



Lands Department

GBP BIM Checking Tool User Manual for

**PROVISION OF SERVICES FOR THE IMPLEMENTATION OF TOOLS FOR FACILITATING
AUTOMATED CHECKING PROCESS ON ELECTRONIC BUILDING PLANS TO THE LANDS
DEPARTMENT AND BUILDINGS DEPARTMENT**

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GBP BIM Checking Tool User Manual

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1 Introduction

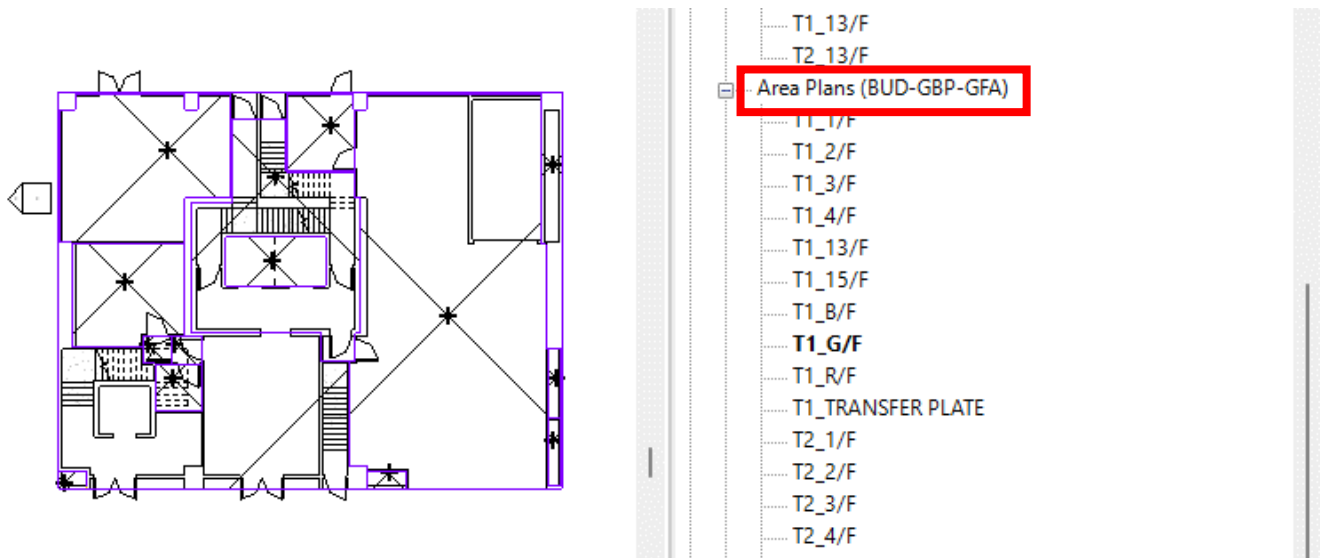
Two functions are provided under Lands Department:

- i) Area Checking Tool – for generation of Lands Department General Building Plan Area Checking Report; and
- ii) Auto Coloring Tool – for automatic generation of area plans according to Lands Department requirements.

This manual will illustrate the procedures to use the above tools.

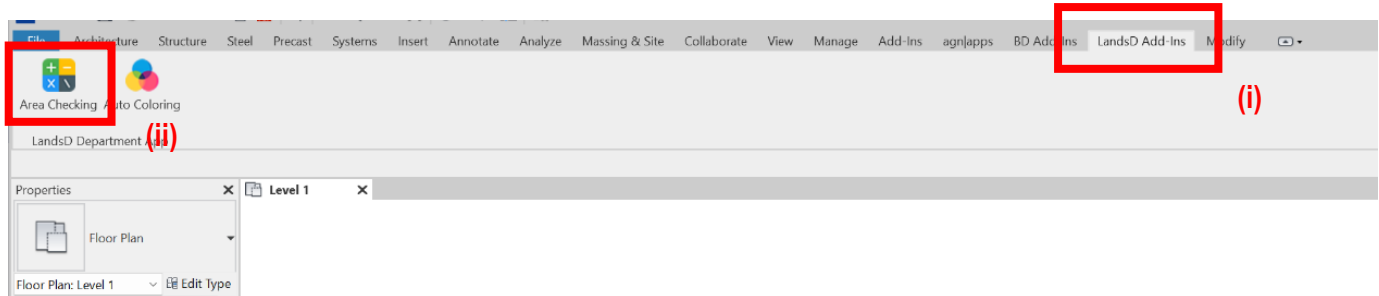
2 Prepare Revit File

Start a new project by using the provided template file, or refer to Section 5 to transfer relevant standards to your project. Create areas on area plan “BUD-GBP-GFA” and provide relevant area information. Provide lease requirements under global parameters.



