



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

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### Design Preferences

Consider Minimum Eccentricity = Yes  
Number of Interaction Curves = 24  
Number of Interaction Points = 11  
    Pattern Live Load Factor = 0.750  
    Utilization Factor Limit = 1.050  
    Phi (Tension Controlled) = 0.900  
    Phi (Comp. Controlled Tied) = 0.650  
    Phi (Comp. Controlled Spiral) = 0.750  
    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
STR1U01	1.400*DEAD
STR1U02	1.200*DEAD + 1.600*LIVE + 1.600*LRED + 1.600*LRED05 + 1.600*LPART + 0.500*LROOF
STR1U03	1.200*DEAD + 1.600*LIVE + 1.600*LRED + 1.600*LRED05 + 1.600*LPART + 0.500*SNOW
STR1U04	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 1.600*LROOF
STR1U05	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 1.600*SNOW
STR1U06	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW + 1.000*EPX + 0.300*EY + 1.000*EV
STR1U07	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW + 1.000*EPX - 0.300*EY + 1.000*EV
STR1U08	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW - 1.000*EPX - 0.300*EY + 1.000*EV
STR1U09	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW - 1.000*EPX + 0.300*EY + 1.000*EV
STR1U10	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW + 1.000*ENX + 0.300*EY + 1.000*EV
STR1U11	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW + 1.000*ENX - 0.300*EY + 1.000*EV
STR1U12	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW - 1.000*ENX - 0.300*EY + 1.000*EV
STR1U13	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW - 1.000*ENX + 0.300*EY + 1.000*EV
STR1U14	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW + 1.000*EPY + 0.300*EX + 1.000*EV
STR1U15	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW + 1.000*EPY - 0.300*EX + 1.000*EV
STR1U16	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW - 1.000*EPY - 0.300*EX + 1.000*EV
STR1U17	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW - 1.000*EPY + 0.300*EX + 1.000*EV
STR1U18	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW + 1.000*EYN + 0.300*EX + 1.000*EV
STR1U19	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW + 1.000*EYN - 0.300*EX + 1.000*EV
STR1U20	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW - 1.000*EYN - 0.300*EX + 1.000*EV
STR1U21	1.200*DEAD + 1.000*LIVE + 1.000*LRED + 0.500*LRED05 + 1.000*LPART + 0.200*SNOW - 1.000*EYN + 0.300*EX + 1.000*EV
STR1U22	0.900*DEAD + 1.000*EPX + 0.300*EY - 1.000*EV
STR1U23	0.900*DEAD + 1.000*EPX - 0.300*EY - 1.000*EV
STR1U24	0.900*DEAD - 1.000*EPX - 0.300*EY - 1.000*EV
STR1U25	0.900*DEAD - 1.000*EPX + 0.300*EY - 1.000*EV
STR1U26	0.900*DEAD + 1.000*ENX + 0.300*EY - 1.000*EV
STR1U27	0.900*DEAD + 1.000*ENX - 0.300*EY - 1.000*EV
STR1U28	0.900*DEAD - 1.000*ENX - 0.300*EY - 1.000*EV
STR1U29	0.900*DEAD - 1.000*ENX + 0.300*EY - 1.000*EV
STR1U30	0.900*DEAD + 1.000*EPY + 0.300*EX - 1.000*EV
STR1U31	0.900*DEAD + 1.000*EPY - 0.300*EX - 1.000*EV
STR1U32	0.900*DEAD - 1.000*EPY - 0.300*EX - 1.000*EV
STR1U33	0.900*DEAD - 1.000*EPY + 0.300*EX - 1.000*EV
STR1U34	0.900*DEAD + 1.000*EYN + 0.300*EX - 1.000*EV
STR1U35	0.900*DEAD + 1.000*EYN - 0.300*EX - 1.000*EV
STR1U36	0.900*DEAD - 1.000*EYN - 0.300*EX - 1.000*EV
STR1U37	0.900*DEAD - 1.000*EYN + 0.300*EX - 1.000*EV

### 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	2347000000.0	0.1500	9.9000E-06	1020434782.6

### Material Property Data - Mass & Weight

Material Property Data - Mass & Weight

Name	Mass per Unit Volume	Weight per Unit Volume
CONC	2.5000E+02	2.5000E+03

### 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	2100000.000	40000000.00	30000000.000	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
C40-12T18	CONC	0.400	0.400	RR-4-4	6.400E-02	18D	18D
C35-8T16	CONC	0.350	0.350	RR-3-3	6.300E-02	16d	16d
C45-12T20	CONC	0.450	0.450	RR-4-4	6.500E-02	20d	20d
C30-8T14	CONC	0.300	0.300	RR-3-3	6.200E-02	14d	14d
C50-12T22	CONC	0.500	0.500	RR-4-4	6.600E-02	22D	22D
C35-8T18	CONC	0.350	0.350	RR-3-3	6.400E-02	18D	18D
C45-12T22	CONC	0.450	0.450	RR-4-4	6.600E-02	22D	22D
C40-12T20	CONC	0.400	0.400	RR-4-4	6.500E-02	20d	20d
C35-12T16	CONC	0.350	0.350	RR-4-4	6.300E-02	16d	16d
C45-8T18	CONC	0.450	0.450	RR-3-3	6.400E-02	18D	18D
C40-8T18	CONC	0.400	0.400	RR-3-3	6.400E-02	18D	18D
C40-12T16	CONC	0.400	0.400	RR-4-4	6.300E-02	16d	16d
C40-8T16	CONC	0.400	0.400	RR-3-3	6.300E-02	16d	16d
C50-12T20	CONC	0.500	0.500	RR-4-4	6.500E-02	20d	20d
C45-12T18	CONC	0.450	0.450	RR-4-4	6.400E-02	18D	18D
C35-8T14	CONC	0.350	0.350	RR-3-3	6.200E-02	14d	14d

