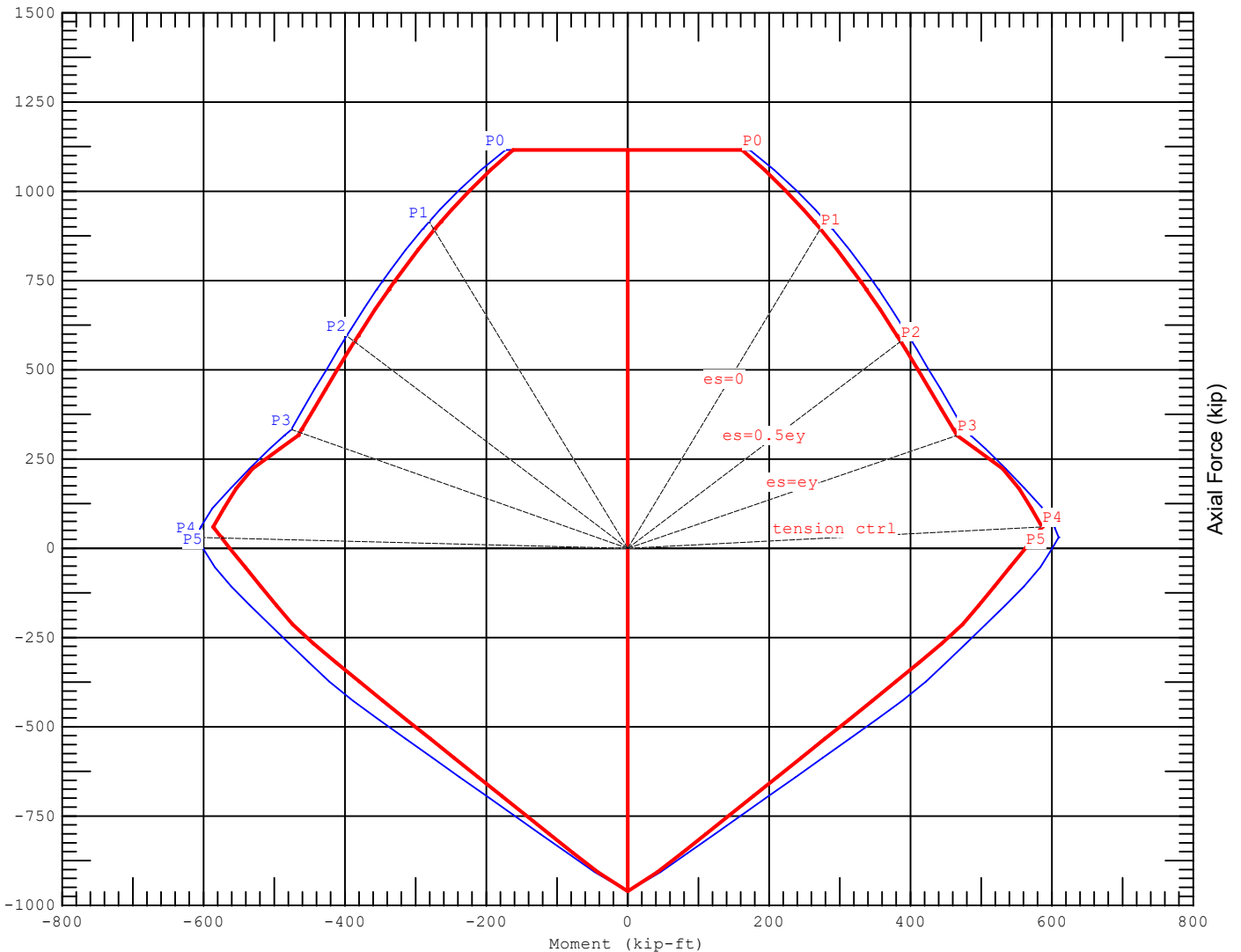
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1114.60	161.99	-0.00058
P1	893.84	272.49	0.00000
P2	578.58	386.14	0.00103
P3	315.85	465.86	0.00207
P4	59.12	585.94	0.00507
P5	-0.01	562.57	0.00577
Pmin	-960.12	0.00	0.20000

PT	P	My(-)	max es
P0	1114.60	-172.70	-0.00053
P1	913.96	-280.68	0.00000
P2	594.43	-397.30	0.00103
P3	332.38	-475.45	0.00207
P4	30.02	-609.66	0.00507
P5	-0.00	-600.45	0.00534
Pmin	-960.12	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

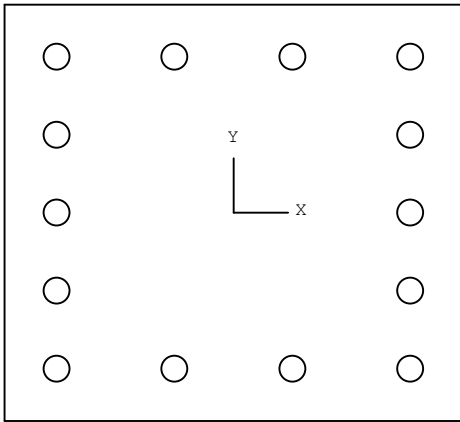
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#10\_NX5\_NY4\_cc2.51



Section 150 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

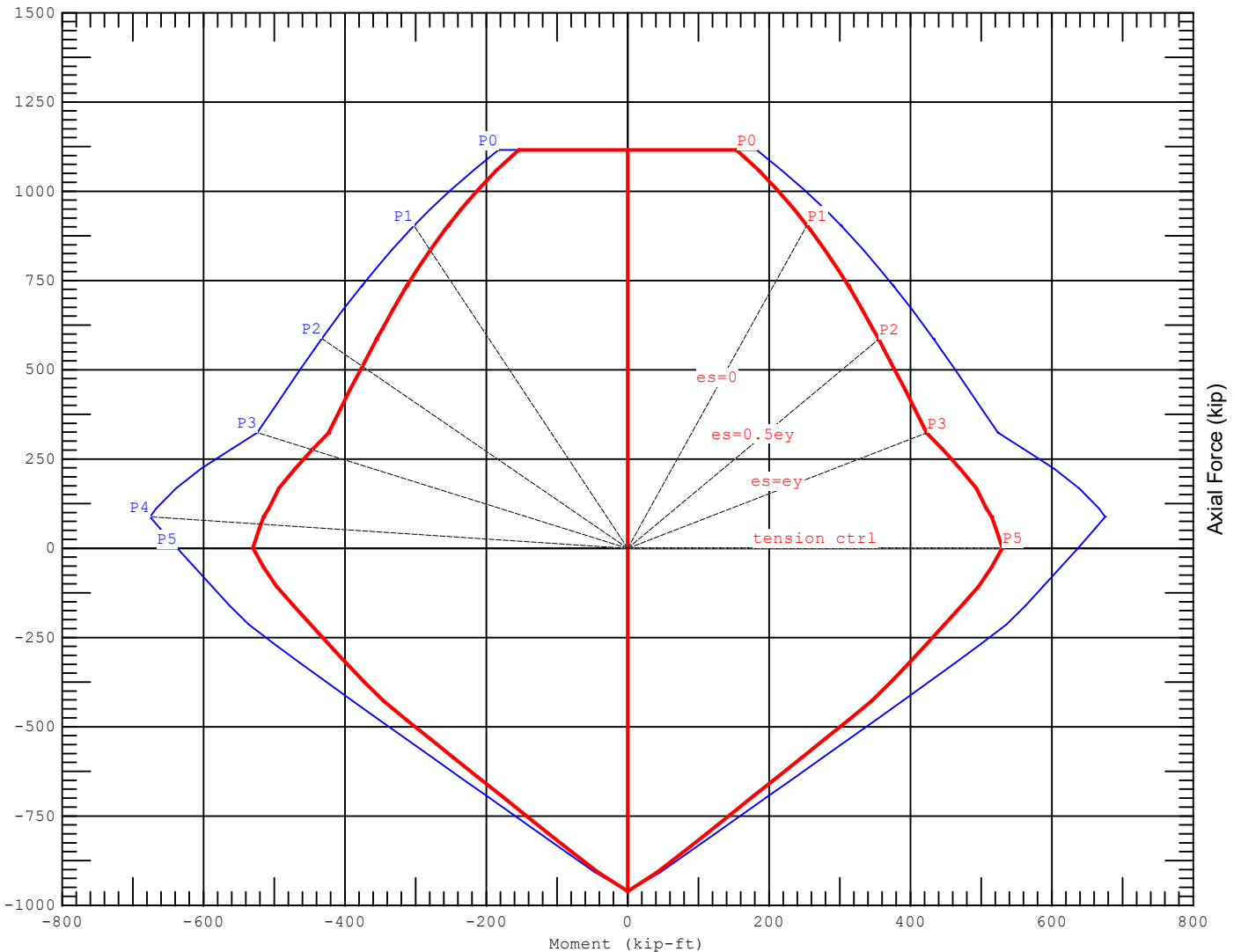
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 14 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 17.78 in<sup>2</sup>  
 Roh: 4.04%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1114.60	153.89	-0.00056
P1	903.71	253.56	0.00000
P2	584.90	354.98	0.00103
P3	322.83	422.93	0.00207
P4	0.78	529.84	0.00507
P5	0.01	529.63	0.00508
Pmin	-960.12	0.00	0.20000

PT	P	My(-)	max es
P0	1114.59	-182.53	-0.00056
P1	903.02	-301.94	0.00000
P2	586.68	-432.34	0.00103
P3	323.61	-523.76	0.00207
P4	87.71	-675.18	0.00507
P5	-0.01	-636.74	0.00617
Pmin	-960.12	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

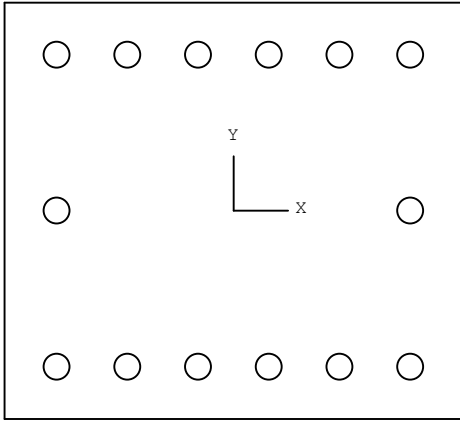
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#10\_NX3\_NY6\_cc2.51



Section 151 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 14 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 17.78 in<sup>2</sup>  
 Roh: 4.04%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.13 in

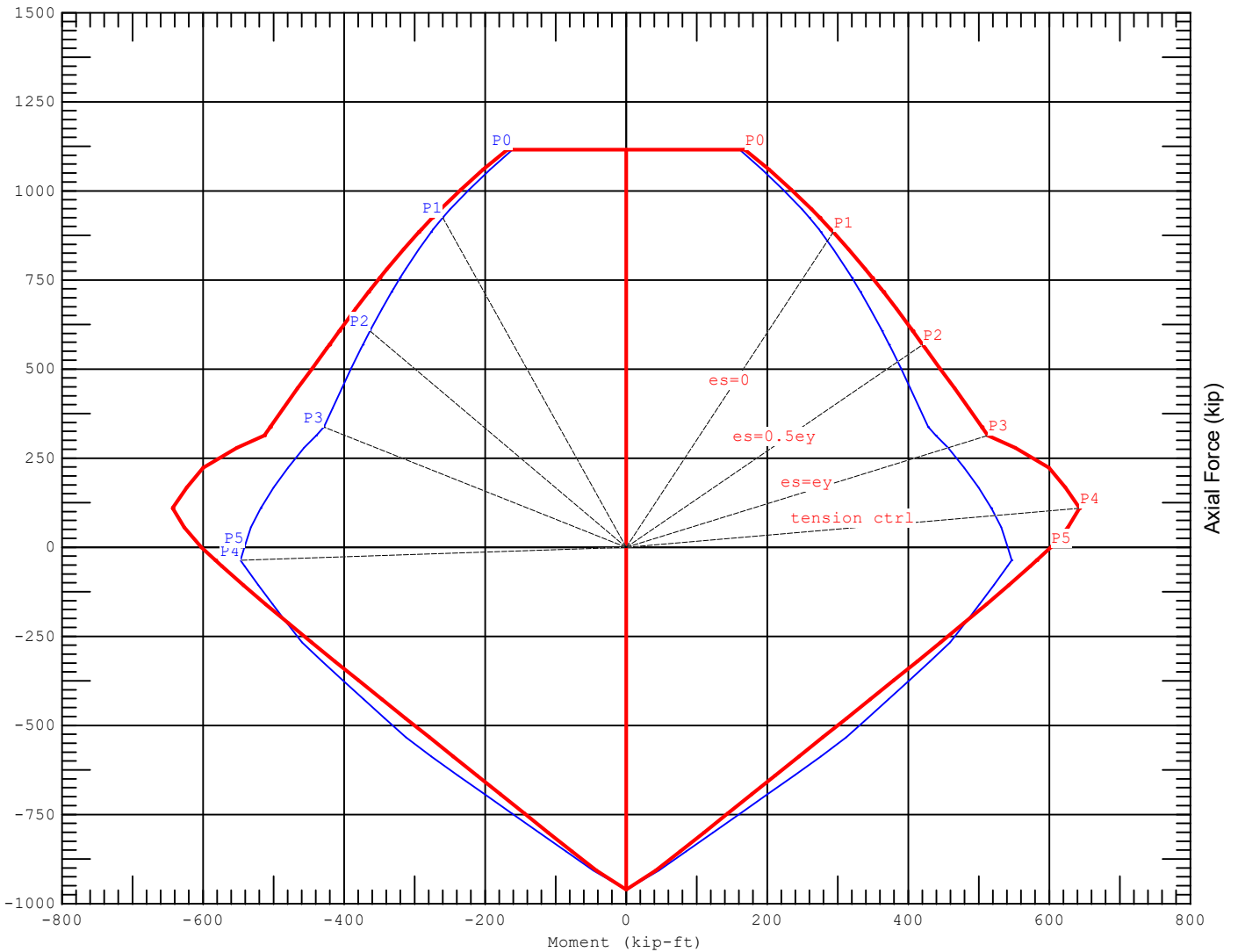
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1114.60	168.38	-0.00061
P1	883.96	293.56	0.00000
P2	568.05	420.60	0.00103
P3	313.08	512.84	0.00207
P4	109.49	642.87	0.00507
P5	-0.01	602.17	0.00643
Pmin	-960.12	-0.00	0.20000

PT	P	My(-)	max es
P0	1114.60	-161.13	-0.00051
P1	923.84	-259.96	0.00000
P2	606.38	-363.20	0.00103
P3	336.93	-428.40	0.00207
P4	-36.57	-546.72	0.00507
P5	-0.01	-541.20	0.00473
Pmin	-960.12	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

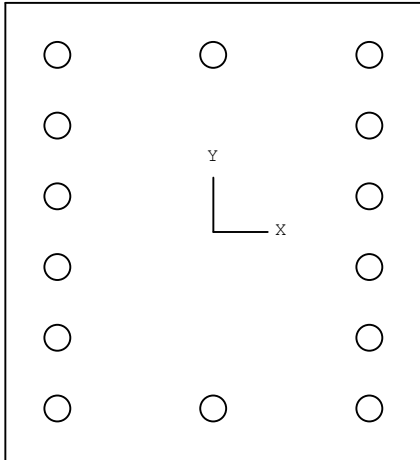
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#10\_NX6\_NY3\_cc2.51



Section 152 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

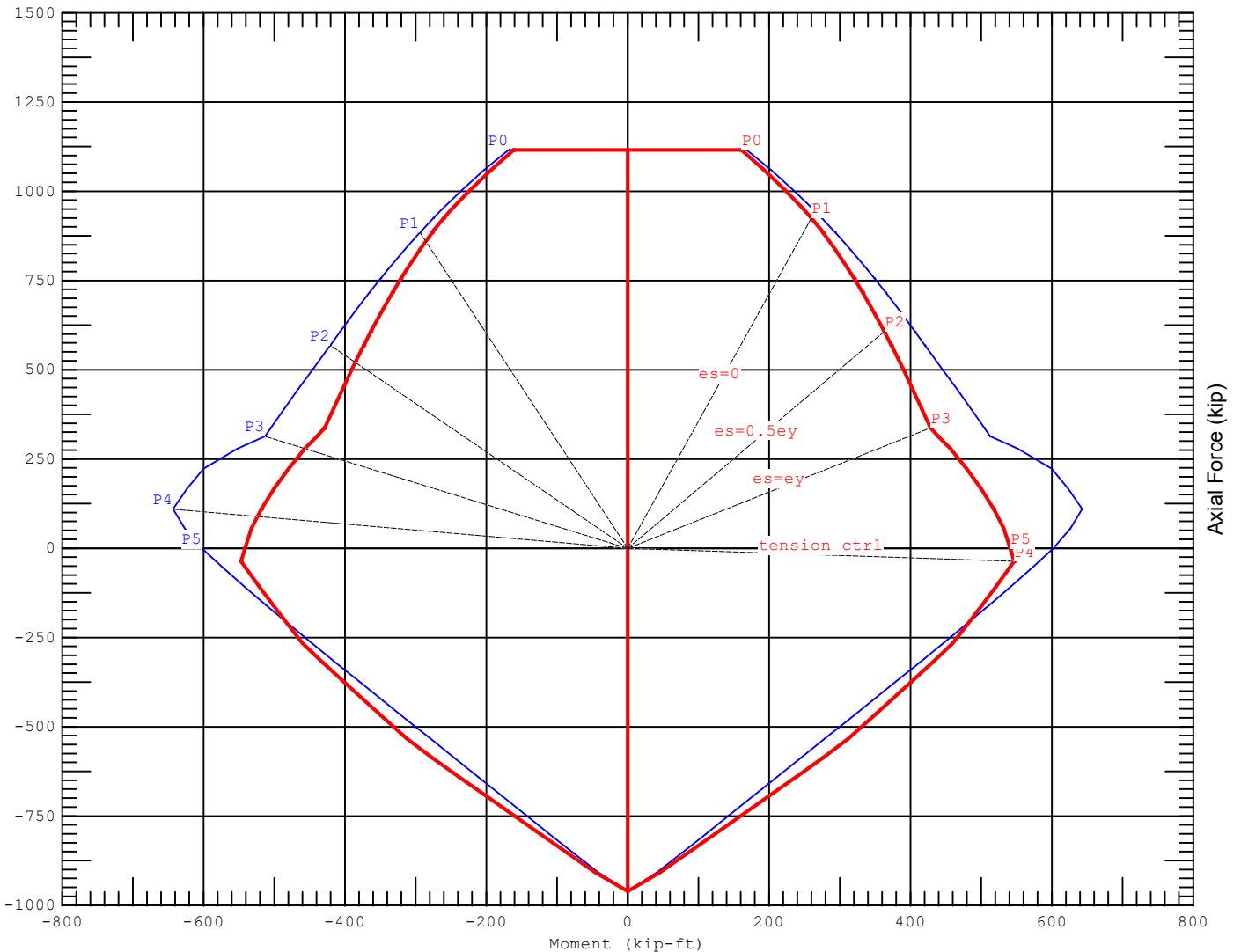
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 14 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 17.78 in<sup>2</sup>  
 Roh: 4.04%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.13 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1114.60	161.13	-0.00051
P1	923.84	259.96	0.00000
P2	606.38	363.20	0.00103
P3	336.93	428.40	0.00207
P4	-36.57	546.72	0.00507
P5	-0.01	541.20	0.00473
Pmin	-960.12	0.00	0.20000

PT	P	My(-)	max es
P0	1114.60	-168.38	-0.00061
P1	883.96	-293.56	0.00000
P2	568.05	-420.60	0.00103
P3	313.08	-512.84	0.00207
P4	109.49	-642.87	0.00507
P5	-0.01	-602.17	0.00643
Pmin	-960.12	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

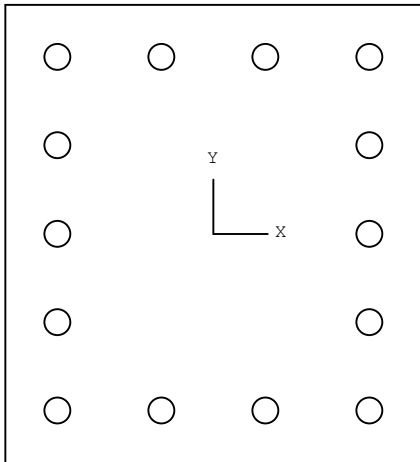
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#10\_NX5\_NY4\_cc2.51



Section 153 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

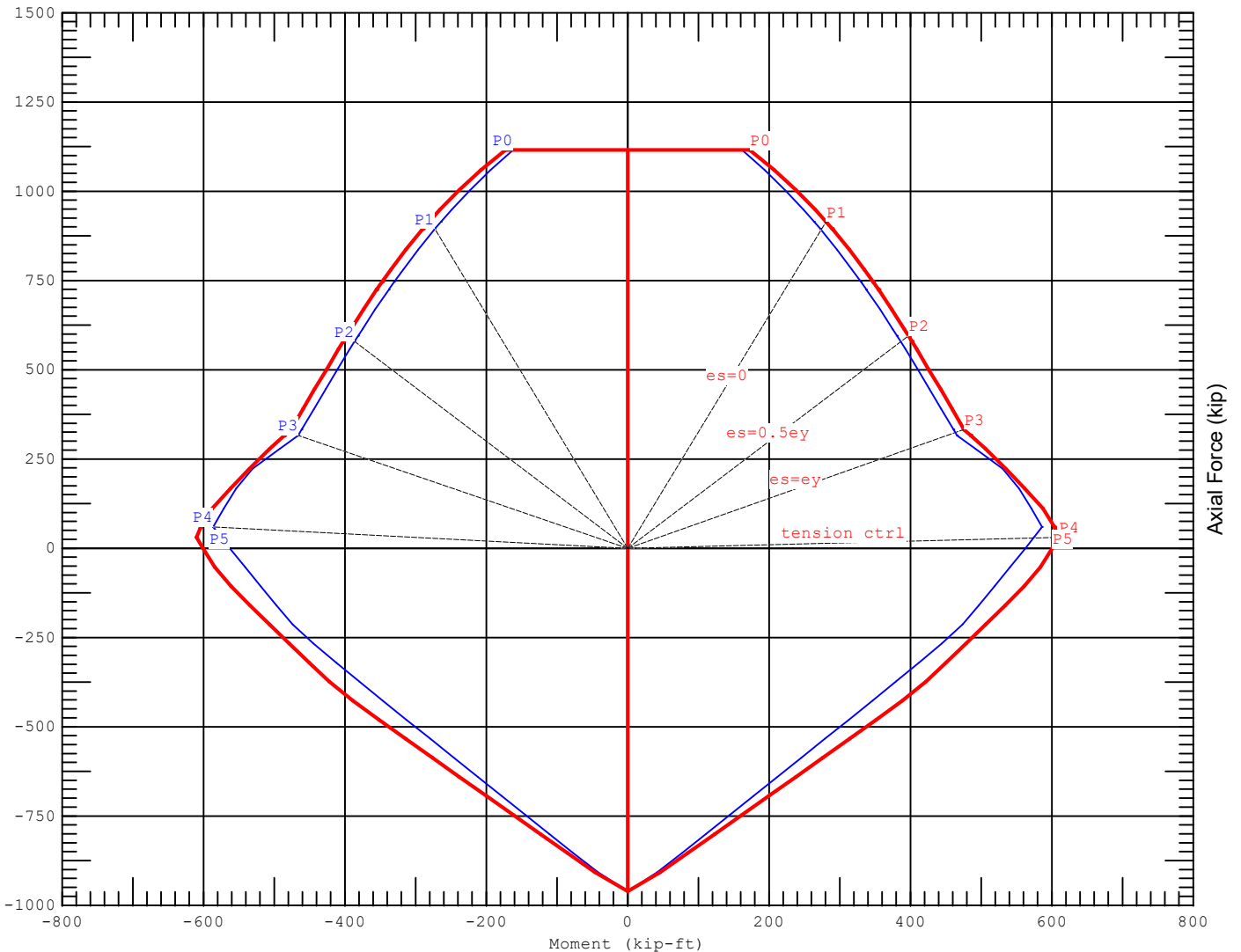
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 14 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 17.78 in<sup>2</sup>  
 Roh: 4.04%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.97 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1114.60	172.70	-0.00053
P1	913.96	280.68	0.00000
P2	594.43	397.30	0.00103
P3	332.38	475.45	0.00207
P4	30.02	609.66	0.00507
P5	-0.00	600.45	0.00534
Pmin	-960.12	0.00	0.20000

PT	P	My(-)	max es
P0	1114.60	-161.99	-0.00058
P1	893.84	-272.49	0.00000
P2	578.58	-386.14	0.00103
P3	315.85	-465.86	0.00207
P4	59.12	-585.94	0.00507
P5	-0.01	-562.57	0.00577
Pmin	-960.12	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

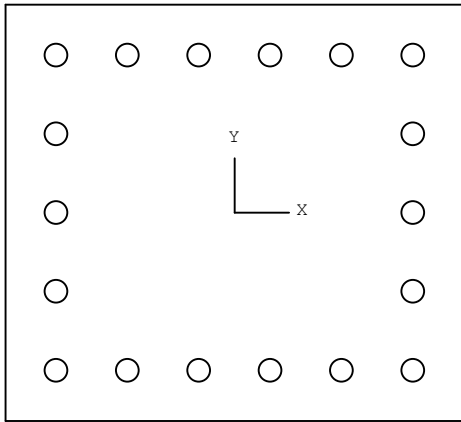
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_18#9\_NX5\_NY6\_cc2.439



Section 154 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 18 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.00 in<sup>2</sup>  
 Roh: 4.09%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.30 in

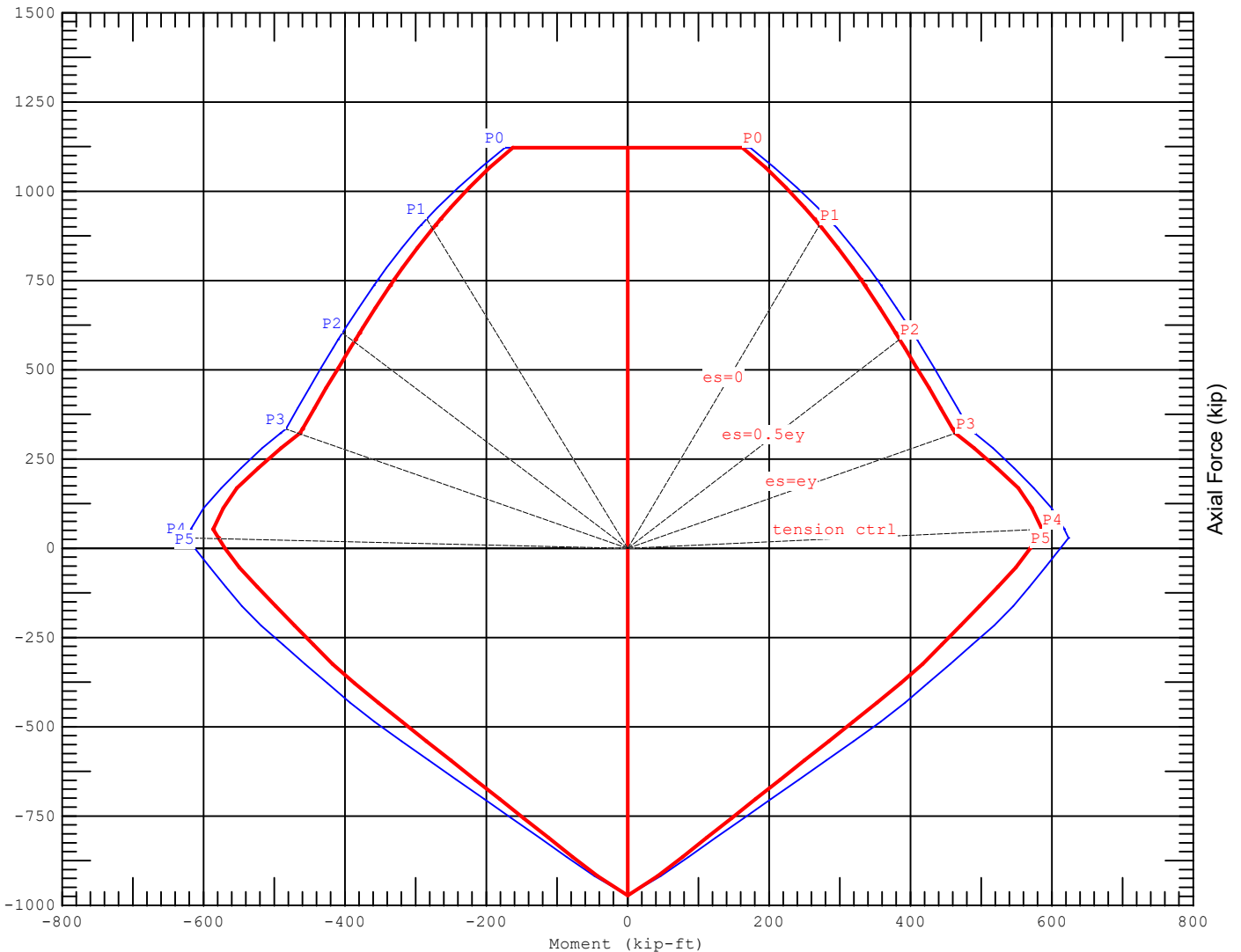
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1121.16	162.17	-0.00057
P1	904.51	271.57	0.00000
P2	584.63	384.58	0.00103
P3	321.72	463.36	0.00207
P4	52.91	585.98	0.00507
P5	0.01	569.44	0.00558
Pmin	-972.00	0.00	0.20000

PT	P	My(-)	max es
P0	1121.17	-173.46	-0.00053
P1	921.43	-284.34	0.00000
P2	602.70	-403.43	0.00103
P3	333.84	-483.44	0.00207
P4	28.84	-623.56	0.00507
P5	-0.00	-612.17	0.00539
Pmin	-972.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

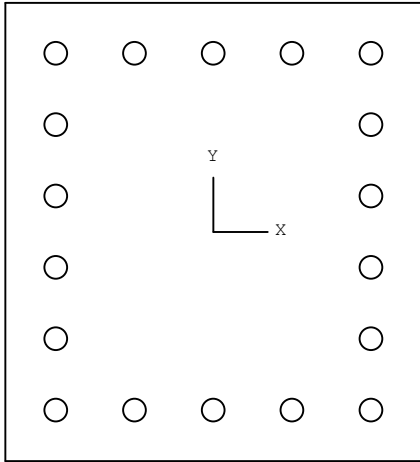
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_18#9\_NX6\_NY5\_cc2.439



Section 155 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

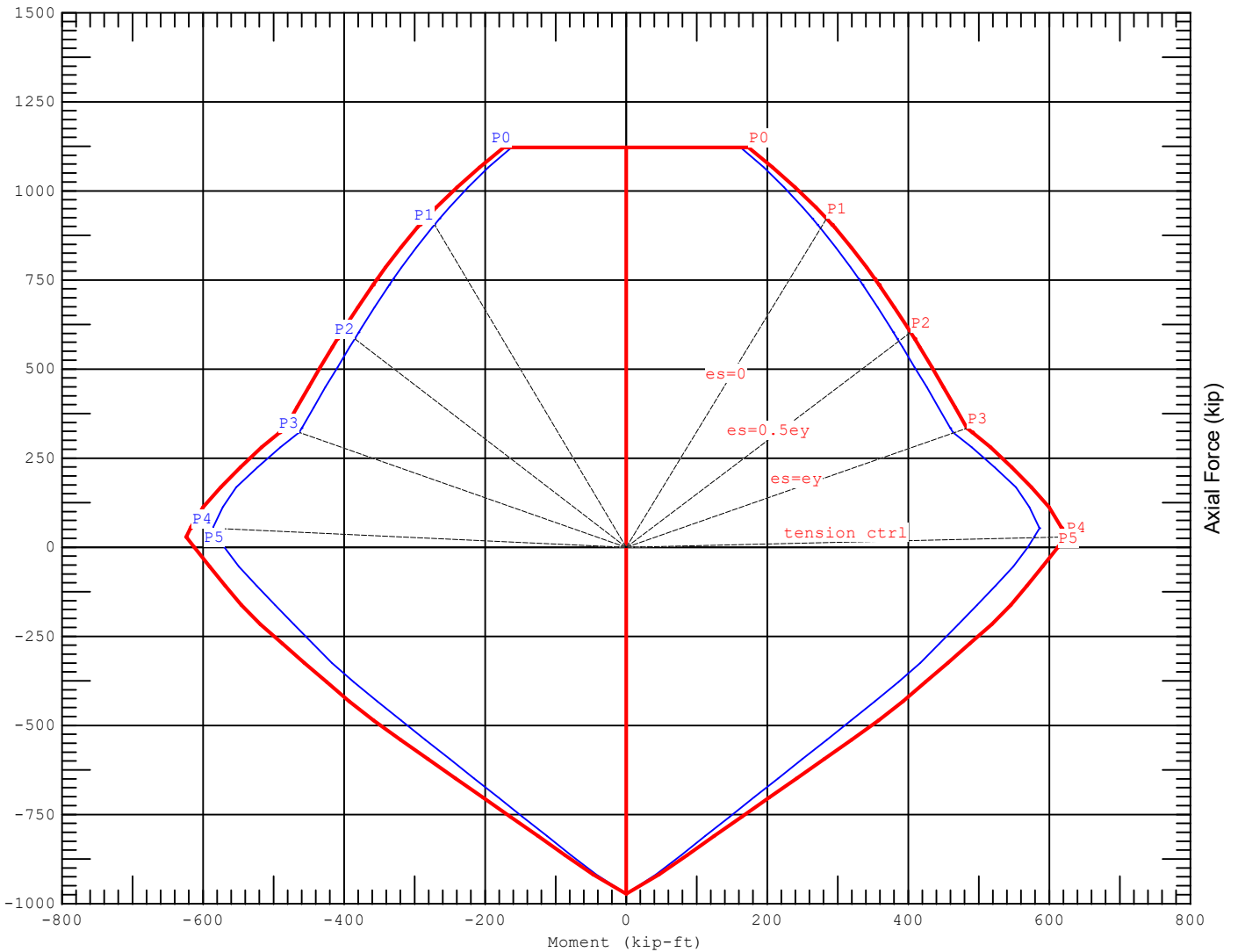
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 18 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.00 in<sup>2</sup>  
 Roh: 4.09%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.30 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1121.17	173.46	-0.00053
P1	921.43	284.34	0.00000
P2	602.70	403.43	0.00103
P3	333.84	483.44	0.00207
P4	28.84	623.56	0.00507
P5	-0.00	612.17	0.00539
Pmin	-972.00	0.00	0.20000

PT	P	My(-)	max es
P0	1121.16	-162.17	-0.00057
P1	904.51	-271.57	0.00000
P2	584.63	-384.58	0.00103
P3	321.72	-463.36	0.00207
P4	52.91	-585.98	0.00507
P5	0.01	-569.44	0.00558
Pmin	-972.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

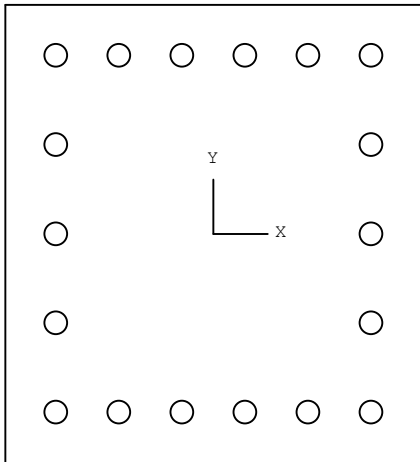
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_18#9\_NX5\_NY6\_cc2.439



Section 156 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

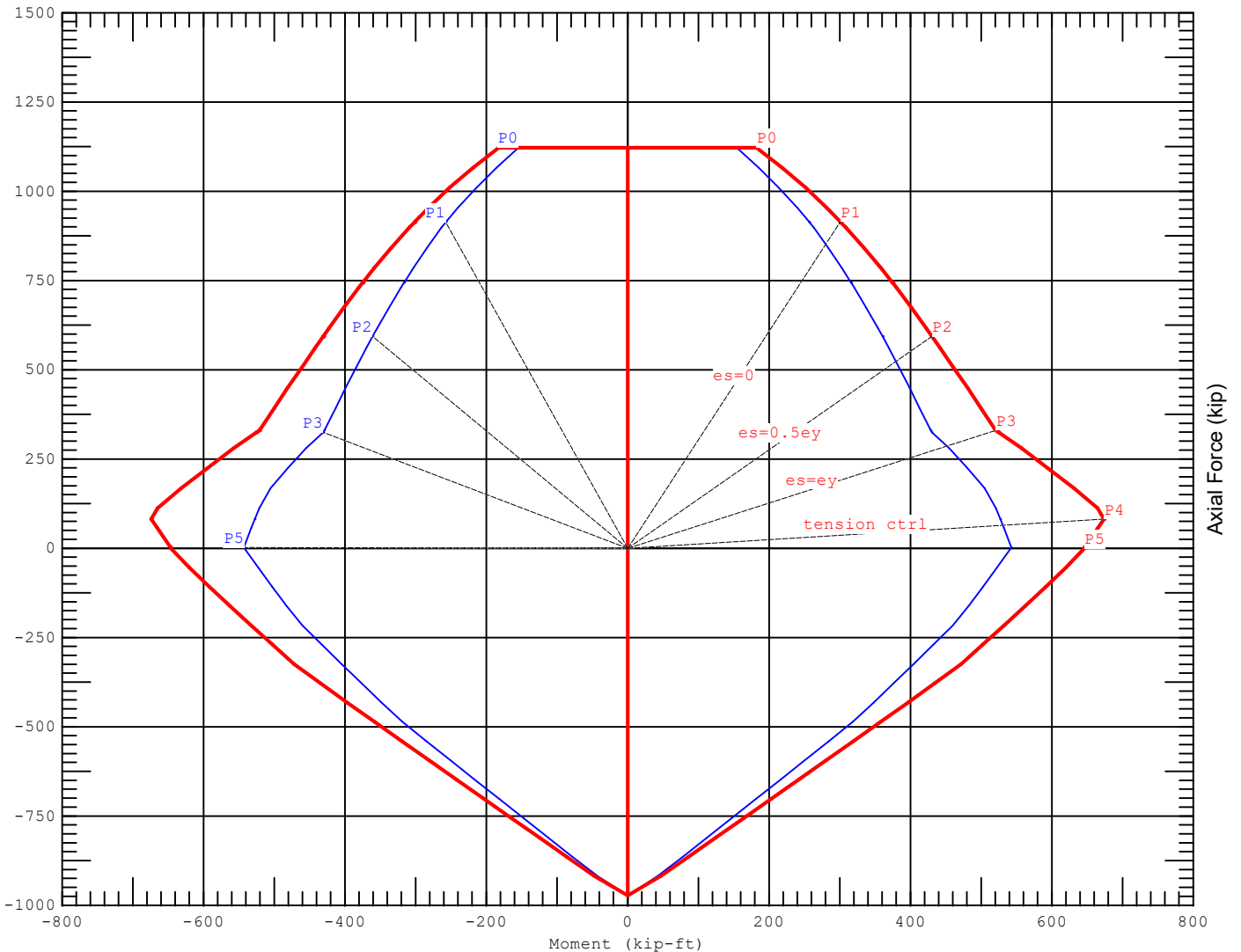
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 18 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.00 in<sup>2</sup>  
 Roh: 4.09%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1121.17	182.06	-0.00055
P1	913.79	300.90	0.00000
P2	592.98	430.44	0.00103
P3	329.86	520.71	0.00207
P4	81.87	673.87	0.00507
P5	-0.01	645.75	0.00590
Pmin	-972.00	0.00	0.20000

PT	P	My(-)	max es
P0	1121.17	-154.48	-0.00055
P1	912.54	-257.25	0.00000
P2	593.27	-360.52	0.00103
P3	324.34	-430.19	0.00207
P4	1.97	-542.58	0.00507
P5	0.00	-541.88	0.00509
Pmin	-972.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

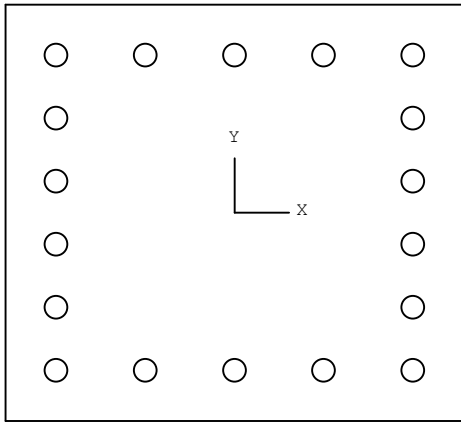
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_18#9\_NX6\_NY5\_cc2.439



Section 157 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 18 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.00 in<sup>2</sup>  
 Roh: 4.09%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

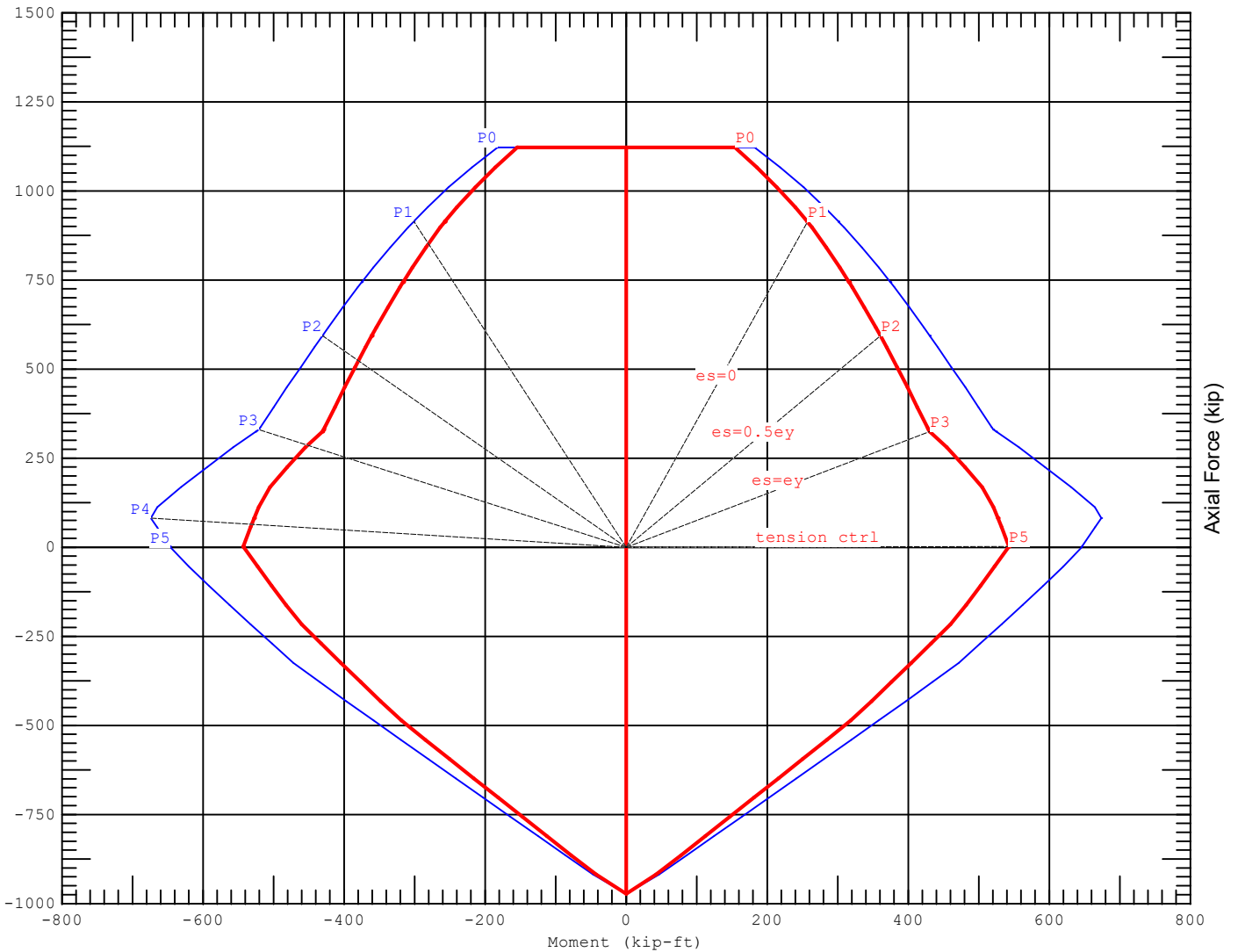
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1121.17	154.48	-0.00055
P1	912.54	257.25	0.00000
P2	593.27	360.52	0.00103
P3	324.34	430.19	0.00207
P4	1.97	542.58	0.00507
P5	0.00	541.88	0.00509
Pmin	-972.00	0.00	0.20000

PT	P	My(-)	max es
P0	1121.17	-182.06	-0.00055
P1	913.79	-300.90	0.00000
P2	592.98	-430.44	0.00103
P3	329.86	-520.71	0.00207
P4	81.87	-673.87	0.00507
P5	-0.01	-645.75	0.00590
Pmin	-972.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

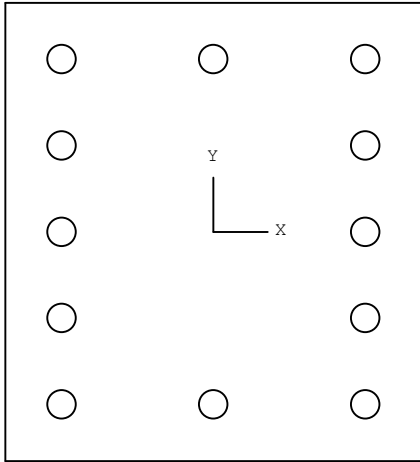
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#11\_NX5\_NY3\_cc2.705



Section 158 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

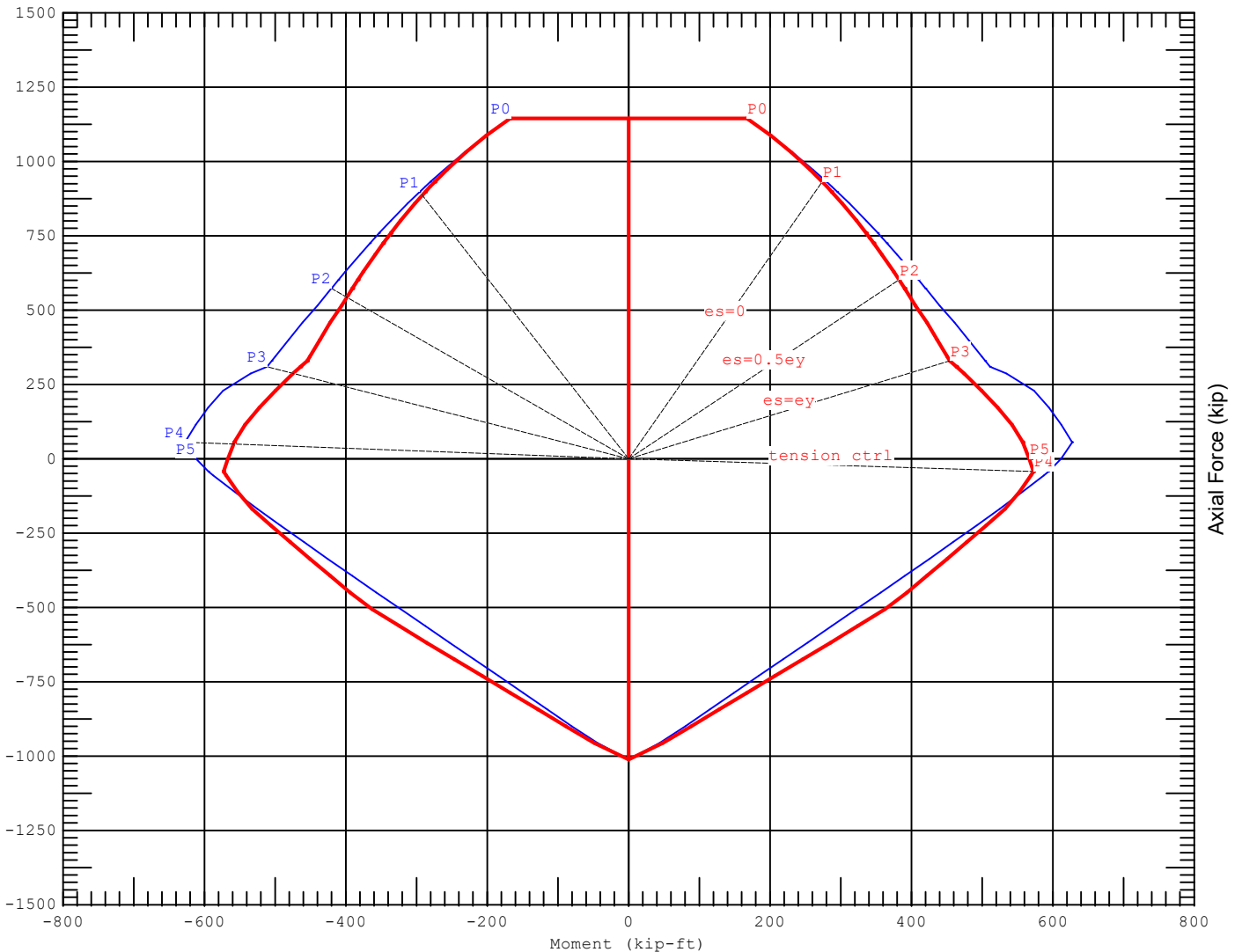
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 12 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.72 in<sup>2</sup>  
 Roh: 4.25%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.74 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1142.68	167.50	-0.00054
P1	930.49	273.86	0.00000
P2	600.94	382.51	0.00103
P3	328.29	454.30	0.00207
P4	-43.14	572.52	0.00507
P5	-0.01	566.52	0.00473
Pmin	-1010.88	0.00	0.20000

PT	P	My(-)	max es
P0	1142.68	-166.39	-0.00064
P1	896.58	-295.43	0.00000
P2	571.85	-420.15	0.00103
P3	308.40	-511.37	0.00207
P4	55.06	-627.39	0.00507
P5	0.01	-611.56	0.00556
Pmin	-1010.88	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

Engineer:

Date & Time: 05/18/2026 18:41

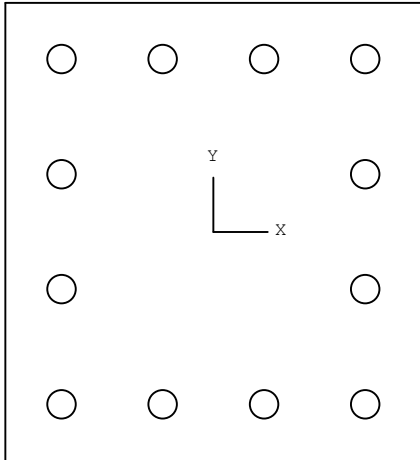
# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#11\_NX4\_NY4\_cc2.705

Code: ACI 318-19  
Strength reduction: Auto  
Neutral axis steps: 250  
Biaxial angle steps: 16  
Axial capacity steps: 20  
Excl. displ'd concrete: Yes

b x h: 20 x 22 in  
fc: 3.00 kip/in<sup>2</sup>  
fy: 60.00 kip/in<sup>2</sup>  
Cover (t.c): 2.705 in  
Bars: 12 # 11  
Confinement: Tied  
Ag: 440.00 in<sup>2</sup>  
As: 18.72 in<sup>2</sup>  
Roh: 4.25%  
Ix: 17746.7 in<sup>4</sup>  
Iy: 14666.7 in<sup>4</sup>  
X0: 0.00 in  
Y0: 0.00 in  
Clear spacing: 3.45 in



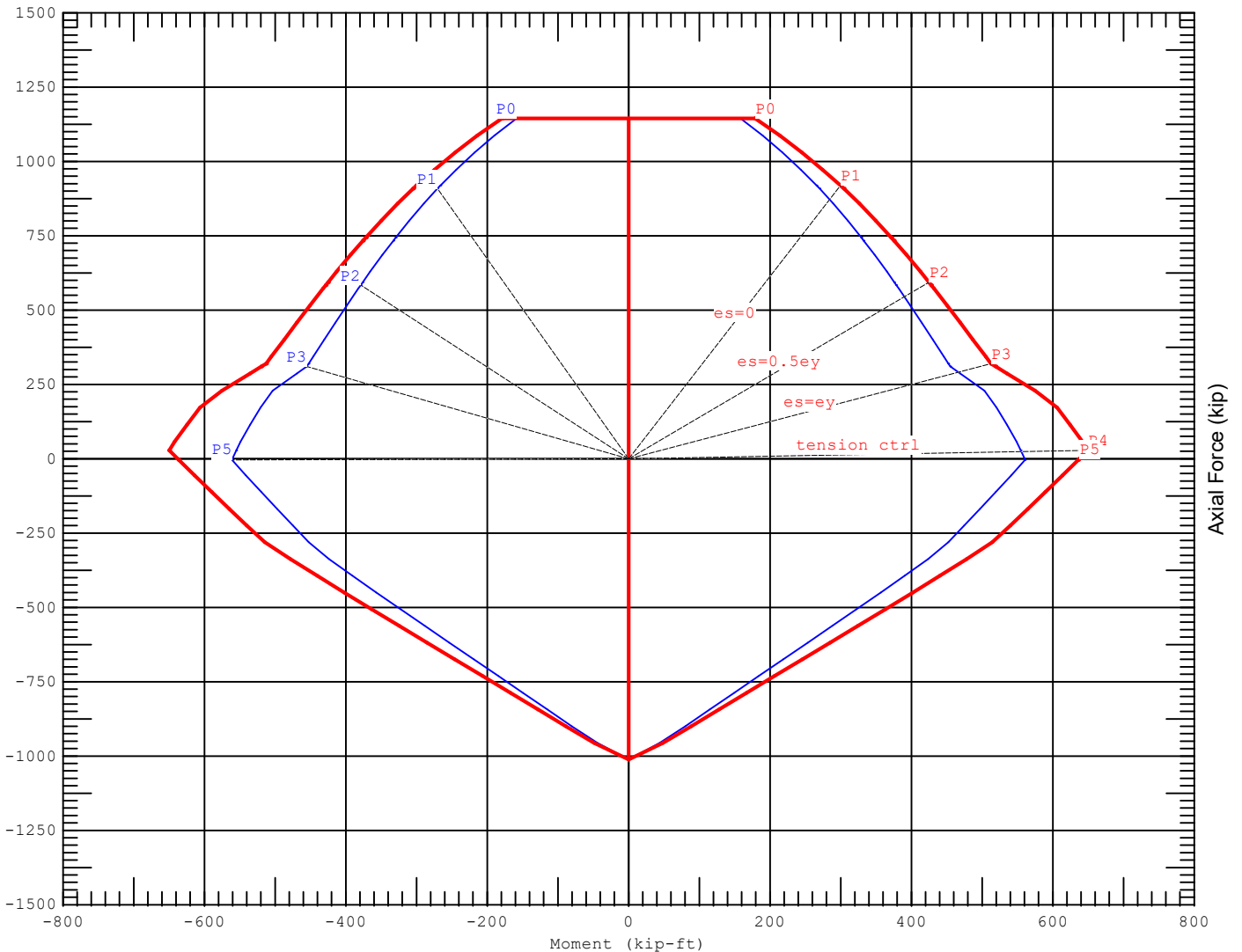
Section 159 of 238

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1142.68	178.92	-0.00057
P1	918.06	299.57	0.00000
P2	592.78	424.82	0.00103
P3	319.22	512.61	0.00207
P4	28.35	649.36	0.00507
P5	-0.00	637.60	0.00538
Pmin	-1010.88	-0.00	0.20000

PT	P	My(-)	max es
P0	1142.67	-158.40	-0.00060
P1	907.58	-270.07	0.00000
P2	583.26	-378.72	0.00103
P3	309.88	-454.91	0.00207
P4	-3.98	-560.71	0.00507
P5	-0.01	-560.03	0.00503
Pmin	-1010.88	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

