

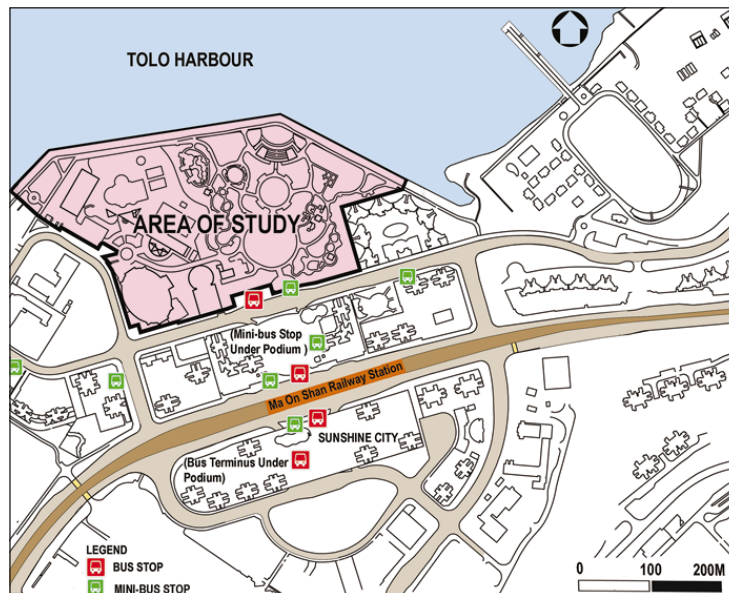
A2 Case Study 2 An External Public Space in Ma On Shan

A2.1 Area of Study

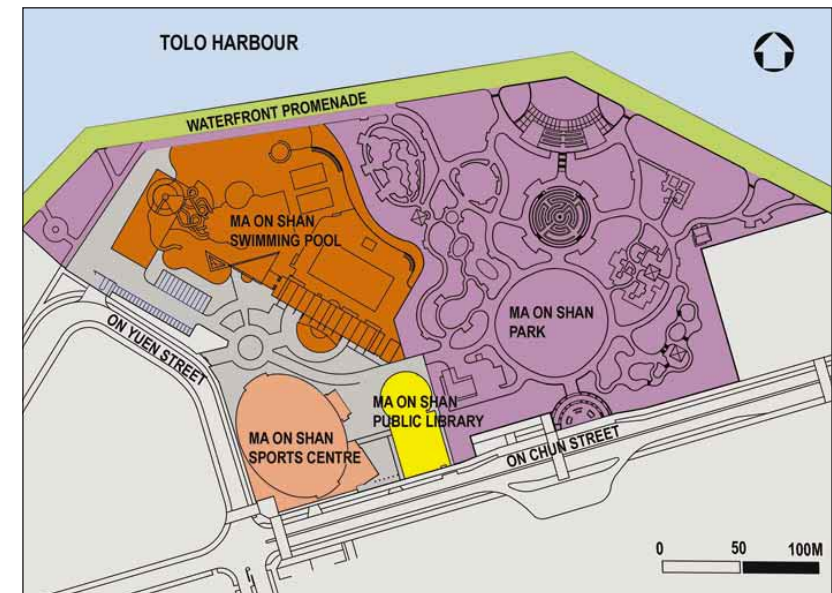
The new town of Ma On Shan has a comprehensive recreation and leisure hub along the coastline of Tolo Harbour north of the Ma On Shan Railway Station. This case study will examine the external public space in a selected area in terms of universal accessibility. The area is located in the town centre of Ma On Shan and is surrounded by residential developments and a hotel (A2.1a). There are five major facilities in the area of study, all of which are popular and highly utilized amongst the residents as well as local visitors of Ma On Shan (A2.1b). They are:

- Ma On Shan Sports Centre (A2.1c)
- Ma On Shan Public Library (A2.1d)
- Ma On Shan Park (A2.1e)
- Ma On Shan Swimming Pool (A2.1f)
- Waterfront Promenade (A2.1g)

In this case study, we will evaluate the accessibility between the five facilities, the level of connectivity between each other and the surrounding transportation nodes, and how they join together to serve the community as one entity.



A2.1a Site plan of the area of study



A2.1b The five facilities



A2.1c Sports Centre



A2.1e Park



A2.1f Swimming Pool



A2.1d Library



A2.1g Promenade

A2.2 Access Modes

The area is well served by public transportation network. Apart from the Ma On Shan Railway Station (A2.2a), there are bus stops along On Chun Street (A2.2b), and a footbridge with ramp access runs across On Chun Street to connect to the bus terminal at the residential development opposite the Park (A2.2c and A2.2d). On-site public car parking and coach parking are available at the northwestern end next to the Swimming Pool and Sports Centre, with pedestrian passage connecting to the other three facilities. Two accessible car parking spaces are provided near the Sports Centre (A2.2e). A lay-by is provided for taxi drop-off or coach loading/unloading in front of the Park on On Chun Street (A2.2f). Residents of the district can come on foot via the pedestrian crossings or footbridges on On Yuen Street and On Chun Street (A2.2g). Cyclists can also gain access via the Promenade to the other facilities (A2.2h).

