Authority: Planning and Transportation Committee Report No. 5, Clause No. 1,

adopted as amended, by City of Toronto Council on April 14, 15 and 16, 2003

Enacted by Council: April 16, 2003

## CITY OF TORONTO

#### BY-LAW No. 346-2003

# To amend the Official Plan for the former City of Toronto with respect to the Central Waterfront.

WHEREAS the Council of the City of Toronto has proposed an amendment to the Official Plan for the former City of Toronto pursuant to Section 17 of the *Planning Act*, R.S.O. 1990, c.P. 13, as amended, respecting the Central Waterfront area; and

WHEREAS the Planning and Transportation Committee of the City of Toronto conducted a public meeting on December 12, 2002 and continued on January 13, 2003 and on April 4, 2003 under Section 17 of the *Planning Act* regarding the Official Plan Amendment; and

WHEREAS the Council of the City of Toronto, at its meeting held on April 14, 15 and 16, 2003, determined to amend the Official Plan for the former City of Toronto and the new Official Plan for the City of Toronto adopted by By-law No. 1082-2002;

The Council of the City of Toronto HEREBY ENACTS as follows:

- 1. The text and maps annexed hereto as Schedule "A" are hereby adopted as an amendment to Part II of the Official Plan for the former City of Toronto and shall form a new Section 19.51.
- **2.** This is Official Plan Amendment No. 257.

ENACTED AND PASSED this 16th day of April, A.D. 2003.

CASE OOTES, Deputy Mayor ULLI S. WATKISS City Clerk

(Corporate Seal)

## **SCHEDULE "A"**

## SECTION ONE: CORE PRINCIPLES

Waterfront renewal will not be treated as a specific project with a defined finishing point. Rather, it will be managed as an ongoing, phased effort, part of the much larger city-wide context, that will carry on over decades. The principles of this Plan will act as a framework for the renewal activities and will be as valid 30 years from now as they are today.

The Central Waterfront Plan is built on four core principles. These are:

- A. Removing Barriers/Making Connections
- B. Building a Network of Spectacular Waterfront Parks and Public Spaces
- C. Promoting a Clean and Green Environment
- D. Creating Dynamic and Diverse New Communities

The Plan expands on these core principles. Each principle is divided into two parts: the "Big Moves" that will define the new Central Waterfront and the "Policies" that will bring the vision to life.

In describing the planning framework for the Central Waterfront, words such as "will" and "must" are used in the Plan. It is recognized that the implementation of this Plan will take place over time and the use of these words should not be construed as Council's commitment to proceed with all of these undertakings immediately. This will be done in a phased manner, subject to budgeting and program availability and the active participation of other stakeholders and all levels of government.

## A) REMOVING BARRIERS/MAKING CONNECTIONS

If waterfront renewal is to be truly successful, the waterfront will have to feel like and function as part of the city fabric. The first principle of the Plan is to remove barriers and reconnect the city with Lake Ontario and the lake with the city. This is the key to unlocking the unrealized potential of Toronto's waterfront. The new connections will be north/south and east/west. They are functional, thematic and symbolic in nature. The following "Big Moves" will support the removal of barriers and the creation of new connections across the Central Waterfront:

## A1 REDESIGNING THE GARDINER CORRIDOR

The elevated Gardiner Expressway is a major physical barrier that cuts off the city from the waterfront. To ensure the success of a redesigned Gardiner Corridor, funding for major improvements to the road system and GO Transit/TTC services including Union Station must be in place. The final configuration of the Gardiner/Lake Shore Corridor will depend on the outcome of detailed study.

#### A2 A NEW WATERFRONT TRANSIT NETWORK

Public transit will be a top priority for connecting people and places to and within the renewed waterfront. An extended Waterfront Light Rapid Transit line will stretch across the Central Waterfront from Exhibition Place to the Port Lands with excellent connections into the city as generally illustrated on Map B. Expanding GO Transit rail services and upgrading Union Station will be critical elements of the new waterfront transit plan.

## A3 LAKE SHORE BOULEVARD, AN URBAN WATERFRONT AVENUE

Lake Shore Boulevard will be transformed into an urban avenue through the Central Waterfront to accommodate its function as an arterial road. The new boulevard will be generously landscaped; will maximize the opportunities for pedestrian crossings through frequent intersections with streets connecting into the downtown core; and will provide ample room for commuter cycling and pedestrians.

## A4 QUEENS QUAY, TORONTO'S WATER VIEW DRIVE

Queens Quay will become a scenic water view drive and an important component of the Toronto street network from Bathurst Street to Cherry Street providing ready access to the public activities on the waterfront and pedestrian connections to the water's edge. It will be designed to meet the diverse needs of motorists, transit users, cyclists and pedestrians as well as providing opportunities for vistas to the harbour and lake.

#### A5 COMPLETING THE WATERFRONT TRAIL

The Martin Goodman/Waterfront Trail will be completed through the Central Waterfront and connected to the city-wide trail or pathway system, including the Garrison Creek, Humber Valley and Don Valley trails as generally illustrated on Map C. Upgrades to various parts of the trails or pathways will ensure a high standard throughout. Floating boardwalks may provide public access along the head of slips and water's edge in areas where access cannot be achieved in other ways.

## A6 WATERFRONT CULTURAL AND HERITAGE CORRIDORS

Key cultural and heritage corridors will link the assets of the city with the water's edge. Central Waterfront corridors extend north/south and east/west to form a waterfront cultural grid. Each of these corridors has a unique identity that will be promoted and reinforced.

## **POLICIES**

(P1) The redesign of the Gardiner Expressway Corridor with a modified road network is one of the most important ingredients in revitalizing the Central Waterfront. Modifications to the road and transit infrastructure outside this corridor will be required to ensure the success of any expressway redesign. These modifications will have to be identified and substantially in place prior to reconfiguring the corridor.

