

(पृष्ठ 1 / 2)

STRUCTURAL SAFETY AND NATURAL HAZARD PROTECTION OF BUILDINGS

1. Requirements specified in the following Indian Standards, Codes and guidelines and other documents needs to be observed for structural safety and natural hazard protection of buildings etc:-

- a) For General Structural Safety

1. IS : 1905 -1987 "Code of Practice for Structural use of unreinforced Masonry (third revision)" Indian Standards Institution, March 1981
2. IS : 1904 -1978 "Code of Practice for Structural Safety of Buildings : Foundations" Indian Standards Institution
3. IS : 456 -2000 "Code of Practice for Plain and Reinforced Concrete" Indian Standards Institution, September 2000
4. IS : 800 -1984 "Code of Practice for general Construction in Steel" Indian Standards Institution, February, 1985
5. IS : 883 -1966 "Code of Practice for Design of Structural Timber in Building", Indian Standards Institution, March, 1967
6. IS 875 (Part 2) : 1987 "Code of Practice for design loads (other than earthquake) for building and structures : Part 2 Imposed loads (Second revision)
7. IS 875 (Part 3) : 1988 "Code of Practice for design loads (other than earthquake) for building and structures : Part 3 Wind loads (Second revision)
8. IS 875 (Part 5) : 1987 "Code of Practice for design loads (other than earthquake) for building and structures : Part 5 Special loads and load combinations (Second revision)

Besides, any other relevant Indian Standards will need to be referred to.

- b) For Earthquake Protection

1. IS : 1893 (Part 1) "Criteria for Earthquake Resistant Design of Structures ; General Provisions and Buildings Part 1 (fifth Revision)"
2. IS : 13920-1993 "Ductile Detailing of Reinforced Concrete Structures subjected to Seismic forces- Code of Practice" November 1993
3. IS : 4326-1993 "Code of Practice for Earthquake Resistant Design and Construction of Buildings (Second Revision)" October 1993
4. IS : 13828-1993 " Improving Earthquake Resistance of Low Strength Masonary Buildings - Guidelines " August 1993
5. IS : 13827-1993 " Improving Earthquake Resistance of Earthen Buildings - Guidelines " October 1993
6. IS : 13935-1993 " Repair and Seismic Strengthening of Buildings - Guidelines" November 1993

7. " Improving Earthquake Resistance of Buildings - Guidelines " by Expert Group, Government of India, Ministry of Urban Affairs & Employment, published by Building Materials and Technology Promotion Council, 1998
8. The National Building Code of India-2005
For location of the building in hazard prone area of earthquakes, cyclone or wind storms and floods, reference may be made to the following:
9. "Vulnerability Atlas of India", by Expert Group, Government of India, Ministry of Urban Affairs & Employment, published by Building Materials and Technology Promotion Council, 1997

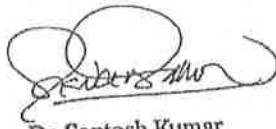
Note:

1. As and when anyone of the above referred standards and documents is revised, the design and construction of buildings thereafter must satisfy the latest version for approval of the building plans by the concerned local authority.

BUILDING INFORMATION SCHEDULE

(पन्ना-1 / 2)

1.	Building Address	Plot No.	Scheme/Colony Town			District
2.	Building function & Locations					
2.1	Use	Institutional	Commercial	Industrial	*	
2.2	Importance	Ordinary	Important	Hazardous	*	IS:1893
2.3	Seismic Zone (Design Intensity Used)	V(IX)	IV(VIII)	III(VII)	II(VI) ✓	IS:1893
3.	Design EQ Factor IS:1893	$\alpha_0 = 0.02$	$I = 1.5$	$\beta = 1.0$	$\alpha_h = 0.03$	
4.	Foundation					
4.1	Soil type at site (Note 2)	Rock/stiff Medium # Soft ✓ Liquefiable Expensive (B.C) IS:1904				
4.2	Type of Foundation	Strip	Indiv.Col.	Fottings/Raft	Bearing Piles	Friction Piles IS:1893
5.	Load Bearing Wall Buildings					
5.1	Building Category A($h < .05$) B($h = .05$ to $.06$) C($h .06$ to $< .08$) D($h .08$ to $< .12$) E ($h > .12$) IS:4326					
5.2	Bearing Walls	Brick	Stone	Solid Block	Hollow Block	Adobe
5.3	Mortar (note 4)	C : S = 1 : ...	C : L : S = 1 : ...	L : S = 1 : ...	Clay Mud	*
5.4	Floors	R.C.slabs	Stone slabs on joists	Prefab flooring elements		*
5.5	Roof structure	Flat like floors/ pitched			Trussed/ Rafted / A Frame/ Slopping	R.C. Slab
5.6	Roof covering	CGI Sheeting	AC sheeting	Clay tiles/Slate	Wood shingle	*
5.7	Opening in walls	Control used on sizes ?		Control used on location ?		Strengthening around ? IS:4326
		Yes/No/NA	Yes/No/NA	Yes/No/NA		IS:13828
5.8	Bands Provided	Plinth Band	Lintel Band	Roof/Eave Band	Gable Band	Ridge Band -do-
5.9	Vertical Bars	At corners of rooms		At jambs of openings		-do-
5.10	Stiffening of Prefab Floors/Roofs	R.C. screed & Band	Peripheral band and connectors	Diagonal planks and around band	IS:4326	

