

REPUBLIC OF THE UNION OF MYANMAR

YANGON REGION GOVERNMENT

YANGON CITY DEVELOPMENT COMMITTEE



Definitions of Yangon Building Regulations

(Draft)

URBAN PLANNING AUTHORITY

2020, April

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Definitions of Building Regulations in Yangon City

1. Introduction

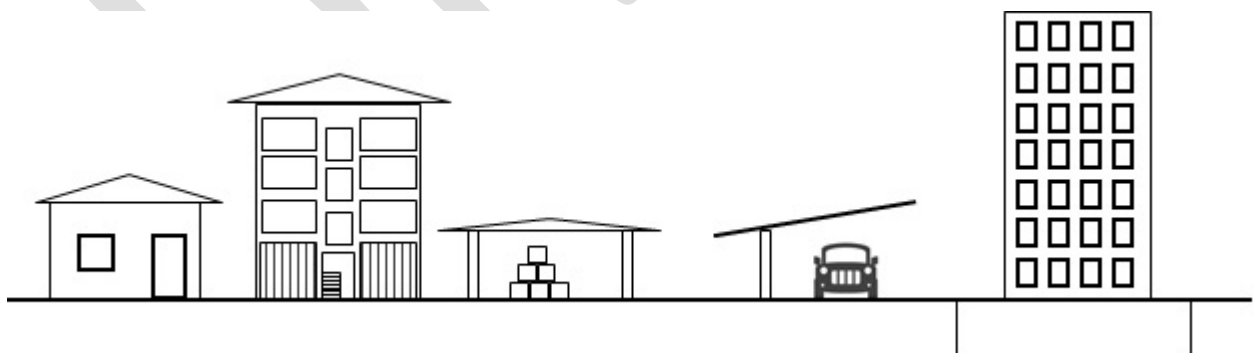
When Buildings Rules and Regulations of Yangon City Development Committee (YCDC) are identified, the clear and understandable definitions are necessary to set up in order to become systematic and consistent and to be transparency and easy to follow by the citizens and stakeholders.

2. Purpose

- ❖ To become sustainable development for Yangon City Development Committee (YCDC),
- ❖ To set up the Zoning Regulations,
- ❖ To set up the buildings procedures, Rules and Regulations for health and
- ❖ To understand clearly such regulations and easy to follow by the citizens and stakeholders.

3. Definition of Building

Building means structure fixed on the ground or basement having foundation, plinths, roofs as well as columns or walls, floors, varendah and balcony.

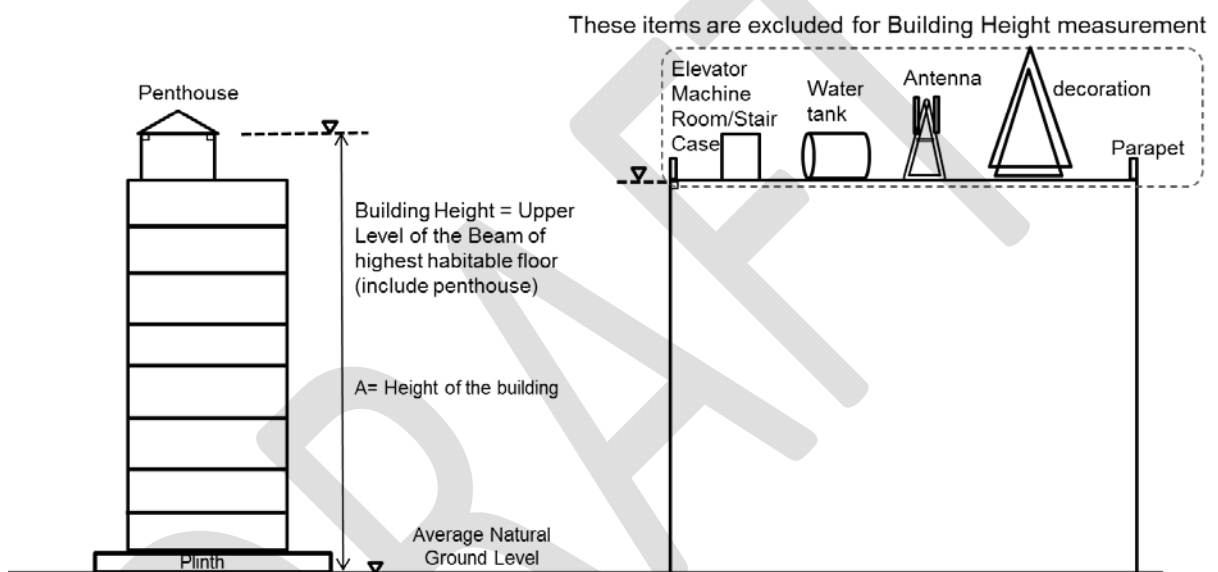


4. Definition of Building Height

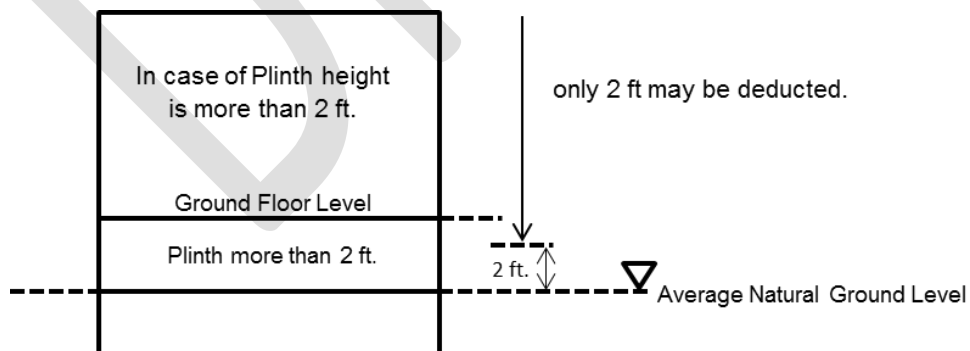
Building Height is measured from Average Natural Ground Level (ANGL) to the Top of Roof Beam Level of upmost habitable floor deducting either the smaller # of 2 ft. or actual plinth height. Plinth height is measured from the Finished Ground Level (FGL) to the Ground Floor Level. Penthouse is needed to be included.

For building height measurement, height of items such as elevator machine room, stair case, water tank, and antenna or like may be excluded maximum of 6m (19.6 ft.) and exceeded height of those items shall be added to the building height. This regulation of deduction of such items doesn't apply to the all zones of Shwe Dagon Pagoda Restricted Area (SDRA).

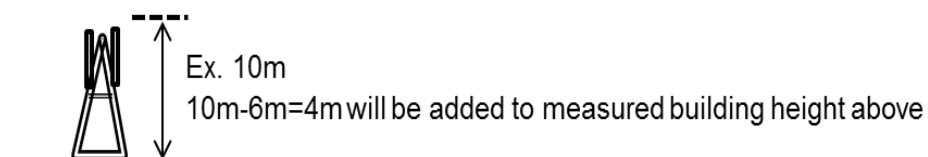
Reason for setting up the necessary building height are to conserve the important characteristics of Yangon, to be comfortable for citizens, to get natural light from the point of view of health and to get well ventilation.



$A - a^* = \text{Building Height}$
 $a^* = \text{either the smaller \# of 2' or actual plinth height}$



In case of the height of excluded items are more than 6m,



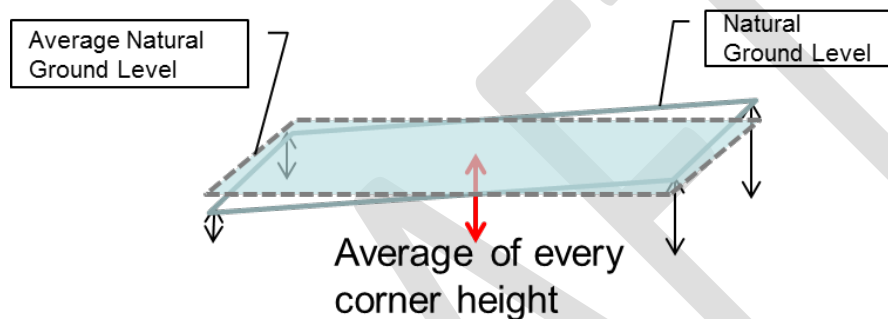
Building height measurement in Shwe Dagon Restricted Areas (SDRA) shall be described separately in paragraph 13.