- (P2) Required rights-of-way to accommodate the proposed waterfront road and transit network over time appear on Schedule A of this Plan. The rights-of-way will be sufficient to accommodate travel lanes, transit, pedestrian and cycling requirements as well as landscaping and other urban design elements. The exact location of road alignments will be refined through further detailed study.
- (P3) Union Station will be redeveloped to maximize its capacity as a transportation centre and restore its historic grandeur. The rail corridors will be upgraded to provide more GO Transit rail service and a possible rail link to Pearson Airport. As a separate, but related project, Union Subway Station will be enlarged by adding a new platform.
- (P4) New streetcar and some bus routes will operate in exclusive rights-of-way on existing and proposed streets to ensure efficient transit movement.
- (P5) Waterfront streets will be remade as "places" with distinct identities. Streets will act as lively urban connections as well as traffic arteries. The needs of motorists will be balanced with efficient transit service and high-quality amenities for pedestrians and cyclists.
- (P6) A water-based transportation system utilizing water taxis and ferries will become another way of moving people from one end of the waterfront to the other. The Ferry Docks will be revitalized as the hub of water-based transportation activities.
- (P7) Physical connections between the Central Waterfront, the downtown core and adjacent neighbourhoods will be enhanced through high-quality urban design and landscaping on the north/south connector streets.
- (P8) Railway underpasses will be transformed into more pedestrian-friendly corridors.
- (P9) Streets that extend to the water's edge will create opportunities to see the lake from the city and the city from the lake. The design of buildings and public and private spaces that frame these streets will be of high architectural quality and take advantage of these views. New streets will be laid out to reinforce visual connections between the city and the water. Among these, Basin Street would be extended with minor modification to its current alignment, as the main street of the new Port Lands community from the eastern side of the inner harbour to the turning basin.

# B) BUILDING A NETWORK OF SPECTACULAR WATERFRONT PARKS AND PUBLIC SPACES

The second principle of the Plan recognizes the significance of the public realm in transforming the Central Waterfront into a destination for international tourism, national celebration and local enjoyment. The Plan promotes the remaking of the Central Waterfront as a special place imbued with spectacular waterfront parks and plazas and inviting natural settings that pleases the eye and captures the spirit. The following "Big Moves" will help transform the Central Waterfront into an area renowned for its outstanding waterfront parks and public spaces (see Map C):

#### B7 RESERVING THE WATER'S EDGE FOR PUBLIC USE

As renewal takes place, a continuous and highly accessible public water's edge promenade will connect a series of parks, open spaces, squares and plazas, at times intimate and at times generous, which are linked back to the city along existing and extended street corridors. The public promenade will be of varying width and design such that a variety of primarily pedestrian activities can be accommodated and be integrated with a range of parks and public spaces which would allow for outdoor cafes, areas of respite, play areas, public art, gatherings and celebrations. Key objectives in designing the public water's edge promenade will include: the creation of a diversity of spaces in scale, form and character, that respond to their distinct context; the creation of accessible and marvelous places designed to encourage year round use and the creation of a remarkable public realm. This band of public space will be reserved as an amenity and legacy for future generations. To this end, the Plan designates a series of Inner Harbour Special Places.

## B8 FOOT OF YONGE – SPECIAL STUDY AREA

The foot of Yonge Street should be treated as a special place on the waterfront, as the place where Yonge Street meets the lake, and be designed to include major public amenities of high quality containing distinctive cultural buildings, appropriate tourist facilities and a range of public uses and other development that will contribute to the special nature of this area. A dramatic new pier should be built at the foot of Toronto's historic main street, recognizing and celebrating this area as the centre of Toronto's waterfront. The Yonge Street Slip, a new public plaza and the pier will draw residents, tourists, boaters and cruise ships to the Central Waterfront and become a waterfront icon, visible from both land and water. This distinctive gateway to the city will accommodate a major cultural, entertainment and tourist destination, possibly including ancillary hotel uses. Further detailed study will be required as a special study at the precinct implementation stage to review the lands available and the relationship between the proposed uses.

## B9 HARBOURFRONT CENTRE, AN EVEN STRONGER DRAW

Harbourfront Centre will continue to be recognized as an area for the arts, education, recreation and entertainment in a magnificent waterfront setting. New public squares will be created between Queens Quay Terminal and York Quay Centre removing surface parking lots and replacing them with underground parking. The public water's edge will be improved and expanded. New year-round pavilion structures will be introduced in a number of locations expanding the range of cultural and commercial uses. An integrated nautical centre for marine activities may be established.

#### B10 CREATING NEW EAST BAYFRONT PARKS AND PUBLIC SPACES

A bold new system of connected waterfront parks and public spaces will be developed, reflecting the industrial heritage and dockwall legacy of the area and anticipating its extraordinary future. Public spaces at the foot of Jarvis, Sherbourne and Parliament Streets will include both intimate and active public plazas, designed to preserve views towards the lake. The reuse of the existing Marine Terminal buildings should be investigated as a link to the industrial heritage of the area.

## B11 THE DON GREENWAY, A NATURAL HERITAGE CORRIDOR

A new green, Natural Heritage corridor will be created in the centre of the Port Lands, functioning as an important open space connection linking the Don Valley, Tommy Thompson Park and Lake Ontario. The corridor will be a key component of the Centre for Creativity and Innovation offering a unique amenity attractive to knowledge-based industries of all types. In addition to providing local open space and subject to its Natural Heritage designation in the Official Plan, the corridor will be able to fulfill a variety of functions, including neighbourhood recreation, compatible community uses, multi-use pathways, a wildlife corridor and habitat, and a receptor for stormwater from adjacent communities.

#### B12 A NEW LAKE ONTARIO PARK

A new Lake Ontario Park will give Toronto a much enhanced continuous urban park system in the tradition of the city's great parks like High Park and Edwards Gardens. Extending from Clarke (Cherry) Beach to Balmy Beach, the new park will encompass a considerably improved North Shore Park, Tommy Thompson Park and the Base Lands, and will incorporate upgrades to the Martin Goodman/Waterfront Trail system in this area. Through judicious lakefilling, new parkland may be created south of the Ashbridges Bay Treatment Plant and on the shores of the Outer Harbour, subject to an environmental assessment and taking into consideration comments from interested parties, including the recreational boating community. The parks will be designed to serve the diverse recreational needs of the emerging waterfront communities. The lakefilling will help stabilize the Lake Ontario shoreline, reduce siltation and establish new aquatic and terrestrial habitats. The requirements of recreational boating will continue to be met within the new park system.

## B13 THE SHIP CHANNEL, A UNIQUE URBAN WATERFRONT AMENITY

The Ship Channel, which extends from the Inner Harbour to the east end of the Port Lands, will become a powerful focal point around which new mixed-use communities will be built. The needs of existing industries for dockwall space and use of the channel will be balanced with the opportunity to capitalize on the channel as a unique amenity. New north/south canals could expand the use of the channel for activities such as boating or skating.

