



Prepared for
Akbarzadeh

**ACI 318-05/IBC 2003
Concrete Frame Design Report**

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Model Name: RC. 3-STORY-A.edb

14 October 2011

Design Preferences

Consider Minimum Eccentricity = Yes
Number of Interaction Curves = 24
Number of Interaction Points = 11
 Pattern Live Load Factor = 0.000
 Utilization Factor Limit = 0.990
 Phi (Tension Controlled) = 0.900
 Phi (Comp. Controlled Tied) = 0.650
 Phi (Comp. Controlled Spiral) = 0.700
 Phi (Shear and/or Torsion) = 0.750
 Phi (Shear Seismic) = 0.600
 Phi (Shear Joint) = 0.850

Load Combinations

Load Combinations

Combination Name	Combination Definition
COMB1	1.400*DEAD
COMB2	1.200*DEAD + 1.600*LIVE
COMB3	1.200*DEAD + 1.000*LIVE + 1.000*LW + 1.000*EXP + 0.300*EY
COMB4	1.200*DEAD + 1.000*LIVE + 1.000*LW + 1.000*EXP - 0.300*EY
COMB5	1.200*DEAD + 1.000*LIVE + 1.000*LW - 1.000*EXP + 0.300*EY
COMB6	1.200*DEAD + 1.000*LIVE + 1.000*LW - 1.000*EXP - 0.300*EY
COMB7	1.200*DEAD + 1.000*LIVE + 1.000*LW + 1.000*EYP + 0.300*EX
COMB8	1.200*DEAD + 1.000*LIVE + 1.000*LW + 1.000*EYP - 0.300*EX
COMB9	1.200*DEAD + 1.000*LIVE + 1.000*LW - 1.000*EYP + 0.300*EX
COMB10	1.200*DEAD + 1.000*LIVE + 1.000*LW - 1.000*EYN - 0.300*EX
COMB11	0.900*DEAD + 1.000*EXP + 0.300*EY
COMB12	0.900*DEAD + 1.000*EXP - 0.300*EY
COMB13	0.900*DEAD - 1.000*EXP + 0.300*EY
COMB14	0.900*DEAD - 1.000*EXP - 0.300*EY
COMB15	0.900*DEAD + 1.000*EYP + 0.300*EX
COMB16	0.900*DEAD + 1.000*EYP - 0.300*EX
COMB17	0.900*DEAD - 1.000*EYP + 0.300*EX
COMB18	0.900*DEAD - 1.000*EYP - 0.300*EX
COMB19	1.200*DEAD + 1.000*LIVE + 1.000*LW + 1.000*EXN + 0.300*EY
COMB20	1.200*DEAD + 1.000*LIVE + 1.000*LW + 1.000*EXN - 0.300*EY
COMB21	1.200*DEAD + 1.000*LIVE + 1.000*LW - 1.000*EXN + 0.300*EY
COMB22	1.200*DEAD + 1.000*LIVE + 1.000*LW - 1.000*EXN - 0.300*EY
COMB23	1.200*DEAD + 1.000*LIVE + 1.000*LW + 1.000*EYN + 0.300*EX
COMB24	1.200*DEAD + 1.000*LIVE + 1.000*LW + 1.000*EYN - 0.300*EX
COMB25	1.200*DEAD + 1.000*LIVE + 1.000*LW - 1.000*EYN + 0.300*EX
COMB26	0.900*DEAD + 1.000*EXN + 0.300*EY
COMB27	0.900*DEAD + 1.000*EXN - 0.300*EY
COMB28	0.900*DEAD - 1.000*EXN + 0.300*EY
COMB29	0.900*DEAD - 1.000*EXN - 0.300*EY
COMB30	0.900*DEAD + 1.000*EYN + 0.300*EX
COMB31	0.900*DEAD + 1.000*EYN - 0.300*EX
COMB32	0.900*DEAD - 1.000*EYN + 0.300*EX
COMB33	0.900*DEAD - 1.000*EYN - 0.300*EX

Material Property Data - General

Material Property Data - General

Name	Type	Dir/Plane	Modulus of Elasticity	Poisson's Ratio	Thermal Coefficient	Shear Modulus
CONC	Iso	All	2544344.000	0.1500	9.9000E-06	1106236.522

Material Property Data - Mass & Weight

Material Property Data - Mass & Weight

Name	Mass per Unit Volume	Weight per Unit Volume
CONC	2.5480E-01	2.5000E+00

Material Property Data - Concrete Design

Material Property Data - Concrete Design

Name	Lightweight Concrete	Concrete f_c	Rebar f_y	Rebar f_{ys}	Lightweight Reduc. Factor
CONC	No	2100.000	40000.000	30000.000	N/A

Frame Section Property Data - Concrete Columns

Frame Section Property Data - Concrete Columns

Frame Section Name	Material Name	Column Depth	Column Width	Rebar Pattern	Concrete Cover	Bar Size	Corner Bar Size
C45-12F22	CONC	0.450	0.450	RR-4-4	5.500E-02	22Ø	22Ø
C45-12F20	CONC	0.450	0.450	RR-4-4	5.500E-02	20Ø	20Ø
C45-8F22	CONC	0.450	0.450	RR-3-3	5.500E-02	22Ø	22Ø
C45-8F20	CONC	0.450	0.450	RR-3-3	5.500E-02	20Ø	20Ø
C40-8F20	CONC	0.400	0.400	RR-3-3	5.500E-02	20Ø	20Ø
C40-8F18	CONC	0.400	0.400	RR-3-3	5.500E-02	18Ø	18Ø
C35-8F18	CONC	0.350	0.350	RR-3-3	5.500E-02	18Ø	18Ø
C35-8F16	CONC	0.350	0.350	RR-3-3	5.500E-02	16Ø	16Ø
C30-8F14	CONC	0.300	0.300	RR-3-3	5.500E-02	14Ø	14Ø

Frame Section Property Data - Concrete Beams Part 1 of 2

Frame Section Property Data - Concrete Beams Part 1 of 2

Frame Section Name	Material Name	Beam Depth	Beam Width	Top Cover	Bottom Cover
B50X50	CONC	0.500	0.500	6.500E-02	6.500E-02
B35X35	CONC	0.350	0.350	5.500E-02	5.500E-02
B30X30	CONC	0.300	0.300	5.500E-02	5.500E-02
B35X25	CONC	0.350	0.250	5.500E-02	5.500E-02
B30X25	CONC	0.300	0.250	5.500E-02	5.500E-02
B30X35	CONC	0.300	0.350	5.500E-02	5.500E-02
B35X40	CONC	0.350	0.400	5.500E-02	5.500E-02
B40X45	CONC	0.400	0.450	5.500E-02	5.500E-02
B35X30	CONC	0.350	0.300	5.500E-02	5.500E-02
B40X40	CONC	0.400	0.400	6.500E-02	6.500E-02
B40X25	CONC	0.400	0.250	5.500E-02	5.500E-02
B40X50	CONC	0.400	0.500	5.500E-02	5.500E-02
B45X45	CONC	0.450	0.450	6.500E-02	6.500E-02
B45X40	CONC	0.450	0.400	5.500E-02	5.500E-02
B45X25	CONC	0.450	0.250	5.500E-02	5.500E-02
B45X30	CONC	0.450	0.300	5.500E-02	5.500E-02
B40X30	CONC	0.400	0.300	5.500E-02	5.500E-02
DUBL	CONC	0.300	0.200	3.000E-02	3.000E-02
B50X25	CONC	0.500	0.250	5.500E-02	5.500E-02
B45X50	CONC	0.450	0.500	5.500E-02	5.500E-02
B40X35	CONC	0.400	0.350	5.500E-02	5.500E-02
B50X45	CONC	0.500	0.450	5.500E-02	5.500E-02
B55X55	CONC	0.550	0.550	6.500E-02	6.500E-02