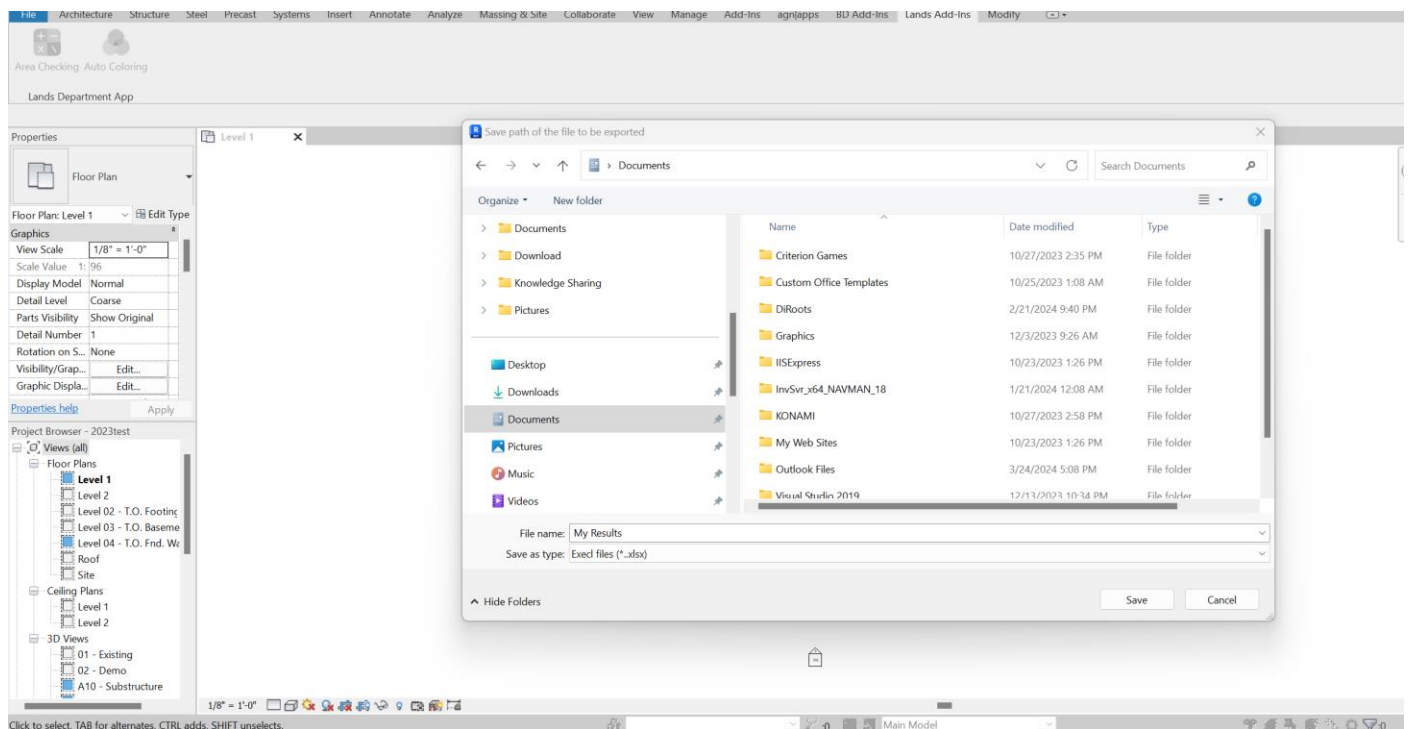
3 Area Checking Tool

- i) Click on "LandsD Add-Ins" – Tab
- ii) Click on "Area Checking"



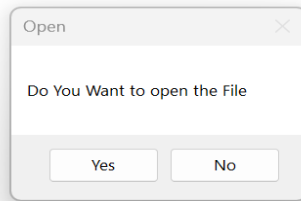
4 Area Checking Excel Result

After clicking the "Area Checking" button, a dialog window will appear allowing you to select a path to save the area calculation results. Once the location and file name are selected, click the "Save" button to export the area calculation results to an Excel file.