5. Definition of Ground Levels

Ground Level could mean various ways.

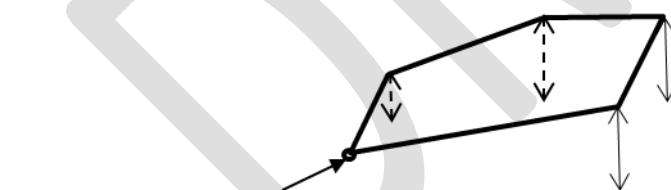
a) Average Natural Ground Level (ANGL)

Average Natural Ground Level (ANGL) is calculated by average of the measured every corner of building plot. Any of artificial or intentional landfill or excavation shall be ignored. It is considered as a virtual flat land.



b) Natural Ground Level (NGL)

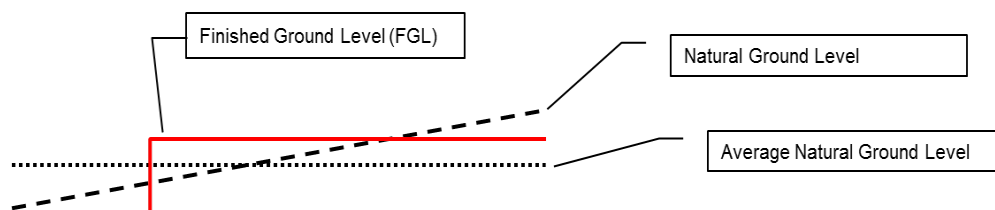
Natural Ground Level (NGL) is a level of the natural building plot and could be sloped.



Lowest Point = Reference Point = 0

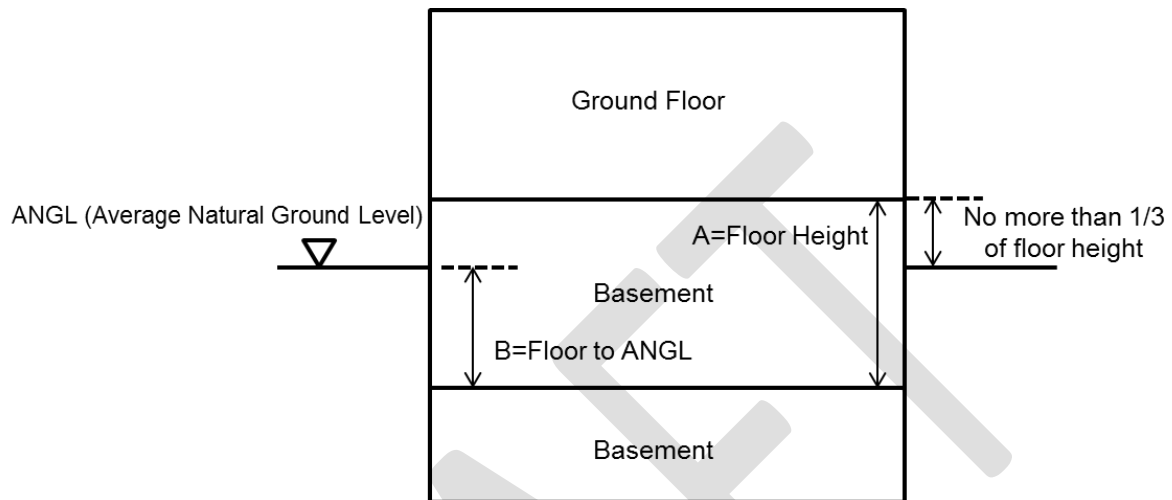
c) Finished Ground Level (FGL)

Finished Ground Level (FGL) is the level of building plot which is constructed by development activities. It might have sloped part or multiple levels.



6. Definition of Basement

Basement means which is located partly or fully under the Average Natural Ground Level. Partly means the floor over the Average Natural Ground Level which is no more than $\frac{1}{3}$ of its floor height.



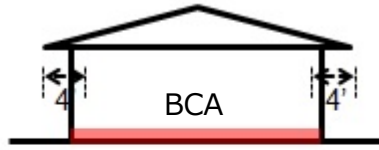
7. Definition of Building Coverage Ratio (BCR)

The ratio of Building Coverage Area (BCA) and Building Plot Area is called Building Coverage Ratio (BCR).

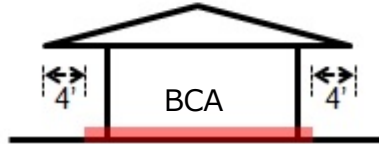
$$\text{Building Coverage Ratio} = \frac{\text{Building Coverage Area}}{\text{Plot Area}}$$

When Building Coverage Area (BCA) is calculated, the area which is inside of the outer wall or like line is considered.

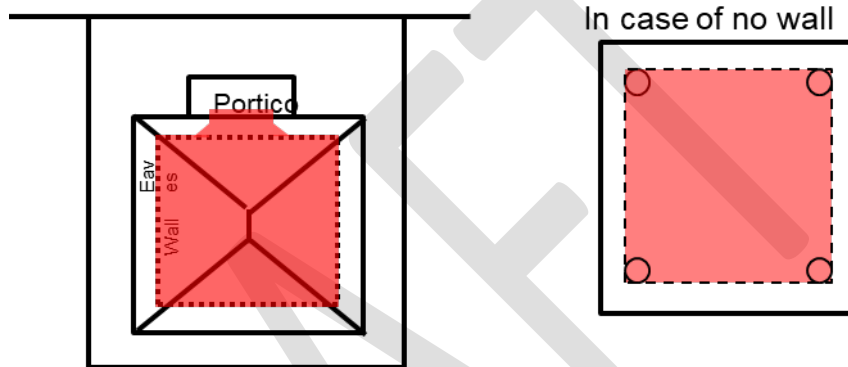
When the outer most roof line is within 4 ft. from outer wall of building (could be eave etc.), BCA is calculated from the outer most edge line of the wall. When the outer most roof line is more than 4 ft., it can be omitted 4 ft. from the outer most roof line and the remaining area is included in BCA calculation.



In case of the depth of eaves are less than 4 ft.



In case of the depth of eaves are more than 4 ft.



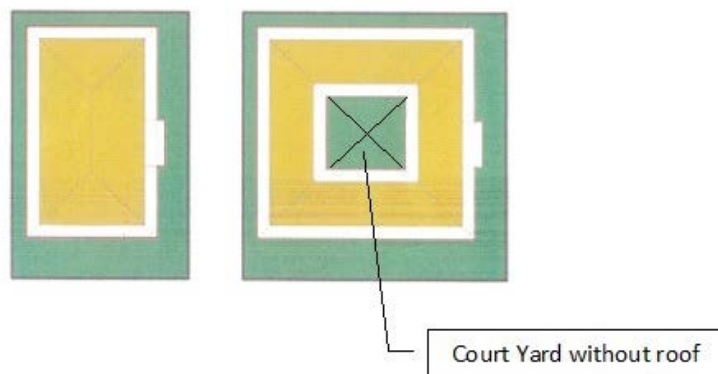
The following items are needed to be considered and may be excluded from Building Coverage Area (BCA) calculation.

a) Swimming Pool

Swimming pool built on ground without roof is not considered in BCA calculation.