Frame Section Property Data - Concrete Beams Part 1 of 2

Frame Section Name	Material Name	Beam Depth	Beam Width	Top Cover	Bottom Cover
B50X40	CONC	0.500	0.400	5.500E-02	5.500E-02
B55X25	CONC	0.550	0.250	5.500E-02	5.500E-02
B70X50	CONC	0.700	0.500	5.500E-02	5.500E-02
B55X40	CONC	0.550	0.400	6.500E-02	6.500E-02
B55X30	CONC	0.550	0.300	6.500E-02	6.500E-02
B70X30	CONC	0.700	0.300	6.500E-02	6.500E-02
B70X45	CONC	0.700	0.450	6.500E-02	6.500E-02
B70X55	CONC	0.700	0.550	6.500E-02	6.500E-02
B55X50	CONC	0.550	0.500	5.500E-02	5.500E-02
B55X45	CONC	0.550	0.450	5.500E-02	5.500E-02

Frame Section Property Data - Concrete Beams Part 2 of 2

Frame Section Property Data - Concrete Beams Part 2 of 2

Frame Section Name	Rebar AT-1	Rebar AT-2	Rebar AB-1	Rebar AB-2
B50X50	CONC	0.500	0.500	6.500E-02
B35X35	CONC	0.350	0.350	5.500E-02
B30X30	CONC	0.300	0.300	5.500E-02
B35X25	CONC	0.350	0.250	5.500E-02
B30X25	CONC	0.300	0.250	5.500E-02
B30X35	CONC	0.300	0.350	5.500E-02
B35X40	CONC	0.350	0.400	5.500E-02
B40X45	CONC	0.400	0.450	5.500E-02
B35X30	CONC	0.350	0.300	5.500E-02
B40X40	CONC	0.400	0.400	6.500E-02
B40X25	CONC	0.400	0.250	5.500E-02
B40X50	CONC	0.400	0.500	5.500E-02
B45X45	CONC	0.450	0.450	6.500E-02
B45X40	CONC	0.450	0.400	5.500E-02
B45X25	CONC	0.450	0.250	5.500E-02
B45X30	CONC	0.450	0.300	5.500E-02
B40X30	CONC	0.400	0.300	5.500E-02
DUBL	CONC	0.300	0.200	3.000E-02
B50X25	CONC	0.500	0.250	5.500E-02
B45X50	CONC	0.450	0.500	5.500E-02
B40X35	CONC	0.400	0.350	5.500E-02
B50X45	CONC	0.500	0.450	5.500E-02
B55X55	CONC	0.550	0.550	6.500E-02
B50X40	CONC	0.500	0.400	5.500E-02
B55X25	CONC	0.550	0.250	5.500E-02
B70X50	CONC	0.700	0.500	5.500E-02
B55X40	CONC	0.550	0.400	6.500E-02
B55X30	CONC	0.550	0.300	6.500E-02
B70X30	CONC	0.700	0.300	6.500E-02
B70X45	CONC	0.700	0.450	6.500E-02
B70X55	CONC	0.700	0.550	6.500E-02
B55X50	CONC	0.550	0.500	5.500E-02

Frame Section Property Data - Concrete Beams Part 2 of 2

Frame Section Name	Rebar AT-1	Rebar AT-2	Rebar AB-1	Rebar AB-2
B55X45	CONC	0.550	0.450	5.500E-02

Concrete Column Design - Element Information

Concrete Column Design - Element Information

Story Level	Column Line	Section Name	Frame Type	RLLF Factor	L_Ratio Major	L_Ratio Minor	K Major	K Minor
STORY4	C1	C35-8F16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C1	C40-8F18	SWYINTR	1.000	0.877	0.877	1.000	1.000
STORY2	C1	C45-8F20	SWYINTR	0.962	0.861	0.861	1.000	1.000
STORY1	C1	C45-8F22	SWYINTR	0.909	0.855	0.855	1.000	1.000
STORY4	C2	C35-8F18	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C2	C40-8F20	SWYINTR	0.965	0.877	0.877	1.000	1.000
STORY2	C2	C45-12F20	SWYINTR	0.887	0.861	0.861	1.000	1.000
STORY1	C2	C45-12F20	SWYINTR	0.809	0.855	0.855	1.000	1.000
STORY4	C3	C35-8F16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C3	C40-8F18	SWYINTR	1.000	0.877	0.877	1.000	1.000
STORY2	C3	C45-8F20	SWYINTR	1.000	0.861	0.861	1.000	1.000
STORY1	C3	C45-12F20	SWYINTR	1.000	0.855	0.855	1.000	1.000
STORY4	C4	C35-8F16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C4	C40-8F18	SWYINTR	0.899	0.877	0.877	1.000	1.000
STORY2	C4	C45-8F20	SWYINTR	0.789	0.861	0.861	1.000	1.000
STORY1	C4	C45-8F22	SWYINTR	0.679	0.855	0.855	1.000	1.000
STORY5	C6	C30-8F14	SWYINTR	1.000	0.907	0.907	1.000	1.000
STORY4	C6	C35-8F16	SWYINTR	1.000	0.500	0.892	1.000	1.000
STORY3	C6	C40-8F18	SWYINTR	1.000	0.500	0.877	1.000	1.000
STORY2	C6	C45-8F20	SWYINTR	0.989	0.500	0.861	1.000	1.000
STORY1	C6	C45-12F22	SWYINTR	0.958	0.500	0.855	1.000	1.000
STORY4	C7	C35-8F16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C7	C40-8F18	SWYINTR	0.926	0.877	0.877	1.000	1.000
STORY2	C7	C45-8F20	SWYINTR	0.829	0.861	0.861	1.000	1.000
STORY1	C7	C45-8F22	SWYINTR	0.733	0.855	0.855	1.000	1.000
STORY5	C8	C30-8F14	SWYINTR	1.000	0.907	0.907	1.000	1.000
STORY4	C8	C35-8F16	SWYINTR	0.980	0.892	0.892	1.000	1.000
STORY3	C8	C40-8F18	SWYINTR	0.870	0.877	0.877	1.000	1.000
STORY2	C8	C45-8F20	SWYINTR	0.762	0.861	0.861	1.000	1.000
STORY1	C8	C45-8F22	SWYINTR	0.649	0.855	0.855	1.000	1.000
STORY5	C9	C30-8F14	SWYINTR	1.000	0.907	0.907	1.000	1.000
STORY4	C9	C35-8F16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C9	C40-8F18	SWYINTR	1.000	0.877	0.877	1.000	1.000
STORY2	C9	C45-8F20	SWYINTR	1.000	0.861	0.861	1.000	1.000
STORY1	C9	C45-8F22	SWYINTR	0.999	0.855	0.855	1.000	1.000
STORY4	C10	C35-8F16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C10	C40-8F18	SWYINTR	1.000	0.877	0.877	1.000	1.000
STORY2	C10	C45-8F20	SWYINTR	0.998	0.861	0.861	1.000	1.000
STORY1	C10	C45-8F22	SWYINTR	0.958	0.855	0.855	1.000	1.000
STORY4	C11	C35-8F18	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C11	C40-8F20	SWYINTR	1.000	0.877	0.877	1.000	1.000

Concrete Column Design - Element Information

Story Level	Column Line	Section Name	Frame Type	RLLF Factor	L_Ratio Major	L_Ratio Minor	K Major	K Minor
STORY2	C11	C45-12F20	SWYINTR	0.943	0.861	0.861	1.000	1.000
STORY1	C11	C45-12F20	SWYINTR	0.883	0.855	0.855	1.000	1.000
STORY4	C12	C35-8F16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY3	C12	C40-8F18	SWYINTR	1.000	0.877	0.877	1.000	1.000
STORY2	C12	C45-8F20	SWYINTR	1.000	0.861	0.861	1.000	1.000
STORY1	C12	C45-12F20	SWYINTR	1.000	0.855	0.855	1.000	1.000
STORY5	C13	C30-8F14	SWYINTR	1.000	0.907	0.907	1.000	1.000
STORY4	C13	C35-8F16	SWYINTR	0.964	0.500	0.892	1.000	1.000
STORY3	C13	C40-8F18	SWYINTR	0.838	0.500	0.877	1.000	1.000
STORY2	C13	C45-8F20	SWYINTR	0.712	0.500	0.861	1.000	1.000
STORY1	C13	C45-12F22	SWYINTR	0.581	0.500	0.855	1.000	1.000

