V - Accessibility / Universal Design Plan

Overview

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The Principle of Universal Design

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In recent years, extensive public debate has been focused on equal access to indoor and outdoor public spaces for all individuals. The Americans with Disabilities Act of 1991 (ADA) was the latest event in a string of developments dating back to the early 1920s. The act was dramatic in that it turned past guidelines and standards into law, forever changing the way accessibility issues are to be addressed.

But the ADA is not an end unto itself. It is simply another step toward a design philosophy that ensures accessibility for all. The challenge is to move beyond the ADA to a more encompassing approach to design. This section defines how that challenge will be addressed in this park setting.

As stated in the recently published design guide Universal Access to Outdoor Recreation (PLAE, Inc. 1993), past criteria for barrier-free design (elimination of barriers to access) were based upon the needs of average human beings or the needs of the wheelchair user (which was often thought to represent the broadest spectrum of disabling conditions). In fact, the majority of people with disabilities are ambulatory and do not require a wheelchair. In reality, the range of abilities and disabilities goes well beyond these limited definitions. It becomes self evident that design philosophy must continue to evolve if a barrier-free environment is to be realized in the design of parks. Universal design is an approach to design that seeks to achieve this design philosophy by combining the basic principles of barrier-free design with a more comprehensive view of human beings, as expressed by the Enabler Model in figure 5.1.

Figure 5.1 - Enabler Model
Source: Universal Access to Outdoor Recreation" (PLAE, Inc. 1993)

The Enabler model brings to light the broad spectrum of disability concerns that must be considered if universal design is to be achieved. The model serves as a conceptual aid that helps designers and lay persons empathize with the people who will actually be using a site, building, or facility, and encourages a more comprehensive and integrated view of people with and without disabilities.
The end result of universal design is that individuals with and without disabilities are accommodated in a manner that meets their expectations for a specific space or setting.

The Enabler model brings to light the broad spectrum of disability concerns that must be considered if universal design is to be achieved. The model serves as a conceptual aid that helps designers and lay persons empathize with the people who will actually be using a site, building, or facility, and encourages a more comprehensive and integrated view of people with and without disabilities. As such, it forms the basis for a design philosophy that today is becoming known as universal design. Universal Access to Outdoor Recreation (PLAE, Inc. 1993) establishes a comprehensive view of this philosophy and serves as the basis for the forthcoming discussion.

By focusing attention on this broad spectrum of needs, facility design can accommodate people with varying degrees of abilities and disabilities. This is distinctly different than simply accommodating a set of accessibility requirements that ensure compliance to the law but may not ensure accessibility for all people.

Under this paradigm, universal design attempts to consider all degrees of sensory awareness, all types of locomotion, and all levels of physical and intellectual function. By doing so, the needs of individuals with varying desires, abilities, and expectations can be reasonably accommodated in an appropriate setting. The end result is that individuals with and without disabilities are accommodated in a manner that meets their expectations for a specific space or setting.

The philosophical underpinnings of universal design as defined by Universal Access to Outdoor Recreation includes:

- People purposely choose settings for their recreation activities.
- Choices are made with the expectation of achieving specific recreation experiences.
- It is desirable to present a diverse spectrum of activities and recreation setting opportunities as appropriate for a given site.

The forthcoming recreation opportunity spectrum (ROS) and outdoor recreation access classifications serve as a means to achieve this end. They are flexible guidelines that set the framework for making appropriate accessibility decisions that allow for universal access within the context of the public’s expectation for a certain type of setting.

Application of the principles of universal access requires a defined implementation approach and a set of guidelines. The ROS is a recreation management approach used by the USDA Forest Service that is in keeping with the principles of universal design. The ROS framework is based on a continuum of possible combinations of recreation settings, activities, and experiential opportunities, as well as the resulting benefits that can accrue to the individual (by improving physical and mental well-being) and society.

The ROS stratifies and defines this continuum into four classifications that cover the full spectrum of outdoor recreation environments. These classifications are divided primarily in terms of perceivable modifications to the natural environment and the related influences these modifications have upon customer expectations. The following briefly defines the four ROS classifications:

- **Urban/rural** areas, because they are highly developed, evoke expectations of easy access.
Under the ROS framework, it is not necessary or desirable to develop all recreation equally. From the ROS perspective, each site should be developed or modified in a manner that achieves harmony between recreation expectations and the environmental setting. Development must be tailored to complement the setting.

