

# **Developing Accessibility for persons with Disability in Public Places and Transport**

## **Abstract:**

The UAE Ministry of Social Affairs (MSA) plays an integral role in promoting the rights of persons with disabilities in all aspects of their lives including: education, employment, public services etc. One of the main objectives which the ministry has strived to achieve in recent years is developing accessibility for this segment of society in public places and transport. The Department of Welfare and Rehabilitation of Persons with Disabilities (DWRPD) which is under the umbrella of (MSA) has cooperated with many parties such as the Roads and Transport Authority in Dubai (RTA), Department of Tourism and Commerce Marketing and Dubai Airport Authority in order to facilitate access for persons with disabilities and the elderly in these arenas. as a consequence of this cooperation, several accessible projects were built. Dubai Metro, which began work in 9/9/2009, is very suitable for the use of persons with disabilities and the elderly including wheelchairs, walkers, and crutches users, as well as persons with visual impairment or hearing disability. The new Dubai airport (terminal 3) is also very accessible for persons with disabilities and the elderly. Shopping malls, hotels and some public parks can also be accessed by persons with disabilities on an equal footing with others.

**Key Words:** building accessibility.

## **Introduction**

The purpose of this paper is to explain ways of providing accessibility in public places and transport through cooperation with persons with disabilities themselves and through evaluation of existing accessibility (if any) and to propose recommendations for improvement .

## **1. United Arab Emirates**

The United Arab Emirates (UAE) is a federation of seven emirates situated in the southeast of the Arabian Peninsula and bordering Oman from the east and Saudi Arabia from the west. The UAE consists of seven emirates, which are Abu Dhabi, Dubai, Sharjah, Ajman, Umm al-Quwain, Ras al-Khaimah and Fujairah. The capital and second largest city of the United Arab Emirates is Abu Dhabi. It is also the country's center of political, industrial, and cultural activities.

Dubai is one of the most developed cities in the Middle East which is regarded as a main hub of business and tourism. A city inhabited by more than a million persons and visited by about ten million tourists and use the airport about 15 million passengers annually, and its economy depends largely on business and tourism

## **1.1 Ministry of Social Affairs**

Ministry of Social Affairs (MSA) is one of the federal ministries and includes several departments .One of these departments is the Department of Welfare and Rehabilitation of Persons with disabilities (DWRPD). This department oversees and manages the affairs of persons with disabilities in the UAE, it is authorized to coordinate with federal and local departments to implement Federal Law No. 29 of 2006 (Disabilities Act) .

## **1.2 The issue of accessibility in the UAE**

The issue of accessibility for persons with disabilities is one of the recent issues in the Arab countries and in the UAE in particular. Before the enactment of federal Law No. 29 of 2006 regarding the rights of persons with disabilities accessibility was a few of slopes or ramps built incorrectly in front of some shopping centers and other public buildings. Public transport was not equipped to transport persons with disabilities. Schools, airports and hotels were lacking accessibility for persons with disabilities. Engineers, architects and designers were finding extreme difficulties in locating publications and national standards which could instruct them to develop accessibility for persons with disabilities in public places and transport. Besides a lot of misconceptions associated with the issue of accessibility for persons with disabilities in the UAE. This drop back was demonstrated in studies conducted by the MSA, which indicate that the concept of accessibility is limited only to the construction of the ramps in front of public buildings to enter the wheelchair users! or providing a special entrance for persons with physical disabilities !. Many individuals from the community also believe that persons with visual or hearing disabilities do not need accessibility in public buildings!

## **1.3 Federal Law No. 29 of 2006**

Federal Law No. 29 of 2006 "Regarding the Rights of Persons with Disabilities" has significantly helped to raise public awareness of the concept and issue of accessibility in the UAE. In particular, Articles 22 and 23 of Chapter v are dedicated to mandate accessibility for persons with disabilities:

**Article (22):** states: "Every person with disability shall have the right to an accessible environment and to have access to everything that others have access to."