Concrete Beam Design - Element Information

Concrete Beam Design - Element Information

Story Level	Beam Bay	Section Name	Frame Type	RLLF Factor	L_Ratio Major	L_Ratio Minor
STORY5	B4	B30X30	SWYINTR	1.000	0.878	0.878
STORY5	B6	B30X30	SWYINTR	1.000	0.878	0.878
STORY5	B13	B30X30	SWYINTR	1.000	0.941	0.941
STORY5	B16	B30X30	SWYINTR	1.000	0.941	0.941
STORY4	B1	B35X35	SWYINTR	1.000	0.928	0.928
STORY4	B2	B35X35	SWYINTR	1.000	0.863	0.863
STORY4	B3	B35X35	SWYINTR	1.000	0.929	0.929
STORY4	B4	B35X35	SWYINTR	1.000	0.857	0.857
STORY4	B5	B35X35	SWYINTR	1.000	0.929	0.929
STORY4	B6	B35X35	SWYINTR	1.000	0.857	0.857
STORY4	B7	B35X35	SWYINTR	1.000	0.929	0.929
STORY4	B8	B35X35	SWYINTR	1.000	0.857	0.857
STORY4	B9	B35X35	SWYINTR	1.000	0.909	0.909
STORY4	B10	B35X35	SWYINTR	1.000	0.931	0.931
STORY4	B11	B35X35	SWYINTR	1.000	0.931	0.931
STORY4	B12	B35X35	SWYINTR	0.998	0.909	0.909
STORY4	B13	B35X25	SWYINTR	1.000	0.931	0.931
STORY4	B14	B35X35	SWYINTR	0.959	0.931	0.931
STORY4	B15	B35X35	SWYINTR	1.000	0.909	0.909
STORY4	B16	B35X25	SWYINTR	1.000	0.931	0.931
STORY4	B17	B35X35	SWYINTR	1.000	0.931	0.931
STORY4	B19	B45X30	SWYINTR	1.000	1.000	1.000
STORY3	B1	B40X40	SWYINTR	1.000	0.917	0.917
STORY3	B2	B40X40	SWYINTR	1.000	0.843	0.843
STORY3	B3	B40X40	SWYINTR	1.000	0.919	0.919
STORY3	B4	B40X40	SWYINTR	1.000	0.837	0.837
STORY3	B5	B40X40	SWYINTR	1.000	0.919	0.919
STORY3	B6	B40X40	SWYINTR	1.000	0.837	0.837
STORY3	B7	B40X40	SWYINTR	1.000	0.919	0.919
STORY3	B8	B40X40	SWYINTR	1.000	0.837	0.837
STORY3	B9	B40X40	SWYINTR	1.000	0.896	0.896

Concrete Beam Design - Element Information

Story Level	Beam Bay	Section Name	Frame Type	RLLF Factor	L_Ratio Major	L_Ratio Minor
STORY3	B10	B40X40	SWYINTR	1.000	0.921	0.921
STORY3	B11	B40X40	SWYINTR	1.000	0.921	0.921
STORY3	B12	B40X40	SWYINTR	0.998	0.896	0.896
STORY3	B13	B40X25	SWYINTR	1.000	0.921	0.921
STORY3	B14	B40X40	SWYINTR	0.959	0.921	0.921
STORY3	B15	B40X40	SWYINTR	1.000	0.896	0.896
STORY3	B16	B40X25	SWYINTR	1.000	0.921	0.921
STORY3	B17	B40X40	SWYINTR	1.000	0.921	0.921
STORY3	B19	B45X30	SWYINTR	1.000	1.000	1.000
STORY2	B1	B45X45	SWYINTR	1.000	0.907	0.907
STORY2	B2	B45X45	SWYINTR	1.000	0.824	0.824
STORY2	B3	B45X45	SWYINTR	1.000	0.909	0.909
STORY2	B4	B45X45	SWYINTR	1.000	0.816	0.816
STORY2	B5	B45X45	SWYINTR	1.000	0.909	0.909
STORY2	B6	B45X45	SWYINTR	1.000	0.816	0.816
STORY2	B7	B45X45	SWYINTR	1.000	0.909	0.909
STORY2	B8	B45X45	SWYINTR	1.000	0.816	0.816
STORY2	B9	B45X45	SWYINTR	1.000	0.883	0.883
STORY2	B10	B45X45	SWYINTR	1.000	0.911	0.911
STORY2	B11	B45X45	SWYINTR	1.000	0.911	0.911
STORY2	B12	B45X45	SWYINTR	0.998	0.883	0.883
STORY2	B13	B45X25	SWYINTR	1.000	0.911	0.911
STORY2	B14	B45X45	SWYINTR	0.959	0.911	0.911
STORY2	B15	B45X45	SWYINTR	1.000	0.883	0.883
STORY2	B16	B45X25	SWYINTR	1.000	0.911	0.911
STORY2	B17	B45X45	SWYINTR	1.000	0.911	0.911
STORY2	B19	B45X30	SWYINTR	1.000	1.000	1.000
STORY1	B1	B45X45	SWYINTR	1.000	0.907	0.907
STORY1	B2	B45X45	SWYINTR	1.000	0.824	0.824
STORY1	B3	B45X45	SWYINTR	1.000	0.909	0.909
STORY1	B4	B45X45	SWYINTR	1.000	0.816	0.816
STORY1	B5	B45X45	SWYINTR	1.000	0.909	0.909
STORY1	B6	B45X45	SWYINTR	1.000	0.816	0.816
STORY1	B7	B45X45	SWYINTR	1.000	0.909	0.909
STORY1	B8	B45X45	SWYINTR	1.000	0.816	0.816
STORY1	B9	B45X45	SWYINTR	1.000	0.883	0.883
STORY1	B10	B45X45	SWYINTR	1.000	0.911	0.911
STORY1	B11	B45X45	SWYINTR	1.000	0.911	0.911
STORY1	B12	B45X45	SWYINTR	0.998	0.883	0.883
STORY1	B13	B45X25	SWYINTR	1.000	0.911	0.911
STORY1	B14	B45X45	SWYINTR	0.959	0.911	0.911
STORY1	B15	B45X45	SWYINTR	1.000	0.883	0.883
STORY1	B16	B45X25	SWYINTR	1.000	0.911	0.911
STORY1	B17	B45X45	SWYINTR	1.000	0.911	0.911
STORY1	B18	B45X30	SWYINTR	1.000	1.000	1.000

