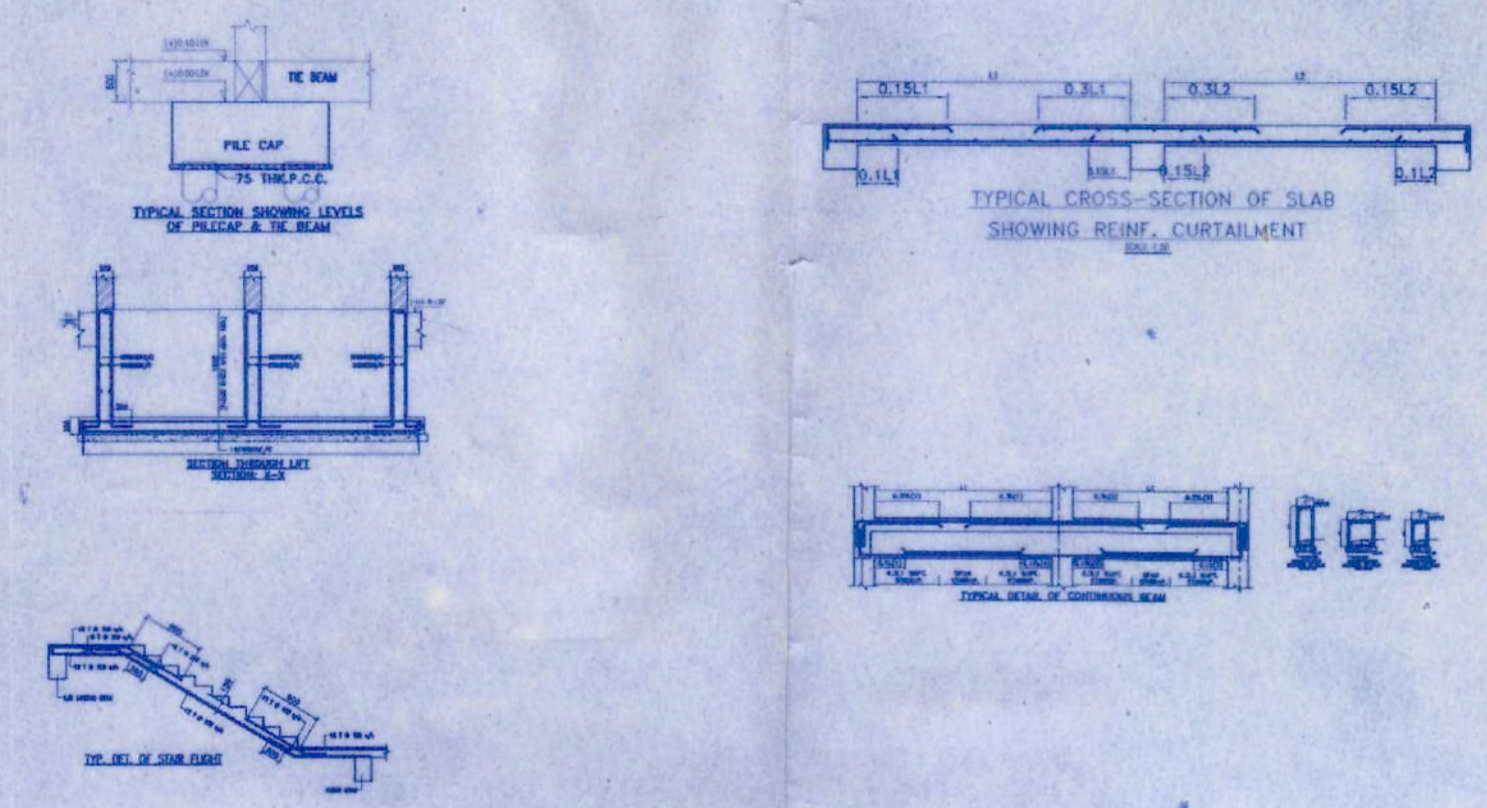


FOUNDATION & TIE BEAM LAYOUT PLAN (G+12TH. STORIED RESIDENTIAL BUILDING)

