

5. REVISED MASTER PLAN - MAY, 1992

5.1 Introduction

The Authority in addressing the remaining key issues endorsed a revised concept at its meeting held March 27, 1992 which incorporated the following changes to the 1989 Master Plan:

- Elimination of unrestricted private vehicle access and the public parking (100 spaces) from the interpretive centre location (endikement).
- Removal of any proposed lakefilling to accommodate the Outer Harbour Sailing Federation and additional public parkland at the base of the park.
- Recognition of the commitment by the City of Toronto in its assumption of the North Shore Park (Toronto Harbour Commissioners Park) of the Outer Harbour to accommodate all the community sailing clubs which presently are located on the North Shore.
- Relocation of the proposed visitors centre to the park entrance at the base of the spit.
- Addition of a small environmental education/shelter/washroom facility at the endikement which could be accessed by school bus to facilitate the environmental programs of the school boards.
- The Aquatic Park Sailing Club could remain in Embayment C with 100 swing moorings and limited onshore facilities (e.g. clubhouse and storage building). Boat storage could be provided on the Outer Harbour Marina arm subject to the approval of the Toronto Harbour Commissioners, with club member's primary access to the Aquatic Park Sailing Club via their own water shuttle or possible van service.
- Capital cost reductions in the magnitude of \$2,500,000 in 1987 dollars. A further \$500,000 reduction to provide municipal services to the environmental education/shelter/washrooms at the endikement could be realized if alternative site servicing options are acceptable to the City of Toronto and the Municipality of Metropolitan Toronto.
- The revised concept also maximizes the use of the existing paved road for maintenance vehicles and cyclists while avoiding duplication of park facilities. This existing paved road could form the Tommy Thompson Park component of the "Lakeside Trail" being coordinated by the Municipality of Metropolitan Toronto.

5.2 Spirit of the Plan

The Revised Master Plan for Tommy Thompson Park, provides the basis to:

1. Conserve and manage the natural resources and environmentally significant area of the site.
2. Provide a unique, water-oriented open space which will assist in meeting regional recreation needs.
3. Develop public awareness of the significance of the Lake Ontario waterfront, and of Tommy Thompson Park in particular.
4. Develop a plan for Tommy Thompson Park which is cognizant of the policies and development proposals within the planning area.

The key premise for the natural area upon which the 1989 Master Plan and this modified Master Plan have been developed, is the adoption of the natural succession or ecological approach which relies on natural processes, augmented by minimal intervention and management of the park to achieve over time, the diversity of community types as outlined in the Master Plan.

5.3 Natural Resource Area

The concept plan (Phase III) designated sections of the park into several categories of environmental protection or management. These area designations are listed in the 1989 Master Plan/Environmental Assessment on page 144.

◆ Natural Resource Area - Community Types

The natural resource area is the largest and most dominant area of the park. The area has a range of community types which will be augmented and assisted by minimal human intervention. A brief description of the nine proposed community types' characteristics is as follows:

Palustrine Marsh

- wetlands that are not adjacent to permanent waterbodies
- wetlands whose water fluctuates with the seasonal changes of the water table
- wetlands with less than 50% open water and depths less than 2 metres

Lacustrine Marsh

- wetlands associated with large bodies of standing water (for example, lakes)

- the lake must be greater than 8 hectares, deeper than 2 metres, and have greater than 70% open water.

Lake/Island Complex

- a complex of islands of varying size which are surrounded by open deep water
- the structure, shape, and surface of the islands can be designed to encourage nesting of certain bird species
- locating the islands in deep water will discourage terrestrial predators.

Dry Meadow

- natural grasslands are climax ecosystems maintained by environmental factors that restrict growth of woody plants
- natural prairies and grasslands are maintained by drought and fire.

Wet Meadow

- an open community of wet soils that undergo periodic flooding and contain a diverse association of rushes, sedges, bulrushes, and grasses
- consists of a highly variable community structure depending on the degree of wetness
- it is generally moist, however, extended dryer conditions promote integration with dryer grassland species.

Shoreline Pond

- typified by mud flats that provide habitat for shorebirds
- an enclosed pond area that may require periodic water regulation.

Beach/Dune

- the beach community is made up of three subgroups:

Lower Beach

- this is characterized by hard packed sand, gravel or shingle as a result of a constant influence of waves.

Middle Beach

- has similar substrate as the lower beach, but wave action is less frequent and the beach may be quite dry for extended periods.

Upper Beach

- this zone is above normal wave action but is subject to blowing sand and spray
- consequently the area is usually dry, however, the area may become wet as a

result of high waves created by severe storms commonly, the area is marked by driftwood.

Shingle Beach

- based on the break down of rubble as a result of wave action
- an unstable environment based on gravel, shifting sand, and fluctuating lake levels.

Cottonwood/Aspen/Willow

- rapidly invades and grows on land created by sandy fill or dredgeate
- tree layer of eastern cottonwood with aspen and willow
- dense shrub layer of willow and red osier dogwood.

One important component of the Natural Resource Area is the condition of the soil. Soil conditions on the eastern and southern parts of the landfill are extreme. The substrate consists of concrete, asphalt, building materials, and hard packed clay. Consequently, this part of Tommy Thompson Park is not conducive to the rate and type of significant plant growth that has occurred on the sandy peninsula areas. The opposite is true of the existing conditions on the Outer Harbour side of the Park. Rapid growth of the cottonwood/aspen/willow forest on the sandy soil has transformed the fill into a large area of green space. It is highly unlikely, however, that similar growth will occur on the landfill without human intervention to create suitable soil conditions.

Minimum intervention will involve the establishment of soils for the two meadow communities and the cottonwood/aspen/willow community. As a result of the surface/site preparation, it is presumed that natural succession will be able to quickly occur (for example, in 20 years) and the site will become self-sustaining.

The other important component of Tommy Thompson Park is that of shoreline/wetlands. Manipulation of shoreline/mudflat/pond areas will provide a variety of habitats for wildlife such as shore birds. The dredgeate cells 1, 2, and 3 will, through the addition of certain conditions, become significant marsh/wetland habitat. Additionally, the enhancement of parts of embayments A, B, and C will also provide greater habitat for the preservation of such species as the Black-crowned Night Heron, Common Tern, and the Double-crested Cormorant.

Finally, protection of environmentally significant area amenities, including bird stopover and concentration points, will provide the public, educators, and scientists with excellent opportunities to view regionally rare plant and bird species.

5.4 **Park Visitors Centre/Environmental Education Program**

A focal point with public facilities in the park includes a park visitors centre located at the base of Tommy Thompson Park adjacent to the private vehicle access control point and public parking lot.

This facility will be the focus for the public's use and environmental education regarding ecology and natural succession within a large metropolitan area.

The park visitors centre is proposed to be in the 185 - 280m² (2000 - 3000 sq. ft.) range. This facility would contain a public information area and displays, washrooms, park and interpretive staff area, and classroom area.

The park visitors centre would be augmented by a 75 - 95 sq. m. (800 - 1000 sq. ft.) range, environmental education/shelter/washroom facility located at the endikement. This facility would provide basic facilities for the park user and include an area for shelter and possibly a daily laboratory area related to the school boards' environmental programs.

The above noted scale of facilities have been utilized for costing purposes subject to final design, site and funding considerations.

The specific location of the park visitor centre and environmental education/shelter/washroom facility will consider the relationship to the Metropolitan Waterfront Trail, public parking area, park trail system and key aspects of the park's ecosystem.

5.5 **Sailing Uses**

At present, the Aquatic Park Sailing Club (APSC) with 100 swing moorings is located at Tommy Thompson Park in Embayment C with temporary facilities on land at the eastern end of the Embayment. The Plan maintains this sailing club in Embayment C along with a land base area consistent with the environmental integrity of the site.

The APSC land base includes approximately 1 ha. area for limited emergency vehicle and van shuttle parking, storage building area, and clubhouse.

5.6 **Access/Parking**

Private vehicle access, to the Park will be prohibited. Private vehicles will be allowed to drive beyond the Park Entrance to a public parking area at the base of approximately 200 spaces in size. An access road beyond the private vehicle access control point will be maintained for restricted vehicle access for shoreline maintenance, park maintenance and emergency vehicles, school bus access, APSC emergency vehicles and shuttle van and potentially a park transportation service.

Provision of a park transportation service could be accommodated on the existing park service road subject to the approval of the operating agency - Metropolitan Toronto and would have the following benefits:

- Provide a parks personnel presence on-site and increase the level of public safety.
- Enhance the level of public interpretation and enjoyment of the park's natural features.
- Expand the use of the park to individuals who could not otherwise enjoy the site because of the distances to and within the site. This includes senior citizens, families with young children and the disabled.

The concept for access to Tommy Thompson Park can be summarized as follows. No private vehicle access beyond the vehicle access control point at the base of the park, subject to the exceptions on vehicular access outlined below:

- Maintain the existing roadway along the neck and out the endikement to the lighthouse area for use by park service vehicles, emergency vehicles, and construction vehicles to maintain the shoreline, and potentially a park transportation service. The park transportation is subject to the approval of Metropolitan Toronto.
- School bus access to the environmental education/shelter/washroom facility to facilitate the environmental program of the school boards on a day use basis.
- Special interest groups' private vehicle access upon approval of the operating agency for such events as The Field Naturalists Bird Counts or other such activities.
- Maintain an access road from the environmental education/shelter/washroom facility to APSC for emergency vehicles, and APSC shuttle van. The current restricted private vehicle access arrangements for APSC will remain in effect until the park is officially opened and operated by Metropolitan Toronto, which is assumed to be after completion of the lakefilling and resolution of the remaining property ownership. These current arrangements for APSC include 1) private vehicle access on specific weekends to accommodate haul out and launch dates; 2) private vehicle access before and after public hours (Saturday, Sunday and Holidays); and 3) private vehicle access Monday through Friday while the site is operated by the Toronto Harbour Commissioners for the lakefilling and construction activities.

