TORONTO

# REPORT FOR ACTION

# Intention to Designate under Part IV, Section 29 of the Ontario Heritage Act – 440 Unwin Avenue

Date: February 7, 2019
To: Toronto and East York Community Council
Toronto Preservation Board
From: Senior Manager, Heritage Preservation Services, Urban Design, City Planning
Wards: Ward 14 - Toronto Danforth

## SUMMARY

This report recommends that City Council state its intention to designate the property at 440 Unwin Avenue under Part IV, Section 29 of the Ontario Heritage Act.

Located in the Port Lands on the north side of Unwin Avenue, between Leslie and Cherry streets, the property contains the Richard L. Hearn Generating Station, a coal-based generating station for Toronto's emerging post-war economy, designed by the by the Stone & Webster Engineering Corporation and completed in phases in 1951, 1961 and 1971 for the Hydro-Electric Power Commission of Ontario (now known as Ontario Power Generation). It was decommissioned in 1983. The Province leased the property to the tenants in 2002 until they sold the property in November 2018. During that time, the tenant sought a variety of permits to accommodate film and television studio production as well as a demolition permit for the generating station which was issued in 2010 and subsequently expired in 2017. The building interiors were subsequently stabilized between 2014 and 2016 to host large public events such as Luminato.

The Hearn, an icon of the civic spirit underpinning the Port Lands creation in 1912, has for over 70 years been a distinctive landmark on the Toronto waterfront with its tall chimney stack. For more than 15 years City Council has expressed a desire to protect and preserve this waterfront landmark property. Initially, through its inclusion on the City's Heritage Register in 2003, and then through a series of Council decisions, the City reaffirmed to the Provincial Government its interest in the Hearn Generating Station's preservation. As the property was owned by Ontario Power Generation, a provincial public body, it was exempt from designation by the City of Toronto.

The Province of Ontario recognized the cultural heritage value of the property by including it on the List of Provincial Heritage Properties following a Cultural Heritage Evaluation in 2016. As the property is now privately owned, it is no longer subject to

provincial protection pursuant to Section B.3 of the Standards and Guidelines for Conservation of Provincial Heritage Properties dated April 28, 2010, prepared pursuant to Section 25.2 of the Ontario Heritage Act). The authority for heritage protection now resides with City Council and the property may be designated by the City of Toronto under Part IV, Section 29 of the Ontario Heritage Act.

Following research and evaluation, it has been determined that the property meets Ontario Regulation 9/06, the criteria prescribed for municipal designation under Part IV, Section 29 of the Ontario Heritage Act for its design, associative and contextual value.

Designation under Part IV enables City Council to recognize the heritage value of the Hearn Generating Station, to identify and protect the heritage attributes and review alterations to the site, enforce heritage property standards and maintenance, and refuse demolition.

## RECOMMENDATIONS

The Senior Manager, Heritage Preservation Services, Urban Design, City Planning recommends that:

1. City Council state its intention to designate the property at 440 Unwin Avenue under Part IV, Section 29 of the Ontario Heritage Act, in accordance with the Statement of Significance: 440 Unwin Avenue (Reasons for Designation) attached as Attachment 3 to the report (February 7, 2019) from the Senior Manager, Heritage Preservation Services, Urban Design, City Planning.

2. If there are no objections to the designation in accordance with the Ontario Heritage Act, City Council authorize the City Solicitor to introduce the necessary bill in Council.

3. If there are objections in accordance with the Ontario Heritage Act, City Council direct the City Clerk to refer the proposed designation to the Conservation Review Board.

4. If the designation is referred to the Conservation Review Board, City Council authorize the City Solicitor and appropriate staff to attend any hearing held by the Conservation Review Board in support of Council's decision to designate the property.

## FINANCIAL IMPACT

There are no financial implications resulting from the adoption of this report.

## DECISION HISTORY

At its meeting of January 30 and 31 2019, City Council adopted the motion to reaffirm the City's interest in the protection and preservation of the Hearn Generating Station at 440 Unwin Avenue, Toronto. City Council also adopted the motion to direct the Senior Manager, Heritage Preservation Services to report on the evaluation of the property at 440 Unwin Avenue (the Hearn Generating Station) under Ontario Regulation 9/06, the criteria prescribed for municipal designation under Part IV, Section 29 of the Ontario Heritage Act, to the February 27, 2019 meeting of the Toronto Preservation Board and the March 27 and 28, 2019 meeting of City Council.

http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.MM2.20

At its meeting of January 30 and 31 2019, City Council adopted the motion to direct the Deputy City Manager, Corporate Services, in consultation with the Chief Executive Officer of CreateTO, to initiate negotiations on an expedited basis with the appropriate parties for the acquisition of the Hearn Generating Station site at market value, taking into consideration the environmental conditions of the property and any other relevant factors, including recent transaction values, and otherwise on terms satisfactory to the Deputy City Manager, Corporate Services. Council directed the Deputy City Manager, Corporate Services to report to the Executive Committee at its meeting of April 9, 2019 regarding the status of such negotiations, and for the approval of the agreed upon business terms, if applicable.

http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.MM2.21

At its meeting of December 5, 6, 7, and 8, 2017 City Council adopted the Port Lands Planning Framework (September 2017), prepared by the City Planning Division with Waterfront Toronto, attached as Attachment 1 to the report (September 27, 2017) from the Deputy City Manager, Cluster B. At this meeting, City Council also instructed the City Solicitor to request the Local Planning Appeal Tribunal modify the Central Waterfront Secondary Plan in accordance with the Port Lands Official Plan modification (OPM). The Planning Framework and OPM will guide the revitalization of the Port Lands, which includes the property at 440 Unwin Avenue and referenced the Hearn Generating Station as a part of the area's heritage with a vision for its adaptive reuse as a major cultural and sporting venue surrounded by parkland and civic open space.

http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.PG24.6

At its meeting of November 7, 8 and 9, 2017, City Council adopted motions: reaffirming the City's interest in the protection and preservation of the Hearn Generating Station at 440 Unwin Avenue, Toronto and requesting the Province, as the owners, to safeguard and protect the property's heritage through a variety of measures.

https://www.toronto.ca/legdocs/mmis/2017/mm/bgrd/backgroundfile-108869.pdf

At its meeting of December 16, 2010, City Council adopted motions reaffirming the City's interest in the protection and preservation of the Hearn Generating Station and that the City wishes to be consulted as part of the review process in accordance with the Standards and Guidelines for Conservation of Provincial Heritage Properties and to request the Ontario Power Generation (OPG) that prior to exercising its right to demolish the property, a public meeting be held and that OPG consult with the Ward Councillor, the Chief Planner, the Manager of Heritage Preservation Services, the General Manager of Economic Development and Culture and Waterfront Toronto with respect to alternatives to demolition of this significant heritage property.

http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.MM2.2

At its meeting held on May 21, 22 and 23, 2003, Toronto City Council adopted the recommendation for the Toronto East York Community Council to include on the City of Toronto Inventory of Heritage Properties a group of properties located in the East Bayfront and Port Lands Industrial Area of the Central Waterfront which included "440 Unwin Avenue (Hearn Generating Station), exterior and chimney only."

https://www.toronto.ca/legdocs/2003/agendas/council/cc030521/to5rpt/cl010.pdf

## COMMENTS

A location map (Attachment 1) and photographs (Attachment 2) are attached. Staff have completed the Research and Evaluation Report (Attachment 4) for the property at 440 Unwin Avenue and determined that the property meets Ontario Regulation 9/06, the criteria prescribed for municipal designation under Part IV, Section 29 of the Ontario Heritage Act under all three categories of design, associative and contextual values.

Located on the north side of Unwin Avenue, between Cherry and Leslie Streets in the Port Lands, the property at 440 Unwin Avenue contains the Richard L. Hearn Generating Station (1951, extended 1961). Its massive scale, reputed to be one of the largest enclosed structures in Canada, combined with the 213-metre high chimney, make it a distinctive landmark on Toronto's waterfront, contributing to the City's skyline. Since being decommissioned in 1983, "the Hearn" has been adaptively reused as a film and television studio as well as being the location for the annual Luminato Festival in 2014, 2015 and 2016.

Planned in 1912 as an industrial port with an adjacent waterfront park, the Hearn's site in the Port Lands has evolved and is now surrounded with parks, the Martin Goodman Trail and the Leslie Street Spit on the south side with traditional harbour-side industries on the north side augmented by new uses including recording and film studios.

Originally constructed to provide power to meet the demands of Toronto's booming Post-War economy, this former industrial structure, which has served as a film and television studio, has the potential for adaptive re-use for recreational and cultural purposes. A landmark of the civic spirit underpinning the Port Lands creation, for over

70 years the Hearn has been a representative of providing for the future needs of Toronto while accommodating change and adaptation.

The Statement of Significance (Attachment 3) for 440 Unwin Avenue comprises the Reasons for Designation, which is the Public Notice of Intention to Designate and will be advertised on the City of Toronto's website in accordance with the City of Toronto Act provisions and served on the Ontario Heritage Trust to the provisions of the Ontario Heritage Act.