Concrete Column Design - P-M-M Interaction & Shear Design

Concrete Column Design - P-M-M Interaction & Shear Design

Story Level	Column Line	Section Name	Column End	PMM Ratio or Rebar %	Flexural Rebar Area	Shear22 Rebar Area	Shear33 Rebar Area
STORY4	C1	C35-8F16	Top	0.801	0.002	0.000	4.101E-04
STORY4	C1	C35-8F16	Bottom	0.682	0.002	0.000	4.101E-04
STORY3	C1	C40-8F18	Top	0.572	0.002	0.000	4.687E-04
STORY3	C1	C40-8F18	Bottom	0.668	0.002	0.000	4.687E-04
STORY2	C1	C45-8F20	Top	0.472	0.003	0.000	5.273E-04
STORY2	C1	C45-8F20	Bottom	0.613	0.003	0.000	5.273E-04
STORY1	C1	C45-8F22	Top	0.311	0.003	5.273E-04	5.273E-04
STORY1	C1	C45-8F22	Bottom	0.850	0.003	5.273E-04	5.273E-04
STORY4	C2	C35-8F18	Top	0.896	0.002	4.101E-04	4.101E-04
STORY4	C2	C35-8F18	Bottom	0.817	0.002	4.101E-04	4.101E-04
STORY3	C2	C40-8F20	Top	0.747	0.003	4.687E-04	4.687E-04
STORY3	C2	C40-8F20	Bottom	0.850	0.003	4.687E-04	4.687E-04
STORY2	C2	C45-12F20	Top	0.633	0.004	5.273E-04	5.273E-04
STORY2	C2	C45-12F20	Bottom	0.758	0.004	5.273E-04	5.273E-04
STORY1	C2	C45-12F20	Top	0.467	0.004	5.273E-04	5.273E-04
STORY1	C2	C45-12F20	Bottom	0.912	0.004	5.273E-04	5.273E-04
STORY4	C3	C35-8F16	Top	0.777	0.002	4.101E-04	4.101E-04
STORY4	C3	C35-8F16	Bottom	0.635	0.002	4.101E-04	4.101E-04
STORY3	C3	C40-8F18	Top	0.647	0.002	4.687E-04	4.687E-04
STORY3	C3	C40-8F18	Bottom	0.759	0.002	4.687E-04	4.687E-04
STORY2	C3	C45-8F20	Top	0.690	0.003	5.273E-04	5.273E-04
STORY2	C3	C45-8F20	Bottom	0.817	0.003	5.273E-04	5.273E-04
STORY1	C3	C45-12F20	Top	0.382	0.004	5.273E-04	5.273E-04
STORY1	C3	C45-12F20	Bottom	0.909	0.004	5.273E-04	5.273E-04
STORY4	C4	C35-8F16	Top	0.824	0.002	4.101E-04	4.101E-04
STORY4	C4	C35-8F16	Bottom	0.670	0.002	4.101E-04	4.101E-04
STORY3	C4	C40-8F18	Top	0.623	0.002	0.000	4.687E-04
STORY3	C4	C40-8F18	Bottom	0.741	0.002	0.000	4.687E-04
STORY2	C4	C45-8F20	Top	0.586	0.003	0.000	5.273E-04
STORY2	C4	C45-8F20	Bottom	0.714	0.003	0.000	5.273E-04
STORY1	C4	C45-8F22	Top	0.401	0.003	0.000	5.273E-04
STORY1	C4	C45-8F22	Bottom	0.924	0.003	0.000	5.273E-04
STORY5	C6	C30-8F14	Top	0.576	0.001	0.000	0.000
STORY5	C6	C30-8F14	Bottom	0.445	0.001	0.000	0.000
STORY4	C6	C35-8F16	Top	0.595	0.002	4.101E-04	4.101E-04
STORY4	C6	C35-8F16	Bottom	0.655	0.002	4.101E-04	4.101E-04
STORY3	C6	C40-8F18	Top	0.603	0.002	4.687E-04	4.687E-04
STORY3	C6	C40-8F18	Bottom	0.872	0.002	4.687E-04	4.687E-04
STORY2	C6	C45-8F20	Top	0.562	0.003	5.273E-04	5.273E-04
STORY2	C6	C45-8F20	Bottom	0.959	0.003	5.273E-04	5.273E-04
STORY1	C6	C45-12F22	Top	0.507	0.005	5.273E-04	5.273E-04
STORY1	C6	C45-12F22	Bottom	0.952	0.005	7.857E-04	5.273E-04
STORY4	C7	C35-8F16	Top	0.993	0.002	4.101E-04	4.101E-04
STORY4	C7	C35-8F16	Bottom	0.854	0.002	4.101E-04	4.101E-04
STORY3	C7	C40-8F18	Top	0.766	0.002	0.000	4.687E-04
STORY3	C7	C40-8F18	Bottom	0.941	0.002	0.000	4.687E-04
STORY2	C7	C45-8F20	Top	0.662	0.003	0.000	5.273E-04

Concrete Column Design - P-M-M Interaction & Shear Design

Story Level	Column Line	Section Name	Column End	PMM Ratio or Rebar %	Flexural Rebar Area	Shear22 Rebar Area	Shear33 Rebar Area
STORY2	C7	C45-8F20	Bottom	0.867	0.003	0.000	5.273E-04
STORY1	C7	C45-8F22	Top	0.412	0.003	0.000	5.273E-04
STORY1	C7	C45-8F22	Bottom	0.931	0.003	0.000	5.273E-04
STORY5	C8	C30-8F14	Top	0.605	0.001	0.000	0.000
STORY5	C8	C30-8F14	Bottom	0.632	0.001	0.000	0.000
STORY4	C8	C35-8F16	Top	0.704	0.002	4.101E-04	4.101E-04
STORY4	C8	C35-8F16	Bottom	0.721	0.002	4.101E-04	4.101E-04
STORY3	C8	C40-8F18	Top	0.793	0.002	4.687E-04	4.687E-04
STORY3	C8	C40-8F18	Bottom	0.907	0.002	4.687E-04	4.687E-04
STORY2	C8	C45-8F20	Top	0.731	0.003	5.273E-04	5.273E-04
STORY2	C8	C45-8F20	Bottom	0.881	0.003	5.273E-04	5.273E-04
STORY1	C8	C45-8F22	Top	0.621	0.003	5.273E-04	5.273E-04
STORY1	C8	C45-8F22	Bottom	0.976	0.003	5.273E-04	5.273E-04
STORY5	C9	C30-8F14	Top	0.585	0.001	0.000	0.000
STORY5	C9	C30-8F14	Bottom	0.536	0.001	0.000	0.000
STORY4	C9	C35-8F16	Top	0.668	0.002	0.000	4.101E-04
STORY4	C9	C35-8F16	Bottom	0.659	0.002	0.000	4.101E-04
STORY3	C9	C40-8F18	Top	0.714	0.002	4.687E-04	4.687E-04
STORY3	C9	C40-8F18	Bottom	0.867	0.002	4.687E-04	4.687E-04
STORY2	C9	C45-8F20	Top	0.629	0.003	5.273E-04	5.273E-04
STORY2	C9	C45-8F20	Bottom	0.829	0.003	5.273E-04	5.273E-04
STORY1	C9	C45-8F22	Top	0.502	0.003	5.273E-04	5.273E-04
STORY1	C9	C45-8F22	Bottom	0.976	0.003	5.273E-04	5.273E-04
STORY4	C10	C35-8F16	Top	0.715	0.002	0.000	4.101E-04
STORY4	C10	C35-8F16	Bottom	0.644	0.002	0.000	4.101E-04
STORY3	C10	C40-8F18	Top	0.565	0.002	0.000	4.687E-04
STORY3	C10	C40-8F18	Bottom	0.675	0.002	0.000	4.687E-04
STORY2	C10	C45-8F20	Top	0.491	0.003	0.000	5.273E-04
STORY2	C10	C45-8F20	Bottom	0.624	0.003	0.000	5.273E-04
STORY1	C10	C45-8F22	Top	0.325	0.003	5.273E-04	5.273E-04
STORY1	C10	C45-8F22	Bottom	0.929	0.003	5.273E-04	5.273E-04
STORY4	C11	C35-8F18	Top	0.857	0.002	4.101E-04	4.101E-04
STORY4	C11	C35-8F18	Bottom	0.819	0.002	4.101E-04	4.101E-04
STORY3	C11	C40-8F20	Top	0.776	0.003	4.687E-04	4.687E-04
STORY3	C11	C40-8F20	Bottom	0.917	0.003	4.687E-04	4.687E-04
STORY2	C11	C45-12F20	Top	0.652	0.004	5.273E-04	5.273E-04
STORY2	C11	C45-12F20	Bottom	0.788	0.004	5.273E-04	5.273E-04
STORY1	C11	C45-12F20	Top	0.457	0.004	5.273E-04	5.273E-04
STORY1	C11	C45-12F20	Bottom	0.930	0.004	5.273E-04	5.273E-04
STORY4	C12	C35-8F16	Top	0.714	0.002	4.101E-04	4.101E-04
STORY4	C12	C35-8F16	Bottom	0.636	0.002	4.101E-04	4.101E-04
STORY3	C12	C40-8F18	Top	0.715	0.002	4.687E-04	4.687E-04
STORY3	C12	C40-8F18	Bottom	0.843	0.002	4.687E-04	4.687E-04
STORY2	C12	C45-8F20	Top	0.778	0.003	5.273E-04	5.273E-04
STORY2	C12	C45-8F20	Bottom	0.923	0.003	5.273E-04	5.273E-04
STORY1	C12	C45-12F20	Top	0.457	0.004	5.273E-04	5.273E-04
STORY1	C12	C45-12F20	Bottom	0.972	0.004	5.273E-04	5.273E-04
STORY5	C13	C30-8F14	Top	0.581	0.001	0.000	0.000

