



**STAFF REPORT  
ACTION REQUIRED**

**Rehabilitation of Western Channel Dockwall**

<b>Date:</b>	April 7, 2014
<b>To:</b>	Executive Committee
<b>From:</b>	Joseph Pennachetti, City Manager
<b>Wards:</b>	Ward 20 – Trinity Spadina
<b>Reference Number:</b>	

**SUMMARY**

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The purpose of this report is to obtain City Council authority to request Federal Provincial, and Toronto Port Authority funding, in partnership with the City of Toronto, to rehabilitate a portion of a dockwall adjacent to the Canada Malting lands, and to seek direction to allocate funding for rehabilitation of additional sections of the same dockwall.

When completed, this project will extend the life of the dockwall structure, continue the Portland Slip promenade constructed by Waterfront Toronto from the eastern edge of the Canada Malting lands over to Eireann Quay, improve access to the Ireland Park and consolidate ownership of the dockwall to the City of Toronto.

The subject dockwall extends from the south-east corner of the Canada Malting lands forming the north wall of the Western Channel to Lake Ontario. The sections of the dockwall that are in need of rehabilitation can be described as within four areas detailed below. Ownership of the dockwall rests primarily with the City of Toronto with the exception of Area 1.

Area 1: Located between the south-east corner of the Canada Malting lands extending west to Eireann Quay. This section is located along the southern edge of the Canada Malting lands. There is no record of ownership for this area and, as such, it is referred to as “unpatented land”. As a matter of law, ownership of unpatented land rests with either the Federal or Provincial government. This section is 141 metres in length and includes the return wall to the new Portland Slip dockwall.

Area 2: Located between the east side of Eireann Quay and the Toronto Port Authority (TPA) ferry slip. This section is owned by the City of Toronto. In 2011, the City granted an easement to the TPA to permit the construction of the Billy Bishop Toronto City Airport (BBTCA) pedestrian tunnel under the dockwall. This section is 53 metres in length

Area 3: Consists of the east and west corners of the BBTCA ferry slip and is owned by the City of Toronto. The TPA owns and operates the ferry slip to the BBTCA.

Area 4: Located south of the east-west section of Stadium Road and is owned by the City of Toronto. This section is 197 metres in length.



Due to concerns raised by the Ireland Park Foundation about the condition and structural integrity of the dockwall, particularly the section in Area 1, City staff undertook, with agreement from the Federal and Provincial governments, an engineering assessment for the northern edge of the Western Channel to determine the condition of the dockwall and to develop an approach for rehabilitation. This assessment was conducted by WSP Canada Inc. (formerly Genivar) in 2013.

The engineering assessment confirmed that the structure is sound, however, encapsulation and rehabilitation of the concrete cap is necessary to prevent further deterioration.

The estimated cost to rehabilitate the dockwall is as follows:

<b>Location</b>	<b>Length</b>	<b>Estimated Cost</b>
Area 1	142 metres	\$4.5 million
Area 2	53 metres	\$1.5 million
Area 3	Corners of TPA Ferry Slip	\$0.5 million
Area 4	197 metres	\$5.5 million

In 2006, a section of the dockwall further west (at the entrance to the Western Channel) collapsed resulting in litigation to determine who was responsible for its repair. In order to resolve the issue, the three orders of government, the Toronto Port Authority, and the City's tenant on adjacent lands agreed to share the cost of repairing the collapsed dockwall with the City taking ownership of the rehabilitated structure once it was completed to the City's satisfaction.

The City is the owner of the Canada Malting lands; however, the City's ownership does not extend south to the water's edge of the Western Channel. It is in the interest of the City to assume ownership of the lands occupied by the dockwall in order to secure public access from the Canada Malting lands to the water's edge.

This report proposes to seek a cost sharing agreement with the Government of Canada and the Province of Ontario for the rehabilitation of Area 1, to secure funding for the City's contribution to the rehabilitation of Area 1 and the full cost of Area 2 from the Toronto Port Lands Company (TPLC, a City-owned subsidiary), and to secure funding for the rehabilitation of Area 3 from the Toronto Port Authority. Area 4 also requires rehabilitation but is not proposed to be included in the project at this time.

