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DIGITALLY VERIFIED RECORD

N. KANAGAVEL M.E., M.B.A., MIE., FIV
Chartered Engineer, Structural Consultant and Approved Valuer

CA- 12, Tarangini Complex
Ambattur Industrial Estate, Chennai – 600 058

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16.07.2025

STABILITY CERTIFICATE

1.The detailed engineering and structure design of the proposed building comprising of Stilt +5 floors at Block Nos.S 21, S 22. S 23 & S 24, Door No.110 & 112, Lakshmana swamy salai, Ponnambalam salai & 11th Sector 71st street, K.K.Nagar, Chennai S.No Old Survey No.248 Part, 249/7 Part, 250/2A Part, 250/2B Part AND T.S.No.324/6, Block No.49 of Virugambakkam Village has been done by me/us based on the report of geotechnical investigation (soil test) done by Nagadi Consultant Private Limited Report No.G(C)9932 Dated 02.05.2024 and considering the functional requirement of the building.

2. It is certified that among other factors, the proposed building has been designed to resist earthquake. I/We have checked various parameters and found that the proposed building would be safe.

3. I/We further certify that:

(i) The minimum grade of concrete is M25

(ii) The design and analysis has been done using the code of practice for plain and reinforced concrete as per IS 456, design loads as per IS Codes NoIS:875-1987 and Design of earthquake resistant structure as per IS Code No1893(Part1):2016

4. The building will be safe and sound when used for the purpose for which it is designed.

N. KANAGAVEL M.E, M.B.A., MIE., FIV
Registered Structural Engineer Grade-I
CMDA Reg.No. SE/GR-I/19/03/049
GCC Reg.No.RSE100022019
CA-12, Tarangani Complex,
Ambattur Industrial Estate
Mogappair West, Chennai-600 058

Stamp and Signature

Encl.:Structural Design Calculation

N. KANAGAVEL M.E., M.B.A., MIE., FIV.,
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(Mugappair West,) Chennai - 600 058.
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10.05.2024

STABILITY CERTIFICATE

For the proposed construction of residential apartments of stilt + five floors @ S-21 to S-24, Door No: 110 & 112, Ponnambalam Salai, K.K Nagar, Chennai – 600 078, the structural design is done. I am enclosing the analysis and design calculations for critical members for reference.

The modeling and analysis is done using ETAB software and the designing part by manual calculations. The member loads are taken as per IS 875 and IS 1893 – 2016 and the designing is done based on IS 456 and SP-16.

Based on the analysis and design I certify that the structural design is **SAFE and SOUND** if the recommendations are followed during construction.

N. KANAGAVEL M.E, M.B.A., MIE., FIV
Registered Structural Engineer Grade-I
CMDA Reg.No. SE/GR-I/19/03/049
GCC Reg.No.RSE100022019
CA-12, Tarangani Complex,
Ambattur Industrial Estate
Mogappair West, Chennai-600 058

Design Specifications:

The proposed structure are to be designed for stilt + five floors and to be of framed structure to resist the seismic effect of zone III as per IS 1893 – 2016. The usage of the building is for residential purpose.

Soil:

As per Nagadi Consultants (P) Ltd., geo technical report G(C) 9932, the foundation recommendations are:

(i) type of foundation	=	Isolated / combined
(ii) Depth of foundation	=	2.50 m
(ii) SBC @ 2.00 m depth	=	120kn/m^2

Floor Heights Considered:

Foundation depth	=	2.50m
Car parking level	=	0.60m
Stilt and typical floors height	=	3.05m

Analysis and Design:

Analysis part is done using ETAB software and the designing part by manual calculations in accordance with IS 456 – 2000, IS 1893 - 2016 and SP – 16.

Materials:

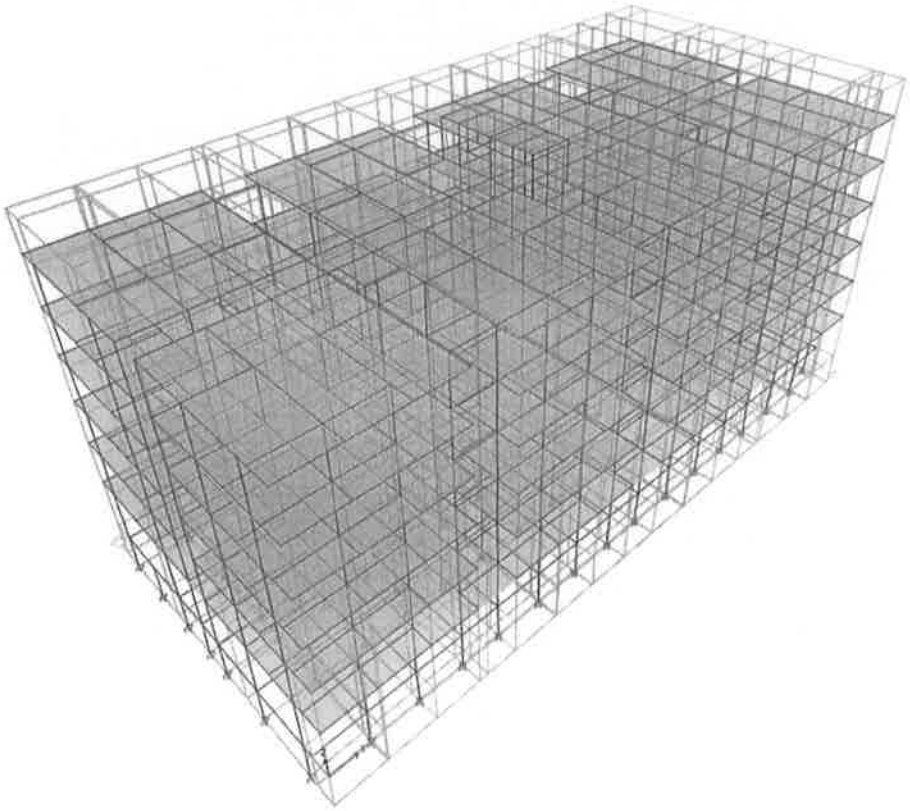
The following recommendations of materials are to be used

(i) Grade of concrete : M25 grade for all RCC members

(ii) Grade of steel : Fe 500 for all diameter

(iii) Potable quality of water to be used for all construction activities including curing.

ETABS®



User Report

S21 to S24

Model File: stilt+5 floors, Revision 0

09-May-24

1 Structure Data

This chapter provides model geometry information, including items such as story levels, point coordinates, and element connectivity.

1.1 Story Data

Table 1.1 - Story Definitions

Tower	Name	Height m	Master Story	Similar To	Splice Story	Color
T1	head room	2.5	No	None	No	Cyan
T1	roof	3.05	No	None	No	Cyan
T1	story5	3.05	No	story1	No	Cyan
T1	story4	3.05	No	story1	No	Cyan
T1	story3	3.05	No	story1	No	Cyan
T1	story2	3.05	No	story1	No	Red
T1	story1	3.6	Yes	None	No	Magenta
T1	plinth beam	2.5	No	None	No	Yellow

2 Properties

This chapter provides property information for materials, frame sections, shell sections, and links.

2.1 Materials

Table 2.1 - Material Properties - General

Material	Type	SymType	Grade	Color	Notes
HYSD500	Rebar	Uniaxial	HYSD Grade 500	Green	
M25	Concrete	Isotropic	M25	Blue	

2.2 Frame Sections

Table 2.2 - Frame Section Property Definitions - Summary (Part 1 of 3)

Name	Material	Shape	Color	Area cm2	J cm4	I33 cm4	I22 cm4	As2 cm2	As3 cm2	S33Pos cm3	S33Neg cm3	S22Pos cm3
B1 230x380	M25	Concrete Rectangular	Blue	874	96006	105171.3	38528.8	728.3	728.3	5535.3	5535.3	3350.3
B2 230x525	M25	Concrete Rectangular	Green	1207.5	154336.3	277347.7	53230.6	1006.2	1006.2	10565.6	10565.6	4628.8
B3 230x600	M25	Concrete Rectangular	Cyan	1380	184679.1	414000	60835	1150	1150	13800	13800	5290
B4 450x600	M25	Concrete Rectangular	Red	2700	984074.4	810000	455625	2250	2250	27000	27000	20250
C1 230x230	M25	Concrete Rectangular	4227072	529	39410.9	23320.1	23320.1	440.8	440.8	2027.8	2027.8	2027.8
C2 230x380	M25	Concrete Rectangular	Gray8Dark	874	96006	105171.3	38528.8	728.3	728.3	5535.3	5535.3	3350.3
C3 300x380	M25	Concrete Rectangular	Blue	1140	177406.5	137180	85500	950	950	7220	7220	5700
C4 230x450	M25	Concrete Rectangular	Green	1035	124072.6	174656.3	45626.3	862.5	862.5	7762.5	7762.5	3967.5
C5 300x450	M25	Concrete Rectangular	Cyan	1350	237700	227812.5	101250	1125	1125	10125	10125	6750
C6 230x525	M25	Concrete Rectangular	Red	1207.5	154336.3	277347.7	53230.6	1006.2	1006.2	10565.6	10565.6	4628.8
C7 300x525	M25	Concrete Rectangular	Magenta	1575	303911.4	361757.8	118125	1312.5	1312.5	13781.3	13781.3	7875
C8 300x600	M25	Concrete Rectangular	Yellow	1800	370785.9	540000	135000	1500	1500	18000	18000	9000

Name	Material	Shape	Color	Area cm2	J cm4	I33 cm4	I22 cm4	As2 cm2	As3 cm2	S33Pos cm3	S33Neg cm3	S22Pos cm3
C9 380x380	M25	Concrete Rectangular	Yellow	1444	293656.7	173761.3	173761.3	1203.3	1203.3	9145.3	9145.3	9145.3
CB	M25	Concrete Rectangular	Blue	287.5	9884.3	3743.5	12674	239.6	239.6	599	599	1102.1

Table 2.2 - Frame Section Property Definitions - Summary (Part 2 of 3)

S22Neg cm3	Z33 cm3	Z22 cm3	R33 mm	R22 mm	CG Offset 3 mm	CG Offset 2 mm	PNA Offset 3 mm	PNA Offset 2 mm	Area Modifier	As2 Modifier	As3 Modifier	J Modifier
3350.3	8303	5025.5	109.7	66.4	0	0	0	0	1	1	1	1
4628.8	15848.4	6943.1	151.6	66.4	0	0	0	0	1	1	1	1
5290	20700	7935	173.2	66.4	0	0	0	0	1	1	1	1
20250	40500	30375	173.2	129.9	0	0	0	0	1	1	1	1
2027.8	3041.8	3041.8	66.4	66.4	0	0	0	0	1	1	1	1
3350.3	8303	5025.5	109.7	66.4	0	0	0	0	1	1	1	1
5700	10830	8550	109.7	86.6	0	0	0	0	1	1	1	1
3967.5	11643.8	5951.3	129.9	66.4	0	0	0	0	1	1	1	1
6750	15187.5	10125	129.9	86.6	0	0	0	0	1	1	1	1
4628.8	15848.4	6943.1	151.6	66.4	0	0	0	0	1	1	1	1
7875	20671.9	11812.5	151.6	86.6	0	0	0	0	1	1	1	1
9000	27000	13500	173.2	86.6	0	0	0	0	1	1	1	1
9145.3	13718	13718	109.7	109.7	0	0	0	0	1	1	1	1
1102.1	898.4	1653.1	36.1	66.4	0	0	0	0	1	1	1	1

Table 2.2 - Frame Section Property Definitions - Summary (Part 3 of 3)

I33 Modifier	I22 Modifier	Mass Modifier	Weight Modifier
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1

3 Loads

This chapter provides loading information as applied to the model.

3.1 Auto Seismic Loading

Table 3.1 - Load Pattern Definitions - Auto Seismic - IS 1893 2016 (Part 1 of 2)

Name	Is Auto Load	X Dir?	X Dir Plus Ecc?	X Dir Minus Ecc?	Y Dir?	Y Dir Plus Ecc?	Y Dir Minus Ecc?	Ecc Ratio	Top Story	Bottom Story	Period Type	User T sec
seismic x	No	Yes	No	No	No	No	No	0.05	roof	plinth beam	User Defined	0.25
seismic y	No	No	No	No	Yes	No	No	0.05	roof	plinth beam	User Defined	0.39

Table 3.1 - Load Pattern Definitions - Auto Seismic - IS 1893 2016 (Part 2 of 2)

Z	Site Type	I	R	Period Used sec	Coeff Used	Weight Used kN	Base Shear kN
0.16	II	1.2	5	0.25	0.048	81494.4387	3911.7331
0.16	II	1.2	5	0.39	0.048	81494.4387	3911.7331

IS 1893:2016 Auto Seismic Load Calculation

This calculation presents the automatically generated lateral seismic loads for load pattern seismic x according to IS 1893:2016, as calculated by ETABS.

Direction and Eccentricity

Direction = X

Structural Period

Period Calculation Method = User Specified

User Period $T = 0.25$ sec

Factors and Coefficients

Seismic Zone Factor, Z [IS Table 3] $Z = 0.16$

$R = 5$

$I = 1.2$

Seismic Response

Spectral Acceleration Coefficient, S_a/g [IS 6.4.2] $\frac{S_a}{g} = 2.5$ $\frac{S_a}{g} = 2.5$

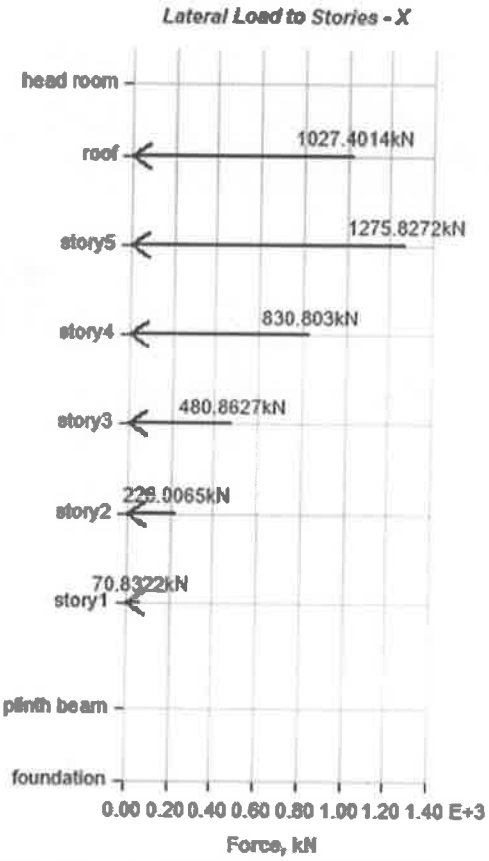
Equivalent Lateral Forces

Seismic Coefficient, A_h [IS 6.4.2] $$A_h = \frac{ZI\frac{S_a}{g}}{2R}$$

Calculated Base Shear

Direction	Period Used (sec)	W (kN)	V_b (kN)
X	0.25	81494.4387	3911.7331

Applied Story Forces



Story	Elevation	X-Dir	Y-Dir
	m	kN	kN
head room	21.35	0	0
roof	18.85	1027.4014	0
story5	15.8	1275.8272	0
story4	12.75	830.803	0
story3	9.7	480.8627	0
story2	6.65	226.0065	0
story1	3.6	70.8322	0
plinth beam	0	0	0
foundation	-2.5	0	0

IS 1893:2016 Auto Seismic Load Calculation

This calculation presents the automatically generated lateral seismic loads for load pattern seismic y according to IS 1893:2016, as calculated by ETABS.