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Click “Yes” in the YES|NO Dialog window to open the excel results.



Result will be shown in Excel

File Home Insert Page Layout Formulas Data Review View Add-ins Help BLUEBEAM

Tell me what you want to do

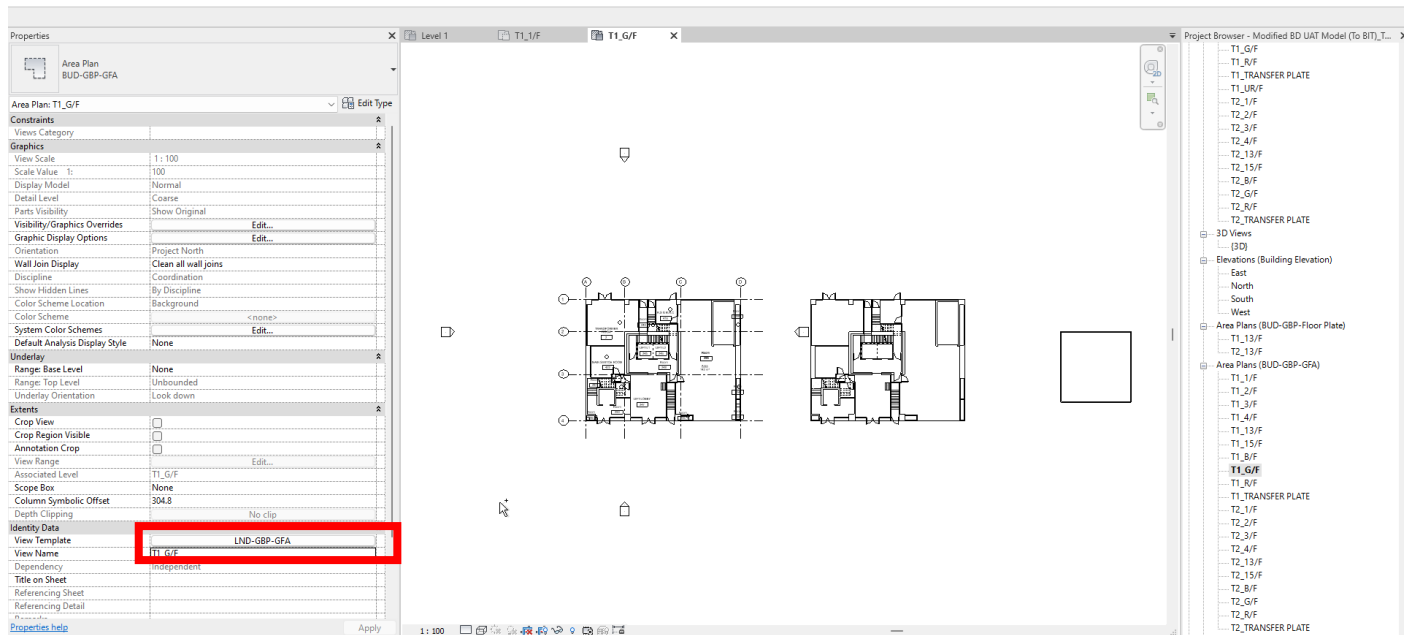
Paste Copy Format Painter Clipboard Font Alignment Number Conditional Formatting Styles Insert Delete Format Cells Editing Add-ins Bluebeam