## **RECOMMENDATIONS**

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### **The City Manager recommends that:**

1. City Council direct staff to establish a capital project for the rehabilitation of the dockwall along the north side of the Western Channel, in the Facilities Management Capital Budget for consideration as part of the 2015 Budget process, which will include rehabilitation of:
  - a. Area 1 at a cost of \$4.5 million to be funded as follows: \$1.5 million City share as a contribution from the Toronto Port Lands Company; and \$1.5 million from the Government of Canada and \$1.5M from the Province of Ontario;
  - b. Area 2 at a cost of \$1.5 million to be fully funded by the City of Toronto through a contribution from the Toronto Port Lands Company; and

- c. Area 3 at a cost of \$0.5 million to be funded by a contribution from the Toronto Port Authority.
2. City Council direct the Toronto Port Lands Company to declare a special dividend, \$1.5 million in 2014, \$1.5 million in 2015, for rehabilitation of the dockwall in Areas 1 and 2;
3. City Council request the Government of Canada to contribute one-third (\$1.5 million) towards the Area 1 dockwall rehabilitation project under an infrastructure funding program (i.e. the Building Canada Fund – Provincial-Territorial Component or a similar fund), request the Province of Ontario to contribute a matching one-third (\$1.5 million) towards the project, and authorize the Mayor and City Manager to enter into funding agreements;
4. City Council request the Toronto Port Authority to contribute \$0.5 million for the rehabilitation of the dockwall in Area 3 in order to realize project efficiencies and reduce overall costs, and authorize the City Manager to negotiate and enter into any required agreements;
5. City Council request the Government of Canada and the Province of Ontario to transfer ownership of the dockwall structure and related lands adjacent to the Canada Malting site (Area 1) to the City of Toronto upon completion of the dockwall rehabilitation project, and authorize the Mayor and City Manager to enter into any required agreements;

## **Financial Impact**

The total cost to complete this Western Channel Dockwall Rehabilitation project is \$6.5 million. Staff are proposing that the rehabilitation costs be funded between the Government of Canada, the Province of Ontario, the City of Toronto (TPLC) and the Toronto Port Authority. Assuming an agreement on cost-sharing by all orders of government, the total cost to the City will be approximately \$3.0 million to be funded by TPLC. TPLC currently owns and manages dockwall in the Port Lands, along the Keating Channel and adjacent to Redpath Sugar. Staff have confirmed that TPLC is able to fund the City's \$3 million contribution to the dockwall rehabilitation from their 2014 and 2015 budget years.

<b>Location</b>	<b>Length</b>	<b>Estimated Cost</b>	<b>Proposed Funding Source(s)</b>
Area 1	142 metres	\$4.5 million	Cost sharing agreement between Government of Canada - \$1.5 million, Province of Ontario - \$1.5 million and City of Toronto (TPLC) - \$1.5 million
Area 2	53 metres	\$1.5 million	City of Toronto (TPLC)
Area 3	Corners of TPA Ferry Slip	\$0.5 million	Toronto Port Authority

Only Area 1 will be subject to a cost-sharing agreement between the three orders of government. If the cost was shared equally, each government would be responsible for a \$1.5 million contribution. Construction will only occur once all funds are received from the federal and provincial partners to the cost-sharing agreement.

Upon completion of the rehabilitation of Area 1, ownership of the structure will transfer to the City. The City will be responsible for ongoing maintenance and repairs of the structure which are expected to be minor as the dockwall will be rehabilitated. The City already has responsibility for maintenance of the dockwall in Areas 2, 3 and 4.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

## **ISSUE BACKGROUND**

The Western Channel provides access to the Inner Harbour south of Eireann Quay (Bathurst Street south of Queen's Quay). The northern edge of the Western Channel was constructed in 1912 by the Federal government and consists of timber cribs capped in precast concrete (Attachment 1).

Most of the dockwall along the northern edge of the Western Channel is owned by the City of Toronto. Two sections are currently not within the City's ownership: (i) the dockwall along the southern edge of the Canada Malting lands (Area 1), and (ii) the Toronto Port Authority ferry dock for the Billy Bishop Toronto City Airport adjacent to Area 3.