Direction and Eccentricity

Direction = Y

Structural Period

Period Calculation Method = User Specified

User Period $T = 0.39$ sec

Factors and Coefficients

Seismic Zone Factor, Z [IS Table 3] $Z = 0.16$

$R = 5$

$I = 1.2$

Seismic Response

Spectral Acceleration Coefficient, S_a/g [IS 6.4.2] $\frac{S_a}{g} = 2.5$ $\frac{S_a}{g} = 2.5$

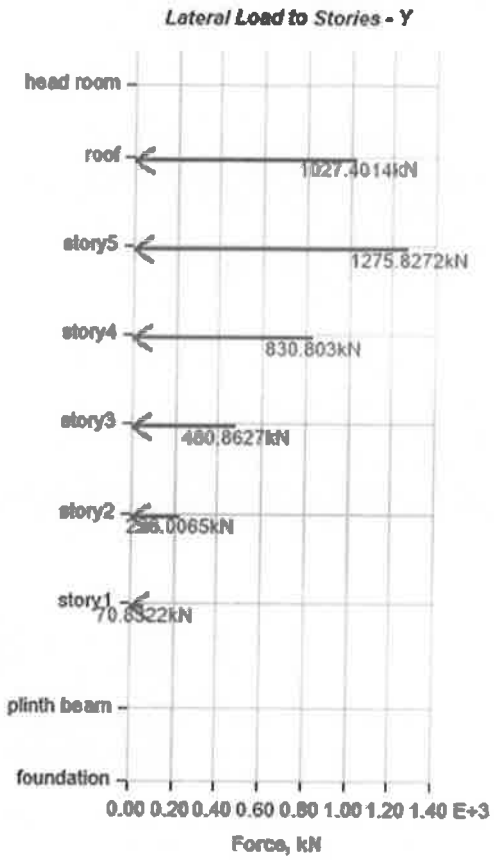
Equivalent Lateral Forces

Seismic Coefficient, A_h [IS 6.4.2] $A_h = \frac{ZI\frac{S_a}{g}}{2R}$

Calculated Base Shear

Direction	Period Used (sec)	W (kN)	V_b (kN)
Y	0.39	81494.4387	3911.7331

Applied Story Forces



Story	Elevation	X-Dir	Y-Dir
	m	kN	kN
head room	21.35	0	0
roof	18.85	0	1027.4014
story5	15.8	0	1275.8272
story4	12.75	0	830.803
story3	9.7	0	480.8627
story2	6.65	0	226.0065
story1	3.6	0	70.8322
plinth beam	0	0	0
foundation	-2.5	0	0

3.2 Functions

3.2.1 Response Spectrum Functions

Table 3.4 - Functions - Response Spectrum - IS1893 2016

Name	Period sec	Value	Seismic Zone	I	Soil Type	R	Damping Ratio
RS	0	0.016	III	1	II	5	0.05
RS	0.1	0.04					
RS	0.55	0.04					
RS	0.8	0.0272					
RS	1	0.02176					
RS	1.2	0.018133					
RS	1.4	0.015543					
RS	1.6	0.0136					
RS	1.8	0.012089					
RS	2	0.01088					
RS	2.5	0.008704					
RS	3	0.007253					
RS	3.5	0.006217					
RS	4	0.00544					
RS	4.5	0.00544					
RS	5	0.00544					
RS	5.5	0.00544					
RS	6	0.00544					
RS	6.5	0.00544					
RS	7	0.00544					
RS	7.5	0.00544					
RS	8	0.00544					
RS	8.5	0.00544					
RS	9	0.00544					
RS	9.5	0.00544					
RS	10	0.00544					

4 Analysis Results

4.2 Story Results

Table 4.2 - Story Drifts

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
head room	Dead	LinStatic		Y	7.2E-05	191	23.93	8.37	21.35
head room	Live	LinStatic		X	7E-06	189	23.93	15.6	21.35
head room	Live	LinStatic		Y	2.8E-05	190	21.26	8.37	21.35
head room	roof live	LinStatic		Y	1.7E-05	191	23.93	8.37	21.35
head room	floor finish & partion	LinStatic		X	7E-06	191	23.93	8.37	21.35
head room	floor finish & partion	LinStatic		Y	3.3E-05	191	23.93	8.37	21.35
head room	sunken filling	LinStatic		Y	3E-06	190	21.26	8.37	21.35
head room	wall load	LinStatic		X	2.2E-05	189	23.93	15.6	21.35
head room	wall load	LinStatic		Y	7.3E-05	190	21.26	8.37	21.35
head room	seismic x	LinStatic		X	0.000174	191	23.93	8.37	21.35
head room	seismic x	LinStatic		Y	2.5E-05	191	23.93	8.37	21.35
head room	seismic y	LinStatic		Y	0.000177	191	23.93	8.37	21.35
head room	Response spectrum in X	LinRespSpec	Max	X	0.00043	191	23.93	8.37	21.35
head room	Response	LinRespSpe	Max	Y	0.00021	191	23.93	8.37	21.35

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
	spectrum in Y	c							
head room	DL+LL	Combination		X	3.6E-05	189	23.93	15.6	21.35
head room	DL+LL	Combination		Y	0.000221	190	21.26	8.37	21.35
head room	1.5(DL+LL)	Combination		X	5.4E-05	189	23.93	15.6	21.35
head room	1.5(DL+LL)	Combination		Y	0.000332	190	21.26	8.37	21.35
head room	1.2(DL+LL+EQx)	Combination		X	0.000253	191	23.93	8.37	21.35
head room	1.2(DL+LL+EQx)	Combination		Y	0.000295	191	23.93	8.37	21.35
head room	1.2(DL+LL-EQx)	Combination		X	0.000166	191	23.93	8.37	21.35
head room	1.2(DL+LL-EQx)	Combination		Y	0.000257	190	21.26	8.37	21.35
head room	1.2(DL+LL+EQy)	Combination		Y	0.000477	191	23.93	8.37	21.35
head room	1.2(DL+LL-EQy)	Combination		X	4.3E-05	189	23.93	15.6	21.35
head room	1.2(DL+LL-EQy)	Combination		Y	5.6E-05	190	21.26	8.37	21.35
head room	1.5(DL+EQx)	Combination		X	0.000304	191	23.93	8.37	21.35
head room	1.5(DL+EQx)	Combination		Y	0.000303	191	23.93	8.37	21.35
head room	1.5(DL-EQx)	Combination		X	0.000219	191	23.93	8.37	21.35
head room	1.5(DL-EQx)	Combination		Y	0.000257	190	21.26	8.37	21.35
head room	1.5(DL+EQy)	Combination		Y	0.000531	191	23.93	8.37	21.35
head room	1.5(DL-EQy)	Combination		X	4.7E-05	189	23.93	15.6	21.35
head room	0.9DL+1.5EQx	Combination		X	0.000287	191	23.93	8.37	21.35
head room	0.9DL+1.5EQx	Combination		Y	0.000196	191	23.93	8.37	21.35
head room	0.9DL-1.5EQx	Combination		X	0.000236	191	23.93	8.37	21.35
head room	0.9DL-1.5EQx	Combination		Y	0.00015	190	21.26	8.37	21.35
head room	0.9DL+1.5EQy	Combination		Y	0.000425	191	23.93	8.37	21.35
head room	0.9DL-1.5EQy	Combination		X	2.8E-05	189	23.93	15.6	21.35
head room	0.9DL-1.5EQy	Combination		Y	0.000106	191	23.93	8.37	21.35
head room	DL+0.8LL+0.8EQx	Combination		X	0.000174	191	23.93	8.37	21.35
head room	DL+0.8LL+0.8EQx	Combination		Y	0.000232	191	23.93	8.37	21.35
head room	DL+0.8LL-0.8EQx	Combination		X	0.000105	191	23.93	8.37	21.35
head room	DL+0.8LL-0.8EQx	Combination		Y	0.000207	188	21.26	15.6	21.35
head room	DL+0.8LL+0.8EQy	Combination		X	4E-05	191	23.93	8.37	21.35
head room	DL+0.8LL+0.8EQy	Combination		Y	0.000354	191	23.93	8.37	21.35
head room	DL+0.8LL-0.8EQy	Combination		X	3.5E-05	189	23.93	15.6	21.35
head room	DL+0.8LL-0.8EQy	Combination		Y	7.3E-05	190	21.26	8.37	21.35
head room	DL+EQx	Combination		X	0.000203	191	23.93	8.37	21.35
head room	DL+EQx	Combination		Y	0.000202	191	23.93	8.37	21.35
head room	DL-EQx	Combination		X	0.000146	191	23.93	8.37	21.35
head room	DL-EQx	Combination		Y	0.000171	190	21.26	8.37	21.35
head room	DL+EQy	Combination		Y	0.000354	191	23.93	8.37	21.35
head room	DL-EQy	Combination		X	3.1E-05	189	23.93	15.6	21.35
head room	seismic weight	Combination		X	3.3E-05	189	23.93	15.6	21.35
head room	seismic weight	Combination		Y	0.000185	190	21.26	8.37	21.35
head room	0.9DL-1.5RSx	Combination	Max	X	0.00067	191	23.93	8.37	21.35
head room	0.9DL-1.5RSx	Combination	Max	Y	0.000187	191	23.93	8.37	21.35
head room	0.9DL-1.5RSx	Combination	Min	X	0.000619	191	23.93	8.37	21.35
head room	0.9DL-1.5RSx	Combination	Min	Y	0.000147	190	21.26	8.37	21.35
head room	0.9DL-1.5RSy	Combination	Max	Y	0.000474	191	23.93	8.37	21.35
head room	0.9DL-1.5RSy	Combination	Min	X	2.2E-05	25	23.93	14.1	21.35
head room	0.9DL-1.5RSy	Combination	Min	Y	0.000155	191	23.93	8.37	21.35
head room	0.9DL+1.5RSx	Combination	Max	X	0.00067	191	23.93	8.37	21.35
head room	0.9DL+1.5RSx	Combination	Max	Y	0.000187	191	23.93	8.37	21.35
head room	0.9DL+1.5RSx	Combination	Min	X	0.000619	191	23.93	8.37	21.35
head room	0.9DL+1.5RSx	Combination	Min	Y	0.000147	190	21.26	8.37	21.35
head room	0.9DL+1.5RSy	Combination	Max	Y	0.000474	191	23.93	8.37	21.35
head room	0.9DL+1.5RSy	Combination	Min	X	2.2E-05	25	23.93	14.1	21.35
head room	0.9DL+1.5RSy	Combination	Min	Y	0.000155	191	23.93	8.37	21.35

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
head room	1.2(DL+LL+RSx)	Combination	Max	X	0.000559	191	23.93	8.37	21.35
head room	1.2(DL+LL+RSx)	Combination	Max	Y	0.000287	191	23.93	8.37	21.35
head room	1.2(DL+LL+RSx)	Combination	Min	X	0.000473	191	23.93	8.37	21.35
head room	1.2(DL+LL+RSx)	Combination	Min	Y	0.000255	190	21.26	8.37	21.35
head room	1.2(DL+LL+RSy)	Combination	Max	Y	0.000517	191	23.93	8.37	21.35
head room	1.2(DL+LL+RSy)	Combination	Min	X	3.9E-05	35	21.26	11.62	21.35
head room	1.2(DL+LL+RSy)	Combination	Min	Y	1.6E-05	190	21.26	8.37	21.35
head room	1.2(DL+LL-RSx)	Combination	Max	X	0.000559	191	23.93	8.37	21.35
head room	1.2(DL+LL-RSx)	Combination	Max	Y	0.000287	191	23.93	8.37	21.35
head room	1.2(DL+LL-RSx)	Combination	Min	X	0.000473	191	23.93	8.37	21.35
head room	1.2(DL+LL-RSx)	Combination	Min	Y	0.000255	190	21.26	8.37	21.35
head room	1.2(DL+LL-RSy)	Combination	Max	Y	0.000517	191	23.93	8.37	21.35
head room	1.2(DL+LL-RSy)	Combination	Min	X	3.9E-05	35	21.26	11.62	21.35
head room	1.2(DL+LL-RSy)	Combination	Min	Y	1.6E-05	190	21.26	8.37	21.35
head room	1.5(DL+RSx)	Combination	Max	X	0.000687	191	23.93	8.37	21.35
head room	1.5(DL+RSx)	Combination	Max	Y	0.000293	191	23.93	8.37	21.35
head room	1.5(DL+RSx)	Combination	Min	X	0.000602	191	23.93	8.37	21.35
head room	1.5(DL+RSx)	Combination	Min	Y	0.000254	190	21.26	8.37	21.35
head room	1.5(DL+RSy)	Combination	Max	Y	0.00058	191	23.93	8.37	21.35
head room	1.5(DL+RSy)	Combination	Min	X	4E-05	25	23.93	14.1	21.35
head room	1.5(DL+RSy)	Combination	Min	Y	4.9E-05	191	23.93	8.37	21.35
head room	1.5(DL-RSx)	Combination	Max	X	0.000687	191	23.93	8.37	21.35
head room	1.5(DL-RSx)	Combination	Max	Y	0.000293	191	23.93	8.37	21.35
head room	1.5(DL-RSx)	Combination	Min	X	0.000602	191	23.93	8.37	21.35
head room	1.5(DL-RSx)	Combination	Min	Y	0.000254	190	21.26	8.37	21.35
head room	1.5(DL-RSy)	Combination	Max	Y	0.00058	191	23.93	8.37	21.35
head room	1.5(DL-RSy)	Combination	Min	X	4E-05	25	23.93	14.1	21.35
head room	1.5(DL-RSy)	Combination	Min	Y	4.9E-05	191	23.93	8.37	21.35
head room	DL+0.8LL-0.8RSx	Combination	Max	X	0.000378	191	23.93	8.37	21.35
head room	DL+0.8LL-0.8RSx	Combination	Max	Y	0.000227	191	23.93	8.37	21.35
head room	DL+0.8LL-0.8RSx	Combination	Min	X	0.000309	191	23.93	8.37	21.35
head room	DL+0.8LL-0.8RSx	Combination	Min	Y	0.000205	190	21.26	8.37	21.35
head room	DL+0.8LL-0.8RSy	Combination	Max	X	3.8E-05	189	23.93	15.6	21.35
head room	DL+0.8LL-0.8RSy	Combination	Max	Y	0.00038	191	23.93	8.37	21.35
head room	DL+0.8LL-0.8RSy	Combination	Min	X	3.2E-05	25	23.93	14.1	21.35
head room	DL+0.8LL-0.8RSy	Combination	Min	Y	4.6E-05	190	21.26	8.37	21.35
head room	DL+0.8LL+0.8RSx	Combination	Max	X	0.000378	191	23.93	8.37	21.35
head room	DL+0.8LL+0.8RSx	Combination	Max	Y	0.000227	191	23.93	8.37	21.35
head room	DL+0.8LL+0.8RSx	Combination	Min	X	0.000309	191	23.93	8.37	21.35
head room	DL+0.8LL+0.8RSx	Combination	Min	Y	0.000205	190	21.26	8.37	21.35
head room	DL+0.8LL+0.8RSy	Combination	Max	X	3.8E-05	189	23.93	15.6	21.35
head room	DL+0.8LL+0.8RSy	Combination	Max	Y	0.00038	191	23.93	8.37	21.35
head room	DL+0.8LL+0.8RSy	Combination	Min	X	3.2E-05	25	23.93	14.1	21.35
head room	DL+0.8LL+0.8RSy	Combination	Min	Y	4.6E-05	190	21.26	8.37	21.35
head room	DL+RSx	Combination	Max	X	0.000458	191	23.93	8.37	21.35
head room	DL+RSx	Combination	Max	Y	0.000195	191	23.93	8.37	21.35
head room	DL+RSx	Combination	Min	X	0.000401	191	23.93	8.37	21.35
head room	DL+RSx	Combination	Min	Y	0.000169	190	21.26	8.37	21.35
head room	DL+RSy	Combination	Max	Y	0.000387	191	23.93	8.37	21.35
head room	DL+RSy	Combination	Min	X	2.7E-05	25	23.93	14.1	21.35
head room	DL+RSy	Combination	Min	Y	3.2E-05	191	23.93	8.37	21.35
head room	DL-RSx	Combination	Max	X	0.000458	191	23.93	8.37	21.35
head room	DL-RSx	Combination	Max	Y	0.000195	191	23.93	8.37	21.35
head room	DL-RSx	Combination	Min	X	0.000401	191	23.93	8.37	21.35
head room	DL-RSx	Combination	Min	Y	0.000169	190	21.26	8.37	21.35