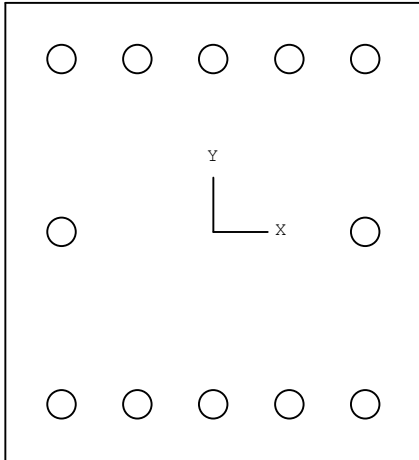
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_12#11\_NX3\_NY5\_cc2.705



Section 160 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

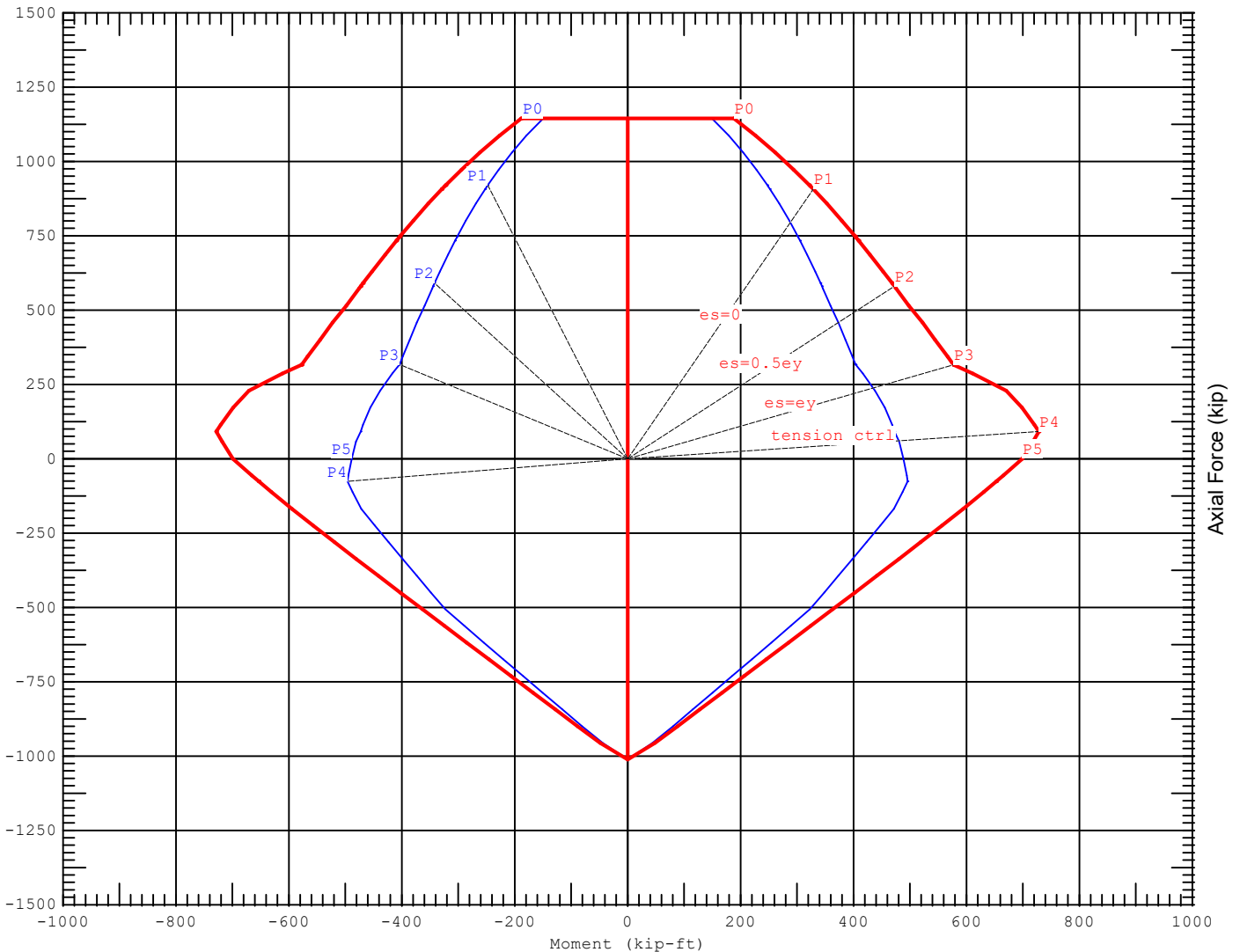
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 12 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.72 in<sup>2</sup>  
 Roh: 4.25%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1142.67	187.72	-0.00061
P1	905.64	328.18	0.00000
P2	579.44	471.64	0.00103
P3	315.33	576.44	0.00207
P4	90.94	727.22	0.00507
P5	0.01	697.86	0.00595
Pmin	-1010.88	0.00	0.20000

PT	P	My(-)	max es
P0	1142.68	-149.08	-0.00057
P1	918.57	-247.23	0.00000
P2	589.50	-341.19	0.00103
P3	316.53	-403.22	0.00207
P4	-76.36	-495.39	0.00507
P5	0.01	-487.52	0.00449
Pmin	-1010.88	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

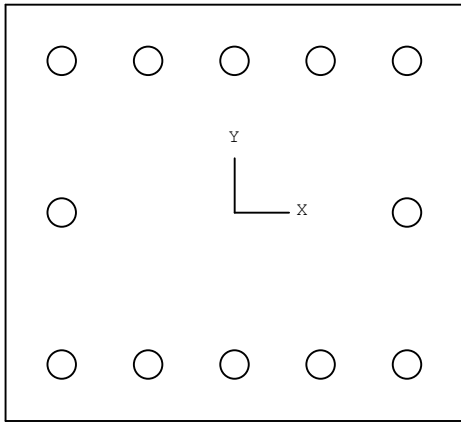
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#11\_NX3\_NY5\_cc2.705



Section 161 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

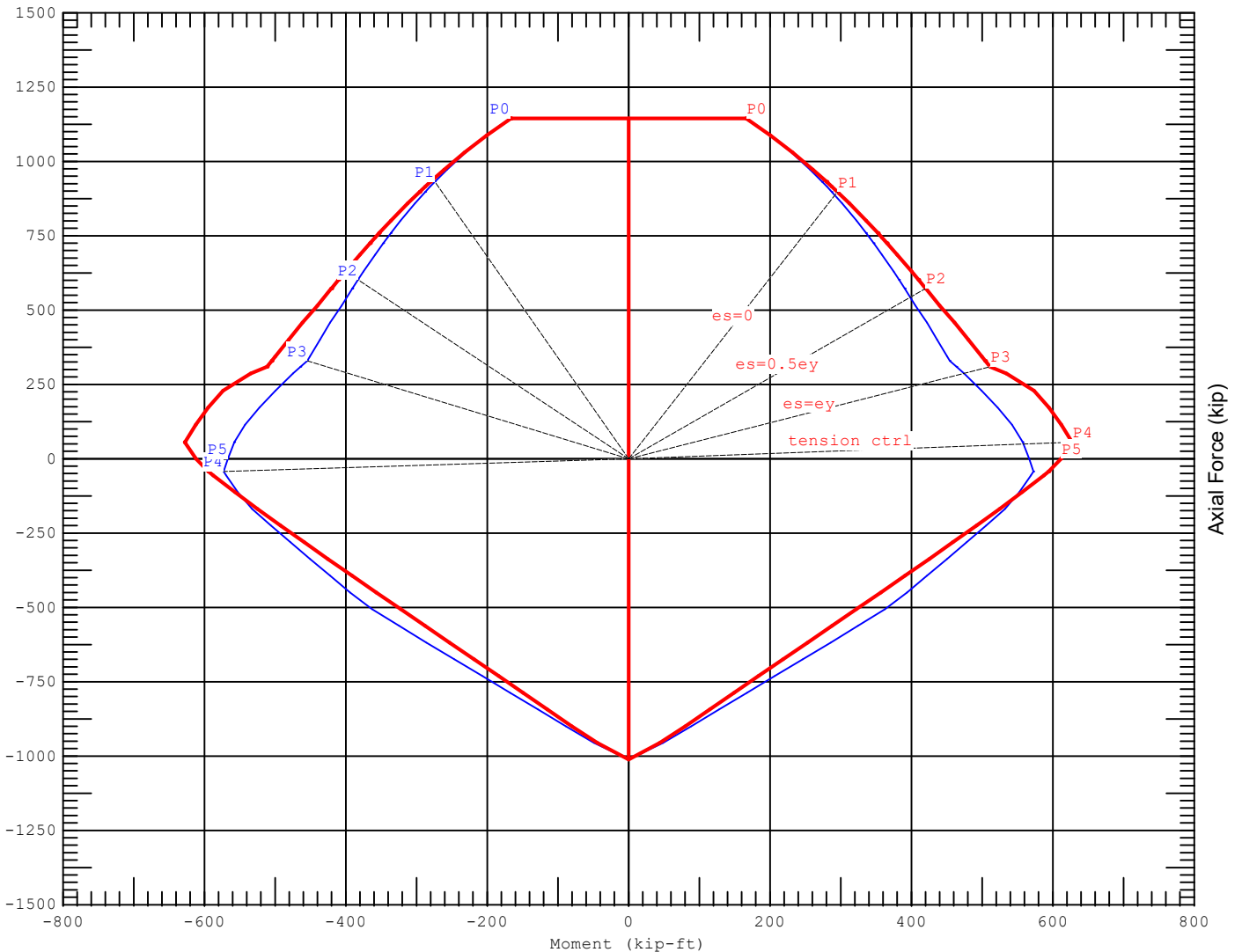
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 12 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.72 in<sup>2</sup>  
 Roh: 4.25%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.74 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1142.68	166.39	-0.00064
P1	896.58	295.43	0.00000
P2	571.85	420.15	0.00103
P3	308.40	511.37	0.00207
P4	55.06	627.39	0.00507
P5	0.01	611.56	0.00556
Pmin	-1010.88	0.00	0.20000

PT	P	My(-)	max es
P0	1142.68	-167.50	-0.00054
P1	930.49	-273.86	0.00000
P2	600.94	-382.51	0.00103
P3	328.29	-454.30	0.00207
P4	-43.14	-572.52	0.00507
P5	-0.01	-566.52	0.00473
Pmin	-1010.88	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

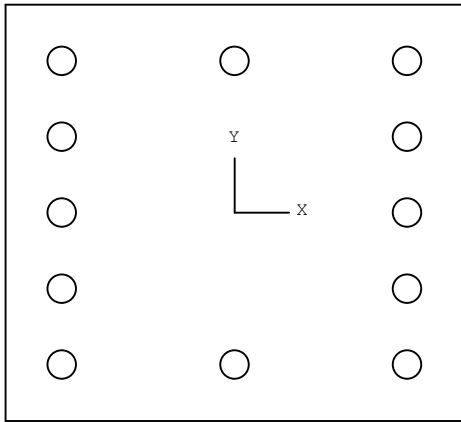
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#11\_NX5\_NY3\_cc2.705



Section 162 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

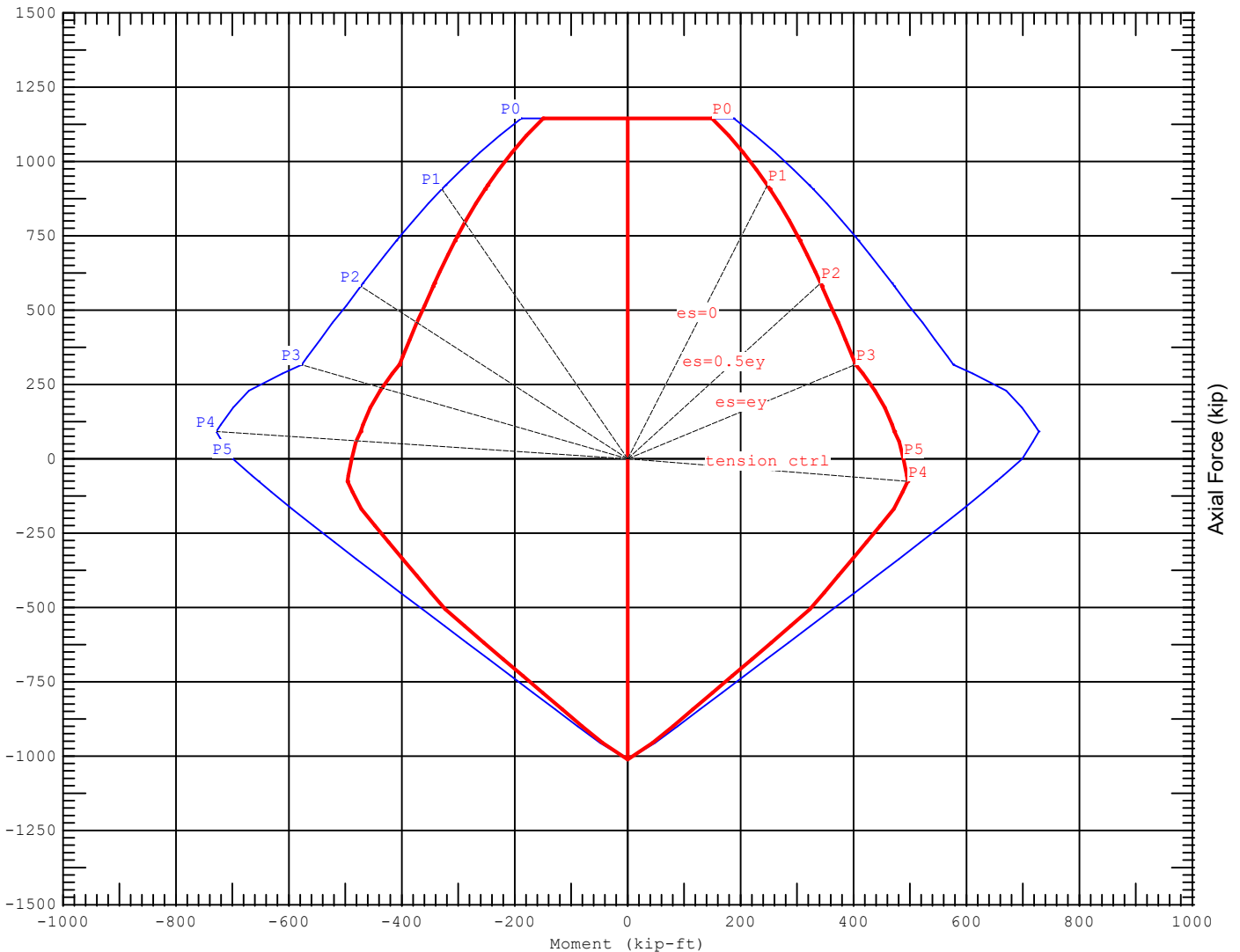
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 12 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.72 in<sup>2</sup>  
 Roh: 4.25%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1142.68	149.08	-0.00057
P1	918.57	247.23	0.00000
P2	589.50	341.19	0.00103
P3	316.53	403.22	0.00207
P4	-76.36	495.39	0.00507
P5	0.01	487.52	0.00449
Pmin	-1010.88	0.00	0.20000

PT	P	My(-)	max es
P0	1142.67	-187.72	-0.00061
P1	905.64	-328.18	0.00000
P2	579.44	-471.64	0.00103
P3	315.33	-576.44	0.00207
P4	90.94	-727.22	0.00507
P5	0.01	-697.86	0.00595
Pmin	-1010.88	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

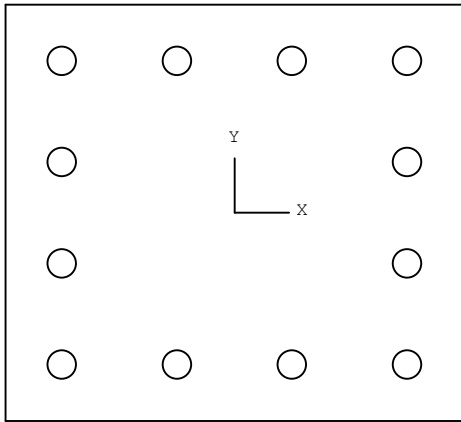
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_12#11\_NX4\_NY4\_cc2.705



Section 163 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

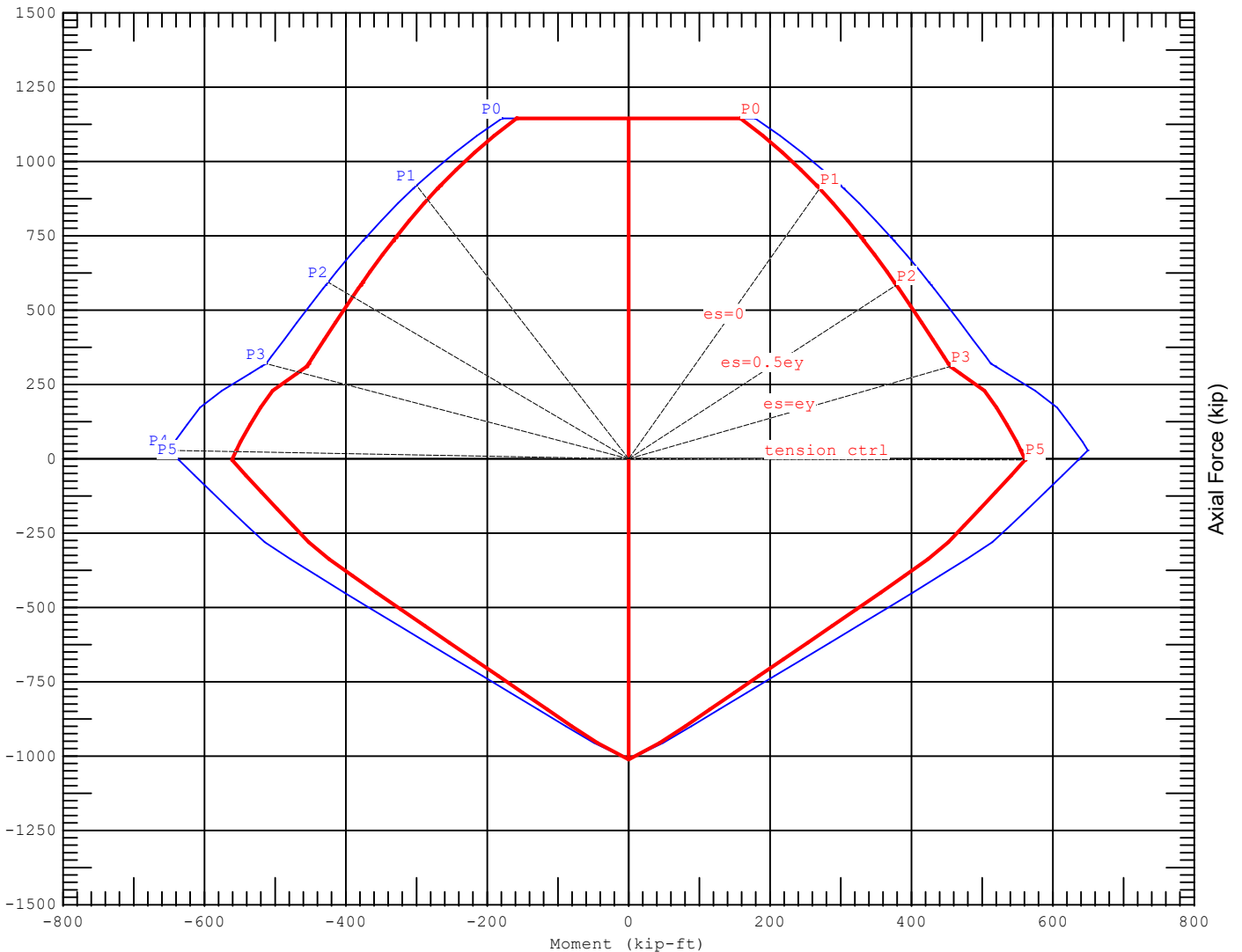
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 12 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 18.72 in<sup>2</sup>  
 Roh: 4.25%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1142.67	158.40	-0.00060
P1	907.58	270.07	0.00000
P2	583.26	378.72	0.00103
P3	309.88	454.91	0.00207
P4	-3.98	560.71	0.00507
P5	-0.01	560.03	0.00503
Pmin	-1010.88	0.00	0.20000

PT	P	My(-)	max es
P0	1142.68	-178.92	-0.00057
P1	918.06	-299.57	0.00000
P2	592.78	-424.82	0.00103
P3	319.22	-512.61	0.00207
P4	28.35	-649.36	0.00507
P5	-0.00	-637.60	0.00538
Pmin	-1010.88	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

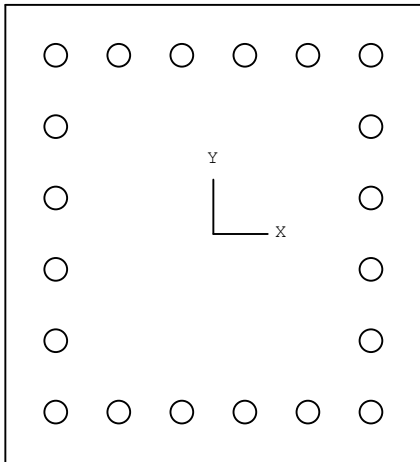
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_20#9\_NX6\_NY6\_cc2.439



Section 164 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

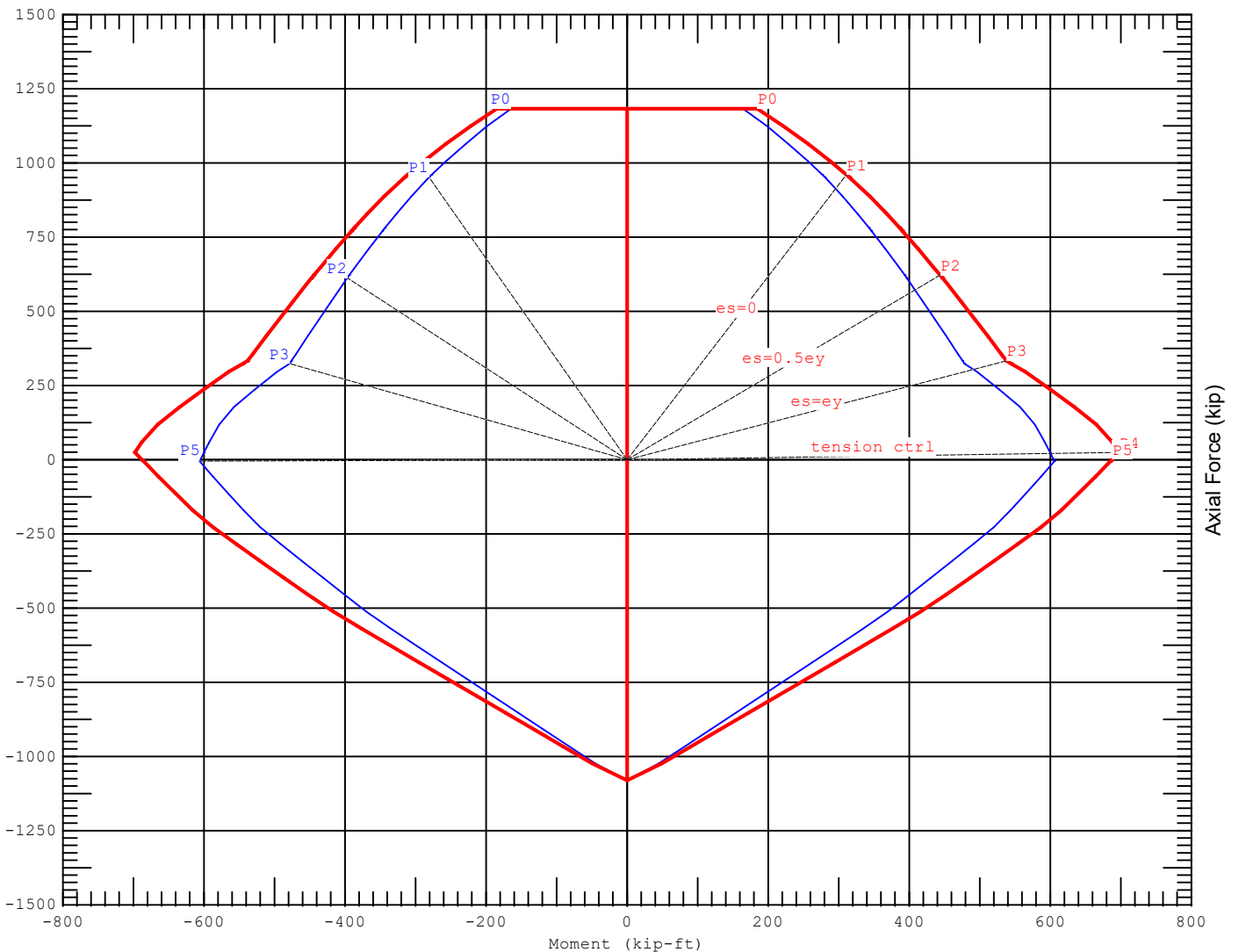
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 20 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 20.00 in<sup>2</sup>  
 Roh: 4.55%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1180.92	184.73	-0.00056
P1	958.77	310.98	0.00000
P2	620.55	443.98	0.00103
P3	332.18	537.90	0.00207
P4	24.58	697.57	0.00507
P5	0.01	687.61	0.00533
Pmin	-1080.00	0.00	0.20000

PT	P	My(-)	max es
P0	1180.91	-164.31	-0.00058
P1	949.89	-280.78	0.00000
P2	611.12	-396.33	0.00103
P3	322.68	-478.29	0.00207
P4	-5.27	-606.06	0.00507
P5	0.02	-604.97	0.00502
Pmin	-1080.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

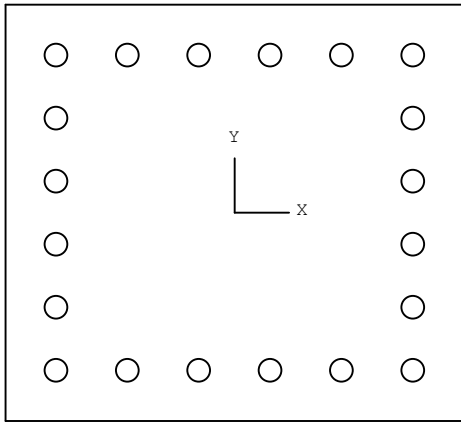
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_20#9\_NX6\_NY6\_cc2.439



Section 165 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

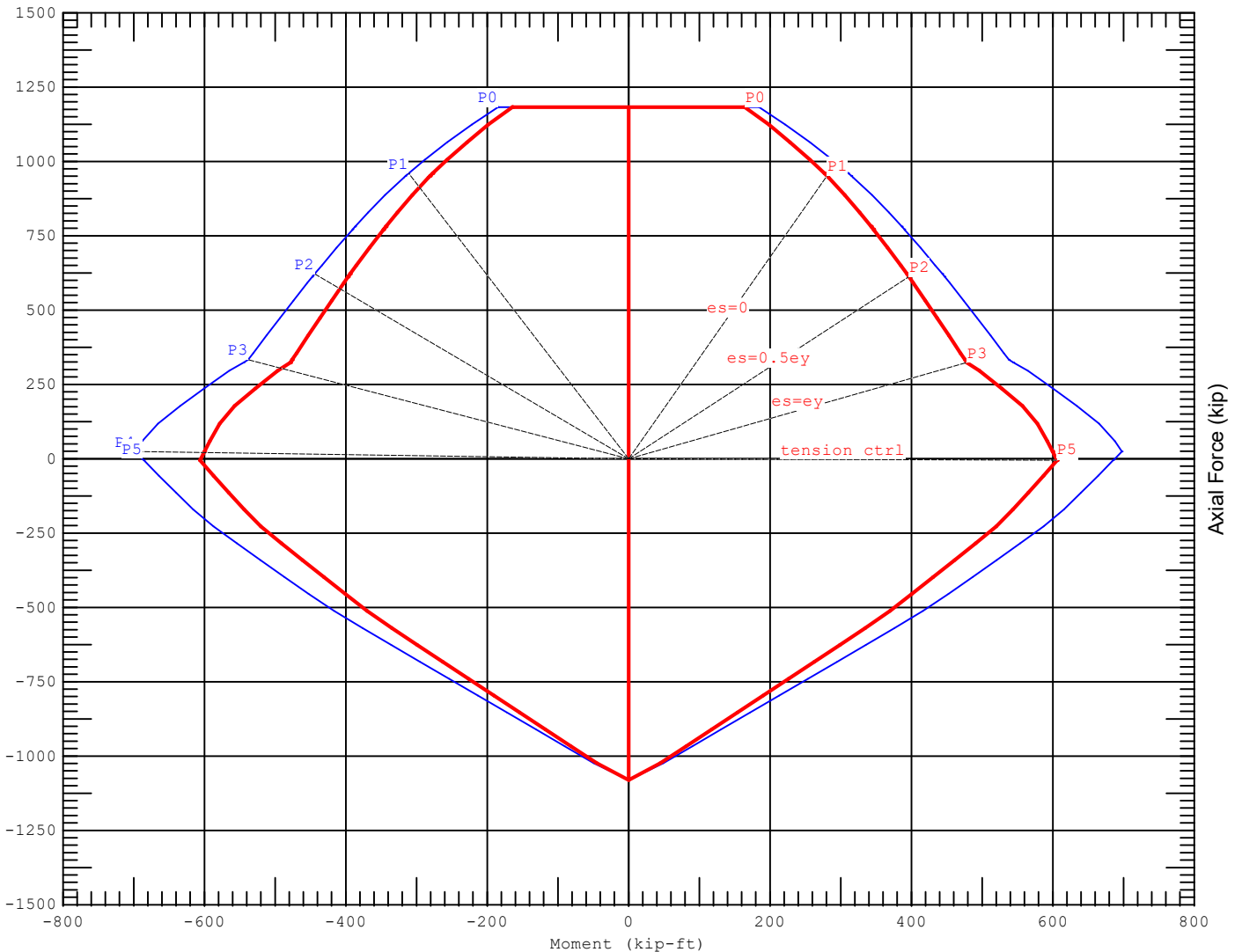
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 20 # 9  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 20.00 in<sup>2</sup>  
 Roh: 4.55%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1180.91	164.31	-0.00058
P1	949.89	280.78	0.00000
P2	611.12	396.33	0.00103
P3	322.68	478.29	0.00207
P4	-5.27	606.06	0.00507
P5	0.02	604.97	0.00502
Pmin	-1080.00	0.00	0.20000

PT	P	My(-)	max es
P0	1180.92	-184.73	-0.00056
P1	958.77	-310.98	0.00000
P2	620.55	-443.98	0.00103
P3	332.18	-537.90	0.00207
P4	24.58	-697.57	0.00507
P5	0.01	-687.61	0.00533
Pmin	-1080.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

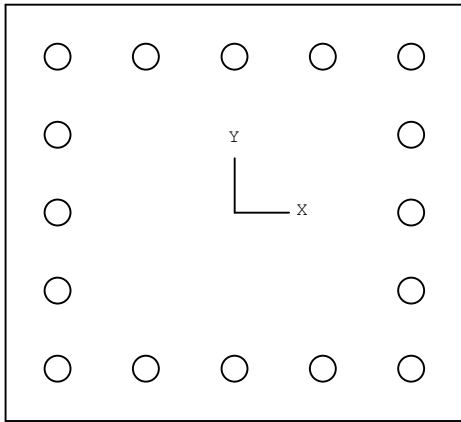
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_16#10\_NX5\_NY5\_cc2.51



Section 166 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

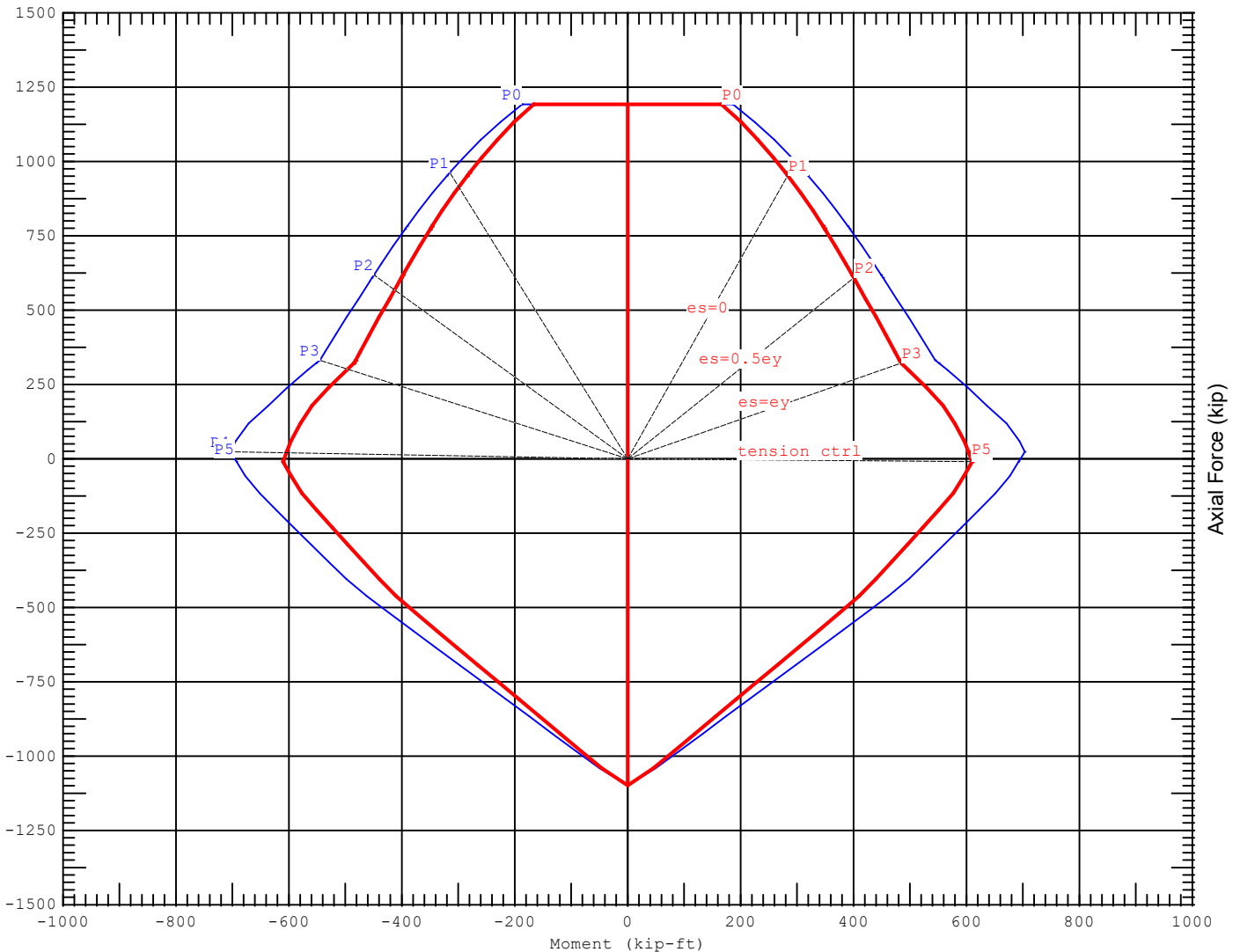
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 16 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 20.32 in<sup>2</sup>  
 Roh: 4.62%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1190.47	166.05	-0.00059
P1	951.14	283.16	0.00000
P2	607.56	400.04	0.00103
P3	320.72	483.45	0.00207
P4	-9.66	608.94	0.00507
P5	0.02	607.21	0.00499
Pmin	-1097.28	-0.00	0.20000

PT	P	My(-)	max es
P0	1190.48	-186.66	-0.00057
P1	961.38	-314.23	0.00000
P2	617.09	-448.38	0.00103
P3	330.27	-544.05	0.00207
P4	23.52	-702.10	0.00507
P5	0.00	-694.55	0.00527
Pmin	-1097.28	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

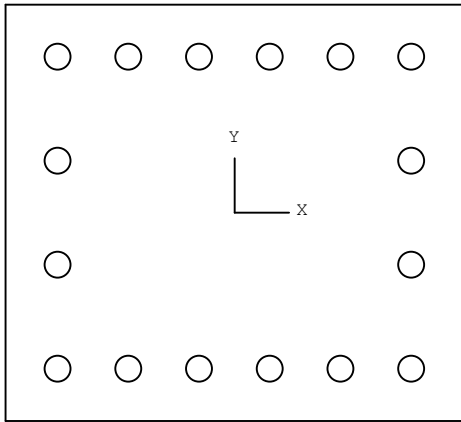
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_16#10\_NX4\_NY6\_cc2.51



Section 167 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

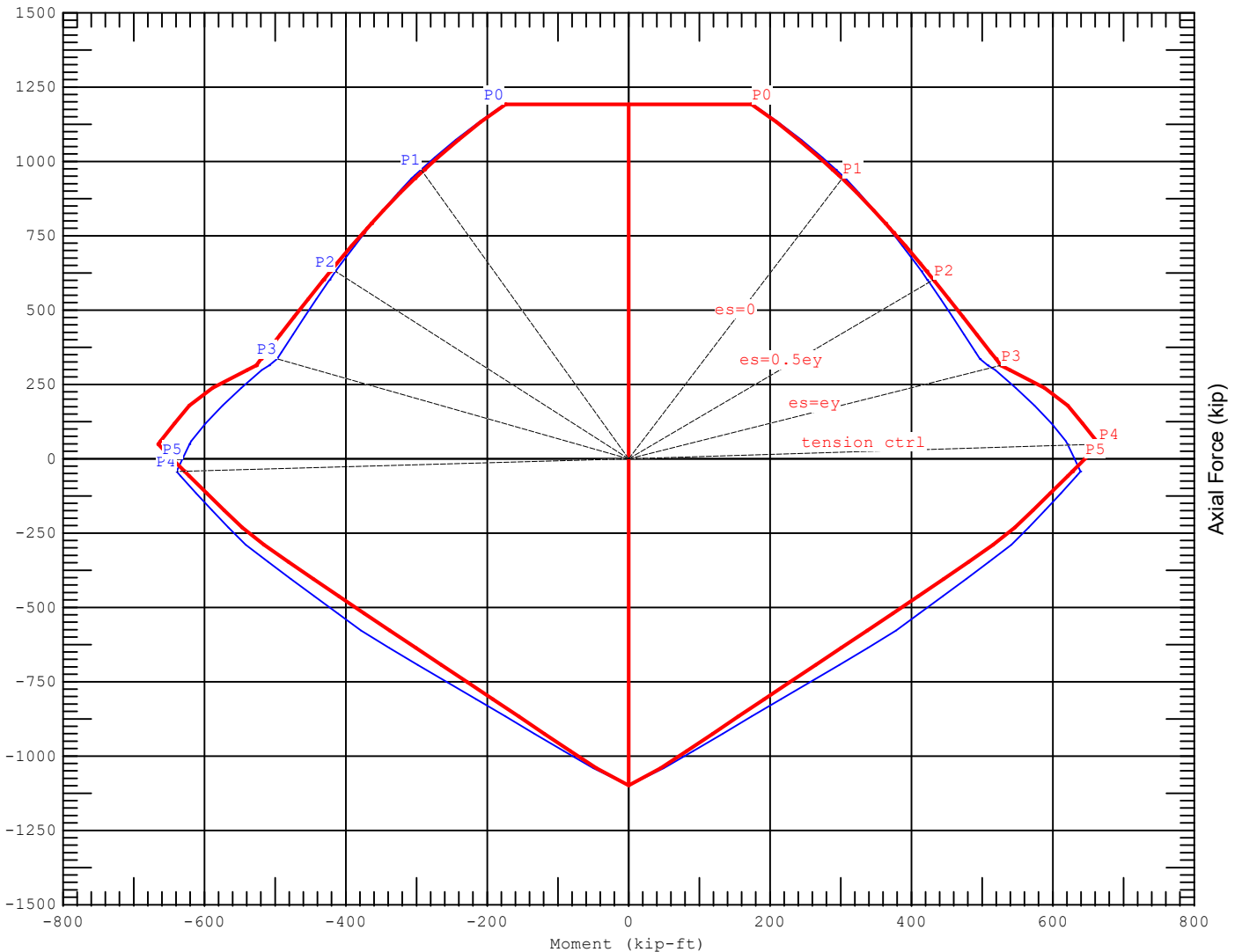
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 16 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 20.32 in<sup>2</sup>  
 Roh: 4.62%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.13 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1190.48	174.04	-0.00062
P1	941.26	302.09	0.00000
P2	601.24	431.20	0.00103
P3	313.75	526.38	0.00207
P4	48.68	665.04	0.00507
P5	0.02	645.28	0.00561
Pmin	-1097.28	0.00	0.20000

PT	P	My(-)	max es
P0	1190.47	-175.90	-0.00055
P1	971.27	-293.51	0.00000
P2	629.04	-414.27	0.00103
P3	334.83	-497.00	0.00207
P4	-43.07	-639.16	0.00507
P5	-0.01	-630.79	0.00470
Pmin	-1097.28	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

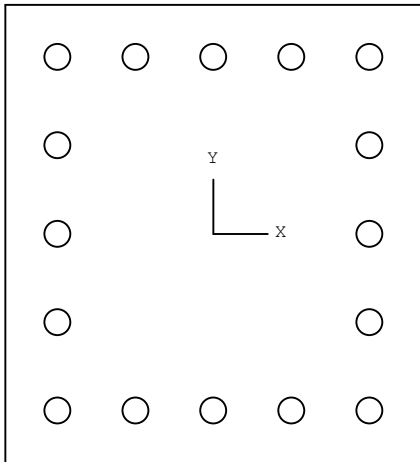
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_16#10\_NX5\_NY5\_cc2.51



Section 168 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

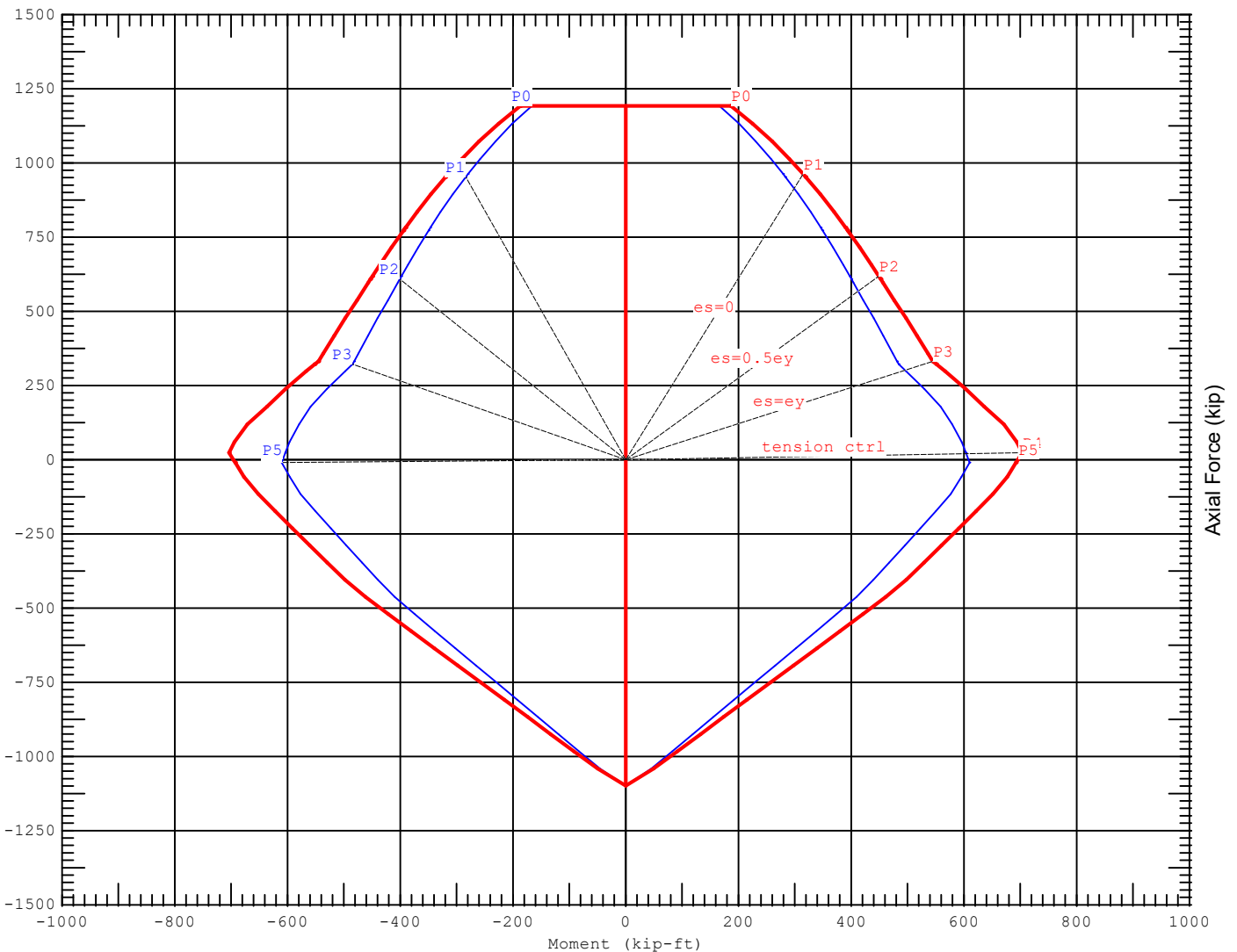
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 16 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 20.32 in<sup>2</sup>  
 Roh: 4.62%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1190.48	186.66	-0.00057
P1	961.38	314.23	0.00000
P2	617.09	448.38	0.00103
P3	330.27	544.05	0.00207
P4	23.52	702.10	0.00507
P5	0.00	694.55	0.00527
Pmin	-1097.28	-0.00	0.20000

PT	P	My(-)	max es
P0	1190.47	-166.05	-0.00059
P1	951.14	-283.16	0.00000
P2	607.56	-400.04	0.00103
P3	320.72	-483.45	0.00207
P4	-9.66	-608.94	0.00507
P5	0.02	-607.21	0.00499
Pmin	-1097.28	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

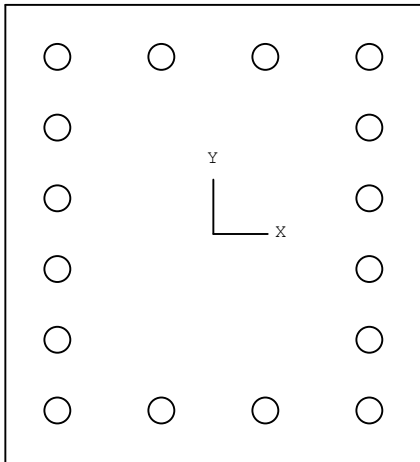
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_16#10\_NX6\_NY4\_cc2.51



Section 169 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

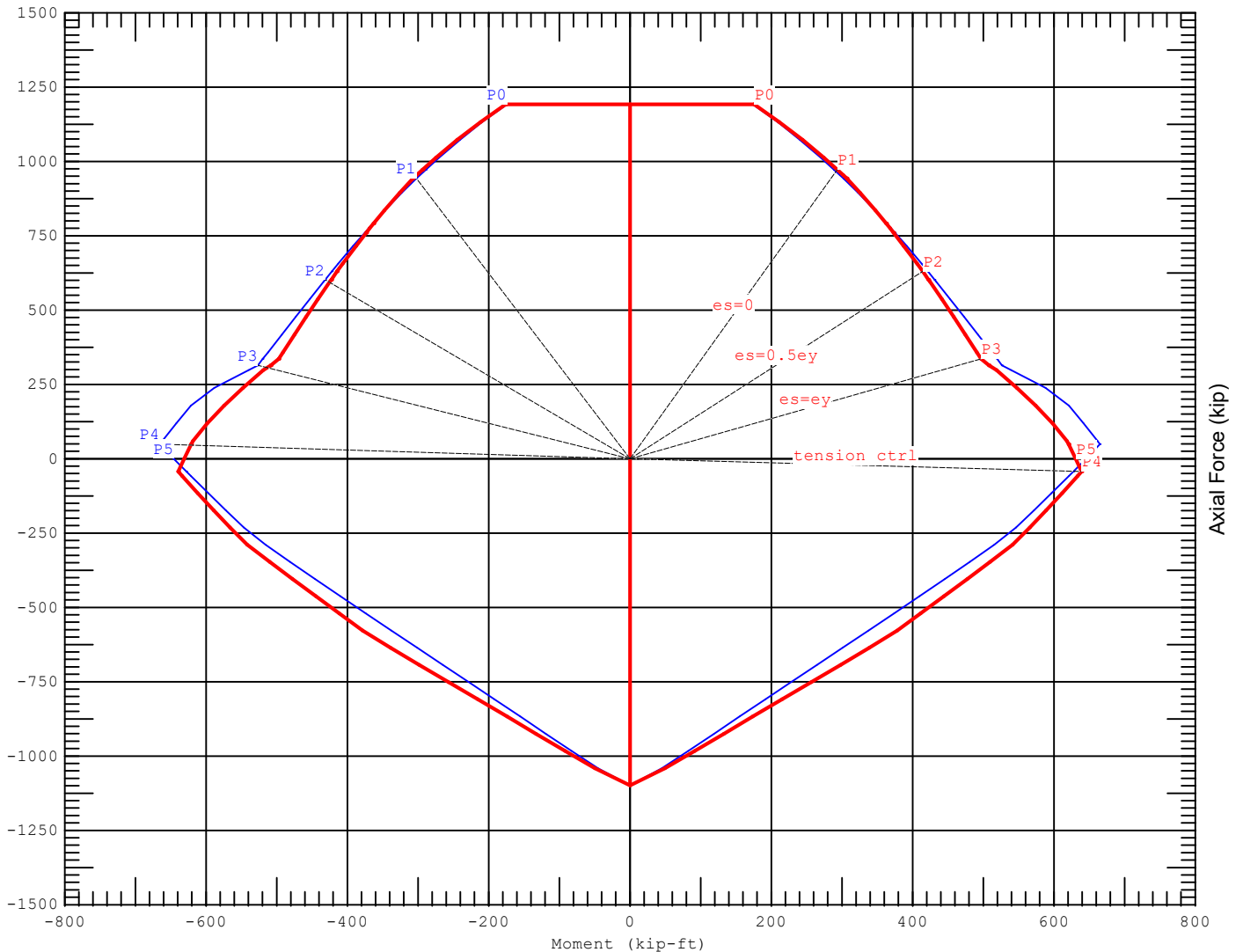
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 16 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 20.32 in<sup>2</sup>  
 Roh: 4.62%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.13 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1190.47	175.90	-0.00055
P1	971.27	293.51	0.00000
P2	629.04	414.27	0.00103
P3	334.83	497.00	0.00207
P4	-43.07	639.16	0.00507
P5	-0.01	630.79	0.00470
Pmin	-1097.28	0.00	0.20000

PT	P	My(-)	max es
P0	1190.48	-174.04	-0.00062
P1	941.26	-302.09	0.00000
P2	601.24	-431.20	0.00103
P3	313.75	-526.38	0.00207
P4	48.68	-665.04	0.00507
P5	0.02	-645.28	0.00561
Pmin	-1097.28	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

Engineer:

Date & Time: 05/18/2026 18:41

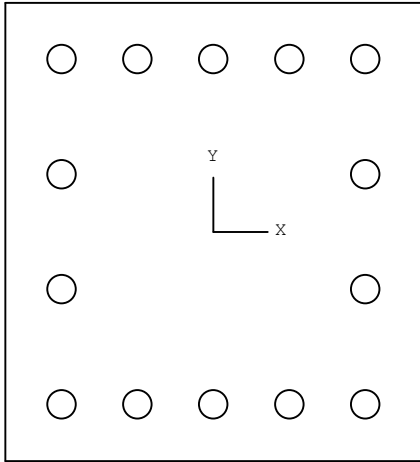
# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#11\_NX4\_NY5\_cc2.705

Code: ACI 318-19  
Strength reduction: Auto  
Neutral axis steps: 250  
Biaxial angle steps: 16  
Axial capacity steps: 20  
Excl. displ'd concrete: Yes

b x h: 20 x 22 in  
fc: 3.00 kip/in<sup>2</sup>  
fy: 60.00 kip/in<sup>2</sup>  
Cover (t.c): 2.705 in  
Bars: 14 # 11  
Confinement: Tied  
Ag: 440.00 in<sup>2</sup>  
As: 21.84 in<sup>2</sup>  
Roh: 4.96%  
Ix: 17746.7 in<sup>4</sup>  
Iy: 14666.7 in<sup>4</sup>  
X0: 0.00 in  
Y0: 0.00 in  
Clear spacing: 2.24 in



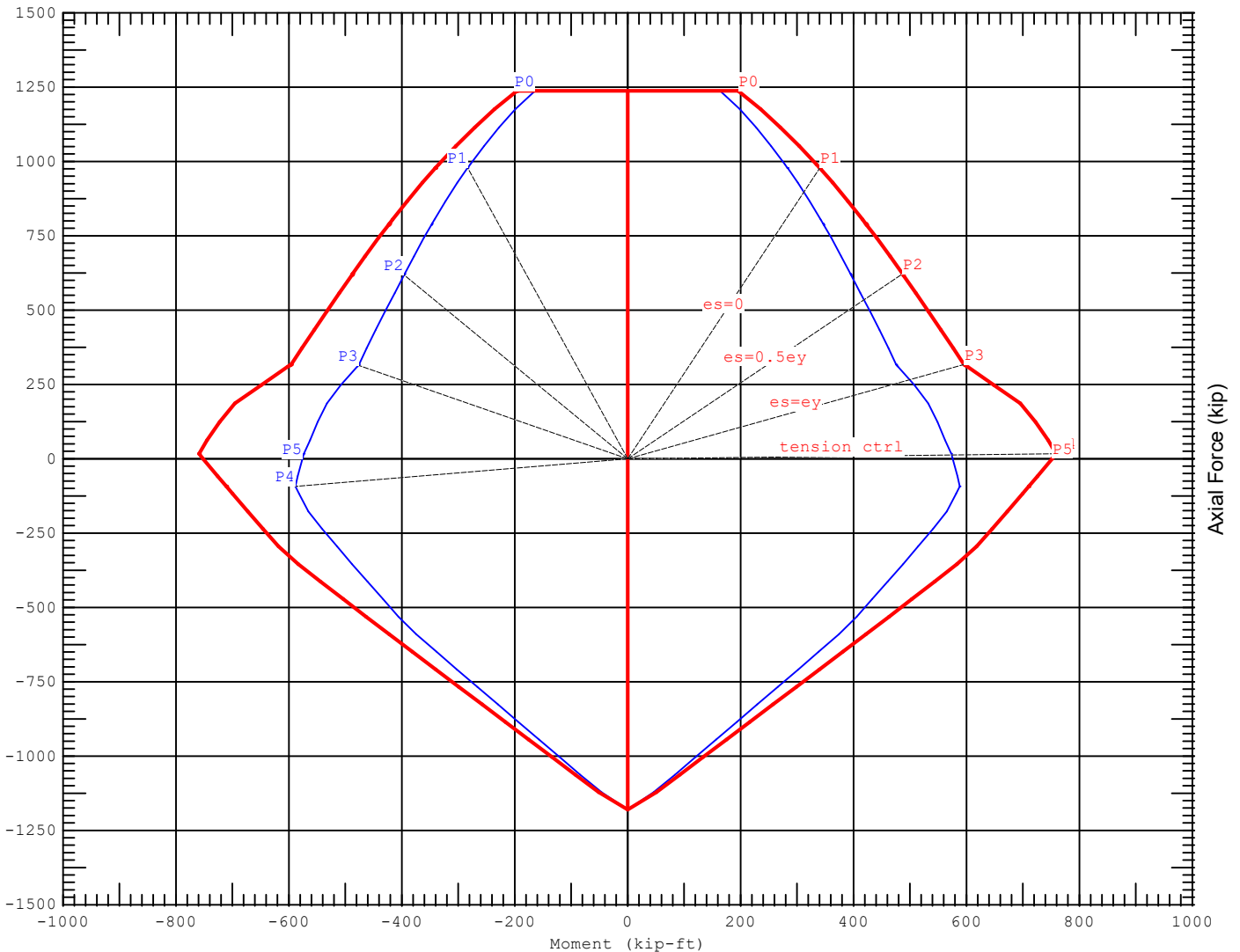
Section 170 of 238

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1235.88	195.65	-0.00062
P1	976.31	339.84	0.00000
P2	620.61	486.12	0.00103
P3	316.64	594.94	0.00207
P4	16.62	757.71	0.00507
P5	0.01	750.58	0.00524
Pmin	-1179.36	0.00	0.20000