There has never been a Deed or Transfer for the land underneath the dockwall located in Area 1. As a result, the Land Registrar does not have a record of ownership for this area. Such land is referred to as "unpatented land". As a matter of law, ownership of unpatented land rests with either the Federal or Provincial government.

The dockwall further west at the entrance to the Western Channel that collapsed in 2006 was subject to similar ownership conditions as the Canada Malting dockwall. In that case, while there was evidence that the wall was constructed by and had been maintained by the Federal government in the past, no level of government or agency was prepared to claim ownership of the dockwall, nor acknowledge current responsibility for maintenance

and repairs of the dockwall. To resolve the litigation, a five party agreement among the three levels of government, the Toronto Port Authority, and the National Yacht Club, involving the contribution of funding by each party, set in motion the repair of the dockwall (to a 100-year standard) and the transfer of ownership to the City once all repairs and rehabilitation is complete.

Due to concerns raised by the Ireland Park Foundation about the condition of the dockwall adjacent to the sculptures in the Ireland Park, the Waterfront Secretariat and Facilities Management undertook an engineering assessment in 2013 of the dockwall structure between the Portland Slip and Stadium Road. The assessment included an underwater diving inspection, an above water inspection, and bathymetric and topographic surveys. The investigation found that the submerged timber cribs are in good condition, are generally straight and plumb with little or no leakage of rockfill material.

On the surface, the dockwall exhibits several localized areas of severe spalling (chipping and splintering) and concrete degradation. Concrete along the face of the dockwall has experienced significant wear and deterioration due to chipping, cracking, and spalling in numerous locations. Damage to the concrete cap is likely caused by many years of exposure to ice conditions and the freeze/thaw cycle. Photos of the existing dockwall conditions are contained within Attachment 2.

The proposed rehabilitation strategy recommends encapsulation of the existing dockwall with a new continuous steel sheet pile dockwall 1.0 metre in front of the existing structure. The new dockwall would be anchored to the bottom of the Western Channel at the base of the existing dockwall and with new tie rods installed at the top to provide lateral support. A new concrete copewall would be installed along the new dockwall and the existing surface concrete would be replaced with a new promenade walkway. New safety ladders and mooring bollards would be incorporated into the new design as shown in Attachment 3. If funding is secured in 2014, it is possible that the dockwall rehabilitation and promenade project could commence in late 2014 or 2015.

### Estimated Costs:

Based on the findings of the inspection work and preliminary design of the promenade extension, the following costs have been estimated by the City's consultant:

<b>Location</b>	<b>Length</b>	<b>Estimated Cost</b>	<b>Notes</b>
Area 1	142 metres	\$4.5 million	<ul style="list-style-type: none"><li>▪ Dockwall south of the Canada Malting site</li><li>▪ Cost includes extension of Portland Slip Promenade</li><li>▪ Section proposed for funding partnership with Federal and Provincial Governments</li></ul>
Area 2	53 metres	\$1.5 million	<ul style="list-style-type: none"><li>▪ City-owned dockwall</li><li>▪ Contains easement to TPA for pedestrian tunnel to airport</li></ul>
Area 3	Corners of TPA Ferry Slip	\$0.5 million	<ul style="list-style-type: none"><li>▪ City-owned dockwall</li><li>▪ To be funded by TPA</li></ul>
Area 4	197 metres	\$5.5 million	<ul style="list-style-type: none"><li>▪ City-owned dockwall</li><li>▪ To be completed at a later date</li></ul>

Source: North Facing Dockwall Rehabilitation Western Channel, WSP Canada Inc. 2014

### **COMMENTS**

The dockwall is approximately 100 years old and is in need of rehabilitation in order to ensure that it remains structurally secure. The rehabilitation program proposed should extend the life of the dockwall well into the future. If a rehabilitation program is not implemented, it is possible that the dockwall could be damaged similar to the section that collapsed in 2006. It is also prudent to ensure that any investments in surface treatments such as promenades, parks, etc. will not be susceptible to structural collapse in the short term. Staff are proposing that the City undertake the rehabilitation of Areas 1, 2 and 3 as a continuous project in 2015. Area 4 is also in need of rehabilitation but based on its estimated cost (\$5.5 million) and location away from Areas 1, 2, and 3, the rehabilitation of this section can be postponed to a later date.