CONTACT

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## SIGNATURE

Mary L. MacDonald, MA, CAHP
Senior Manager, Heritage Preservation Service
Urban Design, City Planning

## ATTACHMENTS

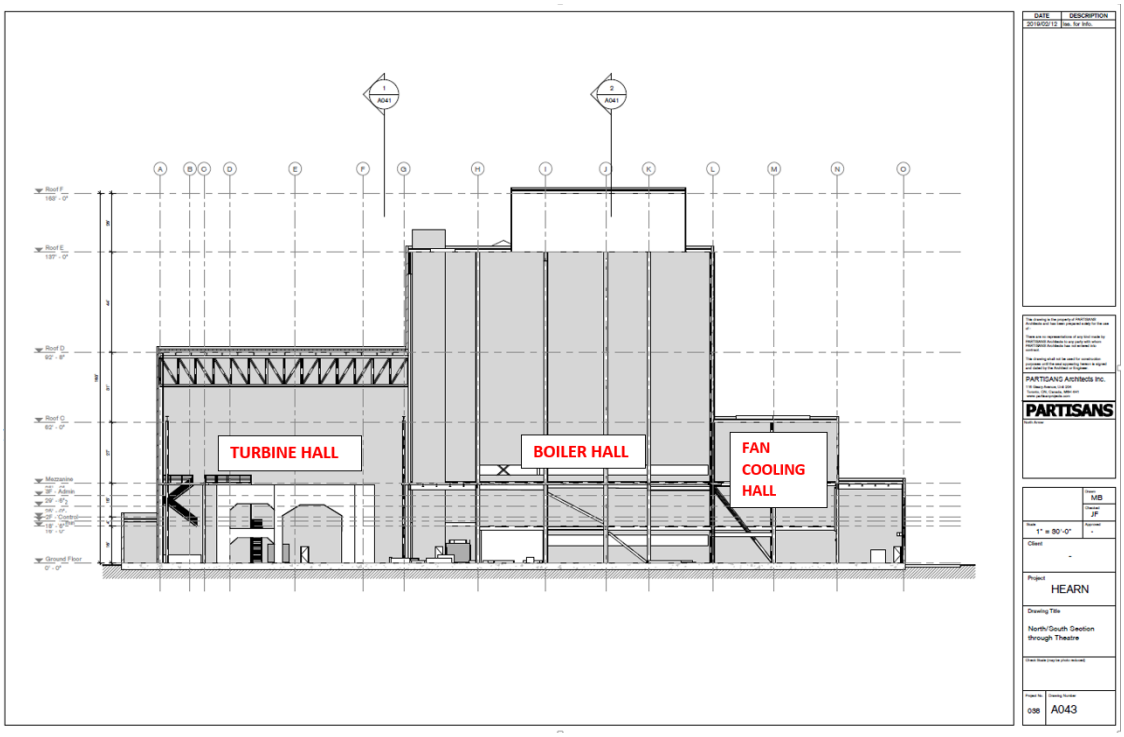
Attachment No. 1 – Location Map
Attachment No. 2 – Photographs
Attachment No. 3 – Statement of Significance (Reasons for Designation) - 440 Unwin Avenue
Attachment No. 4 – Heritage Property Research and Evaluation Report - 440 Unwin Avenue

LOCATION MAP: 440 UNWIN AVENUE ATTACHMENT 1

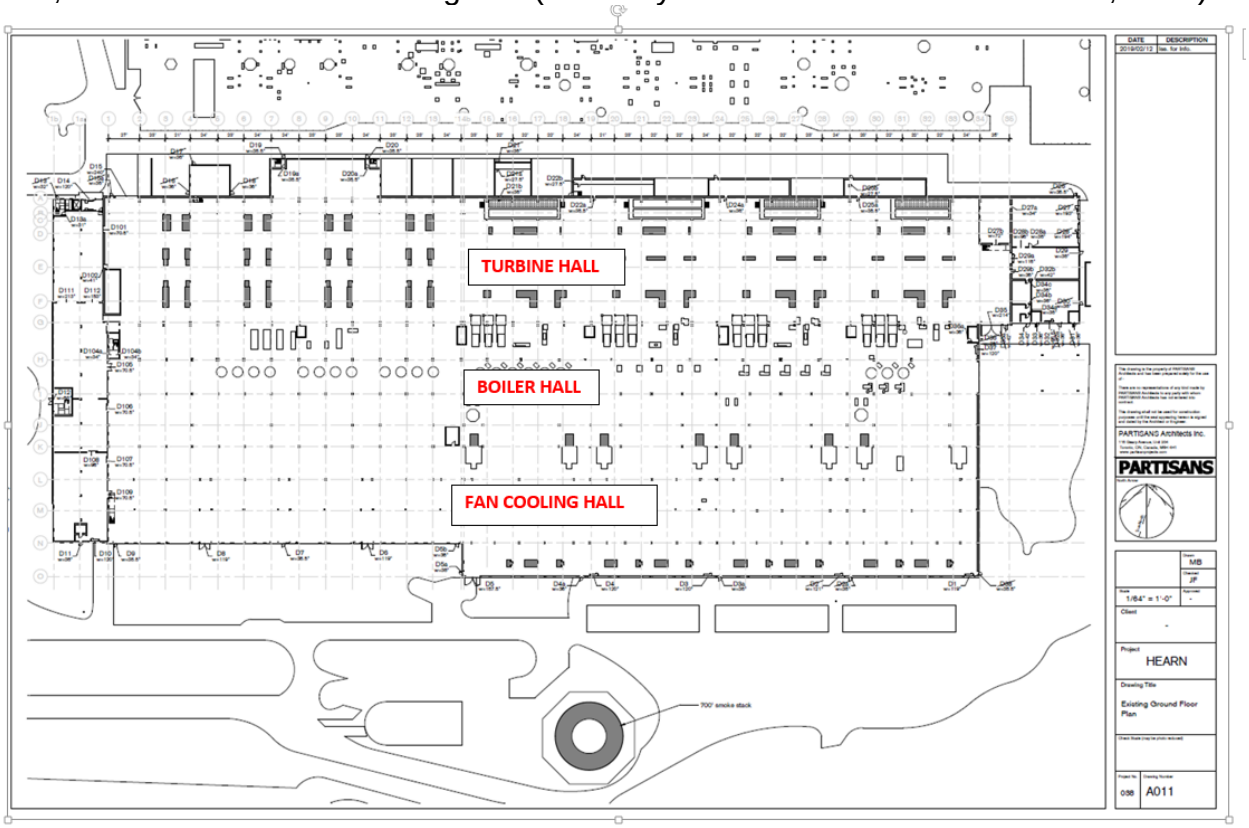

These location maps are for information purposes only; the exact boundaries of the property are not shown.
The arrow marks the site of the property at 440 Unwin Avenue, west of Leslie Street, south of Commissioner Street and north of the Martin Goodman Trail and the Leslie Street Spit in the Port Lands section of the Toronto Harbour
The arrow points to the west end of the R. L. Hearn Generating Station. The property also contains the Portlands Energy Centre at 470 Unwin Avenue. (City of Toronto)

Aerial view of the Port Lands, looking south with a view of the Richard L. Hearn Generating Station and chimney stack, centre, the Port Lands Energy Centre, left, and the Leslie Street Spit beyond (City Planning, 2016)

The Hearn, principal, west, and south elevations and chimney stack (Heritage Preservation Services [HPS], 2016)



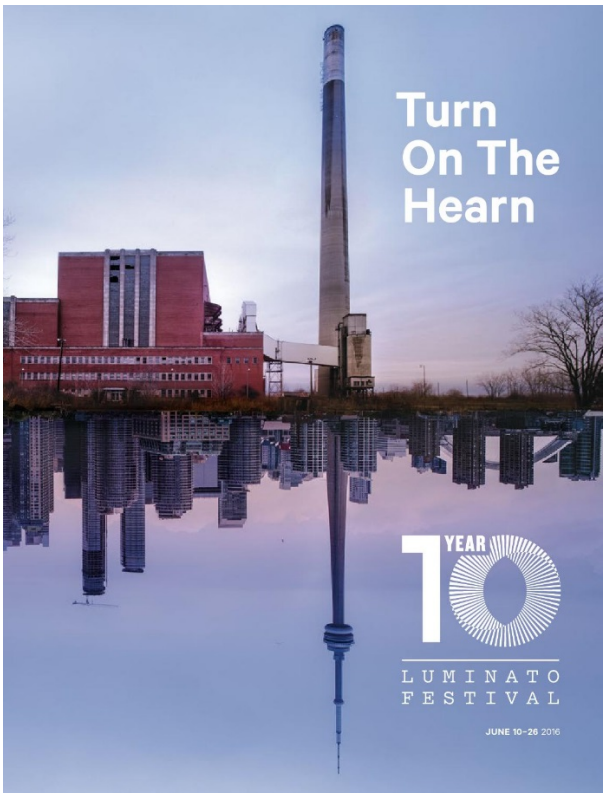

The Hearn, Cross-Section showing the main generating spaces including the Turbine Hall, Boiler Hall and Fan Cooling Hall (Courtesy of PARTISANS Architects Inc., 2019)




Hearn, Plan, Ground Floor Level, showing the principal industrial spaces of the generating spaces with the administration block at the west end of the building (Courtesy PARTISANS Architects Inc. 2019)

The Hearn: Steel Structure in the former Boiler Hall (City Planning, Strategic Initiatives and Policy Analysis [SIPA], 2013)

The Hearn, Interior, Turbine Hall, Generator structure (HPS, 2014)




The Hearn, Interior Turbine Hall, Luminato, 2016 (HPS, 2016)
Luminato Festival Poster, 2016

The Hearn, Interior - Boiler Hall, Luminato - Unsound Festival, June 2015
(David Leyes, 2015 https://www.toronto.com/news-story/6128669-hearn-generating-station-to-produce-cultural-energy-during-2016-luminato-festival/)

440 Unwin Avenue: Entry Gatehouse (HPS, 2014)

Chlorine Building (SIPA, 2013)

Outbuilding B (SIPA, 2013)

STATEMENT OF SIGNIFICANCE ATTACHMENT 3
440 UNWIN AVENUE: The Richard L. Hearn Generating Station
(REASONS FOR DESIGNATION)

The property at 440 Unwin Avenue, (Richard L. Hearn Generating Station), is worthy of designation under Part IV, Section 29 of the Ontario Heritage Act for its cultural heritage value, and meets Ontario Regulation 9/06, the provincial criteria prescribed for municipal designation under all three categories of design, associative and contextual value.