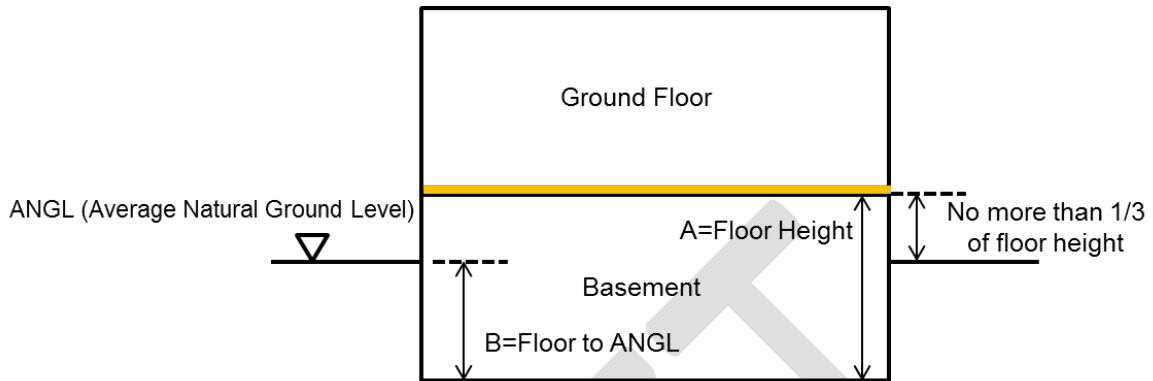
b) Court Yard

Court yard area without roof may be excluded from BCA calculation.



c) Basement

Basement which is no more than $\frac{1}{3}$ of floor height above Average Natural Ground Level is excluded from BCA calculation.



d) Guard House, Guard Post

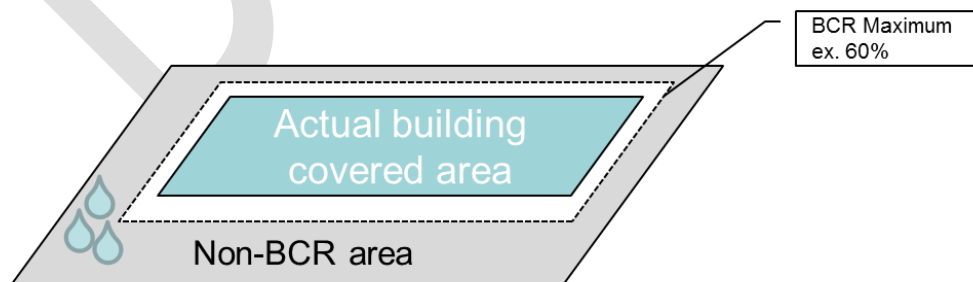
Guard house and guard post are needed to be included BCA calculation.

8. Definition of Non-BCR Area

Non-Building Coverage Area means the remaining area after omitting the designated BCR in the plot area. Non-BCR is calculated as follows,

$$\text{Non-BCR Area} = \text{Plot Size} \times (1 - \text{designated BCR})$$

Ex. Designated BCR=60% of 1,000 sq-ft plot, required permeable area for Non-BCR area of 40% = 160 sq-ft



40% of Non-BCR area shall be with permeability or equivalent

9. Definition of Permeable Area

Permeable Area is the area which has permeability of rain water. Concrete surface or like shall not be considered as permeable area unless permeable concrete is used. 40% of Non-BCR area shall be with permeability or equivalent. Retention tanks, reservoirs or like are used as alternative techniques to prevent flood prevention. Basement is not considered as permeable area.

10. Definition of Floor Area Ratio (FAR)

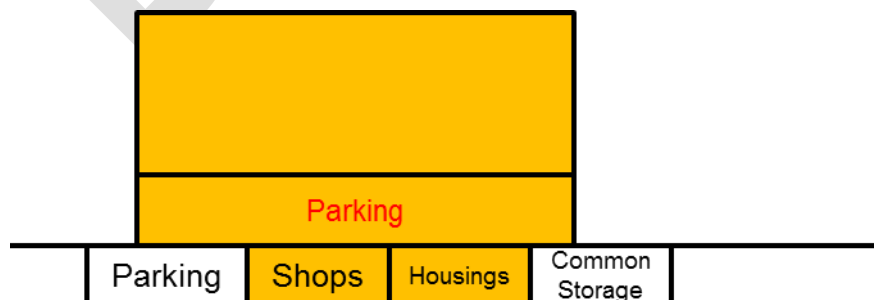
The ratio of Total Floor Area (TFA) and Building Plot Area is called Floor Area Ratio (FAR). Reason for setting up the Floor Area Ratio (FAR) is to control the urban density (population density and building density).

$$\text{Floor Area Ratio} = \frac{\text{Total Floor Area}}{\text{Plot Area}}$$

The following items are needed to be considered and may be excluded from Total Floor Area (TFA) calculation.

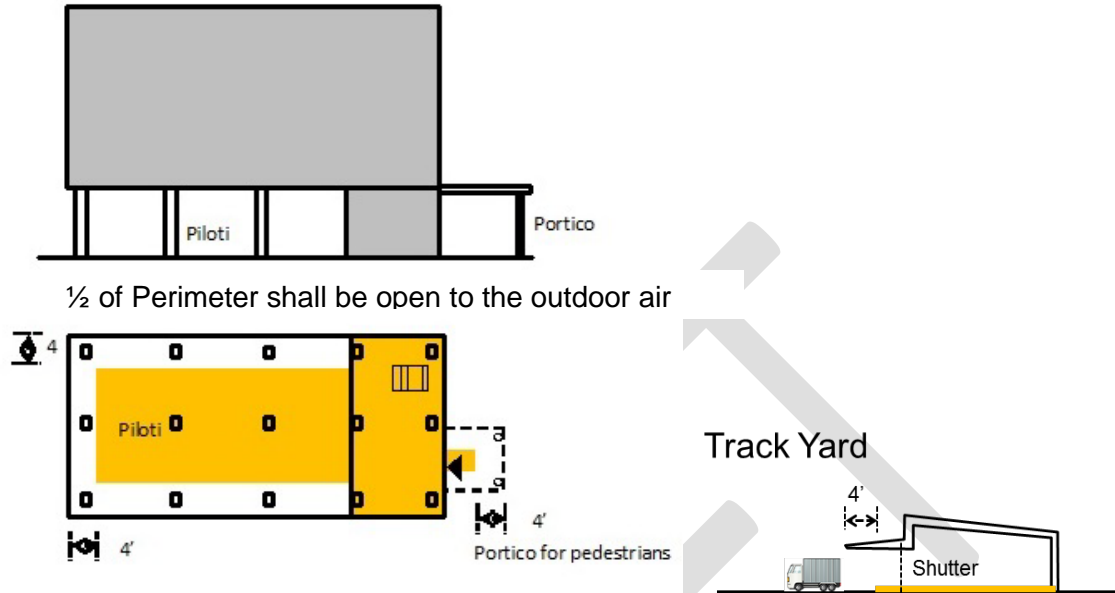
a) Basement

When the basement is used for car parking, garage room, M&E room, storage for common use, firefighting room and underground tank or like, it may be excluded from TFA calculation but for other cases such as shops, offices and residential on the basement floor, it is needed to be included TFA calculation.