## B14 A NEW FORT YORK PARK

A new park of national prominence (Fort York Park) will be created with a larger and more visible public space, thereby regaining the Fort's status as Toronto's most significant heritage resource. The new Fort York Park will be a national, regional and local draw for public events

and for the celebration of its military history central to the story of Toronto.

## B15 AN EXPANDED MARILYN BELL PARK

Almost three hectares will be added to Marilyn Bell Park by carefully consolidating the road network at the west end of Exhibition Place. This will allow the park to be redesigned and improved as a gateway to the waterfront. The expanded park will be much more accessible to South Parkdale residents as well as to visitors, workers and new residents at Exhibition Place.

## B16 ONTARIO PLACE, A WATERFRONT DESTINATION

Ontario Place will be woven into the waterfront park system with better access for the public to enjoy its facilities and paid attractions. A new trail system, with connections to the north, east and west, will bring pedestrians and cyclists to Ontario Place. With improved public access, Ontario Place will be reaffirmed as an important waterfront destination for major festivals and tourism events and for the celebration of innovative architecture and landscape design.

## B17 CANADA MALTING, A LANDMARK SITE AND SPECIAL PLACE

The Canada Malting Silos, a landmark and important heritage feature on the Central Waterfront, will be retained and improved. The City will pursue innovative proposals for a mix of public and private activities and uses that can successfully transform the silos building into a unique special place on the Toronto waterfront.

#### B18 COMMISSIONERS PARK. A MAJOR NEW OPEN SPACE

A major new park will be located between Cherry Street and the Don Roadway to the north of Commissioners Street to showcase urban park design and serve the needs of the new and existing neighbourhoods in the area. This park will stretch to the newly naturalized Mouth of the Don while providing both outdoor and indoor active recreation uses and complementing the newly created passive use and natural areas along the river. Smaller local parks will also be provided throughout the Port Lands. The precise configuration and function of the various parks will be determined after study of local and regional recreational needs and the preparation of a comprehensive open space framework for the Port Lands in the context of the larger Toronto Waterfront open space network.

#### **POLICIES**

## DEFINING THE PUBLIC REALM

- (P10) The design of the public realm will be of a standard of excellence characteristic of the great city waterfronts of the world.
- (P11) The public realm will be defined by a coherent framework of streets, parks, plazas, buildings, viewing areas, walkways, boardwalks, promenades, piers, bridges and other public infrastructure and open space elements. Its design will reflect its exceptional waterfront setting and integrate and interpret the rich natural and cultural heritage of

Toronto's waterfront, its industrial dockwall legacy, as well as including the historic Lake Ontario Shoreline, Taddle Creek and Garrison Creek alignments.

- (P12) Parks and plazas strategically located along the water's edge will become centres of public activity in effect, windows on the lake. The termination of each of the north-south streets within East Bayfront and other streets within the Port Lands, or on the Quays, adjacent to the early 20<sup>th</sup> Century dockwall, will be celebrated by the creation of a series of unique public places (Inner Harbour Special Places) to reflect their history and the character of the surrounding community. They will provide a focal point for their neighbourhood.
- (P13) A unifying approach to landscaping and wayfinding (e.g., signs, kiosks) that is evocative of the Central Waterfront will tie together its various components.
- (P14) There will be a coordinated Central Waterfront public art program for both public and private developments.

#### PARK DESIGN

- (P15) Parks in the Central Waterfront will be diverse, well maintained, animated and safe, accommodating a full range of recreational experiences from areas for active play, enjoyment of sports and entertainment to areas for quiet solitude and relaxation. These experiences will be provided in a comfortable setting during all seasons of the year.
- (P16) Public community, cultural and entertainment facilities will form part of the fabric of the waterfront park system. A limited number of private cultural, restaurant and entertainment facilities may also be located in the park system provided their associated open spaces remain publicly accessible.
- (P17) Sustainable management practices and design and construction techniques that have minimal environmental impacts and return the greatest ecological rewards will be utilized in waterfront parks.

## C) PROMOTING A CLEAN AND GREEN ENVIRONMENT

The third principle of the Plan is aimed at achieving a high level of environmental health in the Central Waterfront. A wide variety of environmental strategies will be employed to create sustainable waterfront communities. The following "Big Moves" will showcase the City's commitment to a clean and green waterfront that is safe and healthy and contributes to a better environment for the city as a whole:

## C19 PRIORITY FOR SUSTAINABLE MODES OF TRANSPORTATION

A sustainable transportation system that gives priority to transit, cycling, walking and water transport and reduces the need for car use will form the basis for transportation planning in the Central Waterfront. Future travel demand will be mainly met by non-auto means. Road capacity will be added only to meet local traffic needs.

#### C20 PROTECTING THE WEST DON LANDS FROM FLOODING

A flood protection berm will be built along the Don River to assist in eliminating flooding problems in the West Don Lands and surrounding neighbourhoods to the west. It will also provide naturalized open space and active parkland along its edge for use by the emerging West Don Lands communities and fulfill a crucial stormwater management function. The adjacent King-Parliament and St. Lawrence neighbourhoods will benefit from this increase in active parkland.

#### C21 RENATURALIZING THE MOUTH OF THE DON RIVER

The mouth of the Don River will be rerouted through lands south of the rail corridor. This will improve the ecological function of the river, provide flood protection for the Port Lands and East Bayfront and attract new wildlife to the area. The renaturalized mouth of the river will also become a key open space and recreational link to the Don Valley, West Don Lands, Port Lands and waterfront park system. This enhanced river setting will provide a gateway to the new urban communities in the Port Lands. Pedestrian and cyclist's bridges over the river mouth will be designed as signature entrances of beauty and inspiration.

#### **POLICIES**

- (P18) As part of the strategy to reduce car dependence and shape people's travel patterns early, a comprehensive range of efficient and competitive transportation alternatives will be provided in tandem with the development of new waterfront communities. These include a new transit system as generally illustrated on Map B, as well as pedestrian, cycling and water transportation opportunities as generally illustrated on Map D.
- (P19) New waterfront communities will offer opportunities to live and work close together, leading to fewer and shorter commuter trips.
- (P20) New traffic management approaches will be pursued to accommodate non-auto modes of transportation, make more efficient use of existing roads (i.e., "smart" technology) and discourage the use of single-occupant vehicles.
- (P21) Pedestrian and cycling routes will be safe, attractive, comfortable and generously landscaped.
- (P22) The health and biodiversity of the Central Waterfront will be enhanced and restored by protecting and regenerating wetlands, fish and wildlife habitats, rare plant and animal species, shorelines, beach areas, woodlots and lands designated "Natural Heritage Areas" (in the Official Plan) and "Natural Areas" (see Map C).
- (P23) Development will contribute to the improvement of water quality in Toronto's rivers and streams, as well as in Toronto Bay, the Outer Harbour and Lake Ontario.
- (P24) Stormwater will be managed as close to its source as possible.