Description

Located in the Port Lands, on the north side of Unwin Avenue, between Cherry and Leslie streets, the property contains the Richard L. Hearn Generating Station, a massive brick-clad structure, 41-metres high, with an adjacent concrete chimney stack of 213 metres visible from multiple points in the city. The property also included an area for a switching station and transmission towers, a large coal pit, railway spurs, various outbuildings used for managing water intake and discharge and ancillary structures and a formally landscaped drive to the main, west-facing, entrance. The station was designed in 1949 by the Stone & Webster Engineering Corporation, opened in 1951 with plans for an extension which was completed in 1961. The concrete chimney stack was added to the property in 1971, replacing the previous eight chimney stacks. The station was decommissioned in 1983. The station interiors were initially transformed to accommodate film and television studio production and subsequently stabilized between 2014 and 2016 to host large public events such as Luminato. The building's context has evolved on its south side with a waterfront park which includes the Martin Goodman Trail and the adjacent Leslie Street Spit with its renowned abundance of animal and plant species, the Tommy Thomson Trail and the Outer Harbour Marina.

The property was included on the City's Heritage Register in 2003. The Province of Ontario included it on the List of Provincial Heritage Properties in 2016 until November 2018 when the site was sold.

Statement of Cultural Heritage Value

The Hearn Generating Station has design value as a rare representative of a mid-20th century, steam power plant whose composition of diverse rectangular forms and single chimney stack is representative of the original processes which converted coal to steam and then electricity. The generating station exhibits a high degree of artistic merit in the principle, west, elevation of the Hearn which unites the three, large, rectilinear power-plant volumes with the lower administration block through a skillful application of the mid-century Style Moderne style. The artistic effect of the style is based in the simple geometric forms, the smooth, unrelieved, brick-clad surfaces which are offset by the dramatic linear patterns of the vertical banding of the modernist glass-block windows, framed with limestone piers, on the plant sections and the contrasting horizontal limestone banding around the windows of the administration block. Set at the top of a limestone staircase, the central principal entrance, with its combination of smooth limestone piers and the use of metal alloys in its curving canopy and paired entry doors, signals at once both the traditional gravitas of a civic institution combined with the

modernity that is evident in the rest of the west elevation. In its structural capacity to provide the foundations and structure to both house, and support, the equipment of this vastly-scaled power generating station, along with its slip-form concrete chimney of 213 metres, the Hearn displays a high degree of technical achievement.

The Hearn property is valued for its historic value and association as power station built at the end of World War II by Hydro Electric Power Commission of Ontario (HEPCO), the provincial body now known as the Ontario Power Generation (OPG), to ensure a reliable supply of electricity for the City of Toronto for the booming post-war economy. With evolving supply and environmental concerns, the commission replaced coal burning with natural gas and installed the 213m chimney in 1971.

The Hearn is significant as it is associated with the development of the 1912 Harbour Commission plan for the Port Lands as a newly created waterfront which was intended to support shipping, industry, as well as, waterfront parks and recreation. Its location in the Port Lands enabled the supply of coal and water necessary for the generating station processes.

The property also has value for its association with Richard L. Hearn, Chief Engineer and Chairman of (HEPCO). An award-winning engineer, for over 40 years, Hearn made a substantial contribution to the development of Ontario's power supply through the construction of numerous facilities, two of which broke records for size, in the completion of the first synthetic rubber plant, considered to a great Canadian construction achievement, as well as for the development of atomic energy uses for peacetime and nuclear energy. In 1967 he was appointed the Chancellor of Brock University and received the Order of Canada in 1973.

The Hearn is valued as it reflects the work of the engineering firm of Stone & Webster, established in Boston in 1889 and from the beginning specializing in the design, construction and management of power plants becoming leaders in the field to the point where it is estimated that 20% of all power generators in the United States originated with this firm.

Contextually, the Hearn is valued as it defines, supports and maintains the historic industrial character of the Port Lands. Initially designed as a coal-based generating station, relying on the supply of coal via rail links and water from the shipping channel, the Hearn was typical of the industrial uses intended for the Port Lands. Since its closure in 1983, it has been characteristic of the regeneration and adaptive reuse of the historic Port Lands structures as it has been leased by a film studio and more recently used as a temporary setting for the annual Luminato festival.

Located on the north side of Unwin Avenue since 1949, the generating station has been historically, visually and functionally linked to the industrial and institutional uses as well as the parklands and recreational trails of the Port Lands and the Leslie Street Spit for over 70 years. With its impressive mass and 213-metre chimney, the Hearn is a landmark, a "symbol of the Port Lands,"[1] seen from multiple vantage points. It terminates the southern views down Carlaw Avenue, as well as Logan Avenue and

1 Port Lands Planning Framework, p. 166.

Bouchette Street. The view of the chimney has also been anticipated to terminate Broadview Avenue when it is extended. From the east and west the chimney is viewed from both ends of Unwin Avenue at Leslie and Cherry streets. At a city scale, it is a contributing feature of Toronto's waterfront skyline.

The heritage attributes of the Richard L. Hearn Generating Station are:

EXTERIOR

- The setback, placement and orientation of the building on its property on the north side of Unwin Avenue between Cherry and Leslie streets in the Port Lands
- The scale, form and massing of the generating station which is composed of four parallel rectangular volumes of different heights (with a maximum height of 41 metres) enclosing the generating station functions, with a fourth three-storey administration block on the west elevation
- The cladding material which is primarily brick, with a concrete base, vertical limestone piers and bands surrounding the windows and glass block glazing, limestone coping bands at the roof line and piers at the principal entrance, with glass block and aluminum-alloy double-hung sash window frames
- The fenestration on the principal, west elevation, with the three horizontal bands of double-hung sash windows on the three-storey administration block, and the composition of the vertical panels of glass block, three on the central boiler hall, and two on the turbine hall
- The principal entrance on the west elevation with it projecting aluminum-alloy clad canopy and pair of doors, framed by two limestone piers with curving plans and the staircase with its limestone block balustrade
- The south elevation with its vertical and horizontal panels of glass block at the upper levels of the boiler hall and the fan room and the lower horizontal bands of windows, some with metal hoods, on the fan room and the pattern of bands of windows with upper square openings on the 1961 extension and the hooded metal duct vents at the upper level of the boiler room
- The north elevation with its various extensions and accretions including the single story bay with brick buttresses, additional brick bays with stone copings, the two triangular bay windows, the metal hoods on horizontal window openings, the projecting periscope-type cylindrical ducts and the entryway originally used to accommodate the railway spur
- The east elevation with its narrow horizontal bands of windows and unrelieved walls including the single-storey extension and the metal clad tower and its connection to the main building

INTERIOR

- The spatial volumes of the boiler hall, turbine hall and fan hall
- The steel structure of the boiler hall, including the long east-west multi-storey passage through the steel structure
- The concrete structures and steel beams of the turbine hall
- The principal entry lobby with its limestone cladding and stair with a metal balustrade
- The control room configurations built-in desks with control panels as well as wall-mounted control panels

ANCILLARY BUILDINGS AND STRUCTURES

- The 213-metre slip-form concrete chimney stack
- The various outbuildings and structures including the entry gate house and the four outbuildings adjacent to the shipping channel
- The metal tower and shed on the east end of the Hearn

SETTING

- Generally the area surrounding the Hearn which contains elements relating to its use as a power generating station
- On the west side of the Hearn, the driveway leading from Unwin Avenue with the remaining circular drive at the entrance encompassing a circular planted area and the hedges planted along the west elevation
- The area for the switching station and transmission towers on the north side of the Hearn extending from the building face to the edge of the shipping basin
- The railway tracks which remain on the site

ATTACHMENT 4

HERITAGE PROPERTY RESEARCH AND EVALUATION REPORT

440 UNWIN AVENUE
THE RICHARD L. HEARN GENERATING STATION

Prepared by:

Heritage Preservation Services
City Planning Division
City of Toronto

February 2019

## 1. DESCRIPTION


Above: 440 Unwin Avenue, The Richard L. Hearn Generating Station, (google maps, 2019)
Cover: 440 Unwin Avenue, "Richard L. Hearn Generating Station" photograph showing the west and south elevations, post-1951 (City of Toronto Archives, Fonds 1128, Series 380, Item 202)

| R. L. HEARN GENERATING STATION - 440 UNWIN AVENUE | |
|---|---|
| ADDRESS | 440 Unwin Avenue |
| WARD | 14 |
| LEGAL DESCRIPTION | PLAN 675E PT BLK G & H RP 66R19990 PART 1 HEARN PLANT |
| NEIGHBOURHOOD/COMMUNITY | Port Lands |
| HISTORICAL NAME | Richard L. Hearn Generating Station |
| CONSTRUCTION DATE | 1949-51 |
| ORIGINAL OWNER | Ontario Hydro Electric Power Commission |
| ORIGINAL USE | Coal-based electricity generating station |
| CURRENT USE* | Film Studio |
| ARCHITECT/BUILDER/DESIGNER | Stone & Webster Engineering Corporation |
| DESIGN/CONSTRUCTION/MATERIALS | Brick, concrete and stone cladding |
| ARCHITECTURAL STYLE | Style Moderne |
| ADDITIONS/ALTERATIONS | 1959-61, 1971 (see report below) |
| CRITERIA | Design, associative, contextual |
| HERITAGE STATUS | n/a |
| RECORDER | Heritage Preservation Services: Marybeth McTeague |
| REPORT DATE | February 2019 |

## 2. BACKGROUND

This research and evaluation report describes the history, architecture and context of the property at 440 Unwin Avenue, and applies evaluation criteria to determine whether it merits designation under Part IV, Section 29 of the Ontario Heritage Act. The conclusions of the research and evaluation are found in Section 4 (Summary).