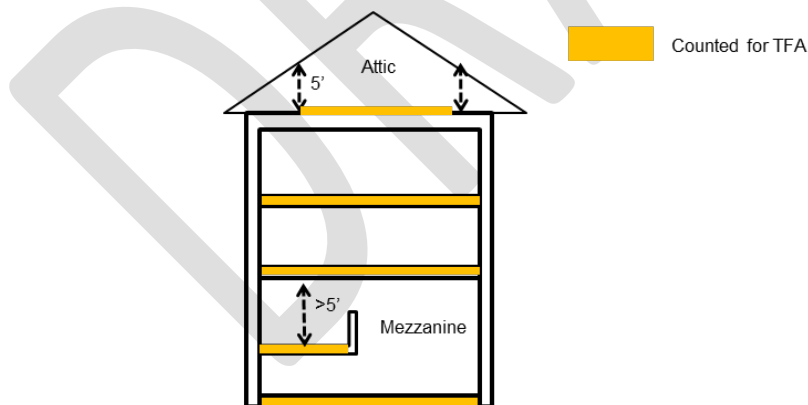
b) Piloti and Portico without Wall

The area without outer wall, 4 ft. from perimeter will be excluded from TFA calculation. $\frac{1}{2}$ of perimeter shall be open to the outdoor air.



c) Mezzanine, Attic

When mezzanine and attic area with ceiling height is no less than 5 ft., it is included TFA calculation.



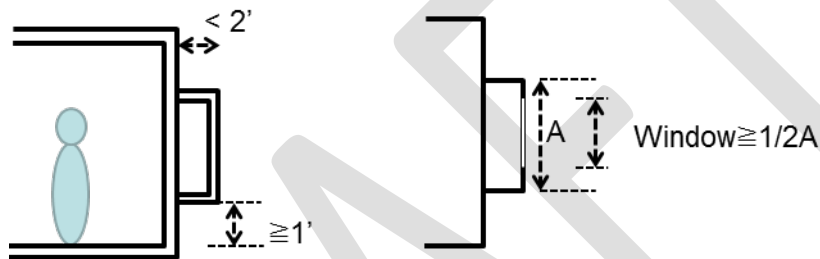
d) Elevator Shaft and Machine

Elevator shaft and machine room are excluded from TFA calculation but escalator and normal stair case are included TFA calculation.



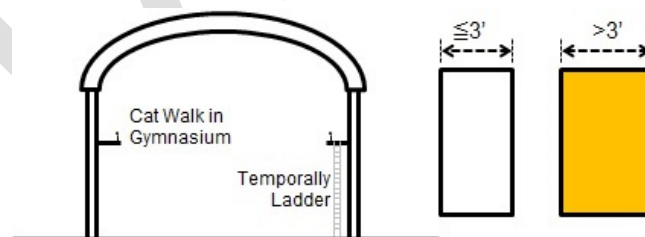
e) Bay Window

When bay window with lower part from floor is at least more than 1 ft. and depth is less than 2 ft. from wall will be excluded from TFA calculation. Window height shall be no less than half of bay window height to get ventilation.



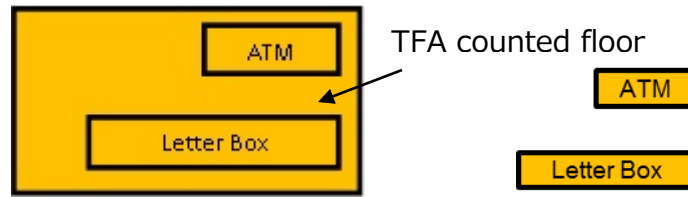
f) Cat Walk

When cat walk used for maintenance purpose without permanent access by stairway or ladder width no more than 3 ft., it may be excluded from TFA calculation. But if the cat walk width is more than 3 ft., all the area shall be included.



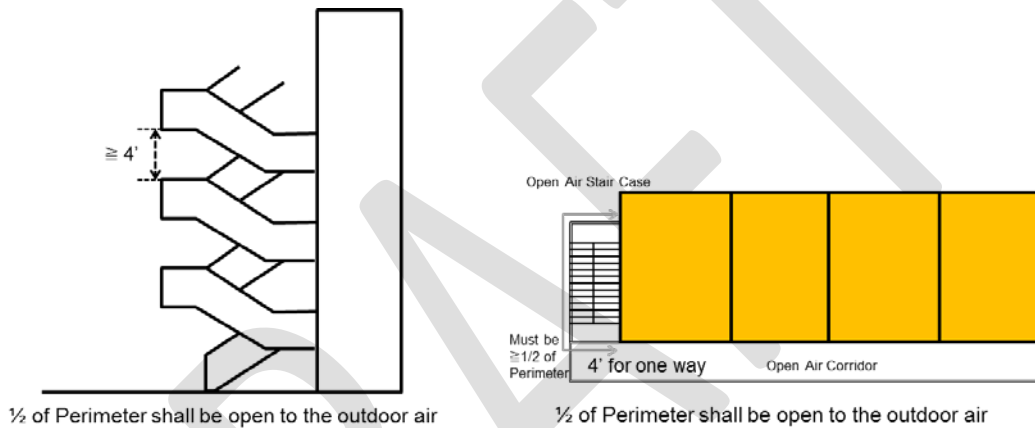
g) ATM and Letter Box

The letter box or ATM located on to counted floor area is not needed to add to TFA (Since the floor is counted already). But the letter box or AIT itself located outside of the building, it is needed to be counted in TFA calculation.



h) External Stair Case

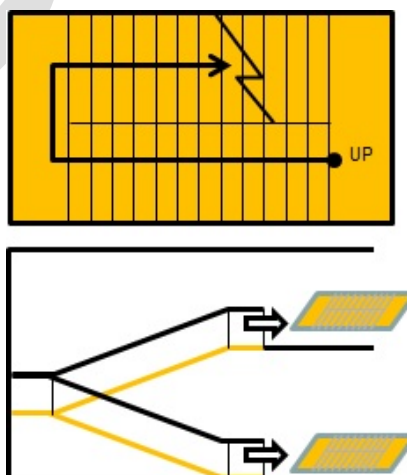
When the stair case located as open air stair case type, it may be excluded from TFA calculation. Open air stair case type means $\frac{1}{2}$ of perimeter shall be open to the outdoor air, and it doesn't have screen or like and open outer air height shall have at least 4 ft.



i) Internal Stair Case

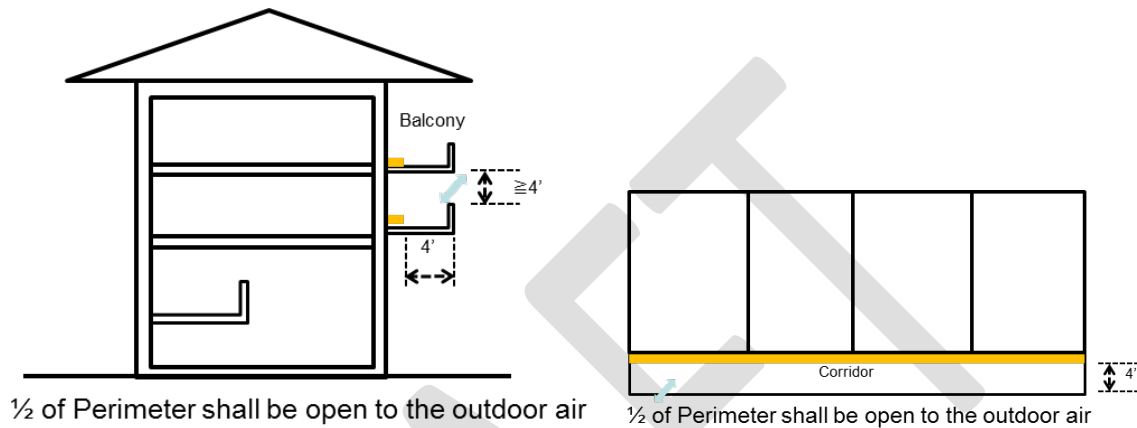
Escalator and normal stair case are included TFA calculation. Since the stair is used to climb up to higher level, projected area for stair is counted to reaching floor.