PT	P	My(-)	max es
P0	1235.89	-163.75	-0.00061
P1	976.83	-282.64	0.00000
P2	617.33	-395.10	0.00103
P3	313.94	-475.62	0.00207
P4	-93.42	-587.44	0.00507
P5	-0.01	-574.85	0.00440
Pmin	-1179.36	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

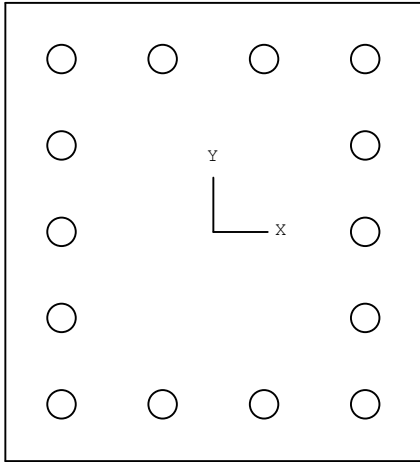
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_14#11\_NX5\_NY4\_cc2.705



Section 171 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

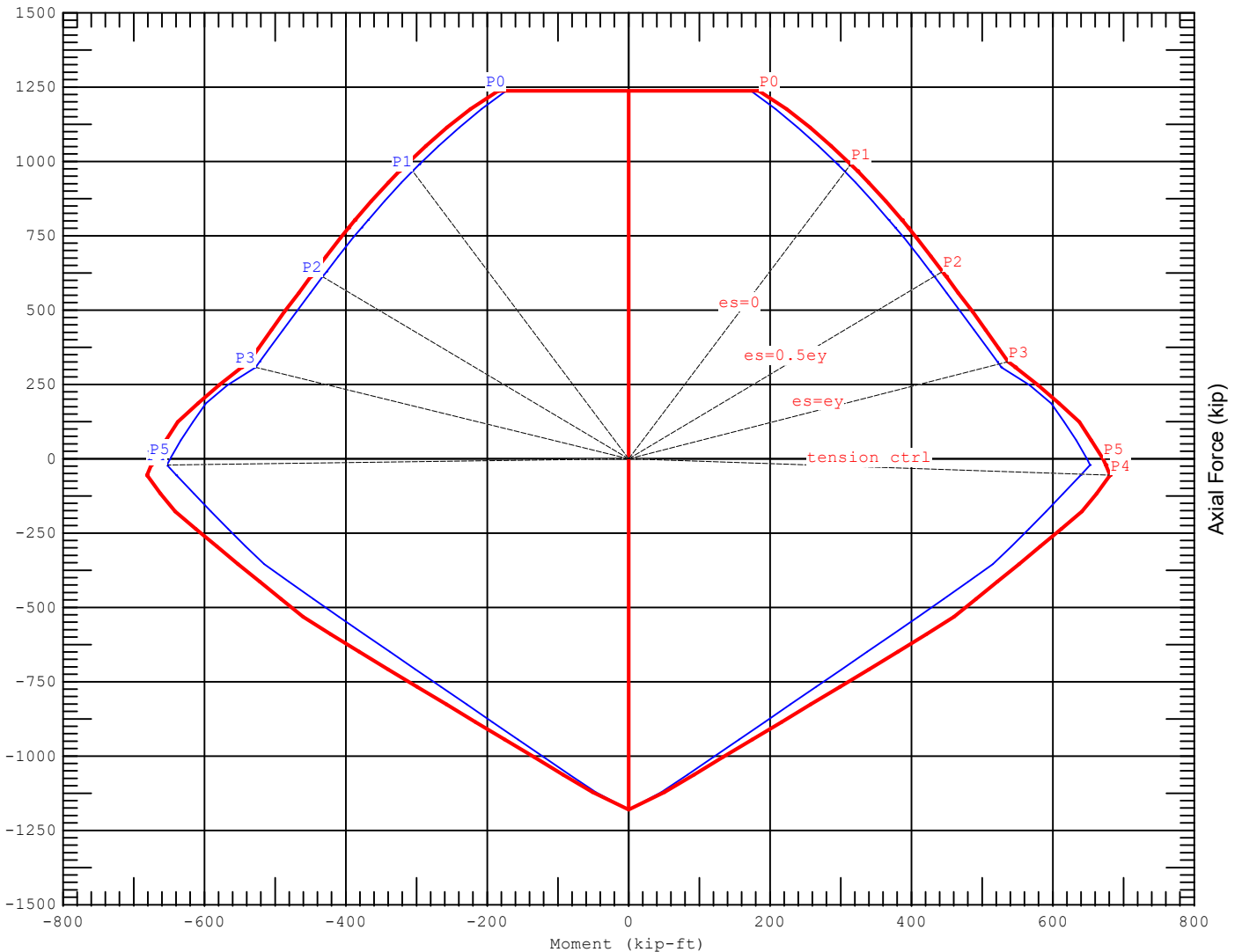
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 14 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 21.84 in<sup>2</sup>  
 Roh: 4.96%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.74 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1235.89	184.41	-0.00059
P1	988.74	314.13	0.00000
P2	628.77	443.81	0.00103
P3	325.70	536.62	0.00207
P4	-54.87	680.88	0.00507
P5	0.01	670.95	0.00466
Pmin	-1179.36	0.00	0.20000

PT	P	My(-)	max es
P0	1235.89	-172.91	-0.00064
P1	965.83	-305.49	0.00000
P2	611.10	-432.63	0.00103
P3	307.29	-527.31	0.00207
P4	-21.04	-652.76	0.00507
P5	0.00	-648.34	0.00486
Pmin	-1179.36	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

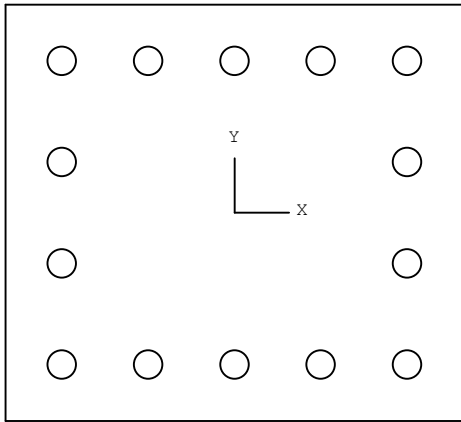
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#11\_NX4\_NY5\_cc2.705



Section 172 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

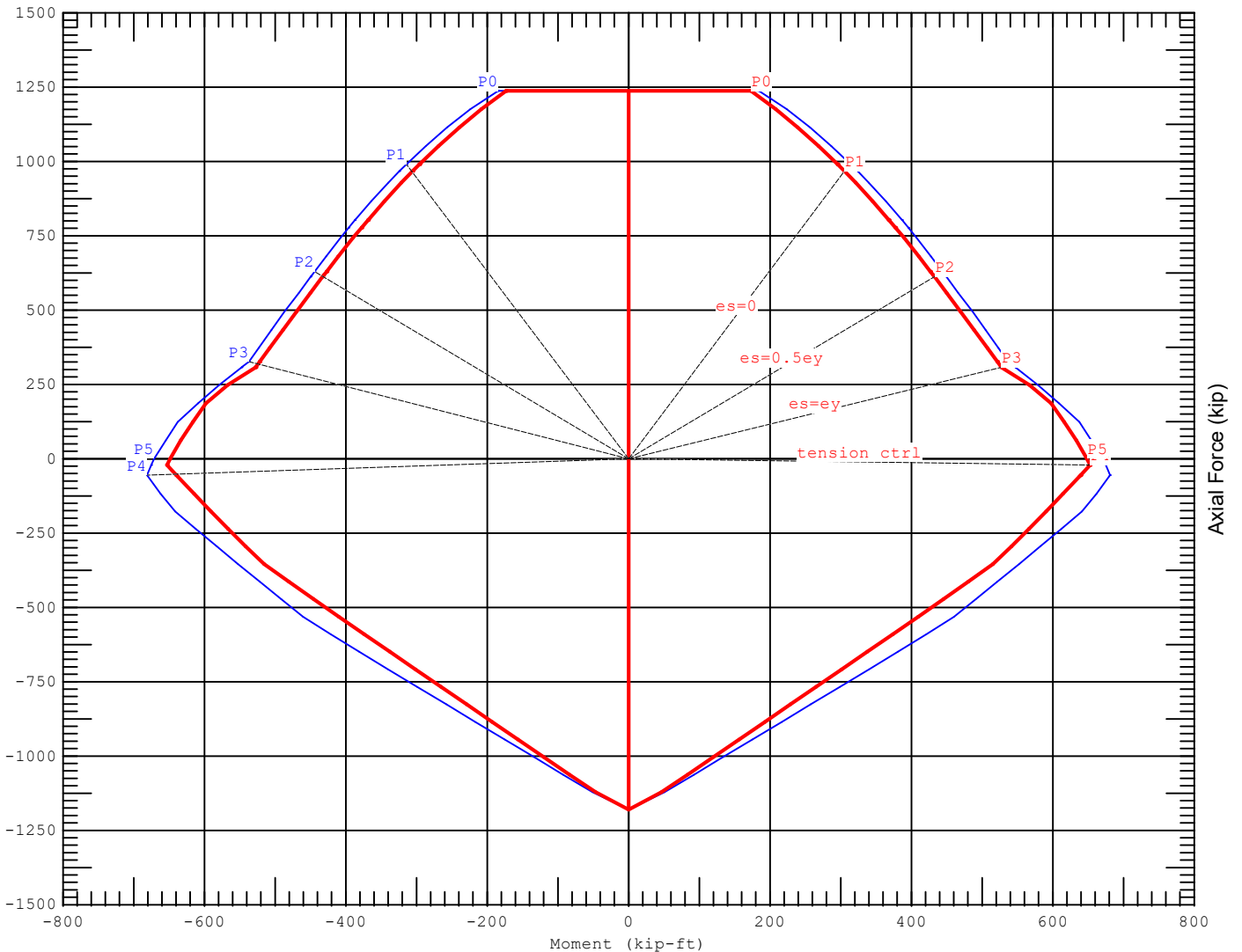
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 14 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 21.84 in<sup>2</sup>  
 Roh: 4.96%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.74 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1235.89	172.91	-0.00064
P1	965.83	305.49	0.00000
P2	611.10	432.63	0.00103
P3	307.29	527.31	0.00207
P4	-21.04	652.76	0.00507
P5	0.00	648.34	0.00486
Pmin	-1179.36	0.00	0.20000

PT	P	My(-)	max es
P0	1235.89	-184.41	-0.00059
P1	988.74	-314.13	0.00000
P2	628.77	-443.81	0.00103
P3	325.70	-536.62	0.00207
P4	-54.87	-680.88	0.00507
P5	0.01	-670.95	0.00466
Pmin	-1179.36	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

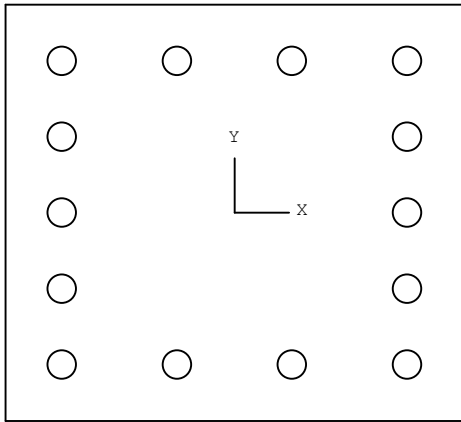
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_14#11\_NX5\_NY4\_cc2.705



Section 173 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

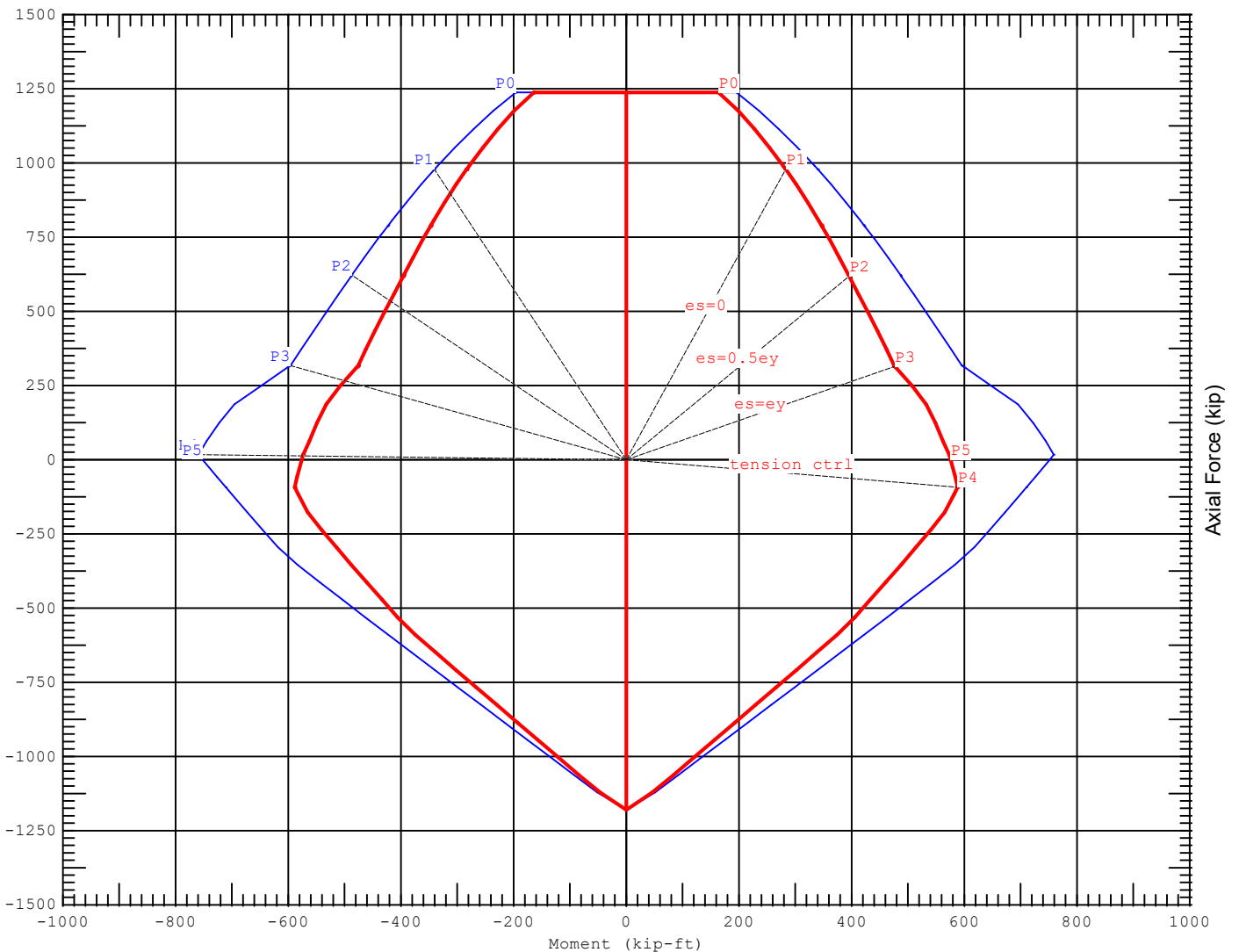
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 14 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 21.84 in<sup>2</sup>  
 Roh: 4.96%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1235.89	163.75	-0.00061
P1	976.83	282.64	0.00000
P2	617.33	395.10	0.00103
P3	313.94	475.62	0.00207
P4	-93.42	587.44	0.00507
P5	-0.01	574.85	0.00440
Pmin	-1179.36	0.00	0.20000

PT	P	My(-)	max es
P0	1235.88	-195.65	-0.00062
P1	976.31	-339.84	0.00000
P2	620.61	-486.12	0.00103
P3	316.64	-594.94	0.00207
P4	16.62	-757.71	0.00507
P5	0.01	-750.58	0.00524
Pmin	-1179.36	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

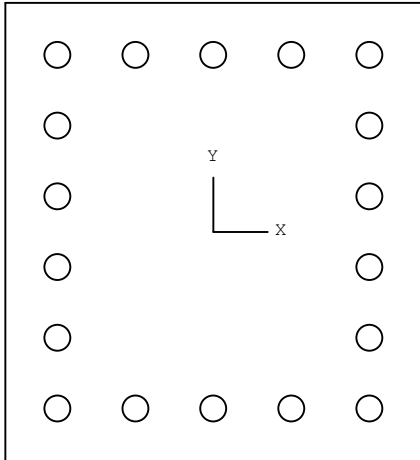
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_18#10\_NX6\_NY5\_cc2.51



Section 174 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

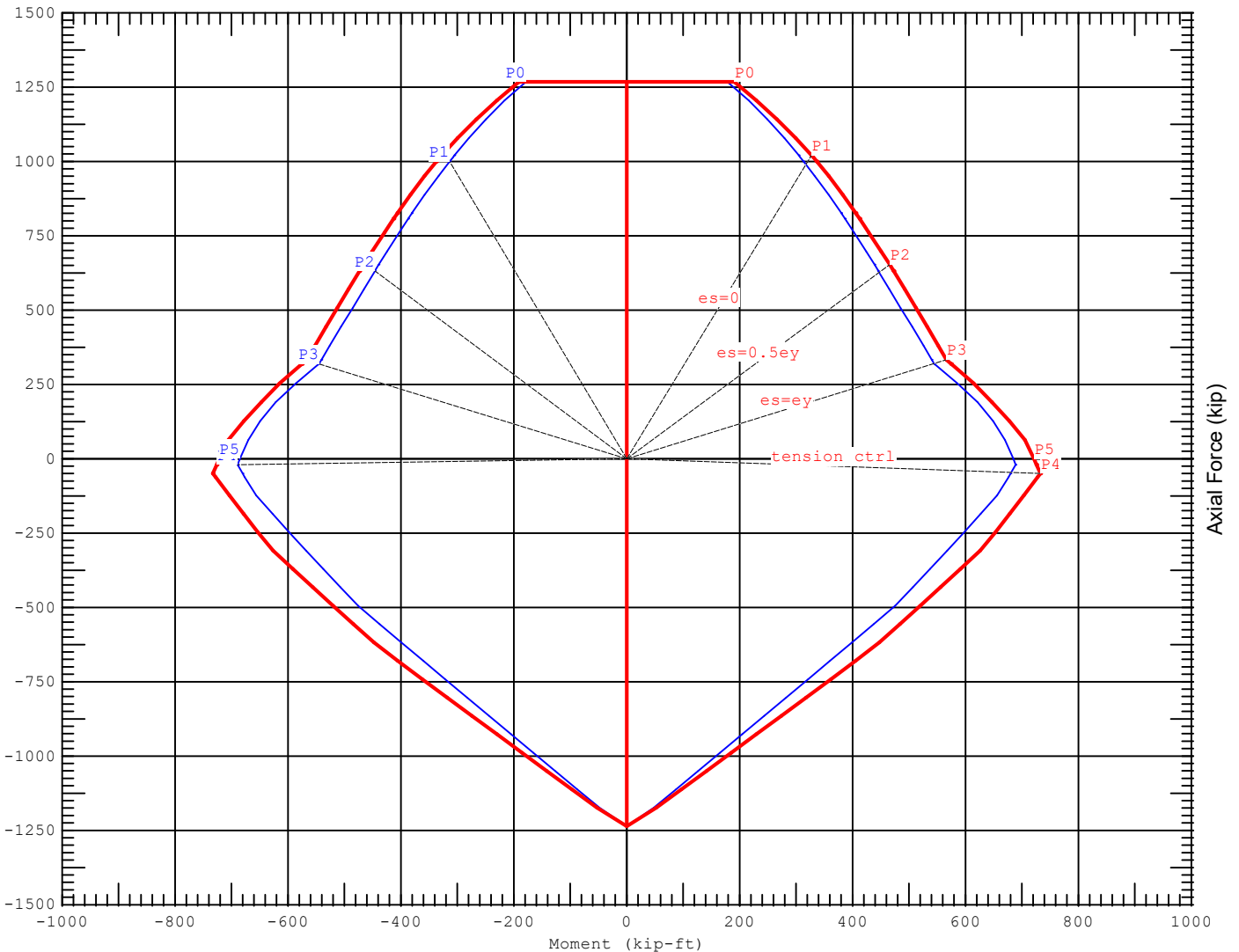
b x h: 20 x 22 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 18 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 22.86 in<sup>2</sup>  
 Roh: 5.20%  
 Ix: 17746.7 in<sup>4</sup>  
 Iy: 14666.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.13 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1266.35	190.25	-0.00059
P1	1018.69	327.07	0.00000
P2	651.70	465.34	0.00103
P3	332.72	565.59	0.00207
P4	-49.56	731.60	0.00507
P5	-0.00	720.05	0.00466
Pmin	-1234.44	0.00	0.20000

PT	P	My(-)	max es
P0	1266.36	-177.92	-0.00063
P1	998.56	-312.76	0.00000
P2	630.22	-445.10	0.00103
P3	318.62	-543.96	0.00207
P4	-20.10	-688.04	0.00507
P5	0.00	-683.86	0.00491
Pmin	-1234.44	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

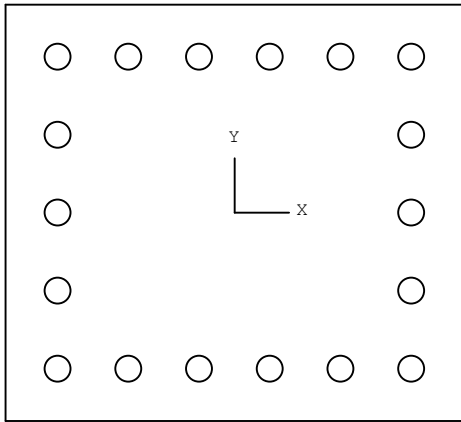
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_18#10\_NX5\_NY6\_cc2.51



Section 175 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

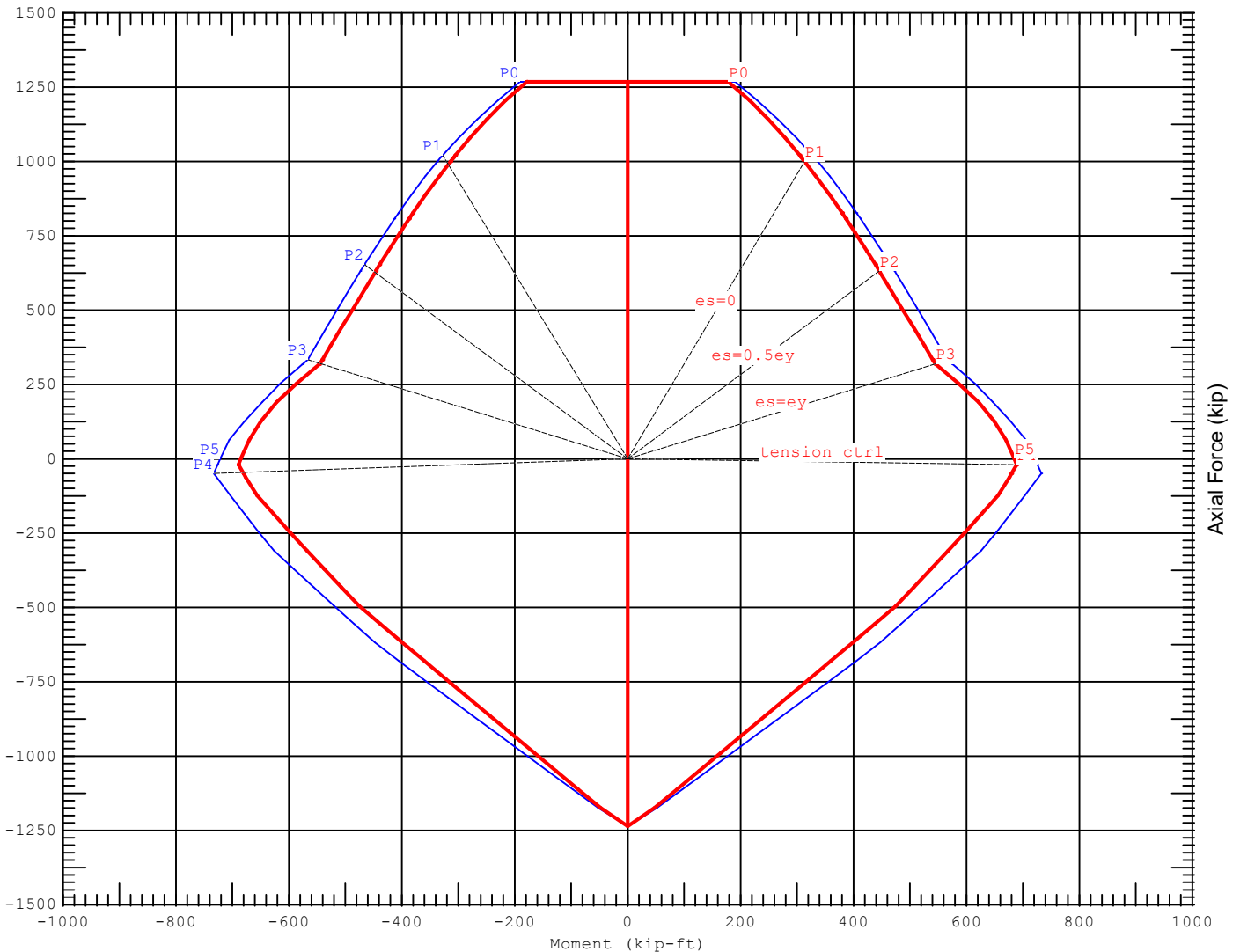
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 18 # 10  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 22.86 in<sup>2</sup>  
 Roh: 5.20%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.13 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1266.36	177.92	-0.00063
P1	998.56	312.76	0.00000
P2	630.22	445.10	0.00103
P3	318.62	543.96	0.00207
P4	-20.10	688.04	0.00507
P5	0.00	683.86	0.00491
Pmin	-1234.44	-0.00	0.20000

PT	P	My(-)	max es
P0	1266.35	-190.25	-0.00059
P1	1018.69	-327.07	0.00000
P2	651.70	-465.34	0.00103
P3	332.72	-565.59	0.00207
P4	-49.56	-731.60	0.00507
P5	-0.00	-720.05	0.00466
Pmin	-1234.44	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

Engineer:

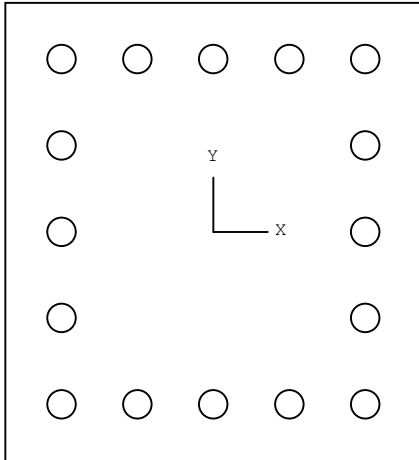
Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x22\_fc3\_fy60\_16#11\_NX5\_NY5\_cc2.705

Code: ACI 318-19  
Strength reduction: Auto  
Neutral axis steps: 250  
Biaxial angle steps: 16  
Axial capacity steps: 20  
Excl. displ'd concrete: Yes



Section 176 of 238

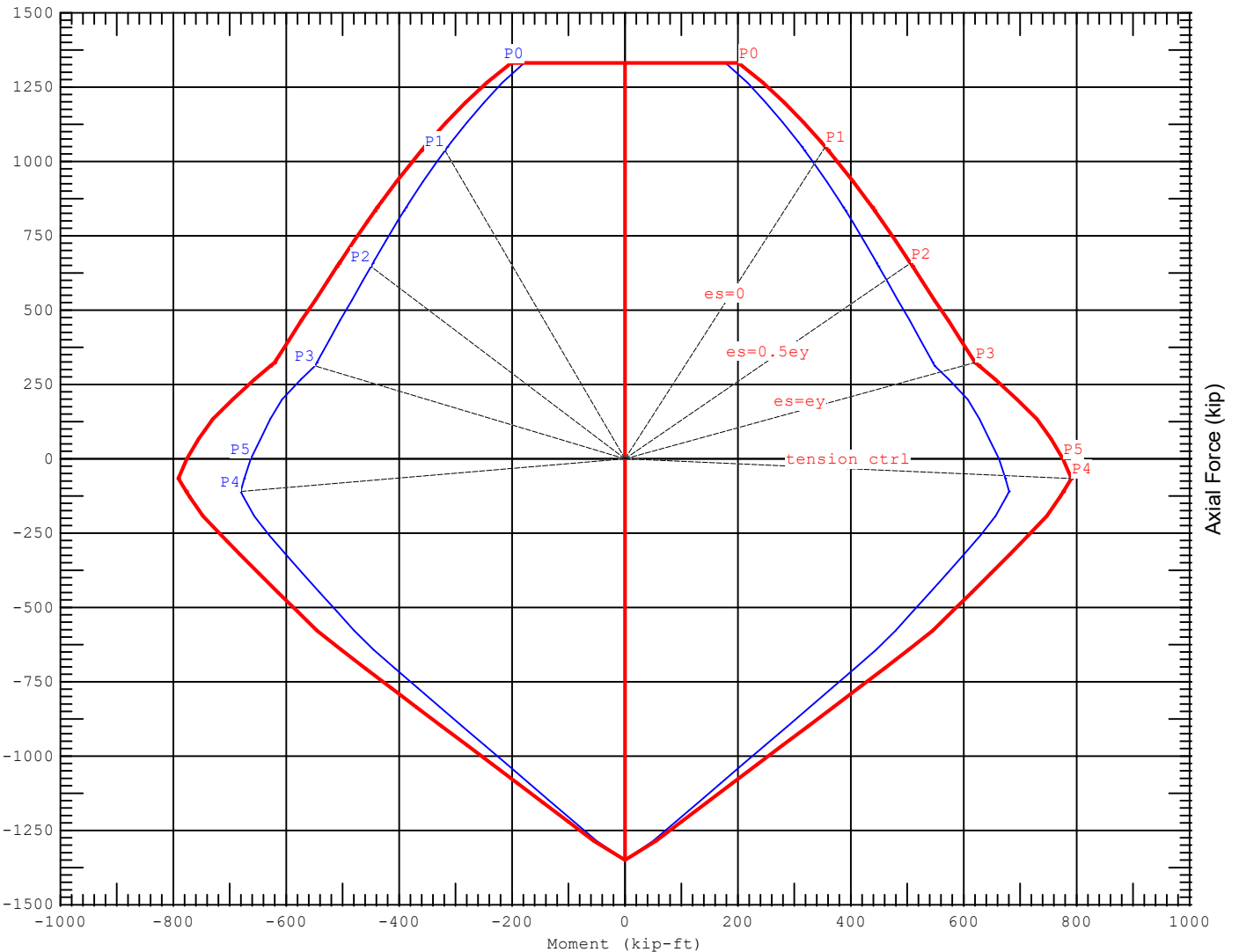
b x h: 20 x 22 in  
fc: 3.00 kip/in<sup>2</sup>  
fy: 60.00 kip/in<sup>2</sup>  
Cover (t.c): 2.705 in  
Bars: 16 # 11  
Confinement: Tied  
Ag: 440.00 in<sup>2</sup>  
As: 24.96 in<sup>2</sup>  
Roh: 5.67%  
Ix: 17746.7 in<sup>4</sup>  
Iy: 14666.7 in<sup>4</sup>  
X0: 0.00 in  
Y0: 0.00 in  
Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1329.10	200.84	-0.00063
P1	1046.99	354.40	0.00000
P2	656.60	505.11	0.00103
P3	323.12	618.95	0.00207
P4	-66.60	789.23	0.00507
P5	-0.02	774.65	0.00460
Pmin	-1347.84	0.00	0.20000

PT	P	My(-)	max es
P0	1329.08	-178.03	-0.00065
P1	1035.08	-318.05	0.00000
P2	645.17	-449.00	0.00103
P3	311.36	-548.02	0.00207
P4	-110.47	-679.49	0.00507
P5	0.01	-661.39	0.00432
Pmin	-1347.84	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

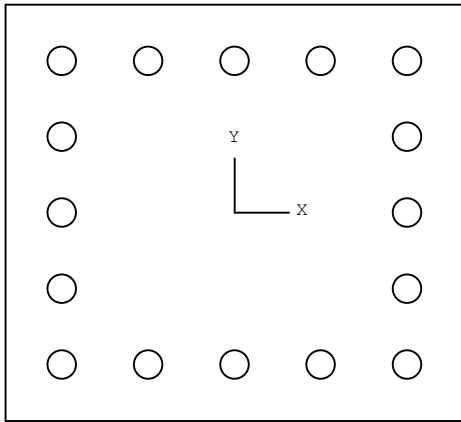
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect22x20\_fc3\_fy60\_16#11\_NX5\_NY5\_cc2.705



Section 177 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

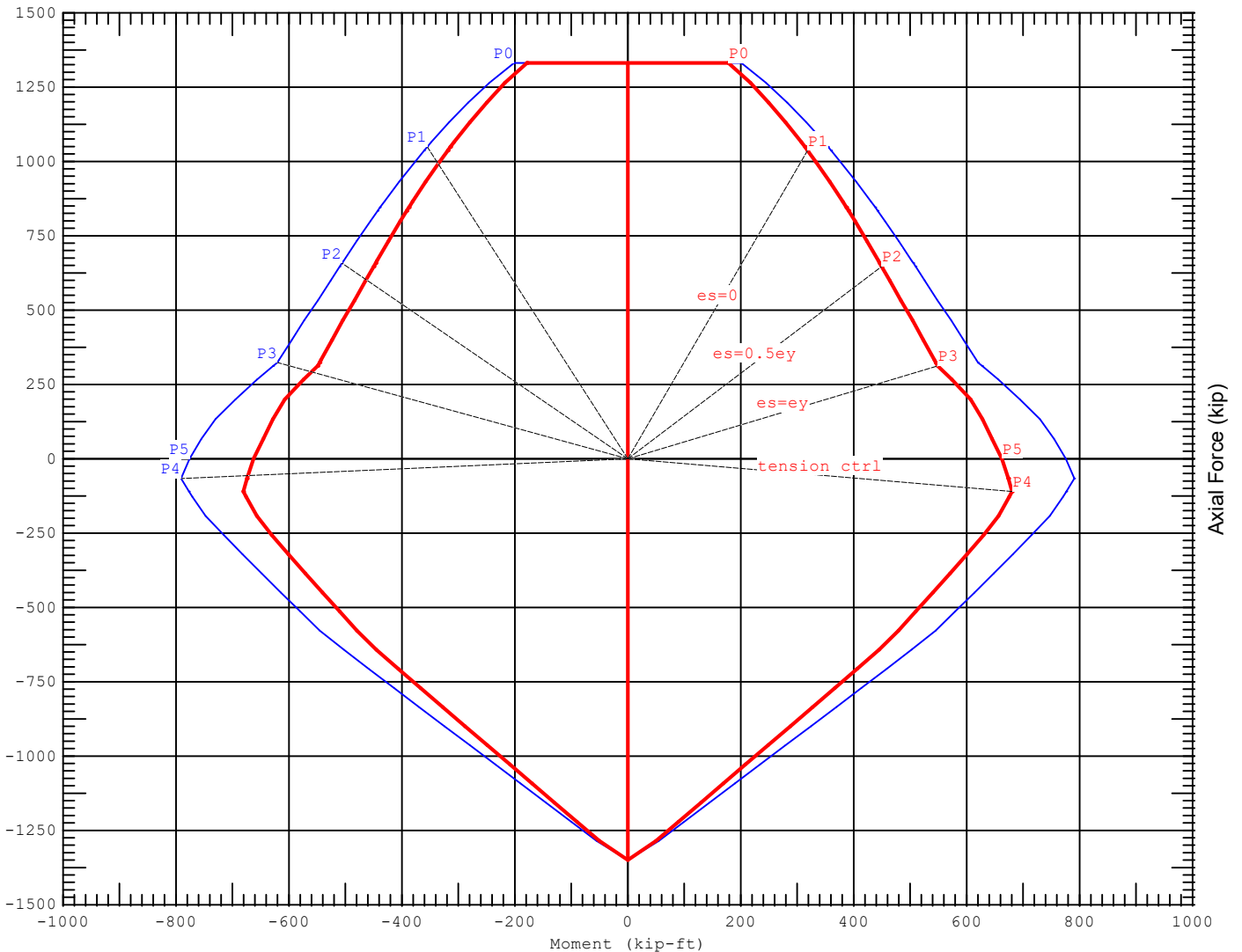
b x h: 22 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 16 # 11  
 Confinement: Tied  
 Ag: 440.00 in<sup>2</sup>  
 As: 24.96 in<sup>2</sup>  
 Roh: 5.67%  
 Ix: 14666.7 in<sup>4</sup>  
 Iy: 17746.7 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.24 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1329.08	178.03	-0.00065
P1	1035.08	318.05	0.00000
P2	645.17	449.00	0.00103
P3	311.36	548.02	0.00207
P4	-110.47	679.49	0.00507
P5	0.01	661.39	0.00432
Pmin	-1347.84	0.00	0.20000

PT	P	My(-)	max es
P0	1329.10	-200.84	-0.00063
P1	1046.99	-354.40	0.00000
P2	656.60	-505.11	0.00103
P3	323.12	-618.95	0.00207
P4	-66.60	-789.23	0.00507
P5	-0.02	-774.65	0.00460
Pmin	-1347.84	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

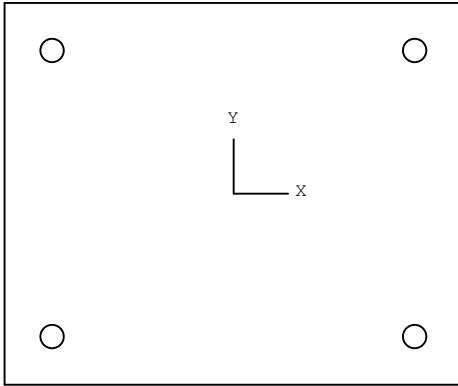
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_4#10\_NX2\_NY2\_cc2.51



Section 178 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

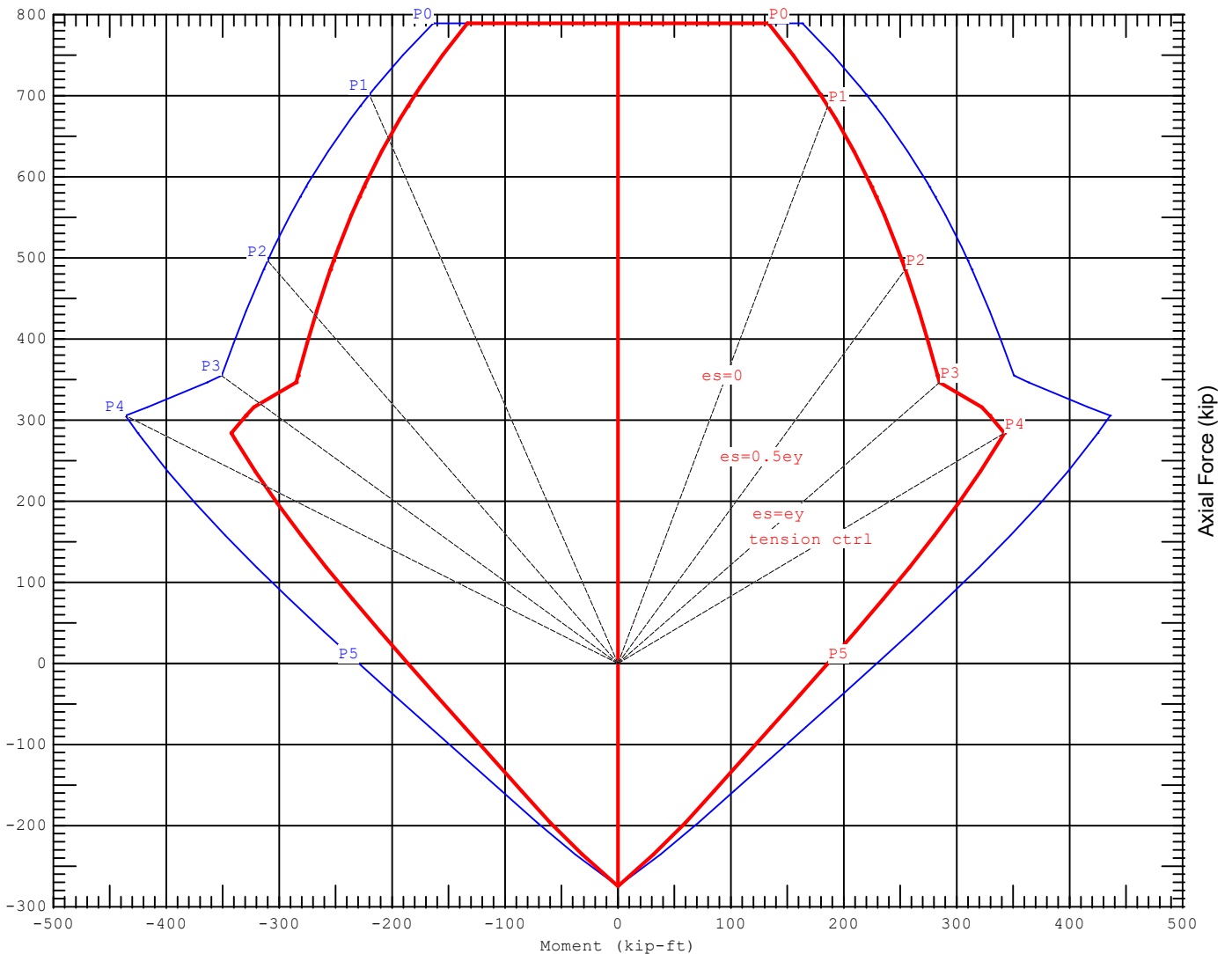
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 4 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 5.08 in<sup>2</sup>  
 Roh: 1.06%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.71 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	788.24	133.01	-0.00037
P1	686.24	185.70	0.00000
P2	485.07	254.02	0.00103
P3	345.80	284.39	0.00207
P4	283.57	341.78	0.00507
P5	0.00	185.55	0.01664
Pmin	-274.32	0.00	0.20000

PT	P	My(-)	max es
P0	788.24	-163.06	-0.00032
P1	700.38	-219.67	0.00000
P2	495.59	-309.62	0.00103
P3	354.17	-350.30	0.00207
P4	305.14	-435.25	0.00507
P5	-0.01	-228.97	0.01945
Pmin	-274.32	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

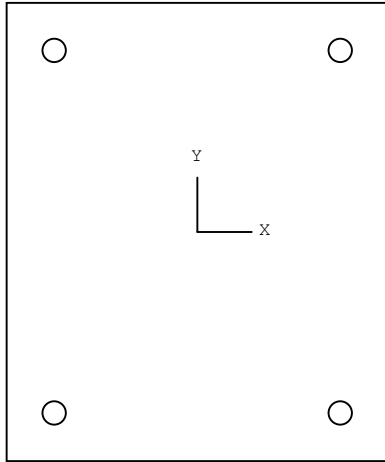
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_4#10\_NX2\_NY2\_cc2.51



Section 179 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 4 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 5.08 in<sup>2</sup>  
 Roh: 1.06%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.71 in

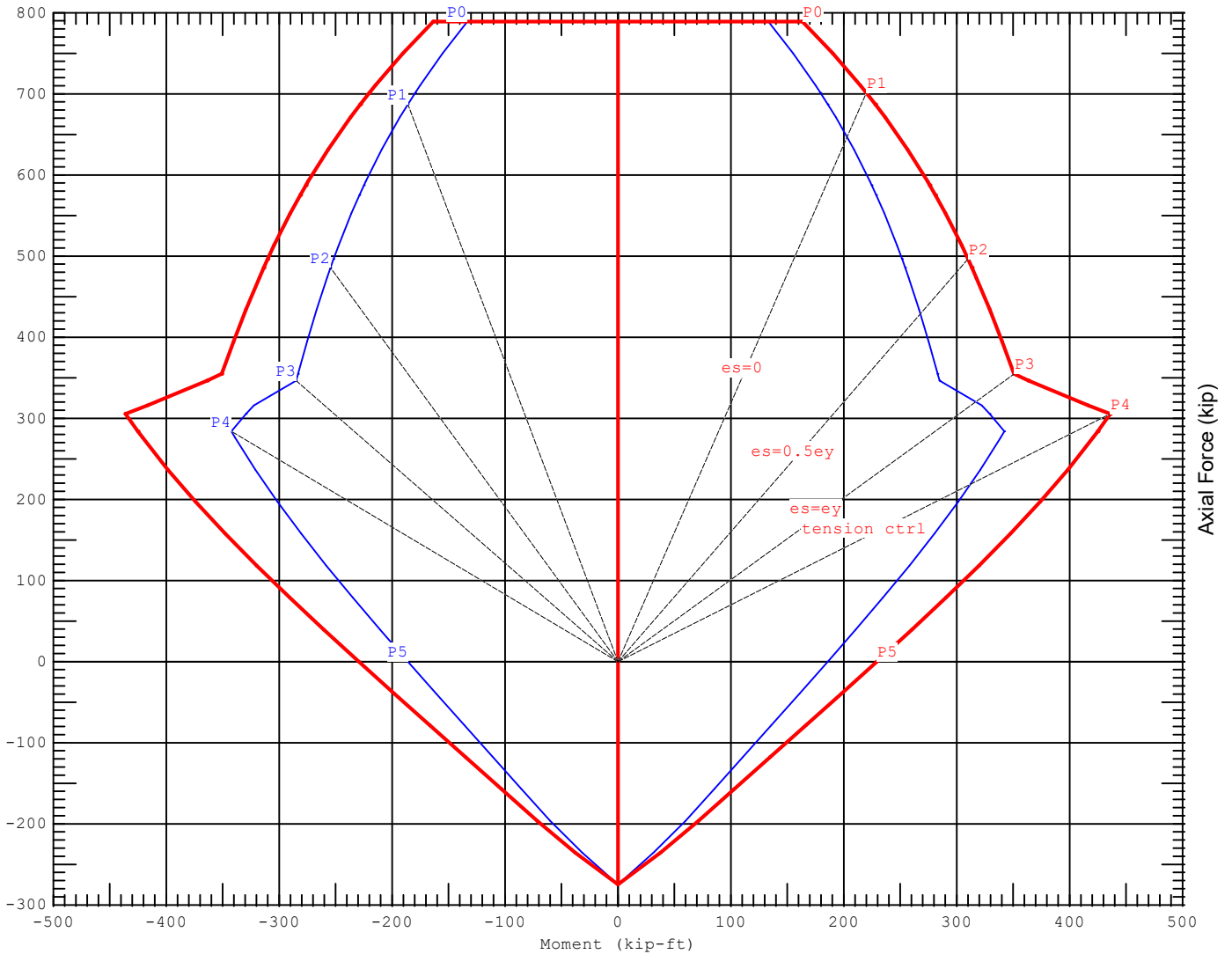
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	788.24	163.06	-0.00032
P1	700.38	219.67	0.00000
P2	495.59	309.62	0.00103
P3	354.17	350.30	0.00207
P4	305.14	435.25	0.00507
P5	-0.01	228.97	0.01945
Pmin	-274.32	0.00	0.20000

PT	P	My(-)	max es
P0	788.24	-133.01	-0.00037
P1	686.24	-185.70	0.00000
P2	485.07	-254.02	0.00103
P3	345.80	-284.39	0.00207
P4	283.57	-341.78	0.00507
P5	0.00	-185.55	0.01664
Pmin	-274.32	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

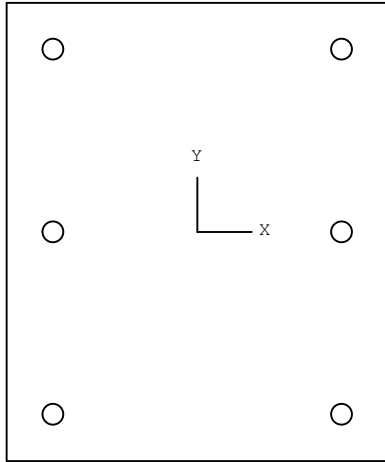
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_6#9\_NX3\_NY2\_cc2.439



Section 180 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

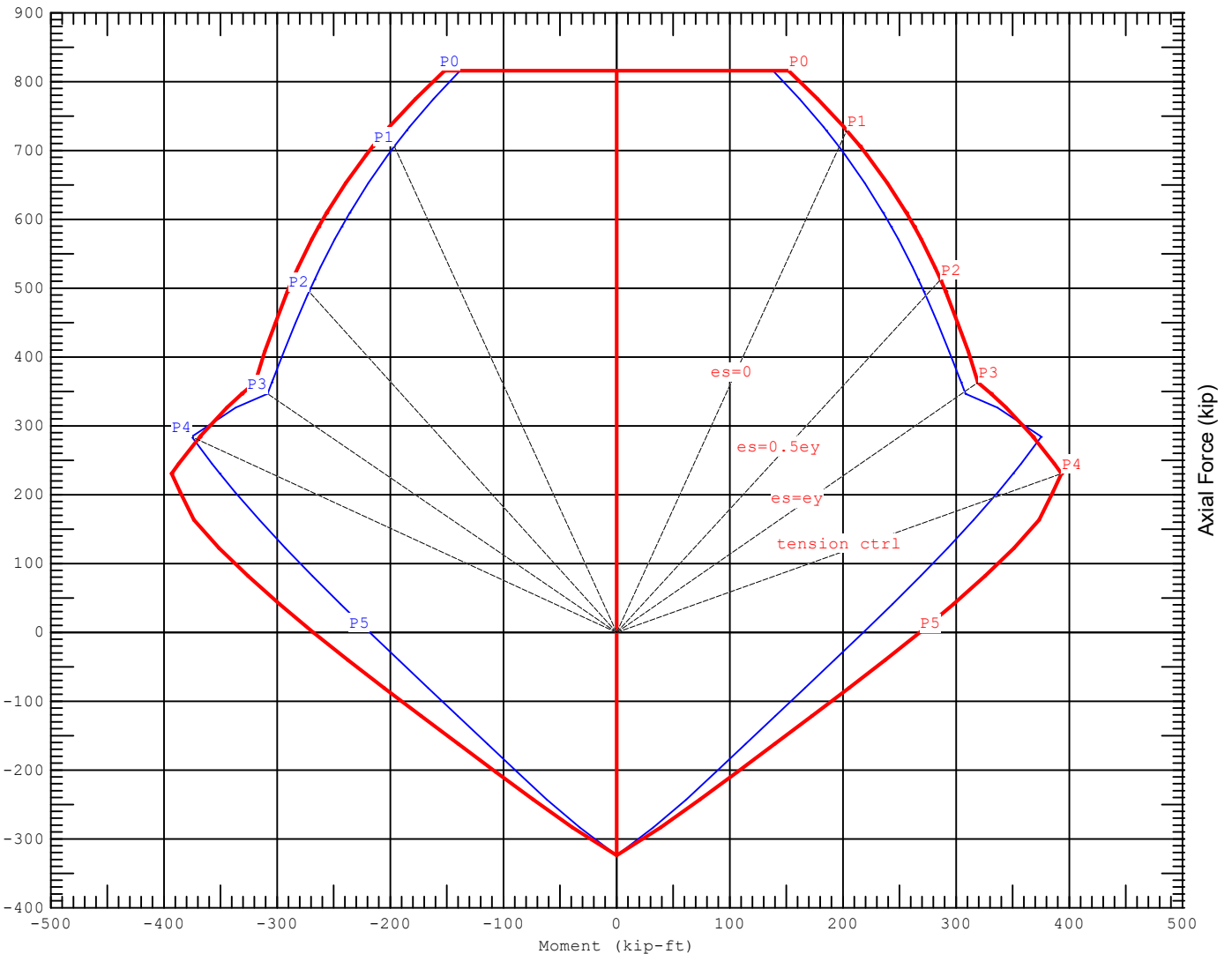
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.25%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 8.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	815.72	151.75	-0.00031
P1	729.06	203.12	0.00000
P2	512.57	285.82	0.00103
P3	362.99	318.71	0.00207
P4	230.34	392.40	0.00507
P5	-0.01	267.57	0.01295
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	815.72	-138.06	-0.00039
P1	705.82	-196.10	0.00000
P2	495.06	-271.19	0.00103
P3	346.45	-307.80	0.00207
P4	283.94	-374.50	0.00507
P5	0.00	-217.79	0.01578
Pmin	-324.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

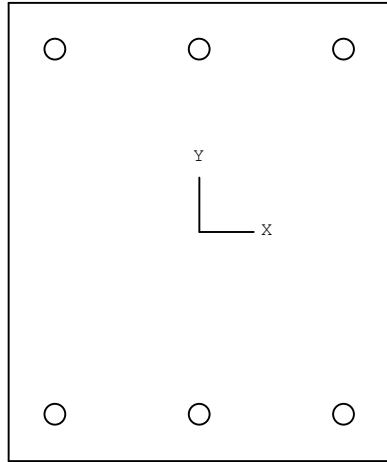
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_6#9\_NX2\_NY3\_cc2.439



Section 181 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

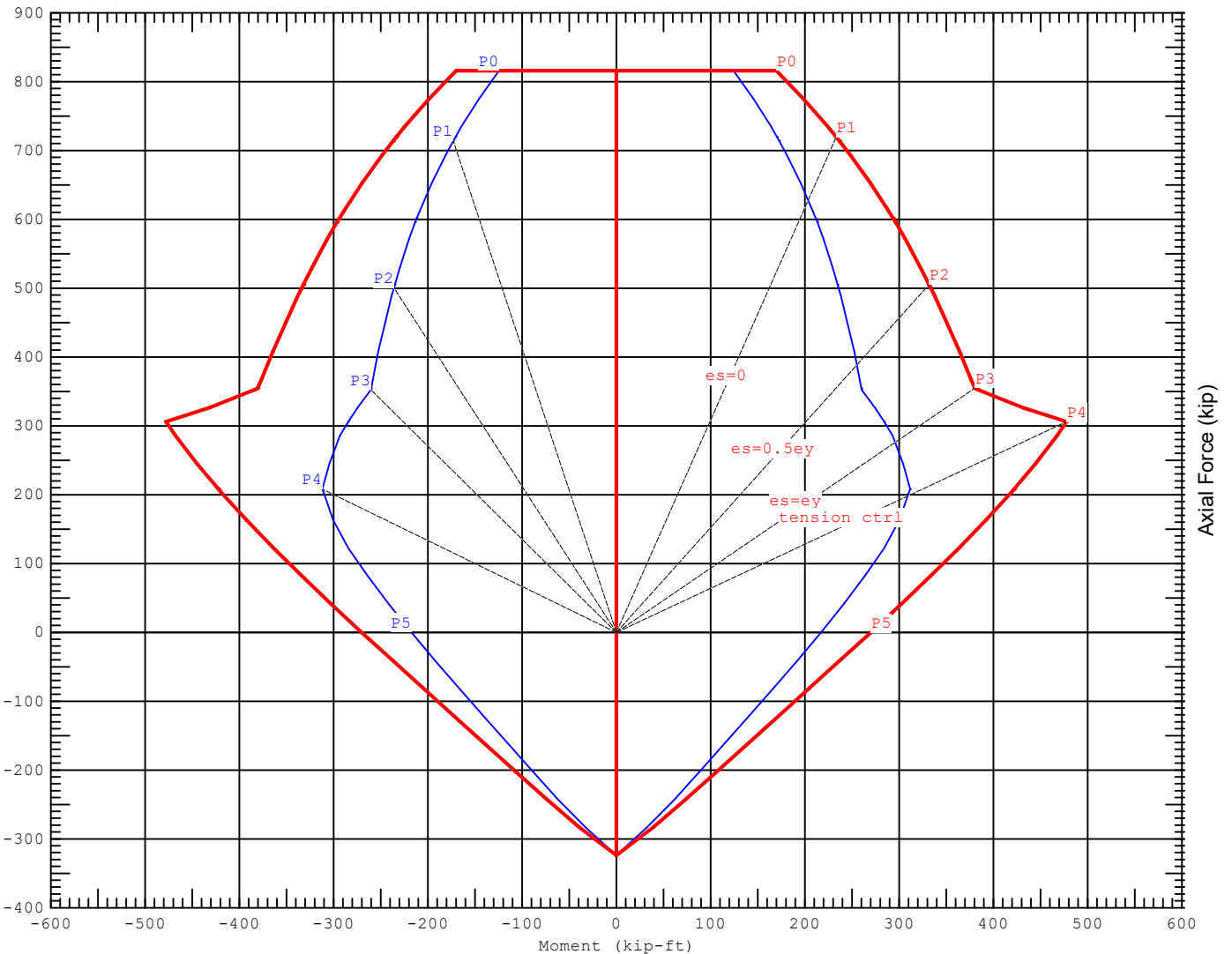
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.25%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	815.72	169.55	-0.00034
P1	719.56	232.87	0.00000
P2	505.28	331.11	0.00103
P3	354.59	379.54	0.00207
P4	305.87	476.62	0.00507
P5	-0.01	269.46	0.01801
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	815.72	-124.13	-0.00036
P1	713.86	-172.57	0.00000
P2	500.39	-235.38	0.00103
P3	352.39	-259.70	0.00207
P4	207.94	-311.02	0.00507
P5	0.00	-216.87	0.01155
Pmin	-324.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

