### GFA Related Matters

Computation to the Middle of External Walls

GFA is computed to the middle of external walls1 (excluding the thickness of wall finishes). See illustration below.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/71A-GFA-Demarcation-of-external-wall-excluding-finishes_28Jul2023_SC-03-bay-window-and-balcony.jpg?h=500&w=800>

*GFA demarcation of external wall excluding finishes*

Where there are windows or doors along the external wall, GFA is likewise computed to the middle of these windows or doors. See illustration below.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/GFA--Demarcation-for-windows-along-an-external-wall_31Jul2023.jpg?h=500&w=800>

*Example of GFA demarcation for windows along an external wall*

Where there are other vertical structures (e.g. railings, parapet walls, curtain walls) in-lieu of external walls, GFA will be computed to the middle of the outermost vertical structures. See examples below.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/72A-GFA--Scenario-1--Balcony-with-railings-affixed-on-top-of-slab.jpg?h=500&w=800>

*Scenario 1 – Balcony with railings affixed on top of slab*

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/GFA-72B-Scenario-2--Balcony-with-railings-cladded-on-the-side-of-the-slab.jpg?h=500&w=800>

*Scenario 2 – Balcony with railings cladded on the side of the slab*

[*https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/GFA-72C-Scenario-3--Metal-Balustrades-with-glass-panels.jpg?h=500&w=800*](https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/GFA-72C-Scenario-3--Metal-Balustrades-with-glass-panels.jpg?h=500&w=800)

*Scenario 3 – Metal Balustrades with glass panels*

There is no need to account for columns, and GFA will continue to be computed to the middle of the external walls.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/73A-GFA-Scenario-1-Demarcation-of-railings_28Jul2023_SC-03-bay-window-and-balcony.jpg?h=500&w=800>

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/73B-GFA-Demarcation-of-railings----Column-Scenario-2_28Jul2023_SC-03-bay-window-and-balcony.jpg?h=500&w=800>

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/73C-GFA-Scenario-3-Demarcation-of-railings---Column-Scenario-328Jul2023SC-03-bay-window-and-balcony.jpg?h=500&w=800>

Where there is a change in wall thickness, a 50mm offset is used to connect the different GFA delineations.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/74-GFA-50mm-offset-computation-change-in-thickness-of-wall_28Jul2023_SC-03-bay-window-and-balcony.jpg?h=500&w=800>

Where there is no external wall or similar vertical structure, GFA will be computed up to the edge of the covered areas.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/75-GFA-cross-section-computation-without-wall-or-vertical-structure28Jul2023SC-03-bay-window-and-bal.jpg?h=500&w=800>

Where a wall is between a GFA space and space that is not computed as GFA (e.g. shop space and common carpark) the extent of the GFA space will be computed to the middle of the wall. See example (A) below.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/76-GFA-cross-section-computation-between-GFA-and-exempted-space28Jul2023SC-03-bay-window-and-balcony.jpg?h=500&w=800>

1For buildings with party walls, which refer to the shared wall along the common boundary of two separate developments, GFA computation will include the thickness of the party wall that is part of the building

All Strata Areas to be computed as GFA

All proposed strata areas will be computed as GFA. For example, if an AC ledge serving a residential unit is included as part of the strata area of the unit, the AC ledge will be computed as GFA.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/77-GFA-Example-of-GFA-and-strata-demarcation-in-AC-ledge.jpg?h=500&w=800>

*Example of GFA and strata demarcation in AC ledge*

QPs are to clearly reflect both the GFA and strata boundaries on each of the floor plans submitted to URA, and to ensure all proposed strata areas have been duly computed as GFA. Non-provision of strata boundaries may result in a delay in URA’s grant of approval.

Developers are strongly encouraged to involve surveyors early in the design process to firm up the proposed strata boundaries. This is because any proposed changes to strata boundaries downstream may affect the resultant GFA of the development. If this results in the proposed GFA exceeding the Master Plan control, URA will require the proposed GFA to be rectified (e.g. via an amendment application) before strata subdivision approval can be granted.

**Exceptions where strata area need not be computed as GFA**

There are some developments (e.g. mixed-use developments) where spaces intended for public/ communal use are included as part of a larger strata area, for the purpose of demarcating ownership and maintenance responsibilities. For example, covered walkways on the 1st storey commercial floor, within a larger commercial/residential development or sky terraces on the upper hotel floor, within a larger hotel/office mixed-use development.

Such spaces can continue to be considered for GFA exemption (notwithstanding their inclusion as strata area), subject to compliance with URA’s prevailing guidelines for GFA exemptions.

GFA Apportionment

If the approved development comprises more than one use, the following rules shall apply in the calculation of common areas. Such a mixed development may also arise due to the land use zone, for example the Commercial & Residential zone.

