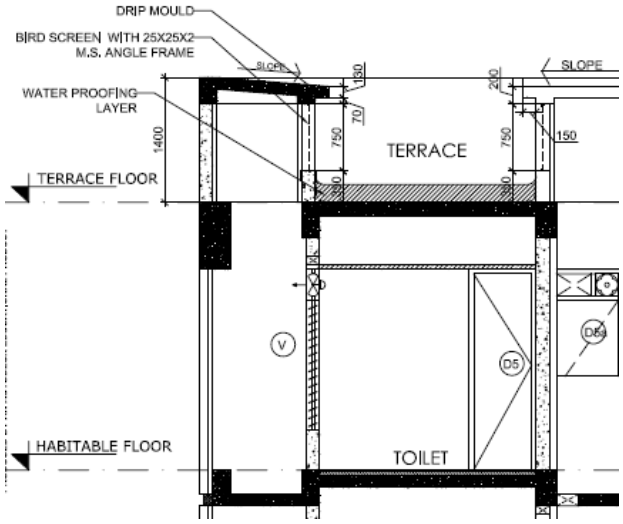
Terrace Design Guidelines

General

1. Construction above terrace level should be minimized – both wrt extent (floor space) and height.
2. Any spaces created as a consequence of service areas on terrace level should not have a floor and a roof, else it will be deemed to be a habitable area and be counted in FSI – this does NOT apply to actual service areas.

3. Fire staircase(s) shall go to terrace. Other staircases need not go to terrace. be
4. Parapet wall should have drip mold to avoid rain water hitting the face of the building directly, which leads to moss accumulation.
5. RCC coping to be provided at top in case of masonry plaster.

6. Toilet ducts to be kept ventilated and yet closed using RCC slabs (as per design) with a raised parapet above finished level. Refer below detail (Reference MEP policy 08)



7. Service penetrations (if any) through terrace need to be treated with proper waterproofing details with annular gaps sealed with silicon sealant or any sealant compatible with concrete and service
8. Staircase landing must be minimum 150 mm above the FFL of terrace so that water does not enter the staircase

9. Avoid construction joint in terrace slab.
10. In hi-end / luxury resi developments (including bungalows and townhouses which fall in this category), Excelus office, and Supremus office, the top floor units to have skylight and terrace access.
    a. Hi-end / Luxury resi (including bungalows and townhouses which fall in this category) and Supremus office – skylight size of min. 100 sft in living room of each top floor unit. Terrace access by spiral staircase and terrace carpet area of ~10-20% of the unit to be earmarked for said unit and separated from common terrace by suitable permanent railing.

   b. Excelus office - skylight size of min. 5-7.5% of the floor area of the top floor (can be at one location or distributed). Terrace access by spiral staircase and terrace carpet area of ~10-20% of the unit to be earmarked for said unit and separated from common terrace by suitable permanent railing.

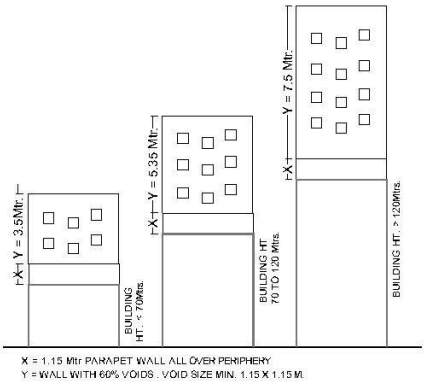
11. Liaison norms wrt terrace elevation etc. to be borne in mind before finalizing terrace level design. 2017 norms for MCGM are given as reference in Annexure A below (but these will vary across different jurisdictions).
12. Incorporate waterproofing policy details/reference.
13. Maximize usage of common terrace surface for activities which are for the benefit of the occupants and don't come at excessive cost to us – no terrace should be wasted. 2017 examples:
    a. Solar power generation
    b. Recreational area (eg. Supremus Upper Worli, Lodha Primero, Mahalaxmi – plan, section and reference images in Annexure B). If used for recreational area, some provision for water supply to be provided + usable toilets to be provided at terrace level or level below. Also in such cases, staircase from last lift landing to terrace to be treated as front of house wrt finishing.
    c. Provision for terrace farming (limited to hi-end/luxury residential (including bungalows and townhouses which fall in this category))
14. Height of LMR to be kept to what is really needed (not excessive).
15. Where civil aviation height limit is applicable, ensure that topmost element of the terrace (including any façade or signage) does not cross said limit under any circumstances.
16. In case of buildings > 100 m height, layout of terrace to be designed with suitable provision for façade access/cleaning systems.
17. Terrace layout to be finalized before closure of concept design.
18. For all building roofs (other than the tallest buildings in a development), the terrace is viewed from units in taller buildings. Hence, terrace floor to have appropriate finishing (good quality China mosaic with appropriate design, where feasible green or sports roof) and also services etc. to be finished in a manner which does not make them visually disturbing.
19. In short buildings i.e. < 30 m height, in which above terrace projections are visible from ground, ensure that the height of the above terrace elements is minimized and they are appropriately treated wrt façade.

