Verified RealEstate™

RE REGULATORY RECORD

RERA Document

The document as the regulator published it, reproduced in full behind this page.

Published for reference. The authority's own register is the operative record.

Verified RealEstate™
3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai 600 097, India

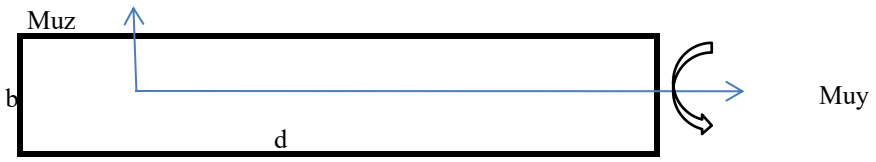
hello@verified.realestate
+91 9996 12 9996
verified.realestate

DIGITALLY VERIFIED RECORD

COLUMN DESIGN

AMBER - APARTMENT

Input details		C1	



DESIGN OF R.C.C COLUMN (LIMIT STATE OF COLLAPSE)

TYPE		***C1***	
Load, Pu	kN	*2148.5*	
Muy	kNm	*11.88*	
Muz	kNm	*105.88*	
fck	N/mm^2	*25*	
fy	N/mm^2	*500*	
b	mm	*300*	
D	mm	*600*	
% Ast, p	%	*2.5*	
p/fck		0.100	
d'/D z		0.067	
d'/D y		0.133	
Pu/fckbD		0.477	
Factor y		*0.08*	
Factor z		*0.08*	
Muy1	kNm	216.0	
Muz1	kNm	108.0	
Puz	kN	3712.50	
= 0.45 fck Ac+ 0.75 fy Asc			
Pu/Puz		0.58	
Alpha n		0	
		1.63	1.39
Mux/Mux1 + Muy/Muy1 Should be < 1			
		0.02	
		0.97	
		0.99	
		SAFE	
Ast	mm^2	4500	
PROVIDED		6 Nos oF 25 + 6 Nos Of 20	

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

COLUMN DESIGN

AMBER - APARTMENT

Input details		C3	



DESIGN OF R.C.C COLUMN (LIMIT STATE OF COLLAPSE)

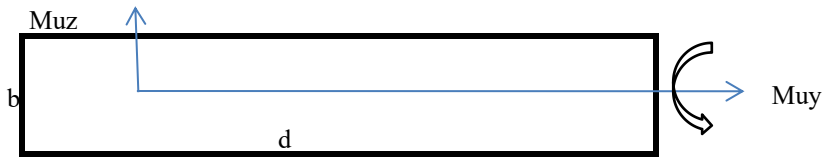
TYPE		***C3***	
Load, Pu	kN	*605*	
Muy	kNm	*70*	
Muz	kNm	*19*	
fck	N/mm^2	*25*	
fy	N/mm^2	*500*	
b	mm	*300*	
D	mm	*450*	
% Ast, p	%	*2.4*	
p/fck		0.096	
d'/D z		0.089	
d'/D y		0.133	
Pu/fckbD		0.179	
Factor y		*0.06*	
Factor z		*0.04*	
Muy1	kNm	91.1	
Muz1	kNm	40.5	
Puz	kN	2733.75	
= 0.45 fck Ac+ 0.75 fy Asc			
Pu/Puz		0.22	
Alpha n		0	
		1.04	1.69
Mux/Mux1 + Muy/Muy1 Should be < 1			
		0.64	
		0.28	
		0.92	
		SAFE	
Ast	mm^2	3240	
PROVIDED		6 Nos oF 25 + 6 Nos Of 16	

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

COLUMN DESIGN

AMBER - APARTMENT

Input details		C2	



DESIGN OF R.C.C COLUMN (LIMIT STATE OF COLLAPSE)

TYPE		***C2***	
Load, Pu	kN	*2148.5*	
Muy	kNm	*58*	
Muz	kNm	*23.1*	
fck	N/mm^2	*25*	
fy	N/mm^2	*500*	
b	mm	*300*	
D	mm	*450*	
% Ast, p	%	*2.4*	
p/fck		0.096	
d'/D z		0.089	
d'/D y		0.133	
Pu/fckbD		0.637	
Factor y		*0.08*	
Factor z		*0.08*	
Muy1	kNm	121.5	
Muz1	kNm	81.0	
Puz	kN	2733.75	
= 0.45 fck Ac+ 0.75 fy Asc			
Pu/Puz		0.79	
Alpha n		0	
		1.98	1.39
Mux/Mux1 + Muy/Muy1 Should be < 1			
		0.36	
		0.17	
		0.53	
		SAFE	
Ast	mm^2	3240	

PROVIDED 12 Nos Of 20

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

COLUMN DESIGN

AMBER - APARTMENT

Input details		C4	



DESIGN OF R.C.C COLUMN (LIMIT STATE OF COLLAPSE)

TYPE		***C4***	
Load, Pu	kN	*1760*	
Muy	kNm	*62.45*	
Muz	kNm	*7.25*	
fck	N/mm^2	*25*	
fy	N/mm^2	*500*	
b	mm	*230*	
D	mm	*380*	
% Ast, p	%	*1.45*	
p/fck		0.058	
d'/D z		0.105	
d'/D y		0.174	
Pu/fckbD		0.805	
Factor y		*0.08*	
Factor z		*0.08*	
Muy1	kNm	66.4	
Muz1	kNm	40.2	
Puz	kN	1458.49	
= 0.45 fck Ac+ 0.75 fy Asc			
Pu/Puz		1.21	
Alpha n		0	
		2	1.69
Mux/Mux1 + Muy/Muy1 Should be < 1			
		0.90	
		0.06	
		0.96	
		SAFE	
Ast	mm^2	1267.3	
PROVIDED		4 Nos oF 16 + 6 Nos Of 12	

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

DESIGN OF R.C.C COLUMN FOOTING (LIMIT STATE OF COLLAPSE)

