City of Richmond

Report to Committee

T0: Parks, Recreation and Cultural Services Committee

Date: September 27, 2022

From: Councillor Harold Steves, Committee Chair

Re: The Report, Steveston National Historic Site: "Fisheries Museum of the Pacific"

Recommendation:

- 1. That Council approve the naming of the Britannia Shipyard National Historic Site and related historic buildings and waterfront as the "Fisheries Museum of the Pacific" and applications be made to Federal and Provincial Governments for major funding to complete the site, as recommended in the report Steveston National Historic Site: Fisheries Museum of the Pacific, dated September 27, 2022.
- 2. That Council approve Part 2 of the report in principal, pending summation of public input and further staff input, so funding applications can be made immediately.
- 3. That trees, shrubs and plants at Britannia Shipyard that are not native to BC be removed and replaced with species native to the Steveston area. Species native to other parts of Richmond can remain, but the trail to Trites Road should also be planted with local native species.

Further, that trees shrubs and plants native to our local marine habitat should be planted along Terra Nova Slough. Combined with an Estuarium and First Nations environmental interpretation centre at Britannia Shipyard, Terra Nova Slough can provide educational, environmental and habitat compensation benefits as well as habitat for Chum Salmon fry.

Harold Steves, City Councillor Steveston National Historic Site:

"Fisheries Museum of the Pacific", Phoenix Gillnet Loft, Britannia Shipyard, Estuarium, and Maritime Environment.

Report by Councillor Harold Steves, September, 27, 2022

Part 1: Designating Steveston as a "National Historic Site", and naming Britannia Shipyard the "Fisheries Museum of the Pacific"

There have been ten referrals to Richmond City staff regarding the Phoenix Gillnet Loft and related Britannia Shipyard issues since the following referral on the Phoenix Gillnet Loft was made on July 18, 2013:

"(1) Potential use of the Phoenix Gillnet Loft building as an Arts Centre and other uses, including a restaurant with potential funding from the newly established \$4.3 million Statuary Reserve Fund for Arts, Culture and Heritage Capital purposes.

(2) Potential moorage from Phoenix Net Loft to Phoenix Pond and possibly new deck construction on old piles in the adjacent area, outside of any red zone habitat, immediately west of the Phoenix Gillnet Loft." This referral was further amended to include "arts and artists, First Nations Interpretations, farmers and artisans, performance space, and other possibilities."

The Steveston National Historic Site referral is "in progress" and the remaining referrals are not expected back until the 4th quarter of 2022. My Report covers all ten referrals as I will not be on hCouncil when the referrals return.

The problem is finding enough space for displays without increasing costs.

Richmond is in the process of applying for National Historic Site designation for Steveston Village and adjacent waterfront, including Britannia Shipyard National Historic Site and Gulf of Georgia Cannery National Historic Site. This could lead to UNESCO World Heritage Site status similar to Lunenburgh, Nova Scotia. With the additions that are underway, the Britannia Shipyard National Historic Site would easily qualify as the "Fisheries Museum of the Pacific"

There are three East Coast Fisheries Museums:

1. "Fisheries Museum of the Atlantic", Lunenburgh, Nova Scotia

Lunenburgh is a Canadian National Historic Site and UNESCO World Heritage Seaport. "The Fisheries Museum of the Atlantic celebrates the rich history of Canada's North Atlantic fishery. It is located in a former fish processing plant on the waterfront of the UNESCO World Heritage Seaport of Lunenburgh, Nova Scotia." The buildings and museum displays are similar to those of the Britannia Shipyard National Historic site and the Gulf of Georgia Cannery National Historic Site. The buildings have not been rebuilt to museum standards. In addition it has aquariums, "living fish exhibit and tidal tank", plus a "First Fishers" exhibit depicting the Mi'kmaq over 13,000 years, an Ice House Theatre showing movies, maritime arts and a restaurant. Vessels include a rum runner and theThomas E. Conner restored at a cost of \$750,000 in 1988.





RUM RUNNERS

Mi'

Museum

Tide Pool



Mik'mak



Artists

Rum Runners

2. Hector Heritage Quay and Northumberland Fisheries Museum, Pictou, Nova Scotia

The Hector Heritage Quay is a cluster of buildings similar to the Britannia Shipyard National Historic Site.

The main museum is a new 3 storey building of Victorian maritime timber construction similar to both Phoenix Net Loft buildings. It "features three levels of displays about the passengers aboard the Hector's voyage to the New World. Its flagship is a reconstructed sailing ship, Hector, along with other vessels, a rigging and carving shop, a carpenter shop, a blacksmith shop, an artists studio, and a public marina.

Adjacent to the main museum, is the Northumberland Fisheries Museum. It has lobster tanks and aquariums depicting the lobster industry and other East Coast fisheries and a lighthouse.



Hector Heritage Quay and ship Hector



Northumberland Fisheries Museum



Lobsters, and other animals and plants of the sea.

3. Fluvarium, St. John's. Newfoundland:

Similar to the "Estuarium" approved for Garry Point in 1982, The Fluvarium has aquariums and terrariums depicting the sea life and seashore plants and animals. In addition it operates a programme called "Fish Friends" similar to "Salmonids in the Classroom" in BC. Each winter Fluvarium staff deliver 100 fertilized salmon eggs to participating schools with incubating tanks and aquariums for Grades 4, 5, and 6. The students study the beginning of the life cycle, raise them to the fry stage, and return them to the Fluvarium to release into the Rennie River.



Fluvarium



Fluvarium displays

fish eggs

CONSIDERATION:

Interpretation at the Britannia Shipyard site at Steveston is designed to:

*Create authentic and immersive experiences of the daily life of the people who worked in West Coast fishing and boatbuilding;

*Foster greater understanding of the cultural diversity of people that supported West Coast fishing and boatbuilding;

*Encourage discovery of the complex workings of the West Coast fishing and boat building industry; and

Negotiations for National and World Historic Site designations take time. The Britannia Shipyard National Historic Site tells the story about boats and boatbuilding, Chinese and Japanese fishermen and cannery workerst, and First Nations families, arts and culture. The Gulf of Georgia Cannery National Historic Site tells the story of salmon canning and herring reduction. With completion of the Phoenix Gillnet Loft restoration, the Britannia Heritage Shipyard National Historic Site will be equal to the Fisheries Museum of the Atlantic. Naming the site the "Fisheries Museum of the Pacific" would assist in National and World Historic Site Designation similar as Lunenburgh and assist in getting federal and provincial grants.

RECOMMENDATION:

That Council approve the naming of the Britannia Shipyard National Historic Site and related historic buildings and waterfront as the "Fisheries Museum of the Pacific" and applications be made for Federal and Provincial funding to complete the site.



Phoenix Gillnet Loft and Phoenix Seine Loft, typical tall buildings of the original Cannery Row

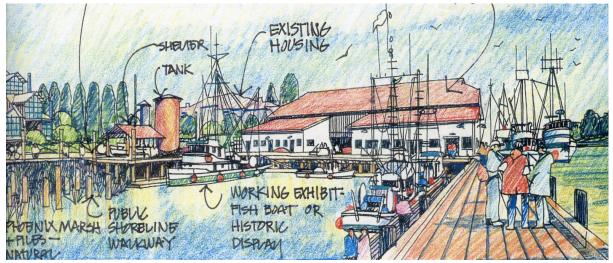
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Part 2. Britannia Shipyard National Historic Site Completion.

1. Phoenix Gillnet Loft,

(a) Maritime Arts Centre and Market

The Phoenix Gillnet Loft was the only heritage structure to be saved in the BC Packers vision. It is essential to the completion of the Britannia Shipyard National Historic Site. It was the vision of both BC Packers and City of Richmond planners and heritage staff. In the BC Packers Plan, the Imperial Cannery was sacrificed to save the Phoenix Gillnet Loft to preserve a small, representative, stretch of the original tall buildings of Cannery Row at Britannia.



Phoenix Gillnet Loft – BC Packers rezoning proposal and gift to the city

A Maritime Arts Centre and Market was approved for London's at the foot of No. 2 Rd. on City owned land incorporated into the development. As we had a lack of funding to restore the Phoenix Gillnet Loft, Councillor Barnes and I suggested selling the City owned property and spending the money repairing the Phoenix Gillnet Loft before the building became too run down. Richmond Council agreed, and the City owned share of the property was sold. The \$4.3 million in the Statuary Reserve Fund in 2013 should have increased by now.