A	B	C	D	E	F	G	H
1	Lands Department Area Checking Summary Report						
2	Lot No.						
3	Property Address						
4							
5							
6							
7							
8							
9	Site Coverage ("SC") Calculation	Domestic	Non - domestic			Domestic	Non - domestic
10	Description	Area required/permitted under lease		GBP Drawing No.	Area on GBP	Area on BIM	
11							
12	Max./Min. SC	Max. :36 Min. :37	Max. :38 Min. :39			0	0
13							
14	Ad hoc items under lease	34	35			0	0
15							
16	Gross Floor Area ("GFA") Calculation						
17	Description	Area required/permitted under lease		GBP Drawing No.	Area on GBP	Area on BIM	
18							
19	Max. / Min. GFA (Total GFA under BO reported)	Max. :40 Min. :41	Max. :42 Min. :43			722.568	0
20							
21	Area to be disregarded from LandsD GFA calculations only	N.A.				0	0
22							
23	Area to be disregarded from BD GFA calculations only	N.A.				0	0
24							
25	Cap on Concession Items						
26							
27	plant room, and pipe duct and air duct connected to such plant room	N.A.				0	0
28							

Landscaping Checking Report Greenery OpenSpace NOFA Concession Summary Floor Summary Overall PR & SC Cal GFA Raw Data ...

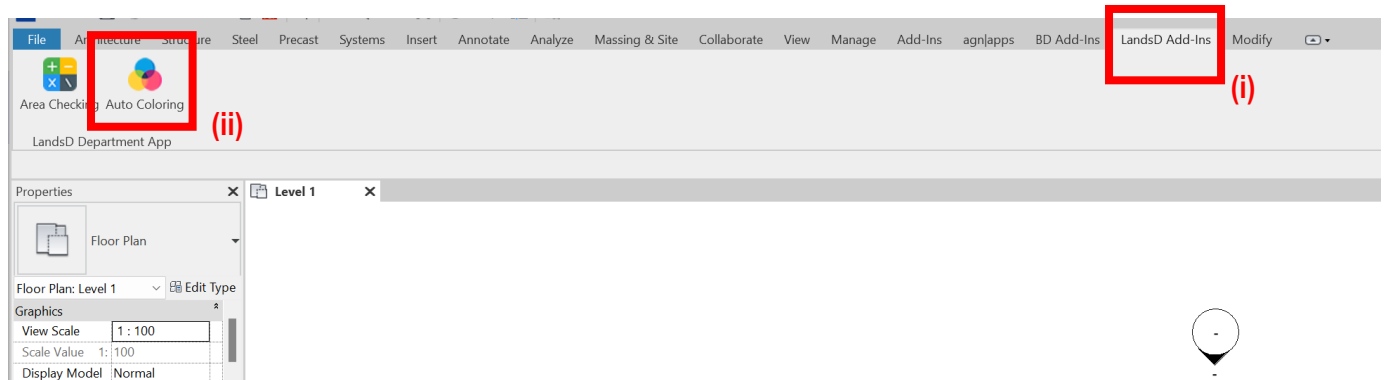
5 Auto Coloring Tool – Apply LandsD View Template

Apply View Template “LND-GBP-GFA” to relevant area plans and the colour scheme “LND-GBP-GFA-Base”.