Ma On Shan Park can be accessed from three major directions: the main entrance on On Chun Street; the side entrance leading from the car park; and the Promenade where five entrances are available, two of which are fully accessible.

The entrances of the Library and the Sports Centre are opposite to each other and they share a common open plaza between them. This open plaza leads to an entrance on On Chun Street at one end, and connects to the pedestrian passage leading to the car park, the Park, and the Swimming Pool at the other end.

The main entrance for pedestrians to the Swimming Pool is located next to the car park on On Yuen Street. However, it is observed that this is under utilized as a majority of the users come from On Chun Street where they enter the Pool via the Library/Sports Centre plaza or the Park.



A2.2a Railway station



A2.2c Ramp access to footbridge



A2.2e Accessible car parking spaces



A2.2g Pedestrian crossings



A2.2b Bus and mini-bus stops



A2.2d Footbridge connection



A2.2f Coach and taxi lay-by



A2.2h Bicycle parking

A2.3 Connection between Places A2.3.1 Layout

The overall layout of the access routes within the area is generally well defined with signage leading to the major points of interest. Although the various facilities were completed at different phases, all the major facilities are quite well connected by accessible routes (A2.3.1a, A2.3.1b and A2.3.1c). The access to the Swimming Pool, Sports Centre and Public Library is straightforward and those buildings can be easily accessed from the street entrances. Within the Park, the access routes are in the form of curvilinear defined pathways that lead to the various feature areas of the Park (A2.3.1d). Some of those pathways also link up to the Promenade (A2.3.1e).

The interfacing points of the various access routes between the facilities are generally well planned with accessible and levelled floor surfaces. Three connection points between the Promenade and the Park are provided with steps and provision of ramps may be preferable. Provision of adequate signage may help to indicate the location of another connection point that is accessible.

The major spines and entrances to individual facilities are shown in Figure A2.3.1f.



A2.3.1a Levelled access route linking the Library to the Park



A2.3.1b Levelled access route from Library to the Swimming Pool



A2.3.1c Levelled access route to the Restaurant



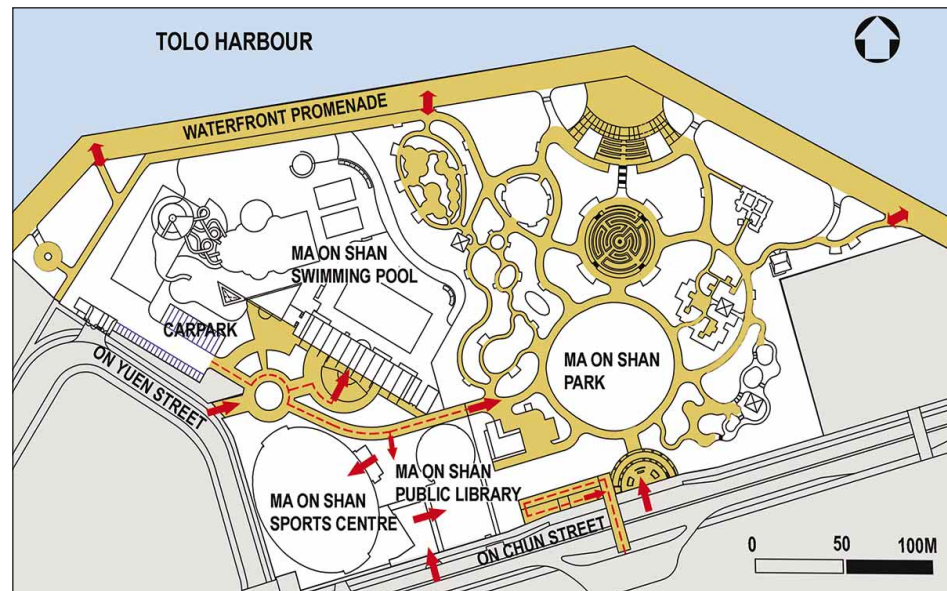
A2.3.1d Wide paths provided for major access routes within the Park

A2.3.2 Access Routes

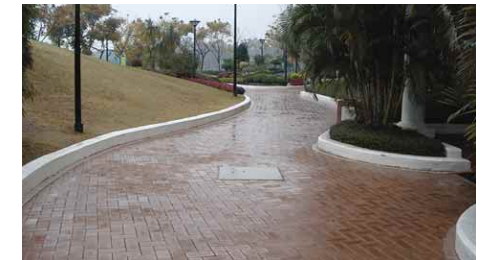
Wide walkways are provided for the major access routes throughout the area to facilitate wheelchair access (A2.3.2a). It is noted that many elderly people and wheelchair users visit the facilities, especially the Park. In general, the walkways are free from obstructions with the street furniture such as seating benches, rubbish bins, irrigation points, and lampposts positioned away from the main paths (A2.3.2b).



