

## ACCESSIBLE TOURISM Transportation to and Accessibility of Historic Buildings and Other Recreational Areas in the City of Galveston, Texas

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*Galveston is a small city with numerous tourist attractions: museums, historical buildings, the beach, Moody Gardens, and several festivals each year. This research investigates if these tourist attractions are accessible to the elderly and disabled. The issue is particularly important because tourism represents the greatest possible source for economic growth in Galveston. According to estimates of the "Baby Boom" generation moving toward retirement, the number of potential tourists in the population who will require accessible attractions will increase. Other research has also shown that many individuals with disabilities focus on accessible tourism such as "leisure" trips that serve to immeasurably enhance their quality of life. Based on this research, recommendations are made for future action for the city, the historical foundation, and service providers who rely on tourist dollars. Galveston Island has unique physical characteristics, a large number of historical buildings, a beach, plus a history of hurricanes. These characteristics make accessibility difficult for certain properties.*

**Keywords:** accessibility; transportation; tourism; recreation; people with disability

Galveston is known for its beaches on the Gulf Coast and its importance as a historic city. It has one of the oldest housing stocks in the state due to a long-term stagnant economy and an active historical foundation that strives to protect its architectural heritage. Because of its location in the "sun belt," it is a popular tourist destination for many retirees who have the time and money to travel. With seniors living longer and more likely to become disabled (McNeill, 1997), the issue of accessible tourism has become a major concern to Galveston, where much of the economy depends on tourism.

The 1990 Americans with Disabilities Act (ADA) (see link: [www.ada.gov/cguide.htm](http://www.ada.gov/cguide.htm)) mandates transportation services, telecommunications, and public facilities be accessible to all individuals with disabilities. ADA, as an unfunded mandate, has been applied "voluntarily" through the assistance of detailed recommendations by the Access Board at the federal level, and in Galveston's case monitored by the Texas Department of Licensing and Regulations

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which enforces the Texas Accessibility Standards (<http://www.license.state.tx.us/ab/ab.htm>). This research evaluates accessibility for tourists with mobility, hearing, and visual impairments, although physical accessibility is stressed.

## **Galveston**

### **BACKGROUND**

The city of Galveston, Texas, is located 50 miles south of Houston on a long sand barrier island at the mouth of Galveston Bay. Its location, 2 miles offshore at the southern terminal point of Interstate 45, is both a blessing and a curse. Its natural harbor, located on the leeward side of the island between Galveston Island and Pelican Island, and its beaches, located on the southern side of the island, are a blessing. Its vulnerability to hurricanes, flooding and erosion is a curse historically and continues to be a source of concern to local residents' today.

The island's land use and history is critical to the issue of accessibility for the historic and recreational sites. In 1900, a hurricane hit Galveston and killed more than 6,000 people on the island and another 4,000 in adjacent coastal areas. As a result of this natural disaster, citizens decided to protect their island from future storms by building a seawall 17-feet high along the southeastern edge of the island. Behind the seawall, the island's grade was raised. The project took several years to complete, but to this day, has successfully protected the city from the full fury of hurricanes. Due to the filling in behind the seawall, many buildings were raised while others had their first floor changed into a basement and their second floor converted into their first floor. Some buildings were raised further to provide protection from high water during storms. Today, these modifications make access problematic for historic buildings whereas the seawall has become a tourist attraction offering easy access to the beach and the water.

### **TRANSPORTATION**

Transportation has always played a dominant role in the Island's economy from the earliest days of the city when the port dominated, to the railroad linking Galveston to the Texas hinterland, and to the current linkage by interstate 45 to Houston and beyond. Transportation access to the island is limited to three gateways: the Interstate 45 Causeway to the Northwest, the Bolivar Ferry to the East, and a toll bridge to the West. The Island, which is 27 miles long and 3 miles wide, is served by a public transportation system. The island transit service within Galveston is accessible and includes trolley service along the Strand and a light rail service to limited locations along the Seawall. In addition, Connect Transportation transports people between the island and the two surrounding rural counties, Brazoria and Galveston. Private companies provide longer distance transportation connecting the island to Houston, such as the airport limousine service and the Greyhound Intercity Bus Transportation. Most of these services are accessible, but the Greyhound requires more than 24-hours notice to provide an accessible service.