Outdoor Recreation Access

Under the Universal Access to Outdoor Recreation framework, there are two classifications for paths in outdoor recreation sites. The following defines the accessibility guidelines for each:

- **Outdoor recreation access routes** are paths that provide access to the primary developed recreation areas and elements within a site. These routes typically provide an easy to moderate level of accessibility.
- **Recreation trails** are paths that provide access to other, lesser developed recreation activities and elements within a site. Guidelines for these trails are less stringent than those for outdoor recreation access routes.

Since the concept of universal design is still in its infancy, it has yet to become common practice in the design professions. The challenge, then, is to consciously apply the principles of universal design to this park setting to determine what will be most appropriate given the circumstances.

At the very least, the outcome of this approach is that more people of different levels of ability will have life enriching experiences in the park. At the very most, the park will serve as an example for others to follow, ultimately furthering the cause of making universal access an integral part of all design processes.

Of the four ROS classifications, two are found to have direct application in this park: urban/rural and roaded natural. The rationale for the use of these two classification are as follows:

**Urban/rural**: Considered the primary ROS classification due to the park's proximity to the St. Cloud area population and the extent to which development will occur in certain areas of the site. In these areas the expectation of the user will be an easy level of access to site features and elements. Development areas under this classification include:

1) Entrance gate/contact station (primary site access)
2) Secondary site access
3) Entrance drive and parking facilities
4) Interpretive center/trailhead building
5) Controlled outdoor interpretive area
6) General outdoor interpretive area

- **Roaded natural** settings are less developed than urban settings, but still contain a relatively high number of modifications to the environment. These areas evoke an expectation for a moderate level of accessibility.
- **Semi-primitive** areas are rarely developed, and evoke an expectation of difficult access.
- **Primitive areas** have few, if any, modifications. These evoke expectations for the most difficult access.

Under the ROS framework, it is not necessary or desirable to develop all recreation equally. From the ROS perspective, each site should be developed or modified in a manner that achieves harmony between recreation expectations and the environmental setting. Development must be tailored to complement the setting. As an example, it is a reasonable to expect that the access to the interpretive center would be greater than access to the more remote natural areas in the park. What is important is that the level of access must be in sync with what is expected by the public — whether they are able-bodied or disabled — for a particular setting.

Application of Universal Design Principles

Applying ROS Classifications

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Rooded natural: Is the secondary ROS classification and applies to the two-thirds of the site that will be less developed than the areas listed above. Under this classification, the expectation of the user will be a moderate level of access in line with the outdoor experience being encountered. Certain features, however, would not be extensively modified to provide a moderate level of accessibility if doing so would dramatically change their character and negatively impact the experience of the user. In these instances, similar experiences will be provided in the more developed areas of the site.

Development areas under this classification include:
1) Nature/outdoor education areas
2) Outdoor classroom
3) Group camping area

The land use zones as defined in Figure 4.1 parallel the ROS classifications. The cultural interpretive zone would fall under the urban/rural ROS classification. The nature interpretation zone would fall under the rooded natural ROS classification.

Providing access to site features and elements essentially parallels the ROS classifications, with the following distinctions:

Outdoor Recreation Access Routes: Provide easy to moderate access paths leading to the site's primary developed recreation areas and elements. This includes paths leading from the:
1) Parking lot to interpretive center/trailhead building
2) Interpretive center to controlled outdoor interpretive area
3) Interpretive center to general outdoor interpretive area, including observation point
4) Developed areas to all restrooms
5) Interpretive center and secondary access to the primary outdoor education area, including the boardwalk (one route)

Recreation trails: Provide moderate to difficult access trails leading to and through the site's other, less developed recreation areas and elements. This includes:
1) Hiking trails in the nature/outdoor education areas
2) Trails for mountain biking and cross-country skiing
3) Trails leading to the outdoor classroom
4) Trails leading to the group camping area

The master plan as shown in figure 4.2 identifies the location of outdoor recreation access routes and recreation trails.

Since universal design is an evolving approach to design, achieving universal access is simpler in concept than in practice. Anticipating the needs of people with varying degrees of abilities and disabilities is a formidable task. It is very difficult to vicariously understand the specific needs of individuals with different abilities. Understandably, it becomes paramount that the design process include individuals that represent a cross-section of people with and without disabilities. As the project moves into design implementation phases, efforts should be made to involve representatives of divergent groups in the detail design of specific facilities. This approach will help ensure that design outcomes serve the intended populations. The master plan as presented here is a starting point for the detail design of facilities.