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TOWN PLANNING AND LAYOUT DESIGNING

Ms. Aishwarya D S[1], Ms. Fiza Naaz[1], Mr. Kiran S[1], Mr. Manish R[1], Mr. Shankaregowda[2]

[1]UG Students, Department of Civil Engineering, Maharaja Institute of Technology Mysore
[2]Assistant Professor, Department of Civil Engineering, Maharaja Institute of Technology Mysore

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Abstract - *Urban design is the art of making places for people. It concerns the connections between people and places, movement and urban form, nature and the built fabric, and the processes for ensuring to provide suitable villages, towns and cities. Urban design focuses on the development future projects.*

It is a key to creating sustainable developments and the conditions for a flourishing economic life, for the prudent use of natural resources and for social progress. This project proposed a layout design for the project site as per the guidelines provided by Mysore Urban Development Authority (MUDA). This provides various economic, social and recreational amenities and designs basic amenities such as road system, water supply and sewerage system. This project is also proposed Decentralized Wastewater Treatment System (De-WATS) and provides estimation and evaluation of road system, water supply and sewerage system, in order to create a better society and healthy environment.

India's cities and towns are polluted, unlivable, inefficient, and vulnerable to disasters. For this, it is imperative that its cities and towns are transformed and pressures of new growth are dealt with so that they are more livable, efficient, and environmentally sustainable.

Key Words: Town planning, Proposed layout, Zoning, Boundary marking, MUDA authority.

1. INTRODUCTION

Town planning is the art and science of using the land and setting of buildings and communication routes to develop a countries economy and for the convenience and beauty of the country.

2. OBJECTIVES OF THE STUDY

1. To select a land based on factors such as topography, soil conditions, ground water table etc.

2. To propose a layout design for the project site as per the guidelines provided by Mysore Urban Development Authority (MUDA).

3. To design basic amenities such as round system, water supply and sewerage system.

4. To propose Decentralized Wastewater Treatment System (De-WATS).

5. To provide estimation and evaluation of round system, water supply and sewerage system.

3. METHODOLGY

To achieve the objectives stated above, an efficient working procedure has to be followed. Initially we select the land based on suitable factors which influence the land considerations. After the selection of the land which is to be developed is finalized it should be approved by the concerned authority to undergo construction related activities. The site used for layout is approved by MUDA authority and divisions are made according to the concerned authority.

After the approval of land, the next process is land clearance. Land Clearance means the clearing of any plant and buildings including removal of fencing, offices, weighbridge, parking areas, water treatment areas, and workshops or other items, and reinstating any enabling works after coal extraction has ceased whether at the end of the permitted period of works under the Planning.

After the land clearance, next process is boundary marking. Boundary marking is one of the starting point of your construction. The boundary of the site area is marked up by doing the survey. The area of the land to be developed is founded and the boundary line is marked with the help of the instrument.

After the site marking the next process is division of land as per the concerned authority in terms of Land division is made as per guidelines given by the MUDA authority.

The limits provided for the layout is shown in Table 1.

Table 1: The Limit of Land Use Pattern as per MUDA Authority.

Land use	Percentage
Residential	45-55%
Commercial	<15%

Park	10-12%
Road	20-28%
OHT & ETP	0.5-1%

As per the above land usage limits, the total area obtained i.e., 15866.4 sq.m is divided as shown in Table 2.

Table 2: Land Use Pattern for Proposed Layout

Land use	Percentage
Residential	55%(8726sq.m)
Commercial	5%(793.32sq.m)
Park	12%(1903.96sq.m)
Road	27.5%(4363.26sq.m)
OHT & ETP	0.5% (79.33sq.m)
Total	15866.4 sq.m

4. RESULTS AND DISCUSSIONS

The proposed master plan shows grid pattern design which includes all the basic amenities required for residential layout. The proposed site measuring 3.92 acres (15866.4 sq. m) complies with the residential of 55%, commercial of 5%, parks of 12%, road of 27.5% and other civil amenities of 0.5% as given in the land division part from methodology.

The total area obtained by advanced surveying by using Total station instrument as shown in Fig 1.

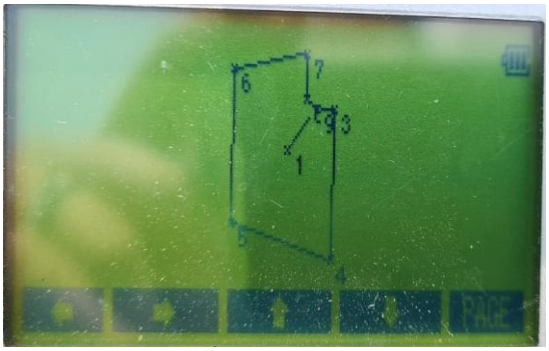

Fig 1: Boundary of Proposed Layout

As per the above obtained area, layout area has been divided as shown in above Table 2.

The Layout plan for the proposed area is shown in Fig 2.

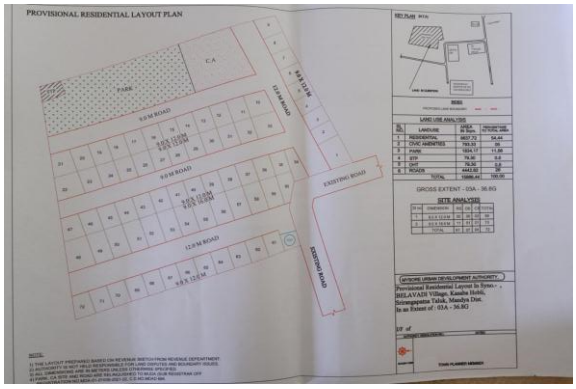

Fig 2: Layout Plan

Total land is developed for all the utilities such as roads, drainage system, electric supply, water system supply, asphalting the roads, etc.

For the above mentioned utilities the estimation is done and evaluated to know the total cost required for the development of the proposed land to give the value of each site.

The estimated value of the site to be developed is as shown in Table 3.

Table 3: Estimation and Evaluation

SL No.	Description	Amount in Rs
1	Estimate for formation of roads	5890670
2	Estimate for Asphalting the roads	2445000
3	Estimate for construction of Box drains	4226944
4	Estimate for construction of Cross drainage	776000
5	Estimate for providing Water supply & UGD works	2185000
6	Estimate for providing Electrification works	118000
7	Miscellaneous and rounding off	50000
	Total	**15691614**

Total Estimated value is- One crore fifty six lakh ninety one thousand six hundred and fourteen only.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The following conclusions are drawn from this study

1. This project proposed a layout design for the project site as per the guidelines provided by Mysore Urban Development Authority (MUDA).

2. This project is also proposed Decentralized Wastewater Treatment System (De-WATS) and provides estimation and evaluation of road system, water supply and sewerage system, in order to create a better society and healthy environment.

5.2 Recommendations

In order to maintain good economic as well as an healthy lifestyle there is an urge in usage of good treatment plant which will recycle the water produced during the activities in all areas. Thus we would highly recommend usage of DEWATS system which will be collecting wastewater generated from community in underground sewerage system.

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BIOGRAPHIES

Name: Aishwarya D S
USN: 4MH18CV004
E-mail:dsaishwarya2000@gmail.com

Name: Fiza Naaz
USN: 4MH18CV030
E-mail:gowharnaaz32@gmail.com

Name: Kiran S
USN: 4MH18CV043
E-mail:knaik6121@gmail.com

Name: Manish R
USN: 4MH18CV052
E-mail:manishjetty007@gmail.com

Name: Shankaregowda
Email: sgowda1991@gmail.com