### **TOURISM AND ECONOMIC DEVELOPMENT**

The economy of Galveston and its population have stagnated for decades with its population even declining over the past decade (U.S. Census Bureau, 2001). Currently, the economy is based on education, health care, tourism, and the port. Although the University of Texas Medical School at Galveston and other colleges provides many jobs, the primary activity in Galveston is tied to the tourist industry centered on the port, the beaches and other recreational activities, and the many historic buildings. The stagnant economy affects the city's ability to implement changes, and accommodate the tourists, particularly tourists with disabilities.

Tourism presents the best opportunity for economic growth today, as shown by data from the 1997 survey on tourism (Moran & Associates, 1997). The stream of visitors to Galveston helped create 13,205 jobs and generated \$372 million in revenue, with an additional \$36.5 mil-

**Table 1: Visitors to the Major Tourist Destinations in Galveston**

<i>Destination</i>	<i>Percentage of Visitors</i>
The Strands	90
The Seawall	67
The beaches	51
Moody Gardens	28

lion from taxes. Galveston is the closest beach for the Houston area (population 4,000,000), and there are many second home and condominium owners and weekend visitors from Houston. Other attractions include historic homes, shopping, fishing, surfing, and annual festivals. The 1997 study for the Galveston Island Convention and Visitors' Bureau (2000), indicated that 6,989,010 people visited the island of which 90.3% present were day visitors. Of these visitors, only 6% were 65 years or older. The survey also showed that 44% came from the Houston area, 30% from other parts of Texas, 22% from elsewhere in the country, and 4% from outside the country. The visitors' trip destinations are indicated in Table 1.

### ACCESSIBLE TOURISM

Tourism for the disabled and seniors has become an area of interest since the mid-1990s, with the growing awareness of availability of accessible transportation and lodging. This interest is reflected in the literature both by the attitudes of people with disabilities toward recreational travel and on attitudes toward people with disabilities (Darcy, 1998). Activism adding to laws such as ADA has helped to promote accessible tourism in the National Parks (Turnbull, 2000). The overall value of access to recreational sites and the motivation for attracting the disabled to such sites are researched from another perspective: how their quality of life is enhanced by recreation (Darcy & Daruwalla, 1999). This emphasis on the quality of life for the disabled has permeated the literature to the point where the research ranges from improvement of daily lives for those who have been disabled due to illness, accidents, or birth defects to those who are disabled as a result of war, thereby drawing attention to developing countries like Cambodia (Powell, Mercer, & Harte, 2002). Of more specific value is the empirical evidence of how recreational trips produce visible uplifting effects to the disabled traveler, as discovered through data collected in New South Wales in Australia (Darcy & Daruwalla, 1999).

Tourists with disabilities, however, face many constraints. If these constraints are looked at in terms of leisure constraints, they should be viewed as intrapersonal, interpersonal (including a lack of self-confidence, lack of information about opportunities for leisure, lack of leisure partner or of social interaction skills) and structural barriers (including barriers to individual participation and preferences, architectural barriers, and finances) (Crawford & Godbey, 1987). Studies have demonstrated how architectural or environmental factors are not the only barriers. Based on field research at Illinois State University, one of the final recommendations made was to lower the entry fee for the disabled as they could only participate partially in leisure activities (Turco & Stumbo, 1998). The findings included the need for a reliable source of information geared specifically for the disabled. In this study the choice destinations for tourists with disabilities included theme parks, sporting events, nature based sites (beaches, mountains, etc.), historical (museums, antique shops), or social cultural events (festivals, visiting relatives, or friends). Whereas the study touched upon many of the shortcomings of lodging facilities, it also brought out issues of transportation difficulties that include loss of luggage or wheelchair, lack of accessibility to restrooms in airplanes, and a need for training of transportation personnel and other staff on how to deal with people who have different types of disabilities.

The issues faced by travelers with physical disabilities have been well-documented by Darcy (2002). He specifically mentions the need for substantial preplanning and accurate access infor-

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**Table 2: Estimate of Persons Aged 65 and Older, and 80 and Older, as a Percentage of Total Population, 2000, 2015, and 2030, for Selected Countries**

	2000		2015		2030	
	% 65 Years or Older	% 80 Years or Older	% 65 Years or Older	% 80 Years or Older	% 65 Years or Older	% 80 Years or Older
Australia	12.4	3.0	15.8	4.1	21.1	6.0
Austria	15.4	3.4	18.8	4.9	25.2	7.0
Canada	12.7	3.1	16.1	4.3	22.9	6.2
France	16.0	3.7	18.8	5.8	24.0	7.5
Germany	16.2	3.5	20.2	5.4	25.8	7.2
Japan	17.0	3.7	24.9	7.0	28.3	11.1
Russia	12.6	2.0	13.8	3.1	20.5	4.1
Sweden	17.3	5.0	21.4	5.7	25.1	8.6
United Kingdom	15.7	4.0	18.4	4.9	23.5	7.0
United States	12.6	3.3	14.7	3.9	20.0	5.3