### i. HISTORICAL TIMELINE

| Key Date | Historical Event |
|---|---|
| 1793 | At the time of the founding of the Town of York, the marsh between the Harbour (later known as the Toronto Harbour) and Ashbridges Bay is the largest wetland on Lake Ontario |
| 1850s | The Grand Trunk Railway is constructed encouraging the development of industry south of Queen Street along South Park Street (Eastern Avenue). The city begins a series of landfilling operations extending the waterfront south of Front Street and east of the Don these extension included the creation of Eastern Avenue and Keating Street (now known as Lakeshore Blvd.) |
| 1890s | The lower Don River is straightened and contained by a concrete course to prevent flooding. The engineer E. H. Keating proposes terminating the river in a channel, later known as Keating Channel which runs north and parallel to the Port Lands |
| 1912 | The Harbour Commissioners Plan for Toronto's Waterfront includes infilling the Ashbridges marsh and the creation of the shipping channel and turning basin with a band of parkland along the south edge of Unwin Avenue in the area known as the Port Lands |
| 1949 | Construction commences on the Richard L. Hearn Generating Station (the Hearn) one of four post-war coal-based power generating stations undertaken by the province through the Ontario Hydro Electric Power Commission |
| 1951 | The Hearn is officially opened and begins operations |
| 1959 | The second phase expansion of the Hearn begins more than doubling the size of the original structure and is completed in 1961 |
| 1971 | The new single chimney stack is completed replacing the former 8 lower chimneys |
| 1983 | The building is decommissioned |
| 2002 | Ontario Power Generation negotiates a long-term lease of the Hearn and half of the property at 440 Unwin Avenue with the Los Angeles-based Studios of America Ltd. Partnership |
| 2003 | The provincially-owned property is included on the City of Toronto's Heritage Register; as it is owned by the Province, the City is precluded from designating the property under the Ontario Heritage Act |
| 2003 | The Portlands Energy Centre, a new electricity and process steam generating facility is constructed on the Hearn property with the convenience address of 470 Unwin Avenue |

| | |
|---|---|
| 2004 | Demolition permit 04-102552 is issued for one of the Hearn outbuildings used to store oil processing equipment |
| 2006 | Demolition permit 06-182226 is issued for the 'Crusher House' as part of the Hearn decommissioning operations |
| 2007 | Permit 07-278875 for interior demolition of existing equipment and accessory structures in the vacant Hearn |
| 2010 | A demolition permit, 10-241855, was issued to demolish the Hearn to the top of slab, but maintained the "generating stack" The permit expired in 2017 |
| 2010 | At its meeting of December 16, 2010 City Council adopted a motion reaffirming its interest in the protection and preservation of the Hearn and to request the owners, Ontario Power Generation to hold a public meeting and consult with the City prior to exercising its right to demolish the property |
| 2011 | Violation unsafe conditions order 11-182589 issued |
| 2014 | Luminato Big Band Bash held at the Hearn |
| 2015 | Luminato Unsound Music Festival held at the Hearn |
| 2016 | The Province includes the property on its List of Provincial Heritage Properties recognizing its cultural heritage value |
| 2016 | Luminato holds its annual festival at the Hearn including a pop-up restaurant |
| 2017 | A zoning review application 17-174555 is submitted by the Earth Development Group to investigate the adaptive reuse of the turbine hall within the Hearn for an indoor vertical farm |
| 2017 | At its meeting of November 7, 8, and 9 City Council adopts motions to reaffirm the City's interest in the protection and preservation of the Hearn and to consult with the Province to have the property designated prior to its sale of transfer |
| 2017 | At its meeting of December 5, 6, 7 and 8 City Council adopts the Port Lands Planning Framework report which identified the Hearn as a significant contributor to the area's heritage with a vision for its adaptive reuse as a major cultural and sports destination |
| 2018 | In November, the province, through Ontario Power Generation, sells the Hearn property to long-time tenant Studios of America |
| 2019 | At its meeting of January 30 and 31, City Council adopts a motion reaffirming their interest in the protection and preservation of the Hearn and directed the Senior Manager to report on the evaluation of the property under Ontario Reg. 9/06 the criteria prescribed for municipal designation.<br>Council also adopts a motion to direct the Deputy City Manager, Corporate Services to initiate negotiations on an expedited basis to acquire the Hearn property |

ii. HISTORICAL BACKGROUND

The Port Lands

The Richard L. Hearn Generating Station is located in the Port Lands, an industrial and recreational area located on the waterfront to the east of the downtown. *(Image 1)* By the time of the founding of the town of York in 1793, this location, situated between Toronto Harbour on the west and Ashbridges Bay to the east was characterized by marsh, "once the largest natural wetland on the Great Lakes"[2] caused by the emptying of the lower Don River into the Toronto Harbour. From the 1850s with the growth of the City of Toronto, successive land fill projects extended the city and its wharves into the harbour creating deep water piers.[3] The primary reliance on shipping for the transportation of goods was terminated with the advent of railways during this period.

The harbour was originally enclosed at the eastern end by a sand bar which connected the mainland with the Toronto Islands. Severe storms in the 1850s eroded the sand bar, creating a new entry point into the harbour known as the Eastern Gap which was made permanent through piling in the 1880s. Various industries and dumping in the Don River caused serous pollution of the marsh. In 1890s the lower Don River was straightened to prevent flooding and plans emerged to terminate the river in Keating Channel. The neighbourhoods on the east side of the Don expanded southwards with landfill, and with it major east-west routes extended south and parallel to Queen Street East, including Eastern Avenue and later Keating Street, now known as Lakeshore Boulevard. *(Images 2-3)*

Following increased concerns about the conditions of the waterfront including poor port facilities and pollution, a 1910 municipal referendum resulted in the Federal Government passing legislation in 1911 creating the Board of the Toronto Harbour Commission "giving the board a mandate to manage to the Port, provide facilities for shipping and develop the waterfront in the public interest."[4] The resultant 1912 Plan "asserted that access to the water front was a matter for public enjoyment as much as for commercial or industrial development."[5] The plan extended from the Humber River to Woodbine Avenue. Ashbridges Bay was to be filled in with an ambitious plan to provide 650 acres of land for heavy industry, improved shipping facilities and also include parks and recreational space with the intention that summer homes would be built in a pattern similar to that of the Toronto Islands. The area would be identified as the Port Lands. *(Images 4-5)*

The plan of 1912 shows the new 120 metre wide shipping channel and turning basin which would be capable of handling the largest ships on the Great Lakes, while the southern edge of the land facing the outer Harbour features a wide swath of park land. Existing streets such as Cherry, the Don Roadway, Broadview Avenue and Leslie Street connected the Port Lands with the city with two new streets, Commissioner Street on

2 Waterfront Toronto: History and Heritage: Port Lands
3 Landfill continued into the 1950s when the current shoreline was completed.
4 Royal Commission on the Future of the Toronto Waterfront, p. 9
5 Ibid, p 12.

the north side of the new shipping channel and Unwin Avenue on the south side. Railway lines provided additional transportation.

Development of the 1912 plan for the Port Lands was slow. Several buildings were completed before World War II including the Toronto Harbour Commissioners Building two banks, dry dock facility and an oil company building and the pre-war small hydro generating station at 450 Commissioners Street and these have been identified on the City's Heritage Register. Up until the end of World War II the land was used primarily for the storage of oil and coal and the waterfront park and summer cottages remained unbuilt. *(Images 6-8)*

Following World War II, more substantial services were located in the Port Lands. In 1949, a large site was allocated for the Richard L Hearn Generating Station and in the 1953 the Incinerator Building at 400 Commissioners Street was completed. The Lake Ontario Portland Cement Company, later known as Essroc was a 1960s addition to the Port Lands.

Richard L. Hearn Generating Station

The Richard L. Hearn Generating Station (the Hearn), one of the largest structures in Canada,[6] was one of four generating stations constructed by the Ontario government after World War II. The four stations (the other three were located at Hamilton, Thorold and Chatham) were being rushed to completion to prevent anticipated power shortages for the winter of 1949-1950. Following the end of the war, with economic growth and increased consumer demand power shortages and the need to ration power supply had become an important issues and by 1947 the new plants were already being planned to meet predicted future demand.[7] Initially known as the "Scarboro Emergency Steam Plant"[8] the Hearn generating station provided power from burning coal to create steam which was in turn converted to electricity.[9] The location in the Port Lands adjacent to the shipping channel provided a source of water for cooling.

