

February 6, 2018

- 4 -

Referral Response

1. Sheet Piling Beside the Imperial Landing Pier

Sheet pile wall conceptual estimate: \$1.5M – \$2M

Construction of a sheet pile wall along a portion of the north property line of the City-owned water covered Lot H could provide the potential for additional moorage space, provided the City receives approval from the Ministry for the use of their water lot to construct additional floating docks. Prior to 2002, as part of the former B.C. Packer’s waterfront infrastructure, there were two floating docks (approximately 5m wide x 60m long) located along this stretch of Imperial Landing, supporting the moorage of fishing vessels for the canneries. These two finger docks were situated parallel to a concrete pier along the west side of the water lot (Attachment 1).

Through the years, both the age and decay of the timber structures, the erosion of the foreshore, and the sedimentation carried down the Fraser River took its toll on these structures. The floating docks and piles had to be removed, and concrete rip-rap was placed along this stretch of dike to minimize further erosion. Consequently, sediment has now accumulated to the point that moorage is no longer possible in this area, unless significant dredging is completed.

Based on comments from the November 27, 2017, PRCS Committee meeting, to recreate a moorage opportunity similar to what previously existed, a sheet pile wall constructed along a portion of Lot H (approximately 125 lineal metres) could provide the necessary stabilization of the foreshore (Attachment 2). This would allow dredging to be done as close to the dike as possible, with depths as deep as the secondary navigational channel, which is approximately -3.5 to -4.0 metres.

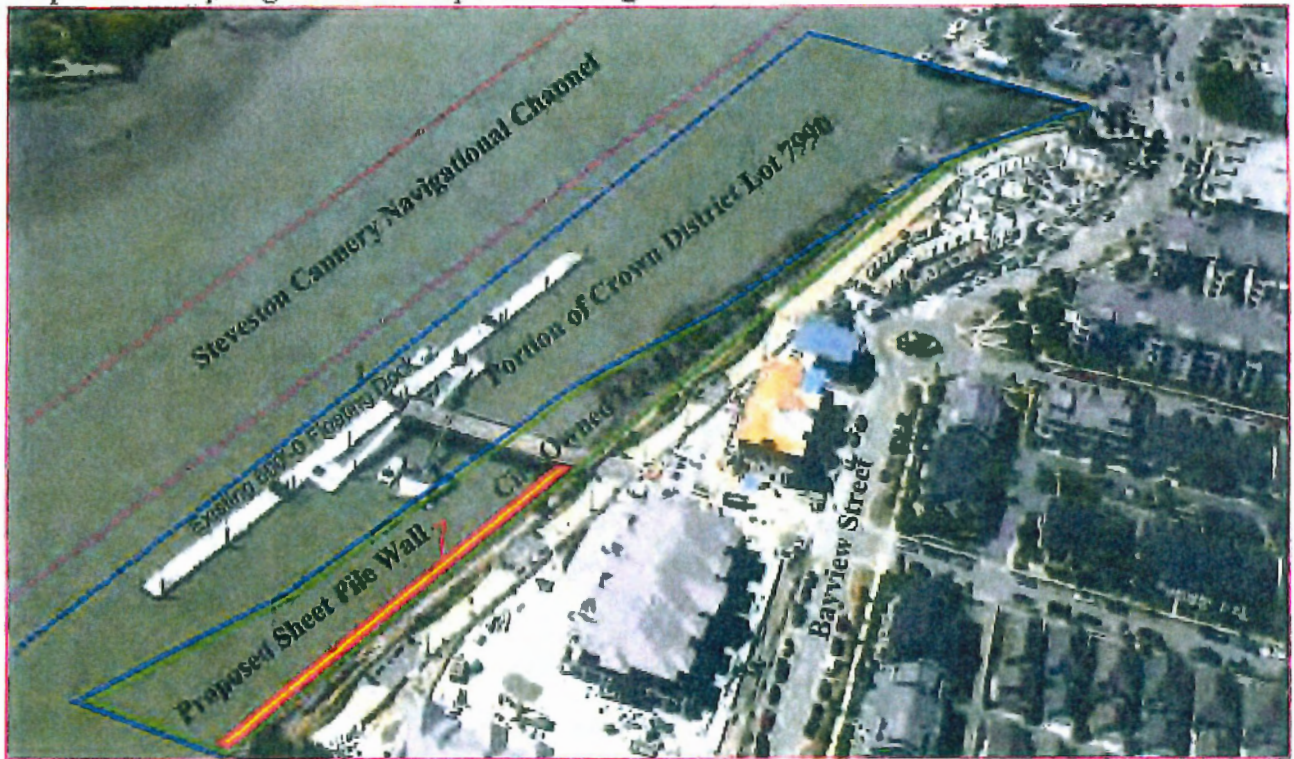
The recent sheet pile wall construction occurring at the Steveston Harbour Authority’s operations serves as a guide to the estimated costs for the sheet pile wall, along with conceptual estimates provided by a Marine Engineering Consultant in 2012. The estimated costs range from \$10,000 to \$15,000 per lineal metre of sheet pile wall, depending on the size, material, and structural engineering of the wall required. Additional geotechnical, environmental, and marine structural engineering investigation would be required to confirm the size, layout, and type of wall for this location.