5.7 Pathways

An extensive pathway system for pedestrians and cyclists has been designed. A two tiered pathway system has been planned for the pedestrian and park user. The major or primary trail will be approximately 1.8 metres in width, while the minor or secondary pathway will vary from 0.3 metres to 0.9 metres in width. The primary trails will be constructed from

crushed stone and limestone fines with no shoulders, curbs, or lighting. To increase pedestrian safety, water safety stands will be placed at critical locations. Similar engineering requirements are applicable to the secondary trails, however, pavement, woodchips, crushed stone, or native material will constitute the pathway surface. The combined length of the pathway system is in excess of 12 kilometres. To further enhance the pathway system and to reduce the intrusion of humans into environmentally sensitive areas, 26 lookouts have been proposed at various key places.

The bicycle route has been designed to provide the cycling public with a 7 kilometre long, car-free, pedestrian-free pathway. The pathway will be about 3.6 metres in width to allow two-way cycling traffic to safely occur. The pathway will be of a low speed design and be constructed from asphalt. In order to blend in with the environment no lighting, shoulders, or curbs will line the path. Through the use of safety and identification signage pedestrians will be encouraged to utilize the pedestrian trails and not the bicycle route, while cyclists will be discouraged from using the pedestrian pathway system. No cycling paths are proposed through the natural resource areas.

Furthermore, the bicycle pathway and pedestrian paths will be linked with the Martin Goodman Trail, part of the Metropolitan Waterfront Trail System.

5.8 **Servicing**

Municipal services, that is sanitary sewers, water mains, electrical, and telephone services will be extended to the Park Visitors Centre and to the environmental education/shelter/washroom facility. The Aquatic Park Sailing Club will be responsible for the hook-up and site servicing from the proposed environmental education/shelter/washroom facility.

Two washrooms will be located within the Natural Area. In an attempt to reduce any negative effect that may be associated with full service washroom facilities, these units will be self-contained minimal service systems subject to Metro Toronto and City of Toronto Health Standards.

5.9

Design Guidelines

To achieve the Revised Master Plan; that is, natural resource and recreation activities, special attention should be given to design and park development detailing. The following provides some guidelines on creating certain site characteristics and integrating facilities for public use in Tommy Thompson Park.

Roadway, Bicycle Paths, and Pedestrian Trails

◆ Main Entrance Road

Location:

Main entrance to the Public Parking Area.

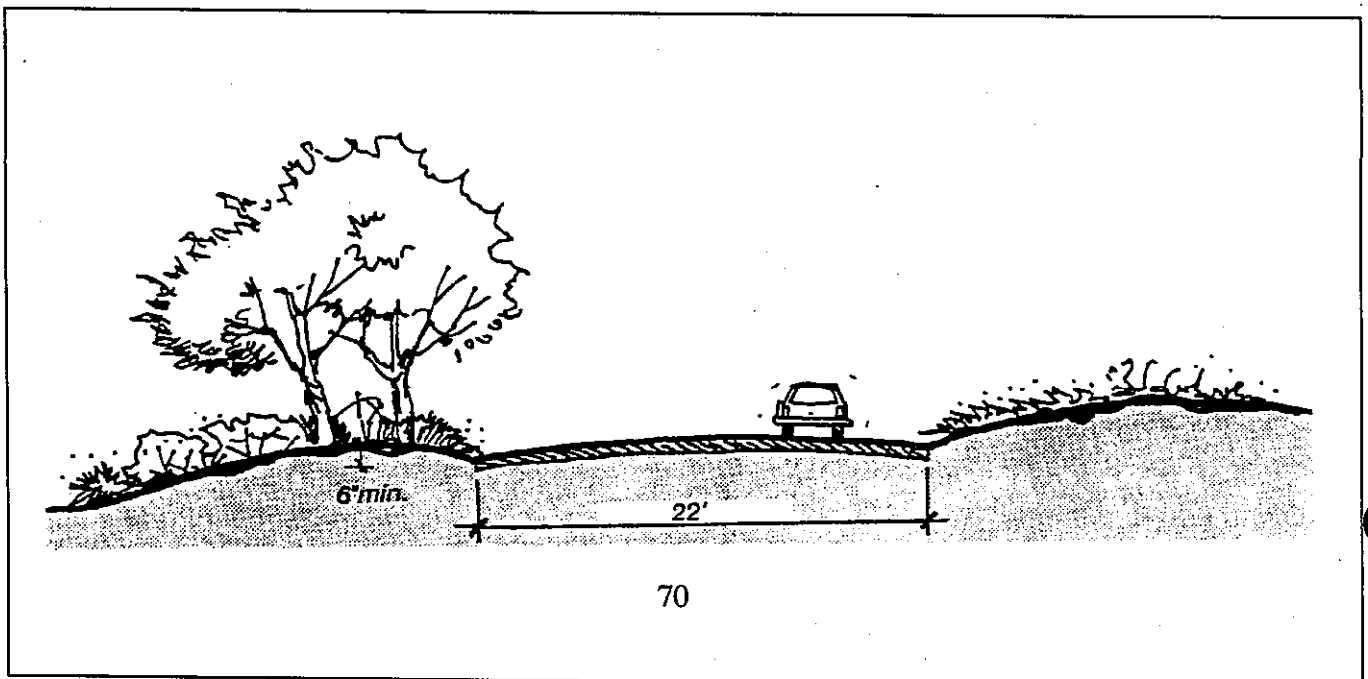
Characteristics:

Design Quality:

- emphasize visual/aesthetic experiences.
- curvilinear road alignment where possible.
- avoid uniform slopes and feather in grades to the existing landscape to minimize visual intrusions.

Engineering Requirements:

- pavement width - 6.8 m (22 feet).
- no shoulders or curbs.
- natural runoff-ditch and swales.
- low speed design.
- asphalt road surface.
- minimum lighting - low intensity, low mounting.



◆ **Construction/Park Service Road/Metropolitan Waterfront Trail**

Location:

Park Visitors Centre to Lighthouse Point

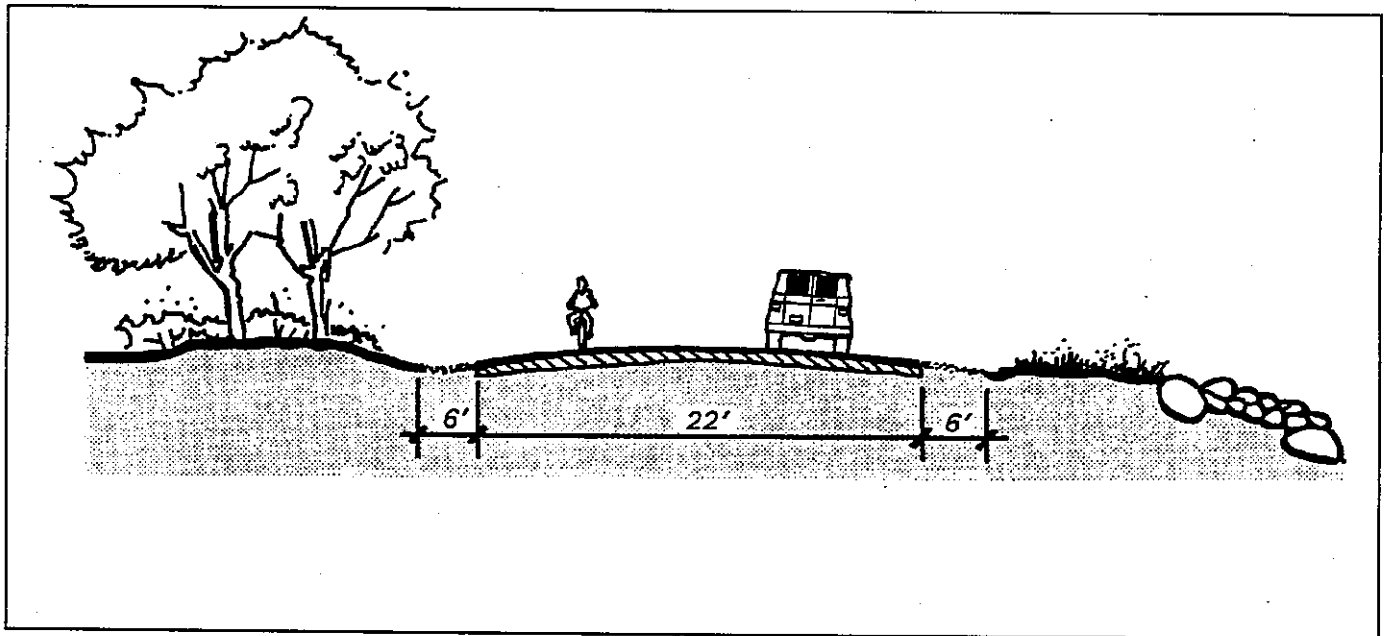
Characteristics:

Design Quality:

- emphasize visual/aesthetic experiences.
- curvilinear road alignments in new fill areas.
- avoid uniform slopes and feather in grades to the existing landscape to minimize visual intrusions.
- add soil as required along the existing road to provide a base for planting and to enhance the visual quality of the road.

Engineering Requirements:

- pavement width - 6.8 m (22 feet).
- shoulder width - 1.8 m (6 feet).
- no curbs.
- natural run-off-ditch and swales.
- low speed design.
- asphalt road surface - Phase I (end of construction).
- no lighting.