The rehabilitation project includes the extension of the Portland Slip promenade along the dockwall to Eireann Quay as shown in Attachment 4. This section of the waterfront promenade will provide the final link between the Bathurst Quay community and the Billy Bishop Toronto City Airport and the Central Waterfront. It will also re-establish a formal pedestrian connection between Ireland Park and Eireann Quay.

Since the City of Toronto does not have an ownership interest in the dockwall in Area 1, it is not appropriate for the City to assume all of the costs of rehabilitation. Ideally, all three orders of government will share in the cost of rehabilitation. A cost-sharing plan will benefit all governments: the Federal and Provincial governments can divest

themselves of the dockwall and the City can secure ownership of property. Once the City establishes title to the dockwall after rehabilitation, the City will assume maintenance and liability for the structure.

Staff are recommending that the City's share of the rehabilitation costs be funded by TPLC. TPLC is wholly owned by the City of Toronto and is responsible for the environmental stewardship, leasing and management of lands in Port Lands on the eastern edge of the Inner Harbour. TPLC owns and maintains a considerable amount of dockwall and has significant experience managing dockwalls in the Port Lands and Central Waterfront. Staff have confirmed that TPLC is able to fund the City's \$3 million contribution to the dockwall rehabilitation from their 2014 and 2015 budget years.

## **CONTACT**

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## **SIGNATURE**

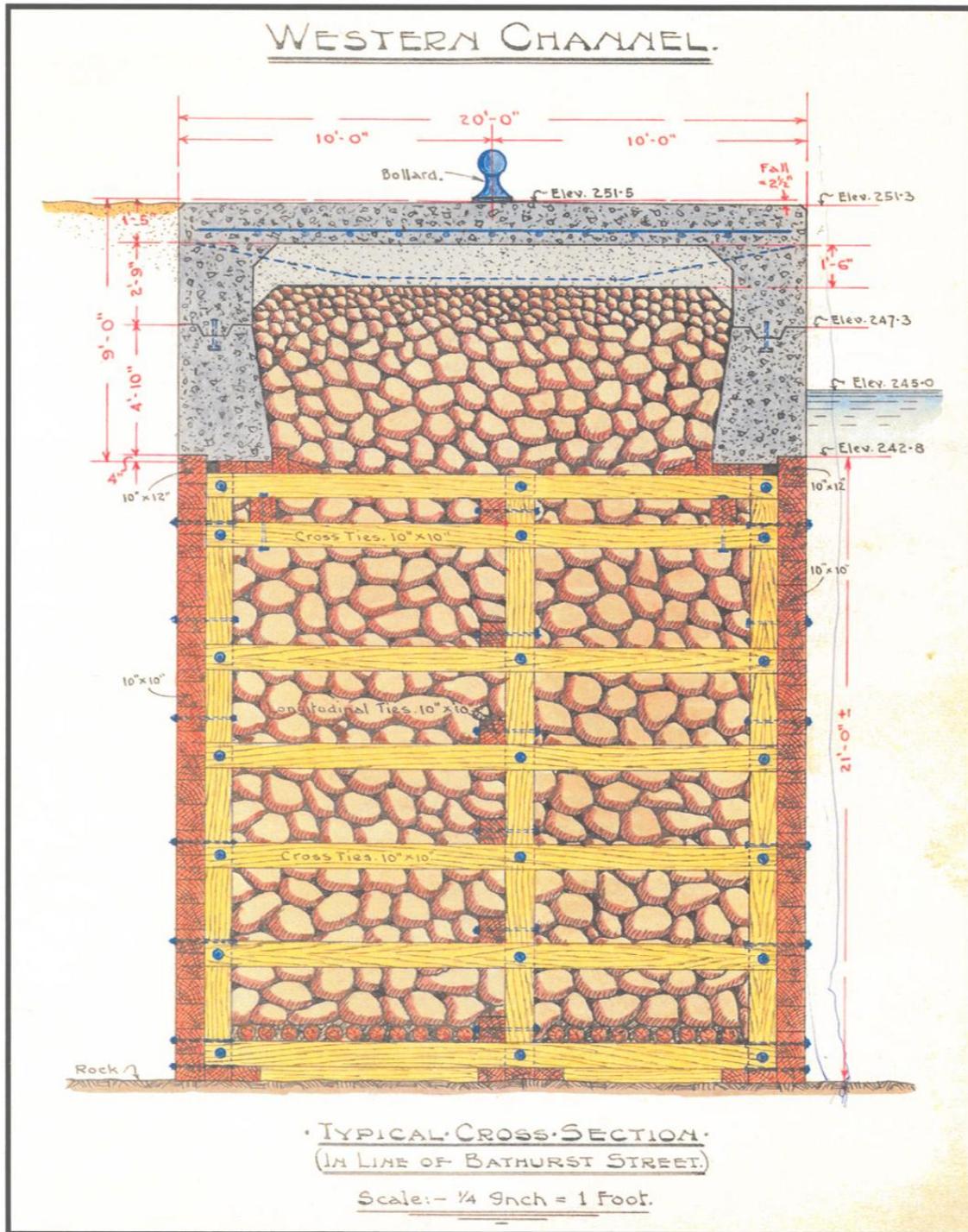
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Joseph P. Pennachetti, City Manager