### 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
B45X50	CONC	0.500	0.450	6.500E-02	6.500E-02
B40X50	CONC	0.500	0.400	6.500E-02	6.500E-02
B35X50	CONC	0.500	0.350	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	0.400	0.500	6.500E-02	6.500E-02
B45X40	CONC	0.400	0.450	6.500E-02	6.500E-02
B40X40	CONC	0.400	0.400	6.500E-02	6.500E-02
B35X40	CONC	0.400	0.350	6.500E-02	6.500E-02
B30X40	CONC	0.400	0.300	6.500E-02	6.500E-02
B30X50	CONC	0.500	0.300	6.500E-02	6.500E-02
B55X50	CONC	0.500	0.550	6.500E-02	6.500E-02
B75X50	CONC	0.500	0.750	6.500E-02	6.500E-02
B60X50	CONC	0.500	0.600	6.500E-02	6.500E-02
B70X50	CONC	0.500	0.700	6.500E-02	6.500E-02
B65X50	CONC	0.500	0.650	6.500E-02	6.500E-02
B40X60	CONC	0.600	0.400	6.500E-02	6.500E-02
B30X60	CONC	0.600	0.300	6.500E-02	6.500E-02
B40X70	CONC	0.700	0.400	6.500E-02	6.500E-02
B30X30	CONC	0.300	0.300	6.500E-02	6.500E-02
B45X45	CONC	0.450	0.450	6.500E-02	6.500E-02
B35X35	CONC	0.350	0.350	6.500E-02	6.500E-02
B40X45	CONC	0.450	0.400	6.500E-02	6.500E-02
B25X45	CONC	0.450	0.250	6.500E-02	6.500E-02
B25X50	CONC	0.500	0.250	6.500E-02	6.500E-02
B25X40	CONC	0.400	0.250	6.500E-02	6.500E-02
B35X30	CONC	0.300	0.350	6.500E-02	6.500E-02
B30X45	CONC	0.450	0.300	6.500E-02	6.500E-02
B50X55	CONC	0.550	0.500	6.500E-02	6.500E-02
B50X60	CONC	0.600	0.500	6.500E-02	6.500E-02
B45X55	CONC	0.550	0.450	6.500E-02	6.500E-02
B30X55	CONC	0.550	0.300	6.500E-02	6.500E-02
B50X65	CONC	0.650	0.500	6.500E-02	6.500E-02
B30X65	CONC	0.650	0.300	6.500E-02	6.500E-02
B40X35	CONC	0.350	0.400	6.500E-02	6.500E-02
B30X25	CONC	0.300	0.250	6.500E-02	6.500E-02
B50X30	CONC	0.300	0.500	6.500E-02	6.500E-02
B45X30	CONC	0.300	0.450	6.500E-02	6.500E-02
B40X30	CONC	0.300	0.400	6.500E-02	6.500E-02
B25X55	CONC	0.550	0.250	6.500E-02	6.500E-02
B25X60	CONC	0.600	0.250	6.500E-02	6.500E-02
B45X60	CONC	0.600	0.450	6.500E-02	6.500E-02
B30X20	CONC	0.300	0.200	6.500E-02	6.500E-02
B55X55	CONC	0.550	0.550	6.500E-02	6.500E-02
B25X35	CONC	0.350	0.250	6.500E-02	6.500E-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
B45X50	CONC	0.500	0.450	6.500E-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
B40X50	CONC	0.500	0.400	6.500E-02
B35X50	CONC	0.500	0.350	6.500E-02
B50X40	CONC	0.400	0.500	6.500E-02
B45X40	CONC	0.400	0.450	6.500E-02
B40X40	CONC	0.400	0.400	6.500E-02
B35X40	CONC	0.400	0.350	6.500E-02
B30X40	CONC	0.400	0.300	6.500E-02
B30X50	CONC	0.500	0.300	6.500E-02
B55X50	CONC	0.500	0.550	6.500E-02
B75X50	CONC	0.500	0.750	6.500E-02
B60X50	CONC	0.500	0.600	6.500E-02
B70X50	CONC	0.500	0.700	6.500E-02
B65X50	CONC	0.500	0.650	6.500E-02
B40X60	CONC	0.600	0.400	6.500E-02
B30X60	CONC	0.600	0.300	6.500E-02
B40X70	CONC	0.700	0.400	6.500E-02
B30X30	CONC	0.300	0.300	6.500E-02
B45X45	CONC	0.450	0.450	6.500E-02
B35X35	CONC	0.350	0.350	6.500E-02
B40X45	CONC	0.450	0.400	6.500E-02
B25X45	CONC	0.450	0.250	6.500E-02
B25X50	CONC	0.500	0.250	6.500E-02
B25X40	CONC	0.400	0.250	6.500E-02
B35X30	CONC	0.300	0.350	6.500E-02
B30X45	CONC	0.450	0.300	6.500E-02
B50X55	CONC	0.550	0.500	6.500E-02
B50X60	CONC	0.600	0.500	6.500E-02
B45X55	CONC	0.550	0.450	6.500E-02
B30X55	CONC	0.550	0.300	6.500E-02
B50X65	CONC	0.650	0.500	6.500E-02
B30X65	CONC	0.650	0.300	6.500E-02
B40X35	CONC	0.350	0.400	6.500E-02
B30X25	CONC	0.300	0.250	6.500E-02
B50X30	CONC	0.300	0.500	6.500E-02
B45X30	CONC	0.300	0.450	6.500E-02
B40X30	CONC	0.300	0.400	6.500E-02
B25X55	CONC	0.550	0.250	6.500E-02
B25X60	CONC	0.600	0.250	6.500E-02
B45X60	CONC	0.600	0.450	6.500E-02
B30X20	CONC	0.300	0.200	6.500E-02
B55X55	CONC	0.550	0.550	6.500E-02
B25X35	CONC	0.350	0.250	6.500E-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
STORY6	C1	C30-8T14	SWYINTR	1.000	0.900	0.900	1.000	1.000
STORY5	C1	C35-8T14	SWYINTR	1.000	0.892	0.448	1.000	1.000
STORY4	C1	C40-8T16	SWYINTR	1.000	0.877	0.448	1.000	1.000
STORY3	C1	C45-8T18	SWYINTR	1.000	0.846	0.448	1.000	1.000
STORY2	C1	C45-12T18	SWYINTR	1.000	0.861	0.448	1.000	1.000
STORY1	C1	C50-12T20	SWYINTR	1.000	0.839	0.445	1.000	1.000
STORY6	C2	C30-8T14	SWYINTR	1.000	0.900	0.900	1.000	1.000
STORY5	C2	C35-8T18	SWYINTR	1.000	0.892	0.559	1.000	1.000
STORY4	C2	C40-12T18	SWYINTR	0.872	0.877	0.559	1.000	1.000
STORY3	C2	C45-12T18	SWYINTR	0.777	0.846	0.559	1.000	1.000
STORY2	C2	C45-12T20	SWYINTR	0.716	0.861	0.559	1.000	1.000
STORY1	C2	C50-12T20	SWYINTR	0.673	0.839	0.555	1.000	1.000
STORY5	C3	C35-8T16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY4	C3	C40-8T16	SWYINTR	0.988	0.877	0.877	1.000	1.000
STORY3	C3	C45-8T18	SWYINTR	0.848	0.846	0.846	1.000	1.000
STORY2	C3	C45-12T18	SWYINTR	0.767	0.861	0.861	1.000	1.000
STORY1	C3	C50-12T20	SWYINTR	0.716	0.839	0.839	1.000	1.000
STORY6	C4	C30-8T14	SWYINTR	1.000	0.900	0.900	1.000	1.000
STORY5	C4	C35-8T16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY4	C4	C40-12T18	SWYINTR	1.000	0.877	0.877	1.000	1.000
STORY3	C4	C45-12T18	SWYINTR	1.000	0.861	0.861	1.000	1.000
STORY2	C4	C45-12T20	SWYINTR	1.000	0.861	0.861	1.000	1.000
STORY1	C4	C50-12T20	SWYINTR	1.000	0.839	0.839	1.000	1.000
STORY6	C5	C30-8T14	SWYINTR	1.000	0.900	0.900	1.000	1.000
STORY5	C5	C35-8T18	SWYINTR	0.813	0.892	0.892	1.000	1.000
STORY4	C5	C40-12T20	SWYINTR	0.685	0.877	0.877	1.000	1.000
STORY3	C5	C45-12T20	SWYINTR	0.618	0.846	0.846	1.000	1.000
STORY2	C5	C45-12T22	SWYINTR	0.574	0.861	0.861	1.000	1.000
STORY1	C5	C50-12T22	SWYINTR	0.541	0.839	0.839	1.000	1.000
STORY6	C6	C30-8T14	SWYINTR	1.000	0.900	0.900	1.000	1.000
STORY5	C6	C35-8T16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY4	C6	C40-12T16	SWYINTR	1.000	0.877	0.877	1.000	1.000
STORY3	C6	C45-12T18	SWYINTR	1.000	0.846	0.846	1.000	1.000
STORY2	C6	C45-12T20	SWYINTR	0.912	0.861	0.861	1.000	1.000
STORY1	C6	C50-12T22	SWYINTR	0.860	0.839	0.839	1.000	1.000
STORY6	C7	C30-8T14	SWYINTR	1.000	0.900	0.900	1.000	1.000
STORY5	C7	C35-8T18	SWYINTR	0.796	0.892	0.892	1.000	1.000
STORY4	C7	C40-12T20	SWYINTR	0.658	0.877	0.877	1.000	1.000
STORY3	C7	C45-12T20	SWYINTR	0.590	0.846	0.846	1.000	1.000
STORY2	C7	C45-12T22	SWYINTR	0.547	0.861	0.861	1.000	1.000
STORY1	C7	C50-12T22	SWYINTR	0.516	0.839	0.839	1.000	1.000
STORY5	C8	C35-8T18	SWYINTR	0.981	0.892	0.892	1.000	1.000
STORY4	C8	C40-8T18	SWYINTR	0.766	0.877	0.877	1.000	1.000
STORY3	C8	C45-12T18	SWYINTR	0.672	0.846	0.846	1.000	1.000
STORY2	C8	C45-12T20	SWYINTR	0.615	0.861	0.861	1.000	1.000
STORY1	C8	C50-12T20	SWYINTR	0.576	0.839	0.839	1.000	1.000
STORY5	C9	C35-8T18	SWYINTR	0.944	0.892	0.892	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
STORY4	C9	C40-8T18	SWYINTR	0.740	0.877	0.877	1.000	1.000
STORY3	C9	C45-8T18	SWYINTR	0.650	0.846	0.846	1.000	1.000
STORY2	C9	C45-12T18	SWYINTR	0.596	0.861	0.861	1.000	1.000
STORY1	C9	C50-12T20	SWYINTR	0.560	0.839	0.839	1.000	1.000
STORY5	C10	C35-8T14	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY4	C10	C40-8T18	SWYINTR	1.000	0.877	0.877	1.000	1.000
STORY3	C10	C45-12T18	SWYINTR	1.000	0.846	0.846	1.000	1.000
STORY2	C10	C45-12T20	SWYINTR	0.991	0.861	0.861	1.000	1.000
STORY1	C10	C50-12T22	SWYINTR	0.865	0.839	0.839	1.000	1.000
STORY5	C11	C35-12T16	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY4	C11	C40-12T18	SWYINTR	0.810	0.877	0.877	1.000	1.000
STORY3	C11	C45-12T20	SWYINTR	0.709	0.846	0.846	1.000	1.000
STORY2	C11	C45-12T22	SWYINTR	0.648	0.861	0.861	1.000	1.000
STORY1	C11	C50-12T22	SWYINTR	0.579	0.839	0.839	1.000	1.000
STORY5	C12	C35-8T14	SWYINTR	1.000	0.892	0.892	1.000	1.000
STORY4	C12	C40-8T16	SWYINTR	0.915	0.877	0.877	1.000	1.000
STORY3	C12	C45-8T18	SWYINTR	0.790	0.846	0.846	1.000	1.000
STORY2	C12	C45-8T18	SWYINTR	0.717	0.861	0.861	1.000	1.000
STORY1	C12	C50-12T20	SWYINTR	0.637	0.839	0.839	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
STORY6	B1	B30X30	SWYINTR	1.000	0.891	0.891
STORY6	B9	B30X30	SWYINTR	1.000	0.857	0.857
STORY6	B10	B30X30	SWYINTR	1.000	0.933	0.933
STORY6	B11	B30X30	SWYINTR	1.000	0.899	0.899
STORY6	B13	B30X30	SWYINTR	1.000	0.891	0.891
STORY6	B15	B30X30	SWYINTR	1.000	0.912	0.912
STORY6	B16	B30X30	SWYINTR	1.000	0.906	0.906
STORY5	B1	B25X35	SWYINTR	1.000	0.873	0.873
STORY5	B2	B35X35	SWYINTR	1.000	0.943	0.943
STORY5	B3	B35X35	SWYINTR	1.000	0.879	0.879
STORY5	B4	B35X35	SWYINTR	1.000	0.904	0.904
STORY5	B5	B35X35	SWYINTR	1.000	0.905	0.905
STORY5	B6	B35X35	SWYINTR	1.000	0.945	0.945
STORY5	B7	B35X35	SWYINTR	1.000	0.863	0.863
STORY5	B8	B35X35	SWYINTR	1.000	0.902	0.902
STORY5	B9	B35X35	SWYINTR	1.000	0.833	0.833
STORY5	B10	B25X35	SWYINTR	1.000	0.922	0.922
STORY5	B11	B35X35	SWYINTR	1.000	0.882	0.650
STORY5	B12	B35X35	SWYINTR	0.968	0.943	0.943
STORY5	B13	B35X35	SWYINTR	1.000	0.873	0.645
STORY5	B14	B35X35	SWYINTR	0.942	0.943	0.943
STORY5	B15	B35X35	SWYINTR	1.000	0.897	0.897
STORY5	B16	B35X35	SWYINTR	1.000	0.891	0.891

