



**PUBLIC WORKS DEPARTMENT
BUILDING ORGANISATION**

**OFFICE OF THE ENGINEER-IN-CHIEF (BUILDINGS) & CHIEF ENGINEER (BUILDINGS),
CHENNAI REGION & CHIEF ENGINEER (GENERAL), PWD, CHEPAUK, CHENNAI-5**

CIRCULAR MEMORANDUM NO. HDO (A) / 48518 / 2003, dated 25.07.2013

Sub: Buildings – Plinth Area Rates for the preparation of Rough Cost Estimate for building schemes during the year **2013-2014** – Approved and communication of – Regarding.



The Plinth Area Rates for the purpose of preparation of Rough Cost Estimate for Building Schemes during the year 2013-2014 are approved and furnished in Annexure I, II, III, IV & V. The Chief Engineers, the Superintending Engineers and the Executive Engineers of Building Organisation are requested to adopt the above rates with effect from **01.07.2013** in the preparation of the rough cost estimates for building schemes, until the issue of further orders in this regard.

The receipt of this circular memo along with its enclosures may be acknowledged.

Encl.: Annexure-I, II, III, IV & V.

Handwritten signature and date 25/7/13
for Engineer-in-Chief (Buildings) &
Chief Engineer (Buildings), Chennai Region &
Chief Engineer (General), PWD.

To

**The Chief Engineer (Buildings), PWD, Trichy Region, Trichy.
The Chief Engineer (Buildings), PWD, Madurai Region, Madurai.**

Copy to the Engineer-in-Chief, Water Resources Department, Chennai-5.

Copy to the All Chief Engineers, Public Works Department and Water Resources Department.

Copy to the Superintending Engineers of Buildings Organisation.

Copy to the Executive Engineers of Buildings Organisation.

Copy to the Superintending Engineer, PWD, P&D Circle, Chennai-5 (with 10 copies).

Copy to the EIC & CE (B), CR & CE (GL)'s Table.

Copy to the Joint Chief Engineer (Buildings), PWD, Chennai-5.

Copy to the Deputy Chief Engineer (Buildings), PWD, Chennai-5.

Copy to HDO & Assistant Executive Engineers of all Technical Sections.

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ANNEXURE-I

PLINTH AREA RATES FOR THE YEAR 2013-2014 FOR THE PREPARATION OF ROUGH COST ESTIMATE

Sl. No.	Type of Building	For works in Moffusil (other than Corporation Limits)			For works in Corporation Limits					
		Foundation	Super Structure	Roof Finishing	In Trichy, Salem, Tirunelveli, Thoothukudi, Vellore, Tiruppur and Erode			In Chennai, Coimbatore and Madurai		
					Foundation	Super Structure	Roof Finishing	Foundation	Super Structure	Roof Finishing
(Rate in Rupees per 1 sqm.)										
1.	Residential Load Bearing	2395	5900	875	2515	6200	920	2575	6335	950
	Framed	2840	8225	900	2980	8635	950	3060	8830	965
2.	Non-Residential Load Bearing	1845	5005	875	1935	5250	920	1985	5375	950
	Framed	2840	6180	900	2980	6485	950	3060	6625	965
3.	Hospital Load Bearing	1845	5605	875	1935	5375	920	1985	6020	950
	Framed	2840	8620	900	2980	9050	950	3060	9275	965

Note:-

- For the calculation of Foundation Cost, Plinth area at Ground level of the building is to be taken.
- For the calculation of Super Structure cost, plinth area of respective floor of the building is to be taken.
- For the calculation of Roof finishing cost, Plinth area at Ground level of the building is to be taken.
- For School Buildings – the Super Structure cost will be 80% of Super Structure cost of Non-Residential Buildings.
- For stilt floor towards Car parking, Garages, Cycle shed, Staircase Head Rooms etc., - the plinth area rate will be 65% of Super Structure cost of Non-residential building.
- For basement floor, an extra 25% over the super structure cost of respective type of building is to be added.
- In framed structure, where dummy columns are to be provided, a rate of Rs.310/m² of plinth area for Residential Building and a rate of Rs.245/m² for Hospital Buildings and Non-residential Buildings is to be allowed.