The Steveston Waterfront is a major attraction for artists. A facility for artists or an artists, farmers and fishers market would be a major attraction for local residents and tourists on the Steveston Waterfront. If a market is established it is the logical location for a visitors centre and sale of books and souvenirs. Another referral from Councillor Barnes on the arts, was for a museum exhibit similar to the Amos Pewter Economuseum in Mahone Bay, Nova Scotia making souvenirs on a tabletop foundry. While an arts market might not qualify as a "food hub", the BC Ministry of Agriculture and Fisheries provides grants of up to \$1 million for food related uses.



Souvenir key chain made on a table top forge at Amos Pewter Economuseum, Mahone Bay, Nova Scotia.

Restaurant – a seafood restaurant has been recommended on the site from the very beginning. It would fit well with a market or a food hub and an Estuarium. The Cornerstone Report recommended a restaurant in the Phoenix Seine Loft. A better location is to widen the southerly lean-to on the Phoenix Gillnet Loft or locate it in the Gillnet Loft.

Visitors Centre- a visitors centre selling books and souvenirs would also fit well on the ground floor of the Phoenix Gillnet Loft or in the north lean-to.

RECOMMENDATION:

Depending on the result of the public consultation, the ground floor of the Phoenix Gillnet Loft could be reserved for "Maritime Arts" - "arts and artists, farmers and artisans, and performance space" as originally planned and funded. It is also a good location for a visitors centre and a restaurant.

(b) Steveston Heritage Interpretive Framework-

There is a need for "Interpretive themes related to the site that are not currently explored at Britannia Shipyards or elsewhere in Steveston Village"

Most people are unaware of the unique situation where almost equal numbers of First Nations, Chinese, Japanese and Caucasians once lived, worked and interacted together in the same community. They are unaware that the whaling and sealing fleets once tied up at Steveston or that Captain Atkinson, the one armed Captain of a sealing schooner once served as a Richmond Councillor. Today Steveston Harbour is being developed as the main West Coast fishing port by the Department of Fisheries and Oceans and is a key port in the West Coast Groundfish Fishery RECOMMENDATIONS, adopted by Richmond Council September 2021:

To successfully implement the Interpretive Framework, it is recommended that future heritage interpretation initiatives should:

1. Align with the themes and goals identified in the Interpretive Framework;

2. Put users first;

3. Link the stories and sites in Steveston; and

4. Introduce elements that address existing gaps in interpretation such as:

*The story of First Nations and their changing relationship to the area;

*The significance of the Fraser River in Steveston's development and the impact of that development on the river;

*The evolution of West Coast fishing methods and boats;

*The history of Cannery row and how the canneries shaped the Steveston community;

*The story of farming and agriculture in Steveston past and present; and

*The story of Steveston as an international port.

Addressing these gaps should be considered priorities for future interpretation and the existing sites and elsewhere in Steveston as opportunities arise.

...... Steveston Heritage Interpretive Framework, September, 2021

BC Packers Exhibit – BC Packers donated the Phoenix Gillnet Loft plus \$250,000 for a BC Packers exhibit as their contribution to the City when the property was rezoned. The amount should have increased with 20 years of interest. With the Britannia Shipyard on the east and Gulf of Georgia Cannery on the west it is important to tell the history of the Imperial Cannery which was in the middle

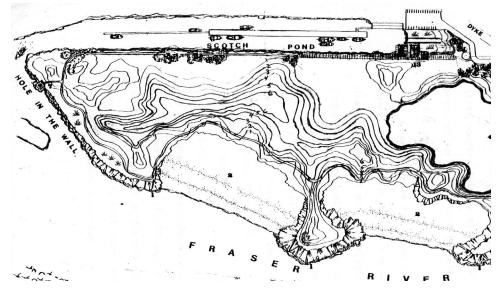
Federal and Provincial grants are available for telling the history of First Nations, Japanese and Chinese Canadians and for environmental interpretation.

RECOMMENDATION:

While there are enough stories to be told to utilize the entire building, the upper floor of the Phoenix Gillnet Loft would be an excellent location for the Steveston Heritage Interpretative Framework, including the BC Packers Exhibit.

(c) Estuarium:

An Estuarium was approved for Garry Point Park in 1982 but Council never had the finances to build it. A cluster of buildings was approved at Garry Point at the east end of Scotch Pond (#13)



Canoes were purchased and teaching kayaking and canoeing was a successful programme at Britannia Shipyard until a change in management in 2002. An Estuarium was later proposed for a Phoenix Cannery building by the Year 2000 Committee. It could be similar in size to the Richmond Nature Park Nature House, Lunenburgh Museum, Northumberland Fisheries Museum or the Newfoundland Fluvarium. It would interpret the Fraser River Estuary, Salish Sea, marine and upland plant and animal species, emphasizing native trees, shrubs and plant species providing First Nations food, weapons and tools. When the Britannia Shipyard National Historic Site plan was adopted, it required planting of trees, shrubs and plants native to the area and an interpretation exhibit was anticipated. The Estuarium could provide chum salmon eggs from a hatchery to Richmond Schools for Salmonids in the Classroom studies, then release them into Terra Nova Slough.

The original 1982 proposal included input from:

*Fraser River Estuary Curriculum Committee, 1982

A Marine Study Centre "would be used by children and adults to learn about the estuary, a vital ecosystem affecting the Lower Mainland – culturally, economically, and biologically. The Fraser Estuary supplies nutrient rich, brackish water where Salmonids can adjust to the changing salinity. Because the estuary is so important to the Salmonid life cycle, the commercial fishing

industry of Steveston is partly dependent on the estuary, as were the Salish Indians who had a summer fishing village on Garry Point. The large population of salmonids in the area attracts killer whales that have a migratory route passing the mouth of the Fraser. The estuary supports a rich variety of life which can be shared with Richmond Residents and visitors through a Marine Study Centre."

*Moclips Cetological Society presentation, 1982:

A Marine Environmental Centre would be "a valuable adjunct... to research on killer whales (Orcinus Orca). J-pod quite commonly congregates at the mouth of the Fraser River to avail themselves of the salmon runs which regularly appear there." "It would be a tremendous asset to the growing body of scientific knowledge of cetaceans to commence a new site for observations from such an ecologically rich area as the Fraser River Estuary"

With other projects underway an Estuarium is the only exhibit at the Lunenburgh Fisheries Museum of the Atlantic that the Britannia doesn't have. It is also more economical and more accessible to the public and tourism to have it located in the Phoenix Gillnet Loft than to build new buildings at Garry Point.

RECOMMENDATION:

An Estuarium and First Nation environmental Interpretation Centre could be located in the upper floor of the Phoenix Gillnet Loft depending on the space needed for the Steveston Heritage Interpretation Framework exhibit and BC Packers exhibit. Admission could be charged as part of general admission but separate from the main site. Another option is to re-arrange the Seine Loft and locate it there. Teaching kayaking and canoeing would be at Britannia.



Drying salmon by a slough. 1880.

2. First Nations, "First Fishers", Smokehouse

Like Lunenberg's First Nations, the "First Fishers" on the BC Coast were First Nations going back 13,000 years. Exhibits showing First Nations Arts, culture, and history before the coming of the settlers can be accommodated in the First Nation house at Britannia. Archaeologist Len Ham identified it as a "Smokehouse", similar to other First Nation smokehouses in BC. It was originally located further north on higher land before the dykes were built in 1907.



A 1928 aerial photo provided by Dr. Ham shows a raised boardwalk straight out from a single door of the house then at an angle to the east straight to a major wharf west of the Britannia Shipyard. Dr. Ham examined the building and determined there originally was only one door with windows on each side typical of a Smokehouse. Little is known what the wharf was used for. The author, Cicily Fox Smith, is said to have told of a wharf loading sailing ships with lumber next to the Britannia Cannery.

Further north of the Smokehouse was a burial ground discovered by Percy Norton. As he graded Railway Avenue for the Richmond Municipality at Steveston Wye, circa 1910, his grader blade lifted the tops off of burial boxes, exposing the remains which quickly disintegrated. Later

attempts to find the site were unsuccessful. This indicates the presence of a village before the arrival of the settlers.