E.g., GF to 1st Floor -> 1st Floor



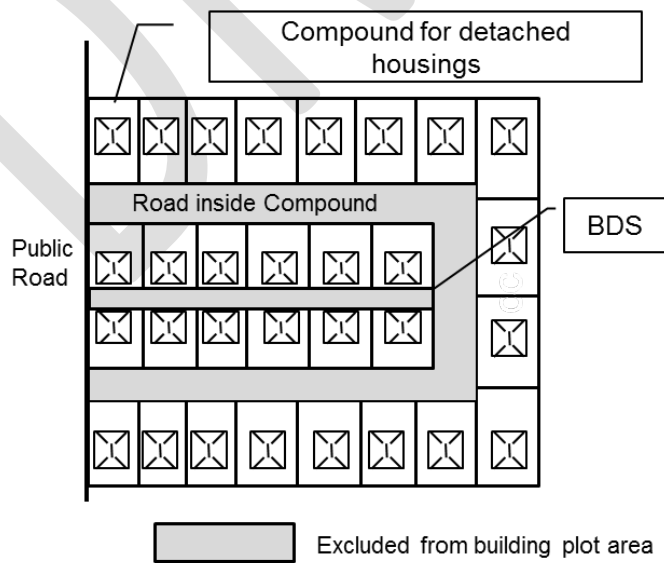
j) Balcony, Bay Balcony and Corridor

When the balcony and corridor width is less than 4 ft. with the open air type, it may be excluded to TFA calculation. For the balcony and corridor which is more than 4 ft. wide with the open air type, area which is 4 ft. from edge may be excluded and the remaining width shall be included TFA calculation. 1/2 of perimeter shall be open to the outdoor air, and open outer air height shall have at least 4 ft.



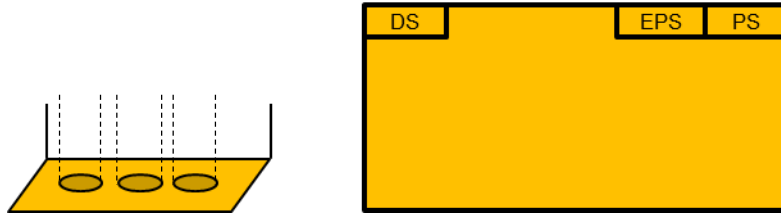
k) Detached Housings Compound

When FAR calculation in detached housings compound, plot area is calculated subtracting road and back drainage space (BDS) area inside compound from total building plot area.



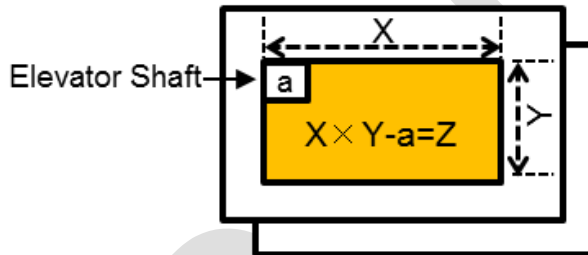
I) Duct Space / Pipe Space / Electric Pipe Space

Duct Space / Pipe Space / Electric Pipe Space shall be included TFA calculation including hole area.



m) Calculation Tables and Drawings

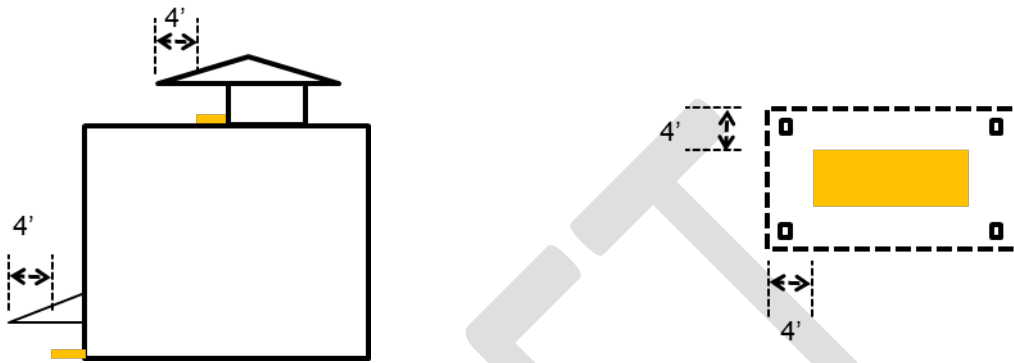
When proposal drawing is submitted, the TFA calculation table for each floor and drawing as shown in figure shall be attached with BP application form.



	Floor Area	TFA for FAR	Remarks
6F	100	90	
5F	100	90	
4F	100	90	
3F	100	90	
2F	100	90	
1F	100	90	
GF	100	90	
Total	700	630	
Plot Area	1,000	FAR	0.63
		BCR	0.7

n) Roof without Walls

Eaves which has more than 4 ft. as a depth, exceeding area from 4 ft. shall be included TFA calculation. Roof without wall shall be treated in the same way. (4 ft. from out most part shall be excluded from TFA calculation and other area shall be included TFA calculation.)



11. Definition of Fencing Height

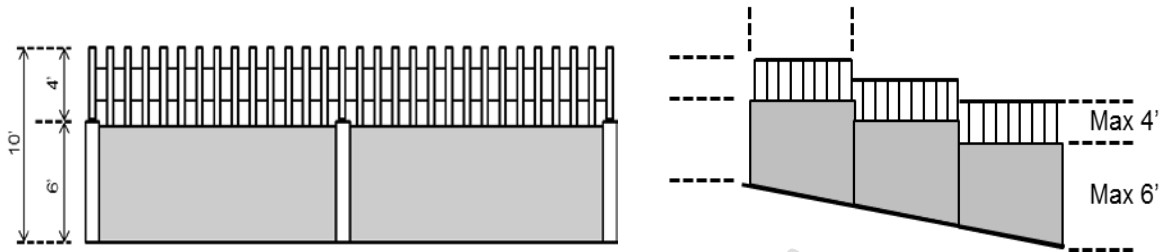
Fencing shall be constructed within one's property boundary. Moreover, it means area which is fenced according to D map issued by Yangon City Development Committee (YCDC).

Fencing height is measured from Finished Ground Level to top of the fencing. Generally, the maximum allowable height for fencing is 10 ft. Fencing shall be formed with maximum height of 6 ft. for solid wall and adding to this 6 ft., maximum height 4 ft. for open type with air flow.

In the case of sloped plot, maximum of fencing height is measured at the highest point from Finished Ground Level. In case of plot is higher than road level which difference is less than 4 ft., maximum fencing height is measured from lower road level. In case of plot is lower than road level in any height difference, maximum of fencing height shall be 6 ft. (4 ft. for open type and the remaining height for solid wall) is measured from the higher road level.

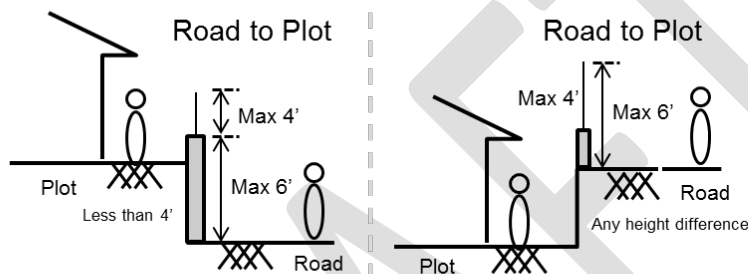
In case plot is higher than the adjacent plot which difference is less than 4 ft., fencing height is measured from higher plot. In case there is more than 4 ft.

difference higher from road or plot level, maximum of fencing height shall be 6 ft. (4 ft. for open type and the remaining height for solid wall) is measured from the higher ground level.