8. For upper floors, an extra @ Rs.20/m² may be added towards lift charges for each floor.
9. The additional rates allowed in the schedule of rates for works in Jails, Reserve forests, Hills and other Special tracts etc., shall be added to the above plinth area rates for works in respective areas.
10. For works in the belt area of Chennai City, the plinth area rate applicable for Chennai City shall be adopted.
11. For works in coastal area a rate of Rs.85/m² over the basic rate as approved in the table above, (for the total plinth area) shall be added for providing concrete of higher grade.
12. For super structure for Earth-quake prone areas, the rates in Annexure-V shall be adopted.
13. All the above provisions shall be added only on the basic rates as approved in the table above.

14. PROVISIONS INCLUDED IN FOUNDATION RATE:

- (a) The rate given for foundation is applicable for Ground Floor + 2 Floors in the case of Load bearing structure.
- (b) The rate given for foundation is applicable for Ground Floor + 3 Floors in the case of Framed structure.
- (c) The rate given for foundation is to be calculated based on plinth area at Ground Floor of the building only.
- (d) The depth of foundation assumed is 1.8m below G.L. with conventional stepped footing in the case of Load bearing structure.
- (e) The depth of foundation assumed is 2.0m below G.L. with isolated footing in the case of Framed Structure.
- (f) The foundation rate is inclusive of Earth Work, Sand filling, PCC 1:5:10 for Mat Concrete, Brick Work / Random Rubble Masonry in Cement Mortar, Re-filling the sides of foundation, Plinth beam including cost of centering, Cement Concrete, Steel, Damp Proof Course, Sand filling in basement and flooring concrete in Ground Floor in the case of Load bearing structure.
- (g) The foundation rate is inclusive of Earth Work, Sand filling, PCC 1:5:10 for mat concrete, cement concrete, centering, Steel, for column footing, Pedestal, Column, Re-filling the sides of foundation, plinth beam, Brick work in Cement Mortar, Damp Proof Course, Sand filling in basement and flooring concrete in Ground Floor in the case of framed structure.

- (h) The foundation rates are applicable for building with basement at 0.9m height from ground level.

15. PROVISIONS INCLUDED IN SUPER STRUCTURE RATE:

- (a) This rate is inclusive of Brick work, RCC, Steel, Centering, Plastering, joinery items with steel frames and M.D.F. shutter for doors, steel glazed windows and steel glazed ventilators, Grano flooring 25mm thick in the case of residential & non residential buildings, mosaic tile flooring in the case of Hospital building and Rain water down fall pipe of adequate dia.
- (b) The height of each floor has been taken as 3.30m average.
- (c) This rate is inclusive of provision for Anti skid ceramic tile flooring and glazed tile dadoing in Toilets.
- (d) This rate is inclusive of plastering with Cement Mortar 1:5, 12mm thick, white washing two coats over one coat of white washing for interior walls and colour washing two coats over one coat of white washing for exterior faces.

16. PROVISIONS INCLUDED IN ROOF FINISHING RATE:

- (a) This rate is inclusive of weathering course, finishing with pressed tiles, providing parapet wall with Brick work in Cement Mortar, plastering, white washing for interior faces and colour washing for exterior walls.

17. EXTRA PROVISIONS TO BE ALLOWED OVER THE ABOVE RATE:

(a) IN FOUNDATION:-

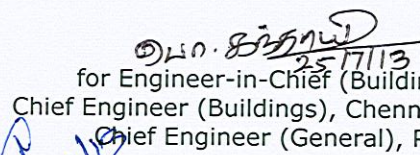
Sl. No.	Type of foundation	Rate in Rupees per one sq.m.	Area to which applicable
(i)	For stub column arrangements for Load bearing structure	730	plinth area at Ground level
(ii)	For combined footing	475	plinth area at Ground level
(iii)	For strip raft	1890	plinth area at Ground level
(iv)	For raft (Floating Raft)	2840	plinth area at Ground level
(v)	For every additional 0.3m basement height	280	plinth area at Ground level
(vi)	For every additional 0.3m depth in foundation	175	plinth area at Ground level

Sl. No.	Type of foundation	Rate in Rupees per one sq.m.	Area to which applicable
(vii)	For every additional floor over initial Ground + 3 floors in case of Framed structure	390	Respective floor area
(viii)	For Anti-termite treatment	80	plinth area at Ground level
(ix)	Pile Foundation		
(a)	Upto 4 storeys for a depth of 15m	6030	plinth area at Ground level
(b)	More than 4 storeys but less than 8 floors	7745	plinth area at Ground level
(c)	More than 8 floors	10545	plinth area at Ground level
(d)	Add extra for every one metre depth, if the depth of pile exceeds 15m	345	plinth area at Ground level
(e)	Deduct extra for every one metre depth, if the depth of pile is less than 15m	165	plinth area at Ground level