After the arrival of the settlers, First Nation men fished for the canneries and First Nation women worked in the canneries. They were later replaced by Japanese women. This may be why Marshall English built his first fish camp and then his cannery at this location.



First Nations Smokehouse

Welcoming figure

Exhibits showing First Nation arts, culture and history before the coming of the settlers can be accommodated in the Smokehouse at Britannia, with working artists showing their crafts. Welcoming figures along the front of the building, similar to the photograph of a typical Smokehouse, could be the initial art project in the First Nation Smokehouse.

Federal and Provincial funding is available for preservation of First Nations, Japanese and Chinese heritage.

RECOMMENDATION:

The First Nations Smokehouse should depict the arts and culture and way of life of local First Nations at the time of the arrival of the settlers with welcoming figures along the front.

The building should be moved closer to the boardwalk to allow a pathway on the north side around the building so admission can be charged to the site.

First Nations and the environment would be part of the Estuarium and included in the general interpretation of the fishing industry.

3. Japanese Canadian History

According to the history "35 years of History of the Steveston Fishermen's Benevolent Society" a modest Methodist Mission church was built near the Phoenix Cannery in 1895. Upon completion there was a typhoid outbreak and in 1896 the church was quickly converted to the first Japanese Hospital.



Drs. Office at end of hospital, Dr. Large, Mrs Large, Anaesthetist perform first operation



Methodist Mission Church and hospital

Hospital ward.

In 1900 a new larger hospital was built at No. 1 Rd and Chatham Street with 13 rooms of various sizes. The Benevolent Society rented Richmond House (Richmond Hotel) at \$10 a month then moved to a location north of Moncton Street on the east side of 2nd Ave. across the street from the original Steveston Post Office.

School classes began to be held in the hospital and across No. 1 Rd. at the new Japanese Methodist Church. A Japanese kindergarten was built on the north side of Chatham Street. In 1909 the original church and hospital building at the Phoenix Cannery was moved to the No 1. Rd. site and it reopened on Feb. 18, 1911 as the Japanese School with 22 or 23 students. The number of students increased. "Enlargement of the school was decided on August 30, 1913"

The final Steveston Fishermen's Benevolen t Society Office, which has two entrances and is assumed to include the Japanese School Office, was built between the hospital and the school, opening in March , 1919. It is attached to an earlier small building between the hospital and the school. Oral history suggests that it was used as a doctors' and nurses facility. What the building was originally bears further investigation.

In 1923 the Japanese School was integrated as an annex to Lord Byng School with regular classes in English and operated after school classes as a Japanese Language School.



Japanese Hospital, Steveston Fishermen's Benevolent Society building and the Japanese School.

The Caucasian teachers on the teeter totter in front of the Japanese School, Greta Cheverton, Elsie Esplen and Jessie Steves taught there ca. 1926 when it was annex to Lord Byng School.

Relocated at the Steveston Museum, the Steveston Fishermen's Benevolent Society office represents Canada's first Medicare system, plus years of struggle for racial equality and is worthy of National Historic Site designation.

How Japanese-Canadian fishermen and boat-builders and their families lived is told at the Murikami House and Boat-works at Britannia Shipyard. There was a Japanese grocery store outside the dyke east of the Seine Loft that could be reconstructed sometime off in the future.

Still needed is a general Japanese Canadian history including the Japanese Buddhist Church, Japanese Methodist Church, farming, fishing locally, and making an annual trek north to fish, northern canneries, women working in canneries, 1900 strike, Steveston businesses, racism, WWII evacuation, etc. and general history of the fishing industry.

Children's Museum:

While it is called the Murchison House because the Murchison family lived there it was operated for decades as Steveston's first child care centre by the "Sisters of Atonement". When the Sisters paid to move the Murchison houses to Britannia it was intended to show the history of the child care centre for Japanese children that they operated in the upper floor of the two storey Murchison House with a children's museum. The Sisters of Atonement played a major role in providing early child care for Japanese women working in the canneries. In WWII they actually moved to the BC Interior to assist Japanese Canadian families relocated from Steveston. It's a story that should be told.

When the two storey Murchison House was restored the inside stairway of the house was reversed with a new outside doorway at the back for use as a volunteer centre. The alteration was justified because the upper floor of the Steveston Museum was being used as a children's museum. Then staff took that over as office space. It is important to recognise and tell the story of early childcare by the Sisters of Atonement. A children's museum is needed.

NOTE: The one storey Murchison house and the two storey house were original cannery houses to the Garry Point Cannery that Customs Officer Murchison combined into two houses when a larger new cannery was built. The small room at the end of the porch was used as customs office, where he sat with his gun and did customs business through the open window. That's another story that should be told.

RECOMMENDATION:

The history of the Steveston Fishermen's Benevolent Association, hospital, and school, should be told at the Steveston Japanese Fishermen's Benevolent Society office.

The volunteer centre in the Sisters of Atonement child care centre should be moved elsewhere and the upper floor of the two storey house used as a children's museum, as recognition for early childcare and the role played by the Sisters of Atonement.

General Japanese Canadian history should be told with the general history of the fishing industry in the upper floor of the Phoenix Gillnet Loft.

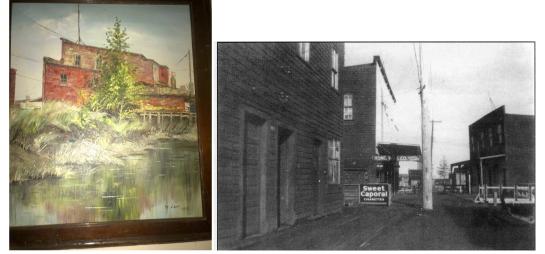
4. Chinese Canadian History, Hong Wo Store and Farm, Chinese Junk

Hong Wo Store, and a hundred acre farm, owned by the Lam family, was part of the Britannia Shipyard National Historic Site. The farm was north of Britannia with store and buildings to the west. The Lam family had three bunkhouses and a cookhouse opposite Hong Wo store, greenhouses for tomatoes and a pickle factory further east. The bunkhouses were for the Chinese workers in the Britannia and Phoenix Canneries. The Cookhouse had bunks on the upper floor, a huge Wok on the main floor built of brick from the Steveston brickworks at the foot of Trites Road and a barrel stove for heat. Built on piles outside the dyke, Hong Wo (Meaning Living in Harmony) was known as BC's first department store. They sold groceries direct to fishing boats that tied up to the dock, including Steveston's most famous fishing boat Phyllis Cormak. A black delivery truck delivered groceries door to door in Steveston.



Hong Wo Pickle Factory

Hong Wo Bunkhouses..... by G. Lam 1970



Hong Wo Store.... by G. Lam 1970 Hong Wo apartments, store and cookhouse

General Chinese Canadian history has been told in the upper floor of the Chinese Bunkhouse. However, the exhibits in the Chinese Bunkhouse were never completed. In 1977, when Hong Wo Store was demolished, the Steveston Historical Society was given a week to rescue artifacts for future reconstruction of part of the interior of Hong Wo Store. One cabinet and a number of boxes shipped to Hong Wo from Hong Kong are displayed in the upper floor of the Chinese Bunkhouse. Drawings of the building were made, showing opium dens with observation windows in the doors on the upper floor. A replica of part of the Hong Wo store was never completed. Large display counters, a glass case, and some clothing, shoes and other unsold items that were on the shelves are still in storage at the Steves Farm.

Early Japanese fishermen fishing along the BC Coast told of seeing Chinese chests with Chinese characters on them and other artifacts at First Nation Villages presumed to have been left by Chinese visitors. A Chinese Junk, "Amoy", visited Victoria in 1922. The genuine Chinese Junk Hai Long owned by Monte Gisborne will tell the story of Chinese history and early Chinese residents of Steveston. The visitors will need space for meals and meetings in the Chinese bunkhouse.



Amoy

Hai Long

There are two options for telling the Hong Wo story.