Input details			F1	
Load, Pu		kN	*2148.5*	
Muy		kNm	*11.88*	
Muz		kNm	*105.88*	
fck		N/mm^2	*25*	
fy		N/mm^2	*500*	
SBC		kN/m^2	*288.7*	
Column size		Ver, b m	*0.3*	
		Hori, d m	*0.6*	
Area reqd		m^2	5.46	
L (Hori)		m	2.45	8.038058
B (Ver)		m	2.45	8.038058
Area provided			6.00	
Direct Pressure		kN/m^2	357.93	
Pmax xy		kN/m^2	405.98	
Pmin xy		kN/m^2	309.89	
			SAFE	
Depth of footing				
Moment Mu		kNm	173.7	
	or	kNm	234.6	
d reqd		mm	224.37	
	or	mm	260.76	
D provided		mm	*675*	
Therefore Eff d		mm	625	
Projection for BM		m	0.925	
		m	1.075	
Proj-one way SF		m	0.3	
Proj-Two way SF		m	1.225	
		m	0.925	
Ast reqd				
Mu = 0.87 fy Ast d (1 - (fy Ast)/(fck b d))				
	a & b		8.7000	271875
	c		173683096.9	234580019.1
Ast	X & Y	mm^2	652.457	888.06
Dia of rod	X & Y	mm	12	12
Sp reqd	X & Y	mm	173.25	127.29
Sp prod	X & Y	mm	125	125
Ast prod	X & Y	mm^2	904.32	904.3
% Ast			0.14	0.14
One way shear				
		Vu kN	107.4	
Tou v		N/mm^2	0.172	
Tc		N/mm^2	0.29	
Two way shear			*SAFE*	
Vu		kN	1742.92	

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Tou v		N/mm^2	0.65	
Bc			2.00	
ks			2.50 1.0	
Tou c= ks x 0.25 x sqrt(fck)			1.25	
	N/mm^2		*SAFE*	
Results				
Size of footing	in m		2.45	2.45
Depth of footing	in mm		675	
Ast		12 Tor 125 C/C		
		12 Tor 125 C/C		
Spacing Of Bars			4.92125	4.92125

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

DESIGN OF R.C.C COLUMN FOOTING (LIMIT STATE OF COLLAPSE)

Input details			F2	
Load, Pu		kN	*1973*	
Muy		kNm	*13.4*	
Muz		kNm	*23.1*	
fck		N/mm^2	*25*	
fy		N/mm^2	*500*	
SBC		kN/m^2	*288.7*	
Column size		Ver, b m	*0.3*	
		Hori, d m	*0.45*	
Area reqd		m^2	5.01	
L (Hori)		m	*2.2*	7.217848
B (Ver)		m	*2.2*	7.217848
Area provided			4.84	
Direct Pressure		kN/m^2	407.64	
Pmax xy		kN/m^2	428.21	
Pmin xy		kN/m^2	387.08	
			SAFE	
Depth of footing				
Moment Mu		kNm	163.9	
	or	kNm	193.2	
d reqd		mm	217.98	
	or	mm	236.66	
D provided		mm	*600*	
Therefore Eff d		mm	550	
Projection for BM		m	0.875	
		m	0.95	
Proj-one way SF		m	0.325	
Proj-Two way SF		m	1	
		m	0.85	
Ast reqd				
Mu = 0.87 fy Ast d (1 - (fy Ast)/(fck b d))				
	a & b		8.7000	239250
	c		163924856.8	193230606.7
Ast	X & Y	mm^2	703.140	832.88
Dia of rod	X & Y	mm	12	12
Sp reqd	X & Y	mm	160.76	135.72
Sp prod	X & Y	mm	125	125
Ast prod	X & Y	mm^2	904.32	904.3
% Ast			0.16	0.16
One way shear				
		Vu kN	132.5	
Tou v		N/mm^2	0.241	
Tc		N/mm^2	0.29	
Two way shear			*SAFE*	
Vu		kN	1626.50	

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Tou v		N/mm^2	0.80		
Bc			1.50		
ks			2.00	1.0	
Tou c= ks x 0.25 x sqrt(fck)			1.25		
	N/mm^2		*SAFE*		
Results					
Size of footing	in m		2.2		2.2
Depth of footing	in mm		600		
Ast		12 Tor 125 C/C			
		12 Tor 125 C/C			
Spacing Of Bars			4.92125		4.92125



SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

DESIGN OF R.C.C COLUMN FOOTING (LIMIT STATE OF COLLAPSE)

Input details			F3	
Load, Pu		kN	*605*	
Muy		kNm	*0.23*	
Muz		kNm	*3*	
fck		N/mm^2	*25*	
fy		N/mm^2	*500*	
SBC		kN/m^2	*288.7*	
Column size		Ver, b m	*0.23*	
		Hori, d m	*0.38*	
Area reqd		m^2	1.54	
L (Hori)		m	1.8	5.905512
B (Ver)		m	1.8	5.905512
Area provided			3.24	
Direct Pressure		kN/m^2	186.73	
Pmax xy		kN/m^2	190.05	
Pmin xy		kN/m^2	183.41	
			SAFE	
Depth of footing				
Moment Mu		kNm	58.6	
	or	kNm	47.9	
d reqd		mm	130.28	
	or	mm	117.83	
D provided		mm	*600*	
Therefore Eff d		mm	550	
Projection for BM		m	0.785	
		m	0.71	
Proj-one way SF		m	0.235	
Proj-Two way SF		m	0.78	
		m	0.93	
Ast reqd				
Mu = 0.87 fy Ast d (1 - (fy Ast)/(fck b d))				
	a & b		8.7000	239250
	c		58557224.41	47902465.53
Ast	X & Y	mm^2	246.971	201.70
Dia of rod	X & Y	mm	12	12
Sp reqd	X & Y	mm	457.71	560.44
Sp prod	X & Y	mm	125	125
Ast prod	X & Y	mm^2	904.32	904.3
% Ast			0.16	0.16
One way shear				
		Vu kN	43.9	
Tou v		N/mm^2	0.080	
Tc		N/mm^2	0.3	
Two way shear			*SAFE*	
Vu		kN	469.55	



SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Tou v		N/mm^2	0.25	
Bc			0.61	
ks			1.11	1.0
Tou c= ks x 0.25 x sqrt(fck)			1.25	
	N/mm^2		*SAFE*	
Results				
Size of footing	in m		1.8	1.8
Depth of footing	in mm		600	
Ast		12 Tor 125 C/C		
		12 Tor 125 C/C		
Spacing Of Bars			4.92125	4.92125