- (P25) Combined sewer outfalls that discharge into Lake Ontario, Toronto Harbour and the Don River will be progressively reduced consistent with the City's environmental policies.
- (P26) The Central Waterfront will be a model of leading-edge environmental technologies. Alternative sources of generating electricity, including co-generation, anaerobic digestion, wind turbines and solar power, will be pursued as well as district heating and cooling.
- (P27) The Central Waterfront will showcase successful redevelopment of brownfield sites into sustainable residential and employment areas. Where applicable, remediation requirements will be balanced by the need to protect environmentally sensitive areas. Development in Regeneration Areas will have regard to current Provincial guidelines and legislation with lands being appropriately buffered and mitigated to prevent adverse effects from odour, noise and other contaminants.
- (P28) Lakefilling will be considered only for stabilizing shorelines, improving open spaces, creating trail connections, preventing siltation and improving natural habitats and is subject to Provincial and Federal Environmental Assessment processes. Consideration will be given to the impact of such lakefilling on recreational uses.
- (P29) The creation of parkland south of the Ashbridges Bay Treatment Plant will be compatible with, and closely co-ordinated with, any future plans to expand the facility.

## D) CREATING DYNAMIC AND DIVERSE NEW COMMUNITIES

The fourth and final principle of the Plan is focused on the creation of dynamic and diverse waterfront communities - unique places of beauty, quality and opportunity for all citizens. New water's edge communities will accommodate a range of development forms and be of sufficient scale to establish a "critical mass" of people both living and working in a neighbourhood setting. These new waterfront neighbourhoods will be acclaimed for their high degree of social, economic, natural and environmental health and cultural vibrancy, which collectively will contribute to the long-term sustainability of the area and the entire city. The following "Big Moves" implement this principle:

## D22 OPENING UP THE PORT LANDS TO URBAN DEVELOPMENT

The vast Port Lands, an area more than 14 times the size of London's Canary Wharf, will be cleaned up and opened to a range of urban development opportunities. The Port Lands will become Toronto's springboard to the future, a place for wealth creation, originality and creativity in all aspects of living, working and having fun. The Port Lands will be transformed into a number of new urban districts set amid the hustle and bustle of Toronto's port activities. An enticing environment conducive to the creation of an international Centre for Creativity and Innovation for knowledge-based industries, film and new media activities will be nurtured. It will be a part of the city where "green" industries can be incubated and thrive. The new Port districts will be supported by a rich infrastructure of recreational, cultural and tourist amenities.

Entrepreneurs and creative people in knowledge-based industries will find a variety of choices for both living and working - innovative housing including live/work, lofts, and workplaces that appeal to a range of needs. Businesses will be presented with building and location choices that satisfy all sizes and types of businesses from start-ups to mature international operations. The Hearn Plant will be an asset to this area with many potential reuse options.

The Port Lands will be developed to become several major new neighbourhoods containing many of the elements characteristic of the best existing Toronto neighbourhoods. They should generally be developed at medium scale, with some lower elements and higher buildings at appropriate locations. Retail and community activities should be concentrated at accessible locations to form a focus for the area. Cherry Street and the new extension of Basin Street connecting Polson slip and the Turning Basin will be important components of this new centre. The alignment of Unwin Avenue from Hearn to Leslie will require further detailed study including assessment of environmental conditions and urban development requirements.

## D23 A NEW BEGINNING FOR THE WEST DON LANDS

With the construction of the flood protection berm and the naturalization of the mouth of the Don River, the West Don Lands will be redeveloped into diverse mixed-use communities. These communities will capitalize on their strategic downtown location, the synergy created by the simultaneous development of the Port Lands and their historic roots as part of the original town of York, as well as the Don River's new environmental health.

## D24 THE EAST BAYFRONT, A PROMINENT NEW NEIGHBOURHOOD

The East Bayfront will become a prominent waterfront address for working and living amid the energy and abundance of waterfront activities, including a new water's edge promenade and other public activities in the series of new East Bayfront public spaces. Development adjacent to the water's edge promenade shall consist of low and medium scale buildings that will reinforce the safety and usability of the public spaces.

## D25 EXHIBITION PLACE, A PLACE FOR WORK, CELEBRATION AND LIVING

Exhibition Place, historically a place for celebration and exhibition, will expand into a dynamic area where people work, visit and live. Housing at select peripheral locations will not detract from Exhibition Place's primary role. The proposed realignment of Lake Shore Boulevard will add to the land available for development and make it easier to integrate Exhibition Place with Ontario Place.

The National Trade Centre will continue to function as a magnet to attract new businesses and support facilities. Synergies may also be created by the presence of the new media businesses of Liberty Village.

The remade Exhibition Place will feature a significant open plaza capable of hosting large gatherings and festivals.

New development will respect and celebrate Exhibition Place's existing heritage architecture and views of heritage buildings from the water. Opportunities for adaptive reuse of heritage buildings will be explored.

#### **POLICIES**

#### DESIGNING THE BUILT ENVIRONMENT

- (P30) Development of the Central Waterfront will maintain Toronto's successful tradition of city building at a compact scale combining the best of urban living, amenities and built form. The treatment of the development sites abutting the water's edge, public promenade along the traditional urban dockwall will require particular sensitivity to create a front of publicly accessible and marvelous buildings of appropriate low to moderate scale to complement the character of the neighbourhoods and in keeping with good planning principles. The precinct implementation strategies will specifically address these design issues while defining their scale, range of uses and ensuring that the individual building design meets high standards of excellence through peer review, or a Design Review Board.
- (P31) Excellence in the design of public and private buildings, infrastructure (streets, bridges, promenades, etc.), parks and public spaces will be promoted to achieve quality, beauty and worldwide recognition.
- (P32) New development will be located, organized and massed to protect view corridors, frame and support the adjacent public realm and discourage privatization of public spaces. Built form will result in comfortable micro-climates on streets, plazas and other parts of the public realm.

