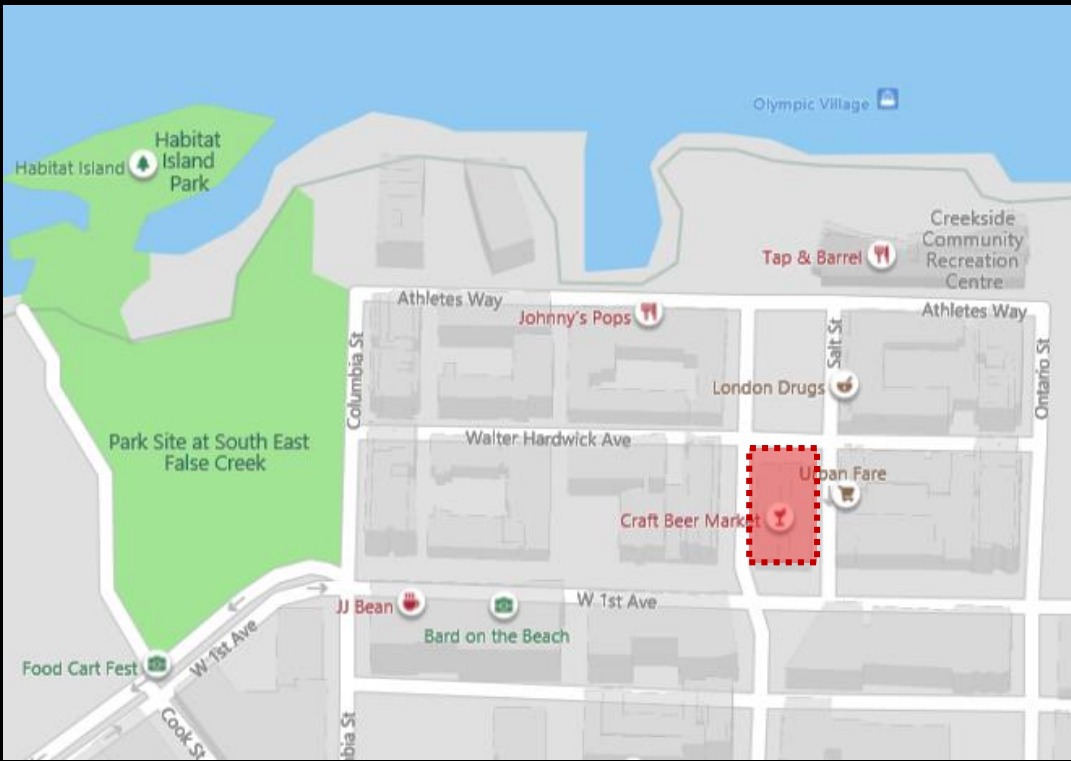


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