Concrete Beam Design - Element Information

Story Level	Beam Bay	Section Name	Frame Type	RLLF Factor	L_Ratio Major	L_Ratio Minor
STORY5	B17	B35X35	SWYINTR	1.000	0.903	0.903
STORY5	B25	B30X30	SWYINTR	1.000	1.000	1.000
STORY5	B27	B30X30	SWYINTR	1.000	1.000	1.000
STORY5	B28	B30X30	SWYINTR	1.000	1.000	1.000
STORY4	B1	B25X40	SWYINTR	1.000	0.855	0.855
STORY4	B2	B40X40	SWYINTR	1.000	0.935	0.935
STORY4	B3	B40X40	SWYINTR	1.000	0.862	0.862
STORY4	B4	B40X40	SWYINTR	1.000	0.890	0.890
STORY4	B5	B40X40	SWYINTR	1.000	0.891	0.891
STORY4	B6	B40X40	SWYINTR	1.000	0.937	0.937
STORY4	B7	B40X40	SWYINTR	1.000	0.843	0.843
STORY4	B8	B40X40	SWYINTR	1.000	0.888	0.888
STORY4	B9	B40X40	SWYINTR	1.000	0.810	0.810
STORY4	B10	B25X40	SWYINTR	1.000	0.911	0.911
STORY4	B11	B40X40	SWYINTR	1.000	0.865	0.642
STORY4	B12	B40X40	SWYINTR	0.968	0.935	0.935
STORY4	B13	B40X40	SWYINTR	1.000	0.855	0.636
STORY4	B14	B40X40	SWYINTR	0.942	0.935	0.935
STORY4	B15	B40X40	SWYINTR	1.000	0.882	0.882
STORY4	B16	B40X40	SWYINTR	1.000	0.875	0.875
STORY4	B17	B40X40	SWYINTR	1.000	0.889	0.889
STORY4	B25	B30X30	SWYINTR	1.000	1.000	1.000
STORY4	B27	B30X30	SWYINTR	1.000	1.000	1.000
STORY4	B28	B30X30	SWYINTR	1.000	1.000	1.000
STORY3	B1	B25X50	SWYINTR	1.000	0.836	0.836
STORY3	B2	B45X50	SWYINTR	1.000	0.927	0.927
STORY3	B3	B45X45	SWYINTR	1.000	0.844	0.844
STORY3	B4	B45X45	SWYINTR	1.000	0.877	0.877
STORY3	B5	B45X45	SWYINTR	1.000	0.878	0.878
STORY3	B6	B45X50	SWYINTR	1.000	0.929	0.929
STORY3	B7	B45X50	SWYINTR	1.000	0.824	0.824
STORY3	B8	B45X45	SWYINTR	1.000	0.874	0.874
STORY3	B9	B45X40	SWYINTR	1.000	0.786	0.786
STORY3	B10	B25X45	SWYINTR	1.000	0.900	0.900
STORY3	B11	B45X50	SWYINTR	1.000	0.848	0.633
STORY3	B12	B45X50	SWYINTR	0.968	0.927	0.927
STORY3	B13	B45X50	SWYINTR	1.000	0.836	0.627
STORY3	B14	B45X50	SWYINTR	0.942	0.927	0.927
STORY3	B15	B45X45	SWYINTR	1.000	0.867	0.867
STORY3	B16	B45X45	SWYINTR	1.000	0.859	0.859
STORY3	B17	B45X45	SWYINTR	1.000	0.876	0.876
STORY3	B25	B30X30	SWYINTR	1.000	1.000	1.000
STORY3	B27	B30X30	SWYINTR	1.000	1.000	1.000
STORY3	B28	B30X30	SWYINTR	1.000	1.000	1.000
STORY2	B1	B25X45	SWYINTR	1.000	0.836	0.836
STORY2	B2	B45X45	SWYINTR	1.000	0.927	0.927
STORY2	B3	B45X45	SWYINTR	1.000	0.844	0.844
STORY2	B4	B45X45	SWYINTR	1.000	0.877	0.877

Concrete Beam Design - Element Information

Story Level	Beam Bay	Section Name	Frame Type	RLLF Factor	L_Ratio Major	L_Ratio Minor
STORY2	B5	B45X45	SWYINTR	1.000	0.878	0.878
STORY2	B6	B45X45	SWYINTR	1.000	0.929	0.929
STORY2	B7	B45X45	SWYINTR	1.000	0.824	0.824
STORY2	B8	B45X45	SWYINTR	1.000	0.874	0.874
STORY2	B9	B45X40	SWYINTR	1.000	0.786	0.786
STORY2	B10	B25X45	SWYINTR	1.000	0.900	0.900
STORY2	B11	B45X45	SWYINTR	1.000	0.848	0.633
STORY2	B12	B45X45	SWYINTR	0.968	0.927	0.927
STORY2	B13	B45X45	SWYINTR	1.000	0.836	0.627
STORY2	B14	B45X45	SWYINTR	0.942	0.927	0.927
STORY2	B15	B45X45	SWYINTR	1.000	0.867	0.867
STORY2	B16	B45X45	SWYINTR	1.000	0.859	0.859
STORY2	B17	B45X45	SWYINTR	1.000	0.876	0.876
STORY2	B25	B30X30	SWYINTR	1.000	1.000	1.000
STORY2	B27	B30X30	SWYINTR	1.000	1.000	1.000
STORY2	B28	B30X30	SWYINTR	1.000	1.000	1.000
STORY1	B1	B25X50	SWYINTR	1.000	0.818	0.818
STORY1	B2	B50X50	SWYINTR	1.000	0.919	0.919
STORY1	B3	B50X50	SWYINTR	1.000	0.827	0.827
STORY1	B4	B50X50	SWYINTR	1.000	0.863	0.863
STORY1	B5	B50X50	SWYINTR	1.000	0.864	0.864
STORY1	B6	B50X50	SWYINTR	1.000	0.922	0.922
STORY1	B7	B50X50	SWYINTR	1.000	0.804	0.804
STORY1	B8	B50X50	SWYINTR	1.000	0.860	0.860
STORY1	B9	B45X40	SWYINTR	1.000	0.762	0.762
STORY1	B10	B25X50	SWYINTR	1.000	0.889	0.889
STORY1	B11	B50X50	SWYINTR	1.000	0.831	0.625
STORY1	B12	B50X50	SWYINTR	0.968	0.919	0.919
STORY1	B13	B50X50	SWYINTR	1.000	0.818	0.618
STORY1	B14	B50X50	SWYINTR	0.942	0.919	0.919
STORY1	B15	B50X50	SWYINTR	1.000	0.853	0.853
STORY1	B16	B50X50	SWYINTR	1.000	0.844	0.844
STORY1	B17	B50X50	SWYINTR	1.000	0.862	0.862
STORY1	B20	B50X50	SWYINTR	1.000	0.828	0.828
STORY1	B21	B50X50	SWYINTR	1.000	0.828	0.828
STORY1	B22	B50X50	SWYINTR	1.000	0.828	0.828
STORY1	B25	B30X30	SWYINTR	1.000	1.000	1.000
STORY1	B26	B30X30	SWYINTR	1.000	1.000	1.000
STORY1	B29	B30X30	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
STORY6	C1	C30-8T14	Top	0.551	0.001	0.000	0.000
STORY6	C1	C30-8T14	Bottom	0.278	0.001	0.000	0.000
STORY5	C1	C35-8T14	Top	0.689	0.001	0.000	4.101E-04
STORY5	C1	C35-8T14	Bottom	0.624	0.001	0.000	4.101E-04
STORY4	C1	C40-8T16	Top	0.692	0.002	0.000	4.687E-04
STORY4	C1	C40-8T16	Bottom	0.886	0.002	0.000	4.687E-04
STORY3	C1	C45-8T18	Top	0.825	0.002	0.000	5.273E-04
STORY3	C1	C45-8T18	Bottom	0.701	0.002	0.000	5.273E-04
STORY2	C1	C45-12T18	Top	0.548	0.003	0.000	5.273E-04
STORY2	C1	C45-12T18	Bottom	0.898	0.003	0.000	5.273E-04
STORY1	C1	C50-12T20	Top	0.351	0.004	0.000	5.859E-04
STORY1	C1	C50-12T20	Bottom	0.997	0.004	0.000	5.859E-04
STORY6	C2	C30-8T14	Top	0.526	0.001	0.000	3.515E-04
STORY6	C2	C30-8T14	Bottom	0.476	0.001	0.000	0.000
STORY5	C2	C35-8T18	Top	1.010	0.002	0.000	4.101E-04
STORY5	C2	C35-8T18	Bottom	0.955	0.002	0.000	4.101E-04
STORY4	C2	C40-12T18	Top	Joint shear ratio exceeds limit			
STORY4	C2	C40-12T18	Bottom	1.001	0.003	4.687E-04	4.687E-04
STORY3	C2	C45-12T18	Top	Joint shear ratio exceeds limit			
STORY3	C2	C45-12T18	Bottom	0.852	0.003	5.273E-04	5.273E-04
STORY2	C2	C45-12T20	Top	Joint shear ratio exceeds limit			
STORY2	C2	C45-12T20	Bottom	1.004	0.004	5.273E-04	5.273E-04
STORY1	C2	C50-12T20	Top	0.440	0.004	5.859E-04	5.859E-04
STORY1	C2	C50-12T20	Bottom	0.993	0.004	5.859E-04	5.859E-04
STORY5	C3	C35-8T16	Top	0.912	0.002	4.101E-04	4.101E-04
STORY5	C3	C35-8T16	Bottom	0.742	0.002	4.101E-04	4.101E-04
STORY4	C3	C40-8T16	Top	0.755	0.002	4.687E-04	4.687E-04
STORY4	C3	C40-8T16	Bottom	0.944	0.002	4.687E-04	4.687E-04
STORY3	C3	C45-8T18	Top	0.736	0.002	5.273E-04	5.273E-04
STORY3	C3	C45-8T18	Bottom	0.755	0.002	5.273E-04	5.273E-04
STORY2	C3	C45-12T18	Top	0.546	0.003	5.273E-04	5.273E-04
STORY2	C3	C45-12T18	Bottom	0.889	0.003	5.273E-04	5.273E-04
STORY1	C3	C50-12T20	Top	0.351	0.004	5.859E-04	5.859E-04
STORY1	C3	C50-12T20	Bottom	0.900	0.004	5.859E-04	5.859E-04
STORY6	C4	C30-8T14	Top	0.740	0.001	3.515E-04	0.000
STORY6	C4	C30-8T14	Bottom	0.566	0.001	3.515E-04	0.000
STORY5	C4	C35-8T16	Top	1.002	0.002	4.101E-04	4.101E-04
STORY5	C4	C35-8T16	Bottom	1.034	0.002	4.101E-04	4.101E-04
STORY4	C4	C40-12T18	Top	Joint shear ratio exceeds limit			
STORY4	C4	C40-12T18	Bottom	0.940	0.003	4.687E-04	4.687E-04
STORY3	C4	C45-12T18	Top	Joint shear ratio exceeds limit			