SOURCE: U.S. Bureau of the Census and U.S. Department of Health and Human Services, *An Aging World*, November 2001.

mation for this group. In his view, the government should encourage the tourist industry to place disability on the tourism agenda. In his opinion, while Australia's 1992 Disability Discrimination Act helped remove the built environment and transportation barriers for this group, the more complex issue of social exclusion (employment) and inequity still require legal and social support. Although Australia's policies are more proactive as a result of research such as that conducted by Darcy, there are surprising developments around Asia as reflected by a number of reports written in the past 3 years. This change has been encouraged to a large extent by the United Nations' designation of "Asian and Pacific Decade of the Disabled Persons" (1993-2002). In Asia, because of widespread belief that disabilities result from misconduct in a previous life, families often view members with disabilities as a disgrace to the entire family. The United Nations seeks to destigmatize disabilities (Parker, 2001). Its efforts culminated in 2000 in a regional training workshop on promotion of accessible transportation in Denpasar, Bali, Indonesia and calling for the acknowledgement of the growing numbers of people with disabilities, seniors, and families with younger children who require barrier-free travel. The report emphasizes the lack of integration in the planning and development of the built environment and tourism both within and across countries in Asia (UNESCAP, 2000).

This awareness of the need to accommodate barrier free travel is growing stronger due to the population projections for the United States and many other countries, where seniors are expected to live longer and in some cases have more disposable income to use for leisure travel (O'Shaughnessy, 2002). O'Shaughnessy states that many nations are focusing on the economic and social challenges of delivering needed services to the projected aging population (see Table 2). Although Japan has the highest percentage of older people, followed by a number of European countries, the United States is not far behind with a significant rate of growth of people ages 65 years or older in another 12 years. In addition to increased health and social services, this growing elderly population will likely show greater demand for leisure travel, with many individuals requiring barrier-free travel and recreation facilities.

Data collected on disabilities at all levels at around the same time period (see Table 3), point to a high proportion of those older than 65 having disabilities (more than 35%), with a significant percentage of these seniors facing severe disabilities (McNeill, 1997).

Statistics on expenditures also point to the increased discretionary spending by people with disabilities. The Open Doors Organization (ODO), in cooperation with the Travel Industry Association of America (TIA) and the Society for Accessible Travel and Hospitality (SATH) released a landmark study on spending trends and market potential of U.S. resident diners and travelers with disabilities (retrieved November 12, 2003, from [www.opendoorsnfp.org](http://www.opendoorsnfp.org)). This study polled 1,037 people with disabilities who spent \$13.6 billion on 31.7 million trips last

**Table 3: Disabled Population and Proportions in the United States**

<i>Both Sexes, All Races</i>	<i>Population in Thousands</i>	<i>Total Population With All Level of Disabilities</i>		<i>Population With Severe Disabilities</i>		<i>Population Who Need Assistance</i>	
			<i>%</i>		<i>%</i>		<i>%</i>
All ages	267,665	52,596	19.7	32,970	12.3	10,076	3.8
Under 15 years	59,606	4,661	7.8	2,256	3.8	224	0.4
15 to 24 years	36,897	3,961	10.7	1,942	5.3	372	1
25 to 44 years	83,887	11,200	13.4	6,793	8.1	1,635	1.9
45 to 54 years	33,620	7,585	22.6	4,674	13.9	1,225	3.6
55 to 64 years	21,591	7,708	35.7	5,233	24.2	1,280	5.9
65 to 69 years	9,555	4,291	44.9	2,930	30.7	777	8.1
70 to 74 years	8,514	3,967	46.6	2,407	28.3	898	10.5
75 to 79 years	6,758	3,897	57.7	2,565	38	1,140	16.9
80 years and over	7,237	5,325	73.6	4,170	57.6	2,525	34.9

SOURCE: McNeill (1997) <http://www.census.gov/hhes/www/disable/sipp/disab97/ds97t1.html>

year. Currently, travelers with disabilities generate a total of 194,000 travel-related jobs, \$4.22 billion in payroll, and \$2.52 billion in tax revenues in the United States. These statistics show that people with disabilities present an extremely profitable target market for the travel and hospitality industry. Thus, it is reasonable to conclude that cities such as Galveston, with its historic sites, beaches, and other recreational facilities, will undoubtedly play a larger role in hosting seniors and people with disabilities from the surrounding areas, states, if not from outside the United States (Moran & Associates, Inc., 1997).