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
head room	DL-RSy	Combination	Max	Y	0.000387	191	23.93	8.37	21.35
head room	DL-RSy	Combination	Min	X	2.7E-05	25	23.93	14.1	21.35
head room	DL-RSy	Combination	Min	Y	3.2E-05	191	23.93	8.37	21.35
head room	Envelope	Combination	Max	X	0.000687	191	23.93	8.37	21.35
head room	Envelope	Combination	Max	Y	0.00058	191	23.93	8.37	21.35
head room	Envelope	Combination	Min	X	0.000619	191	23.93	8.37	21.35
head room	Envelope	Combination	Min	Y	0.000155	191	23.93	8.37	21.35
roof	Dead	LinStatic		X	2.2E-05	129	45.19	21.49	18.85
roof	Dead	LInStatic		Y	3.3E-05	145	45.19	0	18.85
roof	Live	LinStatic		X	9E-06	129	45.19	21.49	18.85
roof	Live	LInStatic		Y	1.4E-05	145	45.19	0	18.85
roof	roof live	LinStatic		X	2E-06	129	45.19	21.49	18.85
roof	roof live	LinStatic		Y	3E-06	145	45.19	0	18.85
roof	floor finish & partion	LinStatic		X	1.4E-05	129	45.19	21.49	18.85
roof	floor finish & partion	LinStatic		Y	1.9E-05	145	45.19	0	18.85
roof	sunken filling	LinStatic		X	6E-06	129	45.19	21.49	18.85
roof	sunken filling	LinStatic		Y	1.1E-05	130	0	0	18.85
roof	wall load	LinStatic		X	1.1E-05	129	45.19	21.49	18.85
roof	wall load	LinStatic		Y	1.2E-05	130	0	0	18.85
roof	seismic x	LinStatic		X	0.000967	129	45.19	21.49	18.85
roof	seismic y	LinStatic		Y	0.000547	145	45.19	0	18.85
roof	Response spectrum in X	LinRespSpec	Max	X	0.000592	129	45.19	21.49	18.85
roof	Response spectrum in Y	LinRespSpec	Max	Y	0.000348	145	45.19	0	18.85
roof	DL+LL	Combination		X	4.1E-05	129	45.19	21.49	18.85
roof	DL+LL	Combination		Y	6.4E-05	129	45.19	21.49	18.85
roof	1.5(DL+LL)	Combination		X	6.1E-05	129	45.19	21.49	18.85
roof	1.5(DL+LL)	Combination		Y	9.5E-05	145	45.19	0	18.85
roof	1.2(DL+LL+EQx)	Combination		X	0.00114	145	45.19	0	18.85
roof	1.2(DL+LL-EQx)	Combination		X	0.001209	129	45.19	21.49	18.85
roof	1.2(DL+LL+EQy)	Combination		Y	0.000733	145	45.19	0	18.85
roof	1.2(DL+LL-EQy)	Combination		Y	0.000668	130	0	0	18.85
roof	1.5(DL+EQx)	Combination		X	0.001426	145	45.19	0	18.85
roof	1.5(DL-EQx)	Combination		X	0.001496	129	45.19	21.49	18.85
roof	1.5(DL+EQy)	Combination		Y	0.000891	145	45.19	0	18.85
roof	1.5(DL-EQy)	Combination		Y	0.00083	130	0	0	18.85
roof	0.9DL+1.5EQx	Combination		X	0.001428	59	9.91	7.81	18.85
roof	0.9DL-1.5EQx	Combination		X	0.001478	129	45.19	21.49	18.85
roof	0.9DL+1.5EQy	Combination		Y	0.000863	145	45.19	0	18.85
roof	0.9DL-1.5EQy	Combination		Y	0.00082	130	0	0	18.85
roof	DL+0.8LL+0.8EQx	Combination		X	0.00076	145	45.19	0	18.85
roof	DL+0.8LL-0.8EQx	Combination		X	0.000812	129	45.19	21.49	18.85
roof	DL+0.8LL+0.8EQy	Combination		Y	0.000498	145	45.19	0	18.85
roof	DL+0.8LL-0.8EQy	Combination		Y	0.000449	130	0	0	18.85
roof	DL+EQx	Combination		X	0.000951	145	45.19	0	18.85
roof	DL-EQx	Combination		X	0.000997	129	45.19	21.49	18.85
roof	DL+EQy	Combination		Y	0.000594	145	45.19	0	18.85
roof	DL-EQy	Combination		Y	0.000553	130	0	0	18.85
roof	seismic weight	Combination		X	3.3E-05	129	45.19	21.49	18.85
roof	seismic weight	Combination		Y	5E-05	129	45.19	21.49	18.85
roof	0.9DL-1.5RSx	Combination	Max	X	0.00086	129	45.19	21.49	18.85
roof	0.9DL-1.5RSx	Combination	Min	X	0.000915	129	45.19	21.49	18.85
roof	0.9DL-1.5RSy	Combination	Max	Y	0.000564	145	45.19	0	18.85

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
roof	0.9DL-1.5RSy	Combination	Min	Y	0.000517	130	0	0	18.85
roof	0.9DL+1.5RSx	Combination	Max	X	0.00086	129	45.19	21.49	18.85
roof	0.9DL+1.5RSx	Combination	Min	X	0.000915	129	45.19	21.49	18.85
roof	0.9DL+1.5RSy	Combination	Max	Y	0.000564	145	45.19	0	18.85
roof	0.9DL+1.5RSy	Combination	Min	Y	0.000517	130	0	0	18.85
roof	1.2(DL+LL+RSx)	Combination	Max	X	0.000683	145	45.19	0	18.85
roof	1.2(DL+LL+RSx)	Combination	Min	X	0.000759	129	45.19	21.49	18.85
roof	1.2(DL+LL+RSy)	Combination	Max	Y	0.000494	145	45.19	0	18.85
roof	1.2(DL+LL+RSy)	Combination	Min	Y	0.000426	130	0	0	18.85
roof	1.2(DL+LL-RSx)	Combination	Max	X	0.000683	145	45.19	0	18.85
roof	1.2(DL+LL-RSx)	Combination	Min	X	0.000759	129	45.19	21.49	18.85
roof	1.2(DL+LL-RSy)	Combination	Max	Y	0.000494	145	45.19	0	18.85
roof	1.2(DL+LL-RSy)	Combination	Min	Y	0.000426	130	0	0	18.85
roof	1.5(DL+RSx)	Combination	Max	X	0.000855	145	45.19	0	18.85
roof	1.5(DL+RSx)	Combination	Min	X	0.000933	129	45.19	21.49	18.85
roof	1.5(DL+RSy)	Combination	Max	Y	0.000593	145	45.19	0	18.85
roof	1.5(DL+RSy)	Combination	Min	Y	0.000527	130	0	0	18.85
roof	1.5(DL-RSx)	Combination	Max	X	0.000855	145	45.19	0	18.85
roof	1.5(DL-RSx)	Combination	Min	X	0.000933	129	45.19	21.49	18.85
roof	1.5(DL-RSy)	Combination	Max	Y	0.000593	145	45.19	0	18.85
roof	1.5(DL-RSy)	Combination	Min	Y	0.000527	130	0	0	18.85
roof	DL+0.8LL-0.8RSx	Combination	Max	X	0.000456	145	45.19	0	18.85
roof	DL+0.8LL-0.8RSx	Combination	Min	X	0.000512	129	45.19	21.49	18.85
roof	DL+0.8LL-0.8RSy	Combination	Max	Y	0.000339	145	45.19	0	18.85
roof	DL+0.8LL-0.8RSy	Combination	Min	X	4.6E-05	129	45.19	21.49	18.85
roof	DL+0.8LL-0.8RSy	Combination	Min	Y	0.000287	16	0	20.08	18.85
roof	DL+0.8LL+0.8RSx	Combination	Max	X	0.000456	145	45.19	0	18.85
roof	DL+0.8LL+0.8RSx	Combination	Min	X	0.000512	129	45.19	21.49	18.85
roof	DL+0.8LL+0.8RSy	Combination	Max	Y	0.000339	145	45.19	0	18.85
roof	DL+0.8LL+0.8RSy	Combination	Min	X	4.6E-05	129	45.19	21.49	18.85
roof	DL+0.8LL+0.8RSy	Combination	Min	Y	0.000287	16	0	20.08	18.85
roof	DL+RSx	Combination	Max	X	0.00057	145	45.19	0	18.85
roof	DL+RSx	Combination	Min	X	0.000622	129	45.19	21.49	18.85
roof	DL+RSy	Combination	Max	Y	0.000395	145	45.19	0	18.85
roof	DL+RSy	Combination	Min	Y	0.000351	130	0	0	18.85
roof	DL-RSx	Combination	Max	X	0.00057	145	45.19	0	18.85
roof	DL-RSx	Combination	Min	X	0.000622	129	45.19	21.49	18.85
roof	DL-RSy	Combination	Max	Y	0.000395	145	45.19	0	18.85
roof	DL-RSy	Combination	Min	Y	0.000351	130	0	0	18.85
roof	Envelope	Combination	Max	X	0.001428	59	9.91	7.81	18.85
roof	Envelope	Combination	Max	Y	0.000891	145	45.19	0	18.85
roof	Envelope	Combination	Min	X	0.001496	129	45.19	21.49	18.85
roof	Envelope	Combination	Min	Y	0.00082	130	0	0	18.85
story5	Dead	LinStatic		X	2.2E-05	129	45.19	21.49	15.8
story5	Dead	LinStatic		Y	3.3E-05	145	45.19	0	15.8
story5	Live	LinStatic		X	7E-06	129	45.19	21.49	15.8
story5	Live	LinStatic		Y	1.3E-05	145	45.19	0	15.8
story5	roof live	LinStatic		X	3E-06	129	45.19	21.49	15.8
story5	roof live	LinStatic		Y	4E-06	145	45.19	0	15.8
story5	floor finish & partion	LinStatic		X	1.4E-05	129	45.19	21.49	15.8
story5	floor finish & partion	LinStatic		Y	1.9E-05	145	45.19	0	15.8
story5	sunken filling	LinStatic		X	6E-06	129	45.19	21.49	15.8
story5	sunken filling	LinStatic		Y	1.4E-05	130	0	0	15.8

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
story5	wall load	LinStatic		X	1.4E-05	129	45.19	21.49	15.8
story5	wall load	LinStatic		Y	1.8E-05	145	45.19	0	15.8
story5	seismic x	LinStatic		X	0.001861	129	45.19	21.49	15.8
story5	seismic y	LinStatic		Y	0.00095	145	45.19	0	15.8
story5	Response spectrum in X	LinRespSpec	Max	X	0.001224	129	45.19	21.49	15.8
story5	Response spectrum in Y	LinRespSpec	Max	Y	0.000639	145	45.19	0	15.8
story5	DL+LL	Combination		X	3.9E-05	129	45.19	21.49	15.8
story5	DL+LL	Combination		Y	5.6E-05	145	45.19	0	15.8
story5	1.5(DL+LL)	Combination		X	5.8E-05	129	45.19	21.49	15.8
story5	1.5(DL+LL)	Combination		Y	8.3E-05	145	45.19	0	15.8
story5	1.2(DL+LL+EQx)	Combination		X	0.002212	145	45.19	0	15.8
story5	1.2(DL+LL-EQx)	Combination		X	0.002279	129	45.19	21.49	15.8
story5	1.2(DL+LL+EQy)	Combination		Y	0.001207	145	45.19	0	15.8
story5	1.2(DL+LL-EQy)	Combination		Y	0.001162	130	0	0	15.8
story5	1.5(DL+EQx)	Combination		X	0.002766	145	45.19	0	15.8
story5	1.5(DL-EQx)	Combination		X	0.002833	129	45.19	21.49	15.8
story5	1.5(DL+EQy)	Combination		Y	0.001483	145	45.19	0	15.8
story5	1.5(DL-EQy)	Combination		Y	0.001446	130	0	0	15.8
story5	0.9DL+1.5EQx	Combination		X	0.002766	129	45.19	21.49	15.8
story5	0.9DL-1.5EQx	Combination		X	0.002816	129	45.19	21.49	15.8
story5	0.9DL+1.5EQy	Combination		Y	0.00146	145	45.19	0	15.8
story5	0.9DL-1.5EQy	Combination		Y	0.001432	130	0	0	15.8
story5	DL+0.8LL+0.8EQx	Combination		X	0.001475	145	45.19	0	15.8
story5	DL+0.8LL-0.8EQx	Combination		X	0.001525	129	45.19	21.49	15.8
story5	DL+0.8LL+0.8EQy	Combination		Y	0.000812	145	45.19	0	15.8
story5	DL+0.8LL-0.8EQy	Combination		Y	0.000779	130	0	0	15.8
story5	DL+EQx	Combination		X	0.001844	145	45.19	0	15.8
story5	DL-EQx	Combination		X	0.001889	129	45.19	21.49	15.8
story5	DL+EQy	Combination		Y	0.000989	145	45.19	0	15.8
story5	DL-EQy	Combination		Y	0.000964	130	0	0	15.8
story5	seismic weight	Combination		X	3E-05	129	45.19	21.49	15.8
story5	seismic weight	Combination		Y	4.2E-05	145	45.19	0	15.8
story5	0.9DL-1.5RSx	Combination	Max	X	0.001811	129	45.19	21.49	15.8
story5	0.9DL-1.5RSx	Combination	Min	X	0.001861	129	45.19	21.49	15.8
story5	0.9DL-1.5RSy	Combination	Max	Y	0.000993	145	45.19	0	15.8
story5	0.9DL-1.5RSy	Combination	Min	Y	0.000953	130	0	0	15.8
story5	0.9DL+1.5RSx	Combination	Max	X	0.001811	129	45.19	21.49	15.8
story5	0.9DL+1.5RSx	Combination	Min	X	0.001861	129	45.19	21.49	15.8
story5	0.9DL+1.5RSy	Combination	Max	Y	0.000993	145	45.19	0	15.8
story5	0.9DL+1.5RSy	Combination	Min	Y	0.000953	130	0	0	15.8
story5	1.2(DL+LL+RSx)	Combination	Max	X	0.001433	145	45.19	0	15.8
story5	1.2(DL+LL+RSx)	Combination	Min	X	0.001515	129	45.19	21.49	15.8
story5	1.2(DL+LL+RSy)	Combination	Max	Y	0.000834	145	45.19	0	15.8
story5	1.2(DL+LL+RSy)	Combination	Min	Y	0.000779	130	0	0	15.8
story5	1.2(DL+LL-RSx)	Combination	Max	X	0.001433	145	45.19	0	15.8
story5	1.2(DL+LL-RSx)	Combination	Min	X	0.001515	129	45.19	21.49	15.8
story5	1.2(DL+LL-RSy)	Combination	Max	Y	0.000834	145	45.19	0	15.8
story5	1.2(DL+LL-RSy)	Combination	Min	Y	0.000779	130	0	0	15.8
story5	1.5(DL+RSx)	Combination	Max	X	0.001794	129	45.19	21.49	15.8
story5	1.5(DL+RSx)	Combination	Min	X	0.001877	129	45.19	21.49	15.8
story5	1.5(DL+RSy)	Combination	Max	Y	0.001017	145	45.19	0	15.8
story5	1.5(DL+RSy)	Combination	Min	Y	0.000967	114	0	21.49	15.8
story5	1.5(DL-RSx)	Combination	Max	X	0.001794	129	45.19	21.49	15.8