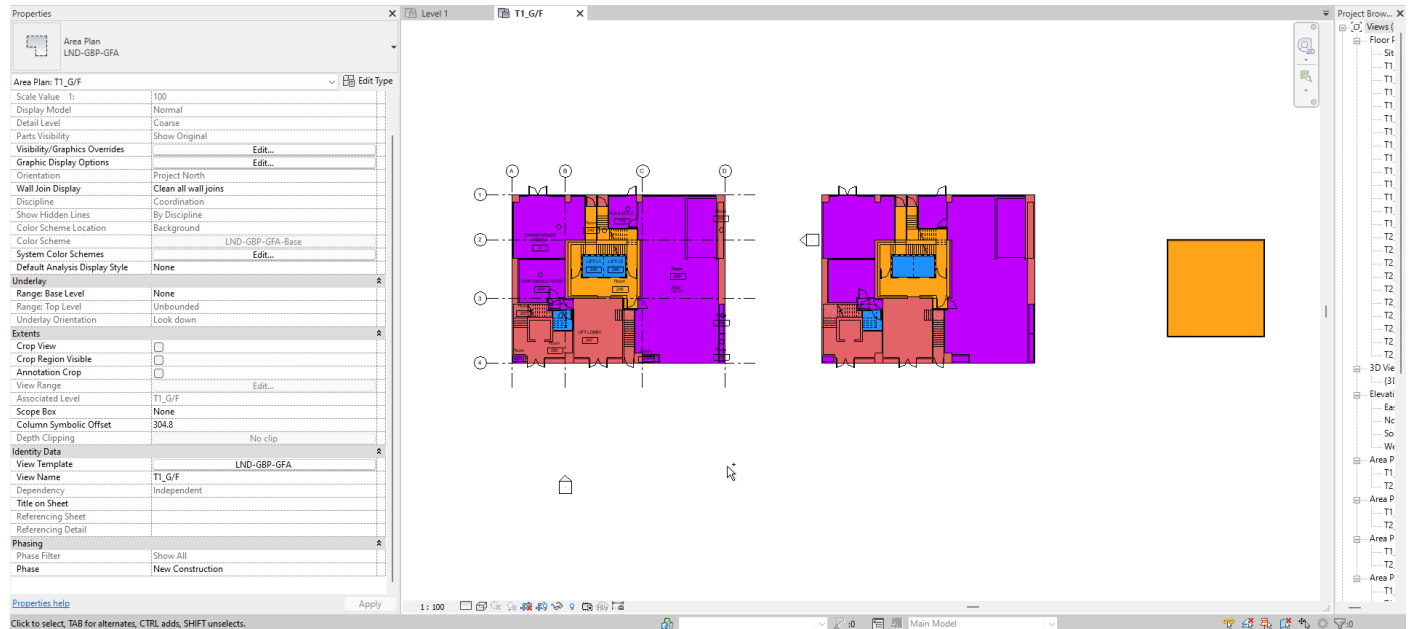
6 Run Auto Coloring Tool

- Click on “LandsD Add-Ins” – Tab
- Click on “Auto Coloring”



7 Result of Auto Coloring Tool

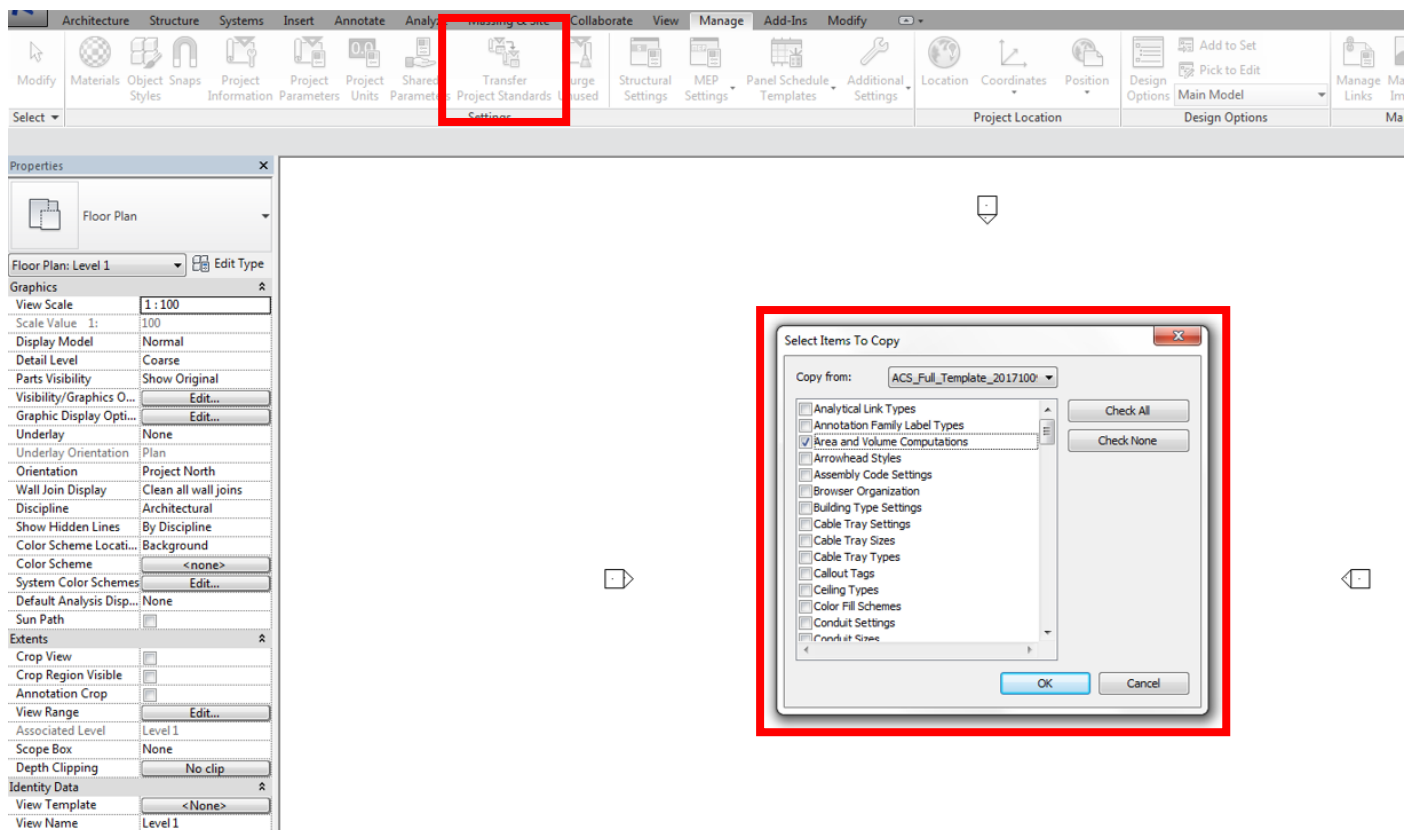
Color will be filled in automatically.