### **Tourism for People With Disabilities in Galveston**

With the growth in the elderly population in the United States, and particularly the impending retirement of the wealthier baby boomers, tourist attractions geared toward this age group may best serve Galveston in the next two decades. Thus, the need to ensure accessibility to historic and recreational sites is paramount, if Galveston is to utilize this opportunity to promote itself to this target group. Not only will this group have different needs in terms of entertainment and recreation, but also they are more likely to need special accommodations as well as have special concerns with accessibility. The sensitivity of the city to its visitors' needs could enhance the attraction of Galveston as an attractive location for senior tourists.

Our research focused on assessing the degree to which Galveston has met ADA requirements since 1990 and seeks to meet the needs of this potential tourist group of people with disabilities. The researchers visited all recreational and tourist sites and assessed the degree to which each location is accessible. The researchers also contacted local officials involved with developing a transition plan to meet ADA deadlines. Each site was classified as fully accessible, partially accessible, or not accessible for those who have mobility impairments. Most sites did not show any accommodations for other disabilities, such as hearing or visual impairments. The city has tourist attractions scattered throughout the island, with the historic homes and museums primarily located in the East End (see Figure 2), whereas the recreational sites are along the seawall, the beaches, the state park, or at Moody Gardens (see Figure 1). All accessible recreation facilities are those built recently near the Moody Gardens are fully accessible. These figures do not portray the specific accessible sites on the seawall and the beaches. Figure 2 clearly demonstrates that the historic sites are concentrated on the east end of the island. In terms of actual number of sites that are accessible versus those that are not, or difficult for disabled individuals, there appears to be little distinction between the recreation facilities and the historic

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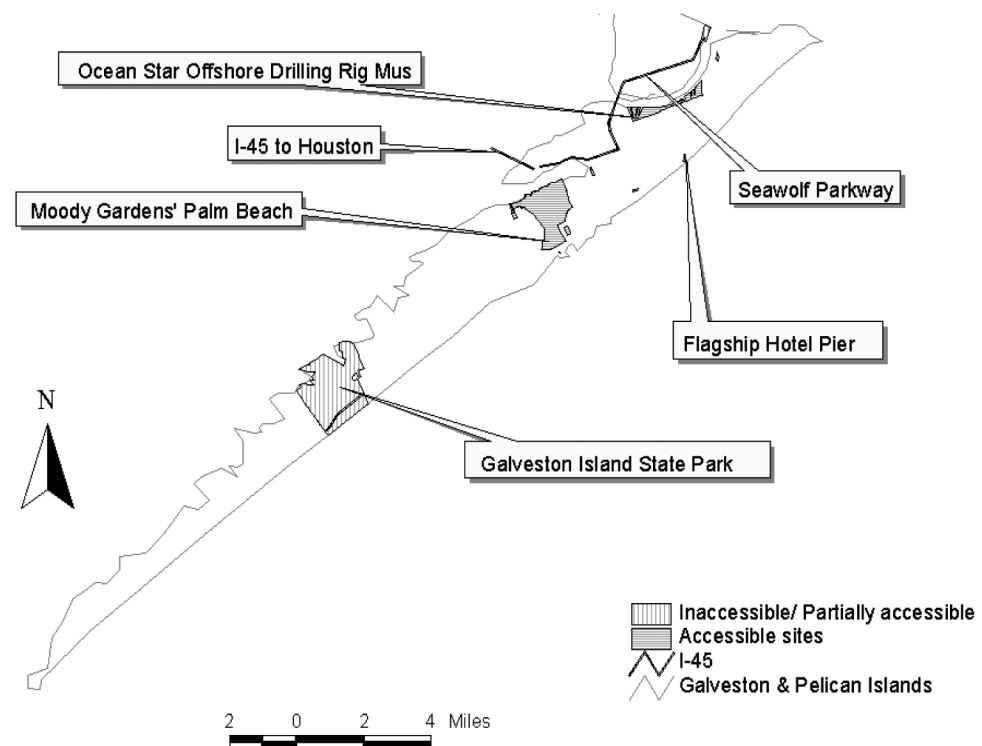


Figure 1: Accessible and Inaccessible Recreation Sites in Galveston, Texas

sites (see Figure 3). Each major type of facility has made different accommodation for people with disabilities.

