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Stage 4 Salvage Excavation of the Queen's Wharf Station Site (AjGu-74), 170 Fort York Boulevard, Railway Lands Block 36S, Fort York Neighbourhood, City of Toronto, Ontario

FINAL REPORT

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MTC PIF P094-040-2011
ASI File 09TE-16

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Railway Lands Block 36S,
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EXECUTIVE SUMMARY

Stage 4 archaeological salvage excavations were carried out within the area of the development of a residential tower and public library at 170 Fort York Boulevard, also known as Block 36S in the Railway Lands/Fort York Neighbourhood, in the City of Toronto.

The excavations documented the 1850s land making process that led to the original formation of the majority of the property, along with the remains of those portions of the 1855-1856 Grand Trunk Railway engine house, the contemporary Garrison Creek channelization structure, and the Queen's Wharf that extended into the project area. These remains and deposits have been registered in the Ontario Archaeological Sites Database maintained by the Ministry of Tourism, Culture and Sport as the Queen's Wharf Station site (AjGu-74). Aspects of the subsequent operation of the railway facilities and other later forms of infrastructure were also investigated and recorded. No remains associated with the War of 1812 artillery emplacement in the former Garrison Creek ravine were encountered.

A preliminary report prepared in November 2011 recommended that the Queen's Wharf Station site (AjGu-74) within the 170 Fort York Boulevard/Block 36S project area be cleared of any further archaeological concern, with the proviso that the appropriate authorities must be notified should deeply buried archaeological or human remains be encountered during any future work on the property. It further recommended that the future development of Block 36N to the north of the project area be subject to an archaeological monitoring program. While the present final report, prepared for archaeological licensing purposes, expands upon the preliminary report in terms of data analysis and presentation, and supersedes it in some matters of archaeological interpretation, the November 2011 recommendations stand.

ARCHAEOLOGICAL SERVICES INC.: PLANNING DIVISION

PROJECT PERSONNEL

Project Manager & Project Archaeologist:	David A. Robertson, MA, Senior Archaeologist & Manager, Special Projects
Project Director:	Lisa Merritt, MSc, Senior Archaeologist (P094)
Field Directors:	Wesley Oldham, BA Hons, Staff Archaeologist (R292) Peter Popkin, PhD, Field Archaeologist (R378) John Sleath, MA, Staff Archaeologist (R364) Anatolijs Venovcevs, BA Hons, Research Archaeologist (R379) Blake Williams, MLitt, Staff Archaeologist (R334)
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Project Geoarchaeologist	Andrew M. Stewart, PhD, Strata Consulting (P102)
Heavy Equipment Operator:	Doug Price, Wm. Petrie & Sons Contracting Ltd.
Artifact Processing:	Daniel Black Caitlin Coleman, MA, Laboratory Technician Kristen Csenkey Zack Shaw
Artifact Inventory and Analysis:	Miranda Brunton Anatolijs Venovcevs
Specialist Analyses:	Lloyd Johnston, Blacksmith and Restoration Consultant Stephen G. Monckton, PhD, Palaeoethnobotanist
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ACKNOWLEDGEMENTS

Particular thanks are due to Peter Ventas and Stewart McKillop of Context Development, Lou Hack and Jim Murphy of Bluescape Construction and Thomas Russell and the staff of Aquatech for their logistical and technical assistance during the course of the Block 36 archaeological excavations. Additional assistance or advice related research materials was provided by Mr. Stephen Otto of the Friends of Fort York, Mr. David Spittal, City of Toronto Culture Division, Mr. David Stonehouse of Evergreen Brick Works, and Mr. Shawn Selway of Pragmata Historic Machinery Conservation Services.

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1.0 PROJECT AND DEVELOPMENT CONTEXT

Archaeological Services Inc. was retained by Context Developments Inc., in partnership with the Toronto Community Housing Corporation (TCHC), to carry out Stage 4 salvage excavations at 170 Fort York Boulevard within the lands known as Railway Lands Block 36, in the Fort York Neighbourhood, City of Toronto. Block 36 is located on the east side of Bathurst Street between the existing railway lines south of Front Street and the currently unopened alignment of Fort York Boulevard and encompasses an area of approximately 0.9 hectare (*Supplementary Documentation* Figure 1). Block 36 is further divided into Block 36S, which is zoned for construction of a residential tower and a public library, both of which incorporate underground parking, and Block 36N, which is to be developed as a public park.

Prior to the initiation of the project, Block 36 was vacant brownfield land. A Stage 1 Archaeological Resource Assessment of the block was completed in 2005 (MTC CIF P050-072), and a Stage 2 Archaeological Resource Assessment was carried out in 2006 (MTC CIF P102-001-2006). The Stage 2 report recommended that Stage 4 salvage excavations be carried out prior to any land disturbing activities, a recommendation with which the Ministry of Culture (now Tourism, Culture and Sport) concurred in a letter dated February 12, 2009. All assessments and mitigations within Block 36 have been carried out as conditions of site plan and rezoning applications submitted for the redevelopment of the property, as required by the Ontario Planning Act.

Project direction for the 2011 Stage 4 mitigations was provided by Ms. Lisa Merritt under archaeological license P094 (MTC CIF P094-040-2011). Field direction was by Mr. Wesley Oldham (R292), Dr. Peter Popkin (R378), Mr. John Sleath (R364), Mr. Anatolijs Veonovcevs (R379) and Mr. Blake Williams (R334). David Robertson was the project manager and project archaeologist. All activities carried out during the excavations were completed in accordance with the terms of the Ontario Heritage Act and with the Ministry of Tourism, Culture and Sport's 2011 *Standards and Guidelines for Consultant Archaeologists*, to the degree that it is relevant to the character of the property and its constituent archaeological and non-archaeological deposits.

Context Developments Inc./TCHC granted Archaeological Services Inc. permission to access the subject property and to carry out the activities necessary for the completion of the assessment on March 30, 2011.

As noted in the previous assessment reports carried out for the project (ASI 2005, 2007), the known or potential archaeological resources of Block 36 were determined to include:

- Remains of the circa 1833 Queen's Wharf or later generations of the structure;
- Remains of the 1855/1856 Grand Trunk Railway engine house;
- Geological deposits associated with either the original nineteenth century lake shore and/or the floodplain of the original Garrison Creek; and perhaps,
- Remains of the War of 1812 era Ravine Battery, although it was noted that such features likely lay to the west of Block 36, within the Bathurst Street right-of-way.

The 2011 Stage 4 salvage excavations took place within Block 36S and within those portions of Block 36N that were accessible, encompassing the areas occupied by all of the identified resources, with the

exception of the Ravine Battery, as noted above. The archaeological remains documented during the course of the project have been registered in the Ontario Archaeological Site Database, maintained by the Ontario Ministry of Tourism, Culture and Sport, as the Queen's Wharf Station site (AjGu-74).

A preliminary report on the Stage 4 excavations was submitted to the Ontario Ministry of Tourism, Culture and Sport and City of Toronto Heritage Preservation Services in November of 2011 (ASI 2011b). The present report, prepared in fulfilment of archaeological licensing conditions imposed by the Ontario Heritage Act, expands upon the preliminary report in terms of data analysis and presentation, and supersedes it some matters of archaeological interpretation.

2.0 HISTORICAL CONTEXT

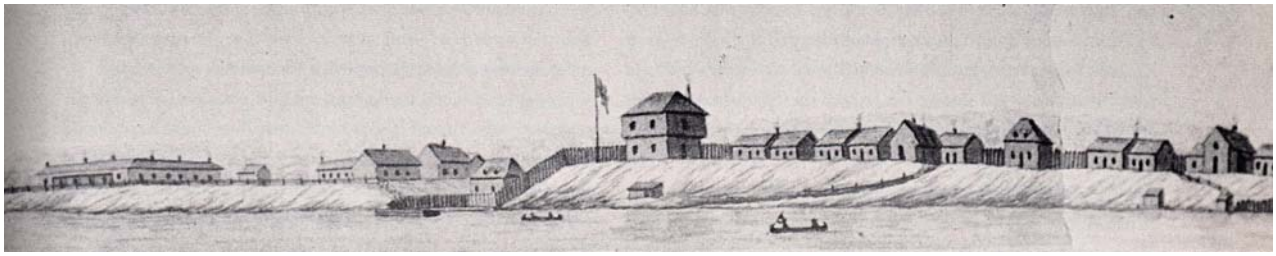
A brief summary of the historical processes that have led to the formation of the Block 36 lands is provided to contextualize each of the identified archaeological resource groups, followed by discussion of the results of the 2006 Stage 2 investigations that were carried out in an effort to identify their remains or determine the potential for their survival.

2.1 The Garrison Creek Ravine, the Original Nineteenth-Century Lake Ontario Shore and Military Features

Early mapping of the Toronto waterfront indicates that prior to the lake filling projects of the mid-nineteenth through early twentieth centuries, the position of the lakeshore varied from approximately 50 to 150 metres to the south of the present alignment of Front Street. Consequently, throughout much of the Toronto waterfront, the original shoreline lies buried beneath the present railway tracks south of Front Street. However, the shore swung to the southwest of the current railway corridor to run roughly diagonally across the northwest corner of Block 36. It crossed the Bathurst Street right-of-way to continue roughly parallel to the southern limits of the Fort York Boulevard right-of-way, forming a slight embayment to the southwest of Fort York.

Garrison Creek emptied into Lake Ontario within Block 36, its course entrenched within an outwash valley that was marked by level peninsulas or promontories on either side of its mouth that were defined by the steep slopes of the lake shore and the Garrison Creek ravine.

The east shoreline promontory at the creek mouth in the northwest corner of the subject property was first occupied by the military around 1793, when two barracks structures were built on the east side of the creek opposite the main garrison to the west. The east promontory became the main Fort York complex between 1797 and 1813, until York was attacked by American forces.

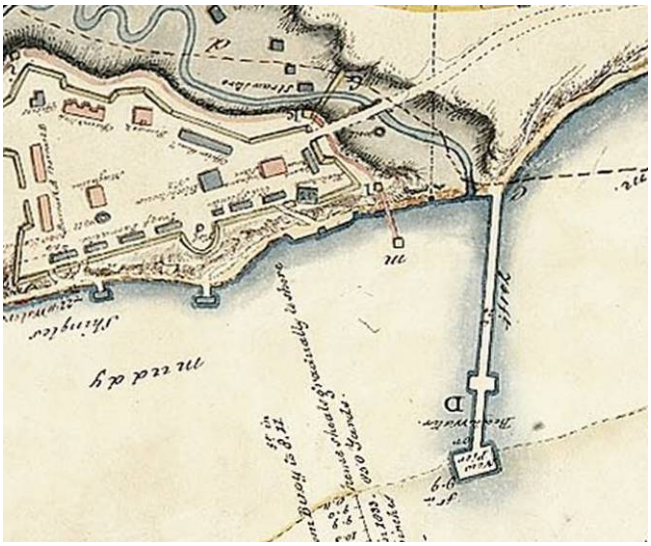


View of the Garrison at Toronto or York Upper Canada ... March 11, 1805, by Lt. Sempronius Stretton., showing the layout of buildings on both sides of the mouth of the creek. Reproduced from Firth (1962).

Following the American withdrawal, the British military shifted its main attention back to the west side of the creek in the area of Fort York as it exists today. Several features, such as a bakehouse and barracks remained on the east side of the creek. Moreover, one or more artillery emplacements and earthworks, which have various configurations on period maps, were present in the ravine, between circa 1812 and 1820, largely within the Bathurst Street right-of-way but potentially extending into Block 36. Period artwork also suggested that other ravine structures may be present in the ravine, although their location relative to the landscape today is unclear. The east promontory was completely removed during the construction of the waterfront railway corridor and associated lake filling operations of the 1850s and the creek itself was channelized and redirected.

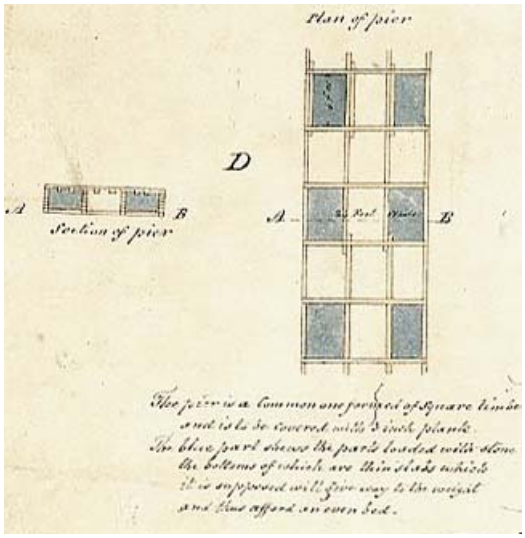
2.2 The Queen's Wharf and Landmaking

The first structure built in the open water portion of Block 36 was the Queen's Wharf. Originally called New Pier, the Queen's Wharf was built in 1833 on the eastern side of Garrison Creek's outlet. The wharf had a dual purpose. In addition to serving as a docking and cargo handling facility, it was intended that the construction of such a long pier at the mouth of the harbour would hinder the growth of the offshore sandbar that continually threatened to block the entry to Toronto's port by deflecting and accelerating the westerly flow of water between the lake shore and the Toronto Islands. This would also have had the added effect of delaying freeze up in winter (Hart n.d.:4). It is not clear if it was particularly successful in either regard; period experts such as Sanford Fleming and Hugh Richardson, differed in their assessments (Harbour Commissioners 1854).



Detail of the Queen's Wharf from Richard Bonnycastle's *No. 2 Plan of Comparison…*

The 1833 structure measured approximately 540′ (164.6 m) in length and 24′ (7.3 m) in width and stood in Blocks 36, 37, the Bathurst Street right-of-way, the lands under the Gardiner Expressway on the east side of Bathurst, and perhaps the extreme north end of Block 8. The depth of water at the head of the wharf was recorded as 9′ 9″ (2.29 m) on Richard Bonnycastle's 1833 *No. 2 Plan of Comparison*…, although it is more in the order of 12½″ (3.8 m) on his *No. 1 Plan of the Town and Harbour of York*. The No. 2 plan also provides a sketch of the basic design of the wharf, the accompanying text for which reads: "the pier is a common one formed of square timber and is to be covered with three inch plank. The blue part shows the parts to be loaded with stone the bottoms of



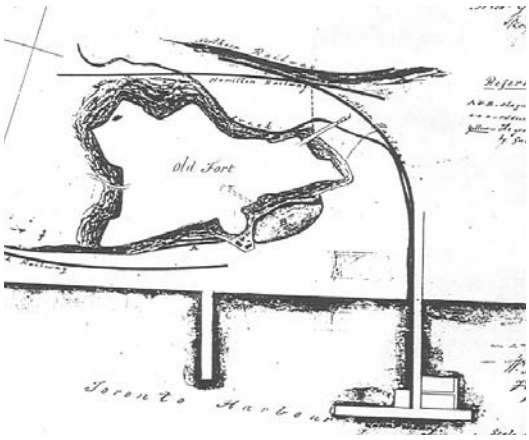
Marginal sketch and notes on the construction of the Queen's Wharf on Richard Bonnycastle's *No. 2 Plan of Comparison…*

which are thin slabs which it is supposed will give way to the weight and thus afford an even bed." According to Bonnycastle's sketch, the individual cribs measured 10′ 6″ (3.2 m) long and 8′ (2.44 m) wide (Bonnycastle 1833a, 1833b).

A public road ran from the head of the wharf to Bathurst Street. The wharf was lengthened, in 1837, to about 800 feet (243.8 m) so as to reach waters of 12-14′ (3.65-4.27 m) depth, and a 250′ (76.2 m) long east pierhead was added at the same time. These changes allowed the wharf to service larger vessels.

The Queen's Wharf shown on James Cane's 1842 *Topographical Plan…*, after it had been lengthened and the east pierhead had been added.

In 1850, the first Harbour Commission was formed and one of their first tasks was to address the decay and increasingly apparent limited capacity of the Queen's Wharf. In addition to carrying out such repairs as were found necessary, the commissioners ordered that the wharf be widened by 40′ (12.2 m) on either side and that a 400′ (121.9 m) pierhead be extended westward from the end of the wharf (Hart n.d.:7-8). This latter construction work took place between 1853 and 1856 and coincided with some of the railways' initial lake filling operations in the area. This period of renovation also appears to have included a further extension of the east pierhead and a partial widening to accommodate storehouses. Portions of both the east and west pierheads have been documented in archaeological monitoring undertaken on properties to the south of Block 36 (ASI 2006, 2008a). Both were constructed using ballasted cribbing as was typical along the Toronto waterfront during the nineteenth and early twentieth centuries (Robertson 2007, 2009).

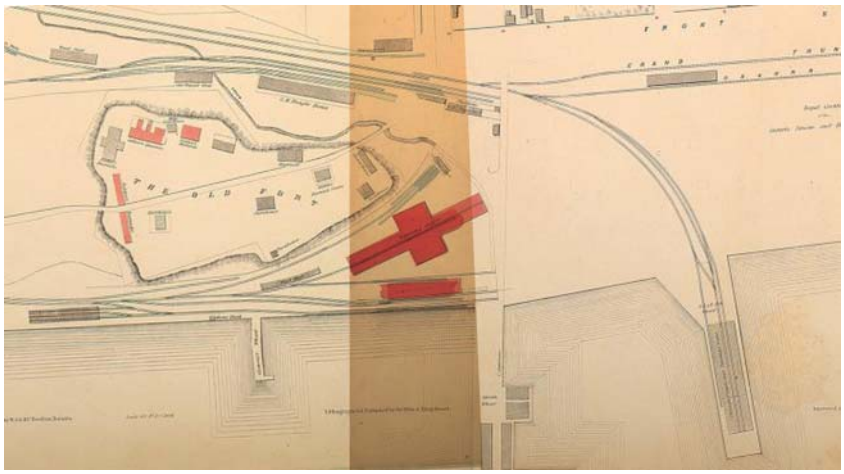


The Queen's Wharf shown on Alexander Gordon's 1855 *Sketch of the Old Fort, showing… the ground taken, and filled in by the Grand Trunk Railway Company …*, after it had again been reconfigured.

By the early 1860s, the wharf boasted numerous structures, including a range light, a lighthouse, and a light keeper's house, in addition to store houses, which were later replaced by a grain elevator. The Grand Trunk Railway had a spur line running onto the west pier head and a turntable. The lighthouse, designed by Kivas Tully, was placed on the north side of the west pierhead. In 1863, the western pierhead was extended another 200 feet (61 m) west, and by 1867, a second lighthouse was constructed at the end the pier (Hart n.d.:7-8). These features all lay south of the Block 36 portion of the Queen's Wharf, which was by this time land-locked, since, as already noted, the 1850s reconstructions also corresponded with the first major campaign of lake filling in the Block 36 area to accommodate the major railways. Of particular importance in the context of this project is the development of the Grand Trunk Railway Company's station facilities south and east of Fort York (see 2.3 below), and the rail corridor that was growing along the whole of the waterfront.

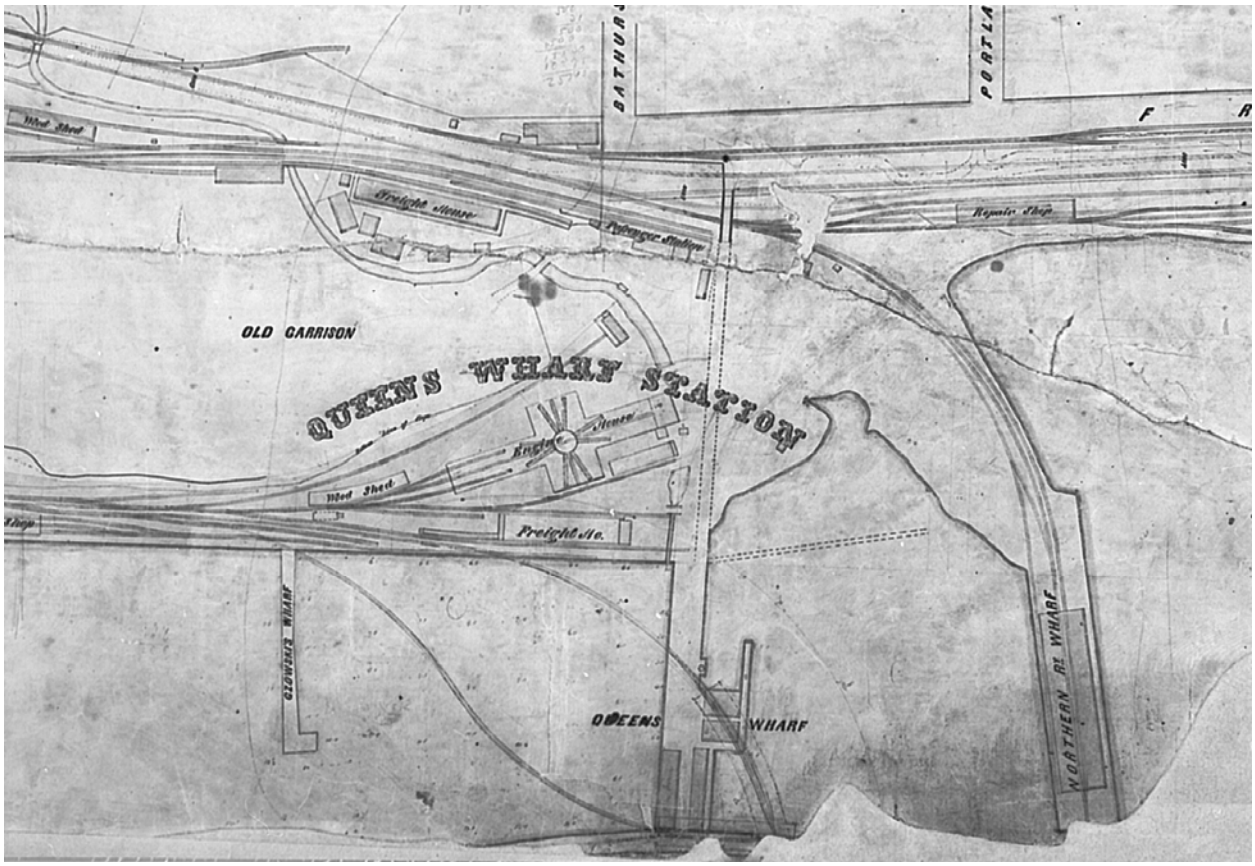
The creation of new, made land was accomplished through "crib and fill" operations whereby a coffer dam or shore wall of timber cribbing was constructed around the perimeter of the area to be filled in. Mapping of the waterfront in the 1850s shows that between Bathurst and Portland streets, the shore wall was located approximately 250 metres south of Front Street, in the area that now comprises Blocks 33 and 37. A portion of the continuation of this shore wall on the west side of Bathurst was recently documented (ASI 2011).

The fill used to create the new land behind the crib wall included sewage, "cellar dirt" excavated on construction sites in the town, and most importantly, material cut from the south edge of the shoreline terrace by the railways as they built their waterfront lines (McIlwraith 1991). This included the landform on which the early nineteenth-century garrison buildings on the east side of the creek had stood.



The apparently inaccurate depiction of the extent of lake filling in the area of the Queen's Wharf in the 1858 *Boultons' Atlas*.

Maps such as the *Boultons' Atlas* of 1858 provide very useful records of the progress of landmaking during this period, but they must be used with caution. In the *Boultons' Atlas* of 1858, for example, Block 36 and its surroundings appear as a large area of neatly defined new land that seems remarkably under-utilized. The anonymous 1859 *Plan of the Front of Toronto….*, likely prepared by or for the railways themselves, provides a very different depiction of the progress of the fill, and is likely to be a more accurate reflection of the state of affairs as it was prepared for the railways themselves. It shows the shore wall as being incomplete or perhaps not even built as it is depicted only by a partial dashed line between the east edge of the Queen's Wharf and the west edge of the Northern Railway wharf located further east along the waterfront. Similarly the area is shown as only partially filled and much of it would have still been unsuitable for any form of development. The railways concentrated their efforts only on immediate areas of their tracks, stations and work yards. One means of coping with poorly consolidated or inadequate quantities of lake fill was the construction of causeways for the track beds. Remains of a block and bridge causewayed rail bed were documented on Blocks 29 and 26A to the east of Block 36 (ASI 2008b).



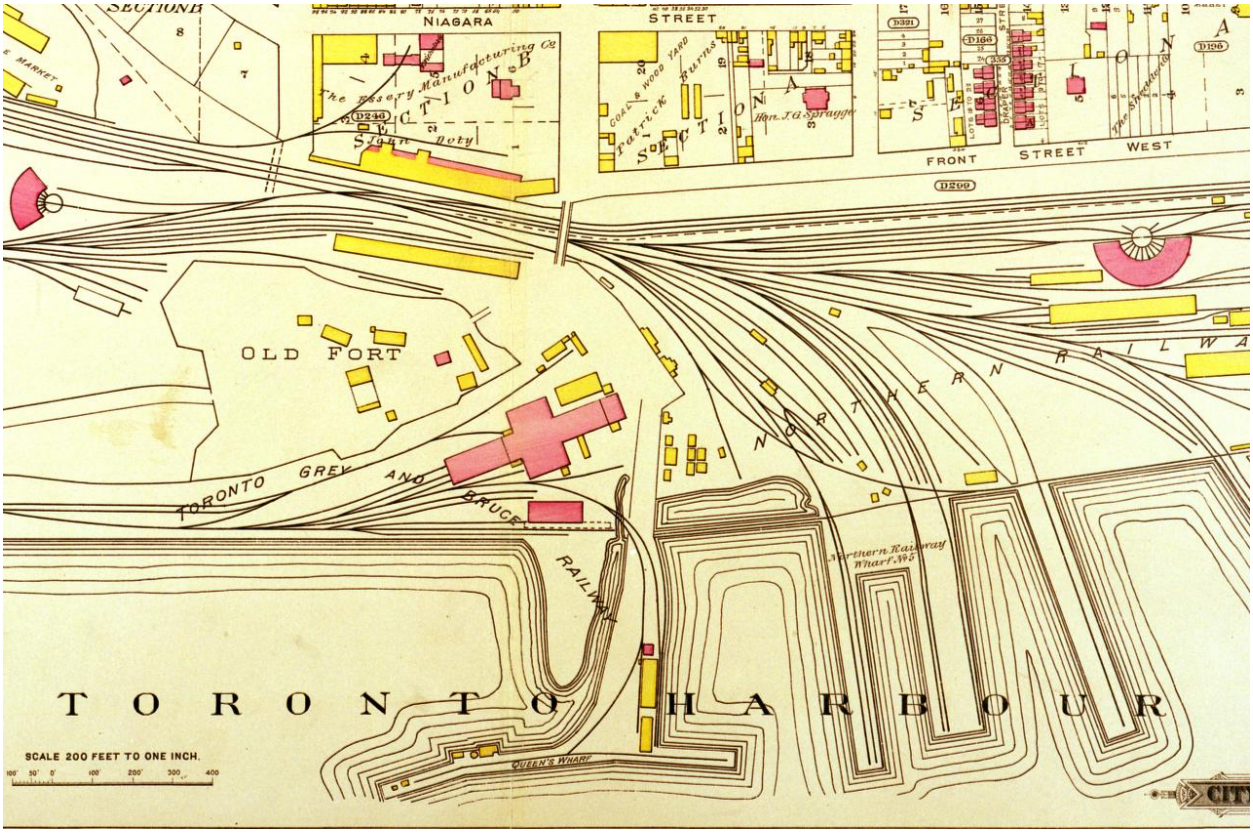
The 1859 *Plan of the Front of Toronto Showing the Railway Line and Buildings*. The map shows the enlarged Queen's Wharf, the layout of the GTR's station, the engineering of Garrison Creek and the actual progress of lake filling in the vicinity to 1859.

Period sources frequently comment upon the incomplete state of the filling along the waterfront, which led to the creation of "lagoons" or "unfilled sloughs." According to the miasmatic theories of disease prevalent at the time, such environments were seen as severe threats to human health. Given that these artificial cesspools also trapped vast amounts of raw sewage from the city's sewers—and those remaining streams which were essentially no more than open sewers by this time—such concerns were probably not unfounded. In the end, it fell to the city to complete the filling operations in such problematic areas.

Garrison Creek was, of course, one of the sources of sewage entering the harbour, and it continued to flow through Block 36, although it was increasingly engineered and manipulated. Plans of the 1850s show the creek in some detail as an open channel winding its way through the newly built yards of the Northern and Grand Trunk railways north and east of Fort York. However to the immediate east of the Grand Trunk engine house it disappears, re-emerging closer to the new shoreline to empty into the harbour through a straight, narrow channel on the west side of the Queen's Wharf.

By 1884, all but the outlet of the creek had disappeared, but the effects of it discharge of silt and sewage was apparent on the west side of the Queen's Wharf, were a bar extended a considerable distance into the harbour on the west side of the outlet and material was also allowed to accumulate against the west side

of the wharf. Shipping activities were confined to the eastern and southern sides of the wharf. These deposits were consolidated by cribbing and additional filling in the 1880s, resulting in a much wider wharf structure. The creek entirely disappears from maps at the end of the 1880s, by which time the entire system south of College Street had been imprisoned by the Garrison Creek sewer project.



The development of railway lands in the Block 36 area as depicted in the *Goad's Atlas* of 1884.

2.3 The Railway Era

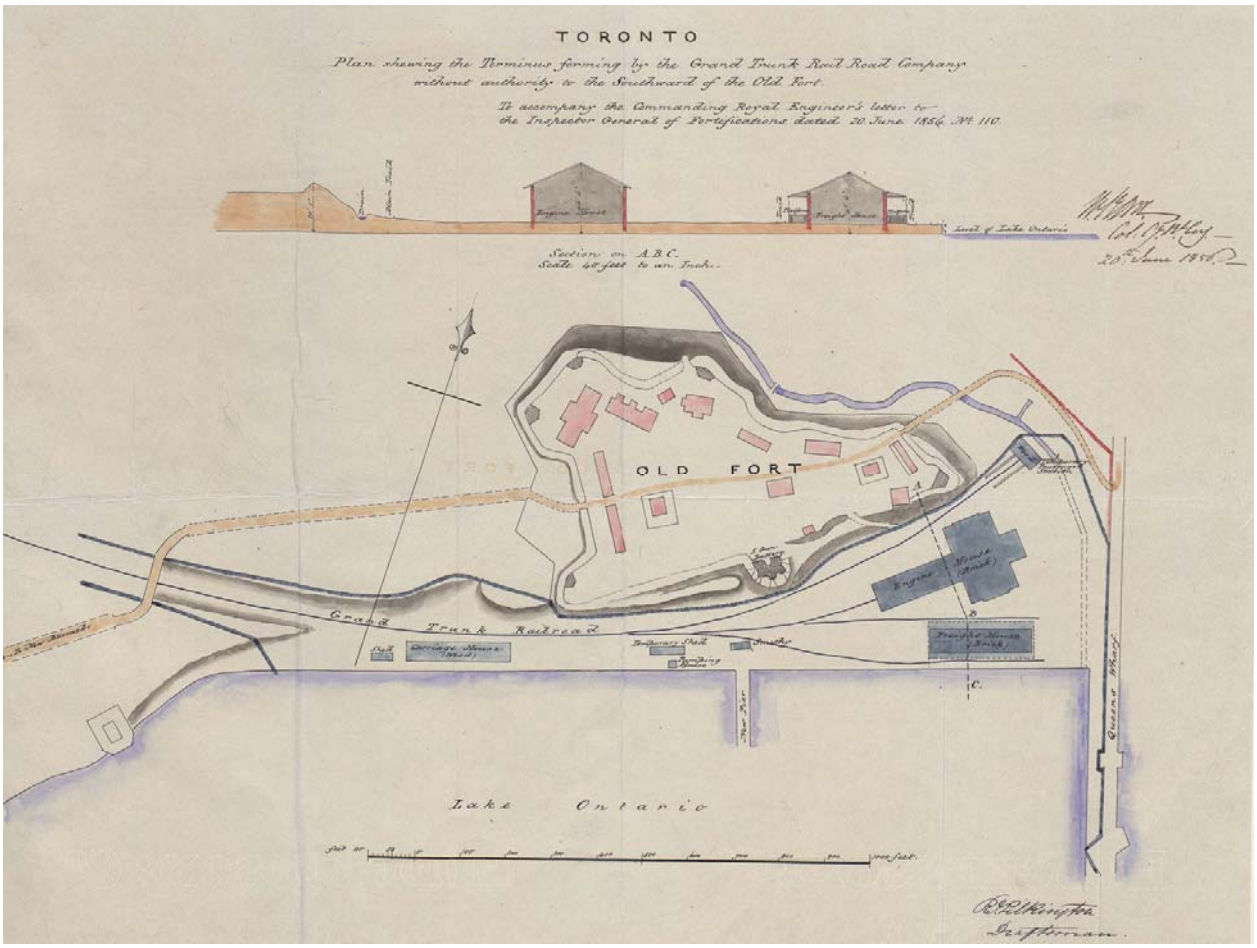
The Block 36 lands make up the east portion of the Grand Trunk Railway's Queen's Wharf Station. The Grand Trunk was the last of the pioneering railways to enter Toronto, but ultimately grew to be the most important of them. The railway entered the city from the east, along the lakeshore, with their track reaching the Don River in 1855. The Grand Trunk had also bought out the Toronto and Guelph Railway, who were building a line westward from Toronto. This acquisition was intended to equip the Grand Trunk to compete with the rival Great Western Railway's traffic to the American mid-west. The Queen's Wharf Station was the Toronto terminus of this westward traffic.

The station facilities included a cruciform-shaped engine house with a central turntable, a freight house, smithy, a pumping house, carriage house, a temporary passenger station, a variety of sheds, and a spur line to the renovated Queen's Wharf. While the majority of the major features lay west of Block 36, the end of the east wing of the engine house, extended into the property. Construction of the north, south and west wings of the engine house was completed in 1855. On September 12, 1855 in an article reviewing

building projects in the City, the *Globe* reported that the railway projects represented the major form of "public" development in the city:

> the numerous railway works, consisting principally of very extensive freight houses, engine houses (absurdly called "engine stables") for the western section of the Grand Trunk, and another for the Toronto and Hamilton Railway Company, which is a substantial brick structure, two hundred and thirty feet long by fifty-three broad. The freight house for the former approaches completion; but the engine houses are by no means advanced, though the whole will be finished this fall. All these are situated near the Old Fort, by the Queen's Wharf… (*Globe* 1855:2).

The east wing of the engine house, which extends into Block 36, appears to have been completed no earlier than the second half of 1856, based on the evidence of a map drafted for the Royal Engineers (Pilkington 1856). Period mapping indicates that once completed, the engine house measured approximately 430′ (131 m) in length and 165′ (50.3 m) in maximum width. The east and west wings were 165′ (50.3 m) long and 65′ (19.8 m) wide. The 1856 Pilkington map includes a sectional drawing through the west wing of the engine house and notes that the height of this portion of the building was 40′ 6″ (14.2 m), measured from the base of the foundations to the apex of the peaked roof.



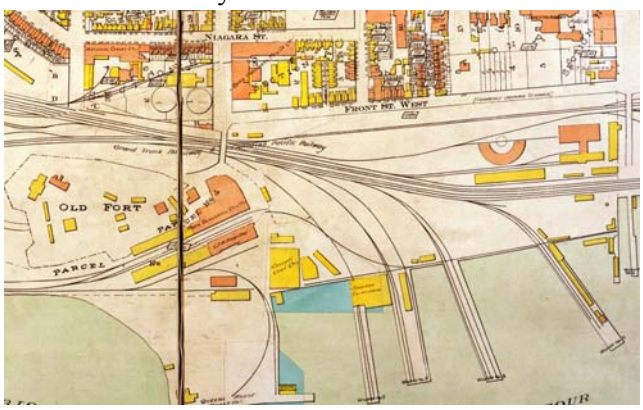
Pilkington's 1856 *Plan of the Terminus forming by the Grand Trunk Railway Company* showing the incomplete construction of the Grand Trunk engine house and other details.

The cruciform engine house was a British pattern of design. It is a variant on a form generally referred to as a "square" engine house, even though most "square" houses were, in fact, rectangular. In North America, the cruciform engine house was largely unique to the Grand Trunk Railway. Similar engine houses were a feature of the GTR's stations at Point St. Charles, Richmond, Brockville, Kingston, and at their Toronto Don Station (Anonymous 1859; GTR 1860: appended maps and plans).

The GTR's early preference for this type of building is due to the fact that their system was built by British contractors who were working to British standards of practice, which tended to be higher and more expensive than those of their North American counterparts (Bush 1990:30). There are three basic types of "square" engine house: (1) the "run through" design, which was open at both ends so that locomotives could pass straight through; (2) the sub-track style, which was entered from one end on a track that then split into a number of spurs with buffers at their terminal ends; and (3) the radial track type, which was entered from one end on a track that led to a turntable that turned to direct the engine to one of a number of stalls for servicing (Bush 1990:11).

The 1859 *Plan of the Front of Toronto*... shows that three lines of tracks entered the engine house via the west wing. The central line led to the turntable in the centre block and continued into the east wing of the building, while the flanking lines appear to have been spurs that terminated west of the turntable. These may have been for servicing engines that did not need to be turned or parked over an engine pit. Ten engine pits can be clearly discerned on the map. Three radiate out from the turntable in both the north and south wings, while two are shown in the east and west wings. However, a GTR report for 1859 states that there were twelve engine pits (Blackwell 1860: Appendix E). It is therefore possible that the two spurs lines also terminated over engine pits, or based on the archaeological evidence, at least one pit was located on the east extension of the central track, east of the turntable in the east wing. The 1859 plan indicates that the engine pits were approximately 60′ (18.3 m) long, while the turntable was approximately 45′ (13.7 m) in diameter. Overall, it would seem that the engine house was something of a hybrid, as it appears to incorporate elements of both the "sub-track" and "radial track" designs.

In 1859, the Grand Trunk re-laid its track from south of Fort York to a new alignment north of Fort York and parallel to the Northern railway lines (HRL 1983:7-8), but retained their facilities south of the fort. By the 1870s, the Grand Trunk had shifted the majority of its facilities to the vicinity of Union Station, leasing its Queen's Wharf terminal to the Toronto Grey and Bruce Railway (HRL 1983:8). The engine house was decommissioned sometime between 1884 and 1890. Most of the building appears to have been demolished at this time. The east wing remained standing into the 1920s. Goad's mapping of 1890-1923 identifies the surviving portion of the structure as a freight office. It is not visible in photographs of the area from the early 1930s.

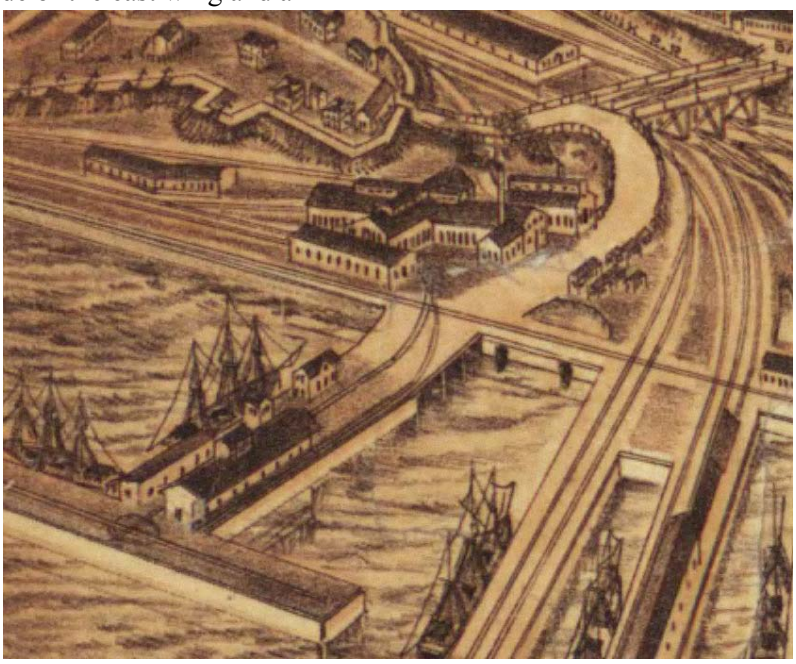


The development of railway lands in the Block 36 area as depicted in the *Goad's Atlas* of 1910. Only the east wing of the former GTR engine house appears to survive as the CPR freight office

The area of the engine house in 1932.

There are very few nineteenth-century depictions of the GTR's Queen's Wharf station. The south façade is shown on an 1856 view of the Toronto harbour rendered by William Armstrong. A *Bird's Eye View of Toronto* produced in 1876 shows the complex relatively clearly, although there are some discrepancies between it and the 1856 depiction as well as some of the cartographic sources. The Armstrong view shows the engine house as a two-storey building with a tall smoke stack located on the north side of the building, on the east side of the north wing. The bird's eye view shows the engine house with a relatively large addition on the south side of the east wing and a smoke stack. The addition appears to be much larger than is shown on the *Goad's Atlas* mapping of the 1880s, which identify it as being of frame construction. The engine house featured large windows along all facades as well as vented cupolas or additional windows above the peaks of the roof. Both interior lighting and ventilation were important considerations in the design of an engine house (Berg 1893:171).

The GTR engine house on Armstrong's 1856 *Panoramic View of the City of Toronto*.



The GTR Queen's Wharf Station on the 1876 *Bird's Eye View of Toronto*.

South of the engine house is the freight house, and another building is shown to the north of the west wing. The function of this building, which is also identified as being of frame construction on the insurance plans, is not known, but is presumably related to storage or maintenance of rolling stock. A viaduct connects the Queen's Wharf to the Bathurst Street bridge north of the yard and is flanked by a series of small sheds. The building to the west of the engine house, below the circular battery of Fort York, is a range of wood sheds. A portion of an ash and clinker pit was found in this general area during recent test excavations focused on the ramparts of Fort York (ASI 2012). The feature was likely located along a rail bed to the north of the wood sheds.

In the absence of a detailed documentary record for the engine house, recourse must be made to other sources in an effort to characterize the building. Walter Berg's 1893 *Buildings and Structures of American Railroads* provides a detailed survey of a large number of engine houses in the United States. This work reflects American theory and practice, which differed in many respects from the British traditions that heavily influenced the GTR in its early years, and most of the engine houses it discusses are roundhouses and none are cruciform. It also obviously reflects the results of almost half a century of evolution and refinement on the part of the railways. Despite these caveats, it provides a useful account of

design considerations and construction methods and materials recommended for engine houses. Those that are relevant for the purposes of this report may be briefly summarized as follows:

- The site of the engine house should be located in close proximity to other service structures, such as coal chutes, water tanks, oil houses, sand houses, ash pits, etc. for discharging and taking on materials before and after the engines were serviced.

- In terminal or division yards such as the Queen's Wharf Station, the building should be built to the highest standards affordable in terms of layout, to prevent blockages due to engine or equipment breakdowns inside the building, and with respect to fire-proofing. The use of stone and brick for walls is preferable to wood frame and board construction in regard to the latter.

- The roof trusses may be a combination of wood and iron, or all iron, or wooden girders on posts. Ironwork trusses and pillars had the advantage of being fireproof, but in the event of a fire they may not survive with sufficient stability to be rebuilt upon. They are also prone to decay due to their exposure to the fumes from the engines.

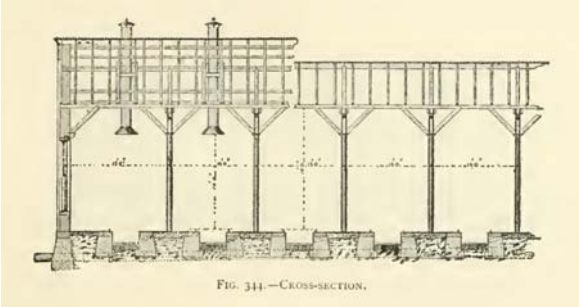
- Large windows and transom-lights are required to maximize light in the building and permit effective inspection, cleaning and repair of the engines and maintaining a clean workspace. Both the 1856 and 1876 depictions show many windows, although not in the same configuration.