A2.3.1e Access link to Waterfront Promenade



A2.3.1f Major access paths to the area



A2.3.2a Levelled floor surface with kerbs along the pathway to define the access routes



A2.3.2b Furniture and fittings recessed from the travel path

A2.3.3 Level Changes

The majority of the walkways are levelled. Where there are changes in levels, in addition to steps, ramps are provided for wheelchair access (A2.3.3a). At locations where there are kerbs or slight level changes, warning strips in contrasting colours to the pavement are provided to alert users. For example, such warning strip can be found at the entrance to the Sports Centre and Library, but for that location, provision of a dropped kerb near the main gates may allow more direct access to the entrance (A2.3.3b).

Ramps are also provided at major interest points in the Park such as the Maze and Marina Plaza. The Maze, in

particular, appears to be very popular with all children, including those in wheelchairs (A2.3.3c). It is slightly sunken, which gives a clear line of vision for adults to supervise their children.

There are three areas that appear to be less wheelchair-accessible. One is the Floral Garden, which is slightly raised with undulating pathways that consist of 100x100mm rough granite paving blocks. Wheelchair users may find the ramps there difficult to negotiate. The other areas are the raised lookout platforms above the Marina Plaza, and the pavilions, which are only accessible by stairs (A2.3.3d and A2.3.3e).



A2.3.3a Ramp with handrails provided for wheelchair access



A2.3.3c Ramp access provided at the Maze



A2.3.3b Yellow warning strip at pavement kerb outside Library entrance



A2.3.3d Pavilion at Floral Garden accessed by steps only



A2.3.3e Viewing platform above Marina Plaza accessed by steps only



A2.3.4a Clear access route with tactile guide path leading to the Library and Sports Centre entrances



A2.3.4b Tactile guide path provided from site boundary to tactile map and leading to the building entrances

A2.3.4 Tactile Guide Path

Tactile guide paths are provided at the open plaza between the Sports Centre and the Library, which are led from their shared entrance on On Chun Street (A2.3.4a). A tactile map is installed outside the gate adjacent to that entrance (A2.3.4b). A 300mm clearance provided between the tactile warning strip and the tactile map may help visually impaired persons from colliding with the installation. Tactile strips with a higher colour contrast to the surrounding floor finish would make them more conspicuous to visually impaired users.

As the Park facilities were completed much earlier, no tactile guide paths or warning strips are provided there. However, other more subtle detectable cues are found at some areas of the Park. They include low planter kerbs in contrasting colours located at edges of major pathways (A2.3.4e), different flooring materials at different functional areas (A2.3.4f), and various soft landscaping arrangements. Such detectable cues can serve as useful guide for some users. Refer to Section A2.3.5.

Tactile warning strips together with handrails on both sides are provided at the ramps to the entrance of the Sports Centre and the Public Library (A2.3.4c and A2.3.4d).



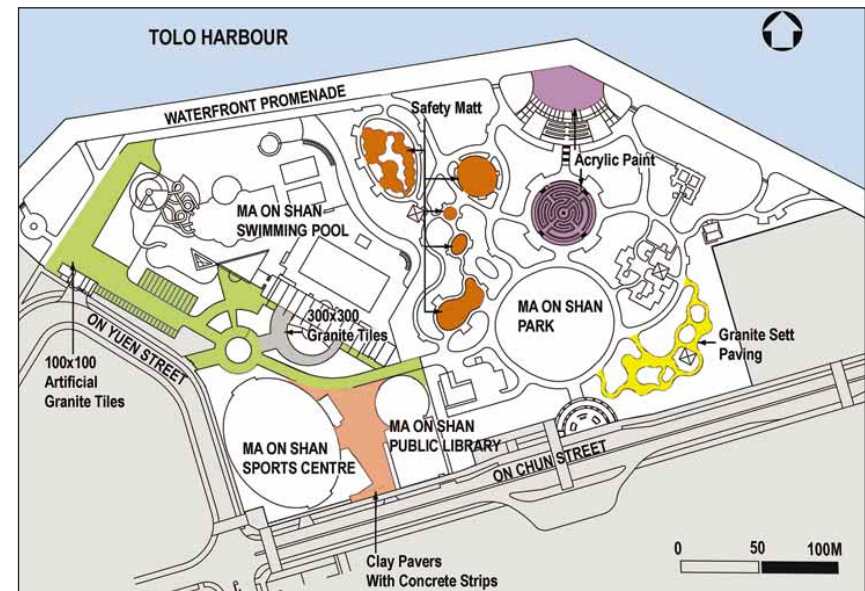
A2.3.4c Tactile warning strips provided at top and bottom of access ramp to Sports Centre



A2.3.4d Tactile guide path and access ramp to Library



A2.3.4e Detectable kerb along access route with colour contrast to adjacent floor finish



A2.3.4f Different flooring materials at different functional areas

A2.3.5 Surface Treatment and Material

There is a wide range of floor surface treatments for the various external areas (A2.3.4f). From observation, most of the floor surfaces generally appear to be firm and slip-resistant in both dry and wet weather conditions.