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
story5	1.5(DL-RSx)	Combination	Min	X	0.001877	129	45.19	21.49	15.8
story5	1.5(DL-RSy)	Combination	Max	Y	0.001017	145	45.19	0	15.8
story5	1.5(DL-RSy)	Combination	Min	Y	0.000967	114	0	21.49	15.8
story5	DL+0.8LL-0.8RSx	Combination	Max	X	0.000956	145	45.19	0	15.8
story5	DL+0.8LL-0.8RSx	Combination	Min	X	0.001016	129	45.19	21.49	15.8
story5	DL+0.8LL-0.8RSy	Combination	Max	Y	0.000563	145	45.19	0	15.8
story5	DL+0.8LL-0.8RSy	Combination	Min	Y	0.000523	114	0	21.49	15.8
story5	DL+0.8LL+0.8RSx	Combination	Max	X	0.000956	145	45.19	0	15.8
story5	DL+0.8LL+0.8RSx	Combination	Min	X	0.001016	129	45.19	21.49	15.8
story5	DL+0.8LL+0.8RSy	Combination	Max	Y	0.000563	145	45.19	0	15.8
story5	DL+0.8LL+0.8RSy	Combination	Min	Y	0.000523	114	0	21.49	15.8
story5	DL+RSx	Combination	Max	X	0.001196	129	45.19	21.49	15.8
story5	DL+RSx	Combination	Min	X	0.001252	129	45.19	21.49	15.8
story5	DL+RSy	Combination	Max	Y	0.000678	145	45.19	0	15.8
story5	DL+RSy	Combination	Min	Y	0.000644	130	0	0	15.8
story5	DL-RSx	Combination	Max	X	0.001196	129	45.19	21.49	15.8
story5	DL-RSx	Combination	Min	X	0.001252	129	45.19	21.49	15.8
story5	DL-RSy	Combination	Max	Y	0.000678	145	45.19	0	15.8
story5	DL-RSy	Combination	Min	Y	0.000644	130	0	0	15.8
story5	Envelope	Combination	Max	X	0.002766	129	45.19	21.49	15.8
story5	Envelope	Combination	Max	Y	0.001483	145	45.19	0	15.8
story5	Envelope	Combination	Min	X	0.002833	129	45.19	21.49	15.8
story5	Envelope	Combination	Min	Y	0.001432	130	0	0	15.8
story4	Dead	LinStatic		X	1.9E-05	129	45.19	21.49	12.75
story4	Dead	LinStatic		Y	2.9E-05	145	45.19	0	12.75
story4	Live	LinStatic		X	7E-06	129	45.19	21.49	12.75
story4	Live	LinStatic		Y	1.2E-05	145	45.19	0	12.75
story4	roof live	LinStatic		X	3E-06	129	45.19	21.49	12.75
story4	roof live	LinStatic		Y	3E-06	145	45.19	0	12.75
story4	floor finish & partion	LinStatic		X	1.2E-05	129	45.19	21.49	12.75
story4	floor finish & partion	LinStatic		Y	1.7E-05	145	45.19	0	12.75
story4	sunken filling	LinStatic		X	5E-06	129	45.19	21.49	12.75
story4	sunken filling	LinStatic		Y	1.4E-05	130	0	0	12.75
story4	wall load	LinStatic		X	1.3E-05	129	45.19	21.49	12.75
story4	wall load	LinStatic		Y	1.8E-05	145	45.19	0	12.75
story4	seismic x	LinStatic		X	0.002483	129	45.19	21.49	12.75
story4	seismic y	LinStatic		Y	0.001261	145	45.19	0	12.75
story4	Response spectrum in X	LinRespSpec	Max	X	0.001808	129	45.19	21.49	12.75
story4	Response spectrum in Y	LinRespSpec	Max	Y	0.000928	145	45.19	0	12.75
story4	DL+LL	Combination		X	3.3E-05	129	45.19	21.49	12.75
story4	DL+LL	Combination		Y	4.7E-05	145	45.19	0	12.75
story4	1.5(DL+LL)	Combination		X	4.9E-05	129	45.19	21.49	12.75
story4	1.5(DL+LL)	Combination		Y	7.1E-05	145	45.19	0	12.75
story4	1.2(DL+LL+EQx)	Combination		X	0.002958	145	45.19	0	12.75
story4	1.2(DL+LL-EQx)	Combination		X	0.003019	129	45.19	21.49	12.75
story4	1.2(DL+LL+EQy)	Combination		Y	0.00157	145	45.19	0	12.75
story4	1.2(DL+LL-EQy)	Combination		Y	0.001538	130	0	0	12.75
story4	1.5(DL+EQx)	Combination		X	0.003699	145	45.19	0	12.75
story4	1.5(DL-EQx)	Combination		X	0.00376	129	45.19	21.49	12.75
story4	1.5(DL+EQy)	Combination		Y	0.00194	145	45.19	0	12.75
story4	1.5(DL-EQy)	Combination		Y	0.001916	130	0	0	12.75
story4	0.9DL+1.5EQx	Combination		X	0.003704	129	45.19	21.49	12.75

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
story4	0.9DL-1.5EQx	Combination		X	0.003746	129	45.19	21.49	12.75
story4	0.9DL+1.5EQy	Combination		Y	0.001921	145	45.19	0	12.75
story4	0.9DL-1.5EQy	Combination		Y	0.001903	130	0	0	12.75
story4	DL+0.8LL+0.8EQx	Combination		X	0.001973	145	45.19	0	12.75
story4	DL+0.8LL-0.8EQx	Combination		X	0.002018	129	45.19	21.49	12.75
story4	DL+0.8LL+0.8EQy	Combination		Y	0.001053	145	45.19	0	12.75
story4	DL+0.8LL-0.8EQy	Combination		Y	0.001029	130	0	0	12.75
story4	DL+EQx	Combination		X	0.002466	145	45.19	0	12.75
story4	DL-EQx	Combination		X	0.002507	129	45.19	21.49	12.75
story4	DL+EQy	Combination		Y	0.001294	145	45.19	0	12.75
story4	DL-EQy	Combination		Y	0.001277	130	0	0	12.75
story4	seismic weight	Combination		X	2.5E-05	129	45.19	21.49	12.75
story4	seismic weight	Combination		Y	3.5E-05	145	45.19	0	12.75
story4	0.9DL-1.5RSx	Combination	Max	X	0.00269	129	45.19	21.49	12.75
story4	0.9DL-1.5RSx	Combination	Min	X	0.002732	129	45.19	21.49	12.75
story4	0.9DL-1.5RSy	Combination	Max	Y	0.001421	145	45.19	0	12.75
story4	0.9DL-1.5RSy	Combination	Min	Y	0.001383	130	0	0	12.75
story4	0.9DL+1.5RSx	Combination	Max	X	0.00269	129	45.19	21.49	12.75
story4	0.9DL+1.5RSx	Combination	Min	X	0.002732	129	45.19	21.49	12.75
story4	0.9DL+1.5RSy	Combination	Max	Y	0.001421	145	45.19	0	12.75
story4	0.9DL+1.5RSy	Combination	Min	Y	0.001383	130	0	0	12.75
story4	1.2(DL+LL+RSx)	Combination	Max	X	0.00213	129	45.19	21.49	12.75
story4	1.2(DL+LL+RSx)	Combination	Min	X	0.002209	129	45.19	21.49	12.75
story4	1.2(DL+LL+RSy)	Combination	Max	Y	0.001171	145	45.19	0	12.75
story4	1.2(DL+LL+RSy)	Combination	Min	Y	0.001122	130	0	0	12.75
story4	1.2(DL+LL-RSx)	Combination	Max	X	0.00213	129	45.19	21.49	12.75
story4	1.2(DL+LL-RSx)	Combination	Min	X	0.002209	129	45.19	21.49	12.75
story4	1.2(DL+LL-RSy)	Combination	Max	Y	0.001171	145	45.19	0	12.75
story4	1.2(DL+LL-RSy)	Combination	Min	Y	0.001122	130	0	0	12.75
story4	1.5(DL+RSx)	Combination	Max	X	0.002676	129	45.19	21.49	12.75
story4	1.5(DL+RSx)	Combination	Min	X	0.002746	129	45.19	21.49	12.75
story4	1.5(DL+RSy)	Combination	Max	Y	0.001441	145	45.19	0	12.75
story4	1.5(DL+RSy)	Combination	Min	Y	0.001396	130	0	0	12.75
story4	1.5(DL-RSx)	Combination	Max	X	0.002676	129	45.19	21.49	12.75
story4	1.5(DL-RSx)	Combination	Min	X	0.002746	129	45.19	21.49	12.75
story4	1.5(DL-RSy)	Combination	Max	Y	0.001441	145	45.19	0	12.75
story4	1.5(DL-RSy)	Combination	Min	Y	0.001396	130	0	0	12.75
story4	DL+0.8LL-0.8RSx	Combination	Max	X	0.001417	145	45.19	0	12.75
story4	DL+0.8LL-0.8RSx	Combination	Min	X	0.001477	129	45.19	21.49	12.75
story4	DL+0.8LL-0.8RSy	Combination	Max	Y	0.000787	145	45.19	0	12.75
story4	DL+0.8LL-0.8RSy	Combination	Min	Y	0.000752	130	0	0	12.75
story4	DL+0.8LL+0.8RSx	Combination	Max	X	0.001417	145	45.19	0	12.75
story4	DL+0.8LL+0.8RSx	Combination	Min	X	0.001477	129	45.19	21.49	12.75
story4	DL+0.8LL+0.8RSy	Combination	Max	Y	0.000787	145	45.19	0	12.75
story4	DL+0.8LL+0.8RSy	Combination	Min	Y	0.000752	130	0	0	12.75
story4	DL+RSx	Combination	Max	X	0.001784	129	45.19	21.49	12.75
story4	DL+RSx	Combination	Min	X	0.001831	129	45.19	21.49	12.75
story4	DL+RSy	Combination	Max	Y	0.000961	145	45.19	0	12.75
story4	DL+RSy	Combination	Min	Y	0.000931	130	0	0	12.75
story4	DL-RSx	Combination	Max	X	0.001784	129	45.19	21.49	12.75
story4	DL-RSx	Combination	Min	X	0.001831	129	45.19	21.49	12.75
story4	DL-RSy	Combination	Max	Y	0.000961	145	45.19	0	12.75
story4	DL-RSy	Combination	Min	Y	0.000931	130	0	0	12.75
story4	Envelope	Combination	Max	X	0.003704	129	45.19	21.49	12.75
story4	Envelope	Combination	Max	Y	0.00194	145	45.19	0	12.75

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
story4	Envelope	Combination	Min	X	0.00376	129	45.19	21.49	12.75
story4	Envelope	Combination	Min	Y	0.001903	130	0	0	12.75
story3	Dead	LinStatic		X	1.6E-05	129	45.19	21.49	9.7
story3	Dead	LinStatic		Y	2.5E-05	145	45.19	0	9.7
story3	Live	LinStatic		X	6E-06	129	45.19	21.49	9.7
story3	Live	LinStatic		Y	1E-05	145	45.19	0	9.7
story3	roof live	LinStatic		X	2E-06	129	45.19	21.49	9.7
story3	roof live	LinStatic		Y	2E-06	145	45.19	0	9.7
story3	floor finish & partion	LinStatic		X	1E-05	129	45.19	21.49	9.7
story3	floor finish & partion	LinStatic		Y	1.4E-05	145	45.19	0	9.7
story3	sunken filling	LinStatic		X	4E-06	129	45.19	21.49	9.7
story3	sunken filling	LinStatic		Y	1.3E-05	130	0	0	9.7
story3	wall load	LinStatic		X	1.2E-05	129	45.19	21.49	9.7
story3	wall load	LinStatic		Y	1.7E-05	145	45.19	0	9.7
story3	seismic x	LinStatic		X	0.002835	129	45.19	21.49	9.7
story3	seismic y	LinStatic		Y	0.00145	145	45.19	0	9.7
story3	Response spectrum in X	LinRespSpec	Max	X	0.002291	129	45.19	21.49	9.7
story3	Response spectrum in Y	LinRespSpec	Max	Y	0.001178	145	45.19	0	9.7
story3	DL+LL	Combination		X	2.5E-05	129	45.19	21.49	9.7
story3	DL+LL	Combination		Y	3.8E-05	145	45.19	0	9.7
story3	1.5(DL+LL)	Combination		X	3.7E-05	129	45.19	21.49	9.7
story3	1.5(DL+LL)	Combination		Y	5.7E-05	145	45.19	0	9.7
story3	1.2(DL+LL+EQx)	Combination		X	0.003382	145	45.19	0	9.7
story3	1.2(DL+LL-EQx)	Combination		X	0.003432	129	45.19	21.49	9.7
story3	1.2(DL+LL+EQy)	Combination		Y	0.001785	145	45.19	0	9.7
story3	1.2(DL+LL-EQy)	Combination		Y	0.001765	130	0	0	9.7
story3	1.5(DL+EQx)	Combination		X	0.004228	59	9.91	7.81	9.7
story3	1.5(DL-EQx)	Combination		X	0.004279	129	45.19	21.49	9.7
story3	1.5(DL+EQy)	Combination		Y	0.002213	145	45.19	0	9.7
story3	1.5(DL-EQy)	Combination		Y	0.002202	130	0	0	9.7
story3	0.9DL+1.5EQx	Combination		X	0.004237	129	45.19	21.49	9.7
story3	0.9DL-1.5EQx	Combination		X	0.004268	129	45.19	21.49	9.7
story3	0.9DL+1.5EQy	Combination		Y	0.002198	145	45.19	0	9.7
story3	0.9DL-1.5EQy	Combination		Y	0.00219	130	0	0	9.7
story3	DL+0.8LL+0.8EQx	Combination		X	0.002255	145	45.19	0	9.7
story3	DL+0.8LL-0.8EQx	Combination		X	0.002292	129	45.19	21.49	9.7
story3	DL+0.8LL+0.8EQy	Combination		Y	0.001195	145	45.19	0	9.7
story3	DL+0.8LL-0.8EQy	Combination		Y	0.001181	130	0	0	9.7
story3	DL+EQx	Combination		X	0.002818	59	9.91	7.81	9.7
story3	DL-EQx	Combination		X	0.002853	129	45.19	21.49	9.7
story3	DL+EQy	Combination		Y	0.001475	145	45.19	0	9.7
story3	DL-EQy	Combination		Y	0.001468	130	0	0	9.7
story3	seismic weight	Combination		X	1.9E-05	129	45.19	21.49	9.7
story3	seismic weight	Combination		Y	2.8E-05	145	45.19	0	9.7
story3	0.9DL-1.5RSx	Combination	Max	X	0.003421	129	45.19	21.49	9.7
story3	0.9DL-1.5RSx	Combination	Min	X	0.003452	129	45.19	21.49	9.7
story3	0.9DL-1.5RSy	Combination	Max	Y	0.001789	145	45.19	0	9.7
story3	0.9DL-1.5RSy	Combination	Min	Y	0.001757	130	0	0	9.7
story3	0.9DL+1.5RSx	Combination	Max	X	0.003421	129	45.19	21.49	9.7
story3	0.9DL+1.5RSx	Combination	Min	X	0.003452	129	45.19	21.49	9.7
story3	0.9DL+1.5RSy	Combination	Max	Y	0.001789	145	45.19	0	9.7
story3	0.9DL+1.5RSy	Combination	Min	Y	0.001757	130	0	0	9.7