(a) Part of the Hong Wo Store could be reconstructed and the Hong Wo story told on the ground floor of the Chinese Bunkhouse at the SE corner, with the Hong Wo sign, or replica, on the south end of the building. It would reduce the size of what would have originally been the bunkhouse "cookhouse and mess hall". There would be enough space for small gatherings and guests on the Hai Long. Meeting space could be relocated in the Phoenix Gillnet Loft.
(b) Hong Wo store served all races and would fit well with a general history of the fishing industry if reconstructed in upper floor of the Phoenix Gillnet Loft. It would fit well with a market downstairs. The Chinese bunkhouse lower floor would remain a space for larger groups

RECOMMENDATION: The Hong Wo Story should be told in the South east corner of the Chinese Bunkhouse which is located near where the Lam Farm, Chinese Bunkhouses, cookhouse, and Hong Wo Store were originally located.





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	(boneless)	Short Ribs	Staffed Olives
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Service and Quality	Round Steak or	Flink Steaks	
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	Rump Reast	Blade Reast	Sweet Mustard Pickles
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HONG WO CO.	Shellbone Roast	Round Bane Roast	CAMPB
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	P	ORK	Yellow Pen
530 Dyke Road	Loins (whole)	Liver.	Mushroom
	Legs (whole)	Pork and Beef	Clam Chowder
(Next To Nelson Bros. Connery)	Shoulder (whole)	Sausages	Chicken Gumbo
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Order forms for fishing boats



Chinese bunkhouse to North



SE corner for Hong Wo store

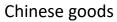


rice cleaner



Hong Wo hardware shelves





& groceries

5. Boat Repairs, Boat Storage and Boats:

Hiring a shipwright to oversee volunteers and get repairs and maintenance done was approved by Council in 2002, but never occurred. At the time Site Manager Mary Gazetas had accepted the donation of both the Skeezix and Starliner, and was providing movie funds from films produced at Britannia Shipyard for volunteers to do annual maintenance and repairs. Saying the boats belonged to the Britannia Society was an excuse for the incoming manager to do nothing and use the movie funds for other uses. Because the boats were allowed to deteriorate without annual maintenance, "How to maintain and manage the fleet of boats at the Britannia" was referred to staff Sept 23, 2008. The City saved over a million dollars over 20 years by not hiring a shipwright but over a million dollars of damage was done to the boats

RECOMMENDATION:

A shipwright should be hired now, new volunteers encouraged, and movie funds used for repairs and annual maintenance of boats.

BOAT STORAGE:

Shed Roofs were recommended in the BC Packers plan for displaying boats along the waterfront. One shed roof was constructed, and it houses a retort from BC Packers that was for cooking canned salmon. Another was proposed for a fishing boat just east of the Phoenix Gillnet Loft. (See Phoenix Gillnet Loft BC Packer's picture) Traditionally about 20 boats were taken out of the water and skidded in rows west of the Richmond Boatworks for maintenance work over the winter. While it reduces the open area, this would be a good location for a triple shed roof. If there is enough room the east side could also be considered.

In keeping with the BC Packers plan, I made a referral to staff on May 25, 2016 requesting that a shed roof be constructed over the Skeezix/Fleetwood "as an indoor civic art project using the City's Public Art Reserve Fund." It is due back in quarter 1, 2023. There is another solution.

With the restoration of the two carriage ways completed in the Britannia Shipyard, it would be historically more accurate and more economical to use the east carriage way to display the Skeezix instead of building a very large shed roof. On the east carriage way, it would tell the story of the Skeezix, already loaded, being serviced for a run across the U. S. Border. This would allow volunteers under supervision of a shipwright to remove additions to the original cabin and restore the boat as a rum runner. The west carriage way could be used for servicing boats still afloat along with the carriage way at the adjacent Richmond Boatworks.



Boats indoors, Mystic, Connecticut

Shed roof

The Seine Loft should be used for storing and displaying smaller boats. Left outdoors several have been lost already. With a temporarily enlarged doorway, some medium sized fishing boats could be displayed indoors in the Seine Loft. The Halifax Maritime Museum of the Atlantic has a tall open area similar to the Seine Loft for medium sized boats and the open area around them is used for concerts and Maritime Arts. The Starliner and Bud Sakamoto's boat could be preserved in this way.

RECOMMENDATION:

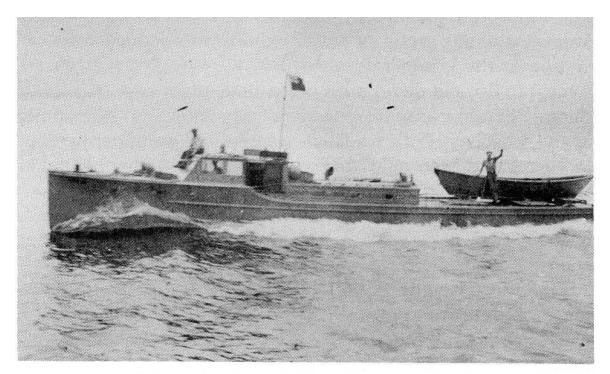
For indoor storage consider shed roofs, even a triple shed roof for three boats, at the Richmond Boatworks. Small boats and a couple of medium fishing boats could go in the high ceiling Seine Loft. With masts shortened a fishing boat could be a centrepiece in the Phoenix Gillnet Loft. The Skeezix is best displayed on the east carriage way in the Britannia Shipyard

BOATS:

Britannia Shipyard is about the boats. A few boats have been restored and maintained. The Flagship "Providence" is maintained by its private owner. Not hiring the shipwright approved by council in 2002 resulted in demolishing boats due to lack of maintenance, and requiring over \$1 million in repairs for those that remain. It is very important to retain three boats that have been allowed to deteriorate, and add more boats if they can be found and their annual maintenance financed.

Skeezix or Fleetwood:

The Skeezix is a Steveston boat, playing an amazing and important part of Steveston's history. It is one of many rum runners that operated out of Steveston during Prohibition. Many were fishing boats. It is one of a kind and was built in 1930 especially for rum running, with narrow sleek lines, a central diesel engine for normal travel and two rotary aircraft engines to fire up when chased by the US Coast Guard. It was acquired for the city by Site Manager Mary Gazetas and myself from the family of deceased owner Robert Turnbull for a tax receipt. He had used it as the pleasure craft Fleetwood.



The Skeezix was intended to be the Flagship for Britannia Shipyard National Historic Site.

Skeezix, Spring 1933. Canadian shore boat 56 feet long, one 80-hp diesel and two 450-hp Liberty gas engines.

In the 1890's, through the prohibition era, to the 1940's the entire river channel between Steveston and Westham Island was known as Cannery Channel. W.H. Steves owned 160 acres on the south side of the river, now known as the Alaksen National Wildlife Area. There were two Steveston Canneries on the south side of the river, the Harlock and Albion Canneries on Harlock and Albion Islands. George Reiffel's wharf and shed, immediately across the river from Britannia Shipyard was on Reiffel Island. During Prohibition George Reiffel's rum runner Skeezix was moored there. She was serviced at the Britannia Shipyard before she made her runs. Ian Bell Irving said they were never involved in rum running. They just serviced the boat.

Steveston's rum running story has never been told. It was a major centre of the rum running fleet on the west coast. A number of fishing boats were converted to rum runners and later converted back. There were several alcohol distilleries and breweries. A mysterious white float plane tied up and loaded cargo from a wharf near Britannia Shipyard for its flight across the border. The largest distillery was a piggery that disguised the odour from the whiskey still with pigs. It was north of Britannia Shipyard, near Railway Avenue and Moncton St. It was still there in the late 1940's until a new police force jailed the bootlegger at the SE corner of Chatham

Street and 3rd Avenue for 6 months, and everyone else shut down. A small still was found in the Phoenix Cannery Chinese Bunkhouse when it was demolished.



Skeezix as Fleetwood, fully restored, 2002

When acquired by the City, the Skeezix had been completely restored and was in excellent condition. Without annual maintenance the double plank hull quickly dry-rotted (as did the St. Roch at the Vancouver Maritime Museum) To have it fully restored was estimated in 2011 to cost about \$200,000 for materials if volunteers do the work. To have it afloat could be done with fibreglass over the hull for about \$25,000 for materials, a common practice. Without major repairs it could be preserved with indoor storage similar to the St. Roch which is in a specially constructed drydock.

