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Research Article

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Gumusova Municipality Cultural Center Surroundings Revised Landscape Project

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Abstract: The basic fields of study of the landscape architecture profession include the design of public spaces. Places where every individual can freely walk, such as parks, squares, coasts, public buildings, are defined as public spaces. In addition to being one of the public spaces, the gardens of public institutions are also very important in terms of their contribution to the open and green space system of the city they are located in. In this study, the revised landscape design process of a cultural center belonging to Gölyaka Municipality, which is a public space, and its surroundings is explained. The working method consists of field work, data acquisition, evaluation, decision-making, and project planning stages. Within this scope, the study area was addressed piece by piece, problems in these areas were identified, and solution proposals were developed for these. Accordingly, parking lot arrangement, cancellation of damaged roads, creation of new roads, amphitheater, sports areas, children's playgrounds, recreation areas were proposed, and plant landscape arrangements were made. As a result, the cultural center and its surroundings were provided with a design approach that includes more livable, easily accessible between uses, various active and passive recreation opportunities, and area uses developed in line with the needs.

Keywords: Gumusova, cultural center, landscape, design.

1. Introduction

Public areas are used intensively by all segments of society. Therefore, it is expected that landscape design studies in these areas will be sufficient to meet the needs of users from all segments of society [1, 2]. Examples of these spaces where individuals meet their recreational needs are parks, squares, pedestrian zones, zoos, botanical gardens, university campuses, cemeteries and playgrounds. Along with these, public structures belonging to the city are also concepts integrated with that city [3].

Making complementary and flexible interventions in public space will also ensure the continuity of these areas, which are an inseparable part of the urban identity and constantly changing depending on cultural and political processes. Thus, conscious designs make it possible to create liveable and dynamic spaces while eliminating gaps that may occur in the continuity of urban space [4, 5].

Public spaces also enable people using these spaces to communicate and interact with each other [6]. The visual aesthetic character of the urban environment does not only depend on spatial quality. Color, texture and details on defined surfaces are also effective in this [7].

Public green areas, one of the most basic components of public spaces, have other functions besides the features listed above. The most important of these is the contribution they provide to urban open and green space systems. In addition, urban green areas such as parks, urban forests, green roofs are also important in terms of providing social, economic and ecological services to the city [8, 9]. (Wolch et al., 2014: 234-244; Kabisch et al., 2015: 25-34).

The purpose of this study is to improve the functions of a public space that is a part of urban open and green space systems and to ensure that it can provide better service to the city. For this purpose, the current situation was evaluated and the functions to be protected and improved were determined. Suggestions were made for the functions to be improved.

2. Materials and Methods

The study area covers the municipality's cultural center and its surroundings within the borders of Gumusova district of Duzce city in the Western Black Sea region of Turkey. Gumusova district is located on the D-100 Highway and has an area of 188 km². Gumusova borders Sakarya province to the west, Bolu province to the southwest, Golyaka district to the south, Cilimli to the east and Cumayeri district to the north. The district population is approximately 15,000. The district is 20 km away from Düzce city center.

The study area currently includes one cultural center building, one children's playground, stairs and walkways, most of which are in poor condition, and non-functional pools. The location of the study area is shown in Figure 1.

