



ENVIRONMENTAL ACTIVITIES OF WATERFRONT REVITALIZATION



City of Toronto
Waterfront Secretariat

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Director

October 2008



OVERVIEW

MAJOR ENVIRONMENTAL
ACTIVITIES

FUTURE ENVIRONMENTAL
ACTIVITIES

OVERVIEW

OVERALL SCOPE OF VISION

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- 800 Ha (475 hectares for parks and public spaces)
- 40,000 new homes in mixed-use neighbourhoods
- 1 million sq.m. employment space
- major cultural and recreational attractions
- expanded public transit



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MAJOR ACTIVITIES: ENVIRONMENTAL PRIORITIES

Environmental Priorities

- Sustainability Framework
- brownfield remediation
- creating more parks and public spaces
- expanding the urban forest
- compact urban development serviced by transit and pedestrian routes
- energy efficient LEED buildings serviced by District Energy
- stormwater management

MAJOR ACTIVITIES: SUSTAINABILITY FRAMEWORK

Inter-Related Themes for Focused Community-Building Action

- energy
- land use
- transportation
- sustainable buildings
- air quality
- human communities
- cultural resources
- natural heritage
- water
- material and waste
- innovation



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MAJOR ACTIVITIES: BROWNFIELD REMEDIATION

Looking at Various Remediation Technologies

- Risk Assessment/Risk Management approach in most cases leading to Record of Site Condition
- Waterfront Risk Assessment/Risk Management Protocol
- Technologies will be specific to contaminants found

Soil Management

- Soil management facility proposed for Designated Waterfront Area



MAJOR ACTIVITIES: PARKS AND PUBLIC REALM

Waterfront Parks

- Water's Edge and Heads of Slip
- Don River Park
- Sherbourne Park and Jarvis Slip
- Lake Ontario Park
- Lower Don Naturalization
- Martin Goodman Trail Improvements
- Mimico and Port Union Parks



MAJOR ACTIVITIES: PARKS AND PUBLIC REALM

Don River Park

- >95% native plant material
- extensive meadow, wetland and canopied forest areas
- innovative 'manufactured soil' and planting techniques to ensure plant success
- park water budgeting including re-use of splash pad water for park irrigation
- key park elements (eg. use of solar power for park pavilion)



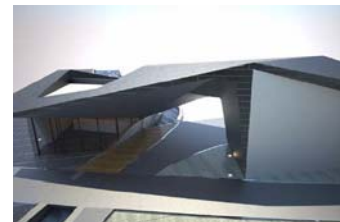
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MAJOR ACTIVITIES: PARKS AND PUBLIC REALM

Sherbourne Park

- extensive tree canopy
- park water feature & irrigation integrated with precinct-level stormwater management proposals
- use of durable materials and finishes



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MAJOR ACTIVITIES: EXPANDING THE URBAN FOREST

Key Elements

- creation of new parks and public realm
- expansion of urban forest
- use of Silva Cell technology
- 1803 trees in Central Waterfront
- 1075 trees in East Bayfront Precinct
- 2417 trees in West Don Lands Precinct
- 21,887 trees in Lake Ontario Park, or
45% increase in tree canopy



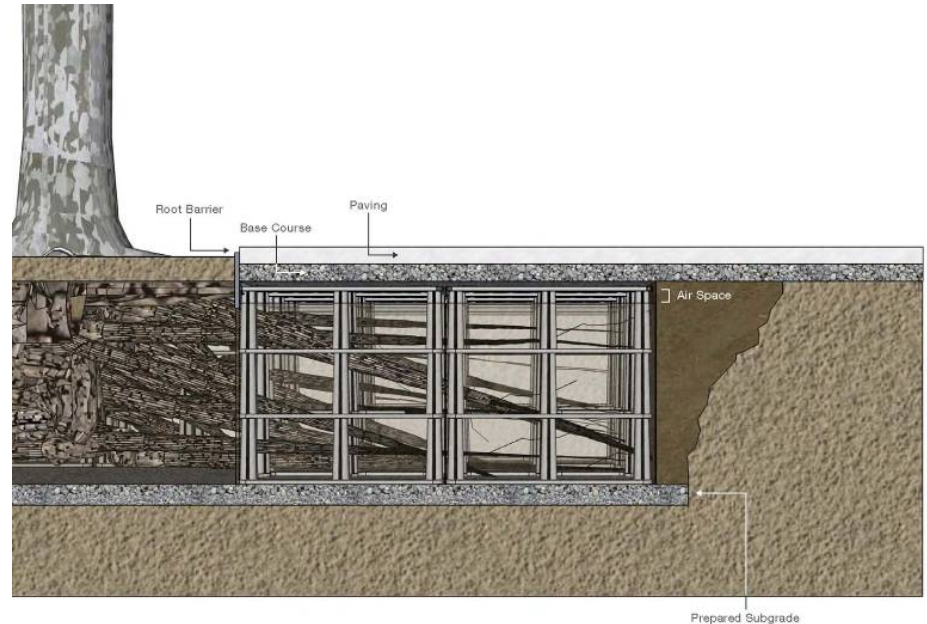
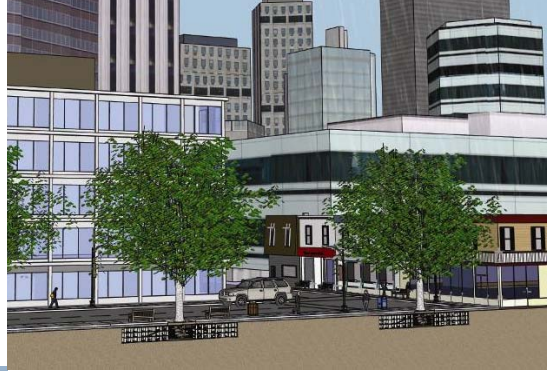
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MAJOR ACTIVITIES: EXPANDING THE URBAN F