(b) IN SUPER STRUCTURE:-

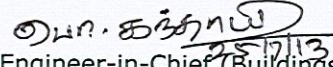
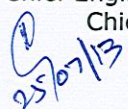
Sl. No.	Description of work	Rate	
(i)	For every additional 1m height over the initial height of 3.30 m	Rs.385 /m ²	
(ii)	Flooring:- (Actual area of flooring has to be considered)	In Residential & Non-residential Buildings	In Hospital Buildings
(a)	Grey colour mosaic tiles	Rs.510/m ²	NIL
(b)	Other colour mosaic tiles	Rs.680/m ²	Rs.170/m ²
(c)	Ceramic tiles (not less than 305 x 305 x 6 mm size)	Rs.750/m ²	Rs.240/m ²
(d)	Marble (macrona) (not less than 600 x 600 x 18mm size)	Rs.1460/m ²	Rs.950/m ²
(e)	Marble (White) (not less than 600 x 600 x 18mm size)	Rs.1630/m ²	Rs.1120 /m ²

(f)	Marble (Adanga) (not less than 600 x 600 x 18mm size)	Rs.1220/m ²	Rs.710/m ²
(g)	Marbonite tiles (not less than 600 x 600 x 8mm size)	Rs.1200/m ²	Rs.690/m ²
(h)	Rajasthan Kota Stone (Plain)	Rs.870/m ²	Rs.360/m ²
(i)	Rajasthan Kota stone (Laid in combination with marble strips)	Rs.1000/m ²	Rs.490/m ²
(j)	Cuddapah slab	Rs.650/m ²	Not recommended
(iii)	Joinery: (for any joinery like Aluminium (or) any other equivalent types of joineries if proposed) – Add extra	Rs.470/m ² of carpet area	
(iv)	Cement painting if proposed:-		
(a)	For internal faces and External faces	Rs.350/m ² based on plinth area	
(b)	For external faces only	Rs.170/m ² based on plinth area	


 for Engineer-in-Chief (Buildings) &
 Chief Engineer (Buildings), Chennai Region &
 Chief Engineer (General), PWD.

ANNEXURE-II
OPTIONAL ITEMS

Sl. No.	Description of work	Rate in Rupees per one sq.m.	Area to which applicable
1	False ceiling using G.I. Channel Sections etc., (if proposed):-		
(a)	False ceiling with plain Gypsum board	970	Ceiling area proposed
(b)	False ceiling with perforated Gypsum board using G.I. channel sections etc.,		
(i)	Without Glass wool	1115	Ceiling area proposed
(ii)	With Glass wool 50mm thick below A.C. sheet roofing	1340	Ceiling area proposed
(iii)	With Glass wool 25mm thick below R.C.C. roofing	1230	Ceiling area proposed
2	Wall Paneling using G.I. Channel Sections etc., (with Gypsum board) if proposed:-		
(a)	Wall paneling with perforated Gypsum board with Glass wool of 25mm thick	1115	Wall paneling area proposed
(b)	Wall paneling with plain Gypsum board without Glass wool	895	Wall paneling area proposed


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ANNEXURE-III

ELECTRICAL, WATER SUPPLY AND SANITARY ITEMS OF WORKS

Sl. No.	Description of work	Rate in Rupees per one sq.m.	Area to which applicable
1	A.C. Provision for office buildings and in Hospitals, (if proposed):-		
(a)	For non-ductable A.C. units	3820	Floor area proposed
(b)	For ductable type A.C. plants	5095	Floor area proposed
Note The above rates are not inclusive of civil works such as construction of plant room, false ceiling, etc.			