## **ATTACHMENTS**

Attachment 1 – Existing Timber Crib Drawing  
Attachment 2 – Photos of Existing Conditions  
Attachment 3 – Proposed Rehabilitation Drawings  
Attachment 4 – Portland Slip Promenade

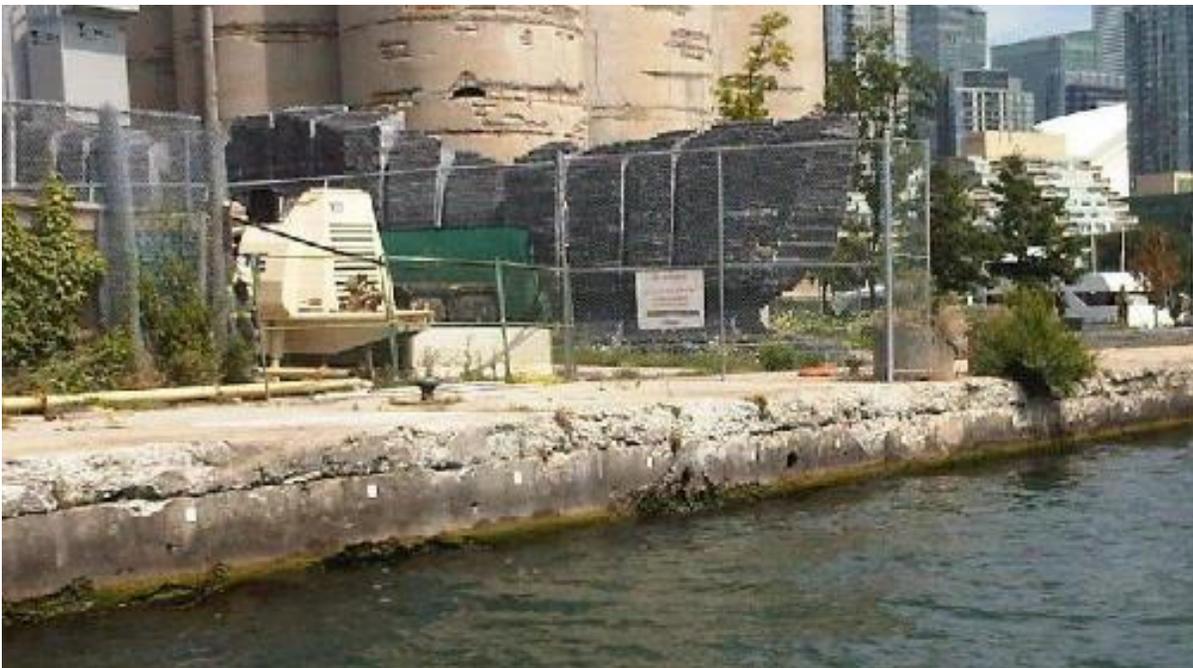
Attachment 1 – Original Cross-Section of Existing Timber Crib (1912)



Attachment 2 – Photos of Existing Conditions



South-east Corner of Canada Malting Site/Ireland Park (Area 1)  
(Ireland Park on left, Completed Portland Slip Promenade on right)