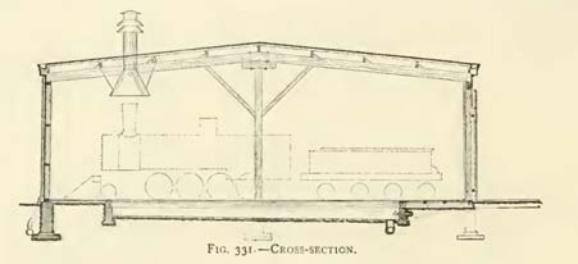
- Roofing should be slate, tarred felt or tarred gravel, as the corrosive gases from the smokestacks of the engines being serviced in the house destroys all other materials.

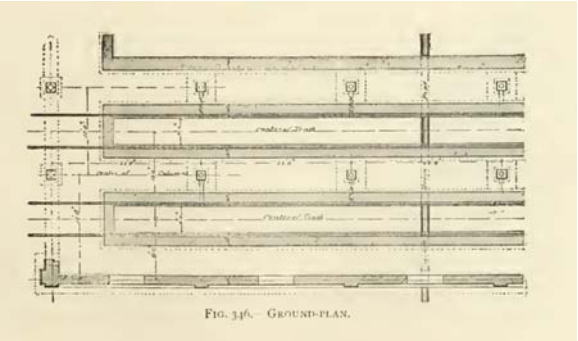
- The exhausts from the engines require the building to be very well ventilated. Louvered ventilators on the peak of the roof are most effective and have the advantage of being adjustable in cold weather. The presence of these features on the Grand Trunk Railway engine house is evident on the 1876 view.

- Smoke jacks or small chimneys were positioned over the smokestacks of the locomotives being serviced in the stalls serve to vent any remaining fumes emitted by the engines. Sheet iron smoke jacks rapidly decay. Cast iron is more durable, but is heavy and more unwieldy to install. By the late nineteenth century galvanized iron was being used. In early engine houses smoke jacks may sometimes have been wood. The smoke jacks could be installed individually through the roof, or connected by overhead piping to a main smokestack. The limited pictorial record suggests that the latter method was employed in the Grand Trunk Railway engine house.

- The engine or inspection pits provided machinists, fitters and cleaners with access to the underside of the locomotive to carry out their work. They were usually in the order of two-three feet (0.61-0.91) deep and their width was dependent upon the gauge of the track. The side walls and floors of the pit could be either brick or stone, whichever was more cost-effective. The sidewalls supported the tracks on which the engines were run into the servicing stall. The floors if the pits should be cambered to permit water to run off to the sides of the pit and from there through floor outlets into the main drain conduit underlying the pit. In the case of pits with a flat floor, one end of the pit was slightly lower than the other so that the water would flow out through a drain at that end.







Selected illustrations showing the design of engine or inspection pits in American engine houses (Berg 1893).

- Flooring may be made up of cinders, cement, stone, asphalt or timber and be built level to the top of the rail lines of the house. Each material has its advantages and disadvantages and in most houses, it is likely that a combination of flooring was installed. Cinders were effective in absorbing oil spills, but inhibited trucking of material any great distance. Asphalt and concrete floors were prone to rutting as a result of heavy trucking, but were relatively easy to repair. Stone slab floors were highly durable, but could be very expensive. Where timber was cheap, two-three inch planking laid on mud sills bedded in cinders could be used to make the floor, although this was only recommended for newly made ground.

- Drainage was critical. Servicing and cleaning the locomotives parked in the stalls above the pits required immense quantities of water, as did the cleaning of the house itself. Sewerage had to be built on a large scale in terms of flow capacity and accessibility for ongoing maintenance and clearing.

- Heating was provided by either stoves or overhead steam pipes connected to a boiler.

Bush (1990:23) provides further details about the organization of engine houses at terminal yards such as the Queen's Wharf Station, which were equipped to carry out all work short of complete overhauls of locomotives. The prime concern of the engine house staff was to ensure that repairs were carried out as quickly as possible. This made for hectic and unpredictable working conditions, and depending upon the equipment available, repairs could be improvised or not up to the highest standards or desirable tolerances. Engine houses at terminal yards were staffed around the clock to deal with emergencies.

The major components of an engine house were the inspection and service floor, where the engines were parked and worked upon, the machine shop, which was equipped with tools to carry out repair work on the driving rods, driving boxes, valve gears and flues of the locomotives, and the boiler house, which housed the stationary boilers that powered the machinery, heated the water supply for cleaning, and heated the building. The machine shop was separated from, but had direct access to the inspection and

service floor. The 1859 plan depicts a separate room at the east end of the east wing of the engine house (i.e., the portion that extends into the Block 36 property) which may well be the machine shop.

The major equipment required to service and repair the locomotives included forges, boring mills, lathes, planers, slotters, bolt cutters, steam presses and hammers, valve setting machines, drills, grinders, pipe benders, shears, punches, etc. (Bush 1990:23-24).

2.3 Twentieth-Century Industrial Development

During the first decades of the twentieth century, portions of the Block 36 area were taken over by industrial concerns. Between 1910 and circa 1920, the southern portion of the Block 36 was occupied by the Connell Anthracite Mining Co. Ltd., whose facilities included a complex of five structures, described as coal sheds. Two additional structures, which served as boathouses, may also have been associated with the industrial site. The western portion of Block 36 was occupied by the Matthews-Blackwell/Park-Blackwell livestock slaughtering and processing plant, first built circa 1898. Construction of an addition to the plant in 1903, which extended into the east ramparts of the fort, resulted in the discovery of the bodies of five American soldiers. The plant was demolished in 1929, at which time the fort's ramparts were reconstructed. The area of the former engine house remained part of the Canadian Pacific Railway's yard operations.

Further grade alterations in the Block 36 area accompanied the development of the High Line viaduct to separate road and rail traffic in the 1920s, which entailed a renewed campaign of filling to extend the waterfront further south to its present location. The railway and industrial activities in Block 36 generally contracted following the 1920s filling, although the entire area continued to function as a rail yard for the next few decades until the further abandonment of portions of the railway corridor in the 1950s-1960s.

The rail yards between Spadina and Bathurst in 1947. The only structures shown in the Block 36 area appear to be sheds.

The Block 36 landscape was again radically altered by the creation of a rail underpass at the Bathurst Junction and by the deposition of large quantities of fill throughout much of the area south of the arrowed corridor between Spadina and Bathurst. This material was excavated during the construction of the SkyDome (now Rogers Centre), in the late 1980s. By the early 1990s, only the northern edge of the High Line embankment, in the area of Blocks 32 and 36, remained visible (ASI 1992). It too had disappeared by the early twenty-first century as the surface of the site was remodelled by miscellaneous dumping, temporary stockpiling, and earthmoving activities related to the modern residential redevelopment of the adjacent lands.

3.0 ARCHAEOLOGICAL CONTEXT

3.1 The 2005 Stage 1 Assessment of Blocks 32 and 36

Block 36, together with Block 32 to its immediate east, was the subject of a Stage 1 archaeological assessment in the summer and fall of 2005 (ASI 2005). This study concentrated on the development of an understanding of the historical process that led to the development of the properties, an inventory of the types of archaeological resources that may be present and their relative significance. The Stage 1 assessment also included consideration of the relationship between the properties and the seven previously registered sites within the vicinity (AjGu-21, 22, 23, 24, 25, 26 and 37). Only the archaeological resources of the Fort York Garrison (AjGu-26) were of potential relevance or concern with respect to Block 36, as was examined in detail throughout much of the report. The Stage 1 assessment concluded by recommending that Stage 2 investigations be carried out on Block 36, focusing on the various potential cultural and natural features identified as being of archaeological interest.

3.2 The 2006 Stage 2 Assessment of Block 36

A Stage 2 archaeological assessment of Block 36 was carried out in the fall of 2006 (ASI 2007). This work also included investigations within the Bathurst Street right-of-way, below the Bathurst Street bridge. The latter are summarized in Section 3.3.

It was originally proposed that three Stage 2 trenches would be excavated within Block 36. The first of these, Trench 1 was planned as a 50-metre-long trench oriented east-west that was intended to document remains of the Queen's Wharf, as its location had been predicted on the basis of the previous Stage 1 research. Two 20-metre-long test trenches (Trenches 2 and 3) were planned to document any subsurface remains associated with the Queen's Wharf as well as potential remnants of the original topography of the Garrison Creek ravine. These plans were modified as the field assessment progressed, based on the character of the findings and physical/logistical constraints. In the end, six separate trenches of various sizes were excavated, designated Trench 1 East, Trench 1 West, Trench 2 East, Trench 2 West, Trench 3 and Trench 4 (*Supplementary Documentation* Figure 2). The excavations were carried out using a John Deere 310 rubber tire backhoe equipped with smooth and toothed buckets, changing between buckets as appropriate.

Trench 1 East and Trench 1 West

Although originally planned as a continuous 50-metre-long, two-metre-wide excavation, upon discovery of potential remains of the wharf in the west portion of the trench, the decision was made in the field to excavate two separate east and west sections, in order to minimize damage to the archaeological remains in the intervening area.

The west section of the trench was excavated to a depth of approximately 74.7-74.4 m ASL. The trench was cut through an uppermost layer of very dark-greyish brown to black silty clay containing gravel, wood and other debris that extended to a depth of approximately 77.6 to 76.9 m ASL, a layer of unconsolidated brick rubble, mortar and yellow sands that extended to a depth of approximately 76.6 m

ASL, a layer of black silty clay fill that extended to a depth of approximately 76.0 m ASL, and a layer of fine to medium grained brown to dark-yellowish brown silty sand that extended to a depth of approximately 74.65-74.45 m ASL. It was terminated at this elevation, at which point a dark bluish-grey sand representing the original lake bed was encountered. It was suggested that the silty sands between 76.0 and 74.45 m ASL represented mid-nineteenth century fills, derived from harbour dredgings and/or other sources.

These deposits were very unstable and the walls of the trench frequently collapsed as the excavation proceeded and they were undermined by the water table, which lay at approximately 74.5 m ASL. The instability of the fills combined with the 2.9-3.2 metre depth of the trench rendered impossible to carry out detailed recording of the soil profiles due to safety concerns. This proved to be the case throughout the project area.

Structural features encountered in the west section of Trench 1 (ASI 2007:Figure 7) included what were interpreted as some form of interior footings of the Grand Trunk engine house in the extreme west end of the excavation. The 2011 Stage 4 excavations proved this interpretation to be partially correct. The upper surface of this feature was found at approximately 76.0 m ASL. It was composed of six courses of limestone slabs which supported five courses of mortared frogged bricks. It was suggested that the structure may have been underlain by a sill or pad comprised of a 12″ (30 cm) square timbers, although this could not be confirmed. Just over ten metres to the east a brick wall resting on a limestone slab foundation was encountered.[1] The bricks were of the same type used in the west feature. These elements were interpreted as the east end wall of the engine house, a suggestion confirmed by the 2011 Stage 4 results. This wall abutted a series of elements that were interpreted as being related to the cribbing of the Queen's Wharf, as below a massive horizon of brick rubble lay two 12″ (30 cm) square beams that framed a deposit of cobble ballast and a dislodged 10″ x 4½″ (25.4 x 11.4 cm) mortised tie-back beam. East of the brick wall, the trench began to flood at a depth of approximately 1.65 metre below grade. The interpretation of the cribbing as part of the Queen's Wharf was incorrect, as the Stage 4 excavations revealed that it was related to the channelization of Garrison Creek.

The east section of Trench 1 encountered the same basic stratigraphy, although the uppermost stratum incorporated a poured concrete pad throughout virtually the entire excavation area and the water table was considerably higher. Deeper structural features encountered included a cast iron sewer pipe and a single 12″ (30 cm) square beam in the westernmost portion of the trench, and a short distance to the east a wall comprised of three courses of 11″ (28 cm) square timbers (ASI 2007:Figure 7). The upper surface of this feature lay at a depth of 76.2 m ASL. It was interpreted as a part of the Queen's Wharf cribbing, which was subsequently proved correct, although it did not constitute the east face of the original 1833 wharf structure, as was also suggested as a possibility.

The only other elements of note in the east section of Trench 1 was a limestone rubble pad on which lay a series of 11″ (28 cm) square beams. This feature was encountered at 76.9 m ASL.

[1] The Stage 2 assessment identified the limestone walls as being of dry laid construction. The Stage 4 excavations revealed this to be incorrect. The walls were mortared, but much of the mortar had decayed (see Section 5.3).

Trench 2 East and Trench 2 West

Trench 2 was laid out as a 15 metre long cut situated to intersect the former bed of Garrison Creek as estimated on the basis of the historical mapping compiled during the Stage 1 research (ASI 2007:Figure 6). Excavations began at the west end of the trench, but were discontinued after a four-metre-long, two-metre-wide area had been excavated to a depth of 73.0 m ASL. Within this west section, a black organic, silty clay fill containing gravel and wood extended to a depth of 77.0-77.5 m ASL. From 75.5-73.5 m ASL there occurred a massive blue clay fill layer that exhibited organic staining and incorporated metal debris and river cobbles at a depth of approximately 74.0 m ASL. The water table was encountered at 73.5 m ASL and bedrock lay at 73.0 m ASL. Once the water table had been breached, massive cave-ins occurred. The excavations were terminated due to the instability of the trench walls and elevated levels of diesel that were apparent, based on the strong odour and consultation with geotechnical personnel. No significant archaeological deposits were noted in the west section of Trench 2.

The east section of Trench 2 was also excavated as a four-metre-long two-metre-wide cut. The black diesel saturated fills were found in the west end of the trench and proved to be part of a deposit that cut through dark yellowish-brown silty clay fill layers that extended throughout the balance of the east excavation area. The east section of the trench was excavated to approximately 74.3 m ASL, but the process was hindered by the fact that water began to flow into the trench as high as 75.5 m ASL. No significant archaeological deposits were encountered in the east section of Trench 2.

Trenches 2 East and West lay just beyond the northwest limit of the 2011 Stage 4 excavation area.

Trench 3

Like Trench 2, Trench 3 was originally laid out to be 15 metres long and was situated to explore the Garrison Creek ravine area (ASI 2007:Figure 6). Excavations began at the west end of the trench and were continued for a distance of six metres east before the work was discontinued due to safety concerns related to the depth of the excavations and the instability of the fills. The uppermost 0.75 metre of the soil profile (77.2 to 76.4 m ASL) consisted of very dark greyish-brown to black fill mixed with gravel and modern debris and interspersed with thin lenses of yellowish brown sand. Below this, to approximately 74.4 m ASL, lay a massive deposit of dark yellowish-brown silty clay fills that contained numerous cast iron utility pipes of various sizes and orientations. This horizon overlay a stratum of dark bluish-grey silty clay that contained gravel and some degraded shale bedrock. In the north wall of the trench a pocket of wood debris within the clay was noted at approximately 74.6 m ASL. Below the clay lay a horizon of very dark greyish-brown sandy gravel that was approximately 20 cm thick. This deposit, which was coincident with the water table, extended throughout the entire excavation area, apparently rising in elevation to the south as it lay at a 74.6 m ASL in the south profile. A sample of material extracted from this buried horizon was found to contain a large quantity of early- to mid-nineteenth-century artifacts, including ceramic tablewares, smoking pipe fragments, leather shoes and scrap, and a few bricks. Much of this material was waterworn, suggesting that it was deposited in an active fluvial or nearshore environment.

Grain-size analysis of a sample of the gravels indicated very poor sorting of sediment, more consistent with colluvial deposition or fluvial reworking by Garrison Creek and less consistent with reworking in a higher-energy environment along the exposed shore by Lake Ontario. It was also suggested that the poor sorting, in association with the artifacts, could be attributed to reworking during the occupation and use of

the shore in the nineteenth century. On balance though, it appeared that the artifacts most likely represented refuse disposal in the Garrison Creek ravine, as many nineteenth-century accounts describe the creek as an open sewer that was clogged with waste prior to the filling of the upstream portions of the watercourse and the construction of the Garrison Creek Sewer in the 1880s.

Trench 3 proved to be the most unstable in terms of water undermining the walls, leading to slumpage and collapses. Due to repeated cave-ins, the original two-metre-wide excavation ultimately measured almost five metres across.

Trench 3 was located in the northeast corner of the 2011 Stage 4 excavation area, near the point at which the 1850s period reconstruction of the Queen's Wharf was found to articulate with remnant natural shoreline deposits.

Trench 4

Trench 4 was laid in to the south of Trench 1 (ASI 2007:Figure 6) and was intended to confirm the location and orientation of the presumed west edge of the wharf, as documented in Trench 1. The trench measured approximately 12 metres long, 1.5 metres wide and was excavated to 74.95 m ASL. The 77.7 to 76.9 m ASL portion of the soil profile consisted of dark greyish-brown clay fill mixed with gravel and modern debris. This was underlain by a layer of homogeneous lime mortar that extended to 76.6 m ASL. This layer capped an established ground surface as it sealed a thin horizon of decaying scrubby plant matter that sat on top of a layer of black organic soil containing brick fragments, slag and gravel, which extended to 76.1 m ASL. This, in turn, overlay a stratum of yellowish-brown clay mixed with grey clay to 75.8 m ASL, which in turn overlay a deposit of mixed clays comprised of yellowish brown, dark greyish-brown, and gleyed components. This was the final stratum identified and extended to a minimum of 74.95 m ASL, at which point the water table was encountered.

The lowermost clay layers incorporated a large quantity of timber debris, some of which (the larger beams and planks) were thought to related to demolition of a portion of the Queen's Wharf during later construction/development activities. Other remains, such as the smaller squared timbers, were thought to represent the disposal of railway ties and, in the case of the round wood timbers, later nineteenth- or twentieth-century piles or building elements. The only other feature of note that was encountered was a concrete footing that was likely associated with one of the larger late nineteenth-twentieth century railway buildings located in the vicinity. In light of the findings from this trench, it was thought questionable as to whether the Queen's Wharf had survived as a continuous subsurface feature throughout the Block 36 area.

3.3 Stage 2 Trenches within the Bathurst Street Right-of-Way

The 2006 excavations within the right-of-way were primarily focused on determining whether or not any remnants of the circa 1812-1820 ravine batteries or earthworks had survived subsequent landscape alterations. The only potentially positive results were encountered in Trenches 8 and 10 on the west side of the right-of-way (ASI 2007:Figure 6), well beyond the Block 36 project area.

3.4 Summary of Stage 2 Recommendations for Block 36

In light of the results of the 2006 stage 2 assessment, it was recommended (ASI 2007:31-32) that:

- Given the outstanding questions concerning the extent and integrity of the Queen's Wharf and the Grand Trunk engine house within Block 36, the extent and character of the deeply buried artifact-bearing gravel deposits, and the currently undetermined extent of construction disturbance that will be brought about through environmental remediation and stormwater management system construction within the park, archaeological mitigation of these features and deposits in the form of Stage 4 salvage excavation and documentation may be necessary. Given the presumed total disturbances that will be necessary in the library and residential blocks, Stage 4 salvage excavation in these areas will be required.

- Should the remains of the Queen's Wharf and the GTR engine house in the library block prove to be of substantial scale and exhibit a high degree of integrity, their complete or partial preservation and incorporation in the library block for commemoration and public interpretation should be given due consideration. In order for such an option to be pursued, the Stage 4 assessment must be carried out as far in advance of final detailed design as is possible.

3.5 The 2011 Stage 4 Salvage Excavations: Project Initiation and Site Conditions

The Stage 4 salvage excavations took place between April 11 and June 16, 2011. Further monitoring of works outside of the Stage 4 excavation area was undertaken between June 20 and July 5, 2011.

The surface of Block 36 stood at between 77 and 78 m ASL prior to the initiation of the field work. The block is bounded to the south by the embankment that raises Fort York Boulevard to the grade of Bathurst Street (~82.5-83.0 m ASL) and to the east by a similar embankment for the Queen's Wharf Road right-of-way. The north and east slopes of these embankments, respectively, were removed prior to the initiation of the Stage 4 excavations in order to install the soldier piles and shoring required as part of the overall dewatering and excavation program. A major storm sewer installed by City of Toronto Works and Emergency Services in the fall of 2005 runs north-south parallel to the Bathurst Street bridge, just inside the limits of the block.

Dewatering was critical to the success of the Stage 4 excavations. The dewatering system involved establishing a continuous north-south line of well-points along the west boundary of the block and a continuous east-west line of well points across the north third of the block. These effectively formed the west and north limits of the archaeological excavation area, which encompasses the library block, the south portion of the residential block and the south portion of the park block (Figure 1). The west line of well points was located to the immediate east of the storm sewer.

The dewatering system was put into operation approximately two weeks before the excavations began, and eventually drew the level of the water table down to approximately 74.0 m ASL. The system remained in operation throughout the archaeological excavations, but periodic flooding due to heavy rains and/or breakage of some of the various abandoned drains and sewers that traverse the site required supplementary use of electrical pumps.

4.0 THE 2011 STAGE 4 SALVAGE EXCAVATIONS: FIELD METHODS

All activities carried out during the excavations were completed in accordance with the terms of the Ontario Heritage Act and with the Ministry of Tourism and Culture's 2011 *Standards and Guidelines for Consultant Archaeologists*, to the degree that the latter is relevant to the character of the property and its constituent archaeological and non-archaeological deposits. The *Standards and Guidelines* contain very limited recognition of the unique challenges presented by deeply buried, large scale, industrial/waterfront sites and equally little consideration of their investigation through archaeological means, as this document is focused almost exclusively on sites found in greenfield/rural contexts.

A Caterpillar 320 track excavator equipped with smooth and toothed buckets, changing between buckets as appropriate, and working under the supervision of the field directors, was employed to remove all later nineteenth- through twenty-first-century bulk fill deposits from the site area. Every attempt was made to ensure that significant deposits or features were left in situ for detailed treatment by hand, hence the depth at which mechanical excavation was halted varied across the site (Plates 1-2). On average, however, the excavations extended to a depth of 2.0-2.5 metres. Secondary use was made of a Kubota 91 track-mounted mini-excavator equipped with a smooth bucket to remove bulk fills from within crib structures or other constrained areas. The Stage 4 excavations encompassed an area of approximately 3,250 m^2 and the removal of an estimated 20,000 m^3 of bulk fills, which due to contamination were removed from the site for disposal and remediation. Field work was not carried out on days of inappropriate weather conditions.

In carrying out the excavations, a five-metre recording grid (datum 500N-200E) was established throughout the site area in order to provide complete horizontal and vertical control over the documentation and excavation of the archaeological deposits. Horizontal and vertical data was recorded through a combination of measurements relative to the site grid and use of a Nikon NPR-332 total station from various datum points and elevations established for the purposes of the installation and ongoing monitoring of the shoring walls.

A modified version of the Parks Canada convention of designating each unique stratigraphic unit or context as a "lot" was followed during the excavation and recording process, with a lot comprising either a surface, an occupation level, a fill, a buried sod, an interface, an intrusion, a structural feature, a natural stratum, etc. (Cary and Last 2007). The major modification to this approach was that fills within small-scale built features (e.g., privies, drains) were not assigned lot designations separate from the feature containing them, except in cases where there were multiple fill strata. Likewise cut and fill events were not necessarily assigned separate designations as is often the convention.

All lots that were interpreted to represent discrete cut features directly associated with the Queen's Wharf or the circa 1856 east wing of the Grand Trunk Engine house were hand-excavated according to the stratigraphy encountered in the field and in the manner necessary to document attributes such as depth, profile, fill composition and content, etc. Small-scale features of this type were typically 50-100% excavated using shovels and trowels, with the soil fills being screened through six-millimetre mesh to facilitate artifact recovery (Plates 3-5). However, in some instances alternative methods were required. The excavation of contexts with fills consisting of dense conglomerations of slags, furnace blooms, oxidized debris, etc., required the use of pick-hammers and mallets (Plate 6). These latter types of material were, for obvious reasons, not screened. Soil samples were retained from features identified as privies and samples of industrial waste were retained for specialist analysis.

Large-scale features associated with the wharf and engine house (e.g., builders' trenches, drain and other utility trenches) were sectioned by machine or hand, as appropriate, to obtain the necessary information on their character and function.

Late nineteenth- through twenty-first century bulk fills related to large-scale regrading of the site, as well as the mid-nineteenth-century lake fills that were laid down to create the land base of the area were not screened and artifact collection was restricted to cases where it was necessary to obtain samples of diagnostic material to establish a relative date for the context in question. All artifacts within these strata are in secondary, if not tertiary, context.

The surfaces and exposed faces of masonry, brick and timber features were cleaned by hand using trowels, shovels and brushes and recorded in plan and elevation.

Representative scale drawings of structural elements, stratigraphic deposits, etc. were completed and their attributes were recorded on pre-printed forms. A complete photographic record of the excavation process was maintained.

Descriptions of individual lots, in terms of soil matrix, composition, etc. were recorded on stratigraphic context recording forms with reference to standardized geological and colour attributes. Descriptions of built structures generally followed Roskam's (2005) terminology for "non-deposits."

5.0 RECORD OF FINDS

Figure 1 shows all major structural features and archaeological deposits documented during the course of the Stage 4 salvage excavations. Table 1 provides a summary of all stratigraphic lot designations assigned and their general interpretation. Figure 2 provides a representative stratigraphic profile through the east wing of the GTR engine house and across the channel of Garrison Creek. Detailed discussion of the finds is largely confined to the nineteenth-century rail yard.

5.1 Mid-Nineteenth-Century Land-making, Garrison Creek, and Traces of the Original Shore

5.1.1 Lake Fills

The first campaign of lake filling made use of fine sands (Lot 10) that appear to represent materials derived from dredging of the sand bar at the harbour entrance (Plate 7). This material was laid on lake bottom sands and gravels (Lot 75) and was found throughout the area west of the channelized Garrison Creek, between elevations of approximately 77.5 m and 73.75 m ASL. Similar sands were used to fill in the south portion of the rebuilt Queen's Wharf (see Section 5.2). Analysis and discussion of these and other sediments is provided in Appendix 1.

Table 1: Summary Descriptions of Stratigraphic Lots, Stage 4 Salvage Excavation of the Queen's Wharf Station

Lot	Description and Interpretation
1	Shale rubble mixed with lakebottom silts and clays: *post-2006 deposit across project area*
2	Very dark brown to black coarse sands mixed with clays and gravel and containing organics, plastics, fiberglass, etc.: *20th-21st century fills*
3	Brick rubble (9″ x 4″ x 2½″, 8¾″ x 3¾″ x 2½″,8¼″ x3¾″ x 2½″ [22.9 x 10.2 x 6.4 cm, 22.2 x 9.5 x 6.4 cm, 21 x 9.5 x 6.4 cm] red bricks with rectangular impressed frogs) mixed with decayed mortar and wood: *demolition fill/spread derived from superstructure of the GTR engine house*
4	Yellowish-brown sandy clay mottled with very dark greyish-brown clay, coal ash, red brick fragments slag, wood, miscellaneous metal debris and waste limestone trimming flakes (redeposited Lots 3, 6 and 7): *trench cut and fill for 6" (15.24 cm) Ø cast iron or ductile utility pipe post-dating demolition of GTR engine house*
5	Mortared limestone foundation (squared, roughly hewn and uncut stones built to courses) on 12″ (30.5 cm) square timber base plates, with remnants of red brick superstructural walls: *GTR engine house foundation (corresponds to 1856 construction phase)*
6	Coal cinders mixed with slag, wood, miscellaneous metal debris and red brick fragments: *remnant interior working surface of GTR engine house*
7	Yellowish-brown sandy clay mottled with very dark greyish-brown clay, red brick fragments and waste limestone trimming flakes: *builder's trench for GTR engine house foundation (Lot 5)*
8	Mortared cobble and tabular limestone platform resting on 1½″ (3.8 cm) thick plank base: *machinery base/footing within GTR engine house*
9	Light yellowish-brown silty clay with small pebbles: *undetermined spread predating formation of Lot 6 work surface*
10	Light yellowish brown sand coarsely mixed and lensed with light grey sand: *circa 1850-1855 lake fill (dredgings)*
11	Yellowish-brown sand mottled with coal ash and red brick fragments: *post-GTR engine house demolition spread*
12	Mortared limestone foundation (squared, roughly hewn and uncut stones built to courses) on 12″ (30.5 cm) square timber base plates: *GTR engine house interior wall foundation (corresponds to 1855 construction phase)*
13	Light yellowish-brown sand lensed with coal ash, slag and mortar: *undetermined cut*
14	Light yellowish-brown sand mixed with dark greyish-brown sand, coal ash, red brick fragments and wood fragments: *trench cut and fill for 2" (5.1 cm) Ø cast iron utility pipe post-dating construction of GTR engine house*
15	Dark greyish-brown sand mixed with light yellowish-brown sand, coal ash, charcoal, miscellaneous metal debris, brick fragments, mortar, and wood fragments: *unidentified cut and fill event, probably related to construction of the GTR engine house (1856 construction phase) or later modifications to interior installations*
16	Dark greyish-brown sand mixed with light yellowish-brown sand, coal ash, charcoal, metal debris, red brick fragments, mortar and fired soil: *unidentified trench cut and fill, possibly related to Lot 18)*
17	Dark greyish-brown sand mixed with red brick fragments, mortar and wood fragments: *unidentified trench cut and fill, possibly related to Lot 12)*
18	Wood beam and plank box structure with 2″ (5.1 cm) Ø threaded mounting rods: *machinery base within GTR engine house*
19	Very dark greyish-brown to black sand mottled with mortar, red brick fragments, yellowish-brown sand and pebbles: *void/cut and fill associated with Lot 20 machinery base/footing within GTR engine house)*
20	Mortared tabular limestone platform with red brick elements: *machinery base/footing within GTR engine house*
21	Wood: *remnant joist and plank flooring within GTR engine house*
22	Light yellowish-brown sand and granular: *trench cut and fill for 6" (15.2 cm) Ø cast iron or ductile utility pipe post-dating demolition of GTR engine house*
23	Reinforced concrete foundation and associated beds of cinders: *20th-century building (1954 USB "washroom")*
24	Brick structure built onto west face of Lot 12 foundation and set on timber sill plates with limestone and shale cobble-filled interior: *East end of an engine inspection pit in the GTR engine house*

Table 1: Summary Descriptions of Stratigraphic Lots, Stage 4 Salvage Excavation of the Queen's Wharf Station

Lot	Description and Interpretation
25	Mortared tabular limestone platform: *machinery base/footing within GTR engine house*
26	Dark grey sand mottled with yellowish-brown sand, red brick fragments, mortar, slag and coal ash and wooden box structure: *trench cut and fill containing remains of a subfloor wood receptacle*
27	Red bricks (9″ x 4″ x 2½″, 8¾″ x 3¾″ x 2½″,8¼″ x3¾″ x 2½″ [22.9 x 10.2 x 6.4 cm, 22.2 x 9.5 x 6.4 cm, 21 x 9.5 x 6.4 cm]) with rectangular impressed frogs: *repair to GTR engine house north wall foundation associated with utilities installations/reconfigurations*
28	Wood plank box drain within trench (fill consisting of light yellowish-brown sand mottled with dark greyish-brown sand, fired soil, small red brick fragments, slag: *box drain installed post-1855 construction of the GTR engine house*
29	Railways ties laid in cinder bed north of the GTR engine house: *undetermined installation post-dating demolition of the GTR engine house*
30	Variably oriented planking: *probable remnant GTR engine house demolition debris*
31	Wood beam and plank box structure with 2″ (5.1 cm) Ø threaded mounting rods: *machinery base within GTR engine house*
32	Yellowish-brown sand mixed with slag, charcoal, light yellowish-brown sand, coal ash and brown sand: *GTR engine house construction/occupation era cut and fill*
33	Brick box filled with charcoal, ash and crushed slag built on to west face of Lot 12 foundation: *forge or machinery base/footing*
34	Wood plank bin filled with ferrous waste conglomerations: *waste disposal bin associated with Lot 33 forge or machinery base/footing*
35	Wood: *remnant plank flooring (no joists) within GTR engine house*
36	Lot designation not used
37	Lense of very light greyish brown wood ash among Lot 35 floor planks: *spread/dump*
38	Coal cinders mixed with slag: *amorphous spread/dump below Lot 35 floor of GTR engine house*
39	Trench-like cut and fill (multiple strata), remnant planking and 2″ (5.1 cm) Ø threaded mounting rods: *machinery base within GTR engine house*
40	Ballasted timber cribbing: *east wall 1850s Garrison Creek channelization*
41	Yellowish-brown clay mixed with greyish-brown clay, lenses of dark grey silty sand: *late 19th-century fill within channelized Garrison Creek*
42	Ballasted timber cribbing: *west wall 1850s Garrison Creek channelization*
43	Wood planking: *isolated segment of flooring or demolition debris within interior of GTR engine house*
44	Brick rubble mixed with light yellowish brown sand (redeposited Lot 10), ash and fired soil: *demolition rubble driven into Lot 10 lake fill*
45	Wood plank downspout, 10″ (25.4 cm) Ø buff-bodied glazed ceramic bell and hub drain pipe and wood box outlet to Lot 42 Garrison Creek crib: *GTR engine house drainage system originally connected to south eaves trough of the east wing of the building*
46	Mortared red and yellow brick (8½″ x 4¼″ x 2½″ [21.6 x 11.4 x 6.4 cm] with rectangular impressed frogs) and rough limestoneslab platform: *machinery base/footing south of GTR engine house*
47	Mortared red brick (8½″ x 4½″ x 2½″ [21.6 x 11.4 x 6.4 cm] with rectangular impressed frogs) and limestone block platform set on wood plank pad: *remnant base of GTR engine house steam boiler (?)*
48	2½″ Ø cast iron gas pipe: *GTR engine house coal gas service line*
49	2½″ Ø cast iron gas pipe: *GTR engine house coal gas service line*
50	Poured concrete conduit encasing 6½″ (16.5 cm) Ø cast iron pipe: *utility post-dating demolition of GTR engine house*
51	Mortared red brick (8½″ x 4½″ x 2½″ [21.6 x 11.4 x 6.4 cm] with rectangular impressed frogs) and limestone block platform (=Lot 45): *remnant base of GTR engine house chimney stack (?)*
52	Horizontally laid 5″ (12.7 cm) Ø round wood timbers up to 12′ (3.65 m) long spaced at 10″-12″ (25.4-30.5 cm) intervals underlying railway ballast: *corduroy surfacing in area of poor drainage/unstable lake fills*

Table 1: Summary Descriptions of Stratigraphic Lots, Stage 4 Salvage Excavation of the Queen's Wharf Station

Lot	Description and Interpretation
53	Greyish-brown silty sand mixed with yellowish-brown silty sand, coal ash, wood fragments and wooden box structure: *trench cut and fill containing remains of wood receptacle exterior to GTR engine house*
54	Greyish-brown silty sand mixed with yellowish-brown silty sand, coal, red brick fragments and wooden box structure: *trench cut and fill containing remains of wood receptacle exterior to GTR engine house*
55	Dark greyish-brown silty sand mixed with yellowish-brown silty sand, pebbles and red brick fragments: *builder's trench associated with Lot 45/47*
56	Mortared cobble and tabular limestone platform: *machinery base/footing within GTR engine house*
57	Wood plank privy vault filled with black silty clay and associated French drain: *later 19th-century privy*
58	10″ Ø buff-bodied glazed ceramic bell and hub drain pipe subject to repair/reconstruction using 8″ (20.3 cm) Ø red-bodied glazed ceramic bell and hub drain pipe: *unknown association*
59	8″ (20.3 cm) Ø buff-bodied glazed ceramic bell and hub drain pipe subject to repair/reconstruction using 8″ (20.3 cm) Ø red and grey-bodied glazed ceramic bell and hub drain pipe; repairs also incorporate PRICE and J. PRICE bricks: *unknown association*
60	8″ (20.3 cm) Ø cast iron pipe and associated trench: *early 20th-century service*
61	12″ (30.5 cm) Ø cast iron pipe and associated trench: *early 20th-century service*
62	12″ (30.5 cm) Ø cast iron pipe and associated trench: *early 20th-century service*
63	Wood plank privy vault filled with black silty clay mixed with ash, wood scrap, coal ash, slag and quick lime: *later 19th-century privy*
64	Timber cribbing (filled with sand an clay lake fill materials rather than ballast): *1850s reconstruction of Queen's Wharf (landward portion) as bed for spur line*
65	Concrete storm sewer: *mid-20th-century service*
66	Concrete catch basin connected to Lot 65: *mid-20th-century service*
67	Pavement bricks (9″ x 3″ x 3″ [22.9 x 7.6 x7.6 cm) and stone kerb laid in concrete bed: *remnant floor/road bed, late 19th- early 20th-century (?)*
68	Sandstone slab catch basin connected to Lot 67: *remnant vault of early 20th-century catch basin*
69	Wood plank privy vault: *mid- to late-19th-century privy vault*
70	2½″ Ø cast iron pipe: *mid- to late-19th-century service*
71	Light grey silty clay mixed with yellowish-brown clay, coal ash and slag (upper fill within Lot 69): *post-privy abandonment fill/decommissioning fill*
72	Black sandy clay mottled with mortar and containing scrap wood and red brick fragments (lower fill within Lot 69): *post-privy abandonment fill/decommissioning fill incorporated into active privy deposit*
73	12″ (30.5 cm) Ø cast iron pipe: *20th-century gas main*
74	4″ (10.2 cm)Ø cast iron pipe: *20th-century service*
75	Gravels and coarse dark grey sand: *original offshore lakebed deposit*
76	8″ (20.3 cm) Ø cast iron pipe: *20th-century service*
77	Isolated spread of Lot 40/42 cobble ballast
78	Wood and very dark greyish-brown to black sandy clay: *remnant joist and plank flooring (two levels) related to unidentified late-19th-early 20th-century feature*
79	Wood plank privy vault filled with cobbles and black sandy clay mottled with blue-grey clay and wood fragments: *early-20th-century privy vault*
80	Wood plank box drain: *early 20th-century service*
81	Wood plank box drain: *early 20th-century service*
82	Wood plank box drain connection between Lots 80 and 81: *early 20th-century service*
83	Wood plank privy vault filled with very dark greyish-brown sandy clay mixed with yellowish-brown clay, scrap wood, pebbles, coal ash and clinkers: *early-20th-*

Table 1: Summary Descriptions of Stratigraphic Lots, Stage 4 Salvage Excavation of the Queen's Wharf Station

Lot	Description and Interpretation
	century privy vault
84	10″ (25.4 cm) Ø timber piles and associated pits: *piling associated with Queen's Wharf (Lot 64)*
85	Pinkish-grey sand mixed with grey sand and gravel: *post-2006 deposit*
86	Dark greyish-brown sandy clay mixed with dark yellowish-brown sandy clay: *late 20th-century fill deposit*
87	Yellowish-brown clay: *early 20th-century fill deposit (probably associated with the High Line Embankment)*
88	Yellowish-brown and greyish-brown clay: *Sunnybrook Till (remnant shoreline bluff)*
89	Yellowish-brown clay: *early 20th-century fill deposit (probably associated with the High Line Embankment)*
90	Blue-grey to greenish-grey clay with yellowish-brown clay lenses: *mid- to late 19th-century fill deposit*
91	Light greyish-brown sandy clay and granular: *2006 ground surface (reworked late 20th-century fill)*
92	Crushed concrete: *late 20th-century fill*
93	Dark greyish-brown to black sandy clay mixed with dark greyish-brown to black clay and miscellaneous debris: *reworked late 20th-century fill*
94	Very dark greyish-brown clayey sand mixed with slag, coal ash, wood debris, and cold patch-like material: *late 19th-early 20th-century fill*
95	Dark brown loamy sand and miscellaneous debris: *reworked late 20th-century fill*
96	Yellowish brown clay: *reworked late 20th-century fill*
97	Dark brown loamy sand: *reworked late 20th-century fill*
98	Very dark greyish-brown to black silty sand: *early 20th-century fill deposit (probably associated with the High Line Embankment)*
99	Concrete catch basin connected to Lot 65: *mid-20th-century service*
100	Poured concrete foundation: *unidentified 20th-century building*
101	Valve chamber: *mid-20th-century valve chamber*
102	6″ (15.2 cm) Ø cast iron pipe: *20th-century service*
103	6″ (15.2 cm) Ø red and grey-bodied glazed ceramic bell and hub drain pipe: *early 20th-century service*

Between the Garrison Creek channel and the Queen's Wharf structure, the lake fills (Plates 8 and 9) were predominantly heavy blue-grey to greenish-gray or and/or yellowish-brown clays (Lot 90). The fill east of the Queen's Wharf consisted of mixed yellowish-brown and greyish-brown clays that was devoid of material inclusions of any sort and represents redeposited Sunnybrook Till (Lot 88) cut from the original shoreline bluffs (the Ontario Terrace) during the initial period of the railway's lakefront developments (cf. McIlwraith 1991). It is likely that the original fills to the immediate west of the wharf were of the same origin although this area was highly reworked by later developments.

5.1.2 Garrison Creek Channelization

The land-making necessitated the channelization of Garrison Creek. Based on the details provided on the 1859 *Plan of the Front of Toronto*, the creek channel immediately east of the Grand Truck engine house was originally covered. To the south of the engine house, the channel opened up again, prior to flowing into a narrow outfall through the shorewall.

The archaeological findings (Figure 1) are entirely consistent with the 1859 depiction, some elements of which can also be seen on the 1884 *Goad's Atlas* mapping. The creek flowed through an approximately 14′ (4.3 m) wide channel (Lot 41) bounded by two eight foot wide, heavily-ballasted timber crib structures (Lots 40 and 42), portions of which were covered by heavy decking, although most of this was later removed when the entire channel was filled in with a mixture of heavy clay fills and municipal waste (Lot 41), likely after the construction of the Garrison Creek sewer in 1884-1885.

The cribbed channel was traced for a length of 55 metres through the excavation area and both ends of the structure were identified. For the northernmost 40 metres, the channel ran in a straight line northwest-southeast such that where it passed the east end wall of the GTR engine house, it was more or less parallel with it. South of the engine house, however, the channel turned southward.

The cribbing on either side of the channel consisted of a pair continuous wall structures reinforced with tie-backs (Figures 3 and 4, Plates 10-12). The crib walls, which survived to height of five well-preserved courses of horizontal timbers, were constructed using 10″-12″ (25-30 cm) squared timbers of various lengths that were butt or lap joined together. Where channel turned further south as it passed the east end of the GTR engine house, this turn was accomplished by means of elaborate tapered lap joints (Plate 13).

The majority of the wood was hemlock, spruce or white pine. The tie-backs consisted of 8-10″ (20-25 cm) square timbers that were mortise and tenoned into the face walls. These were set at regular intervals between alternate courses of face timbers, each offset from those above and below. The tenons themselves generally measured 7½″-9¼″ (19 x 23 cm). The tie-backs were secured with 2½″ (6 cm) diameter tree nails. Butt and lap joins were secured with flanking 1″ (2.5 cm) diameter rods or spikes.

Between the two lowermost courses of face timbers, a floor made up 9″ x 4″ (23 x 10 cm) and 12″ x 4″ (30 x 10 cm) planking spanned the width of the cribs to receive the heavy cobble fill that ballasted the structures.

The south terminus of the cribbing (Plate 14) corresponds closely to the point where the channel is shown to open up again on the period mapping. At this point, both cribs were essentially open-ended, and the ends of the face timbers were progressively stepped back 8″ (20 cm) or 12″ (30 cm) from the courses

below. The north end of the structure was also found in the area expected on the basis of the historical mapping but was, in general, poorly preserved due to later impacts related to the Matthews-Blackwell/Park-Blackwell livestock slaughtering and processing plant. It appeared to feature at least a west apron wall. This apron consisted of 4″ (10 cm) thick horizontal sheeting and 12″ (30 cm) diameter piles. In nineteenth-century canal building, and the Garrison Creek channelization is essentially a variation on a canal, such aprons served to provide a transition between the sloping sides of an open channel or prism and the vertical wall of the crib chamber. They were also intended to act as buttresses and to prevent water infiltration into the crib foundations (HRL 1988:77).