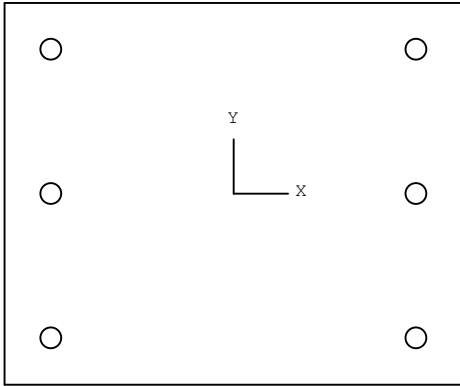
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_6#9\_NX3\_NY2\_cc2.439



Section 182 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

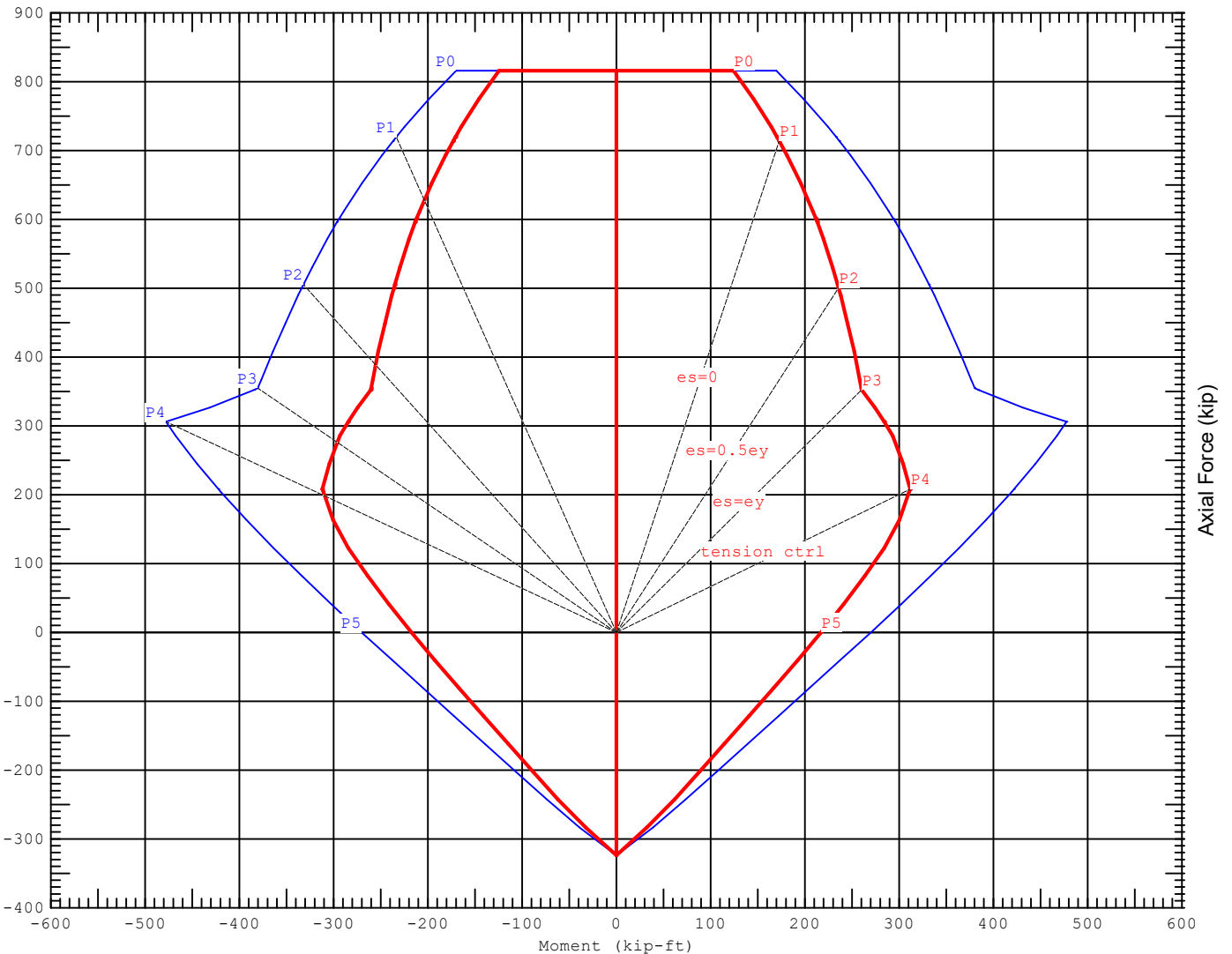
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.25%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	815.72	124.13	-0.00036
P1	713.86	172.57	0.00000
P2	500.39	235.38	0.00103
P3	352.39	259.70	0.00207
P4	207.94	311.02	0.00507
P5	0.00	216.87	0.01155
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	815.72	-169.55	-0.00034
P1	719.56	-232.87	0.00000
P2	505.28	-331.11	0.00103
P3	354.59	-379.54	0.00207
P4	305.87	-476.62	0.00507
P5	-0.01	-269.46	0.01801
Pmin	-324.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

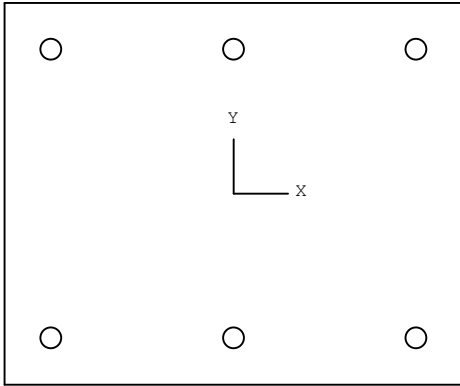
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_6#9\_NX2\_NY3\_cc2.439



Section 183 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

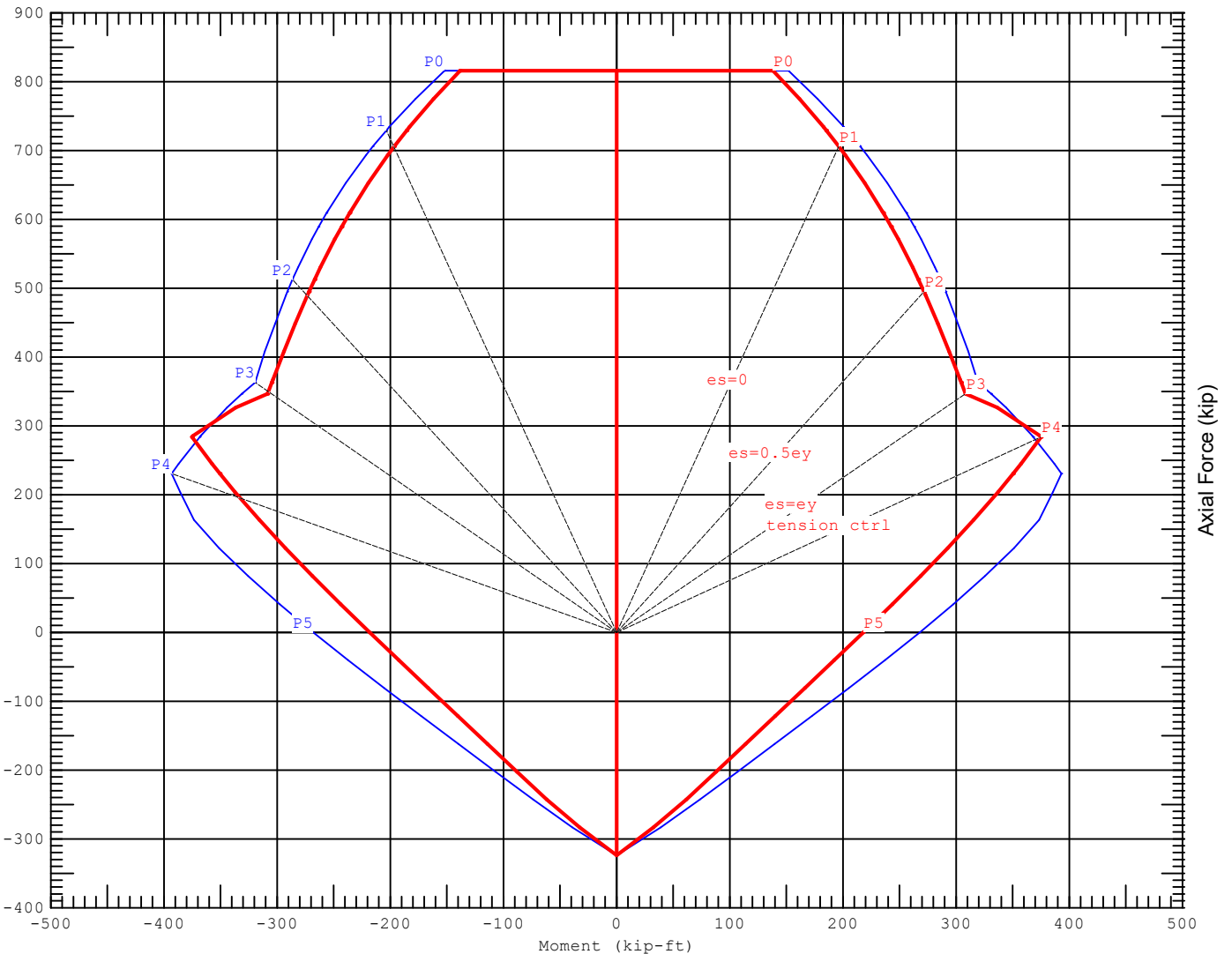
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 6 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 6.00 in<sup>2</sup>  
 Roh: 1.25%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 8.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	815.72	138.06	-0.00039
P1	705.82	196.10	0.00000
P2	495.06	271.19	0.00103
P3	346.45	307.80	0.00207
P4	283.94	374.50	0.00507
P5	0.00	217.79	0.01578
Pmin	-324.00	0.00	0.20000

PT	P	My(-)	max es
P0	815.72	-151.75	-0.00031
P1	729.06	-203.12	0.00000
P2	512.57	-285.82	0.00103
P3	362.99	-318.71	0.00207
P4	230.34	-392.40	0.00507
P5	-0.01	-267.57	0.01295
Pmin	-324.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

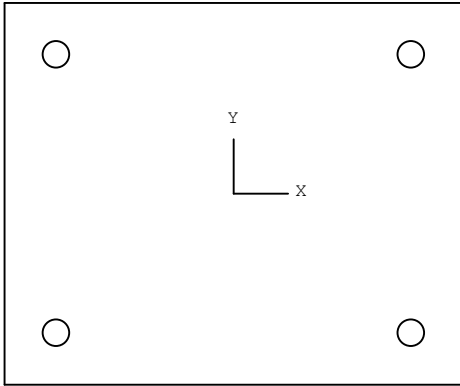
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_4#11\_NX2\_NY2\_cc2.705



Section 184 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

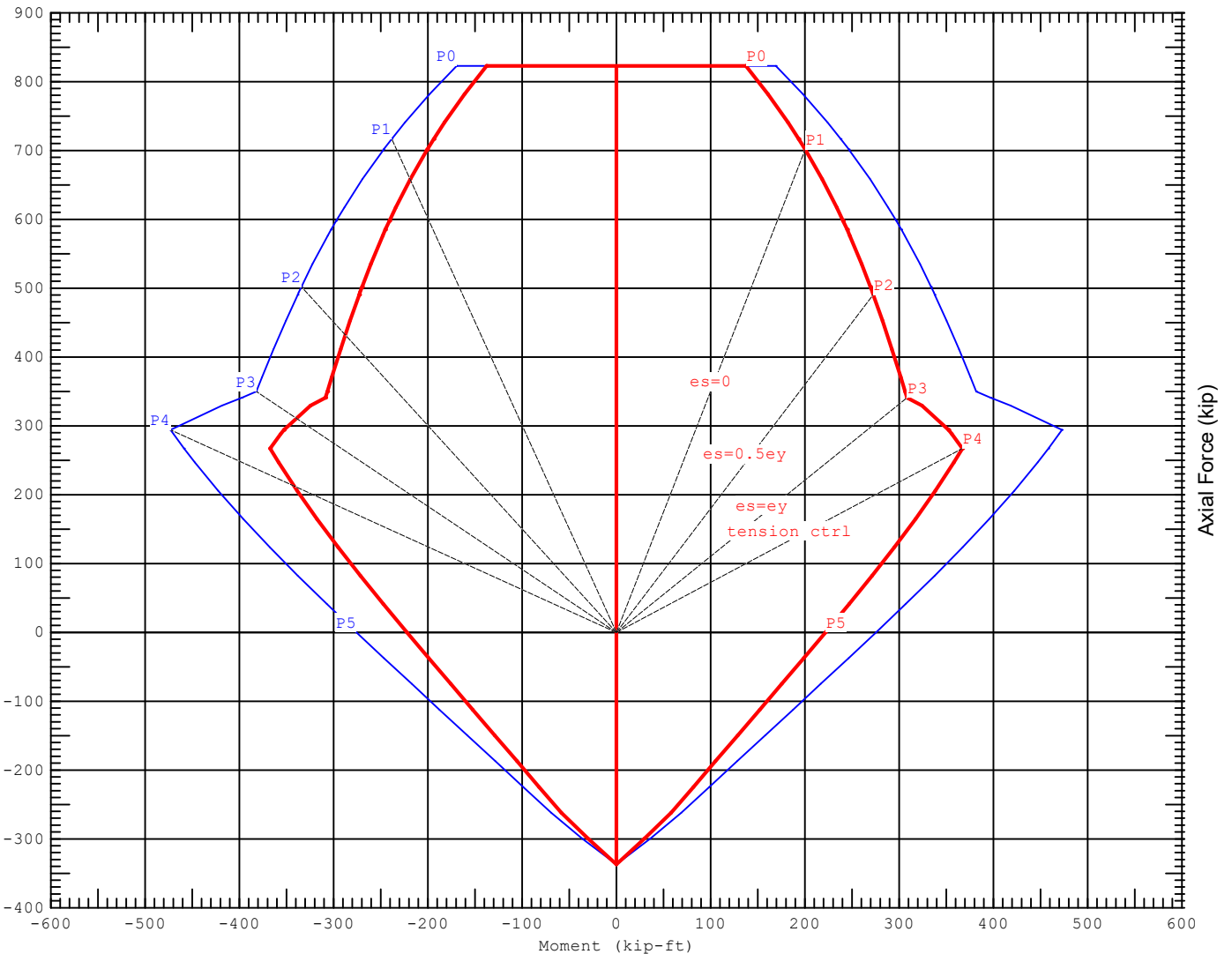
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 4 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 6.24 in<sup>2</sup>  
 Roh: 1.30%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.18 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	822.89	137.15	-0.00043
P1	701.30	199.95	0.00000
P2	490.52	272.13	0.00103
P3	340.93	307.75	0.00207
P4	266.94	366.42	0.00507
P5	0.01	221.61	0.01410
Pmin	-336.96	0.00	0.20000

PT	P	My(-)	max es
P0	822.89	-168.88	-0.00037
P1	716.55	-237.74	0.00000
P2	501.85	-333.33	0.00103
P3	349.95	-381.11	0.00207
P4	294.09	-471.81	0.00507
P5	0.01	-274.98	0.01619
Pmin	-336.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

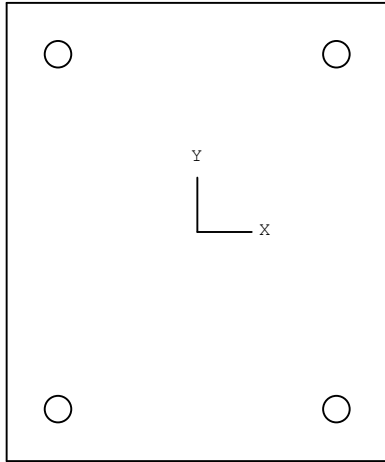
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_4#11\_NX2\_NY2\_cc2.705



Section 185 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

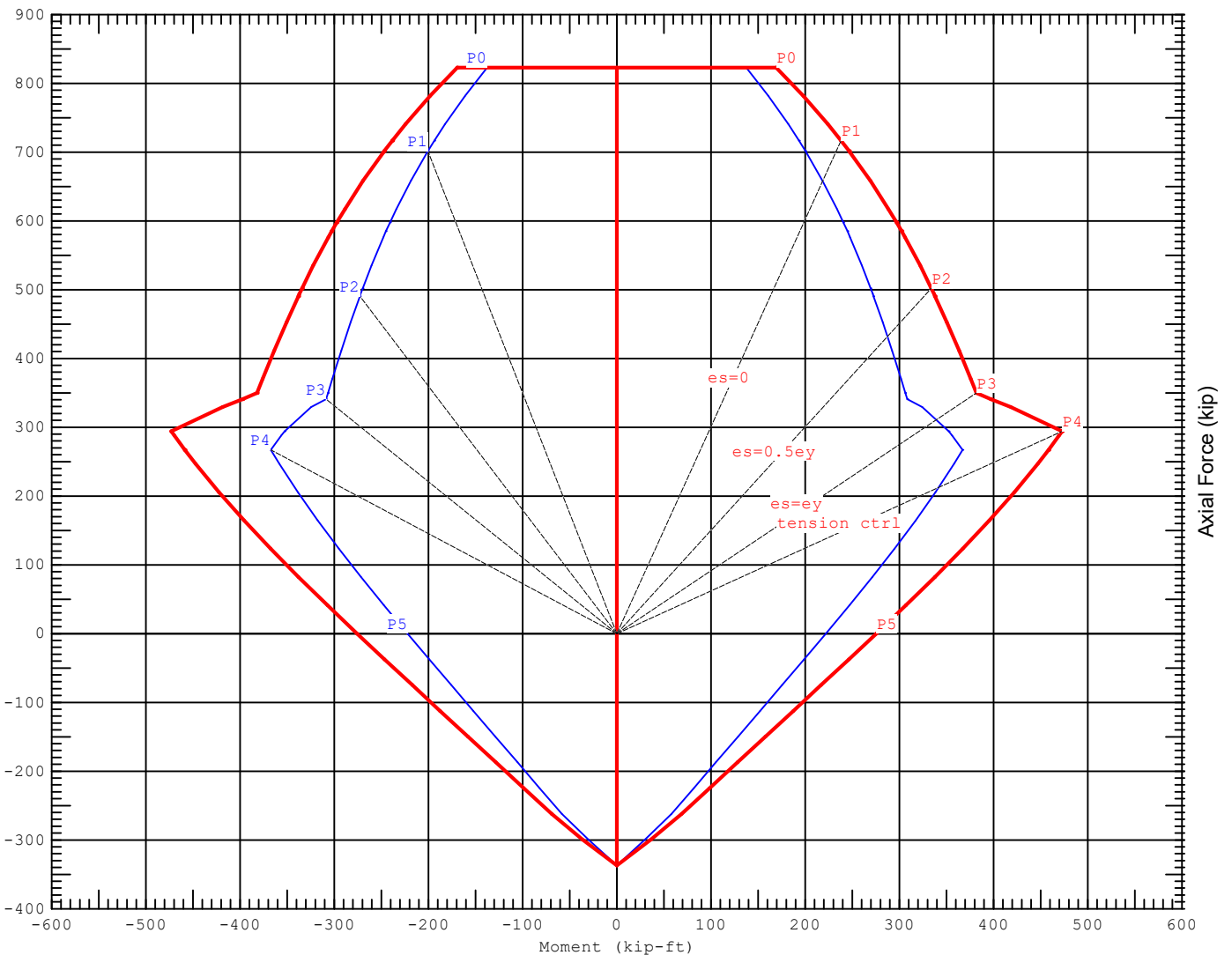
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 4 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 6.24 in<sup>2</sup>  
 Roh: 1.30%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 13.18 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	822.89	168.88	-0.00037
P1	716.55	237.74	0.00000
P2	501.85	333.33	0.00103
P3	349.95	381.11	0.00207
P4	294.09	471.81	0.00507
P5	0.01	274.98	0.01619
Pmin	-336.96	0.00	0.20000

PT	P	My(-)	max es
P0	822.89	-137.15	-0.00043
P1	701.30	-199.95	0.00000
P2	490.52	-272.13	0.00103
P3	340.93	-307.75	0.00207
P4	266.94	-366.42	0.00507
P5	0.01	-221.61	0.01410
Pmin	-336.96	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

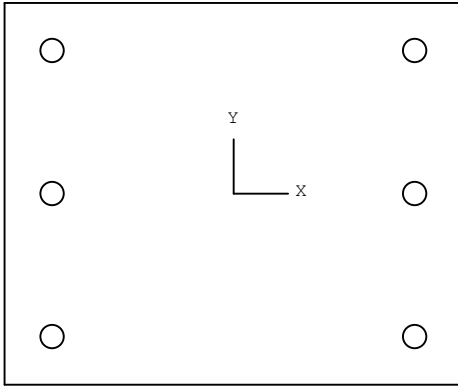
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_6#10\_NX3\_NY2\_cc2.51



Section 186 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

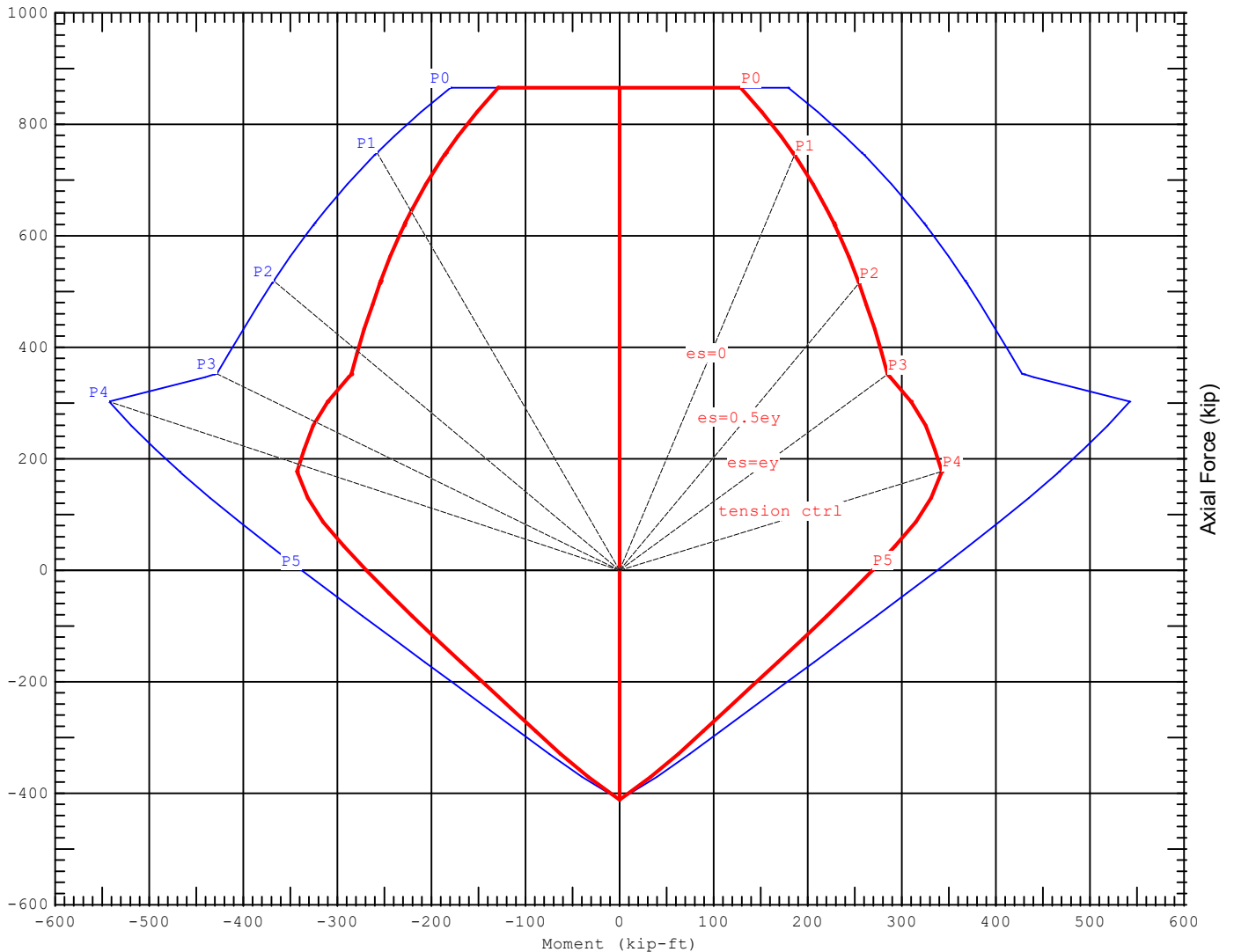
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.59%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	864.11	128.46	-0.00040
P1	743.54	185.70	0.00000
P2	514.05	254.02	0.00103
P3	350.67	284.39	0.00207
P4	176.60	341.78	0.00507
P5	0.01	268.52	0.00936
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	864.12	-179.13	-0.00038
P1	747.81	-257.18	0.00000
P2	518.25	-366.71	0.00103
P3	352.06	-426.97	0.00207
P4	301.85	-541.11	0.00507
P5	-0.01	-337.13	0.01576
Pmin	-411.48	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

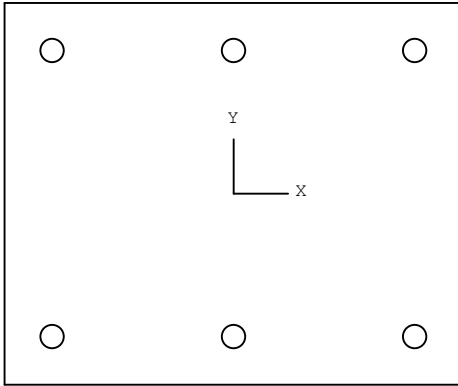
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_6#10\_NX2\_NY3\_cc2.51



Section 187 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

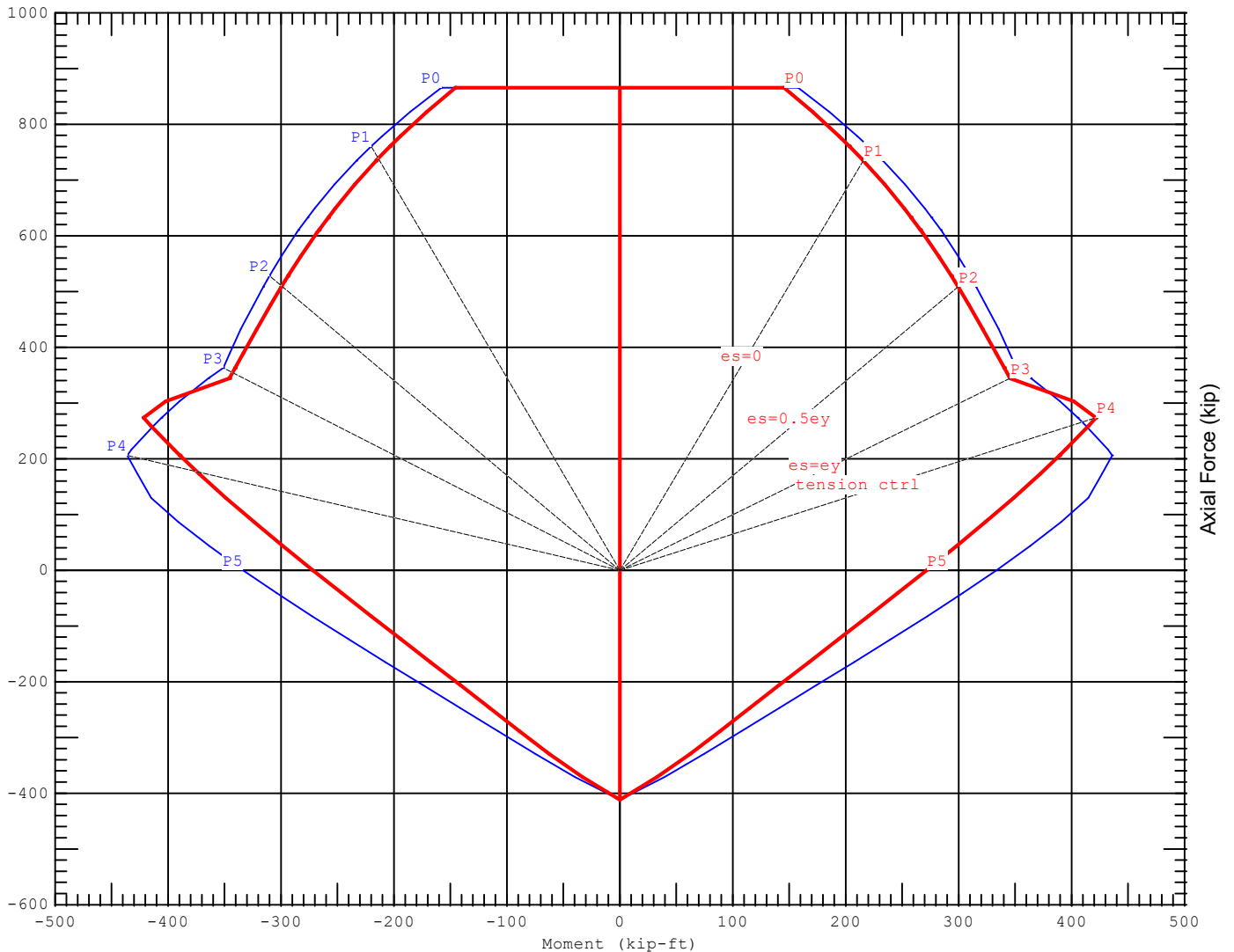
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.59%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 8.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	864.12	145.25	-0.00043
P1	733.66	215.30	0.00000
P2	507.73	299.08	0.00103
P3	343.69	344.91	0.00207
P4	273.13	420.88	0.00507
P5	-0.00	271.19	0.01338
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	864.12	-157.68	-0.00035
P1	759.60	-219.67	0.00000
P2	527.15	-309.62	0.00103
P3	362.28	-350.30	0.00207
P4	205.32	-435.25	0.00507
P5	-0.00	-332.91	0.01052
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

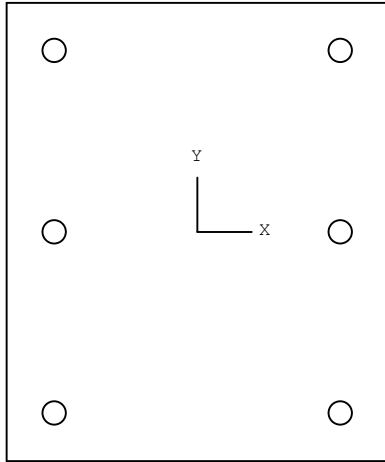
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_6#10\_NX3\_NY2\_cc2.51



Section 188 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

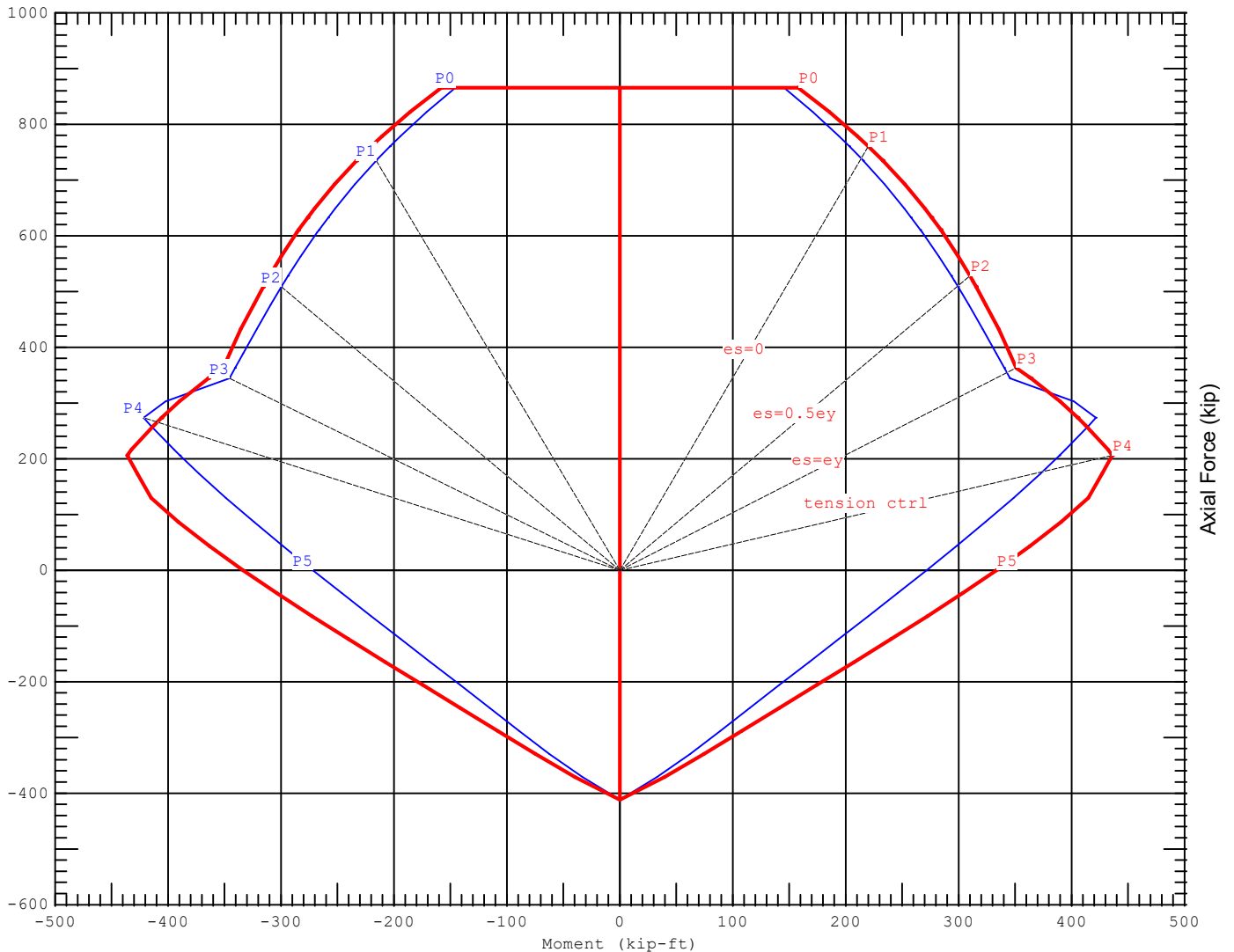
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.59%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 8.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	864.12	157.68	-0.00035
P1	759.60	219.67	0.00000
P2	527.15	309.62	0.00103
P3	362.28	350.30	0.00207
P4	205.32	435.25	0.00507
P5	-0.00	332.91	0.01052
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	864.12	-145.25	-0.00043
P1	733.66	-215.30	0.00000
P2	507.73	-299.08	0.00103
P3	343.69	-344.91	0.00207
P4	273.13	-420.88	0.00507
P5	-0.00	-271.19	0.01338
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

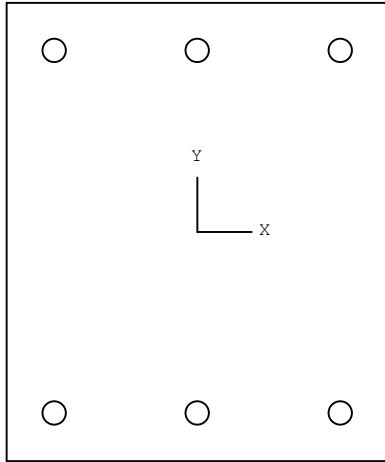
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_6#10\_NX2\_NY3\_cc2.51



Section 189 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

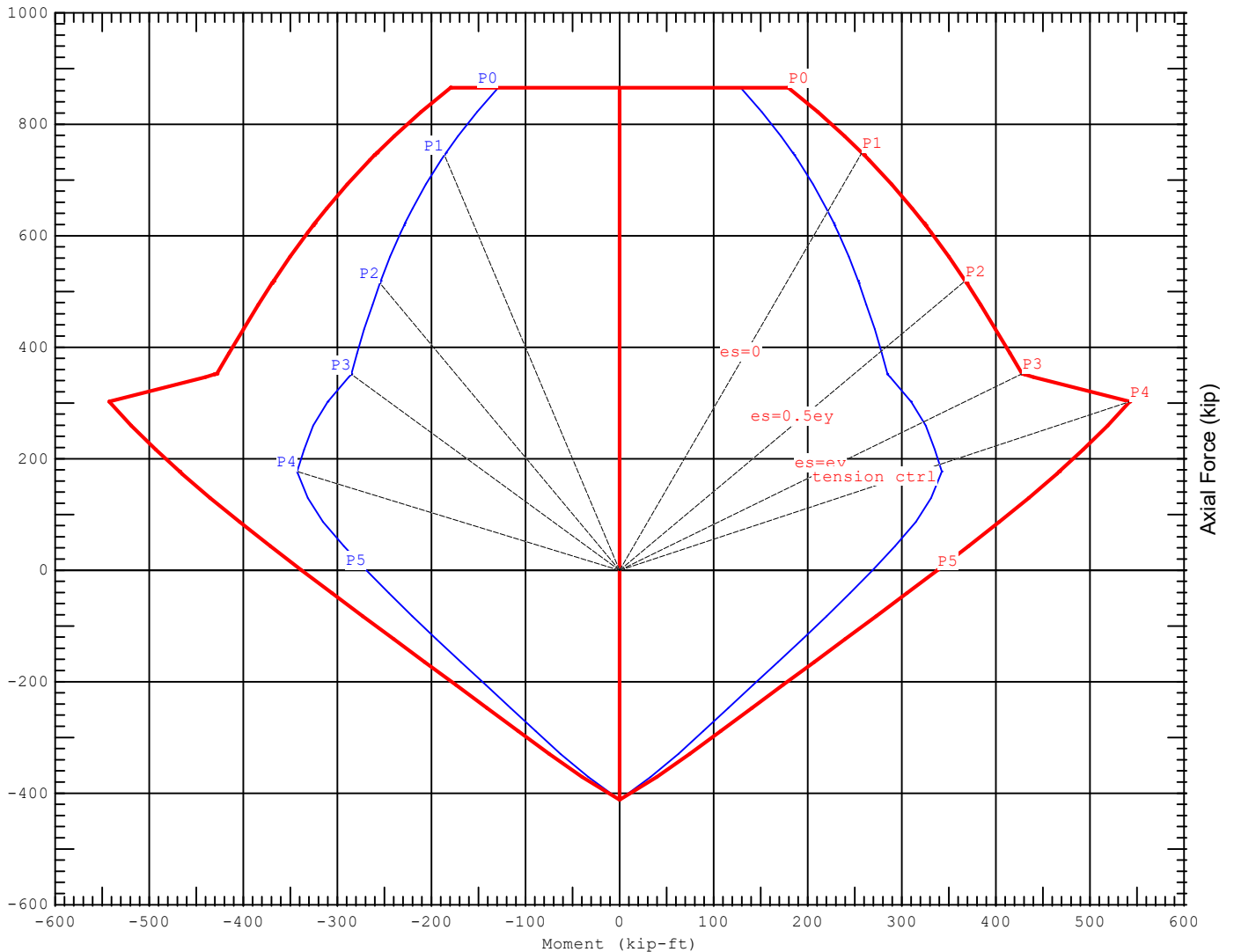
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 6 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 7.62 in<sup>2</sup>  
 Roh: 1.59%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	864.12	179.13	-0.00038
P1	747.81	257.18	0.00000
P2	518.25	366.71	0.00103
P3	352.06	426.97	0.00207
P4	301.85	541.11	0.00507
P5	-0.01	337.13	0.01576
Pmin	-411.48	0.00	0.20000

PT	P	My(-)	max es
P0	864.11	-128.46	-0.00040
P1	743.54	-185.70	0.00000
P2	514.05	-254.02	0.00103
P3	350.67	-284.39	0.00207
P4	176.60	-341.78	0.00507
P5	0.01	-268.52	0.00936
Pmin	-411.48	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

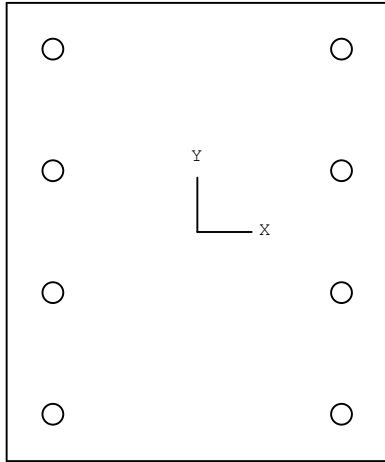
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#9\_NX4\_NY2\_cc2.439



Section 190 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

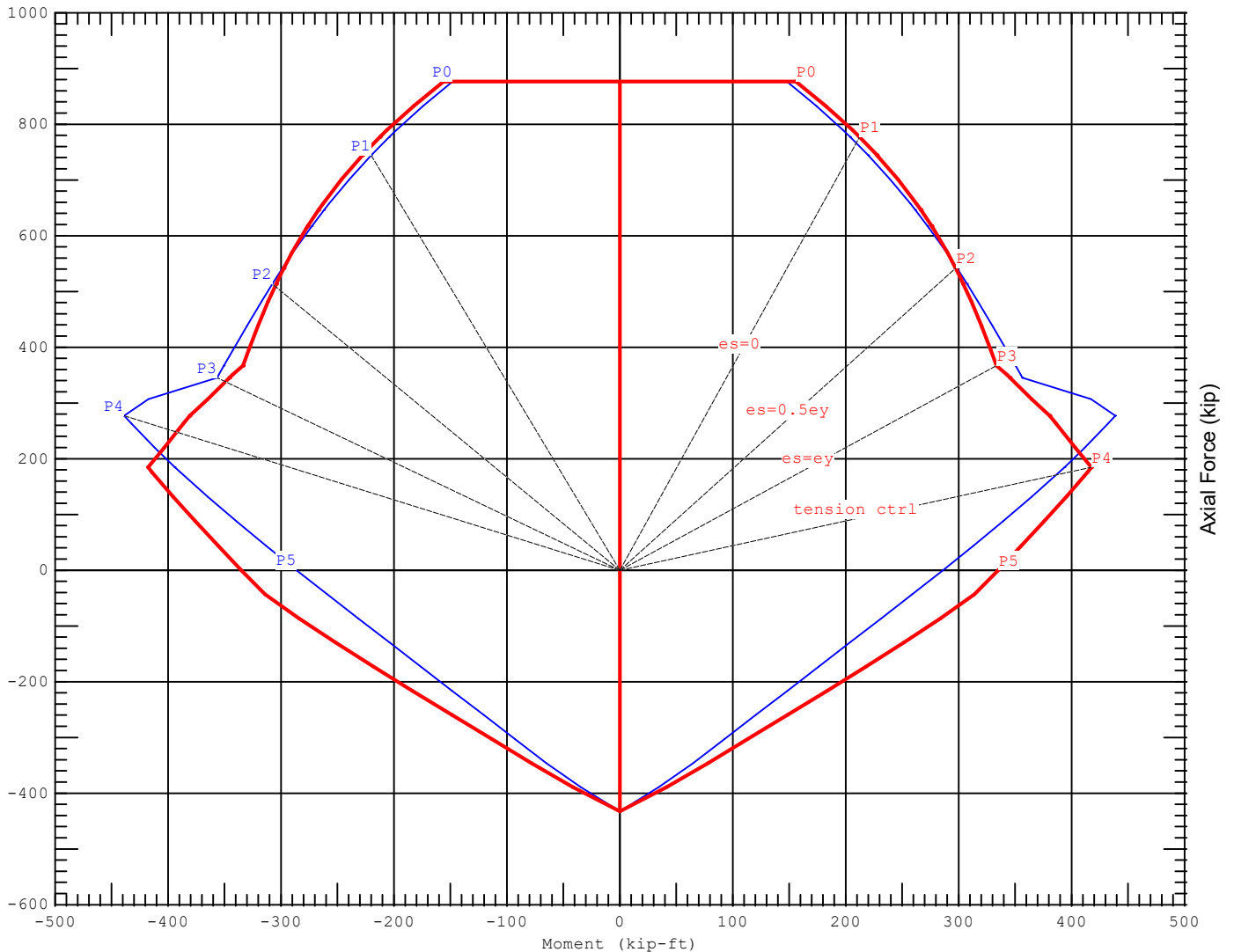
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.67%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.25 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	875.47	155.59	-0.00032
P1	775.90	212.00	0.00000
P2	541.02	296.88	0.00103
P3	366.41	332.84	0.00207
P4	184.60	416.95	0.00507
P5	-0.01	334.47	0.00847
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	875.47	-147.74	-0.00043
P1	743.16	-219.63	0.00000
P2	512.91	-307.01	0.00103
P3	344.80	-355.91	0.00207
P4	276.70	-437.98	0.00507
P5	0.00	-285.66	0.01343
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

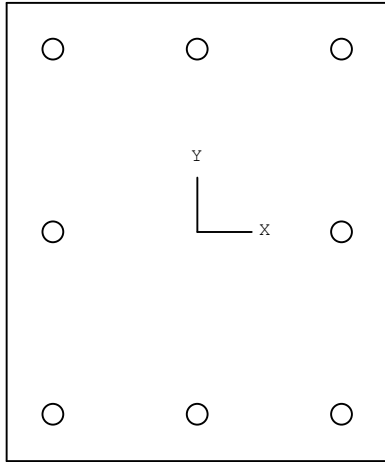
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#9\_NX3\_NY3\_cc2.439



Section 191 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

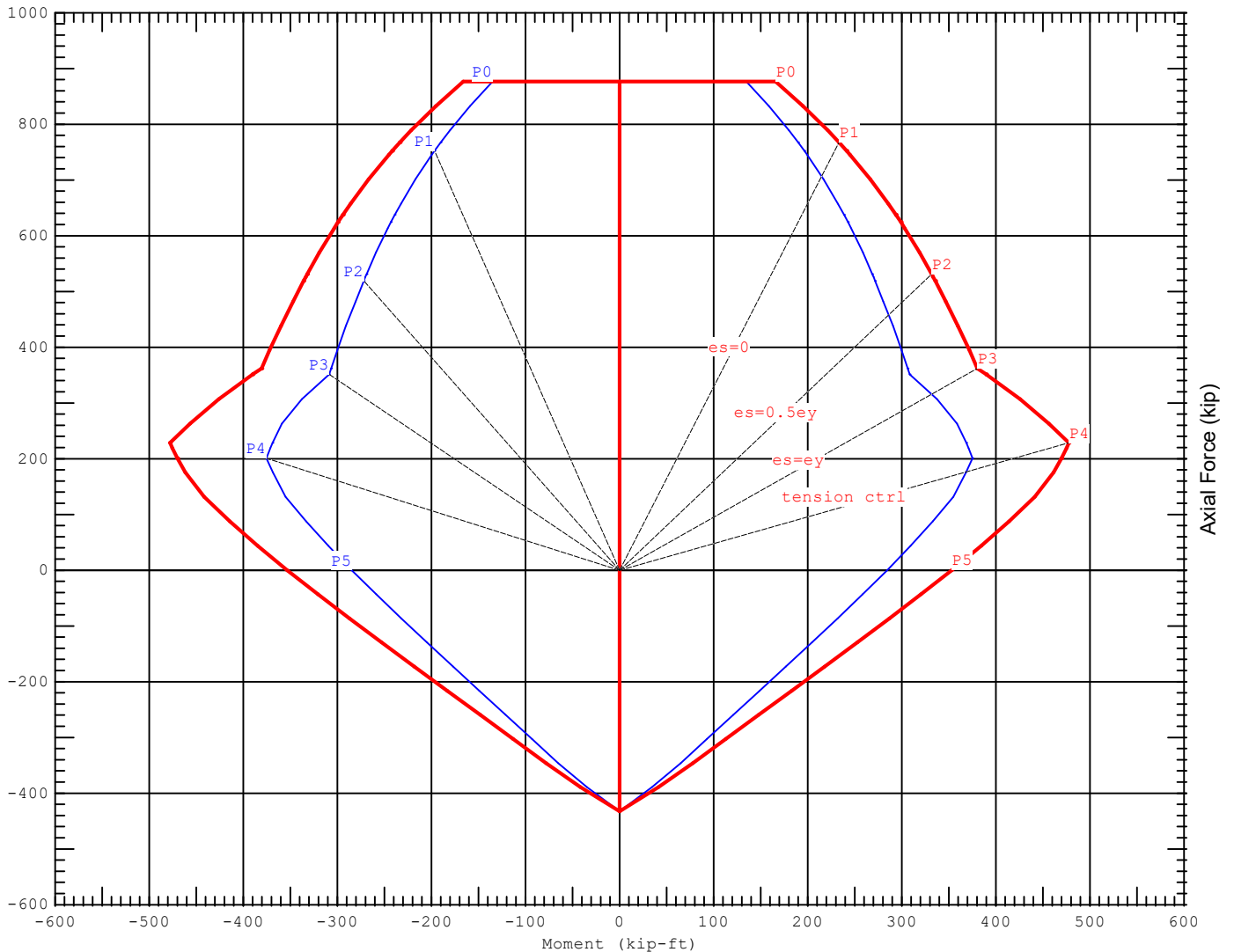
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.67%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	875.47	165.52	-0.00036
P1	766.40	232.87	0.00000
P2	530.42	331.11	0.00103
P3	361.33	379.54	0.00207
P4	228.05	476.62	0.00507
P5	0.00	352.30	0.01167
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	875.47	-134.63	-0.00041
P1	751.20	-196.10	0.00000
P2	518.24	-271.19	0.00103
P3	350.73	-307.80	0.00207
P4	200.70	-374.50	0.00507
P5	-0.00	-283.82	0.01025
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

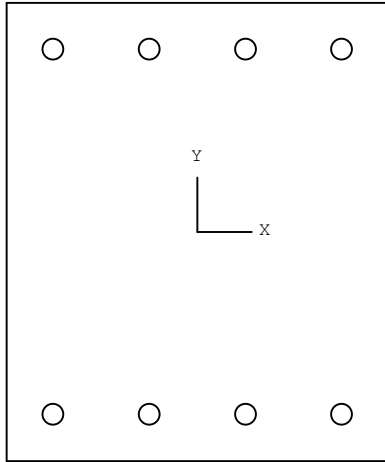
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#9\_NX2\_NY4\_cc2.439



Section 192 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

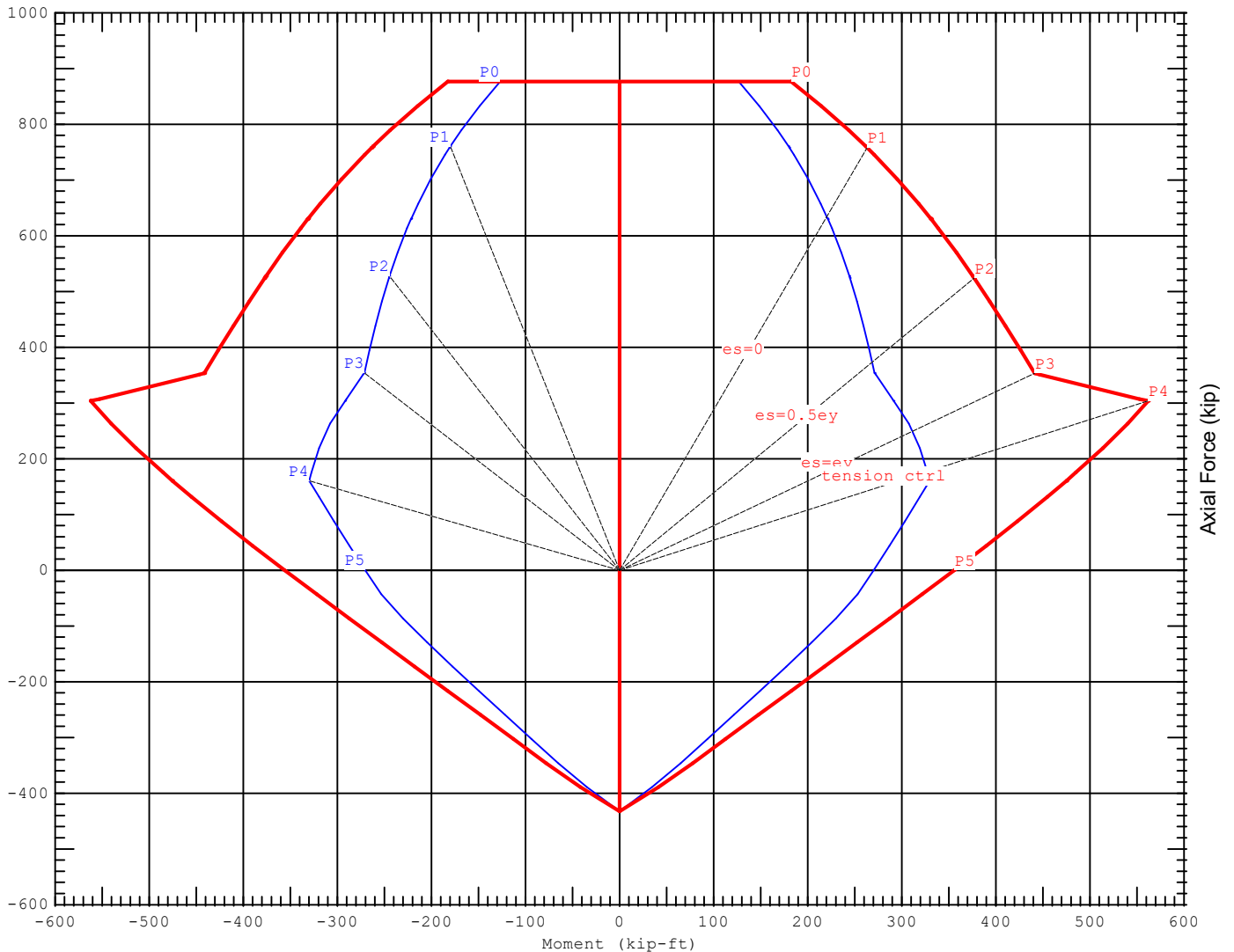
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.67%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	875.47	182.21	-0.00039
P1	756.91	262.62	0.00000
P2	523.13	376.40	0.00103
P3	352.93	440.37	0.00207
P4	303.57	560.84	0.00507
P5	-0.01	355.12	0.01581
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	875.47	-126.66	-0.00038
P1	759.24	-179.39	0.00000
P2	526.88	-243.85	0.00103
P3	353.36	-270.53	0.00207
P4	160.39	-328.91	0.00507
P5	0.00	-269.50	0.00785
Pmin	-432.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

