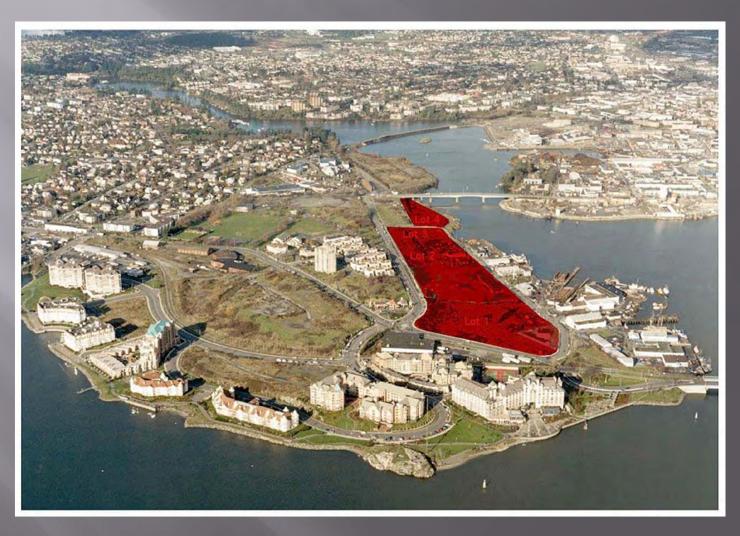
## CONDITIONING DEVELOPMENT ON WATER AND ENERGY CONSERVATION

A CASE STUDY DOCKSIDE GREEN VICTORIA, BRITISH COLUMBIA

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# THE SITE – CITY OF VICTORIA HARBOUR



- 15 acre City owned land
- Formerly Harbour Marine Industrial Lands
  - Brownsfield
  - potential redevelopment to 1.6 million sq. ft.
    Mixed use development
  - single ownership/consolidated lands
  - Remediation pre-approvals in place
  - use of public and private land use controls



- City sale by conditioned competition
  - RFEI, RFP and public presentations
- Triple bottom line evaluation
  - Business Case
    - return to the City
    - civic infrastructure costs and impacts

- Environmental impact
  - silver to platinum LEED
- Social benefits
  - mix in housing types/affordable housing
  - amenity provision streetscape open space
  - design context

- Public competition and sale
  - Belt and suspenders
    - Public land use controls
      - Zoning
      - Permitting
      - Subdivision
      - Infrastructure standards
    - Private land use control
      - Master development agreement
      - Restrictive covenant

#### COVENANT CONTROL

- Water 60% reduction of water use from comparable developments
  - limit impact on and reduce cost of public infrastructure
    - on-site sewage treatment
  - stormwater reuse and management
    - rooftop storage
    - green roofs
    - rainwater parcels and cisterns
    - reduce impervious run to less than 50%

- Landscaping
  - indigenous planting
  - water re-use no potable water for irrigation
- Building Appliances
  - low flush toilets/waterless urinals
  - low impact showerheads
  - Water efficient dishwashers and washing machines
  - Read friendly water consumption meters on every dwelling unit

#### Energy

- target reduction of at least 45% from NaturalEnergy Code
- waste wood to energy/electricity for 100% of the heating requirements/GHG Neutral
- solar water heating
- energy star appliances
- compact fluorescent lighting
- solar lighting in landscape areas
- designed to maximum daylight

#### **CURRENT STATUS**

- Centralized biomass heat generation plant completed - the entire project will be "greenhouse gas positive"
- sewage treatment plant is capable of operating to treat 100% of all on-site sewage
- municipal sewer and storm drainage services not used

#### **CURRENT STATUS**

- reused water is used for all toilets and other water features
- municipal storm water infrastructure not used
- potable water savings are 66.5% below baseline LEED water targets

#### FOR MORE INFORMATION:

www.victoria.ca/cityhall/currentprojects\_dockside.shtml

### As of February 2011, Dockside Green Has The Highest LEED Scoring Building In The World