2	Lift (if proposed):-	
(a)	Passenger Lift (SS Body) having speed 1m / second including power main	
(i)	8 persons capacity (Upto Ground + Four floors)	Rs.15.00 lakhs
(ii)	10 persons capacity (Upto Ground + Four floors)	Rs.16.00 lakhs
(iii)	13 persons capacity (Upto Ground + Four floors)	Rs.17.00 lakhs
(b)	Bed-cum-Passenger Lift (SS Body) having speed 1m / second including power main	
(i)	15 persons capacity (Upto Ground + Four floors)	Rs.18.00 lakhs
(ii)	20 persons capacity (Upto Ground + Four floors)	Rs.23.00 lakhs
(iii)	26 persons capacity (Upto Ground + Four floors)	Rs.25.00 lakhs
(c)	Dump Lift (Upto Ground + Four floors)	Rs.6.50 lakhs
Note: <ol style="list-style-type: none"> Provision for civil works such as construction of lift pit, shaft, machine room, etc., are not included in the above rates. For passenger lift and bed-cum-passenger lift – For every additional floor over the Ground + Four floors an extra at Rs.1,00,000/ shall be allowed for each floor. For Dump lift – For every additional floor over the Ground + Four floors an extra at Rs.40,000/- shall be allowed for each floor. For lift pit an extra at Rs.11,200/- per sq. mt. of lift well sectional area shall be allowed. 		

Sl. No.	Description of work	Rate
3	High Tension Supply (including erection, testing & commissioning and allied works)	
(i)	With transformer upto 250 KVA	Rs.19.10 lakhs
(ii)	With transformer upto 500 KVA	Rs.31.80 lakhs
(iii)	With transformer upto 1000 KVA	Rs.50.90 lakhs
Note: 1. Rates are inclusive of service connection charges payable to TNEB. 2. Provision for civil works such as, construction of transformer, MV panel room, etc., are not included in the above rates.		

4	Generator Set (including erection, testing & commissioning)	
(i)	100 KVA capacity	Rs.8.00 lakhs
(ii)	125 KVA capacity	Rs.9.50 lakhs
(iii)	160 KVA capacity	Rs.12.50 lakhs
(iv)	250 KVA capacity	Rs.16.00 lakhs
Note: Cost of construction of Generator room not included in the above rates.		

5	Cold storage facilities for Mortuary:	
(i)	9 Bodies capacity	Rs.12.00 lakhs
(ii)	12 Bodies capacity	Rs.15.00 lakhs
Note: Cost of Mortuary building not included in the above rates.		

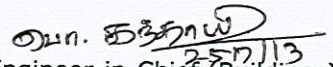
6	Public Address System: For mini Conference Hall / Meeting Hall	Rs.2.50 lakhs
7	Intercom with EPABX arrangements upto 300 lines	Rs.15.00 lakhs
8	Lightning Arrester (For more than 5 storeys)	Rs.2.52 lakhs
9	Civil Aviation lights for buildings more than 8 storeys	Rs.1.26 lakhs

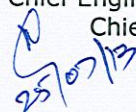
10	Internal Water Supply, Sanitary Arrangements & Electrical Arrangements			
Sl. No.	Type of Buildings	Water Supply Arrangements	Sanitary Arrangements	Electrical Arrangements
Rate in rupees per one sq.m.				
(1)	Residential	465	365	690
(2)	Non-Residential	365	280	605
(3)	Hospital	465	365	690

11	External Water Supply, Sanitary Arrangements & Electrical Arrangements						
Sl. No.	Type of Building	Water Supply Arrangements		Sanitary Arrangements		Electrical Arrangements	
		Within existing well developed campus	New campus	Within existing well developed campus	New campus	Within existing well developed campus	New campus
		Rate in rupees per one sq.m.					
(1)	Residential	280	540	100	175	235	460
(2)	Non-Residential	280	540	100	175	235	460
(3)	Hospital	280	540	100	175	235	460

Note:

1. The above rate is applicable only for ground and first floors on plinth area basis.
2. For every upper floor over the basic ground and first floor, 50% of respective floor area alone shall be taken into account for making provision towards external water supply and sanitary arrangements.
3. For every upper floor over the basic ground and first floor, 20% of respective floor area alone shall be taken into account, for making provision towards external electrification arrangements.

