Urban Planning and Architectural Standards
for Social Housing Architectural Design


1.1. As a rule, social housing is funded by central or local governments and is located in urban settlements – cities and towns (Daba). When central government is involved, it is essential to consider necessity to balance national settlement structure of Georgia as well as demographic tendencies in regions and whole country. First of all, this is important for management of undesirable migrations to urban centers. Therefore, it is efficient to allocate social housing, which is (co-)funded by the national or international organizations, in cities that are located in Regions of Georgia, rather than in the Capital City.

1.2. Territories that belong to the state or municipality and are allocated for social housing should be portrayed in Land Use Master Plans, Settlement Regulation Plans, Rules for Regulation and Usage of Territories and other relevant urban planning documents. Privatization of those territories should not be allowed.

1.3. Dispersive placement of social housing into existing settlement is highly recommended; this allows preventing psychological ghettoization, territorial segregation and social stigmatization. Moreover, it is advisable to integrate social housing into existing urban structure, social and cultural infrastructure, engineering networks and transportation system by means of functional planning and, if necessary, by improving existing facilities. Likewise, these requirements should be applied in case of reuse or adaptation of other buildings or their parts for social housing.

1.4. Inclusion of social housing units (adaptation) into so-called “economy class” housing estates with different functions or tenure types is allowed on the bases of mutual agreement of all interested parties.

1.5. Urban planning conditions, functional and architectural design standards presented below shall be the bases for design program approved by the client.

1.6. Social housing standards should not be less than average standards used in the country/region/municipality.

2. Urban Planning Conditions

2.1. Selection of a land plot for social housing development shall conform to zoning principles defined by Land Use Master Plan, Settlement Regulation Plans, Rules for Regulation and Usage of Territories and other relevant urban planning documents of the target municipality. In addition, normative availability and accessibility of existing or planned socio-cultural infrastructure networks should take into account as well.
2.2. Recommended zones for social housing development in Tbilisi are Average Density Residential Zone (RZ-5) and High Density Residential Zone (RZ-6) with predefined development coefficients of a land plot. For the RZ-5: Maximum Ground Coverage Coefficient\(^1\) \(K_1=0.5\); Maximum Density Coefficient\(^2\) \(K_2=2.1\). For the RZ-6: \(K_1=0.5\); \(K_2=2.5\). For both zones, Minimal Coefficient for Green Area\(^3\) \(K_3=0.1\).

2.3. When selecting a territory for social housing development in other Georgian cities, functional zones and land plot development coefficients should be defined in accordance to relevant urban planning documents.

2.4. Structure of settlement and housing types should be determined in accordance to local natural-climatic (including seismic), socio-cultural, financial, economical, technical, sanitation-hygienic and environmental conditions; furthermore, ensuring employment and recreational opportunities for the future tenants should be taken into account. Special attention should be given to usage of energy-saving and ecological technologies, constructions and building materials, likewise to encouragement of house maintenance easiness.

2.5. When determining a number of stores in the building, high costs of construction and exploitation of the normatively required elevator(s) should be considered.

2.6. Location of the social housing building(s) on the land plot should comply with relevant urban planning legislation; it should ensure access to the building(s) for special transportation vehicles.

2.7. Dead-ends designed on the land plot should have passing loops/U turns that will allow special transportation vehicles (i.e. ambulance, firefighters’ engine etc.) to turn inbound.

2.8. Vertical planning (management of precipitation flows) and landscape design (fencing, functional zoning, greenery, lightning, canopy, places for rest and relaxation, internal pathways etc.) should be applied. All zones of the territory should be accessible for persons with disabilities.

2.9. Level of building’s pavement, inner sidewalks and bike-lanes should be designed 15 cm upper than level of automobile road. Due to objective local planning restrictions, it is allowed to combine pavement and sidewalk if its total width is not less than 4.2 meters.

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\(^1\) \(K_1\) - Maximum ground coverage ratio of the certain land plot to the area that can be covered under construction;

\(^2\) \(K_2\) - Maximum coefficient of density of site development or floor area ratio, that defines building’s maximum total floor area (excluding the balconies and terraces) to the size of the parcel of land upon which it is built.

\(^3\) \(K_3\) - Minimal coefficient for greening the land plot; it defines a minimum size of the land plot that shall be used as a green area.
3. Building’s Functional and Architectural Standards

3.1. Schedule of accommodation (ratio of number of rooms) of the social housing should be defined by the client for each case with regard to local conditions – general demographic situation, results of a specific research, household structure of a beneficiaries, concerns of people with disabilities and other positions. In addition, following nomenclature is recommended:

- 1- room apartment - 10 %;
- 2- room apartment - 40 %;
- 3- room apartment - 40 %;
- 4- room apartment - 10 %.