#### NURTURING A HIGH STANDARD OF COMMUNITY LIVING

- (P33) A balance of places to live and work will contribute to the morning-to-evening vitality of new waterfront communities.
- (P34) Schools and other community services and facilities (including places of worship) will be integral components of new waterfront communities and will be provided in conjunction with new development (Appendix I).
- (P35) Local parks will enrich new waterfront communities. Parks planning will take into account such factors as park size, land availability, neighbourhood accessibility, safety and quality of experience in park spaces (Appendix I).
- (P36) Innovative approaches for providing the necessary community infrastructure will be explored, including shared use of schools, community services and facilities and local parks as well as integrating community facilities into private developments.
- (P37) Public spaces, parks, transportation facilities and other public and private buildings in the Central Waterfront will be designed to ensure accessibility to persons with disabilities.

#### **HOUSING OPTIONS**

- (P38) A mix of housing types, densities and tenures will accommodate a broad range of household sizes, composition, ages and incomes contributing to the vitality of the Central Waterfront as well as the opportunity for residents to remain in their communities throughout their lives.
- (P39) The overall goal for the Central Waterfront is that affordable rental housing and low-end-of-market housing comprise 25 per cent of all housing units (see Definitions in Schedule B). To the extent possible, and subject to the availability of funding programs and development cross-subsidization, the greatest proportion of this housing will be affordable rental with at least one-quarter in the form of two-bedroom units or larger. Senior government funding programs to assist in the delivery of affordable rental housing will be aggressively pursued, and appropriate opportunities identified to take advantage of such programs.

## CREATING SPECIAL PLACES TO WORK

- (P40) The Central Waterfront will accommodate a variety of maritime activities, including cargo shipping, cross-lake ferry service, local ferry and water taxi terminals, excursion boats, cruise ships, berthing areas and marinas, maritime support services and the Port of Toronto.
- (P41) Land, dockwall and rail service will be sufficient to meet the needs of cargo shipping, passenger cruise ships, ferries, excursion boats, recreational boating and other water-dependent activities.
- (P42) The Port Lands will be developed with new media and knowledge-based businesses and "green" industries in addition to maintaining their important role in the city's economy as a location for downtown-serving and marine-related industries and the Port of Toronto. Large tracts of vacant land, the proximity to downtown, the existing base of film and new media activities, and strategic marketing and planning to attract these businesses will support the emergence of a convergence district in the Port Lands. Entertainment industries such as music, film and television production will operate alongside the communications, software development, biotechnology and publishing sectors.
  - In the interim, until redevelopment proceeds, existing business operations will continue in the Port Lands. As redevelopment proceeds, Performance Standards may be established to ensure new and existing uses (which do not need to be relocated) can comfortably co-exist, without negatively impacting their operation. A relocation strategy will be developed to accommodate appropriate city-serving businesses that need to be close to the downtown as well as other businesses that are dependent on water/rail access.
- (P43) Large scale, stand-alone retail stores and/or "power centres" are not part of the vision for the Central Waterfront. New retail development will only be considered within the context of the City's urban planning principles and must be supportive of the other core

- principles and policies of this Plan. Retail and other uses which require large areas of unscreened surface parking will not be permitted.
- (P44) Companies that rely on lake access for their operations will remain important maritime industries on the waterfront to the extent that they can be accommodated within emerging communities.

## CREATING SPECIAL PLACES TO VISIT, RELAX, PLAY AND LEARN

- (P45) The Central Waterfront will become the face of Toronto to the world, with a quality of experience and environment comparable to that of other international cities, a place to express the future of the city with confidence and imagination.
- (P46) Strategies to attract high-value tourism to the Central Waterfront will receive top priority in order to strengthen Toronto's role as the cultural capital of the nation. The Central Waterfront will be the future location of major international-calibre cultural, entertainment and other tourist attractions.
- (P47) A wide variety of year-round experiences for visitors will be offered. Emphasis will be placed on developing new facilities that are enduring, creative and unique to Toronto and its waterfront. Winter conditions will be an important consideration in developing the Central Waterfront's tourism infrastructure.
- (P48) Boating opportunities will be expanded to draw city residents, workers and tourists to the waterfront. The Central Waterfront offers an opportunity to provide internationally acclaimed boating facilities, particularly in the Outer Harbour. The design, location and viability of such facilities will be developed further in the Precinct Implementation Strategies, in consultation with the appropriate stakeholders.
- (P49) Toronto's story will be told by preserving the waterfront's cultural and natural heritage in the development of new private and public spaces, some of which are designated as the Inner Harbour Special Places.
- (P50) Heritage properties listed on the City's Inventory of Heritage Property will be protected and improved where feasible. Designated heritage buildings will be conserved for creative reuse in their original locations.

## SECTION TWO: MAKING IT HAPPEN

## 1) A SIMPLIFIED APPROACH TO LAND USE REGULATION

The Central Waterfront will have three types of land use designations (Map E):

• Parks and Open Space Areas are areas for use as parks, open spaces, natural areas and plazas, and can include compatible community, recreation, cultural, restaurant and

entertainment facilities. Lands designated Parks and Open Space Areas in the vicinity of Regeneration Areas may be subject to Precinct Implementation Strategies.

- Regeneration Areas are blocks of land that may be subdivided into smaller areas for a wide variety of mixed-use development ranging from industries to housing to community services and parks; from offices to stores to hotels and restaurants. Regeneration Areas will generally be subject to Precinct Implementation Strategies. The water's edge development sites located adjacent to the water's edge promenade and along the urban dockwall will be subject to the highest quality of design excellence. Development within water's edge sites should be designed to create a wonderful juncture of the city and the Inner Harbour or Ship Channel. Development along the Public Promenade (Dockwall/Water's edge) should be generally of low to moderate scale and views of the lake from the city protected in accordance with good planning principles. This new development can incorporate a wide mix of uses both public and private, including residential, and should be designed at ground floor level to complement the activities anticipated in adjacent public spaces. These sites will be subject to particular attention in the precinct implementation strategies to ensure that they achieve the highest quality of built form and design expected. The precinct implementation strategies will specifically address these design issues while defining their scale, range of uses and ensuring that the individual building design meets high standards of excellence through peer review.
- Existing Use Areas are areas currently covered by planning controls that are consistent with the direction put forward in this Plan. These lands will continue to be governed by existing Official Plan and zoning controls and related *Planning Act* processes and will not be subject to Precinct Implementation Strategies.