Different floor surface materials are used for the various functional spaces. For instance, paving blocks are used for the main access paths; safety matting for the playground areas; natural stone paving for the Mining History Display Area (A2.3.5a); clay pavers and concrete strips for the plaza; artificial granite tiles for vehicular pathways (A2.3.5b), etc. Terracotta tiles, paint finish and grass lawn is also found (A2.3.5c). These different materials can help users in detecting and identifying the different access routes and zones within the area.

At the Floral Garden, use of a less rough paving surface material on the sloped pathways would facilitate better access for wheelchair users, the elderly, and users with baby strollers.

A2.3.6 Surface Drainage

Effective rainwater drainage is essential for external areas. Generally, it appears that the floor surface in the area is sloped properly for rainwater drainage; there was no serious water ponding observed during our visits except for a bit of ponding found on the Promenade. Open trapped gullies and surface channels with metal grill covers are used in the area. The covers are generally flush with the adjacent walkway surface (A2.3.6a). The size of the slots of some of the channel covers and the gap between cover segments could be smaller to avoid trapping wheelchairs, walking canes and wheels of baby strollers (A2.3.6b). In addition, grating slots that run perpendicular to the dominant direction of travel would be desirable. Other drainage services on the ground, such as manholes, gratings, and drains are generally levelled with the floor surface (A2.3.6c).



A2.3.5a Natural stone paving at Mining History Display Area



A2.3.5b Different ground surface materials for the plaza and the vehicular pathway



A2.3.5c Different floor surface treatments



A2.3.6a Surface channel flush with adjacent floor surfaces for collection of rainwater



A2.3.6b Channel covers with slots greater than 13mm may trap wheelchairs or walking canes



A2.3.6c Manhole covers levelled with the surrounding floor surface. Junction between different floor finishes are also levelled

A2.4 Way Finding and Signage

A2.4.1 Entrance Signage

Signage for way finding and orientation is provided at the various entrances to the area. The entrances on On Chun Street are more prominent and are readily identifiable.

A tactile map with Braille showing the layout of the area is provided outside the main entrance to the Library and the Sports Centre (A2.4.1a). Tactile guide path leads from the site boundary to that tactile map and continues through the entrance gate to the building entrances (A2.4.1b). This is the only location in the external grounds within this area where tactile and Braille information is provided.

From the tactile map, visually impaired users can follow tactile guide paths to the entrances of the Library and the Sports Centre. From the plaza between those two buildings, the other facilities within the area can be easily identified and accessed as they are in close proximity of each other.

For those entering the area from the Park entrance, there is a decorative metal screen with the Park's name mounted on it (A2.4.1c). It was observed that the colour contrast between the lettering and the background may not be high if the materials for both are in stainless steel. In front of the metal screen is a low-level signage block, which allows small children and wheelchair users to access the information presented (A2.4.1d). The main directory of the Park is located inside near the entrance. It is large and colourful, and the pictorial information provides an overview of the Park's various amenities (A2.4.1e). However, there is one signage panel positioned perpendicular to the main sign, which may make it difficult for some users to read the information.



A2.4.1a Entrance map with tactile layout of the area and information in Braille



A2.4.1c Entrance to the Park from On Chun Street



A2.4.1b Entrance to the Public Library and Sports Centre with tactile map and tactile guide path



A2.4.1d Low level map at Park entrance



A2.4.1e Large directory inside the Park entrance

A2.4.2 Orientation and Way Finding

The surrounding buildings and various features within the area help users in orientation and way finding. The surrounding residential blocks and the waterfront also form a backdrop for orientation (A2.4.2a and A2.4.2b). Within the Park, there are several landmark features that can serve as useful reference points. Examples include the large Central Lawn with tree groves (A2.4.2c); the accessible sunken Maze (A2.4.2d); and the sculpture resembling a ship's mast in the Marina Plaza directly facing the Tolo Harbour (A2.4.2e). All such elements can serve as effective visual signage and facilitate way finding. Some of those key features are also lit at night and that helps to define those areas and enhance orientation at night (A2.4.2f). In addition, the access routes themselves are quite well defined, and also help to facilitate way finding (A2.4.2g).

Directional signs are provided at major junctions, particularly inside the Park where there are many pathways leading to different features and play and rest areas (A2.4.2h). These signs have text and pictorial information indicating the various amenities within the Park, such as the Park Office, toilets and pavilions. The information provided on the directional signs, with a colour contrast of yellow text on dark green background, is quite clear (A2.4.2i). The overall signage could be more easily noticeable if the colour contrast could be made more distinct from the green foliage background.

Most of the signposts are recessed into the landscape area and do not protrude onto travel paths. The signs are lit up at night and are still visible from a distance.