The only area in which any decking survived intact was near the north end of the crib channel, were a three metre long section of continuous 8″-12″ (20-30 cm) wide, 4″ (10 cm) thick planking spanned the channel between the two crib walls. Isolated decking planks survived towards the south end of the crib channel. The decking was secured with a largely random mixture of ½″ (1.3 cm), 1″ (2.5 cm) and 2″ (5.1 cm) square and 1½″ (3.8 cm) and 1″ (2.5 cm) diameter hand-wrought spikes and nails.

5.1.3 Garrison Creek Sewerage

By the time the waters of Garrison Creek flowed through the Queen's Wharf Station they would have carried copious quantities of sewage and rubbish. It may have been necessary to install a series of weirs or trash walls at various intervals throughout the system or further upstream, to maintain the water flow, but no such features were documented during the excavations.

The GTR also used the creek as a sewer. A box privy (Lot 69), without a floor, was installed on top of the cribbing on the east side of the creek channel, the waste being allowed to percolate through the ballast of the crib. The wooden vault (Figures 1 and 5, Plates 15-17) measured six feet by five feet (1.83 m x 1.52 m) and was constructed with 5½″ (14 cm) wide, ¾″ (1.9 cm) thick horizontal tongue-and-groove planks with vertical supports at the corners. A cast iron pipe (Lot 70) for a service to the engine house or an exterior work area to the south of the building was later installed through the privy vault. This installation also required cutting through the upper courses of the Garrison Creek cribs. This servicing may, or may not, have coincided with abandonment of the privy.

The creek also functioned as a major storm sewer for the rail yard as rain water from the south eaves of the east wing of the engine house was carried away from the building by a combined wooden box and ceramic bell-and-hub drain (Lot 45) through a conduit built into the west crib wall of the creek (Figures 1 and 6). The remains of the downspout that carried the runoff from the eaves of the building were found at the west limit of the intact remains of the engine house in the form of 2.6 metre long wood box drain made of 10″ (25.4 cm) x 1½″ (3.8 cm) top and bottom plates and 5½″ (14 cm) x 1½″ (3.8 cm) sides (Plate 18). This fed into a ceramic drain that had been laid in a trench running parallel to the south wall of the engine house (Plate 18). The trench, which had been cut through the Lot 10 sand lake fills, had a U-shaped cross-section, was approximately 0.90 metre deep and had been backfilled using the displaced Lot 10 materials (Plate 19). The ceramic drain was made up of 24″ (61 cm) lengths of 10″ (25.4 cm) diameter buff-bodied, glazed bell-and hub pipe and terminated at a wood box conduit built through the west Garrison Cree crib wall (Plate 20). The pipe was not marked in any way. The water discharged into the creek channel through an outfall in the east face of the crib wall (Plates 12, 21 and Figure 4). The conduit was built out of heavy 13″ (33 cm) x 2½″ (6.35 cm) and 10″ (25.4 cm) x 2″ (5.1 cm) planking, the interior faces of which had been carefully shaped to grip the round surface of the ceramic pipe and create a tight

seal. To the immediate north of the junction between the ceramic drain and the box conduit through the crib wall, the end of one of the cribbing tie-backs was not set flush to the west face timbers, as is normal practice, but rather extended approximately 0.65 m west. The decision to leave this element proud may have been related to the installation of the drain.

Similar bell-and-hub drains (Lots 58 and 59) were found on the north side of the building (Figure 1), but their relationship with the engine house was not clear and they did not discharge into the creek. The Lot 58 drain, which was made up of the same 10″ (25.4 cm) diameter buff tile as Lot 45, ran northeast-southwest straight across the Garrison Creek, a few metres south of the north limit of the decking laid down in the 1850s to cover the portion of the channel east of the engine house. There was a pronounced sag in the drain where it crossed the creek channel due to settling of the covering structure, which would have limited its effectiveness. Where it crossed the east channel crib wall (Lot 40), the drain had been repaired using 8″ (20.3 cm) diameter red tiles, possibly due to shifting or settling of the cribbing.

The Lot 59 drain, located approximately a metre north of Lot 58, had a similar alignment until it intersected the Lot 40 cribbing, at which point it turned northward. It too experienced a pronounced drop in elevation as it crossed the former creek channel and underwent extensive repairs where it crossed the east crib wall. In this case sections were rebuilt using 8″ (20.3 cm) diameter red and grey tiles in combination with machine-pressed "PRICE" and "J. PRICE" bricks used as wedges. The use of these bricks indicates that these repairs occurred post-circa 1887. They may have taken place at the time of the final filling of the creek after the Garrison Creek sewer came into operation. The relationship between these drains, and the GTR engine house, if there was indeed any direct relationship, could not be determined.

5.1.4 Remnants of the Original Lake Topography

The position of the original shore near the foot of the Queen's Wharf was documented along the north edge of excavation (Figure 1). It was apparent as a massive deposit of Sunnybrook Till (Lot 88) rising above lake bottom sands and gravels (Lot 75). This feature (Plate 22) represents the remnant, lowermost portion of the approximately 6.0 metre high bluffs that formerly characterized the Toronto harbour shore.

Bedrock, below the remaining Lot 75, was encountered where the lake sediments were sampled through the excavation of one metre units (Figure 1). The surface of the bedrock was weathered and fragmented (Plate 23).

5.2 The Queen's Wharf

The remains of the Queen's Wharf (Lot 64) dominated the east third of the excavation area (Figures 1 and 7) and consisted of four to six courses of 10″-12″ (25.4-30 cm) square timber cribbing (Plate 24). The upper surface of the cribbing stood at an elevation of between approximately 75.6 and 76.6 m ASL and, where best preserved, represents the uppermost course of timbers, by virtue of the fact that large numbers of decking nails remained embedded in the upper faces of the beams (Plate 25). The bottom of the cribbing rested on a thin veneer of silt that overlay coarse lakebottom sands and gravels at an elevation of approximately 74.5 m ASL. Numerous later linear service installations across the area of the wharf (e.g.,

Lots 73, 80-82, 99, 101-103) were accompanied by the removal of portions of the cribbing or the cutting out of sections (Plates 24 and 26-27).

The cribwork constitutes the landward portion of the 1850s wharf, which was rebuilt and reconfigured in tandem with the initial phase of land-making to extend the shoreline south towards the Windmill Line. It was constructed on this newly made "dry" land rather than made up of individual prefabricated cribs that were assembled together in open water, as is typical of most of the wharf remains that have been documented along the Toronto waterfront (Robertson 2007, 2009). It thus functioned as a support bed for the spur lines that ran from the head of the wharf in the open waters south of the project area, in what is now Block 37, to the Bathurst Street bridge crossing over the railway lands, as shown on the 1859 *Plan of the Front of Toronto*. The main linear section of this support bed was 18½′ (5.64 m) wide.

The main linear portion of the structure was formed by five sets of continuous north-south walls spanned by east-west tie-backs at 9′-11′ (2.74-3.32 m) intervals. The north-south walls were made up of various lengths of timbers that were lap-joined end to end. The east west tie-backs were usually single beams that were saddle joined into the internal north-south walls and mortise and tenoned into the exterior (face) north-south walls. Where two timbers were used in the tie backs to span the width of the structure, they were simply butted together in a saddle notch cut into north-south element, but not otherwise fastened (Plate 28). The tie-backs were installed between every course of timbers making up the north-south walls, such that they too essentially formed solid walls to create individual interior cells (Plate 29) measuring 18½′ (5.64 m) x 10′ (3.01 m). The joinery was, for the most part, secured with 2″ (5.1 cm) diameter tree nails. The entire structure was capped by continuous north-south tie-backs saddle notched into the east-west elements. The entire structure rested on a pair of central north-south runners, formed by a mixture of dressed beams and undressed logs laid end-to-end or side-by-side with some overlap on leveled lake bottom sediments.
The cells formed by the continuous interior walls were filled with homogeneous fine white to light-grey sands, which appeared to be harbour dredgings at the south end of the structure (south of the 491 grid line). To the north of the 491 grid line, the internal cells were filled with heavy clay silts of variable colours. A few large rocks were present among the clay silt fills.

The landward end of the structure widened out at the point that it articulated with the basal remnant of the shoreline bluff (Lot 88) and was of somewhat more complex and variable construction. The widening required the use of elaborately beveled mortise and tenon joinery along the exterior walls (Plates 30 and 31). The point at which the structure began to widen maintained the same basic internal cell structure seen in the main linear section. The north limit of the regular internal cells was defined by a continuous wall, the north face of which was clad with vertical planks or walling of various widths and thicknesses (Figure 8, Plates 32 and 33). North of this wall, the structure survived only as three courses of east and west exterior face timbers and some internal, horizontally laid, sleepers or runners.

Examination of the timbers showed that much of the wood had been recycled from an earlier structure, most probably the formerly submerged, open water portion of the previous generation of the Queen's Wharf, which was dismantled during the initial development of the railway lands. Many timbers bore adze and axe marks (Plate 34) and were clearly hand trimmed as opposed to machine milled, which is more characteristic of mid-nineteenth-century wharfage (Robertson 2007, 2009). Many timbers also featured "relict" tree nails that had been cut flush with the faces or drilled holes for tree nails that did not correspond to any joints (Plate 35). Similarly, some timbers were notched for saddle, lap or mortise and tenon or other joints that did not in any way relate to the 1850s construction. There were also some

examples of carpentry practices that can only be characterized as "sloppy" and which would not be expected in a structure subject to the strains of the lateral and vertical forces that an open water wharves or piers were built to withstand. These include the use of unfastened butt joints noted above (Plate 27), as well as occurrences of lap or butt joints directly on top of mortise and tenon joints (Plate 35).

Heavy clays were laid down on either side of the structure and its east face was flanked by a series of four piles (Lot 84) set into pits excavated into the clay lake fill (Plate 37). A fifth pile was likely removed by a concrete-filled utility conduit (Lot 99) that crossed the crib structure. Assuming this to be the case, the piles were installed at 10′ (3.05 m) intervals. The individual piles were 10″ in diameter and in each case the end was sharpened by using an axe to trim two opposite faces to a point. In an apparent attempt to ensure that the bases of the piles were secure, a pair of 3″ square tree nails was driven into the base of each, at right angles to one another and vertically offset from one another by 4″-5″ (10.16-12.7 cm). The head of each tree nail projected 7½″-8″ (19.1-20.3 cm) from the shaft of the pile (Plate 38). The piles had been cut off at approximately the same level as the uppermost course of timbers of the wharf. A discontinuous alignment of smaller and later piles lay a short distance further east of the Lot 84 remains.

5.3 The Grand Trunk Railway Engine House

The extreme east end of the east wing of the Grant Trunk Railway engine house was documented in the west third of the excavation area (Figures 1 and 9). This portion of the structure was completed in 1856, a year after the rest of the building.

Built on the earliest lake fills (Lot 10), the engine house stood on a mortared stone foundation (Lot 5) underlain by 10″ (25.4 cm) timber sill beams set in a builders' trench (Lot 7) dug into the lake fill and resting on lake bottom sediments (Lot 75). The timber sills were likely required to provide the foundations a degree of flexibility, given the likelihood that the surrounding fills were somewhat poorly consolidated. The timbers sills were not necessarily continuous. Along the east wall, which was the most completely exposed portion of the foundation, there was a one foot (30.1 cm) gap between the ends of two beams, where the masonry was carried down to the bottom of the timbers.

The rough-faced foundation wall was constructed with squared, roughly hewn and uncut limestone built to courses (Figure 10) with stressed corners (quoins). The foundations originally carried red brick walls, although few portions of this superstructure survived. The foundations measured three feet (0.91 m) in width and stood variable heights, between approximately 76.9 and 73.85 m ASL. The stonework of the interior faces of the walls incorporated a variety of offsets. Most prominent among these was an 8″ (20.3 cm) wide sill that ran along all three walls at an elevation of 75.95 m ASL. This sill was not related to the floor or ground level of the interior of the building, but appears to have served to increase the load-bearing capacity of the structure and also to serve as the base of the brickwork of the interior face of the brick walls of the superstructure. Too few areas of brick were preserved to evaluate bond or patterning.

A second offset was also built into the north part of the east wall. In this case it resulted in the formation of a 20″ (51 cm) high, 8″ (20.3 cm) deep horizontal slot along the interior facing. This feature, in combination with a pair of vertical slots in the wall opposite a separate stone and brick footing (Lot 20) appears to have been related to an equipment installation (Figure 11, Plate 39).

Major portions of the Lot 5 foundation wall had been removed to accommodate later service trenches unrelated to the structure (Lots 4 and 22) or the construction of a twentieth-century poured concrete foundation (Lot 23).

A two foot wide (61 cm) interior partition wall (Lot 12) running the full width of the east wing was built in a similar fashion to the exterior walls, although no builders' trench was evident and it was not as deep (Plate 40). The wood sills on which it rested lay at an elevation of approximately 76.75 m ASL. This wall is shown on the 1859 plan of the railway yard.

The Lot 5 and 12 walls defined a room measuring approximately 64′ (19.5 m) north-south by 42′ (12.9 m) east-west, that likely served as a work shop for tasks such as parts repair or manufacture that did not require direct access to the locomotives. Within this shop, the surface or floor was formed primarily by a thick stratum of coal ash and cinders (Lot 6) mixed with inclusions of slag, wood, miscellaneous metal debris and red brick fragments. This deposit, measuring approximately 30 cm thick and encountered at an elevation of approximately 76.9-76.55 m ASL was ubiquitous throughout the interior of the building (Figure 2). The cinders would have aided in drainage of the water used in the engine house and also would have absorbed oil spills which would otherwise be hazardous to the workers if they were not cleaned up. In the extreme northwest corner of the room, a section of wood flooring (Lot 21) was encountered in association with some other wooden fixtures. The remains were very poorly preserved, but appear to have consisted of planking on joists or sills laid on the surface of the Lot 10 sand lake fill at 76.60 m ASL. The floor was then covered with Lot 6 cinders, or this material was allowed to accumulate on top of it.

Ranged around the periphery of the east shop were four masonry footings (Figures 9 and 11) that were likely surmounted by machinery of one sort or another (Lots 8, 20, 25 and 56). The surviving portions of these structures lay below the Lot 6 cinder surface.
Located adjacent to the south wall in the southeast corner of the shop, Lot 8 was a mortared random coursed cobble and limestone slab platform set on a pad made up of 1½″ thick planks (Figures 9 and 11, Plate 41). The feature measured 6′ (1.83 m) east west and a minimum of 4½′ (1.37 m) north-south and was 6″ (15 cm) high. The feature had been set in a straight-sided cut into the Lot 10 lake fills and the Lot 7 builder's trench for the Lot 5 foundation wall. A 1″ (2.54 cm) square rod was embedded, off centre, in the footing. It had been cut off and bent over flush to the surface of the masonry when the feature was decommissioned. The equipment that was mounted on the masonry base was serviced by two 2½″ (6.4 cm) diameter cast iron gas lines (Lots 48 and 49), one which of likely replaced the other. These pipes had different sources. One (Lot 49) could be traced a distance of approximately six metres to the southeast of the engine house, where it was truncated by the installation of a later poured concrete utility conduit (Lot 50). The other (Lot 48) originated somewhere on the east side of the Garrison Creek channel. East of the east channel crib wall, the gas line and its associated plank conduit had been removed by a 12″ (30.5 cm) diameter cast iron gas main (Lot 73).

Six metres to the west of Lot 8 was another footing or base (Lot 56). This feature (Figures 9 and 11, Plate 42) measured 6½′ (1.98 m) north-south x 5′4″ (1.6 m) east-west and was made up of three random courses of cobbles and slabs to a maximum height of 16″ (40.6 cm). It cut into the Lot 10 lake fills and the Lot 7 builder's trench for the Lot 5 foundation wall and underlay Lot 13, an unidentified, somewhat linear, cut filled with light yellowish-brown sand lensed with coal ash, slag and mortar. The latter may in some way be related to the decommissioning and partial demolition of the Lot 56 stone footing.

The third masonry base (Lot 25) was built against the north foundation wall in the northwest corner of the east shop, but not keyed into it (Figure 9, Plate 43). It was located east of the Lot 21 remnant flooring and in close proximity to a number of other features. The base was set into the Lot 10 lake fill and measured 6′ (1.83 m) north-south and 5′ (1.52) m east west and 6″ (15 cm) high. It consisted of two random courses of cobbles and slabs. Virtually the entire surface of the feature was covered by a thick coat of mortar.

The final masonry footing (Lot 20) was located towards the northeast corner of the east shop adjacent to the east foundation wall (Figures 9 and 11, Plate 39), as noted previously. The footing measured 6′ (1.83 m) east west by 5′10″ (1.79 m) north-south and stood to a height of 12″ (30.5 cm). It was made up of two to four irregular courses of mortared limestone blocks and rubble. The upper surface of the footing was covered with a coat of mortar and two rows of bricks, primarily laid as headers were laid into this mortar surface. The ends of these rows aligned with the vertical slots built into the foundation wall. Between the masonry base and the foundation wall was a linear deposit of very dark greyish-brown to black sand mottled with mortar, red brick fragments, yellowish-brown sand and pebbles that appeared to be related to the installation(s). The Lot 20 footing was cut into the Lot 10 lake fills and Lot 7 engine house foundation builders' trench (as was Lot 19). Part of the Lot 20 feature had been damaged by a later cast iron or ductile pipe installation unrelated to the engine house (Lot 4).

A variety of subsurface features that related to the location of equipment or fixtures were also found within the east shop. South of the Lot 25 and east of the Lot 56 masonry bases were the remnants of wooden troughs or boxes.

The feature adjacent to Lot 25 (Lot 31) was represented by the remnants of a box that measured 4′3″ (2.2 m) north-south by a minimum of 7′1″ (1.35 m) east-west (Figure 9, Plate 44). Portions of the feature had been removed by later utilities installations. The sides of the structure were built of coursed 4″ x 6″ (10.2 x 15.2 cm) beams. The beams at the surviving northeast corner of the structure were tied together with a 2″ diameter iron rod. The rod had a threaded head and stood well above the surviving beams, suggesting that it may also have secured the base plate of some piece of equipment to the top of the wood structure. The floor of the box was formed with 1½″ thick planking.

To the immediate west of the Lot 31 feature were the poorly preserved remains of a 5′ (1.52 m) long wood trough, possibly a short box drain, set in a trench under the remnant plank floor (Lot 21) that ran through the north foundation wall (Lot 5). The wood structure (Figure 9, Plate 45) sat very high in its trench, suggesting that it may have been rebuilt on one or more occasions. The trough/drain had a 12″ (30.5 cm) wide floor and 1″ (2.5 cm) thick side walls that likely stood at least 6″ (15.2 cm) high, although they had collapsed in upon the floor. No top plate, assuming one was present, had survived.

The wood feature near the Lot 56 masonry footing (Lot 18) was located more or less in line with Lot 18 on the opposite side of the engine house (Figure 9). It was incompletely preserved, but appeared to be essentially identical to Lot 3,1 in that it was constructed with a1½″ plank floor and courses 4″ x 6″ (10.2 x 15.2 cm) beams with the corners tied with 2″ diameter iron rods (Plate 46). Another rod was driven through the floor of the feature. Lot 18 measured approximately 3′6″ (1.07 m) east-west and a minimum of 6¼′ (1.90 m) north-south.

The poorly defined remains of another probable location of a permanent/semi-permanent equipment fixture (Lots 39 and 43) was found in the approximate centre of the east shop room (Figure 9, Plate 47). Lots 39 and 43 together formed a roughly t-shaped linear cut into the Lot 10 lake fill with an irregular

profile and a fill matrix consisting of multiple strata of coal ash, dark yellowish-brown and grayish brown sands and lenses of yellowish-brown clay. A series of poorly preserved beams lay on the surface of the feature, running parallel or perpendicular to the long axis of the cut. A remnant length of 2½″ diameter cast iron pipe lay on the surface of the one of the short arms of the feature and a 2″ diameter threaded rod, attached to an 8″ (20.3 cm) square base plate, was set vertically at the approximate intersection of the four arms. Overall, the Lot 39/43 measured approximately 1.45 m east-west and 0.70 m north-south, with a maximum depth of 0.50 m. The feature had been truncated by several post-engine house service trenches (Lots 4 and 22).

The final feature of note within the east work shop was a 2″ (5.1 cm) diameter cast iron utility pipe set in a 6″ (15.2 cm) square plank conduit (Lot 14). It appeared to originate at a massive stone block and brick footing on the south side of the south foundation wall of the engine house and from there ran north through the interior of the building and through the north foundation wall (Figures 2 and 9), beyond which it could not be traced any distance due to later disturbances. This utility post-dates the original construction of the engine house, as its installation required punching through the north foundation wall, which was then repaired (Lot 27) with brickwork (Plates 48 and 49).

Only a limited area to the west of the Lot 12 partition wall that divided the east workshop from the main floor of the engine house could be investigated due to the constrains on the westward extent of the excavations imposed by the dewatering system and the City of Toronto storm sewer. Nevertheless, the investigation of this area resulted in the discovery of several features.

Foremost among these was the easterly four metres of the end of the base of an engine inspection pit (Lot 24) located along the central axis of the building (Figures 9, 12 and 13). While the 1859 plan depicts a rail line through the centre of the east wing that terminates at the wall dividing the main floor of the engine house from the east workshop, it does not clearly show an inspection pit in this location.

The inspection pit was brick built, with side retaining walls rising up above an arched floor (Plates 50-51). However, the side walls only survived to a height of approximately 30 cm above the apex of the arched floor, indicating that the majority of the side walls had been removed. The surviving surface of the side walls stood at an elevation of 76.01-76.10 m ASL, whereas observations elsewhere suggest that the original floor of the engine house was likely to have stood at approximately 76.90 m ASL. This would be consistent with the recorded heights of inspection pits, as noted in Section 2.3. It is possible that the truncation of the walls occurred when the east wing of the engine house was converted to a freight storage building, although there is some uncertainty in this regard, as remnants of joist and plank flooring (Lot 35) found less than five metres to the south of the inspection pit lay at elevations of between 76.00 and 76.20, well below the Lot 6 cinder surface observed throughout the building and the Lot 21 flooring found in the machine shop.

The bricks making up the retaining walls were a solid type of an unusual size (10¼″ x 6¼″ x 3¼″ [26 x 16 x 8 cm]). They were laid in three wythes in a more or less regular common wall bond pattern of alternating courses of headers (or in some instances soldiers) and stretchers. The bases of the brick walls stood on a 2″ (5.1 cm) wood sill. The width of the structure, from the exterior wall face to exterior wall face was 7′6″ (2.29 m). The inner width was 4′8″ (1.42 m). The walls themselves would have originally supported the track on which the locomotive travelled. Prior to 1870 in Canada, a broad gauge of 5′6″ (1.676 m) was most common track size (Andreae 1999:29). The distance between the centre lines of the retaining walls was 5′4½″ (1.63 m), which would indicate that the tracks were laid very slightly off centre

of the walls. The rails would not likely have extended as far as the Lot 12 partition wall, but would have ended at rail stoppers further to the west.

The east end of the structure abutted the west face of the Lot 12 foundation of the machine shop partition wall, and rested on a sill built into the west face of the wall and a second by 10″ (25.4 cm) timber sill beam laid flush to the sill beam underlying the Lot 12 wall, but the two structures were not bonded together.

Removal of a portion of the vaulted floor of the inspection pit revealed the underlying drainage conduit, which must have flowed west towards the centre of the building, given that the feature terminated at the Lot 12 partition wall foundation. The conduit had a maximum height of 4′8″ (0.51 m) and was filled with limestone rubble in the manner of a French drain (Plate 52). Below the rubble were random pieces of scrap wood and sand lake fill.

To the immediate south of the inspection pit stood the remains of a work area (Plate 53). This was defined by the base of a three-sided brick box (Lot 33) and a wooden waste bin (Lot 34) (Figures 9, 12 and 13). Both the brick structure and the bin sat on a limestone rubble footing (Plates 54-55). The brick feature was built onto the sill of the west face of the Lot 12 partion wall in the same manner as the inspection pit, was open ended at the west, and measured 5′ (1.52 m) x 3′ (0.91 m). It had a brick floor and its walls survived to a height of 30 cm, consisting of four courses of bricks irregularly laid as two-wythe headers and stretchers. The bricks used in its construction measured 9″ x 4″ x 2¾″ (22.9 x 10.2 x 7 cm). The interior of the box was filled with layers of wood ash, charcoal and slag (Plate 56).

The plank-built waste bin lay immediately west of, and slightly below, the brick box. The bin was completely filled with a dense layer of ferrous metal debris and traces of other metals corroded together in a solid mass (Plate 53). Removal of this material revealed that the receptacle measured approximately 4′4″ (1.32 m) x 3′4″ (1.02 m) x 8″ (20.3 cm) and its sides were formed by 2½″ (6.35 cm) thick planks. Likewise the floor was made of 9½″ (24.1 cm) x 2½″ (6.35 cm) planks. The floor planking was built up in layers on the east side of the bin to form a stepped incline towards the level of the bottom of the brick box (Plate 57). An amorphous spread of coal cinders (Lot 38) had accumulated along the south of the Lot 34 bin.

The brick feature appears to post-date the initial construction of the engine house as it was stratigraphically later than a plank box drain and associated trench (Lot 28) that was installed through the area and this drain in turn had been cut through the Lot 24 engine pit (Figures 9 and 12). This resulted in the removal of portions of the side retaining walls of the inspection pit and the brick surfacing of its floor (Plates 58-59). Following the installation of the Lot 28 drain, the portion of the inspection pit between the side retaining walls was covered by plank flooring at a level approximately 10 cm above the apex of the brick floor vault (Plate 60). These modifications would appear to indicate either that the inspection pit had been decommissioned or, as previously suggested, that the east terminus of the pit exposed during the excavations was peripheral to the engine servicing area. The Lot 28 box drain appears to have spanned the entire width of the engine house, and also cut through the north foundation wall, but could not be traced beyond the structure due to later disturbances. The Lot 28 drain conduit itself was built using 6″ (15.2 cm) x ½″ (1.3 cm) planks for the top and bottom plates and 4″ (10.2 cm) x ½″ (1.3 cm) planks for the sides. Its interior was completely filled with multiple layers and varves of fine sands and silts.

The function of the Lot 33 brick feature and its relationship to the Lot 34 bin and its contents, if any, is not clear. Lot 33 was initially interpreted as the base and ash trap of a small forge, while Lot 34 was interpreted as a waste bin to facilitate clearing out the ash and debris (slag, smithy pan, etc.) that accumulated during the forging process (ASI 2011b). However, detailed examination of the conglomerate within the bin, suggests that it represents debris associated with milling work (see Section 5.9). It is thus possible that the Lot 33 brick structure represents the remains of a base for a lathe, shaper, or boring mill, although it is very different from the machinery footings found in the workshop. It is also possible that the conglomerate represents expedient disposal of debris from elsewhere after the building ceased to function as a working engine house.

Finally, it should be noted that a 2½″ (6.4 cm) diameter cast iron utility line once passed through the Lot 12 partition wall between the Lot 24 inspection pit and the Lot 33 brick feature.

In addition to the Lot 45 drainage system, a variety of other features were found to the south of the engine house, some directly related to the building, and others representing ancillary features or exterior equipment installations (Figures 1, 6 and 9).

Outside and immediately adjacent to the south wall of the building, opposite the Lot 56 interior equipment footing, was a massive brick and stone platform (Lot 47/51). The structure (Figure 6, Plates 61-64) was stratigraphically later than the Lot 45 drain, and was bisected and heavily damaged by the later installation of a poured concrete utility conduit (Lot 50). It appears to have measured approximately 4.5 metres in length and 2.25 metres in width. It was built with a combination of 8½″ x 4½″ x 2½″ (21.6 x 11.4 x 6.4 cm) bricks with rectangular impressed frogs and limestone blocks. The Lot 47 portion of the structure was set on a plank pad in a rectangular builders' trench (Lot 55). The Lot 51 portion of the feature was not set in a trench. Remnants of two 2½″ (6.4 cm) diameter cast iron pipes were associated with the feature. Lot 47/51 corresponds with the location of the engine house chimney shown on the 1876 *Bird's Eye View* and the locations of a rectangular feature shown appended to the building on the 1859 *Plan of the Front of Toronto* and the *Goad's Atlas* of 1884, the latter of which is colour-coded as being of wood construction. It is therefore tentatively interpreted as the base or foundation of a small boiler servicing machine shop.

To the northeast of the Lot 47 portion of the masonry base, two rectilinear cuts (Lots 53 and 54) extended at right angles south from the south wall of the engine house. They cut the original Lot 7 foundation builders trench and both stopped short of the Lot 45 drain trench.

Lot 53 was 2.25 m long and 0.75 m wide, while Lot 54 was 2.5 m long and 0.55 m wide. The fill of the Lot 53 feature consisted of greyish-brown silty sand mixed with yellowish-brown silty sand, coal ash, and wood fragments. The Lot 54 fill was essentially the same, with the addition of some red brick fragments. Excavation of each of these trenches revealed that they both contained wooden troughs, similar to the Lot 26 feature observed inside the engine house. The Lot 53 trough was 4′ (1.22 m) long and 13″ (33 cm) wide, while that in Lot 54 (Plate 65) was 5′8″ (2.03 m) long and 18″ (45.7 cm) wide. The ends of these troughs were well defined and neither butted against, was connected to, or cut through the engine house foundation. They were discrete features and their function is not known.

Another masonry footing (Lot 46) that likely served as a machinery footing was found further south of the engine house (Figures 1, 6 and 9). Set into the Lot 10 lake fill, the structure measured 7′10″ (2.35 m) long and 5′9″ (1.75 m) wide and consisted of four courses of mortared red and yellow brick (8½″ x 4¼″ x 2½″

[21.6 x 11.4 x 6.4 cm] with rectangular impressed frogs) and rough limestone slabs set on a pad made up of 1½″ (3.8 cm) thick planks of varied width (Figure 11, Plates 66-67).

Between the Lot 46 footing and the creek channel was an area taken up by a series of 5″ (12.7 cm) diameter round wood timbers of up to 12′ (3.65 m) length that were laid horizontally on the surface of the Lot 10 lake fill (Figures 1, 6 and 9). They were spaced at 10″-12″ (25.4-30.5 cm) intervals to form a corduroy surface and were covered by a substantial layer of railway ballast. These remains were was located in the approximate area of an addition to the east wing of the engine house shown on the 1876 *Bird's Eye View*, but not depicted on any of the map sources. It is possible that it represents an attempt to establish a more stable surface for the structure, assuming that the 1876 depiction is reliable. Otherwise it may simply have been a means of dealing with an area of poor drainage or weakly compacted fill.

5.4 Other Features/Deposits

On the north side of the engine house a series of four 8′ x 8″ x 6″ (2.44 m x 20 cm x 15 cm) railway ties had been laid in a line adjacent and perpendicular to the Lot 5 foundation wall (Figures 1 and 9). These ties (Lot 29) were laid in a massive deposit of cinders mixed with small quantities of brick rubble. The westerly three were set at 3′9″ (1.14 m), centre to centre, while a distance 5′8″ (1.73 m) lay between the easternmost tie and its nearest neighbour. Pairs of relict railway or general purpose spikes were present on the upper faces of most of the ties, but not in consistent locations or at regular intervals from one to the next. Some were bent over and hammered into the wood, others were driven straight in. The ties were not laid level; there was a 0.12-0.34 cm incline from the south to north ends. The function of these ties is not clear, but they may be related to post-engine house activities.

Five box privies were uncovered to the east of the Queen's Wharf cribbing. Two of these, Lots 57 and 63, were located in the southeast corner of the excavation area within roughly a metre of one another (Figures 1 and 7) and were cut into late nineteenth-century lake fill.

The Lot 57 privy (Figure 5, Plates 68-69) measured 30″ x 24″ x 27″ (76.2 x 61 x 68.6 cm). The sides of the vault were formed with horizontal 9″ x ¾″ planks buttressed at each corner by pairs of 4″ x 4″ (10.2 x 10.2 cm), 5″ x 4″ (12.7 x 10.2 cm) or 3″ x 1″ (7.6 x 2.5 cm) verticals at the corners. The floor was also planked. The privy was partially filled with black silty clay. The vault was connected, via a 10″ x 6½″ (25.4 x 16.5 cm) opening in the south plank lining to a stone-filled drain trench which extended southward for a distance of at least five metres. Upon abandonment, the privy was covered by pieces of scrap wood.

The Lot 63 privy vault was slightly smaller, measuring 26″ x 23″ x 26″ (66 x 58.4 x 66 cm), and was a simple box (Plate 70). The sides were formed by 7″ x 1″ (17.8 x 2.5 cm) planks, set vertically and reinforced at the corners with 1″ x 2″ posts (2.5 x 5.1 cm). The floor was made of the same size planks. The vault was filled with black silty clay mixed with ash, wood scrap, coal ash, slag and quick lime.

A pair of interconnected box drains (Lots 80 and 81) ran north-west southeast through the northeast corner of the excavation area (Figures 1 and 7, Plate 71). The installation of the Lot 80 drain necessitated cutting through the Queen's Wharf cribbing. The base and sides of the drain were built from 12″ x 2″ planks (30.1 x 5.1 cm), while the top was formed by 12″ (30.1 cm) long, 6″ and 12″ (15.2 and 30.5 cm) wide, 2″ (5.1 cm) thick boards laid across the conduit and nailed down with 3″ long machine cut nails.

Approximately two metres west of Lot 80, the Lot 81 drain was built with 15″ x 2″ (38.1 x 5.1 cm) planks as the base and 8″ x 2″ (20.3 x 5.1 cm) planking on the sides. The top appeared to have been constructed in the same fashion as Lot 81, although only one board survived in situ. The two drains were connected by a conduit (Lot 82) that appears to have been built to the same dimensions as Lot 80. The flow of water would have been from Lot 81 to Lot 80.

The second pair of privies lay in the northeast corner of the excavation area (Figure 1). Lot 79, dug into late nineteenth-century fill consisted of lowermost remains of a 48″ x 38″ (1.22 x 0.96 m) box made up horizontal 6″ x 2¾″ (15.2 x 7.0 cm) boards pinned at the corners with 2″ x 4″ (5.1 x 10.2 cm) verticals (Figure 5, Plate 72). The privy did not have a floor and had been built over an 8″ cast iron drain pipe (Lot 102). The fill of the feature consisted of cobbles and black sandy clay mottled with blue-grey clay and wood fragments. Lot 83, was built against the side of the Lot 81 box drain, but was not serviced by it. Its floor was made up of various sizes of scrap wood (Figure 5, Plate 73). Its south and east sides survived as single horizontal 6″ x 1″ (15.2 x 2.5 cm) planks. The west side was the side wall of the Lot 81 drain. The north side had been removed. The fill of the feature consisted of very dark greyish-brown sandy clay mixed with yellowish-brown clay, scrap wood, pebbles, coal ash and clinkers.

The floor of a third privy was found during subsequent monitoring of construction excavations east of the Stage 4 excavation area. It drained into the Lot 80 box drain. The drains themselves were found to extend southeast beyond the limits of the property.

Stratigraphically, the two drains and the three privies were related to fills laid down during the construction of the High Line viaduct in the 1920s (e.g., Lot 89). The fact that the drains were built using machine-cut nails, when wire nails had been available for about 20 years suggests that there was an effort to use up an existing supply of older hardware. Similarly, the construction of the top plates of the drains using short lateral planks also appears to represent use scrap material, despite the much greater labour involved.

The two remaining features of note include a section of a joist and plank floor (Lot 78) located to the east of the Queen's Wharf cribbing (Figures 1 and 7) and a segment of brick paving (Lot 67) on the west side of the cribbing (Figures 1 and 7).

Lot 78 (Plate 74) likely represents the remains of one of a number of small sheds shown to have stood in this area on the *Goad's Atlas* maps. The feature consisted of 8″ x 2″ (20.3 x 5.1 cm) joists laid in late nineteenth-century fill (Lot 94) that supported 4-6″ x 2″ (10.2-15.2 x 5.1 cm) floor boards. This surface was capped by approximately 10 cm of soil on which lay a second plank surface.

Lot 67 (Plate 75) consists of an isolated section of a 6″ thick concrete bed into which hard and very heavy paving bricks (9″ x 3″ x 3″ [22.9 x 7.6 x7.6 cm]) were set in a running bond. The paved surface was at least two metres wide and its east side of the structure had a stone kerb. The feature may be associated with some of the twentieth-century industrial uses of the site.

5.5 The Ravine Battery

No remains associated with the War of 1812 era ravine batteries or associated earthworks were documented within the project area. As previously noted, the historic map overlays compiled during the

Stage 1 research tended to place these features to the west of Block 36, within the Bathurst Street right-of-way, and the only potential remains encountered during the Stage 2 testing were confined to the west side of the right-of-way. Only the overlay of the 1823 *No. 24 Plan of the Fort at York* prepared by Lt. Col. Elias Durnford shows the extreme east end of the earthworks extending into the subject property (ASI 2005:Appendix A), within the 520N-165E area of the Stage 4 recording grid. This area was also subsequently occupied by a later GTR building (no traces of which were encountered during the Stage 4 excavations), as well as the southeast corner of the 1898 Matthews-Blackwell/Park-Blackwell processing plant, the construction, servicing and demolition of which resulted in considerable disturbances. Another building with a poured concrete foundation (Lot 23) also stood in the area. This latter building appears on 1947 aerial photography and is identified as a one-storey washroom on 1954 Underwriters' Survey Bureau mapping.

5.6 Artifact Storage Information

In total, 1,184 artifacts (Appendix 2) were recovered during the Stage 4 excavation of the Queen's Wharf Station site. The artifacts related to the project will be curated by Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the Ontario Ministry of Tourism, Culture, and Sport and any other legitimate interest groups. Particulars concerning the storage of the collection are summarized in Table 2.

Table 2: Queen's Wharf Station (AjGu-74) Artifact Storage Information

ASI Project Code: 09TE-016				Six Boxes
Lot	**Operation**	**Catalogue Numbers**	**Material**	**Box Number**
3	Lot Excavation	100 – 101	Ceramic	2
		390 – 393	Glass	2
		660 – 662	Miscellaneous	3
		960 – 965	Metal	4
5	Sample	670	Brick	3
6	Lot Excavation	110	Ceramic	2
		400 – 430	Glass	2
		680 – 695	Miscellaneous	3
		870 – 871	Faunal	3
		970 – 995	Metal	4
7	Lot Excavation	120 – 121	Ceramic	2
		700	Miscellaneous	3
13	Unit Excavation	130	Ceramic	2
		440	Glass	2
		710 – 711	Miscellaneous	3
		875 – 876	Faunal	3
		1000 – 1002	Metal	5
18	Lot Excavation	450 – 451	Ceramic	2
		720 – 721	Miscellaneous	3
		880 – 881	Faunal	3
		1005	Metal	5
21	Lot Excavation	140 – 142	Ceramic	2
		460	Glass	2
		730 – 733	Miscellaneous	3

Table 2: Queen's Wharf Station (AjGu-74) Artifact Storage Information

ASI Project Code: 09TE-016 Six Boxes

Lot	Operation	Catalogue Numbers	Material	Box Number
		1010 – 1016	Metal	5
24	Lot Excavation	150 – 151	Ceramic	2
		470 – 483	Glass	2
		740 – 760	Miscellaneous	3
		885	Faunal	3
		1020 – 1051	Metal	5
33	Lot Excavation	160	Ceramic	2
		770 – 771	Miscellaneous	3
34	Lot Excavation	780	Miscellaneous	3
		1055 – 1056	Metal	5
39	Unit Excavation	170 – 180	Ceramic	2
		490 – 510	Glass	2
		785 – 800	Miscellaneous	3
		890 – 895	Faunal	3
		1060 – 1089	Metal	5
41	Lot Excavation	190 – 208	Ceramic	2
		520 – 523	Glass	2
		1090	Metal	6
53	Lot Excavation	530	Glass	2
		900	Faunal	3
54	Lot Excavation	540 – 544	Glass	2
		1095 – 1103	Metal	6
59	Sample	805	Brick	3
63	Lot Excavation	210 – 211	Ceramic	2
		550 – 551	Glass	2
64	Lot Excavation	1105 – 1110	Metal	6
71	Lot Excavation	220	Ceramic	2
		560 – 572	Glass	2
		810 – 815	Miscellaneous	3
		1115 – 1132	Metal	6
72	Lot Excavation	230 – 231	Ceramic	2
		580 – 581	Glass	2
		1135 – 1138	Metal	6
74	Unit Excavation	240 – 312	Ceramic	2
		590 – 594	Glass	2
		820 – 832; 905 – 932	Miscellaneous	3, 4
		935 – 937	Faunal	4
79	Lot Excavation	600 – 603	Glass	2
		835 – 836	Miscellaneous	3
		1140 – 1141	Metal	6
80	Lot Excavation	320 – 334	Ceramic	2
		610 – 615	Glass	3
		840 – 846	Miscellaneous	3
		940	Faunal	4
		1145 – 1147	Metal	6
81	Lot Excavation	340 – 355	Ceramic	2
		620 – 627	Glass	3
		850 – 855	Miscellaneous	3
		945	Faunal	4

Table 2: Queen's Wharf Station (AjGu-74) Artifact Storage Information

ASI Project Code: 09TE-016				Six Boxes
Lot	**Operation**	**Catalogue Numbers**	**Material**	**Box Number**
		1150 – 1155	Metal	6
82	Lot Excavation	360	Ceramic	2
		950 – 951	Faunal	4
83	Lot Excavation	370 – 377	Ceramic	2
		630 – 637	Glass	3
		860 – 862	Miscellaneous	3
		955 – 956	Faunal	4
		1160 – 1165	Metal	6
85	Lot Excavation	1170 – 1173	Metal	6
90	Lot Excavation	640 – 642	Glass	3
94	Lot Excavation	380 – 381	Ceramic	2
		650 – 652	Glass	3
The material from each unique lot and one-metre unit (or context) is contained in a plastic zip lock bag; the bags are arranged sequentially by material type, lot, and unit number in standard size cardboard banker's boxes.				

5.7 Artifact Inventory

Given that the 1,184 artifacts from the Queen's Wharf Station were recovered from 28 separate contexts, and many of these are secondary deposits of various ages, origins and associations, the artifact discussion has been organized by provenience rather than artifact class. A modified "Classification System for Historical Collections" (Canadian Parks Service 1992) was used to organize the data during analysis. The artifact analysis makes use of a wide range of primary and secondary sources, as cited in text, with overall guidance provided by ASI's standards and reference manual (ASI 2009).

5.7.1 Lot 3

Lot 3, the demolition fill from the GTR engine house, produced 21 artifacts. These consist of one machine cut nail that dates to between 1830 and 1900 (Kenyon 1982), four pieces of window glass, three food container glass fragments, one soft drink or mineral water container glass fragment, two ceramic sherds, one bolt, two stoneware ink containers, one railway spike, two spikes, one sherd from an unidentifiable stoneware vessel, one piece of slag, and two unidentifiable pieces of metal (Appendix B).

The food container fragments are from a colourless, machine-made jar with a fire polished lip, external embossed threads, a short neck, and a steeply sloped shoulder. This bottle post-dates 1900 as virtually all jars were machine-made after that date (Jones and Sullivan 1985:38).

Both of the ceramic sherds are ironstone. Ironstone is a mid-to-late nineteenth and early twentieth century ceramic type. Production began in England in the 1840s as a heavier, cheaper alternative to the influx of hard paste porcelains from France into the markets of Canada and the United States (Majewski and O'Brien 1987:120). Due to its very hard durable body it became ubiquitous in frontier households. It started appearing in Ontario merchants' records in 1847 and grew in popularity steadily during the late

nineteenth century, peaking in the 1880s (Kenyon 1995:10). It continued to be produced into the twentieth century (Wetherbee 1996).

One of the sherds has light-green painted motif while the other sherd is from a moulded hollowware container with an over glaze pink slip field below the rim and a gilded band along the rim (Appendix B). The decoration is likely to be twentieth-century.