## 2) IMPLEMENTATION

The implementation of the principles and policies contained in this Plan will rely on a wide array of planning and financing tools. Planning tools may include the adoption of zoning by-laws, use of holding provisions, temporary use by-laws, agreements under Section 37 of the *Planning Act*, site plan control and various means of subdividing land. In addition, the City of Toronto has been granted the opportunity to apply a Development Permit System in the Central Waterfront area as an alternative zoning and development control process.

## 2.1 Planning at a Precinct Level

The precinct implementation strategies are intended to provide for comprehensive and orderly development and to implement the policies of this Plan. This review process will also deal with issues of soil cleanup, flood control and servicing, urban design, community improvement, heritage and environmental performance standards. Approval of new zoning for lands within the Regeneration Areas will generally take place at a precinct level. Prior to the preparation of zoning by-laws or development permit by-laws of lands not designated Existing Use Areas, Precinct Implementation Strategies will be prepared in accordance with the policies contained in Section 2.2 below. The boundaries of each precinct will be determined as part of the preparation of the Precinct Implementation Strategies and the related zoning by-laws(s) or development

permit by-law(s). Elements of the precinct implementation strategies may be incorporated into the Secondary Plan for the Central Waterfront by way of Official Plan Amendment.

Rezoning of individual sites within Regeneration Areas will generally only be entertained once a context has been established for the evaluation of specific rezoning applications, through the Precinct Implementation Strategies. In addition, area-wide infrastructure requirements will have to have been determined, including a fair and equitable means for ensuring appropriate financial contributions for their provision, prior to the approval of rezoning applications.

## 2.2 Precinct Implementation Strategies

Precinct Implementation Strategies will include, but not be limited to, the following elements:

- (i) a streets and blocks structure that supports a broad range of development and provides appropriate connections to adjacent communities;
- (ii) minimum and/or maximum standards regarding the height and massing of buildings and the provision of parking;
- (iii) strategies to ensure a balance between residential and employment-based development;
- (iv) strategies by which affordable housing targets can be achieved;
- (v) the location and phasing of local and regional parks, open spaces, public use areas, trails and access linkages;
- (vi) the location and phasing of elementary schools and high schools, libraries, community and recreation centres, day care centres, emergency services, places of worship and other community facilities and services;
- (vii) a comprehensive set of environmental performance standards for public and private infrastructure, buildings, and activities including, but not limited to, energy efficiency, reduction of CO<sub>2</sub> emissions, water conservation, clean air and waste (reduction, reuse and recycling);
- (viii) provisions for securing the retention of heritage buildings within new developments and an archaeological resource assessment, as identified in the Archaeological Master Plan for the Central Waterfront, of high-potential sites prior to development;
- (ix) urban design provisions dealing with the unique microclimatic conditions of the waterfront, quality of waterfront streets, the public realm, urban plazas, parks, schools, other community services and facilities, and signage;
- (x) public art and urban design standards and guidelines;
- (xi) provisions for protecting and securing necessary road, transit, trails and bicycle route alignments; and

- (xii) mechanisms, financial and otherwise, to ensure the above matters are implemented.
- 2.3 The Central Waterfront as a Development Permit Area

The City of Toronto has been granted the authority to implement a Development Permit System in the Central Waterfront. This system allows a streamlined municipal approval process by consolidating the zoning by-law, minor variance and site plan approval processes into one through the enactment of development permit by-laws.

- 2.3.1 The Central Waterfront Secondary Plan area, as delineated on Map E, is designated a Development Permit Area. Within this area, City Council may enact development permit by-laws based on the following objectives:
  - to enable the revitalization of the Central Waterfront to move forward in a timely and strategic fashion;
  - to provide certainty for matters of public concern and the achievement of city building objectives, while providing flexibility in the means to achieve these objectives; and
  - to streamline the approval process while providing the opportunity for public input into development.
- 2.3.2 When determining whether any class, or classes of development, or use of land may be permitted, several types of criteria may be used in the development permit by-law in order to ensure high quality urban development. These criteria relate to built-form, use, intensity of use, compatibility with adjacent uses and other uses within the precinct, parking requirements, relationship to parks, open spaces and the water's edge, proximity and availability of supporting hard and soft services, location relative to public transit and consistency with the policies of the Secondary Plan.

In addition, the by-law may permit the continued use, enlargement or extension of a legal non-conforming use or a change in use of a legal non-conforming use, provided that the proposal is desirable, avoids hardship, will have no unacceptable impacts on adjoining properties, and is consistent with the policies of this Plan.

- 2.3.3 The following types of conditions may be included in a development permit by-law and may be imposed prior to the issuance of a development permit.
  - requirements for the provision of bicycle trails, walkways, protecting and securing necessary road widenings and transit rights-of-way, parking, parkland, land grading or filling, storm water management and/or any other types of conditions permitted under s.40, 41, or 42 of the *Planning Act*;
  - environmental conditions related to air quality, water and sewers, flood protection, soil cleanup, groundwater protection, storm water management,

natural heritage features and functions, and construction-phase environmental impacts, for defined uses or classes of development in areas including hazard lands, contaminated lands, significant natural feature areas and/or any other types of environmentally sensitive areas listed in s.34(3)(3.1) and (3.2) of the *Planning Act*; and

- the execution of agreements respecting site alteration, grading, filling and/or the removal of vegetation.
- 2.3.4 As with Site Plan Approval, when enacting a development permit by-law Council may delegate its authority to an employee of the municipality, to:
  - (a) approve or refuse an application for a development permit;
  - (b) issue a development permit;
  - (c) attach conditions to the approval of a development permit; and/or
  - (d) enter into agreements with respect to a development permit.
- 2.4 Contributions to Infrastructure and Community Facilities

The creation of new communities will necessitate major investment in roads, transit, servicing, flood proofing measures, soil remediation, parks and public spaces, and community facilities and services.