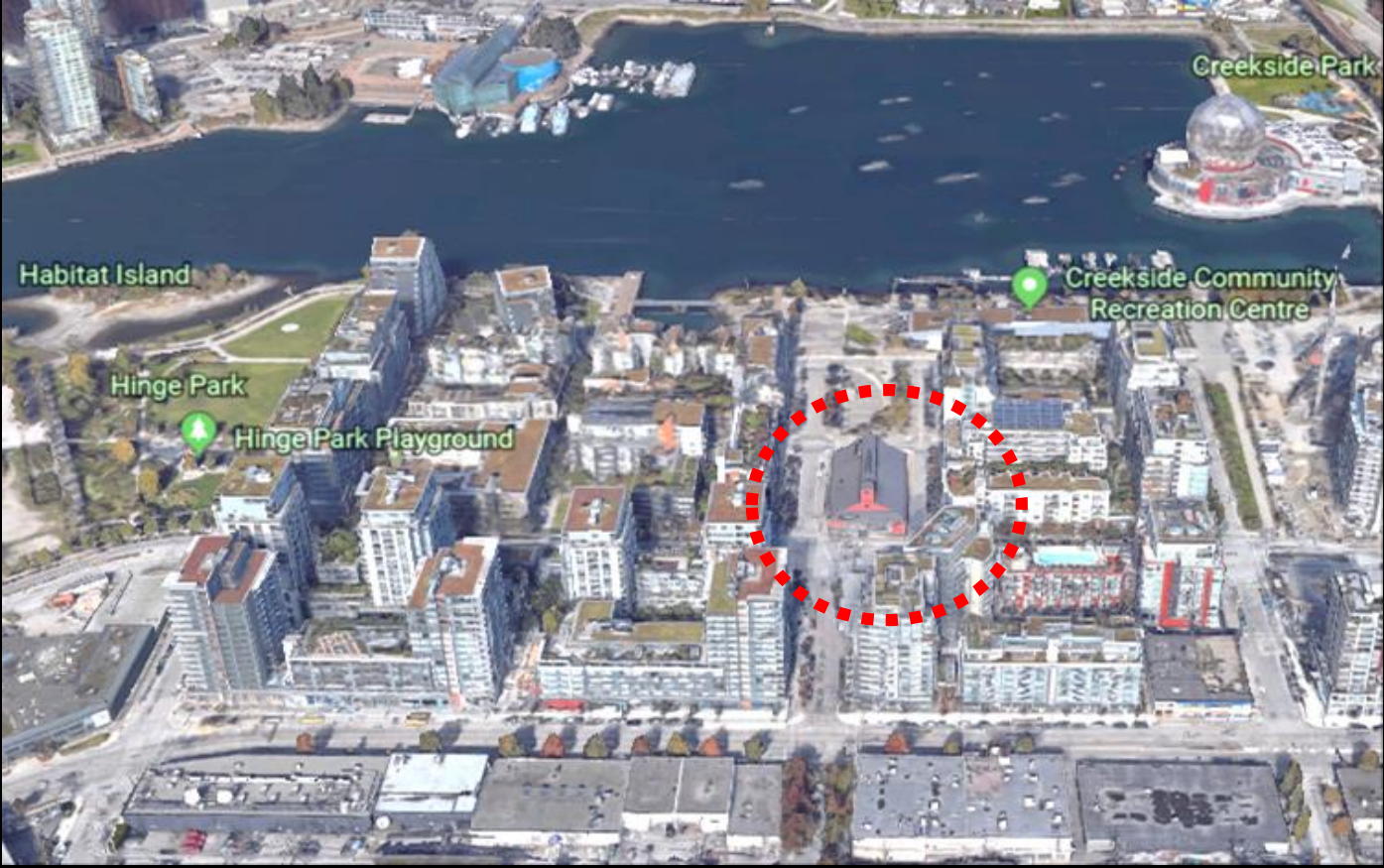
Sustainable Heritage Case Study
Class Presentation
November 21, 2019