RECOMMENDATION:

The Skeezix should be repainted and displayed, with cabin addition eventually removed, loaded and ready for a run across the US border, on the east carriage way of the Britannia Shipyard

Starliner:

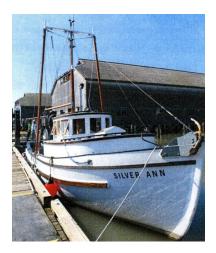
The Starliner is a fishing boat very important to Britannia. It is the last boat built by the Lubzinski Brothers, who operated the Richmond Boatworks at Britannia during WWII. The Starliner was one of the newer, faster, flared bow, fishing boats developed at the time for travel to and from northern fishing grounds. It too was in excellent condition when Terry Lubzinski donated it to the city at the end of one fishing season 20 years ago. Site Manager Mary Gazetas looked after the details and Terry's partner Harry Diamond and Charlotte Diamond and I assisted. It is uncovered outdoors and further deteriorating. It could be restored at an estimated cost of \$55,000 for materials or painted and displayed indoors or under a roof.

Sakamoto boat:

Bud Sakamoto wants to donate his fishing boat, built by his father at Sakamoto Boat Works. It is seaworthy and has continued to be used for fishing. It is one of the last wooden fishing boats left that has not been altered. As there were many boat builders in Steveston, a Sakamoto boat would be a very important part of the collection. Bud does not want to donate the boat if it is left to the elements to decay. It could be kept seaworthy, or stored indoors.

Silver Ann:

Acquired by the City of Richmond in November 2001 the Silver Ann is a 34 ft gillnetter built for George Osaka by Sadajiro Asari in 1969 in the Richmond Boat-works.



The Silver Ann was the last boat built at Britannia when it was a working yard. It was fully restored 2005- 2009 and is in the water. It requires annual maintenance. Acquired by the city of Richmond in Nov. 2001 just before a change in management it was one of the few vessels properly maintained

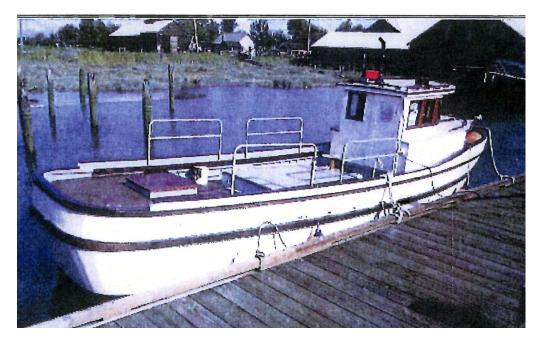
M V Burnaby:

Recently acquired, the Burnaby is the type of small tug boat that towed sail gillnetters from the canneries to the fishing grounds. It has been fully restored. It should be used to tow the Fraser River Sail Gillnetters constructed 20 years ago.

lona:

The Iona is a small 38 ft. fish packer built in 1927 and was used for collecting fish from nearby fishing grounds and transporting them to the cannery. It was owned by Toshi Koyanagi before WWII. During WWII it was owned by Bill Montgomery who operated it for Nelson Brothers

Fisheries collecting fish from the boats fishing for the Colonial Cannery in Steveston. He gave it back to Toshi Koyanagi after the war.



The Iona was acquired from the Koyanagi family by Site Manager Mary Gazetas on Oct. 18, 1991 for \$1 paid by the City of Richmond. It was restored and then left without maintenance. Cost of materials for repairs in 2011, \$500. As the only one left and the only size of fish packer that we can afford, it is an important part of our history. It is big for indoor display in the Phoenix Seine Loft. It could be kept in the water, with annual maintenance, as long as it doesn't have heavy use due to changes in the stern, or it could be displayed in a shelter.

RECOMMENDATION:

The Starliner and Sakamoto boats could be displayed indoors, through a temporary door widening, in the Phoenix Seine Loft. Otherwise they could be displayed in outdoor sheds

The Iona could be in the water or in an outdoor shed. As boats were normally stored side by side on skids during winter a triple roof shed could be constructed adjacent to the Richmond Boat-work for three boats.

We need boats in the water. The Silver Anne and MV Burnaby, with Fraser River skiffs nearby, should be maintained as waterborne vessels as long as they are taken out of the water for maintenance every winter. They could be under shed roofs in winter..

Privately owned boats:

The Providence is an 80 ft gaff rigged ketch and Class B tall ship. It is the flagship of the

Britannia Shipyard National Historic Site. Built in 1903, it is the oldest working vessel in BC waters. It is a privately owned working vessel that assures its upkeep.

The Gikumi is a privately owned, restored working boat built in 1954. It provides 3 hour river tours on the history and environment of the river.

The RFM, presently called the Elaine, was named for Captain R.F. Marpole of Eburne. It was built as a halibut schooner hull complete with fittings for masts, finished as a tugboat, then converted back to a halibut schooner. Built in False Creek in 1922, it is the last halibut schooner built in BC. In 2007 Richmond City staff recommended its purchase but council declined to do so. It was purchased by an American and occasionally visits from Washington. It should be invited annually.

The Hai Long is one of the last remaining Chinese Junks. It is to provide river tours, history, and Chinese food in conjunction with the Chinese Bunkhouse.

A Steam Fishing Boat once tied up at Britannia but was told to leave by a manager that was not aware that there were steam fishing boats. It should be found and asked to return.

RECOMMENDATION:

Source privately owned boats to dock at Britannia for events and also temporarily or permanently.

Bristol Bay or Columbia River Sail Gillnetters::

There were severalBristol Bay Boats still in use at Finn Slough in the 1940's. Steveston boatbuilders were the main builders and built them in later years for use in Bristol Bay where engines were banned. The last four sail gillnetters for use in Bristol Bay were built by Allan Steves at David Boatworks at Garry Point ca. 1950. Britannia had the last one remaining on the Fraser, but it rotted and was demolished. There are no remaining Columbia River Boats. There have been a couple of Bristol Bay Boats for sale in Washington State for about \$10,000 and there may be some in the north. A Bristol Bay boat should be acquired.

RECOMMENDATION:

A Bristol Bay Boat should be purchased. If none is available a smaller Columbia River Boat should be built in the Richmond Boatworks.

Seine Boat and Coastal Fish Packer:

Britannia needs a seine boat, and CANFISCO has offered a large fish packer that brought salmon to Steveston canneries from the north. There are some seine boats that have been converted to pleasure craft but without their fishing gear they do not tell the story. The Britannia had the Schuchona IV, donated by BC Packers, but it could not be maintained and had to be disposed of. At present the site isn't capable of raising the funds for annual maintenance of small vessels, let alone large vessels. In Mystic Connecticut they solved the problem by establishing a maintenance fund before acquiring a vessel.

RECOMMENDATION:

A seine boat and fish packer should be acquired when enough funds are available for annual maintenance. A maintenance fund should be established for each vessel.

6. Two Storey Phoenix (Duplex) Cannery Building

The building known as the Japanese Duplex was built before the arrival of the Japanese at the time or before English's Phoenix Cannery was built in 1894. It appears to have become a "duplex" when a walkway was constructed through the building when the Phoenix Seine Loft was built. The siding is typical of the 1880's and many changes in the windows indicates many changes in use.



2 storey Phoenix (Duplex) Cannery Building 2 storey Phoenix Cannery Building, 1884, at right

RECOMMENDATION:

Further research is needed to determine the original use of the 2 storey Phoenix Cannery Building.

The 2 storey Phoenix Cannery building is ideal for use as the Easthope Engine Shop

7. Easthope Engine Shop

Easthopes were among the early engine builders such as Ford and Chrysler. The Easthope family with six sons and two daughters arrived in New Westminster in 1899. The first Easthope engine in 1900 was a two cycle, three horsepower, xx cylinder crankshaft with pistons and valves run on petrol in a canoe.

By 1910 motored vessels were replacing rowing skiffs and sail gillnetters. Fishing boats became bigger, like west coast trollers. Easthope's oldest sons Vincent and Eric were building engines up to 30 horsepower, incorporating pistons and valves from Model T Fords. Their best sales were 5 horsepower engines built for 25 ft. fishing boats.

Percy (Peck) Easthope and his brothers George and Ernest managed the Easthope Engine business from 1914 to 1953. They set up a shop at No. 1 Rd. in Steveston in 1930 with their Vancouver business at 1747 West Georgia. The shops were called Easthope Marine Industries.

