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

YOUNG, ANDERSON
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 Natural Energy 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

YOUNG, ANDERSON
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