### BEACHES

The beach is the premier attraction on Galveston Island. The 17-foot high seawall offers access in specific locations with ramps. In addition, the Galveston Beach Patrol provides, free of charge, beach wheelchairs to people with disabilities. The Beach Patrol constructed the wheelchairs for around \$300 after discovering that commercial beach wheelchair costs more than \$2,000 each. These wheelchairs are available at the beaches that have lifeguards in the summer and at specific beaches by reservation the rest of the year. But the beach lacks accessible bathroom facilities. This interest in providing ways to allow people with disabilities to enjoy beaches and other natural recreational facilities is being promoted by The National Center on Accessibility at Illinois State University (2003), through their work in making devices to allow wheelchairs on the beach.

However, Moody's Palm Beach is totally accessible to people with disabilities; in fact, it was built with this purpose in mind. Moody Gardens, built in the 1990s, is totally accessible and provides wheelchairs for its customers. This beach is not natural but was built with a sloping side to give people with disabilities access to the water.

### RECREATIONAL ACTIVITIES

Fishing can be a problem for people with disabilities. Some fishing piers are partially accessible whereas others are not. However, with a little effort, there are locations in Galveston where fishing is accessible. Most ships are not accessible. Other water sports are problematic and



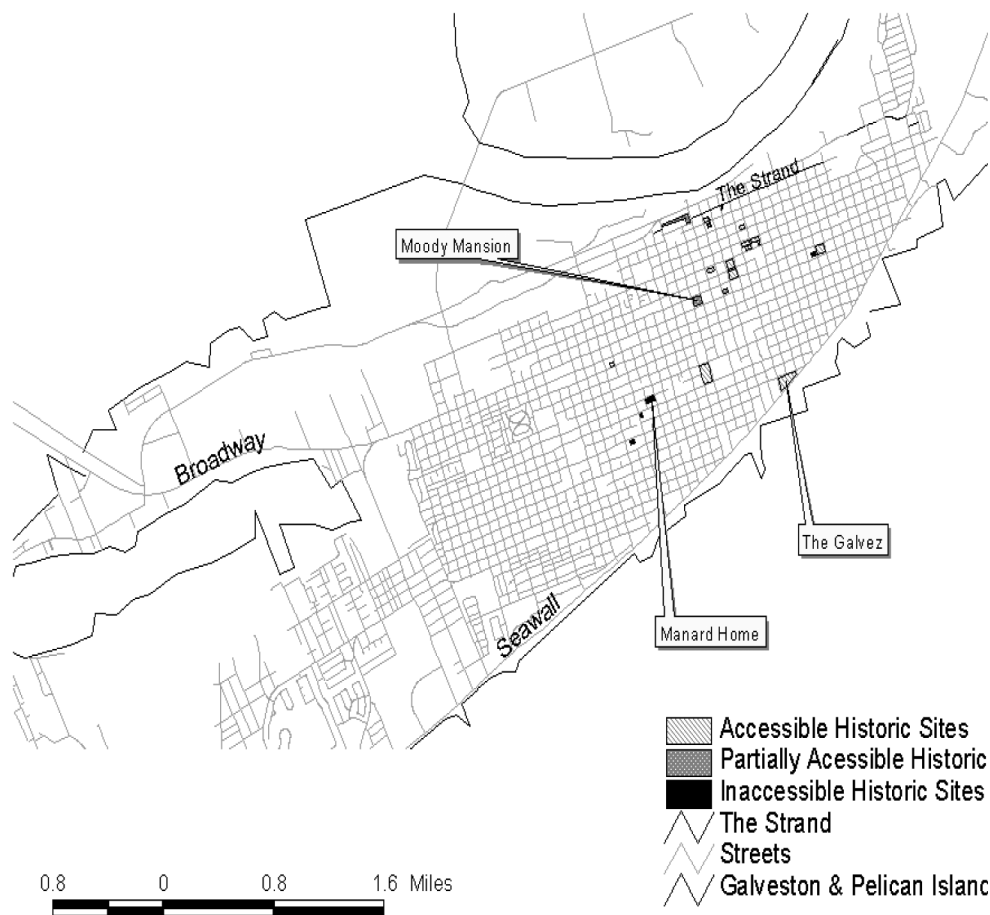


Figure 2: The Degree of Accessibility of Historic Sites in the East End of Galveston Island