◆ **Parking Lots**

Location:

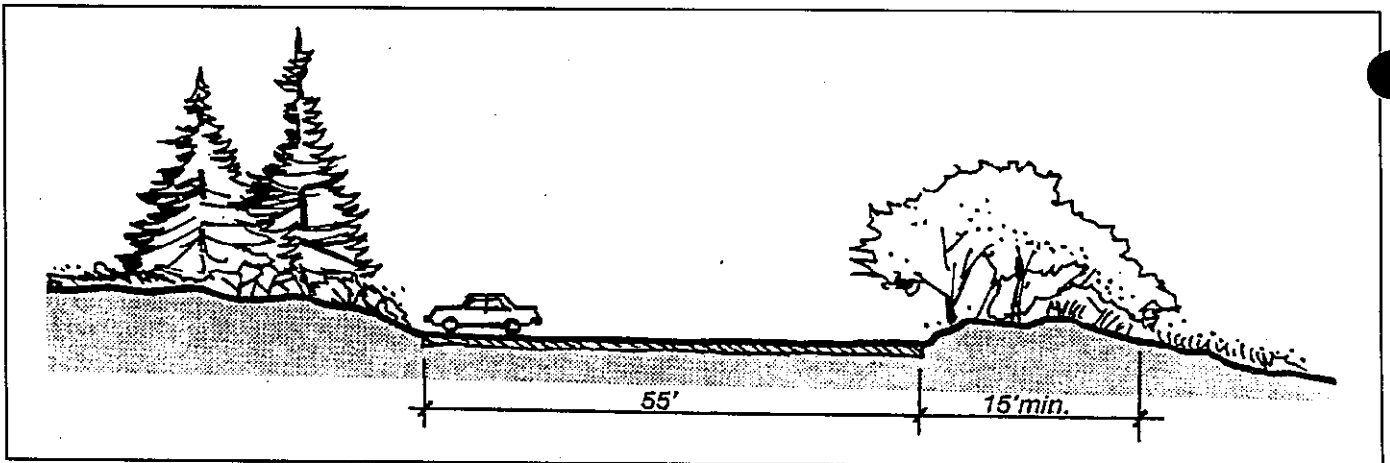
Visitors Centre, and sailing club.

Design Quality:

- parking bays in small, incremental units of 25-30 cars surrounded by planting islands.
- enhance aesthetic aspects through grading, integration, planting, and layout design.
- avoid uniform slopes and feather in grades to the existing landscape to minimize visual intrusions.

Engineering Requirements:

- parking bays - 16.75 m (55 feet) total width, individual space 2.75 m x 5.0 m (9 feet x 16 feet)
- no curbs - wood wheelstops if required.
- low level lighting - low mounting.
- planting islands - 4.6 m (15 feet) minimum width.
- natural run-off-ditches and drainage swales.
- pavement surface - asphalt and crushed stone.



◆ **Bicycle Paths**

Location:

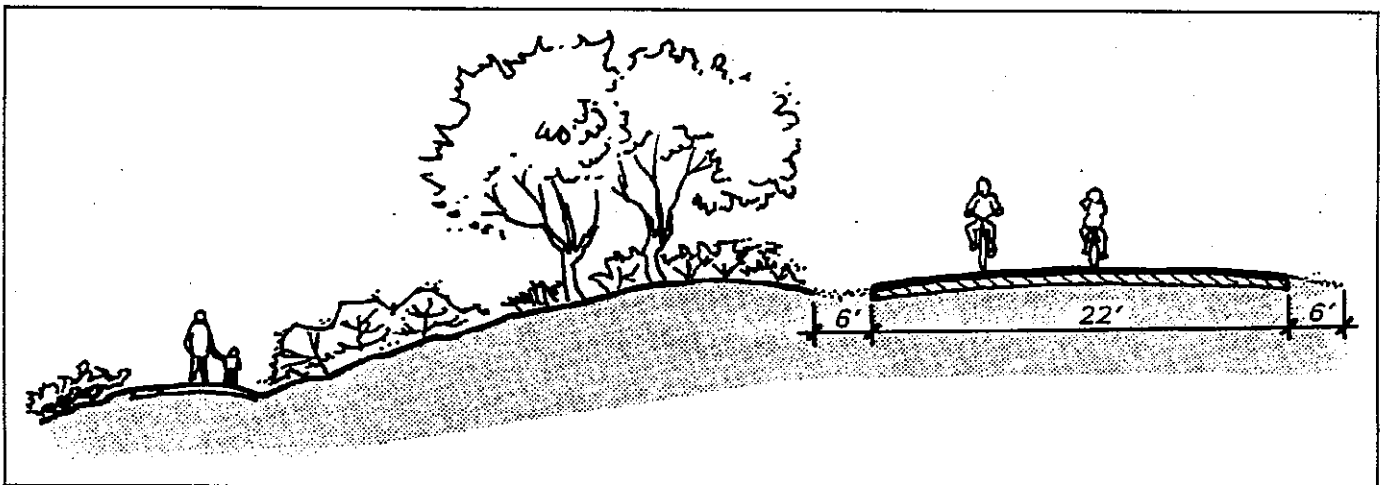
Martin Goodman Trail east/west connections and out to the Lighthouse.

Design Quality:

- enhance aesthetic aspects and relate the paths to lookout points, Visitor Centre Area, Lighthouse and Environmental Education/ Shelter/Washrooms.
- closely relate path to planting features and grading/drainage design.
- separate path right-of-way utilizing existing park service road from pedestrian trails.
- Combine path with the park service road from the Environmental Education/Shelter/Washrooms to the Lighthouse Point.

Engineering Requirement:

- pavement width - 3.65 m (12 feet).
- no shoulders or curbs.
- natural run-off and swales.
- low speed design.
- pavement surface - asphalt.
- no lighting.
- proper safety and identification signage.



◆ Pedestrian Trails

● Primary Trails

Location:

From park entrance and east/west connections to the Lighthouse Point.

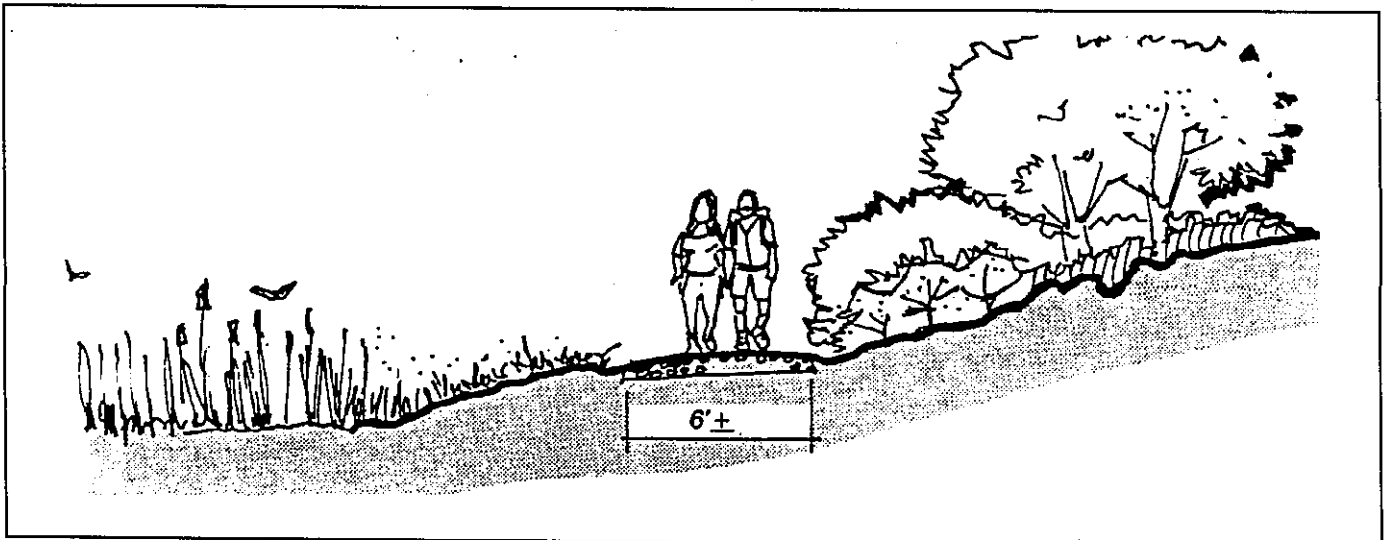
Characteristics:

Design Quality:

- emphasize visual/aesthetic experiences.
- relate to interpretive zones.
- curvilinear alignment.
- variety of spatial - distance relationships.
- avoid uniform slopes and feather all grades with existing landscape.
- relate to sitting, overlook areas and rest room facilities.
- maintain handicapped accessibility.
- closely relate paths to plantings, grading, and drainage design.
- separate trail right-of-way from bicycle paths and vehicular roads.
- prohibit bicycles.

Engineering Requirements:

- pavement width - 1.8 m (6 feet) on average.
- no shoulders or curbs.
- natural run-off and swales.
- variable alignments and grades.
- no lighting.
- water safety stands at critical locations.
- pavement surface - compacted crushed stone and limestone fines.



- Secondary Trails

Location:

All trails in the natural resource area that link into the primary trail.