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
story3	1.2(DL+LL+RSx)	Combination	Max	X	0.002719	129	45.19	21.49	9.7
story3	1.2(DL+LL+RSx)	Combination	Min	X	0.002779	129	45.19	21.49	9.7
story3	1.2(DL+LL+RSy)	Combination	Max	Y	0.001459	145	45.19	0	9.7
story3	1.2(DL+LL+RSy)	Combination	Min	Y	0.001419	130	0	0	9.7
story3	1.2(DL+LL-RSx)	Combination	Max	X	0.002719	129	45.19	21.49	9.7
story3	1.2(DL+LL-RSx)	Combination	Min	X	0.002779	129	45.19	21.49	9.7
story3	1.2(DL+LL-RSy)	Combination	Max	Y	0.001459	145	45.19	0	9.7
story3	1.2(DL+LL-RSy)	Combination	Min	Y	0.001419	130	0	0	9.7
story3	1.5(DL+RSx)	Combination	Max	X	0.003411	129	45.19	21.49	9.7
story3	1.5(DL+RSx)	Combination	Min	X	0.003463	129	45.19	21.49	9.7
story3	1.5(DL+RSy)	Combination	Max	Y	0.001805	145	45.19	0	9.7
story3	1.5(DL+RSy)	Combination	Min	Y	0.001769	130	0	0	9.7
story3	1.5(DL-RSx)	Combination	Max	X	0.003411	129	45.19	21.49	9.7
story3	1.5(DL-RSx)	Combination	Min	X	0.003463	129	45.19	21.49	9.7
story3	1.5(DL-RSy)	Combination	Max	Y	0.001805	145	45.19	0	9.7
story3	1.5(DL-RSy)	Combination	Min	Y	0.001769	130	0	0	9.7
story3	DL+0.8LL-0.8RSx	Combination	Max	X	0.001809	129	45.19	21.49	9.7
story3	DL+0.8LL-0.8RSx	Combination	Min	X	0.001856	129	45.19	21.49	9.7
story3	DL+0.8LL-0.8RSy	Combination	Max	Y	0.000978	145	45.19	0	9.7
story3	DL+0.8LL-0.8RSy	Combination	Min	Y	0.00095	130	0	0	9.7
story3	DL+0.8LL+0.8RSx	Combination	Max	X	0.001809	129	45.19	21.49	9.7
story3	DL+0.8LL+0.8RSx	Combination	Min	X	0.001856	129	45.19	21.49	9.7
story3	DL+0.8LL+0.8RSy	Combination	Max	Y	0.000978	145	45.19	0	9.7
story3	DL+0.8LL+0.8RSy	Combination	Min	Y	0.00095	130	0	0	9.7
story3	DL+RSx	Combination	Max	X	0.002274	129	45.19	21.49	9.7
story3	DL+RSx	Combination	Min	X	0.002309	129	45.19	21.49	9.7
story3	DL+RSy	Combination	Max	Y	0.001203	145	45.19	0	9.7
story3	DL+RSy	Combination	Min	Y	0.001179	130	0	0	9.7
story3	DL-RSx	Combination	Max	X	0.002274	129	45.19	21.49	9.7
story3	DL-RSx	Combination	Min	X	0.002309	129	45.19	21.49	9.7
story3	DL-RSy	Combination	Max	Y	0.001203	145	45.19	0	9.7
story3	DL-RSy	Combination	Min	Y	0.001179	130	0	0	9.7
story3	Envelope	Combination	Max	X	0.004237	129	45.19	21.49	9.7
story3	Envelope	Combination	Max	Y	0.002213	145	45.19	0	9.7
story3	Envelope	Combination	Min	X	0.004279	129	45.19	21.49	9.7
story3	Envelope	Combination	Min	Y	0.00219	130	0	0	9.7
story2	Dead	LinStatic		X	1.1E-05	129	45.19	21.49	6.65
story2	Dead	LinStatic		Y	1.9E-05	145	45.19	0	6.65
story2	Live	LinStatic		X	4E-06	129	45.19	21.49	6.65
story2	Live	LinStatic		Y	8E-06	145	45.19	0	6.65
story2	roof live	LinStatic		X	1E-06	129	45.19	21.49	6.65
story2	roof live	LinStatic		Y	2E-06	145	45.19	0	6.65
story2	floor finish & partion	LinStatic		X	7E-06	129	45.19	21.49	6.65
story2	floor finish & partion	LinStatic		Y	1.1E-05	145	45.19	0	6.65
story2	sunken filling	LinStatic		Y	1.1E-05	130	0	0	6.65
story2	wall load	LinStatic		X	1E-05	129	45.19	21.49	6.65
story2	wall load	LinStatic		Y	1.6E-05	145	45.19	0	6.65
story2	seismic x	LinStatic		X	0.003024	129	45.19	21.49	6.65
story2	seismic y	LinStatic		Y	0.001584	130	0	0	6.65
story2	Response spectrum in X	LinRespSpec	Max	X	0.0027	129	45.19	21.49	6.65
story2	Response spectrum in Y	LinRespSpec	Max	Y	0.001413	145	45.19	0	6.65
story2	DL+LL	Combination		X	1.6E-05	129	45.19	21.49	6.65

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
story2	DL+LL	Combination		Y	2.6E-05	145	45.19	0	6.65
story2	1.5(DL+LL)	Combination		X	2.4E-05	129	45.19	21.49	6.65
story2	1.5(DL+LL)	Combination		Y	3.8E-05	129	45.19	21.49	6.65
story2	1.2(DL+LL+EQx)	Combination		X	0.003609	129	45.19	21.49	6.65
story2	1.2(DL+LL-EQx)	Combination		X	0.003648	129	45.19	21.49	6.65
story2	1.2(DL+LL+EQy)	Combination		Y	0.001928	145	45.19	0	6.65
story2	1.2(DL+LL-EQy)	Combination		Y	0.001927	130	0	0	6.65
story2	1.5(DL+EQx)	Combination		X	0.004519	129	45.19	21.49	6.65
story2	1.5(DL-EQx)	Combination		X	0.004552	129	45.19	21.49	6.65
story2	1.5(DL+EQy)	Combination		Y	0.002396	129	45.19	21.49	6.65
story2	1.5(DL-EQy)	Combination		Y	0.002404	130	0	0	6.65
story2	0.9DL+1.5EQx	Combination		X	0.004526	129	45.19	21.49	6.65
story2	0.9DL-1.5EQx	Combination		X	0.004545	129	45.19	21.49	6.65
story2	0.9DL+1.5EQy	Combination		Y	0.002386	145	45.19	0	6.65
story2	0.9DL-1.5EQy	Combination		Y	0.002393	130	0	0	6.65
story2	DL+0.8LL+0.8EQx	Combination		X	0.002405	145	45.19	0	6.65
story2	DL+0.8LL-0.8EQx	Combination		X	0.002434	129	45.19	21.49	6.65
story2	DL+0.8LL+0.8EQy	Combination		Y	0.001288	145	45.19	0	6.65
story2	DL+0.8LL-0.8EQy	Combination		Y	0.001288	130	0	0	6.65
story2	DL+EQx	Combination		X	0.003013	129	45.19	21.49	6.65
story2	DL-EQx	Combination		X	0.003035	129	45.19	21.49	6.65
story2	DL+EQy	Combination		Y	0.001597	145	45.19	0	6.65
story2	DL-EQy	Combination		Y	0.001603	130	0	0	6.65
story2	seismic weight	Combination		X	1.2E-05	129	45.19	21.49	6.65
story2	seismic weight	Combination		Y	1.9E-05	114	0	21.49	6.65
story2	0.9DL-1.5RSx	Combination	Max	X	0.00404	129	45.19	21.49	6.65
story2	0.9DL-1.5RSx	Combination	Min	X	0.00406	129	45.19	21.49	6.65
story2	0.9DL-1.5RSy	Combination	Max	Y	0.002134	145	45.19	0	6.65
story2	0.9DL-1.5RSy	Combination	Min	Y	0.002114	130	0	0	6.65
story2	0.9DL+1.5RSx	Combination	Max	X	0.00404	129	45.19	21.49	6.65
story2	0.9DL+1.5RSx	Combination	Min	X	0.00406	129	45.19	21.49	6.65
story2	0.9DL+1.5RSy	Combination	Max	Y	0.002134	145	45.19	0	6.65
story2	0.9DL+1.5RSy	Combination	Min	Y	0.002114	130	0	0	6.65
story2	1.2(DL+LL+RSx)	Combination	Max	X	0.00322	129	45.19	21.49	6.65
story2	1.2(DL+LL+RSx)	Combination	Min	X	0.003259	129	45.19	21.49	6.65
story2	1.2(DL+LL+RSy)	Combination	Max	Y	0.001726	145	45.19	0	6.65
story2	1.2(DL+LL+RSy)	Combination	Min	Y	0.001704	130	0	0	6.65
story2	1.2(DL+LL-RSx)	Combination	Max	X	0.00322	129	45.19	21.49	6.65
story2	1.2(DL+LL-RSx)	Combination	Min	X	0.003259	129	45.19	21.49	6.65
story2	1.2(DL+LL-RSy)	Combination	Max	Y	0.001726	145	45.19	0	6.65
story2	1.2(DL+LL-RSy)	Combination	Min	Y	0.001704	130	0	0	6.65
story2	1.5(DL+RSx)	Combination	Max	X	0.004033	129	45.19	21.49	6.65
story2	1.5(DL+RSx)	Combination	Min	X	0.004066	129	45.19	21.49	6.65
story2	1.5(DL+RSy)	Combination	Max	Y	0.002144	145	45.19	0	6.65
story2	1.5(DL+RSy)	Combination	Min	Y	0.002125	130	0	0	6.65
story2	1.5(DL-RSx)	Combination	Max	X	0.004033	129	45.19	21.49	6.65
story2	1.5(DL-RSx)	Combination	Min	X	0.004066	129	45.19	21.49	6.65
story2	1.5(DL-RSy)	Combination	Max	Y	0.002144	145	45.19	0	6.65
story2	1.5(DL-RSy)	Combination	Min	Y	0.002125	130	0	0	6.65
story2	DL+0.8LL-0.8RSx	Combination	Max	X	0.002145	129	45.19	21.49	6.65
story2	DL+0.8LL-0.8RSx	Combination	Min	X	0.002175	129	45.19	21.49	6.65
story2	DL+0.8LL-0.8RSy	Combination	Max	Y	0.001154	145	45.19	0	6.65
story2	DL+0.8LL-0.8RSy	Combination	Min	Y	0.001139	130	0	0	6.65
story2	DL+0.8LL+0.8RSx	Combination	Max	X	0.002145	129	45.19	21.49	6.65
story2	DL+0.8LL+0.8RSx	Combination	Min	X	0.002175	129	45.19	21.49	6.65