The stoneware ink containers are almost complete cylindrical vessels (Plate 76). One is 14.5 cm tall and there other is 14.6 cm tall. Both contain a flat disk with a spout used for pouring ink into smaller ink wells. One of the containers displays an impressed maker's mark which reads "LOVATT & LOVATT/NOTTS/LANGLEY MILL." This was used by Lovatt & Lovatt of Langley Mill, Nottingham, which produced stonewares and earthenwares starting in 1895. The firm was renamed Lovatt's Potteries Ltd. in 1931 (Godden 1991:338).

5.7.2 Lot 5

A brick sample was recovered from Lot 5, the foundation of the GTR engine house. It is a red hand-made, stick trimmed, water struck brick with a shallow rectangular frog present. Soot covers one side of the brick and mortar is present on the bottom and top. The brick is 8⅞″ (22.5 cm) long, 4″ (10.2 cm) wide, and 2⅜″ (6 cm) thick. The frog is 5½″ (14 cm) long, 1⅝″ (4 cm) wide, and ¼″ (0.5 cm) deep (Plate 77) (Appendix 2).

As the name suggests, hand-made bricks were formed by hand by pouring clay into a wooden mould and were the predominant brick type until the late nineteenth-century (Gurcke 1987:102). These bricks can be subdivided into stick-trimmed and metal-trimmed bricks depending on whether the excess clay was cleared away from the mould with a metal blade or a smooth piece of wood. The metal blade leaves deep cuts and tears in the brick as it slices away the extra clay while a wooden strike leaves shallow parallel lines (Gurcke 1987:103). The direction of the strike – horizontally, vertically, or diagonally was left at the hands of the individual brick maker and can identify individual styles.

The means to lubricate the brick out of the mould, usually with sand or water, also leaves tell-tale marks which can also be used to classify a brick. Sand gives the brick a rough, granular texture on all sides except the struck one and the sand adhering to the brick during firing leaves a deeper shade of red (Gurcke 1987:103). In contrast, water leaves small ripples at the bottom and sides of the brick and leaves the sides and corners relatively smooth (Gurcke 1987:106).

5.7.3 Lot 6

Lot 6 was the interior working surface of the engine house. It produced 157 artifacts, as summarized in Table 3 and further discussed on a class by class basis.

Table 3: Lot 6 Artifact Totals by Functional Class

Artifact Class	Totals	Class Total as Percent of Lot 6 Total
Architectural	*42*	26.7%
Nail, indeterminate	5	
Window Glass	37	
Furnishings	*3*	1.9%
Key	1	
Lamp Chimney	2	
Kitchen/Food-related	*44*	28.0%
Container, liquor	39	
Container, soft drink	3	
Tumbler	1	
Tableware	1	
Organic	*8*	5.1%
Faunal, avian	2	
Faunal, mammal	6	
Personal	*13*	8.3%
Boot	1	
Medicine container	2	
Smoking Pipe	10	
Tools and Equipment	*22*	14.0%
Bolt	2	
Emergency brake pipe	1	
Fuse	1	
Graphite pencil	1	
Hook	2	
Insulator	1	
Nut	1	
Spike	8	
Unidentified	1	
Valve	1	
Valve Control Handle	1	
Washer	1	
Indeterminate	*25*	16.0%
Unidentifiable Container	12	
Other	13	
Artifact Totals	*157*	100%

5.7.3.1 Lot 6 Architectural Class

The architectural class consisted of five indeterminate nails and 37 pieces of window glass which comprise 26.7 percent of the Lot 6 assemblage (Table 3; Appendix 2).

5.7.3.2 Lot 6 Furnishing Class

The furnishings class consists of one key and two lamp chimney fragments (Table 3; Appendix 2).

5.7.3.3 Lot 6 Kitchen/Food-related Class

The Lot 6 assemblage contains 44 kitchen and food-related artifacts comprising 28 percent of the assemblage (Table 3; Appendix 2). These artifacts relate to the storage, preparation, distribution, and consumption of food and beverages. Only one ceramic sherd was recovered from this context, an undecorated ironstone hollowware sherd.

The other kitchen/food-related class items consist of 39 liquor container glass fragments, three soft drink container fragments, and one press moulded glass tumbler.

Out of the liquor container glass fragments, two specimens are fully-machine made bottles, five are moulded with a mouth blown finish, and four are dip moulded (Appendix 2). Other liquor container glass fragments are unidentifiable as to their method of manufacture. Fully automated bottle production of narrow mouthed bottles did not begin until 1917 and was not widespread until the 1920s (Jones and Sullivan 1985:39) whereas earlier a semi-automated approach was employed that produced a machine-made body and an applied mouth blown finish (Jones and Sullivan 1985:43). While dip moulds are not generally useful for dating, it is important to note that they were first introduced in England in the late 1730s and continued until their decline in the second half of the nineteenth-century (Jones and Sullivan 1985:26).

The soft drink container fragments are from an Orange Crush bottle. The Orange Crush Bottlers Co. began bottling soda water in 1923 and changed their name to Orange Crush Bottled Ltd. in 1924 carrying that name to 1929 (Axelson 2000:94). The fragments are colourless and ribbed but too fragmentary to identify the bottle type (Appendix 2).

5.7.3.4 Lot 6 Organic Class

Organic class items from Lot 6 consist of two avian bones and six mammal bones. The mammal bones consist of a long bone and large rib bones. The long bone and one of the ribs are sawn and have cut marks (Table 3; Appendix 2).

5.7.3.5 Lot 6 Personal Class

Personal class items from Lot 6 consist of a boot heel plate, two medicine container fragments, and 10 smoking pipe fragments (Table 3; Appendix 2). The boot heel plate is made of brass and is oval in shape with one straight edge and six beveled perforations for attaching the plate to the heel of the boot (Plate 78). This appears to be something that would have been worn by a railway worker as safety equipment.

One of the medicine containers displays a machine-made Davis-style finish that was common on late-nineteenth and early twentieth-century medicine bottles (Jones and Sullivan 1985:79) (Appendix 2). As discussed previously, a fully machine-made finish indicates a post-1920s date. The other medicine container is an olive green, ovoid-shaped bottle with embossed lettering that reads "PILGR…" This suggests that this lettering was from a "Pilgrim Iron Tonic Bitters" bottle.

The smoking pipes consist of six stem and four bowl fragments. Two stems display identifiable maker's marks. One pipe is a Henderson-Montreal pipe that dates from between 1847 and 1876 (Walker 1971) and the other is a Bannerman-Montreal pipe that dates from between 1857 and 1907 (Kenyon 1984).

5.7.3.6 Lot 6 Tools/Equipment Class

There are 21 artifacts in the tools and equipment class from Lot 6. These consist of two very large iron bolts, an emergency brake pipe, a fuse, a graphite pencil, two large hooks, one insulator, a brass nut, eight iron spikes, one brass valve, one circular brass valve control handle, one brass washer, one supercapacitor, and one unidentified hardware item (Table 3; Appendix 2).

The emergency break pipe is from a train and consists of a large straight iron pipe that is attached to a brass metal valve. The unidentified item consists of an incomplete metal rod with an eye with a ring at one end (Plate 79) (Appendix 2). A supercapacitor, or an electrochemical capacitor, is used to store electric charge in the electric double layer at a surface-electrolyte interface. They were first developed by H.I. Becker of General Electric in 1957 (Miller 2007:61). The supercapacitor is 2.2 cm in diameter and 1.2 cm thick. It is surrounded by a piece of black rubber marked "0.47F 0.47F/5.5V 5.5V/GC GC/JAPAN JAPAN." This indicates that the supercapacitor is rated for voltage of 5.5 V, has a rated discharge capacitance of 0.47 F, and is made in Japan (Appendix 2). Given its location among otherwise late-nineteenth and early-twentieth century items, this supercapacitor probably worked its way from a higher level and can be considered an intrusive item.

The insulator recovered from Lot 6 is the top portion of a rectangular knob that is three cm long, 1.9 cm wide, and 1.6 cm thick at the top (Appendix 2). The first insulators were made of wood and were used extensively during the 1880s. Wood was ideal for carrying low power telegraph signals but proved problematic for greater charges unless the wood was perfectly dry; though dry wood can catch fire relatively easily. To overcome the problems presented by wood, porcelain insulators were invented and came into prominence by the early 1890s. This ushered in an era of porcelain "knob and tube" wiring that lasted between 1890 and 1930. Knobs were used to run electrical wires along the walls (Myers 2010:33). Most rectangular knobs were patented in the early twentieth century (Todd 1977).

5.7.3.7 Lot 6 Indeterminate Class

There are 25 unidentifiable artifacts from Lot 6. These consist of 11 indeterminate glass containers, one indeterminate stoneware container, and 13 miscellaneous unidentifiable items that could not be assigned to a functional class (Table 3; Appendix 2). Three of the miscellaneous indeterminate items are made of glass, two are made of ferrous metal, and eight are made of brass (Appendix 2).

5.7.4 Lot 7

Three artifacts were recovered from the builder's trench of the GTR engine house (Lot 7). They consist of one smoking pipe mouthpiece, one factory slip ironstone hollowware sherd, and one coarse red earthenware sherd (Appendix 2). Coarse earthenwares are thickly potted ceramic types. They were

usually of local manufacture and were produced as early as the late 1820s and are not very chronologically diagnostic (Newlands 1979:22).

5.7.5 Lot 13

There are 26 artifacts from Lot 13, an indeterminate cut predating the formation of the Lot 6 work surface. The artifacts consist of two pieces of window glass, one refined white earthenware sherd, one avian bone, eight mammal bones, two smoking pipe stem fragments, two small springs, one indeterminate rectangular piece of metal, and nine indeterminate metal shafts. The smoking pipe fragments are unmarked and the mammal bones display sawing and cutting marks (Appendix 2).

Refined white earthenware is generally considered a mid-nineteenth century ceramic type. It grew out of a bluish-bodied ceramic called pearlware in the 1830s to become the most popular ceramic of the mid-nineteenth century. While its popularity declined in favour of ironstone in the second half of the nineteenth century, it continued to be produced into the twentieth century (Majewski and O'Brien 1987:120).

5.7.6 Lot 18

There are seven artifacts from Lot 18, one of the machinery bases within the GTR engine house. The artifacts consist of a glass liquor container base, one avian bone, one mammal bone, an unmarked smoking pipe stem fragment, an indeterminate metal tube, one pink glass tube, and one indeterminate container fragment. Both of the bones display cut marks while neither of the containers was machine made (Appendix 2).

5.7.7 Lot 21

Eighteen artifacts were recovered from the remnant joist and plank flooring within the GTR engine house machine shop (Lot 21). They consist of a brace, a wire nail, one piece of window glass, three ironstone sherds, four pieces of coal, two smoking pipe stem fragments, one file, one insulator, one scale hook, one iron panel, one iron rod, and one iron tube (Appendix 2). The wire nail post-dates 1900 (Kenyon 1982). The brace consist of a slightly curved shaft with a square head on one end and a flat tapered disk on the opposite end that has been threaded beyond the disk. The file is very corroded with wood inclusions in the rust. It is probably a single tang bastard file a rectangular profile. The iron panel is flat and roughly rectangular in shape with heads of nails corroded into it suggesting that it would have been attached to a piece of wood (Appendix 2).

Both of the smoking pipe stem fragments have maker's marks. One displays the mark of Bannerman-Montreal that dates from between 1857 and 1907 (Plate 80) (Kenyon 1984) while the other displays the mark of W. White-Glasgow, which dates between 1805 and 1955 (Walker 1971). This White-Glasgow pipe probably does not post-date 1891 as the American McKinley Tariff Act of 1891 stipulated that all goods imported into the United States had to bear the name of the country of origin. While this is often used for dating ceramics, this act also applies to the pipe industry, as pipe makers had to comply with this US regulation (Bradley 2000:118-119). The insulator is the top portion of a two-wire cleat that was

approximately 3½″ (8.8 cm) long and ¾″ (1.8 cm) wide. One of the nails is still present and the insulator bears the embossed mark "CGE. 1740" (Appendix 2). Cleats were used to run wires along the wall (Myers 2010:33). CGE was the mark of Compagnie Generale d'Electro-Ceramique which was one of the largest manufacturers of French incandescent lamps and electric supplies. They started manufacturing porcelain insulators in 1904 at the Ivry-Port (Paris) site (Alsthom 1992).

Two of the ironstone sherds are decorated– one is green printed while the other displays and a decalcomania motif. Green printing was most popular between 1830 and 1846 though it underwent a revival in the 1880s due to the popularity of the Japanese-inspired motifs (Samford 1997:19-20). Decalcomania was developed in the late nineteenth century and was used to produce bright multi-coloured over glaze floral decorations (Majewski and O'Brien 1987:146-147). While it was available after 1880 (Majewski and O'Brien 1987:147), it first appeared in the Sears, Roebuck and Company catalogue in 1902 indicating that decalcomania motif was not widely available until the first years of the twentieth century (Sears, Roebuck and Company 1902).

5.7.8 Lot 24

The excavation of the fills that accumulated in Lot 24, the engine inspection pit, produced 62 artifacts. They consist of one machine-cut nail, six pieces of window glass, one liquor container glass fragment, two ceramic sherds, one mammal bone, four button fragments, three shoe fragments, two smoking pipe stem fragments, one ferrous metal bolt with a nut, one ferrous metal file, one brass foot step (Plate 81), one piece of metal strapping, two ferrous metal spikes, one rubber trolley wheel, three brass washers, two ferrous metal wires, three unidentifiable container glass fragments, and 27 miscellaneous unidentifiable items (Appendix 2).

The shoe fragments are small leather pieces with brass rivets. The file is large and rectangular with a tang. It is 32 cm long, 3.9 cm wide, and one cm thick. The foot step is a large brass object with a variety of hand-made circular perforations. The perforations consist of mainly two sizes (21 mm and 10 mm) and the piece has been hand-cut on one side. Among the unidentifiable artifacts there is one piece of glass, 14 brass/cuprous pieces of unidentifiable scrap metal, and 12 pieces of unidentifiable ferrous scrap metal. One of the brass pieces is an 8.6 cm tall by five cm in diameter cone shaped, hand-wrought object with a flared rim with perforations all around it (Appendix 2). The purpose of this object is unknown.

Solid rubber wheels were first patented in 1852 (Knight 1876:2579).

The four button fragments consist of one shell button and three bottom fragments from a cloth covered metal button. The shell button is a 10 mm diameter button (Appendix 2). Shell buttons became popular after 1820 and were used primarily on shirts and blouses while larger ones were occasionally made for outerwear (Ferris 1986:100). Given its small size, this was probably a shirt button (Lindbergh 1999:51). The cloth covered metal button, also known as a florentine (Ferris 1986:98), is 24 mm in diameter (Appendix 2). Such buttons became available in 1825 and became popular in the second half of the nineteenth century (Lindbergh 1999:52). Given its size, it would have been used on a pair of trousers or a coat.

One of the smoking pipe stem fragments displays the mark of Dixon's-Montreal indicating that it was produced between 1876 and 1894 (Kenyon 1984).

One ceramic sherd is green-printed ironstone while the other is a sherd from a creamware blue banded hollowware container. Creamware is the earliest of the refined white earthenwares. This lightweight cream-coloured earthenware was produced as early as 1740 by Enoch Booth but was perfected by Josiah Wedgwood in 1762 and quickly became attractive and popular as a status ware (Copeland 1995:4-6). As the name might suggest, creamware is creamy in colour due to the lead glaze applied to the vessels. The creamware glaze lightened in colour during the early nineteenth century with significant technological leaps in the ceramic making process (Majewski and O'Brien 1987:117). Creamware table and teaware was imported into Ontario until the 1830s as its popularity declined significantly in favour of pearlware (Kenyon 1995). However, cream-bodied earthenware persisted on utilitarian objects such as chamber pots into the 1850s (Miller 1993).

5.7.9 Lot 33

The fill in the Lot 33 brick forge or lathe/mill footing contained three artifacts – an extremely thermally altered ironstone sherd covered in slag and two smoking pipe stem fragments (Appendix 2). The pipe stem displays a McDougall-Glasgow maker's mark indicating that it was produced between 1846 and 1967 (Walker 1971), but it does not post-date the 1891 McKinley Tariff Act.

5.7.10 Lot 34

The wood bin (Lot 34) potentially associated with the Lot 33 brick forge or lathe/mill footing produced three artifacts. These consist of one machine cut nail, one smoking pipe stem fragment, and one indeterminate brass object (Appendix 2).

5.7.11 Lot 39

Cleaning around Lot 39, one of the machinery bases within the GTR engine house, yielded 83 artifacts. These consisted of six machine cut nails, 22 pieces of window glass, three ceramic sherds, one avian bone, three mammal bones, four shoe fragments, four smoking pipe stem fragments, one ferrous metal bolt, one ferrous metal chain link, two files, one porcelain insulator, two lantern glass fragments, one ferrous metal railway spike, four ferrous metal spikes, one piece of ferrous metal strapping, two brass washers, two unidentifiable container glass fragments, and 22 miscellaneous pieces of metal (Appendix 2).

All three of the mammal bones display butchery and cut marks. The shoe fragments are small pieces of leather and contain brass and ferrous metal rivets. One of the files is 38.5 cm long, 3.7 cm wide, and one cm thick while the other is 39 cm long, 3.7 cm wide, and 0.9 cm thick. Out of the miscellaneous pieces of metal, 15 are ferrous metal while seven are brass scrap fragments. The insulator is a corner of a two or three wire cleat (Appendix 2).

All three ceramic sherds are undecorated and consist of one stoneware sherd, one ironstone sherd, and one semi-porcelain sherd. The semi-porcelain sherd belongs to an identifiable vessel – a teacup with a slightly flared rim and a slightly curving body (Cat. #180) (Appendix 2). Semi-porcelain was a lighter, thinner

variety of porcellaneous ceramic. It was introduced in the 1880s and gained popularity through the last decade of the nineteenth century (Kenyon 1995:13). The price of early semi-porcelain made it prohibitively expensive, but, as the price continued to drop at the turn of the century, it become a common household item by the 1910s (Kenyon 1995:13; Majewski and O'Brien 1987:124).

The lantern glass fragments are from a red flashed glass railway signal lantern (Appendix 2). The flashed glass technique was first invented in the 1880s and remained popular into the twentieth century (Jones 2000:147).

One of the pipes has an L. Dobbin & Co. – Cork maker's mark (Appendix 2). This is a very rare mark and very little is known about the manufacturer. It has been suggested that this mark dates to the middle of the nineteenth century (Spittal 2000).

5.7.12 Lot 41

Sixty artifacts were recovered from the fill within the channelized Garrison Creek (Lot 41). The artifacts consist of two colourless lantern glass fragments (Plate 76), four liquor container glass fragments, 49 ceramic sherds, four spikes, and one unidentifiable container glass fragment (Appendix 2).

The ceramic sherds consist of one coarse red earthenware sherd, 45 ironstone sherds, and three semi-porcelain sherds.

The semi-porcelain sherds are from a teacup with a black transfer printed motif that displays a circle with part of a cathedral in the lower central portion and a sky in the background (Cat. #207). The image is surrounded by a series of vine leaves around the outside and off to the left of the image there is a leafy vine surrounding the word "CATHEDRAL" (Plate 82) (Appendix 2). The date for this motif is unknown. However, considering that this semi-porcelain vessel displays a transfer printed rather than a decalcomania motif that became much more popular on semi-porcelain wares after 1900, it can be suggested that this vessel probably predates the turn of the century.

Among the ironstone sherds from Lot 41 there are at least four individual twiffler plates. All are decorated with a moulded wheat motif and three display the same transfer printed maker's mark (Cat. #202, Cat. #203, and Cat. #205) (Plate 83). The mark displays a ribbon formed into an oval bow. The word "IRONSTONE" is printed across the top of the oval and "CHINA/H & K" is printed inside the oval. Below the oval the left end of the ribbon contains the word "H&K LATE" and the right end of the ribbon contains the word "J WEDGWOOD." The last displays a similar maker's mark though the H&K are missing under the word "CHINA" (Cat. #204). Two of the twiffler plates (Cat. #202 and Cat. #203) also contain an impressed mark "H & K/LATE/J WEDGWOOD" (Appendix 2).

Among the other ceramic sherds, 24 are rim sherds that display the same moulded wheat motif, three are bases that display the impressed "H & K/LATE/J WEDGWOOD" mark, one is a printed mark that displays "CHINA/H&K" inside the circle, one displays "CHINA" inside the oval and "H&K LATE" on the left end of the ribbon and "J WEDGWOOD" on the right end, one displays the oval with the word "IRONSTONE" and the word "CHINA" inside the oval, and one basal sherd contains a bit of the ribbon. Other sherds do not display the maker's mark or the motif with the exception of one rim that is probably from an undecorated large serving dish (Appendix 2).

This suggests that most of the ironstone sherds came from the same set. The moulded wheat motif was a popular decoration between the mid-1850s and approximately 1930 (Sussman 1985:8). The printed J Wedgwood mark belongs to John Wedge Wood (not be confused with the famous Josiah Wedgwood or the Podmore, Walker, and Enoch Wedgwood's Unicorn Pottery). John Wedge Wood operated the Woodland Pottery at Burslem (1841-1844) and Tunstall (1845-1860) in Staffordshire (Godden 1991:687-688). Afterward, he was succeeded by Edmund T. Wood who kept the mark and continued to operate the Woodland Pottery at Tunstall until 1876 when it was bought by Hollinshead and Kirkham (Sussman 1985:56). Hollinshead and Kirkham (H&K on the printed and impressed marks from this collection) ran factories in Burslem and Tunstall from 1870 to 1956 (Godden 1991:332). This maker's mark dates from 1876 when the Woodland Pottery was purchased and not 1890 when Hollinshead and Kirkham purchased the Unicorn Pottery as has suggested by some (see Godden 1991:332; Sussman 1985:26). Hollinshead and Kirkham produced wheat pattern ceramics at least until 1891 (Sussman 1985:27).

5.7.13 Lot 53

Two artifacts were recovered from Lot 53, the fill of one of the unidentified wood "troughs" on the south side of the GTR engine house foundation. One is a liquor container body glass sherd and the other is a mammal long bone with cut marks present (Appendix 2).

5.7.14 Lot 54

Lot 54, the second of the unidentified wood "troughs" on the south side of the GTR engine house foundation, produced 58 artifacts. These consist of 16 indeterminate nails, four machine cut nails, 28 pieces of window glass, one lamp chimney glass, one liquor container body glass fragment, one chain link, one crew, two spikes, one washer, one unidentifiable container glass fragment, and two miscellaneous unidentified objects (Appendix 2). All metal the objects from this context are ferrous.

5.7.15 Lot 59

A sample of two bricks was recovered from the Lot 59 drain north of the GTR engine house. These bricks were used to repair the drain pipe. Both of the bricks are machine-made, soft-mud, metal-trimmed bricks. One of the bricks is a dark red brick with a hexagonal frog with pressed lettering that read "PRICE." The brick is 8⅜″ (21.3 cm) long, 3⅞″ (10 cm) wide, and 2⅜″ (6.2 cm) thick. The frog is 6⅛″ (15.5 cm) long, 2″ (5 cm) wide, and ⅜″ (1 cm) deep (Plate 77). The other brick is red with a rectangular frog with raised lettering that reads "J. PRICE." The brick is 8⅜″ (21.3 cm) long, 3⅞″ (10 cm) wide, and 2⅜″ (6.2 cm) thick. The frog is 5⅞″ (15 cm) wide, 2″ (5 cm) wide, and ½″ (1.5 cm) deep (Appendix 2).

Soft-mud machine-made bricks were popular in the late nineteenth and early twentieth century (Gurcke 1987:107). This brick postdates 1887. Before that point, the local industry relied on hand techniques, as it was believed that Ontario clay was unsuitable for manufacturing pressed machine-made brick (Yundt and Augaitis 1992:2). J. Price is first listed as a brick maker in the 1877-78 City of Toronto directory. By 1912, his Greenwood Avenue yard was the third largest producer of brick in the city (Schopf 2010:24-25). Later, bricks with the "J PRICE" mark started to be produced at the Don Valley Brickworks and were among one of their most popular products in the first half of the twentieth century.

5.7.16 Lot 63

The Lot 63 privy vault contained 16 artifacts consisting of one undecorated ironstone sherd, one undecorated semi-porcelain sherd, 13 liquor container glass fragments, and one thermally altered piece of glass. The liquor container glass fragments are from a dip moulded panelled bottle (Appendix 2).

5.7.17 Lot 64

A sample of six machine-made spikes were collected from the upper surfaces of the timber cribbing of the Queen's Wharf (Lot 64). These would have been used for securing the decking. They measured between 6¼″ (16 cm) and 7⅜″ (18.7 cm) long. Five of the spikes had machine-made heads while one had a hand-wrought head (Plate 81) (Appendix 2).

5.7.18 Lot 71

Lot 71, the upper level of post-abandonment fill in the Lot 69 privy, contained 51 artifacts. These consist of 10 machine cut nails, 13 wire nails, 14 pieces of window glass, one liquor container glass fragment, one mineral water container glass fragment, one green stamped ironstone sherd, one porcelain insulator fragment, one brass screw, one piece of cuprous wire, two pieces of ferrous metal strapping, one unidentifiable container glass fragment, one small piece of leather, and four pieces of unidentifiable ferrous metal. The porcelain insulator fragment is from a circular knob (Appendix 2). Stamped ceramic motifs were popular between the 1840s and the 1870s (Miller 1991:6).

5.7.19 Lot 72

Lot 72, the lower level of the Lot 69 privy fill, contained 38 artifacts. These consisted of two machine cut nails, two wire nails, 26 pieces of window glass, four milk container glass fragments, two ironstone sherds, one bolt, and one unidentifiable piece of ferrous metal. One of the ironstone sherds displays an indeterminate blue-printed motif (Appendix 2).

The four milk container glass fragments are from a bottle cap seat finish. The cap seat finish required a disc or a plug cap to seal its contents. This type of closure was first patented around 1901 (Jones and Sullivan 1985:161).

5.7.20 Lot 75

Lot 75 is the original offshore lakebed. It produced 325 artifacts from two one metre test units. The assemblage is summarized in Table 4. Given the context of the material, it is likely the result of a variety of depositional processes and of multiple origins.

Table 4: Lot 75 Artifact Totals by Functional Class

Artifact Class	Totals		Class Total as Percent of Lot 75 Total
Architectural		*13*	4.0%
Brick	6		
Window Glass	7		
Furnishings		*1*	0.3%
Other	1		
Kitchen/Food-related		*166*	50.8%
Container, liquor	4		
Kitchenware	8		
Tableware	151		
Teaware	3		
Organic		*60*	18.5%
Faunal, mammal	58		
Shell	2		
Personal		*71*	16.6%
Shoe Fragment	53		
Smoking Pipe	17		
Wash Basin	1		
Tools and Equipment		*1*	0.3%
Blacking bottle	1		
Indeterminate		*13*	9.5%
Unidentifiable Container	9		
Other	4		
Artifact Totals		*325*	100%

5.7.20.1 Lot 75 Architectural Class

Six small brick fragments and seven pieces of window glass comprise the Lot 75 architectural class assemblage (Table 4; Appendix 2).

5.7.20.2 Lot 75 Furnishings Class

A small parian ware handle comprises the Lot 75 furnishings class. This handle was probably used on a vase or another ornate vessel and would not have been used for food consumption as it is unglazed (Plate 80) (Appendix 2). Parian ware was first introduced in 1847 by W. T. Copeland and used extensively for jugs, vases, figures, and etc. (Collard 1984:178).

5.7.20.3 Lot 75 Kitchen/Food-related Class

The Lot 75 assemblage contains 166 kitchen and food-related artifacts comprising 50.8 percent the sample. These artifacts consist of four liquor container glass fragments, eight kitchenware sherds, 151 tableware sherds, and three teaware sherds (Table 4; Appendix 2).

Out of 162 ceramic sherds, there is one creamware sherd (0.6 percent), seven pearlware sherds (3.8 percent), one Jackfield sherd (0.6 percent), 137 refined white earthenware sherds (85.1 percent), one yellow ware sherd (0.6 percent), one semi-porcelain sherd (0.6 percent), six coarse red earthenware sherds

(3.8 percent), one buff earthenware sherd (0.6 percent), and seven unidentifiable sherds (4.3 percent). Most of these sherds are water worn (Appendix 2).

The only wares that have not been discussed previously are pearlware, Jackfield, and yellow ware ceramics. Pearlware was invented as an alternative to creamware in the mid-1770s. Its slightly bluish tint made it more suitable for cobalt blue decorations which allowed pearlware to slowly grow in popularity (Majewski and O'Brien 1987:118). Pearlware ceramics started to outnumber creamware by the early 1800s and continued to be sold in Ontario until the mid-1830s, when they were replaced with refined white earthenware (Kenyon 1995). Jackfield ceramics, refined red earthenware vessel forms with a glossy black glaze, were also popular in tea services during this time (Jouppien 1980:27).

Yellow ware is a late nineteenth-century ceramic type. It was primarily produced by American manufacturers in the northern states due to the predominance of buff coloured clay and the influx of English potters into North America (Gallo 1985:17). Yellow ware started appearing in merchants records in Ontario around the same time as ironstone and was used primarily as kitchenware (Kenyon 1995). Some variants of it are still used today though its production tapered off in the United States by the 1930s (Leibowitz 1985:9).

Decorative styles on refined ceramics are a very good way to identify the age of a given assemblage. Given that decorative style change quickly over time they offer a finer focus when assessing occupation dates of an archaeological site. A summary of these styles, as well as the date range for their availability, is presented in Table 5. Based on this table and the percentage of wares discussed above, the assemblage dates between 1800 and 1880 with most artifacts dating between the 1830s and 1840s.

Table 5: Lot 75 Refined Ceramic Decorative Styles and Approximate Date Ranges in Ontario

Style	Date Range	No. sherds	% of decorated ceramics
Hand-painted, monochrome blue	1796-1835	8	22.2%
Edgeware, blue scalloped	1800-1840	7	19.4%
Transfer print, blue chinoiserie	1815-1835	1	2.8%
Transfer print, blue	1820-present	15	41.6%
Transfer print, black	1830-1840	2	5.6%
Transfer print, two colours	1830-1850	1	2.8%
Transfer print, brown	1830-1860; 1880s	1	2.8%
Hand-painted, late palette	1830-1870	1	2.8%
Total		36	100%

Thirteen unique vessels have also been identified. They consist of one saucer, one teapot, two bowls, one twiffler plate, two supper plates, three table plates, one salt shaker, one meat dish, and one preserve jar. These are summarized in Table 6.

Table 6: Lot 75 Unique Vessels

Vessel	Cat. #	Ware	Description
Saucer	242	RWE	Monochrome blue-painted floral motif and a blue band along the rim
Teapot	310	Jackfield	Cylindrical spout (Plate 82)
Bowl	263	RWE	Undecorated
	297	RWE	Rouletted green herringbone motif along the rim over a brown band over a mustard zone with two brown dots (Plate 84)
Twiffler	272	RWE	Undecorated
Supper	270	Creamware	Flared concave rim
	247	RWE	Blue scalloped
Table	271	RWE	Undecorated
	275	RWE	Blue Willow
	300	RWE	Gently blue scalloped
Salt Shaker	915	Pearlware	Undecorated (Plate 84)
Meat Dish	299	RWE	Gently blue scalloped (Plate 84)
Preserve Jar	304	Yellow Ware	Undecorated

5.7.20.4 Lot 75 Organic Class

Organic class items from Lot 75 consist of 58 mammal bones and two shell fragments. Some of the mammal bones have been burned and others bear butchery marks (Table 4; Appendix 2).

5.7.20.5 Lot 75 Personal Class

Out of the 71 personal class items from Lot 75 there are 53 shoe fragments, 17 smoking pipe fragments, and one porcellaneous ware basin fragment. Smoking pipe fragments consist of 10 bowl fragments and seven stem fragments. None of the stem fragments exhibit maker's marks (Table 4; Appendix 2).

Among the shoe fragments there are seven shoe soles. Two are small heel fragments, four are the front outsole fragments, and one is a complete outsole (Appendix 2). The square toes indicate a post-1830s mid-nineteenth century style while the channel for stitches on these shoes indicates that these were either from a hand-sewn welt shoe or from a McKay insole (Stevens and Ordonez 2005:14). The welt method consisted of an insole, outsole, uppers, and a leather strip that was later known as the welt. The method was employed to provide great stability and durability to hand-made shoes. The McKay stitcher was invented in 1862 and was used to mechanically sew the entire shoe together without a welt (Stevens and Ordonez 2005:13). While it is difficult to differentiate between the two methods without an insole, several welt fragments were recovered in this context suggesting a pre-1862 date for at least some of these shoes. One of the shoe fragments is a vamp (Appendix 2).

5.7.20.6 Lot 75 Tools/Equipment Class

The tools and equipment class consists of one stoneware blacking bottle sherd (Table 4; Appendix 2).

5.7.20.7 Lot 75 Indeterminate Class

There are 13 unidentifiable artifacts in the Lot 75 sample. These consist of nine indeterminate stoneware containers and four miscellaneous unidentifiable items that could not be assigned to a functional class (Table 4; Appendix 2).

5.7.21 Lot 79

The Lot 79 privy vault and fill contained nine artifacts. These consist of three pieces of window glass, one bolt, one graphite electrode modified to serve as a pencil, one unidentifiable container glass fragment, and three miscellaneous unidentifiable items (Appendix 2). Graphite electrodes were used in arc lamps, which were a type of direct current street lighting device used between 1877 and the 1950s. A graphite electrode could burn for 125 hours before it had to be replaced (Woodhead et al. 1984:74-75). Discarded electrodes were often scavenged and re-used as writing implements.

5.7.22 Lot 80

The excavation of the Lot 80 box drain produced 57 artifacts. These consist of three machine cut nails, four liquor container glass fragments, 27 ceramic sherds, eight mammal bones, four buttons, one medicine container glass fragment, one brass shoe buckle, one marble, three unidentifiable container glass fragments, and five miscellaneous unidentifiable artifacts (Appendix 2).

All mammal bones display cut marks. One of the unidentifiable artifacts is a composite metal object that is a possible broach that is 4.5 cm wide. The medicine container glass fragment is from a Davis-style finish (Appendix 2).

Among the buttons there are one shell, two ceramic, and one glass specimens. The shell button is 11 mm in diameter button with two holes (Appendix 2). This was likely used on a shirt or a blouse.

Hand-made porcelain buttons have been used since the eighteenth century but it was not until Richard Prosser patented the machinery in 1840 that ceramic buttons became widely available (Epstein and Safro 2001:74; Sprague 2002:111). Their manufacture quickly spread to France and the United States in the 1850s and they became extremely affordable. These machine-made prosser buttons were fashionable and readily available between 1850 and 1920 (Luscomb 1967:156) and were used primarily on men's shirts, women's dresses, and children's clothing (Ferris 1986:100). They fell out of manufacture around the 1950s (Sprague 2002). Both of the prosser buttons are four holed. One is 11 mm in diameter while the other is 14 mm (Appendix 2). Both of these are small enough to have been used on a shirt, though the larger of the two could have also been used for pajamas or trousers (Lindbergh 1999:51).

Glass buttons were never produced in any significant quantity. They were introduced as early as the 1830s and used for cufflinks and occasionally on coats and elaborate dresses (Ferris 1986:102). Black glass buttons became the height of fashion in 1861 after the death of Prince Albert, the consort of Queen Victoria who went into deep mourning, thus making black clothing, buttons, and jewellery very popular. The popularity of glass buttons waxed and waned in the second half of the nineteenth century, peaking in

the 1860s, early 1870s, early-to-mid 1880s, and again in the mid-1890s. Many glass buttons in this time period were popular on waistcoats (Lindbergh 1999:54-55). The button from Lot 80 is a clear floral fancy vest button that is approximately 14 mm in diameter (Plate 80) (Appendix 2).

The marble from Lot 80 is a handmade glass spiral marble that is 24 mm in diameter (Plate 80) (Appendix 2). These marbles were popular between the 1840s and 1920 (Kenyon 1981).

The ceramics from this context consist of four buff earthenware sherds, one refined white earthenware sherd, 19 ironstone sherds, one semi-porcelain sherd, and two English bone china sherds. Most of the ironstone sherds are undecorated. Only two sherds display a factory-made blue banded motif. The refined white earthenware sherd displays a brown stamped motif that was popular between 1840 and 1870 (Appendix 2). Bone china, like most porcelain, is not a particularly good diagnostic tool. It was first marketed in England by Josiah Spode during the 1790s and continued to be produced into the twentieth century (Majewski and O'Brien 1987:126).

The brown-stamped refined white earthenware sherd is from a London-shape teacup that has two stamped zigzag patterns along the rim above a field of dots and little stamped asterisk symbols on the body (Cat. #331) (Plate 82) (Appendix 2). London-shape (or "Grecian-shape") hollowware containers first appeared in 1802 and were popular between the 1825 and the 1840s. However, they continued to be produced throughout the nineteenth century, as can be seen in Wedgwood's shape catalogues from 1880, and were still illustrated in the Spode catalog of July 1961 (Kenyon 1987; Miller 2011:10-11).

Other identifiable ceramic vessels from this context include an undecorated ironstone saucer (Cat. #326), an undecorated supper plate (Cat. #324), an undecorated ironstone teacup (Cat. #327), an undecorated semi-porcelain egg cup (Cat. #330) (Plate 84), and a fluted English bone china teacup (Cat. #328) (Appendix 2).

5.7.23 Lot 81

The Lot 81 box drain produced 78 artifacts. They consist of one machine cut nail, 14 pieces of window glass, one liquor container glass fragment, one soft drink container glass fragment, one teaspoon, 22 ceramic sherds, 16 pieces of faunal bone with cut marks, three buttons, one glass medicine bottle, one shoe fragment, one porcellaneous doll fragment, one railway spike, one piece of wire, five unidentifiable container glass fragments, and nine miscellaneous unidentified items (Appendix 2).

The medicine glass bottle is a two-piece moulded bottle with an applied patent finish, a cylindrical neck, sloping shoulders and a rectangular shape with chamfered corners and a small chamfered heel. The bottle is made from solarized glass (Plate 76) (Appendix 2). Solarized glass is colourless when produced due to the addition of manganese to overcome the natural light green and yellow colouring from iron oxide. However, prolonged exposure to the sun's ultraviolent rays gives the glass a purple colour. This glass was common from the last quarter of the nineteenth century to World War I (Jones and Sullivan 1985:13). The narrow mouthed machine-made finish dates this bottle to the first quarter of the twentieth century.

The shoe fragment is a complete outsole with a heel still attached with round metal pegs (Plate78) (Appendix 2). The shoe appears to be a McKay insole dating it to after 1862 (Stevens and Ordonez 2005).

All three buttons from Lot 81 are prosser ceramic buttons. Two are four-hole sew-through buttons that are 16 mm and 18 mm in diameter and the other is a two-hole sew-through that is 18 mm in diameter (Plate 80) (Appendix 2). All of these buttons would have been used on outerwear like coats, jackets, and trousers (Lindbergh 1999:51). The two-holed button was probably used on trousers or pajamas (Sprague 2002).

The ceramics from this context consists of five yellow ware sherds, 10 ironstone sherds, one buff earthenware sherd, five coarse red earthenware sherds, and one complete stoneware container. Two of the ironstone sherds display moulded wheatware motifs and the buff earthenware sherd has a Rockingham motif (Appendix 2). The Rockingham motif was popular between 1855 and 1890. Both of the wheatware sherds display the wheat pattern that was popular between the mid-1850s and approximately 1930 (Sussman 1985:8).

Seven unique ceramic vessels were identified in this context. These include a fluted wheatware ironstone teacup (Cat. #346) (Plate 82), a stoneware jar (Cat. #340), a wheatware ironstone saucer (Cat. #345), an undecorated ironstone saucer (Cat. #347), a yellow ware jug with a moulded floral pattern (Cat. #350) (Plate 84), a dark brown-glazed coarse red earthenware fruit jar (Cat. #353), and a brown-glazed coarse red earthenware milk crock (Cat. #355) (Appendix 2). The fluted wheatware cups were popular between the 1860s and the 1880s (Kenyon 1987).

5.7.24 Lot 82

Five artifacts were recovered from the box drain connection between the Lots 80 and 81 drains. They consist of two red earthenware sherds, two avian bones, and one mammal bone (Appendix 2).

5.7.25 Lot 83

Lot 83, the early twentieth-century privy vault and fill, contained 85 artifacts. These consist of 30 machine cut nails, one wire nail, one soft drink container glass fragment, eight ceramic sherds, one piece of coal, 12 mammal bone food waste fragments, one smoking pipe fragment, one blacking bottle, three modified graphite electrodes, two railway spikes, one tack, seven unidentifiable container glass fragments, and 17 miscellaneous unidentifiable artifacts (Appendix 2).

The three graphite electrodes in this context have been modified for use as writing implements. The blacking bottle is a complete amber two-piece moulded bottle with a wide patent finish and a square body with chamfered corners, chamfered heel, and rounded shoulders. The base of the bottle has an embossed number "124." One of the sides contains the embossed words "NONSUCH. INTERNATIONAL/STOVE. DRESSING/NONSUCH. MFG. Co./TORONTO" (Plate 85) (Appendix 2).

The ceramics consist of one ironstone sherd, two dark brown-glazed coarse red earthenware sherds, two semi-porcelain sherds, two bone china sherds, and one unidentifiable sherd. The ironstone sherd is thermally altered and indeterminately moulded. Two unique ceramic vessels were identified in this context. They include a dark brown-glazed coarse red earthenware milk pan (Cat. #377) and a panelled, moulded, and enameled bone china teacup (Cat. #370) (Plate 82) (Appendix 2).

5.7.26 Lot 90

A sample of four artifacts was collected from the Lot 90 lake fill deposit. These consist of two food container glass fragments, one glass medicine container, and one glass soft drink container (Appendix 2).

The food container glass fragments consist of a complete club sauce stopper with embossing on the top that reads "LEA & PERRINS" and a finish, neck, and shoulder of a Worcestershire sauce bottle with an applied club sauce finish, a slightly tapering neck, and a rounded shoulder with part of an embossed word "_HIRE_." Two faint mould seams and present (Appendix 2). Such club sauce finishes were popular in the late nineteenth and early twentieth century (Jones and Sullivan 1985:152).

The medicine glass container is from a two piece moulded bottle with a tooled wide prescription finish, a cylindrical neck with a neck band sitting on top of the shoulder, and a rounded shoulder and a rectangular body (Appendix 2).

The soda water container is a complete two piece moulded bottle with a cup bottom base plate, an applied tapered down finish, sloping neck and shoulders, and a cylindrical body. The embossing on the bottle reads "TRADE MARK/stylized T, H, S layered on top of each other/TORONTO/1867//H.T. SMITH/STEAM/SODA WATER/MAKER" (Appendix 2). This bottle was manufactured by Hugh Smith, a manufacturer of soda water, ginger beer, soda water machines, as well as being a plumber, steam fitter, and brass founder. He was in business between 1867 and 1877 (Axelson 2000:111).

5.7.27 Lot 94

Five artifacts were collected from the Lot 94 lake fills. These consist of one ironstone bowl sherd, one ironstone chamber pot cover sherd, two incomplete glass food containers, one incomplete milk glass container, and one incomplete soft drink glass container (Appendix 2).

The ironstone bowl sherd is from a bowl with a fluted exterior and a black-printed motif with floral teal and green clobbering (Cat. #380) (Plate 84) (Appendix 2). The chamber pot cover displays a brown printed motif with bamboo shoots and a pair of birds on top of an ivory-dyed ceramic body. This style is characteristic of the Japanese-inspired designs that were popular in the 1870s and 1880s (Samford 1997:19).