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	
STORY3	C4	C45-12T18	Bottom	0.866	0.003	5.273E-04	5.273E-04	
STORY2	C4	C45-12T20	Top	Joint shear ratio exceeds limit				
STORY2	C4	C45-12T20	Bottom	1.011	0.004	5.273E-04	5.273E-04	
STORY1	C4	C50-12T20	Top	0.432	0.004	5.859E-04	5.859E-04	
STORY1	C4	C50-12T20	Bottom	1.020	0.004	5.859E-04	5.859E-04	
STORY6	C5	C30-8T14	Top	0.676	0.001	3.515E-04	0.000	
STORY6	C5	C30-8T14	Bottom	0.520	0.001	3.515E-04	0.000	
STORY5	C5	C35-8T18	Top	1.034	0.002	4.101E-04	4.101E-04	
STORY5	C5	C35-8T18	Bottom	1.047	0.002	4.101E-04	4.101E-04	
STORY4	C5	C40-12T20	Top	0.819	0.004	4.687E-04	4.687E-04	
STORY4	C5	C40-12T20	Bottom	1.001	0.004	4.687E-04	4.687E-04	
STORY3	C5	C45-12T20	Top	0.914	0.004	5.273E-04	5.273E-04	
STORY3	C5	C45-12T20	Bottom	0.925	0.004	5.273E-04	5.273E-04	
STORY2	C5	C45-12T22	Top	0.759	0.005	5.273E-04	5.273E-04	
STORY2	C5	C45-12T22	Bottom	1.041	0.005	5.273E-04	5.273E-04	
STORY1	C5	C50-12T22	Top	0.515	0.005	5.859E-04	5.859E-04	
STORY1	C5	C50-12T22	Bottom	0.909	0.005	5.859E-04	5.859E-04	
STORY6	C6	C30-8T14	Top	0.458	0.001	0.000	0.000	
STORY6	C6	C30-8T14	Bottom	0.407	0.001	0.000	0.000	
STORY5	C6	C35-8T16	Top	0.925	0.002	4.101E-04	4.101E-04	
STORY5	C6	C35-8T16	Bottom	0.960	0.002	4.101E-04	4.101E-04	
STORY4	C6	C40-12T16	Top	0.936	0.002	4.687E-04	4.687E-04	
STORY4	C6	C40-12T16	Bottom	1.025	0.002	4.687E-04	4.687E-04	
STORY3	C6	C45-12T18	Top	0.850	0.003	5.273E-04	5.273E-04	
STORY3	C6	C45-12T18	Bottom	0.951	0.003	5.273E-04	5.273E-04	
STORY2	C6	C45-12T20	Top	0.733	0.004	5.273E-04	5.273E-04	
STORY2	C6	C45-12T20	Bottom	0.996	0.004	5.273E-04	5.273E-04	
STORY1	C6	C50-12T22	Top	0.388	0.005	5.859E-04	5.859E-04	
STORY1	C6	C50-12T22	Bottom	0.941	0.005	5.859E-04	5.859E-04	
STORY6	C7	C30-8T14	Top	0.498	0.001	0.000	0.000	
STORY6	C7	C30-8T14	Bottom	0.464	0.001	0.000	0.000	
STORY5	C7	C35-8T18	Top	1.038	0.002	4.101E-04	4.101E-04	
STORY5	C7	C35-8T18	Bottom	1.040	0.002	4.101E-04	4.101E-04	
STORY4	C7	C40-12T20	Top	0.780	0.004	4.687E-04	4.687E-04	
STORY4	C7	C40-12T20	Bottom	0.961	0.004	4.687E-04	4.687E-04	
STORY3	C7	C45-12T20	Top	0.866	0.004	5.273E-04	5.273E-04	
STORY3	C7	C45-12T20	Bottom	0.893	0.004	5.273E-04	5.273E-04	
STORY2	C7	C45-12T22	Top	0.676	0.005	5.273E-04	5.273E-04	
STORY2	C7	C45-12T22	Bottom	0.995	0.005	5.273E-04	5.273E-04	
STORY1	C7	C50-12T22	Top	0.498	0.005	5.859E-04	5.859E-04	
STORY1	C7	C50-12T22	Bottom	0.908	0.005	5.859E-04	5.859E-04	
STORY5	C8	C35-8T18	Top	1.006	0.002	4.101E-04	4.101E-04	
STORY5	C8	C35-8T18	Bottom	0.917	0.002	4.101E-04	4.101E-04	
STORY4	C8	C40-8T18	Top	0.912	0.002	4.687E-04	4.687E-04	
STORY4	C8	C40-8T18	Bottom	1.035	0.002	4.687E-04	4.687E-04	
STORY3	C8	C45-12T18	Top	0.762	0.003	5.273E-04	5.273E-04	
STORY3	C8	C45-12T18	Bottom	0.834	0.003	5.273E-04	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	C8	C45-12T20	Top	0.706	0.004	5.273E-04	5.273E-04
STORY2	C8	C45-12T20	Bottom	0.996	0.004	5.273E-04	5.273E-04
STORY1	C8	C50-12T20	Top	0.430	0.004	5.859E-04	5.859E-04
STORY1	C8	C50-12T20	Bottom	0.907	0.004	5.859E-04	5.859E-04
STORY5	C9	C35-8T18	Top	0.993	0.002	4.101E-04	4.101E-04
STORY5	C9	C35-8T18	Bottom	0.880	0.002	4.101E-04	4.101E-04
STORY4	C9	C40-8T18	Top	0.873	0.002	4.687E-04	4.687E-04
STORY4	C9	C40-8T18	Bottom	0.991	0.002	4.687E-04	4.687E-04
STORY3	C9	C45-8T18	Top	0.857	0.002	5.273E-04	5.273E-04
STORY3	C9	C45-8T18	Bottom	0.921	0.002	5.273E-04	5.273E-04
STORY2	C9	C45-12T18	Top	0.713	0.003	5.273E-04	5.273E-04
STORY2	C9	C45-12T18	Bottom	1.020	0.003	5.273E-04	5.273E-04
STORY1	C9	C50-12T20	Top	0.393	0.004	5.859E-04	5.859E-04
STORY1	C9	C50-12T20	Bottom	0.860	0.004	5.859E-04	5.859E-04
STORY5	C10	C35-8T14	Top	0.847	0.001	4.101E-04	4.101E-04
STORY5	C10	C35-8T14	Bottom	0.768	0.001	4.101E-04	4.101E-04
STORY4	C10	C40-8T18	Top	0.732	0.002	4.687E-04	4.687E-04
STORY4	C10	C40-8T18	Bottom	0.936	0.002	4.687E-04	4.687E-04
STORY3	C10	C45-12T18	Top	0.801	0.003	5.273E-04	5.273E-04
STORY3	C10	C45-12T18	Bottom	0.768	0.003	5.273E-04	5.273E-04
STORY2	C10	C45-12T20	Top	0.730	0.004	5.273E-04	6.198E-04
STORY2	C10	C45-12T20	Bottom	1.017	0.004	5.273E-04	5.992E-04
STORY1	C10	C50-12T22	Top	0.495	0.005	5.859E-04	6.030E-04
STORY1	C10	C50-12T22	Bottom	1.033	0.005	5.859E-04	5.859E-04
STORY5	C11	C35-12T16	Top	0.979	0.002	4.101E-04	4.101E-04
STORY5	C11	C35-12T16	Bottom	0.952	0.002	4.101E-04	4.101E-04
STORY4	C11	C40-12T18	Top	Joint shear ratio exceeds limit			
STORY4	C11	C40-12T18	Bottom	1.028	0.003	0.000	4.687E-04
STORY3	C11	C45-12T20	Top	0.901	0.004	5.273E-04	5.386E-04
STORY3	C11	C45-12T20	Bottom	0.902	0.004	5.273E-04	5.273E-04
STORY2	C11	C45-12T22	Top	Joint shear ratio exceeds limit			
STORY2	C11	C45-12T22	Bottom	1.009	0.005	5.273E-04	7.215E-04
STORY1	C11	C50-12T22	Top	0.501	0.005	5.859E-04	5.859E-04
STORY1	C11	C50-12T22	Bottom	1.016	0.005	5.859E-04	5.859E-04
STORY5	C12	C35-8T14	Top	1.042	0.001	0.000	4.101E-04
STORY5	C12	C35-8T14	Bottom	0.859	0.001	0.000	4.101E-04
STORY4	C12	C40-8T16	Top	0.678	0.002	4.687E-04	4.687E-04
STORY4	C12	C40-8T16	Bottom	0.786	0.002	4.687E-04	4.687E-04
STORY3	C12	C45-8T18	Top	0.584	0.002	5.273E-04	5.273E-04
STORY3	C12	C45-8T18	Bottom	0.612	0.002	5.273E-04	5.273E-04
STORY2	C12	C45-8T18	Top	0.559	0.002	5.273E-04	5.273E-04
STORY2	C12	C45-8T18	Bottom	0.899	0.002	5.273E-04	5.273E-04
STORY1	C12	C50-12T20	Top	0.340	0.004	5.859E-04	5.859E-04
STORY1	C12	C50-12T20	Bottom	0.758	0.004	5.859E-04	5.859E-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
STORY6	C1	C30-8T14			0.284	0.362
STORY5	C1	C35-8T14			0.333	0.500
STORY4	C1	C40-8T16			0.344	0.615
STORY3	C1	C45-8T18			0.312	0.597
STORY2	C1	C45-12T18			0.329	0.648
STORY1	C1	C50-12T20			0.224	0.412
STORY6	C2	C30-8T14			0.284	0.392
STORY5	C2	C35-8T18			0.401	0.981
STORY4	C2	C40-12T18	Joint shear ratio exceeds limit			
STORY3	C2	C45-12T18	Joint shear ratio exceeds limit			
STORY2	C2	C45-12T20	Joint shear ratio exceeds limit			
STORY1	C2	C50-12T20			0.422	0.835
STORY5	C3	C35-8T16			0.386	0.653
STORY4	C3	C40-8T16			0.561	0.772
STORY3	C3	C45-8T18			0.610	0.696
STORY2	C3	C45-12T18			0.688	0.728
STORY1	C3	C50-12T20			0.482	0.505
STORY6	C4	C30-8T14			0.510	0.267
STORY5	C4	C35-8T16			0.879	0.571
STORY4	C4	C40-12T18	Joint shear ratio exceeds limit			
STORY3	C4	C45-12T18	Joint shear ratio exceeds limit			
STORY2	C4	C45-12T20	Joint shear ratio exceeds limit			
STORY1	C4	C50-12T20			0.821	0.556
STORY6	C5	C30-8T14			0.488	0.277
STORY5	C5	C35-8T18			0.502	0.631
STORY4	C5	C40-12T20			0.640	0.773
STORY3	C5	C45-12T20			0.693	0.696
STORY2	C5	C45-12T22			0.798	0.803
STORY1	C5	C50-12T22			0.561	0.546
STORY6	C6	C30-8T14			0.281	0.311
STORY5	C6	C35-8T16			0.542	0.415
STORY4	C6	C40-12T16			0.793	0.567
STORY3	C6	C45-12T18			0.834	0.574
STORY2	C6	C45-12T20			0.936	0.671
STORY1	C6	C50-12T22			0.610	0.452
STORY6	C7	C30-8T14			0.281	0.331
STORY5	C7	C35-8T18			0.363	0.683
STORY4	C7	C40-12T20			0.482	0.834
STORY3	C7	C45-12T20			0.526	0.731
STORY2	C7	C45-12T22			0.596	0.857
STORY1	C7	C50-12T22			0.416	0.577
STORY5	C8	C35-8T18			0.527	0.612
STORY4	C8	C40-8T18			0.766	0.634
STORY3	C8	C45-12T18			0.845	0.528