Silva Cell Technology.

- modular building block for containing soil beneath paving and hardscapes while supporting traffic loads
- provides uncompacted soil volumes for large tree growth and on-site stormwater management
- potential for use on WT and other parks and public space initiatives



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MAJOR ACTIVITIES: TRANSIT

Key Features

- transit first approach, within 5 minute walk of all residences
- \$260 million current investment in transit
- help people choose transit over cars
- make the waterfront the spine of regional transit for Toronto including rapid transit from Etobicoke through East Bayfront and Port Lands
- GO, TTC and other rail improvements



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MAJOR ACTIVITIES: GREEN BUILDING SPECIFIC

Key Features

- experienced team required
- integrated design process
- LEED Gold certification
- minimum energy use
- green roofs
- district energy



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MAJOR ACTIVITIES: GREEN BUILDING SPECIFIC

District Energy

- provides heating & cooling to community of buildings from one central plant
- reduces costs of new buildings, lowers air emissions, improves air quality
- ‘future proofs’ the neighbourhood
- 20% less greenhouse gas emissions projected than conventional heating/cooling



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MAJOR ACTIVITIES: GREEN BUILDING SPECIFIC

Predicted Greenhouse Gas Emissions for District Energy

Year 1: business as usual CO2 emissions
of 1621 tonnes to be reduced by 310
tonnes (19%)

Year 2: business as usual CO2 emissions
of 2794 tonnes to be reduced by 573
tonnes (20%)



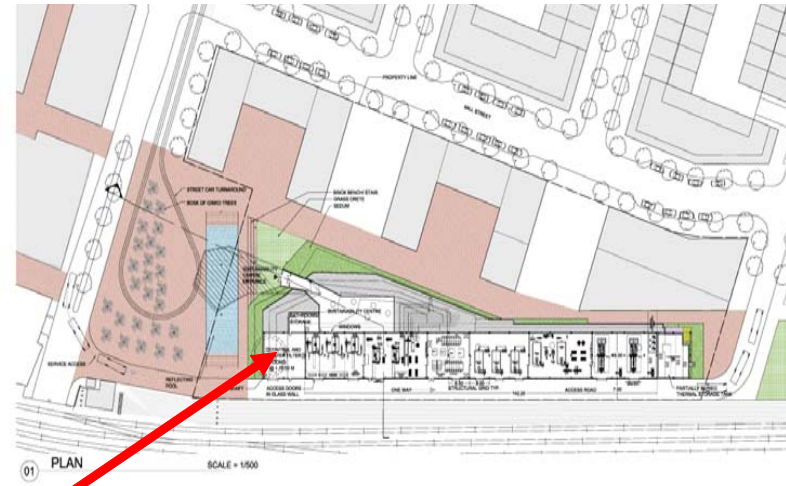
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MAJOR ACTIVITIES: GREEN BUILDING SPECIFIC

Stormwater Quality Facility

- stormwater quality facility integrated into district energy plant
- includes oil grit separator, stormwater shaft, UV treatment



Location of Storm Water Quality Facility

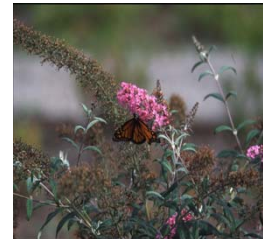
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FUTURE ACTIVITIES: FUTURE WT DELIVERABLE

- Carbon Foot Print Analysis Study
- Environmental Management Plan
- Sustainable Parks Criteria



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