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
story2	DL+0.8LL+0.8RSy	Combination	Max	Y	0.001154	145	45.19	0	6.65
story2	DL+0.8LL+0.8RSy	Combination	Min	Y	0.001139	130	0	0	6.65
story2	DL+RSx	Combination	Max	X	0.002689	129	45.19	21.49	6.65
story2	DL+RSx	Combination	Min	X	0.002711	129	45.19	21.49	6.65
story2	DL+RSy	Combination	Max	Y	0.001429	145	45.19	0	6.65
story2	DL+RSy	Combination	Min	Y	0.001417	130	0	0	6.65
story2	DL-RSx	Combination	Max	X	0.002689	129	45.19	21.49	6.65
story2	DL-RSx	Combination	Min	X	0.002711	129	45.19	21.49	6.65
story2	DL-RSy	Combination	Max	Y	0.001429	145	45.19	0	6.65
story2	DL-RSy	Combination	Min	Y	0.001417	130	0	0	6.65
story2	Envelope	Combination	Max	X	0.004526	129	45.19	21.49	6.65
story2	Envelope	Combination	Max	Y	0.002396	129	45.19	21.49	6.65
story2	Envelope	Combination	Min	X	0.004552	129	45.19	21.49	6.65
story2	Envelope	Combination	Min	Y	0.002393	130	0	0	6.65
story1	Dead	LinStatic		X	1.9E-05	20	11.96	15.2	3.6
story1	Dead	LinStatic		Y	1.7E-05	29	39.17	11.62	3.6
story1	Live	LinStatic		X	7E-06	20	11.96	15.2	3.6
story1	Live	LinStatic		Y	6E-06	29	39.17	11.62	3.6
story1	roof live	LinStatic		X	1E-06	17	42.21	15.2	3.6
story1	roof live	LinStatic		Y	1E-06	26	45.19	14.1	3.6
story1	floor finish & partion	LinStatic		X	8E-06	20	11.96	15.2	3.6
story1	floor finish & partion	LinStatic		Y	8E-06	29	39.17	11.62	3.6
story1	sunken filling	LinStatic		X	7E-06	20	11.96	15.2	3.6
story1	sunken filling	LinStatic		Y	1E-05	77	3.16	1.41	3.6
story1	wall load	LinStatic		X	2.7E-05	20	11.96	15.2	3.6
story1	seismic x	LinStatic		X	0.0033	23	0	14.1	3.6
story1	seismic y	LinStatic		Y	0.001857	15	3.28	20.08	3.6
story1	Response spectrum in X	LinRespSpec	Max	X	0.003176	23	0	14.1	3.6
story1	Response spectrum in Y	LinRespSpec	Max	Y	0.001764	15	3.28	20.08	3.6
story1	DL+LL	Combination		X	6.7E-05	20	11.96	15.2	3.6
story1	DL+LL	Combination		Y	4.2E-05	29	39.17	11.62	3.6
story1	1.5(DL+LL)	Combination		X	0.000101	20	11.96	15.2	3.6
story1	1.5(DL+LL)	Combination		Y	6.3E-05	29	39.17	11.62	3.6
story1	1.2(DL+LL+EQx)	Combination		X	0.00399	23	0	14.1	3.6
story1	1.2(DL+LL-EQx)	Combination		X	0.003934	8	23.93	20.08	3.6
story1	1.2(DL+LL+EQy)	Combination		Y	0.002254	41	3.28	11.62	3.6
story1	1.2(DL+LL-EQy)	Combination		Y	0.002237	15	3.28	20.08	3.6
story1	1.5(DL+EQx)	Combination		X	0.004981	23	0	14.1	3.6
story1	1.5(DL-EQx)	Combination		X	0.004918	23	0	14.1	3.6
story1	1.5(DL+EQy)	Combination		Y	0.002814	41	3.28	11.62	3.6
story1	1.5(DL-EQy)	Combination		Y	0.002793	15	3.28	20.08	3.6
story1	0.9DL+1.5EQx	Combination		X	0.004969	23	0	14.1	3.6
story1	0.9DL-1.5EQx	Combination		X	0.004931	23	0	14.1	3.6
story1	0.9DL+1.5EQy	Combination		Y	0.002802	41	3.28	11.62	3.6
story1	0.9DL-1.5EQy	Combination		Y	0.00279	15	3.28	20.08	3.6
story1	DL+0.8LL+0.8EQx	Combination		X	0.002664	23	0	14.1	3.6
story1	DL+0.8LL-0.8EQx	Combination		X	0.002624	8	23.93	20.08	3.6
story1	DL+0.8LL+0.8EQy	Combination		Y	0.001509	33	27.2	11.62	3.6
story1	DL+0.8LL-0.8EQy	Combination		Y	0.001492	15	3.28	20.08	3.6
story1	DL+EQx	Combination		X	0.003321	23	0	14.1	3.6
story1	DL-EQx	Combination		X	0.003279	23	0	14.1	3.6
story1	DL+EQy	Combination		Y	0.001876	41	3.28	11.62	3.6

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
story1	DL-EQy	Combination		Y	0.001862	15	3.28	20.08	3.6
story1	seismic weight	Combination		X	6.3E-05	20	11.96	15.2	3.6
story1	seismic weight	Combination		Y	3.7E-05	29	39.17	11.62	3.6
story1	0.9DL-1.5RSx	Combination	Max	X	0.004783	23	0	14.1	3.6
story1	0.9DL-1.5RSx	Combination	Min	X	0.004749	8	23.93	20.08	3.6
story1	0.9DL-1.5RSy	Combination	Max	Y	0.002668	33	27.2	11.62	3.6
story1	0.9DL-1.5RSy	Combination	Min	Y	0.00265	15	3.28	20.08	3.6
story1	0.9DL+1.5RSx	Combination	Max	X	0.004783	23	0	14.1	3.6
story1	0.9DL+1.5RSx	Combination	Min	X	0.004749	8	23.93	20.08	3.6
story1	0.9DL+1.5RSy	Combination	Max	Y	0.002668	33	27.2	11.62	3.6
story1	0.9DL+1.5RSy	Combination	Min	Y	0.00265	15	3.28	20.08	3.6
story1	1.2(DL+LL+RSx)	Combination	Max	X	0.003842	23	0	14.1	3.6
story1	1.2(DL+LL+RSx)	Combination	Min	X	0.003807	8	23.93	20.08	3.6
story1	1.2(DL+LL+RSy)	Combination	Max	Y	0.002156	33	27.2	11.62	3.6
story1	1.2(DL+LL+RSy)	Combination	Min	Y	0.002126	15	3.28	20.08	3.6
story1	1.2(DL+LL-RSx)	Combination	Max	X	0.003842	23	0	14.1	3.6
story1	1.2(DL+LL-RSx)	Combination	Min	X	0.003807	8	23.93	20.08	3.6
story1	1.2(DL+LL-RSy)	Combination	Max	Y	0.002156	33	27.2	11.62	3.6
story1	1.2(DL+LL-RSy)	Combination	Min	Y	0.002126	15	3.28	20.08	3.6
story1	1.5(DL+RSx)	Combination	Max	X	0.004796	23	0	14.1	3.6
story1	1.5(DL+RSx)	Combination	Min	X	0.004753	8	23.93	20.08	3.6
story1	1.5(DL+RSy)	Combination	Max	Y	0.002687	33	27.2	11.62	3.6
story1	1.5(DL+RSy)	Combination	Min	Y	0.002653	15	3.28	20.08	3.6
story1	1.5(DL-RSx)	Combination	Max	X	0.004796	23	0	14.1	3.6
story1	1.5(DL-RSx)	Combination	Min	X	0.004753	8	23.93	20.08	3.6
story1	1.5(DL-RSy)	Combination	Max	Y	0.002687	33	27.2	11.62	3.6
story1	1.5(DL-RSy)	Combination	Min	Y	0.002653	15	3.28	20.08	3.6
story1	DL+0.8LL-0.8RSx	Combination	Max	X	0.002565	23	0	14.1	3.6
story1	DL+0.8LL-0.8RSx	Combination	Min	X	0.002539	8	23.93	20.08	3.6
story1	DL+0.8LL-0.8RSy	Combination	Max	Y	0.001444	33	27.2	11.62	3.6
story1	DL+0.8LL-0.8RSy	Combination	Min	Y	0.001418	15	3.28	20.08	3.6
story1	DL+0.8LL+0.8RSx	Combination	Max	X	0.002565	23	0	14.1	3.6
story1	DL+0.8LL+0.8RSx	Combination	Min	X	0.002539	8	23.93	20.08	3.6
story1	DL+0.8LL+0.8RSy	Combination	Max	Y	0.001444	33	27.2	11.62	3.6
story1	DL+0.8LL+0.8RSy	Combination	Min	Y	0.001418	15	3.28	20.08	3.6
story1	DL+RSx	Combination	Max	X	0.003197	23	0	14.1	3.6
story1	DL+RSx	Combination	Min	X	0.003169	8	23.93	20.08	3.6
story1	DL+RSy	Combination	Max	Y	0.001791	33	27.2	11.62	3.6
story1	DL+RSy	Combination	Min	Y	0.001769	15	3.28	20.08	3.6
story1	DL-RSx	Combination	Max	X	0.003197	23	0	14.1	3.6
story1	DL-RSx	Combination	Min	X	0.003169	8	23.93	20.08	3.6
story1	DL-RSy	Combination	Max	Y	0.001791	33	27.2	11.62	3.6
story1	DL-RSy	Combination	Min	Y	0.001769	15	3.28	20.08	3.6
story1	Envelope	Combination	Max	X	0.004981	23	0	14.1	3.6
story1	Envelope	Combination	Max	Y	0.002814	41	3.28	11.62	3.6
story1	Envelope	Combination	Min	X	0.004931	23	0	14.1	3.6
story1	Envelope	Combination	Min	Y	0.00279	15	3.28	20.08	3.6
plinth beam	Dead	LinStatic		X	3.2E-05	20	11.96	15.2	0
plinth beam	Dead	LinStatic		Y	1.4E-05	41	3.28	11.62	0
plinth beam	Live	LinStatic		X	1.3E-05	20	11.96	15.2	0
plinth beam	roof live	LinStatic		X	1E-06	17	42.21	15.2	0
plinth beam	roof live	LinStatic		Y	2.807E-07	91	45.19	2.02	0
plinth beam	floor finish & partion	LinStatic		X	1.5E-05	20	11.96	15.2	0
plinth beam	sunken filling	LinStatic		X	1.1E-05	20	11.96	15.2	0

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
plinth beam	sunken filling	LinStatic		Y	8E-06	94	39.05	1.41	0
plinth beam	wall load	LinStatic		X	2.9E-05	20	11.96	15.2	0
plinth beam	seismic x	LinStatic		X	0.002283	75	0	6.13	0
plinth beam	seismic y	LinStatic		Y	0.001029	20	11.96	15.2	0
plinth beam	Response spectrum in X	LinRespSpec	Max	X	0.002225	75	0	6.13	0
plinth beam	Response spectrum in Y	LinRespSpec	Max	Y	0.000996	20	11.96	15.2	0
plinth beam	DL+LL	Combination		X	0.0001	20	11.96	15.2	0
plinth beam	DL+LL	Combination		Y	4.7E-05	41	3.28	11.62	0
plinth beam	1.5(DL+LL)	Combination		X	0.00015	20	11.96	15.2	0
plinth beam	1.5(DL+LL)	Combination		Y	7E-05	41	3.28	11.62	0
plinth beam	1.2(DL+LL+EQx)	Combination		X	0.002735	74	3.16	6.13	0
plinth beam	1.2(DL+LL-EQx)	Combination		X	0.002835	20	11.96	15.2	0
plinth beam	1.2(DL+LL+EQy)	Combination		Y	0.001262	57	3.16	9.87	0
plinth beam	1.2(DL+LL-EQy)	Combination		Y	0.001242	21	9.3	15.2	0
plinth beam	1.5(DL+EQx)	Combination		X	0.003422	74	3.16	6.13	0
plinth beam	1.5(DL-EQx)	Combination		X	0.003525	20	11.96	15.2	0
plinth beam	1.5(DL+EQy)	Combination		Y	0.001574	57	3.16	9.87	0
plinth beam	1.5(DL-EQy)	Combination		Y	0.001552	21	9.3	15.2	0
plinth beam	0.9DL+1.5EQx	Combination		X	0.003423	74	3.16	6.13	0
plinth beam	0.9DL-1.5EQx	Combination		X	0.003473	20	11.96	15.2	0
plinth beam	0.9DL+1.5EQy	Combination		Y	0.001557	57	3.16	9.87	0
plinth beam	0.9DL-1.5EQy	Combination		Y	0.001549	21	9.3	15.2	0
plinth beam	DL+0.8LL+0.8EQx	Combination		X	0.001823	73	6.32	6.13	0
plinth beam	DL+0.8LL-0.8EQx	Combination		X	0.001908	20	11.96	15.2	0
plinth beam	DL+0.8LL+0.8EQy	Combination		Y	0.000847	57	3.16	9.87	0
plinth beam	DL+0.8LL-0.8EQy	Combination		Y	0.000829	21	9.3	15.2	0
plinth beam	DL+EQx	Combination		X	0.002281	74	3.16	6.13	0
plinth beam	DL-EQx	Combination		X	0.00235	20	11.96	15.2	0
plinth beam	DL+EQy	Combination		Y	0.001049	57	3.16	9.87	0
plinth beam	DL-EQy	Combination		Y	0.001035	21	9.3	15.2	0
plinth beam	seismic weight	Combination		X	9.1E-05	20	11.96	15.2	0
plinth beam	seismic weight	Combination		Y	4.2E-05	41	3.28	11.62	0
plinth beam	0.9DL-1.5RSx	Combination	Max	X	0.003335	74	3.16	6.13	0
plinth beam	0.9DL-1.5RSx	Combination	Min	X	0.003403	20	11.96	15.2	0
plinth beam	0.9DL-1.5RSy	Combination	Max	Y	0.001506	57	3.16	9.87	0
plinth beam	0.9DL-1.5RSy	Combination	Min	Y	0.001498	20	11.96	15.2	0
plinth beam	0.9DL+1.5RSx	Combination	Max	X	0.003335	74	3.16	6.13	0
plinth beam	0.9DL+1.5RSx	Combination	Min	X	0.003403	20	11.96	15.2	0
plinth beam	0.9DL+1.5RSy	Combination	Max	Y	0.001506	57	3.16	9.87	0
plinth beam	0.9DL+1.5RSy	Combination	Min	Y	0.001498	20	11.96	15.2	0
plinth beam	1.2(DL+LL+RSx)	Combination	Max	X	0.002665	74	3.16	6.13	0
plinth beam	1.2(DL+LL+RSx)	Combination	Min	X	0.002779	20	11.96	15.2	0
plinth beam	1.2(DL+LL+RSy)	Combination	Max	Y	0.001221	57	3.16	9.87	0
plinth beam	1.2(DL+LL+RSy)	Combination	Min	Y	0.001201	20	11.96	15.2	0
plinth beam	1.2(DL+LL-RSx)	Combination	Max	X	0.002665	74	3.16	6.13	0
plinth beam	1.2(DL+LL-RSx)	Combination	Min	X	0.002779	20	11.96	15.2	0
plinth beam	1.2(DL+LL-RSy)	Combination	Max	Y	0.001221	57	3.16	9.87	0
plinth beam	1.2(DL+LL-RSy)	Combination	Min	Y	0.001201	20	11.96	15.2	0
plinth beam	1.5(DL+RSx)	Combination	Max	X	0.003334	74	3.16	6.13	0
plinth beam	1.5(DL+RSx)	Combination	Min	X	0.003455	20	11.96	15.2	0
plinth beam	1.5(DL+RSy)	Combination	Max	Y	0.001522	57	3.16	9.87	0
plinth beam	1.5(DL+RSy)	Combination	Min	Y	0.001502	20	11.96	15.2	0
plinth beam	1.5(DL-RSx)	Combination	Max	X	0.003334	74	3.16	6.13	0