The Stone & Webster Engineering Corporation, who were commissioned by the Ontario Hydro Electric Power Commission to undertake the project, were well-known for their work with electricity generating stations from the early 1900s. The drawings were underway early in 1949. A model of the generating station was featured in the Ontario Hydro's exhibition at the CNE in the summer of 1949. Construction began in November 1949 and the first stage, with four steam generators for four turbines was opened in November 1951. *(Images 9-13)*

In 1959 the second phase of the plant began and was completed by 1961. In response to pollution control measures introduced with the Air Pollution Control Act of 1967, the Hearn replaced its eight chimney stacks with a single 213m stack and converted from coal to gas burning in 1971. A feature of this stack was its use of slip-form construction, subsequently used on the CN Tower, completed in 1976. The name slip form indicates

6 McHugh et al., p 266.
7 Toronto Daily Star, Nov. 5, 1947, p.22
8 Electrical Digest, p. 28
9 The plant later converted to the use of natural gas instead of coal

movable formwork which slides while the concrete is being poured enabling continuous seamless structures. *(Images 14-24)*

The industrial complex included the transmission towers and switching station to the north of the generating station as well as several outbuildings and ancillary structures, including the conveyors and towers for coal supply, as well as other single-story structures such as the entry gate lodge, the chlorine building and other brick structures which share the same brick and limestone detailing of the main building.

In 1983 the Hearn was decommissioned. Ontario Power Generation leased half of the property, with the Hearn, to Studios of America Limited Partnership in 2002, selling the property to them in November, 2018. In 2003, the City included the property on its Heritage Inventory. As the property was provincially owned, it was not possible for the City to designate the generating station. In 2003, the Portlands Energy Centre, was constructed on the north east corner of the property. Between 2004 and 2007, various outbuildings were demolished including a "hydro station type building," the "crusher house," as well as interior equipment and accessory structures. Finally in 2010 an application was submitted to demolish the entire generating station down to slab, retaining the giant chimney stack. The permit was issued but expired in 2017.

Luminato held several events for its annual festival at the Hearn in 2014 and 2015. In 2016, with a substantial temporary design by Partisans they held the entire event in the former generating station. *(Images 24-28)* In 2017, a Zoning Review application was submitted to investigate adaptively reusing the former generating station for an indoor vertical farm.

In December 2017, City Council adopted the Port Lands Planning Framework which identified the Hearn as one of the "Seven Destinations." The Hearn was likewise recognized in the Port Lands Official Plan Modification (OPM) as an "Inner Harbour Special Place" with Destination and/or Catalytic land use permissions. The Planning Framework and OPM envisions the adaptive reuse of the Hearn as a major cultural and sporting facility.

Richard L. (Lankaster) Hearn

The Hearn is named for Richard Lankaster Hearn (1890-1987), the Chief Engineer and Chairman of the Hydro-Electric Power Commission of Ontario (HEPCO). A University of Toronto graduate in civil engineering, Hearn joined HEPCO in 1913. R. L. Hearn is credited with the construction of many Ontario's first hydro-electric power plants, including the Sir Adam Beck 1 Generating Station at Niagara Falls, which at the time of its completion in 1921, was the largest hydroelectric power station in the world. During World War II, he left the commission to participate in the engineering for the construction of the Polymer Corporation's first synthetic rubber plant at Sarnia, "considered to be one of Canada's greatest construction achievements,"[10] and with the "development of atomic energy for peacetime purposes."[11] In 1945 he was appointed Chief Engineer of HEPCO providing leadership to the company through the post-World

10 Legget
11 University of Toronto Alumni, Richard L Hearn.

War II construction program, "guiding Ontario Hydro through its most dramatic expansion."[12] In 1955 his contributions were recognized through his appointment as Chairman of HEPCO. Hearn is best remembered for his leadership in promoting nuclear power as an alternative to coal or gas-fuelled electricity production. In 1952, with the support of Ontario's Premier Leslie Frost, HEPCO partnered with Atomic Energy of Canada Ltd. to study the development of nuclear power which resulted in the opening of the firth CANDU-type nuclear power plant in 1962 at Rolphton. Hearn retired in 1956 and was appointed the Chancellor of Brock University in 1967. He received the Order of Canada in 1973 as well as the Julian C. Smith Medal, the Sir John Kennedy Medal and the Association of Professional Engineers of Ontario Gold Medal.

Stone & Webster Engineering Corporation

Charles A. Stone and Edwin S. Webster founded the Stone & Webster Engineering Corporation in Boston in 1889 and from the earliest period of their partnership began specializing in the design, construction and management of power generating plants. They are credited with the construction of plants accounting for about 20% of the U. S. generating capacity.[13]

## iii. ARCHITECTURAL DESCRIPTION

The Hearn Generating Station, reputed to be one of the largest enclosed structures in Canada, is a fine representative of a post-war coal-based, generating steam plant rendered in the Style Moderne style. Thought to be one of the largest enclosed buildings in Canada with a building footprint of 24,000 m/sq. and a height of 41 metres (approximately 10 stories), it is of necessity a model of form follows function. The Hearn originally comprised 4 distinct rectangular volumes, whose size was determined by their particular function. Clad in red brick, with limestone trim, three of the volumes were set parallel to one another extending length-wise in an east-west direction. The largest, central volume contained the boiler room, to its north, the second largest volume contained the steam turbines which generated electricity and on the south the lowest volume contained the fans for cooling with 4 cylindrical chimneys. Binding these three disparate volumes together on the principal west, elevation was a fourth rectilinear two-storey volume containing the main entrance and administration. On the north side of the building was the lot for the electricity transmission towers and the switching station. A railway siding to deliver coal was located on the south side of the building and delivered to the plant via a conveyor belt. *(Images 29-41)*

While the design of the massive structure was primarily determined by the functional requirements for vast spaces to house the generating station equipment, the principal, west elevation, which faced downtown Toronto, was designed in an elegant and minimal Style Moderne composition which conveyed the technological as well as political significance of the plant which ensured the provision of electrical service by the Ontario Hydro Electric Power Commission to the citizens of Toronto.

12 Legget.
13 Stone-Webster Inc., company history.

The Style Moderne style emerged in the 1930s as an expression of modernity and new technologies related as much to the design of radios, fridges and automobiles as to architecture. As such historic architectural styles and surface decoration were all but eliminated and the modern design that had emerged across Europe in the 1920s, known as the International Style was highly influential on the Style Moderne. The new style relied for effect on the asymmetrical composition of simple geometric volumes and shapes with smooth surfaces articulated by patterns of vertical and horizontal lines. It is this preoccupation with formal aesthetic values that distinguishes the Style Moderne from the International Style and also indicates the Moderne's roots in the highly decorative Art Deco style. Glass block was a characteristic element of the Style Moderne and as a recent invention, valued for its combined structural and translucent qualities, represented the latest technology which would be appropriate for a new power station.

The western elevation of the Hearn is exemplary of the Style Moderne with its three asymmetrical vertical volumes connected by a lower horizontal administration block. The smooth brick surfaces are unrelieved except for the vertical or horizontal bands which accommodate windows. The importance of the greatest volume as the location of the boiler room is indicated by the three vertical bands of glass block framed with strips of limestone. The limestone strips have a stepped relief, cross over the limestone coping at the roofline and wrap over the top of the coping creating tiny projections reminiscent of similar details on juke boxes and automobiles. In contrast the stone coping with its three horizontal bands retains elements of similar to the fascia of a traditional Greek Ionic architrave. The turbine room is second with two vertical bands of glass block framed with limestone strips. The third block, for the fan room, is left with a plain brick façade relieved only with the stone coping at its eaves that all four block share, but was originally articulated by the four cylindrical brick chimney stacks which emerged from its roof. *(Images 29-31)*

In contrast, the original two-storey administration block featured two horizontal bands of windows at the first and second story, framed in limestone which introduces the human scale of the administration block in contrast with the megalithic scale of the boiler and turbine rooms. Each double-hung sash window is separated by a small limestone post whose verticality compliments the limestone strips of the boiler and turbine rooms.

Hierarchy and a sense of formality is introduced with the central location of the entrance which is approached by a circular driveway, and a set of stairs flanked by limestone block balustrades. A pair of glazed doors framed in an aluminum alloy[14] typical of the period, and matching the window frames, emphasizes the modernity of the building as does the cantilevered metal canopy whose elliptical curves, like the paired bands of doors' push bars, are hallmarks of the Style Moderne style. Framing the glazed entry are two limestone piers, with the curved profiles of the canopy balancing progressive modernity with the traditional architectural elements associated with public institutions. The entrance is centred in line with the middle band of the Boiler Room giving a hierarchical rigour to the composition of the whole west elevation and confirming the significance of the Hearn as a vital public utility provided by the province for the benefit of the citizens of Toronto.

14 This material is referenced in a letter dated May 3, 1950, File 6369, Building Records, City of Toronto.

Interiors

The interiors of the Hearn reveal both the functional requirements of the generating station as well as the influence of the Style Moderne. Elements of the Style Moderne style are retained in the entrance lobby with its combination of limestone cladding and the minimalist linear metal handrails of the balustrade of the principal stairs. The offices are clad in the same glazed ceramic tile as the former locker rooms and washrooms emphasizing the utilitarian character of the station. *(Image 32)*

The control rooms still contain banks of information panels indicating the highly complex technological requirements of safely maintaining the functions of the generating station. *(IMAGES 36-38)* The extensive banks of controls are mirrored in the vast spaces and steel and concrete structures of the Boiler, Turbine and Fan rooms. The investment in materials and the creation of these structures was also on a massive scale with the first Phase, which was less than half the size of the total facility requiring 1,800 concrete piles of 20" diameter for the foundations alone. *(Images 33-41)*

Ancillary Structures and Outbuildings

There are a few single-storey flat-roofed outbuildings on the site, such as the Chlorine Building and Building B which with their brick cladding and horizontal limestone bands and broad piers flanking double hung sash windows appear as miniature versions of the Style Moderne style of the generating station. *(Images 42-46)*
The entry gate house, with its exposed steel columns supporting the flat roof which extends beyond the glazed gatehouse with its brick base, and the adjacent brick plane of the mesh fencing, makes a nod to the International Style and specifically the work of Ludwig Mies van der Rohe, the architect of the contemporary Toronto Dominion Bank Centre (1964-1967).