From Endangered to Landmark

Rehabilitation of Salt Building, Vancouver



Location of Salt building in South East False Creek, credit: Bing Maps



Location of Salt building in South East False Creek, credit: Google Earth

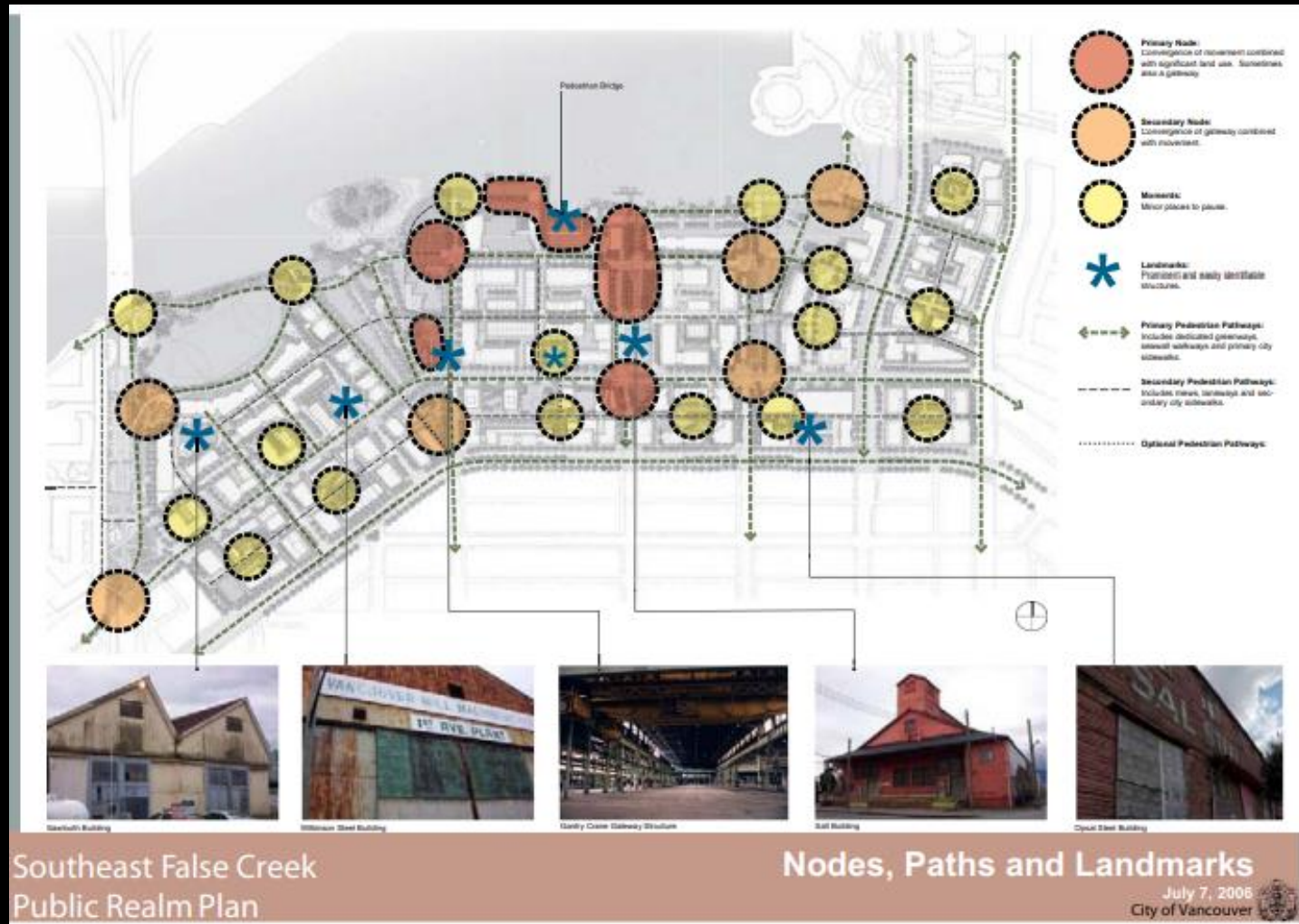
Lessons

- An endangered heritage site can also become a landmark with an appropriate approach
- example where sustainable practices are integrated with adaptability concepts and heritage rehabilitation
- Energy and resources can be saved by retrofitting a historic structure (usually broken for making room for new, end up in a landfill)
- Community is a major driving force for a sustainable heritage conservation project (strong intervention for the community)
- Working on a heritage site: address several challenges, site specific- protecting the historicity and materials while upgrading
- Equilibrium - sustainability pillars: project not only fulfils the needs and the aspiration of the community being socially sustainable but also represents itself as an excellent example of both economic and environmental sustainability



Front elevation with new large windows for receiving maximum daylight, credit: Acton Ostry Architects

- The Salt Building, located in Vancouver's Olympic Village neighbourhood/ SEFC
- SEFC: South East False Creek Public realm proposal 2006, City of Vancouver: 5 heritage buildings with historic value were identified to be maintained, Salt building one of them
- Salt building was part of historical shipyard neighborhood and the only building remaining



Site plan for public realm proposal, credit: City of Vancouver

Description

- Constructed in 1930- refining salt shipped from San Francisco
- severely deteriorated, among Vancouver Heritage Society's Top Ten Endangered Sites in 2002
- 1300 sqm building restored in 2009 for Winter Olympic Games-2010 as an interactive space for athletes. (\$ 8.4 million, approx. 20 months)
- received LEED-CS Gold certification
- rehabilitation of the building: incorporated several sustainable construction methodologies like raising the timber foundation with steel piles (raised to match the street level), repairing of timber truss, protecting and reusing original material etc.
- Seismic upgradation of the structure
- to meet heritage concerns (preserving the exterior cladding) but still meet LEED standards, the structure's wall insulation was done from the interior.