Annexure A

Liaison related norms for MCGM (2017):

1. Height of Parapet wall at terrace level

		building <70mt ht	building 70mt - 120 mt ht	building >120 mt ht
Parapet wall	Wall without Void	1.15 mt high wall all over periphery of building line from finished lvl or 1.3 mt from unfinished lvl		
	Wall with Void (Void area 60% of surface area of parapet wall above 1.15 mt with min size -1.15mt X1.15mt)	3.35mt	5.35mt	7.5mt or Top of LMR/Water Tank Parapet wall above1.15mt
Decorative Material	The parapet wall may be provided with decorative material. The material of cladding shall be fire resistant.			
Part Terrace	For part terrace on topmost floor, the parapet wall up to the maximum height of Lift Machine room/Water tank parapet top whichever is higher can be permitted along all sides with voids in surface area not less than 75%			
Parapet on overhead water tank	The elevation features in the form of MS/RCC railing up to the height of 1.15mt from the finished floor, on top of overhead water tank will be allowed along the periphery of overhead water tank for protection/safety			



- Parapet wall height can go up to 1.5mt with Special Permission.
- Greater height of the parapet wall will be allowed only on the topmost terraces and not on the intermediate part terraces/ pocket terraces/ shopping terraces, podium/parking floors, refuge floors etc

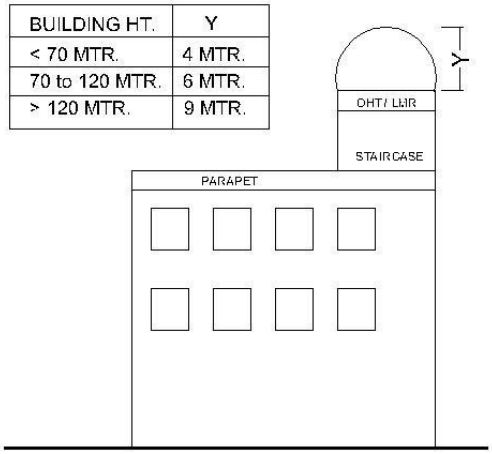
2. Elevation features /Dome like structures above water tank/lift machine room/staircase or 4 Corners of topmost terrace

- Height of the elevation features/Dome like structures should not exceed

a. 4.00 mt for building up to 70.00mt
b. 6mt for building up to 70 mt
c. 9 mt. For buildings up to 120mt & beyond

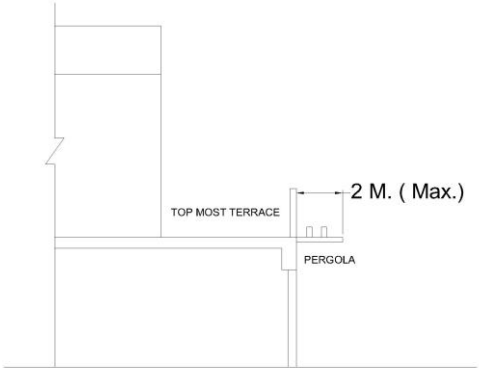
- 60% openings/voids to be provided on the surface area of elevation treatment.

BUILDING HT.	Y
< 70 MTR.	4 MTR.
70 to 120 MTR.	6 MTR.
> 120 MTR.	9 MTR.



3. Pergola at terrace level

- The pergola projection beyond the building line should not be more than 2.00mt
- The pergola projection should not affect side marginal open space of 3.00 mt and front marginal open space of 1.5mt
- Pergolas will be allowed only for top most common terrace of building/wing/wings
- The pergolas will not be allowed on part terraces /pocket terraces / slopping terraces



4. Swimming pool

- Open to sky swimming pool will be allowed only at the terrace above the top most storey or on the top most podium only.
- In case of building above 70m, swimming pool will not be permitted on terrace as per HRC rules.

5. Overhead water tank

- Every overhead water storage tank should be provided with properly fitting hinged cover. Tank should have height more than 1.5m and should be provided with a permanently fixed iron ladder to enable inspection by anti-malaria staff.

6. **The following appurtenant structures should not be included in the height of the building unless the aggregate area of such structures, including penthouses, exceeds one-third of the area of the roof of building upon which they are erected: (these structures will be considered for civil aviation Height of the building)**

   - Roof tanks and their supports (with support height not exceeding 1 m)
   - Ventilating, air-conditioning, lift rooms and similar service equipment
   - Stair cover (MUMTY) not exceeding 3 m in height
   - Chimneys, parapet walls and architectural features not exceeding 1.2 m in height.

7. For High rise building having height more than 70 mt., "Controlled Lowering Device for evacuation" or "External Evacuation System" as approved by CFO shall be provided.

8. Ventilation shaft can be allowed free of FSI provided the same is open to sky from ground level.

9. Lift access to top most terrace level not permitted.