One of the soft drink containers is part of a two piece moulded bottle with a tooled blob top finish with a short cylindrical neck, curved shoulders, and a cylindrical body. The bottle is embossed vertically along the body with "CHAS. WILSON/TORONTO ONT." On the other side there is a large squirrel holding a nut. Above the squirrel is the word "REGISTERED" in an arch and below the squirrel is another arch with the word "TRADE MARK." There is a complete Hutchinson Stopper present with the body (Plate 85) (Appendix 2). This bottle was produced by Charles Wilson who began his business in Toronto on May 3rd, 1875 and continued to operate it until his death in 1900. The trade mark, however, continued on until 1930 and the business itself moved to a larger premises and was eventually acquired by Crush Canada in 1969 (Axelson 2000:136). The Hutchinson's stopper was first patented in 1879 and became popular in the last two decades of the nineteenth century (Jones and Sullivan 1985:162).

The other incomplete soda water container fragment is a two piece moulded bottle with a cup bottom and embossing that reads "JOHN VERNER/TRADE (sideways maple leaf) MARK/TORONTO." There is a stylized "J" over a "V" at the bottom of the bottle (Plate 85) (Appendix 2). John Verner manufactured soda water, pop, and mineral water between 1881 and 1897 (Axelson 2000:125).

The milk bottle is a colourless, machine-made bottle with a cap seat finish, sloping shoulders and a cylindrical body. The embossing on the bottle reads "CITY DAIRY CO" in an arch over "LIMITED" in an inverse arch. On the other side the embossing reads "LOANED RETURN/WHEN EMPTY" (Appendix 2). The City Dairy began operation in 1901 (Phillips 1989).

5.8 Plant Remains

Six and seven litre soil samples were collected from the Lot 63 and Lot 72 privies, respectively. These were subject to bucket flotation (employing a 300 micrometer screen) for botanical identification by Dr. Stephen Monckton.

Once dried this material was passed through a series of screens to facilitate sorting. A stereoscope provided a range of magnifications (7-40X) for the identification and recovery of both wood and seed fragments. In cases where identification were uncertain, seed manuals of Martin and Barkley (1961) and Montgomery (1977) aided the process of recognizing plant taxa.

The Lot 63 sample yielded 1.72 grams of light fraction, 6.96 grams of wood remains, and 0.5 gram of unidentifiable material (7.46 grams total), while the Lot 73 sample yielded 1.16 grams of light fraction, 12.09 grams of wood remains, and 0.36 gram of unidentifiable material (12.45 grams total). Both charred and uncharred seeds were counted in the analysis. Seeds were segregated and stored in gelatine capsules and placed in plastic bags.

A variety of fruit taxa were consumed by workers on the site (Table 7), including imported fig (*Ficus* sp.), which would have been dried. The charring of the large number of grape (*Vitis* sp.) seeds found in the Lot 63 privy may indicate burning of trash prior to deposition. The presence of barberry (*Berberis canadensis/B. vulgaris*) is of interest, as it is used in Middle Eastern and east European cuisines. It was also commonly planted as a hedge species, until it was discovered to harbor wheat stem rust (Gleason and Cronquist 1963:321).

White pine (*Pinus strobes*) dominates the wood assemblage, which is not surprising as it was such a common building material. The Lot 63 sample also contained several match sticks.

5.9 Lot 34 Debris

Samples of the metal debris removed from the Lot 34 wood bin (Plates 86-87) located on the west side of the partition wall between the engine house work shop and the main inspection and service floor were subject to X-ray fluorescence (XRF) in order to identify the composition of material. The measurements were performed using an Olympus Innov-X Delta Premium model portable x-ray fluorescence unit. The instrument is equipped with a Rh anode x-ray tube and operates at 40 kV. Three beam settings are optimized for accurate measurement of high-, medium- and low- Z elements. The unit was calibrated

using factory and internal standards, and operated in 3-beam soil mode at 60s beam times, for a total of 3m per exposure. The fluoresced x-rays are absorbed by a lithium-drift silicon detector, and the internal software converts data into parts per million concentrations for each element measured.

Two samples of the conglomerate were tested on multiple surface points for each piece. Results for the analysis of the metals showed that the samples are predominantly iron, with traces of copper, tin, and lead in amounts of <1%. Microscopic examination of each piece at 30x magnification shows numerous inclusions in each sample.

The samples were then inspected by Mr. Lloyd Johnston, an expert in nineteenth-century blacksmithing practices, who concluded that the material is an oxidized conglomeration of machining debris, perhaps mixed with a small quantity of dirt from the floor of the work area. It includes identifiable ferrous metal chips from a lathe or unidirectional shaper/planer (Plate 87) to manufacture or repair any number of items, and brass and bronze spiral-shaped threads derived from turning or boring bearings or bushings. It is remotely possible that the latter debris may also relate to forge brazing, whereby bronze or brass particles mixed with borax was used as a flux for repairs to cast iron, which would have been a common activity in the engine house.

Table 7: Lot 63 and 73 Privy Plant Remains

Cultivated/Non-cultivated Fruit Seeds

Lot	Pumpkin	Uncharred Bramble	Uncharred Strawberry	Charred Grape	Uncharred Apple/Pear	Uncharred Barberry	Nightshade Family	Uncharred Fig	Total
63	2	109	14	160	6	1	132	39	463
72		1		1					2
Sums	2	110	14	161	6	1	132	39	465

Other Seeds

Lot	Dogwood	Dill Family	Unknown Type 1	Unknown Type 2	Unknown Type 3	Unknown Type 4	Unidentifiable Seed	Total Other Seeds	Total Seeds
63	6	1	3	1	12	17	14	54	
72							12	12	
Sums	6	1	3	1	12	17	26	66	

Wood Remains

Lot	Charred Maple	Charred Beech	Charred Elm	Charred Deciduous	White Pine	Uncharred Pine Spp	Charred Cedar	Charred Conifer	Unidentifiable	Total Wood
63				1	11	4	1	10	2	62
72	2	1	1		18	5		3	3	95
Sums	2	1	1	1	29	9	1	13	5	157

5.10 Inventory of the Documentary Record

The material relating to the Stage 4 salvage excavation of a portion of the Queen's Wharf Station site (Table 8) is curated by ASI as part of the 2011 licensing agreement made with the Ministry of Tourism, Culture, and Sport.

Table 8: Curation of the Queen's Wharf Station (AjGu-74) Archaeological Record

Document/Material	Location	Comments
Written field notes, annotated field maps, GPS logs, one-metre excavation forms, lot forms	Archaeological Services Inc., 528 Bathurst Street, Toronto, ON M5S 2P9	
Field Photography (Digital)	Archaeological Services Inc., 528 Bathurst Street, Toronto, ON M5S 2P9	661 images stored on ASI network servers and/or CD-ROM
Research/Analysis/Reporting Materials (Various Formats)	Archaeological Services Inc., 528 Bathurst Street, Toronto, ON M5S 2P9	Hard copy and/or digital files stored on ASI network servers and/or CD-ROM
Artifacts	Archaeological Services Inc., 528 Bathurst Street, Toronto, ON M5S 2P9	1,184 Euro-Canadian artifacts stored in six boxes. All material stored in standard banker's boxes by class and provenience. Collection may be transferred to one of ASI's secure, off-site storage facilities if deemed necessary.

6.0 ANALYSIS AND CONCLUSIONS

The Stage 4 salvage excavation of the Grand Trunk Railway's Queen's Wharf Station site (AjGu-74), located at 170 Fort York Boulevard (Block 36S) has provided the opportunity to examine the physical remains of the nineteenth-century transformation of Toronto's waterfront on a much larger, and more detailed scale, than has hitherto been attempted. The archaeological excavations area, encompassing approximately 3,250 m^2, documented the 1850s land making process that led to the original formation of this western portion of the harbour, along with the remains of the extreme east extent of the east wing of the 1855-1856 Grand Trunk Railway engine house, the contemporary channelization of Garrison Creek and the reconstruction/reconfiguration of the head of the Queen's Wharf. Aspects of the subsequent operation of the railway facilities and other later forms of infrastructure were also investigated and recorded. No remains associated with the War of 1812 artillery emplacement in the former Garrison Creek ravine were encountered. Any surviving remains of the latter are likely to be confined to the Bathurst Street right-of-way or lands to the west.

The majority of the first phase of lake filling to create the lands on which the Queen's Wharf Station were built made use of dredgings collected during work to maintain or enlarge the western entrance to Toronto harbour. This material was dumped directly on the lakebed, behind shore walls or coffer dams located to the south of Block 36S, along the legal limit of shoreline development as defined by the New Windmill Line, and raised the grade of the new site to approximately two metres above the lake plane, as is reflected by both early cartographic evidence (e.g., Pilkington 1856), which suggested that the newly created lands for the railway complex were planned to stand at a height of 6½ feet (1.98 metres) above the level of the lake, and the maximum elevations for this deposit (~77.5 m ASL) recorded during the Stage 4 investigations. This material was laid on lake bottom sands and gravels and was found throughout the

west portion of the site, where to judge by the evidence of the 1859 *Plan of the Front of Toronto*, the earliest railway landmaking operations were concentrated.

These initial filling operations were accompanied by extending the course of Garrison Creek further south to the new shoreline by means of the construction of a "hard-edged" 14′ (4.3 m) wide channel channel, formed by a pair of heavily ballasted eight foot (2.44 m) wide crib walls. This channel would have been necessary to prevent the discharge of the creek from undermining the newly laid fills. This newly established channel was covered in those areas that were critical to the manoeuvring of rolling stock along the railway mainlines and sidings east of the Grand Trunk engine house. The creek was utilized as a convenient stormwater and "sanitary" sewer, carrying runoff from the eaves of the Grand Trunk engine house and waste from at least one privy in the rail yard, not to mention the historically documented disposal of rubbish and effluvia from the neighbourhoods further upstream.

The creek channel was abandoned in the 1880s, likely coincident with the construction of the Garrison Creek sewer, and was completely filled with material gleaned from a variety of sources, including the products of civic refuse collection. The sample of material collected from the former southern outlet of the cribbed channel includes numerous ceramic sherds that are likely derived from a single, post-1876, table service.

To the immediate east of the channelized Garrison Creek lay the landward end of the reconstructed Queen's Wharf, which was laid along the edge of the new made lands and utilized materials recycled from previous generations of the wharf structure. The remains of the wharf uncovered on Block 36S functioned as the foundation bed for a spur line running to the water's edge rather than the substructure of the open water pier, which lay further to the south. The structure was built in such a manner as to indicate that it was laid down as a continuous timber structure in the newly laid lakefills, rather than constructed as a series of individual cribs in open water.

The area between the Garrison Creek channel and the rebuilt Queen's Wharf structure marked the approximate limits of the lakefill derived from the harbourmouth sand bar. Between these two timber structures, the fills consisted of heavy blue-grey to greenish-gray or and/or yellowish-brown clays, while east of the wharf the fills were predominantly mixed yellowish-brown and greyish-brown clays. The latter, at least, are likely to represent redeposited Sunnybrook Till cut from the original shoreline bluffs (the Ontario Terrace) during the initial period of the railway's lakefront developments, potentially including the promontory on which stood the Garrison complex on the east side of Garrison Creek to north of Block 36S. Vestiges of the shoreline survived at the head of the wharf structure in the form of a massive deposit of Sunnybrook Till rising above lake bottom sands and gravels. Other sources of fill material, such as cellar dirt from the growing city, were likely to have been utilized in the filling of this portion of the site as well, given that landmaking in this area seems to have been carried out over a longer period of time. Even into the 1880s, the works to the east of the wharf do not appear to have led to the creation of continuous solid ground as far south as the Windmill Line shore wall.

While both the Queen's Wharf and the channelized Garrison Creek represent critical features within the rail yard, the cruciform engine house was arguably the most important structure to be documented, as it was within this building that the locomotives, on which the overall operation of the Grand Trunk's system depended, were maintained and serviced.

Only the extreme east end of the engine house extended into Block 36S. Its stone foundation was laid on heavy timber sill beams, likely to limit the effects of settling or shifting of the lakefills over time. The vast majority of the exposed portion of the building constituted a machine shop, separated from the main inspection and service floor by a partition wall. Ranged around the workshop were masonry footings or bases upon which were likely mounted various types of machinery required for the repair or fabrication of engine parts. None of this equipment survived the conversion of the east wing of the building into a freight office in the latter part of the 1880s. The work shop was serviced by gas lines, possibly fed by coal gas producers located elsewhere in the rail yard, while power to the heavy equipment was likely provided by a steam boiler located on the south side of the building.

Within the limited portion of the inspection and service floor that was uncovered were found the east end of a vaulted brick conduit that likely represents the drain underlying an engine inspection pit. To the south of the remains of this inspection pit was another machinery mount, which may, perhaps, be more confidently identified as the location of a lathe, planer, and/or boring mill.

The work at 170 Fort York Boulevard complements the results of other archaeological documentation projects in the immediate area of the former Queen's Wharf Station (Figure 14), the majority of which have been in the form of construction monitoring (ASI 2003, 2008a, 2008b, 2011a, 2012). Cumulatively, these investigations hold a mirror to our historical understanding of the changes wrought by the Grand Trunk and the other railway companies to the waterfront. And while the results of the archaeological investigations may be said to largely confirm the information that can be gleaned from the documentary record, they provide a far more visceral understanding of the massive scale of effort and materiel required to accomplish these developments and, to some degree, the conditions under which the people involved laboured.

They findings also demonstrate that many of the features built in the rail yard had relatively short use lives and were decommissioned, abandoned or "repurposed" according to changing needs. The archaeological record of the waterfront, in general, and the Grand Trunk Railway Queen's Wharf Station, in particular, will never be complete, in consequence of both these processes of change, and the extremely large areas taken up by these developments. However, the record is of no less value because of these gaps.

7.0 RECOMMENDATIONS

Given that the Queen's Wharf Station (AjGu-74) has been fully mitigated through Stage 4 salvage excavation and documentation, the following recommendations are made:

1. The 170 Fort York Boulevard/Block 36S subject property may be considered free of further archaeological concern.

2. Future development of Block 36N should be accompanied by a program of archaeological monitoring to document any other elements of the Garrison Creek ravine that may be present north of the project area.

Notwithstanding the results and recommendations presented in this study, Archaeological Services Inc. notes that no archaeological assessment, no matter how thorough or carefully completed, can

necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the Ministry of Tourism, Culture and Sport should be immediately notified.

8.0 ADVICE ON COMPLIANCE WITH LEGISLATION

The following advice on compliance is provided:

- This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, RSO 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

- It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the Ontario Heritage Act.

- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.

- The Cemeteries Act, R.S.O 1990 c. C.4 and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002. c.33 (when proclaimed in force) require that any person discovering human remains must immediately notify the police or coroner and the Registrar of Cemeteries, Ministry of Consumer Services.

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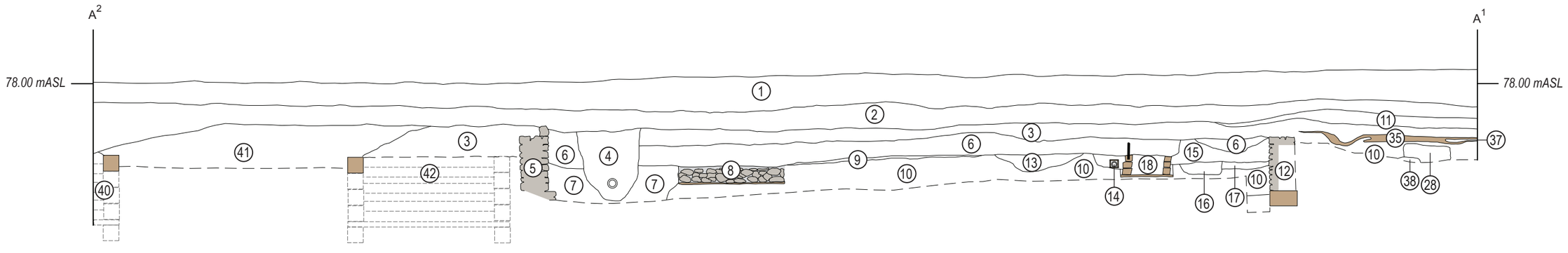
10.0 MAPS

- See Supplementary Documentation Figures 1 and 2 for site location mapping, as per Ontario Ministry of Tourism, Culture and Sport requirements (2011 *Standards and Guidelines for Consultant Archaeologists*).



LEGEND

MORTAR
WOODWORK
LIMESTONE
(10) STRATIGRAPHIC LOT (SEE TABLE 1)

Archaeological Services Inc.
528 Bathurst St. T 416-966-1069
Toronto, Ontario F 416-966-9723
Canada, M5S 2P9 info@iASI.to/www.iASI.to

BASE:

FIELD DRAWINGS
PREPARED BY WO/JS/AC/DR
APR-MAY, 2011

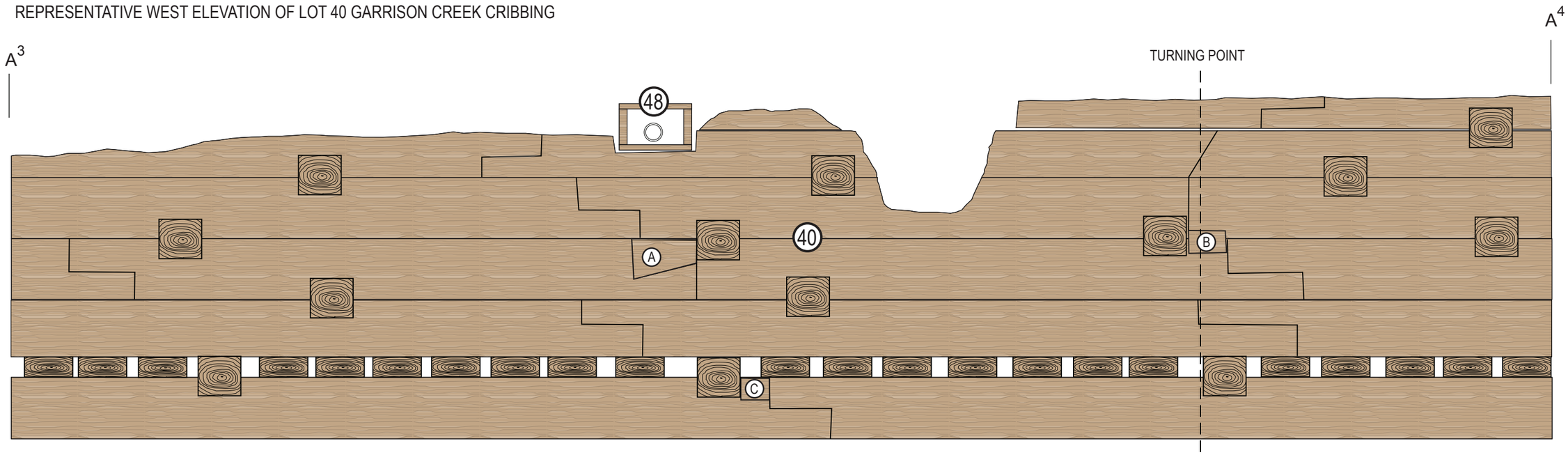
0 2.5m
SCALE

ASI PROJECT NO.: 09TE-16 DRAWN BY: DAR
DATE: MAY 29, 2011 FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 2: Stratigraphic profile across the interior of the Grand Trunk Railway engine house and Garrison Creek.

REPRESENTATIVE WEST ELEVATION OF LOT 40 GARRISON CREEK CRIBBING



(A) MORTISE AND TENON CUT OFF THE END OF A TIE BACK AND USED AS A WEDGE BETWEEN A LAP JOINT-BUTT JOINT INTERSECTION

(B) 6 x 4" BLOCK USED AS A WEDGE BETWEEN A LAP JOINT AND A MORTISE AND TENON

(C) 5" SQUARE BLOCK USED AS A WEDGE BETWEEN A LAP JOINT AND A MORTISE AND TENON

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LEGEND

(10) STRATIGRAPHIC LOT

LAP JOINT

TIE-BACK (7½" MORTISE AND TENON)

9 x 4" FLOOR PLANK

BASE:

FIELD DRAWINGS
PREPARED BY DR
MAY, 2011

0 1.0m
SCALE

ASI PROJECT NO.: 09TE-16
DATE: MAY 29, 2011

DRAWN BY: DAR
FILE:

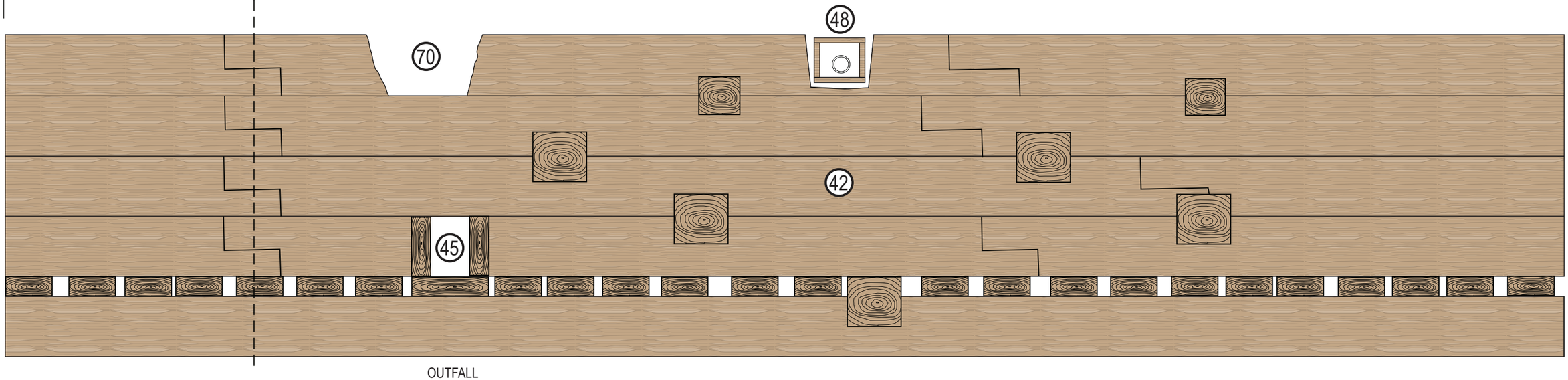
Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 3: Representative west elevation of Lot 40 Garrison Creek channelization cribbing.

A6

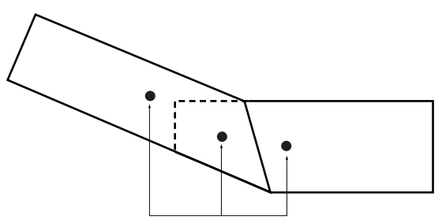
A5

TURNING POINT



OUTFALL

DETAIL OF TAPERED LAP JOINTS AT TURNING POINT (NTS)



1' LONG, 1" SQUARE RODS

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LEGEND

(10) STRATIGRAPHIC LOT

LAP JOINT

TIE-BACK (7-9" MORTISE AND TENON)

9 x 4" FLOOR PLANK

BASE:

FIELD DRAWINGS
PREPARED BY DR
MAY, 2011

0 1.0m

SCALE

ASI PROJECT NO.: 09TE-16 DRAWN BY: DAR
DATE: SEPT 25, 2011 FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 4: Representative east elevation of Lot 42 Garrison Creek channelization cribbing.

LOT 69 PRIVY VAULT DRAINING INTO EAST GARRISON CREEK CRIB WALL

LOT 83 PRIVY VAULT BUILT ON TO SIDE OF LOT 81 DRAIN

LOT 79 PRIVY VAULT

LOT 57 PRIVY VAULT AND DRAIN AND LOT 63 PRIVY VAULT

VAULT BELOW PLANKING

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LEGEND

(10) STRATIGRAPHIC LOT

WOODWORK

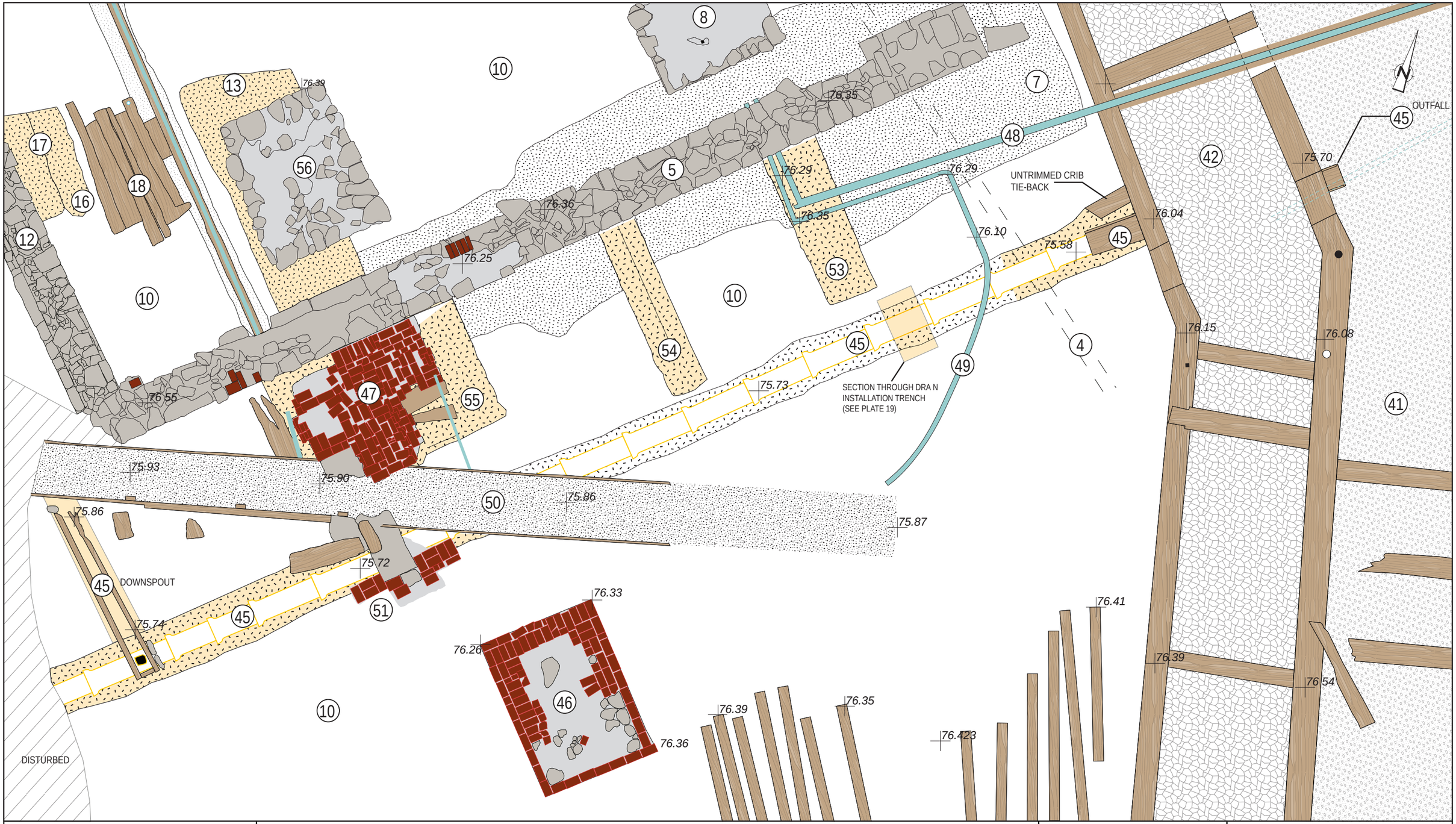
0 1.0m

SCALE

ASI PROJECT NO.: 09TE-16 DRAWN BY: DAR
DATE: OCT 4, 2012 FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 5: Detailed plans and profiles of privies.



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LEGEND

(10) STRATIGRAPHIC LOT

SOIL MATRIX HAND EXCAVATION UNIT: (GRID PROVENIENCED OR BY LOT)

BASE:

FIELD DRAWINGS
PREPARED BY MB/JS/AC/ER/SR/JK/DR
APR-MAY, 2011

0 2.5m
SCALE

ASI PROJECT NO.: 09TE-16 DRAWN BY: DAR
DATE: SEPT 26, 2012 FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 6: Detailed plan view of features south of the GTR engine house.

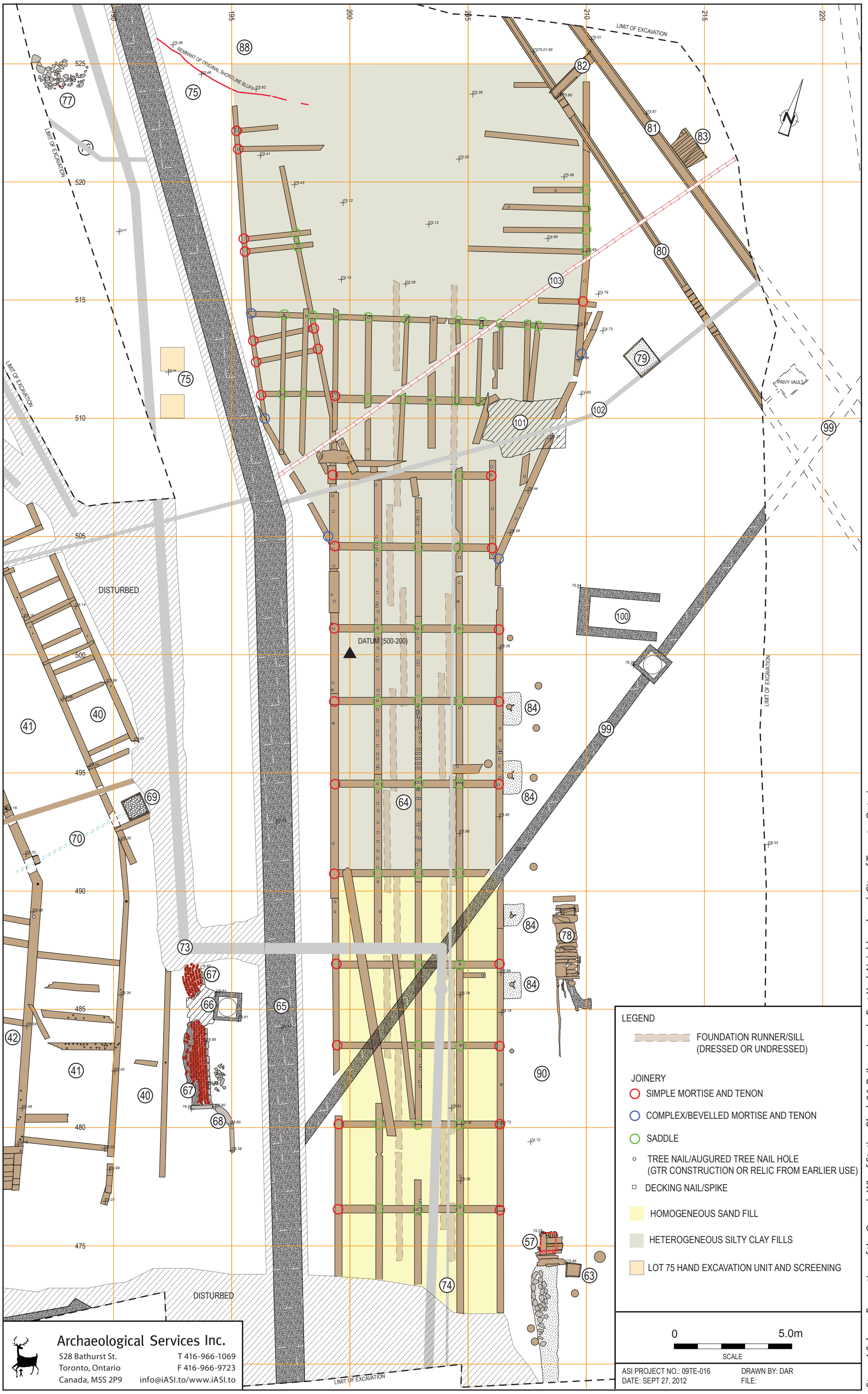
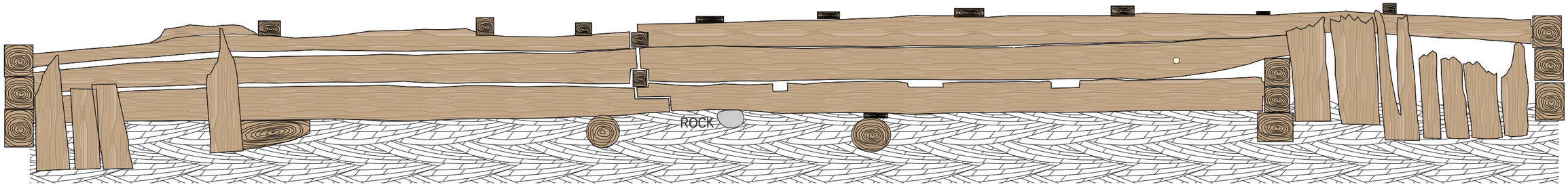


Figure 7: Plan of the cribbing forming the support bed along the landward portion of the GTR era Queen's Wharf.

NORTH ELEVATION OF LOT 64 TIE BACK WALL AND REMNANT WALLING



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LEGEND

BASE:

FIELD DRAWINGS
PREPARED BY JK
JUNE, 2011

0 1.0m
SCALE

ASI PROJECT NO.: 09TE-16 DRAWN BY: DAR
DATE: OCT 2, 2012 FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 8: North elevation of the northernmost tie back wall in the GTR era Queen's Wharf.

LIMIT OF EXCAVATION

DISTURBED

LEGEND

(10) STRATIGRAPHIC LOT

SOIL MATRIX HAND EXCAVATION UNIT AND SCREENING: (GRID PROVENIENCED OR BY LOT)
NOTE: ALL SOIL FILLS DIRECTLY ASSOCIATED WITH LOTS 24 AND 33 TREATED IN SAME MANNER

Archaeological Services Inc.
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info@iASI.to/www.iASI.to

BASE:

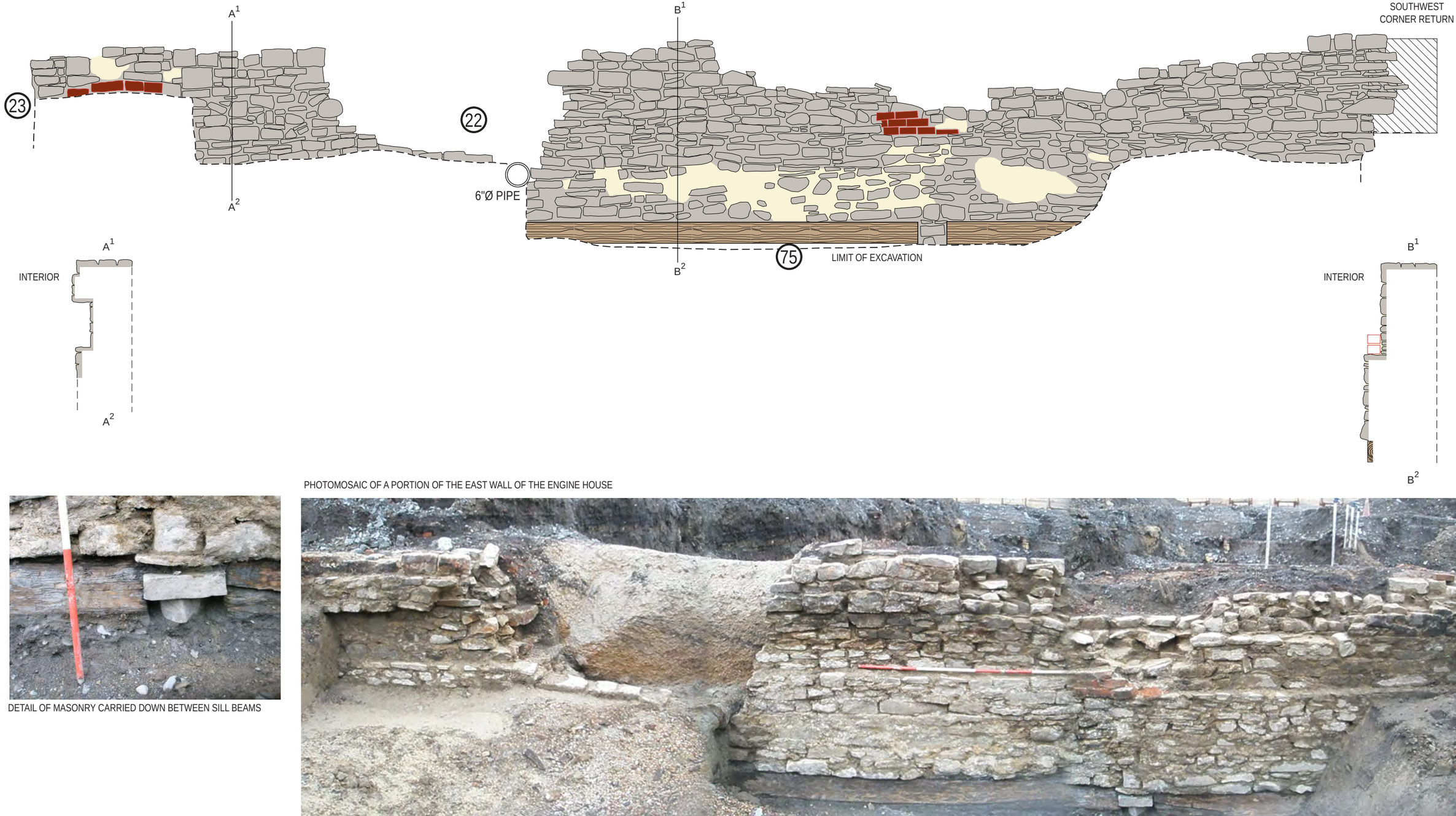
FIELD DRAWINGS
PREPARED BY MB/JS/AC/ER/SR/JK/DR
APR-MAY, 2011

0 5.0m
SCALE

ASI PROJECT NO.: 09TE-016
DATE: SEPT 27, 2012
DRAWN BY: DAR
FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 9: Detailed plan view of the GRT engine house.



PHOTOMOSAIC OF A PORTION OF THE EAST WALL OF THE ENGINE HOUSE

DETAIL OF MASONRY CARRIED DOWN BETWEEN SILL BEAMS

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LEGEND
BRICK
FORMER BRICK WORK
LIMESTONE
MORTAR
TIMBER SILL BEAM
10 STRATIGRAPHIC LOT

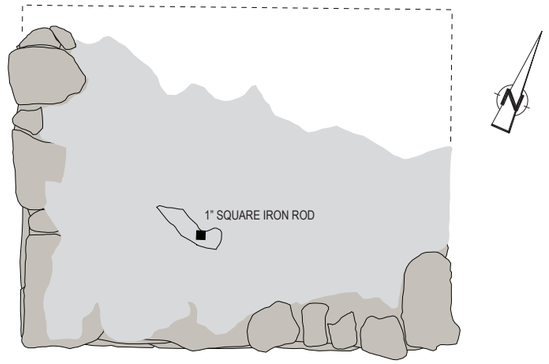
BASE:
FIELD DRAWINGS
PREPARED BY MB/JK/DR
APR-MAY, 2011

0 1.0m
SCALE

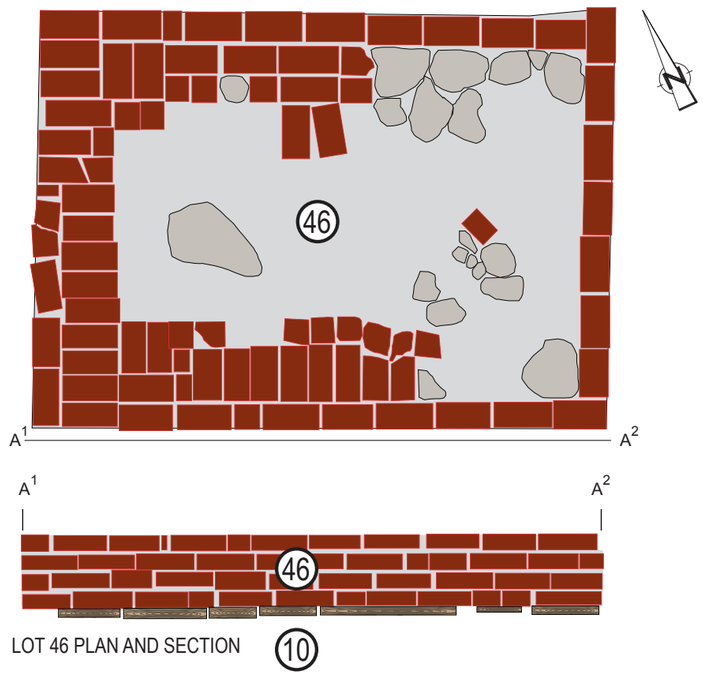
ASI PROJECT NO.: 09TE-16
DATE: SEPT 24 2012
DRAWN BY: DAR
FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

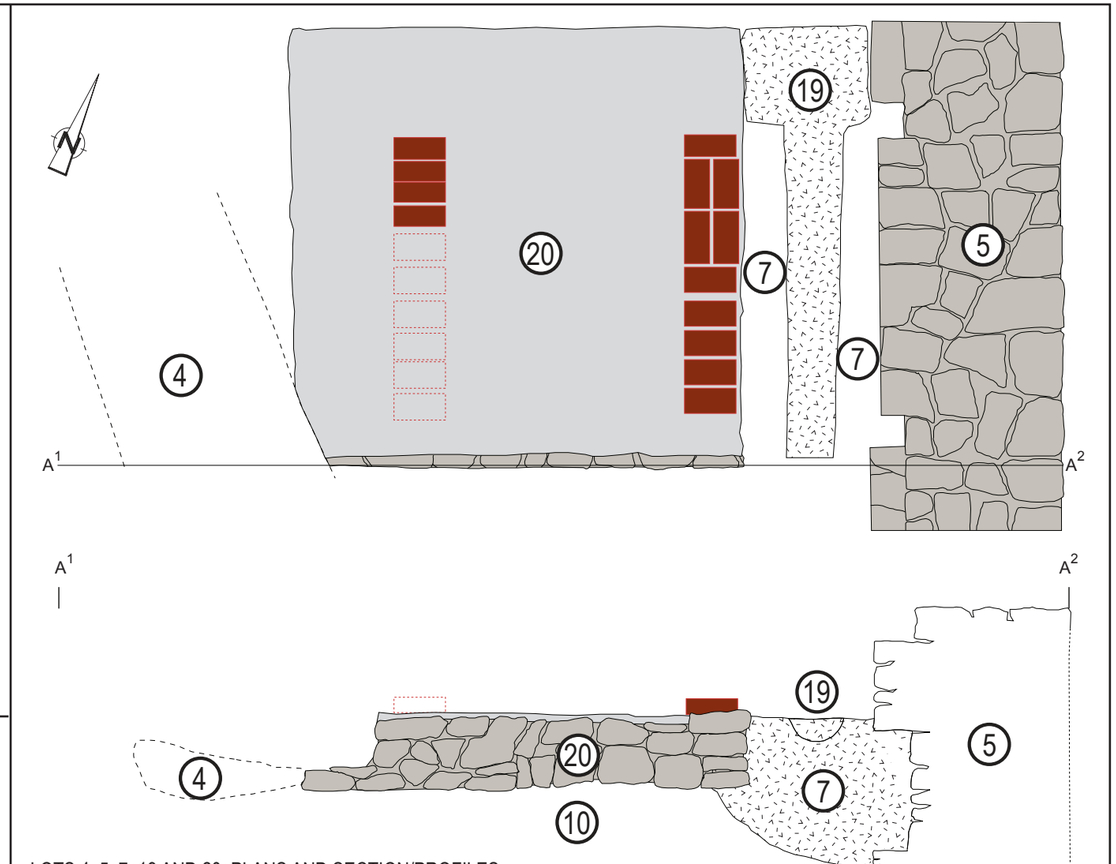
Figure 10: Detailed section of the east foundation wall (Lot 5) of the GTR Engine House.