Prior to enacting a zoning by-law or development permit by-law on lands designated as Regeneration Areas, arrangements will be made whereby benefiting landowners will be required to pay a fair and equitable share of the costs of any new infrastructure and community facilities required for such development, through one or more of the following means:

- (i) the payment of an area-specific development charge pursuant to the Development Charges Act;
- (ii) a contribution made pursuant to an agreement under Section 37 of the *Planning Act*;
- (iii) a cost sharing agreement involving landowners; and/or
- (iv) such other arrangements as may be appropriate.
- 2.5 Increases in Height and/or Density

In order to assist in the achievement of the full implementation of the policies of this Plan, contributions to one or more community benefits, facilities, or services may be requested in exchange for a height and/or density increase above the existing height and/or density limits, pursuant to Section 37 of the *Planning Act*, provided that the increase in height and/or density is appropriate, and enhances the Central Waterfront. The benefit will be secured through an

appropriate legal agreement that will be registered on title to the lands. Increases are to be measured from the height and/or density for the use permitted in the zoning by-law.

## 2.6 Holding By-laws

In order to provide for the orderly development of lands in the Central Waterfront, to resolve the issues of soil remediation, flood control, infrastructure requirements and servicing as well as to ensure an equitable sharing of associated costs, Council may enact zoning by-laws pursuant to Sections 34 and 36 of the *Planning Act* with an "H" holding symbol. This holding symbol may be removed after the necessary studies and plans have been provided and secured through an agreement or agreements entered into pursuant to Section 37 and/or Section 51 of the *Planning Act*.

## 3) SUBDIVISION OF LANDS

The subdivision of lands within precincts may occur through a simplified Plan of Subdivision and the lifting of Part Lot Control, or the taking of public streets directly and lifting Part Lot Control where an underlying Plan of Subdivision already exists. Severance of lots in Regeneration Areas by application to the Committee of Adjustment generally will only be considered upon completion of the Precinct Implementation Strategies.

## 4) ENCOURAGING EXCELLENCE IN DESIGN

Excellence in design will be promoted through design competitions and design review panels. These processes will encourage the participation of both the local and international design community.

A Design Review Board will be established to review and advise the City on all design aspects of all development applications on lands adjacent to the Public Promenade (Dockwall/ Water's Edge). The objective of this process will be to ensure the excellence in design of new public and private buildings, infrastructure, parks and public spaces adjacent to Toronto's waterfront.

# 5) DESIGNATING THE CENTRAL WATERFRONT AS A COMMUNITY IMPROVEMENT PROJECT AREA

The Central Waterfront is proposed to be designated a Community Improvement Project Area under Section 28 of the *Planning Act*. In order to expedite revitalization efforts, Community Improvement Plans will be developed to identify specific revitalization projects.

The Community Improvement Project Area designation allows the City to provide grants or loans for rehabilitating land or buildings. Under the Municipal Act, the City may include tax incentives to encourage development in a Community Improvement Project Area. It also helps focus government funding and investment on well-defined, pre-approved community improvement projects and initiatives such as brownfield redevelopment, heritage restoration, affordable housing, soil and groundwater remediation, infrastructure, parkland acquisition, façade improvements and/or general community beautification projects.

## 6) TIMELY IMPLEMENTATION AND ENVIRONMENTAL ASSESSMENT

6.1 Environmental remediation, flood protection measures, early construction of transit infrastructure, and the timely provision of community services and facilities will be essential to achieving the revitalization of the Central Waterfront.

Because of the area-wide, integrated, nature of developing an effective transit network, transit implementation must be managed on a broader area-planning basis. It cannot be managed effectively through precinct planning, or a sub-area planning process. To achieve the objectives of the Central Waterfront Plan, a high level of transit use is required in each of the four development areas, and it is essential that transit-oriented travel patterns be established from the outset. For this reason, the implementation of transit improvements will require a separate financial planning and approval process.

For each of the four development areas, a staged implementation schedule and accompanying financial plan for the construction and operation of transit facilities, will be required before development can proceed in that development area. This will ensure that high-order transit services are constructed at an early stage in the development process and that the transit-oriented objectives of the plan are achieved from the outset.

6.2 Where applicable under provincial or federal legislation, environmental assessments of Central Waterfront projects will be undertaken. The Environment Assessment process will be an opportunity to integrate Toronto's environmental and sustainability goals into project design and implementation.

## 7) INTERPRETATION OF THE PLAN

- 7.1 The Central Waterfront Secondary Plan consists of Sections Four and Five, Maps A to E and Schedules A and B.
- 7. 2 Maps A, B and D cover an area beyond the boundary of the Central Waterfront and will prevail over the Official Plan and any Secondary Plans for the matters covered in these maps.
- 7. 3 Appendix I is part of the Plan for the purpose of illustration only and is not to be interpreted as prescriptive.
- 7. 4 The Toronto City Centre Airport and Toronto Islands are not part of the Plan.
- 7. 5 The transportation alignments, Parks and Open Space Areas and Regeneration Areas shown in this Plan are intended to provide a basic framework for the Central Waterfront. Minor adjustments and additions to any of these elements may be made without amendment, including the detailed configuration of Commissioners Park, the Queens Quay East alignment at its current intersection with Cherry Street and Lake Shore Boulevard East, as well as the location of the associated bridge(s) over the new Mouth of the Don River.

7. 6 The text and maps of the Official Plan of the former City of Toronto continue to apply except in cases where the text and maps are in conflict with this Secondary Plan, in which case the text and maps of this Secondary Plan shall prevail.

## SCHEDULE A

## PROPOSED RIGHTS-OF-WAY (ROW) FOR MAJOR ROADS

Roadway <sup>(1)</sup>	From	То	ROW	Streetcar in own ROW
Bayview Av	Mill St	Queen St E	30 m	No
Basin St (new)	Cherry St	Carlaw Av (new)	26 m	No
Broadview Av (new)	Commissioners St	Eastern Av	32 m	Yes
Carlaw Av (new)	Unwin Av	Commissioners St	26 m	No
Cherry St	Unwin Av	Front St E	40 m	Yes
Commissioners St	Cherry St	Leslie St	40 m	Yes
Don Roadway	Lake Shore Blvd E	Commissioners St	30 m	No
Don Roadway (new)	Commissioners St	Unwin Av	40 m	Yes
Dufferin St (new)	Front St W (new)	Lake Shore Blvd W	30 m	Yes
Front St E	Trinity St	St. Lawrence St	40 m	Yes
Front St W (new)	Bathurst St	a point 170 m east of	33 m	No
		Strachan Av		
Front St W (new)	a point 170 m east of	Dufferin St	27 m	No
	Strachan Av			
Leslie St	Commissioners St	Lake Shore Blvd E	40 m	Yes
Manitoba Dr (new)	Strachan Av	Fraser Av (new)	Varies	Yes
Parliament St	King St E	Front St E	Varies	Yes
Parliament St (new)	Lake Shore Blvd E	Queens Quay E	24 m	No
Princes' Blvd (new)	Saskatchewan Rd	Manitoba Dr	45+ m	No
Queens Quay E	Yonge St	Cherry St	40 m <sup>(2)</sup>	Yes
St. Lawrence St	Front St E	King St E	30 m	Yes
(new)				
Strachan Av	Lake Shore Blvd W	Front St W (new)	30 m	No
Unwin Av (new)	Cherry St	Leslie St	40 m	Yes
Yonge St	Queens Quay	Lake Shore Blvd	30 m	No

<sup>(1)</sup> Existing or currently planned roads (e.g. Bremner Boulevard) that are not listed in this schedule will maintain current right-of-way designation.