In the peak years around 1950 they sold about 100 engines a year with 45 workers in the shops and 5 workers in a foundry. Easthope gasoline engines were installed in two out of three of powered fishing boats on the Fraser River. Almost 6,000 Easthope engines were built in Vancouver before production ceased in 1969. Competitors Ford and Chrysler had gone into high speed marine engine production, up to 20 miles per hour.

The Easthope Steveston shop continued in operation, offering full maintenance, sales and service until they closed in 1987. Ron and Susan Doal of Steveston Machine Works had taken over Steveston Easthope Sales and Service in 1978 with Percy's son Bill still working there.

When Easthopes closed, the City purchased the huge Easthope turret lathe that was used to manufacture the engine shafts. It is probably the last of its kind. The City also purchased several engines, hundreds of the wood patterns for engines, and fishing gear, unused engine shafts and fishing gear parts. Fishing gear invented at Easthopes was adopted world wide.

Some of the Easthope engines are on display in the Britannia Shipyard. However as Easthopes were one of the few early marine engine companies in the world and the Easthope engines were so important to the fishing industry, there is a need for a replica Easthope Engine Shop. It cannot be in the Britannia shipyard. The turret lathe is very heavy and will require heavy timber works or concrete underneath it.



CONSIDERATION:

(a)

The Easthope Engine Shop is so important that it should be a stand-alone structure. A separate structure could be constructed as part of the L-shaped building east of the Richmond Boatworks as originally planned, which would be costly and probably never get done.

(b) The 2 storey Phoenix Cannery building is the best existing site. However, it has been suggested as one of the potential locations for a visitors centre. It might be better to have the visitors centre in the Phoenix Gillnet Loft as part of the market.

(c) Instead of building a new structure, It also makes economic sense to have the Easthope Engine Shop in its own room on the ground floor of the Phoenix Gillnet Loft. This would be difficult for charging admission and access to the Britannia Site, and would reduce the area for the Maritime Arts Centre and Market.

RECOMMENDATION:

The Easthope Engine Shop should be located in the 2 storey Phoenix Cannery Building

8. Sawmill, Blacksmith Shop and Foundry

SAWMILL: Most early canneries had a boat building shop and a sawmill beside it to cut their own lumber. Some fishermen were beachcombers and brought in logs in the off season. David Boat-works at Garry Point continued to saw logs until beachcombing was banned. A sawmill and wood drying shed were planned in the original Britannia Shipyard plan in the "L-shaped" shed east of Richmond Boat-works. A timber shed was deconstructed at the works yard for use at Britannia, but without adequate funds the materials rotted. Then a washroom was built where the sawmill was supposed to be located. The Lubzinski sawmill is in storage.

RECOMMENDATION:

The Lubzinski sawmill should be under a lean-to roof on the west side the washroom .

BLACKSMITH SHOP AND FOUNDRY: Every cannery had a blacksmith shop. Due to fire risk, canneries had their blacksmith shops outdoors in a separate building. A Blacksmith shop was originally planned east of Richmond Boat-works. For some reason an apple orchard was planted there, but there were no apple orchards on the Steveston waterfront. It was tidal. There was only one apple tree at the Murakami House. That is why it was so significant. Blacksmith tools are available.



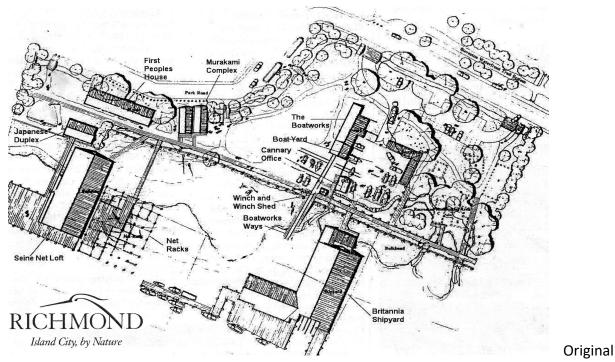
Tom Howard's Blacksmith Shop was on No. 1 Rd. a few doors south of Easthopes. Ed Ireland, right, and Tom Howard, centre, in the photo, invented net guards and other gear when boats became motorized with Easthope Engines. Like Easthopes, their gear for fishing boats was adopted worldwide. Open Air Museums, like Mystic Connecticut, have operating blacksmith shops.

Lubzinski's had a foundry for making the centre pieces for their ship wheels. Decades ago Councillor Barnes made a referral to consider an operating table top foundry similar to Amos Pewter, a private museum in Mahone Bay, Nova Scotia. With a table top foundry showing how a foundry works, they were making key chains and other souvenirs for sale. Such a foundry should be located in the Phoenix Gillnet Loft as part of the Maritime Arts Centre.

RECOMMENDATION:

The Lubzinski Sawmill should be reconstructed under leanto roof adjacent to the washroom.

A working blacksmith shop should be constructed in the L-shaped shed as originally planned, but located further north of the washroom in line with the north end of the boat-works, with the sawmill to the south. Part of the building could contain large foundry equipment. Volunteers would demonstrate how a foundry works, with a table top foundry making souvenirs for sale in the Maritime Arts Centre.



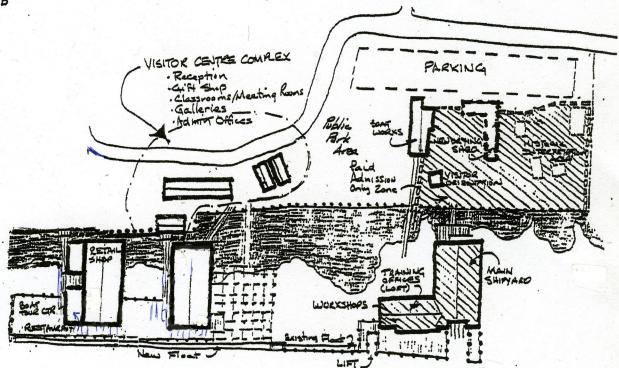
Britannia Shipyard Plan with L-shaped building east of the boat-works

PRCS - 66

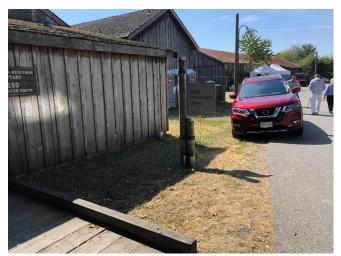
9. Admisssion

The Cornerstone Report recommended charging admission to help pay the costs. Without a source of funding, rotting boats have been the result. The original site plan was designed to use Nootka Rose and other native vegetation rather than fences to close off the area for charging admission in the summer and open to the public in winter. However, the last time the area was landscaped, all of the native vegetation was removed in the east half of the site. It will have to be replanted. Assuming that admission will be charged now or sometime in the future, care must be taken to determine which paid functions go into the Phoenix Gillnet Loft where the Maritime Arts Centre and Market would be free.

The Cornerstone Report recommended that the area for charging admission should include the Richmond Boatworks, houses, Chinese Bunkhouses and all waterfront buildings. The duplex, First Nations Smokehouse and Murakami buildings would be a visitors Centre Complex, as shown. However this left too many exhibits outside the paid admission area.



A better solution would be to move the First Nation Smokehouse forward, ban parking and remove the unused washroom addition to the Murakami House. This would allow a trail around the buildings to the north and the boardwalk could be closed between the duplex/seine loft and the smokehouse/Murakami Complex. The public would still have access to the Public Park Area between the Murakami House and the Boatworks. The paid entrance and visitors centre would be at the Phoenix Gillnet Loft



The Murakami House addition and parked cars block the trail and people walk on the road. Removing the addition would make it wide enough for a trail around the buildings..



The boardwalk between the buildings could be losed off for charging admission in summer tourist season

Admissions charged elsewhere for similar open air waterfront museums include: Lunenburgh ; Adults \$14.50, Seniors \$11.50, Students \$8.00, Youth \$3.50 (6-17), Child free. Gulf of Georgia: Adults \$12.50, Seniors \$10.75, Youth (17 & under) free, Members free. Hector Heritage Quay: Adults \$8.00, Seniors \$6.00, Child \$3.00, Families \$20.00 Fluvarium: Adults \$8, Seniors \$6, Students \$6, Child (under 14) \$5.00. Annual Pass \$40 Mystic Seaport: Adults \$27 US, Seniors \$25 US, Youth (13-17) 23, Child (4-12) \$19

RECOMMENDATION:

Enough has been completed at the Britannia Shipyard National Historic Site to start charging admission. It could start at a lower rate now and increase as more facilities are completed.