**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	C8	C45-12T20			0.937	0.571
STORY1	C8	C50-12T20			0.636	0.392
STORY5	C9	C35-8T18			0.482	0.623
STORY4	C9	C40-8T18			0.669	0.639
STORY3	C9	C45-8T18			0.730	0.521
STORY2	C9	C45-12T18			0.819	0.566
STORY1	C9	C50-12T20			0.571	0.387
STORY5	C10	C35-8T14			0.430	0.498
STORY4	C10	C40-8T18			0.568	0.695
STORY3	C10	C45-12T18			0.584	0.709
STORY2	C10	C45-12T20			0.637	0.840
STORY1	C10	C50-12T22			0.402	0.457
STORY5	C11	C35-12T16			0.316	0.820
STORY4	C11	C40-12T18	Joint shear ratio exceeds limit			
STORY3	C11	C45-12T20			0.423	0.969
STORY2	C11	C45-12T22	Joint shear ratio exceeds limit			
STORY1	C11	C50-12T22			0.305	0.572
STORY5	C12	C35-8T14			0.344	0.638
STORY4	C12	C40-8T16			0.498	0.744
STORY3	C12	C45-8T18			0.534	0.614
STORY2	C12	C45-8T18			0.591	0.661
STORY1	C12	C50-12T20			0.399	0.367

**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
STORY6	B1	B30X30	End-I	3.192E-04	2.602E-04	3.515E-04
STORY6	B1	B30X30	Middle	8.814E-05	1.633E-04	3.515E-04
STORY6	B1	B30X30	End-J	3.461E-04	2.656E-04	3.515E-04
STORY6	B9	B30X30	End-I	2.443E-04	2.177E-04	3.515E-04
STORY6	B9	B30X30	Middle	1.600E-04	1.529E-04	3.515E-04
STORY6	B9	B30X30	End-J	2.478E-04	2.478E-04	3.515E-04
STORY6	B10	B30X30	End-I	2.478E-04	1.539E-04	0.000
STORY6	B10	B30X30	Middle	5.209E-05	1.001E-04	0.000
STORY6	B10	B30X30	End-J	2.274E-04	1.436E-04	0.000
STORY6	B11	B30X30	End-I	3.293E-04	2.443E-04	3.515E-04
STORY6	B11	B30X30	Middle	8.407E-05	2.232E-04	3.515E-04
STORY6	B11	B30X30	End-J	3.165E-04	2.348E-04	3.515E-04
STORY6	B13	B30X30	End-I	2.741E-04	2.478E-04	3.515E-04
STORY6	B13	B30X30	Middle	7.500E-05	1.386E-04	3.515E-04
STORY6	B13	B30X30	End-J	2.923E-04	2.478E-04	3.515E-04
STORY6	B15	B30X30	End-I	2.478E-04	2.089E-04	0.000
STORY6	B15	B30X30	Middle	9.870E-05	1.123E-04	0.000
STORY6	B15	B30X30	End-J	2.392E-04	1.798E-04	0.000
STORY6	B16	B30X30	End-I	2.194E-04	2.079E-04	0.000

