

## The Paralympic Village: a barrier-free city

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The 1996 Olympic and Paralympic Games were the most accessible ever held. Because of careful planning for both facility design and operational procedures, people with disabilities enjoyed expanded opportunities to participate as spectators, employees, volunteers, and athletes. The Paralyzed Veterans of America and its subsidiary, Paradigm Design Group, assisted the Atlanta Committee for the Olympic Games and the Atlantic Paralympic Organizing Committee, in integrating people with disabilities into all aspects of the Games.

The Paralympic Village, as well as the Centennial Olympic Village, provided unprecedented access to thousands of individuals with disabilities, including athletes, coaches, sports officials, and others who used the facilities during the competitions. The Village's success, particularly for persons with disabilities, can be attributed to the strong commitment of top-level management to the design of a barrier-free environment and a planning process that addressed key operational issues.

### **Introduction**

The 1996 Centennial Games in Atlanta, Georgia provided full inclusion for millions of persons with disabilities that attended the Olympics from countries around the world. Barrier-free facilities constructed for the Atlanta Olympics directly benefited spectators and participants in the Paralympics. Many factors also influenced Atlanta's unprecedented commitment to the needs of persons with disabilities. One important factor was the Americans with Disabilities Act (ADA), a new law enacted July 26, 1990. ADA provides comprehensive civil rights protection to individuals with disabilities in employment, public accommodation, state and local government services, and telecommunications. An estimated 49 million Americans with disabilities are now protected by this historic Act.

Another positive factor has been the Olympic tradition which has always embraced diversity among nations and cultures. Consistent with this history, Atlanta Olympic and Paralympic officials developed comprehensive management policies that ensured participation for persons with disabilities in these important international events.

A third factor in Atlanta's success was the availability of timely technical assistance. Paradigm Design Group, the Paralyzed Veterans of America, and others, provided technical consulting and advice to the Atlanta Olympic and Paralympic Organizing Committees to help them achieve full participation for people with disabilities.

Many successful accessibility solutions that were developed in Atlanta can be applied to future Olympic Games. The purpose of this paper is to share successful facility development strategies used in Atlanta, particularly for the Olympic and Paralympic Villages.

### **Design standards for sports and recreation**

Before I address specific Paralympic Village design issues, it may be helpful to understand the background and current status of U.S. design standards for accessibility. U.S. standards for accessible design have evolved steadily since the first American National Standards (ANSI A117.1) were published in 1961. Parallel advances in medicine and innovations in medical technology have allowed more people to live longer and better overcome limitations imposed by physical disabilities. Social attitudes regarding persons with disabilities have also

changed which has allowed this group to become more "mainstreamed" into the fabric of society. Standards for accessible design have been continuously modified and improved to reflect these changing technologies and social attitudes.

The emergence of the Paralympics exemplifies the achievements of disabled athletes. The 1996 Olympic Games was the first time that the Paralympics were an integral part of the Olympic experience. Paralympic athletes, some of whom are former Olympians, have dispelled commonly-held attitudes concerning persons with disabilities. Their achievements have also caused architects and planners to reconsider many fundamental assumptions concerning accessibility in sports facility design.

The Americans with Disabilities Act has had a major effect on all types of facilities constructed in the United States. The ADA design standards ensure that not only public facilities are accessible, but also employee areas. The Atlanta Olympic effort proved to be an interesting test case for the application of ADA design standards. In many cases, the unique components of complex sports facilities has required development of new design standards. For example, one the most challenging problems for sports facilities design has been wheelchair seating. Historically, wheelchair accommodation was created by removing seats from the back rows, an approach which often resulted in seating in less desirable locations. In addition, accommodation was often not made for ambulatory companions.

Providing accessibility to individuals with disabilities in an *integrated* setting is a fundamental ADA tenet. Consistent with these objectives, ADA design standards not only specify a minimum number of wheelchair locations, but also require that they be dispersed in locations throughout the stadium. Other questions arose during the design of the Atlanta facilities. What is a proper line-of-sight for a wheelchair user, particularly when spectators rise to a standing position in the row in front during the most exciting part of the competition? How much dispersal for wheelchair seating can be practically provided?

During Olympic and Paralympic planning, draft guidelines for sports facilities and outdoor recreation elements were developed by the United States Architectural and Transportation Barriers Board through a special Federal Advisory Committee. The results of this committee's work were helpful to the designers for the Atlanta Olympic and Paralympic Games. Expanded guidelines and standards are now being formally adopted to give a similar guidance for the design of other outdoor and recreational facilities that will be constructed throughout the United States.

### **Paralympic use of Olympic facility design**

Olympic facilities are unique in many respects. Both competition and non-competition venue sites included permanent new facilities constructed for the Games and then left as a legacy to the host city. In addition, many existing facilities were altered or expanded to accommodate Olympic events. Finally, a vast arrangement of temporary and portable structures was also installed to augment the permanent facilities during the seventeen-day event. Accommodation for persons with disabilities was an integral part of all permanent and temporary construction.