Part 3. Maritime Environment

1. Landscaping with Native Trees, Shrubs, and Plants

The "Britannia Heritage Shipyard Concept Plan", approved by Council, requires planting native trees, shrubs, & plants to "provide interpretation of the cultural and natural changes that have occurred on the site through its history. Vegetation is an important part of that history".

Plantings include "Plants in B. C. Indian Technology" and "Food Plants of Coastal Peoples", with "interpretive signage with botanical names and information as to origin, growth and habit. If desired, a self-guided walking tour guide". It would compliment an "Estuarium". Chris Phillips and Associates designed hedgerows along the entire site, so admission could be charged.

The plan was adopted Dec. 2, 1994, and a \$260,000 contract approved. The contractors were unable to find native species. I compiled a booklet "Native Plants of Marsh and Uplands in Richmond" and volunteered for two summers in 1996 and 1997 with an "Environmental Youth Team" transplanting native species from the Finn Slough and Triangle Road Areas.

The Britannia Plan had five zones with different species in each; Steveston Trail to Trites Road, and Upland, Riparian, Marsh and Foreshore Zones. The "Historic Zone Development Plan" approved by Council in 2004 and "Interpretation Plan" in 2006 required retention of all native trees and shrubs. In 2006, when the waterfront village was constructed, the landscapers cut down two 200 year old 1 ½ ft. dia. Pacific Willow trees that were protected in the plan for no apparent reason. They removed all native plants in the east half of the Britannia site, except Nootka Rose, and substituted non native species. English Hawthorne replaced native Black Hawthorne. Flowering Crabapple from Russia replaced native Pacific Crabapple. They planted an orchard that never existed in a tidal marsh. I made a referral directly to Jane Fernyhough. On July 20, 2006, Jane Fernyhough responded that "the original native plant list was supplied to the designers", there were "330 Nootka Roses to be replanted around the parking lot area" and "several non native trees" had been planted by the contractor. "They will be replaced." The area north of the houses was to be "planted with natural vegetation" The replacement of foreign trees never happened and they are getting big. It's more important than ever to plant trees and shrubs native to the area and used by First Nation people for food, tools and weapons, before the settlers arrived. Richmond now has a tree planting fund available. Plant lists approved for each zone are attached. Growing Pacific Crabapple from cuttings is easy.

RECOMMENDATION:

That trees, shrubs and plants at Britannia Shipyard that are not native to BC be removed and replaced with species native to the Steveston area. Species native to other parts of Richmond can remain but the trail to Trites road should also be planted with local native species.

Britannia Heritage Shipyard Park Concept Plan approved plants:

Zone 1 - Steveston Waterfront Trail / Panhandle Zone, Raliway Ave & Brunswick to Trites Road:

Trees - Red Alder (Alnus ruba), Shore Pine (Pinus contorta)	White Birch (Betula papyriferia),				
Shrubs - Salmonberry, (Rubus spectabilis), Red Elderberry (Sambucus pubens),	Snowberry(Symphoricarpus albus) Red Flowering Currant (Ribes sanquineum)				
Zone 2 Upland Zone, parking lot to Gillnet Loft (see attachments)					
Trees – Bitter cherry (Prunus emarginata), Black Hawthorne (Crataegus douglasii), Pacific Willow (Salix lucida), Pacific Dogwood (Cornus nutallii),	White Birch (Betula papyriferia), Pacific Crabapple (Malus fusca), Indian Plum (Oemleria cerasiformis) ,				
Shrubs and plants – Red elderberry (Sambucus pubens), Black Twinberry (Lonicera involucrata), Nootka Rose (Rosa nutkana), Salmonberry (Rubus spectabilis), Ninebark (Physocarpus capitalis), Sword Fern (Polystichum munitum),	Red Flowering Currant (Ribes sanquineum), Wild Gooseberry(Ribes lacustre), Snowberry (Symphoricarpus albus), Trailing Blackberry (Rubus rubus ursinus), Lady Fern (Alhyrium filix-femina), Orange Honeysuckle (Lonicera cillosa),				

Zone 3 – Riparian zone, south side of the parking lot, species native to the Steveston area prior to building the dykes only. Trees and shrubs listed in Zone 2 except White Birch, plus:

Gummy Gooseberry (Ribes lobbii),	American Vetch (Vicia sativa),
Western Dogwood (Cornus stolonifera occidentalis),	Swamp Rose (Rosa pisocarpa)
Beach Pea (Lathyrus japonicas),	Bentgrass (Agrostis sp),
Baltic Rush (Juncus balticus),	Scouring Rush (Equisetum hyemale)
Cascara (Rahmnus parshiana)	

Zone 4 – Marsh zone, same species as zone 3 but includes domestic plants around houses, e.g., Murakami apple tree.

Zone 5 – Foreshore protection Zone – to be maintained as it is.



City of Richmond Recreation & Cultural Services

Memorandum

Re:	Britannia - Native Plants, Dyke Elevation, Stilt Houses and Tram			
From:	Jane Fernyhough Manager of Heritage and Cultural Services	File:	11-7140-20-BSHI1/2006- Vol 01	
То:	Councillor Harold Steves	Date:	July 20, 2006	

Harold

Your email to Dave and I re: the above subjects raises some excellent points. I have more information for you that hopefully responds to your concerns.

1. Native Trees & Shrubs

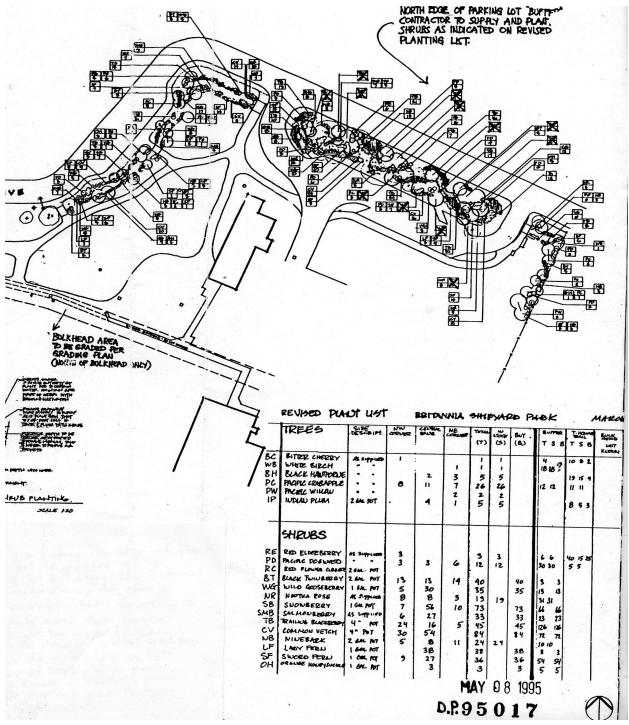
The original Park Concept Plan contained an extensive list of native plant species that might be appropriate for Britannia. The Plan itself only designed the planting along the edges of the then parking lot and the north east edge. I also recall you and Erica planted and nurtured the nootka roses. The roses that were on site have been removed by the landscaping company and they are in storage awaiting replanting on site – there are 330 nootka roses to be replanted around the parking lot area.

During the preparation of the plan being implemented, the original native plant list was supplied to the designers. We have landscape plans for the parking lot and the boardwalk and pond area which we would be happy to walk through with you. As you were involved in the original concept plan we appreciate your input. Parks has indicated that they are sourcing native plant material at this time.

Several non-native trees were planted late last week by the contractor and this was flagged at the construction meeting on Tuesday. They will be replaced.