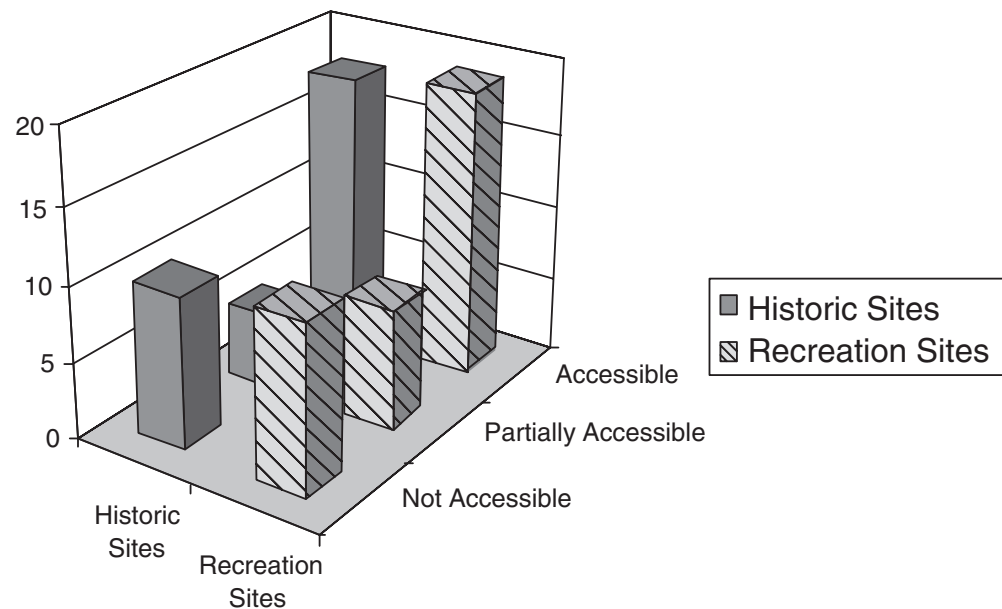
would take special accommodations that organizations such as the National Center on Accessibility can address.

### CHURCHES AND THEATERS

The old churches that are still used today comply with the law. However, the churches generally own several lots and thus have more room to build ramps. Theatric productions throughout Galveston Island are also accessible to the disabled: The 1894 Grand Opera House, the Strand Theater, and the Moody Amphitheater present live entertainment in accessible buildings. All newer movie halls like the Movie Theater on Seawall Boulevard, comply with the law.

### HISTORIC HOMES AND OTHER BUILDINGS

Access to the museums in old homes along Broadway is limited at best. The buildings located on the highest point on the island, along the 17-foot high seawall, are generally accessible, as there was no reason to raise them further. The older buildings located on the north side of the island are more prone to flooding and most have first floors raised above street level. These locations offer limited access.



**Figure 3: Degree of Accessibility of Tourist Sites in Galveston Island**

The Strand Historic District and downtown with its festivals, retail shopping, restaurants, and hotels presents the greatest challenge to ADA compliance. Along the Strand, most buildings were raised to prevent water damage. In addition, they sit on small lots with little room to construct a ramp at the proper incline. Some buildings have small lifts, but they are expensive and frequently break due to the salt air and air pollution. Some buildings utilize one lift to service numerous retail establishments located in one building. The problem is keeping these small lifts operational. When they are located indoors they work better, but those located outside are prone to breakdowns. The least likelihood of compliance is where the retail merchants rent the building and the one entrance to the store has stairs. Sometimes it is physically impossible to build a ramp; in other cases the costs for compliance are high. Help has been forthcoming with Galveston receiving a federal grant to improve The Strand Historic District and Mechanic Row (the street to the North). Hopefully, some of the worst problems will be mitigated by that project. Some progress was made in 2001, as can be seen from the curb cuts (shown in Figure 4), although further improvements are needed. The roads and sidewalks are old and bumpy, which makes it extremely difficult for a person with disabilities to traverse.

There are some creative solutions. The Galveston County Historical Museum is located in an old bank building with steep stairs leading from the street to the building and more stairs inside. It is physically impossible to build a ramp or place a lift outdoors. However, access is provided by an elevator in the building next door and a new entrance that connects the two buildings. In addition, a new elevator will be provided within the museum for access to the museum's second floor.

Some locations are not accessible by their nature. The Seaport Museum is accessible, but touring the tall ship *Elissa* is not possible due to the nature of the ship and its stairs. The Train Museum is accessible, but it is not physically possible for people with disabilities to tour the trains. The GHF Historic Homes Tour is not accessible because individual homeowners are not going to alter their property for a two-weekend event.