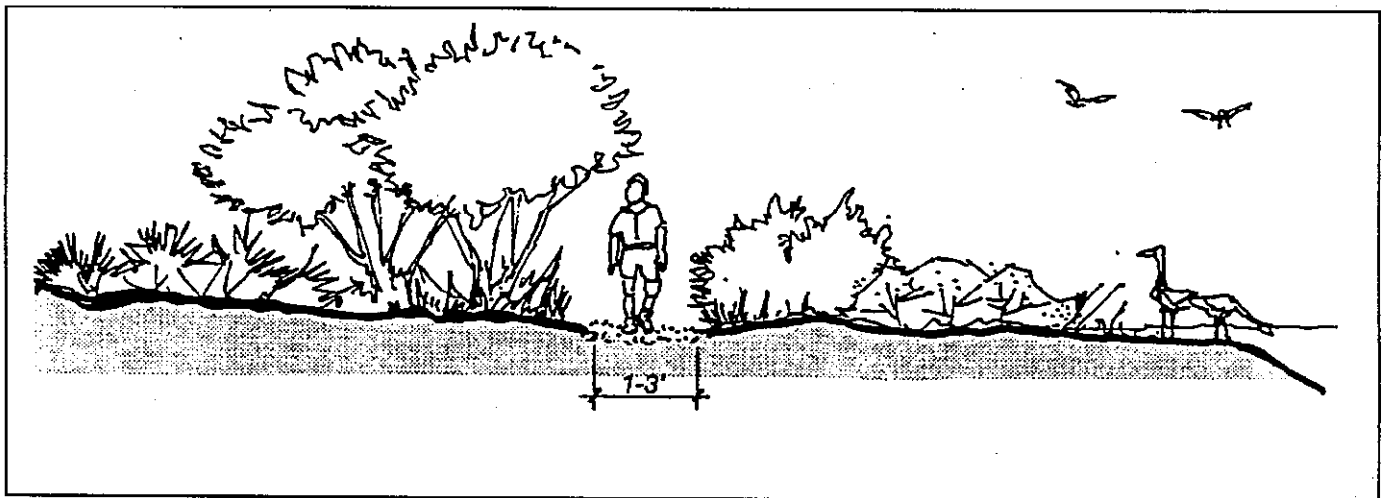
Characteristics:

Design Quality:

- parklike, intimate, variable widths and alignments which are dependent on natural resource features.
- emphasize visual, aesthetic and interpretive experiences.
- relate to the interpretive/educational program.
- variety of spatial - distance relationships.
- blends into natural landscape.
- relate to sitting and overlook areas.
- accessibility may be controlled depending on resource zone requirement (i.e. bird nesting).
- not necessarily accessible to the handicapped.
- prohibit bicycles.

Engineering Requirements:

- trail width - 30 cm - 90 cm (1 foot to 3 feet) variable.
- natural run-off and swales.
- variable alignments.
- no lighting.
- pavement surface woodchips, crushed stone, or native material.



Natural Resource Zone

The following categories are meant to provide conceptual images of the design intent inherent in the Revised Master Plan. These principles should be included during the detailed design development stage to guide the process.

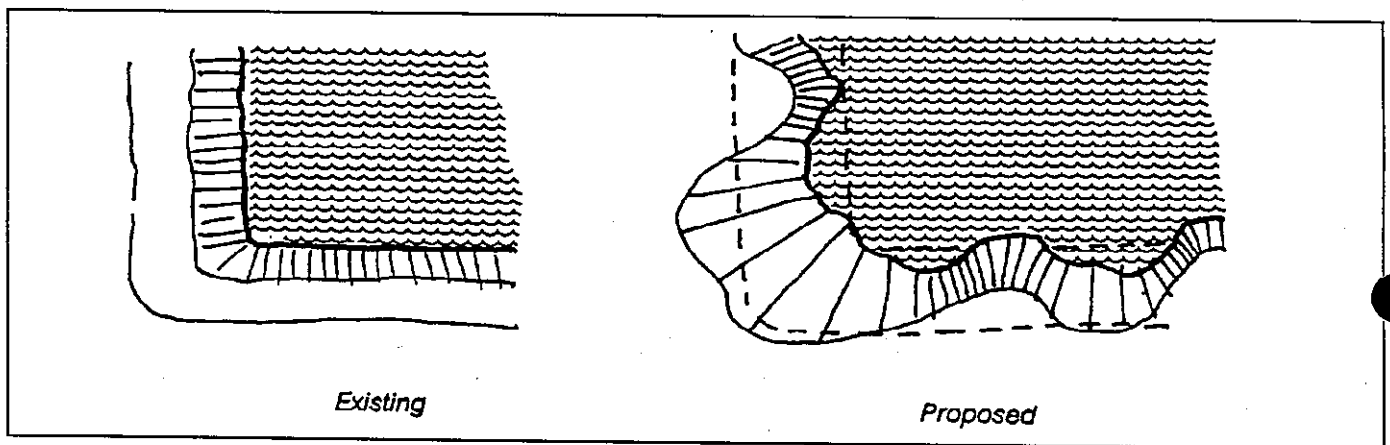
Water Edges

Purpose:

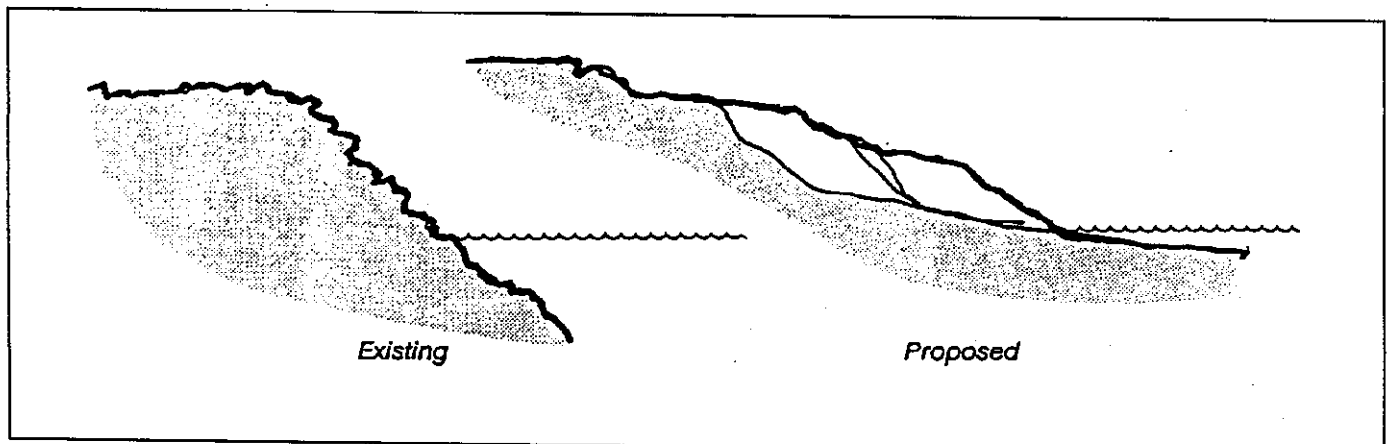
To create a variety of plant and animal habitat conditions and enhance the aesthetic qualities of the landscape.

Principles:

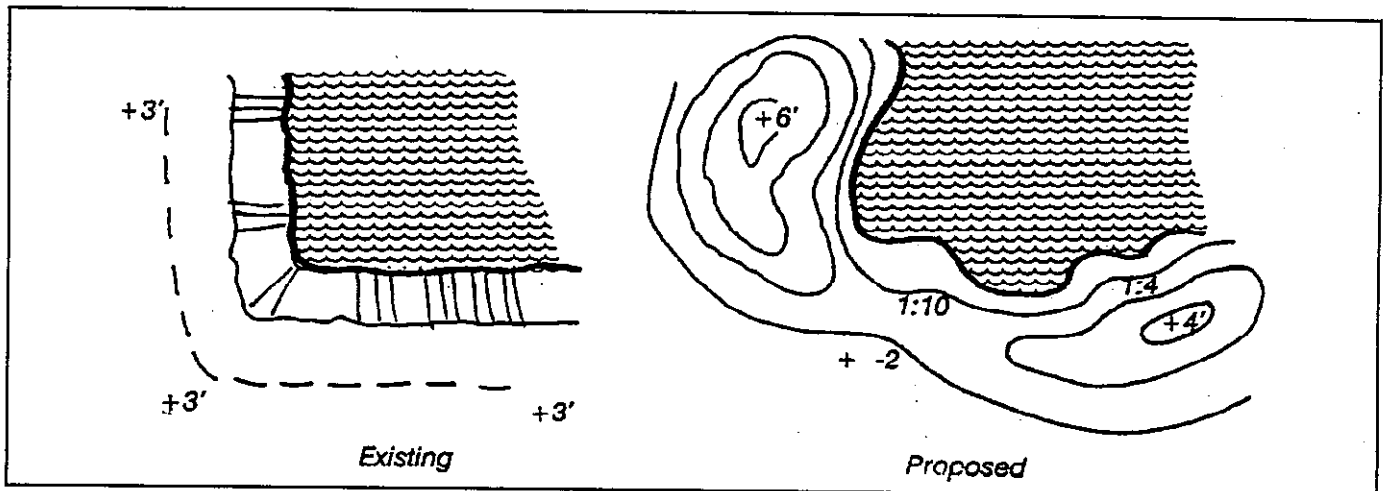
1. Eliminate straight embankment conditions and create banks of variable widths. Modify all embayment and lagoon areas where this condition exists.