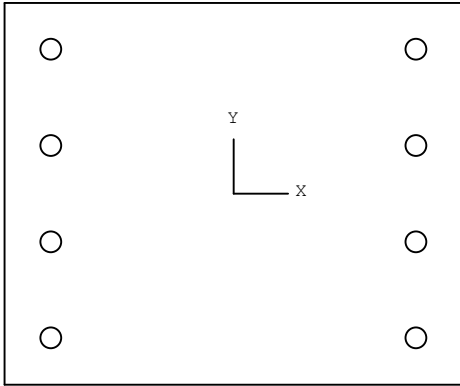
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#9\_NX4\_NY2\_cc2.439



Section 193 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

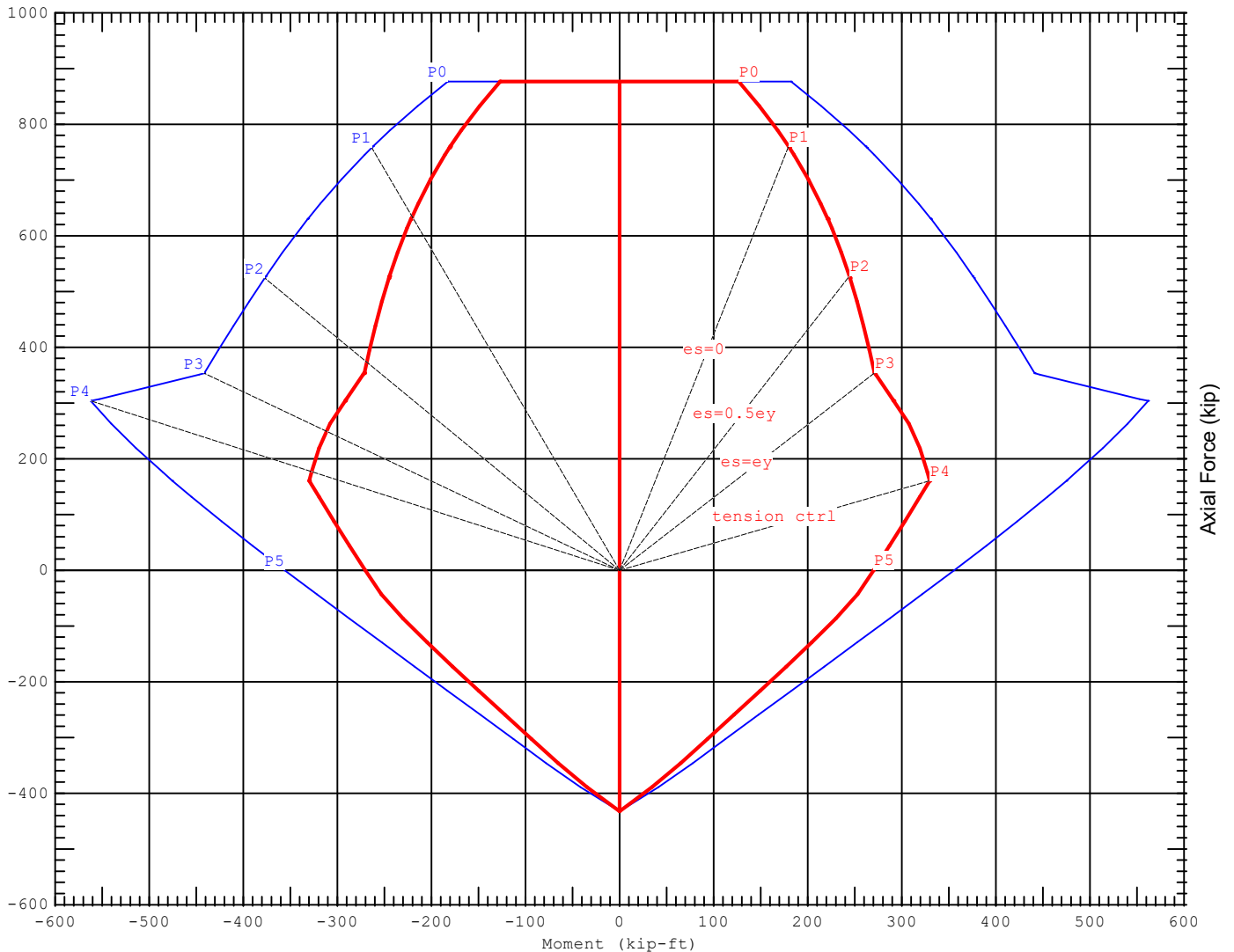
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.67%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	875.47	126.66	-0.00038
P1	759.24	179.39	0.00000
P2	526.88	243.85	0.00103
P3	353.36	270.53	0.00207
P4	160.39	328.91	0.00507
P5	0.00	269.50	0.00785
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	875.47	-182.21	-0.00039
P1	756.91	-262.62	0.00000
P2	523.13	-376.40	0.00103
P3	352.93	-440.37	0.00207
P4	303.57	-560.84	0.00507
P5	-0.01	-355.12	0.01581
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

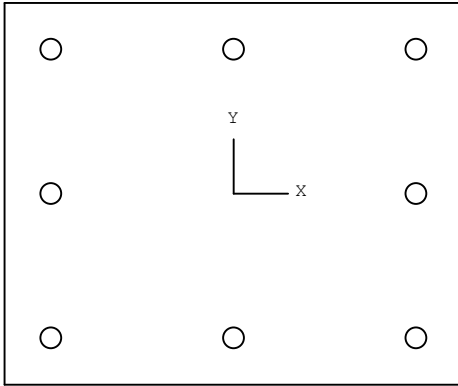
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#9\_NX3\_NY3\_cc2.439



Section 194 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

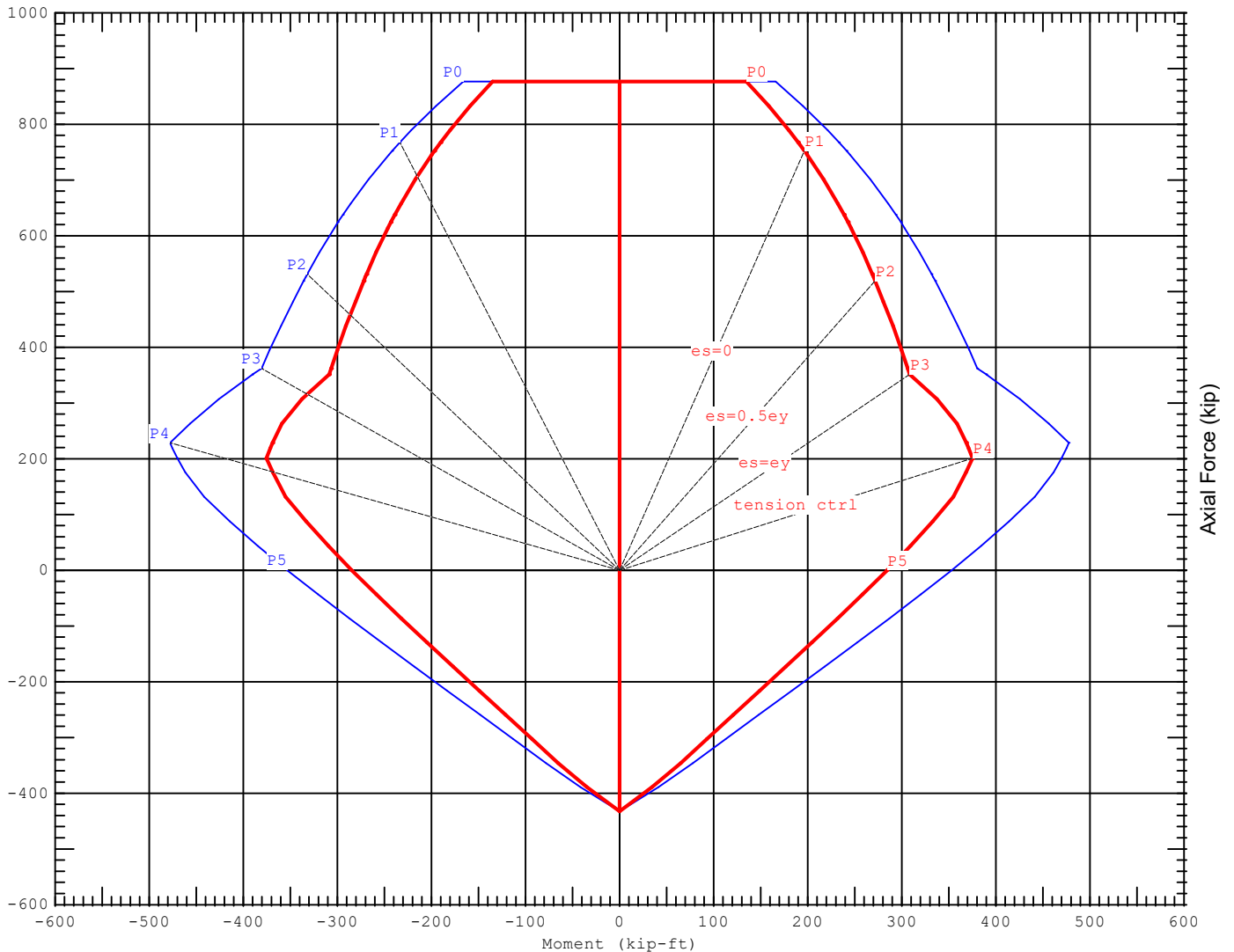
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.67%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.43 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	875.47	134.63	-0.00041
P1	751.20	196.10	0.00000
P2	518.24	271.19	0.00103
P3	350.73	307.80	0.00207
P4	200.70	374.50	0.00507
P5	-0.00	283.82	0.01025
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	875.47	-165.52	-0.00036
P1	766.40	-232.87	0.00000
P2	530.42	-331.11	0.00103
P3	361.33	-379.54	0.00207
P4	228.05	-476.62	0.00507
P5	0.00	-352.30	0.01167
Pmin	-432.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

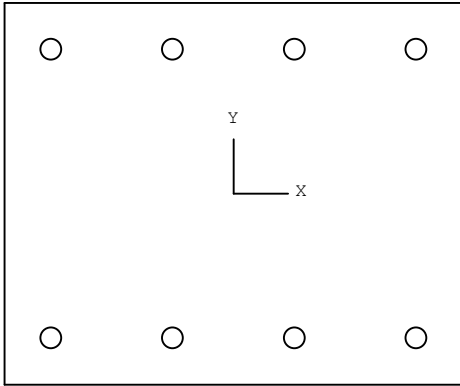
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#9\_NX2\_NY4\_cc2.439



Section 195 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

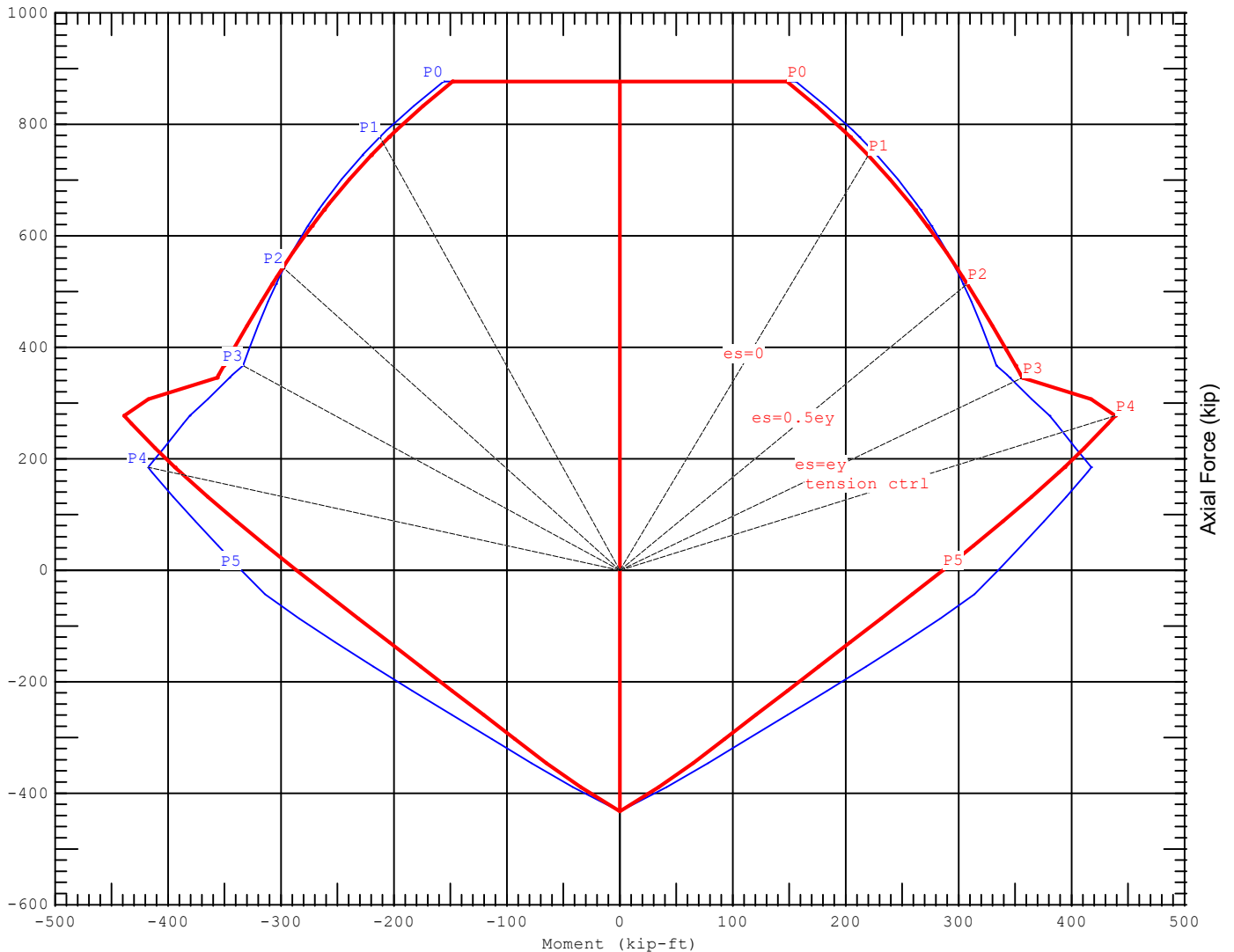
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 8 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 8.00 in<sup>2</sup>  
 Roh: 1.67%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.25 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	875.47	147.74	-0.00043
P1	743.16	219.63	0.00000
P2	512.91	307.01	0.00103
P3	344.80	355.91	0.00207
P4	276.70	437.98	0.00507
P5	0.00	285.66	0.01343
Pmin	-432.00	0.00	0.20000

PT	P	My(-)	max es
P0	875.47	-155.59	-0.00032
P1	775.90	-212.00	0.00000
P2	541.02	-296.88	0.00103
P3	366.41	-332.84	0.00207
P4	184.60	-416.95	0.00507
P5	-0.01	-334.47	0.00847
Pmin	-432.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

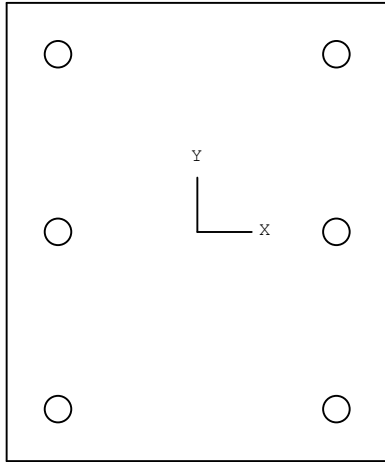
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_6#11\_NX3\_NY2\_cc2.705



Section 196 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

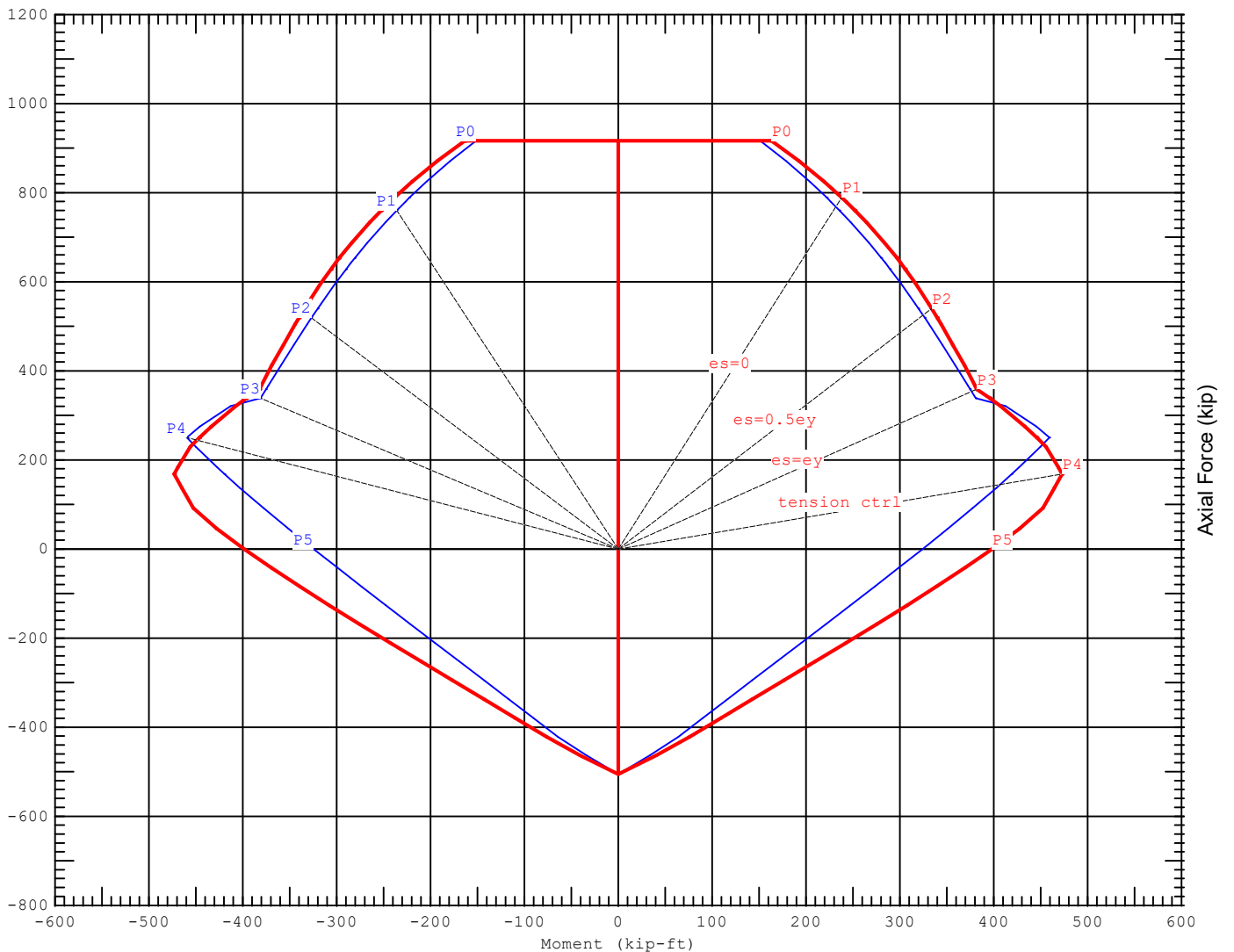
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 1.95%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 7.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	916.10	162.81	-0.00040
P1	788.39	237.74	0.00000
P2	539.41	333.33	0.00103
P3	358.40	381.11	0.00207
P4	168.11	471.81	0.00507
P5	-0.01	397.49	0.00843
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	916.09	-151.09	-0.00051
P1	759.56	-235.37	0.00000
P2	518.35	-326.03	0.00103
P3	338.35	-380.15	0.00207
P4	249.88	-458.47	0.00507
P5	-0.00	-323.72	0.01129
Pmin	-505.44	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

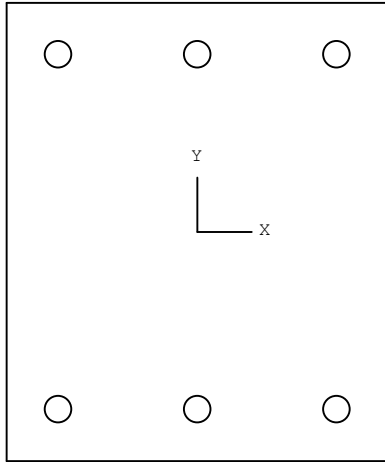
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_6#11\_NX2\_NY3\_cc2.705



Section 197 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

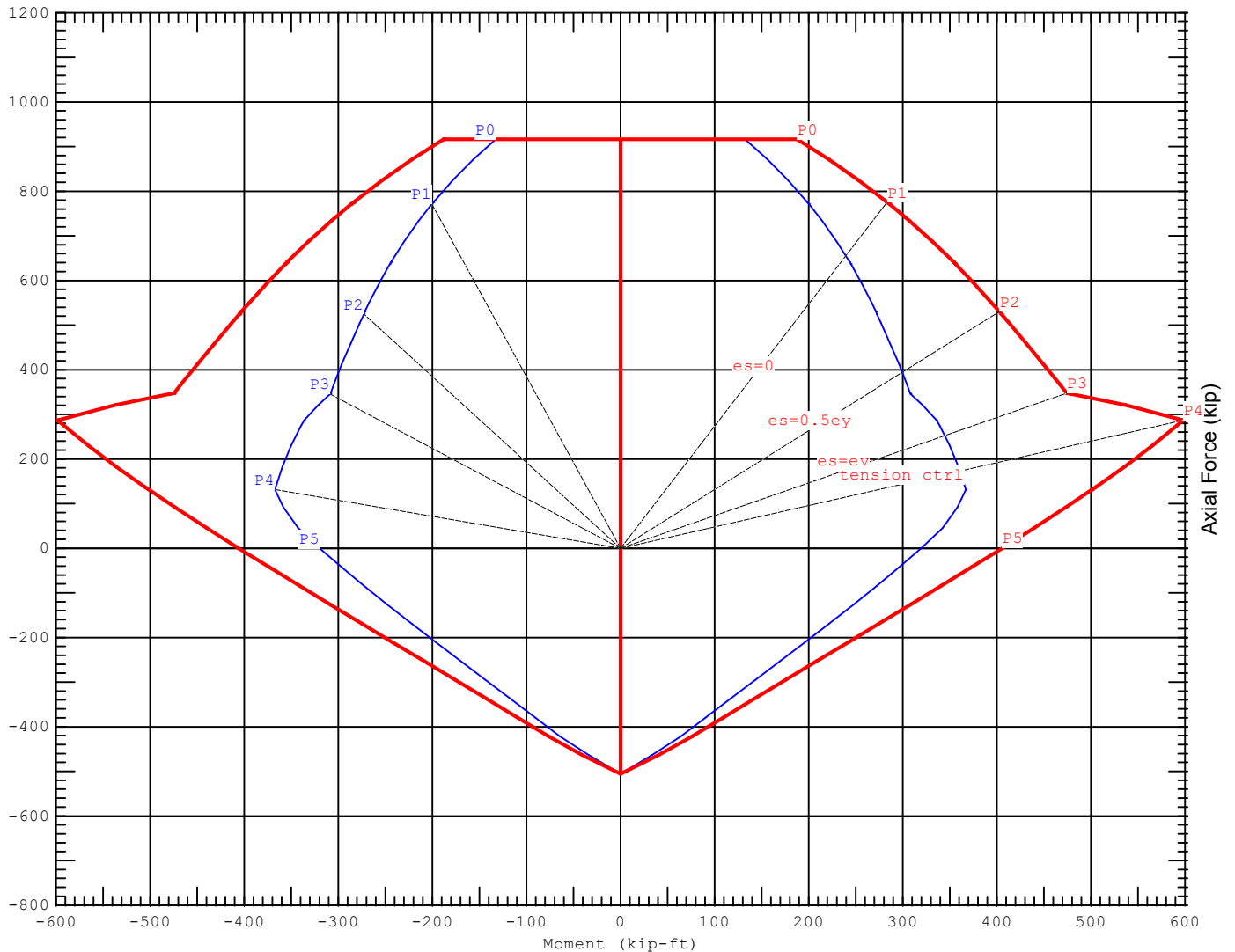
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 1.95%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	916.10	187.48	-0.00044
P1	774.80	282.86	0.00000
P2	529.69	402.01	0.00103
P3	347.37	473.36	0.00207
P4	286.68	596.58	0.00507
P5	0.01	404.81	0.01342
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	916.09	-132.24	-0.00047
P1	770.55	-199.95	0.00000
P2	524.59	-272.13	0.00103
P3	345.00	-307.75	0.00207
P4	131.31	-366.42	0.00507
P5	-0.00	-318.75	0.00744
Pmin	-505.44	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

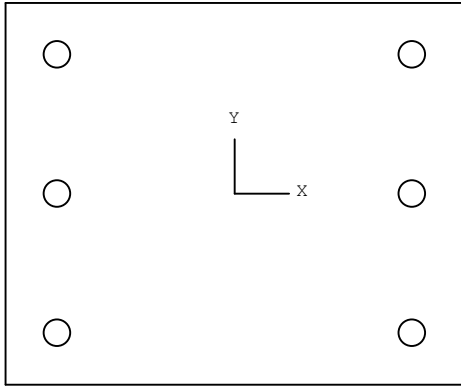
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_6#11\_NX3\_NY2\_cc2.705



Section 198 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

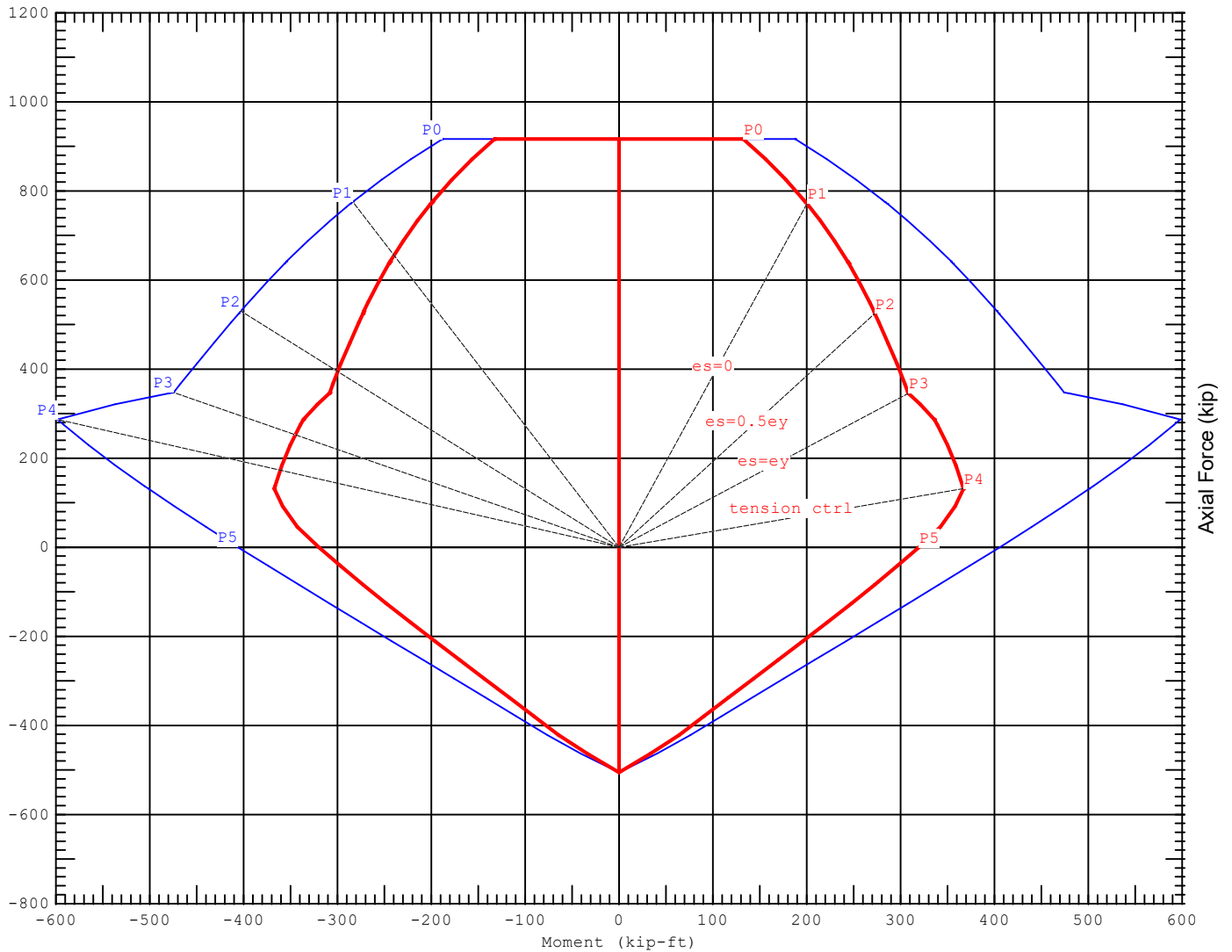
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 1.95%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	916.09	132.24	-0.00047
P1	770.55	199.95	0.00000
P2	524.59	272.13	0.00103
P3	345.00	307.75	0.00207
P4	131.31	366.42	0.00507
P5	-0.00	318.75	0.00744
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	916.10	-187.48	-0.00044
P1	774.80	-282.86	0.00000
P2	529.69	-402.01	0.00103
P3	347.37	-473.36	0.00207
P4	286.68	-596.58	0.00507
P5	0.01	-404.81	0.01342
Pmin	-505.44	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

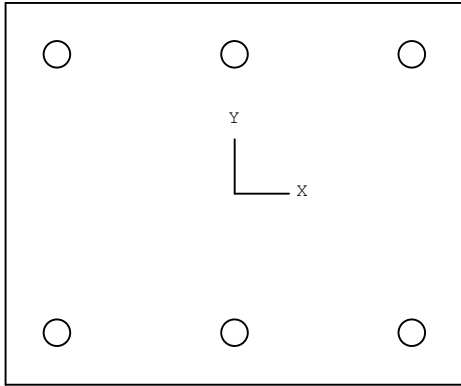
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_6#11\_NX2\_NY3\_cc2.705



Section 199 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

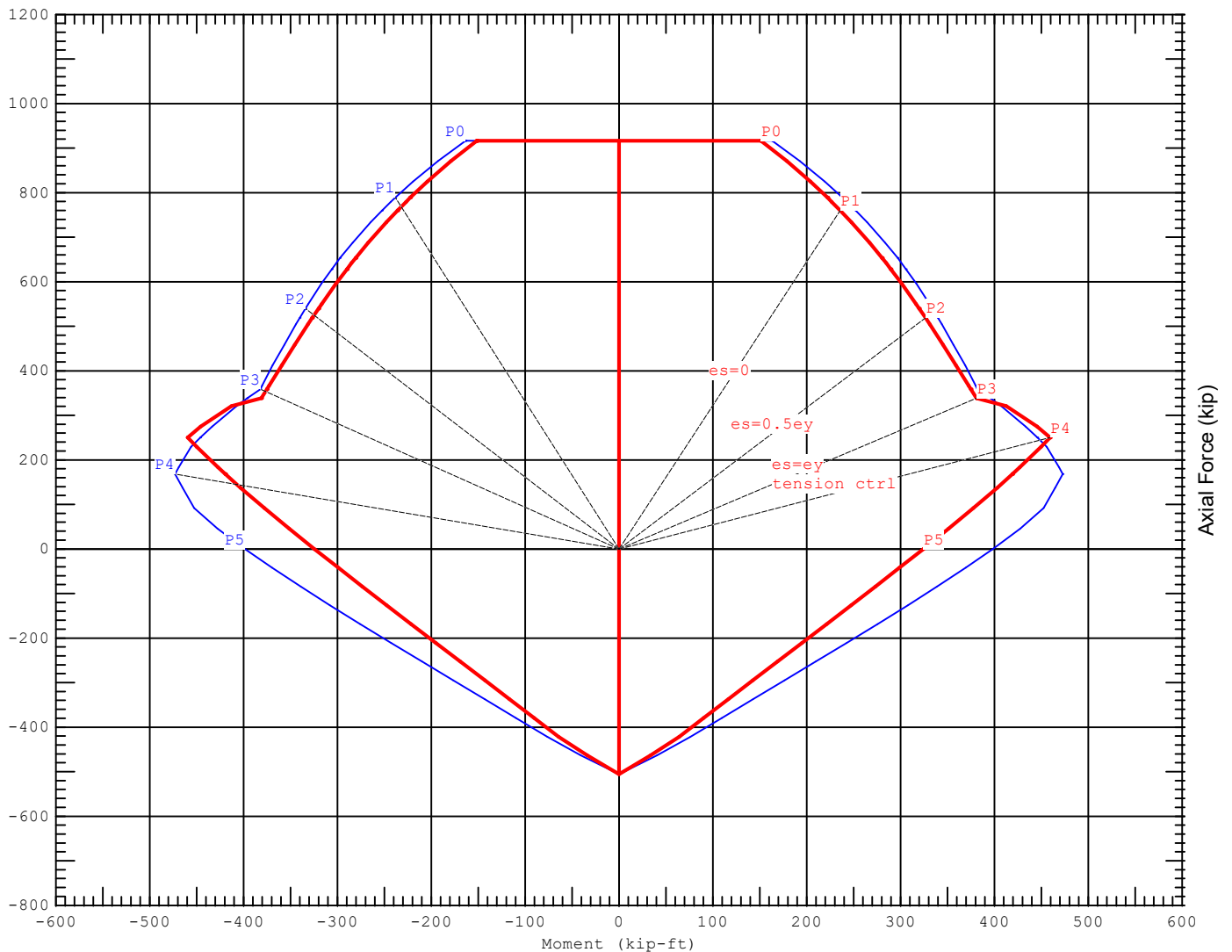
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 6 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 9.36 in<sup>2</sup>  
 Roh: 1.95%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 7.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	916.09	151.09	-0.00051
P1	759.56	235.37	0.00000
P2	518.35	326.03	0.00103
P3	338.35	380.15	0.00207
P4	249.88	458.47	0.00507
P5	-0.00	323.72	0.01129
Pmin	-505.44	0.00	0.20000

PT	P	My(-)	max es
P0	916.10	-162.81	-0.00040
P1	788.39	-237.74	0.00000
P2	539.41	-333.33	0.00103
P3	358.40	-381.11	0.00207
P4	168.11	-471.81	0.00507
P5	-0.01	-397.49	0.00843
Pmin	-505.44	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

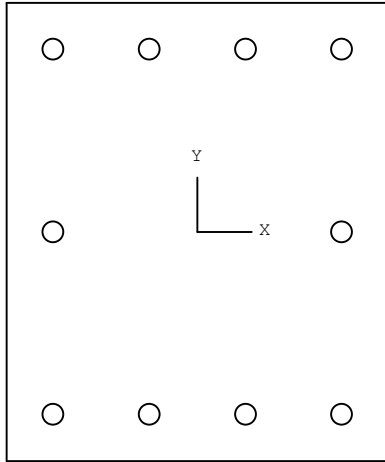
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_10#9\_NX3\_NY4\_cc2.439



Section 200 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

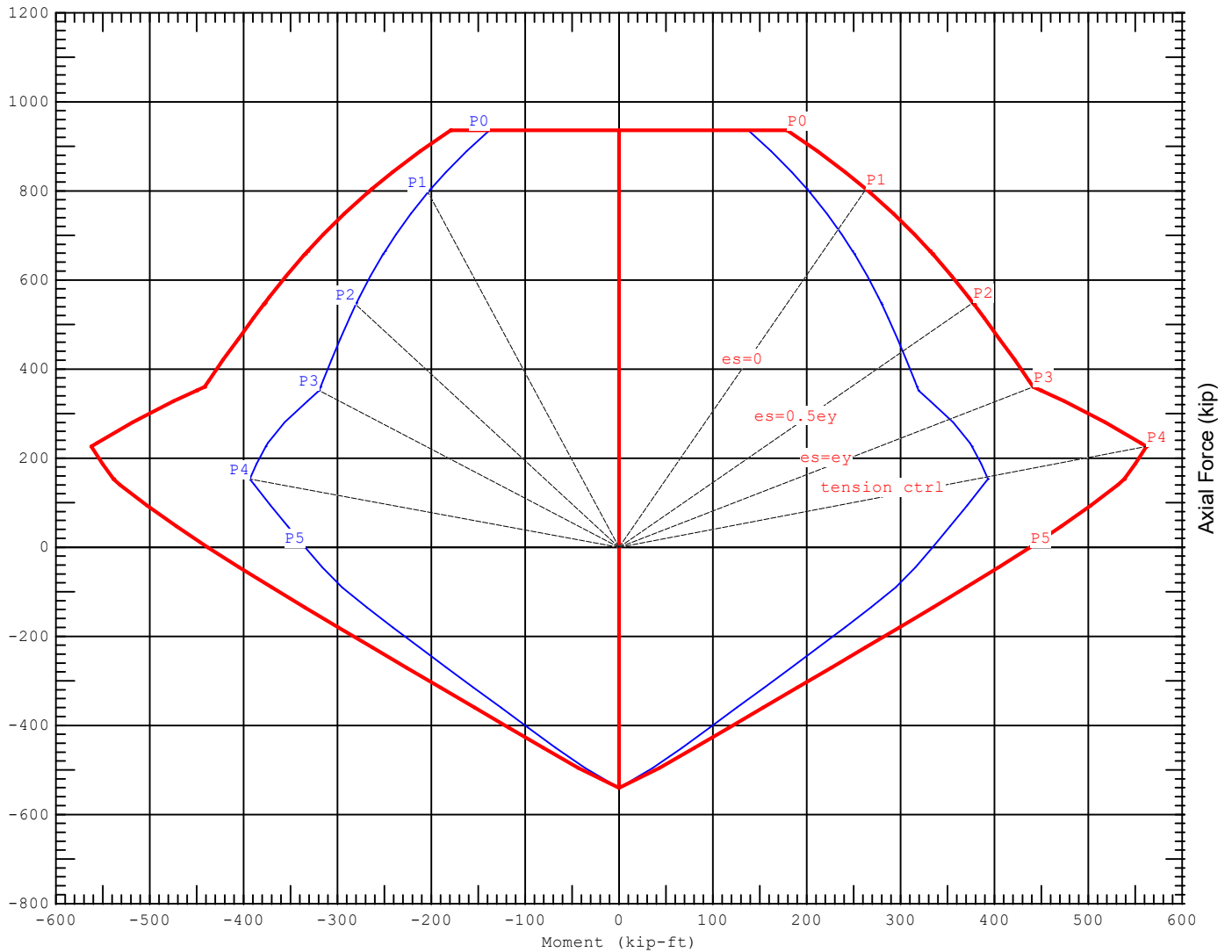
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.08%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	935.22	178.73	-0.00040
P1	803.74	262.62	0.00000
P2	548.26	376.40	0.00103
P3	359.67	440.37	0.00207
P4	225.75	560.84	0.00507
P5	-0.00	437.05	0.01080
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	935.21	-137.43	-0.00042
P1	796.58	-202.92	0.00000
P2	544.72	-279.67	0.00103
P3	351.70	-318.63	0.00207
P4	153.15	-392.39	0.00507
P5	-0.01	-333.59	0.00753
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

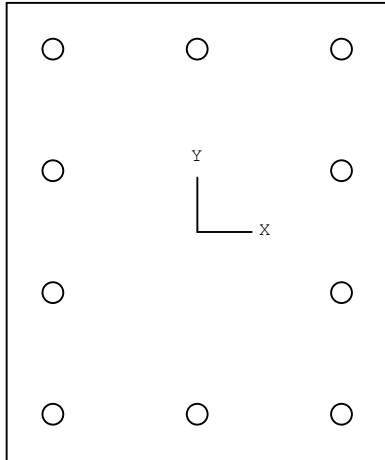
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_10#9\_NX4\_NY3\_cc2.439



Section 201 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

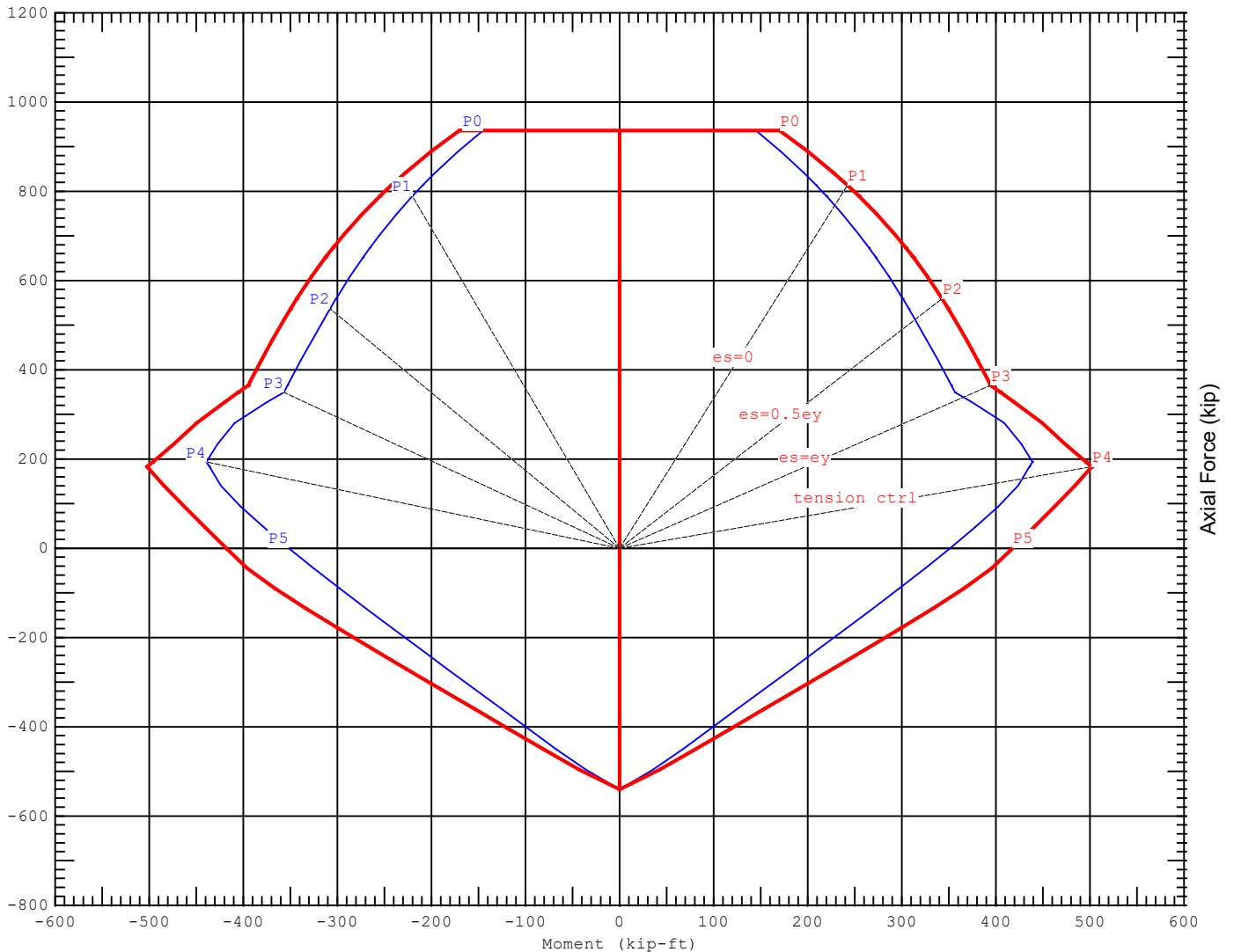
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.08%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.25 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	935.22	169.69	-0.00037
P1	813.24	241.75	0.00000
P2	558.86	342.17	0.00103
P3	364.76	393.66	0.00207
P4	182.31	501.17	0.00507
P5	0.00	416.89	0.00824
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	935.22	-144.74	-0.00045
P1	788.54	-219.63	0.00000
P2	536.08	-307.01	0.00103
P3	349.08	-355.91	0.00207
P4	193.45	-437.98	0.00507
P5	0.00	-350.70	0.00937
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

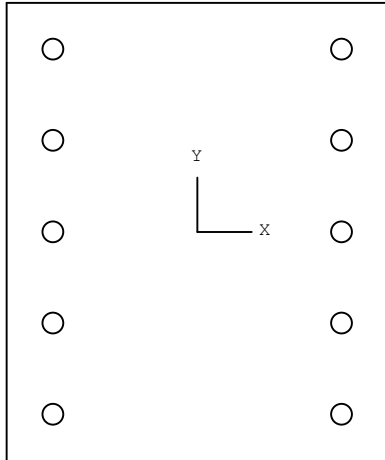
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_10#9\_NX5\_NY2\_cc2.439



Section 202 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

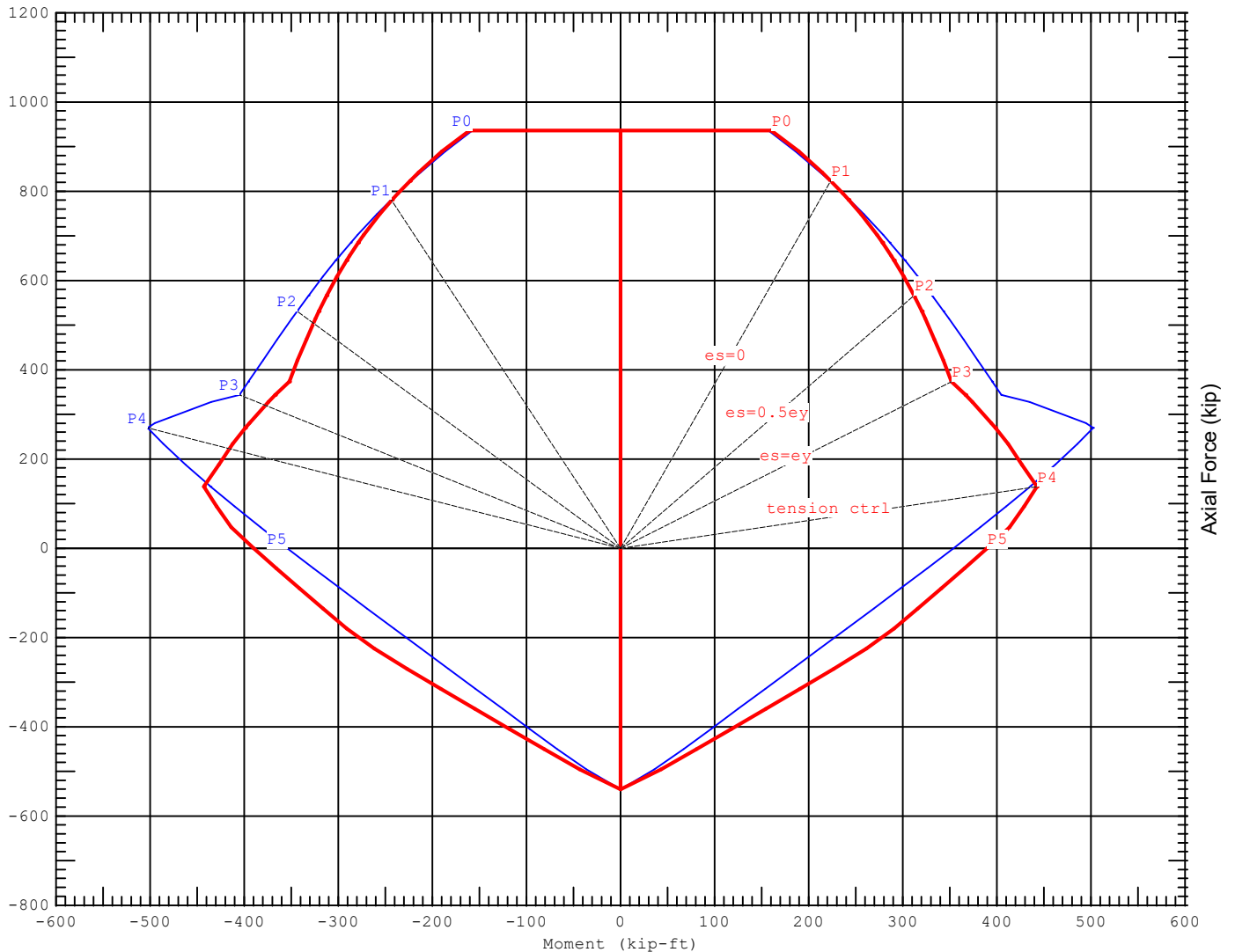
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.08%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	935.22	160.08	-0.00035
P1	822.73	223.09	0.00000
P2	566.15	311.37	0.00103
P3	373.16	351.15	0.00207
P4	137.91	441.63	0.00507
P5	-0.00	388.81	0.00706
Pmin	-540.00	-0.00	0.20000

PT	P	My(-)	max es
P0	935.21	-157.04	-0.00049
P1	780.50	-243.16	0.00000
P2	530.75	-342.82	0.00103
P3	343.14	-404.01	0.00207
P4	269.46	-501.47	0.00507
P5	-0.01	-353.25	0.01209
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

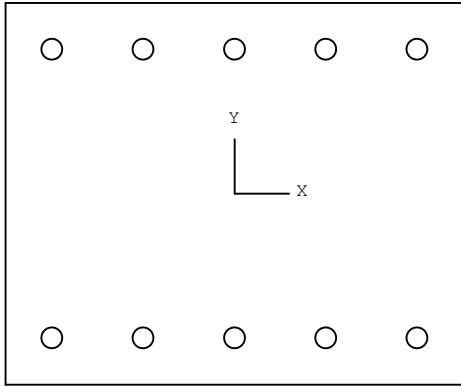
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_10#9\_NX2\_NY5\_cc2.439



Section 203 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

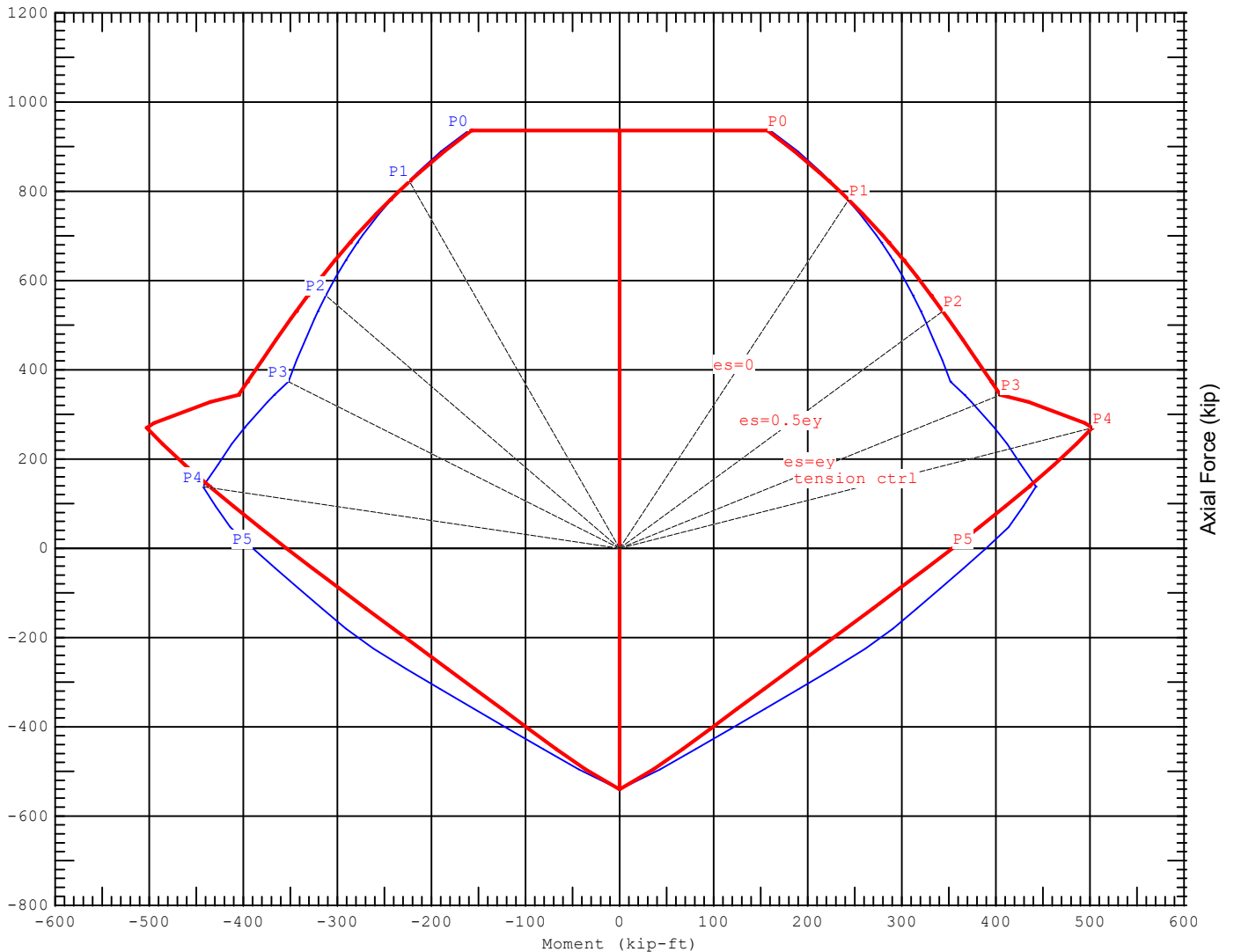
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.08%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	935.21	157.04	-0.00049
P1	780.50	243.16	0.00000
P2	530.75	342.82	0.00103
P3	343.14	404.01	0.00207
P4	269.46	501.47	0.00507
P5	-0.01	353.25	0.01209
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	935.22	-160.08	-0.00035
P1	822.73	-223.09	0.00000
P2	566.15	-311.37	0.00103
P3	373.16	-351.15	0.00207
P4	137.91	-441.63	0.00507
P5	-0.00	-388.81	0.00706
Pmin	-540.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

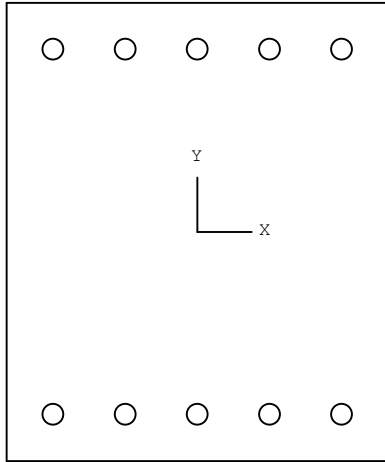
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_10#9\_NX2\_NY5\_cc2.439