**Figure 4:** Curb Cuts on Mechanic and 26th, Galveston, Texas

## THE PORT

Although the port of Galveston lost its premier status in Texas to Houston, it has improved and grown during the past decade. Tourism has helped to boost the port—its proximity to the Gulf makes it attractive to cruise ships. A major overhaul of the only cruise terminal, completed in 2000, makes that facility completely accessible to people with disabilities. Most retail development, hotel, museums, and restaurants located on port land are also accessible.

## ACCESSIBLE TRANSPORTATION

Transportation to the island is primarily by private automobile. Those without a car may choose the Greyhound Bus line, airport limousine, taxi service from Houston, or Connect Transportation from other cities or stops inside Galveston and Brazoria Counties. Although the limousine services to and from the Houston area airports are not accessible, Connect Transport or accessible taxis can provide accessible services for a client with limited mobility. Galveston was several taxi companies but none are accessible. The Island Transit is mostly accessible, but the trolley service along the Strand, is not accessible. The company plans to retrofit these trolley cars.

## INFORMATION ON ACCESSIBILITY

The Internet has become the most standard source of information and many companies offering travel services to the people with disabilities advertise through a Web site. Galveston, although offering information about its attractions to tourists, has not included any information that may be essential to anyone with disability wishing to visit the island. There are no easy ways to obtain detailed information on transportation cost or schedules for anyone unfamiliar with the Tourist Information Office for Galveston. For tourists outside the local area, the Web site provides detailed listing of hotels and other recreational facilities, but no information on accessible accommodations or transportation ([www.galveston.com](http://www.galveston.com)). The city is in the process of constructing a new Web site but it is not known whether this site will include more information for tourist with disabilities ([www.galvestonisland.org](http://www.galvestonisland.org)). The Internet as a source of information may be critical to those individuals with disabilities who have access to and the ability to use a computer, but many (older) tourists may not be computer literate.

Another source of information that is available to the visitors is through brochures about specific sites. In examining the brochures available for the historic homes and museums, the level of accessibility of the site is not always evident. Sites that indicate accessibility for people with disabilities need to consider the uniformity of signage and the ease of interpretation of symbolic representation on the level/degree of accessibility because Galveston does attract many overseas visitors.

### Summary

Although most accessibility features in Galveston address the needs of those with mobility impairment, there is little evidence of accommodations for those tourists with hearing or visual impairments.

The probability of a greater mobility demand using accessible public transportation is high because the expectations are that future visitors are likely to be older and more disabled. To meet the potential demand for an accessible system of transportation and access to sites and buildings, the city should consider the adoption of universal design for the transit system as well as buildings and recreational sites. Although many people may consider this strategy expensive, it provides the best way to promote better design that is valuable not only to the disabled or seniors, but even those who are temporarily disabled, such as pregnant women or parents with children in strollers. Design changes to buses using universal design concepts will allow the purchase of low floor buses, low floor taxis, or taxis with folding ramps. These changes may in turn create a need for innovative ways to maintain historic street surfaces while allowing for curb cuts, which increase the accessibility to people in wheelchairs (manual or electric). Galveston may also consider strategies used in developing countries, such as Curitiba and Brazil, to increase accessibility such as the use of ramps built to help board the trolleys from the sidewalk. This solution would fit into the historic style of architecture in the East End and the Strand while costing far less than redesigning accessible trolleys. Many of the historic buildings, which are not accessible, may not have any way to increase accessibility to all levels without damaging the architectural integrity and form of the buildings.

As a city with a large number of historic buildings and many tourist sites that require modifications to meet ADA guidelines, the limited tax base presents a major difficulty for the city. This difficulty may become even more burdensome with the guidelines on new construction and alterations of existing recreation facilities passed by the Architectural and Transportation Barriers Compliance Board (Access Board) effective October 3, 2002. Because these guidelines include boating facilities, fishing piers and platforms, golf courses, and sports facilities, Galveston may have to undertake a more rigorous and stringent approach toward meeting these requirements, which are also the basis of the standards to be adopted by the Department of Justice for new constructions or retrofitting existing facilities covered by ADA. Although compliance with Texas Accessibility Standards meet or exceed the new construction and alterations

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requirements of Title III of the ADA (ruling by the Justice Department on September 23, 1996), it is unclear how often the Texas Accessibility Board monitors plans or the level of compliance. Can Galveston wait until a lawsuit is filed to determine what action they need to take or should it assess and prioritize actions needed to comply with all ADA requirements to date?