A2.4.2a The nearby tall residential buildings form a reference point for orientation



A2.4.2c The large Central Lawn serves as a major gathering place and reference point



A2.4.2e The Marina Plaza is a key feature in the Park



A2.4.2g Well defined access routes help to facilitate way finding



A2.4.2b The Promenade and Tolo Harbour to the north of the area serve as a reference for orientation



A2.4.2d The large Maze near the centre of the Park serves as a key landmark



A2.4.2f Marina Plaza lit up at night



A2.4.2h Directional signs pointing to the various amenities at key junctions for way finding

A2.4.3 Signage

There are various types of signage provided inside the area serving different functions. They include entrance maps and directories; instructions for use of certain amenities such as fitness equipment; directional signposts leading to various services and key areas; identification signs of the services such as Park Office and toilets; and warning and regulatory signs (A2.4.3a to A2.4.3e).

The information communicated by the signs is generally clear and comprehensible. However, some of the regulatory signs could be provided with a larger text size and a higher colour contrast between the information

and its background. Generally, the signs showing the international symbol for accessibility should be white on a blue background. One may wish to avoid the use of reflective finished metal for external signage as it causes glare. Clear glass or other transparent materials for two-way free standing signs should be avoided as it causes reflection. It is noted that the tactile map at the Library entrance is specially designed to cater for the visually impaired. Tactile and Braille information with more interactive and audible elements may be considered to allow more users of varying abilities to use other senses to obtain information.



A2.4.2i Directional signs in contrasting colours



A2.4.3b Directory near Sports Centre



A2.4.3c Signage for Fitness Station and trail showing the proposed sequence of use of the fitness equipment



A2.4.3d Signage identifying the services provided



A2.4.3a Instructions for fitness equipment



A2.4.3e Regulatory sign

A2.5 Landscaped Spaces

Rich varieties of soft landscaping ranging from trees, shrubs, topiary plants, grass, to groundcovers are planted in the Park offering a colourful and relaxing visual and olfactory experience amongst the green backdrop (A2.5a). The plantings are also designed in layers to add to the visual interest. There is less planting along the access routes in the rest of the area.

In the Park, soft landscaping is thoughtfully integrated into the built features such as the Maze, access ramps to the Viewing Bartzan, and sculptures at the Marina Plaza.

Some of the plantings also serve as focal points. For example, peach blossoms are strategically planted at the path junctions marking the central axis to the Maze entrance (A2.5b); abundant seasonal flowers are planted in the Floral Garden; topiary plants are placed to offer photographic spots for visitors, etc. A wide range of colourful floral plants is available, providing natural highlight to the Park.

In addition to amenity value, some trees serve the functional purpose of providing natural shading to seating areas. Trees and shrubs are generally properly trimmed and well maintained such that they do not encroach onto access routes or obstruct the open views (A2.5c). Plants within reach are of species and textures that are safe to touch; they do not have thorns, needles or hard edges that could cause harm to users.



A2.5a Big variety of plants

A2.5b Path planted with peach blossoms

A2.5c Properly trimmed trees and shrubs along access routes

A2.6 Furniture, Equipment and Fittings

External furniture, equipment and fittings in the area basically include seating benches, rubbish bins, notice boards, public telephones, drinking fountains, drop boxes, bicycle racks, play equipment, and so on.

A2.6.1 Seating

Rest places are essential in open spaces. There is generally sufficient seating provided throughout the area and they seem to blend in quite well with the surrounding environment. Benches are provided along passageways, inside pavilions, and in the Plaza outside the Library and the Sports Centre. Spaces for wheelchair users next to seating benches are also provided in many locations. The benches, as well as many other service fittings such as rubbish bins, are recessed from the travel path.

Many of the seating benches are under shade covered by trellises, glazed canopies, or trees (A2.6.1a). Others

are provided in the open (A2.6.1b). The benches are particularly popular with the elderly and young children who enjoy sitting and having a rest after a long walk.

If areas for resting, incorporated into the hard and soft landscaping design, were also provided at the Promenade, they may add to the enjoyment of the area. The Promenade and the shoreline offer good potentials for outdoor activities and could be further explored.

A2.6.2 Rubbish Bins

Rubbish bins are generally provided with large openings at low level for easy access. There are different types of bins used to suit the different areas. Some are permanently fixed at planting areas recessed from pathways (A2.6.2a), while some are movable bins shaped in animal characters that appeal to young children (A2.6.2b).



A2.6.2a Fixed rubbish bin



A2.6.1a Seating in groups with shade, backrests and space for wheelchairs

A2.6.1b Different types of seating without shade

A2.6.2b Movable rubbish bin with low side opening at Children's Playground

A2.6.3 Handrails

Handrails of suitable size and grip are provided for most of the ramps. It is noted that some ramps are not provided with handrails on both sides and some handrails should have a 300mm extension beyond the top and bottom ends of the ramp. Handrails in stainless steel may be hot to the touch under the summer sun (A2.6.3a).

A2.6.4 Protective Barriers and Bollards

Protective barriers are provided where there is a vertical drop next to the travel path.

Bollards are erected at junctions between the Promenade and the Park to prevent users from entering the Park by bicycle. There is easy-to-read graphic signage on top of each bollard to remind users of the rules of the Park (A2.6.4a).