For instance, the Atlanta Paralympic Organizing Committee adapted Atlanta Olympic facilities for their use during the Paralympic Games. Paralympic construction was limited to minor adaptations to existing facilities, erection of temporary structures and adjustments to newly-completed Olympic venues. This resource limitation underscored the importance of creating fully accessible Olympic facilities, thereby enhancing their use for the Paralympics.

To help ensure successful Olympic facility design, accessibility was an important consideration from the earliest stages of the design process. Design programs contained specific objectives that relate to accessibility. Subsequent design drawings were evaluated against the original design objectives. For the Atlanta Olympics, a formal peer review process was developed for all new venue designs. This process included a detailed review of architectural drawings conducted at each stage of design development, from initial schematics to final construction documents. Design documents were evaluated against accessible design standards and written findings were presented to each venue design team. Although most U.S. architects have a general knowledge of design standards for accessibility, a consistent application of ADA design standards was ensured through a formal peer review procedure.

Facilities for Olympic athletes and team officials were also designed to be accessible. The basis for this requirement is the premise that these facilities are "places of employment." Sports injuries that commonly result from athletic competition also offer a more practical reason for providing accessible showers, toilet facilities and lockers in sports facilities.

### **Olympic/Paralympic villages**

In Atlanta, the Olympic and Paralympic Villages were created on the campus of Georgia Institute of Technology. As a self-sufficient residential environment, a university campus is almost a microcosm of a city. The campus typically contains facilities for assembly, entertainment, employment, dining, recreation, and many other daily life functions. The security measures for the Olympic Athlete Village required the provisions of a similar self-contained environment.

In Atlanta, a major challenge in the design of Olympic and Paralympic facilities was achieving a practical balance between temporary, short-term use of facilities, and with permanent long-term benefits to the host community. New facilities constructed for the Games were often considered part of the "Olympic Legacy".

The temporary use of Georgia Tech as an Olympic Village site, resulted in tremendous long-term benefits for the University. The Atlanta Committee for the Olympic Games commissioned, financed and constructed new and expanded facilities on the Georgia Tech campus for Olympic athletic use. Since all new construction and renovation had to comply with the Americans with Disabilities Act, Paralympic athletes became immediate beneficiaries, and thousands of future students with disabilities will enjoy accessible facilities for years to come.

The Paralympic Games presented unique challenges for accommodating the thousands of Paralympic athletes that occupied the university facilities. Since most accessibility standards and building codes specify minimum requirements for building construction, even most new facilities do not adequately meet the needs of a concentrated number of disabled athletes and officials. In Atlanta, this problem was addressed in several of different ways. First, new accessible residential facilities were constructed for Olympic athletes and officials. Paralympic athletes and officials were able to effectively use the same facilities. After the Games, these facilities serve as dormitories for Georgia Tech students. The Americans with Disabilities Act (ADA) as well as the 1988 Fair Housing Amendments Act, required that virtually all residential rooms, including bathrooms, were usable by persons with disabilities. Most of the Villages' dining, entertainment and recreational facilities were temporary; however, ADA required that these facilities provide full access for persons with disabilities.

The Paralympic Village, although not as extensive as the Atlanta Olympic Village, provided the same level of accessibility as the Atlanta Olympics did throughout the Games. In other words, except for minor temporary adjustments to suit individual users, there was nothing unique about the Paralympic Village that was not also provided in the Olympic Village. Where readily removable architectural barriers already existed, steps were taken to do so.

### **Transportation systems**

A special transportation system provided service for non-public users such as Olympic officials, the press and media, and competing athletes from the Olympic and Paralympic Village. All Olympic transportation systems included lift-equipped buses operated by specially trained personnel. For Paralympic athletes, special temporary ramping systems were designed and constructed to quickly load and unload wheelchair users from modified buses.

The American with Disabilities Act requires all public transportation systems including bus, rail, subway and other forms of mass transportation, to be accessible to persons with disabilities, including wheelchair users. The Atlanta public transportation system included lift-equipped buses and para-transit services. For the Olympics, loaned buses from cities throughout the U.S. helped move as many as 500,000 people each day.

### **Facility development strategies for a successful barrier-free village**

Based on our experience with planning for the 1996 Games, we can suggest the following recommendations to future Olympic planners:

1. Create a citizen advisory group comprised of persons with disabilities, in order to gain insights on disabilities issues. The group should represent a broad cross-section of the disability community.
2. Establish planning and design goals early in the process to ensure that all facilities are designed and constructed to be fully accessible to persons with disabilities. Monitor facility design at all stages of project development.
3. Develop detailed operational plans which include provisions for athletes, officials and guest with disabilities. Carefully review operations plans to ensure coordination between staffing and operations.
4. Develop a program for auxiliary aids and services to ensure effective communication for individuals who

have sensory impairments. Test alternative solutions at similar pre-events sites.

5. Establish an accessible transportation system to serve the Village. The system should coordinate access from transit stops to pre-planned drop-off points at each competition and non-competition venue.

Creating accessible Olympic and Paralympic Villages will only be achieved through a strong management commitment, careful planning and consistent monitoring of detailed plans throughout the project development. This commitment of time and resources will prove to be a sound investment, however, for both the Olympics and Paralympics, leaving a legacy of facilities that will be enjoyed by private citizens for many years to come.