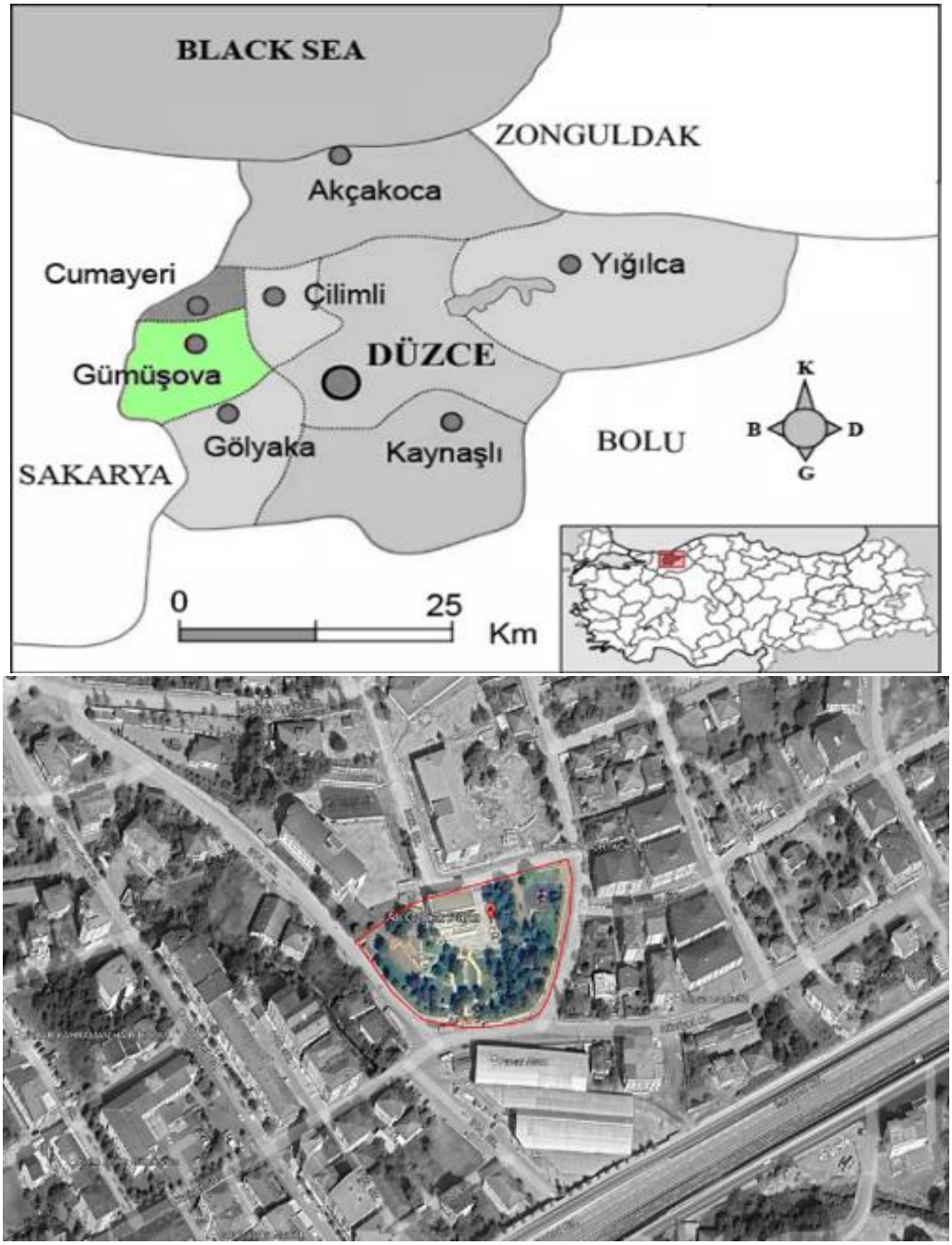

Figure 1: The location of the study area

The current plan of the study area is given in Figure 2.