Area 1  
(Looking towards Ireland Park)



Area 1 and 2  
(Looking west towards BBTCA Ferry Terminal to Airport)



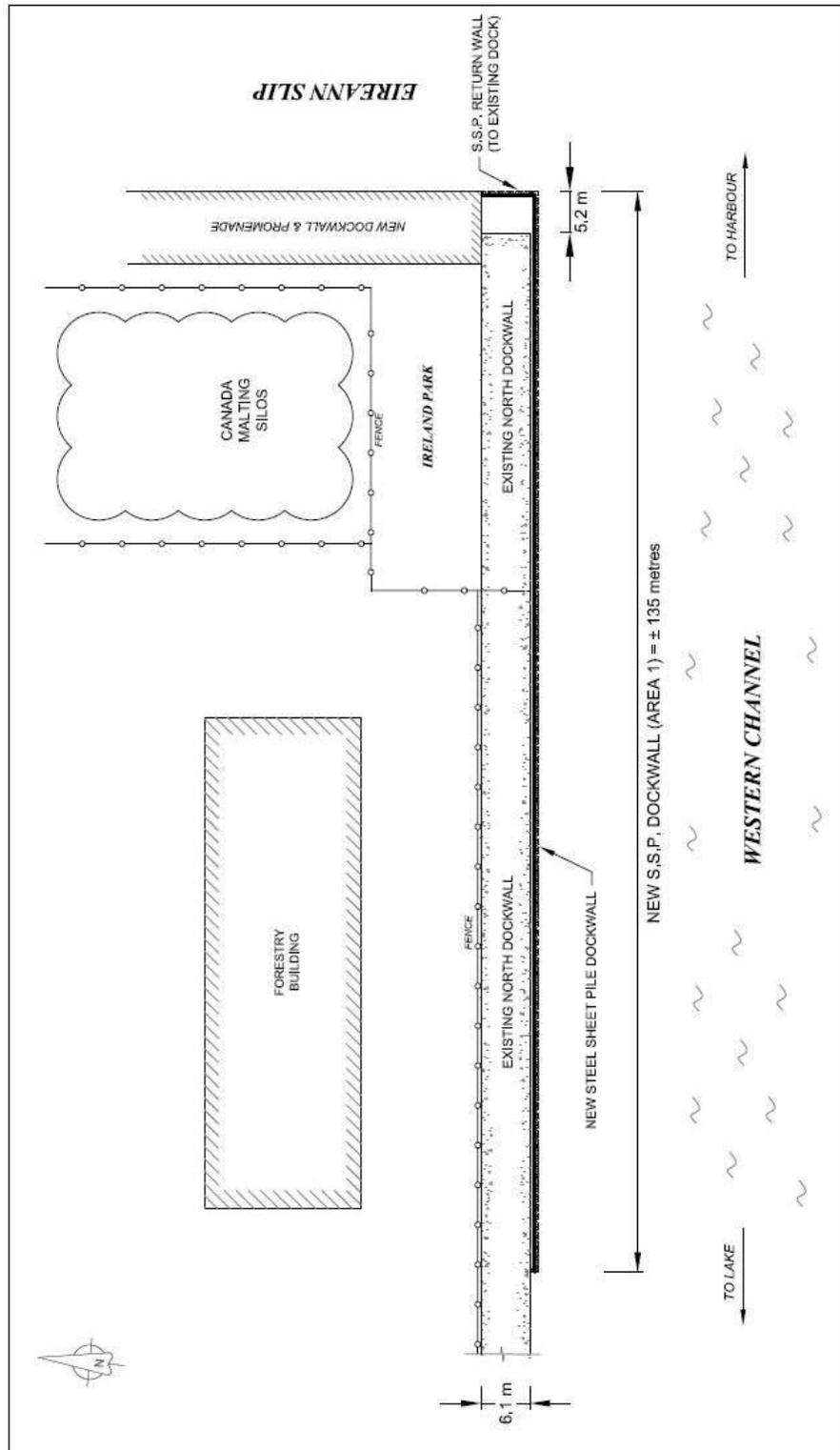
Area 2  
(South of BBTCA Ferry Terminal)