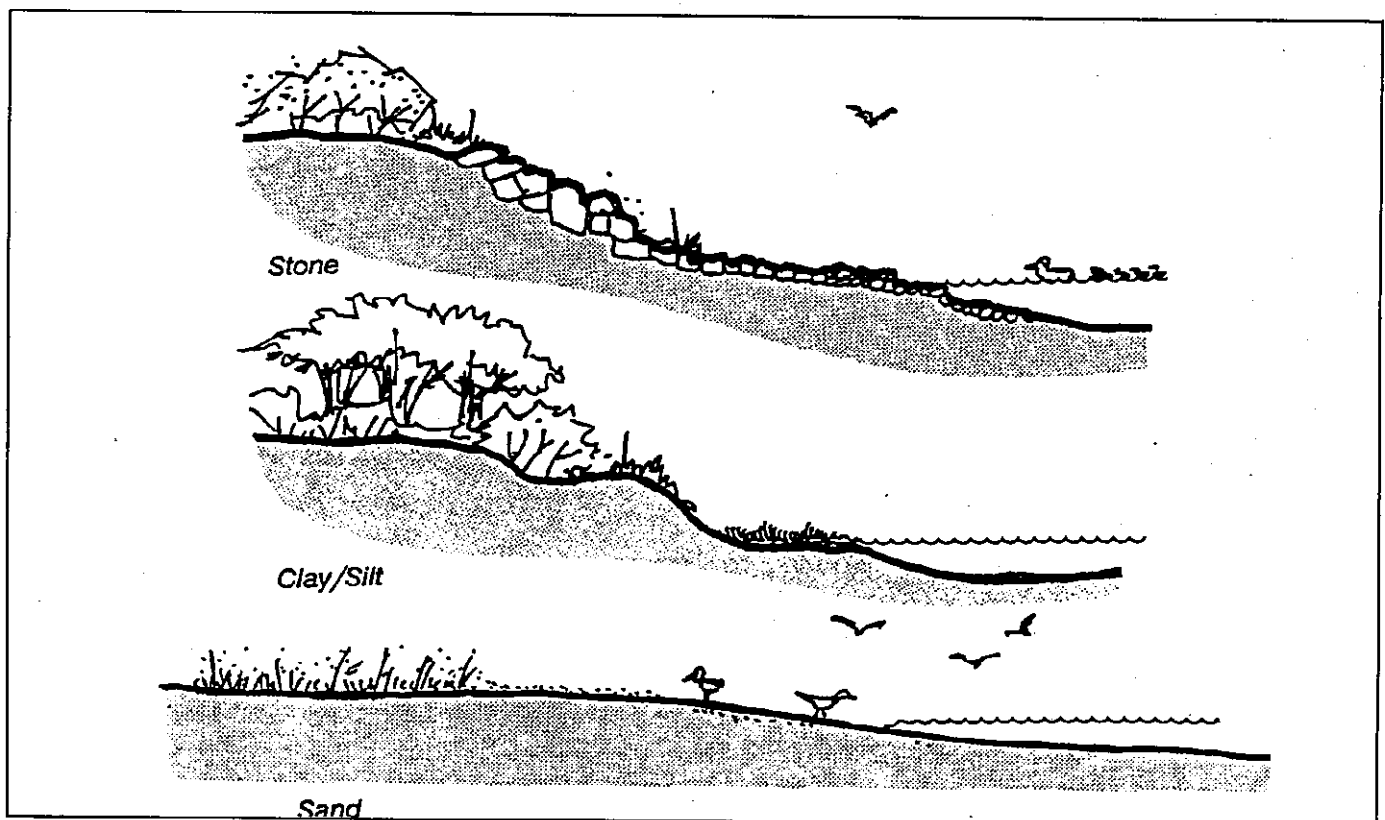
2. Create or maintain variable slope conditions from 1:3 to 1:12 or less.



3. Modify land elevations to create high and low points around the embayment and lagoon perimeters.



4. Create or maintain a variety of edge conditions including sand, clay, and stone areas.



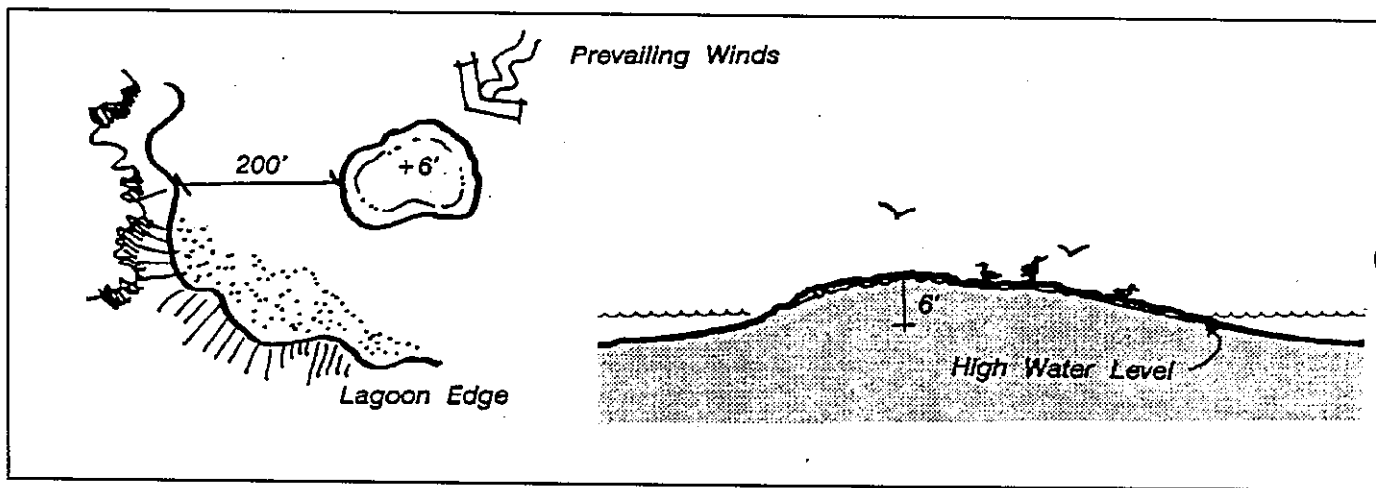
Islands

Purpose:

To create common tern and other bird and fish habitats.

Principles:

1. Vary size from .40 to 2.02 hectares (1 - 5 acres) with an irregular shoreline.
2. Maintain 60 m (200 feet) distance from nearest embayment shoreline.
3. Vary height of islands from a minimum of 1 m (3 feet) above the high water level to 1.8 m (6 feet).
4. Maintain slopes between a 1:4 to 1:10 range.
5. Surface the islands with a sand/fine granular stone material.
6. Vary water depth and contour conditions around the islands.
7. Maintain exposure to prevailing winds.
8. Control vegetation growth to retain stoney surface.



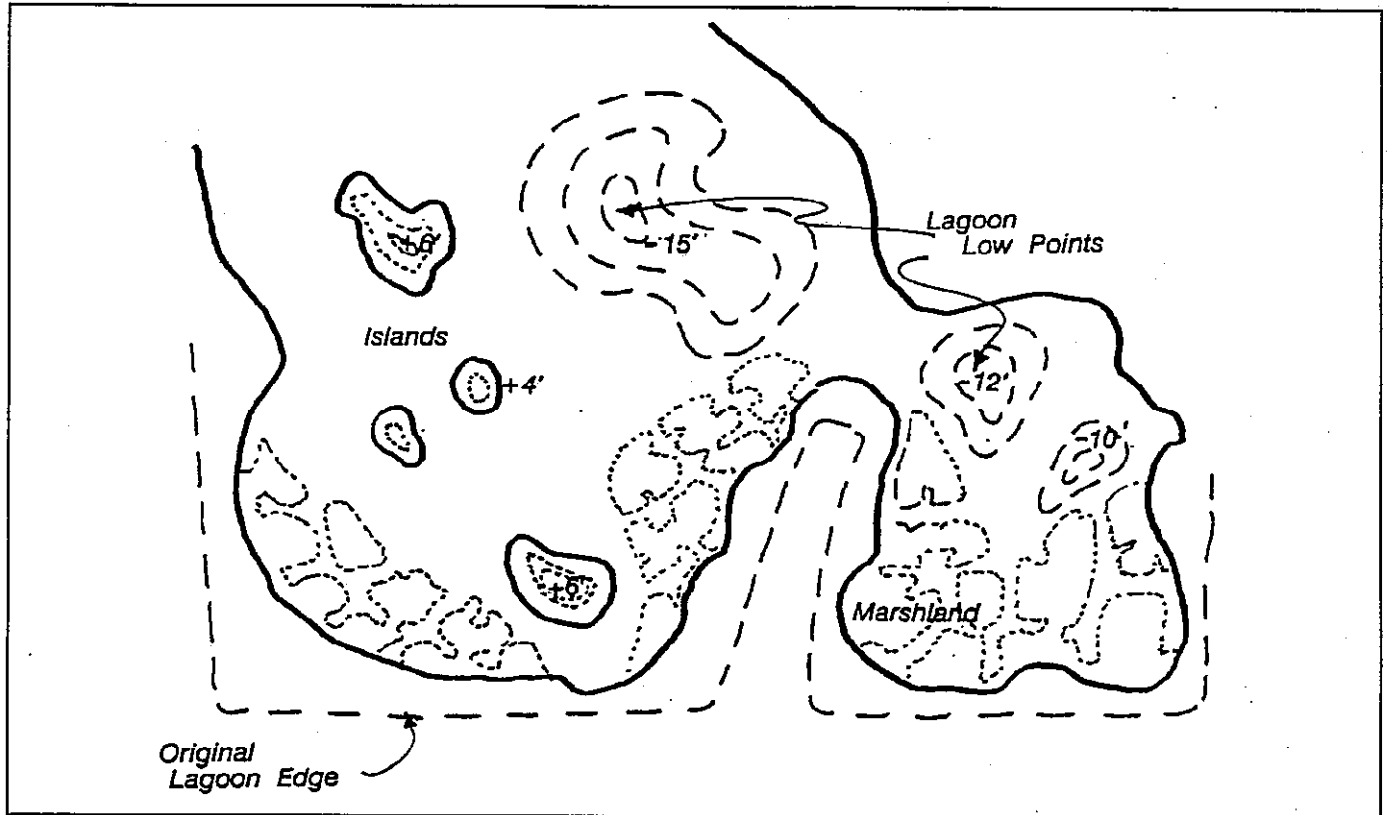
Lagoons

Purpose:

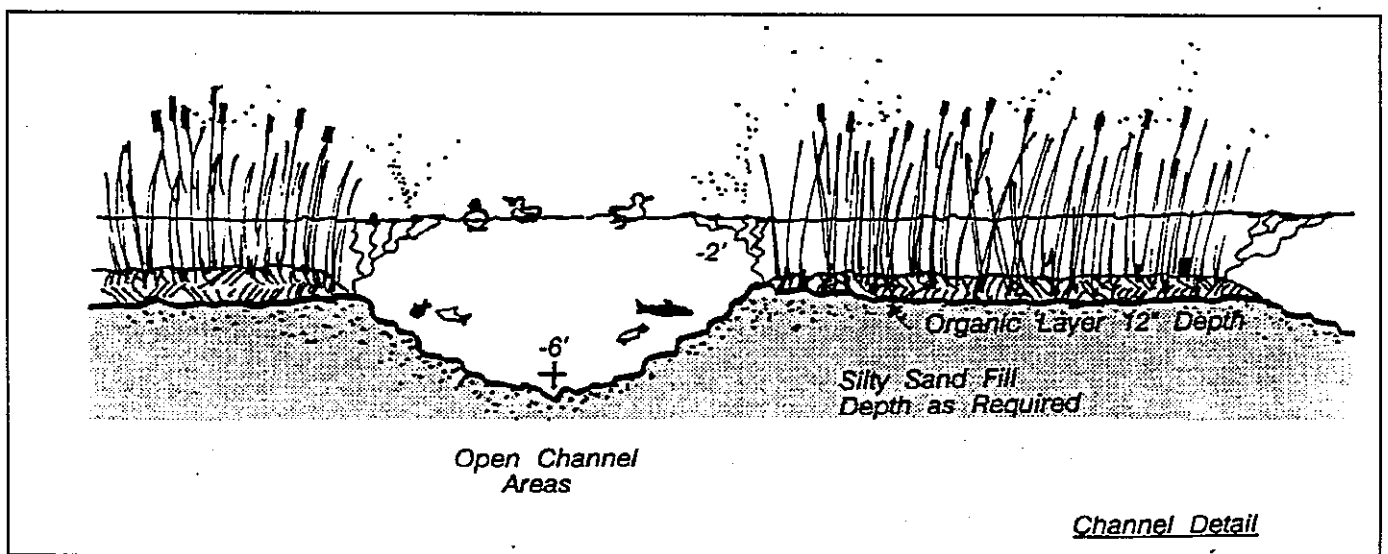
1. To encourage fish reproduction and sustain fish life by creating and/or protecting natural habitats.
2. To create marshlands.
3. To deposit and seal dredgeate material.

Principles:

1. To provide a variety of water depths up to 4.5 m (15 feet).
2. To sustain and/or improve water circulation.
3. To create a variety of bio-physical conditions for different types of plant and animal life.



4. Encourage diversity of birds, mammals, and fish.



5. Locate proposed marshlands at the easterly edges of the lagoons to optimize seed collection and dispersal.
6. Maintain at least a 50:50 balance of open water to vegetated area.
7. Develop open water channels and/or create vegetated islands to enhance bird nesting and habitat opportunities.

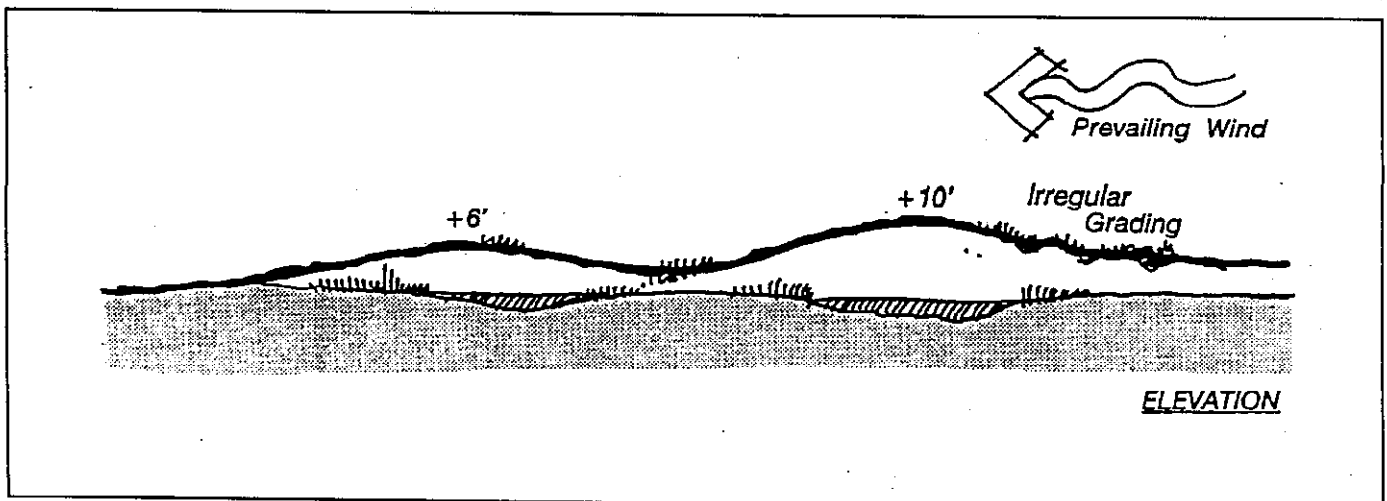
Landform, Grading and Drainage

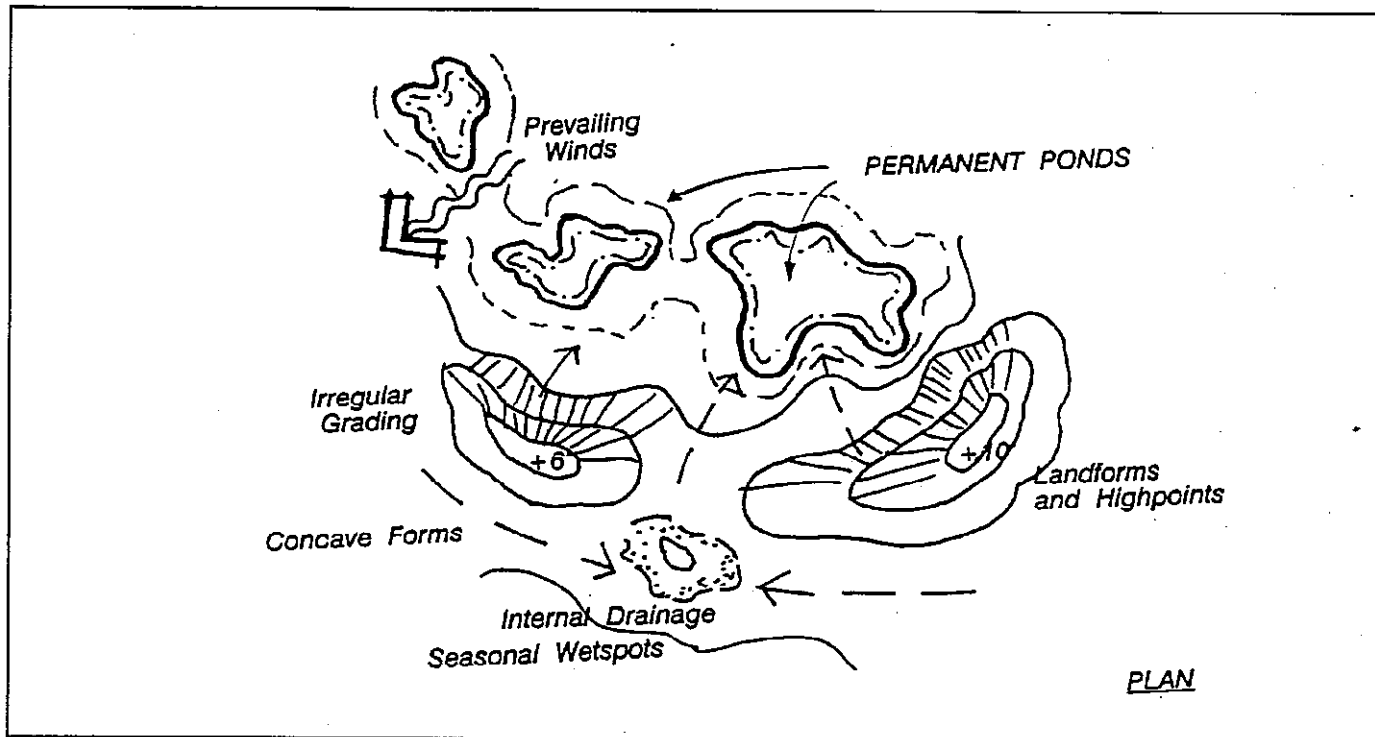
Purpose:

To create a landscape base structure which will allow for a variety of plant and animal communities to evolve with their unique aesthetic qualities.

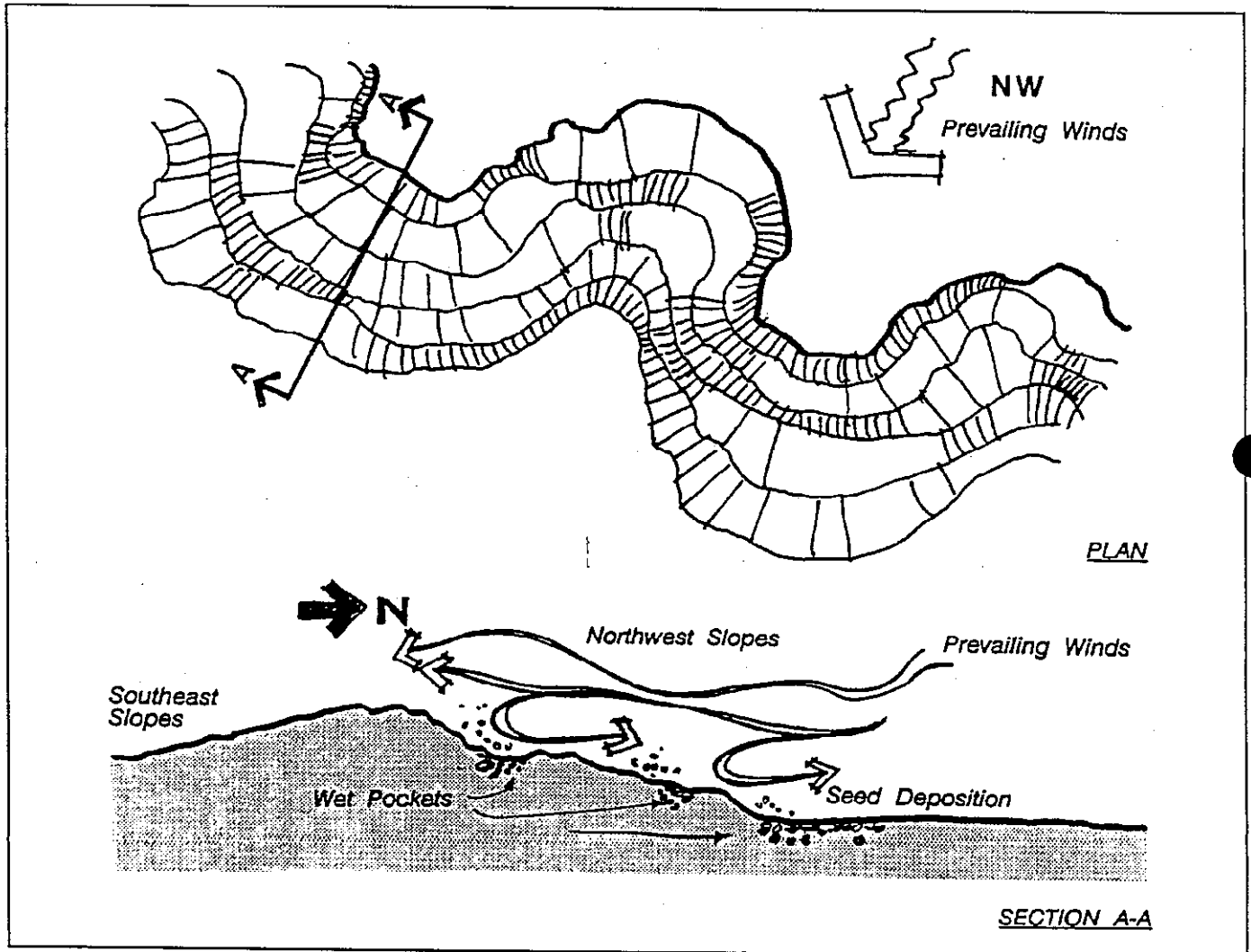
Principles:

1. Pre-plan a series of high and low elevations for ecological and aesthetic reasons.
2. Provide for a variety of micro-climatic conditions considering prevailing winds, solar exposure, and orientation.
3. Landform height should be varied in an aesthetically pleasing way and allow for visitor vantage points. Concave forms should be oriented to prevailing winds.
4. Slopes should have gradual transitions to create a continuous flow of space. Avoid 1:1 slopes and right angle corners.
5. Grading should provide for areas that are imperfectly drained to create localized wet conditions.
6. A series of ponds are required to provide greater habitat and species diversity. Their banks and edges should be variable to create a naturalistic feeling. Pond depths can vary from .6 - 2.5 m (2 - 8 feet) (.6 - 2.5 m). Surface drainage should be directed to the ponds to assist in their water recharge.
7. Soils imported to the site to construct the landforms can vary in quality, but should be capable of sustaining a variety of plant materials.





8. Slopes should vary depending on solar and wind orientation to obtain a variety of site moisture and exposure conditions. Northern and western slopes can be steeper to hold moisture and create wind traps to collect air borne seeds. Concave forms oriented toward the prevailing breezes would assist in collecting seeds. Southern and eastern slopes should have more gradual gradients to allow feathered transition to be made with surrounding land and water environments.



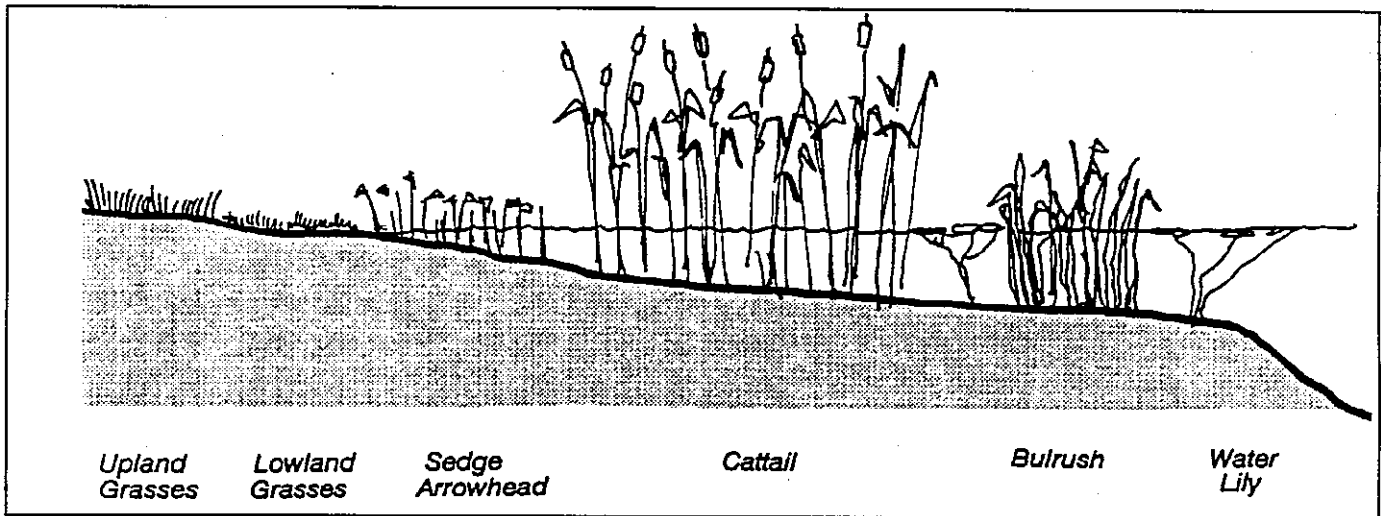
Marshlands

Purpose:

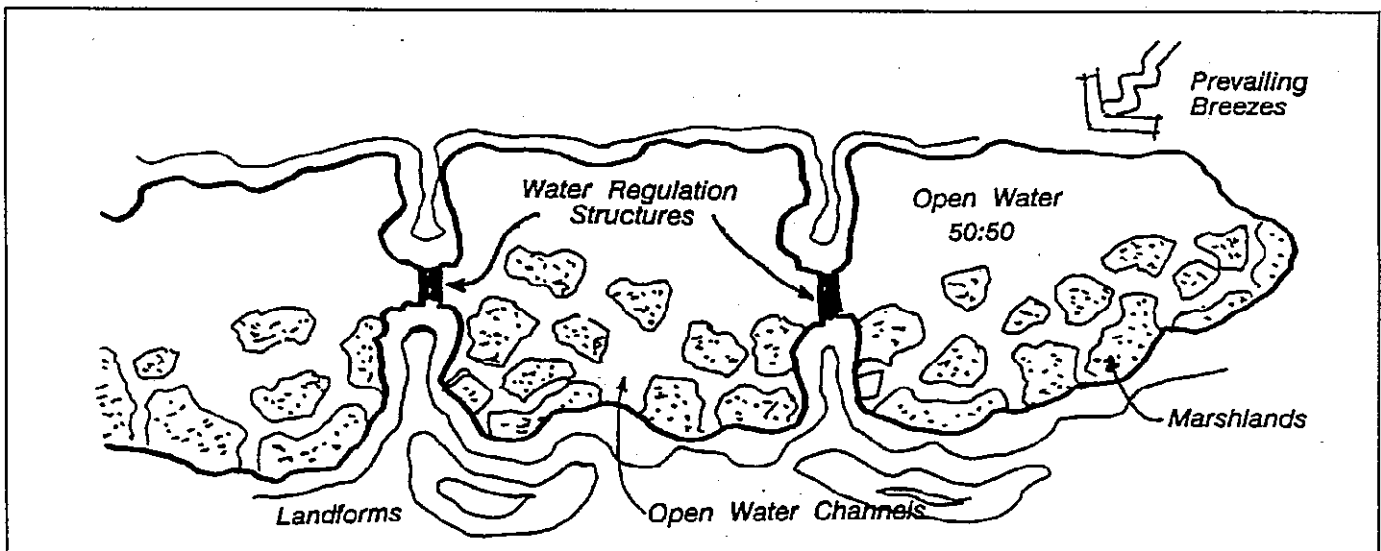
To create marshlands in the lagoon areas.

Principles:

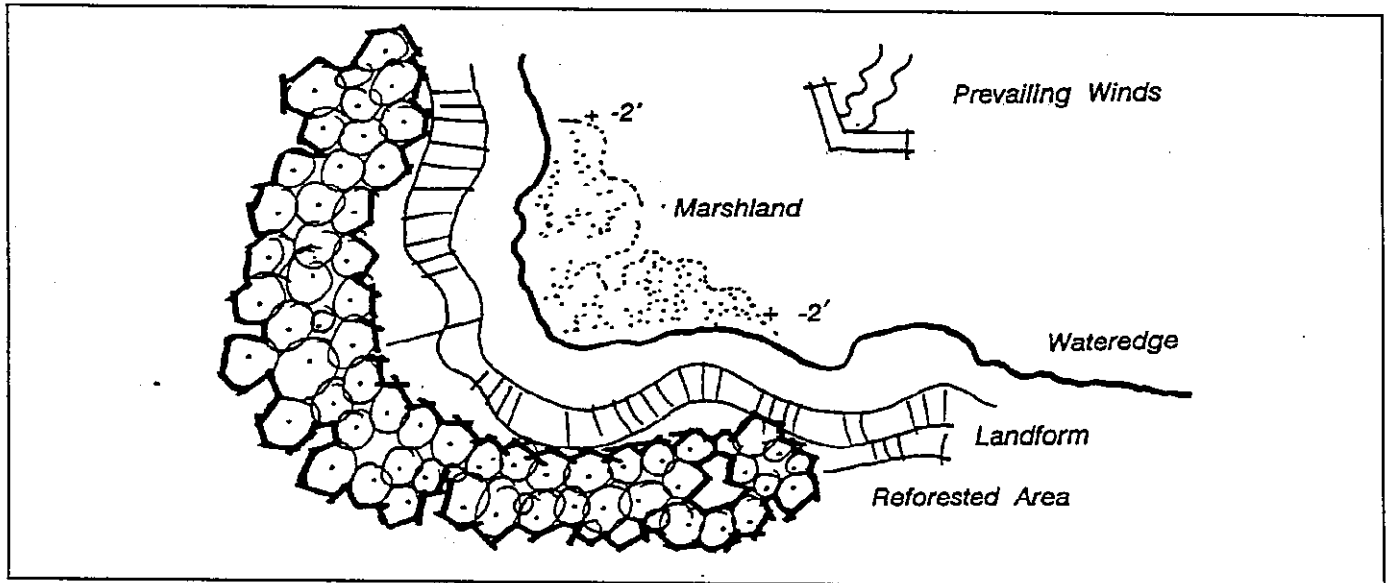
1. Create a system of shallow water areas ranging from 15 - 60 cm (6 - 24 inches).