Concrete Beam Design - Flexural & Shear Design Rebar Areas

Story Level	Beam Bay	Section Name	Location	Top Rebar Area	Bottom Rebar Area	Shear Rebar Area
STORY6	B16	B30X30	Middle	8.385E-05	1.088E-04	0.000
STORY6	B16	B30X30	End-J	2.478E-04	2.246E-04	0.000
STORY5	B1	B25X35	End-I	6.542E-04	5.210E-04	3.198E-04
STORY5	B1	B25X35	Middle	1.595E-04	1.672E-04	2.929E-04
STORY5	B1	B25X35	End-J	6.161E-04	4.621E-04	3.225E-04
STORY5	B2	B35X35	End-I	8.047E-04	3.348E-04	4.101E-04
STORY5	B2	B35X35	Middle	1.985E-04	4.059E-04	4.101E-04
STORY5	B2	B35X35	End-J	7.840E-04	3.507E-04	4.101E-04
STORY5	B3	B35X35	End-I	4.565E-04	4.004E-04	4.101E-04
STORY5	B3	B35X35	Middle	2.016E-04	2.075E-04	4.101E-04
STORY5	B3	B35X35	End-J	3.801E-04	3.576E-04	4.101E-04
STORY5	B4	B35X35	End-I	3.665E-04	3.507E-04	4.101E-04
STORY5	B4	B35X35	Middle	1.775E-04	2.099E-04	0.000
STORY5	B4	B35X35	End-J	3.667E-04	3.507E-04	4.101E-04
STORY5	B5	B35X35	End-I	3.721E-04	3.507E-04	4.101E-04
STORY5	B5	B35X35	Middle	2.149E-04	2.468E-04	1.486E-04
STORY5	B5	B35X35	End-J	4.097E-04	3.604E-04	4.101E-04
STORY5	B6	B35X35	End-I	7.880E-04	3.283E-04	4.101E-04
STORY5	B6	B35X35	Middle	1.947E-04	4.798E-04	4.101E-04
STORY5	B6	B35X35	End-J	7.664E-04	3.507E-04	4.101E-04
STORY5	B7	B35X35	End-I	5.982E-04	5.258E-04	4.101E-04
STORY5	B7	B35X35	Middle	1.925E-04	1.515E-04	4.101E-04
STORY5	B7	B35X35	End-J	5.984E-04	4.169E-04	4.101E-04
STORY5	B8	B35X35	End-I	4.730E-04	3.507E-04	4.101E-04
STORY5	B8	B35X35	Middle	2.267E-04	2.999E-04	4.101E-04
STORY5	B8	B35X35	End-J	5.097E-04	3.837E-04	4.101E-04
STORY5	B9	B35X35	End-I	5.221E-04	4.504E-04	4.101E-04
STORY5	B9	B35X35	Middle	3.310E-04	3.154E-04	4.101E-04
STORY5	B9	B35X35	End-J	5.035E-04	4.169E-04	4.101E-04
STORY5	B10	B25X35	End-I	4.315E-04	2.454E-04	2.929E-04
STORY5	B10	B25X35	Middle	1.087E-04	2.224E-04	2.929E-04
STORY5	B10	B25X35	End-J	3.960E-04	2.103E-04	2.929E-04
STORY5	B11	B35X35	End-I	8.450E-04	3.998E-04	8.087E-04
STORY5	B11	B35X35	Middle	3.391E-04	3.507E-04	4.101E-04
STORY5	B11	B35X35	End-J	8.055E-04	5.195E-04	6.379E-04
STORY5	B12	B35X35	End-I	9.207E-04	3.507E-04	4.101E-04
STORY5	B12	B35X35	Middle	2.381E-04	6.975E-04	4.101E-04
STORY5	B12	B35X35	End-J	9.837E-04	3.507E-04	4.701E-04
STORY5	B13	B35X35	End-I	6.799E-04	5.559E-04	4.101E-04
STORY5	B13	B35X35	Middle	3.461E-04	3.138E-04	4.101E-04
STORY5	B13	B35X35	End-J	7.333E-04	4.482E-04	4.101E-04
STORY5	B14	B35X35	End-I	9.873E-04	3.507E-04	5.360E-04
STORY5	B14	B35X35	Middle	2.389E-04	7.471E-04	4.101E-04
STORY5	B14	B35X35	End-J	9.345E-04	3.507E-04	5.059E-04
STORY5	B15	B35X35	End-I	5.160E-04	3.652E-04	4.101E-04
STORY5	B15	B35X35	Middle	2.185E-04	2.892E-04	4.101E-04
STORY5	B15	B35X35	End-J	4.669E-04	3.507E-04	4.101E-04
STORY5	B16	B35X35	End-I	4.046E-04	3.507E-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
STORY5	B16	B35X35	Middle	1.200E-04	2.018E-04	4.101E-04
STORY5	B16	B35X35	End-J	4.326E-04	3.507E-04	4.101E-04
STORY5	B17	B35X35	End-I	4.463E-04	3.507E-04	4.101E-04
STORY5	B17	B35X35	Middle	2.006E-04	2.752E-04	4.101E-04
STORY5	B17	B35X35	End-J	4.667E-04	3.507E-04	4.101E-04
STORY5	B25	B30X30	End-I	2.409E-04	2.478E-04	1.061E-04
STORY5	B25	B30X30	Middle	1.005E-04	1.536E-04	1.061E-04
STORY5	B25	B30X30	End-J	2.478E-04	1.911E-04	3.515E-04
STORY5	B27	B30X30	End-I	3.626E-04	1.547E-04	3.515E-04
STORY5	B27	B30X30	Middle	2.076E-04	9.213E-05	3.515E-04
STORY5	B27	B30X30	End-J	0.000	0.000	0.000
STORY5	B28	B30X30	End-I	0.000	0.000	0.000
STORY5	B28	B30X30	Middle	2.478E-04	1.396E-04	3.515E-04
STORY5	B28	B30X30	End-J	5.655E-04	2.353E-04	4.514E-04
STORY4	B1	B25X40	End-I	0.001	8.797E-04	8.008E-04
STORY4	B1	B25X40	Middle	2.620E-04	2.500E-04	6.661E-04
STORY4	B1	B25X40	End-J	9.578E-04	8.478E-04	7.658E-04
STORY4	B2	B40X40	End-I	0.001	4.711E-04	4.687E-04
STORY4	B2	B40X40	Middle	3.813E-04	4.971E-04	4.687E-04
STORY4	B2	B40X40	End-J	0.001	4.711E-04	4.687E-04
STORY4	B3	B40X40	End-I	9.607E-04	8.330E-04	4.687E-04
STORY4	B3	B40X40	Middle	2.392E-04	2.940E-04	4.687E-04
STORY4	B3	B40X40	End-J	8.424E-04	7.660E-04	4.687E-04
STORY4	B4	B40X40	End-I	7.948E-04	6.251E-04	4.687E-04
STORY4	B4	B40X40	Middle	3.607E-04	4.379E-04	4.687E-04
STORY4	B4	B40X40	End-J	7.969E-04	6.389E-04	4.687E-04
STORY4	B5	B40X40	End-I	8.119E-04	6.324E-04	4.687E-04
STORY4	B5	B40X40	Middle	4.095E-04	4.711E-04	4.687E-04
STORY4	B5	B40X40	End-J	8.580E-04	7.115E-04	4.687E-04
STORY4	B6	B40X40	End-I	0.001	4.711E-04	4.754E-04
STORY4	B6	B40X40	Middle	3.096E-04	5.866E-04	4.687E-04
STORY4	B6	B40X40	End-J	0.001	4.711E-04	4.687E-04
STORY4	B7	B40X40	End-I	0.001	0.001	7.793E-04
STORY4	B7	B40X40	Middle	3.191E-04	2.978E-04	6.445E-04
STORY4	B7	B40X40	End-J	0.001	9.786E-04	7.885E-04
STORY4	B8	B40X40	End-I	8.687E-04	6.186E-04	4.687E-04
STORY4	B8	B40X40	Middle	4.310E-04	4.711E-04	4.687E-04
STORY4	B8	B40X40	End-J	9.708E-04	7.147E-04	4.687E-04
STORY4	B9	B40X40	End-I	9.261E-04	8.789E-04	8.266E-04
STORY4	B9	B40X40	Middle	4.711E-04	4.711E-04	8.466E-04
STORY4	B9	B40X40	End-J	9.370E-04	8.137E-04	9.176E-04
STORY4	B10	B25X40	End-I	5.888E-04	3.482E-04	2.929E-04
STORY4	B10	B25X40	Middle	1.610E-04	2.896E-04	2.929E-04
STORY4	B10	B25X40	End-J	5.103E-04	3.023E-04	2.929E-04
STORY4	B11	B40X40	End-I	0.001	9.091E-04	0.001
STORY4	B11	B40X40	Middle	4.711E-04	5.549E-04	8.462E-04
STORY4	B11	B40X40	End-J	0.001	9.676E-04	0.001
STORY4	B12	B40X40	End-I	0.001	4.711E-04	5.627E-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	B12	B40X40	Middle	3.355E-04	7.361E-04	4.687E-04
STORY4	B12	B40X40	End-J	0.001	4.711E-04	5.846E-04
STORY4	B13	B40X40	End-I	0.001	9.886E-04	7.504E-04
STORY4	B13	B40X40	Middle	4.711E-04	4.919E-04	7.188E-04
STORY4	B13	B40X40	End-J	0.001	9.610E-04	9.051E-04
STORY4	B14	B40X40	End-I	0.001	4.711E-04	6.392E-04
STORY4	B14	B40X40	Middle	3.321E-04	7.813E-04	4.687E-04
STORY4	B14	B40X40	End-J	0.001	4.711E-04	6.443E-04
STORY4	B15	B40X40	End-I	8.900E-04	7.269E-04	4.687E-04
STORY4	B15	B40X40	Middle	3.346E-04	4.138E-04	4.687E-04
STORY4	B15	B40X40	End-J	7.689E-04	6.634E-04	4.687E-04
STORY4	B16	B40X40	End-I	6.596E-04	6.408E-04	4.687E-04
STORY4	B16	B40X40	Middle	2.803E-04	2.970E-04	4.687E-04
STORY4	B16	B40X40	End-J	7.023E-04	6.203E-04	4.687E-04
STORY4	B17	B40X40	End-I	7.772E-04	6.213E-04	4.687E-04
STORY4	B17	B40X40	Middle	4.141E-04	4.711E-04	4.687E-04
STORY4	B17	B40X40	End-J	8.666E-04	6.879E-04	4.687E-04
STORY4	B25	B30X30	End-I	3.336E-04	2.478E-04	9.802E-05