8 Transfer Template Settings (for existing projects only)

In order to transfer template settings to your existing project, you may follow below procedures:

- 1) Open your active file containing area information.
- 2) Open the template file.
- 3) Click “Manage” – “Transfer Project Standard”, then select the template file in the “Copy from”, check Area and volume computations, Color Fill Scheme, Global Parameter, Project Parameters & View Template



A Appendix – List of Area Information and Parameter Naming

Calculations	Area Information	Related Parameter Name 1	Related Parameter Name 2	Remarks
Non-Domestic SC calculations	Site Coverage Definition	BUD-GBP-SC-Site_Coverage_Definition		
	Curtain walling system	LND-GBP-SC-Curtain_Wall		required only when accountable under lease
	Ad hoc items under lease	LND-GBP-SC-Non_Domestic_Ad_Hoc_Items_Under_Lease		
Domestic SC calculations	Site Coverage Definition	BUD-GBP-SC-Site_Coverage_Definition		
	Curtain walling system	LND-GBP-SC-Curtain_Wall		required only when accountable under lease
	Caretaker's/watchman office	LND-GBP-SC-Caretaker_Office		
	Caretaker's/watchman quarters	LND-GBP-SC-Caretaker_Quarter		
	Owners' corporation / owners' committee office	LND-GBP-SC-Owner_Office		
	Ad hoc items under lease	LND-GBP-SC-Domestic_Ad_Hoc_Items_Under_Lease		
Non-Domestic GFA calculations	GFA Definition	BUD-GBP-GFA-GFA_Definition	BUD-GBP-GFA-Function_of_Area	
	Car parking / Loading and unloading / Run-in/out or Driveway Zone ID	BUD-GBP-GFA-Carpark_Zone		
	Apportionment Factor	BUD-GBP-GFA-Bonus_GFA_Apportionment_Factor		
	GFA Concession Definition	BUD-GBP-GFA-GFA_Concession_Definition	BUD-GBP-GFA-GFA_Definition	
	GFA Concession 2 Definition	BUD-GBP-GFA-GFA_Concession_2_Definition	BUD-GBP-GFA-GFA_Definition	
	Curtain walling system	LND-GBP-GFA-Curtain_Wall	BUD-GBP-GFA-GFA_Definition	required only when accountable under lease
	Covered Walkway required under lease	LND-GBP-GFA-Covered_Walkway_Required_Under_Lease	BUD-GBP-GFA-GFA_Definition	
	Residential Care Homes for the Elderly	LND-GBP-GFA-Home_Elderly	BUD-GBP-GFA-GFA_Definition	
	Government Accommodation	LND-GBP-GFA-Government_Accommodation	BUD-GBP-GFA-GFA_Definition	
	Public transport terminus	LND-GBP-GFA-Public_Transport_Terminus	BUD-GBP-GFA-GFA_Definition	
	Public Vehicle Park	LND-GBP-GFA-Public_Vehicle_Park	BUD-GBP-GFA-GFA_Definition	
	Ad hoc items under lease	LND-GBP-GFA-Non_Domestic_Ad_Hoc_Items_Under_Lease	BUD-GBP-GFA-GFA_Definition	
Domestic GFA calculations	GFA Definition	BUD-GBP-GFA-GFA_Definition		
	Car parking / Loading and unloading / Run-in/out or Driveway Zone ID	BUD-GBP-GFA-Carpark_Zone		