PILE CAP MKD	OVERALL DEPTH (mm)	CAP REINFORCEMENT						BURSTING BAR
		LONGER BAR			SHORTER BAR			
		BOTTOM BAR	TOP BAR	STIRRUPS	BOTTOM BAR	TOP BAR	STIRRUPS	
2P	1000	7-20T	4-12T	4L-10T@200C/C	---	---	---	5-12T
3P	1200	7-20T	4-12T	4L-10T@200C/C	7-20T	4-12T	4L-10T@200C/C	7-12T
4P	1350	17-20T	9-12T	---	17-20T	9-12T	---	8-12T
5P	1500	19-20T	10-12T	6L-10T@150C/C	27-20T	14-12T	---	9-12T
6P	1500	19-20T	10-12T	6L-10T@150C/C	31-20T	16-12T	---	9-12T
7P	1600	39-20T	20-12T	6L-10T@150C/C	35-20T	18-12T	---	9-12T
8P	1750	27-25T	14-12T	---	25-25T	13-12T	8L-12T@200C/C	10-12T
9P	2000	31-25T	16-12T	---	31-25T	16-12T	---	12-12T
10P	1750	17-25T	17-25T	6L-12T@150C/C	47-25T	24-12T	---	10-12T



NOTES:

- Basic reference code - IS 456:2000, IS 1893:2002 (Part I), IS 1920:1993 (Reaffirm 2002)
- Due care shall be taken to ascertain that requisite strength of concrete is gained before commencement of de-shuttering. It shall comply with provisions of Clause No. 11.3 of IS 456:2000.
- Nominal covers:
 

	Mild	Moderate	Severe
I Footings	50	50	50
II Columns & walls >200mm width (to links of column)	40	40	45
III Columns & walls with width of 200mm & below having next of dia. 16mm & above (to links of column)	40	40	45
IV Columns & walls with width of 200mm & below having next of dia. 12mm (to links of column)	25	30	45
V Slabs	20	30	45
VI Beams (to stirrups of beam)	20	30	45
VII Lift walls	40	40	45
- For main bars up to 12mm diameter bar for mild exposure the nominal cover may be reduced by 5mm for slabs & beams only.
- Beams with depth more than 750mm, provide side-face reinforcement.
- Substratum shall be approved from our office before laying P.C.C.
- Minimum clear spacing between any two longitudinal bars in beam - 50mm.
- All laps (L<sub>d</sub>) shall be staggered & not more than 50% bars to be lapped at any given section.
- GRADE OF REIN: M20, M25, M30, M35, M40 & ABOVE
 

	F415	F415	F415	F415	F415
48 X D	41 X D	38 X D	34 X D	30 X D	30 X D
F450 (MT)	57 X D	49 X D	46 X D	40 X D	36 X D
- For bundled bars, L<sub>d</sub> shall be increased by 10% for 2 bars in contact, 20% for 3 bars in contact and 33% for 4 bars in contact.
- All buildings shall have tie beams/plinth beams at ground/plinth level.
- SH footings overlap with each other, necessary revision shall be obtained from our office.
- Design is valid for number of floors as indicated in the drawing.
- At any level where column size gets reduced in either dimension tie beams/plinth beams are essential.
- For cantilevers, top bars to be anchored behind from external face of support for - L<sub>d</sub> or span of cantilever - whichever is greater.