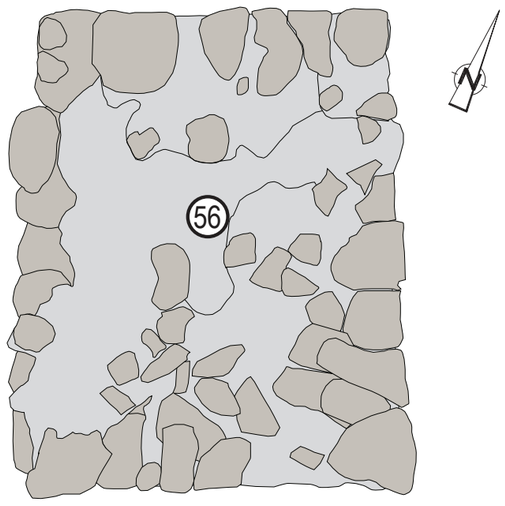
LOT 8 PLAN
SEE FIGURE 2 FOR NORTH SECTION



LOT 46 PLAN AND SECTION



LOTS 4, 5, 7, 19 AND 20 PLANS AND SECTION/PROFILES



LOT 56 PLAN

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LEGEND

BRICKWORK
LIMESTONE
MORTAR
WOODWORK
VARIOUS FILLS
10 STRATIGRAPHIC LOT

BASE:

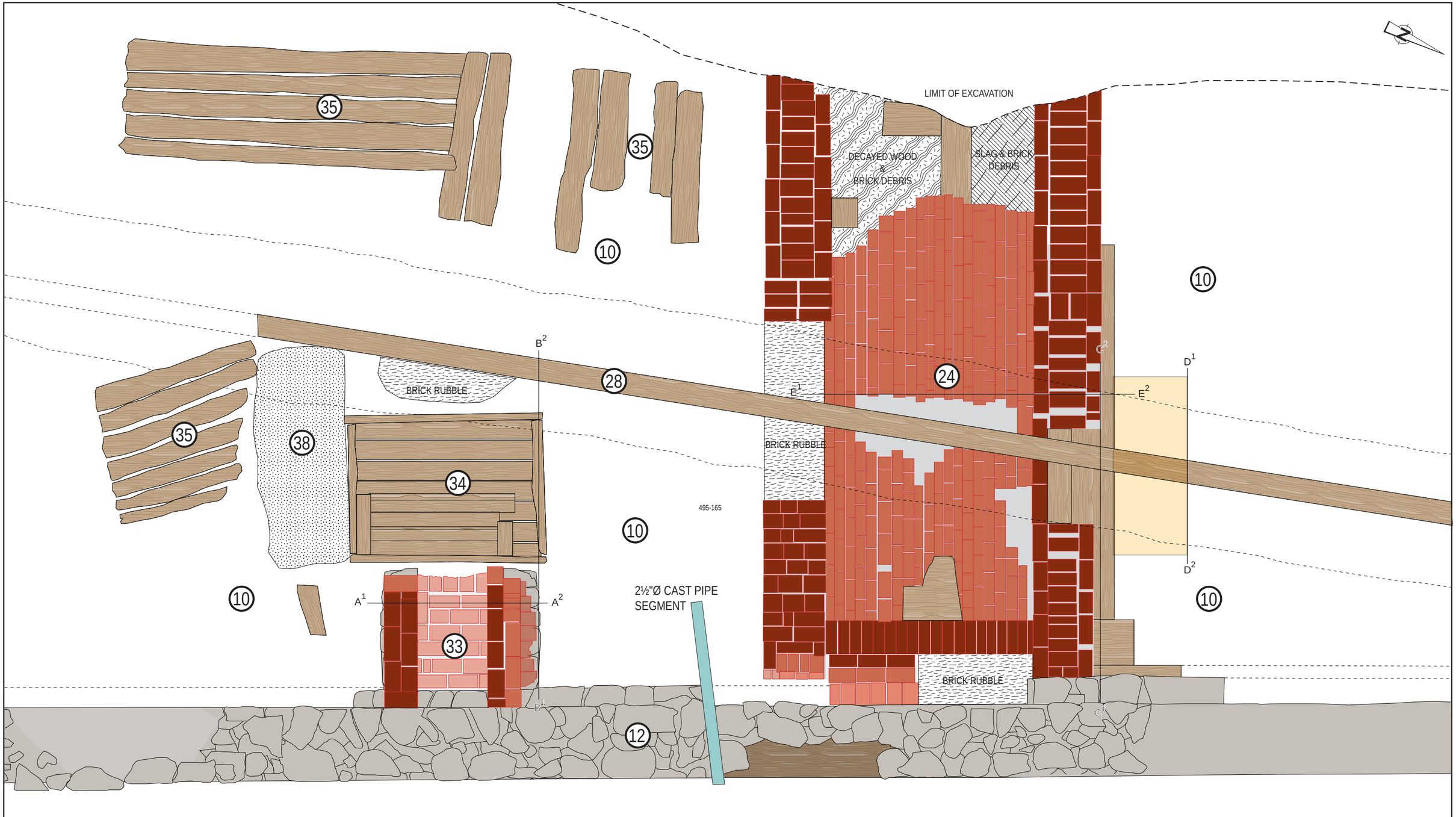
FIELD DRAWINGS
PREPARED BY WO/DR/SF/SB/ER/SR
APR-MAY, 2011

0 1.0m
SCALE

ASI PROJECT NO.: 09TE-16
DATE: MAY 14, 2011
DRAWN BY: DAR
FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 11: Plans and sections of selected GTR Engine House masonry equipment footings.



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LEGEND
BRICKWORK: DESCENDING COURSES
LIMESTONE
MORTAR
WOODWORK
BRICK RUBBLE
COAL CINDERS AND SLAG
10 STRATIGRAPHIC LOT
SOIL MATRIX HAND EXCAVATION AND SCREENING UNIT: (GRID PROVENIENCED OR BY LOT)

BASE:
FIELD DRAWINGS
PREPARED BY JS/AC/DR
APR-MAY, 2011

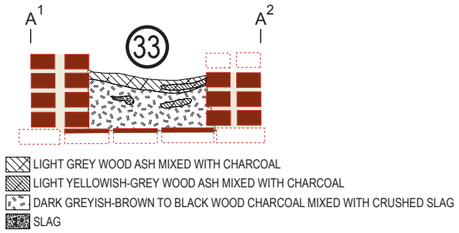
0 1.0m
SCALE

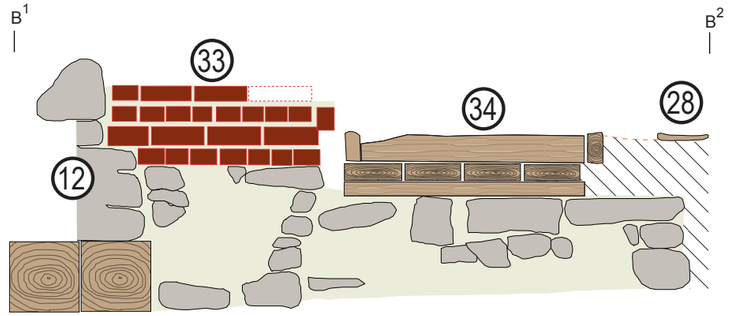
ASI PROJECT NO.: 09TE-16 DRAWN BY: DAR
DATE: MAY 14, 2011 FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

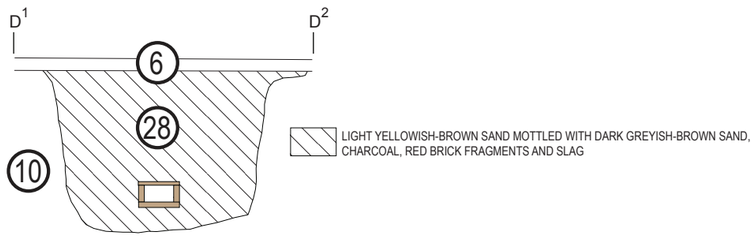
Figure 12: Detailed plan view of GTR Engine House interior features west of the Lot 12 partition wall.

LOTS 33-34 SECTIONS/PROFILES

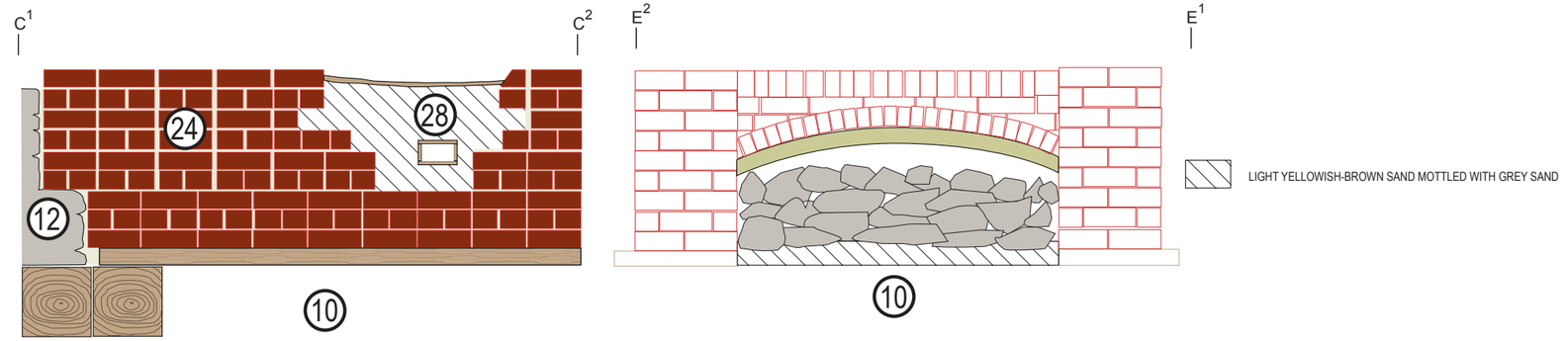




LOT 28 SECTION/PROFILE



LOTS 24, 28 SECTION/PROFILE



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LEGEND
BRICKWORK: DESCENDING COURSES
LIMESTONE
MORTAR
WOODWORK
BRICK RUBBLE
COAL CINDERS AND SLAG
(10) STRATIGRAPHIC LOT

SEE FIGURE 12 FOR SECTION/PROFILE LOCATIONS

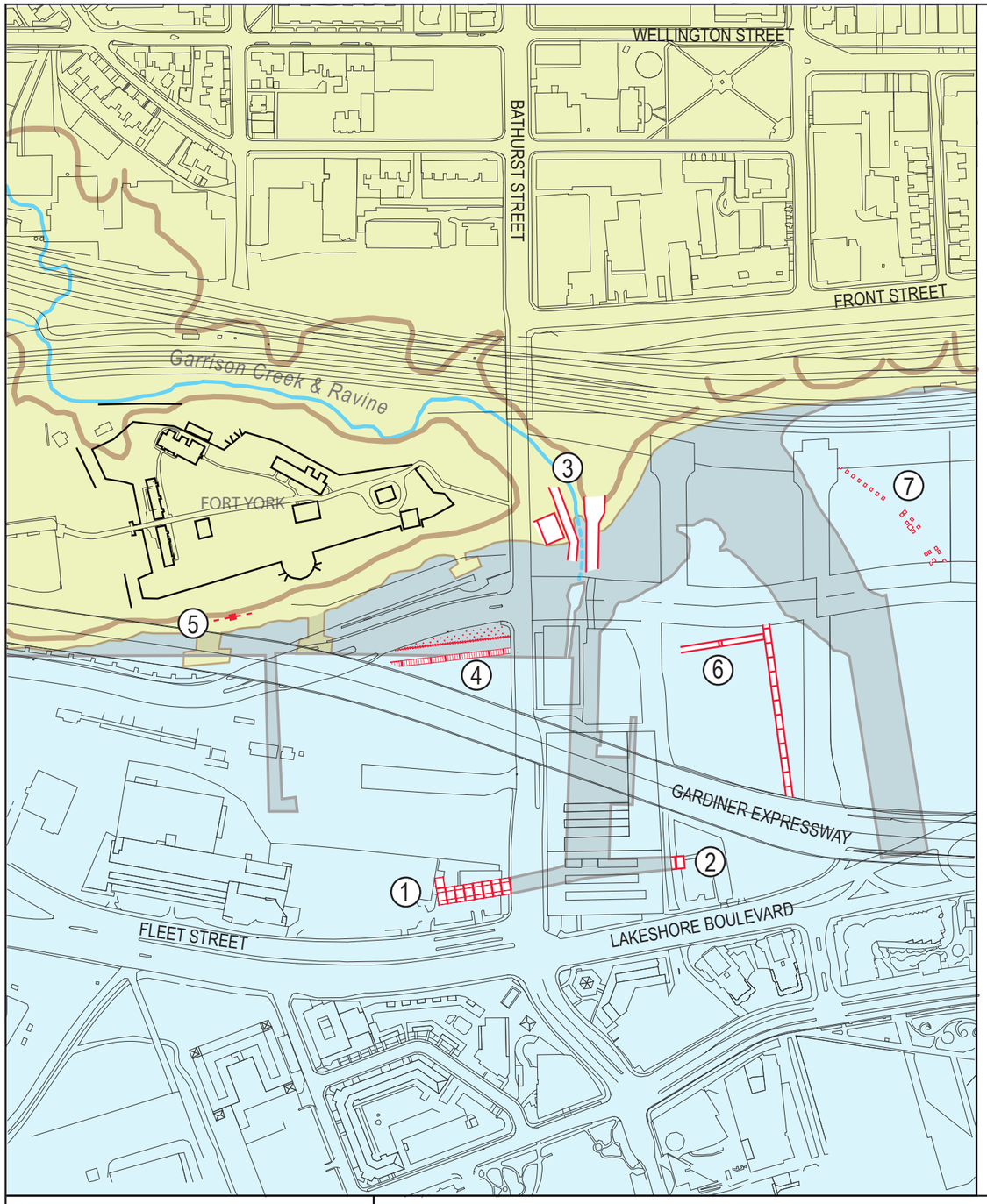
BASE:
FIELD DRAWINGS
PREPARED BY JS/AC/DR
APR-MAY, 2011

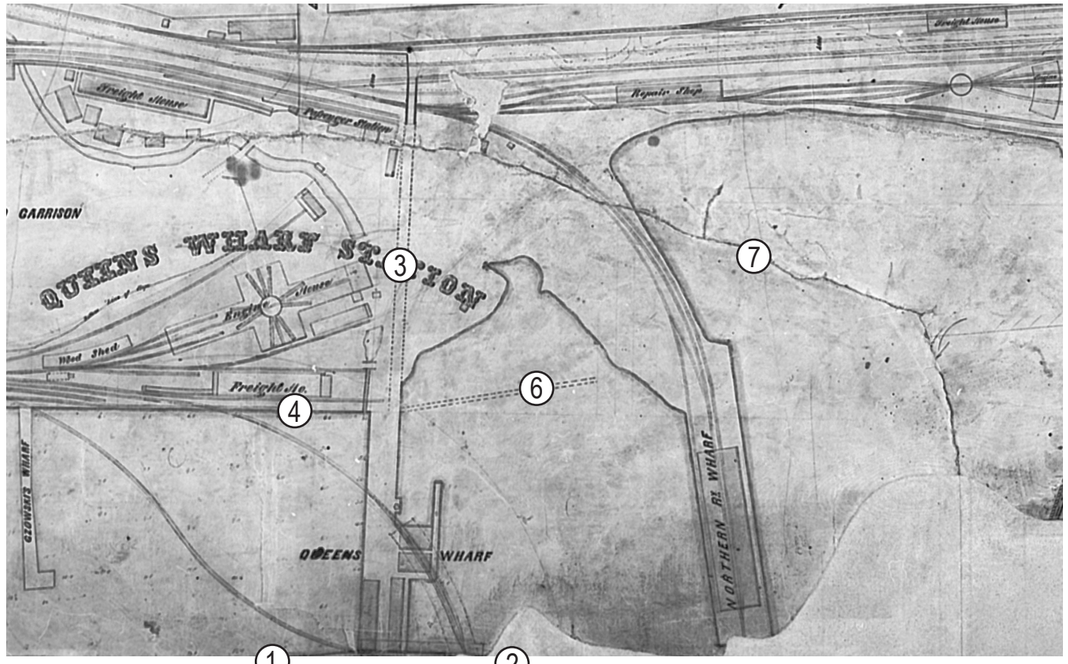
0 1.0m
SCALE

ASI PROJECT NO.: 09TE-16 DRAWN BY: DAR
DATE: MAY 14, 2011 FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 13: Sections of GTR Engine House interior features west of the Lot 12 partition wall.





ANON. 1859

1. *West Pierhead Queen's Wharf (Documented 2006)*
2. *East Pierhead Queen's Wharf (Documented 2008)*
3. *GTR Queen's Wharf Station: Engine House, Garrison Creek and Foot of Queen's Wharf (Documented 2011)*
4. *Shorewall and GTR Freight House (?) Pilings (Documented 2011)*
5. *GTR (?) Ash Pit (Documented 2011)*
6. *Shorewall and circa 1875 Northern Railway Wharf (Documented 2012)*
7. *Circa 1875 Northern Railway Block-and-Bridge Spur (Documented 2007-2008)*

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LEGEND

EARLY NINETEENTH-CENTURY SHORELINE AND BLUFFS (BONNYCASTLE 1833b)

MID-NINETEENTH CENTURY RAILWAY LAND DEVELOPMENT (ANON. 1859)

BASE:

WATERFRONT TORONTO 2007

0 100m

SCALE

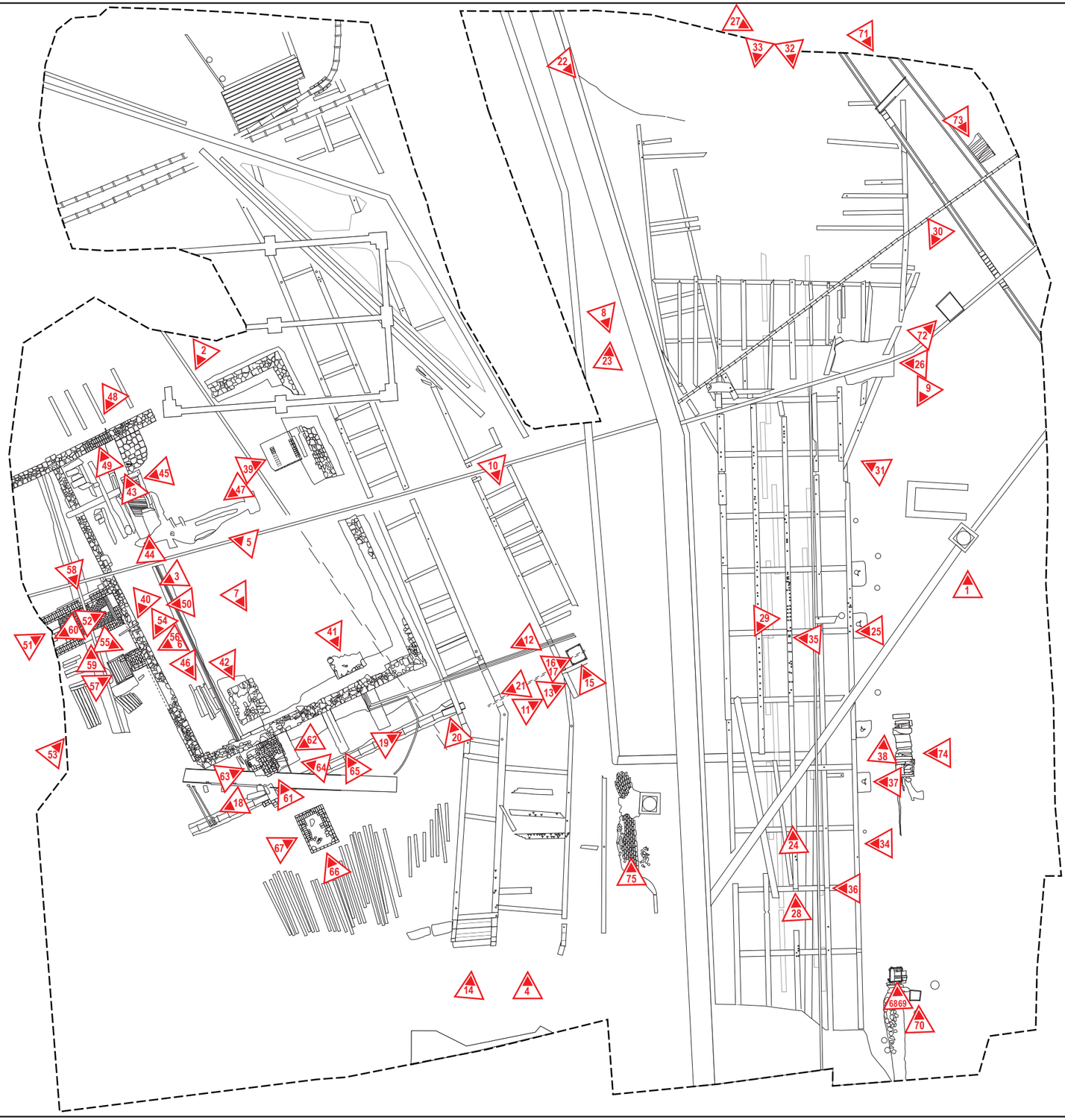
ASI PROJECT NO.: 09TE-16 DRAWN BY: DAR
DATE: OCTOBER 2012 FILE:

Stage 4 Salvage Excavation of the Queen's Wharf Station,Block 36, Railway Lands, Fort York Neighbourhood, City of Toronto, Ontario

Figure 14: The mid-nineteenth-century transformation of the mouth of Garrison creek and archaeological documentation of the GTR Queen's Wharf Station and related features

11.0 IMAGES

- Field photography is tied to key plan on the following page



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LOCATION AND ORIENTATION OF PHOTOGRAPH

0 10m

ASI PROJECT NO.: 09TE-016 DRAWN BY: DAR
DATE: OCTOBER 2012 FILE: 109TE-016

Queen's Wharf Station key to images/plates

Plate 1: Mechanical removal of fills.


Plate 2: Initial exposure of archaeological remains through mechanical excavation.


Plate 3: Removal of a fill deposit by hand and screening of soils.


Plate 4: Defining archaeological remains by hand.


Plate 5: Defining a cut feature by trowel.


Plate 6: Using a pick hammer to remove an accumulation of oxidized metal debris from a wood box feature.

Plate 7: Sand lake fill (Lot 10) visible at the base of the stratigraphic profile through the GTR engine house.

Plate 8: Bulk heavy clay lake fills (Lot 90) between Garrison Creek and the Queen's Wharf lying on lake bed sediments.

Plate 9: Bulk heavy clay lake fills (Lot 90) on the east side of the Queen's Wharf lying on lake bed sediments.

Plate 10: Initial exposure of the east crib wall (Lot 40) of the Garrison Creek channel.The east face of the west crib wall (Lot 42) is visible to the right.

Plate 11: Exposure of the west face of the Lot 40 crib wall.

Plate 12: Exposure of the east face of the Lot 42 crib wall.

Plate 13: View of the lap joinery used to accomplish the turn of the east Garrison Creek crib wall.

Plate 14: View of the south end of the west crib wall (Lot 42) of the Garrison Creek channel. The massive fills (Lot 41) deposited in the channel in the late nineteenth-century are visible to the right.

Plate 15: Lot 69 privy vault built into the Lot 40 crib wall prior to excavation.

Plate 16: Interior profile of the Lot 69 privy, revealing two layers of fill (Lots 71 and 72) over the ballast of the cribbing.

Plate 17: View of the interior of the Lot 69 privy following the removal of all fills above the crib ballast.

Plate 18: View of the wood plank downspout connecting to the ceramic drain on the south side of the engine house (Lot 45 drainage system).

Plate 19: View of a section through the trench cut-and-fill for the installation of the ceramic drain on the south side of the engine house (Lot 45 drainage system).

Plate 20: View of the ceramic drain on the south side of the engine house entering the wood box conduit through the Garrison Creek west crib wall (Lot 45 drainage system).

Plate 21: View of the outlet of the Lot 45 drainage system into the Garrison Creek channel.

Plate 22: View of the remnants of Sunnybrook till of the original Lake Ontario shorebluff (Lot 88) and the transition to beach/lake bottom sands and gravels (Lot 75) at the north end of the Queen's Wharf structure.

Plate 23: View of weathered bed rock below the Lot 75 lake bottom sands and gravels.

Plate 24: View of the south portion of the landbound portion of the Queen's Wharf structure (Lot 64). The large cast iron pipe running along the top of the structure is a later gas main (Lot 73).

Plate 25: Remnant decking nails and a tree nail securing a mortise and tenon tie back on the upper surface of the crib structure.

Plate 26: A section of the east exterior wall of the crib structure cut away for the installation of a later valve chamber (Lot 101).

Plate 27: A network of box drains (Lots 80-82) cutting through the extreme northeast corner of the crib structure.

Plate 28: An example of poor joinery: an unsecured butt joint within a saddle.

Plate 29: View of the articulation of an interior tie back wall (upper left) and the west exterior face wall (right). The timber in the lower left is a single beam saddled on top of the tiebacks.

Plate 30: View of the northeast portion of the crib structure as it widens out from the main linear section.

Plate 31: Complexly beveled mortise and tenon joinery required to accomplish the widening of the crib structure.

Plate 32: The north limit of the interior cells of the cribbing, defined by a plank clad wall on the northwest side of the structure. Note the runners underlying the entire structure extending beyond the wall.

Plate 33: The north limit of the interior cells of the cribbing, defined by a plank clad wall on the northeast side of the structure. Note the runners underlying the entire structure extending beyond the wall and the lateral runners laid under and to the west of the east exterior wall.

Plate 34: Adze marks on the face of a timber indicated that it was hand-dressed rather than machine milled and so was likely recycled from an earlier structure.

Plate 35: Relic tree nails that have been trimmed flush to the face of the beam. These have no function in the Queen's Wharf structure built by the GTR and so indicate reuse of timbers.

Plate 36: An example of poor construction practice in the form of an unfastened butt joint directly above a mortise and tenon, creating a natural weak spot. This indicates that the cribbing was not required to withstand extreme lateral forces.

Plate 37: One of the Lot 84 piles in situ on the east side of the cribbing.

Plate 38: A Lot 84 pile removed to reveal configuration of tree nails and sharpening of the base.

Plate 39: View of the relationship between an equipment footing or base (Lot 20, foreground) and the sill and slots built into the interior face of the Lot 5 GTR engine house east foundation wall.

Plate 40: View of the south portion of the Lot 12 interior wall footing in the GTR engine house.

Plate 41: Lot 8 equipment footing/base in section as exposed during the initial excavations within the engine house.

Plate 42: GTR engine house Lot 56 equipment footing/base in section.

Plate 43: Lot 25 equipment footing/base in plan from the south. A later utility installation (Lots 14/27) through the foundation of the GTR engine house is to the left of the masonry feature.

Plate 44: Lot 31 box-like feature in the interior of the GTR engine house during excavation.

Plate 45: Lot 26 remnant of possible box drain under plank flooring in the northwest corner of the east room of the GTR engine house.

Plate 46: Lot 18 box-like feature in the interior of the GTR engine house during excavation.

Plate 47: Lot 39/43 cut feature in the interior of the GTR engine house prior to excavation.

Plate 48: Lot 27 brick repair work to the north foundation wall of the GTR engine house required following the installation of the Lot 14 cast iron utility pipe to the building, viewed from the north (exterior).

Plate 49: Lot 27 brick repair work to the north foundation wall of the GTR engine house required following the installation of the Lot 14 cast iron utility pipe to the building, viewed from the south (interior).

Plate 50: Initial exposure of the articulation between the Lot 12 interior partition wall of the GTR engine house and the Lot 24 inspection pit.

Plate 51: The vaulted floor of the Lot 24 inspection pit following the removal of overlying fills. The section from which the bricks have been removed is the cut of the later Lot 28 drain.

Plate 52: View of the limestone rubble fill in the conduit below the floor of the Lot 24 inspection pit.

Plate 53: View of the Lot 33 forge/machinery base and Lot 34 bin, although the latter is only visible as a rectangular solid mass of corroded debris.

Plate 54: View of the Lot 33 forge/machinery base and Lot 34 bin and the Lot 12 partition wall.

Plate 55: View of the limestone footing underlying the Lot 33 forge/machinery base and Lot 34 bin.

Plate 56: Profile of ash and slag fills within the Lot 33 feature.

Plate 57: View of the Lot 34 bin following removal of the corroded metal debris, showing the stepping up of floor planks towards the Lot 33 feature.

Plate 58: The line of the Lot 28 box drain cutting through the north retaining wall of the Lot 24 inspection pit.

Plate 59: The line of the Lot 28 drain cutting through the south retaining wall and floor of the Lot 24 inspection pit.

Plate 60: View of the plank flooring laid over the original brick floor of the Lot 24 inspection pit following the installation of the Lot 28 drain.

Plate 61: View of the Lot 47 footing from the south. The later Lot 50 conduit has bisected this side of the feature.

Plate 62: View of the Lot 47 footing form the east

Plate 63: View of the west face of the Lot 47 footing.

Plate 64: View of the east face of the Lot 47 footing and an associated isolated section of a cast iron pipe.

Plate 65: View Lot 54 during excavation. The function of this seemingly isolated trough is not known.

Plate 66: The Lot 46 machinery footing south of the GTR engine house.

Plate 67: The Lot 46 machinery footing in section.

Plate 68: The Lot 57 privy vault following excavation of its fill.

Plate 69: The outlet of the Lot 57 privy vault to its drain.

Plate 70: The Lot 63 privy vault prior to excavation.

Plate 71: The Lot 80-82 drain system associated with the High Line.

Plate 72: The Lot 79 privy vault in section. Note the service pipe (Lot 102) passing underneath the feature.

Plate 73: The Lot 83 privy vault during excavation. The west wall of the box was formed by the side of the adjacent box drain (Lot 81).

Plate 74: The Lot 78 remnant floor, probably associated with a railway shed.

Plate 75: The Lot 67 paved surface.

Plate 76: Left, ink container from Lot 6 (Cat. #660); centre, solarized medicine glass bottle from Lot 81 (Cat. #627); right, colourless lantern fragment from Lot 41 (Cat. #520).

Plate 77: Left, PRICE brick with a hexagonal frog from Lot 59 (Cat. #805). Right, hand-made brick with a shallow rectangular from Lot 5 (Cat. #670).

Plate 78: Top, leather shoe fragment from Lot 81 (Cat. #850). Bottom, metal shoe heel from Lot 6 (Cat. #693).

Plate 79: Train emergency break pipe and valve from Lot 6 (Cat. #995).

Plate 80: Top. Left, hand-made glass swirl marble from Lot 80 (Cat. #845); right, parian ware handle from Lot 75 (Cat. #274). Middle. Left, floral glass button from Lot 80 (Cat. #844); centre, four-holed sew through button from Lot 81 (Cat. #852); right, two-holed sew through button from Lot 81 (Cat. #851). Bottom. Left, graphite pencil from a recycled arc lamp electrode from Lot 83 (Cat. #860); right, Bannerman-Montreal pipe from Lot 21 (Cat. #731).

Plate 81: Top, machine-made spike with a hand-wrought head from Lot 64 (Cat. #1110). Bottom, foot step from Lot 21 (Cat. #1044).

Plate 82: Top. Left, bone china teacup with moulding and enameled decoration from Lot 83 (Cat. #370); centre, semi-porcelain teacup with black transfer print from Lot 41 (Cat. #207); right, ironstone teacup with a wheatware motif from Lot 81 (Cat. #346). Bottom. Left, refined white earthenware teacup with a brown stamped motif from Lot 80 (Cat. #331); right, Jackfield teapot from Lot 75 (Cat. #310).

Plate 83: Left, ironstone twiffler plate with the H&K Late J. Wedgwood mark (Cat. #202); right, ironstone twiffler plate with the H&K Late J. Wedgwood mark (Cat. #203).

Plate 84: Top. Left, ironstone bowl with a clobbered motif from Lot 94 (Cat. #380); centre, yellow ware moulded jug from Lot 81 (Cat. #350); right, refined white earthenware factory slip bowl from Lot 75 (Cat. #292). Bottom. Left, refined white earthenware blue scalloped meat dish from 75 (Cat. #299); centre, pearlware salt shaker from Lot 75 (Cat. #915); right, semi-porcelain egg cup from Lot 80 (Cat. #330).

Plate 85: Top, Chas Wilson bottle from Lot 94 (Cat. #651); centre, John Verner bottle from Lot 94 (Cat. #652); bottom, Nonsuch International bottle from Lot 83 (Cat. #632).

Plate 86: A sample of the conglomerate of milling debris recovered from the Lot 34 bin in the GTR engine house.

Plate 87: Scanning electron microscope detail of iron planer/shaper debris making up the major portion of Lot 34 conglomerate.

APPENDIX 1: INVESTIGATION OF STRATIGRAPHIC SECTIONS AT BLOCK 36 QUEEN'S WHARF STATION

Andrew M. Stewart, Stata Consulting

Brief investigations of exposed sections and beds of sediment in the Block 36 Stage 4 salvage excavations were conducted on 27 April and 6 June 2011.

Section Investigated on 27 April 2011

The investigation of a section located in the interior of the Grand Trunk Railway engine house consisted of a field description of a single profile and collection, and later processing, of sediment samples for particle-size analysis. This exposed section (Plate A1-1), it was suspected, revealed lake fill sand — clean sand that was re-deposited as fill onto former lake bottom behind a retaining wall in order to create new land on which to build the GTR engine house. The description and results reported here are consistent with this preliminary conclusion.

Plate A1-1: Lot 6, 9 and section investigated 27 April 2011.

A north-facing profile that had been previously exposed was cleaned with a trowel and photographed. Two samples (as labeled below) were collected for particle-size analysis. From observation of this profile, the following description can be made, starting from part-way down the exposed profile (Plate A1-1), and proceeding from higher to lower (all soil properties based on Birkeland 1999:Appendix 1):

- Organic grit (Lot 6: floor of engine house): 25-40 cm thick; (1 in Plate A1-1);
- Clay (Lot 9): 7 cm thick; rounded and subrounded pebbles are present; abrupt wavy (upper) boundary; (2 in Plate 1);
- Sand (Lot 10): 50 cm thick; abrupt wavy boundary that corresponds with 74.78 m asl.

The sand (Lot 10; corresponding to 3 and 4 in Plate A1-1) can be subdivided into:

- Upper loamy sand or sandy loam: 9-12 cm thick; dominant colour is dark yellowish brown (10YR4/6 moist); (3 in Plate A1-1) [sample collected: 10-A]
- Lower sand: 40 cm thick; dominant colour is light brownish grey (10YR6/2 moist); yellowish brown (10YR5/6) mottles are common (2-20 percent) as patches, bands and concretions of iron up to 1 cm diameter; subrounded pebbles are present (<5 percent); abrupt, wavy boundary; (4 in Plate A1-1) [sample collected: 10-B].

The lower sand also contains, at the base of the exposed section (5 in Plate A1-1), a large round

(horizontally flattened) inclusion of fine sediment (silt and ash?) with organic content that appears to have had an industrial origin, with an abrupt, smooth boundary (Plate A1-1). It lends support to the probability that this sand was re-deposited from a source that included industrial material from the nineteenth or twentieth century —such as material that had come to rest at the bottom of Toronto Harbour.

Lakebed gravel is presumed to underlie the sand. In another part of the site (about 10 m northeast of the section described), timber sills on which the engine house foundation wall was resting were observed directly overlying gravel (Plate A1-2). This gravel, consisting mostly of rounded and subrounded pebbles, is likely to be original (nearshore) lakebed. See further investigation on 6 June (below).

Plate A1-2: East foundation of GTR engine house standing on original nearshore lakebed materials.

Samples for particle size analysis were submitted to the Aqueous Process Engineering and Chemistry Group (University of Toronto Deptartment of Chemical Engineering and Applied Chemistry) for processing in a Malvern Mastersizer S by laser diffraction. Two aliquot parts were run from each sample. Results are shown in Table A1-1.

Table A1-1: Approximate percentage of sand, silt and clay by volume, and soil classification.

	Sample 10-A	Sample 10-B
sand	65	86
silt	23	11
clay	12	3
soil class (USDA)	sandy loam	sand/loamy sand

The median grain size corresponds to fine sand (φ=3) and maximum grain size to medium sand (φ=1.5). Sediment in sample 10-B (from the main, or lower sand bed) is better sorted than in sample 10-A (from the upper layer within Lot 10): "poor" and "very poor" sorting, respectively, as determined by the inclusive graphic standard deviation (Boggs 1995:87).

The contrast in grain size characteristics and colour between 10-A and 10-B may reflect two episodes of fill, or a period of settling or weathering after emplacement of a single fill, during which time physical mixing of sand with airborne sediment possibly occurred. The medium and fine texture of the sand is consistent with an alluvial, lacustrine or eolian origin. A plausible scenario is that sand originally derived from Lake Iroquois deposits has been re-deposited (by both water and wind) during the past 9,000 years (Coakley and Karrow 1994), forming the spit that is now Toronto Island; and it is some of this sand, which was dredged from somewhere near the western end of Toronto Island and used as fill during lake-

filling operations beginning in the mid-nineteenth century (Robertson 2007, 2009), that is represented in this profile.

Section and Plan Area Investigated on 6 June

A section and the plan area of an excavation unit were inspected and photographed on 6 June. The section was only 1 m wide and 30-40 cm deep (Plate A1-3). Formal properties of sediments were not recorded.

Plate A1-3: Possible in situ beach or shallow water deposit.

The section consisted of the following observed layers:

- Coarse sand and gravel (mostly well-rounded pebbles); gravel appears to be matrix-supported (in sand) but in deeper places (irregularities of the boundary between this layer and the underlying clay) it was grain-supported; this layer was truncated (overlying portion removed); the observed portion was about 10-20 cm thick.
- Dense clay. The upper boundary of the clay was clear and irregular.

The pebbles of the gravel are certainly water-rolled and may be part of an *in situ* beach deposit of Lake Ontario, or an alluvial deposit associated with Garrison Creek. The irregular boundary between gravel and clay may be natural, or it may indicate that the underlying clay was gouged (e.g., as a result of nineteenth- or twentieth-century industrial activity), and the overlying gravel re-deposited. The appearance of sorting of the grain-supported gravel that occurred deeper, in contact with the boundary, suggestive of a lag deposit, might indicate a high-energy, natural depositional environment (e.g., nearshore current at the entrance to Toronto Bay?). Inspection of a bigger exposure and the description of formal properties of this sediment would be required to determine whether this is, indeed, an *in situ* beach or shallow water deposit. The clay likely corresponds to the underlying geological substrate for this area: York or Sunnybrook Till (Sharpe 1980).


Plate A1-4: Weathered bedrock on the nearshore lakebed.

The bottom of an excavation trench, where two excavation units were positioned on the trench floor, was also observed (Plate A1-4). Sediment that had been recently excavated

from the unit, and piled next to it, consisted mostly of sand and gravel (pebbles, cobbles and boulders). A sample of sand was recovered. Gravel consisted of rounded pebbles and cobbles (channers and flagstones) of (likely) shale. It is possible that this material represented loose rock lying on the original nearshore lakebed of Lake Ontario, where shale bedrock, exposed to freeze-thaw action of shallow waters of the lake, was broken and weathered. The historical record suggests that at a slightly higher elevation, further north, this rock formed a shingle beach where it was exposed below the original (pre-1850) shoreline cliff (Scadding 1966:28).