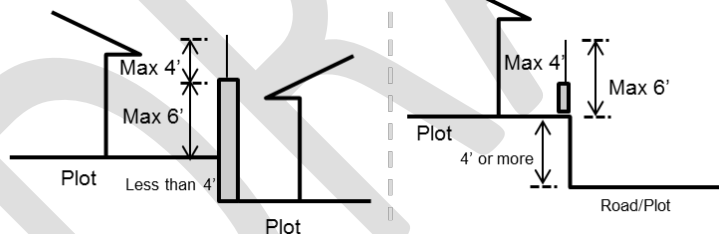
Plot is higher than Road Level

Plot is lower than Road Level



Difference between Plot to Plot

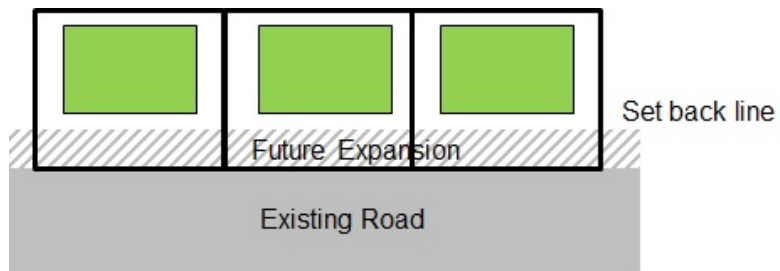
In case 4' or more for gap between plot to plot / plot to road



12. Definition of Set Back

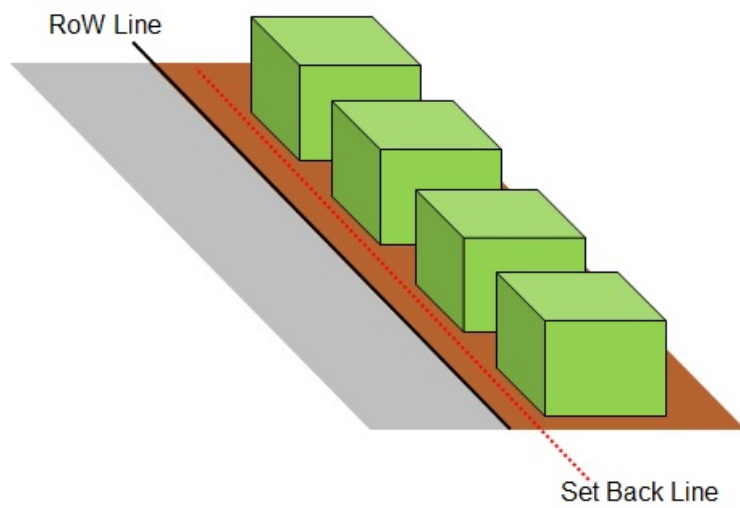
Set back means the minimum distance from land property boundary lines to building wall. By having set back, the following advantages can be get such as to be the good city escape, to appear the systematic environment, to conserve the natural environment, to create the space for pedestrians, and to use the basic necessity infrastructure according to urban planning. Set back can be identified based on the road classification and zoning categories.

-For Future Road Widening

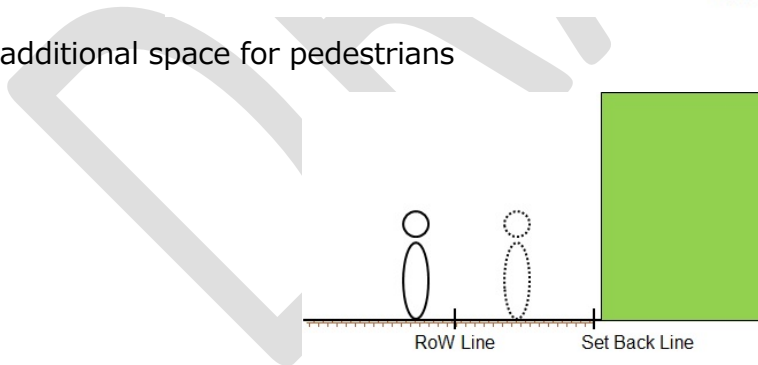


* Might includes for secure minimum road width

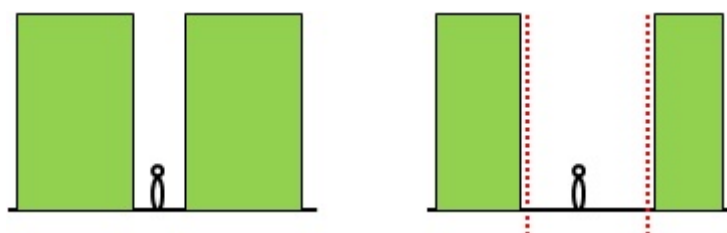
-For good city scape



-For additional space for pedestrians

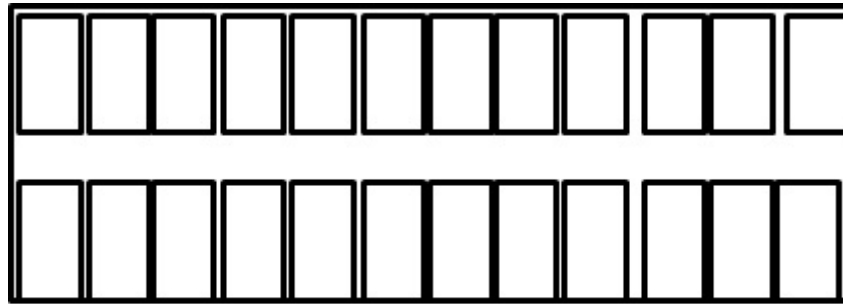


-For good environment



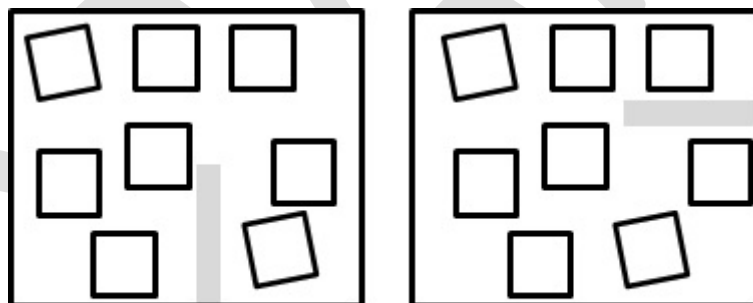
So that, it can be performed smoothly when a new building is constructed and renovated between one plot and plot. In Yangon Block Map, it can be found that there are planned block and unplanned block.

Planned block means a place where the same size or same length of plot has been existed systematically in one block.



“Planned Block”

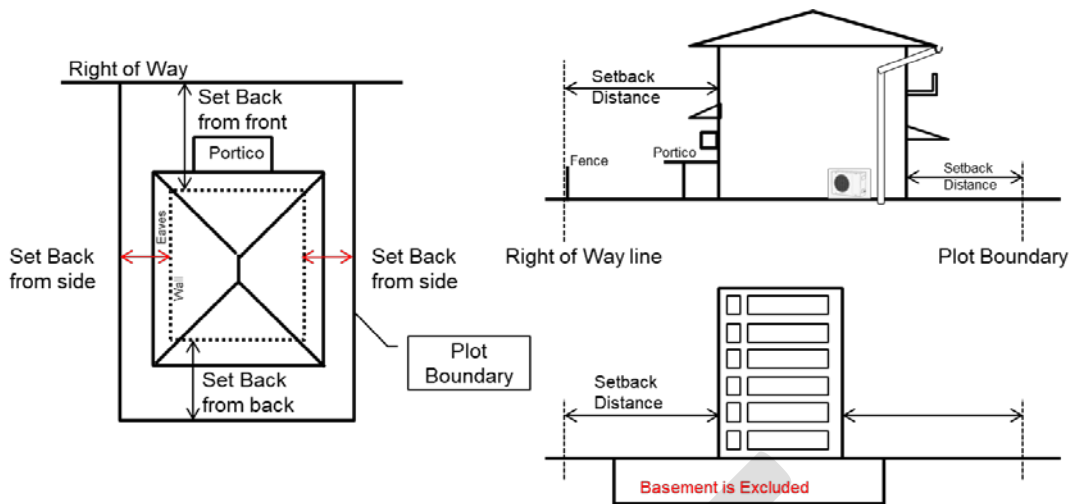
Unplanned block means a place where the different size of plot has been existed unsystematically in one block.