Other structures include the 213m concrete chimney completed in 1971 and discussed above as well as the structures which were part of the coal-conveyance system which is still evident in the structural steel tower and metal shed located at the east end of the building.

Setting

The Hearn's setting has two primary qualities: industrial and natural landscape.
It is located on the western half of the long rectangular strip of property on the north side of Unwin Avenue and on the south side of the shipping channel. The eastern half of the property was occupied by mountains of coal required to fuel the boilers and coal conveyors were constructed along the eastern and southern edge of the generator building. The north side of the site was occupied by the transmission towers, and the switching station. Railway lines passed along the north, west and south sides of the building. On the north elevation, at the west corner an opening was made to accommodate a railway spur in the building.

While the north and east sides of the property reveal an industrial, the west side was provided with a formal vehicular arrival route with a circular planted forecourt in front of the main entrance and shrubs planted along the base of the elevation. This part of the

setting with the Style Moderne-designed principal elevation facing the city emphasized the civic importance of the Hearn as a provincial facility providing an essential service to the City of Toronto. *(Images 47)*

iv. CONTEXT

The Hearn, at 440 Unwind Avenue, is located on the north side of Unwin Avenue, between Cherry and Leslie Street in the Port Lands. To the north of the property is the 120-metre wide shipping channel and the turning basin whose joint impressive size and scale complements the imposing mass of the generating station. To the east is the recent Portlands Energy Centre. On the north side of the channel and basin are industrial sites including several listed properties from the early and mid- 20th century. Of particular note is the Commissioner Street Incinerator (1953) with its own impressive chimney of 137 metres which sits directly across the shipping channel from the Hearn and is adjacent to McCleary Park. *(Images 48-50)*

On the south side of Unwin Avenue is the remnant of the originally proposed 1912 parkland with the waterfront Martin Goodman Trail a 56 km waterfront trail extending from the Humber Bay to the Eastern Beaches which opened in 1984 and passes through the Port Lands and along Unwin Avenue by Cherry Beach and Clarke Beach Park and the Hearn. To the south is the Outer Harbour and the "accidental" ecological paradise of the Leslie Street Spit and the continuation of the Martin Goodman Trail with the Tommy Thompson Park Trail. In 1959, the Toronto Harbour Commission began the creation of the Leslie Street spit with the intention of creating a breakwater to provide an expanded harbour with the depositing of construction waste. While deposits continue, the spit has been "colonised by seeds and plant matter dispersed by wind, birds, water and deposited material."[15] The spit encloses the Outer Harbour to the south of the Hearn. With over 390 plant species and 290 animal species, the spit is "celebrated as a symbol of wilderness in the city… which juxtaposes a degraded and discarded city with fertile and vigorous ecology, a place where nature has colonized the post-industrial urban spoils."[16]

The context surrounding the Hearn presents the rich duality of the recreational and natural in contrast to the industrial. This character is rooted first in the site's origins as the largest wetland on the Great Lakes which was impacted through the 19th century by human use, shipping, railways and industries which physically altered the shoreline and river course and polluted the "marsh." The character is also determined by human design which following the 1912 Harbour Commissioners Plan, addressed pollution, the economic requirements for improved port facilities, sites to attract industries, as well aspects of health and wellbeing by providing recreational access to the waterfront with the creation of parklands.

Located at the heart of the Port Lands, the Hearn with its impressive building scale and chimney is a significant local landmark, terminating the southern views down Carlaw Avenue, as well as Logan Avenue and Bouchette Street. The view of the chimney has also been anticipated to terminate Broadview Avenue when it is extended. From the

15 Schopf and Foster, p. 2.
16 Ibid.

east and west the chimney is viewed from both ends of Unwin Avenue at Leslie and Cherry streets. At a city scale, it contributes to Toronto's waterfront skyline.

## 3. EVALUATION CHECKLIST

The following evaluation applies Ontario Regulation 9/06 made under the Ontario Heritage Act: Criteria for Determining Cultural Heritage Value or Interest. While the criteria are prescribed for municipal designation under Part IV, Section 29 of the Ontario Heritage Act, the City of Toronto uses it when assessing properties for inclusion on the City of Toronto Inventory of Heritage Properties. The evaluation table is marked "N/A" if the criterion is "not applicable" to the property or X if it is applicable, with explanatory text below.

| Design or Physical Value | |
|---|---|
| i. rare, unique, representative or early example of a style, type, expression, material or construction method | X |
| ii. displays high degree of craftsmanship or artistic merit | X |
| iii. demonstrates high degree of scientific or technical achievement | X |

*Representative example of a style and type*
The Hearn Generating Station has design value as a rare representative of a mid-20th century steam power plant whose composition of diverse rectangular forms and chimney stack is representative of the original processes which converted coal to steam and then electricity.

*Displays high degree of craftsmanship or artistic merit*
A high degree of artistic merit is evident in the principal, west, elevation of the Hearn which unites the three, large, rectilinear power-plant volumes with the lower administration block through a skillful application of the mid-century Style Moderne style. The artistic effect of the style is based in the simple geometric forms, the smooth, unrelieved, red brick-clad surfaces which are offset by the dramatic linear patterns of the vertical banding of the modernist glass-block windows, framed with limestone piers, on the plant buildings and the contrasting horizontal limestone banding of the windows of the administration block. Set at the top of a limestone staircase, the central principal entrance, with its combination of smooth limestone piers and the use of metal alloys in its curving canopy and paired entry doors, signals at once both the traditional gravitas of a civic institution combined with the modernity that is evident in the rest of the west elevation.
Artistic merit is also evident in the design of the four outbuildings adjacent to the shipping channel which present a stylistic vocabulary consistent with the generating station of red brick cladding with horizontal banding of windows with limestone.
The entry gate lodge represents a stylistic departure in its International Style detailing which owes much to the influence of Mies van der Rohe with its flat roof extending beyond a glazed box with a red brick base to be supported by steel columns, but also exhibits a high degree of artistic merit.

*Demonstrates a high degree of technical achievement*
In its structural capacity to provide the foundations and structures as well as the great internal volumes to both house and support the equipment of this vastly scaled power

generating station, along with its slip-form concrete chimney of 213 metres, the Hearn displays a high degree of technical achievement.

| Historical or Associative Value | |
|---|---|
| i. direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community | X |
| ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture | X |
| iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community | X |

*Association with an organization significant to a community:*
The Hearn property is valued for its historic value and association as power station built at the end of World War II by Hydro Electric Power Commission of Ontario (HEPCO), the provincial body now known as the Ontario Power Generation (OPG), to ensure a reliable supply of electricity for the City of Toronto for the booming post-war economy. With evolving supply and environmental concerns, the commission replaced coal burning with natural gas and installed the 213m chimney in 1971.

The property also has value for its association with Richard L. Hearn, Chief Engineer and Chairman of HEPCO, an award-winning engineer who, for over 40 years, made a substantial contribution to the development of Ontario's power supply through the construction of numerous facilities, two of which broke records for size, as well as for the development of atomic energy uses for peacetime and nuclear energy.

*Yields information that contributes to an understanding of a community*
The Hearn is significant as it is associated with the development of the 1912 Harbour Commission plan for the Port Lands as a newly created waterfront which was intended to support shipping, industry, waterfront parks and recreation. Its location in the Port Lands enabled the supply of coal and water necessary for the power plant processes.

*Demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community*
The Hearn is valued as it reflects the work of the engineering firm of Stone & Webster, established in Boston in 1889 and from the beginning specializing in the design, construction and management of power plants becoming leaders in the field to the point where it is estimated that 20% of all power generators in the United States originated with this firm.

| Contextual Value | |
|---|---|
| i. important in defining, maintaining or supporting the character of an area | X |
| ii. physically, functionally, visually or historically linked to its surroundings | X |
| iii. landmark | X |

*Important in defining, maintaining or supporting the character of an area*
Contextually, the Hearn is valued as it defines, supports and maintains the historic industrial character of the Port Lands. Initially designed as a coal-based generating station, relying on the supply of coal via rail links and water from the shipping channel, the Hearn was typical of the industrial uses intended for the Port Lands. Since its closure in 1983, it has been characteristic of the regeneration and adaptive reuse of the historic Port Lands structures as it has been leased by a film studio and 2014, 2015 and 2016 was used as a temporary setting for the annual Luminato festival.

*Physically, functionally, visually or historically linked to its surroundings*
Located on the north side of Unwin Avenue since 1949, the generating station has been historically, visually and functionally linked to the industrial and institutional uses as well as the parklands and recreational trails of the Port Lands and the Leslie Street Spit for over 70 years.

*Landmark*
With its impressive mass and 213-metre chimney, the Hearn is a landmark, a "symbol of the Port Lands,"[17] seen from multiple vantage points. It terminates the southern views down Carlaw Avenue, as well as Logan Avenue and Bouchette Street. The view of the chimney has also been anticipated to terminate Broadview Avenue when it is extended. From the east and west the chimney is viewed from both ends of Unwin Avenue at Leslie and Cherry streets. At a city scale, it is a contributing feature of Toronto's waterfront skyline.