Concrete Column Design - P-M-M Interaction & Shear Design

Story Level	Column Line	Section Name	Column End	PMM Ratio or Rebar %	Flexural Rebar Area	Shear22 Rebar Area	Shear33 Rebar Area
STORY5	C13	C30-8F14	Bottom	0.507	0.001	0.000	0.000
STORY4	C13	C35-8F16	Top	0.668	0.002	4.101E-04	4.101E-04
STORY4	C13	C35-8F16	Bottom	0.738	0.002	4.101E-04	4.101E-04
STORY3	C13	C40-8F18	Top	0.659	0.002	4.687E-04	4.687E-04
STORY3	C13	C40-8F18	Bottom	0.982	0.002	4.687E-04	4.687E-04
STORY2	C13	C45-8F20	Top	0.678	0.003	5.273E-04	5.273E-04
STORY2	C13	C45-8F20	Bottom	0.957	0.003	5.273E-04	5.273E-04
STORY1	C13	C45-12F22	Top	0.624	0.005	5.273E-04	5.273E-04
STORY1	C13	C45-12F22	Bottom	0.952	0.005	5.273E-04	5.273E-04

Concrete Column Joint Design - Beam to Column D/C Ratios & Joint Shear Check

Concrete Column Joint Design - Beam to Column D/C Ratios & Joint Shear Check

Story Level	Column Line	Section Name	(6/5)Beam-Column Ratio Major	(6/5)Beam-Column Ratio Minor	Joint Shear Ratio Major	Joint Shear Ratio Minor
STORY4	C1	C35-8F16			0.340	0.603
STORY3	C1	C40-8F18			0.470	0.751
STORY2	C1	C45-8F20			0.452	0.663
STORY1	C1	C45-8F22			0.422	0.606
STORY4	C2	C35-8F18			0.491	0.582
STORY3	C2	C40-8F20			0.716	0.629
STORY2	C2	C45-12F20			0.739	0.550
STORY1	C2	C45-12F20			0.718	0.500
STORY4	C3	C35-8F16			0.386	0.544
STORY3	C3	C40-8F18			0.568	0.683
STORY2	C3	C45-8F20			0.600	0.624
STORY1	C3	C45-12F20			0.584	0.561
STORY4	C4	C35-8F16			0.337	0.852
STORY3	C4	C40-8F18			0.330	0.840
STORY2	C4	C45-8F20			0.320	0.754
STORY1	C4	C45-8F22			0.292	0.713
STORY5	C6	C30-8F14			0.303	0.410
STORY4	C6	C35-8F16			0.408	0.690
STORY3	C6	C40-8F18			0.565	0.833
STORY2	C6	C45-8F20			0.575	0.791
STORY1	C6	C45-12F22			0.568	0.708
STORY4	C7	C35-8F16			0.325	0.816
STORY3	C7	C40-8F18			0.316	0.924
STORY2	C7	C45-8F20			0.309	0.873
STORY1	C7	C45-8F22			0.282	0.784
STORY5	C8	C30-8F14			0.352	0.403
STORY4	C8	C35-8F16			0.518	0.754
STORY3	C8	C40-8F18			0.646	0.792
STORY2	C8	C45-8F20			0.667	0.730
STORY1	C8	C45-8F22			0.652	0.659
STORY5	C9	C30-8F14			0.335	0.402
STORY4	C9	C35-8F16			0.498	0.692
STORY3	C9	C40-8F18			0.625	0.832

Concrete Column Joint Design - Beam to Column D/C Ratios & Joint Shear Check

Story Level	Column Line	Section Name	(6/5)Beam-Column Ratio Major	(6/5)Beam-Column Ratio Minor	Joint Shear Ratio Major	Joint Shear Ratio Minor
STORY2	C9	C45-8F20			0.623	0.823
STORY1	C9	C45-8F22			0.598	0.742
STORY4	C10	C35-8F16			0.359	0.537
STORY3	C10	C40-8F18			0.486	0.726
STORY2	C10	C45-8F20			0.454	0.686
STORY1	C10	C45-8F22			0.418	0.620
STORY4	C11	C35-8F18			0.528	0.492
STORY3	C11	C40-8F20			0.757	0.596
STORY2	C11	C45-12F20			0.754	0.560
STORY1	C11	C45-12F20			0.720	0.503
STORY4	C12	C35-8F16			0.421	0.529
STORY3	C12	C40-8F18			0.606	0.697
STORY2	C12	C45-8F20			0.619	0.672
STORY1	C12	C45-12F20			0.594	0.603
STORY5	C13	C30-8F14			0.316	0.409
STORY4	C13	C35-8F16			0.537	0.787
STORY3	C13	C40-8F18			0.668	0.777
STORY2	C13	C45-8F20			0.689	0.671
STORY1	C13	C45-12F22			0.670	0.632

Concrete Beam Design - Flexural & Shear Design Rebar Areas

Concrete Beam Design - Flexural & Shear Design Rebar Areas

Story Level	Beam Bay	Section Name	Location	Top Rebar Area	Bottom Rebar Area	Shear Rebar Area
STORY5	B4	B30X30	End-I	2.788E-04	2.584E-04	3.515E-04
STORY5	B4	B30X30	Middle	7.178E-05	1.426E-04	3.515E-04
STORY5	B4	B30X30	End-J	2.673E-04	2.584E-04	3.515E-04
STORY5	B6	B30X30	End-I	3.105E-04	2.584E-04	3.515E-04
STORY5	B6	B30X30	Middle	7.960E-05	1.425E-04	3.515E-04
STORY5	B6	B30X30	End-J	2.954E-04	2.584E-04	3.515E-04
STORY5	B13	B30X30	End-I	3.551E-04	2.497E-04	3.515E-04
STORY5	B13	B30X30	Middle	9.188E-05	2.012E-04	0.000
STORY5	B13	B30X30	End-J	3.608E-04	2.416E-04	3.515E-04
STORY5	B16	B30X30	End-I	3.545E-04	2.530E-04	3.515E-04
STORY5	B16	B30X30	Middle	9.202E-05	2.042E-04	0.000
STORY5	B16	B30X30	End-J	3.614E-04	2.443E-04	3.515E-04
STORY4	B1	B35X35	End-I	4.087E-04	3.269E-04	4.101E-04
STORY4	B1	B35X35	Middle	1.057E-04	2.109E-04	0.000
STORY4	B1	B35X35	End-J	3.630E-04	2.790E-04	4.101E-04
STORY4	B2	B35X35	End-I	4.298E-04	3.669E-04	4.101E-04
STORY4	B2	B35X35	Middle	1.288E-04	1.550E-04	4.101E-04
STORY4	B2	B35X35	End-J	4.630E-04	4.336E-04	4.101E-04
STORY4	B3	B35X35	End-I	5.049E-04	2.901E-04	4.101E-04
STORY4	B3	B35X35	Middle	1.286E-04	2.771E-04	1.573E-04
STORY4	B3	B35X35	End-J	4.867E-04	2.923E-04	4.101E-04
STORY4	B4	B35X35	End-I	5.066E-04	3.882E-04	4.101E-04
STORY4	B4	B35X35	Middle	1.360E-04	1.614E-04	4.101E-04