Finally there is a need for access for people with different types of disability using tactile surface guides or Braille labels for those with visual impairments and signage for those with hearing impairments. Projections for future tourists must include the accessibility needs of these less visibly disabled people with hearing and or visual impairments. Although Galveston values tourism, its senior advisory group is ineffective at monitoring and improving services for tourist with disabilities. Although efforts have been made to make many tourist sites and accommodations accessible, some aspect of compliance, such as the development of a transition plan to comply with the Americans With Disabilities Act of 1990, appears to be "missing" or not traceable as discovered from contacting appropriate city officials.

### Recommendations

Although Galveston has adjusted and complied with ADA to a large degree, there is a need to fine-tune the changes to make Galveston truly accessible and a model historic city with fully accessible sites. To reach that stage, the city must take a number of steps, including:

- Promote universal design for all new hotel/motel and recreational facilities construction,
- redesign curb cuts and access to historic districts such as the Strand,
- introduce removable ramps across thresholds of old buildings and other facilities where permanent access ramps are not feasible,
- use ramps to enter the trolleys at trolley stops as a cheaper way to provide access,
- promote accessible taxis and limousines to accommodate the expected influx of senior tourists in the next two decades,
- promote accessible recreational facilities at the beaches both in terms of access to the beach, as well as to the toilets,
- provide clearly marked brochures indicating levels of accessibility,
- provide tactile guide ways for people with visual impairments, with better signage and better lighting,
- provide talking signs at traffic lights and intersections and a signaling system accommodating slower pedestrians,
- provide captions and detailed labels for people with hearing impairments, and
- introduce a person with signing capabilities at the Visitor's Bureau to provide information for people with hearing impairments.

### References

- Crawford, D. W., & Godbey, G. (1987). Reconceptualizing barriers to family leisure. *Leisure Sciences*, 9(2), 119-128.
- Darcy, S. A. (2002, January). Marginalized participation: Physical disability, support needs and tourism. *Journal of Hospitality and Tourism Management*, 9(1), 61-72.
- Darcy, S. (1998). *Anxiety to access: The tourism patterns and experience of New South Wales people with a physical disability*. Sidney: Tourism New South Wales.
- Darcy, S., & Daruwalla, P. S. (1999). The trouble with travel: People with disabilities and tourism. *Social Alternative*, 18(1), 41-47.
- Galveston Island Convention and Visitors Bureau. (2000). *Galveston Island Tourism Economic Impact Report*. Retrieved November 12, 2003, from <http://www.galveston.com> and <http://www.galvestonisland.org>.
- McNeill, J. M. (1997, August). *Americans with disabilities 1994-95* (Current Population Reports P 7061). Retrieved November 11, 2003, from <http://www.census.gov/hhes/www/disable/sipp/disab97/ds97t1.html>
- Moran and Associates, Inc. (1997). *Galveston Island Visitor Survey Report*. Galveston, TX: Author.

- National Center on Accessibility at Illinois State University. (2003, March). *Accessible beach devices*. Retrieved November 12, 2003, from <http://newsinfo.iu.edu/830.html>
- O'Shaughnessey, C. (2002, June 20). *Trends in long-term care financing in selected countries, Testimony Before the Senate Special Committee on Aging*. Retrieved November 11, 2003, from <http://aging.senate.gov/events/hr85w.pdf>
- Parker, K. J. (2001). Changing attitudes towards persons with disabilities in Asia. *Disability Studies Quarterly*, 21(4). Retrieved November 11, 2003, from [http://www.cds.hawaii.edu.ds/\\_articles\\_html/2001/Fall/dsq\\_2001\\_Fall\\_12.html](http://www.cds.hawaii.edu.ds/_articles_html/2001/Fall/dsq_2001_Fall_12.html)
- Powell, B. A., Mercer, S. W., & Harte, C. (2002). Measuring the impact of rehabilitation services on the quality of life of disabled people in Cambodia. *Disasters*, 26(2), 175-191.
- Turco, D. M., & Stumbo, N. (1998, September). Tourism constraints for people with disabilities. *Parks & Recreation*, 33(9), 78-84.
- Turnbull, K. F. (2000). *Visitor transportation at U.S. National Parks: Increasing accessibility but preserving the environment* (TR News, Issue Number 210). Washington, DC: Transportation Research Board.
- UNESCAP. (2000). *Report on the Promotion of Accessible Tourism*. Retrieved November 11, 2003, from <http://unescap.org/decade/Baliconferencfinrpt26.htm>
- U.S. Census Bureau. (2000). *Census 2000*. Retrieved May 2000, from <http://factfinder.census.gov>