

**OFFICE OF THE EXECUTIVE ENGINEER (PLANNING) WATER-I
DELHI JAL BOARD: GOVT OF NCT. OF DELHI
VARUNALYA PHASE-I, KAROL BAGH, NEW DELHI**

No: DJB/EE(Plg)W-I/2015/750

Dated: 24/08/15

CIRCULAR

Sub: Estimation of average daily water demand for approval of Bulk Water Supply Schemes in Planning Cell.

In continuation to the circular No. DJB/SE(P)W/F-9/circular/2014/1943 dated 07.11.2014, average daily water demand for the approval of water supply schemes in Planning Cell and levy of IF charges will be as per enclosed norms for occupancy loads.

These norms are to be followed uniformly in DJB.

This circular is being issued with the approval of Member (Water Supply).

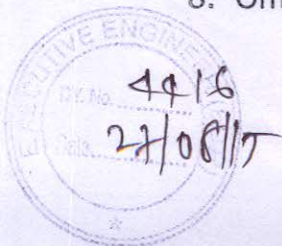
Enclosure: as above

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Copy to:

1. Secretary to CEO
2. Member(A)/Member(F)/Member(Dr)/Member(W)CVO/Secretary, DJB
3. All CE(C)Maintenance zones.
4. Director (A&P)/Director (F&A)/DOR.
5. All SEs Civil Maintenance Zones/Jt. Director(R)
6. Consultant (PR)/All EEs (Civil)Maintenance Zone, All ZROs
7. EE(EDP) with request to upload on DJB websites (suggested path : Home Page>Circular>Planning Water.
8. Office Copy/F-6.

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S.No	TYPES OF BUILDINGS		Occupancy load		Occupancy load to be adopted in the department for sanction of Water supply schemes	water requirement
	GROUP A		As per IS 1172 (Water requirement is based on sanitation Facilities)	NBC/DUAC (Draft)		
1	A-1	Lodging or Rooming houses	9 m2 floor area is occupied by not more than two persons.	1P/12.5 Sqm	1P/bed	135 LPCD
2	A-2	One or two family private dwellings	5P/DU as per clause 1.2 of IS 1172	1P/12.5 Sqm	5P/DU	225/135 LPCD
3	A-3	Dormitories	9 m2 floor area is occupied by not more than two persons.	1P/12.5 Sqm	1P/Bed	135 LPCD
4	A-4	Apartment houses (flats)	9 m2 floor area is occupied by not more than two persons.	1P/12.5 Sqm	5P/DU	225/135 LPCD
5	A-5	Hotels	9 m2 floor area is occupied by not more than two persons.	1P/12.5 Sqm	Per Bed	180 LPCD
6	A-6	Hotels (Starred)	9 m2 floor area is occupied by not more than two persons.	1P/12.5 Sqm	Per Bed	320 LPCD
	GROUP B				Note : 135 LPCD for LIG & EWS and 225 LPCD for MIG and above	



7	Educational	B-1	School upto Primary Level	9 m2 floor area is occupied by not more than two persons.	1P/4 Sqm	Min 25 students/classroom + 10% staff or as submitted by the applicant (whichever is higher)	45 LPCD
8		B-2	All others /Senior secondary School/ Training Institutions	9 m2 floor area is occupied by not more than two persons.	1P/4 Sqm	min 40 students/classroom + 10% staff or as submitted by the applicant (whichever is higher)	45 LPCD
GROUP C							
9	Institutional	C-1	Hospitals and Sanatoria	9 m2 floor area is occupied by not more than two persons.	1P/15 Sqm	No of bed + OPD	340 LPCD upto 100 beds /450 LPCD above 100 beds+15 LPCd/45 LPCD
10		C-2	Custodial Institutions	9 m2 floor area is occupied by not more than two persons.	1P/15 Sqm	No of Beds+10% for total water demand for staff	135 LPCD
11		C-3	Penal and Mental institutions	9 m2 floor area is occupied by not more than two persons.	1P/15 Sqm	No of Beds+10% for total water demand for staff	135 LPCD
GROUP D							