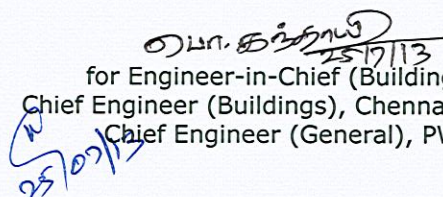

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 25/07/13

ANNEXURE – IV
OTHER PROVISIONS

Sl. No.	Description of work	Rate
1	Construction of compound wall to a normal height of 1.50m from ground level with required number of gates, grills, etc.,	
(a)	With stub column, plinth beam, etc.,	Rs.1625/RM.
(b)	With load bearing foundation with brick work in cement mortar 1:5	Rs.2370/RM.
2	Approach Road	
(a)	Forming approach road in layers of 450mm thick sand gravel mix of ratio 1:1 as base layer, W.B.M. Laid in two layers of 75 mm thick each (total 150 mm thick) including cost of small culverts come across, forming berms, etc.,	Rs.445/sqm.
(b)	Black topping over WBM including tack coat and seal coat	Rs.130/sqm.
3	Pavement all-round the building	
(a)	For a width of 1.2m	Rs.820/RM.
(b)	For a width of 2.0m	Rs.1320/RM.
Note: 1. Pavement all-round the building is to be done for a width of 1.20m if the sub soil is of ordinary nature; and it is to be done for a width of 2.0m, if the sub soil is of expansive soil. 2. The above rates include provision for earth work excavation to a depth of 450mm, PCC 1:5:10, sand filling, kerb wall with Brick work in cement mortar at external face of pavement, one impervious layer, cost of precast pavement slab of specified shape with pointing etc.,		
4	Finishing the Elevation	
(a)	For all buildings	Not exceeding 1% of total value of Building
(b)	For prestigious / Heritage Buildings	Not exceeding 2½% of total value of building
5	Soil investigation (minimum)	Rs.25,880/-
Note: If the area is more, higher provision towards soil investigation may be allowed.		

6	Advertisement Charges	Provision is to be made depending on the norms prescribed by Government time to time for publication in Newspapers.
7	Provision for foundation stone laying and inaugural function	To be made only for works costing over Rs.10.00 lakhs at Rs.13,000/- (Rs.3,000/- + Rs.10,000/-)
8	Rain Water Harvesting	Rs.10,850/- per pit
9	Provision for Lawn (optional)	
(a)	Residential	@ 1.5 % of building cost
(b)	Hospital & Non- Residential	@ 3.0 % of building cost
10	Labour Welfare Fund	@ 0.3 % of building cost
11	Unforeseen Items, Petty Supervision Charges and Contingencies	@ 2.5 % of building cost
12	Provision can be included for Price Adjustment Clause for works costing Rs.100.00 lakhs and above	@ 5.0 % of building cost Per ONE year of period of completion


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ANNEXURE-V

PLINTH AREA RATE FOR SUPER STRUCTURE OF EARTH QUAKE RESISTANT STRUCTURES

Sl. No.	Type of building	MOFFUSIL	TRICHY, SALEM, ERODE, MADURAI, TIRUNELVELI & THOOTHUKUDI DISTRICTS	CHENNAI, VELLORE, COIMBATORE & TIRUPPUR DISTRICTS
1	RESIDENTIAL			
(a)	Load bearing (upto G + 2)	6335	6665	6980
(b)	Framed Structure			
(i)	Upto Two Floors	8225	8635	9045
(ii)	3 & 4 th Floors	8225	8635	9045
(iii)	5 & 6 th Floors	9045	9495	9945
(iv)	7 & 8 th Floors	9045	9495	9945
(v)	Above 8 th Floor	9045	9495	9945
(vi)	Stilt Floor	5745	5800	6315
2	NON RESIDENTIAL			
(a)	Load bearing (upto G + 2)	5375	5650	5915
(b)	Framed Structure			
(i)	Upto Two Floors	6180	6480	6790
(ii)	3 & 4 th Floors	6180	6480	6790
(iii)	5 & 6 th Floors	6775	7115	7465
(iv)	7 & 8 th Floors	6775	7115	7465
(v)	Above 8 th Floor	7085	7435	7795
(vi)	Stilt Floor	4315	4520	4735
3	HOSPITAL			
(a)	Load bearing (upto G + 2)	6020	6325	6620
(b)	Framed Structure			
(i)	Upto Two Floors	8620	9050	9485
(ii)	3 & 4 th Floors	9495	9970	10450
(iii)	5 & 6 th Floors	9495	9970	10450
(iv)	7 & 8 th Floors	10365	10875	11390
(v)	Above 8 th Floor	10365	10875	11390
(vi)	Stilt Floor	6030	6330	6650

NOTE:

1. For calculating the rates, the respective floor area has to be considered.
2. For works in special tracts like Jails, reserve forest, hill areas etc., the respective extra percentage over the moffusil rate is to be given.


 for Engineer-in-Chief (Buildings) &
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