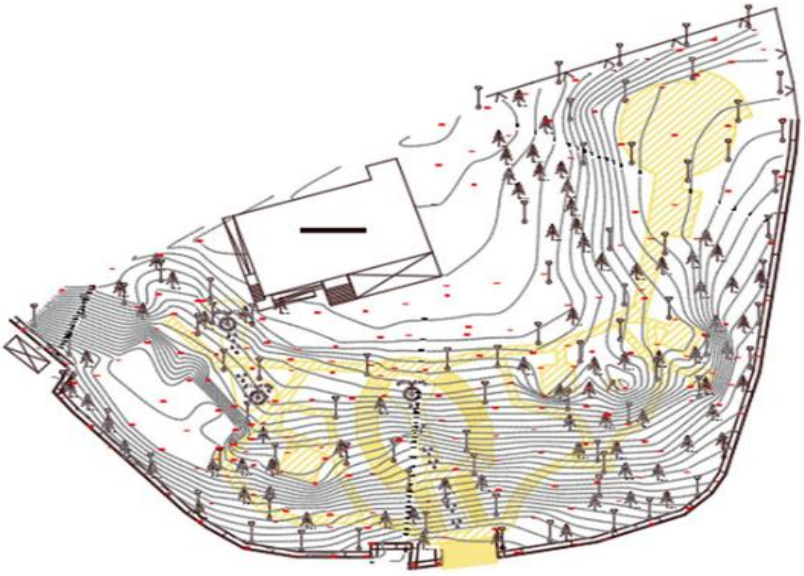

Figure 2: The current plan of the study area

The method of the study consisted of a two-stage process. In the first stage, observations were made in the study area, photographs were taken, data such as maps of the area, natural and cultural information were collected. In the second stage, the obtained data were evaluated considering the current situation of the study area, the collected data were analyzed, a needs program was created and a project was prepared.

3. Results & Discussion

In the study, first the existing roads were evaluated. Accordingly, the slope of the existing roads was found to be at a level that made walking difficult at many points. As seen in Figure 3, the roads shown in red have a slope of 8% and above, the roads shown in orange have a slope of 5% - 8% and the roads shown in yellow have a slope of 1% - 5%.

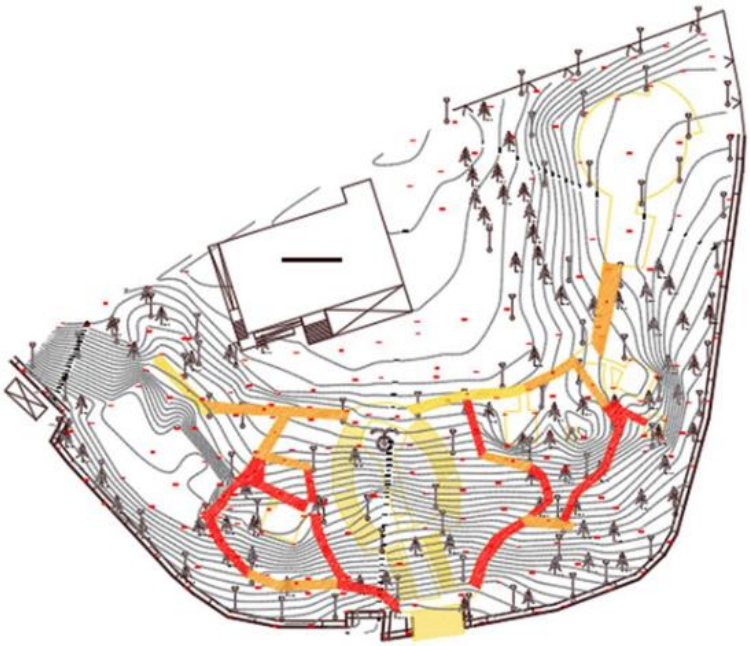

Figure 3: Slope status of existing roads

Some of the existing roads were considered to be too close to each other and therefore functionally useless. It was suggested that these roads be removed and replaced with roads drawn in blue (Figure 4).