## 4. SUMMARY

Located on the north side of Unwin Avenue, between Cherry and Leslie Streets in the Port Lands, the property at 440 Unwin Avenue contains the waterfront landmark known as the Richard L. Hearn Generating Station (the Hearn), a coal-based, electricity-generating station constructed after World War II by the Hydro Electric Power Commission of Ontario (HEPCO - Ontario Power Generation's antecedent) to ensure the reliable provision power for the City of Toronto. The station was designed by the American power-plant experts, the Stone & Webster Engineering Corporation and initially commissioned in 1951, followed by a major second-phase extension, completed in 1961 and the addition of the single chimney in 1971. It was decommissioned in 1983.

With a building footprint of 24,000 $m^2$, (in contrast to 13,000 $m^2$ footprint of London's Tate Modern, the former Bankside Power Station completed in two phases in 1947 and 1963) the Hearn Generating Station represents a vastly-scaled complex, estimated to be one of the largest in Canada as well as a significant investment of money and material (the first phase, for example, required 1,800 20"-diameter concrete piles for the foundations alone) not to mention ingenuity. It also represents the foresight, strategic political initiative and commitment to meet the challenges of increased infrastructure demands of the Post-World War II economy under the leadership of the Province, Richard L. Hearn and HEPCO. The Hearn had the advantage of being located in the Port Lands, the result of the 1912 Harbour Commissioner's visionary Plan for Toronto's

17 Port Lands Planning Framework, p. 166.

Waterfront which incorporated the shipping channel and turning basin to support shipping and local industry, the elimination of the polluted waterfront and the creation of a waterfront parkland intended for the improved well-being and recreation of the people of Toronto. While industries evolve with global economic shifts, market demand and technological innovation, the Port Lands has embraced the change. The long term strategy for public access and enjoyment of the waterfront has come to fruition with parklands, the Martin Goodman Trail and the Leslie Street Spit that have thrived within proximity to the Hearn. The generating station, with its massive scale, articulated by a Style Moderne design of brick, limestone and glass block, combined with the 213-metre high slip-form concrete chimney, make it a distinctive landmark on Toronto's Waterfront preserving the industrial character of the Port Lands and contributing to the City's skyline. A landmark of the civic spirit underpinning the Port Lands foundation, for over 70 years the Hearn has been a representative of providing for the future while accommodating change and adaptation.

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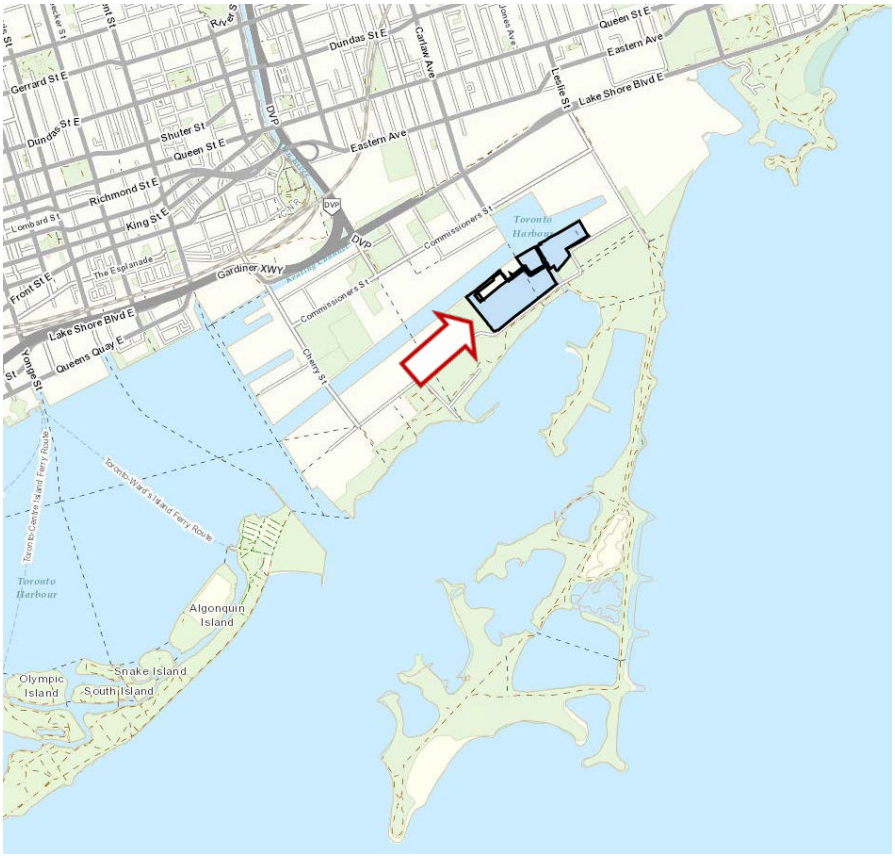
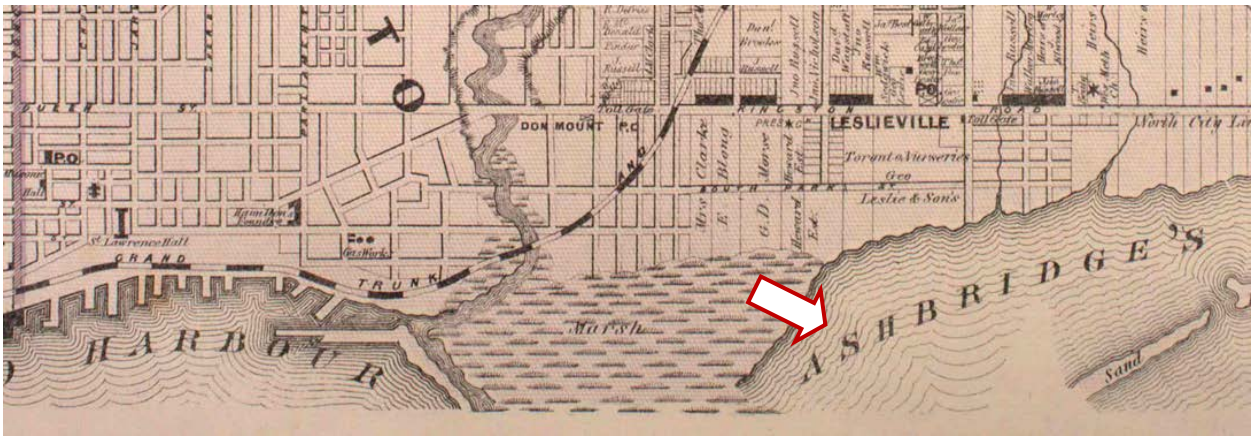
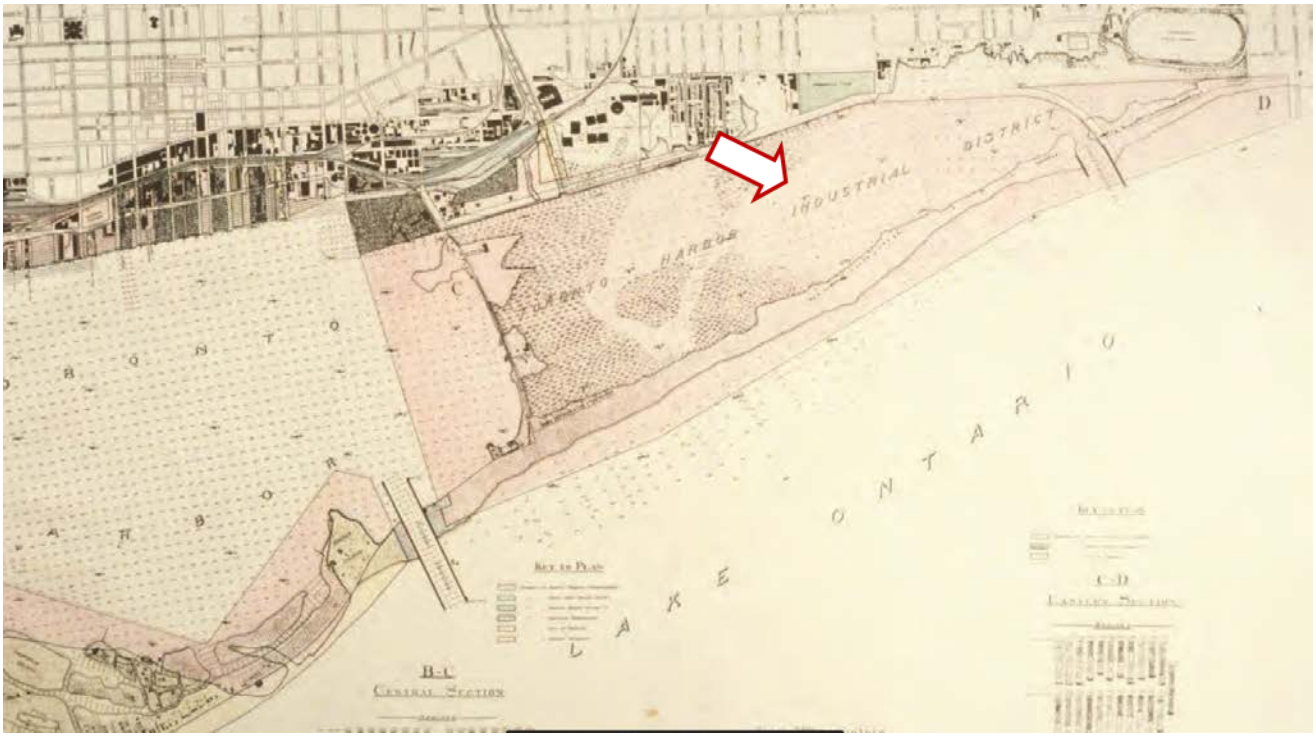