STORY4	B25	B30X30	Middle	1.222E-04	2.105E-04	3.515E-04
STORY4	B25	B30X30	End-J	3.786E-04	2.351E-04	3.515E-04
STORY4	B27	B30X30	End-I	3.626E-04	1.547E-04	3.515E-04
STORY4	B27	B30X30	Middle	2.076E-04	9.213E-05	3.515E-04
STORY4	B27	B30X30	End-J	0.000	0.000	0.000
STORY4	B28	B30X30	End-I	0.000	0.000	0.000
STORY4	B28	B30X30	Middle	2.478E-04	1.396E-04	3.515E-04
STORY4	B28	B30X30	End-J	5.655E-04	2.353E-04	4.514E-04
STORY3	B1	B25X50	End-I	0.001	0.001	0.001
STORY3	B1	B25X50	Middle	3.538E-04	3.422E-04	0.001
STORY3	B1	B25X50	End-J	0.001	0.001	0.001
STORY3	B2	B45X50	End-I	0.001	6.896E-04	5.273E-04
STORY3	B2	B45X50	Middle	6.179E-04	6.881E-04	5.273E-04
STORY3	B2	B45X50	End-J	0.002	7.655E-04	5.273E-04
STORY3	B3	B45X45	End-I	0.001	0.001	7.255E-04
STORY3	B3	B45X45	Middle	3.427E-04	3.962E-04	5.691E-04
STORY3	B3	B45X45	End-J	0.001	0.001	6.695E-04
STORY3	B4	B45X45	End-I	0.001	9.138E-04	5.273E-04
STORY3	B4	B45X45	Middle	5.190E-04	5.971E-04	5.273E-04
STORY3	B4	B45X45	End-J	0.001	9.342E-04	5.273E-04
STORY3	B5	B45X45	End-I	0.001	9.359E-04	5.273E-04
STORY3	B5	B45X45	Middle	5.955E-04	6.090E-04	5.273E-04
STORY3	B5	B45X45	End-J	0.001	0.001	5.273E-04
STORY3	B6	B45X50	End-I	0.001	6.129E-04	5.273E-04
STORY3	B6	B45X50	Middle	4.814E-04	6.881E-04	5.273E-04
STORY3	B6	B45X50	End-J	0.001	6.881E-04	5.273E-04
STORY3	B7	B45X50	End-I	0.002	0.001	0.001
STORY3	B7	B45X50	Middle	4.539E-04	4.257E-04	0.001
STORY3	B7	B45X50	End-J	0.001	0.001	0.001
STORY3	B8	B45X45	End-I	0.001	9.556E-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
STORY3	B8	B45X45	Middle	6.090E-04	6.090E-04	5.273E-04
STORY3	B8	B45X45	End-J	0.001	0.001	5.273E-04
STORY3	B9	B45X40	End-I	0.001	0.001	0.001
STORY3	B9	B45X40	Middle	5.886E-04	5.925E-04	0.001
STORY3	B9	B45X40	End-J	0.001	0.001	0.001
STORY3	B10	B25X45	End-I	6.860E-04	4.719E-04	2.929E-04
STORY3	B10	B25X45	Middle	2.150E-04	3.280E-04	2.929E-04
STORY3	B10	B25X45	End-J	6.169E-04	4.318E-04	2.929E-04
STORY3	B11	B45X50	End-I	0.002	0.001	0.001
STORY3	B11	B45X50	Middle	6.881E-04	7.116E-04	0.001
STORY3	B11	B45X50	End-J	0.002	0.001	0.001
STORY3	B12	B45X50	End-I	0.001	6.881E-04	5.273E-04
STORY3	B12	B45X50	Middle	5.456E-04	6.881E-04	5.273E-04
STORY3	B12	B45X50	End-J	0.001	6.881E-04	5.273E-04
STORY3	B13	B45X50	End-I	0.002	0.001	0.001
STORY3	B13	B45X50	Middle	6.881E-04	6.881E-04	0.001
STORY3	B13	B45X50	End-J	0.001	0.001	0.001
STORY3	B14	B45X50	End-I	0.001	6.592E-04	5.273E-04
STORY3	B14	B45X50	Middle	5.075E-04	6.881E-04	5.273E-04
STORY3	B14	B45X50	End-J	0.001	6.881E-04	5.273E-04
STORY3	B15	B45X45	End-I	0.001	0.001	5.273E-04
STORY3	B15	B45X45	Middle	4.771E-04	5.490E-04	5.273E-04
STORY3	B15	B45X45	End-J	0.001	9.707E-04	5.273E-04
STORY3	B16	B45X45	End-I	9.578E-04	9.383E-04	5.273E-04
STORY3	B16	B45X45	Middle	4.020E-04	4.258E-04	5.273E-04
STORY3	B16	B45X45	End-J	9.995E-04	9.168E-04	5.273E-04
STORY3	B17	B45X45	End-I	0.001	9.029E-04	5.273E-04
STORY3	B17	B45X45	Middle	5.805E-04	6.090E-04	5.273E-04
STORY3	B17	B45X45	End-J	0.001	9.842E-04	5.273E-04
STORY3	B25	B30X30	End-I	3.898E-04	2.478E-04	8.689E-05
STORY3	B25	B30X30	Middle	1.504E-04	2.222E-04	8.689E-05
STORY3	B25	B30X30	End-J	4.108E-04	2.478E-04	8.689E-05
STORY3	B27	B30X30	End-I	3.626E-04	1.547E-04	3.515E-04
STORY3	B27	B30X30	Middle	2.076E-04	9.213E-05	3.515E-04
STORY3	B27	B30X30	End-J	0.000	0.000	0.000
STORY3	B28	B30X30	End-I	0.000	0.000	0.000
STORY3	B28	B30X30	Middle	2.478E-04	1.396E-04	3.515E-04
STORY3	B28	B30X30	End-J	5.655E-04	2.353E-04	4.514E-04
STORY2	B1	B25X45	End-I	0.001	0.001	0.001
STORY2	B1	B25X45	Middle	3.370E-04	3.384E-04	0.001
STORY2	B1	B25X45	End-J	0.001	0.001	0.001
STORY2	B2	B45X45	End-I	0.002	6.792E-04	5.273E-04
STORY2	B2	B45X45	Middle	6.072E-04	6.352E-04	5.273E-04
STORY2	B2	B45X45	End-J	0.002	7.300E-04	5.273E-04
STORY2	B3	B45X45	End-I	0.002	0.001	9.271E-04
STORY2	B3	B45X45	Middle	3.817E-04	4.408E-04	7.708E-04
STORY2	B3	B45X45	End-J	0.001	0.001	8.969E-04
STORY2	B4	B45X45	End-I	0.001	0.001	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
STORY2	B4	B45X45	Middle	5.833E-04	6.090E-04	5.273E-04
STORY2	B4	B45X45	End-J	0.001	0.001	5.273E-04
STORY2	B5	B45X45	End-I	0.001	0.001	5.273E-04
STORY2	B5	B45X45	Middle	6.090E-04	6.090E-04	5.273E-04
STORY2	B5	B45X45	End-J	0.001	0.001	5.273E-04
STORY2	B6	B45X45	End-I	0.001	6.090E-04	5.273E-04
STORY2	B6	B45X45	Middle	4.708E-04	6.090E-04	5.273E-04
STORY2	B6	B45X45	End-J	0.001	6.090E-04	5.273E-04
STORY2	B7	B45X45	End-I	0.002	0.002	0.002
STORY2	B7	B45X45	Middle	4.728E-04	4.658E-04	0.002
STORY2	B7	B45X45	End-J	0.002	0.002	0.002
STORY2	B8	B45X45	End-I	0.001	0.001	5.470E-04
STORY2	B8	B45X45	Middle	6.090E-04	6.090E-04	5.273E-04
STORY2	B8	B45X45	End-J	0.001	0.001	5.473E-04
STORY2	B9	B45X40	End-I	0.001	0.001	0.002
STORY2	B9	B45X40	Middle	6.755E-04	6.807E-04	0.002
STORY2	B9	B45X40	End-J	0.001	0.001	0.002
STORY2	B10	B25X45	End-I	7.218E-04	5.111E-04	2.929E-04
STORY2	B10	B25X45	Middle	2.306E-04	3.384E-04	2.929E-04
STORY2	B10	B25X45	End-J	6.591E-04	4.640E-04	2.929E-04
STORY2	B11	B45X45	End-I	0.002	0.002	0.002
STORY2	B11	B45X45	Middle	7.158E-04	8.422E-04	0.001
STORY2	B11	B45X45	End-J	0.002	0.002	0.002
STORY2	B12	B45X45	End-I	0.002	6.227E-04	5.273E-04
STORY2	B12	B45X45	Middle	5.361E-04	6.315E-04	5.273E-04
STORY2	B12	B45X45	End-J	0.002	6.090E-04	5.273E-04
STORY2	B13	B45X45	End-I	0.002	0.002	0.001
STORY2	B13	B45X45	Middle	7.301E-04	7.905E-04	0.001
STORY2	B13	B45X45	End-J	0.002	0.002	0.002
STORY2	B14	B45X45	End-I	0.002	6.090E-04	5.273E-04
STORY2	B14	B45X45	Middle	4.966E-04	6.682E-04	5.273E-04
STORY2	B14	B45X45	End-J	0.002	6.090E-04	5.273E-04
STORY2	B15	B45X45	End-I	0.001	0.001	5.273E-04
STORY2	B15	B45X45	Middle	5.246E-04	6.025E-04	5.273E-04
STORY2	B15	B45X45	End-J	0.001	0.001	5.273E-04
STORY2	B16	B45X45	End-I	0.001	0.001	5.273E-04
STORY2	B16	B45X45	Middle	4.579E-04	4.802E-04	5.273E-04
STORY2	B16	B45X45	End-J	0.001	0.001	5.273E-04
STORY2	B17	B45X45	End-I	0.001	0.001	5.273E-04
STORY2	B17	B45X45	Middle	6.090E-04	6.090E-04	5.273E-04
STORY2	B17	B45X45	End-J	0.001	0.001	5.273E-04
STORY2	B25	B30X30	End-I	4.248E-04	2.691E-04	2.122E-05
STORY2	B25	B30X30	Middle	1.717E-04	2.478E-04	2.122E-05
STORY2	B25	B30X30	End-J	4.532E-04	2.546E-04	2.122E-05
STORY2	B27	B30X30	End-I	3.626E-04	1.547E-04	3.515E-04
STORY2	B27	B30X30	Middle	2.076E-04	9.213E-05	3.515E-04
STORY2	B27	B30X30	End-J	0.000	0.000	0.000
STORY2	B28	B30X30	End-I	0.000	0.000	0.000