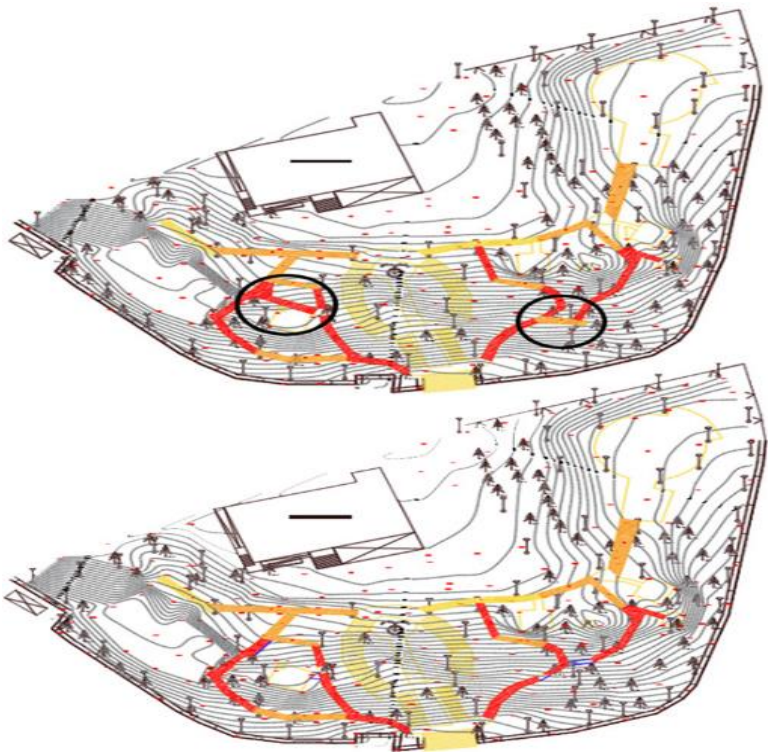

Figure 4: Some of the existing roads

On other existing protected roads, it was suggested to apply stairs on the axes where the slope was high. In this case, both changes occurred in the plan and the existing levels changed. In Figure 111, the stairs are shown in blue and the new levels are shown in pink.

Since it was necessary to apply stairs in places with high slopes, the deterioration of the existing roads came to the agenda. For this reason, the roads were rearranged, the road widths were kept constant, and the roads were softened with curves. Thus, the roads were made walkable (Figure 5).

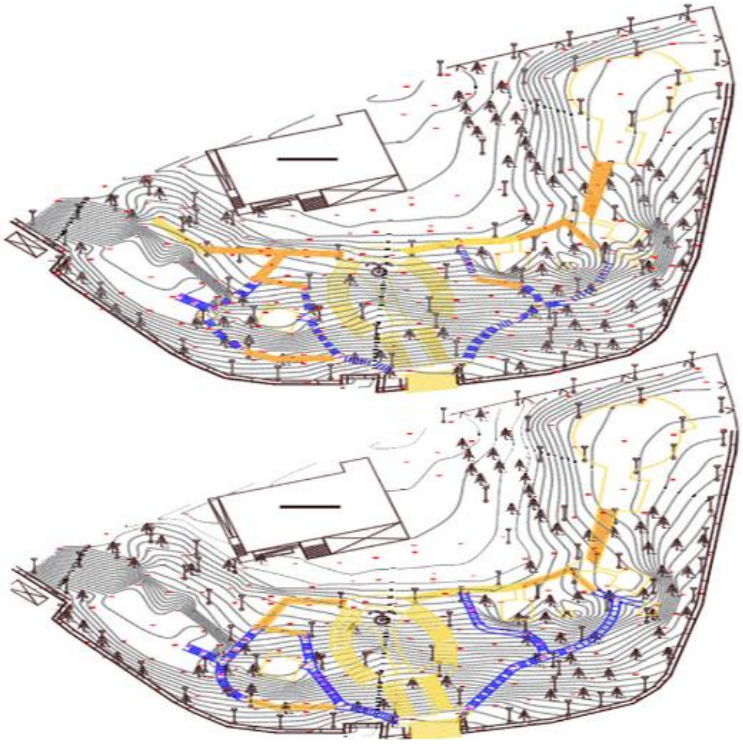

Figure 5: Suggested roads and stairs

It is suggested to use brick, which is also an existing material, as a covering material on the walkways. It is suggested that the infrastructure be reinforced concrete. The solid parts should be preserved, and the damaged parts should be renewed (Figure 6).