Concrete Beam Design - Flexural & Shear Design Rebar Areas

Story Level	Beam Bay	Section Name	Location	Top Rebar Area	Bottom Rebar Area	Shear Rebar Area
STORY4	B4	B35X35	End-J	5.355E-04	4.593E-04	4.101E-04
STORY4	B5	B35X35	End-I	4.872E-04	2.882E-04	4.101E-04
STORY4	B5	B35X35	Middle	1.243E-04	2.746E-04	1.506E-04
STORY4	B5	B35X35	End-J	4.772E-04	2.442E-04	4.101E-04
STORY4	B6	B35X35	End-I	6.293E-04	3.667E-04	6.973E-04
STORY4	B6	B35X35	Middle	1.638E-04	2.877E-04	4.101E-04
STORY4	B6	B35X35	End-J	6.524E-04	4.432E-04	6.617E-04
STORY4	B7	B35X35	End-I	4.312E-04	3.573E-04	4.101E-04
STORY4	B7	B35X35	Middle	1.488E-04	2.455E-04	0.000
STORY4	B7	B35X35	End-J	3.850E-04	2.960E-04	4.101E-04
STORY4	B8	B35X35	End-I	4.672E-04	4.078E-04	4.101E-04
STORY4	B8	B35X35	Middle	1.440E-04	1.673E-04	4.101E-04
STORY4	B8	B35X35	End-J	5.058E-04	4.787E-04	4.101E-04
STORY4	B9	B35X35	End-I	6.446E-04	3.888E-04	4.101E-04
STORY4	B9	B35X35	Middle	2.128E-04	3.630E-04	4.101E-04
STORY4	B9	B35X35	End-J	7.568E-04	3.471E-04	4.101E-04
STORY4	B10	B35X35	End-I	8.768E-04	3.630E-04	6.104E-04
STORY4	B10	B35X35	Middle	2.247E-04	3.630E-04	4.101E-04
STORY4	B10	B35X35	End-J	9.189E-04	3.630E-04	6.288E-04
STORY4	B11	B35X35	End-I	8.645E-04	3.586E-04	4.101E-04
STORY4	B11	B35X35	Middle	2.126E-04	3.630E-04	4.101E-04
STORY4	B11	B35X35	End-J	7.235E-04	3.630E-04	4.101E-04
STORY4	B12	B35X35	End-I	7.387E-04	3.737E-04	4.101E-04
STORY4	B12	B35X35	Middle	2.224E-04	3.630E-04	4.101E-04
STORY4	B12	B35X35	End-J	8.296E-04	3.630E-04	4.527E-04
STORY4	B13	B35X25	End-I	8.531E-04	2.593E-04	7.616E-04
STORY4	B13	B35X25	Middle	2.129E-04	3.192E-04	2.929E-04
STORY4	B13	B35X25	End-J	9.031E-04	2.709E-04	7.843E-04
STORY4	B14	B35X35	End-I	8.731E-04	3.630E-04	5.392E-04
STORY4	B14	B35X35	Middle	2.414E-04	3.711E-04	4.101E-04
STORY4	B14	B35X35	End-J	9.951E-04	3.630E-04	6.101E-04
STORY4	B15	B35X35	End-I	6.353E-04	4.390E-04	4.101E-04
STORY4	B15	B35X35	Middle	2.449E-04	3.589E-04	4.101E-04
STORY4	B15	B35X35	End-J	6.579E-04	4.123E-04	4.101E-04
STORY4	B16	B35X25	End-I	4.958E-04	2.350E-04	2.929E-04
STORY4	B16	B35X25	Middle	1.302E-04	2.331E-04	2.929E-04
STORY4	B16	B35X25	End-J	5.227E-04	2.330E-04	2.929E-04
STORY4	B17	B35X35	End-I	6.854E-04	3.492E-04	4.101E-04
STORY4	B17	B35X35	Middle	1.716E-04	3.630E-04	4.101E-04
STORY4	B17	B35X35	End-J	6.533E-04	3.630E-04	4.101E-04
STORY4	B19	B45X30	End-I	7.780E-04	6.557E-04	7.685E-04
STORY4	B19	B45X30	Middle	2.153E-04	3.273E-04	4.352E-04
STORY4	B19	B45X30	End-J	8.660E-04	5.584E-04	8.980E-04
STORY3	B1	B40X40	End-I	8.146E-04	4.759E-04	4.687E-04
STORY3	B1	B40X40	Middle	2.106E-04	3.916E-04	4.687E-04
STORY3	B1	B40X40	End-J	7.170E-04	4.711E-04	4.687E-04
STORY3	B2	B40X40	End-I	9.365E-04	8.257E-04	5.984E-04
STORY3	B2	B40X40	Middle	2.490E-04	3.007E-04	4.687E-04

Concrete Beam Design - Flexural & Shear Design Rebar Areas

Story Level	Beam Bay	Section Name	Location	Top Rebar Area	Bottom Rebar Area	Shear Rebar Area
STORY3	B2	B40X40	End-J	9.835E-04	9.219E-04	5.634E-04
STORY3	B3	B40X40	End-I	7.158E-04	5.354E-04	4.687E-04
STORY3	B3	B40X40	Middle	3.101E-04	3.412E-04	4.687E-04
STORY3	B3	B40X40	End-J	6.085E-04	5.481E-04	4.687E-04
STORY3	B4	B40X40	End-I	8.217E-04	8.327E-04	4.847E-04
STORY3	B4	B40X40	Middle	2.593E-04	2.607E-04	5.140E-04
STORY3	B4	B40X40	End-J	9.780E-04	8.431E-04	6.120E-04
STORY3	B5	B40X40	End-I	6.870E-04	5.269E-04	4.687E-04
STORY3	B5	B40X40	Middle	3.132E-04	3.451E-04	0.000
STORY3	B5	B40X40	End-J	5.825E-04	4.835E-04	4.687E-04
STORY3	B6	B40X40	End-I	9.176E-04	7.981E-04	0.001
STORY3	B6	B40X40	Middle	2.667E-04	3.841E-04	6.583E-04
STORY3	B6	B40X40	End-J	0.001	8.267E-04	0.001
STORY3	B7	B40X40	End-I	8.423E-04	4.948E-04	4.687E-04
STORY3	B7	B40X40	Middle	2.850E-04	4.435E-04	4.687E-04
STORY3	B7	B40X40	End-J	7.503E-04	4.711E-04	4.687E-04
STORY3	B8	B40X40	End-I	9.942E-04	8.922E-04	7.495E-04
STORY3	B8	B40X40	Middle	2.698E-04	3.152E-04	6.059E-04
STORY3	B8	B40X40	End-J	0.001	9.906E-04	7.169E-04
STORY3	B9	B40X40	End-I	0.001	8.033E-04	6.931E-04
STORY3	B9	B40X40	Middle	4.660E-04	5.118E-04	4.687E-04
STORY3	B9	B40X40	End-J	0.001	7.199E-04	7.313E-04
STORY3	B10	B40X40	End-I	0.001	4.711E-04	6.250E-04
STORY3	B10	B40X40	Middle	3.106E-04	4.711E-04	4.687E-04
STORY3	B10	B40X40	End-J	0.001	4.711E-04	6.393E-04
STORY3	B11	B40X40	End-I	0.001	4.711E-04	6.687E-04
STORY3	B11	B40X40	Middle	3.207E-04	5.056E-04	4.687E-04
STORY3	B11	B40X40	End-J	0.001	5.053E-04	6.226E-04
STORY3	B12	B40X40	End-I	0.001	8.028E-04	7.552E-04
STORY3	B12	B40X40	Middle	4.711E-04	5.055E-04	4.687E-04
STORY3	B12	B40X40	End-J	0.001	7.502E-04	7.634E-04
STORY3	B13	B40X25	End-I	9.543E-04	3.032E-04	7.582E-04
STORY3	B13	B40X25	Middle	2.358E-04	3.232E-04	2.929E-04
STORY3	B13	B40X25	End-J	9.915E-04	3.032E-04	7.700E-04
STORY3	B14	B40X40	End-I	0.001	5.085E-04	7.151E-04
STORY3	B14	B40X40	Middle	3.291E-04	5.103E-04	4.687E-04
STORY3	B14	B40X40	End-J	0.001	4.711E-04	7.388E-04
STORY3	B15	B40X40	End-I	0.001	8.558E-04	4.741E-04
STORY3	B15	B40X40	Middle	4.711E-04	4.810E-04	4.687E-04
STORY3	B15	B40X40	End-J	0.001	8.188E-04	4.687E-04
STORY3	B16	B40X25	End-I	6.182E-04	3.071E-04	2.929E-04
STORY3	B16	B40X25	Middle	1.836E-04	2.937E-04	2.929E-04
STORY3	B16	B40X25	End-J	6.403E-04	3.082E-04	2.929E-04
STORY3	B17	B40X40	End-I	0.001	5.336E-04	4.687E-04
STORY3	B17	B40X40	Middle	3.091E-04	4.711E-04	4.687E-04
STORY3	B17	B40X40	End-J	0.001	5.718E-04	4.687E-04
STORY3	B19	B45X30	End-I	0.001	8.976E-04	0.001
STORY3	B19	B45X30	Middle	2.754E-04	3.713E-04	7.194E-04