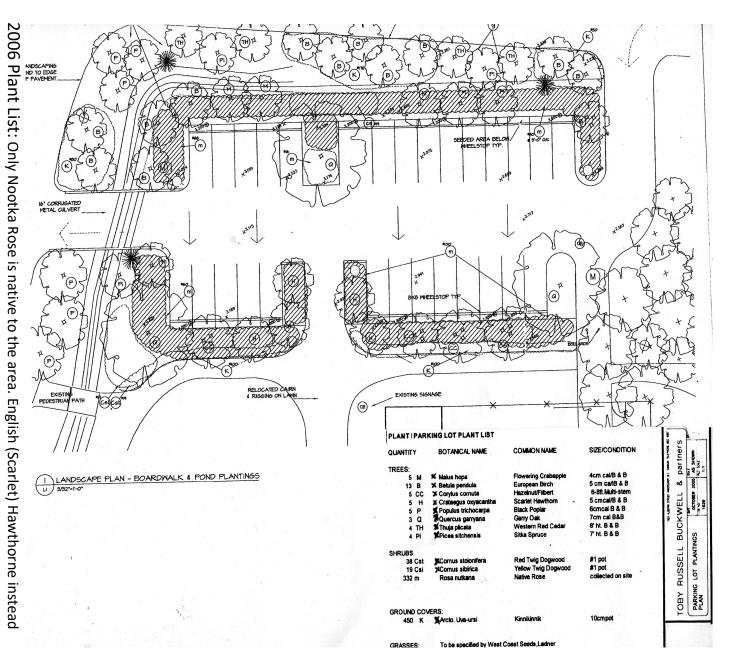
The open area north of the houses will be planned in the next phase of development but is envisioned in the Historic Zone Development Plan as an area with natural vegetation with some trees possibly orchard trees as a reminder of previous agriculture in the area. Your participation in the preparation of this phase would be most appreciated.

1999615



1995 Plant List: Pacific Crabapple was the dominant species that grew along the Crabapple Ridge where the west dyke is today & lesser sea-berms further inland, with occasional Bitter Cherry, Indian plum, thickets of Nootka Rose, Salmonberry, Black Hawthorne and Snowberry with Pacific Willow and Hookers willow along the water edges. There was no white Birch. However, they were planted at Britannia as replacement for Cottonwoods.

substitited for BC native species. BC upland species, Hazelnut, Vancouver Island Garry Oak, of Black Hawthorne, hybrid Flowering Crabapple from Russia instead of Pacific Crabapple, Cedar, Spruce & Black Poplar were substituted for local lowland species Yellow Twig Dogwwood from Siberia instead of Pacific Dogwood and European Birch were



BC First Nations Use of Plants

When the Steves Family arrived in 1878, Emily at the Point told the girls they were not to pick berries on the Crabapple Ridge north of their village as the Indians owned the garden. Remnants of their garden were still there on the west dyke, south of Steveston Highway to Garry Point through the the 1940's. It was a great place for me as a 10 year old to unwittingly learn about native plants and play on a dugout canoe in the canal that was split down the middle. It inspired me to later study native plants at university. North of Steveston Highway a few 200 year old Pacific Crabapple trees were on a remnant of the Crabapple Ridge at the side of the dyke. Himalayan Blackberries were dominant, with some tall cane domestic blackberries planted by Manoah Steves, all the way to Williams Road and harvested by the Steves Family.

Trailing Blackberry – growing on a large clearing north of Garry Point, eaten fresh, dried for winter storage, tea made from dried leaves, leaves and roots used as medicines.

Cattail (Typha latifolia) – for insulating walls of winter homes, mattress underlays, picking and storage baskets, baby cradles, covering for doors and windows. There were stacks of woven cattail sheets still lying around at Garry Point.

Bitter Cherry – bark peeled off in strips for basket weaving and tools

Pacific Crabapple – Dominant species on the Crabapple Ridge and later on the west dyke. Important food, harvested crabapples were hung in cat-tail bags until ripe, then eaten raw, or cooked or mashed and mixed with other fruit such as salal. Wood used to make implement handles, bows, wedges, digging sticks, gambling sticks and halibut hooks.

Red Flowering Currant – berries eaten but not liked much.

Pacific Dogwood – bark used as a tanning agent and brown dye, wood for bows and arrows. Red Elderberry – berries eaten cooked with stems intact or boiled.

Lady Fern – fiddleheads eaten, boiled or baked in spring, overlapping leaves as food cover. Sword Fern – leaves used as flooring or bedding and wrapping in storage containers, rhizomes dug in spring, roasted and eaten.

Wild Gooseberry – berries eaten fresh.

Black Hawthorne – fruits eaten.

Ninebark – used as medicine, wood used for childrens bows and knitting needles.

Indian Plum – berries eaten fresh, cooked or dried, eaten with oolichan grease at feasts, bark tea, twigs chewed and used on sores.

Nootka Rose – thickets, young shoots eaten, leaves flavoured cooking, mashed for medicines Salmonberry – growing in a large thicket just north of Garry Point, fruits eaten.

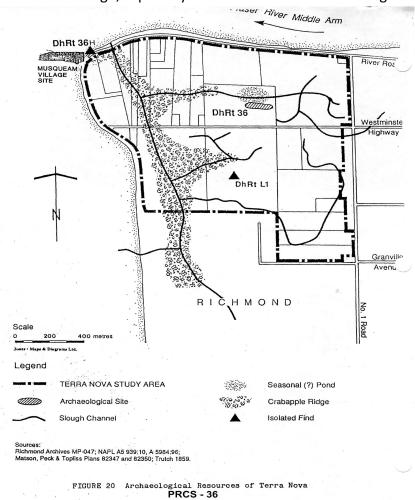
Black Twinberry - purple juice from the berries was used as a pigment and to dye roots.

Willow family – Straits Salish peeled bark of Hooker's and other willows, split the inner tissue into thin strands, twisted them together into a long rope for fishing lines, gill nets, reef nets, bag nets, and duck nets. Bark was used to make a grey dye for mountain goat wool

2. Terra Nova Slough and tree cover

Opening up Terra Nova slough was approved when the Terra Nova Park Plan was adopted. Originally Terra Nova Slough had a mud bottom, and was home to spawning Sturgeon and salmon fry coming down river from other locations. Spulukwuks (DhRt 36) was located along one arm of Terra Nova Slough and another Musqueam Village was located on the Crabapple Ridge on the west side of the slough Chum Salmon spawned elsewhere in Richmond but only in sand or gravel. The City of Richmond Parks Department re-dug part of Terra Nova Slough and put in a gravel bottom for spawning salmon.

Warming waters in BC Interior spawning streams and loss of habitat are one of the factors for declining salmon stocks. Tree cover shades the spawning streams for eggs and fry. With warmer weather it is important to provide the same tree protection for salmon fry in Terra Nova Slough. The same species recommended for the Britannia Shipyard site should be planted along the Terra Nova Slough, especially willow varieties that overhang over the water.



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*Chum Salmon spawn near the ocean. With jetties affecting access at Iona Island and Steveston, Terra Nova Slough has direct access from the Middle Arm of the Fraser River to Sturgeon Banks.

*At one time flood gates similar to those that still operate in East Richmond would be left open when there were no major high tides to allow water in for irrigating farms. This also allowed entry of spawning chum salmon into the dyke canal that was once a slough with a sandy bottom. When the tide went out it permitted easy exit for salmon fry.

As salmon runs of spawning salmon only last a couple of weeks, it should be relatively simple to accommodate spawning salmon when they return.

One of the main benefits would be the release of hatchery raised Chum Salmon fry into Terra Nova Slough to increase salmon stock. It would also provide a wide expanse of habitat that would be compensation for city dyke widening and habitat loss elsewhere. The slough could also be extended to the dyke canal down to the Blundell pump station. The canal already has a gravel bottom installed in 1968. That would dramatically increase compensatory habitat for habitat lost elsewhere at little cost.

Chum Salmon eggs would be provided from a local hatchery to the Estuarium at Britannia Shipyards National Historic Site, and distributed to Richmond schools for "Salmon in the Classroom". Students would learn about the salmon life cycle and release the salmon fry into Terra Nova Slough for their eventual trip along Sturgeon Banks and out to sea.

RECOMMENDATION:

That trees, shrubs and plants native to our local marine habitat should be planted along Terra Nova Slough. Combined with an Estuarium and First Nations environmental interpretation centre at Britannia Shipyard Terra Nova Slough can provide educational, environmental and habitat compensation benefits as well as habitat for Chum Salmon fry.