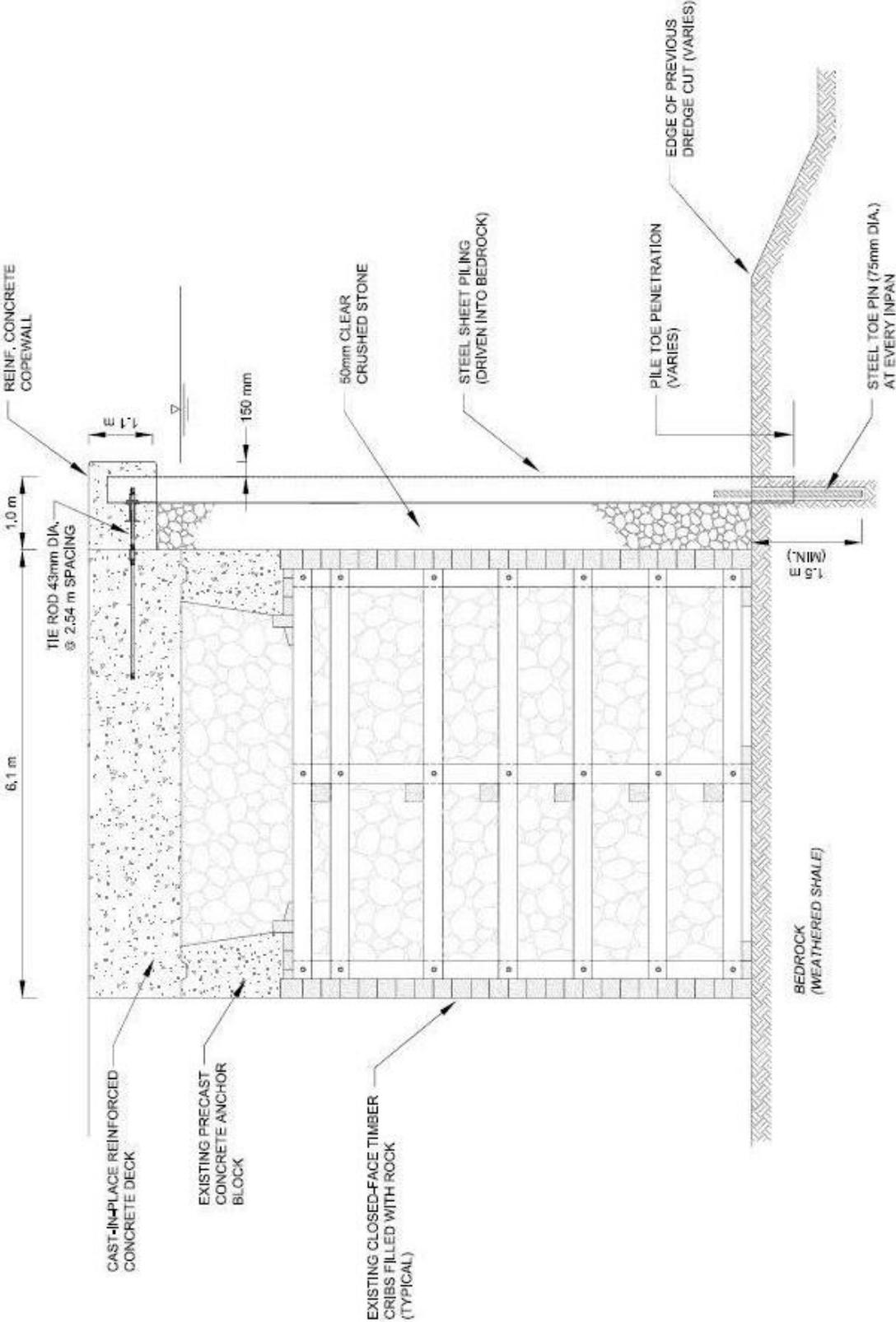
Area 3 (Billy Bishop Toronto City Airport Ferry Slip Corners)

Attachment 3 – Proposed Rehabilitation Drawings

Proposed Plan for Area 1



# Proposed Cross-Section



Attachment 4 – Portland Slip Promenade



Portland Slip Promenade looking south towards Ireland Park and Western Channel  
Completed by Waterfront Toronto in 2013