Concrete Beam Design - Flexural & Shear Design Rebar Areas

Story Level	Beam Bay	Section Name	Location	Top Rebar Area	Bottom Rebar Area	Shear Rebar Area
STORY3	B19	B45X30	End-J	0.001	8.256E-04	0.001
STORY2	B1	B45X45	End-I	0.001	6.900E-04	5.273E-04
STORY2	B1	B45X45	Middle	3.125E-04	4.817E-04	5.273E-04
STORY2	B1	B45X45	End-J	8.878E-04	6.198E-04	5.273E-04
STORY2	B2	B45X45	End-I	0.001	0.001	9.924E-04
STORY2	B2	B45X45	Middle	3.487E-04	3.965E-04	8.520E-04
STORY2	B2	B45X45	End-J	0.001	0.001	9.742E-04
STORY2	B3	B45X45	End-I	8.930E-04	7.226E-04	5.273E-04
STORY2	B3	B45X45	Middle	3.281E-04	3.940E-04	5.273E-04
STORY2	B3	B45X45	End-J	7.809E-04	7.067E-04	5.273E-04
STORY2	B4	B45X45	End-I	0.001	0.001	8.827E-04
STORY2	B4	B45X45	Middle	6.178E-04	6.090E-04	9.215E-04
STORY2	B4	B45X45	End-J	0.001	0.001	9.808E-04
STORY2	B5	B45X45	End-I	8.620E-04	7.062E-04	5.273E-04
STORY2	B5	B45X45	Middle	3.327E-04	3.982E-04	5.273E-04
STORY2	B5	B45X45	End-J	7.455E-04	6.428E-04	5.273E-04
STORY2	B6	B45X45	End-I	0.001	0.001	0.001
STORY2	B6	B45X45	Middle	6.090E-04	6.471E-04	0.001
STORY2	B6	B45X45	End-J	0.001	0.001	0.001
STORY2	B7	B45X45	End-I	0.001	6.871E-04	5.273E-04
STORY2	B7	B45X45	Middle	3.101E-04	4.893E-04	5.273E-04
STORY2	B7	B45X45	End-J	8.989E-04	6.113E-04	5.273E-04
STORY2	B8	B45X45	End-I	0.001	0.001	0.001
STORY2	B8	B45X45	Middle	6.571E-04	6.729E-04	0.001
STORY2	B8	B45X45	End-J	0.001	0.001	0.001
STORY2	B9	B45X45	End-I	0.002	0.001	7.726E-04
STORY2	B9	B45X45	Middle	6.090E-04	6.278E-04	5.273E-04
STORY2	B9	B45X45	End-J	0.001	0.001	8.076E-04
STORY2	B10	B45X45	End-I	0.001	6.181E-04	5.273E-04
STORY2	B10	B45X45	Middle	3.542E-04	6.090E-04	5.273E-04
STORY2	B10	B45X45	End-J	0.001	6.232E-04	5.273E-04
STORY2	B11	B45X45	End-I	0.001	6.692E-04	5.915E-04
STORY2	B11	B45X45	Middle	4.071E-04	6.090E-04	5.273E-04
STORY2	B11	B45X45	End-J	0.001	7.596E-04	5.522E-04
STORY2	B12	B45X45	End-I	0.002	0.001	8.342E-04
STORY2	B12	B45X45	Middle	6.090E-04	6.180E-04	5.273E-04
STORY2	B12	B45X45	End-J	0.002	0.001	8.356E-04
STORY2	B13	B45X25	End-I	9.550E-04	3.471E-04	6.649E-04
STORY2	B13	B45X25	Middle	2.389E-04	3.471E-04	2.929E-04
STORY2	B13	B45X25	End-J	9.886E-04	3.471E-04	6.739E-04
STORY2	B14	B45X45	End-I	0.002	7.754E-04	6.388E-04
STORY2	B14	B45X45	Middle	4.126E-04	6.090E-04	5.273E-04
STORY2	B14	B45X45	End-J	0.002	7.250E-04	6.555E-04
STORY2	B15	B45X45	End-I	0.001	0.001	6.026E-04
STORY2	B15	B45X45	Middle	6.090E-04	6.090E-04	5.273E-04
STORY2	B15	B45X45	End-J	0.001	0.001	5.832E-04
STORY2	B16	B45X25	End-I	6.809E-04	4.076E-04	2.929E-04
STORY2	B16	B45X25	Middle	2.320E-04	3.347E-04	2.929E-04

Concrete Beam Design - Flexural & Shear Design Rebar Areas

Story Level	Beam Bay	Section Name	Location	Top Rebar Area	Bottom Rebar Area	Shear Rebar Area
STORY2	B16	B45X25	End-J	7.010E-04	4.119E-04	2.929E-04
STORY2	B17	B45X45	End-I	0.001	8.024E-04	5.273E-04
STORY2	B17	B45X45	Middle	4.449E-04	6.090E-04	5.273E-04
STORY2	B17	B45X45	End-J	0.001	8.371E-04	5.273E-04
STORY2	B19	B45X30	End-I	0.001	9.287E-04	0.001
STORY2	B19	B45X30	Middle	2.846E-04	3.699E-04	7.556E-04
STORY2	B19	B45X30	End-J	0.001	8.653E-04	0.001
STORY1	B1	B45X45	End-I	9.444E-04	6.470E-04	5.273E-04
STORY1	B1	B45X45	Middle	2.876E-04	4.642E-04	5.273E-04
STORY1	B1	B45X45	End-J	8.528E-04	6.090E-04	5.273E-04
STORY1	B2	B45X45	End-I	0.001	0.001	9.835E-04
STORY1	B2	B45X45	Middle	3.365E-04	3.846E-04	8.432E-04
STORY1	B2	B45X45	End-J	0.001	0.001	9.471E-04
STORY1	B3	B45X45	End-I	8.178E-04	6.679E-04	5.273E-04
STORY1	B3	B45X45	Middle	3.023E-04	3.735E-04	5.273E-04
STORY1	B3	B45X45	End-J	7.317E-04	6.334E-04	5.273E-04
STORY1	B4	B45X45	End-I	0.001	0.001	9.077E-04
STORY1	B4	B45X45	Middle	6.090E-04	6.090E-04	8.973E-04
STORY1	B4	B45X45	End-J	0.001	0.001	9.566E-04
STORY1	B5	B45X45	End-I	7.900E-04	6.550E-04	5.273E-04
STORY1	B5	B45X45	Middle	3.057E-04	3.763E-04	5.273E-04
STORY1	B5	B45X45	End-J	7.082E-04	6.090E-04	5.273E-04
STORY1	B6	B45X45	End-I	0.001	0.001	0.001
STORY1	B6	B45X45	Middle	6.090E-04	6.382E-04	0.001
STORY1	B6	B45X45	End-J	0.001	0.001	0.001
STORY1	B7	B45X45	End-I	9.359E-04	6.282E-04	5.273E-04
STORY1	B7	B45X45	Middle	2.788E-04	4.640E-04	5.273E-04
STORY1	B7	B45X45	End-J	8.480E-04	6.090E-04	5.273E-04
STORY1	B8	B45X45	End-I	0.001	0.001	0.001
STORY1	B8	B45X45	Middle	6.315E-04	6.518E-04	0.001
STORY1	B8	B45X45	End-J	0.001	0.001	0.001
STORY1	B9	B45X45	End-I	0.001	0.001	6.698E-04
STORY1	B9	B45X45	Middle	5.758E-04	6.090E-04	5.273E-04
STORY1	B9	B45X45	End-J	0.001	9.156E-04	7.274E-04
STORY1	B10	B45X45	End-I	0.001	6.090E-04	5.273E-04
STORY1	B10	B45X45	Middle	3.265E-04	6.090E-04	5.273E-04
STORY1	B10	B45X45	End-J	0.001	6.090E-04	5.273E-04
STORY1	B11	B45X45	End-I	0.001	6.090E-04	5.352E-04
STORY1	B11	B45X45	Middle	3.495E-04	6.090E-04	5.273E-04
STORY1	B11	B45X45	End-J	0.001	6.660E-04	5.273E-04
STORY1	B12	B45X45	End-I	0.001	0.001	7.229E-04
STORY1	B12	B45X45	Middle	5.711E-04	6.090E-04	5.273E-04
STORY1	B12	B45X45	End-J	0.001	9.501E-04	7.581E-04
STORY1	B13	B45X25	End-I	8.925E-04	3.471E-04	6.448E-04
STORY1	B13	B45X25	Middle	2.250E-04	3.471E-04	2.929E-04
STORY1	B13	B45X25	End-J	9.245E-04	3.471E-04	6.551E-04
STORY1	B14	B45X45	End-I	0.001	6.767E-04	5.645E-04
STORY1	B14	B45X45	Middle	3.531E-04	6.090E-04	5.273E-04