Story	Output Case	Case Type	Step Type	Direction	Drift	Label	X m	Y m	Z m
plinth beam	1.5(DL-RSx)	Combination	Min	X	0.003455	20	11.96	15.2	0
plinth beam	1.5(DL-RSy)	Combination	Max	Y	0.001522	57	3.16	9.87	0
plinth beam	1.5(DL-RSy)	Combination	Min	Y	0.001502	20	11.96	15.2	0
plinth beam	DL+0.8LL-0.8RSx	Combination	Max	X	0.001777	73	6.32	6.13	0
plinth beam	DL+0.8LL-0.8RSx	Combination	Min	X	0.00187	20	11.96	15.2	0
plinth beam	DL+0.8LL-0.8RSy	Combination	Max	Y	0.00082	57	3.16	9.87	0
plinth beam	DL+0.8LL-0.8RSy	Combination	Min	Y	0.000802	20	11.96	15.2	0
plinth beam	DL+0.8LL+0.8RSx	Combination	Max	X	0.001777	73	6.32	6.13	0
plinth beam	DL+0.8LL+0.8RSx	Combination	Min	X	0.00187	20	11.96	15.2	0
plinth beam	DL+0.8LL+0.8RSy	Combination	Max	Y	0.00082	57	3.16	9.87	0
plinth beam	DL+0.8LL+0.8RSy	Combination	Min	Y	0.000802	20	11.96	15.2	0
plinth beam	DL+RSx	Combination	Max	X	0.002223	74	3.16	6.13	0
plinth beam	DL+RSx	Combination	Min	X	0.002303	20	11.96	15.2	0
plinth beam	DL+RSy	Combination	Max	Y	0.001015	57	3.16	9.87	0
plinth beam	DL+RSy	Combination	Min	Y	0.001001	20	11.96	15.2	0
plinth beam	DL-RSx	Combination	Max	X	0.002223	74	3.16	6.13	0
plinth beam	DL-RSx	Combination	Min	X	0.002303	20	11.96	15.2	0
plinth beam	DL-RSy	Combination	Max	Y	0.001015	57	3.16	9.87	0
plinth beam	DL-RSy	Combination	Min	Y	0.001001	20	11.96	15.2	0
plinth beam	Envelope	Combination	Max	X	0.003423	74	3.16	6.13	0
plinth beam	Envelope	Combination	Max	Y	0.001574	57	3.16	9.87	0
plinth beam	Envelope	Combination	Min	X	0.003525	20	11.96	15.2	0
plinth beam	Envelope	Combination	Min	Y	0.001549	21	9.3	15.2	0

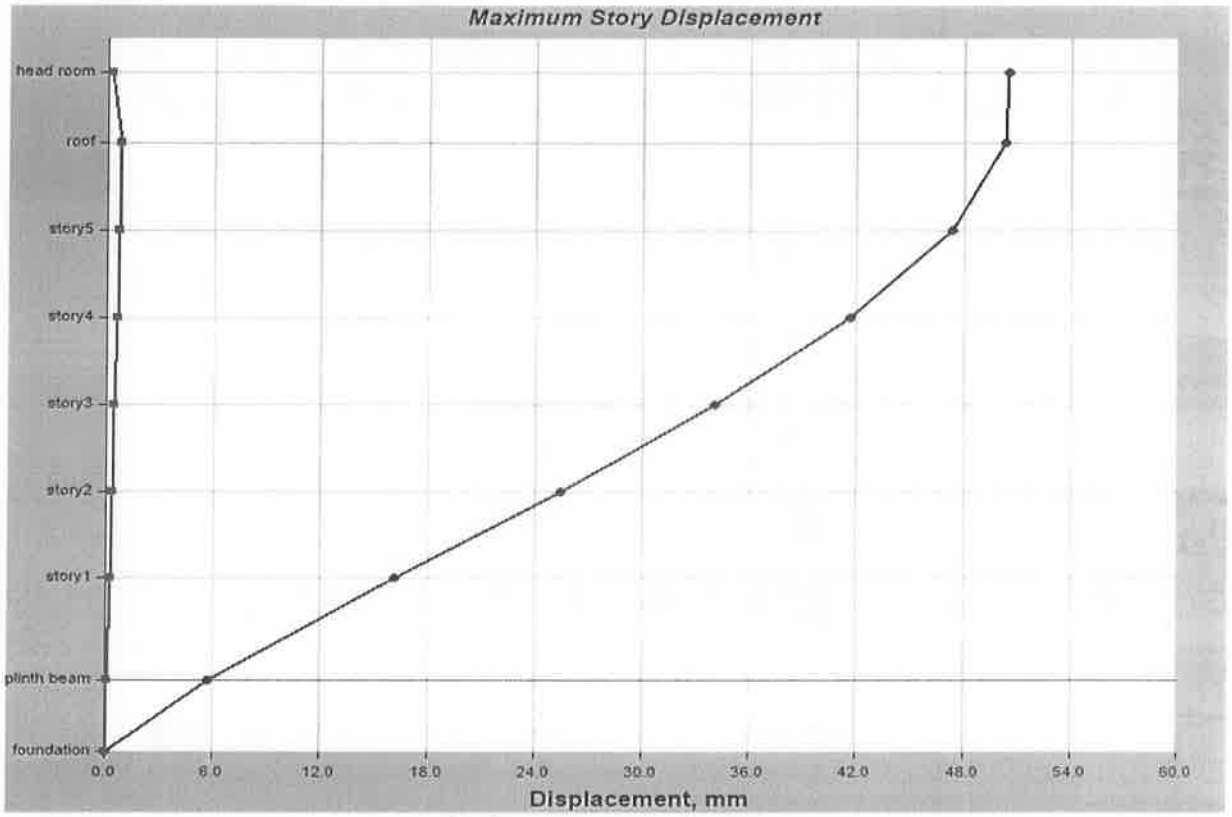
4.3 Modal Results

Table 4.3 - Modal Participating Mass Ratios (Part 1 of 2)

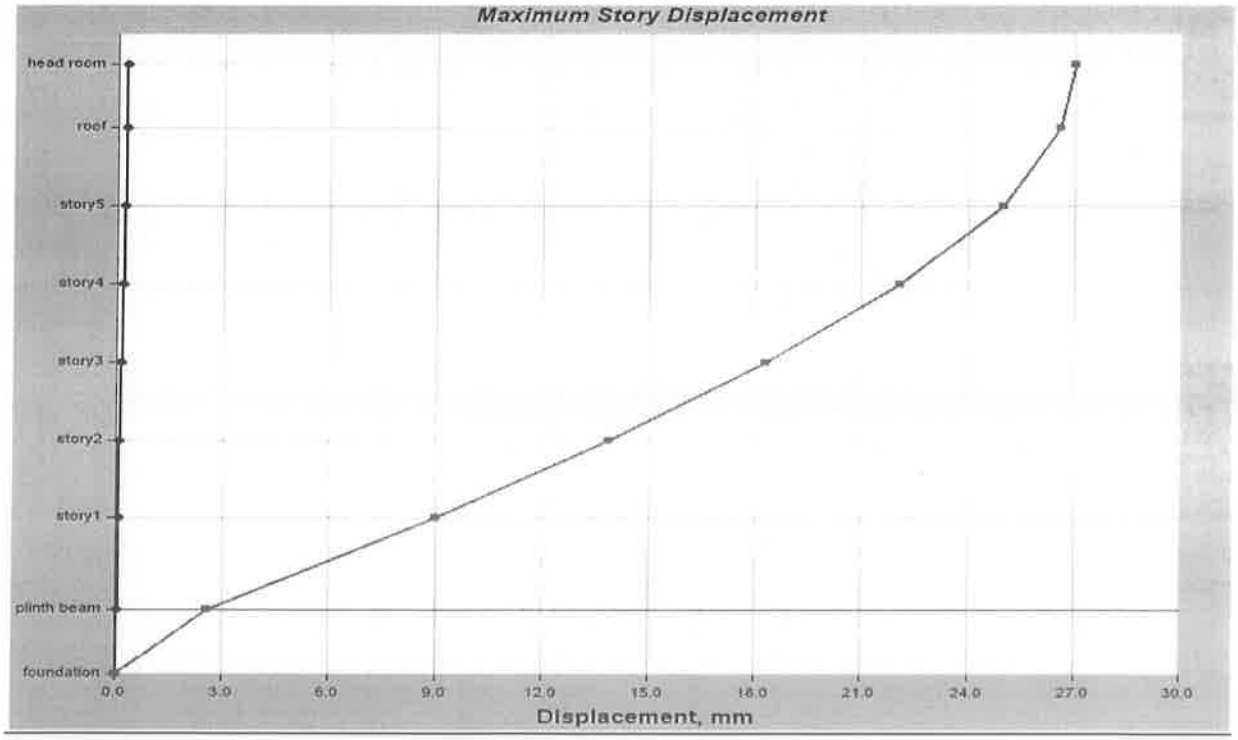
Case	Mode	Period sec	UX	UY	UZ	SumUX	SumUY	SumUZ	RX	RY	RZ	SumRX
Modal	1	1.623	0.8879	4.012E-05	0	0.8879	4.012E-05	0	7.927E-06	0.113	0.0003	7.927E-06
Modal	2	1.225	0.0003	0.0025	0	0.8881	0.0025	0	0.0002	2.075E-05	0.8884	0.0003
Modal	3	1.186	3.71E-05	0.8887	0	0.8882	0.8912	0	0.1094	0	0.0024	0.1097
Modal	4	0.532	0.0733	1.025E-05	0	0.9615	0.8912	0	2.093E-05	0.7312	8.426E-06	0.1097
Modal	5	0.384	1.746E-05	1.425E-05	0	0.9615	0.8913	0	0.0003	0.0001	0.0707	0.11
Modal	6	0.37	1.837E-06	0.0688	0	0.9615	0.9601	0	0.7305	3.222E-05	3.369E-05	0.8405
Modal	7	0.309	0.0145	1.242E-06	0	0.976	0.9601	0	1.265E-05	0.0262	5.292E-07	0.8405
Modal	8	0.226	0.0035	0	0	0.9795	0.9601	0	9.468E-07	0.0339	3.286E-05	0.8405
Modal	9	0.206	2.63E-05	3.554E-06	0	0.9796	0.9601	0	5.624E-06	0.0002	0.0138	0.8405
Modal	10	0.2	1.074E-05	0.0138	0	0.9796	0.9739	0	0.0274	4.368E-05	3.271E-06	0.8679
Modal	11	0.199	0.0014	0.0001	0	0.981	0.974	0	0.0002	0.007	0.0002	0.8681
Modal	12	0.17	0.0012	0	0	0.9822	0.974	0	0	0.0026	0	0.8681

Table 4.3 - Modal Participating Mass Ratios (Part 2 of 2)

SumRY	SumRZ
0.113	0.0003
0.113	0.8887
0.113	0.8911
0.8442	0.8911
0.8443	0.9618
0.8443	0.9618
0.8705	0.9618
0.9044	0.9618
0.9046	0.9757
0.9047	0.9757



Displacement in X – direction



Displacement in Y – direction

09-May-24

DESIGN OF ISOLATED SQUARE FOOTING: C3, C6, C7 & C11

Load in kn (P)	1650	Size of pedestal	380
SBC in kn/m^2	120	Free end thickness	230
Size of the footing required (B)	3.708	Size provided	3.7
Net upward pressure (Po)	120.52	Size in feet	12.136
Maximum bending moment @ face of the column (Mu)	921.63		
Depth required (d)	853.42	Depth provided (d)	850
K	3.356		
Pt	1.110		
Ast in mm^2	3586.91		
Spacing of 10mm dia	81.016		
Spacing of 12mm dia	116.665		
Spacing of 16mm dia	207.398		
Check for one way shear:			
Shear force (V)	541.82		
Eff. Depth (d')	532.53		
Top width	2080		
Tv	0.489		
Pt	0.562		
Ast in mm^2	6230.60		
Spacing of 10mm dia	46.64		
Spacing of 12mm dia	67.16		
Spacing of 16mm dia	119.39		
Check for two way shear:			
Punching shear (F)	1467.65		
Eff. Depth (d')	691.26		
Tv	0.647		
Tc	0.968		
Check for transfer of load @ the column base:			
Permissible bearing stress	13.5		
Actual bearing stress	11.42		

Design of short column with bi axial bending: C10

Description	FF
Axial load in Kn	1774
Moment in Knm (Mux)	108
Moment in Knm (Muy)	180
Assumed length of column in mm (D)	600
Assumed breadth of column in mm (B)	300
Assumed % of steel	3.8

Grade of concrete	25
p/fck	0.152
d'/D	0.083
d'/B	0.166
Pu/(fck*B*D)	0.394
Referring to chart in SP-16	chart-48
Value from chart	0.17
Mux1 in Knm	459
Referring to chart in SP-16	chart-50
Value from chart	0.14
Muy1 in Knm	189
Referring to chart-63 of SP-16	
Puz/ Ag	25
Puz in Kn	4500
Pu/Puz	0.3942
Mux/Mux1	0.235
Muy/Muy1	0.95
Referring to chart-64 of SP-16	
Permissible Muy/Muy1	0.95
Check	safe
Ast required	6840
Provide steel	

Dia of lateral ties:	
Dia of main rod provided	25
6mm	6mm
1/4 times Dia of main rod	6.25
Dia of lateral ties choosen	8mm

Spacing of lateral ties:	
16 times the dia of main rod	320
Least lateral dimension of column	300
Provide 8mm dia 2 legged lateral ties @	175 mm c/c

Design of Floor Slab:

Assume the slab thickness as 150 mm

Dead load of slab (0.15 x 25) = 3.75 kn/m^2

Live load = 2.00 kn/m^2

Partition wall load = 1.00 kn/m^2

Floor finish load = 1.00 kn/m^2

7.75 kn/m^2

Say w = 8.0 kn/m^2

Long span L_y = 9.60 m

Short span L_x = 3.28 m

L_y / L_x = 2.90 > 2.0

To design as one way slab & slab thickness as 125mm

Positive moment @ mid span = (1.5 x 8 x 3.28^2) /8

= 16.14knm

Referring to the table – 37 of SP – 16 and assuming the slab thickness as 125mm

Provide 8mm dia @ 100mm c/c along shorter span and 8mm dia @ 150mm c/c along the longer span with alternate rods cranked @ 0.2 times of respective span

Check for deflection:

Permissible span / depth = 22 x 1.3 (referring to chart 22)