A2.6.5 Plant Information Booklet

There is a Central Lawn in the Park where groves of trees are planted. They serve as an effective green backdrop to soften the impact of the surrounding buildings. At the edge of the lawn, there is a waterproof information booklet giving details on the various plants. The booklet is fixed on a metal stand at low level for easy access (A2.6.5a).



A2.6.3a Handrails at ramp



A2.6.4a Bollards with signage erected between the Park and the Promenade



A2.6.5a Plant information booklet located at the Central Lawn

A2.7 Service Facilities

A2.7.1 Pay Phone

Although there is less demand for pay phones in view of the popularity of cellular phones, there is a public pay phone mounted at low level outside the Park Office accessible to wheelchair users (A2.7.1a). To ensure that the pay phone can be seen from a distance, it may be beneficial to have a sign with international symbol for accessibility mounted at high level to indicate its location.

A2.7.2 Drinking Fountain

There is a standard height drinking fountain provided outside the Park Office (A2.7.2a). In order to cope with the needs of all users including wheelchair users and young children, it may be beneficial to have drinking fountains provided at both high and low levels.

A2.7.3 Book Return Boxes

Accessible book return boxes are located outside the Library to facilitate people to return their books without having to enter the Library or when the Library is closed (A2.7.3a).

A2.7.4 Car Parking

Accessible car parking can be found adjacent to the Sports Centre (A2.7.4a). Parking for coaches is also available for groups who visit the area by coach. Although car parking is available at the northwest side of the area, they are designated for staff use only. If some car parking spaces were available for the public, it may offer more convenience to families with children and the elderly to visit the area by car.

A2.7.5 Bicycle Parking

Bicycle parking is provided on the Promenade adjacent to the Park (A2.7.5a). The Promenade itself spans more than 7km from Wu Kai Sha to the north to Shatin Town Center to the south. Users can conveniently leave their bicycles and then walk around the area. The parking areas are mostly located under shade and protected from direct sunlight.



A2.7.1a Pay phone mounted at low level outside the Park Office



A2.7.2a Drinking fountain located outside the Park Office



A2.7.3a Book return box at the entrance to the Plaza



A2.7.4a Accessible car parking spaces near the Sports Centre

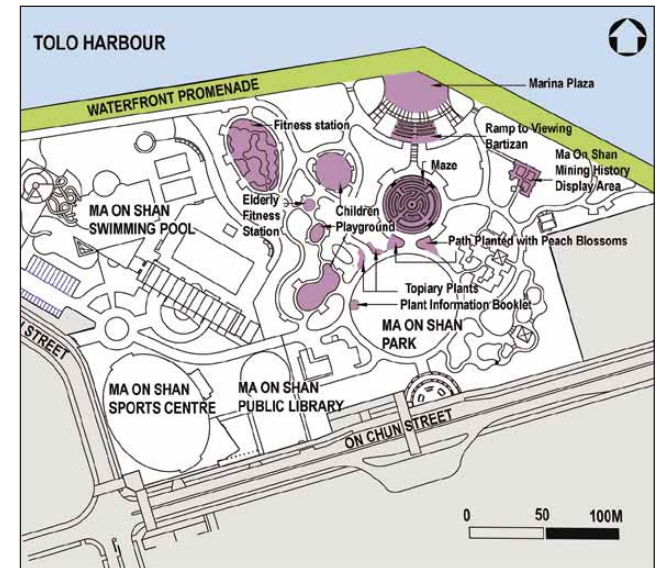


A2.7.5a Bicycle parking along the Promenade

A2.8 Accessible Passive and Educational Activity Areas

Most of the passive and educational activity areas are accessible to users of all ages and abilities; ramps or levelled ground surfaces have been provided (A2.8b to A2.8f). The points of interest are shown in Figure A2.8a.

The entrance to the Library is also accessible as mentioned in Section A2.3.



A2.8a Accessible points of interest



A2.8b Plant information booklet at Central Lawn



A2.8d Mining History Display Area



A2.8e Marina Plaza with ramp access



A2.8c Ramps to Viewing Bartizan



A2.8f Floral Garden

A2.9 Accessible Recreational and Sports Areas

The active recreational facilities in the Park are also accessible to everyone. There are Fitness Stations and equipment for adults and the elderly (A2.9a and A2.9b), while children can enjoy the play equipment in the Children's Playground (A2.9c). All these exercise and play equipment areas are finished with safety rubber mats, which also help to demarcate those zones. The equipment are mostly proprietary products in bright colours. Information for use is provided near the equipment.

The Maze is another popular play area. It can be accessed by both steps and ramps, which allow children in wheelchair to enjoy the same adventure (A2.9d). There is also an accessible QualiWalk Trail in the Park; users can choose from three different routes to stroll around the Park by following the colour-coded checkpoints (A2.9e).

Access to other recreational facilities, i.e., the Swimming Pool and Sports Centre, is discussed in Section A2.3.