**Article (23)** mandates: "The concerned bodies shall ensure coordination to set the engineering criteria and specifications for establishments and public facilities, issued by a Decision of the Cabinet, based on the recommendation of the Minister. The decision shall regulate the

application of these criteria, specifications and exceptions, with regard to the qualification of establishments for the use of persons with disabilities, in order to meet their needs and ensure their safety. This Decision shall be applicable to both the government and private sectors, with the exception of institutions excluded by a special provision therein.” (Federal Law No 29, 2006).

#### **1.4 Definition of accessibility:**

"Accessibility is a general term used to describe the degree to which a device, services, environment, entities, building or facility...are accessible by as many persons as possible. The term includes using: Braille signage, wheelchair, ramps, elevators, audio signals at pedestrian crossings, walkway contours, website design, accessible parking .... and so on.

## **2. Strategic Plan followed by the MSA in building accessibility in Dubai:**

To achieve full accessibility for persons with disabilities in public places and transport the MSA was eager to :

- Involve persons with disabilities in evaluating accessibility in public places and transport.
- Persons with disabilities themselves determine the nature of the accessibility they need.
- Increase public awareness about the various needs of persons with disabilities in public places and transport and the general advantages which society will gain from providing these needs.
- Conduct a series of meetings with officials and decision makers from other ministries and government departments to discuss ways and means of providing accessibility in public places and transport in order to implement Federal Law No. 29 of 2006 .
- Review technical manuals and legislation relating to accessibility from European countries and the United States for the sake of developing universal design principles and implementing them locally on ground.
- Publish a series of technical guides, guidelines and checklists to help architects and Internal Designers to adopt universal design principles in public buildings and transport.

### **2.1 Nothing for us without us**

In the preparation phase of examining and evaluating accessibility in transport and public places the MSA formed a a national committee which consists of several members as follows:

- Persons with physical disabilities (wheelchairs and assistive devices users).
- Persons with hearing impairments (deaf and hard of hearing).
- Persons with visual impairment.
- Architects and specialists of building codes.
- Specialists and professionals in the field of disability.
- Officials from the MSA - DWRPD.



F1: Members of the Committee visiting Dubai International Airport

This committee began to assess accessibility in Dubai public places and transport. Committee members carry out a number of activities Including visiting busy public places to ensure their full compliance with accessibility standards such as airport and Dubai Metro ( was under construction at the time), the first visits was to Dubai airport and Dubai Metro project.

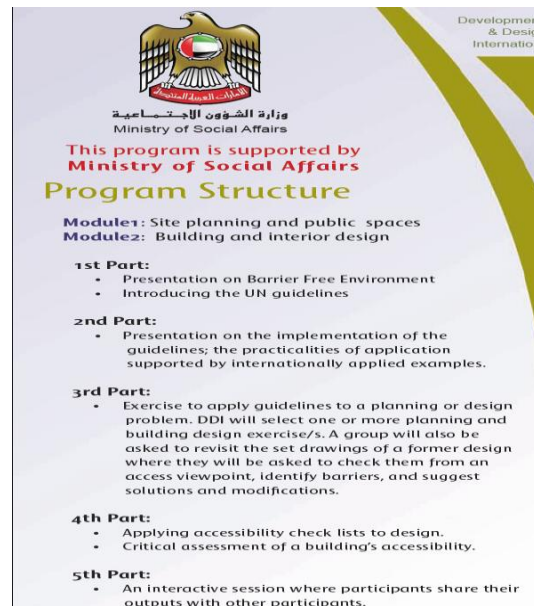
## 2.2 Increasing community awareness

A series of workshops and seminars were held to increase public awareness of universal design and the importance of adopting and complying with accessibility standards, one of the first workshops held for architects in Dubai Municipality was: Identifying Accessibility Code Definitions. In this workshop several themes were presented to the participants such as:

- 1- Universal design and Accessibility guidelines from European countries and the United States.