Figure 6: Examples of existing roads that are usable and need to be renovated

To the east of the Cultural Center, a 13m wide and 24m long 8-car parking lot is designed. Plants that will provide shade are suggested around the parking lot. Cube granite-basalt is suggested as the covering material of the parking lot (Figure 7).

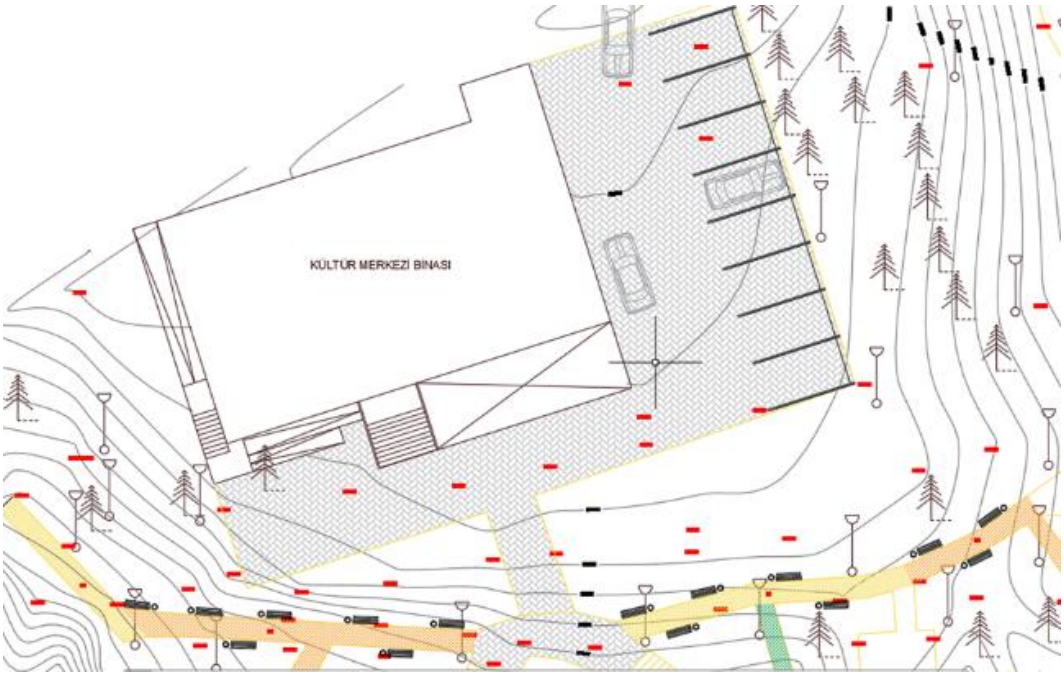

Figure 7: The Cultural Center and car parking

An example of a car parking paved with cube granite-basalt material is shown in Figure 8.

Figure 8: A car parking paved with cube granite-basalt material [10]

An alternative circulation line connecting to the second terrace/bridge exiting from the south entrance is proposed. A recreation area was designed in the western part of the area, considering the 12-18 age group. A four-step amphitheater, floor chess and two table tennis tables were proposed in the area. A plant parterre was proposed in the middle of the two playgrounds, thus ensuring the separation of functions from each other (Figure 9).