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APPENDIX 2: QUEEN'S WHARF STATION (AjGu-79) ARTIFACT CATALOGUE

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
Feature: 13 **Quadrant:** **Layer:**					
130	1	RWE	undecorated	unidentifiable	exfoliated body sherd, not decorated
Layer Sub-total - ***1***					
Quadrant Sub-total - ***1***					
Feature Sub-total - ***1***					
Feature: 21 **Quadrant:** **Layer:**					
140	1	ironstone	undecorated	flatware	not decorated side portion of a flat ware
141	1	ironstone	decalcomania	unidentifiable	exfoliated body sherd with a decalcomania decoration, floral design, prink rose and green leaves
142	1	ironstone	transfer print, general	unidentifiable	exfoliated body sherd with green transfer print decoration, small geometric designs
Layer Sub-total - ***3***					
Quadrant Sub-total - ***3***					
Feature Sub-total - ***3***					
Feature: 24 **Quadrant:** **Layer:**					
150	1	ironstone	transfer print, general	unidentifiable	exfoliated body sherd with green transfer print decoration, floral design, there is a rose and a band of flowers
151	1	creamware	factory slip, banded	hollowware	body sherd with factory slip decoration on the external surface, bands of blue interspersed with an impressed band of small scallops
Layer Sub-total - ***2***					
Quadrant Sub-total - ***2***					
Feature Sub-total - ***2***					
Feature: 3 **Quadrant:** **Layer:**					
100	1	ironstone	moulded, general and glaze	hollowware	exfoliated rim sherd, flared rim with a moulded design present, there is a band of gold on the edge of the upper rim, on the exterior surface there is the top of a moulded fan(?) with a pink glaze over top

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
101	1	ironstone	hand-painted, general	unidentifiable	exfoliated body sherd with part of a green (two shades) decoration on the exterior surface, appears to be a stamped design, two bunches of leaves overlapping
Layer Sub-total -	***2***				
Quadrant Sub-total -	***2***				
Feature Sub-total -	***2***				
Feature: 39					
Quadrant:					
Layer:					
170	1	ironstone	undecorated	unidentifiable	undecorated body sherd
172	1	stoneware	undecorated	hollowware	curved body sherd, not decorated
180	1	semi-porcelain	undecorated	teacup	rim sherd, slightly flared rim and slightly curving body - unique ID
Layer Sub-total -	***3***				
Quadrant Sub-total -	***3***				
Feature Sub-total -	***3***				
Feature: 41					
Quadrant:					
Layer:					
190	9	ironstone	moulded, wheatware	plate, twiffler	rim fragments with wheat ware decoration, there is a scallop on the power portion of the brim
191	13	ironstone	moulded, wheatware	plate, twiffler	rim fragments with wheat ware decoration, there is a scallop on the power portion of the brim, part of the center of the plate is present with part of a raised foot ring on the base
192	7	ironstone	undecorated	flatware	base sherds with raised foot ring, some form of plate
193	1	ironstone	unidentified	flatware	base of a plate of sorts, with raised foot ring and part of a makers mark present, the edge of a ribbon present, probably a J.Wedgwood plate
194	1	ironstone	unidentified	flatware	base sherd with part of a moulded decoration on the internal surface, scallops on the lower portion of the brim, raised foot ring, there is part of a makers mark present, the top round portion of a J.Wedgwood plate, the lettering present includes "IR.." curved around in a ribbon, in side the ribbon "CHI… / H…"

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
195	1	ironstone	unidentified	flatware	small portion of a base of a plate with part of a makers mark on the bottom, top part of a J.Wedgwood makers mark, the part of the makers mark present includes a ovoid band with the word "IRONSTONE" in the top portion, and the word "CHINA" in the loop of the band
196	1	ironstone	unidentified	flatware	base sherd with part of a makers mark present an part of a raised foot ring present, there are to makers marks there is a black one with includes the end tails of a ribbon from a makers mark, there is a pressed area with letting below the lettering reads "…& K. / LATE / …WEDGWOOD"
197	1	ironstone	moulded, wheatware	plate, twiffler	section of an ironstone plate with moulded wheat ware decoration on the brim and scalloped decoration on the lower rim, raised foot ring on the base with part of two makers marks present, the first mark is black with the letters "..ONE.." present in a band with there is a pressed marks with the lettering "…&K / LATE / ..EDGWOO…"
198	1	ironstone	unidentified	flatware	base fragment of a plate with part of a makers mark present, impressed makers mark with the letters '..K/ …/ …OOD.', raised foot ring present on the base
199	2	ironstone	unidentified	flatware	two sherds of the base of some sort of plate, two makers marks present, the black makers mark includes a looped band with flowing ribbon ends, the top portion of the loop is missing but the word in the center of the loop reads "CHINA" the lettering on the flowing ribbons reads "H&K LATE" on one ribbon and "J.WEDGWOOD", the impressed makers mark reads (upside down as compared to the black makers mark) "H & K / LATE / J. WEDGWOOD." part of a raised foot ring
200	1	ironstone	moulded, wheatware	plate, twiffler	side portion of a plate, wheatware decoration present on the brim with scalloped decoration near the bottom of the brim, raised foot ring on the base, very small portion of a makers mark present, the end of the ribbon, probably a J. Wedgwood plate

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
201	1	ironstone	moulded, wheatware	plate, twiffler	side portion of a plate, wheatware decoration present on the brim with scalloped decoration near the bottom of the brim, raised foot ring on the base, very small portion of a makers mark present, the very tip of the top of a curved makers mark, probably a J. Wedgwood plate
202	2	ironstone	moulded, wheatware	plate, twiffler	large portion of a plate, wheatware decoration present on the brim with scalloped decoration near the bottom of the brim, raised foot ring on the base, there are two makers marks present on the base, the almost complete black makers mark is comprised of a vertical oval band with flowing ribbons below, inside the ovoid band at the top reads "IRONSTONE" inside the ovoid reads "CHINA / H & K", "LATE" in the first ribbon and "J. WEDGWOOD" in the second flowing ribbon, the second makers mark is impressed and reads "H & K / J. WEDGWOOD" this mark is oriented 90degrees to the black makers mark and is to the right of the black makers marks - unique ID
203	1	ironstone	moulded, wheatware	plate, twiffler	large portion of a plate, wheatware decoration present on the brim with scalloped decoration near the bottom of the brim, raised foot ring on the base, there are two makers marks present on the base, the almost complete black makers mark is comprised of a vertical oval band with flowing ribbons below, inside the ovoid band at the top reads "IRONSTONE" inside the ovoid reads "CHINA / H & K", "LATE" in the first ribbon and "J. WEDGWOOD" in the second flowing ribbon, the second makers mark is impressed and reads "H & K / J. WEDGWOOD" this mark is oriented 90degrees to the black makers mark and is to the right of the black makers marks - unique ID

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
204	1	ironstone	moulded, wheatware	plate, twiffler	medium sized portion of a plate, wheatware decoration present on the brim with scalloped decoration near the bottom of the brim, raised foot ring on the base, there is a makers marks present on the base, the almost complete black makers mark is comprised of a vertical oval band with flowing ribbons below, inside the ovoid band at the top reads "IRONSTONE" inside the ovoid reads "CHINA", the first flowing ribbon is missing, "J. WEDGWOOD" in the second flowing ribbon - unique ID
205	1	ironstone	moulded, wheatware	plate, twiffler	medium sized portion of a plate, wheatware decoration present on the brim with scalloped decoration near the bottom of the brim, raised foot ring on the base, there is a makers marks present on the base, the almost complete (a little less than a vertical half is present) black makers mark is comprised of a vertical oval band with flowing ribbons below, there is an "IR…" present in the top of the ovoid upper section and the word "LATE" appears in the first flowing ribbon, probably a J. Wedgwood plate - unique ID
206	1	ironstone	undecorated	unidentifiable	rim sherd, the curve is wider than a table plate, possibly some sort of serving dish, flared rim
207	3	semi-porcelain	transfer print, general	teacup	three sherds of a teacup with black transfer print decoration, there is a circle with part of a cathedral in the lower central portion with the sky in the background, there is a vine of leaves around the outside and near the center of the circle just off the left there is a oval created by a leafy vine with the word "CATHEDRAL" in the center
208	1	red earthenware, coarse	glazed	hollowware	body sherd, the glaze on the interior and exterior surface has been completely exfoliated, one large inclusion present, curved sherd, light orange coloured fabric

Layer Sub-total - ***49***

Quadrant Sub-total - ***49***

Feature Sub-total - ***49***

Feature: 6

Quadrant:

Layer:

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
110	1	ironstone	undecorated	hollowware	exfoliated and undecorated ceramic vessel, hollowware (approx. diameter 7.5 cm)
Layer Sub-total -	***1***				
Quadrant Sub-total -	***1***				
Feature Sub-total -	***1***				
Feature: 63					
Quadrant:					
Layer:					
210	1	semi-porcelain	undecorated	hollowware	base sherd, not decorated raised foot ring on base
211	1	ironstone	unidentified	unidentifiable	flat sherd with part of a makers mark present, blue, vine with leaves
Layer Sub-total -	***2***				
Quadrant Sub-total -	***2***				
Feature Sub-total -	***2***				
Feature: 7					
Quadrant:					
Layer:					
120	1	ironstone	factory slip, general	hollowware	body sherd with factory slip decoration, on the exterior surface there is a band of moss green with part of a swirled design (brown, white and black)
121	1	red earthenware, coarse	glazed	hollowware	exfoliated and water worn, brown coloured glaze on the interior and exterior surface, orange coloured fabric
Layer Sub-total -	***2***				
Quadrant Sub-total -	***2***				
Feature Sub-total -	***2***				
Feature: 71					
Quadrant:					
Layer:					
220	1	ironstone	stamped	unidentifiable	body sherd, curved, green stamp decoration on exterior surface, white flower and the green stamp is the background
Layer Sub-total -	***1***				
Quadrant Sub-total -	***1***				
Feature Sub-total -	***1***				
Feature: 72					
Quadrant:					
Layer:					
230	1	ironstone	transfer print, general	unidentifiable	small sherd, slightly water worn, there is a blue transfer print on one of the surfaces, the design is uncertain, possibly floral

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
231	1	ironstone	undecorated	unidentifiable	exfoliated body sherd, clear glaze
Layer Sub-total -	***2***				
Quadrant Sub-total -	***2***				
Feature Sub-total -	***2***				
Feature: 75					
Quadrant:					
Layer:					
240	2	RWE	transfer print, general	unidentifiable	exfoliated body sherds with blue transfer print decoration, the design are indeterminate
241	1	RWE	glazed	hollowware	small rim, rounds out from the side of the vessel, approx. twice as thick as the body of the sherd, there is a band of blue just on the top and to the side of the rim
242	1	RWE	hand-painted, monochrome	saucer	water worn rim sherd, appears to be thermally altered - most evident on the external surface, blue decoration on the internal surface, hand painted, there is a band of blue on the very edge of the rim and interior rim, there is part of what appears to be a flower below the blue band
243	1	RWE	hand-painted, late palette	flatware	exfoliated and probably water worn base sherd, appears to be thermally altered - most apparent on the exterior surface - there is a raised foot ring on the base and part of a blue hand painted decoration on the interior surface, floral design (the ends of large petals), possibly a saucer and possibly related to 242
244	1	RWE	transfer print, general	flatware	exfoliated and water worn base sherd, folded foot ring on the base and part of a blue transfer print decoration on the internal surface, possible foliage design, twig present
245	1	RWE	transfer print, general	hollowware	slightly exfoliated shred, curved with a light blue transfer print decoration on the exterior surface, floral design and includes vines and sprouts
246	1	RWE	factory slip, cable	hollowware	exfoliated and possibly water worn sherd, curved, thermally altered - most evident on the internal surface, factory slip decoration on the external surface, cable, blues, tans and whites are all swirled together
247	2	RWE	edgeware, scalloped	plate, supper	exfoliated, water worn and thermally altered, blue edgeware decoration, scalloped (softer undulations) edges with small recessions perpendicular to the rim

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The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
248	2	RWE	undecorated	flatware	exfoliated, water worn and thermally altered sherd, only the bottom of the base is present, folded foot rings
249	7	RWE	undecorated	unidentifiable	water worn and thermally altered sherds
260	67	RWE	undecorated	unidentifiable	exfoliated, some are slightly water worn, not decorated, all are thermally altered to some degree
261	12	RWE	undecorated	unidentifiable	exfoliated sherds, ware type is indeterminate, possibly RWE, thinner none decorated sherds
262	5	RWE	undecorated	hollowware	exfoliated rim sherds, hollowware but exact shape is indeterminate, not decorated
263	1	pearlware	undecorated	bowl, general	larger rim sherd, possibly a bowl, the diameter of the opening suggests this, not decorated
264	1	RWE	undecorated	flatware	exfoliated base sherd with folded foot ring, not decorated
265	1	RWE	undecorated	hollowware	exfoliated base sherd with wedged foot ring, the internal surface is completely exfoliated
266	1	RWE	undecorated	flatware	exfoliated and water worn base, internal surface is missing, raised foot ring
267	1	RWE	undecorated	flatware	exfoliated base sherd with folded foot ring, no decoration present
268	1	unidentifiable	unidentified	hollowware	thermally altered rim, ware type is indeterminate, hollowware of sorts
269	2	RWE	undecorated	hollowware	exfoliated base sherds, flared foot rings, no decoration present
270	1	creamware	concave rim	plate, supper	slightly exfoliated rim sherd, no decoration, the very edge of the rim is rounded and flares up slightly
271	1	RWE	undecorated	plate, table	exfoliated rim sherd, thicker brim that slopes downwards slightly near the brink, not decorated
272	1	RWE	undecorated	plate, twiffler	exfoliated rim and side portion of a plate, straight tapering brim with a curved side, no decoration
273	1	RWE	undecorated	hollowware	exfoliated handle, wide, ovoid in cross section, no decoration, thermally altered (width 1.3 cm)
275	1	RWE	transfer print, blue willow	plate, table	exfoliated rim sherd with blue transfer print decoration, the rim undulates slightly, there is a band of circles/squares with dots in the center just below the rim and a fish scale pattern below
276	2	RWE	transfer print, blue chinoise	unidentifiable	exfoliated body sherds with blue transfer print decoration, Asian design, part of a building and foliage present

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
277	1	RWE	transfer print, general	unidentifiable	exfoliated rim sherd with blue transfer print decoration on the internal surface, the design includes a band of three leaf 'clovers' just below the rim, the background is stippled, possibly a saucer but the sherd is too small to tell
278	4	RWE	transfer print, general	unidentifiable	exfoliated body sherds with blue transfer print decoration, the design are indeterminate
279	1	RWE	transfer print, blue willow	unidentifiable	water worn body sherd with blue transfer print decoration, top of a pagoda and trees with rounded foliage
280	1	RWE	transfer print, general	hollowware	exfoliated rim sherd with blue transfer print decoration, in profile the rim is short and everted and the body is slightly bulbous, there is a band of geometric decoration on the internal rim (tall upside down triangles), floral design on the external surface, the form is unknown but hollowware
281	1	pearlware	unidentified	hollowware	curved sherd with a very, very light blue design on the exterior surface, abstract design with circles, hollow ware of sorts
282	1	unidentifiable	transfer print, general	saucer	exfoliated rim sherd with blue transfer print decoration, there is a band blue band with and band of small upside down triangles, ware time is indeterminate
283	3	unidentifiable	hand-painted, general	unidentifiable	thermally altered sherds, blue hand painted decoration, floral design, ware type is indeterminate
284	1	unidentifiable	hand-painted, monochrome	hollowware	thermally altered curved sherd with blue hand painted decorated, on the external surface there is a blue flower and stem running horizontally, on both the internal and external surface there is part of a blue band, ware type is uncertain - possibly RWE and possibly a tea cup
285	1	pearlware	hand-painted, monochrome	unidentifiable	water worn sherd with blue hand painted decoration, part of a floral design, leaves and a stem present, possibly hollowware, probably teaware
286	1	pearlware	hand-painted, monochrome	flatware	exfoliated base sherd with a raised foot ring on the base and blue hand painted decoration on the internal surface, part of a floral design, probably part of a saucer
287	1	RWE	hand-painted, monochrome	hollowware	exfoliated body sherd with hand painted decoration, the design is indeterminate - possibly part of a band, there is part of a blue band on the internal surface

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The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
288	1	RWE	hand-painted, monochrome	hollowware	exfoliated body sherd with blue hand painted decoration, part of a floral design, part of a carinated hollowware vessel, possibly a bowl
289	2	pearlware	hand-painted, monochrome	hollowware	part of flared foot rings with blue decoration, part of a band of blue
290	1	RWE	moulded, general	hollowware	part of a larger moulded RWE hollowware vessel, on the exterior surface there is the tops of soft scallops with part of a blue band over top, this band also appears on the internal surface
291	1	RWE	transfer print, general	unidentifiable	small rim sherd with black transfer print decoration on one of the surface, scalloped draped band just below the rim and shaded background
292	1	RWE	transfer print, general	unidentifiable	body sherd with black transfer print decoration, foliage design, part of a maple leaf is present
293	1	RWE	transfer print, general	unidentifiable	brown transfer print decoration present on an RWE sherd, part of a larger scene, there is the majority of a pumpkin present with a twig or two of foliage around it and what appears to be an inverted ribbed (horizontally) triangle behind
294	1	semi-porcelain	transfer print, general	hollowware	curved body sherd with blue transfer print decoration on the internal and external surface, curved sherd, floral design on either side, on the external side the design is slightly spread out and includes buds and flowers in bloom, on the internal surface the design is much more dense with many flowers and large leaves possibly a bee
295	1	RWE	factory slip, general	hollowware	exfoliated slip decorated hollowware, orange background with swirled brown and white areas on top
296	1	RWE	factory slip, banded	hollowware	exfoliated sherd with factory slip decoration, rouletted rim small horizontal bands, green over top with a brown band below
297	1	RWE	factory slip, general	bowl, general	exfoliated rim sherd with factory slip decoration, there is a rouletted foliage band just below the rim, green, with a band of brown underneath, the body is a mustard yellow colour with two brown dots present, general bowl
298	1	unidentifiable	factory slip, banded	hollowware	thermally altered sherd with a band of factory slip decoration, band of brown present, ware type is indeterminate

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
299	1	RWE	edgeware, scalloped	dish, meat	exfoliated and slightly thermally altered rim shred with blue edgeware decoration, scalloped rim (softer scallops) and curved press lines perpendicular to the rim, part of a serving dish, meat
300	1	RWE	edgeware, scalloped	plate, table	exfoliated and slightly thermally altered rim sherd with blue edgeware decoration, scalloped rim (softer scallops) and curved press lines perpendicular to the rim, plate
301	3	RWE	edgeware, scalloped	flatware	exfoliated brim sherds with a portion of edge ware decoration, small portions of scalloped rims and curved press lines perpendicular to the rim
302	1	RWE	transfer print, general	hollowware	curved body sherd, possibly water worn, there is a red transfer print decoration on the external surface, the design included a landscape with mounts (only the foundations of the buildings are present) in the background a body of water with a man standing on the shore beside a bush in the foreground - Asian elements, on the internal surface there is a small portion of green transfer print, floral design
304	1	yellow ware	undecorated	preserve jar	rim sherd with recessed band just below the rim on the external surface, glazed on the internal surface (approx. diameter 7.5 cm)
305	1	buff earthenware	glazed	hollowware	exfoliated sherd with a mustard yellow glaze on the interior and exterior surface, pinkish-buff coloured fabric with tiny orange inclusions
306	3	red earthenware, coarse	glazed	hollowware	water worn body sherds, brown glaze on the interior surface, smoothed non glazed exterior, the fabric is orange in colour
307	1	red earthenware, coarse	glazed	hollowware	water worn body sherd with brown glaze on the interior and exterior surface, the brown glaze on the exterior surface appears to be more mottled but this may be due to the water wear, orange coloured fabric
308	1	red earthenware, coarse	glazed	hollowware	exfoliated body sherd, the interior surface has been completely exfoliated only a tiny portion of brown glaze is present, on the exterior surface there are a few incised lines with matt bands of glaze overtop, orange coloured fabric

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
309	1	red earthenware, coarse	glazed	hollowware	thermally altered sherd, brown glaze on the interior surface, not glazed on the exterior surface, orange coloured fabric
310	1	jackfield	glazed	teapot	small portion of a spout from a tea pot, refined red earthenware, jackfield, the tip of the spout is cylindrical just, underneath this portion the spout becomes square
915	1	pearlware	undecorated	salt-cellar	undecorated top of the pearlware salt shaker
Layer Sub-total -	***162***				
Quadrant Sub-total -	***162***				
Feature Sub-total -	***162***				
Feature: 80					
Quadrant:					
Layer:					
320	9	ironstone	undecorated	unidentifiable	thermally altered sherds, no decoration
321	1	ironstone	undecorated	flatware	thermally altered base sherd, raised foot ring, ware type is indeterminate
322	1	ironstone	undecorated	flatware	exfoliated and thermally altered base sherd, raised foot ring
323	1	ironstone	undecorated	flatware	exfoliated brim and brink sherd from some sort of plate, not decorated
324	1	ironstone	undecorated	plate, supper	exfoliated small side portion of a supper plate, flat tapering brim, rounded brink, scooped in side that is not mirrored by the external surface of the side, small portion of a raised foot ring on the base
325	1	ironstone	undecorated	flatware	small portion of a rim shred, slightly exfoliated, fairly thick, flatware of sorts
326	1	ironstone	undecorated	saucer	portion of a saucer, rounded side with part of a raised foot ring on the base, possibly a little thermal alteration, there is some yellow staining on the surfaces of the saucer
327	1	ironstone	undecorated	teacup	teacup rim shred, not decorated
328	2	porcelain, English bone chi	moulded, general	teacup	part of a moulded teacup with wide vertical ribs and they begin at the rim, the rim slightly undulated because of the ribs

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
329	1	ironstone	unidentified	unidentifiable	exfoliated and slightly thermally altered base sherd with black makers mark present on the bottom of the base, the makers mark is incomplete, what is present includes '..ONSTONE CHINA" in an arch over a coat of arms with a crown on top with a unicorn to one side, below the unicorn is a curled vine and part of a ribbon with text on top most of the word is not legible "….TT"
330	1	semi-porcelain	undecorated	egg cup	part of an egg cup, everted/flared rim and slightly curving body (approx. diameter 5 cm)
331	1	RWE	stamped	teacup	slightly thermally altered, part of a carinated teacup with brown stamp decoration, on the internal and external surface there is a band of decoration which includes a thin brown band just below the rim, two rows of a loose herring bone design with a row of dots below (it is possible that is was hand painted) on the exterior surface below the decorative band there is a repeated stamped decoration of a flower(?) with six petals
332	2	ironstone	factory slip, banded	hollowware	slightly exfoliated sherds, factory slip banded decoration, multiple repeated bands of blue with one break for a white band, probably a bowl
333	4	buff earthenware	glazed	hollowware	thermally altered sherds, buff earthen ware, glaze on the interior and exterior surface, hollowware of sorts

Layer Sub-total - ***27***

Quadrant Sub-total - ***27***

Feature Sub-total - ***27***

Feature: 81

Quadrant:

Layer:

340	1	stoneware	glazed	jar	complete stoneware food storage container, the interior is glazed, the lip rounds outward, cylindrical neck tapering shoulder, there is a roulette band of circles just below the shoulder, cylindrical body, chamfered heel, slightly concave base, there is a tan glaze covering the rim to 2.5 cm below the shoulder on the body of the vessel, the bottom portion of the vessel has a clear glaze, there are some rust stains on the rim and body (height 16.2 cm, diameter of rim 6.2 cm, diameter of body 10.8 cm)

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
341	3	ironstone	undecorated	unidentifiable	thermally altered sherds, not decorated
342	1	ironstone	undecorated	flatware	thermally altered shed with a folded foot ring, orange stains in the crazing
343	1	ironstone	undecorated	flatware	exfoliated base sherd with raised foot ring on the base, orange stains in the crazing
344	1	ironstone	undecorated	saucer	rim sherd, not decorated, orange staining in the crazing
345	1	ironstone	moulded, wheatware	saucer	moulded rim sherd, muted pattern - wheatware, the rim flares slightly and the band of moulded decoration appears just below the rim on the interior surface
346	1	ironstone	moulded, wheatware	teacup	moulded wheatware teacup, just below the rim on the external surface there is a band of moulded wheat decoration above a wide ribbed decoration on the body, orange stain in the crazing
347	1	ironstone	undecorated	saucer	half of a saucer, slightly flared rim, curved side, in the center of the saucer there is a circular saucer, raised foot ring on the base, black makers mark, the mark is incomplete but consist of a vertical oval in the center with crest in the center, there is text in the band around the oval - the text is illegible, there is a crown on top of the oval, flanking the oval are a standing lion to the left wearing a crown and a rearing unicorn with a crown leash and chain, there is a floral decoration below the oval and animals, brown stain in some of the crazing
348	1	ironstone	undecorated	flatware	rim sherd, thicker, slightly curved in profile
349	1	buff earthenware	rockingham	hollowware	hollowware, glazed on both sides, there are two horizontal moulded bands on the exterior surface
350	3	yellow ware	moulded, general	jug	moulded yellow ware spout, on the external surface there is a grape vine with grapes and grape leaves, related to 351 and 352
351	1	yellow ware	undecorated	jug	yellow ware body sherd, curved related to 350 and 352, part of a pitcher
352	1	yellow ware	moulded, general	jug	moulded handle from a pitcher with two grape vines running down the sides of the handle, grapes and leaves present, related to 350 and 351 (width 2.7 cm, thickness 1.4 cm)

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
353	1	red earthenware, coarse	glazed	jar	incomplete food storage container, fruit jar, the interior is glazed, the lip is missing, no neck present however this probably because it has broken off, tapering shoulder, there is a thin recessed band just below the shoulder, cylindrical body, dark tan glaze on the internal surface and a dark brown glaze on the external surface, reddish orange fabric, related to 354 (approx. body diameter 12.5 cm, approx. rim diameter 6 cm)
354	3	red earthenware, coarse	glazed	jar	part of a cylindrical body, the body curves inwards slightly near the heal, rounded heel and slightly concave base, dark tan glaze on the internal surface, on the external surface the slip ends, unevenly, above the heel, reddish orange fabric, related to 353 (base diameter 11.5 cm)
355	1	red earthenware, coarse	glazed	milk crock	exfoliated milk crock, tall rectangular rim, the body tapers in slightly, there are two string rims present 2 cm and 3 cm down from the bottom of the rim, mustard yellow glaze, black staining in the crazing, orange coloured fabric
Layer Sub-total -	***22***				
Quadrant Sub-total -	***22***				
Feature Sub-total -	***22***				
Feature: 82					
Quadrant:					
Layer:					
360	2	red earthenware, coarse	glazed	jar	slightly exfoliated sherds, curved sherds, dark tan on the interior surface, dark brown glaze on the exterior surface, reddish orange fabric, related to 353 and 354
Layer Sub-total -	***2***				
Quadrant Sub-total -	***2***				
Feature Sub-total -	***2***				
Feature: 83					
Quadrant:					
Layer:					

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
370	2	porcelain, English bone chi	moulded, general and decal	teacup	rim and side portion of a semi-porcelain teacup, moulded and hand painted decoration, flutes on the body with rounded tops, some sort of moulded design in the rounded tops of the flutes, on the interior surface there is a thin green hand painted band, on the exterior surface there is are thin purple (possibly once gilded) band running above the rounded flute and below the rounded flute, the think purple line out lines the rounded top of the flute and has a vertical divider, in the outlined area of the rounded flutes there are five coloured dots, four dots are blue and arranged in a square with a purple dot in the center, below this there are bows of a green branch that connect periodically to the purple band, below the bows there is a thin green band, orange stains on the surface
372	1	ironstone	moulded, general	flatware	very thermally altered, moulded rim sherd, appears to be wheat ware
373	1	red earthenware, coarse	glazed	hollowware	slightly thermally altered red earthen ware sherd, medium brown glaze on the internal and external surfaces
374	1	semi-porcelain	undecorated	unidentifiable	slightly thermally altered curved sherd
375	1	semi-porcelain	undecorated	flatware	slightly thermally altered base sherd with raised foot ring, not decorated
376	1	unidentifiable	glazed	hollowware	thermally altered sherd, ware type is indeterminate, brown glaze on either side of the sherd
377	1	red earthenware, coarse	glazed	milk pan	thermally altered, the glaze and the fabric has been vitrified, brown glaze on the interior and exterior surface, brick coloured fabric

Layer Sub-total - ***8***

Quadrant Sub-total - ***8***

Feature Sub-total - ***8***

Feature: 94

Quadrant:

Layer:

Stage 4 Ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Ware	Motif	Form	Comments
380	1	ironstone	moulded, general, transfer p	bowl, general	moulded and transfer print decorated sherd, the exterior surface is decorated with wide rounded ribs, both the interior and exterior is decorated with a floral black transfer print with coloured glaze on top, on the exterior the decoration includes a vine with leaves, on leaf has a green glaze over top, on the interior there are parts of two larger flowers and connecting vines, one flower has a light purple glaze over top and the other has a yellow glaze, there is the reminisce of a gilded band on the terminus of the rim, a bowl of sorts

Layer Sub-total - 1

Quadrant Sub-total - 1

Feature Sub-total - 1

Grandtotal - 290

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
Feature: 13 **Quadrant:** **Layer:**				
440	2	window glass	glass	colourless pieces of window glass
710	1	smoking pipe	white ball clay	small portion of a stem, not glazed, ovoid in profile
711	1	smoking pipe	white ball clay	stem fragment, not glazed stained with rust
875	8	faunal, mammal	bone	multiple fragments of bone, many fragments are cut and have cut marks
876	1	faunal, avian	bone	incomplete long bone
1000	9	unidentified	metal, ferrous	rusted, chunks of metal on the shafts of spikes? Cole inclusions in the rust
1001	2	spring	metal, composite	two springs, possibly brass, gray coloured metal with green rust (diameter of coil 1.2 cm, diameter of wire 0.4 cm)
1002	1	unidentified	metal, composite	small rectangular piece of metal with chamfered corners, gray metal with green rust
Layer Sub-total - *25*				
Quadrant Sub-total - *25*				
Feature Sub-total - *25*				
Feature: 18 **Quadrant:** **Layer:**				
450	1	container, liquor	glass	light forest green, mouth blown, two piece cup bottom moulded bottle, cylindrical body, in set chamfered heel, flat resting point and recessed base with an embossed 4, there are multiple seed bubbles in the glass (approx. body diameter 7.6 cm)
451	1	container, unidentifiable	glass	part of a cylindrical neck, moulded bottle, probably machine made (diameter 1.5 cm)
720	1	smoking pipe	white ball clay	portion of a thick stem, ovoid in profile
721	1	unidentified	glass	pink, cylinder of glass (diameter 0.6 cm)
880	1	faunal, mammal	bone	cut portion of a long bone
881	1	faunal, avian	bone	part of a long bone, appears to be cut at one end
1005	1	tube	metal, composite	portion of a curved tube, or small pipe, composite metal of lead (gray metal) and copper (green rust) (diameter 1 cm)
Layer Sub-total - *7*				
Quadrant Sub-total - *7*				
Feature Sub-total - *7*				
Feature: 21 **Quadrant:** **Layer:**				
460	1	window glass	glass	light aqua
730	1	smoking pipe	white ball clay	stem fragment with recessed lettering that reads "GLASGOW" on the other side the letter read "W. WHITE"

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
731	1	smoking pipe	white ball clay	possibly complete stem, the bite appears to have been modified from a larger pipe, there is recessed lettering present on the stem that reads "BANNERMAN" with a dotted band around the outside and "MONTREAL" with a dotted banner as well, part of the bowl decoration is trailed onto the stem, there are raised band interspersed with dotted lines
732	4	coal	coal	four chunks of coal, 5x5 cm squared and curved on either side
733	1	insulator	ceramic and metal	rectangular ceramic insulator, with rounded short ends, two beveled perforations, a recessed area in-between with raised lettering that reads "CGE. 1740", on the reverse side there are two grooves for wires on the out side of the perforations, one screw has rusted in the perforation beside the "C" (length 8.9 cm, width 1.9 cm, thickness 1.6 cm)
1010	1	file	metal, ferrous	very rusted, chunks of rust with wood inclusions, the file is incomplete, probably a single tang file with single cut diagonal teeth, rectangular in profile, possibly a hand file (width 2.9 cm, length of tang 4.7 cm)
1011	1	nail, wire	metal, ferrous	part of a long wire nail, missing head (diameter 0.9 cm)
1012	1	scale hook	metal, ferrous	part of a weigh scale hook, the shaft of the hook has a perforation near the end opposite the hook, the hook itself is circular in shape, heavily rusted (diameter 1.6 cm)
1013	1	tube	metal, ferrous	very rusted tube/pipe, there is rust on the inside as well (diameter 2.2 cm)
1014	1	rod	metal, ferrous	heavily rusted rod (length 30 cm, diameter 2.2 cm)
1015	1	pannel	metal, ferrous	rusted flat iron panel with cut out portions, on one long side there are two rectangular cut out sections 3.5cmx2.5cm in size and set in 2.5cm from the terminal edges, on the opposite edge there are semi circular cut outs approx, 5 cm wide and 6 cm tall (in from the edge, these are set in approx. 3 cm from the terminal edges, panel from a train? (length 23 cm, width 10.2 cm, thickness 0.5 cm)
1016	1	brace	metal, ferrous	very rusted iron brace, the brace consists of a slightly curved shaft with a square head, there is a flat tapered disk near the end opposite the head the portion of the shaft that extends beyond the disk is threaded and meant to attach to something (length 34 cm, diameter of shaft 1.9 cm, diameter of disk 6.1 cm)
Layer Sub-total -		*15*		
Quadrant Sub-total -		*15*		
Feature Sub-total -		*15*		
Feature: 24				
Quadrant:				
Layer:				
470	3	window glass	glass	light aqua and colourless
471	1	container, unidentifiable	glass	light aqua, neck of a bottle, machine made (approx. diameter 1.4 cm)
472	1	container, unidentifiable	glass	light turquoise, curved glass, possibly mouth blown and moulded

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
473	1	unidentified	glass	colourless, shiny piece of glass
480	2	window glass	glass	light aqua pieces of window glass
481	1	window glass	glass	colourless, thicker (0.6 cm)
482	1	container, unidentifiable	glass	turquoise, moulded and mouth blown, cup bottom bottle, cylindrical body, inset chamfered heel, flat resting point and shallow recessed base (approx. diameter 3.5 cm)
483	1	container, liquor	glass	dark olive, mouth blown moulded bottle, there is one blister bubble and a few seed bubbles in the glass
740	1	smoking pipe	white ball clay	portion of a stem, stained with rust , ovoid in profile
741	1	smoking pipe	white ball clay	thicker stem, ovoid in profile, impressed lettering present that reads "DIXON'S" on one side and "MONTREAL" on the other
742	1	trolley wheel	rubber	rubber trolley wheel
750	3	shoe fragment	leather and metal	fragments of a leather shoe with brass (green rust) rivets
751	3	button	fabric and metal	round button, covered with fabric (completely rusted), the button has started to fall apart, the eye is missing (diameter 2.4 cm)
760	1	button	shell	small shell button with four holes, the back is flat and the front is slightly concave (diameter 1 cm, thickness 0.3 cm)
885	1	faunal, mammal	bone	part of a pelvic bone, broken, no cut marks present
1020	1	wire	metal, ferrous	very rusted, chunks of rust, long curved wire (diameter 1 cm)
1021	2	unidentified	metal, ferrous	heavily rusted tubes of metal, there are inclusions of mortar and pebbles in the rust
1022	1	wire	metal, ferrous	thick rusted wire (diameter/width 1.2 cm)
1023	1	unidentified	metal, composite	very rusted, incomplete ring, probably lead based (gray) and iron (orange rust)
1024	1	bolt and nut	metal, ferrous	very rusted, larger nut and bolt, much of the head is missing and the nut is square and rusted to the shaft, wood has rusted to the shaft (length 20.5 cm)
1025	1	unidentified	metal, ferrous	very rusted, thick metal shaft or part of a rod, cylindrical object
1026	1	unidentified	metal, composite	rusted, heavier metal, brass? Gray metal with green rust, short circular tube that is not fully closed, there are thread marks present on the internal surface (diameter 3.6 cm, height 3.3 cm, thickness 0.3 cm)
1027	1	unidentified	metal, composite	possibly brass (green, white and orange rust), cone shaped object with a small flared rim, this cone has been created by a perforated sheet of metal, there is a seam present where the metal sheet overlaps, purposefully made for some function (height 8.6 cm, base diameter 5 cm)
1028	3	unidentified	metal, ferrous	very rusted, mostly encased in rust, long pieces of metal, probably nails but their type is indeterminate
1029	1	spike	metal, ferrous	very rusted, machine made spite, with a square top (height 13.5 cm, thickness of the shaft 1.2 cm)
1030	4	unidentified	metal, ferrous	very rusted, 4 pieces of a coiled metal, the metal is 1 cm wide and 0.1cm thick, the metal has been coiled in the shape of a tube
1031	1	file	metal, ferrous	large rectangular file with one tang, heavily rusted, the teeth have completely rusted away except for a small portion on the edge, this section had single cut teeth pattern (length 32, width of the face 3.9 cm, width of the edge 1 cm)

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
1032	1	unidentified	metal, composite	rusted, flat rectangular piece of metal that appears to have once been curved into a cylindrical form, probably brass there is a green and orange rust on the surface (width of metal 3.9 cm, length 6 cm, thickness 0.1 cm)
1033	1	unidentified	metal, composite	thicker, curved piece of metal, very rusted, possibly brass there is a green and orange rust and there are chunks of rust on the 'internal', or the inside of the curve, surface, heavy (width 4.8 cm, thickness 0.2 cm)
1034	2	unidentified	metal, ferrous	two pieces of rusted unidentifiable metal also thermally altered
1035	1	metal strapping	metal, composite	rusted, long flat piece of metal with circular perforations, a piece of metal strapping, appears to be thermally altered, gray metal with green and orange rust
1036	1	unidentified	metal, composite	small piece of metal, curved almost into the shape of a hook, predominantly green rust with some orange rust
1037	3	unidentified	metal, composite	three disks that are possibly associated with each other, possibly brass, green, some white and orange rust present, disk 1 has a small mamelon on one side and raised ring on the other side with a depression in the center that matches the mamelon on the other side, disk 2 is flat and has a small mamelon in the center on one side and a mirroring recession on the other, there is a small hole in the center of the mamelon, disk 3 has a soft rounded mamelon in the center on one side of the disk, on the other side there is a raised ring with a tapering center, there is a small hole in the center of the disk at the top of the mamelon (diameter disk 1 - 1.2 cm, diameter disk 2 - 2.6 cm, diameter disk 3 - 2.2 cm)
1038	1	washer	metal, composite	rusted washer, gray metal, green and orange rust, heaver metal, would have been part of a rotating part of a machine, possibly for milling (diameter 2.2 cm, height 1.1 cm, width of disk 0.5 cm)
1039	1	washer	metal, composite	rusted washer, gray metal, green and orange rust, heaver metal, would have been part of a rotating part of a machine, possibly for milling, one side of the washer is flat while on the other side the metal tapers slightly towards the center (diameter 7.1 cm, height 1.3 cm, width of disk 1.8 cm)
1040	1	nail, machine cut	metal, ferrous	very rusted, flat head nail (height 6.5 cm)
1041	1	spike	metal, ferrous	very rusted, clumps of rust are stuck to the shaft, disk shaped head with a long cylindrical shaft, possibly a long, round spike
1042	1	unidentified	metal, composite	rusted, predominately green with orange rust, heavier metal, the metal looks to be a gray colour, lead, iron, copper alloy? Length of a flat piece of metal that has folded over, purposeful fold or scrap metal? (width of folded metal 5 cm, thickness of metal 0.2 cm)
1043	1	unidentified	metal, composite	rusted piece of scrap metal, green rust and gray metal, softer metal, possible lead copper alloy, flat piece of metal with a circular shape cut out and diagonal cut edges

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
1044	1	foot step	metal, composite	rusted, green and orange rust and a gray coloured metal, lead/iron/copper composite? Heavy, thick flat foot plate with a variety of circular perforations drilled into the foot plate, there are two main sizes of holes (2.1 cm and 1 cm) there is a fairly robust vertical flange of the sort edge of the step, on the bottom side of the stem there are a few extra holes that have not been completed drilled through the foot plate (width 7.6 cm, thickness 0.8 cm)
1045	1	washer	metal, composite	very thin washer, green and orange rust, gray metal (lead/copper/iron composite?) (diameter 3.6 cm, width 0.9 cm, thickness 0.1 cm)
1046	1	unidentified	metal, composite	two disks that are possibly associated with each other, possibly brass, green, some white and orange rust present, disk 1 is generally flat on one side and a raised ring on the other side with a depression in the center, disk 2 has a soft rounded mamelon in the center on one side of the disk, on the other side there is a raised ring with a tapering center (disk 1 diameter 2.2 cm, disk 2 diameter 2.2 cm)
1050	1	unidentified	metal, cuprous	possibly a piece of copper strapping, very soft easily bent, green rust (width 1.4 cm, thickness 0.7 cm)
1051	1	unidentified	metal, composite	flat rectangular piece of metal, green and orange rust, not flexible

Layer Sub-total - *60*
Quadrant Sub-total - *60*
Feature Sub-total - *60*

Feature: 3
Quadrant:
Layer:

390	4	window glass	glass	colourless, thicker window glass
391	3	container, food	glass	colourless, machine made jar, 'mason's jar', fire polished lip, external embossed threads, short neck, steeply sloped shoulder and cylindrical body (approx. rim diameter 6.5 cm, approx. body diameter 9 cm)
392	1	container, soft drink or min	glass	cobalt blue, machine made, thick embossed external threads ending with a neck ring, sloping neck (approx. neck diameter 2.7 cm)
393	1	unidentified	glass	colourless (slight greenish tinge) possibly window glass, flat, press moulded piece of glass, very shiny, machine made, no distinct pattern repeated bumps
660	1	container, ink	ceramic	almost complete stone ware ink container, the is a flat disk with a spout, tapering underneath, short cylindrical neck, tapered shoulder, cylindrical body, chamfered heel, and flat base, glossy brown glaze overtop of the container, there is a makers mark near the base but it is illegible due to the glaze, no glaze on the base (height 14.5 cm, body diameter 6.7 cm)
661	1	container, ink	ceramic	almost complete stone ware ink container, the is a flat disk with a spout, tapering underneath, short cylindrical neck, tapered shoulder, cylindrical body, chamfered heel, and flat base, brown glaze overtop of the container, there is a makers mark near the base and reads "LOVATT&LOVATT / NOTTS. / LANGLEY MILL", no glaze on the base (height 14.6 cm)

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
662	1	container, unidentifiable	ceramic	stone ware vessel, clear glaze on the exterior surface and brown glaze on the internal surface
960	1	nail, machine cut	metal, ferrous	flat head nail, covered in rust (height 7.7 cm)
961	2	spike	metal, ferrous	covered in rust, flat head and machine cut, missing point, probably spikes
962	1	railway spike	metal, ferrous	very rusted railway spike, the tip is covered thus the completeness of the spike is indeterminate (height 15.5 cm)
963	1	bolt	metal, ferrous	large square headed bolt, very rusted, there are probably threads but they are covered in rust, difficult to tell if the shaft of the bolt ended or if it has been broken off (height 11 cm, length/width of head 3.3 cm, diameter of shat 1.7 cm)
964	1	unidentified	metal, ferrous	large rusted chunk of metal, ovoid in shape
965	1	slag	metal, composite	chunk of gray slag, very light
Layer Sub-total -	*19*			
Quadrant Sub-total -	*19*			
Feature Sub-total -	*19*			
Feature: 33				
Quadrant:				
Layer:				
160	1	unidentified	ceramic	thermally altered and has slag melted all over the sherd, probably ironstone
770	1	smoking pipe	white ball clay	small piece of a pipe, ovoid in diameter
771	1	smoking pipe	white ball clay	slightly burned pipe stem, ovoid in profile, the impressed letting on the stem reads "M(superscript C)DOUGALL" and "GLASGOW" on the other side
Layer Sub-total -	*3*			
Quadrant Sub-total -	*3*			
Feature Sub-total -	*3*			
Feature: 34				
Quadrant:				
Layer:				
780	1	smoking pipe	white ball clay	thermally altered sherd, more circular in diameter
1055	1	nail, machine cut	metal, composite	flat head, lighter nail, gray (height 5.7 cm)
1056	1	unidentified	metal, composite	flat dist with a small mamelon on one side and mirrored recession on the opposite side, not rusted, yellow shiny metal, brass, possibly associated with 1046, some sort of washer to go in-between the pieces (diameter 1.9 cm)
Layer Sub-total -	*3*			
Quadrant Sub-total -	*3*			
Feature Sub-total -	*3*			
Feature: 39				
Quadrant:				
Layer:				
171	1	container, unidentifiable	ceramic	stoneware vessel, glazed on the exterior surface but not glazed on the interior surface, some form of container

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
490	2	lamp font	glass	colourless and red, flashed glass, flashed on the internal surface, short straight lip with a ground finish, curved shoulder, container of sorts (approx. rim diameter 7.5 cm)
500	1	window glass	glass	colourless flat glass
501	1	window glass	glass	light aqua window glass
502	1	container, unidentifiable	glass	colourless, curved glass, bottle of sorts, machine made
510	20	window glass	glass	light aqua, multiple pieces of window glass
785	1	smoking pipe	white ball clay	pipe stem with a modified bite, there are two ground areas near the bite for teeth
790	1	shoe fragment	leather and metal	two pieces of leather that are held together with brass (green rust) rivets, similar to 750
791	1	smoking pipe	white ball clay	portion of a stem, no decoration, ovoid in profile
792	1	smoking pipe	white ball clay	part of a thicker pipe, ovoid in profile, impressed lettering which reads "COR…" and "…BBI.."
795	3	shoe fragment	leather and metal	the leather appears to be in the shape of a shoe, but it has been cut in half length wise, there is a piece of metal attached to the leather, rusted and miss sharpened
796	1	insulator	ceramic	part of a ceramic insulator, curved sort end, part of a beveled perforations, with grooves for wires to the outside of the perforations
800	1	smoking pipe	white ball clay	part of a stem with impressed letters that read "MONTREAL"
890	2	faunal, mammal	bone	cut bone, a rib and part of a large long bone
891	1	faunal, avian	bone	incomplete long bone
895	1	faunal, mammal	bone	thermally altered bone fragment, there are cut marks present
1060	11	unidentified	metal, ferrous	multiple pieces of rusted metal, flat
1061	1	unidentified	metal, ferrous	completely encased in rust, inclusions in the rust are small pieces of brick ,a stone, tiny pieces of coal, the object consists of a shaft a few arms, at one end there is an arm that is set at 90 degrees from the shaft, closer to the opposite end there appears to be a bar of metal that goes through the center of the shaft and sits perpendicular to the shaft, this could also just be larger chunks of rust
1062	1	file	metal, composite	large rusted file, the tang is broken, long file that tapers towards the end, the pattern of the teeth have rusted away entirely (length of file 38.5 cm, edge with 1 cm)
1065	3	unidentified	metal, composite	rusted disks, green coloured rust, probably brass, appear to have been flattened out slightly, one disk does have a raised ring with a small round recession (disk 1 diameter 2.3 cm, disk 2 diameter 2.5, disk 3 diameter 2.4 cm)
1066	6	nail?	metal, ferrous	completely encased in rust, possibly nails, long and nail shape but the rust distorts everything
1067	2	unidentified	metal, ferrous	completely rusted pieces of metal
1068	1	unidentified	metal, composite	slightly circular in shape, green rust, brass, chunk in metal
1069	1	spike	metal, ferrous	complete spike partly encased in rust, there are inclusions in the rust (coal and pebbles) (height 16.5 cm)
1070	1	file	metal, ferrous	very rusted, complete file, there are chunks of rust stuck to the file, there is coal and pebble inclusions in the rust, the file bulges slightly in the center and is rectangular in cross section, the teeth type is indeterminate due to the rust (length 39 cm, max width of the face 3.7 cm, edge wieth 0.9 cm)