Stakeholders

Users: Coast Salish People, Community (Vancouverites) and other guests

Owners: The City of Vancouver, Marks James Group (management of craft beer market)

Organization:

- Canada Green Building Council,
- Vancouver Heritage Foundation,
- Heritage Canada, Heritage BC,
- Canadian Wood Council,
- Canadian Institute of Planners,
- Canadian Association of Heritage Professionals, and
- Vancouver Regional Construction Association

Consultants:

- Commonwealth Resource Management Ltd. (Heritage Consultant)
- Acton Ostry Architects (Architects)
- Recollective (Sustainability Consultants)
- Haebler Construction (Contractor)
- Citysphere Project Management (Project Management)
- Cobalt Engineering (Mechanical Engineering Consultants)
- Glotman Simpson Consulting Engineers (Structural Engineering Consultants)
- Morrison Hershfield (Engineers and Managers)
- Gage-Babcock & Associates Ltd. (Safety Engineer)

Timeline

- Pre-settlement: part of natural history
- Settlement: belonged to Coast Salish People
- 1913: shoreline changed, space for utilizing the land
- After 1913-1930: used for storing gravel
- 1930: originally constructed as a salt refinery, The Vancouver Salt company
- 1950: waterfront access was filled (as False creek's industrial base grew)
- 1954: Northern expansion of the building (demand was salt was high, accommodate new equipment)
- 1970: Arden Vancouver Salt Co. Ltd.
- 1987: Paper recycling plant under Belkin Paper Stock Ltd.
- 2006: Southeast SEFC public realm proposal, city of Vancouver
- 2007: the city of Vancouver appointed a consortium to renovate the building use as a social lounge and gathering place for the athletes during the Winter Games
- 2009: rehabilitation project completed in November for Winter Olympics 2010 (LEED certified)
- 2010: Heritage BC Award of Honour, Canadian Institute of Planners Award, Canadian Association of Heritage Professionals Award, Vancouver Regional Construction Association Award
- 2011: City of Vancouver Heritage Honour Award, Canadian Wood Council Green Building Award
- 2013: Craft beer Market: brewpub, bakery and coffee house
- 2014: Heritage Canada the National Trust Award

Natural/Cultural Heritage

- Designated **Heritage Category– B**: City of Vancouver Municipal (site represents a good example of a particular style or type, either individually or collectively. It may have some documented historical or cultural significance in a neighbourhood)
- Industrial **Architecture**: Constructed **in 1930's**, heavy timber structure with clapboard siding, a significant Salt centre (fishing and food industry)
- Industrial **Cultural Landscape** site: Salt building is one of **the only** remnants of the strong industrial history of False Creek, which included sawmills, steel fabrication plants, logging sites, foundries, shipbuilders and various other businesses dependent on a proximity to rail and water shipping avenues.
- Significance as SEFC neighbourhood and reminder of the rich Vancouver industrial past



Archival photograph of the Salt building, credit: City of Vancouver Archives, Stuart Thompson

Sustainability

ENVIRONMENTAL:

- LEED Certification: natural lighting and ventilation, durability, high ceilings, maintenance, retrofitting of wooden trusses
- Usage of Existing (reuse) material
- Locally sourced building materials
- Connecting to neighbourhood (district) energy system
- industrial site was contaminated (asbestos, faecal material from birds, and lead paint) - identified and removed.

SOCIAL:

- local community- employment
- stands as a landmark in the neighbourhood, an active community gathering space
- Community health and resilience through adaptive design

ECONOMIC:

- Economy generating
- Self-sustainable



Building raised with steel pile extensions, credit: Acton Ostry Architects



Timber trusses were repaired installing steel plates at connection points, credit: Acton Ostry Architects

SDG's

- 7.3- double the global rate of improvement in energy efficiency
- 8.5- achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- 11.4- Strengthen efforts to protect and safeguard the world's cultural and natural heritage



Ensure access to affordable, reliable, sustainable and modern energy for all



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



Make cities and human settlements inclusive, safe, resilient and sustainable

- Intervention- not necessarily minimum, requires drastic changes to be able to meet the present-day requirements to become sustainable

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