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

DESIGN OF R.C.C COLUMN FOOTING (LIMIT STATE OF COLLAPSE)

Input details			F4	
Load, Pu		kN	*1452.5*	
Muy		kNm	*0.54*	
Muz		kNm	*78.34*	
fck		N/mm^2	*25*	
fy		N/mm^2	*500*	
SBC		kN/m^2	*288.7*	
Column size		Ver, b m	*0.3*	
		Hori, d m	*0.45*	
Area reqd		m^2	3.69	
L (Hori)		m	1.98	6.4960632
B (Ver)		m	1.98	6.4960632
Area provided			3.92	
Direct Pressure		kN/m^2	370.50	
Pmax xy		kN/m^2	431.47	
Pmin xy		kN/m^2	309.53	
			SAFE	
Depth of footing				
Moment Mu		kNm	152.2	
	or	kNm	126.3	
d reqd		mm	210.05	
	or	mm	191.30	
D provided		mm	*600*	
Therefore Eff d		mm	550	
Projection for BM		m	0.84	
		m	0.765	
Proj-one way SF		m	0.29	
Proj-Two way SF		m	0.85	
		m	1	
Ast reqd				
Mu = 0.87 fy Ast d (1 - (fy Ast)/(fck b d))				
	a & b		8.7000	239250
	c		152222194.4	126253165.7
Ast	X & Y	mm^2	651.691	538.24
Dia of rod	X & Y	mm	12	12
Sp reqd	X & Y	mm	173.46	210.02
Sp prod	X & Y	mm	125	125
Ast prod	X & Y	mm^2	904.32	904.3
% Ast			0.16	0.16
One way shear				
		Vu kN	107.4	
Tou v		N/mm^2	0.195	
Tc		N/mm^2	0.28	
Two way shear			*SAFE*	
Vu		kN	1137.58	

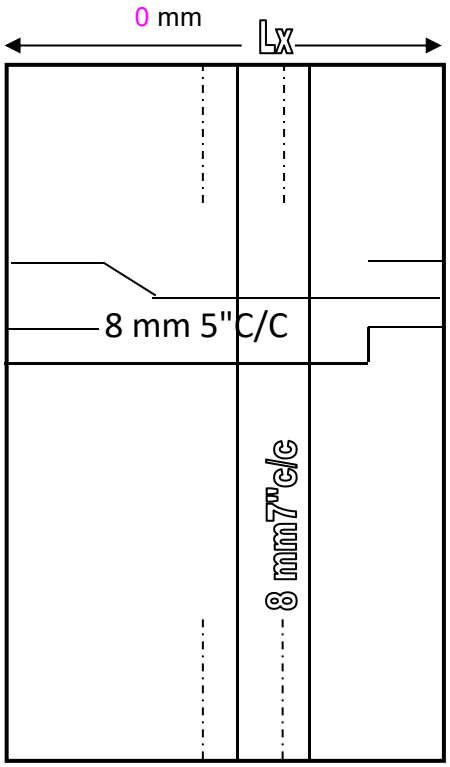
SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Tou v	N/mm^2		0.56	
Bc			0.67	
ks			1.17	1.0
Tou c= ks x 0.25 x sqrt(fck)			1.25	
	N/mm^2		*SAFE*	
Results				
Size of footing	in m		1.98	1.98
Depth of footing	in mm		600	
Ast		12 Tor 125 C/C		
		12 Tor 125 C/C		
Spacing Of Bars			4.92125	4.92125

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

AMBER - Design Of One way Slab

Lx		22 ft	6.7056 m
Ly		10 ft	3.048 m
Thickness of Slab:		6 inch	152.4 mm
Unit Wt of Concrete:		25 N/mm2	
Fy of Steel		500 N/mm2	
Toilet Sunken	0 inch		
Unit Wt of Brick	19.2 N/mm2		
fck	25 N/mm2		
Effect			
Lx	22.75 ft	6.9342 m	
Ly	10.75 ft	3.2766 m	
d		132.4 mm	
Live Load	2000 N/mm2		



Ly/Lx 0.45455

If Less than 2 Consider it should be a TWO - Way Slab.

But some times consider One - Way slab

Load Calculation:

Live Load:	2000 N/m2
Unknown Partition	1000 N/m2
Floor Finishing	1000 N/m2
Self wt of Slab	3810 N/m2
Toilet	0 N/m2
Total Load	7.81 N/m2
Factor Load	11.715 N/m2

B.M.

WLx²/10 60.12813 N/m2

Ast

.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A		276589396.9
1000 x fck x d ²	B		438244000
1-A/B	C		0.368868948
√c	D		0.607345822
1-D	E		0.392654178
E x 1000 x .5 x fck x d / fy	F		1299.685329
	Ast		1299.685329

Ast Detail

		spacing	
8mm	50 mm2	38.4709 mm	1.5146 inch C/C
10mm	78 mm2	60.0145 mm	2.362777 inch C/C
12mm	113 mm2	86.9441 mm	3.422997 inch C/C

Dist. Reinforcement

12% of gross area 158.88 mm2 Provided 8 mm 5 inch C/C

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - PB - 1

AMBER - APARTMENT

Given Data

PB-01

Span :			**16** ft	**4.8768**	m
Size					
B:			**0.75** ft	**0.2286**	m
D:			**1.5** ft	**0.4572**	m
Slab RHS			**0** ft	**0**	m
Slab LHS			**0** ft	**0**	m
Wall Thickness			**0.75** ft	**0.2286**	m
Wall Hight			**3** ft	**0.9144**	m
Unit wt of r.block			**20**	**20**	N/mm^3
Unit wt of Concrete	**25**	N/mm^3			
Ru max	**3.35**	N/mm^2	0.134	**25**	3.35
d	**380**	mm			
fck	**20**	N/mm^2	**Effect Depth Calculation**		
fy	**500**	N/mm^2			
			d req	√(Mu/ Ru max x 1000)	
Slab Load RHS	**10.28**	kN/m^2			
Slab Load LHS	**10.28**	kN/m^2		181.6791938	mm