Section 204 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

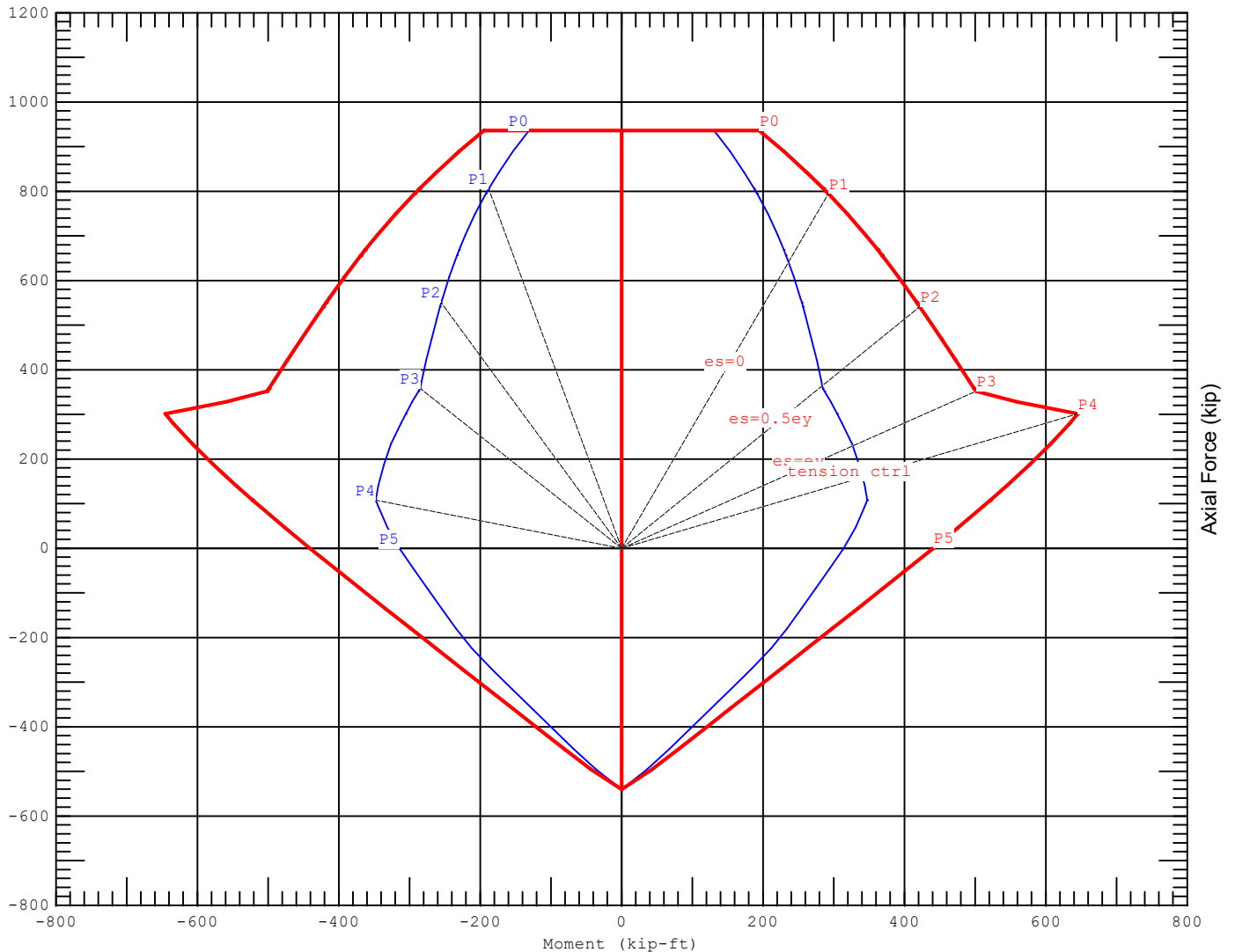
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.08%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	935.22	194.45	-0.00043
P1	794.25	292.37	0.00000
P2	540.97	421.69	0.00103
P3	351.27	501.19	0.00207
P4	301.28	645.06	0.00507
P5	0.01	440.60	0.01432
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	935.22	-130.65	-0.00040
P1	804.62	-187.92	0.00000
P2	550.05	-254.96	0.00103
P3	357.63	-284.58	0.00207
P4	107.37	-347.38	0.00507
P5	-0.01	-313.93	0.00650
Pmin	-540.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

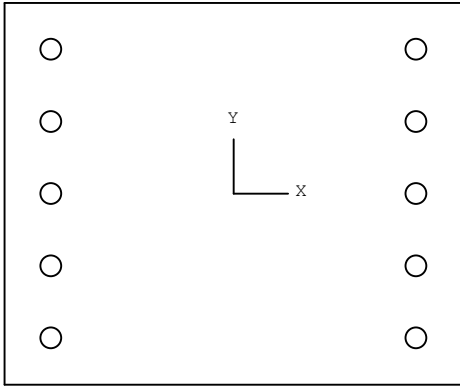
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_10#9\_NX5\_NY2\_cc2.439



Section 205 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

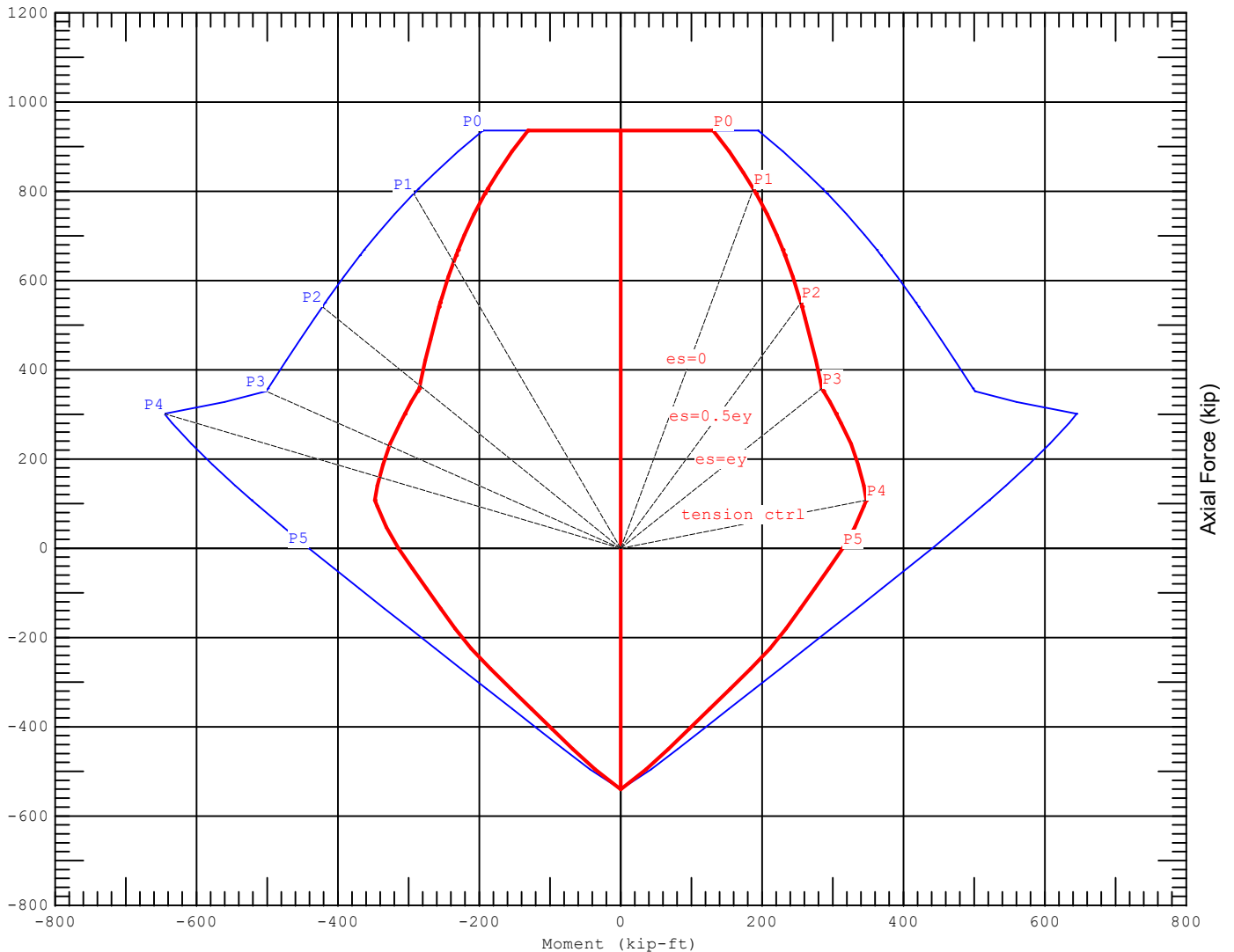
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.08%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	935.22	130.65	-0.00040
P1	804.62	187.92	0.00000
P2	550.05	254.96	0.00103
P3	357.63	284.58	0.00207
P4	107.37	347.38	0.00507
P5	-0.01	313.93	0.00650
Pmin	-540.00	-0.00	0.20000

PT	P	My(-)	max es
P0	935.22	-194.45	-0.00043
P1	794.25	-292.37	0.00000
P2	540.97	-421.69	0.00103
P3	351.27	-501.19	0.00207
P4	301.28	-645.06	0.00507
P5	0.01	-440.60	0.01432
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

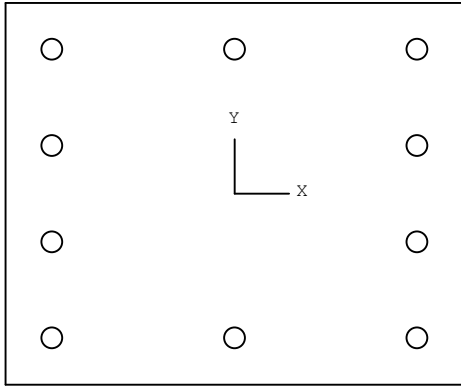
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_10#9\_NX4\_NY3\_cc2.439



Section 206 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

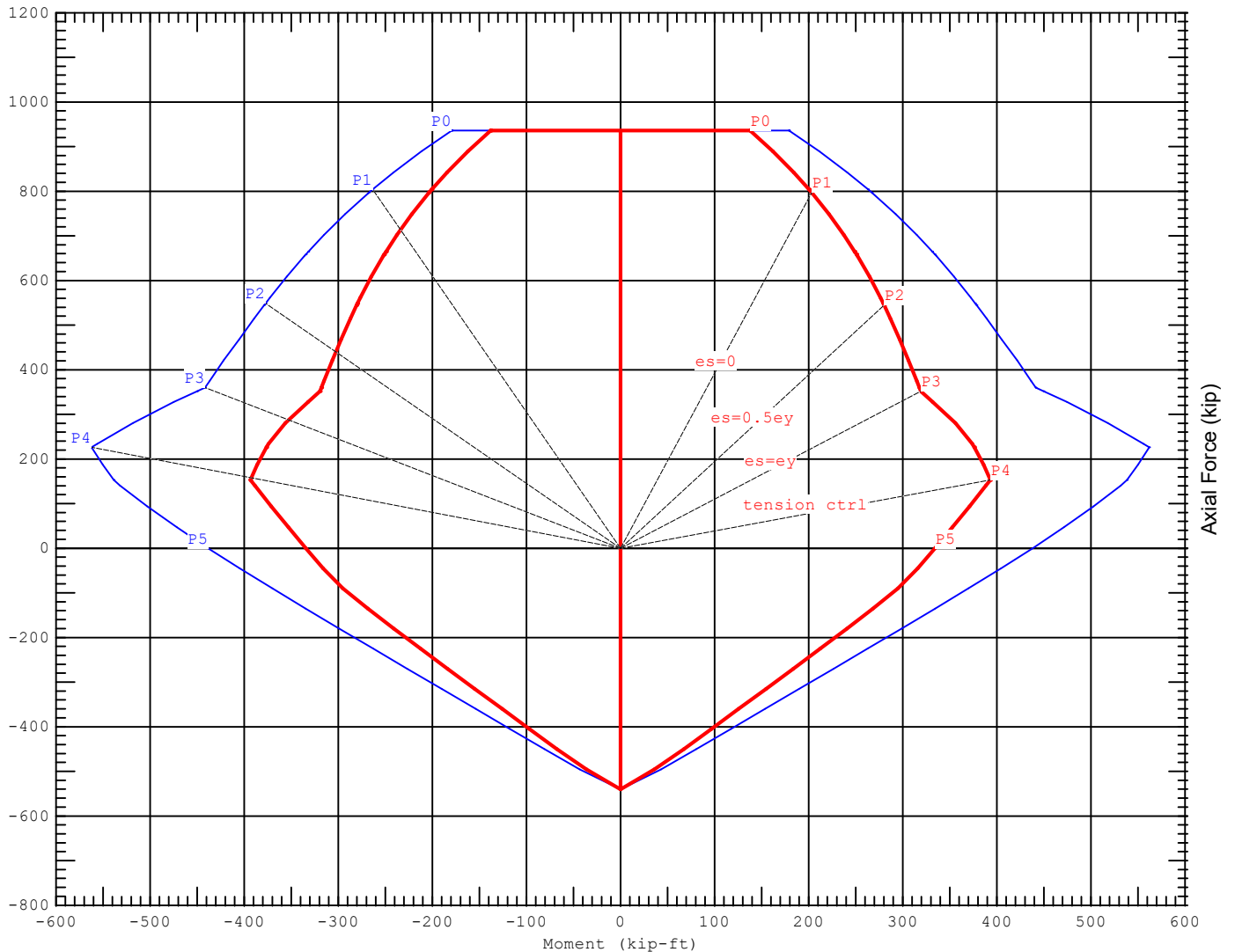
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.08%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	935.21	137.43	-0.00042
P1	796.58	202.92	0.00000
P2	544.72	279.67	0.00103
P3	351.70	318.63	0.00207
P4	153.15	392.39	0.00507
P5	-0.01	333.59	0.00753
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	935.22	-178.73	-0.00040
P1	803.74	-262.62	0.00000
P2	548.26	-376.40	0.00103
P3	359.67	-440.37	0.00207
P4	225.75	-560.84	0.00507
P5	-0.00	-437.05	0.01080
Pmin	-540.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

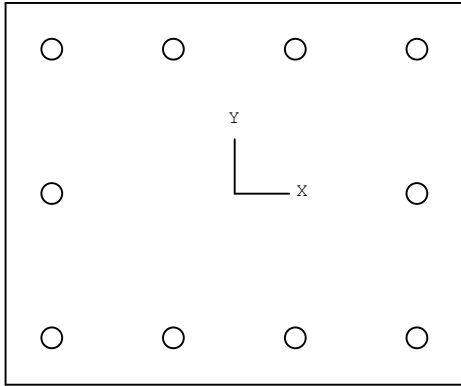
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_10#9\_NX3\_NY4\_cc2.439



Section 207 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

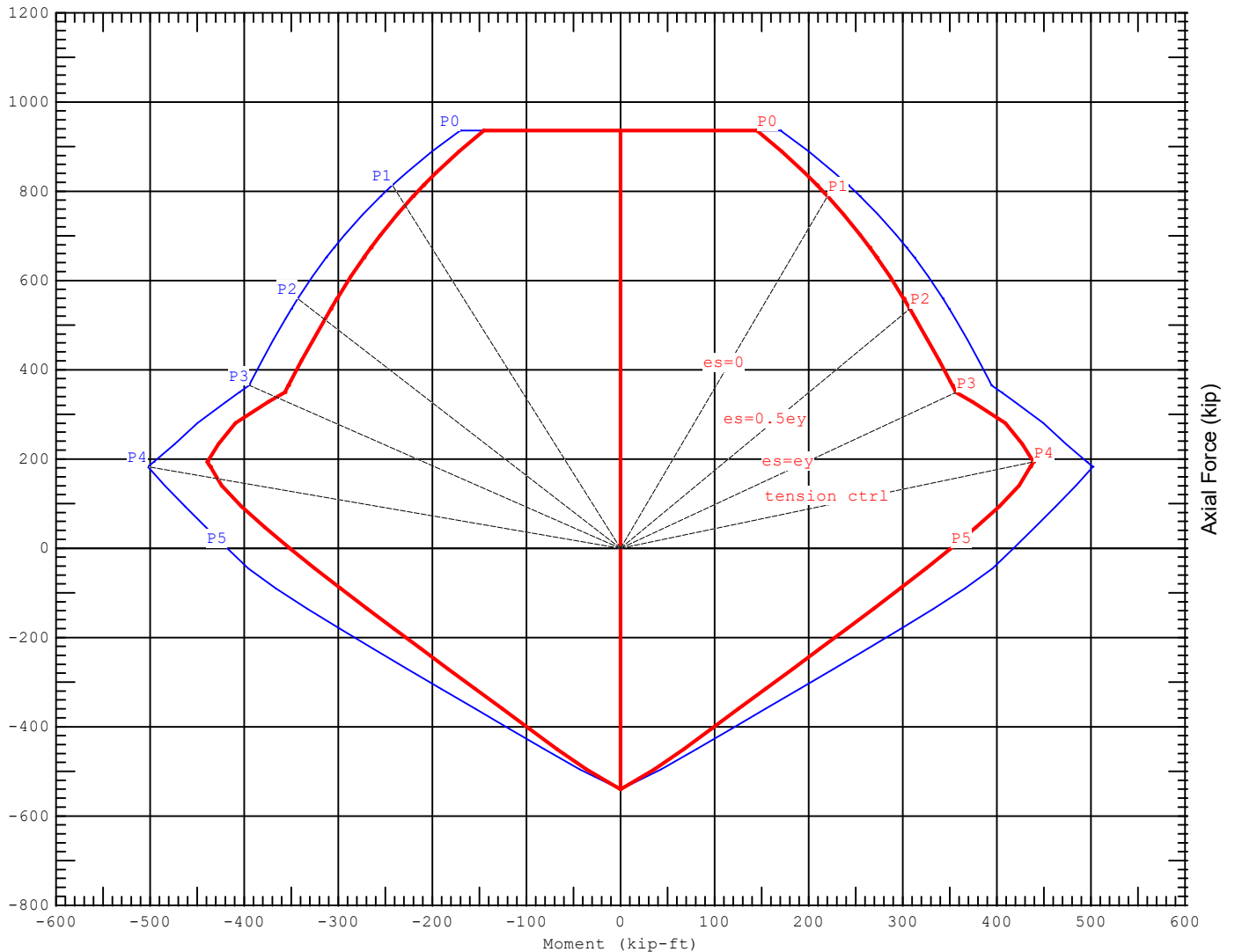
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 10 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.00 in<sup>2</sup>  
 Roh: 2.08%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.25 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	935.22	144.74	-0.00045
P1	788.54	219.63	0.00000
P2	536.08	307.01	0.00103
P3	349.08	355.91	0.00207
P4	193.45	437.98	0.00507
P5	0.00	350.70	0.00937
Pmin	-540.00	0.00	0.20000

PT	P	My(-)	max es
P0	935.22	-169.69	-0.00037
P1	813.24	-241.75	0.00000
P2	558.86	-342.17	0.00103
P3	364.76	-393.66	0.00207
P4	182.31	-501.17	0.00507
P5	0.00	-416.89	0.00824
Pmin	-540.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

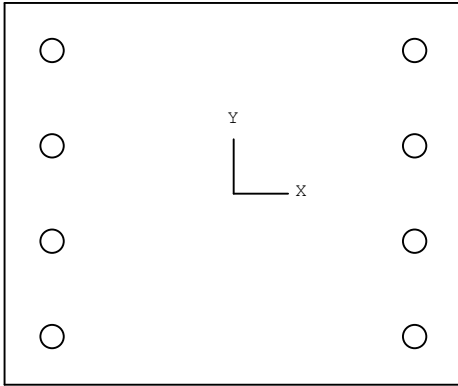
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#10\_NX4\_NY2\_cc2.51



Section 208 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

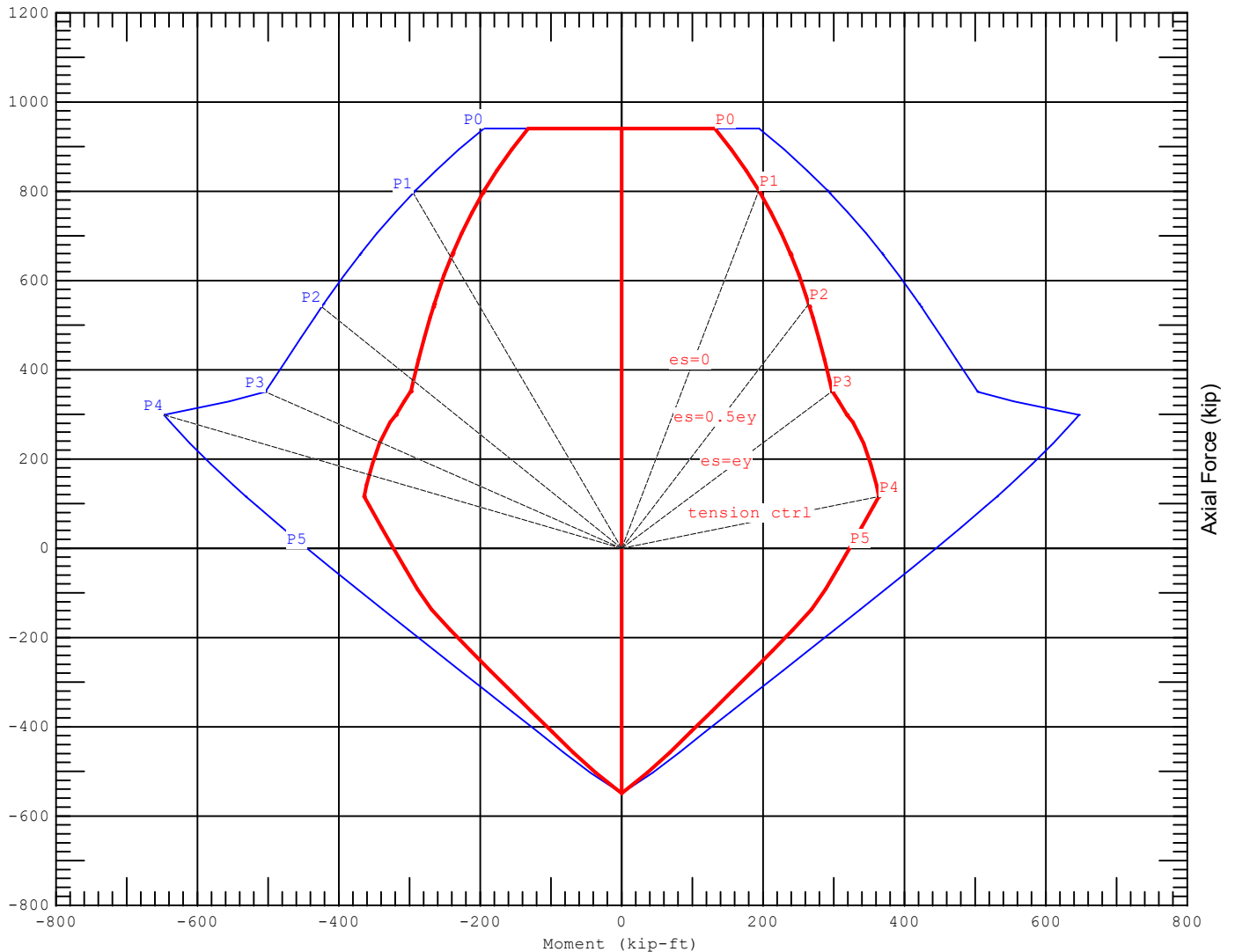
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.12%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	940.00	131.84	-0.00042
P1	800.84	194.23	0.00000
P2	547.25	264.62	0.00103
P3	351.33	297.93	0.00207
P4	115.80	363.95	0.00507
P5	0.01	322.56	0.00674
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	940.00	-194.52	-0.00044
P1	795.23	-294.68	0.00000
P2	540.91	-423.80	0.00103
P3	349.96	-503.65	0.00207
P4	298.55	-646.98	0.00507
P5	-0.00	-444.88	0.01385
Pmin	-548.64	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

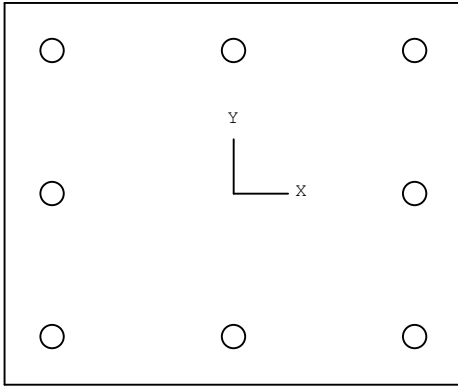
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#10\_NX3\_NY3\_cc2.51



Section 209 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

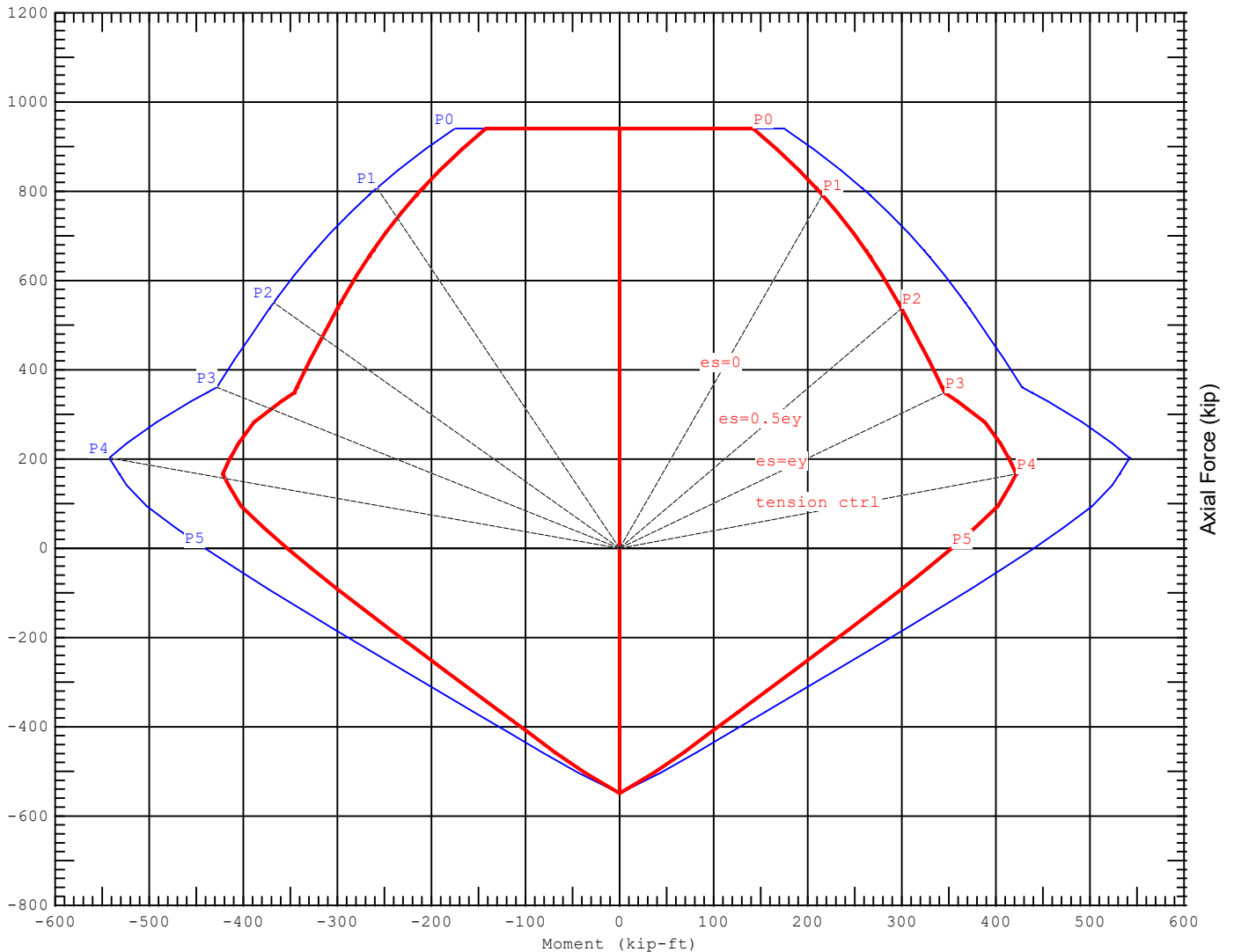
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.12%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	940.00	141.64	-0.00047
P1	790.97	215.30	0.00000
P2	536.71	299.08	0.00103
P3	348.56	344.91	0.00207
P4	166.17	420.88	0.00507
P5	-0.00	352.35	0.00838
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	940.00	-174.62	-0.00040
P1	807.03	-257.18	0.00000
P2	549.81	-366.71	0.00103
P3	360.18	-426.97	0.00207
P4	202.03	-541.11	0.00507
P5	0.00	-439.46	0.00960
Pmin	-548.64	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

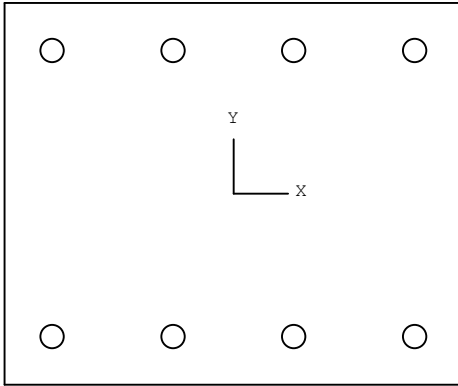
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#10\_NX2\_NY4\_cc2.51



Section 210 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

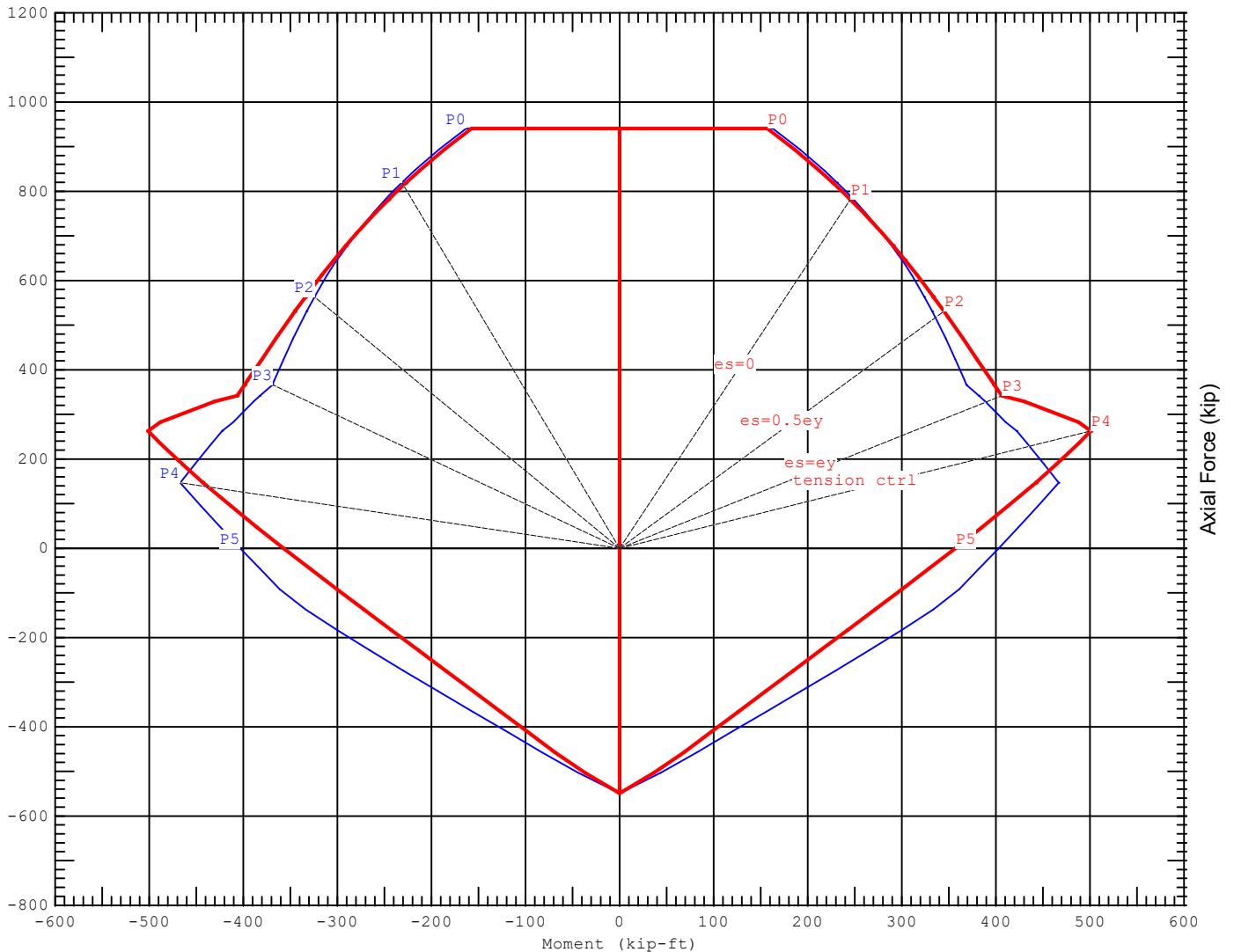
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.12%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.06 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	940.00	156.89	-0.00050
P1	781.09	244.90	0.00000
P2	530.39	344.14	0.00103
P3	341.59	405.42	0.00207
P4	262.69	499.97	0.00507
P5	-0.00	356.26	0.01167
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	940.00	-162.80	-0.00037
P1	818.82	-230.82	0.00000
P2	562.92	-323.50	0.00103
P3	366.19	-368.02	0.00207
P4	146.90	-465.85	0.00507
P5	-0.01	-402.12	0.00732
Pmin	-548.64	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

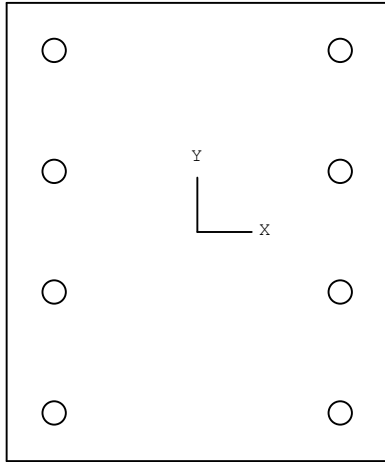
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#10\_NX4\_NY2\_cc2.51



Section 211 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

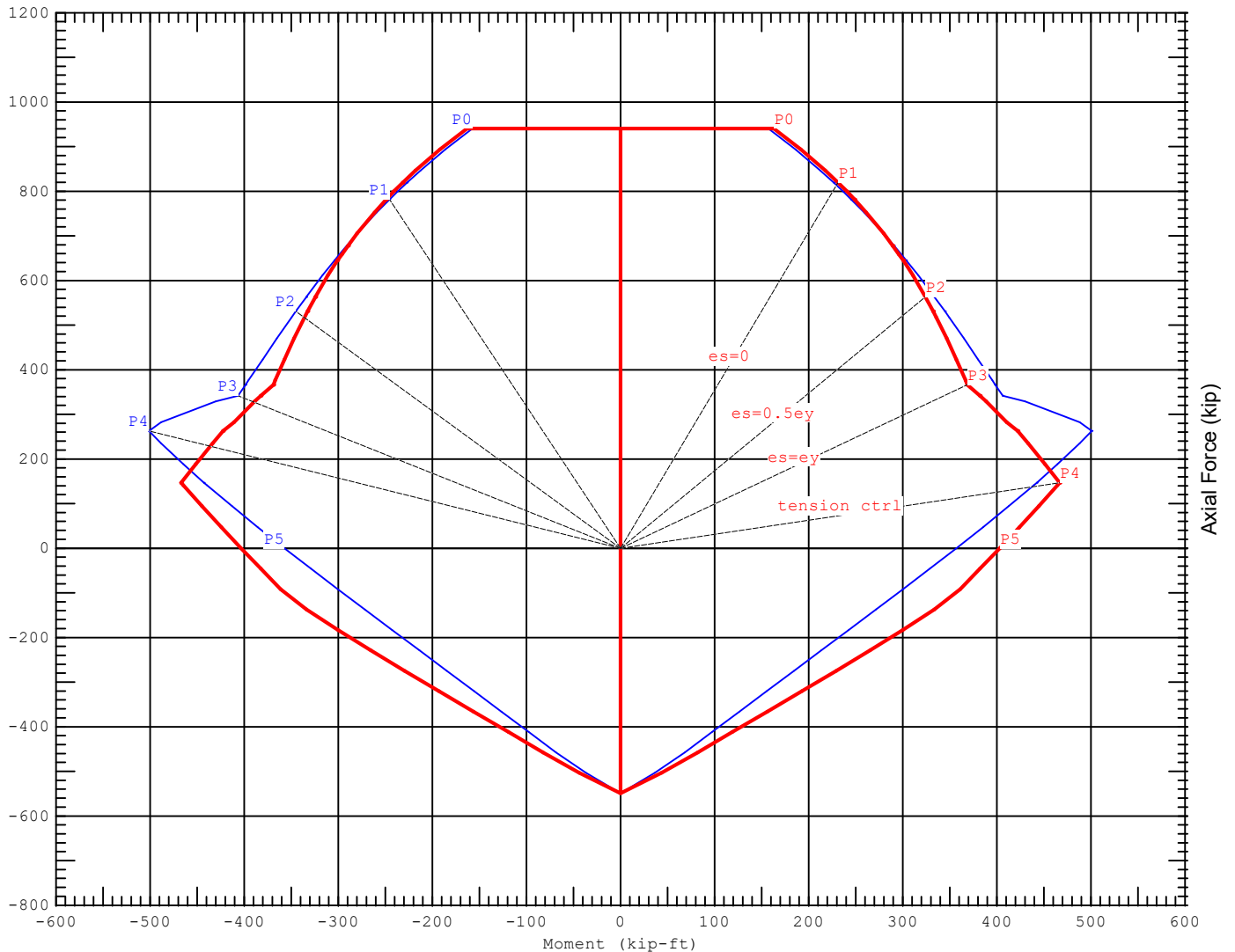
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.12%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.06 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	940.00	162.80	-0.00037
P1	818.82	230.82	0.00000
P2	562.92	323.50	0.00103
P3	366.19	368.02	0.00207
P4	146.90	465.85	0.00507
P5	-0.01	402.12	0.00732
Pmin	-548.64	-0.00	0.20000

PT	P	My(-)	max es
P0	940.00	-156.89	-0.00050
P1	781.09	-244.90	0.00000
P2	530.39	-344.14	0.00103
P3	341.59	-405.42	0.00207
P4	262.69	-499.97	0.00507
P5	-0.00	-356.26	0.01167
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

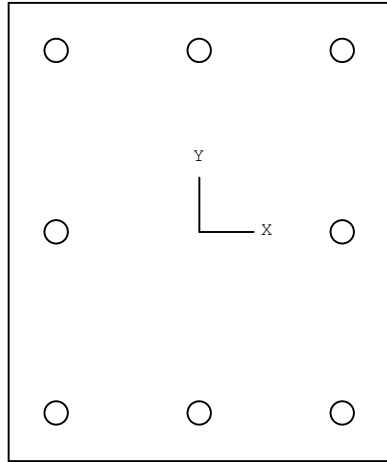
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#10\_NX3\_NY3\_cc2.51



Section 212 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

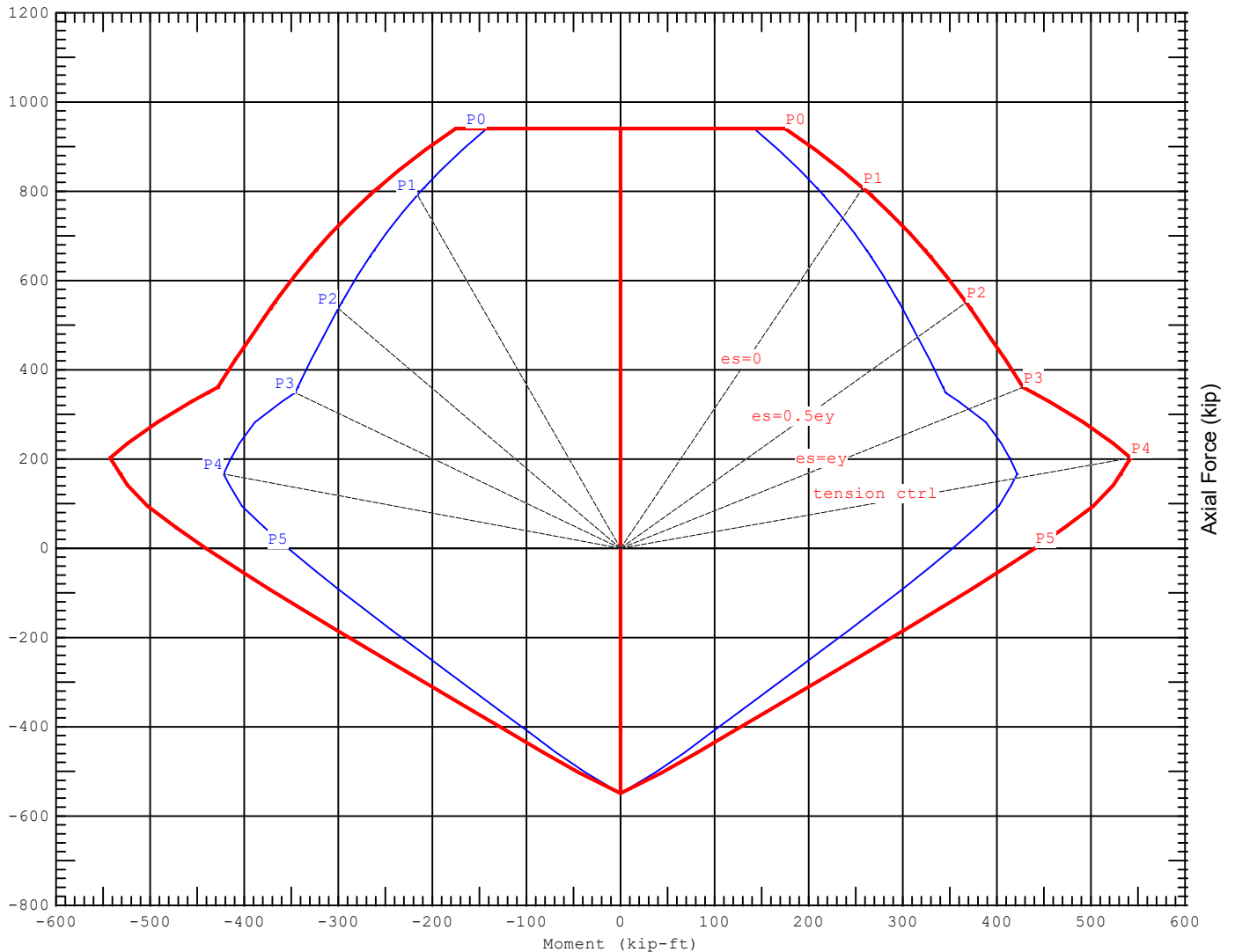
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 8 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 10.16 in<sup>2</sup>  
 Roh: 2.12%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 6.22 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	940.00	174.62	-0.00040
P1	807.03	257.18	0.00000
P2	549.81	366.71	0.00103
P3	360.18	426.97	0.00207
P4	202.03	541.11	0.00507
P5	0.00	439.46	0.00960
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	940.00	-141.64	-0.00047
P1	790.97	-215.30	0.00000
P2	536.71	-299.08	0.00103
P3	348.56	-344.91	0.00207
P4	166.17	-420.88	0.00507
P5	-0.00	-352.35	0.00838
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

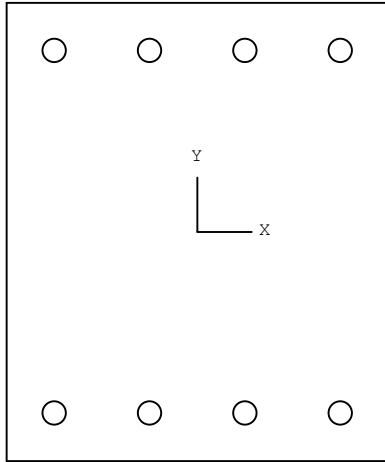
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#10\_NX2\_NY4\_cc2.51



Section 213 of 238

Code: ACI 318-19  
Strength reduction: Auto  
Neutral axis steps: 250  
Biaxial angle steps: 16  
Axial capacity steps: 20  
Excl. displ'd concrete: Yes

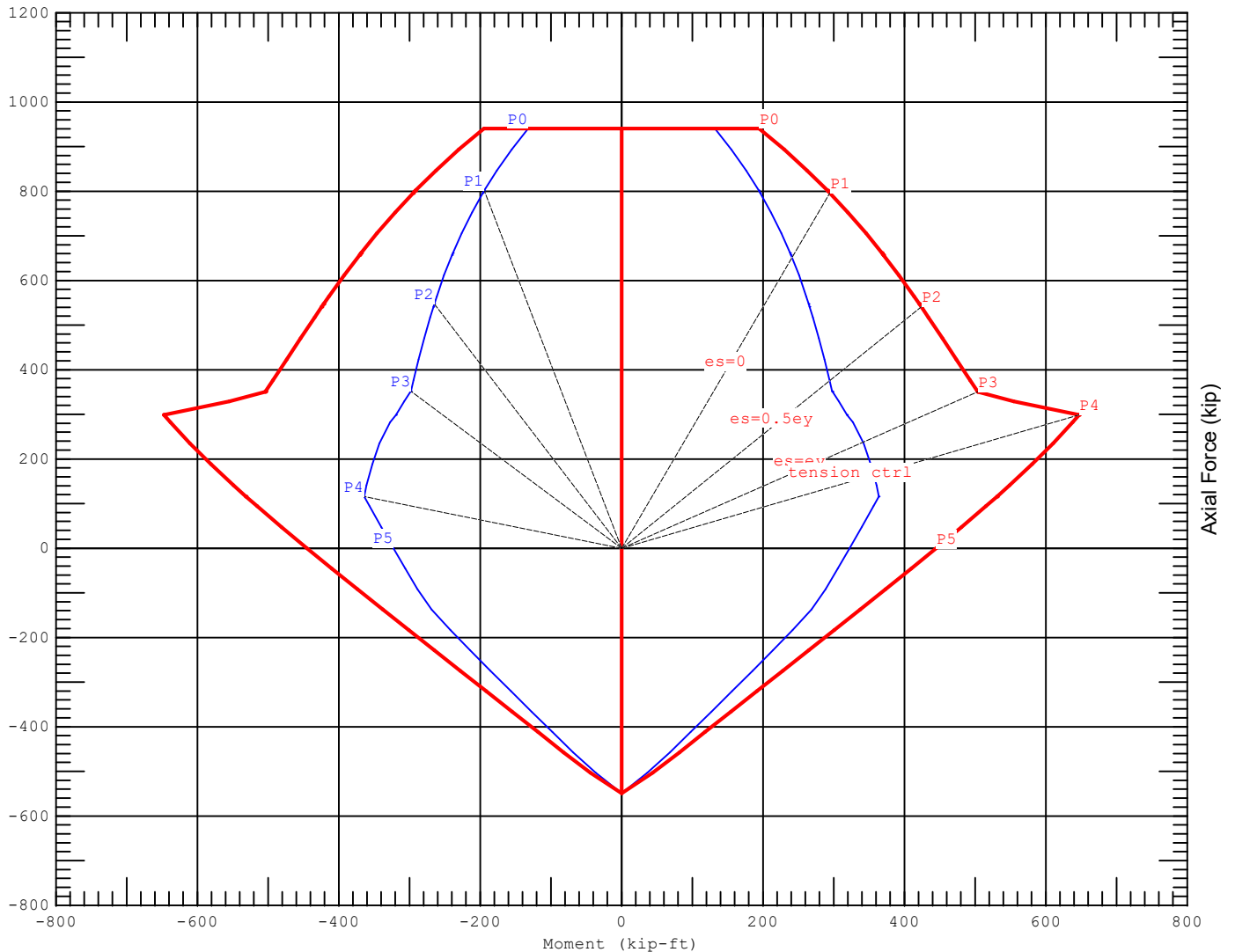
b x h: 20 x 24 in  
fc: 3.00 kip/in<sup>2</sup>  
fy: 60.00 kip/in<sup>2</sup>  
Cover (t.c): 2.51 in  
Bars: 8 # 10  
Confinement: Tied  
Ag: 480.00 in<sup>2</sup>  
As: 10.16 in<sup>2</sup>  
Roh: 2.12%  
Ix: 23040 in<sup>4</sup>  
Iy: 16000 in<sup>4</sup>  
X0: 0.00 in  
Y0: 0.00 in  
Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	940.00	194.52	-0.00044
P1	795.23	294.68	0.00000
P2	540.91	423.80	0.00103
P3	349.96	503.65	0.00207
P4	298.55	646.98	0.00507
P5	-0.00	444.88	0.01385
Pmin	-548.64	0.00	0.20000

PT	P	My(-)	max es
P0	940.00	-131.84	-0.00042
P1	800.84	-194.23	0.00000
P2	547.25	-264.62	0.00103
P3	351.33	-297.93	0.00207
P4	115.80	-363.95	0.00507
P5	0.01	-322.56	0.00674
Pmin	-548.64	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

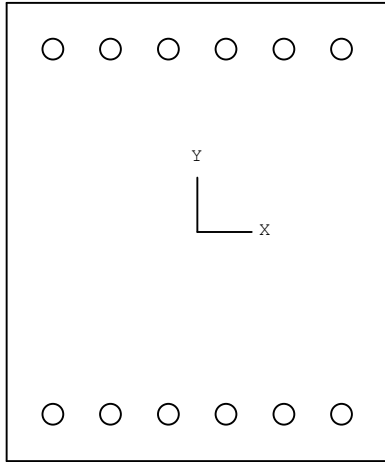
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_12#9\_NX2\_NY6\_cc2.439



Section 214 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

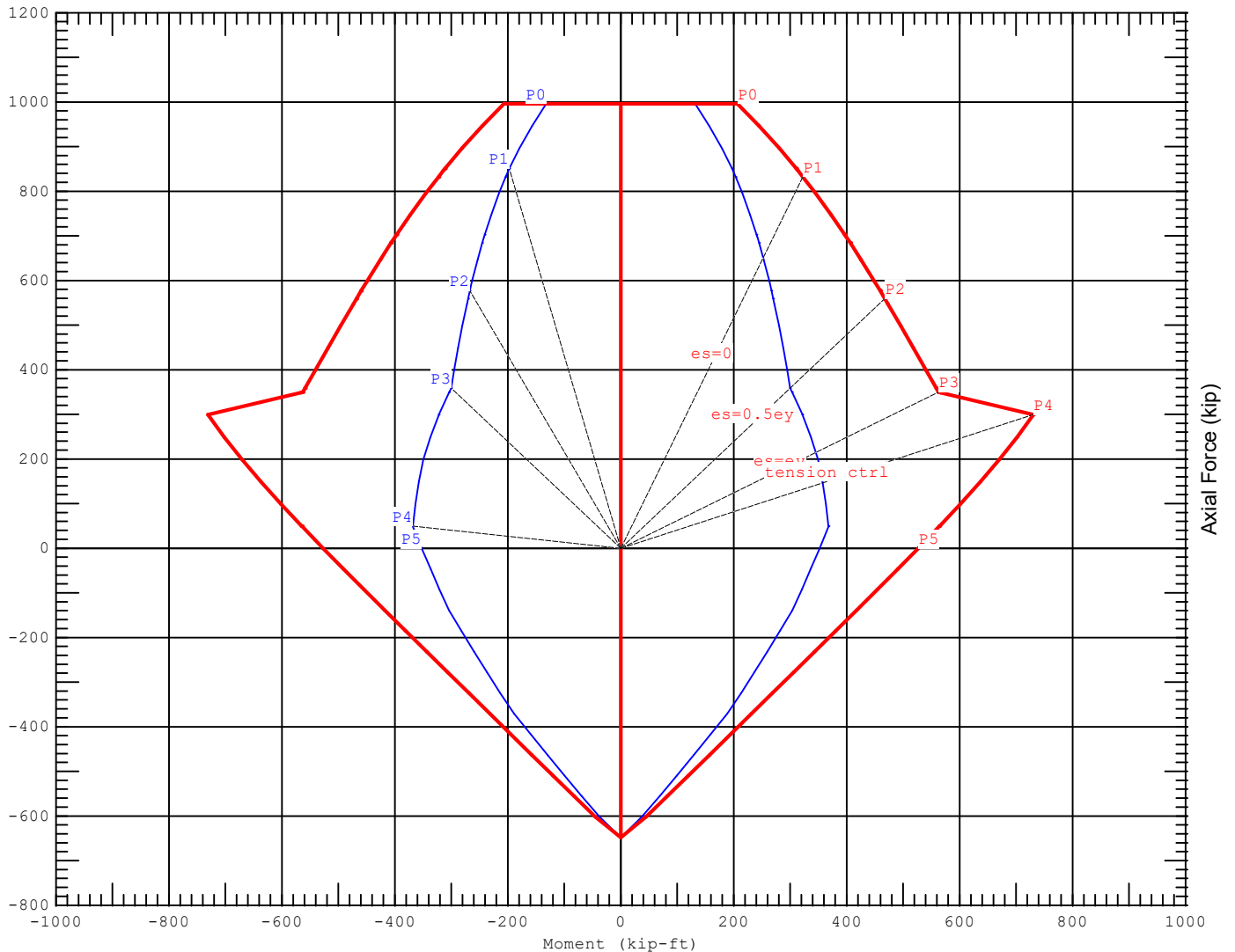
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.97	206.25	-0.00049
P1	831.59	322.13	0.00000
P2	558.81	466.98	0.00103
P3	349.62	562.02	0.00207
P4	298.98	729.28	0.00507
P5	-0.00	525.95	0.01323
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	994.97	-131.74	-0.00042
P1	850.00	-197.12	0.00000
P2	576.54	-266.72	0.00103
P3	358.60	-299.51	0.00207
P4	49.18	-367.46	0.00507
P5	-0.01	-351.55	0.00571
Pmin	-648.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

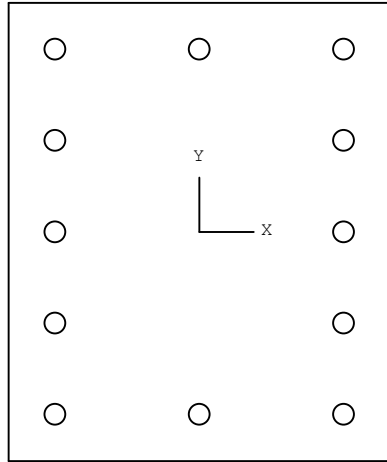
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_12#9\_NX5\_NY3\_cc2.439



Section 215 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

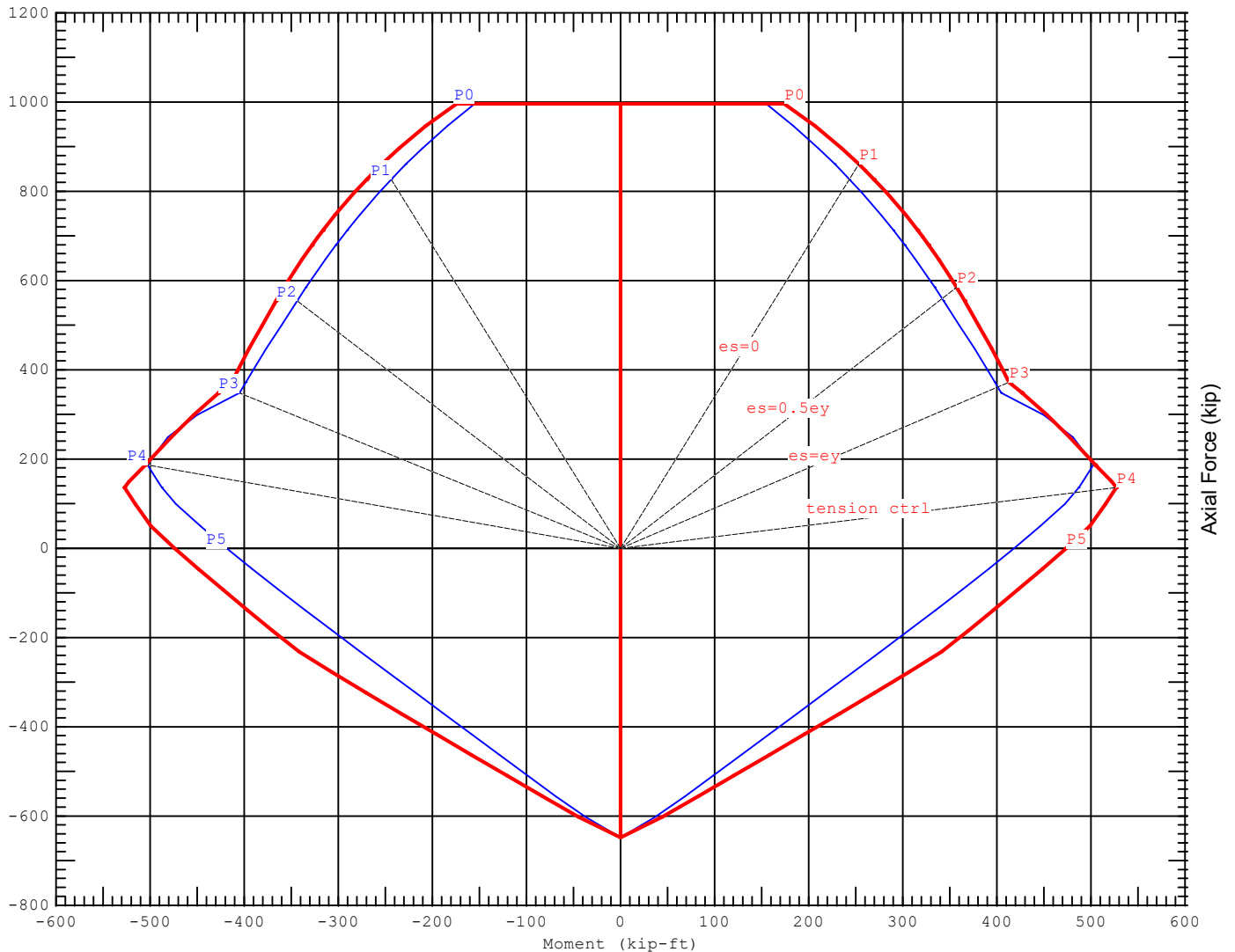
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.97	173.84	-0.00039
P1	860.08	252.85	0.00000
P2	584.00	356.66	0.00103
P3	371.50	411.98	0.00207
P4	135.61	525.85	0.00507
P5	-0.01	472.84	0.00692
Pmin	-648.00	-0.00	0.20000