A2.9a Accessible Fitness Station



A2.9c Children's Playground



A2.9b Fitness Station for the elderly



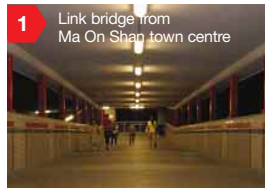
A2.9d Ramp entrance to the Maze



A2.9e QualiWalk Trail with colour-coded checkpoints



A2.10 Lighting and Colour



A2.10.1 Lighting

Figure A2.10.1a gives an impression of the experience of walking to the area at night. The photos show the travel sequence starting at the link bridge from Ma On Shan town centre (1), continuing on to the Park, the Pavilion, the Marina Plaza, the Library, the Plaza, the Sports Centre, the pavement along On Chun Street (22) and then back to the link bridge.

By showing the visual effects created by the different lighting arrangements, one may be able to get a sense of the mood of the different places at night.

High and low lamp poles with various lighting fittings are provided in this area and the lighting level seems to be sufficient. The atmosphere of the environment in terms of brightness, colour and shadow are soft and appealing. Visual comfort is generally maintained throughout the whole journey. Though some signage may not be adequately lit, dark zones with obscure and dangerous corners are rare. Users generally feel safe walking around the area at night as lighting is adequately provided and arranged within the area. The atmosphere of the area at night is generally comfortable.

A2.10.1a Travelling to the area of study at night time

A2.10.2 Colour Treatment of Surfaces

Colour contrast and slip resistance of ground surface materials seem to have been carefully considered throughout the open areas. Generally, different floor finishing materials are used to demarcate different spaces.

- (a) The Promenade
At junctions between the Park and the Promenade, the clay pavers and the adjacent pavement are in contrasting colours and both surfaces have varying degree of slip resistances (A2.10.2a). The white planter kerbs on both sides of the paths also help to define the access routes. The ground surfaces are visually enhanced by the various finishing surfaces.

Contrasting use of colours and materials can also be found at junctions of different zones within the area.

- (b) Plaza outside the Library and Sports Centre
The paving surfaces in the plaza are designed in contrasting colours. It is paved with slip resistant

clay pavers in yellow and grey pattern (A2.10.2b). The footpath at the northwest entrance is paved with red artificial granite tiles and it leads to the Park. Between the footpath and the plaza, a curved strip of black channel grating is installed flush with adjoining paving surfaces. The idea of eliminating physical barriers and demarcating areas with different paving surfaces in contrasting colours is illustrated clearly at this plaza.

- (c) Exercise areas in the Park
The use of paving surfaces in contrasting colours is also found in the Park. For example, the exercise area is finished in safety matting surrounded by slip resistant light grey clay pavers (A2.10.2c). The difference in materials and colour contrast help users to identify the different areas and to define the boundaries. The joints between the surfaces have no physical barriers and are levelled so that users can travel freely and safely.



A2.10.2a Access at junction between the Park and the Promenade



A2.10.2b Plaza outside the Library and Sports Centre



A2.10.2c Exercise area in the Park

(d) Pathways in the Park

Kerbs in lieu of high planter walls are used consistently in the Park. They are painted in white, which is in colour contrast with the pathway allowing users to easily identify the access routes within the Park (A2.10.2d). The well-defined edges and contrasting colour surface materials also help to enhance safety. In addition, the kerbs effectively demarcate the soft landscaping from the other areas. The subtle yet thoughtful use of colour and material in this case greatly enhances the overall design of the open space.



A2.10.2d White planter kerbs along the pathways

(e) The Maze in the Park

The slightly sunken Maze is designed with accessible ramps and low parapet walls (A2.10.2e). The ramps and parapet walls are painted in light green and white respectively. Metal railings in light blue are provided at the parapet walls along the perimeter of the Maze. Shrubs of similar height to the parapets are planted in the Maze to soften the environment. The Maze forms an interesting visual and tactile backdrop for the children's active play.



A2.10.2e The Maze in the Park

A2.11 Sensory Experience

People with different abilities are sensitive to different stimulations. The external spaces in this area have ample room for the public to escape from the concrete jungle and to get in touch with the nature. A vast array of sensory experiences is on offer for enjoyment.

A2.11.1 Visual Experience

Abundant floral plants are found along all passageways throughout the area. The flowers are colourful offering an enlightening and pleasant visual experience during different seasons (A2.11.1a).

Looking towards the Tolo Harbour, one can appreciate the peaceful harbour view. The best locations are from the Promenade, the Marina Plaza and the Viewing Bartzan inside the Park.



A2.11.1a Colourful flowers for different seasons

A2.11.2 Audio Experience

The sound of nature is captured at quieter and passive spaces. For example, the sound of waves in the harbour can be enjoyed along the Promenade and at the Marina Plaza inside the Park. The lush greenery and leaves rustling in the wind also add to audio stimulation (A2.11.2a).

A2.11.3 Olfactory Experience

The fragrance of flowers, especially at the Floral Garden, changes with the seasons, providing various olfactory stimulations during different times of the year.