Load Caluction

Slab Load RHS		
Lx/2 * Slab Load RHS	0	kN/m2
Slab Load LHS		
Lx/2 * Slab Load LHS	0	kN/m2
secondary beam load	0	kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick	20	kN/m2
Self wt		
B*D* Unit wt of Concrete	2.612898	kN/m2
Total load	**22.612898**	kN/m2
Factor Load 1.5* total load	**33.919347**	kN/m2
Bending Moment WL²/8	**110.5745537**	kN-m

Ast Calculation

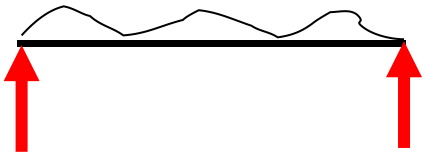
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	508642947.1
1000 x fck x d ²	B	2888000000
1-A/B	C	0.823877096
√c	D	0.907676757
1-D	E	0.092323243
E x 1000 x .5 x fck x d / fy	F	701.656644 mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

12 mm	113 mm2	6.209350832 Nos	PROVIDED - 6 NOS
16mm	201 mm2	3.490829075 Nos	
20mm	314 mm2	2.234575299 Nos	
25mm	490.5 mm2	1.430492648 Nos	

Shear Reinforcement Design



V= WL/2 82.70893572 kN

Type of Rod

Dia 8 mm 2 legged 50.24 mm2

Pt Ast/ bd *100 0.807727407 %

$c_ζ$ From Code book 0.37 N/mm2

$c_ζ$ V/bd 0.952122021 N/mm2

Vs= V- $_ζ$bd 50567.77572

Sv 0.87 fy Asv d / Vs *328.4570809* mm

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - PB - 2

AMBER - APARTMENT

Given Data

PB-02

Span :			**15** ft	**4.572** m	
Size					
B:			**0.75** ft	**0.2286** m	
D:			**1.25** ft	**0.381** m	
Slab RHS			**0** ft	**0** m	
Slab LHS			**0** ft	**0** m	
Wall Thickness			**0.75** ft	**0.2286** m	
Wall Hight			**3** ft	**0.9144** m	
Unit wt of r.block			**20**	**20** N/mm^3	
Unit wt of Concrete	**25**	N/mm^3			
Ru max	**3.35**	N/mm^2	0.134	**25**	3.35
d	**275**	mm			
fck	**20**	N/mm^2	**Effect Depth Calculation**		
fy	**500**	N/mm^2			
			d req	√(Mu/ Ru max x 1000)	
Slab Load RHS	**0**	kN/m^2			
Slab Load LHS	**0**	kN/m^2		169.18266 mm	

Load Caluction

Slab Load RHS		
	Lx/2 * Slab Load RHS	0 kN/m2
Slab Load LHS		
	Lx/2 * Slab Load LHS	0 kN/m2
secondary beam load		0 kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick		20 kN/m2
Self wt		
B*D* Unit wt of Concrete		2.177415 kN/m2
Total load		**22.177415** kN/m2
Factor Load	1.5* total load	**33.2661225** kN/m2
Bending Moment	WL²/8	**95.8862881** kN-m

Ast Calculation

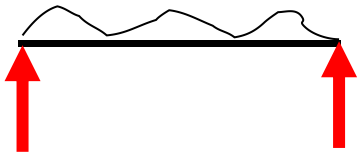
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	441076925.4	
1000 x fck x d ²	B	1512500000	
1-A/B	C	0.708378892	
√c	D	0.841652477	
1-D	E	0.158347523	
E x 1000 x .5 x fck x d / fy	F	**870.9113756**	mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

12 mm	113 mm2	7.707180315 Nos	
16mm	201 mm2	4.332892416 Nos	PROVIDED - 6 NOS
20mm	314 mm2	2.773603107 Nos	
25mm	490.5 mm2	1.77555836 Nos	

Shear Reinforcement Design



	V= WL/2	76.04635604 kN		
Type of Rod				
	Dia	8 mm	2 legged	50.24 mm2
Pt	Ast/ bd *100	1.385367654 %		
c_τ	From Code book	0.45 N/mm2		
c_τ	V/bd	1.209677182 N/mm2		
Vs=	V- $_\tau$bd	47757.10604		
Sv	0.87 fy Asv d / Vs	251.6886176 mm		

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - PB - 3

AMBER - APARTMENT

Given Data

PB-03

Span :		**17.92** ft		**5.462016** m	
Size					
B:		**0.75** ft		**0.2286** m	
D:		**1.5** ft		**0.4572** m	
Slab RHS		**0** ft		**0** m	
Slab LHS		**0** ft		**0** m	
Wall Thickness		**0.75** ft		**0.2286** m	
Wall Hight		**3** ft		**0.9144** m	
Unit wt of r.block		**20**		**20** N/mm^3	
Unit wt of Concrete	**25** N/mm^3				
Ru max	**3.35** N/mm^2		0.134	**25**	3.35
d	**275** mm				
fck	**20** N/mm^2	**Effect Depth Calculation**			
fy	**500** N/mm^2				
		d req	√(Mu/ Ru max x 1000)		
Slab Load RHS	**0** kN/m^2				
Slab Load LHS	**0** kN/m^2		202.4988012 mm		

Load Caluction

Slab Load RHS		
	Lx/2 * Slab Load RHS	0 kN/m2
Slab Load LHS		
	Lx/2 * Slab Load LHS	0 kN/m2
secondary beam load		0 kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick		20 kN/m2
Self wt		
B*D* Unit wt of Concrete		2.612898 kN/m2
Total load		**22.612898** kN/m2
Factor Load	1.5* total load	**33.919347** kN/m2
Bending Moment	WL²/8	**137.3693111** kN-m

Ast Calculation

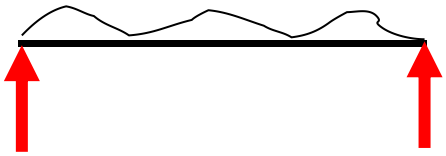
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	631898831	
1000 x fck x d ²	B	1512500000	
1-A/B	C	0.582215649	
√c	D	0.763030569	
1-D	E	0.236969431	
E x 1000 x .5 x fck x d / fy	F	**1303.331872**	mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