PT	P	My(-)	max es
P0	994.96	-154.70	-0.00050
P1	825.88	-243.16	0.00000
P2	553.92	-342.82	0.00103
P3	347.42	-404.01	0.00207
P4	186.21	-501.47	0.00507
P5	-0.01	-417.56	0.00872
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

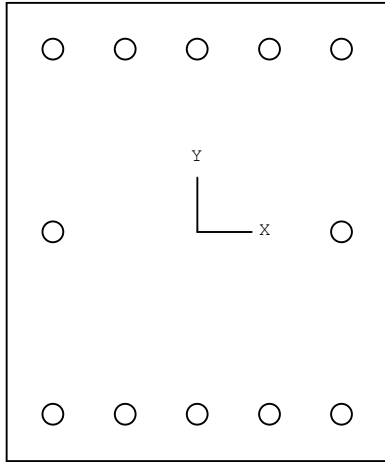
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_12#9\_NX3\_NY5\_cc2.439



Section 216 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

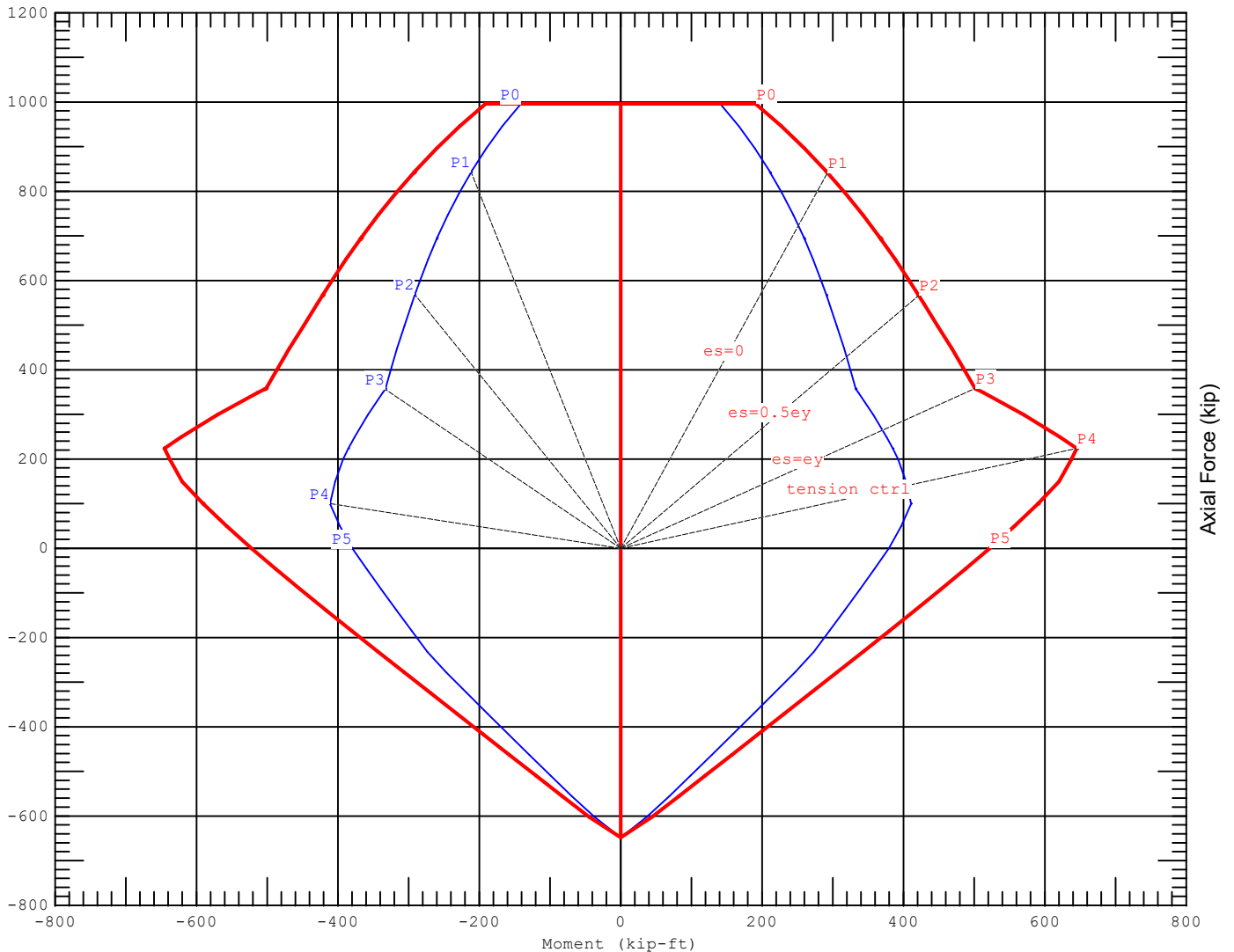
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.96	191.51	-0.00044
P1	841.09	292.37	0.00000
P2	566.10	421.69	0.00103
P3	358.02	501.19	0.00207
P4	223.46	645.06	0.00507
P5	0.01	521.86	0.01014
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	994.96	-141.19	-0.00044
P1	841.96	-211.44	0.00000
P2	567.90	-290.78	0.00103
P3	355.98	-332.68	0.00207
P4	100.12	-410.86	0.00507
P5	-0.01	-379.54	0.00628
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

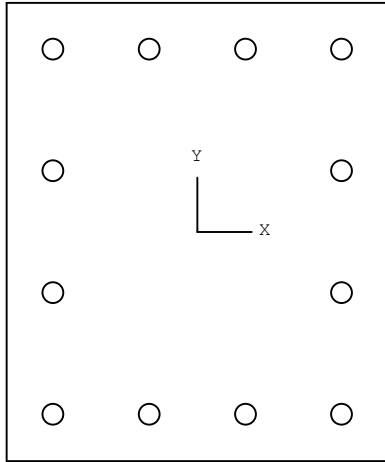
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_12#9\_NX4\_NY4\_cc2.439



Section 217 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

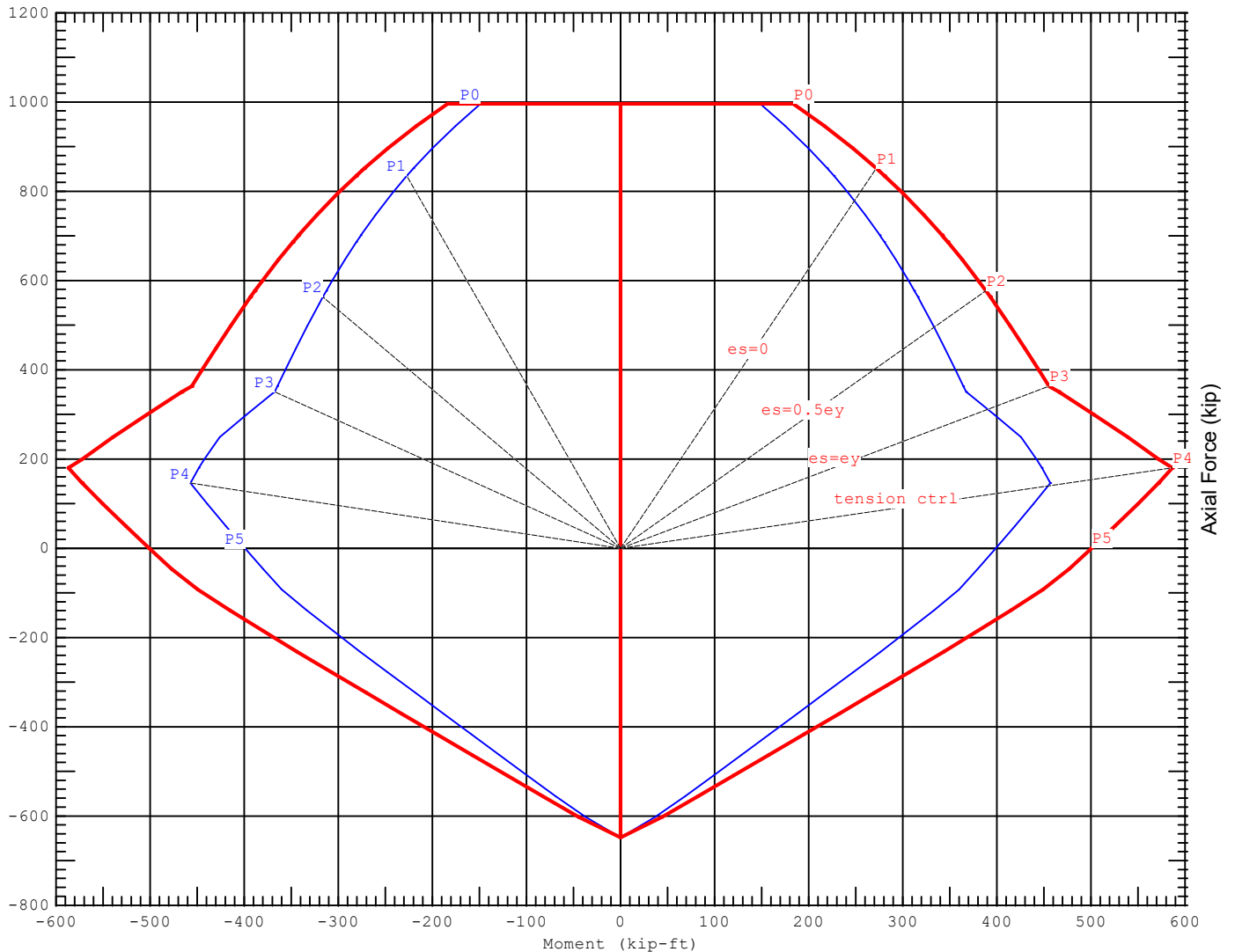
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.97	183.25	-0.00041
P1	850.58	271.50	0.00000
P2	576.71	387.46	0.00103
P3	363.10	454.49	0.00207
P4	180.01	585.39	0.00507
P5	0.02	499.69	0.00803
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	994.97	-148.19	-0.00047
P1	833.92	-226.45	0.00000
P2	562.57	-315.48	0.00103
P3	350.04	-366.73	0.00207
P4	145.90	-455.88	0.00507
P5	-0.01	-398.14	0.00726
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

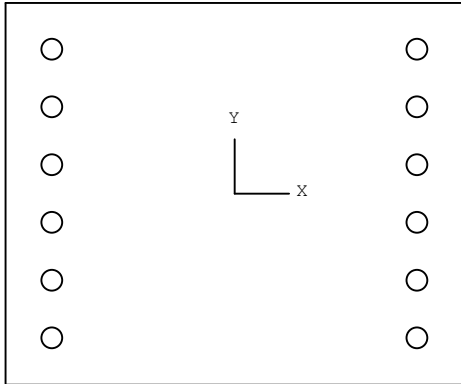
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_12#9\_NX6\_NY2\_cc2.439



Section 218 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

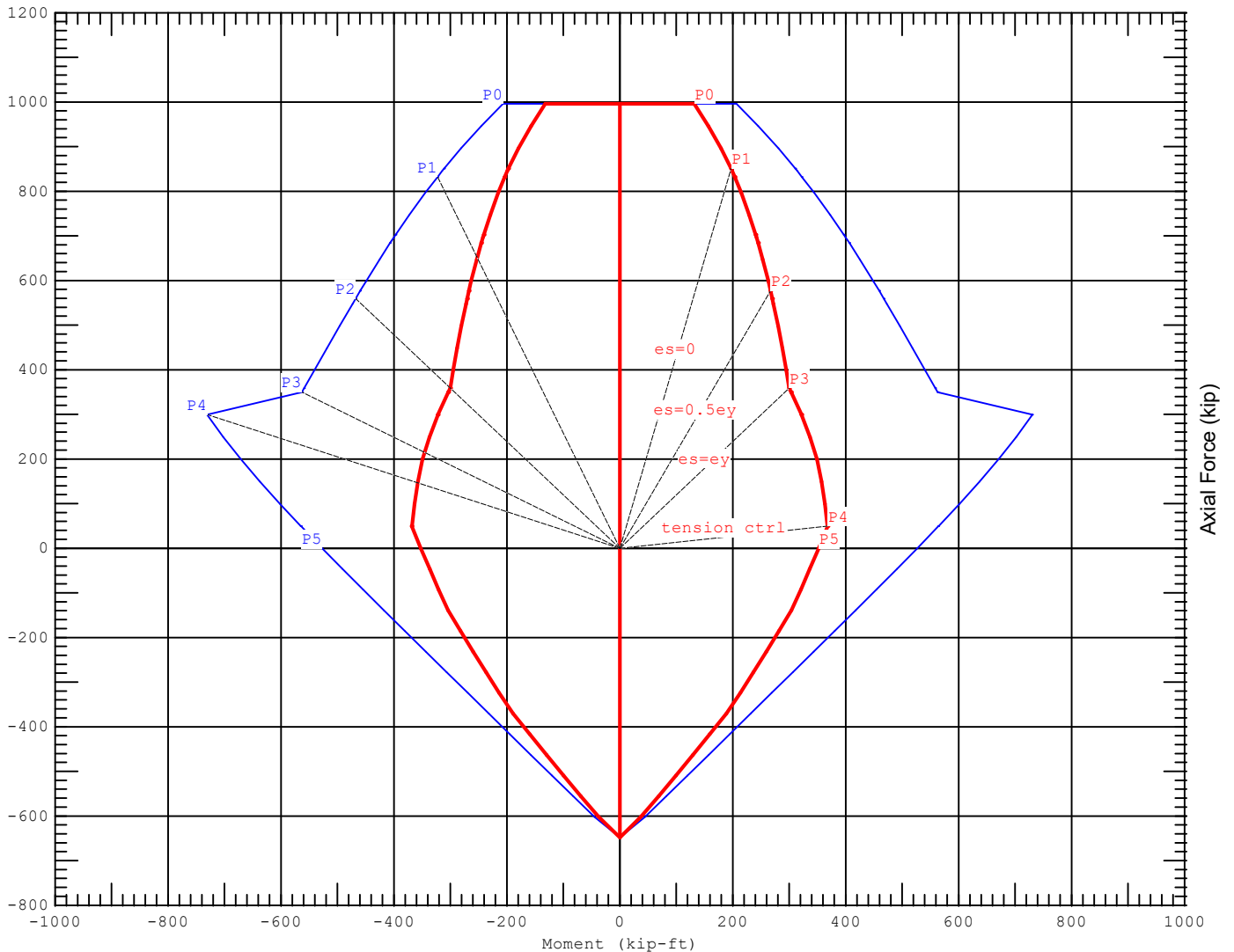
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 1.90 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.97	131.74	-0.00042
P1	850.00	197.12	0.00000
P2	576.54	266.72	0.00103
P3	358.60	299.51	0.00207
P4	49.18	367.46	0.00507
P5	-0.01	351.55	0.00571
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	994.97	-206.25	-0.00049
P1	831.59	-322.13	0.00000
P2	558.81	-466.98	0.00103
P3	349.62	-562.02	0.00207
P4	298.98	-729.28	0.00507
P5	-0.00	-525.95	0.01323
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

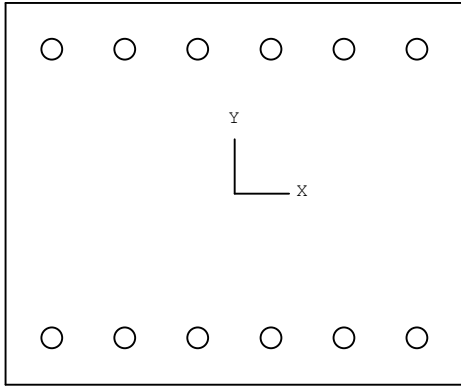
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_12#9\_NX2\_NY6\_cc2.439



Section 219 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

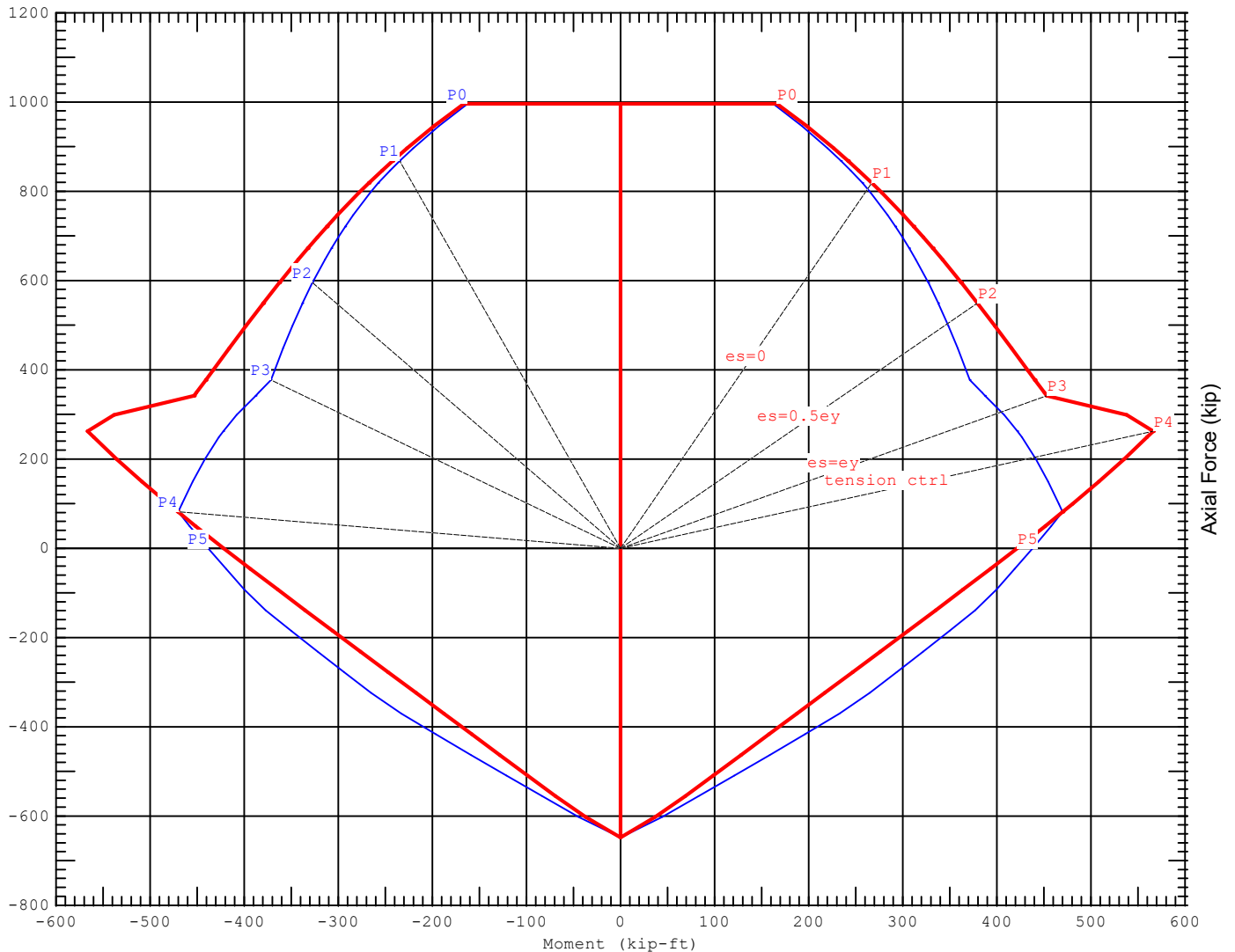
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.70 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.97	166.06	-0.00053
P1	817.85	266.69	0.00000
P2	548.59	378.64	0.00103
P3	341.48	452.11	0.00207
P4	262.21	564.95	0.00507
P5	-0.00	420.70	0.01111
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	994.97	-161.98	-0.00037
P1	867.33	-234.01	0.00000
P2	594.60	-326.70	0.00103
P3	376.58	-370.62	0.00207
P4	81.35	-468.97	0.00507
P5	-0.01	-437.27	0.00616
Pmin	-648.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

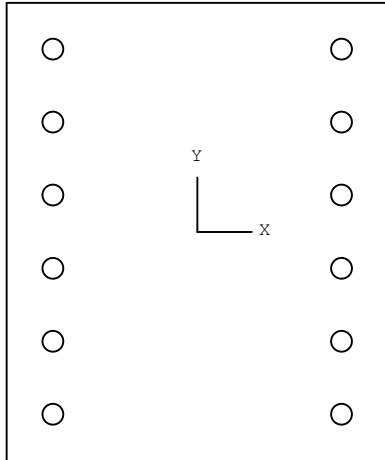
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_12#9\_NX6\_NY2\_cc2.439



Section 220 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

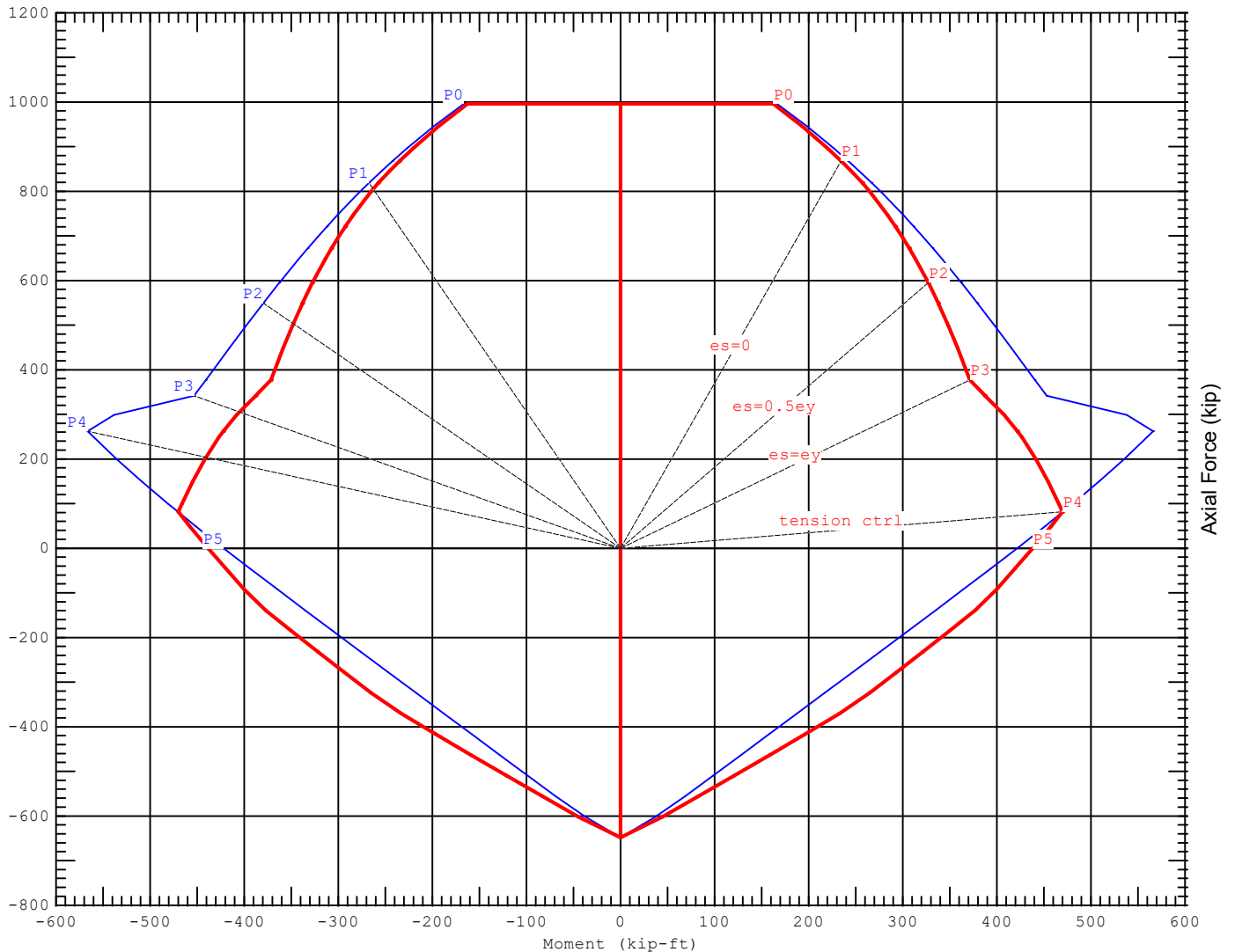
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.70 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.97	161.98	-0.00037
P1	867.33	234.01	0.00000
P2	594.60	326.70	0.00103
P3	376.58	370.62	0.00207
P4	81.35	468.97	0.00507
P5	-0.01	437.27	0.00616
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	994.97	-166.06	-0.00053
P1	817.85	-266.69	0.00000
P2	548.59	-378.64	0.00103
P3	341.48	-452.11	0.00207
P4	262.21	-564.95	0.00507
P5	-0.00	-420.70	0.01111
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

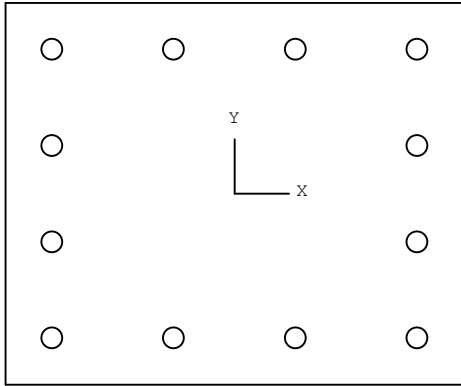
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_12#9\_NX4\_NY4\_cc2.439



Section 221 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

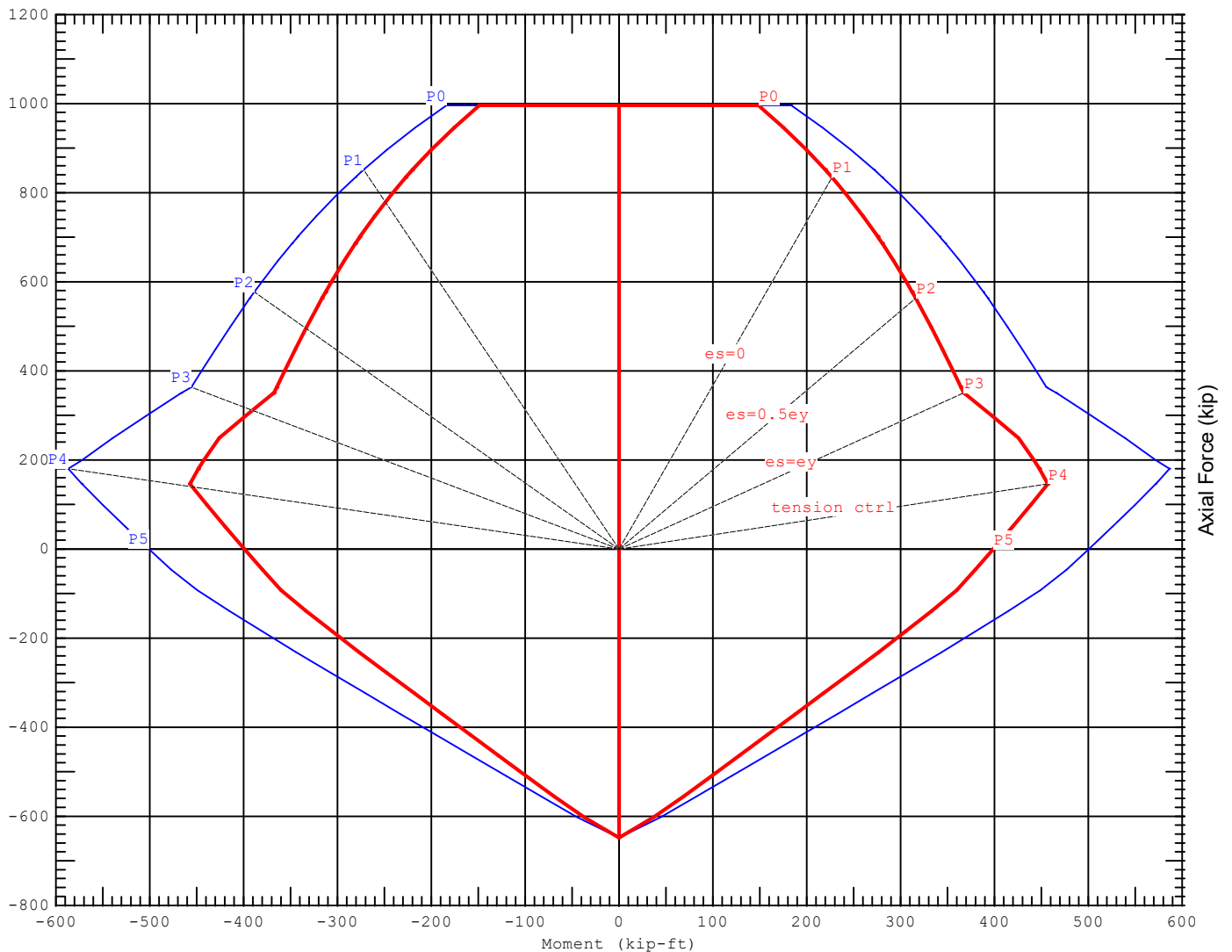
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.91 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.97	148.19	-0.00047
P1	833.92	226.45	0.00000
P2	562.57	315.48	0.00103
P3	350.04	366.73	0.00207
P4	145.90	455.88	0.00507
P5	-0.01	398.14	0.00726
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	994.97	-183.25	-0.00041
P1	850.58	-271.50	0.00000
P2	576.71	-387.46	0.00103
P3	363.10	-454.49	0.00207
P4	180.01	-585.39	0.00507
P5	0.02	-499.69	0.00803
Pmin	-648.00	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

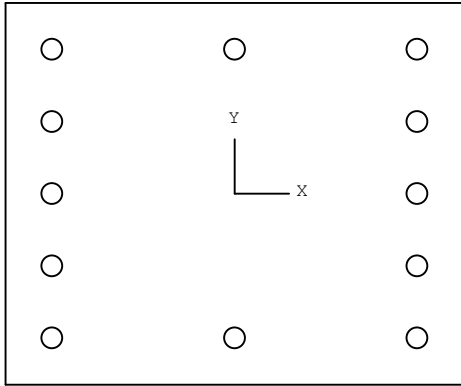
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_12#9\_NX5\_NY3\_cc2.439



Section 222 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

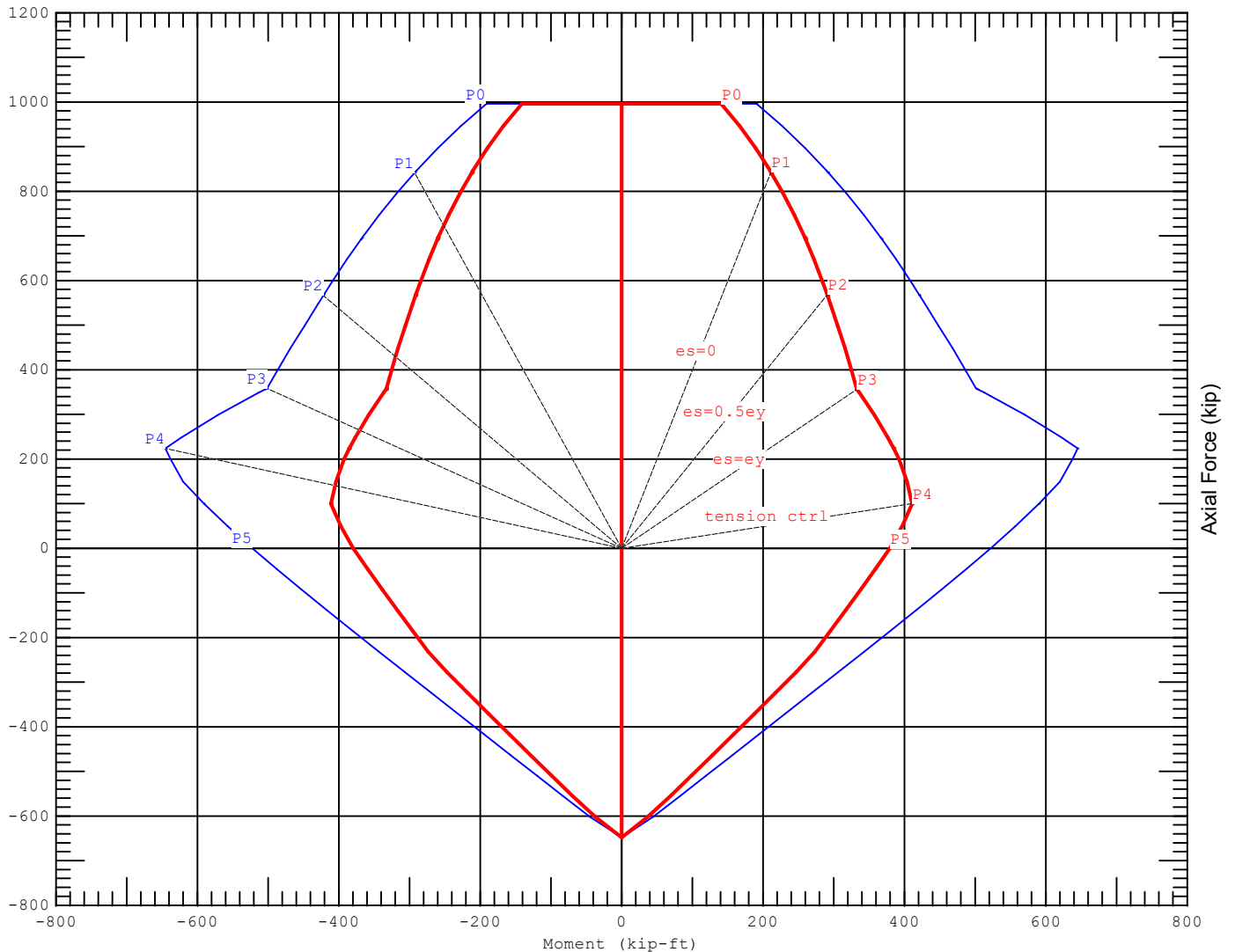
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.96	141.19	-0.00044
P1	841.96	211.44	0.00000
P2	567.90	290.78	0.00103
P3	355.98	332.68	0.00207
P4	100.12	410.86	0.00507
P5	-0.01	379.54	0.00628
Pmin	-648.00	-0.00	0.20000

PT	P	My(-)	max es
P0	994.96	-191.51	-0.00044
P1	841.09	-292.37	0.00000
P2	566.10	-421.69	0.00103
P3	358.02	-501.19	0.00207
P4	223.46	-645.06	0.00507
P5	0.01	-521.86	0.01014
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

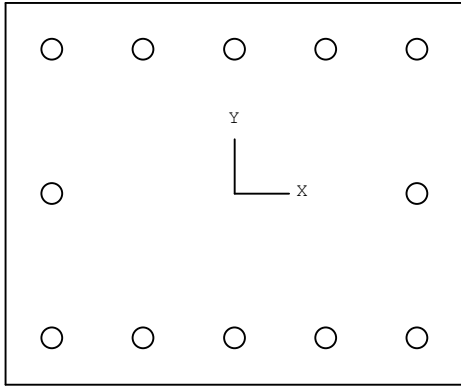
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_12#9\_NX3\_NY5\_cc2.439



Section 223 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

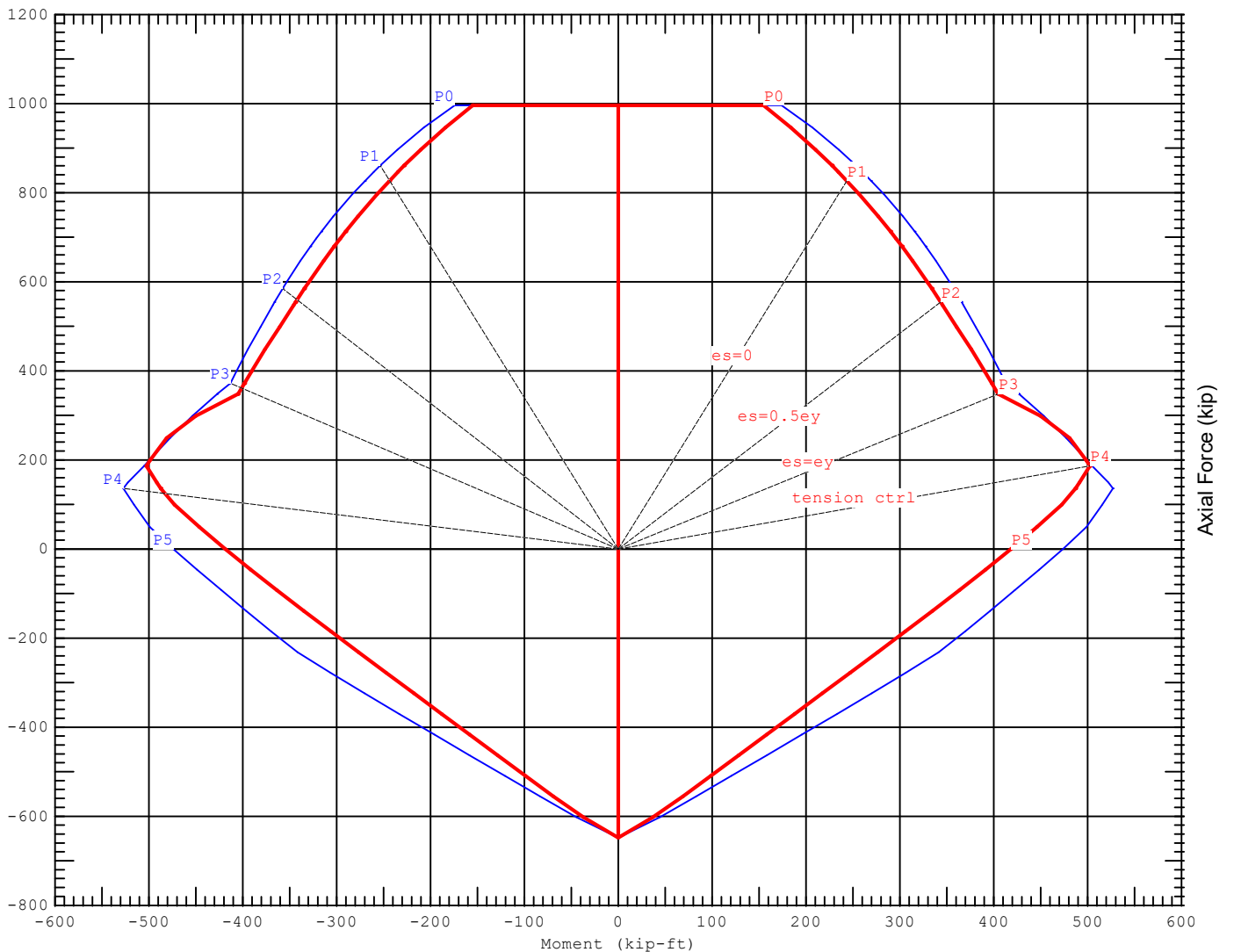
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 12 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.00 in<sup>2</sup>  
 Roh: 2.50%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	994.96	154.70	-0.00050
P1	825.88	243.16	0.00000
P2	553.92	342.82	0.00103
P3	347.42	404.01	0.00207
P4	186.21	501.47	0.00507
P5	-0.01	417.56	0.00872
Pmin	-648.00	0.00	0.20000

PT	P	My(-)	max es
P0	994.97	-173.84	-0.00039
P1	860.08	-252.85	0.00000
P2	584.00	-356.66	0.00103
P3	371.50	-411.98	0.00207
P4	135.61	-525.85	0.00507
P5	-0.01	-472.84	0.00692
Pmin	-648.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

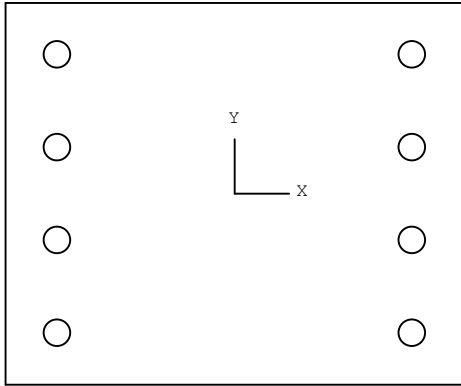
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#11\_NX4\_NY2\_cc2.705



Section 224 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.60%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

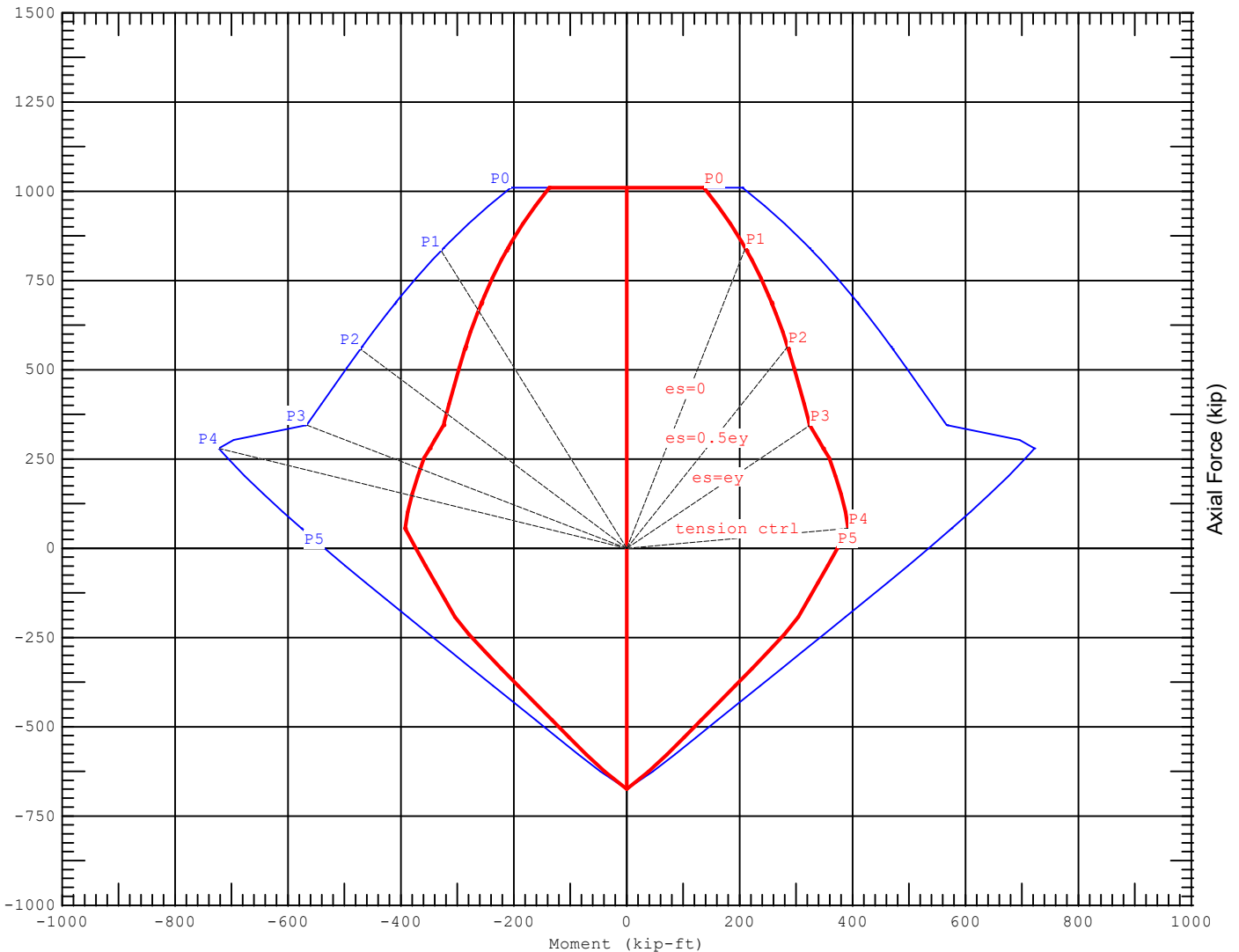
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1009.31	136.48	-0.00049
P1	839.80	210.01	0.00000
P2	563.83	284.60	0.00103
P3	343.89	323.69	0.00207
P4	55.22	391.80	0.00507
P5	0.00	372.75	0.00574
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	1009.30	-205.08	-0.00052
P1	833.06	-327.98	0.00000
P2	557.52	-470.70	0.00103
P3	344.78	-565.60	0.00207
P4	279.28	-721.35	0.00507
P5	-0.01	-534.21	0.01179
Pmin	-673.92	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

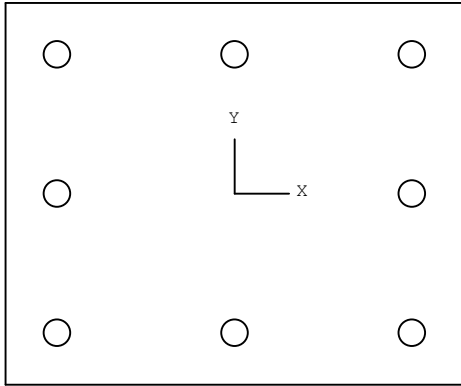
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#11\_NX3\_NY3\_cc2.705



Section 225 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

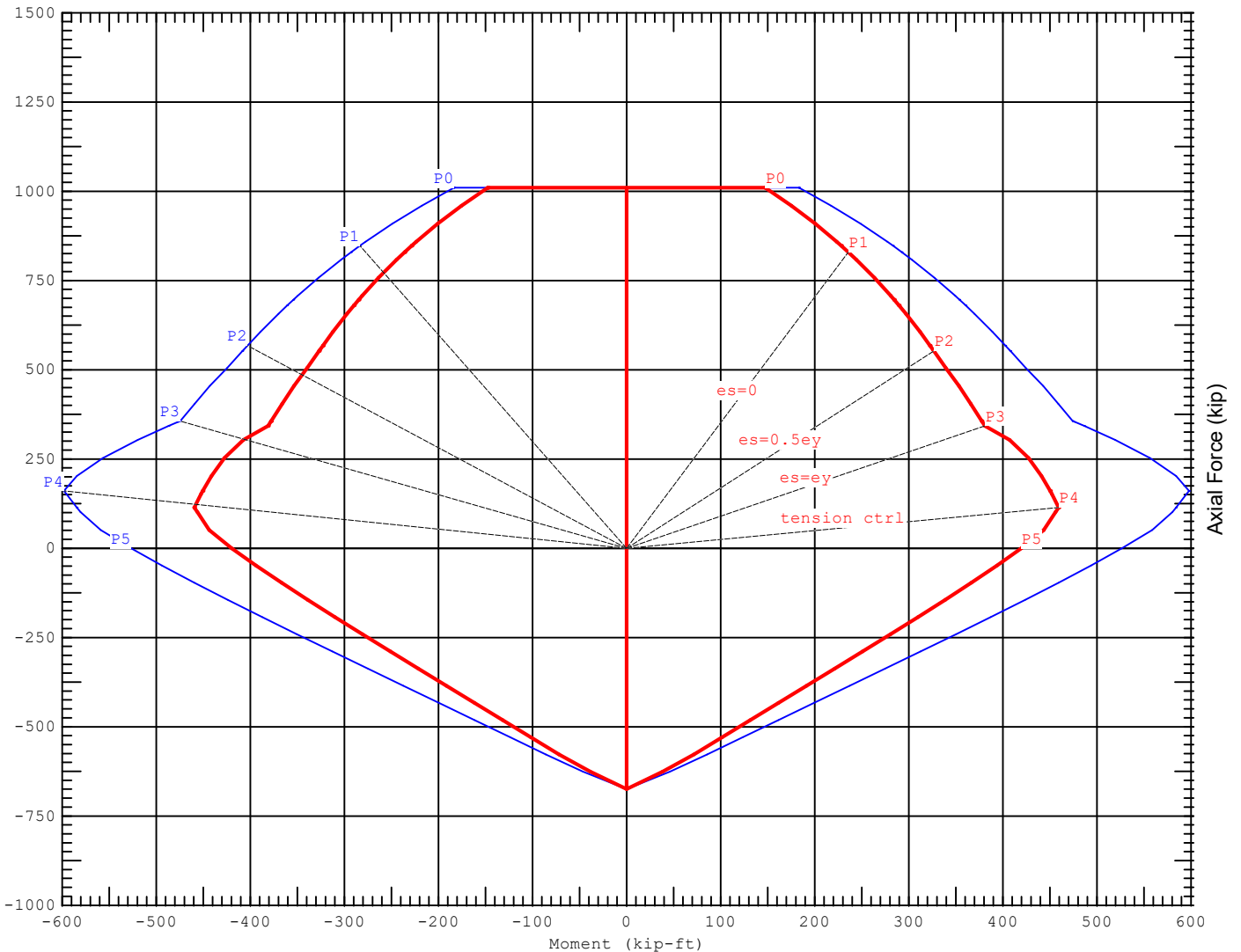
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.60%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1009.30	147.20	-0.00053
P1	828.81	235.37	0.00000
P2	552.42	326.03	0.00103
P3	342.41	380.15	0.00207
P4	114.26	458.47	0.00507
P5	-0.00	418.66	0.00669
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	1009.30	-183.09	-0.00047
P1	846.64	-282.86	0.00000
P2	567.24	-402.01	0.00103
P3	355.81	-473.36	0.00207
P4	160.71	-596.58	0.00507
P5	-0.02	-525.41	0.00774
Pmin	-673.92	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

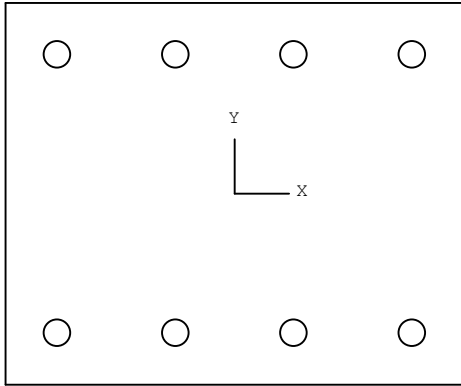
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_8#11\_NX2\_NY4\_cc2.705



Section 226 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

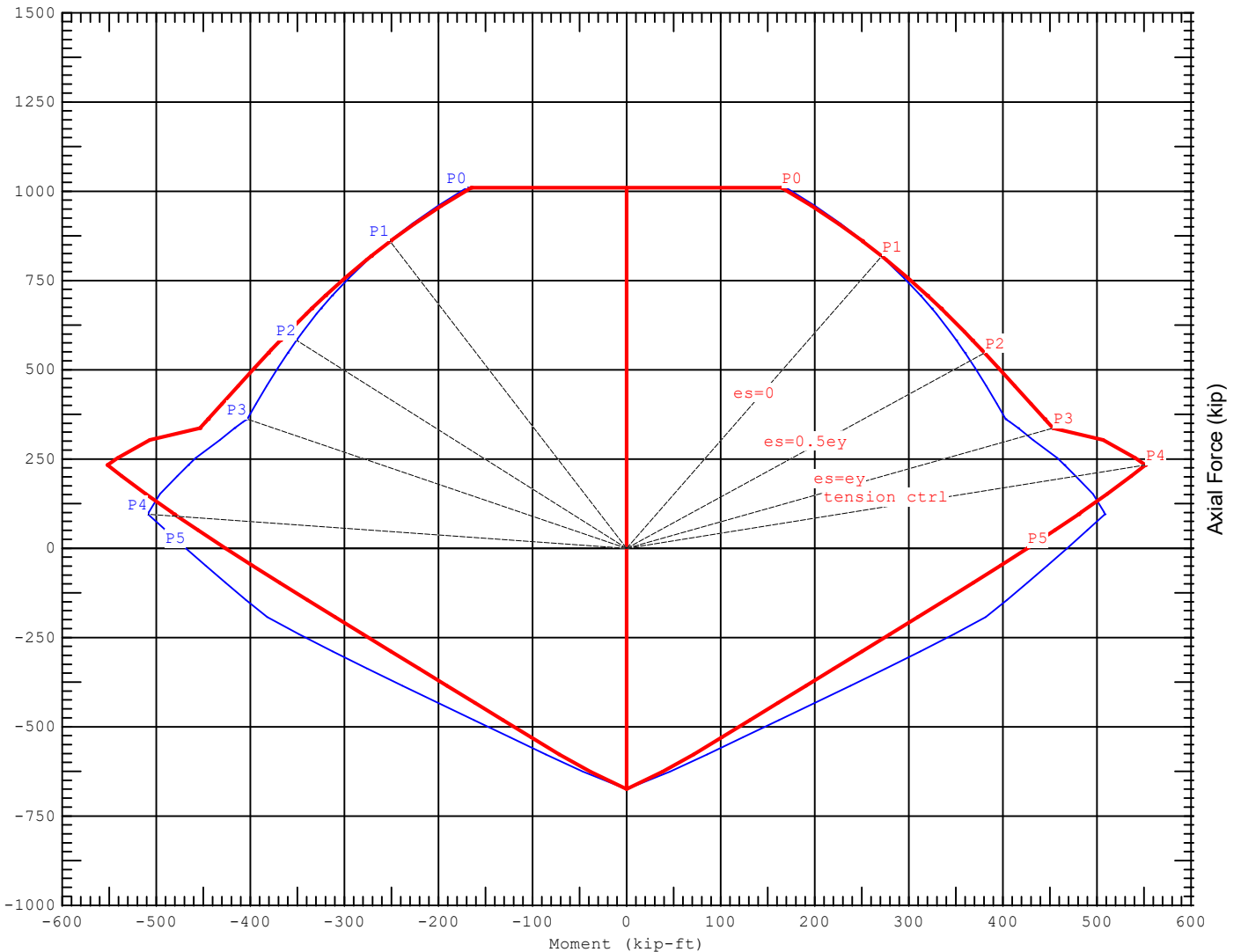
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.60%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.79 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1009.31	164.43	-0.00056
P1	817.81	270.78	0.00000
P2	546.19	379.94	0.00103
P3	335.76	452.55	0.00207
P4	232.82	550.53	0.00507
P5	0.00	425.25	0.00983
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	1009.30	-169.09	-0.00042
P1	860.23	-250.99	0.00000
P2	582.14	-349.82	0.00103
P3	361.67	-402.17	0.00207
P4	95.24	-507.47	0.00507
P5	0.01	-467.44	0.00630
Pmin	-673.92	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

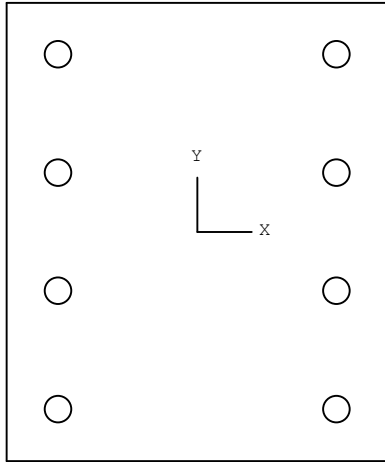
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#11\_NX4\_NY2\_cc2.705