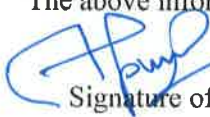

Dr. Santosh Kumar
 IES, FIE, FIAStruct.E, MIRC, FACCE (I)
 Ph.D., M.Tech (str), B.Tech (ITD-76)
 M/s Vam Consulting Engineers & Architects (P) Ltd.
 7/121 (B), Swaroop Nagar, Kanpur-208002

6.	Steel / R.C. frame buildings				
6.1	Building Shape	Both axes near symmetrical One axis near symmetrical / Unsymmetrical (Torsion considered)			
6.2	Infills / partitions	Out of plane stability check? Yes/ No In Plane stiffness considered? Yes/ No IS:1893, IS:4326			
6.3	Ductile Detailing of RC Frames	Beams ? ✓ YES / NO	Columns ? ✓ YES / NO	Beam column Joint ? ✓ YES / NO	Sheer Walls? IS:13920 YES / NO
6.4	Ductile Detailing of Steel Frames	Beams ? YES / NO	Columns ? YES / NO	Beam Column Joint ? YES / NO	SP6(6)

Notes:-

1. Encircle the applicable Data point or insert information.
2. Stiff. N>30:Medium. N=10.3:Soft.N<10:Liquefiable, poorly graded Sands with N<15 under Water Table (see Note 5 of Table 1 in IS:1893) Where N=Standard Penetration (IS:2131-1981).
3. * Means any other, specify.
4. C= Cement, S= Sand, L= Lime

The above information is factually correct.



Signature of Owner with date



Signature of the Engineer who will Supervise the construction

Name (Block).....APURVA.....

Name (Block)..... Address:
Legible Seal:
(with address)

Dr. Santosh Kumar
IES, FIE, FIAStructE, MRC, FACCE (I)
Ph.D., M.Tech (str), B.Tech (ITD-76)
M/s Vam Consulting Engineers & Architects (P) Ltd.
7/121 (B), Swaroop Nagar, Kanpur-208002

Signature of the Architect who had Supervised the construction

Name (Block).....MANISH GUJRAL
COA Registration No....CA/97/21380
Legible Seal :
(with address)




CERTIFICATE

(The certificate to be submitted with the application for building permission along with the building drawings and Building Information Schedule).

1. Certified that the building plans submitted for approval also satisfy the safety requirements as stipulated in the Indian Standard, Codes, guidelines and documents specified in the Annexure-I of the Building Bye-Laws regarding earthquake safety awareness and the information given in the attached Building Information Schedule, is factually correct to the best of my knowledge and understanding.
2. It is also certified that the structural design including safety from natural hazards including Earth Quake has been prepared by duly qualified graduate Civil Engineer along with Post Graduate Diploma or Degree in Structural Engineering from a recognized University.
3. Location/Address of Building PROPOSED BUILDING PLAN OF SENIOR SECONDARY SCHOOL

Plot No.....ARAZI NO:- 879
 Scheme/Colony.....MAUZA- SHAHAPUR URF PEEPAL GAON ALLAHABAD
 Town.....PRAYAGRAJ
 District.....PRAYAGRAJ

4. Particulars of Building

1. Ground Coverage (sq mt) 2009.81 Sqm. (23.66 %)
2. Total covered area (sq mt) PROPOSED F.S.I. 2665.25 Sqm.
EXISTING F.S.I. 3909.97 Sqm.
3. Maximum Numbers of Floors above ground. 4 Floors



Signature of Owner with date

Signature of the Structural Engineer
who had prepared the design with date

Name (Block).....APURVA
 (Block).....

Name

Address :
 Flat no. 41, Swastik
 Meerutia Apartment,
 Prayagraj

Legible Seal: (with address)

Signature of the Architect who had
Prepared the design with date

Dr. Santosh Kumar
 IES, FIE, FIA Structure, MIRC, FACCE (I)
 Ph.D., M.Tech (str), B.Tech (ITD-76)
 M/s Vam Consulting Engineers & Architects (P) Ltd.
 7/121 (B), Swaroop Nagar, Kanpur-208002

Name (Block).....MANISH GUJRAL
 COA Registration No.....CA/97/21380
 Legible Seal (with address)



Manish

(Certificate to be given in each building plan to be submitted for sanction)

It is hereby certified that the structural and foundation design of the building for which map and plans are submitted for approval satisfy the safety requirements as stipulated in the relevant India Standard Codes, National Building Code, guide lines and documents specified in Annexure-1 Building Bye-Laws.

Signature of Owner with date 	Signature of the Structural Engineer who had prepared the Design with date 	Signature of the Architect who had Prepared the design with date 
Name(Block) <u>APURVA</u> Address: <u>Thelwa</u> For BRIJ NATH DIN NATH MEMORIAL EDUCATIONAL SOCIETY VICE - CHAIRMAN	Name Block)..... Legible Seal: (With address) Dr. Santosh Kumar IES, FIE, FIAStructE, MIRC, FACCE (I) Ph.D., M.Tech (str), B.Tech (ITD-76) M/s Vam Consulting Engineers & Architects (P) Ltd. 7/121 (B), Swaroop Nagar, Kanpur-208002	Name (Block)...MANISH GUJRAL COA Registration No. <u>CA/97/21380</u> Legible Seal (with address) 