12	<p>Assembly (These shall include any building or part of a building where number of persons not less than 50 congregate or gather for amusement, recreation, social, religious, patriotic, civil, travel and similar purposes, for example, theatres, motion picture houses, assembly halls, auditoria, exhibition halls, museums, skating rinks, gymnasiums, restaurants, places of worship, dance halls, club rooms, passenger stations and terminals of air, surface and marine public transportation services, recreation piers and stadia, etc.</p>	D-1	Buildings having a theatrical or motion picture or any other stage and fixed seats for over 1000 persons	9 m2 floor area is occupied by not more than two persons.	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	15 LPCD
13		D-2	Buildings having a theatrical or motion picture or any other stage and fixed seats upto 1 000 persons	9 m2 floor area is occupied by not more than two persons.	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	15 LPCD
14		D-3	Buildings without a permanent stage having accommodation for 300 or more persons but no permanent seating arrangement.	9 m2 floor area is occupied by not more than two persons.	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	15 LPCD
15		D-4	Buildings without a permanent stage having accommodation for less than 300 persons with no permanent seating arrangement.	9 m2 floor area is occupied by not more than two persons.	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	15 LPCD
		D-5	All & Other structures including tempormy structures designed for assembly of people not covered by sub-divisions D-1 to D-4, at ground level.	9 m2 floor area is occupied by not more than two persons.	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	15 LPCD
		D-6	Buildings having mixed occupancies providing facilities such as shopping, cinema theatres, and restaurants.	9 m2 floor area is occupied by not more than two persons.	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	15 LPCD

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	D-7	All other structures, elevated or underground, for assembly of people not covered by sub-divisions D-1 to D-6.	9 m2 floor area is occupied by not more than two persons.	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	1P/0.6 Sqm for fixed / loose seats & 1P/1.5 Sqm for without seating	15 LPCD	
16	GROUP-E	E-1	Offices, banks, professional establishments like offices of architects, engineers doctors, lawyers and police stations;	9 m2 floor area is occupied by not more than two persons.	1P/10 Sqm	1P/10 Sqm	45 LPCD
17		E-2	Laboratories, research establishments, libraries and test house;	9 m2 floor area is occupied by not more than two persons.	1P/10 Sqm	1P/10 Sqm	45 LPCD
18		E-3	Computer installation	9 m2 floor area is occupied by not more than two persons.	1P/10 Sqm	1P/10 Sqm	45 LPCD
19		E-4	Telephone exchange;	9 m2 floor area is occupied by not more than two persons.	1P/10 Sqm	1P/10 Sqm	45 LPCD
20		E-5	Broadcasting stations and TV stations;	9 m2 floor area is occupied by not more than two persons.	1P/10 Sqm	1P/10 Sqm	45 LPCD
	GROUP F						
21		F-1	Any building or part of a building, which is used as shops, stores departmental stores markets,with area up to 500Sqm.	9 m2 floor area is occupied by not more than two persons.	1P/3 Sqm basement and G/Floor OR 1P/6 Sqm upper Floors	1P/3 Sqm basement and G/Floor OR 1P/6 Sqm upper Floors	45 LPCD
22	Mercantile	F-2	Any building or part of a building, which is used as shops, stores departmental stores markets,with area more than 500 Sqm.	9 m2 floor area is occupied by not more than two persons.	1P/3 Sqm basement and G/Floor OR 1P/3 Sqm upper Floors	1P/3 Sqm basement and G/Floor OR 1P/6 Sqm upper Floors	45 LPCD