12 mm	113 mm2	11.53391037 Nos	
16mm	201 mm2	6.484238167 Nos	PROVIDED -8NOS
20mm	314 mm2	4.150738444 Nos	
25mm	490.5 mm2	2.657149585 Nos	

Shear Reinforcement Design



	V= WL/2	92.634008 kN		
Type of Rod				
	Dia	8 mm	2 legged	50.24 mm2
Pt	Ast/ bd *100	2.0732234 %		
$c_ζ$	From Code book	0.51 N/mm2		
$c_ζ$	V/bd	1.4735387 N/mm2		
Vs=	V- $_ζ$bd	60572.858		
Sv	0.87 fy Asv d / Vs	*198.43739* mm		

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - PB - 4

AMBER - APARTMENT

Given Data

PB-04

Span :			**17.75** ft	**5.4102**	m
Size					
B:			**0.75** ft	**0.2286**	m
D:			**2** ft	**0.6096**	m
Slab RHS			**0** ft	**0**	m
Slab LHS			**0** ft	**0**	m
Wall Thickness			**0.75** ft	**0.2286**	m
Wall Hight			**4.5** ft	**1.3716**	m
Unit wt of r.block			**20**	**20**	N/mm^3
Unit wt of Concrete	**25**	N/mm^3			
Ru max	**3.35**	N/mm^2	0.134	**25**	3.35
d	**275**	mm			
fck	**20**	N/mm^2	**Effect Depth Calculation**		
fy	**500**	N/mm^2			
			d req	√(Mu/ Ru max x 1000)	
Slab Load RHS	**0**	kN/m^2			
Slab Load LHS	**0**	kN/m^2		225.6363991	mm

Load Caluction

Slab Load RHS		
	Lx/2 * Slab Load RHS	0 kN/m2
Slab Load LHS		
	Lx/2 * Slab Load LHS	0 kN/m2
secondary beam load		5.11 kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick		20 kN/m2
Self wt		
B*D* Unit wt of Concrete		3.483864 kN/m2
Total load		**28.593864** kN/m2
Factor Load	1.5* total load	**42.890796** kN/m2
Bending Moment	WL²/8	**170.5544785** kN-m

Ast Calculation

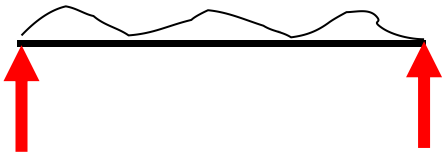
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	784550601	
1000 x fck x d ²	B	1512500000	
1-A/B	C	0.481288859	
√c	D	0.693749853	
1-D	E	0.306250147	
E x 1000 x .5 x fck x d / fy	F	**1684.375807**	mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

	12 mm	113 mm2	14.9059806 Nos	
	16mm	201 mm2	8.37997914 Nos	PROVIDED - 8 NOS
	20mm	314 mm2	5.364254163 Nos	
	25mm	490.5 mm2	3.433997568 Nos	

Shear Reinforcement Design



	V= WL/2	116.023892 kN		
Type of Rod				
	Dia	8 mm	2 legged	50.24 mm2
Pt	Ast/ bd *100	2.67935387 %		
$c_ح$	From Code book	0.555 N/mm2		
$c_ح$	V/bd	1.84560395 N/mm2		
Vs=	V- $_ح$bd	81133.8173		
Sv	0.87 fy Asv d / Vs	148.149322 mm		

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - RB - 1

Given Data	AMBER - APARTMENT					
RB-01						
Span :	**12.41**	ft		**3.782568**	m	
Size						
B:	**0.66**	ft		**0.201168**	m	
D:	**1**	ft		**0.3048**	m	
Slab RHS	**5**	ft		**1.524**	m	
Slab LHS	**0**	ft		**0**	m	
Wall Thickness	**0.66**	ft		**0.201168**	m	
Wall Hight	**10**	ft		**3.048**	m	
Unit wt of r.block	**20**			**20**	N/mm^3	
Unit wt of Concrete	**25**	N/mm^3				
Ru max	**3.35**	N/mm^2	0.134	**25**	3.35 Ref Table Value	
d	**200**	mm				
fck	**20**	N/mm^2	**Effect Depth Calculation**			
fy	**500**	N/mm^2				
			d req	√(Mu/ Ru max x 1000)		
Slab Load RHS	**7.5**	kN/m^2				
Slab Load LHS	**0**	kN/m^2		156.6993	mm	

Load Caluction

Slab Load RHS		
Lx/2 * Slab Load RHS	5.715	kN/m2
Slab Load LHS		
Lx/2 * Slab Load LHS	0	kN/m2
secondary beam load	0	kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick	20	kN/m2
Self wt		
B*D* Unit wt of Concrete	1.5329	kN/m2
Total load	**27.2479**	kN/m2
Factor Load 1.5* total load	**40.87185**	kN/m2
Bending Moment $WL^2/8$	**82.25818**	kN-m

Ast Calculation

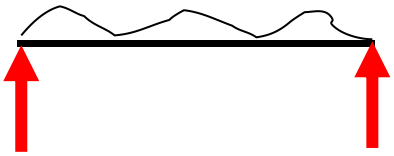
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	378387650.5	
1000 x fck x d ²	B	800000000	
1-A/B	C	0.527015437	
√c	D	0.725958289	
1-D	E	0.274041711	
E x 1000 x .5 x fck x d / fy	F	1096.166845	mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

12 mm	113 mm2	9.70059155 Nos	
16mm	201 mm2	5.453566394 Nos	PROVIDED - 6 NOS
20mm	314 mm2	3.490977214 Nos	
25mm	490.5 mm2	2.234794791 Nos	