3.2. In some cases, design of 5- and 6-room apartment is allowed; this shall be predefined in design program.

3.3. Determination of apartment’s nomenclature should respond following principles of accommodation:

- Ceiling of demographic comfort coefficient of the apartment shall be 2.0.
- 1-room apartment can accommodate 1-2 persons; 2-room apartment – 3-4 persons; 3-room apartment – 5-6 persons; 4-room apartment 6-8 persons; Number of persons for apartments designed for disabled persons should be set individually.
- Spouses sleeping place shall be designed in a separate room (bedroom) with consideration of a possibility to add a temporary sleeping place for a child under the age of 4;
- As a rule, sleeping places for adults are designed separately.
- It is allowed to design two sleeping places in the same bedroom (twin room), only in case when persons are members of the same sex, elderly or children, or members of the opposite sex under the age of 9;
- It is allowed to design one sleeping place in the living room.

3.4. In case of adaptation or reuse of existing building as a social housing, apartments’ nomenclature and rooms’ floor areas (sq. m.) shall be defined by the design program and should suit real parameters of an existing building, its construction scheme and technical feasibility of reconstruction.

3.5. In social housing, floor-to-floor height should not exceed 3 meters; furthermore, minimal height of living spaces should be 2.7 meters.
3.6. It is allowed to decrease height of living rooms and kitchens located on the mansard⁴, but for no more than half of their floor areas. Moreover, bedroom and kitchen located on the mansard should be not less than 7 sq. m. if floor area of a living room is at least 16 sq. m.

3.7. Design of living spaces on underground floor is not allowed; meanwhile, height of public space located on underground floor should be at least 3 meters.

3.8. Normative insolation should be ensured:

- For 1-, 2- and 3-rooms apartments – at least 1 room;
- For apartments with 4- and more rooms – at least 2 rooms.

3.9. Natural insolation should be provided in following areas: habitable rooms, kitchens, building entrance halls, staircases, common corridors in central-corridor residential buildings and public rooms. Besides, total area of all window frames should not exceed ratio 1:1.5 to total floor area; for mansard-floor, this ratio can be 1:8.

3.10. Length of common-use corridor should not exceed 24 meters in case of insolation from only one side/roost and 48 meters in case of insolation from two or more sides/roosts. In case when corridor is longer than 48 meters, “light pocket” should be arranged; its width should be ⅔ of its depth; it is allowed to use staircase for this purpose.

3.11. Design of an alcove-kitchen is allowed in a 1-room apartment, but electric stove and exhaust hood shall be provided.

3.12. It is allowed to ventilate 1- and 2-room apartments from the staircases or vertical ventilation shafts; otherwise, apartment should be ensured with two-sided or “corner” ventilation.

3.13. Staircase should have access to natural light and ventilation though glazed windows on every floor (half pace).

3.14. Arrangement of the following equipment - heating aggregate; waste-disposers; electro-glimmers; electricity, gas and water meters; post-boxes – is allowed if they does not decrease the normative width of staircases and platforms.

3.15. One-side facade orientation along south-west, north-west, west and north is not allowed.

3.16. Apartments for persons with disabilities shall be designed on a ground floor and meet all relevant technical reglaments.

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⁴ Mansard (Garret) - Living space found directly below pitched roof, which fills the space between the ceilings of the top storey of a building and the slanted roof. Garret is considered as a complete storey if a distance from 3/4 of its floor area to the ceiling is 2.4 (with decimal precision) meters and above.
3.17. For pass-through transport entrance in the building, following minimal dimensions should be met: width – 3.5 meters, height – 4.25 meters.

3.18. One flight of stairs should consist of at least 3 steps and not more than 18. Staircases and platforms should have handrails and guards. Furthermore, Staircases and elevators’ halls should have doors with lockers that separate those areas from other rooms and corridors.

3.19. Width of common corridor with a length less than 40 meters shall be 1.4 meters, while for longer corridors this value should be 1.6 meters; width of a gallery should be not less than 1.2 meters.

3.20. Elevators should be designed in those buildings, which have upper full storey with floor elevation number of 13.5 meters. This parameter can be lessened to 12 meters in specific climatic conditions (1000 meters above sea level, hot and humid climatic subzone). Buildings with 9 and less storeys should have 1 elevator, while buildings with 10 and more storeys should be equipped with 2 elevators and one of them should be a freight-elevator.