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23		F-3	Underground shopping centers, storage and service facilities incidental to the sale of merchandises and located in the same building shall be included under this group.	9 m2 floor area is occupied by not more than two persons.	1P/3 Sqm basement and G/Floor OR 1P/6 Sqm upper Floors	1P/3 Sqm basement and G/Floor OR 1P/6 Sqm upper Floors	45 LPCD
	GROUP G						
24	Industrial	G	Any building or part of a building or structure, in which products or materials of all kinds and properties are fabricated, assembled, manufactured or processed; for eg. Assembly plants, industrial laboratories, dry cleaning plants, power plants, generating units, pumping stations, fumigation chambers, laundries, buildings or structures in gas plant, refineries, dairies and saw mills etc.	9 m2 floor area is occupied by not more than two persons.	1P/10 Sqm	1P/10 Sqm	45 LPCD
	GROUP H						
25	Storage	H	Any building or part of a building used primarily for the storage or sheltering (including servicing, processing or repairs incidental to storage) of goods ware or merchandise vehicles or animals; for eg.,ware houses,cold storage freight depots,Electric Sub Stations/ Electric distribution grids.	9 m2 floor area is occupied by not more than two persons.	1P/30 sqm	1P/30 Sqm	45 LPCD
	GROUP J						

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Hazardous	J	Any building or part of a building, which is used for storage, handling, manufacture or processing of highly combustible or explosive materials or products which are liable to burn with extreme rapidity and (or) which may produce poisonous fumes or explosions on storage/handling, manufacturing or processing.	9 m ² floor area is occupied by not more than two persons.	1P/10 Sqm	1P/10 Sqm	45 LPCD
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Notes:

1. Category and number of DU's will be considered as per the sanctioned plan from the public authorities like DDA, MCD or any other Government approved public authority for the purpose. In other cases DU having area less than 30 sqm will be considered as EWS/LIG and no of DUs in plots will be one DU per Kitchen subject to a minimum of one per floor.
2. For lodging houses /hotels /hotels (starred), number of beds will be considered as specified in the sanctioned plan by the Public Authorities, where ever it is not specified, two number of beds per room shall be considered. Additional 10% of total demand shall be considered for staff/floating population.
3. For dormitories/orphanages if no of beds are not specified then these shall be worked out @ 1 bed/7.5 sqm. Additional 10% of total demand shall be considered for staff/ Floating population etc.
4. In case of sanctioned building plan of hospitals, Nursing homes etc. in category 'C' number of beds shall be considered as specified in the sanctioned plan. Where ever it is not specified in the sanctioned plan, the no of beds will be calculated @ 1bed/100 sqm of gross area for hospitals and for nursing homes @ 1bed/60 sqm of gross area as per FAR. Additional demand for OPD patients will be considered as 20 patients/Beds @ 45 LPCD.
5. For health institutions like clinics which do not have IPD facilities /beds the minimum occupancy load shall be worked out at 1P/15 sqm but not less than specified by the applicants and water requirement will be considered as 45 LPCD. Additional 10% of total water demand will be considered for staff.
6. In case number of students /classrooms not provided, 1P/4 Sqm of permissible area as per FAR will be considered in lieu of minimum number of students / Class rooms specified in above table.
7. For all buildings, bifurcation of demand into potable and non potable shall be done as per DJB resolution No 1816 dated 20.06.2009. (Copy Enclosed)
8. Water demand for conference halls, auditorium in Hotels /Hospitals / nursing homes/Lodging homes shall be worked out for occupancy loads as per part IV (Fire & Life safety) of National Building code of India and will be included in total water demand where ever such facilities are provided.
9. For classification of buildings, provisions in Part IV of NBC (fire & Life Safety) will be referred and for any variation, prior approval of CE(PI)W will be required. Copy of relevant extracts of NBC are enclosed.
10. In case of extreme exigencies which is applicable for Govt. schools only, min 600 students/school for primary schools & 1000 students per schools for secondary/senior secondary schools plus 10% staff will be considered. Extreme exigencies cases in planning cell shall require approval from CE(PL)W.

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