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
1075	1	railway spike	metal, ferrous	complete and rusty railway spike, flat round head with a flange on one side, the shaft is cylindrical and tapers at the point, chunk of rust with multiple inclusions (coal and red brick fragments) (height 26.5 cm, shaft diameter 2 cm)
1076	1	chain link	metal, ferrous	ovoid chain link (length 7.4 cm, width 4.5 cm, diameter of metal 1.2 cm)
1077	1	unidentified	metal, ferrous	curved rusted piece of metal
1078	1	strapping	metal, ferrous	long curved piece of strapping
1079	1	unidentified	metal, composite	rusted, heavier piece of metal, appears to be a smaller portion of something larger, flat and rectangular, on one side there is a raised ridge running the length of the object with sloped sides (width 2.7 cm)
1080	1	washer	metal, composite	rusted, green rust, brass, a washer and a small incomplete rod
1085	2	spike	metal, ferrous	two incomplete spikes, both spikes have a chunk of metal, stone, coal and wood inclusions in the rust
1086	1	spike	metal, ferrous	very rusted spike, the shaft is almost inertly encased in rust (height 13.5 cm)
1087	1	washer	metal, composite	flat off square washer, green coloured rust, probably brass (length/width 4 cm, thickness 0.3 cm)
1088	2	unidentified	metal, composite	pieces of metal, green rust and a little orange rust, possibly brass
1089	1	bolt	metal, ferrous	very large bolt, very rusty, only a small portion of the threading is present (length 35 cm, length/width of head 3.5 cm, diameter of shaft 2.2 cm)

Layer Sub-total - *79*
Quadrant Sub-total - *79*
Feature Sub-total - *79*

Feature: 41
Quadrant:
Layer:

520	2	lantern glass	glass	colourless, moulded, straight lip, ground finish bulbous body, two vertical mould seams present (approx. lip diameter 7.3 cm, approx. font diameter 11.5 cm)
521	1	container, unidentifiable	glass	colourless, slightly curved glass, part of some sort of bottle
522	1	container, liquor	glass	medium forest green, mouth blown and moulded (approx. diameter 7.5 cm)
523	3	container, liquor	glass	dark olive, mouth blown and moulded, some seed bubbles present (approx. diameter 8.5 cm)
1090	4	spike	metal, ferrous	rusty, machine cut spikes, tapered point, square, square head that are in between side- and face-pinched, all of the spikes are bent near the center of the shaft, two of the spikes of wood on the shaft (spike height 21 cm, shaft length/width 1 cm)

Layer Sub-total - *11*
Quadrant Sub-total - *11*
Feature Sub-total - *11*

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
Feature: 5 **Quadrant:** **Layer:**				
670	1	brick	clay	orange coloured clay, hand made and stick trimmed, water struck, slightly thermally altered, there is some mortar present on the frog and on the opposite side (length 8.9 inch / width 4 inch / thick 2.4 inch, frog length 5.5 inch (14cm)/ width 1.6 inch (4 cm)/ depth 0.2 inch (0.5 cm))
Layer Sub-total -		*1*		
Quadrant Sub-total -		*1*		
Feature Sub-total -		*1*		
Feature: 53 **Quadrant:** **Layer:**				
530	1	container, liquor	glass	medium olive green, mouth blown and moulded, multiple seed bubbles
900	1	faunal, mammal	bone	part of a long bone, a few cut marks present
Layer Sub-total -		*2*		
Quadrant Sub-total -		*2*		
Feature Sub-total -		*2*		
Feature: 54 **Quadrant:** **Layer:**				
540	28	window glass	glass	colourless and light aqua
541	1	container, liquor	glass	light forest green, curved bottle glass
542	1	unidentified	glass	light turquoise, press moulded glass, the design looks like multiple pebbles, flat
543	1	container, unidentifiable	glass	colourless, curved glass, machine made?
544	1	lamp chimney	glass	colourless, lower flared rim of a lamp chimney, a very small part of the bulbous body is present (approx. diameter 3.5 cm)
1095	16	nail, indeterminate	metal, ferrous	completely rusted and encased in rust
1096	2	nail, machine cut	metal, ferrous	two rusted incomplete nails, the shafts of these nails are encased in wood
1097	2	spike	metal, ferrous	two incomplete spikes, one spike is encase in rust and there is a chunk of rust on the head of the other spike
1098	1	nail, machine cut	metal, ferrous	incomplete, thermally altered nail shaft
1099	1	nail, machine cut	metal, ferrous	thermally altered nail, the head is pointed in the center
1100	1	washer	metal, ferrous	complete washer that is completely encased in rust (diameter 4.2 cm)
1101	1	screw	metal, ferrous	large, thermally altered screw (height 10 cm)
1102	1	chain link	metal, ferrous	six rusted links of a change, four of the links are encased in rust (length of a link 6.6 cm, width of link 3.4, thickness 1 cm)
1103	1	unidentified	metal, ferrous	very rusted iron rod, inclusions of charcoal in the rust diameter 1.8 cm, length as is 25 cm)
Layer Sub-total -		*58*		

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
Quadrant Sub-total -	*58*			
Feature Sub-total -	*58*			
Feature: 59				
Quadrant:				
Layer:				
805	1	brick	clay	machine made, soft-mud bricks with a razored bottom, dark red coloured clay, elongated hexagonal frog with pressed lettering that reads "PRICE" (dimensions: length 21.3cm/8.4 in, width 10cm / 3.9 in, height 6.2cm/2.4in; frog max length 15.5cm/6.1in, width 5cm/2in, and depth 1cm/0.4in)
806	1	brick	clay	machine made, soft-mud bricks with a razored bottom, red coloured clay, one of the long edges has a red coating of sorts(?), rectangular frog with raised lettering and reads "J.PRICE", there is mortar present on the top, bottom and short sides of the brick (dimensions: length 21.3cm/8.4 in, width 10cm / 3.9 in, height 6.2cm/2.4in; frog length 15cm/5.9in, width 5cm/2in, and depth 1.5cm/0.6in)
Layer Sub-total -	*2*			
Quadrant Sub-total -	*2*			
Feature Sub-total -	*2*			
Feature: 6				
Quadrant:				
Layer:				
400	1	container, unidentifiable	glass	light turquoise, side of a rectangular bottle, machine made, basically straight on the exterior convex on the interior (thickest in the center)
401	1	container, unidentifiable	glass	colourless, part of a cylindrical body (jar of sorts), rounded heel and flat resting point (approx. diameter 7.5 cm)
402	1	container, medicine	glass	light aqua in colour, machine made Davis-type finish and cylindrical neck, very small portion of the shoulder present and appears to be sloping (lip diameter 2.3 cm, neck diameter 2 cm)
403	1	container, liquor	glass	amber, machine made bottle with two piece finish, tall and slightly tapering lip with a string rim, tapering neck, related to 404 and 405 (diameter of lip 2.9 cm, height of finish 2.9 cm, height of mid-point on neck 3.2 cm)
404	1	container, liquor	glass	amber, curved body glass, related to 403 and 405
405	1	container, liquor	glass	amber, machine made bottle, rounded heel, flat resting point, flat recessed base with an Owens suction scar, related to 403 and 404
406	1	container, liquor	glass	olive, two piece moulded bottle with a post bottom base, mouth blown, in horizontal profile the bottle would have been square (or rectangular) in shape
407	22	container, liquor	glass	medium olive green, thicker curved bottle glass
408	1	container, liquor	glass	pale olive green, some seed bubbles present, vertical mould seam, moulded and mouth blown
409	1	container, liquor	glass	medium olive green, curved, probably mouth blown

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
410	2	container, liquor	glass	more olive, olive green, moulded and mouth blown, slightly bulbous neck and rounded shoulder, one vertical mould seam present on the neck
411	1	container, liquor	glass	medium amber, curved thicker glass, probably mouth blown and moulded
412	1	container, liquor	glass	medium olive green, dip moulded bottle, rounded shoulder, cylindrical body, there is a horizontal mould seam at the bottom of the shoulder, multiple seed bubbles in the glass
413	1	container, liquor	glass	medium to dark olive green, dip moulded bottle, no mould seams present, glass is very thick in the base, cylindrical but slightly tapering body, rounded heel and resting point, conical shaped push up (base diameter 6.4 cm)
414	1	container, medicine	glass	olive green, ovoid shaped bottle, embossed lettering present and reads "PILGR….", based on this lettering this bottle is a 'pilgrim iron tonic bitters' bottle
415	3	container, liquor	glass	medium aqua, pieces of a dip moulded bottle, thicker glass, cylindrical body, rounded heel and resting point and part of a characteristic turn moulded pushup
416	2	container, liquor	glass	medium olive green, glossy glass, moulded and mouth blown two piece moulded bottle with cup bottom base (body diameter 6.4 cm)
417	2	unidentified	glass	light turquoise, slightly curved glass, with slag stuck to one side
418	1	container, unidentifiable	glass	light aqua, mouth blown moulded bottle, two piece moulded, tooled finish, probably a medicine/tonic bottle, tapering taller lip with rounded neck ring, cylindrical neck, rounded shoulders and flat sides, there are multiple air bubbles in the glass (lip diameter 2.2 cm, meck diameter 2.3 cm)
419	3	container, unidentifiable	glass	cobalt blue, machine made bottle, ground lip, external embossed threading with a neck ring underneath, tapering neck, there is another ring around the shoulder, rounded body, one vertical mould seam present, similar to 392
420	3	container, soft drink	glass	colourless, machine made 'Orange Crush' bottle, the body is covered with horizontal ribs and flat area in the center for embossed lettering, the embossed lettering present reads "…NGE / ..USH/ …TLE..", cylindrical body, the heel is rounded, flat resting point shallow recessed base with a "1" in the center and an Owens suction scar (body diameter 5.7 cm)
421	1	container, unidentifiable	glass	light aqua, moulded mouth blown bottle, cylindrical body, cup bottom base, abrupt heel, slightly inset flat heel and shallow recessed base, seed bubble and blister bubbles (approx. diameter 9 cm)
422	1	container, unidentifiable	glass	colourless, curved bottle glass, part of one embossed letter present (J?)
423	1	lamp chimney	glass	colourless, small portion of a flared lower rim of a lamp chimney
424	1	lamp chimney	glass	colourless, curved thin glass
425	1	tumbler	glass	colourless, press moulded tumbler with frosted decoration, there are repeated panels with flat flutes that have long ovoid tops, the frosted areas mimics the rounded tops of the flutes

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
426	1	container, unidentifiable	glass	colourless, moulded glass container
427	1	unidentified	glass	colourless, curved and tapering glass, round rim
428	2	container, unidentifiable	glass	colourless curved bottle glass, rusted stained
429	37	window glass	glass	light turquoise, some a shard are stained with iron
430	1	container, liquor	glass	forest green, dip moulded bottle with applied and tooled champagne finish, sloping neck and shoulders, cylindrical body, rounded heel, and conical pushup with mamelon in the center (height 24.5, lip diameter 2.6 cm, body diameter 7.3 cm)
680	1	smoking pipe	white ball clay	bite is present, not glazed, there is impressed letting on the side of the pipe, the letting is out lined with a dotted line, "MONTREAL" and "BANNERMAN" on the other side
681	1	smoking pipe	white ball clay	part of a stem with impressed lettering, "HENDERSON" and on the other side "MONTREAL"
682	1	smoking pipe	white ball clay	small part of embossed lettering present, "GR…" and " …Y" on the other side
683	1	smoking pipe	white ball clay	part of a stem, probably near the bite, glazed, yellow
684	1	smoking pipe	white ball clay	part of a stem fragment with multiple spurs present
685	2	smoking pipe	white ball clay	exfoliated bowl sherds
686	1	container, unidentifiable	ceramic	stone ware vessel, the internal surface is not glazed and the external surface has a brown glaze
687	1	graphite pencil	graphite	small piece of graphite
688	1	fuse	glass and copper	the end portion of a fuse, purple glass with copper metal over top, the center top is circular, the side tapers and the portion below is curved
689	1	smoking pipe	white ball clay	part of a stem, the bite is present, the stem has been modified near the bite, there are two ground down areas on either side of the stem
690	1	smoking pipe	white ball clay	complete blow, smoothed surface, not decorated, missing stem (diameter of the bowl 2.4 cm)
691	1	smoking pipe	white ball clay	bowl fragment, smoothed and not decorated
692	1	key	metal, ferrous	flat key with a heart shaped perforation on the bow, there is a band on the shank just below of the bow (widest diameter of the bow 2.2 cm, thickness of the key 0.2 cm)
693	1	boot, heel	metal, composite	brass heel, more rounded oval in shape with one straight edge, there are 6 beveled perforations present, heavy metal, green and orange rust possibly brass (length 6.8 cm, width 5.8 cm, thickness 0.2 cm)
694	1	super capacitor	other and metal	small thick SuperCapacitor disk, black rubber is wrapped around the exterior with the letters "0.47F 0.47F/5.5V 5.5V/*two minus signs*/GC GC/JAPAN JAPAN" This indicates that this was made in Japan, rated for 5.5V voltage and has a rated discharge capacitance of 0.47F (diameter 2.2 cm, thickness 1.2 cm)
695	1	insulator	ceramic and metal	ceramic/porcelain insulator with a single screw in the center and there are two wide groves for wire (length of insulator 3 cm, width of insulator 1.9 cm, thickness 1.6 cm)
870	6	faunal, mammal	bone	larger portions of rib bones and a long bone, one rib and the long bone are were cut and have cut marks
871	2	faunal, avian	bone	two almost complete bones
970	5	nail, indeterminate	metal, ferrous	multiple rusted nails, incomplete
971	1	unidentified	metal, ferrous	small rusted pieces of metal

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
972	1	bolt	metal, ferrous	very rusted, large piece of rust is attached to the side of the shaft, square head, threading present on the shaft, the point or end is missing (length/width of head 3.6 cm, diameter of shaft 2.2 cm)
973	1	unidentified	metal, ferrous	very rusted, appears to be a square metal tube that is bent 90 degrees
974	1	hook	metal, ferrous	large rusted hook of sorts, looks similar to a meat hook also some what similar to a cargo hook, the center of the object is straight on end curves a little over 90 degrees and has a pointed end, the other end is bend so the trailing arm is almost parallel to the center section in the opposite direction to the pointed end but on the same plane, there is no point on this end, possibly broken off or there was never a point (diameter 1.8 cm)
975	1	unidentified	metal, composite	small piece of a brass pipe (silver coloured and green rust, specks of a copper coloured metal), heavy (diameter 5.1 cm)
976	1	unidentified	metal, composite	flat piece of brass (silver coloured and green rust, specks of a copper coloured metal), that has been curved almost into a tube (length 7.7 cm, width 8 cm, thickness 0.2 cm)
977	1	unidentified	metal, composite	small brass (silver coloured and green rust, specks of a copper coloured metal) tab, the long sides slightly constrict in the center (length 3.3 cm, width 1.6 cm)
978	1	nut	metal, composite	rusted brass (gray coloured and green rust, specks of a copper coloured metal) bolt with two flat sides and two rounded sides (diameter 2.6 cm, thickness 0.9 cm)
979	1	valve	metal, composite	stem and valve form a pump or just a valve (brass gray coloured and green rust, specks of a copper coloured metal), at one end there is a cylindrical metal part with a tapered lower edge and stepped metal attachment to one side, the shaft is cone shaped with what appears to be a hollow bolt attached to the top, there is a circular perforation through the shaft
980	1	valve controle handle	metal, composite	moulded, brass (silver coloured and green rust, specks of a copper coloured metal) knob of sorts, valve control handle probably for a gas pipe, this piece consist of a conical knob portion with a square (chamfered corners) hollow stem on the back of the knob, on the inside of the knob there cylindrical projection in the center with three arms attaching to the edge, in one of the sections there is a little moulded symbol that looks like a star with six points, in another section contains the raised inscription "T934" (diameter 6.3 cm, over all length 3.4 cm, length of 'knob' 1.7 cm)
981	1	unidentified	metal, composite	rusted brass (gray coloured and green rust, specks of a copper coloured metal), flat rectangularish piece of metal the long side constrict slightly and there are two circular portions cut(?) from the corners of one side of the rectangle, on this same sided there is a small portion of metal protruding form the side - did something attach here? Possibly part of some sort of hitch?

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
982	1	hook	metal, ferrous	rusted iron meat(?) hook, fairly robust, long straight shaft with two hooks on the ends, the top of the hook would have been attached to something and the hooks would hang down, one hood is angle at a little less than 90 degrees from the shaft and the other is angled at about 45 degrees from the shaft (length 30, length of curved hook 10.5 cm, length of less curved hook 10.5 cm)
983	1	spike	metal, ferrous	rusty spike, rounded head, square shaft and tapered point (height 13.4 cm, shaft length/width 1 cm)
984	1	spike	metal, ferrous	very rusty spike, rounded head, square shaft and tapered point (height 16 cm, shaft length/width 1.4 cm)
985	1	spike	metal, ferrous	very rusty spike, rounded head, square shaft and tapered point (height 15.5 cm, shaft length/width 1.1 cm)
986	1	spike	metal, ferrous	very rusty spike, large chunks of rust present on the shaft, rounded head, square shaft and tapered point (height 16 cm, shaft length/width 1.3 cm)
987	4	spike	metal, ferrous	rusty and incomplete spikes, covered in rust, chunks of rust are attached to the shafts with many inclusions (rocks and rusty chunks)
988	1	unidentified	metal, composite	rusted metal, iron core with a lead coating, the external metal is a dark gray colour, this piece consists of a metal bar, one end has been broken off the other one is bent 90 degrees and is square in profile
989	1	bolt	metal, ferrous	large incomplete bolt, completely encase in rust, there is large chunk of rust on the broken shaft, square head nail
990	1	unidentified	metal, ferrous	rusted, there is a metal rod (probably incomplete) with an eye at one end, there is a ring in the eye (diameter of ring 3.6 cm, diameter of rod 0.8 cm)
991	1	washer	metal, composite	large washer, led alloy of sorts, gray metal with predominately green rust and a little orange rust, moderately heavy (outside diameter 6 cm, width 1.7 cm, thickness 0.2 cm)
992	1	unidentified	metal, composite	rusted, half of a flat ring (approx. diameter 6.4 cm, and width of the ring 0.2 cm), possibly a lead based metal with copper (green rust) and iron (orange rust)
993	1	unidentified	metal, composite	part of a flat ring (approx. diameter 7.5 cm, width 1.2 cm, thickness 0.2 cm) cut from flat sheet of metal, possibly brass (green rust and red/orange rust)
994	1	unidentified	metal, composite	long flat piece of metal, the ends are broken, copper (green rust) and iron (orange rust) composite metal (width 3.8 cm and thickness 0.2 cm)
995	1	emergency brake pipe	metal, composite	very rusted, this is probably an emergency break pipe from a train, the straight pipe that attaches to the valve section is iron, the valve is probably brass based, the pipe screws (and is now rusted into) the body of the valve, the closing mechanism of the valve appears to run through the center of the valve (peering in the pipe any of the internal closing mechanism appears to be missing), off of the top of the closure mechanism there is a flat rectangular arm with three protrusions where the handle once attached or was meant to attach (example: 5th picture down in March 2011 box http://www.westernrailwaypreservation.org/wslco_caboose3.html) (diameter of pipe 3.7 cm, max length of valve 12.5 cm, max width 9 cm)

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
Layer Sub-total -		*156*		
Quadrant Sub-total -		*156*		
Feature Sub-total -		*156*		
Feature: 63				
Quadrant:				
Layer:				
550	13	container, liquor	glass	olive green, dip moulded bottle seed bubbles and one blister bubble present, part of rounded shoulders, square bottle with rounded top body panels, chamfered corners, chamfered heel, flat resting point and shallow recession in the base (base width/length 7.3 cm, height to shoulder 22 cm)
551	1	unidentified	glass	very thermally altered piece of glass
Layer Sub-total -		*14*		
Quadrant Sub-total -		*14*		
Feature Sub-total -		*14*		
Feature: 64				
Quadrant:				
Layer:				
1105	1	spike	metal, ferrous	rusted complete spike, square head that has been pinched at the corners, tapering point, machine made (height 16 cm, shaft length/width 1 cm)
1106	1	spike	metal, ferrous	rusted spike, the head is side pinched and the shaft tapers to the point but the point is not complete, machine made (approx. height 16.5 cm, shaft length/width 0.9 cm)
1107	1	spike	metal, ferrous	rusted spike, square head with pinched corners, the shaft tapers to a point, rounded point, machine made (height 17 cm, shaft length/width 1 cm)
1108	1	spike	metal, ferrous	rusted spike, the head is slightly side-pinched but more rounded, the shaft tapers to the point, rounded point, machine made (height 17.5 cm, shaft length/width 0.9 cm)
1109	1	spike	metal, ferrous	rusty spike, wood has rusted to the shaft, there is a bend in the shaft where the wood begins, the shaft tapers to the point, rounded point, machine made (height 18.5 cm, shaft length/width 1 cm)
1110	1	spike	metal, ferrous	rusted spike, the head is very loosely rose shaped and sits on an angle, there are light pinch marks on the shaft just below the head, tapering point, point is rounded but also slightly flattened similar to a forged point, most likely machine made with forged features (height 18.7 cm, shaft length/width 1 cm)
Layer Sub-total -		*6*		
Quadrant Sub-total -		*6*		
Feature Sub-total -		*6*		
Feature: 7				
Quadrant:				
Layer:				

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
700	1	smoking pipe	white ball clay	the bite of the stem is present, this portion may have just been broken off and discarded, no modifications present, not glazed, ovoid in profile

Layer Sub-total - *1*
Quadrant Sub-total - *1*
Feature Sub-total - *1*

Feature: 71
Quadrant:
Layer:

560	5	window glass	glass	light aqua, multiple fragments of window glass, some thicker pieces
561	1	container, mineral water	glass	light turquoise, single piece flattened finish, applied, very thermally altered
570	9	window glass	glass	light turquoise, multiple pieces of window glass
571	1	container, unidentifiable	glass	colourless, curved bottle glass, machine made
572	1	container, liquor	glass	dark olive, mouth blown and machine moulded, curved glass with some seed bubbles
810	1	insulator	ceramic	part of a circular ceramic insulator
815	1	unidentified	leather	fragments of leather
1115	2	nail, machine cut	metal, ferrous	rusty, chunks of rust, machine cut nails, flat heads and flat points (height 7.8 cm)
1116	1	nail, wire	metal, ferrous	rusted, bent wire nail (height 9.7 cm)
1117	1	nail, wire	metal, ferrous	almost entirely encased in rust and burnt wire nail (height 6.3 cm)
1118	1	nail, wire	metal, ferrous	almost entirely encased in rust, burnt, wire nail (height 6.7 cm)
1119	1	nail, wire	metal, ferrous	rusty, wire nail, slightly bent (height 8 cm)
1120	2	nail, machine cut	metal, ferrous	very rusty incomplete machine cut nails
1121	3	nail, wire	metal, ferrous	very rusted, shafts of wire nails
1122	1	nail, wire	metal, ferrous	very rusted, the stem is encased in rust, flat disk head, cylindrical shaft, missing point (approx. height 12 cm)
1123	1	nail, machine cut	metal, ferrous	very rusted, burned, flat head and flat point (height 6.5 cm)
1124	1	nail, machine cut	metal, ferrous	rusty, flat head nail and flat point (height 8 cm)
1125	4	nail, machine cut	metal, ferrous	multiple incomplete machine cut nails, slightly thermally altered and encased in rust
1126	5	nail, wire	metal, ferrous	rusted nails, possibly thermally altered (height 5.4 cm)
1127	1	screw	metal, composite	small slot head screw, appears to be brass (height 3.2 cm)
1128	1	unidentified	metal, ferrous	very rusted rectangular piece of metal, iron and fairly heavy for its size
1129	1	unidentified	metal, ferrous	very rusty, chunks of rust, rectangular rod, possibly part of a spike? (length 1.4 cm, width 1.3 cm)
1130	2	strapping	metal, ferrous	the long strap of metal is either encased in rust or very fragmentary due to rust, possibly a wide metal strapping (width 4.3 cm, approx. thickness 0.4 cm)
1131	2	unidentified	metal, ferrous	two indeterminate pieces of metal encased in rust
1132	1	wire	metal, cuprous	small length of copper wire (diameter 0.6 cm)

Layer Sub-total - *50*
Quadrant Sub-total - *50*
Feature Sub-total - *50*

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
Feature: 72 **Quadrant:** **Layer:**				
580	26	window glass	glass	colourless and light aqua, multiple pieces of window glass
581	4	container, milk	glass	colourless, 'milk bottle finish', machine made, rounded tapering inward lip with a cap seat recession in side the lip (approx. diameter 3 cm)
1135	2	nail, wire	metal, ferrous	rusty wire nails (height 5.3 cm)
1136	2	nail, machine cut	metal, ferrous	incomplete rusted metals
1137	1	unidentified	metal, ferrous	resembles a rusted cap, large chunk of rust on one side
1138	1	bolt	metal, ferrous	complete bolt, only the six sided head of the bolt is visible, the shaft is covered in rust, also thermally altered (diameter 2 cm)
Layer Sub-total -	*36*			
Quadrant Sub-total -	*36*			
Feature Sub-total -	*36*			
Feature: 75 **Quadrant:** **Layer:**				
303	2	unidentified	ceramic	completely exfoliated sherds
311	1	blacking bottle	ceramic	rim of a stoneware blacking bottle, the exterior has a brown glaze, the interior is not glazed, just below the rim on the exterior surface is a recessed tapered band (approx. diameter 5 cm)
312	1	wash basin	porcellaneous ware	rim portion of a thick curved porcelaneous wash basin (thickness 0.9 cm)
590	1	container, liquor	glass	olive green, mouth blown and moulded, curved glass
591	7	window glass	glass	thermally altered window glass
592	1	unidentified	glass	thermally altered, press moulded, flat base with sun burst design, on the body there are three vertical band resent, there is a panel of diamonds with four vertical bands with another panel of diamonds, the body is bulbous, vase? (approx. base diameter 2.5 cm)
593	1	container, liquor	glass	dark olive green, applied two piece finish, tapered down collar with a tapered string rim (lip diameter 2.8 cm)
594	2	container, liquor	glass	thermally altered, dark olive green curved glass, mouth blown and moulded
820	2	smoking pipe	white ball clay	two undecorated stem fragments
821	2	smoking pipe	white ball clay	part of a bite and stem, there is a green glaze over the bite
822	1	container, unidentifiable	ceramic	curved bottle with a mottled brown glaze on the exterior surface
823	17	shoe fragment	leather	multiple pieces of leather, probably from shoes
824	4	shoe fragment	leather	upper portions of leather shoes
825	1	shoe fragment	leather	upper portion of a shoe, there are 9 perforations running along one of the edges, perforations for laces
826	1	shoe fragment	leather	part of an added heel of a shoe, rounded heel (length 5 cm, width 4.9 cm)
827	1	shoe fragment	leather	part of the heel of the shoe (width 6 cm)

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
828	1	shoe fragment	leather	the front portion of the sole of a leather shoe, square toe (max width 7.5 cm)
829	1	shoe fragment	leather	complete sole, rounded heel and square toe, the toe portion has been folded over (length 16 cm, toe width 5.1 cm, heel width 4.8 cm)
830	1	shoe fragment	leather	part of a sole from a shoe, square toe (approx. toe width 7 cm)
831	1	shoe fragment	leather	toe and arch portion of the sole of a shoe, square toe, the heel appears to be a separate piece, based on the curve of the sole it is probable that this was a heeled shoe, there are tiny perforations along the edge of the shoe (toe width 6.7 cm, length of piece 13.5 cm)
832	1	shoe fragment	leather	part of a larger shoe with a square toe, there is an impression from the large toe and the big toe mound, there are perforations along the exterior of the sole, the sole has been cut off just before the heel (max toe width 7.6 cm, length 16.5 cm)
905	3	smoking pipe	white ball clay	moulded smoking pipe bowls, vertical bands that follow the contour of the smoking pipe bowl, two of the pipe are charred on the interior surface
906	2	smoking pipe	white ball clay	part of moulded bowl fragments, sprouts of foliage
907	1	smoking pipe	white ball clay	moulded bowl fragment, rim present, there is a crown present with something below, the pipe is slightly exfoliated
908	1	smoking pipe	white ball clay	moulded pipe bowl, there is a star present and tops of building? Rim present
909	3	smoking pipe	white ball clay	exfoliated bowl fragments, one chard on the internal surface
910	3	smoking pipe	white ball clay	multiple stem fragments
911	1	unidentified	indeterminate	very thermally altered, it is in the shape of a flat handle (ovoid in profile)
912	1	container, unidentifiable	ceramic	tapered shoulder and cylindrical body, stoneware, brown-tan glaze on the exterior surface (approx. diameter 7.5 cm)
913	2	container, unidentifiable	ceramic	curved body sherds, stoneware, brown glaze on the exterior surface
914	5	container, unidentifiable	ceramic	curved body sherds, tan coloured glaze on the external surface
916	6	brick	clay	exfoliated brick sherds, orange, red and tan coloured clay
920	9	faunal, mammal	bone	multiple bone fragments, there are examples of cut vertebra, ribs and ends of long bones
925	17	shoe fragment	leather	multiple fragments of leather shoes
926	1	shoe fragment	leather	upper portion of a shoe, there are perforations along one edge, for laces
927	1	shoe fragment	leather	portion of a heel fragment
928	1	shoe fragment	leather	portion of a leather sole, there is a double lone of perforations running around the out line of the sole, heel
929	1	shoe fragment	leather	portion of the toe of the shoe, square toe, there is a line of perforations running just to the inside of the edge of the leather

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
930	1	shoe fragment	leather	the center portion of a leather sole of a shoe, larger shoes, on the exterior surface there is the impression from the attached heel and where the toe portion would have been attached, there is a line of perorations long the edge of the leather (center width 5 cm)
931	1	shoe fragment	leather	toe portion of a square toed shoes, there are perforations present along the edge of the leather except for the edge opposite the toe, there are impressions from the toe and toe knuckles of the wearer (length 13.5 cm, max width 7 cm)
932	1	shoe fragment	leather	toe portion of a square toed shoes, there are perforations present along the edge of the leather and there are small shoe tacks present in the leather on the edge opposite the toe, there are impressions from the toe and toe knuckles of the wearer and a hole where the large toe knuckle would have been (length 16.5 cm, max width 8 cm)
935	32	faunal, mammal	bone	multiple fragments of bone, large ribs, parts of vertebra, parts of long end bones, there are examples of smaller ribs, and a lower jaw with teeth (pig?)
936	17	faunal, mammal	bone	multiple pieces of burned bone
937	2	faunal, shell	shell	two small pieces of shell
Layer Sub-total -		*162*		
Quadrant Sub-total -		*162*		
Feature Sub-total -		*162*		
Feature: 79				
Quadrant:				
Layer:				
600	2	window glass	glass	light turquoise
601	1	container, unidentifiable	glass	colourless, curved glass, machine made
602	1	unidentified	glass	colourless, curved piece of glass
603	1	window glass	glass	flat thick piece of window glass
835	1	unidentified	metal, ferrous	small rusted chunk of metal, slightly tube shaped with a perforation in the center
836	1	graphite pencil	graphite	modified graphite electrode from an arch lamp, cylindrical piece of graphite with one moulded rounded end and a pointed end for writing (diameter 1.3 cm)
1140	1	bolt	metal, ferrous	large bolt with a pointed point and a large chunk of rust on the shaft, thermally altered (height 10 cm, length/width of head 2.1 cm, shaft diameter 1.3)
1141	1	unidentified	metal, ferrous	rusted, incomplete flat disk, slightly burned (diameter 4.5 cm, thickness 0.2 cm)
Layer Sub-total -		*9*		
Quadrant Sub-total -		*9*		
Feature Sub-total -		*9*		
Feature: 80				
Quadrant:				
Layer:				
334	1	unidentified	ceramic	heavily thermally altered sherd, probably buff earthenware, glaze has turned gray

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
610	1	unidentified	glass	colourless, curved glass
611	2	unidentified	glass	colourless, curved glass, fire polished 'rim' and curved body, hollowware of sorts?
612	1	container, unidentifiable	glass	light turquoise, embossed bottle, the embossing reads "… Co." in an arch and "…ST" horizontally below
613	1	container, medicine	glass	turquoise, 'Davis-type' finish, cylindrical neck (lip diameter 2.2 cm)
614	2	container, unidentifiable	glass	light turquoise, curved glass with vertical mould seam
615	4	container, liquor	glass	olive green, curved glass
840	1	unidentified	metal, composite	flat disk with orange and white rust, possible part of a broach? (diameter 4.5 cm, width of the ring 0.7 cm)
841	1	button	shell	small shell button with two holes (diameter 1.1 cm, thickness 0.2 cm)
842	1	button	ceramic	white, round prosser button, there is a flat ring on the very edge of the button, four holes in a circular recession in the center of the button (approx. diameter 1.7 cm)
843	1	button	ceramic	white, four holed prosser button, there is a recession where the holes are on the front of the button (diameter 1.1 cm, thickness 0.3 cm)
844	1	button	glass	colourless, rose bud button, missing the eye on the back (diameter 1.4 cm, height 0.7 cm)
845	1	marble	glass	large colourless glass with swirled glass inside, in the center of the portion there is a white and pink swirl, out side the center swirl there are four swirls made up of multiple colours, blue/white/pink/white/blue for two swirls and black/yellow/red/yellow/black (diameter 2.4 cm)
846	1	shoe fragment	metal, composite	brass shoe buckle, the frame is rectangular that curve inwards at the top and the bottom, around the pin is a tongue and a hook that would attach to the shoe (length 3.1 cm, width 2.8 cm)
940	8	faunal, mammal	bone	multiple fragments of bone, ribs of varying sizes, part of a ling bone and a vertebra, cut bones
1145	1	nail, machine cut	metal, ferrous	rusted and burned nail, flat head and flat point (height 8.2 cm)
1146	1	nail, machine cut	metal, ferrous	rusted, flat head nail, missing point
1147	1	nail, machine cut	metal, ferrous	incomplete, rusty metal, missing point, flat head, wood rusted to the shaft

Layer Sub-total - *30*
Quadrant Sub-total - *30*
Feature Sub-total - *30*

Feature: 81
Quadrant:
Layer:

620	13	window glass	glass	light aqua, multiple pieces of window glass
621	1	window glass	glass	colourless, moulded glass, small ribs on one side of the glass, possibly window glass
622	1	container, unidentifiable	glass	light aqua, larger container, mouth blown and moulded, oblong seed bubbles present

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
623	2	container, unidentifiable	glass	very light aqua, cylindrical neck with raised neck ring with chamfered corners, there is a vertical mould seam present and embossed lettering which reads "C…"probably a food jar, possibly condiments, larger bottle
624	2	container, unidentifiable	glass	colourless, curved glass, container of sorts
625	1	container, soft drink/minera	glass	light turquoise, twp piece post bottom moulded bottle, cylindrical body, curved heel, flat resting point and shallow recessed base, part of embossed label "TOR…." (approx. diameter 7 cm)
626	1	container, liquor	glass	olive green, curved bottle glass, mouth blown and moulded
627	1	container, medicine	glass	solarized glass, two piece moulded bottle with applied finish, patent finish, cylindrical neck, sloping shoulders into a rectangular bottle, chamfered corners, small chamfered heel, flat resting point and shallow recessed base (height 11.2 cm, lip diameter 2.4 cm, width of body 2.6 cm, length of base 4.3 cm)
850	1	shoe fragment	leather	incomplete shoe heel, rounded toe and heel, a short stacked heel is present (length 21.5 cm, toe width 6 cm, heel diameter 5.8 cm, 0.5 cm tall)
851	1	button	ceramic	white, prosser, round button with raided lip around the edge of the button, two holes (diameter 1.8 cm)
852	1	button	ceramic	white, prosser button with four holes, the button is slightly curved (diameter 1.6 cm)
853	1	button	ceramic	white, prosser button, circular depression with for holes (diameter 1.8 cm)
854	1	doll	ceramic	small foot with a brown heeled shoe, possibly a women's boot, porcelain
855	1	unidentified	white ball clay	possibly part of a pipe, long and square in profile
945	16	faunal, mammal	bone	multiple fragments of bone, all have been altered by cutting, examples of ribs or varying sizes, portions of long bones, slightly thermally altered?
1150	1	nail, machine cut	metal, ferrous	rusted and burned nail with wood rusted to the shaft, flat head and flat point (height 7.7 cm)
1151	1	spoon, tea	metal, composite	the rusted bowl portion of a spoon, elongated egg shape, green/orange a dark gray rust possibly pewter, nickel-sliver? (bowl length 4.8 cm, max. bowl width 2.8 cm, bowl depth 0.8 cm)
1152	1	wire	metal, ferrous	rusted piece of wire, also burned
1153	7	unidentified	metal, composite	multiple pieces of a very soft malleable metal, grey in colour when rust and some orange rust as well, a lead alloy
1154	1	railway spike	metal, ferrous	rusted (orange and red) railway spike, missing head, very robust and heavy (shat length/width 1.5 cm)
1155	1	unidentified	metal, ferrous	the shaft of some sort of iron item is completely encased in rust

Layer Sub-total - *56*

Quadrant Sub-total - *56*

Feature Sub-total - *56*

Feature: 82

Quadrant:

Layer:

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
950	2	faunal, mammal	bone	two fragments of bone, slightly thermally altered, there are a few cut marks and gnaw marks
951	1	faunal, avian	bone	the shaft of a long bone, slightly thermally altered, cut marks present on both ends of the shaft
Layer Sub-total -	*3*			
Quadrant Sub-total -	*3*			
Feature Sub-total -	*3*			
Feature: 83				
Quadrant:				
Layer:				
371	4	unidentified	ceramic	thermally altered and orange stained sherds
630	5	container, unidentifiable	glass	colourless, curved bottle glass
631	2	container, unidentifiable	glass	light aqua, mouth blown and moulded, vertical mould seam with a few air bubbles present, probably a two piece moulded bottle, rounded shoulder and cylindrical body (approx. diameter 8 cm)
632	1	blacking bottle	glass	amber, two piece moulded bottle, wide patent finish, cylindrical neck, rounded shoulder, square body with chamfered corners, chamfered heel, rounded resting point and shallow recession in the base, the embossed number '124' is present on the base, on the 'front' side of the bottle there is embossed lettering that reads (running vertically) 'NONSUCH INTERNATIONAL / STOVE DRESSING / NONSUCH. MFG. Co / TORONTO. " (height 14.6 cm, lip diameter 3.1 cm, bottle length/width 4.9 cm)
633	1	unidentified	glass	colourless, press moulded stand of sorts, flat resting point and rounded heel, rounded upper portion, there is a horizontal mould seam on the edge of the rounded heel (edge diameter 12.5 cm)
634	1	container, soft drink, soda/	glass	turquoise, two piece moulded bottle with cup bottom bottle, curved heel and rounded foot ring, small number of embossed letters on the bottle, the letters are "…SOD…" (approx. body diameter 6.5 cm)
635	1	unidentified	glass	colourless, curved glass with a fire polished rim, possibly part of a lamp chimney
636	4	unidentified	glass	turquoise, curved glass
637	3	unidentified	glass	colourless glass, thinner curved glass
860	3	graphite pencil	graphite	three modified graphite electrodes from an arch lamp, cylindrical piece of graphite with one moulded rounded end and a pointed end for writing (lengths 7.3 cm, 5.1 cm and 2.8 cm) (diameters 1.2 cm)
861	1	smoking pipe	white ball clay	larger bowl fragment, approx. half of the bowl, not decorated
862	1	coal	coal	thermally altered coal
955	8	faunal, mammal	bone	multiple fragments of bone, examples of ribs and long bone and possibly a rib, either cut or cut marks present
956	4	faunal, mammal	bone	thermally altered pieces of bone
1160	1	nail, machine cut	metal, ferrous	very rusted nail, flat head and flat point (height 8 cm)
1161	1	nail, machine cut	metal, ferrous	rusted, and bent nail, flat head and flat point (height 7.5 cm)
1162	26	nail, machine cut	metal, ferrous	rusted, burned, incomplete nail fragments

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
1163	4	unidentified	metal, ferrous	large chunks of rust, probably surrounding nails
1164	1	tack	metal, composite	rusted tack, rounded head with a lip, the shaft is probably intact but it looks very fragmentary, large chunk of rust stuck to the shaft, brass (length 4.1 cm, head diameter 1.1 cm)
1165	1	railway spike	metal, ferrous	rusted, chunks of rust, incomplete railway spike, missing head, tapered point, very robust (shat length/width 1.5 cm)
1170	1	nail, wire	metal, ferrous	very rusted, burn wire nail (helight 6.6 cm)
1171	1	nail, machine cut	metal, ferrous	very rusted, burned nail, slightly bent, most of the shaft is encased in rust, flat head and flat point (height 8 cm)
1172	1	nail, machine cut	metal, ferrous	rusted nail, flat head, missing point
1173	1	railway spike	metal, ferrous	very rusted, most of the shaft is encased in rust, burned, the point is missing, small part of the head is present (shat length/width 1.6 cm)

Layer Sub-total - *77*
Quadrant Sub-total - *77*
Feature Sub-total - *77*

Feature: 90
Quadrant:
Layer:

Cat#	Qty	Type	Material	Comments
640	2	container, food	glass	aqua, complete club sauce stopper (missing cork) with embossing on the top that reads "LEA & PERRINGS" and finish, neck and shoulder of a Worcestershire sauce bottle, applied club sauce finish, slightly tapering neck, and rounded shoulder with part of an embossed word present "..HIRE.." running horizontally on the shoulder, two faint vertical mould seams present (stopper height 3.5 cm, height of neck and finish 6.8 cm)
641	1	container, medicine	glass	colourless, two piece moulded bottle, tooled wide prescription or flared finish (incomplete), cylindrical neck with a neck band sitting on top of the shoulder, rounded shoulder into a rectangular body, the short sides are curved slightly and there are recessed panels on the long sides, abrupt heel, flat resting point and shallow recession in the base (bottle height 12.7 cm, base width 2.8 cm, base length 5.3 cm)
642	1	container, soft drink	glass	aqua, two piece moulded bottle with cup bottom base plate and applied finish, applied tapered down finish, sloping neck and shoulders, cylindrical body chamfered heel, rounded resting point and shallow recession in the base, the embossing on the bottle reads "TRADE MARK / stylized T,H,S layered on top of each other / TORONTO / 1867" on the opposite side of the bottle "H.T. SMITH / STEAM / SODA WATER / MAKER". Smith was in business from 1867-1877, early to mid example of bottles produced (height 17.9 cm, lip diameter 2.8 cm, body diameter 6.8 cm)

Layer Sub-total - *4*
Quadrant Sub-total - *4*
Feature Sub-total - *4*

Stage 4 Non-ceramic Artifact Inventory

The Queen's Wharf Station Site (AjGu-74)

Cat#	Qty	Type	Material	Comments
Feature: 94 **Quadrant:** **Layer:**				
381	1	chamber pot cover	ceramic	thermally altered part of a chamber pot cover, there is orange and black staining in the crazing, ironstone, the top is curved and is continuous in to the flange, and a vertical flange, the top is decorated with a brown transfer print decoration, Oriental design, bamboo in the background with two love birds in a cloud on top, looking down on the cover the over all shape is either round or ovoid
650	1	container, milk	glass	colourless, machine moulded milk bottle, cap seat finish, sloping shoulders and cylindrical body, rounded heel and flat resting point, flat recession in the base, ghost parson seams, the embossing on the bottle reads "CITY DAIRY Co" in and arch, and "LIMITED" in an inverse arch below" on the other side the embossing reads "LOANED RETURN / WHEN EMPTY" (height 21.5 cm, lip diameter 5.7 cm, body diameter 7.7 cm)
651	1	container, soft drink	glass	light turquoise, two piece moulded bottle with tooled finish, blob top with short cylindrical neck, curved shoulders and cylindrical body, there is embossing present on the body running vertically " CHAS. WILSON / TORONTO ONT." on the other side there is a large squirrel holding a nut, above the squirrel the word "REGISTERED" is in an arch, below the squirrel reads "TRADE MARK" this business ran from 1876 - 1900 approximately, there is an in complete Hutchinson Stopper present (lip diameter 2.8 cm)
652	1	container, soft drink, soda/	glass	light turquoise, two piece moulded bottle with cup bottom bottle, the embossing on the bottle reads "JOHN VERNER / TRADE (sideways maple leaf with the stem to the left) MARK / TORONTO" on the base there is a stylized "J" over a "V", date range 1881 -1897 (body diameter 6 cm)

Layer Sub-total - *4*

Quadrant Sub-total - *4*

Feature Sub-total - *4*

Grand Total - *893*