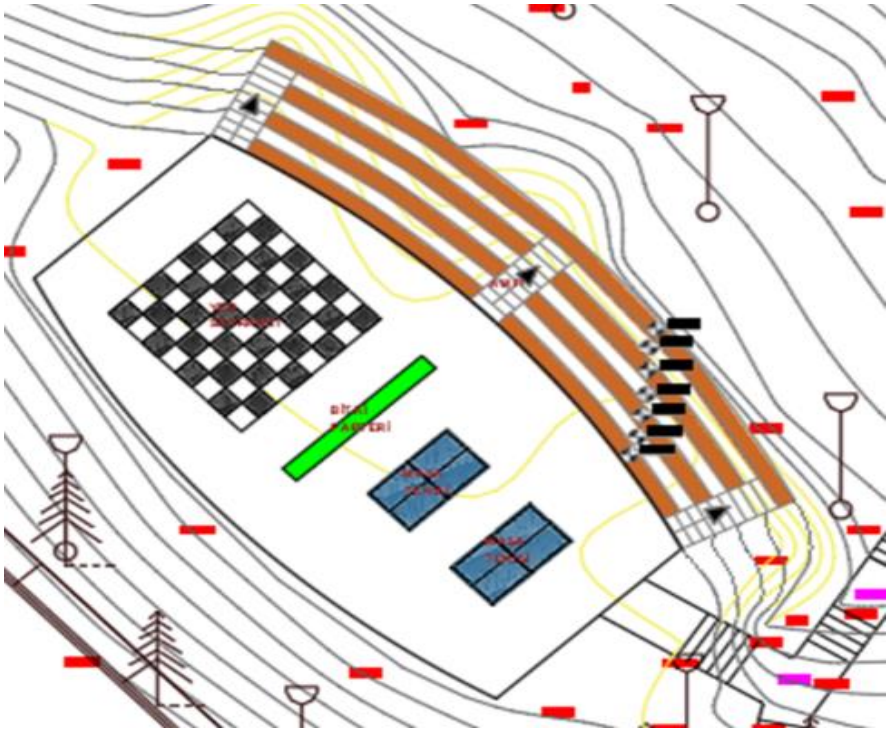

Figure 9: Plan of the recreation and sport area.

The eastern part of the area was designed entirely for the 4-12 age group. Children's playgrounds, a three-step grass amphitheater and two pergolas were proposed. Seating areas were designed near the children's playground so that families could be close to their children and watch them. The reason why the pergola in the north is in two parts is because it has the potential for pedestrian access to the area from that point at a later date (Figure 10).

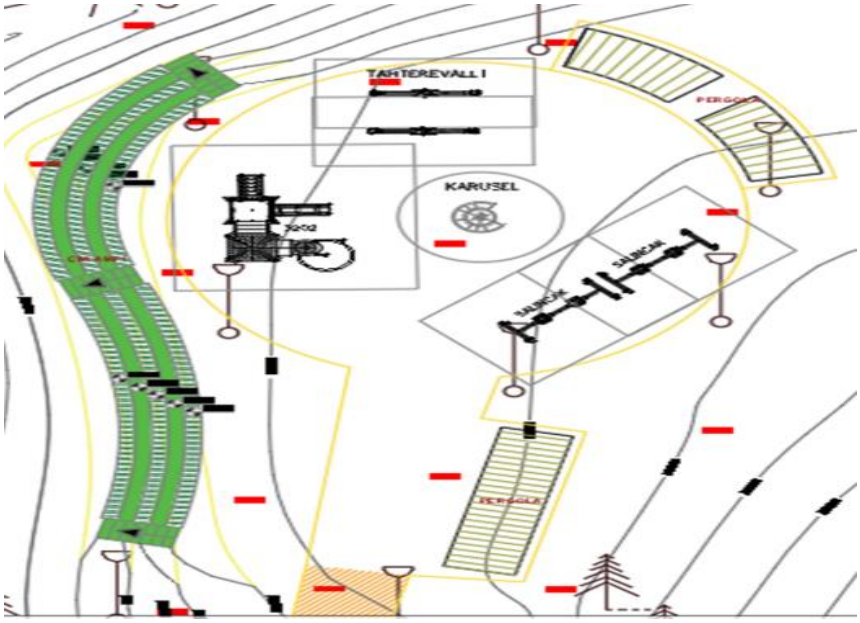

Figure 10: Children's playgrounds and grass amphitheater

Four fountains were proposed in the study area. The fountains were positioned at points that would be equidistant from each use in the project area.

The final state of the project with the addition of uses such as the corrected roads and elevations, children's playground, amphitheater, sitting and resting areas, areas to provide shade, floor chess, table tennis, and parking lot is as shown in Figure 11.