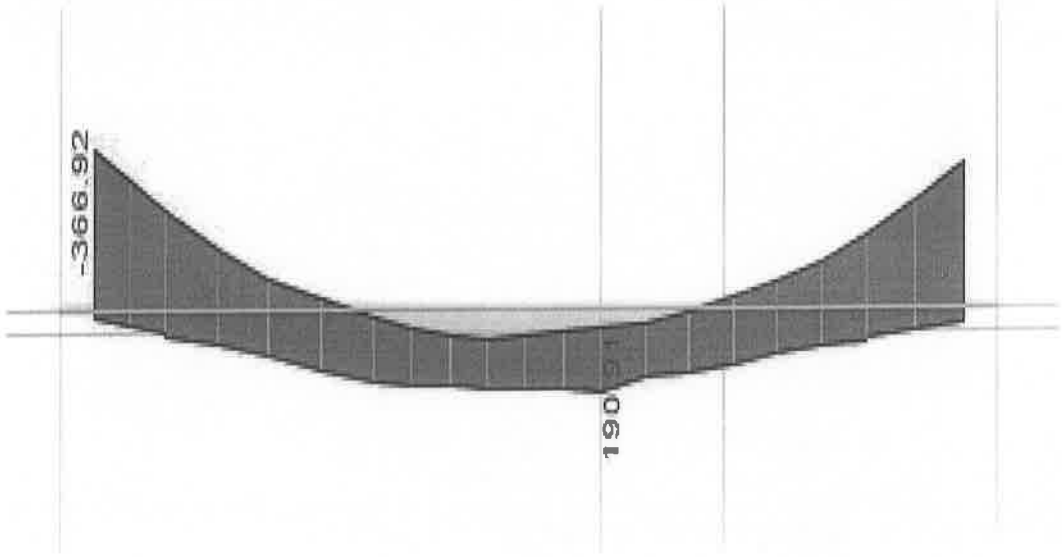
= 28.60

Actual deflection = 3280 / 125

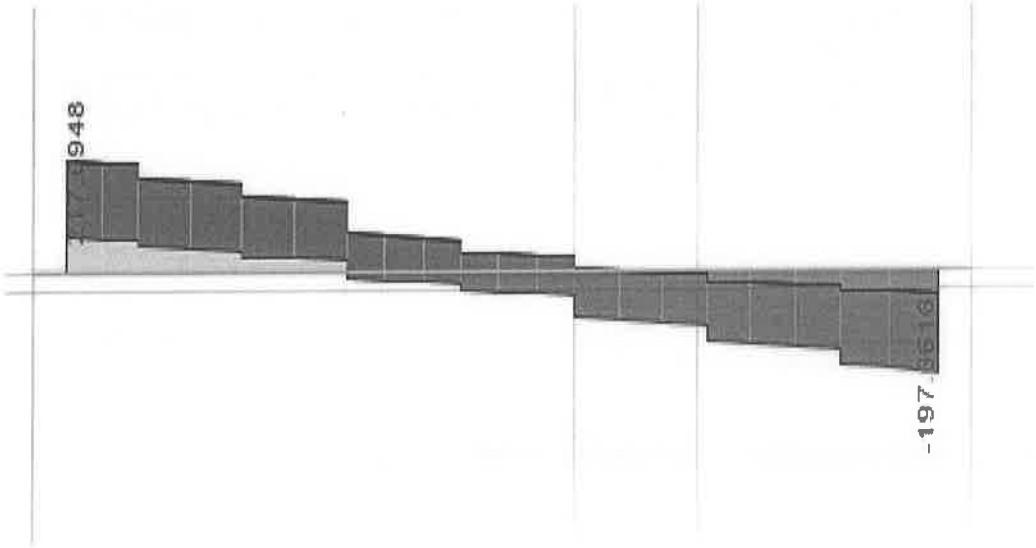
= 26.24 < 28.60

Hence safe

Design of critical floor beam:



Critical Bending Moment Diagram



Critical Shear Force Diagram

09-May-24

Assume beam size as 230mm x 600mm

Max factored B.M @ top of support = 367knm

K = 5.28, Pt= 1.422, Pc = 0.504

A_{st} = 1798 mm^2 A_{sc} = 638 mm^2

Therefore provide 3-20+3-20mm dia@ top of support

Max factored moment @ bottom = 191knm

K = 2.75, Pt = 0.744, Pc = 0.0

A_{st} = 942 mm^2 A_{sc} = 638 mm^2

Therefore provide 3-20+2-20mm dia @ bottom

Factored shear force @ support = 218kn

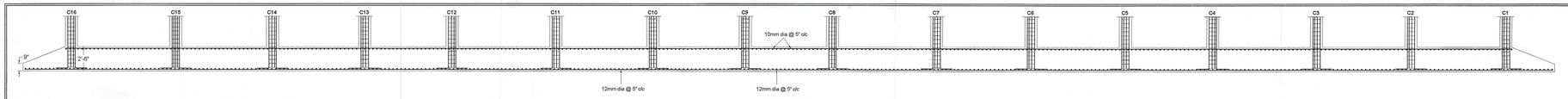
V_{us} = 218000 – (0.56 x 230 x 550)

V_{us}/d = 2.68kn/cm

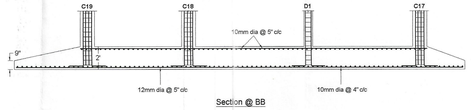
Referring to Table – 62 of SP-16, provide 8mm dia stirrups @ 125mm c/c

end of report

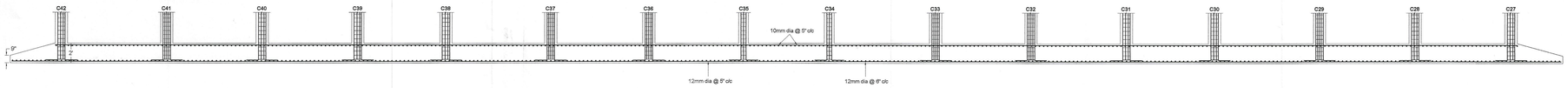
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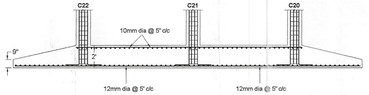
Section @ AA



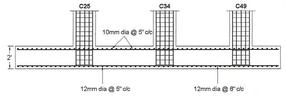
Section @ BB



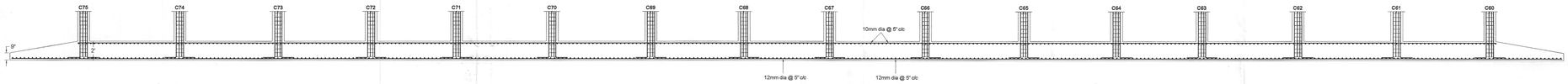
Section @ DD



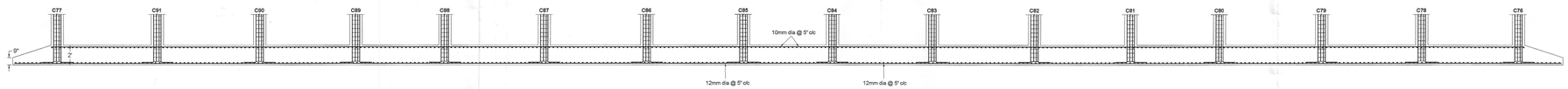
Section @ CC



Section @ GG

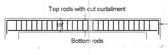


Section @ EE



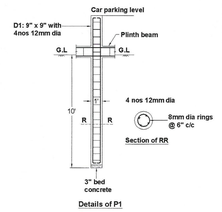
Section @ FF

LS of Plinth Beam:

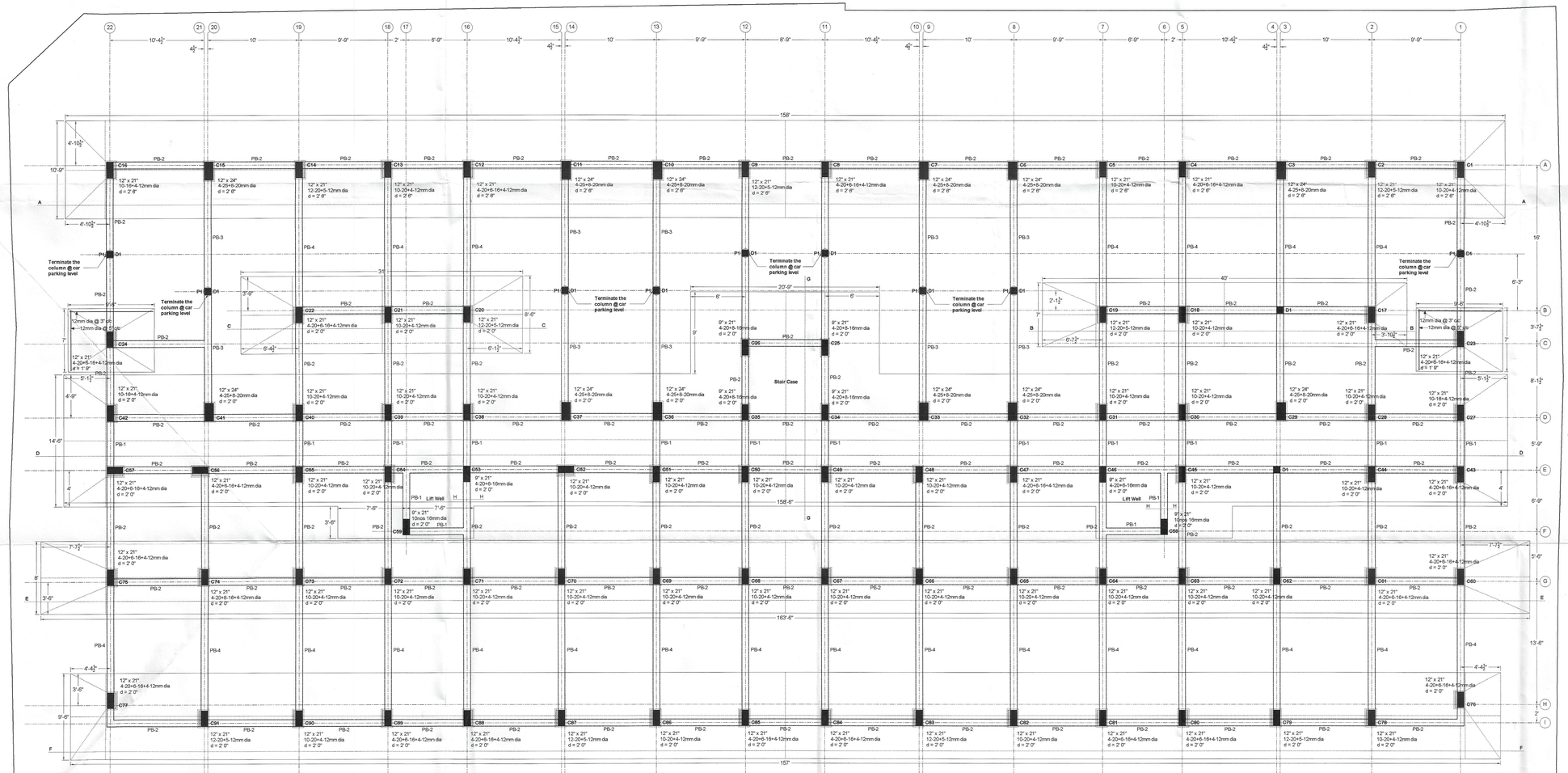


Plinth Beam Details: (Plinth beam bottom to be @ 3" below ground level)

PB NO	Size	Top rods	Bottom rods	Stirrups spacing
PB-1	9" x 15"	3-12mm dia	3-12 mm dia	6mm dia @ 5" c/c
PB- 2	9" x 15"	3 -12 mm dia	2-12+1-16 mm dia	6mm dia @ 5" c/c
PB- 3	9" x 15"	2-12+1-16 mm dia	2-16+1-12 mm dia	6mm dia @ 5" c/c
PB- 4	9" x 15"	3-16 mm dia	2-16+1-20 mm dia	6mm dia @ 4" c/c

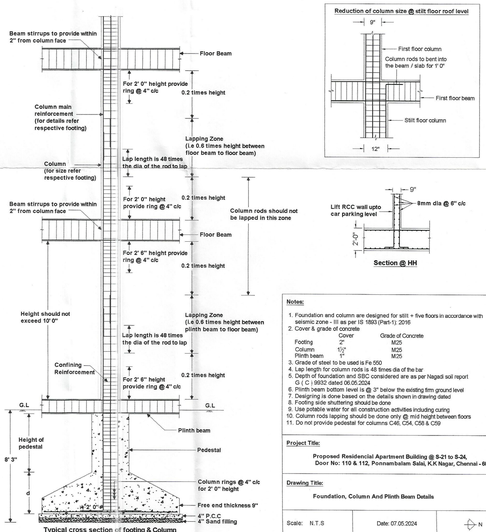


Details of P1



Orientation Of Column Rods Details:

Column no.	Column Size	Pedestal Size	Stilt Floor	First & Second Floors	Third, Fourth & Fifth Floors	Maximum Spacing of Rings / Confining Rings
C3, C6, C7, C10, C11, C15, C29, C32, C33, C36, C37 & C41	2' 0" x 1' 0"	2' 3" x 1' 3"	4-25 + 8-20	4-25 + 8-20	4-20 + 8-16	4- legged 8mm dia @ 6" c/c / 8mm dia @ 4" c/c
C2, C9, C14, C19, C20, C79, C83, C87 & C91	1' 9" x 1' 0" 1' 9" x 9"	2' 0" x 1' 3"	5nos 12mm 12nos 20mm	12nos 20mm	4-20 + 8-16	6- legged 8mm dia @ 6" c/c / 8mm dia @ 4" c/c
C1, C5, C13, C18, C21, C28, C30, C31, C38, C39, C40, C44, C45, C48, C49, C50, C51, C52, C54, C55, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C78, C12, C66 & C90	1' 9" x 1' 0" 1' 9" x 9"	2' 0" x 1' 3"	4nos 12mm 10nos 20mm	10nos 20mm	4-20 + 8-16	6- legged 8mm dia @ 6" c/c / 8mm dia @ 4" c/c
C4, C8, C12, C17, C22, C23, C24, C43, C47, C56, C57, C10, C61, C74, C75, C76, C77, C80, C11, C84, C85, C88 & C89	1' 9" x 1' 0" 1' 9" x 9"	2' 0" x 1' 3"	4nos 12mm 4-20 + 8-16	4-20 + 8-16	10nos 16mm	6- legged 8mm dia @ 6" c/c / 8mm dia @ 4" c/c
C16, C27 & C42	1' 9" x 1' 0" 1' 9" x 9"	2' 0" x 1' 3"	10nos 16mm	10nos 16mm	10nos 16mm	6- legged 8mm dia @ 6" c/c / 8mm dia @ 4" c/c
C25, C26, C34 & C35	1' 9" x 9"	2' 0" x 1' 0"	4-20 + 8-16	4-20 + 8-16	12nos 16mm	4- legged 8mm dia @ 6" c/c / 8mm dia @ 4" c/c
C46 & C53	1' 9" x 9"	1' 9" x 9"	4-20 + 6-16	4-20 + 6-16	10nos 16mm	4- legged 8mm dia @ 6" c/c / 8mm dia @ 4" c/c
C58 & C59	1' 9" x 9"	1' 9" x 9"	10nos 16mm	10nos 16mm	10nos 16mm	4- legged 8mm dia @ 6" c/c / 8mm dia @ 4" c/c
D1 (terminate the column @ car parking level)	9" x 9"	9" x 9"	4nos 12mm			2- legged 8mm dia @ 6" c/c



Typical cross section of footing & Column

Section @ HH

Notes:

1. Foundation and column are designed for stilt + five floors in accordance with seismic zone - III as per IS 1893 (Part-1) 2016
2. Cover & grade of concrete

	Cover	Grade of Concrete
Footing	2"	M25
Column	1½"	M25
Plinth beam	1½"	M25

3. Grade of steel to be used is Fe 550
4. Lap length for column rods is 48 times dia of the bar
5. Safe bearing capacity of soil considered are as per Nagadi soil report Dt:C.) 1602 dated 08.05.2024
6. Plinth beam bottom level is @ 3' below the existing fim ground level
7. Dewatering is done based on the details shown in drawing dated
8. Footing side shuttering should be done
9. Use potable water for all construction activities including curing
10. Column rods lapping should be done only @ mid height between floors
11. Do not provide pedestal for columns C46, C04, C58 & C59

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Mogappair West, Chennai-600 058

Project Title:

Proposed Residencial Apartment Building @ S-21 to S-24,
Door No: 110 & 112, Ponnambalam Salai, K.K.Nagar, Chennai - 600 078

Drawing Title:

Foundation, Column And Plinth Beam Details

Scale: N.T.S | Date: 07.05.2024 | N

Promoter:

KCee Properties
17, 3 rd Cross Street,
CIT Nagar,
Chennai - 600 035

Structural Consultant:

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What it is worth and what it costs to register.

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