## Notes:

- (a) Rights-of-way will be protected to accommodate road, transit, pedestrian and cycling requirements, as well as landscaping and other urban design elements.
- (b) The rights-of-way of other streets within the waterfront shall be determined as part of the precinct planning process.

Does not include the existing rail spur line.

# City of Toronto By-law No. 346-2003

(c) Council may require additional right-of-way widenings (e.g. at intersection locations) in order to accommodate appropriate design geometry.

#### SCHEDULE B

## Housing Definitions\*

## Affordable Housing: Rental and Ownership

Affordable rental housing means housing where the total monthly shelter cost (gross monthly rent including utilities - heat, hydro and hot water - but excluding parking and cable television charges) is at or below one times the average City of Toronto rent, by unit type (number of bedrooms), as reported annually by the Canada Mortgage and Housing Corporation.

Affordable ownership housing is housing which is priced at or below an amount where the total monthly shelter cost (mortgage principle and interest - based on a 25-year amortization, 10% down payment and the chartered bank administered mortgage rate for a conventional 5-year mortgage as reported by the Bank of Canada at the time of application - plus property taxes calculated on a monthly basis) equals the average City of Toronto rent, by unit type, as reported annually by the Canada Mortgage and Housing Corporation. Affordable ownership price includes GST and any other mandatory costs associated with purchasing the unit.

## Rental Housing

The term *rental housing* means a building or related group of buildings containing one or more rented residential units, but does not include a condominium, registered life lease, or other ownership forms.

## Low-End-Of-Market Housing

The term *low-end-of-market housing* means small private ownership housing units suitable for households of various sizes and composition, the price of which would not be monitored or controlled, but which, by virtue of their modest size relative to other market housing units, would be priced for households up to the 60th percentile of the income distribution for all households in the Toronto CMA, where *total annual housing costs* do not exceed 30 per cent of gross annual household income.

\*To be read in conjunction with Policy (P39).

## Appendix 1

## Community Services, Facilities and Local Parks

Based on full build-out of approximately 40,000 new residential units and 900,000 sq. m. of non-residential development

## GENERAL CRITERIA

Facility/site requirements

- shared use and/or multi-purpose facilities
- capacity to adapt to changing needs of the community over time
- all of the community facilities could be integrated as part of a mixed-use development site

## Location criteria

- accessible by public transit
- barrier-free
- grade-related
- good visibility from the street

## Guidelines

- timely provision of social infrastructure facilities as development proceeds within each community precinct
- monitoring and review of adequacy of the community facilities shall occur once one-third of the potential development is achieved in each community

## **ELEMENTARY SCHOOLS**

(6 to 10 at full build-out)

Facility/site requirements

- 1.2 hectares if a single elementary school is located next to a public park
- 1.82 hectares if a joint TDSB/TCDSB elementary school is located next to a public park

#### Location criteria

- pupils should travel no more than 1.6 km to school
- minimize children crossing arterial roads

## Guidelines

- optimal facility must be sufficient to accommodate between 400 and 500 students
- pupil generation rates should be monitored in coordination with both the TDSB and TCDSB

## SECONDARY SCHOOLS

(one at full build-out)

Facility/site requirements

- stand alone requires four hectares, or two hectares if located next to a public park with adultsized ball field and soccer pitch

#### Location criteria

- locations on arterial roads with direct transit access are preferable

#### Guidelines

- facility size will be determined by pupil generation rates within the Waterfront
- pupil generation rates should be monitored in coordination with both the TDSB and TCDSB

#### LOCAL PARKLAND

Facility/site requirements

- neighbourhood oriented passive and active recreational opportunities
- size and shape will vary depending on community size and facility requirements
- each residential community shall contain at least one local park a minimum two hectares in size

#### Location criteria

- intended to serve communities within a reasonable walking distance
- where appropriate, regional parkland can also meet local parkland needs
- barrier free, grade-related and good visibility from streets

## Guidelines

- distribution, size and facility mix should be relative to population distribution and demographics
- capacity to adapt to changing needs of the community over time

## **DAYCARE CENTRES**

(10 to 12 at full build-out)

Facility/site requirements

- licensed capacities of 72 children each, with 735 m<sup>2</sup> of interior space and 401 m<sup>2</sup> of contiguous outdoor space

#### Location criteria

- grade location is preferable
- compliance with appropriate provincial regulation and city policies
- sun, air and noise studies must be completed prior to final selection of sites

## Guidelines

Daycare demand will be assessed as follows: number of children up to 4 years of age, multiplied by the labour participation rate for women aged 20 to 45 years, reduced to 50-70% to reflect patterns of parental choice with respect to licensed care

#### **LIBRARIES**

(one to three at full build-out)

Facility/site requirements

- 650 m<sup>2</sup> to 1,115 m<sup>2</sup> preferably located at grade

## Location criteria

- good pedestrian and public transit access
- highly visible from the street

## Guidelines

- one library for every community with a population of at least 25,000 residents or a comparable combined residential and office worker population
- residents should have access to a library within 1.6 km

## **RECREATION CENTRES**

(four to six at full build-out)

Facility/site requirements

- size is dependent demand

Location criteria

- good pedestrian and public transit access
- highly visible from the street
- ready access to outdoor playing fields and playgrounds (preferably a public park)

## Guidelines

- one recreation centre for every 21,000 residents or a comparable combined residential and office worker population
- Community service/human service space

## Facility/site requirements

 $-929 \text{ m}^2 \text{ to } 1,858 \text{ m}^2 \text{ of space}$ 

## Location criteria

- good pedestrian and public transit access
- highly visible from the street

## Guidelines

- one facility for each community