Grade of Steel: Fe500  
 Grade of Concrete: Pile: M 25  
 Pile Cap, Tie Beam: M 30  
 Column, Beam, Slab: M 40

STRUCTURAL CONSULTANT:

JW CONSULTANTS LLP  
 114, 3RD FLOOR, PRANABES NEKSTAL, STATE, WEST BANGALORE, KARNATAKA, INDIA  
 TEL: +91 22 66229456 FAX: +91 22 66229565

SCALE	DATE	DEALT	CHECKED

STRUCTURAL ENGINEER:

**SANJAY KUMAR DUBEY**  
 ME (Structure), CHARTERED ENGINEER (I)  
 SALT LAKE CITY, KOLKATA

CERTIFICATE OF STRUCTURAL STABILITY

WE HEREBY CERTIFY THAT THE FOUNDATION AND SUPERSTRUCTURE OF THE BUILDING PROPOSED FOR CONSTRUCTION ON PLOT 4 (OLD NO. 1280, WARD NO. 15 (OLD NO. 3129) HAVE BEEN SO DESIGNED BY ME/US IN ALL RESPECT INCLUDING THE CONSIDERATION OF BEARING CAPACITY & SETTLEMENT OF SOIL ETC.

JAY PRAKASH BHARAT KUMAR AGRAWAL  
 B. Arch., A.I.I.A.  
 Reg. No. CA/53/10295  
 ARCHITECT S.L. NO. - 32(A)

SIGNATURE OF ARCHITECT

SANJAY KUMAR DUBEY  
 Structural Engineer, E-1742  
 KOLKATA MUNICIPAL CORPORATION

SIGNATURE OF STRUCTURAL ENGG.

SHYAMAL KUMAR MITRA, B.E. (CIVIL)  
 GEO-TECHNICAL ENGINEER  
 ENROLLMENT NO. 018R-HDCO/09/03916

SIGN OF GEO-TECH. ENGG.

B. C. BARMAN, IAS  
 District Collector  
 Govt. of W.B.

SIGNATURE OF OWNER

JAY PRAKASH BHARAT KUMAR AGRAWAL  
 B. Arch., A.I.I.A.  
 Reg. No. CA/53/10295  
 ARCHITECT S.L. NO. - 32(A)

SIGNATURE OF ARCHITECT

SANJAY KUMAR DUBEY  
 Structural Engineer, E-1742  
 KOLKATA MUNICIPAL CORPORATION

SIGNATURE OF STRUCTURAL ENGG.

SHYAMAL KUMAR MITRA, B.E. (CIVIL)  
 GEO-TECHNICAL ENGINEER  
 ENROLLMENT NO. 018R-HDCO/09/03916

SIGN OF GEO-TECH. ENGG.

TITLE - SUB & SUPER STRUCTURE (G+12 FL. BLOCK) (REHABILITATION)

PROJECT - REVISED PLAN OF RESIDENTIAL DEVELOPMENT AT PREMISES NO. 561, BONHOOGLY ARABLE LAND, HOLDING NO. 4 (OLD NO. 1280), WARD NO. 15 (OLD NO. 3129), DIST. NORTH 24 PARAGANAS, UNDER BARANAGAR MUNICIPALITY, FOR R.R. & R.D. DEPARTMENT, GOVT. OF W.B. (BONHOOGLY TENEMENT SCHEME) IN THE CONTINUATION OF OLD BUILDING PERMIT NO. BSP/W/72/31, DTD 12.01.09 & SUBSEQUENTLY SANCTIONED VIDE BUILDING PERMIT NO. PWBS/357/15, DATED 10.12.2014 AND FURTHER SANCTIONED VIDE BUILDING PERMIT NO. PWBS/60/15 DATED 24.10.2016 & PARTIAL COMPLETION CERTIFICATE ISSUED VIDE MEMO NO. BIMP/W/C/249/15, DATED 05.01.17 FOR L.I.G. BLOCK A,B,C, D & CLUB COMMUNITY.

ARCHITECTS - AGRAWAL & AGRAWAL  
 BARODA & KOLKATA

SCALE	DATE	DEALT	CHECKED
1:100	09.09.17		

G.A. AT 1st. & 2nd. FLOOR LEV. (G+12TH. STORIED RESIDENTIAL BUILDING)