**Attributable space:** Where a common area is exclusively used for a specific purpose, it will be apportioned to the specific use. See example below.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/GFA-72A-Apportionment_Comm_2oct20.jpg>

**Non-attributable space**: Where the common area is used for two or more purposes, it will be apportioned based on the weighted average, pegged to the prescribed use quantum mix in the Master Plan zoning of the development. See example below.

<https://www.ura.gov.sg/-/media/Corporate/Guidelines/Development-control/GFA/GFA-72B-Apportionment-CommResi_2oct20.jpg>

The prescribed use quantum mix in the Master Plan zoning is detailed below:

|  |  |  |
| --- | --- | --- |
| **Master Plan Zoning** | **Apportionment of Non-Attributable Space** | |
| Residential with Commercial at 1st storey | 80% for Residential | 20% for Commercial |
| Commercial & Residential | 60% for Residential | 40% for Commercial |
| Hotel | 60% for Hotel | 40% for Commercial |
| White | 100% for White\* | |
| Business Park | 85% for Business Park | 15% for White\* |
| Business Park – White (X)     E.g. Business Park – White (40) | (100 – X)% for Business Park  (X)% for White\*   60% for Business Park  40% for White\* | |
| Business 1 – White  Y[B1-Z ]W   E.g. Business 1 – White  3.0[B1-2.5]W   Similar apportionment formula applies to Business 2 – White developments | (Z) x 100% for Business 1   Y   (Y  - Z )  x 100% for White\*       Y   83.3% for Business 1  16.7% for White\* | |
| \*Common areas in White sites with a single use will be apportioned to that proposed use. For White sites with multiple uses, non-attributable common areas will be apportioned based on simple average of the uses. The simple average apportionment of common area GFA on “white use” floors will similarly apply to the White components of Business Park, Business Park-White and Business-White zones. | | |

The new apportionment rules will be applied on a per floor basis. If a floor is occupied by a single use (e.g. Commercial), any vertical circulation GFA areas like staircases on that floor will be apportioned to Commercial use, though they may also be used by other users (e.g. Residential) above for escape purposes.  However, if the floor is occupied by two or more uses1 for which the staircase GFA on that floor cannot be exclusively attributed, they will be regarded as non-attributable space and apportioned based on weighted average, pegged to the prescribed use quantum in the Master Plan zoning.

The illustrations above are not exhaustive in covering all possible building or layout designs. In evaluating the development applications, URA may, if the circumstances of a case or the planning considerations relevant to a case so warrant, depart from these rules. Persons intending to carry out a development are advised to take this into consideration and check with URA through enquiries or development applications to confirm the application of the rules on their proposals.

1These should comprise actual uses and not common areas. For example, on full Commercial floors with lift lobbies that serve Hotel uses, vertical circulation areas like staircases on that floor will be apportioned to Commercial use.  However, on mixed floors with both Hotel and Shop uses, vertical circulation areas will be apportioned based on weighted average.

GFA Apportionment for Sites with Specific Use Quantum Mix in Tender/ Lease Conditions

For sites where the tender or lease conditions state that the land is to be developed for a certain use quantum mix, non-attributable common areas will be apportioned based on the specific use quantum mix stated in the tender or lease conditions, rather than the Master Plan zoning. For example, if the lease conditions for a site zoned Commercial require that the site is to be developed for a use quantum mix of 65% Commercial and 35% Civic & Community Institution, the non-attributable spaces will be apportioned based on 65% Commercial and 35% Civic & Community Institution, rather than 100% Commercial.

For White sites where the tender or lease conditions stipulate a minimum quantum control on a particular use (e.g. minimum 30% Service Apartment), this will be taken into account when apportioning the non-attributable common areas with the balance 70% distributed to the other uses in the development on a simple average basis. For example, if the White site has a requirement of minimum 30% Service Apartment use and the development also has Commercial and Hotel uses, the apportionment of the non-attributable common areas will be based on 30% Service Apartment, 35% Commercial and 35% Hotel.

In evaluating the development applications, URA may, if the circumstances of a case or the planning considerations relevant to a case so warrant, depart from these rules. Persons intending to carry out a development are advised to take this into consideration and check with URA through enquiries or development applications to confirm the application of the rules on their proposals.

Re-computation of GFA for Existing Developments

Prior to 1 Sep 1989, the intensity of residential developments was determined using the population density (i.e. persons per hectare) method while that for commercial developments was based on the nett floor area method (i.e. excluding neutral areas). With effect from 1 Sep 1989, the different methods of determining development intensity for different types of development were standardised by the current Gross Floor Area (GFA) method.  
  
To determine the intensity of such developments approved before 1 Sep 1989, there is a need to convert the approved GFA of the developments to the standardised current GFA definition. For such developments, the approved building would need to be recomputed based on the prevailing GFA definition.

As for developments approved after 1 September 1989, the intensity of these developments are already determined using the modern GFA system. Therefore, there is no need to recompute the GFA for such developments.

*Last updated on 1 Aug 2023*