A2.11.4 Tactile Experience

The hard and soft landscaping elements offer different tactile experiences to visitors. For example, tactile pictures are used as educational display at the Mining History Display Area (A2.11.4a); dolphin sculptures and rockeries are set at reachable heights at the Marina Plaza (A2.11.4b); natural materials such as rocks, grass and certain plants offer rich tactile experiences (A2.11.4c). The Central Lawn allows people to sit or walk on its soft surface, while the hard paving with rough surfaces generate a different tactile sensation (A2.11.4d).

Plants that are within reach in the external areas are all safe to touch. Visitors can get close to the plants to smell them or to feel the different textures (A2.11.4e).



A2.11.2a On a quiet day, the lawn provides a place to hear the sounds of the wind and the leaves



A2.11.4b Dolphin sculptures, rockeries and plants at the Marina Plaza



A2.11.4a Tactile pictures at Mining History Display Area



A2.11.4c Natural rocks and planting that are within reach



A2.11.4d Lawn and hard paved surfaces offer different tactile sensations



A2.11.4e Topiary plants that offer visual and tactile experience to visitors

A2.12 Safety, Management and Maintenance

A2.12.1 Safety

Public safety seems to be well considered during repair and upgrading works. It is observed that when repair work is being carried out on footpaths in the Park, the area concerned is properly fenced off with precautionary measures such as temporary railings and warning signs in place. Construction materials and waste are also kept within the fenced off area (A2.12.1a).

Other considerations that are built into the design such as clear access routes, colour contrast, adequate warnings, etc. mentioned in the previous sections also contribute towards enhancing safety for the users.

A2.12.2 Management

There have been some additional and renovation works carried out to various areas of the external spaces throughout the years. Nevertheless, the external areas are still generally accessible and appealing to a wide range of users. This in large part is due to good management and maintenance of the areas.

In addition to general upkeep of the facilities, some subtle yet effective management measures that enhance the use of the area are also noted. For example, clear pathways are maintained during service hours at security gates at the many different access points (A2.12.2a).

Control measures on anti-mosquito breeding are implemented in the Park to prevent the spread of dengue fever and Japanese encephalitis (A2.12.2b). Anti-mosquito devices are installed at some of the planting areas and operate on a regular basis. Other measures include attaching insect trapping tapes at low level of seating benches (A2.12.2c and 2.12.2d).



A2.12.1a Repair works cordoned off with temporary barriers



A2.12.2a Security gates near the Promenade allow clear access to the Park



A2.12.2c Insect trapping tapes attached to low level of seating bench



A2.12.2b Anti-mosquito breeding measures on the grass



A2.12.2d Warning notice regarding the insect trapping tapes at the Park Office

A2.12.3 Maintenance

Proper maintenance with sound management is the key to maintaining high standard and popularity of a facility. If a facility is in poor physical condition, it may affect users' desire to use it.

In the Park where lots of vegetation are planted, maintenance to keep their condition is important. The lawns, on which children play and have picnics, are mowed regularly. Various seasonal plants such as the peach blossoms are maintained properly. Topiary plants featuring different animal characters are trimmed regularly to maintain their intended shapes and heights (A2.12.3a).

Other equipment such as lamp poles, benches, signboards and so on, in the area is also properly maintained. To sustain popularity of the area, new facilities are added periodically. For example, a pebble path for foot reflexology near the exercise area has been newly installed in the Park (A2.12.3b). When installing new facilities, attention should be paid to their placement and layout to avoid obstruction and to ensure safety. It is noted that many users such as the elderly and children are keen to use the pebble path. With such new facilities, the area continues to attract a wide spectrum of users.



A2.12.3a Topiary in the Park



A2.12.3b Newly installed pebble path in the Park

A2.13 Conclusion

Based on the development history of this area, it is noted that the Swimming Pool, the Park, the Library and the Sports Centre are completed in stages beginning from the 1990's. Although the facilities are not planned and completed at the same time, the connections between various facilities and the surrounding buildings are very well planned. Infrastructure within this area is well supported, particularly with the opening of the Ma On Shan Rail recently, which greatly increases the pedestrian flow to the area.

Continuous improvement is one of the key factors to the success of the area. With the subsequent completion of the Sports Centre and the Library, the area attracts a wider spectrum of people from other districts.

If the potential of the Promenade and the adjacent Wu Kai Sha to the north can be further explored through strategic planning, the area will likely attract even more visitors, particularly the youths, who will participate in

water sports activities. A design strategy with children oriented concept will also create a place that will attract more families to come.

Since legislations regarding the planning of buildings for persons with disabilities have been revised in the last decade, existing details complying with the previous standards may be upgraded to tally with the new standards. Regular improvement works to the facilities will create a more harmonious environment so that a positive image of the area can be promoted to the public.

The area of study in Ma On Shan is a well-connected external public space that provides an enjoyable, safe and generally accessible environment for a wide spectrum of users. It is a good example of how thoughtful design and planning can successfully enrich the quality of life in a neighbourhood. An accessible built environment can serve people of all sectors of the community and enhance equal access for full enjoyment of the facilities.



A2.13a Accessible external space for all to enjoy