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	Apportionment Factor	BUD-GBP-GFA-Bonus_GFA_Apportionment_Factor		
	GFA Concession Definition	BUD-GBP-GFA-GFA_Concession_Definition	BUD-GBP-GFA-GFA_Definition	
	GFA Concession 2 Definition	BUD-GBP-GFA-GFA_Concession_2_Definition	BUD-GBP-GFA-GFA_Definition	
	Curtain walling system	LND-GBP-GFA-Curtain_Wall	BUD-GBP-GFA-GFA_Definition	required only when accountable under lease
	Covered Walkway required under lease	LND-GBP-GFA-Covered_Walkway_Required_Under_Lease	BUD-GBP-GFA-GFA_Definition	
	Residential Care Homes for the Elderly	LND-GBP-GFA-Home_Elderly	BUD-GBP-GFA-GFA_Definition	
	Public Vehicle Park	LND-GBP-GFA-Public_Vehicle_Park	BUD-GBP-GFA-GFA_Definition	
	Ad hoc items under lease	LND-GBP-GFA-Domestic_Ad_Hoc_Items_Under_Lease	BUD-GBP-GFA-GFA_Definition	
NOFA calculations	NOFA Definition	LND-GBP-NOFA-Classification		
	Ad hoc items under lease	LND-GBP-NOFA-Ad_Hoc_Items_Under_Lease		
Greenery calculations	Greenery Definition	BUD-GBP-Greenery-Greenery_Definition		
	Primary Zone	BUD-GBP-Greenery-Primary_Zone		
	Area for green roof calculations	LND-GBP-Greenery-Green_Roof		
	Ad hoc items under lease	LND-GBP-Greenery-Ad_Hoc_Items_Under_Lease		
Open Space calculations	Open Space Definition	LND-GBP-OpenSpace-Classification		
	Ad hoc items under lease	LND-GBP-OpenSpace-Ad_Hoc_Items_Under_Lease		
Site Information	Lot Area under lease	LND-GBP-Common-Lot-Area-Under-Lease		
Common Properties	Area ID	BUD-GBP-Common-Area_ID		
	Quantity	LND-GBP-Common-Quantity		