Section 227 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

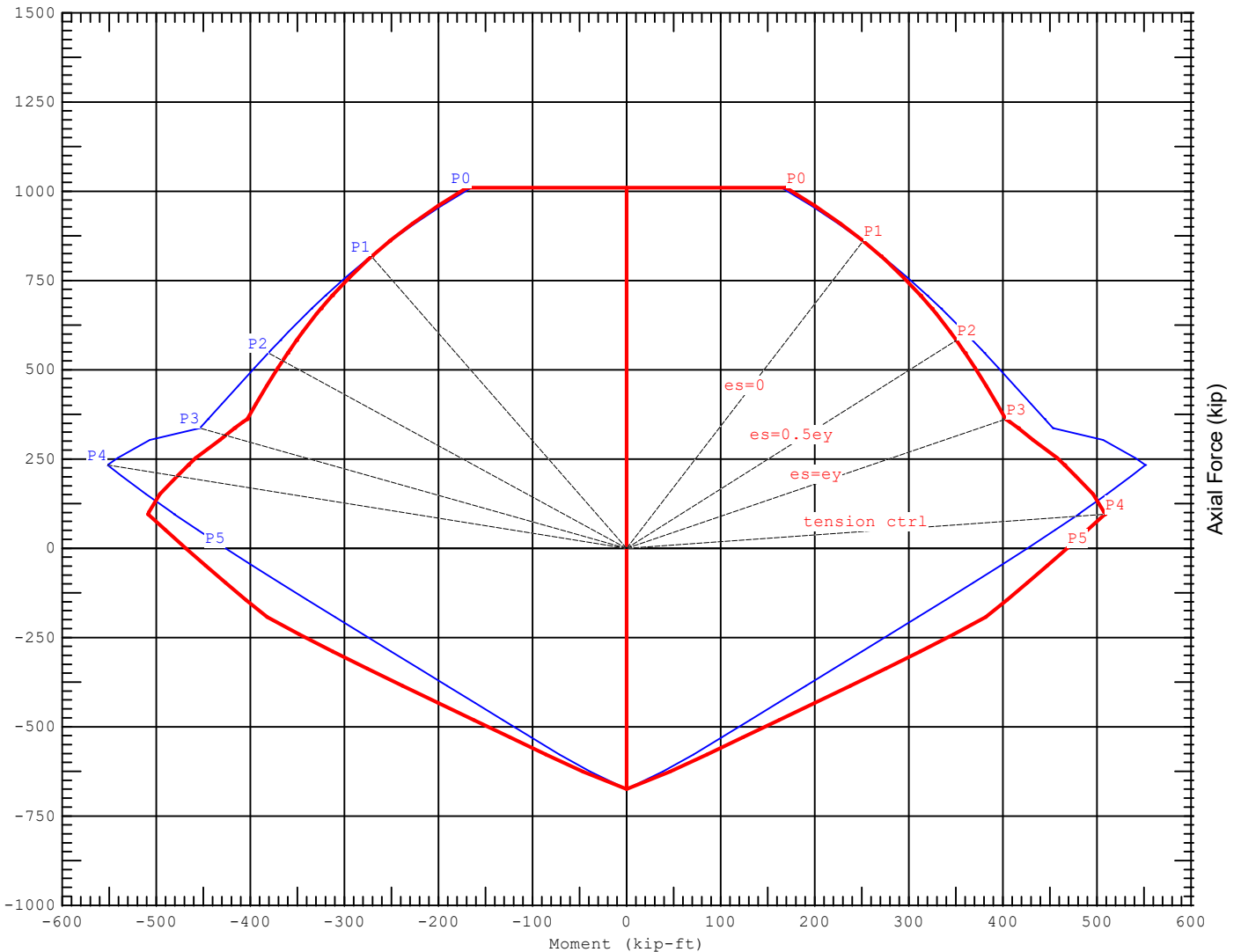
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.60%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 4.79 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1009.30	169.09	-0.00042
P1	860.23	250.99	0.00000
P2	582.14	349.82	0.00103
P3	361.67	402.17	0.00207
P4	95.24	507.47	0.00507
P5	0.01	467.44	0.00630
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	1009.31	-164.43	-0.00056
P1	817.81	-270.78	0.00000
P2	546.19	-379.94	0.00103
P3	335.76	-452.55	0.00207
P4	232.82	-550.53	0.00507
P5	0.00	-425.25	0.00983
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

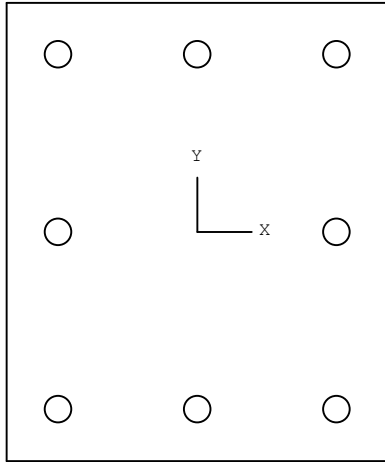
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#11\_NX3\_NY3\_cc2.705



Section 228 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

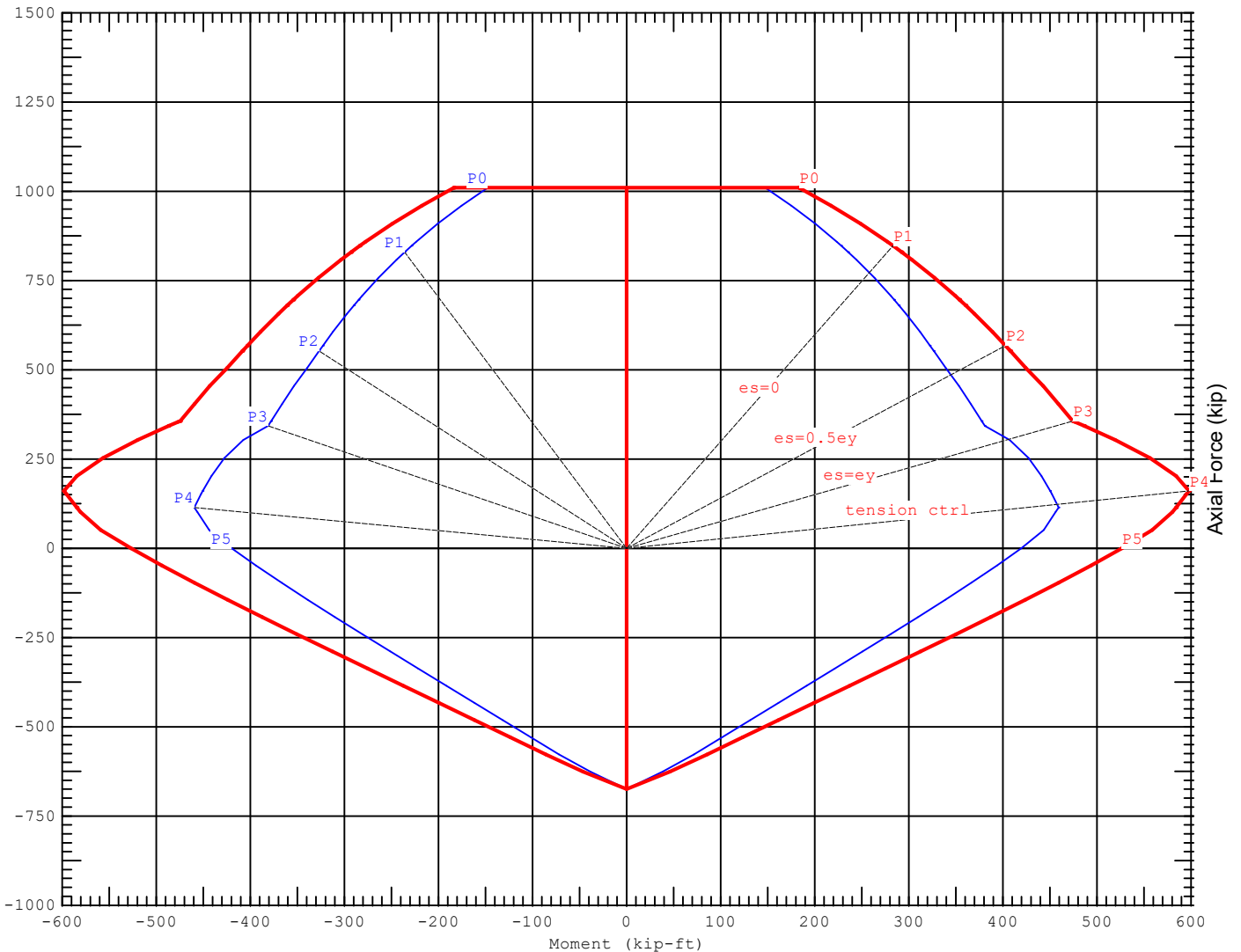
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.60%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.88 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1009.30	183.09	-0.00047
P1	846.64	282.86	0.00000
P2	567.24	402.01	0.00103
P3	355.81	473.36	0.00207
P4	160.71	596.58	0.00507
P5	-0.02	525.41	0.00774
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	1009.30	-147.20	-0.00053
P1	828.81	-235.37	0.00000
P2	552.42	-326.03	0.00103
P3	342.41	-380.15	0.00207
P4	114.26	-458.47	0.00507
P5	-0.00	-418.66	0.00669
Pmin	-673.92	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

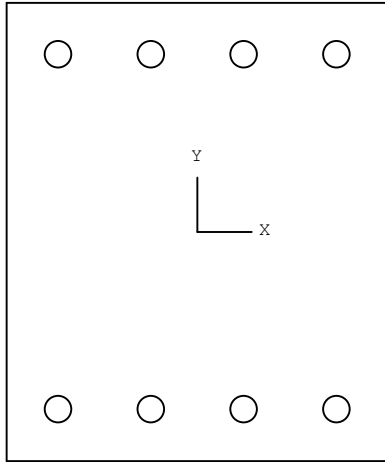
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_8#11\_NX2\_NY4\_cc2.705



Section 229 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

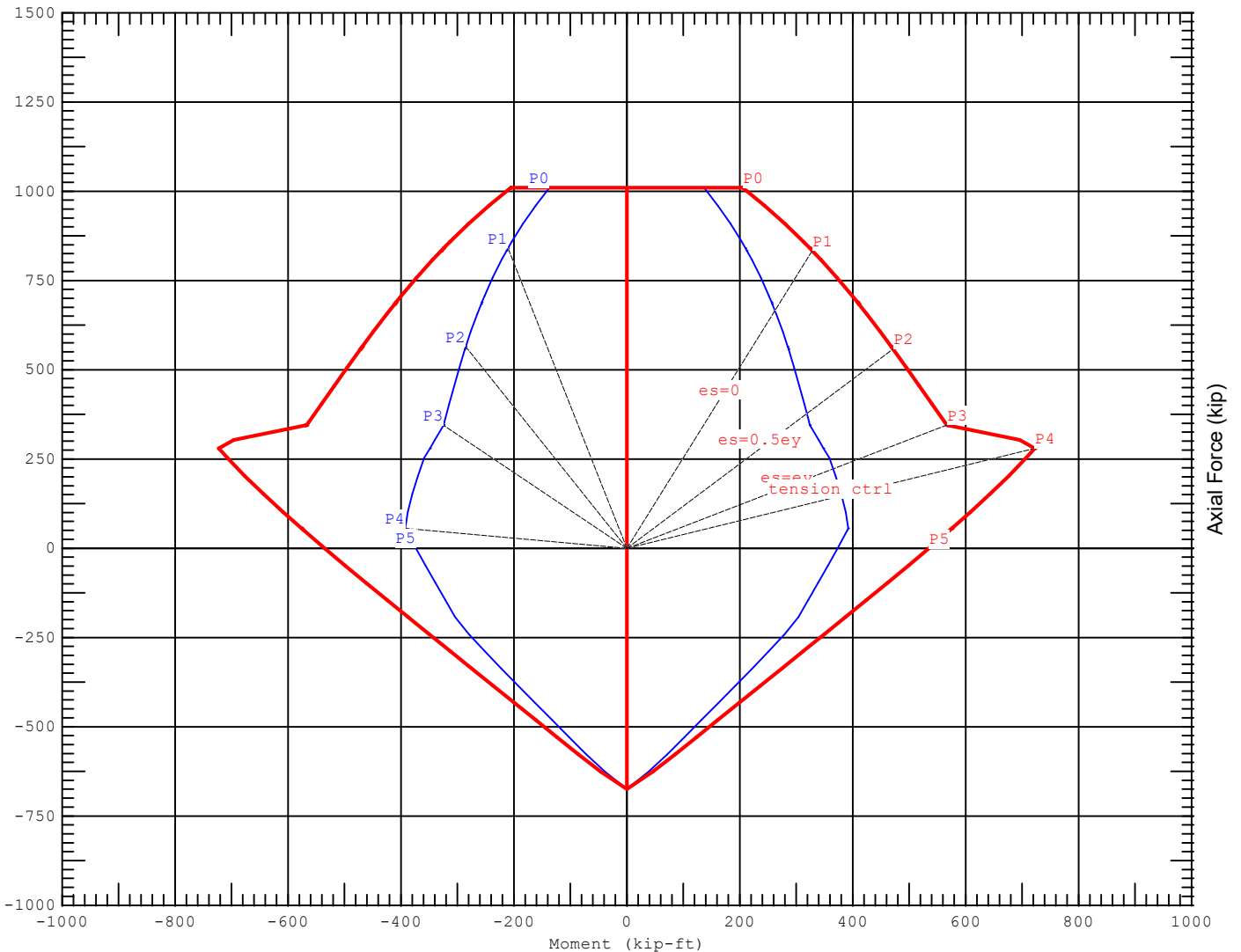
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.705 in  
 Bars: 8 # 11  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.48 in<sup>2</sup>  
 Roh: 2.60%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.45 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1009.30	205.08	-0.00052
P1	833.06	327.98	0.00000
P2	557.52	470.70	0.00103
P3	344.78	565.60	0.00207
P4	279.28	721.35	0.00507
P5	-0.01	534.21	0.01179
Pmin	-673.92	0.00	0.20000

PT	P	My(-)	max es
P0	1009.31	-136.48	-0.00049
P1	839.80	-210.01	0.00000
P2	563.83	-284.60	0.00103
P3	343.89	-323.69	0.00207
P4	55.22	-391.80	0.00507
P5	0.00	-372.75	0.00574
Pmin	-673.92	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

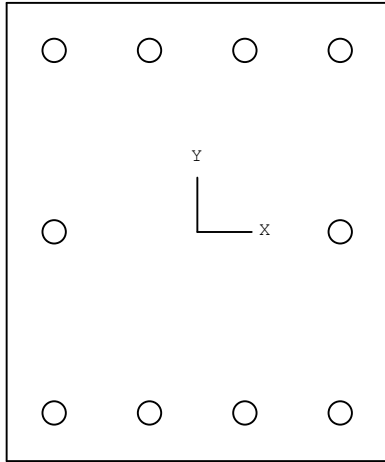
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_10#10\_NX3\_NY4\_cc2.51



Section 230 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

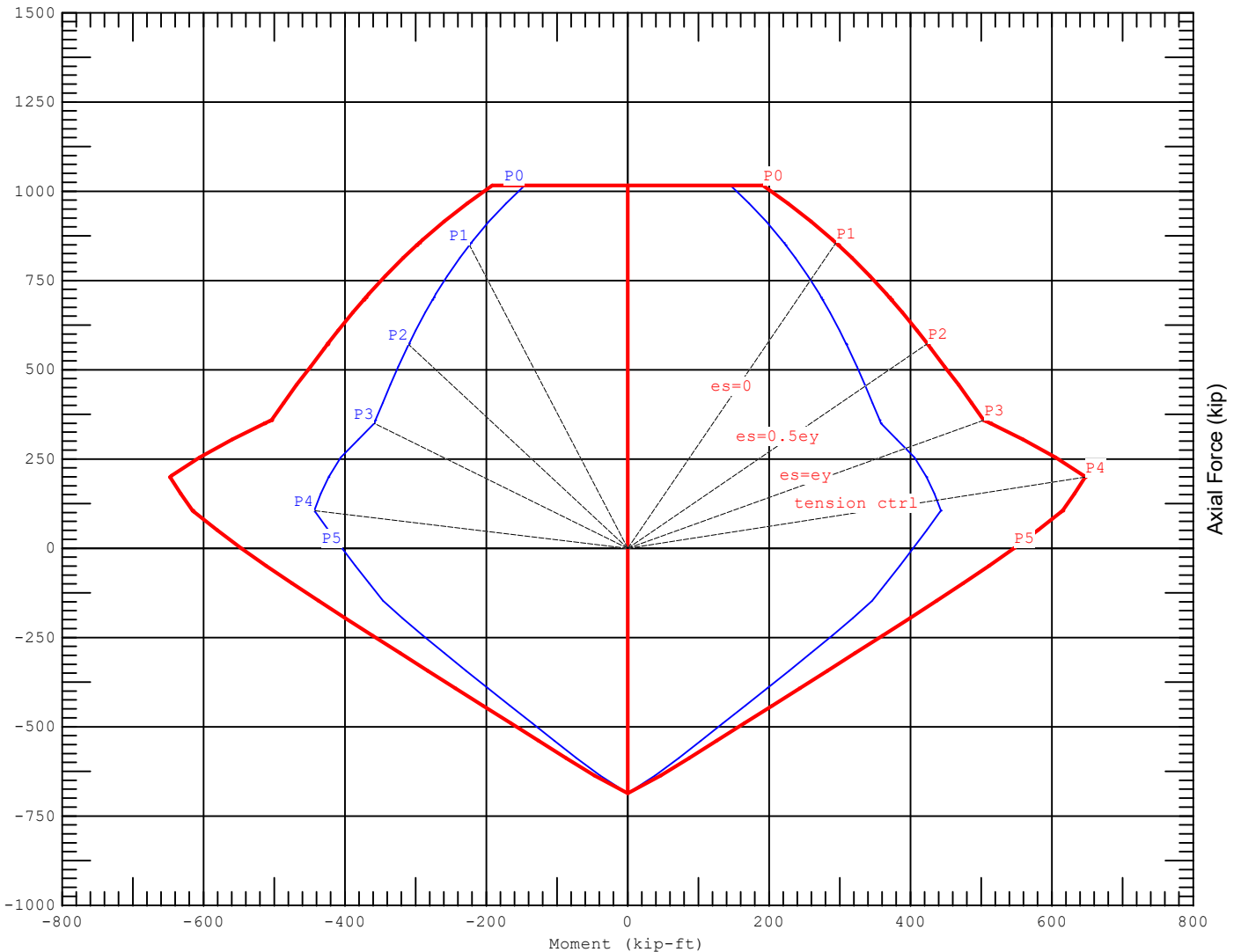
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.65%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1015.88	191.26	-0.00047
P1	854.45	294.68	0.00000
P2	572.47	423.80	0.00103
P3	358.07	503.65	0.00207
P4	198.73	646.98	0.00507
P5	0.00	546.17	0.00895
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	1015.88	-145.62	-0.00048
P1	848.27	-223.83	0.00000
P2	569.91	-309.68	0.00103
P3	349.23	-358.45	0.00207
P4	105.37	-443.05	0.00507
P5	0.01	-403.77	0.00648
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

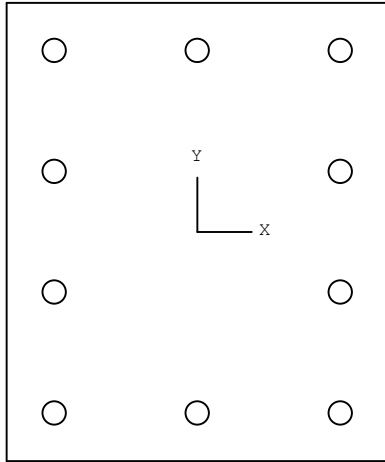
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_10#10\_NX4\_NY3\_cc2.51



Section 231 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

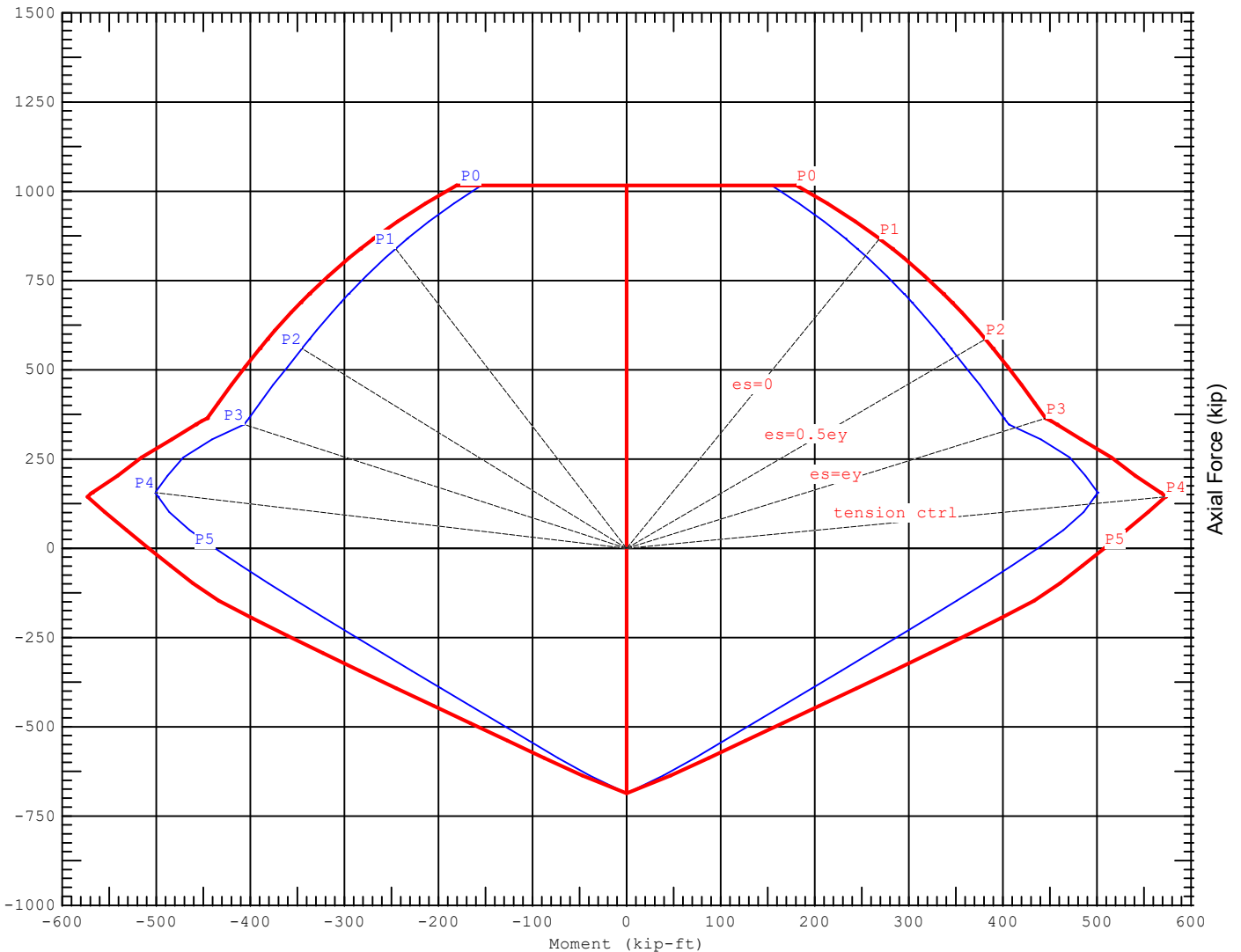
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.65%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.06 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1015.87	180.29	-0.00042
P1	866.25	268.32	0.00000
P2	585.58	380.59	0.00103
P3	364.08	444.70	0.00207
P4	143.61	571.71	0.00507
P5	-0.00	506.76	0.00713
Pmin	-685.80	-0.00	0.20000

PT	P	My(-)	max es
P0	1015.88	-153.98	-0.00051
P1	838.39	-244.90	0.00000
P2	559.37	-344.14	0.00103
P3	346.46	-405.42	0.00207
P4	155.73	-499.97	0.00507
P5	-0.01	-436.24	0.00772
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

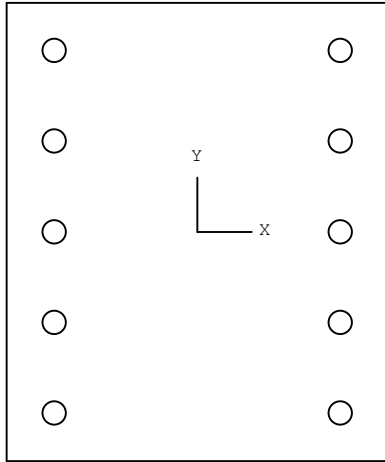
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_10#10\_NX5\_NY2\_cc2.51



Section 232 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

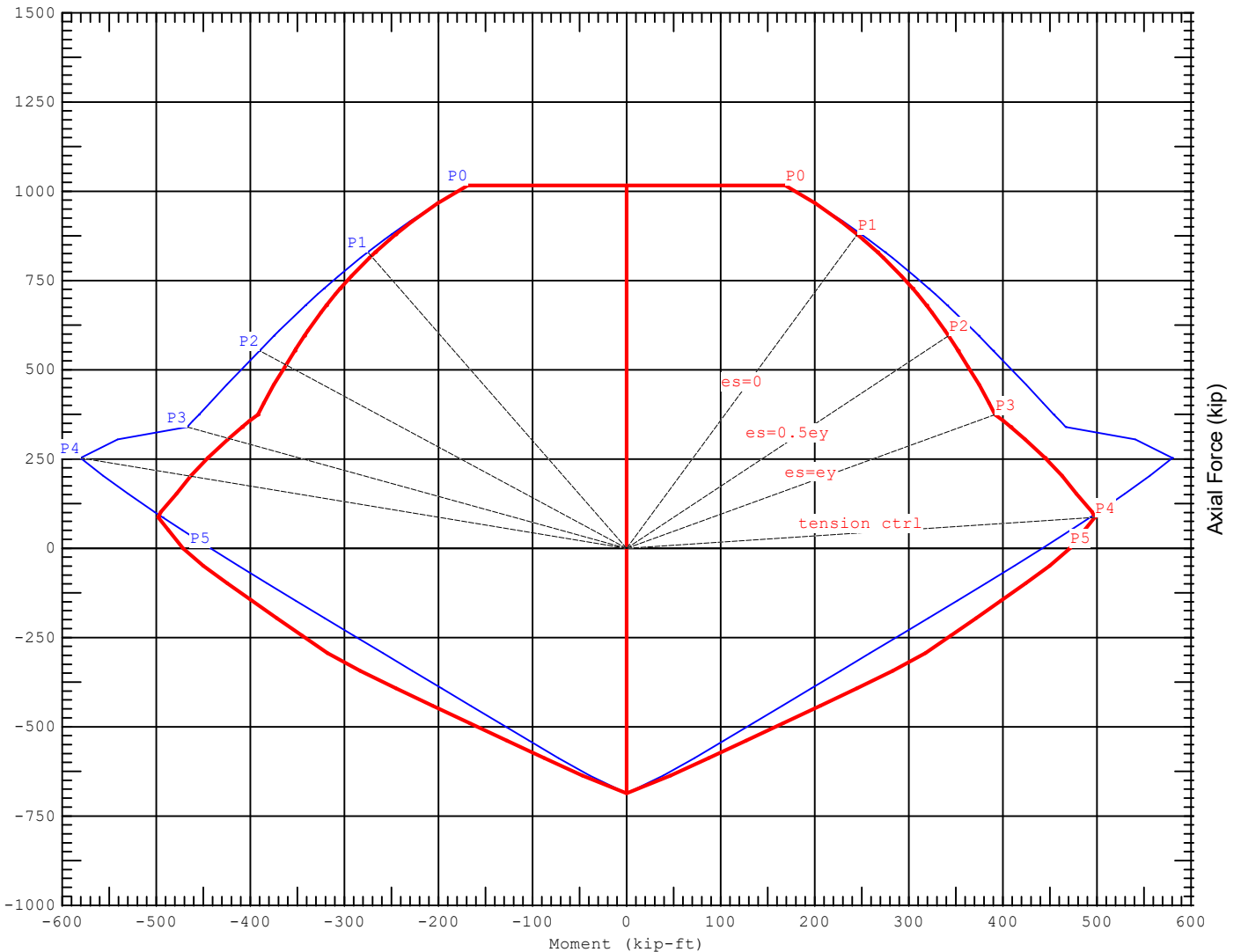
b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.65%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1015.88	168.37	-0.00039
P1	878.04	244.75	0.00000
P2	594.49	341.69	0.00103
P3	374.30	391.01	0.00207
P4	86.45	496.72	0.00507
P5	0.00	470.39	0.00592
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	1015.88	-168.14	-0.00055
P1	828.51	-274.50	0.00000
P2	553.05	-389.20	0.00103
P3	339.48	-465.94	0.00207
P4	252.26	-579.07	0.00507
P5	0.00	-441.08	0.01052
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

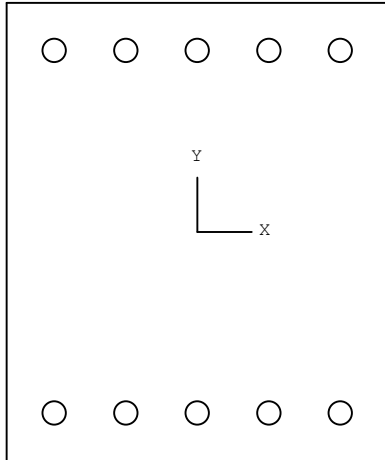
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_10#10\_NX2\_NY5\_cc2.51



Section 233 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.65%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

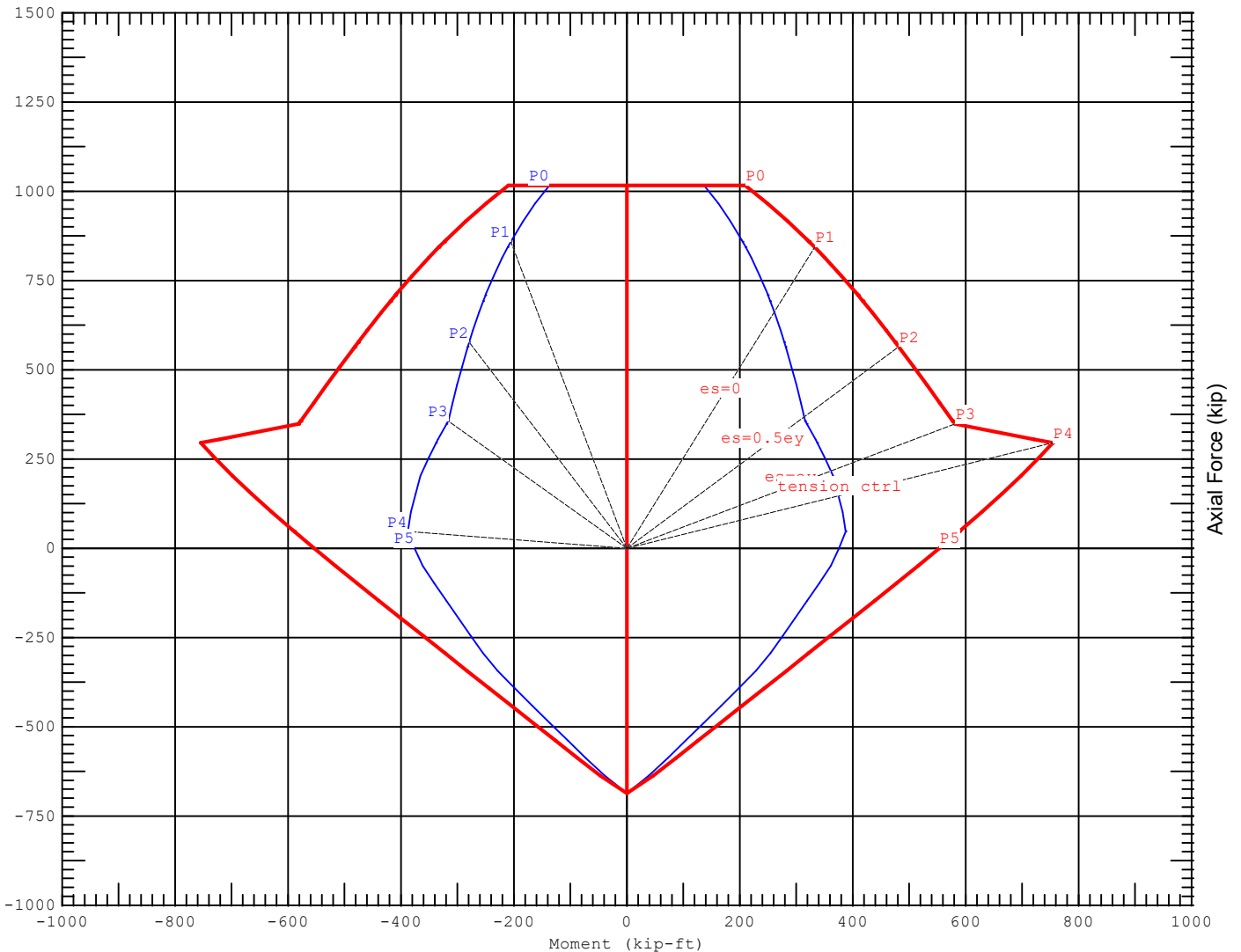
Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1015.88	209.22	-0.00051
P1	842.66	332.19	0.00000
P2	563.57	480.89	0.00103
P3	347.85	580.32	0.00207
P4	295.26	752.85	0.00507
P5	0.01	552.46	0.01257
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	1015.88	-136.85	-0.00044
P1	858.14	-204.89	0.00000
P2	576.23	-278.53	0.00103
P3	356.21	-315.51	0.00207
P4	47.02	-386.95	0.00507
P5	0.00	-375.03	0.00551
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

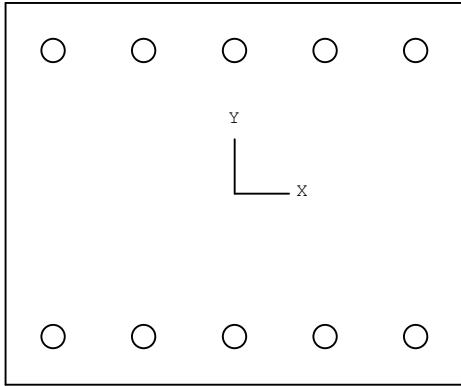
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_10#10\_NX2\_NY5\_cc2.51



Section 234 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

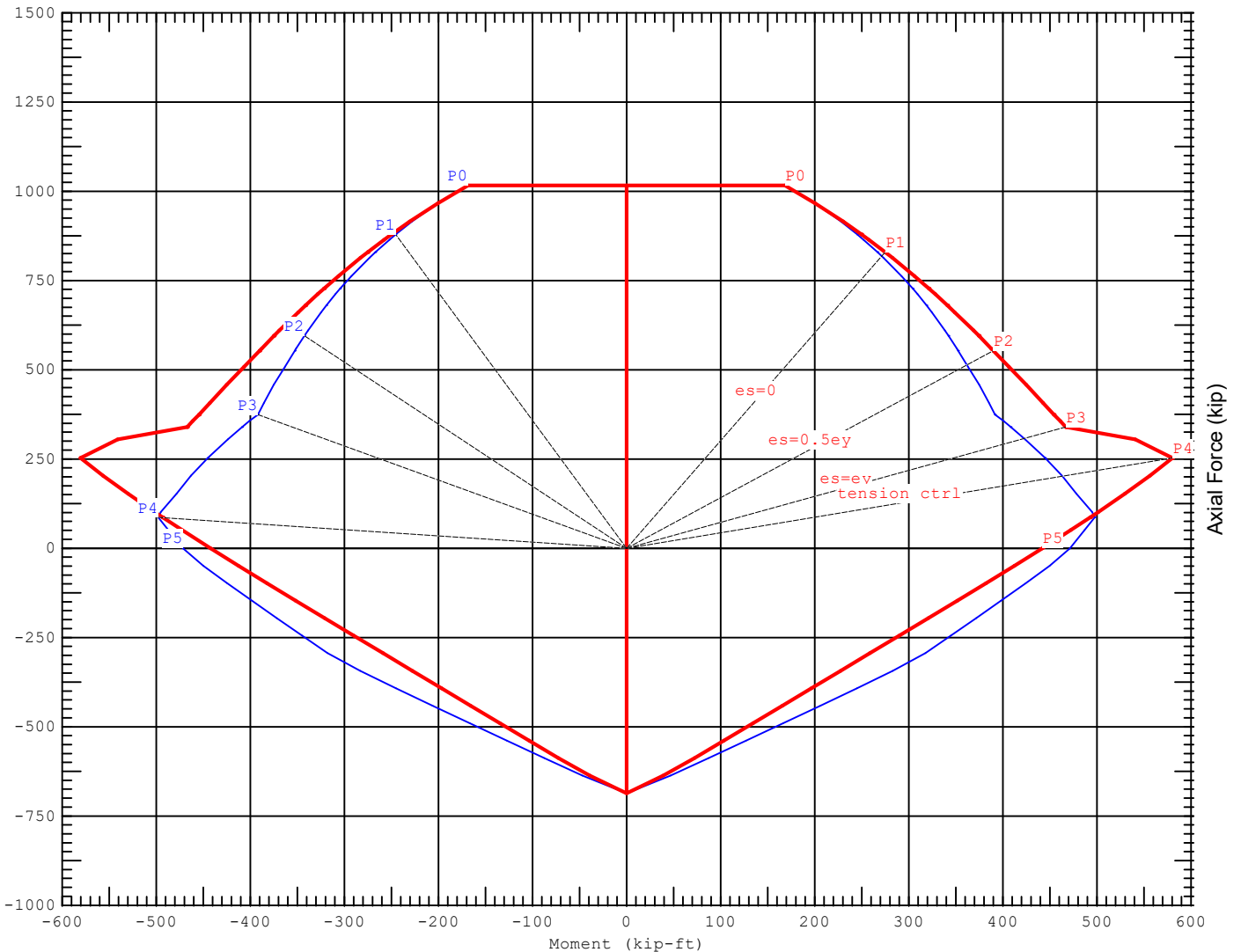
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.65%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1015.88	168.14	-0.00055
P1	828.51	274.50	0.00000
P2	553.05	389.20	0.00103
P3	339.48	465.94	0.00207
P4	252.26	579.07	0.00507
P5	0.00	441.08	0.01052
Pmin	-685.80	-0.00	0.20000

PT	P	My(-)	max es
P0	1015.88	-168.37	-0.00039
P1	878.04	-244.75	0.00000
P2	594.49	-341.69	0.00103
P3	374.30	-391.01	0.00207
P4	86.45	-496.72	0.00507
P5	0.00	-470.39	0.00592
Pmin	-685.80	0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

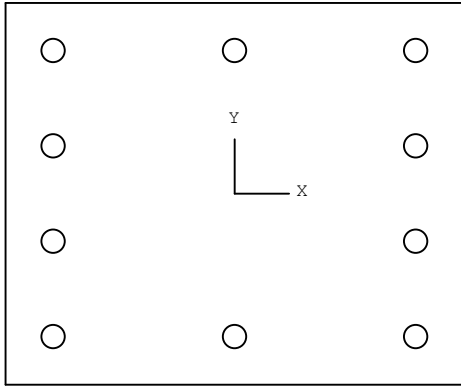
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_10#10\_NX4\_NY3\_cc2.51



Section 235 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

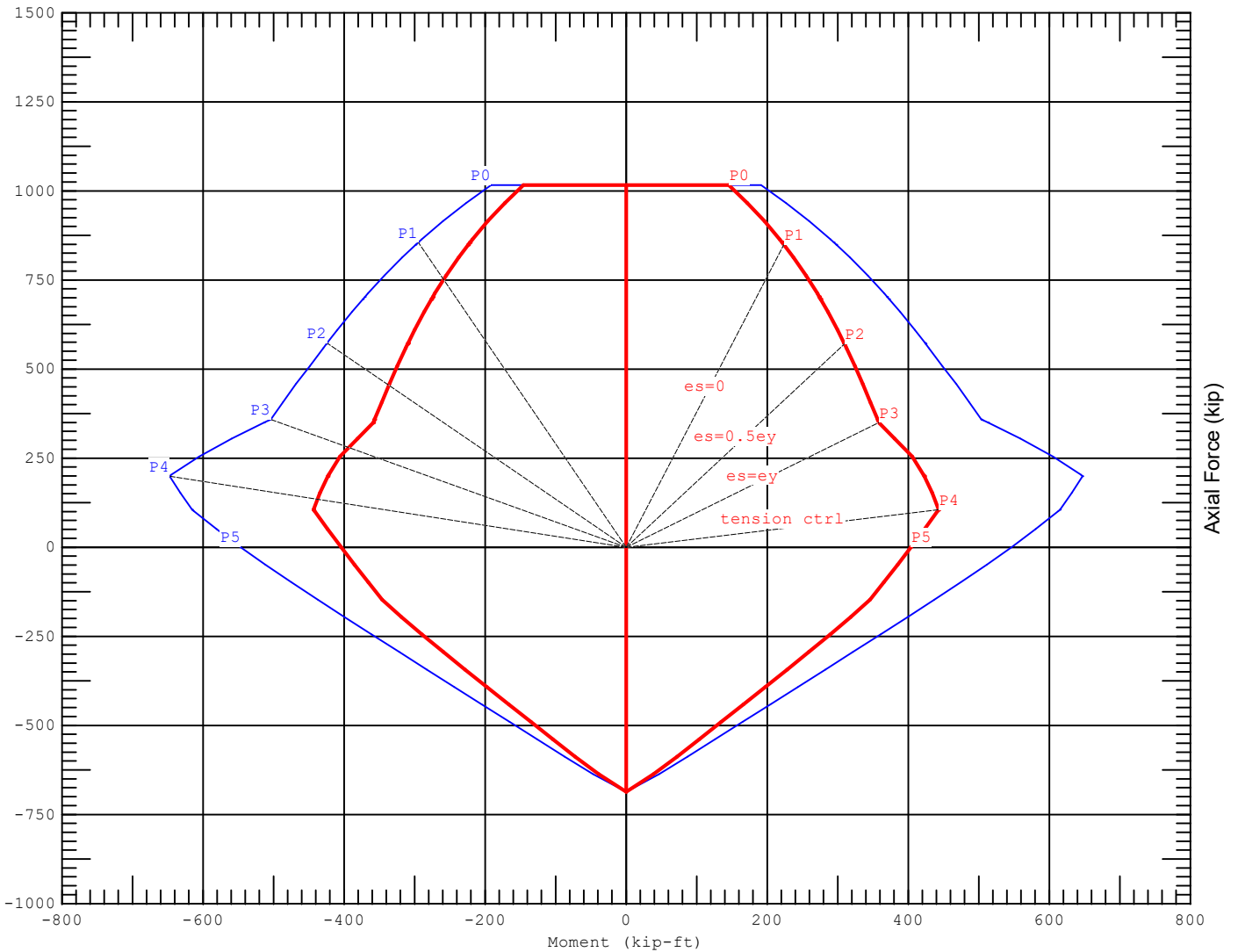
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.65%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 3.72 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1015.88	145.62	-0.00048
P1	848.27	223.83	0.00000
P2	569.91	309.68	0.00103
P3	349.23	358.45	0.00207
P4	105.37	443.05	0.00507
P5	0.01	403.77	0.00648
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	1015.88	-191.26	-0.00047
P1	854.45	-294.68	0.00000
P2	572.47	-423.80	0.00103
P3	358.07	-503.65	0.00207
P4	198.73	-646.98	0.00507
P5	0.00	-546.17	0.00895
Pmin	-685.80	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

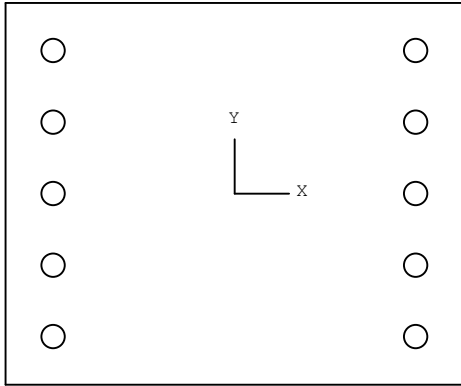
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_10#10\_NX5\_NY2\_cc2.51



Section 236 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

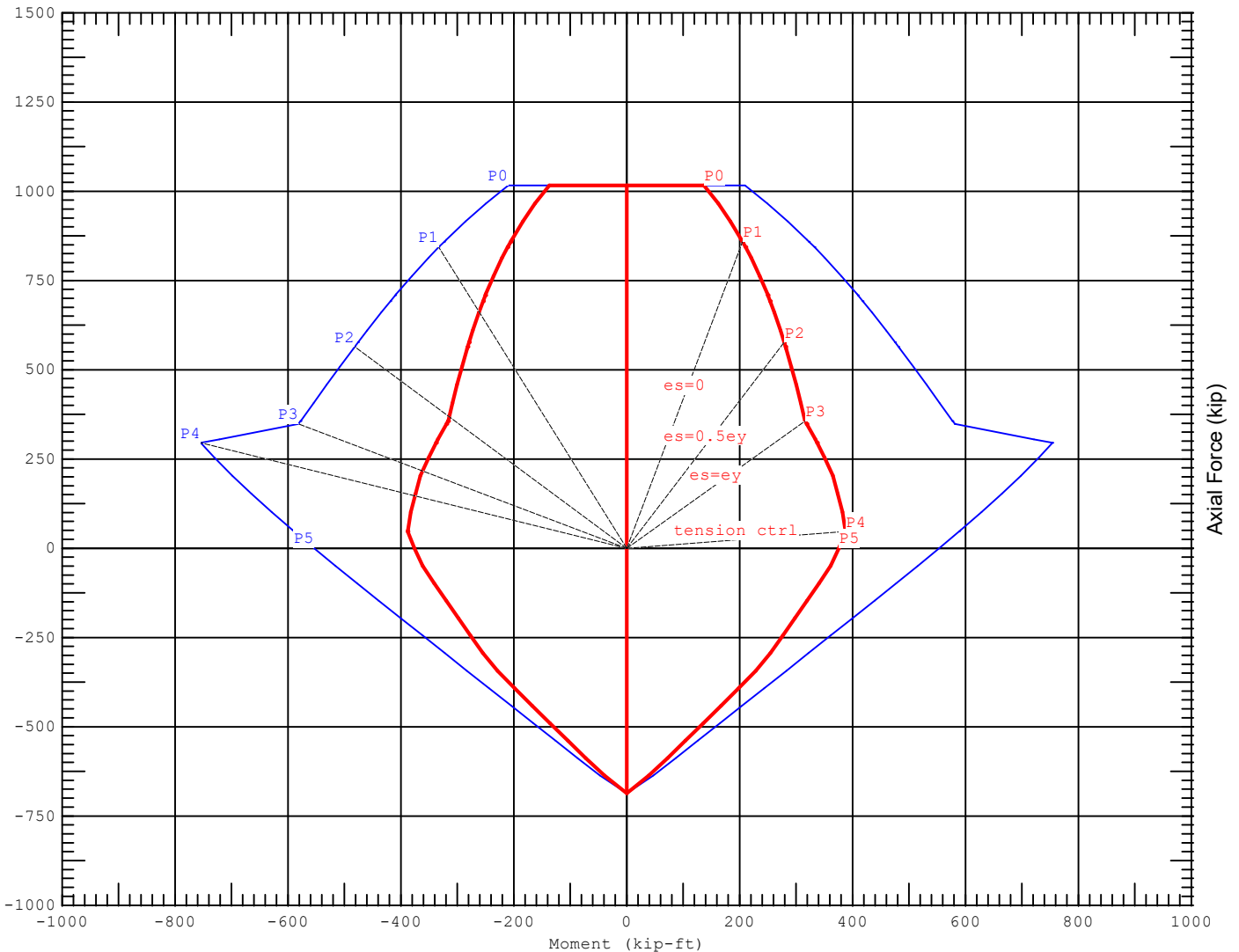
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.65%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.47 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1015.88	136.85	-0.00044
P1	858.14	204.89	0.00000
P2	576.23	278.53	0.00103
P3	356.21	315.51	0.00207
P4	47.02	386.95	0.00507
P5	0.00	375.03	0.00551
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	1015.88	-209.22	-0.00051
P1	842.66	-332.19	0.00000
P2	563.57	-480.89	0.00103
P3	347.85	-580.32	0.00207
P4	295.26	-752.85	0.00507
P5	0.01	-552.46	0.01257
Pmin	-685.80	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

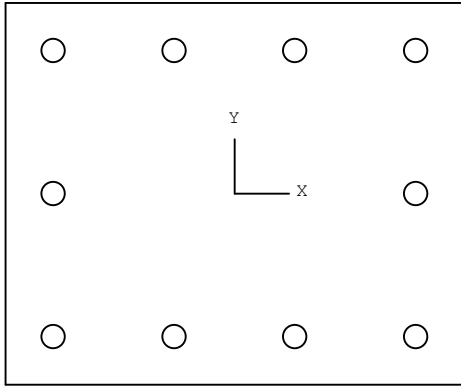
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect24x20\_fc3\_fy60\_10#10\_NX3\_NY4\_cc2.51



Section 237 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

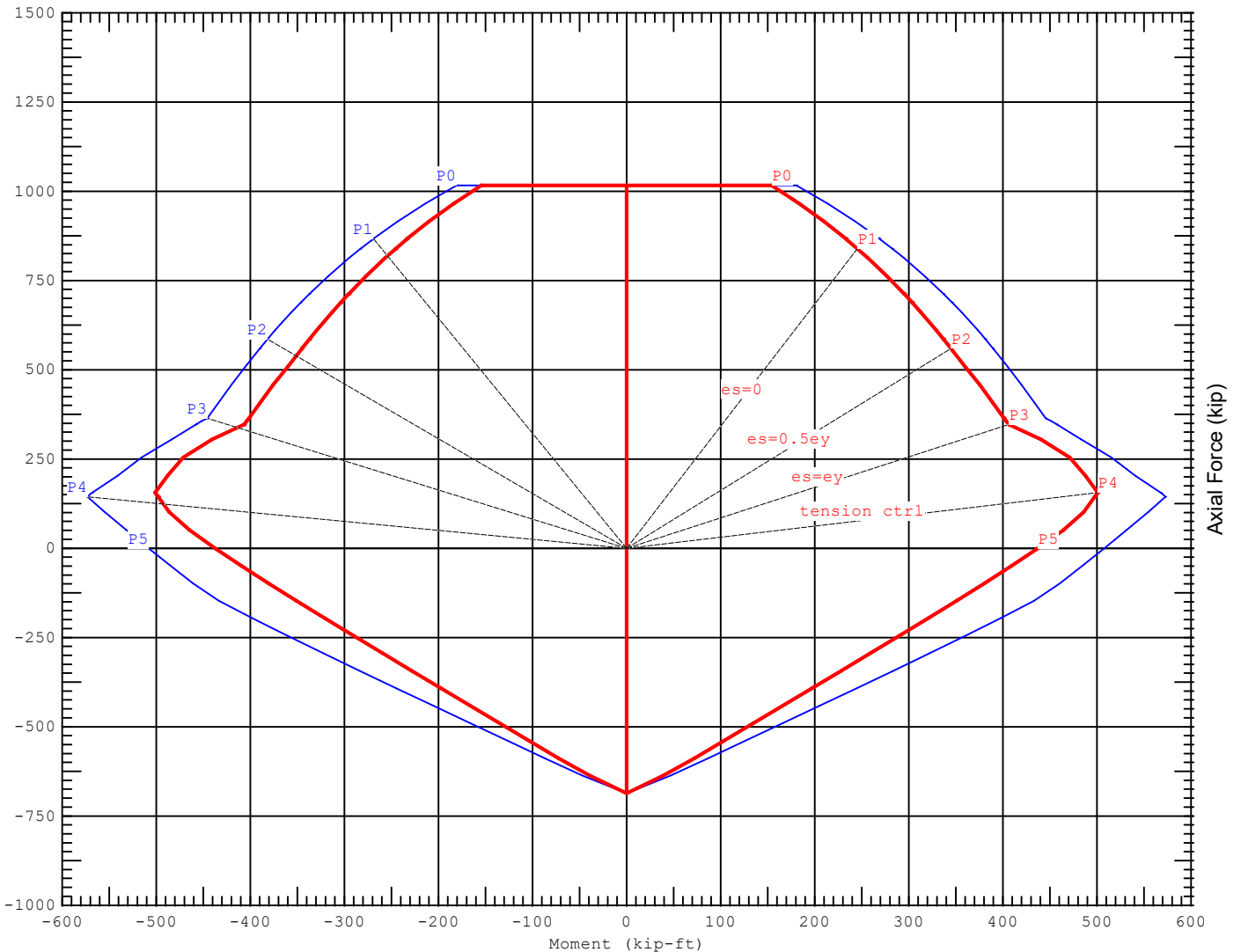
b x h: 24 x 20 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.51 in  
 Bars: 10 # 10  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 12.70 in<sup>2</sup>  
 Roh: 2.65%  
 Ix: 16000 in<sup>4</sup>  
 Iy: 23040 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 5.06 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1015.88	153.98	-0.00051
P1	838.39	244.90	0.00000
P2	559.37	344.14	0.00103
P3	346.46	405.42	0.00207
P4	155.73	499.97	0.00507
P5	-0.01	436.24	0.00772
Pmin	-685.80	0.00	0.20000

PT	P	My(-)	max es
P0	1015.87	-180.29	-0.00042
P1	866.25	-268.32	0.00000
P2	585.58	-380.59	0.00103
P3	364.08	-444.70	0.00207
P4	143.61	-571.71	0.00507
P5	-0.00	-506.76	0.00713
Pmin	-685.80	-0.00	0.20000

### P-Mx and P-My Interaction Diagram



Project/Job:

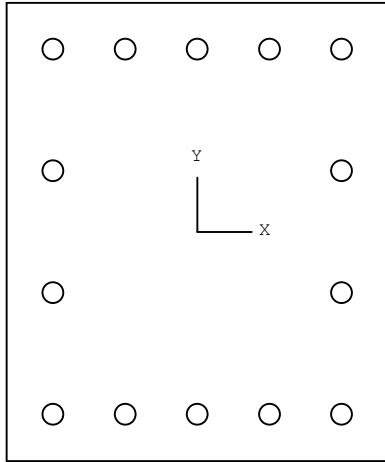
Engineer:

Date & Time: 05/18/2026 18:41

# cColumn v12

(C) Computations & Graphics, Inc.

Rect20x24\_fc3\_fy60\_14#9\_NX4\_NY5\_cc2.439



Section 238 of 238

Code: ACI 318-19  
 Strength reduction: Auto  
 Neutral axis steps: 250  
 Biaxial angle steps: 16  
 Axial capacity steps: 20  
 Excl. displ'd concrete: Yes

b x h: 20 x 24 in  
 fc: 3.00 kip/in<sup>2</sup>  
 fy: 60.00 kip/in<sup>2</sup>  
 Cover (t.c): 2.439 in  
 Bars: 14 # 9  
 Confinement: Tied  
 Ag: 480.00 in<sup>2</sup>  
 As: 14.00 in<sup>2</sup>  
 Roh: 2.92%  
 Ix: 23040 in<sup>4</sup>  
 Iy: 16000 in<sup>4</sup>  
 X0: 0.00 in  
 Y0: 0.00 in  
 Clear spacing: 2.65 in

Control Points (kip, kip-ft)

PT	P	Mx(+)	max es
P0	1054.71	196.40	-0.00045
P1	887.92	301.25	0.00000
P2	594.55	432.75	0.00103
P3	361.44	515.32	0.00207
P4	177.72	669.61	0.00507
P5	0.00	582.80	0.00784
Pmin	-756.00	0.00	0.20000

PT	P	My(-)	max es
P0	1054.72	-151.66	-0.00049
P1	879.30	-234.97	0.00000
P2	585.74	-326.60	0.00103
P3	354.32	-380.78	0.00207
P4	92.88	-474.35	0.00507
P5	0.00	-445.40	0.00609
Pmin	-756.00	-0.00	0.20000

### P-Mx and P-My Interaction Diagram