2. Provide water level regulation capability where possible.



3. Plant lowland grasses, sedges, cattails, bulrushes, and submergents.



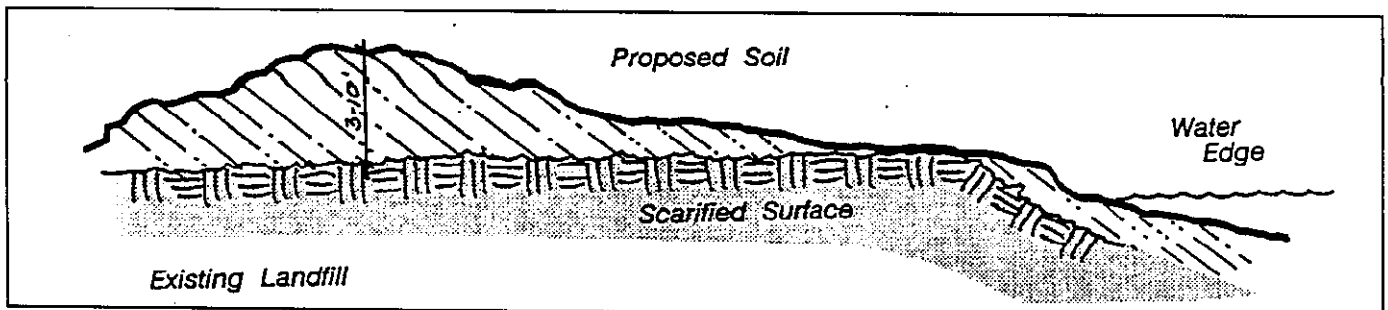
Woodlands

Purpose:

To re-establish forest cover in the newly created land areas, in existing land areas highly exposed to wind, in areas adjacent to existing trees, and in locations where the physical mass of trees is cleared for aesthetic reasons.

Principles:

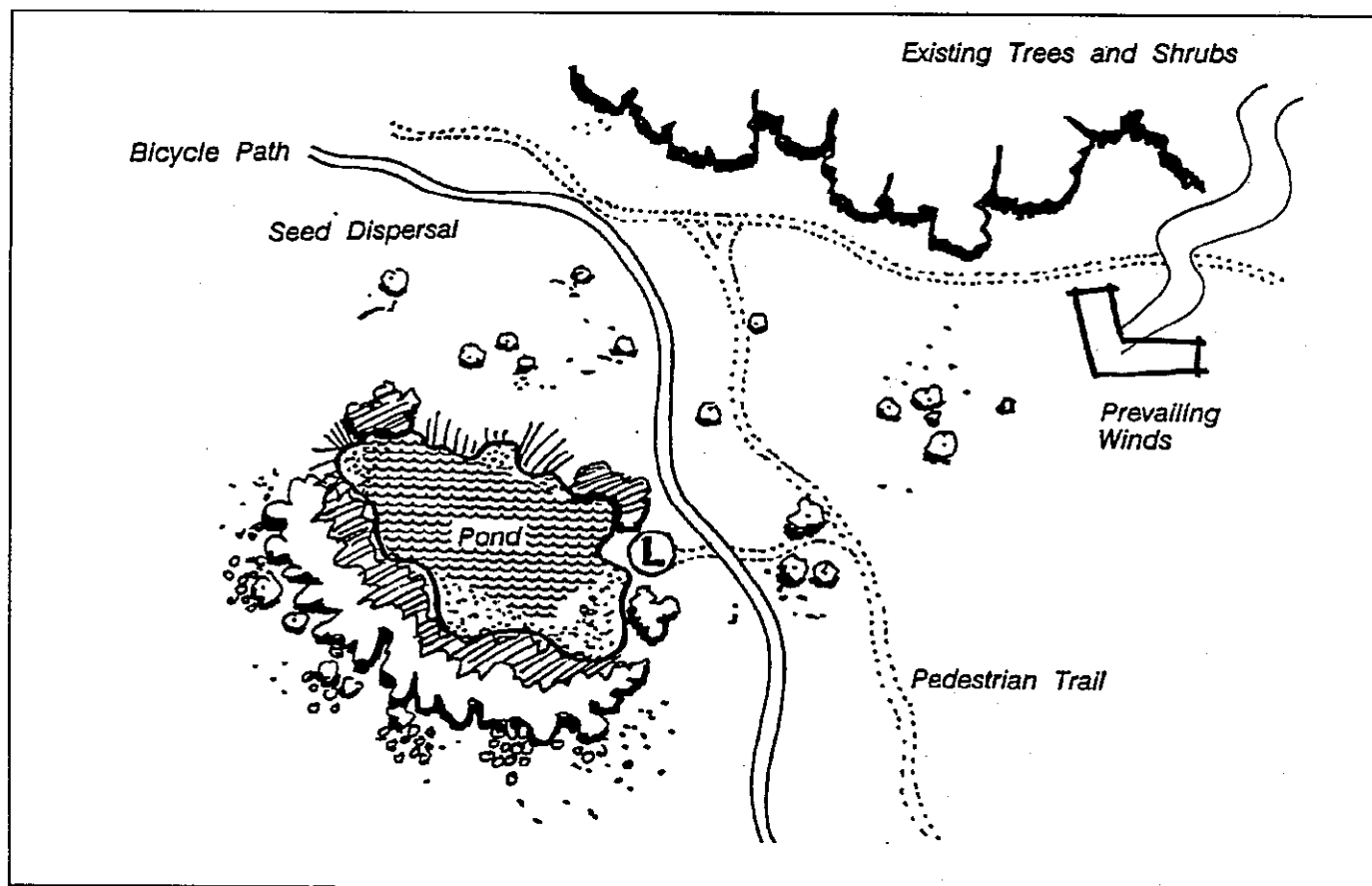
1. Create a soil substrate capable of supporting tree growth by adding appropriate soils to the landfill base.
2. Add soil to desired plan locations and to the depths (approximately .9 - 3 m) (3 - 10 feet) necessary to allow optimal root development.



3. Allow for natural plant succession in the implementation and management of the treed areas.

Lagoon and pond edge planting implies that appropriate tree and shrub species be established after the lagoon edges have been re-formed and the ponds created. Plantings would generally be limited to the edges and associated tributary swales using 2.5 cm (1 inch) whips and/or cuttings.

Open field succession planting is a technique which can be used for those newly created areas adjacent to the existing vegetation where there is an abundant seed source. Initial planting would consist of native grasses and wildflowers with the tree and shrub succession taking place over time.



5.10 Environmental Enhancement, Impact, and Mitigative Measures

This section provides a summary of the environmental enhancement or benefits of the Revised Master Plan and impacts including mitigative measures.

- The main thrust of the Revised Master Plan is to provide for environmental benefits to the existing vegetative community (cottonwood/aspen/willow) through the achievement of new community types (eg. palustrine, marsh, lake/island, shoreline/pond, wet meadow).
- To achieve the environmental benefits of the Revised Master Plan, it is recommended that "management plans" be prepared by the Authority incorporating the "design guidelines" in Section 5.9.
- Cells 2 and 3 are currently being used for dredgeate disposal from the Keating Channel with a "monitoring program" in place in accordance with the Keating Channel Environmental Assessment approval. The results of this monitoring program will provide the basis for "capping" of the cell areas proposed for marsh/wetlands habitat. The final capping design will restrict the biological uptake and mobility of contaminants from the dredgeate. The Authority approved the "Capping Proposal for Cell 1 at Tommy Thompson Park" at its Meeting #4/91 held June 14, 1991 and has submitted it to the Regional Director, Ministry of the Environment for approval.
- The Authority's study by the National Water Research Institute (Environment Canada) on the surficial soils at 25 locations with Tommy Thompson Park, indicated that the surficial soil at the base has levels of Lead and Cadmium beyond the Restricted Land Use Guidelines. The recommendation is to cap the base and neck of Tommy Thompson Park with a minimum of 30 cm of clean soil. The recommended depth of the cap is based on current practices for clean-up, lakefilling, and dredging activities in the province. The remedial measure will ensure public safety in accessing Tommy Thompson Park.
- Public use of the site is encouraged through the Revised Master Plan with the on-going monitoring and control to minimize the public's intrusion into significant nesting areas and maintain a user level consistent with the sites carrying capacity and future ecological diversity and health. The major control point in the park will be the Park Visitor Centre. A park transportation system, depending on demand, costs and subject to the approval of the operating agency - Metropolitan Toronto Parks and Property Department, would assist in greater public accessibility and mitigate human impacts on the environment.
- Design of pedestrian and cycling paths, in accordance with the design guidelines and future management plans, to promote user safety and increase user enjoyment of the site.
- In implementing the Revised Master Plan, the Authority will explore the extension of the public transit system to the Park Visitors Centre to improve regional access.

- The Authority will be implementing a Revised Master Plan for what is basically a construction site. The Authority will undertake a program of debris and materials (eg. concrete reinforcing rods) clean-up which represent a risk to public safety.
- Implementation of the Revised Master Plan will not occur prior to the completion of the final configuration by the Toronto Harbour Commissioners. The Authority will ensure that public safety is maintained with approvals from the Toronto Harbour Commissioners and the appropriate provincial ministries. The Authority will also be pursuing resolution of ownership of the remaining area currently under lease to the Toronto Harbour Commissioners from the Ministry of Natural Resources.