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	B28	B30X30	Middle	2.478E-04	1.396E-04	3.515E-04
STORY2	B28	B30X30	End-J	5.655E-04	2.353E-04	4.514E-04
STORY1	B1	B25X50	End-I	0.001	0.001	9.919E-04
STORY1	B1	B25X50	Middle	2.992E-04	3.017E-04	9.020E-04
STORY1	B1	B25X50	End-J	0.001	9.718E-04	0.001
STORY1	B2	B50X50	End-I	0.001	7.646E-04	5.859E-04
STORY1	B2	B50X50	Middle	5.461E-04	7.646E-04	5.859E-04
STORY1	B2	B50X50	End-J	0.001	7.646E-04	5.859E-04
STORY1	B3	B50X50	End-I	0.001	0.001	6.523E-04
STORY1	B3	B50X50	Middle	3.622E-04	4.298E-04	5.859E-04
STORY1	B3	B50X50	End-J	0.001	0.001	6.776E-04
STORY1	B4	B50X50	End-I	9.932E-04	8.715E-04	5.859E-04
STORY1	B4	B50X50	Middle	5.055E-04	5.667E-04	5.859E-04
STORY1	B4	B50X50	End-J	0.001	8.918E-04	5.859E-04
STORY1	B5	B50X50	End-I	0.001	9.675E-04	5.859E-04
STORY1	B5	B50X50	Middle	6.593E-04	6.954E-04	5.859E-04
STORY1	B5	B50X50	End-J	0.001	0.001	5.859E-04
STORY1	B6	B50X50	End-I	0.001	5.420E-04	5.859E-04
STORY1	B6	B50X50	Middle	4.244E-04	7.168E-04	5.859E-04
STORY1	B6	B50X50	End-J	0.001	6.836E-04	5.859E-04
STORY1	B7	B50X50	End-I	0.002	0.002	0.001
STORY1	B7	B50X50	Middle	4.465E-04	4.353E-04	0.001
STORY1	B7	B50X50	End-J	0.002	0.001	0.001
STORY1	B8	B50X50	End-I	0.001	9.849E-04	5.859E-04
STORY1	B8	B50X50	Middle	6.391E-04	7.164E-04	5.859E-04
STORY1	B8	B50X50	End-J	0.001	0.001	5.859E-04
STORY1	B9	B45X40	End-I	0.001	0.001	0.001
STORY1	B9	B45X40	Middle	5.299E-04	5.299E-04	0.001
STORY1	B9	B45X40	End-J	0.001	9.663E-04	0.001
STORY1	B10	B25X50	End-I	6.199E-04	4.532E-04	2.929E-04
STORY1	B10	B25X50	Middle	2.030E-04	3.129E-04	2.929E-04
STORY1	B10	B25X50	End-J	5.902E-04	4.139E-04	2.929E-04
STORY1	B11	B50X50	End-I	0.002	0.001	0.001
STORY1	B11	B50X50	Middle	4.642E-04	6.102E-04	9.147E-04
STORY1	B11	B50X50	End-J	0.002	0.001	0.001
STORY1	B12	B50X50	End-I	0.001	7.646E-04	5.859E-04
STORY1	B12	B50X50	Middle	4.818E-04	7.646E-04	5.859E-04
STORY1	B12	B50X50	End-J	0.001	6.378E-04	5.859E-04
STORY1	B13	B50X50	End-I	0.002	0.001	0.001
STORY1	B13	B50X50	Middle	5.012E-04	5.199E-04	9.767E-04
STORY1	B13	B50X50	End-J	0.002	0.001	0.001
STORY1	B14	B50X50	End-I	0.001	5.703E-04	5.859E-04
STORY1	B14	B50X50	Middle	4.447E-04	7.646E-04	5.859E-04
STORY1	B14	B50X50	End-J	0.001	7.166E-04	5.859E-04
STORY1	B15	B50X50	End-I	0.001	0.001	5.859E-04
STORY1	B15	B50X50	Middle	4.904E-04	5.825E-04	5.859E-04
STORY1	B15	B50X50	End-J	0.001	9.643E-04	5.859E-04
STORY1	B16	B50X50	End-I	9.697E-04	9.536E-04	5.859E-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	B16	B50X50	Middle	4.084E-04	4.383E-04	5.859E-04
STORY1	B16	B50X50	End-J	0.001	9.235E-04	5.859E-04
STORY1	B17	B50X50	End-I	0.001	9.181E-04	5.859E-04
STORY1	B17	B50X50	Middle	6.385E-04	6.773E-04	5.859E-04
STORY1	B17	B50X50	End-J	0.001	0.001	5.859E-04
STORY1	B20	B50X50	End-I	3.183E-04	1.052E-04	0.000
STORY1	B20	B50X50	Middle	1.780E-04	6.655E-05	0.000
STORY1	B20	B50X50	End-J	0.000	0.000	0.000
STORY1	B21	B50X50	End-I	3.636E-04	1.510E-04	5.859E-04
STORY1	B21	B50X50	Middle	2.137E-04	1.193E-04	0.000
STORY1	B21	B50X50	End-J	0.000	0.000	0.000
STORY1	B22	B50X50	End-I	1.835E-04	6.088E-05	0.000
STORY1	B22	B50X50	Middle	9.618E-05	3.649E-05	0.000
STORY1	B22	B50X50	End-J	0.000	0.000	0.000
STORY1	B25	B30X30	End-I	3.273E-04	2.282E-04	1.133E-04
STORY1	B25	B30X30	Middle	1.181E-04	1.899E-04	1.133E-04
STORY1	B25	B30X30	End-J	3.475E-04	2.107E-04	1.133E-04
STORY1	B26	B30X30	End-I	3.626E-04	1.547E-04	3.515E-04
STORY1	B26	B30X30	Middle	2.076E-04	9.213E-05	3.515E-04
STORY1	B26	B30X30	End-J	0.000	0.000	0.000
STORY1	B29	B30X30	End-I	0.000	0.000	0.000
STORY1	B29	B30X30	Middle	2.478E-04	1.396E-04	3.515E-04
STORY1	B29	B30X30	End-J	5.655E-04	2.353E-04	4.514E-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
STORY6	B1	B30X30	0.000	0.000
STORY6	B9	B30X30	0.000	0.000
STORY6	B10	B30X30	0.000	0.000
STORY6	B11	B30X30	0.000	0.000
STORY6	B13	B30X30	0.000	0.000
STORY6	B15	B30X30	0.000	0.000
STORY6	B16	B30X30	0.000	0.000
STORY5	B1	B25X35	1.409E-04	3.275E-04
STORY5	B2	B35X35	0.000	0.000
STORY5	B3	B35X35	1.979E-04	4.278E-04
STORY5	B4	B35X35	0.000	0.000
STORY5	B5	B35X35	1.527E-04	4.278E-04
STORY5	B6	B35X35	0.000	0.000
STORY5	B7	B35X35	0.000	0.000
STORY5	B8	B35X35	1.418E-04	4.278E-04
STORY5	B9	B35X35	1.848E-04	4.278E-04
STORY5	B10	B25X35	1.359E-04	3.275E-04
STORY5	B11	B35X35	5.016E-04	4.278E-04
STORY5	B12	B35X35	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
STORY5	B13	B35X35	5.093E-04	4.278E-04
STORY5	B14	B35X35	0.000	0.000
STORY5	B15	B35X35	0.000	0.000
STORY5	B16	B35X35	1.743E-04	4.278E-04
STORY5	B17	B35X35	1.286E-04	4.278E-04
STORY5	B25	B30X30	3.621E-04	3.210E-04
STORY5	B27	B30X30	0.000	0.000
STORY5	B28	B30X30	0.000	0.000
STORY4	B1	B25X40	1.631E-04	3.766E-04
STORY4	B2	B40X40	0.000	0.000
STORY4	B3	B40X40	1.357E-04	5.498E-04
STORY4	B4	B40X40	1.364E-04	5.498E-04
STORY4	B5	B40X40	1.295E-04	5.498E-04
STORY4	B6	B40X40	0.000	0.000
STORY4	B7	B40X40	1.352E-04	5.498E-04
STORY4	B8	B40X40	1.270E-04	5.498E-04
STORY4	B9	B40X40	2.168E-04	5.498E-04
STORY4	B10	B25X40	1.609E-04	3.766E-04
STORY4	B11	B40X40	4.276E-04	5.498E-04
STORY4	B12	B40X40	0.000	0.000
STORY4	B13	B40X40	6.289E-04	5.870E-04
STORY4	B14	B40X40	0.000	0.000
STORY4	B15	B40X40	2.096E-04	5.498E-04
STORY4	B16	B40X40	2.025E-04	5.498E-04
STORY4	B17	B40X40	0.000	0.000
STORY4	B25	B30X30	3.841E-04	3.210E-04
STORY4	B27	B30X30	0.000	0.000
STORY4	B28	B30X30	0.000	0.000
STORY3	B1	B25X50	1.670E-04	4.747E-04
STORY3	B2	B45X50	0.000	0.000
STORY3	B3	B45X45	1.359E-04	6.870E-04
STORY3	B4	B45X45	1.337E-04	6.870E-04
STORY3	B5	B45X45	0.000	0.000
STORY3	B6	B45X50	0.000	0.000
STORY3	B7	B45X50	1.376E-04	7.753E-04
STORY3	B8	B45X45	0.000	0.000
STORY3	B9	B45X40	2.328E-04	5.987E-04
STORY3	B10	B25X45	1.588E-04	4.256E-04
STORY3	B11	B45X50	3.882E-04	7.753E-04
STORY3	B12	B45X50	0.000	0.000
STORY3	B13	B45X50	4.193E-04	7.753E-04
STORY3	B14	B45X50	0.000	0.000
STORY3	B15	B45X45	2.134E-04	6.870E-04
STORY3	B16	B45X45	2.132E-04	6.870E-04
STORY3	B17	B45X45	0.000	0.000
STORY3	B25	B30X30	3.526E-04	3.210E-04
STORY3	B27	B30X30	0.000	0.000
STORY3	B28	B30X30	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
STORY2	B1	B25X45	1.566E-04	4.256E-04
STORY2	B2	B45X45	1.383E-04	6.870E-04
STORY2	B3	B45X45	1.579E-04	6.870E-04
STORY2	B4	B45X45	1.566E-04	6.870E-04
STORY2	B5	B45X45	1.523E-04	6.870E-04
STORY2	B6	B45X45	1.325E-04	6.870E-04
STORY2	B7	B45X45	1.550E-04	6.870E-04
STORY2	B8	B45X45	1.491E-04	6.870E-04
STORY2	B9	B45X40	2.304E-04	5.987E-04
STORY2	B10	B25X45	1.528E-04	4.256E-04
STORY2	B11	B45X45	3.777E-04	6.870E-04
STORY2	B12	B45X45	0.000	0.000
STORY2	B13	B45X45	5.489E-04	6.870E-04
STORY2	B14	B45X45	0.000	0.000
STORY2	B15	B45X45	2.355E-04	6.870E-04
STORY2	B16	B45X45	2.276E-04	6.870E-04
STORY2	B17	B45X45	1.404E-04	6.870E-04
STORY2	B25	B30X30	3.876E-04	3.210E-04
STORY2	B27	B30X30	0.000	0.000
STORY2	B28	B30X30	0.000	0.000
STORY1	B1	B25X50	1.546E-04	4.747E-04
STORY1	B2	B50X50	0.000	0.000
STORY1	B3	B50X50	0.000	0.000
STORY1	B4	B50X50	0.000	0.000
STORY1	B5	B50X50	0.000	0.000
STORY1	B6	B50X50	0.000	0.000
STORY1	B7	B50X50	1.646E-04	8.395E-04
STORY1	B8	B50X50	0.000	0.000
STORY1	B9	B45X40	2.049E-04	5.987E-04
STORY1	B10	B25X50	1.366E-04	4.747E-04
STORY1	B11	B50X50	3.980E-04	8.395E-04
STORY1	B12	B50X50	0.000	0.000
STORY1	B13	B50X50	2.650E-04	8.395E-04
STORY1	B14	B50X50	0.000	0.000
STORY1	B15	B50X50	2.291E-04	8.395E-04
STORY1	B16	B50X50	1.977E-04	8.395E-04
STORY1	B17	B50X50	0.000	0.000
STORY1	B20	B50X50	0.000	0.000
STORY1	B21	B50X50	0.000	0.000
STORY1	B22	B50X50	0.000	0.000
STORY1	B25	B30X30	2.616E-04	3.210E-04
STORY1	B26	B30X30	0.000	0.000
STORY1	B29	B30X30	0.000	0.000