ABSTRACT

In this study a neighborhood unit which contains 700 dwelling of 6 different types is planned in Ankara-TURKEY. The site is at the outside of the boundaries of the main city and it is designed with regard to all daily facilities except the workplace. This case study is limited to neighborhood units of 3500 persons and incorporates a kindergarten, primary school, health center, shopping center, playgrounds, playfield and library within the housing area. The proposed settlement is planned for the middle, and upper-middle socio-economic classes. The housing project provides its users 6 types of dwellings for their choice: 2 from the houses and 4 from the apartment blocks. They can decide the most suitable type considering the finance and use. The houses are clustered together to encourage social and economical relation of the people living in them.

A CASE STUDY ON A NEIGHBORHOOD UNIT PLANNING IN ANKARA TURKEY

In this study, a housing project in Batikent, Ankara-TURKEY is designed by using principles of neighborhood unit planning. This case study is limited to neighborhood units of 3500 persons, and incorporates a kindergarten, primary school, health center, shopping center, playground, playfield and library within the housing area (fig. 5).

The proposed settlement is planned for the middle, and upper-middle socio-economic classes.

An area of approximately 20 ha., with an average land inclination of 7-8%, at the south of Batikent is selected as the settlement area, due to its close proximity to the city center, and to general greenfields and to its topographical conditions, and orientation (fig. 2). The land with a bilateral slope helps air circulation hence reducing the air pollution (fig. 2,25,26).

The average net density is accepted as 250 per./ha. - 50 dwelling units/ha. This density decreases from the center to perimeter.

The pedestrian traffic is important and essential for circulation within the settlement area. Although the private car is not economical yet is taken as a factor in planning. Access roads are arranged both as culs-de-sac and loops.

Throughout life the opportunity of selecting and changing the dwelling type will be offered to the residents according to the different family size. In legal terms, this facility is provided through ownership of building stocks valid for the totality of the settlement area instead of a single dwelling.
The houses are clustered together to encourage social and economical relation of the people living in them. The two story houses are arranged at the perimeter area for providing quiet living to the large families. The medium rise blocks, on the other hand are placed around the center for advantage of nearness to the center to singles and middle income families. In the medium-rise blocks, duplex-galery type is selected for fire control and for reducing the area of non-livable space. For fire control, the alternative stairs is not in the project because of the highest balcony is 10.4 m. elevation and maximum distance from the door of a dwelling unit to the stairs is 12.5 m. The corridor and the stairs do not become smoke-filled in the gallery type. The alternative stairs is also not proposed because the number of dwelling units in the building is less than 20.

The segregation of the pedestrian and vehicular traffic brings the following advantages:

a) the prevention of noise
b) safety environment
c) health environment (fresh air)
d) close contact with the green areas.

The two dimensional segregation affects the design of the settlement area. The distance between the farthest dwelling and the elementary school is not more than 400m. and this distance will take 5-7 minutes on foot. This factor affects the location of the center.

In the layout of buildings, the height to width ratio of an outdoor space is accepted as 1:2 for comfortable perception.

The hierarchical order is also valid for the green areas. Playgrounds, and playfield are included in the plan. These are directly connected with the pedestrian ways. On the other hand, green areas are also planned along the vehicular roads for noise control and driving safety.

Maintenance of green areas:

Private gardens: by owners
Common gardens: by the people who live in the adjacent houses.

The cooperatives will take care of parks, playgrounds, playfield, school gardens and green areas around the pedestrian and vehicular roads.

The project provides its users 6 types of dwellings for their choice: 2 from the houses and 4 from the apartment blocks. They can decide the most suitable type considering the finance and use.

In the construction of the settlement, an industrialized construction system called “Tunnel formwork system” is used in the light of the country realities (fig. 16, 19). This type is a transition between the traditional and prefabrication systems. Many different types of dwelling are not planned to avoid the high production cost.

REFERENCES


Fig. 1. The map of the main city, Ankara, and the proposed settlement area, Batikent.


Fig. 2. The view of the proposed settlement area.
Fig. 3. Transportation scheme

Fig. 4. Land use

Fig. 5. Site plan
Fig. 6. Distribution of dwelling types

Fig. 7. Vehicular traffic

Fig. 8. Pedestrian and vehicular traffic
Fig. 9. Pedestrian ways and centers on the main pedestrian path

Fig. 10. Walking distances to shopping centre

Fig. 11. Walking distances to educational centers
Fig. 12. Parks, playfield and playgrounds

Fig. 13. Figurative information

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FIGURATIVE INFORMATION
Fig. 14. Low rise dwelling - Type 1 (two storey-attached)

Fig. 15. Low rise dwelling - Type 1

Fig. 16. Low rise dwelling - Type 1 (Construction steps with tunnel formwork system)
Fig. 17. Low rise dwelling - Type 2 (two storey - attached)

Fig. 18. Low rise dwelling - Type 2

Fig. 19. Low rise dwelling - Type 2 (Construction steps with tunnel formwork system)
Fig. 20. Medium rise block of apartment (Five storey - detached)

Fig. 21. Medium rise block of apartment

Fig. 22. Medium rise block of apartment
Fig. 23. Medium rise block of apartment

Fig. 24. System detail - Type 1
Fig. 25. The model photograph of the proposed settlement area

Fig. 26. The model photograph of the proposed settlement area