Shear Reinforcement Design



V= WL/2 77.30028 kN

Type of Rod

Dia 8 mm 2 legged 50.24 mm2

Pt Ast/ bd *100 2.724506 %

c_{ζ} From Code book **0.3** N/mm2 IS 456 Table 19 -Page 73

c_{ζ} V/bd 1.921287 N/mm2

Vs= V- $_{\zeta}$bd 65230.2

Sv 0.87 fy Asv d / Vs ***134.014*** mm

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - RB - 3

Given Data	AMBER - APARTMENT					
RB-03						
Span :	**17.92**	ft		**5.462016**	m	
Size						
B:	**0.66**	ft		**0.201168**	m	
D:	**2**	ft		**0.6096**	m	
Slab RHS	**4**	ft		**1.2192**	m	
Slab LHS	**3**	ft		**0.9144**	m	
Wall Thickness	**0.66**	ft		**0.201168**	m	
Wall Hight	**10**	ft		**3.048**	m	
Unit wt of r.block	**20**			**20**	N/mm^3	
Unit wt of Concrete	**25**	N/mm^3				
Ru max	**3.35**	N/mm^2	0.134	**25**	3.35	
d	**355**	mm				
fck	**20**	N/mm^2	**Effect Depth Calculation**			
fy	**500**	N/mm^2				
			d req	√(Mu/ Ru max x 1000)		
Slab Load RHS	**6.73**	kN/m^2				
Slab Load LHS	**10**	kN/m^2		237.7086	mm	

Load Caluction

Slab Load RHS		
Lx/2 * Slab Load RHS	4.102608	kN/m2
Slab Load LHS		
Lx/2 * Slab Load LHS	4.572	kN/m2
secondary beam load	15	kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick	20	kN/m2
Self wt		
B*D* Unit wt of Concrete	3.0658	kN/m2
Total load	**46.74041**	kN/m2
Factor Load 1.5* total load	**70.11061**	kN/m2
Bending Moment $WL^2/12$	**189.2931**	kN-m

Ast Calculation

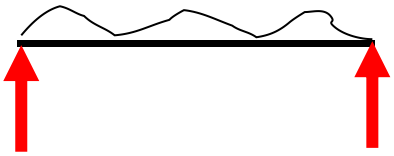
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	870748171.4
1000 x fck x d ²	B	2520500000
1-A/B	C	0.654533556
√c	D	0.809032482
1-D	E	0.190967518
E x 1000 x .5 x fck x d / fy	F	**1355.869381** mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

12 mm	113 mm2	11.99884408 Nos	
16mm	201 mm2	6.74561881 Nos	PROVIDED - 8 NOS
20mm	314 mm2	4.318055353 Nos	
25mm	490.5 mm2	2.764259696 Nos	

Shear Reinforcement Design



V= WL/2 191.4726 kN

Type of Rod

Dia 8 mm 2 legged 50.24 mm2

Pt Ast/ bd *100 1.898587 %

c_{ζ} From Code book 0.55 N/mm2

c_{ζ} V/bd 2.68114 N/mm2

Vs= V- $_{\zeta}$bd 152194.6

Sv 0.87 fy Asv d / Vs *101.9525* mm

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - RB - 5

Given Data	AMBER - APARTMENT					
RB-05						
Span :	**18.25**	ft		**5.5626**	m	
Size						
B:	**0.66**	ft		**0.201168**	m	
D:	**2**	ft		**0.6096**	m	
Slab RHS	**5.16**	ft		**1.572768**	m	
Slab LHS	**6.83**	ft		**2.081784**	m	
Wall Thickness	**0.66**	ft		**0.201168**	m	
Wall Hight	**10**	ft		**3.048**	m	
Unit wt of r.block	**20**			**20**	N/mm^3	
Unit wt of Concrete	**25**	N/mm^3				
Ru max	**3.35**	N/mm^2	0.134	**25**	3.35	
d	**430**	mm				
fck	**25**	N/mm^2	**Effect Depth Calculation**			
fy	**500**	N/mm^2				
			d req	√(Mu/ Ru max x 1000)		
Slab Load RHS	**23.25**	kN/m^2				
Slab Load LHS	**32.3**	kN/m^2		359.2473	mm	

Load Caluction

Slab Load RHS		
Lx/2 * Slab Load RHS	18.28343	kN/m2
Slab Load LHS		
Lx/2 * Slab Load LHS	33.62081	kN/m2
secondary beam load	0	kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick	13.75	kN/m2
Self wt		
B*D* Unit wt of Concrete	3.0658	kN/m2
Total load	**68.72004**	kN/m2
Factor Load 1.5* total load	**103.0801**	kN/m2
Bending Moment $WL^2/8$	**432.3463**	kN-m

Ast Calculation

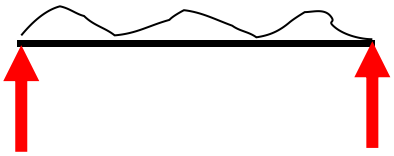
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	1988793018
1000 x fck x d ²	B	4622500000
1-A/B	C	0.569758136
√c	D	0.754823248
1-D	E	0.245176752
E x 1000 x .5 x fck x d / fy	F	2635.650085 mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

12 mm	113 mm2	23.32433704 Nos	
16mm	201 mm2	13.11268699 Nos	PROVIDED - 6 NOS
20mm	314 mm2	8.39379008 Nos	
25mm	490.5 mm2	5.373394669 Nos	

Shear Reinforcement Design



V= WL/2 286.6966 kN

Type of Rod

Dia 8 mm 2 legged 50.24 mm2

Pt Ast/ bd *100 3.046915 %

c_{ζ} From Code book **0.57** N/mm2

c_{ζ} V/bd 3.314325 N/mm2

Vs= V- $_{\zeta}$bd 237390.3

Sv 0.87 fy Asv d / Vs ***79.1725*** mm

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - RB - 2

Given Da AMBER - APARTMENT

RB-02

Span :	**15.33**	ft	**4.672584**	m	
Size					
B:	**0.66**	ft	**0.201168**	m	
D:	**1.5**	ft	**0.4572**	m	
Slab RHS	**3**	ft	**0.9144**	m	
Slab LHS	**5**	ft	**1.524**	m	
Wall Thickness	**0.66**	ft	**0.201168**	m	
Wall Hight	**10**	ft	**3.048**	m	
Unit wt of r.block	**20**		**20**	N/mm^3	
Unit wt of Concrete	**25**	N/mm^3			
Ru max	**3.35**	N/mm^2	0.134	**25**	3.35
d	**275**	mm			
fck	**20**	N/mm^2	**Effect Depth Calculation**		
fy	**500**	N/mm^2			
			d req	√(Mu/ Ru max x 1000)	
Slab Load RHS	**7.75**	kN/m^2			
Slab Load LHS	**0**	kN/m^2		219.5853 mm	