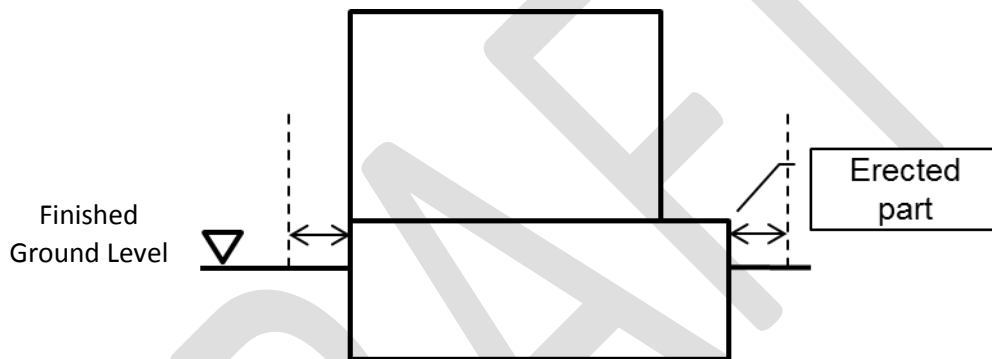
“Unplanned Block” or “Others”

The maximum frontage width of plot is 20 ft., 25 ft., 30 ft., 40 ft., 50 ft. and more than 50 ft. and their length is 40 ft., 50 ft., 60 ft. and more than 60 ft.

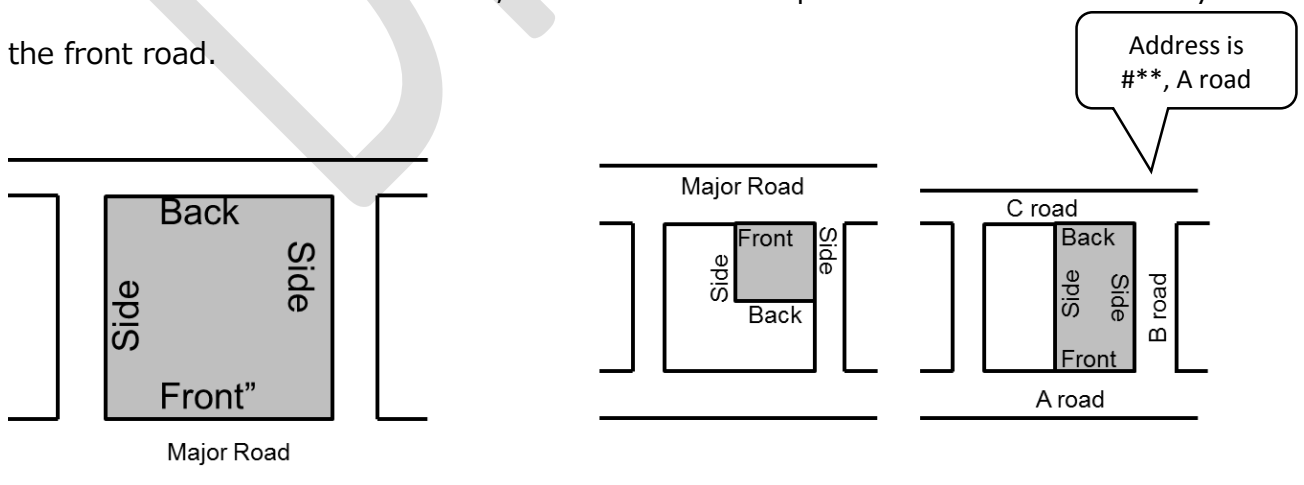
Setback Line is measured front, back and both side from the surface of building wall to building plot boundaries.



If there is erected part of basement from Finished Ground Level, this part is also regulated by setback regulations.



In case of more than one road connection, higher level of road which is considered as majority according to the road width shall be considered as Front and according to this Front, Back and Side is decided. If the plot is facing to more than one road with same level of class, the address of the plot shall be used to identify the front road.



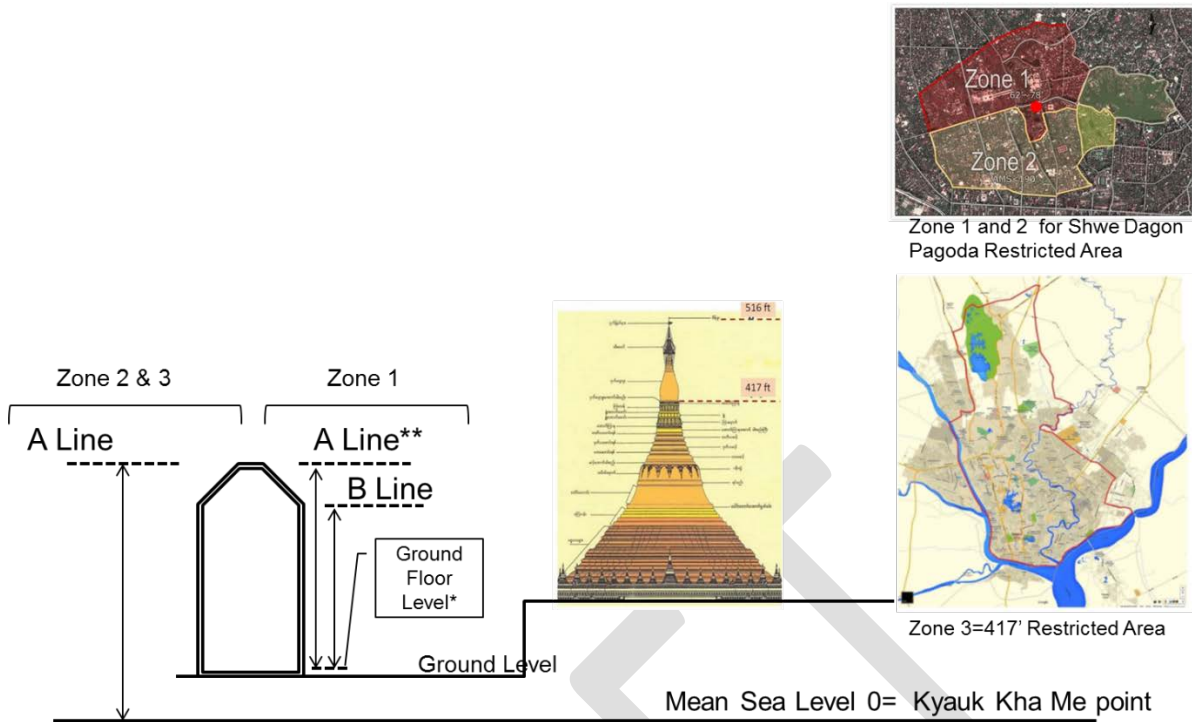
13. Definition of Building Height in Shwe Dagon Restricted Area (SDRA)

Shwe Dagon Pagoda Restricted Area (SDRA) is regulated in two way.

Zone 1 is regulated as building height which is measured from Ground Floor Level or Average Natural Ground Level according to the building height regulation. Both of Ultimate highest point (A line) 78 ft and Upper part of roof beam of highest habitable floor (B line) 62 ft shall be regulated for Shwe Dagon Pagoda Restricted Area Zone 1.