Should Council wish to consider reinstating what previously existed as shown in Attachment 1, this will require the reconstruction of the “finger docks,” the piles to secure them, and dredging of the subject area.

Costs associated with the reconstruction of the finger docks and dredging operations are not included in this report. A comprehensive engineering, environmental, and permitting investigation are required to determine an order of magnitude costs for these items.

	Description	Cost
1	Sheet Piling Beside the Imperial Landing Pier.	\$1.5M to \$2M

Proposed sheet piling beside the Imperial Landing Pier



RESIDENTIAL CLUSTER -
SETBACK FROM POND +
RIVERS EDGE - CANNERY
STYLE ARCHITECTURE

PHOENIX POND
+ OUTDOOR
EXHIBIT

EXISTING
HOUSING

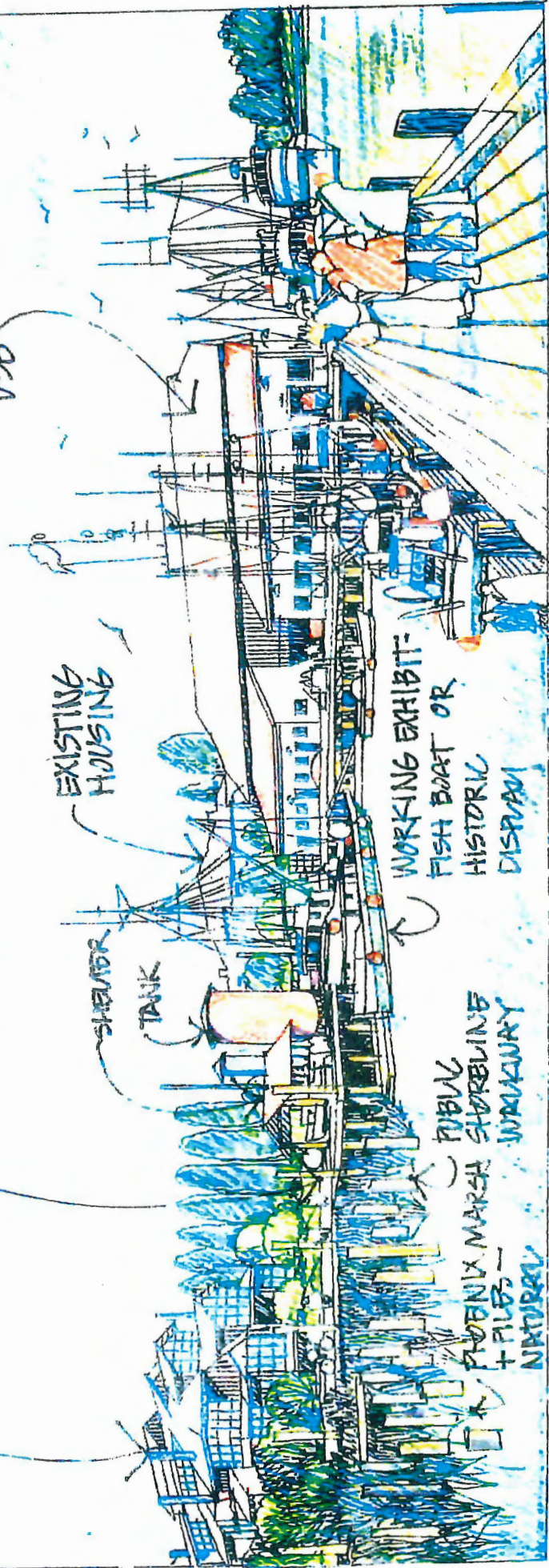
SHOWER
TANK

WORKING EXHIBIT -
FISH BOAT OR
HISTORIC
DISPLAY

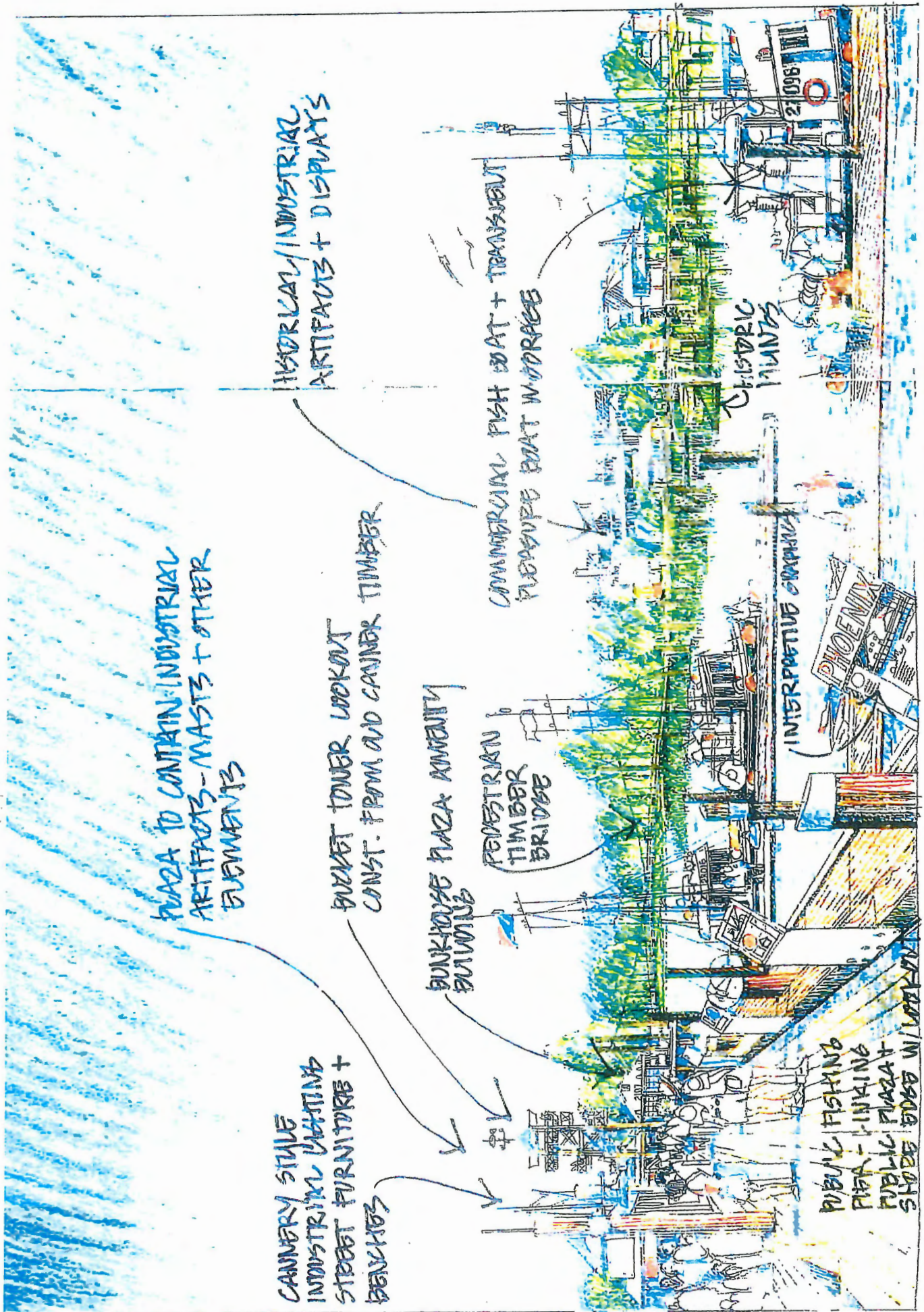
TUBING
SHORELINE
WALKWAY

PHOENIX MARSH
+ FLIES -
NATURAL

HISTORIC NET LOFT
BLDG. RETAINED FOR
CONTINUED INDUSTRIAL
USE



BC Packers ~ The Steveston Properties



PLAZA TO CONTAIN INDUSTRIAL ARTIFACTS - MASTS + OTHER ELEMENTS

CANNERY STAGE INDUSTRIAL VESTIBULE + STREET FURNITURE + BENCHES

BUCKET TOWER LOOKOUT CONST. FROM OLD CANNING TIMBER

BUNKHOUSE PLAZA AMENITY

PEDESTRIAN TIMBER BRIDGE

PUBLIC FISHING PIKA - INKING PUBLIC PLAZA + SHOPS EDGE W/ LOOKOUT

HISTORICAL/INDUSTRIAL ARTIFACTS + DISPLAYS

COMMERCIAL FISH BOAT + TRANSPORT PLEASURE BOAT MORAGE

HISTORIC PUNTS

INTERPRETIVE SIGNAGE

PHOENIX