Load Caluction

Slab Loa RHS		
Lx/2 * Slab Load RHS	3.5433	kN/m2
Slab Load LHS		
Lx/2 * Slab Load LHS	0	kN/m2
secondary beam load	15	kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick	15	kN/m2
Self wt		
B*D* Unit wt of Concrete	2.29935	kN/m2
Total load	**35.84265**	kN/m2
Factor Load 1.5* total load	**53.76398**	kN/m2
Bending Moment $WL^2/8$	**161.5294**	kN-m

Ast Calculation

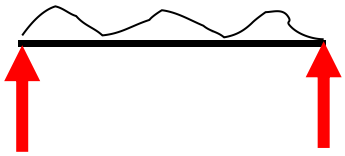
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	743035057.9	
1000 x fck x d ²	B	1512500000	
1-A/B	C	0.508737152	
√c	D	0.713258124	
1-D	E	0.286741876	
E x 1000 x .5 x fck x d / fy	F	1577.080317	mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

	12 mm	113 mm2	13.95646298 Nos	
	16mm	201 mm2	7.846170729 Nos	PROVIDED - 8 NOS
	20mm	314 mm2	5.022548779 Nos	
	25mm	490.5 mm2	3.215250391 Nos	

Shear Reinforcement Design



	V= WL/2	125.6083 kN		
Type of Rod				
	Dia	8 mm	2 legged	50.24 mm2
Pt	Ast/ bd *100	2.85077 %		
$c_ζ$	From Code book	0.28 N/mm2		
$c_ζ$	V/bd	2.270528 N/mm2		
Vs=	V- $_ζ$bd	110118.4		
Sv	0.87 fy Asv d / Vs	109.1545 mm		

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - RB - 4

Given Da			AMBER - APARTMENT		
RB-04					
Span :		**17.92** ft		**5.462016** m	
Size					
B:		**0.66** ft		**0.201168** m	
D:		**2** ft		**0.6096** m	
Slab RHS		**6.33** ft		**1.929384** m	
Slab LHS		**3.66** ft		**1.115568** m	
Wall Thickness		**0.66** ft		**0.201168** m	
Wall Hight		**10** ft		**3.048** m	
Unit wt of r.block		**20**		**20** N/mm^3	
Unit wt of Concrete	**25** N/mm^3				
Ru max	**3.35** N/mm^2		0.134	**25**	3.35
d	**355** mm				
fck	**20** N/mm^2	**Effect Depth Calculation**			
fy	**500** N/mm^2				
		d req	√(Mu/ Ru max x 1000)		
Slab Load RHS	**8** kN/m^2				
Slab Load LHS	**8** kN/m^2		316.5142 mm		

Load Caluction

Slab Loa RHS		
Lx/2 * Slab Load RHS	7.717536	kN/m2
Slab Load LHS		
Lx/2 * Slab Load LHS	4.462272	kN/m2
secondary beam load	20	kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick	20	kN/m2
Self wt		
B*D* Unit wt of Concrete	3.0658	kN/m2
Total load	**55.24561**	kN/m2
Factor Load 1.5* total load	**82.86841**	kN/m2
Bending Moment WL²/8	**335.6072**	kN-m

Ast Calculation

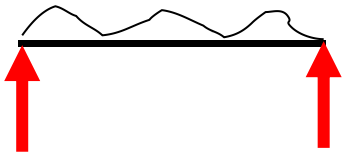
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	1543793074	
1000 x fck x d ²	B	2520500000	
1-A/B	C	0.387505228	
√c	D	0.622499179	
1-D	E	0.377500821	
E x 1000 x .5 x fck x d / fy	F	2680.255831	mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

12 mm	113 mm2	23.71907815 Nos	
16mm	201 mm2	13.33460612 Nos	
20mm	314 mm2	8.535846595 Nos	
25mm	490.5 mm2	5.464334008 Nos	PROVIDED - 6 NOS

Shear Reinforcement Design



V= WL/2 226.3143 kN

Type of Rod

Dia 10 mm 2 legged 78.5 mm2

Pt Ast/ bd *100 3.75309 %

c_ζ From Code book **0.515** N/mm2

c_ζ V/bd 3.169018 N/mm2

Vs= V- $_\zeta$bd 189535.8

Sv 0.87 fy Asv d / Vs *127.9164* mm

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Beam Design - RB - 6

Given Data	AMBER - APARTMENT					
RB-06						
Span :		**17**	ft	**5.1816**	m	
Size						
B:		**0.66**	ft	**0.201168**	m	
D:		**2.25**	ft	**0.6858**	m	
Slab RHS		**5.16**	ft	**1.572768**	m	
Slab LHS		**6.83**	ft	**2.081784**	m	
Wall Thickness		**0.66**	ft	**0.201168**	m	
Wall Hight		**10**	ft	**3.048**	m	
Unit wt of r.block		**20**		**20**	N/mm^3	
Unit wt of Concrete	**25**	N/mm^3				
Ru max	**3.35**	N/mm^2	0.134	**25**	3.35	
d	**430**	mm				
fck	**25**	N/mm^2	**Effect Depth Calculation**			
fy	**500**	N/mm^2				
			d req	√(Mu/ Ru max x 1000)		
Slab Load RHS	**28**	kN/m^2				
Slab Load LHS	**39**	kN/m^2		361.6925	mm	

Load Caluction

Slab Load RHS		
Lx/2 * Slab Load RHS	22.01875	kN/m2
Slab Load LHS		
Lx/2 * Slab Load LHS	40.59479	kN/m2
secondary beam load	0	kN/m2
Wall Load		
W Tk * W Ht * Unit wt of Brick	13.75	kN/m2
Self wt		
B*D* Unit wt of Concrete	3.449025	kN/m2
Total load	**79.81257**	kN/m2
Factor Load 1.5* total load	**119.7188**	kN/m2
Bending Moment $WL^2/8$	**438.252**	kN-m