3.21. Following measures are prohibited:
   - Placing elevator’s engine room above or by the habitable rooms.
   - Designing elevator’s shaft by the habitable rooms.

3.22. Apartments should have following areas: habitable rooms and supporting rooms - kitchen, alcove-kitchen, entryway, bathroom or shower room, toilet or combined WC, larder ("cold pantry"). Combined WC can be designed in 1-room apartments; for other cases, this parameter should be defined in design program.

3.23. Recommended zoning and arrangement of kitchen working space should be as follows: ladder or refrigerator – additional table/plate – sink – working table/plate – stove – service/preparation table/plate – dining table.

3.24. It is efficient to design movable partition walls between following areas: living room and entryway; living room and kitchen; living and other rooms.

3.25. Supporting rooms should be supplied with following equipment: kitchen (or alcove-kitchen) – sink and cooking stove; bathroom – bath and washbasin; toilet – flush-toilet; combined WC – bath or shower, washbasin and flush-toilet.

3.26. Parameters and configuration of both habitable and supporting rooms should satisfy ergonomic standards and suit necessary furniture and equipment.

3.27. Apartments, which are allocated for elderly or disabled persons, should have loggias and/or balconies; besides, these areas should be at least 1.4 meters wide in apartments for disabled.
3.28. Recommended types of flats and their floor areas should be considered as follows (in square meters):

- 1- room apartment - 28 – 38;
- 2 - room apartment - 44 – 53;
- 3 - room apartment - 56 – 65;
- 4 - room apartment - 70 – 77;
- 5 - room apartment - 84 – 96;
- 6 - room apartment - 103 -109.

3.29. Normative floor area of apartment for disabled person can be increased by 15%.

3.30. Normative floor area of apartment can be extended by 15% by providing loggias, balconies and verandas total areas of which should not exceed 10 sq. m.

3.31. Floor areas of rooms should be calculated in accordance to active legislation.

3.32. Habitable rooms and bedrooms in 2-, 3- and 4- room apartments should not be walk-through.

3.33. Living room in 1-room apartment should be at least 14 sq. m.; in 2- and more rooms apartments – at least 16 sq. m.; other rooms and kitchen – at least 8 sq. m. (2-places bedroom at least 10 sq. m.); Alcove-kitchen in a 1- and 2-rooms apartment should be at least 6 sq. m.

3.34. Combined WC can be designed in 1-room apartment. Toilet door should be opening outwards in all kind of flats. 4- and more rooms apartment can be provided with two combined WC.

3.35. Toilet entrance should not be designed from habitable room or kitchen. Toilet can be directly linked to habitable room only in apartment for disabled person.

3.36. It is prohibited to design WC above habitable rooms or kitchen of lower storey; this can be done only for the same apartment located on different levels.

3.37. The minimal width of supporting rooms should be as follows: Kitchen – 1.7 m; entryway – 1.4 m; apartment’s inner corridor – 0.85 m (minimal depth 1.2). Mentioned parameters for apartments for persons with disabilities should be in compliance with technical reglament which is currently in force in Georgia.

3.38. It is possible to design entrances to the courtyard/garden on the ground floor of the building.

3.39. The design program should set compounds of public rooms and their floor areas; but floor area per capita with regard to total number of building’s inhabitants should be conform with requirements below:

- 50 or less inhabitants - 2.2–2.5 sq. m per capita;
- 51-100 inhabitants - 1.9-2.0 sq. m per capita;
• 101-200 inhabitants - 1.3-1.4 sq. m per capita;
• 2001 and more inhabitants - 1.1 sq. m per capita.

3.40. Emergency exit from common rooms located on the underground floor should lead directly outside.

3.41. Building’s fire safety should be ensured with regard to relevant norms and fire resistance of a structure.

3.42. Building should be ensured with drinking and service water supply, fire resistance water supply, sewage and organized water disposal systems.

3.43. Ventilation of building should comply with relevant legislation.

3.44. Electricity supply, telephone and internet system, TV wire, lightning-rod (lightning-conductor) of the building should satisfy relevant norms.

3.45. Non-organized drains can be applied in 1- and 2-storey houses; in this case, entrance(s) and balcony(s) should be ensured with light canopy and cornice board should be extended by 0.6 meters at least.

3.46. Design roof without attic is not allowed.