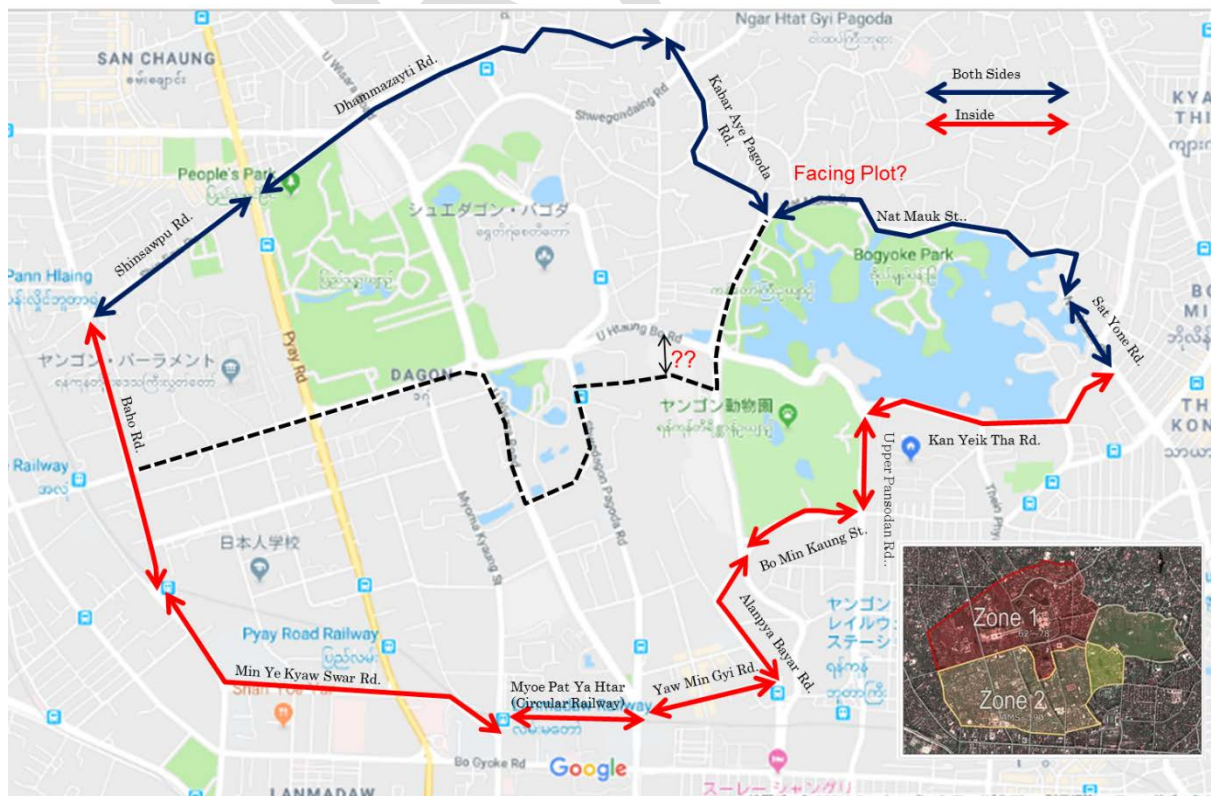
For Zone 2 and 3, Above Mean Sea Level (AMSL) shall be used. Ultimate building height from AMSL shall be used for building height regulation. For Zone 2, it is limited up to 190 ft. For Zone 3, maximum building height shall be 417 ft.

For building height measurement in others YCDC area apart from these three zones , items such as elevator machine room, stair case, water tank, antenna or like are allowed which shall be maximum of 6m (19.6 ft.) and exceeded height shall be added to the building height. But this regulation doesn't apply to the all zones of Shwe Dagon Pagoda Restricted Area (SDRA). Semi-public facilities like telecom tower and like shall be allowed with the permission from YCDC and this height must be under allowable ultimate highest point.



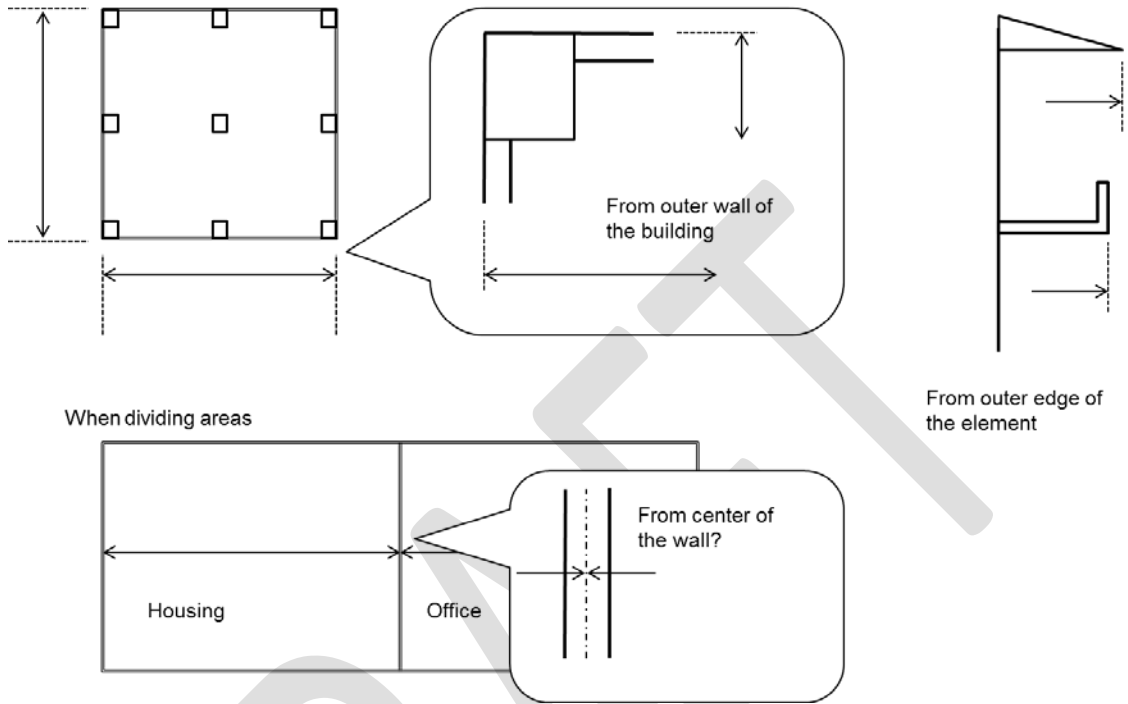
14. Definition of Shwe Dagon Restricted Area (SDRA)

SDRA Zone 1 and Zone 2 is shown as follows. For red line, only inside part shall be regulated. For blue line, both side shall be regulated.



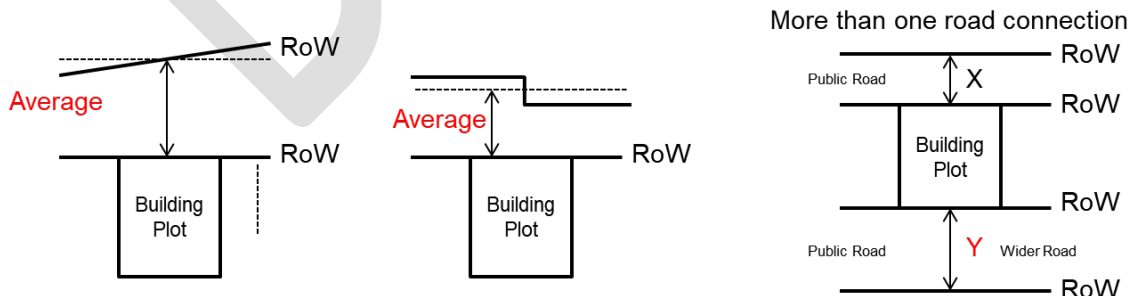
15. Definition of Floor Areas Measurement

The floor area shall be measured from outer wall surface. In case of dividing the floor area such as usage of each floors, the center line of the dividing wall shall be used. Outer most edge shall be used for exclusion of eaves, etc.



16. Definition of Road Width Measurement

Road width shall be calculated as the Average of road width which is attaching to the plot. In case of more than one road, wider road shall be chosen. The drawings which shows the road width shall be provided.



Measurement of road width and relation of road and building plot shall be attached to BP application