Ast Calculation

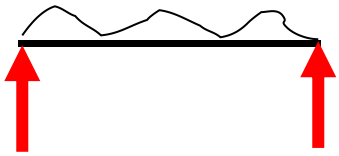
.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A	2015959255	
1000 x fck x d ²	B	4622500000	
1-A/B	C	0.563881178	
√c	D	0.750920221	
1-D	E	0.249079779	
E x 1000 x .5 x fck x d / fy	F	**2677.607627**	mm2

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

12 mm	113 mm2	23.69564271 Nos	
16mm	201 mm2	13.32143098 Nos	
20mm	314 mm2	8.527412824 Nos	PROVIDED - 2 NOS
25mm	490.5 mm2	5.458935019 Nos	PROVIDED - 6 NOS

Shear Reinforcement Design



V= WL/2 — 310.1676 kN

Type of Rod

Dia — 8 mm — 2 legged — 50.24 mm2

Pt — Ast/ bd *100 — 3.09542 %

$c_ζ$ — From Code book — 0.57 N/mm2

$c_ζ$ — V/bd — 3.58566 N/mm2

Vs= — V- $ζ_c$bd — 260861.3

Sv — 0.87 fy Asv d / Vs — 72.04895 mm

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Design Of Two way Slab

Given Data :
Type of Building :

Span :

Lx		16	ft	4.8768 m
Ly		17	ft	5.1816 m
Thickness of Slab:		6	inch	152.4 mm
Unit Wt of Concrete:		25	N/mm2	
Fy of Steel		500	N/mm2	
Toilet Sunken		0	inch	0 mm
Unit Wt of Brick		20	N/mm2	
fck		25	N/mm2	
Effect				
Lx	16.75 ft	5.1054	m	
Ly	17.75 ft	5.4102	m	
d		132.4	mm	
Live Load	2000 N/mm2			

Ly/Lx 1.0625
If Less than 2 Consider it should be a TWO - Way Slab.But some times consider One - Way slab

αx	*0.12*	From Code Book	IS456 -P91
αy	*0.025*	From Code Book	IS456 -P91

Load Calculation:

Live Load:	2000	N/m2
Unknown Partition	0	N/m2
Floor Finishing	1000	N/m2
Self wt of Slab	3810	N/m2
Toilet	0	N/m2
Total Load	6.81	N/m2
Factor Load	10.215	N/m2

B.M.

Mx =	αx * w * Lx²	31.95061081	kN m
My =	αy * w * Lx²	6.656377252	kN m

Ast x

.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A		1.47E+08
1000 x fck x d ²	B		4.38E+08
1-A/B	C		0.664632
√c	D		0.81525
1-D	E		0.18475
E x 1000 x .5 x fck x d / fy		F	611.5227
		Ast	611.5227

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

Ast Detail Lx Direction

8mm	50 mm2	81.76311407 mm	3.219020239 inch C/C
10mm	78 mm2	127.550458 mm	5.021671573 inch C/C
12mm	113 mm2	184.7846378 mm	7.27498574 inch C/C

Ast y

.5 x fck /fy (1- (√1-(4.6 x Mu/1000 x fck x d ²))) x 1000 x d

4.5 x Mu x 10^6	A		30619335
1000 x fck x d ²	B		4.38E+08
1-A/B	C		0.930132
√c	D		0.964433
1-D	E		0.035567
E x 1000 x .5 x fck x d / fy		F	117.7255
		Ast	**117.7255**

Ast Detail Ly Direction

8mm	50 mm2	424.716895 mm	**16.7211376** inch C/C
10mm	78 mm2	662.5583563 mm	**26.08497466** inch C/C
12mm	113 mm2	959.8601828 mm	**37.78977098** inch C/C

SAI STRUCTURAL DESIGNS
M.BALAJI, M.E.,(Struct)
LPA/SE/GR-1/076/2024
Coimbatore - 04

THE LANDLENS SUITE

Eight ways to know a piece of land before you pay for it.

This report covers one part of the picture. These cover the rest, drawn from the same government records, for any property in Tamil Nadu.

LandLens One
Ask anything about a property and get an answer grounded in live government records, with the sources shown.
/landlens/one

Verify My Land
Every record check run on one property and returned as a single report.
/landlens/verify-my-land

Legal Opinion
An advocate's written opinion on the title, built on the records we pull for it.
/landlens

One Map
Every layer on one map: the parcel, its boundary, zoning, water bodies and what sits around it.
/landlens/one/map

PriceMap
What land actually changed hands for around this plot, taken from the registered deeds.
/landlens/pricemap

Build Scope
What you are allowed to build here: floor space, height, coverage and setbacks.
/landlens/build-scope

Property Tracker
Watch a property and hear about it when something new is registered against it.
/landlens/property-tracker

Deal Room
Run the transaction in one place: documents, stamping, signatures and the parties.
/landlens/deal-room

FREE TOOLS · NO ACCOUNT NEEDED

Twenty-four checks you can run yourself, at no cost.

Records and verification

The registers themselves, read for you.

- Encumbrance Certificate
- Patta and Chitta
- Field Measurement Sketch
- EC Analyzer
- Bank charge check
- Court case search
- Seller background check
- Approval check by survey

Value and duty

What it is worth and what it costs to register.

- Guideline value by street
- Guideline value by survey
- Stamp duty and registration fees
- Capital gains
- Floor space index
- Area unit converter

Zoning and land use

What the plan says can happen on this land.

- Land use zone finder
- CMDA land use check
- Coastal regulation zone
- Master plan check
- Water bodies finder
- Airport height clearance

Registers and directories

Who holds it, and which office keeps the record.

- Find your registering office
- Temple property check
- Waqf property check
- RERA register

Every free tool
/tools

Services we run for you
/services

The LandLens suite
/landlens/one

Verified RealEstate™

Every claim in this document traces back to a government record.

- Legal opinions, due diligence and title verification
- Building plan, layout and sub-division approvals
- Completion and occupancy certificates, regularisation
- Escrow, negotiation and NRI property management
- Land survey, soil testing, architecture and construction

Verified RealEstate
3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai 600 097, India
hello@verified.realestate
+91 9996 12 9996

Prepared from the registers named on the page each finding sits on. Where a register could not be read, this document says so in its place rather than leaving the gap to be read as a clean result.