Concrete Beam Design - Flexural & Shear Design Rebar Areas

Story Level	Beam Bay	Section Name	Location	Top Rebar Area	Bottom Rebar Area	Shear Rebar Area
STORY1	B14	B45X45	End-J	0.001	6.177E-04	5.975E-04
STORY1	B15	B45X45	End-I	0.001	0.001	5.273E-04
STORY1	B15	B45X45	Middle	5.950E-04	6.090E-04	5.273E-04
STORY1	B15	B45X45	End-J	0.001	0.001	5.273E-04
STORY1	B16	B45X25	End-I	6.192E-04	3.501E-04	2.929E-04
STORY1	B16	B45X25	Middle	2.027E-04	3.022E-04	2.929E-04
STORY1	B16	B45X25	End-J	6.395E-04	3.518E-04	2.929E-04
STORY1	B17	B45X45	End-I	0.001	6.903E-04	5.273E-04
STORY1	B17	B45X45	Middle	3.833E-04	6.090E-04	5.273E-04
STORY1	B17	B45X45	End-J	0.001	7.316E-04	5.273E-04
STORY1	B18	B45X30	End-I	8.837E-04	6.558E-04	8.372E-04
STORY1	B18	B45X30	Middle	2.220E-04	2.955E-04	4.018E-04
STORY1	B18	B45X30	End-J	8.950E-04	6.286E-04	8.646E-04

Concrete Beam Design - Torsion Design Rebar Areas

Concrete Beam Design - Torsion Design Rebar Areas

Story Level	Beam Bay	Section Name	Torsion-Shear Rebar Area	Torsion-Long. Rebar Area
STORY5	B4	B30X30	0.000	0.000
STORY5	B6	B30X30	0.000	0.000
STORY5	B13	B30X30	0.000	0.000
STORY5	B16	B30X30	0.000	0.000
STORY4	B1	B35X35	0.000	0.000
STORY4	B2	B35X35	1.964E-04	4.278E-04
STORY4	B3	B35X35	1.793E-04	4.278E-04
STORY4	B4	B35X35	0.000	0.000
STORY4	B5	B35X35	1.542E-04	4.278E-04
STORY4	B6	B35X35	1.245E-04	4.278E-04
STORY4	B7	B35X35	0.000	0.000
STORY4	B8	B35X35	1.311E-04	4.278E-04
STORY4	B9	B35X35	0.000	0.000
STORY4	B10	B35X35	0.000	0.000
STORY4	B11	B35X35	0.000	0.000
STORY4	B12	B35X35	0.000	0.000
STORY4	B13	B35X25	0.000	0.000
STORY4	B14	B35X35	1.746E-04	4.278E-04
STORY4	B15	B35X35	1.424E-04	4.278E-04
STORY4	B16	B35X25	0.000	0.000
STORY4	B17	B35X35	1.446E-04	4.278E-04
STORY4	B19	B45X30	0.000	0.000
STORY3	B1	B40X40	0.000	0.000
STORY3	B2	B40X40	0.000	0.000
STORY3	B3	B40X40	0.000	0.000
STORY3	B4	B40X40	0.000	0.000
STORY3	B5	B40X40	0.000	0.000
STORY3	B6	B40X40	1.298E-04	5.498E-04
STORY3	B7	B40X40	0.000	0.000

Concrete Beam Design - Torsion Design Rebar Areas

Story Level	Beam Bay	Section Name	Torsion-Shear Rebar Area	Torsion-Long. Rebar Area
STORY3	B8	B40X40	0.000	0.000
STORY3	B9	B40X40	0.000	0.000
STORY3	B10	B40X40	0.000	0.000
STORY3	B11	B40X40	0.000	0.000
STORY3	B12	B40X40	0.000	0.000
STORY3	B13	B40X25	0.000	0.000
STORY3	B14	B40X40	0.000	0.000
STORY3	B15	B40X40	0.000	0.000
STORY3	B16	B40X25	0.000	0.000
STORY3	B17	B40X40	1.400E-04	5.498E-04
STORY3	B19	B45X30	0.000	0.000
STORY2	B1	B45X45	0.000	0.000
STORY2	B2	B45X45	0.000	0.000
STORY2	B3	B45X45	0.000	0.000
STORY2	B4	B45X45	0.000	0.000
STORY2	B5	B45X45	0.000	0.000
STORY2	B6	B45X45	0.000	0.000
STORY2	B7	B45X45	0.000	0.000
STORY2	B8	B45X45	0.000	0.000
STORY2	B9	B45X45	0.000	0.000
STORY2	B10	B45X45	0.000	0.000
STORY2	B11	B45X45	0.000	0.000
STORY2	B12	B45X45	0.000	0.000
STORY2	B13	B45X25	0.000	0.000
STORY2	B14	B45X45	0.000	0.000
STORY2	B15	B45X45	0.000	0.000
STORY2	B16	B45X25	0.000	0.000
STORY2	B17	B45X45	0.000	0.000
STORY2	B19	B45X30	0.000	0.000
STORY1	B1	B45X45	0.000	0.000
STORY1	B2	B45X45	0.000	0.000
STORY1	B3	B45X45	0.000	0.000
STORY1	B4	B45X45	0.000	0.000
STORY1	B5	B45X45	0.000	0.000
STORY1	B6	B45X45	0.000	0.000
STORY1	B7	B45X45	0.000	0.000
STORY1	B8	B45X45	0.000	0.000
STORY1	B9	B45X45	0.000	0.000
STORY1	B10	B45X45	0.000	0.000
STORY1	B11	B45X45	0.000	0.000
STORY1	B12	B45X45	0.000	0.000
STORY1	B13	B45X25	0.000	0.000
STORY1	B14	B45X45	0.000	0.000
STORY1	B15	B45X45	0.000	0.000
STORY1	B16	B45X25	0.000	0.000
STORY1	B17	B45X45	0.000	0.000
STORY1	B18	B45X30	0.000	0.000