Figure 11: The final phase of the structural project.

The existing planting in the area was appreciated and most of it is recommended to be preserved.

It is recommended to remove the plants that are noticed to be dried during the field trip. Because there is a risk of falling over due to weakened root systems, which poses a potential danger.

In addition to the existing plants in the area, it is recommended to use ornamental plants suitable for growing in Düzce and its surroundings, which are listed below, in the in-field landscaping application studies.

Planting design application has been made for the project area (Figure 12). Planting design project is given in Figure 11 and plant list is given in Table 1.

Figure 12: The final phase of the planting project

Table 1: Recommended plant list

PLANT LIST

Symbol	Code	Latin name	Turkish name	Height (m)	Diameter	Piece
DECIDUOS TREES						
	AcSa	Acer saccharinum	Gümüşi Akçaağaç	3	10-12	8
	AcPaAt	Acer palmatum 'Atropurpurea'	Kırmızı Japon Akçaağacı	2.5	10-12	18
	MaGr	Magnolia grandiflora	Büyük Çiçekli Manolya	5	14-16	7
	RoPsUm	Robinia pseudoacacia 'Umbraculifera'	Top Akasya	3.5	12-14	15
	CeSi	Cercis siliquastrum	Erguvan	1.75	10-12	8
	PrCrAt	Prunus cerasifera 'Atropurpurea'	Süs Eriği	2	10-12	9
	LiTu	Liriodendron tullipifera	Lale Ağacı	3	12-14	5
	LaIn	Lagerstrima indica	Oya Ağacı	3	10-12	12
DECIDUOS BUSHES						
	BuSe	Buxus sempervirens	Şimşir	0.75	1	44
	RoOf	Rosmarinus officinalis	Biberiye	0.50	1	38
	PrCo	Phyracantha coccinea	Ateş Dikeni	1	0.70	40
	JaOf	Jasminus officinale	Beyaz Çiçekli Yasemin	1	1.5	17
	ViTi	Vibirnum tinus	Kış Kartopu	1	0.40	14
	MaAq	Mahonia aquifolium	Sarı Boya Çalısı	1	1.5	39
	PiToNa	Pitosporum tobira 'Nana'	Pitosporum	0.4	0.80	64
	LaAn	Lavandula angustifolia	Lavanta	0.5	1	9
	EuJaAu	Euonymus japonica 'Aurea'	Altını Taflan	0.50	0.70	49

Other recommended interventions are as follows:

- All pools should be overhauled, their leaks should be ensured, and their engines should be checked to see if they work.
- The flooring and infrastructure elements should be renewed so that the step height for all walkways is 15-18 cm and the step width is 30-32 cm.
- A wall-mounted railing should be applied around the area.
- All lighting should be checked, and additional lighting lines should be drawn to insufficiently illuminated areas.

4. Conclusion

In the design of outdoor spaces of public institutions and organizations; data such as preservation of environmental character, provision of indoor-outdoor relationship between spaces, provision of continuity of urban texture, provision of accessibility, creation of symbols, formality, perceptibility, visuality and aesthetics should be taken into consideration.

In this study, the current status of a public space was examined and improvement suggestions were made to provide better service to the city and citizens. Accordingly, removal of some pedestrian paths and stairs and improvement suggestions were made in those to be preserved. Parking lot, children's playgrounds, two amphitheaters, one of which is grass, elements providing shade, areas that will allow sports activities and fountains were suggested within the study area.

As a result, studies to be carried out for urban and other local stakeholders in city centers should be aimed at increasing visual and physical quality and creating spaces that will positively contribute to the city image and life. In this direction, contemporary solutions that include aesthetic, functionality and sustainability principles should be offered. When determining the proposed land uses, the main determinant should be the concern to create spaces that are worthy of the city, integrate natural-cultural elements, present structural and vegetal texture together and in harmony, emphasize the identity of the city, carry aesthetic values and make the citizens feel a sense of belonging.

5. Acknowledgment

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