2- Regulations relating to accessibility from various bodies and organizations in the United States, such as :- American National Standards Institute - Florida Accessibility Code .( Al Shamy, 2006)

After these workshops a series of seminars were conducted and a large number of articles on accessibility with an explanation of errors in some ramps in front of shopping centers and how to promote accessibility were published.



F2: A training program for architects and interior designer

### **2.3 Involving officials and decision makers from other ministries and government departments:**

At this stage the focus was on meeting with officials and decision makers to explain the concept and definition of accessibility and how to implement federal law No. 29 of 2006 effectively and methods of promoting accessibility at public transport and places. The most important meetings held in this framework:

- Meetings with officials from Dubai International Airport to provide specific recommendations on how to facilitate access for persons with disabilities in airport and what needs to be done to overcome any barrier that would face them while traveling.
- Meetings with the Roads and Transport Authority (RTA) of Dubai to help them to implement universal design and accessibility standards in public transport including buses, marina transport and taxi service for persons with physical disabilities or wheelchair users.
- Meetings with officials in the Department of Tourism and Commerce Marketing in Dubai to promote access to hotels and shopping centers.

- Meetings with officials of Dubai municipality to promote access to parks and entertainment venues.

As a result of these visits and meetings with officials in these ministries and government departments, there has been a significant progress in the field of accessibility and universal design mainly in public places and transport systems in the UAE.

### **3. Basic features of accessibility that has been recommended by MSA to be found in public places and buildings:**

As part of MSA's efforts in developing accessibility for persons with disabilities, numerous visits made by persons with disabilities and officials from DWRPD to public places such as shopping malls, airports, public parks, public transport and hotels in order to provide full assessment of accessibility to other officials from ministries and government departments so as to contain the following accessibility features:

- Accessible parking .( 1 accessible parking from 24 )
- Accessible entrances: shall be part of an accessible route and connected with an accessible route to public transportation stops, to accessible parking, to public streets or sidewalks.
- at least 50% of all public entrances must be accessible .
- Signs indicating the location of specific facilities and services.
- Accessible doors.
- Ease of access to aid stations – facilities .....etc.
- Accessible route from entrances to all parts of building: bank, barber shop, beauty shop, travel service, shoe repair service .... etc.
- Accessible restrooms- lavatory to the persons with various disabilities, (physical / visual disability).
- Accessible drinking fountains.
- Accessible public terminals such as automatic teller machines ATM Computers, Information counters, ticketing systems ... etc.
- Accessible: Restaurants, waiting area, shops, dining areas, dressing fitting room ..... etc.
- Amplified telephones and text telephones (TTs) for use by persons with hearing and speech impairments and accessible telephones for use by persons with visual disability.
- Accessible evacuation system in case of Emergency [ Fawzi , 2007 )



F3: Accessible parking

**Features of accessibility at airport:** It has been recommended that airport should include the following accessibility:

- Ease of Access to parking near all terminals.
- Ease of Access to travelers aid stations – facilities.
- Accessible restrooms- lavatory to the travelers with various disabilities (physical / visual disability) .
- Accessible baggage check-in and retrieval areas.
- Accessible Jet bridges (Jet ways) and mobile lounges.
- Level entry boarding ramps, lifts or other means of assisting an individual with a physical disability on and off an aircraft.
- Information systems using visual words, letters or symbols with lighting and color coding, and systems for providing information orally.
- Accessible route from an airport entrance to ticket counters, boarding locations and baggage handling area. [ Fawzi .2007 ]



F4: Accessible ATM in shopping Mall

### 3.1 Dubai Metro Project:

When MSA has started to deal with the issue of Accessibility Dubai Metro was under construction in the early stages. The Roads and Transport Authority has responded well with the recommendations provided by DWRPD and consequently managed to adopt the following accessibility features in the project:

- A barrier-free design is in all Metro stations so they can be effectively used by passengers with disability (everyone have easy access to the Metro) .
- Tactile floor paths to guide visually – impaired persons at rail stations.
- All ticket selling booths are designed to be accessible to wheelchair users
- Toilets for persons with disabilities.
- Special spaces on all rail facilities for wheelchair users .
- Installation of audio-visual cautionary signs upon opening and closing of platform screen doors.
- Lifts with ample space for the movement of wheelchairs.
- CCTV for hearing – impaired persons.
- Audio notices for visually – impaired persons.
- Special hand – rests at a suitable height.
- Push – button to stop motion in emergency.
- Stations are provided with escalators fitted with side hand rests stretching along the rail .
- Lights stretching along the escalator to improve the extent of visibility.
- A non – slippery sliding path from the car park to the station entrance.
- Easily distinctive colors for the floors and sliding path .
- Parking provision for persons with disability near main station entrances.
- Automatic doors.
- Providing stations with public phones at much lower level to enable persons with physical disabilities to use them.
- Spacious doors to ease the entrance of wheel chairs.
- Trained staffs at each station to help persons with disabilities.

### **3.2 Public Buses:**

Roads and Transport Authority of Dubai ensures to provide all public buses with the following accessibility features (all new buses are accessible now for persons with disabilities and the elderly):

- Accessibility for persons with physical disability by lowering the floor level.
- Providing push- buttons in the reach of passengers to order a service.
- Providing air – conditioned shelters.





F5: accessible public bus in Dubai

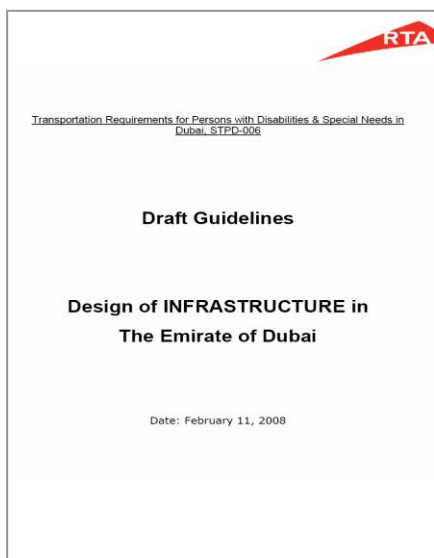
### **3.3 Accessibility not limited to land transport, but also included Marine Transport:**

- All marine transport stations have been designed to be user-friendly to persons with disabilities.
- Water Bus can be used by persons with disability; it designed to ease their movement.
- Providing ample seating areas on board the water bus for the use of persons with disability by accommodating up to 3 wheelchairs.
- Trained staff assists persons with disability to enter water bus easily.
- LCD monitors are available to provide information. [Roads & Transport Authority 2009].

### **4. Publication a series of technical manuals, guidelines and legislation regarding accessibility:**

MSA has been also involved in publishing a set of technical manuals and accessibility checklist to help architects and designers to provide accessibility for persons with disabilities in public places such as shopping malls, hotels, airports, public parks,..... etc. The following publications were published in the last three years:

- Regulations & Design Provision For People With Disability- Civil engineering Department .2008.
- Accessibility chart at the Dubai Airport to the disabled traveler- MSA 2009.
- Transportation Requirements for Persons with Disabilities & Special Needs in Dubai, Draft Guidelines Design of infrastructure in The Emirate of Dubai Date, 2008 .
- Guide to Accessible Parks and public places of entertainment- MSA 2009 .
- Accessibility Checklist in hotels – MSA 2009



F6 : Some of publications to help architects and designers in design accessible public places and transport

### **Conclusion:**

Building accessibility for persons with disabilities and elderly in public buildings and transport requires cooperation of many parties. From MSA own experience more emphasis should be placed on involvement of persons with disabilities themselves in assessing the level of accessibility and determining the features they need. Ministry of Social Affairs was able to provide accessibility in a wide range of public buildings and transportation through cooperation with persons with disabilities, professionals, officials and decision-makers from ministries and other government departments.

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