B Appendix – Automatic Colouring Logic

Color	Parameter Name	Parameter Value
Orange	BUD-GBP-GFA-GFA_Definition	"Domestic area", Or "Domestic area to be disregarded from BD GFA calculations only"
DEEP BLUE HATCHED WHITE	"BUD-GBP-GFA GFA_Concession_Definition"	"05 Balcony" or "12 Utility platform"
DEEP BLUE CROSS HATCHED WHITE	"BUD-GBP-GFA GFA_Concession_Definition"	"14 Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff (serving domestic)" or "14 Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff (serving non-domestic)"
DEEP BLUE CROSS HATCHED BLACK	"BUD-GBP-GFA GFA_Concession_Definition"	"14 Caretakers' Quarters"
DEEP BLUE STIPPLED WHITE	"BUD-GBP-GFA GFA_Concession_Definition"	14 Owners' Corporation Office
DEEP BLUE STIPPLED BLACK	"BUD-GBP-GFA GFA_Concession_Definition"	"15 Residential recreational facilities including void, plant room, swimming pool filtration plant room, covered walkway, etc. serving solely the recreational facilities"
RED CROSS HATCHED WHITE	"BUD-GBP-GFA-GFA_Definition" And BUD-GBP-GFA-Function_of_Area	"Non-domestic area", or "Non-domestic area to be disregarded from BD GFA calculations only" And "Office"
RED CROSS HATCHED BLACK	" BUD-GBP-GFA-GFA_Definition" And BUD-GBP-GFA-Function_of_Area	"Non-domestic area", or "Non-domestic area to be disregarded from BD GFA calculations only" And "Shopping Arcade"
RED STIPPLED WHITE	" BUD-GBP-GFA-GFA_Definition" And BUD-GBP-GFA-Function_of_Area	"Non-domestic area", or "Non-domestic area to be disregarded from BD GFA calculations only" And "Hotel FOH" or "Hotel BOH (GFA accountable)" or "Hotel Accountable GFA (Domestic accommodation)" or "Hotel Accountable GFA (Non-Domestic accommodation)"
RED	" BUD-GBP-GFA-GFA_Definition"	"Non-domestic area", or "Non-domestic area to be disregarded from BD GFA calculations only"
DEEP BLUE	"BUD-GBP-GFA GFA_Concession_Definition" And "BUD-GBP-GFA-GFA_Definition"	ConcessionsWithCap And "Domestic area to be disregarded from GFA calculations", "Domestic area to be disregarded from LandsD GFA calculations only"
LIGHT BLUE	"BUD-GBP-GFA GFA_Concession_Definition" And "BUD-GBP-GFA-GFA_Definition"	ConcessionsWithCap And Non-domestic area to be disregarded from GFA calculations", "Non-domestic area to be disregarded from LandsD GFA calculations only"
PURPLE	"BUD-GBP-GFA GFA_Concession_Definition"	Not contains ConcessionsWithCap
WOOD	"BUD-GBP-GFA GFA_Concession_Definition"	"01 carpark, loading/unloading areas and driveway that are 100% disregarded"
WOOD HATCHED BLACK	"BUD-GBP-GFA GFA_Concession_Definition"	"01 carpark, loading/unloading areas and driveway that are 50% disregarded"
WOOD HATCHED WHITE"	"BUD-GBP-GFA GFA_Concession_Definition"	"01 driveway/carpark ancillary areas that are disregarded on pro rata"

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The table above provides a colour schema based on the value of certain parameters. Below explains the conditions of “Or”, “And” and “Not Contains”:

- Or: This means that the colour applies if any of the listed conditions are met.
- And: This means that the colour applies only if all the listed conditions are met simultaneously.
- Not Contains: This means that the colour applies when a certain condition is not met.

“ConcessionsWithCap” values

1. "02.3 A/C plant room"
2. "02.3 AHU room"
3. "02.3 other Non-mandatory/non-essential plant rooms disregarded under B(P)R 23(3)(b)"
4. "11 Non-structural prefabricated external wall"
5. "14 Owners' Corporation Office"
6. "15 Residential recreational facilities including void, plant room, swimming pool filtration plant room, covered walkway, etc. serving solely the recreational facilities"
7. "17 Horizontal screen/covered walkway subject to 10% overall cap"
8. "18 Larger lift shaft - Office"
9. "18 Larger lift shaft - Hotel"
10. "19 Chimney shaft"
11. "20 Non-mandatory/non-essential plant room exempted under B(P)R 23(3)(a) such as boiler room, SMATV, filtration plant room"
12. "22 Pipe duct, air duct for non-mandatory or non-essential plant room"
13. "25 Void over main common entrance (prestige entrance) in non-domestic development"
14. "29 Other projection not covered in paragraph 3(b) and (c) of PNAP APP-19"
15. "05 Balcony"
16. "05 Covered area underneath Balcony"
17. "06 Wider common corridor and lift lobby for residential buildings"
18. "12 Utility platform"
19. "12 Covered area underneath Utility Platform"
20. "14 Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff (serving domestic)"
21. "14 Caretakers' Quarters"
22. "18 Larger lift shaft - Domestic"
23. "26 Void in duplex domestic flat"
24. "26 Void in house"