1. These location maps are for information purposes only; the exact boundaries of the property are not shown. The arrows mark the location of the Hearn Generating Station at 440 Unwin Avenue, on the north side of the street between Cherry and Leslie streets. (City of Toronto, INview Map)
*Please note*: all maps are oriented with north at the top, unless otherwise indicated

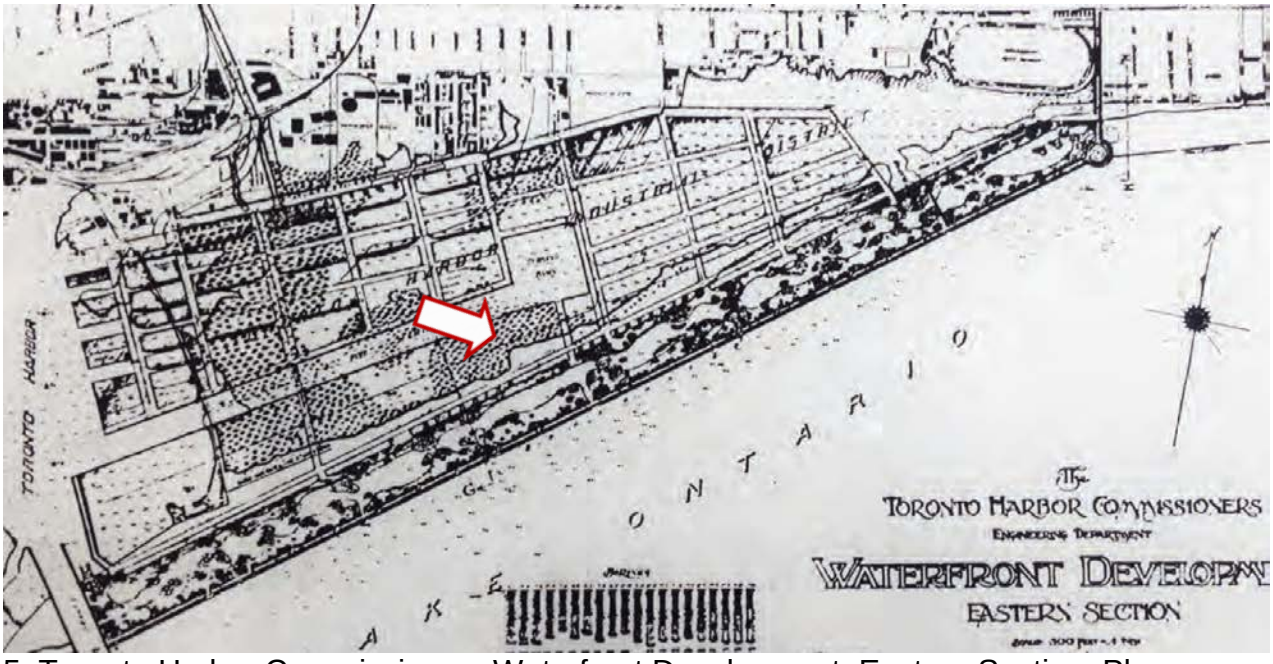

2. J. O. Browne, Map of the Township of York in the County of York, Upper Canada, 1851, showing the original geography of the Toronto Harbour, Ashbridges Bay and the marsh between the two. The Hearn is located just to the west of Leslie Street which is marked by a double line just to the north of the 'S' in 'Ashbridges Bay'. Note the narrow spit of land which enclosed the Harbour and connects the Toronto Islands with the main land (Ng)



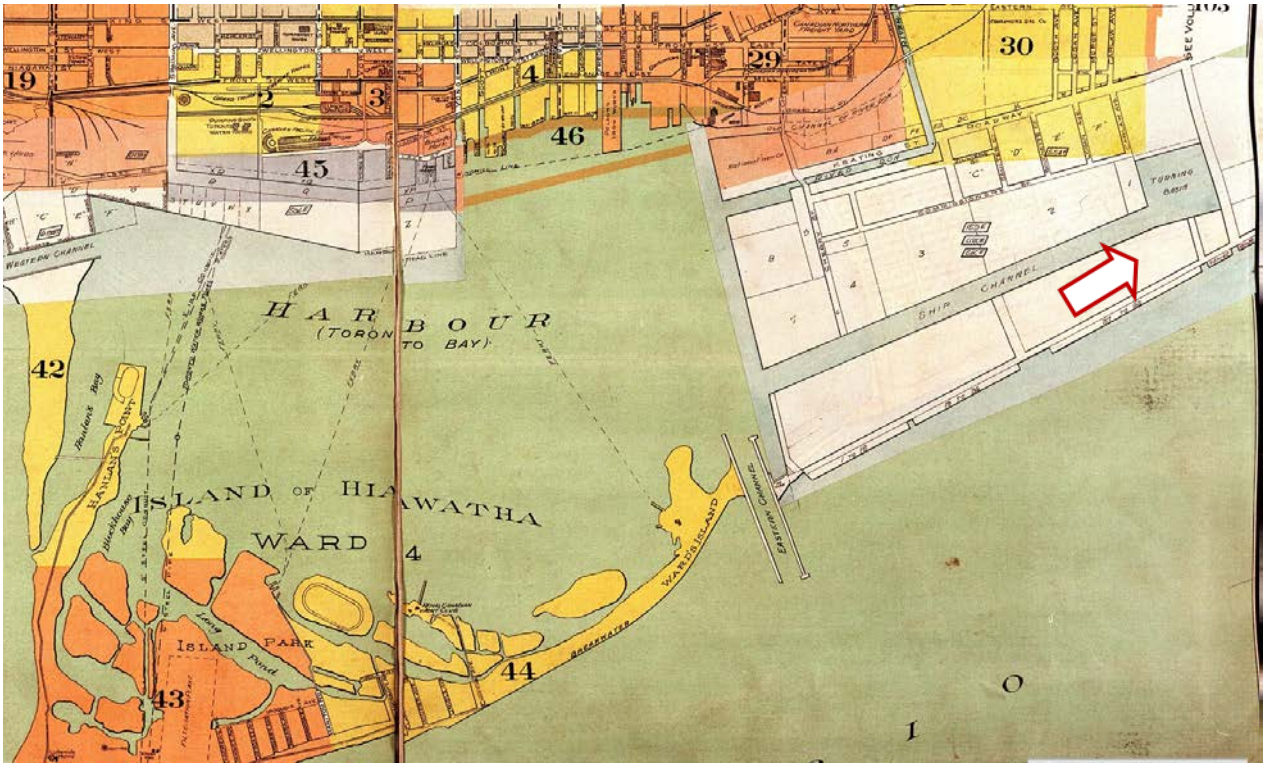

3. Miles & Co. Illustrated Historical Atlas of the County of York, (detail), 1878 showing the geography of the future Port Lands when the area was occupied by marsh and the Ashbridges Bay. (Ng)



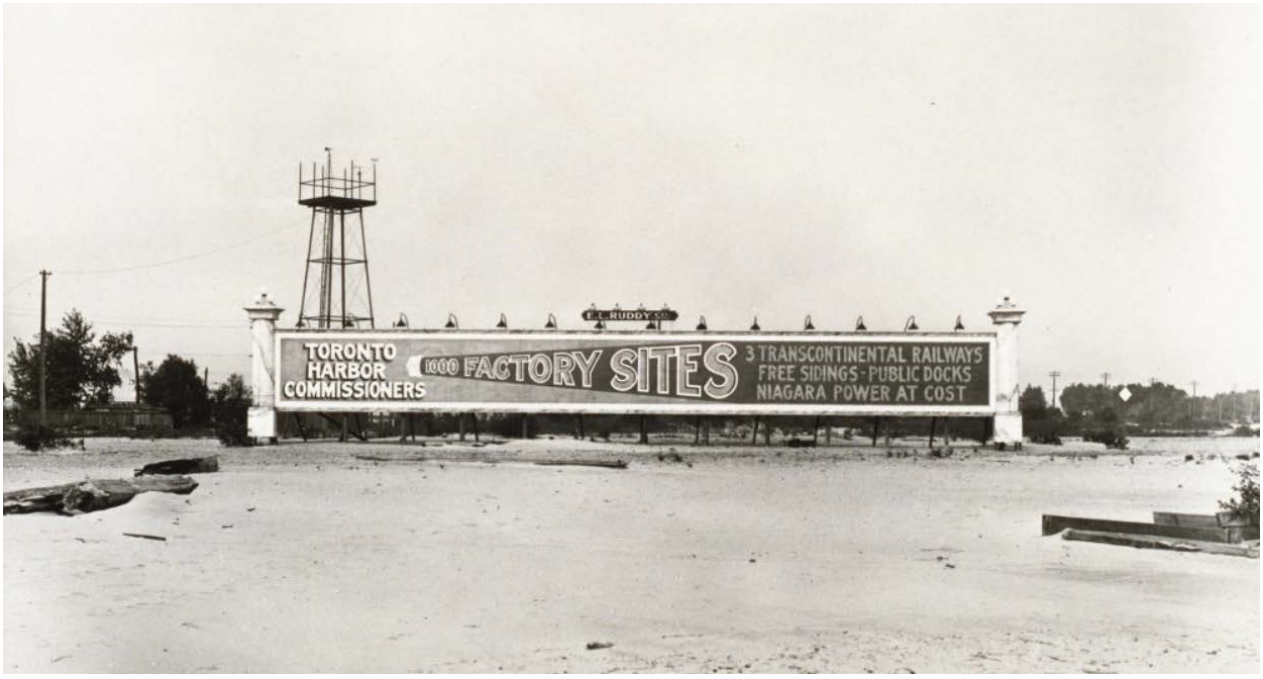

4. 1912 Map of the Toronto Harbor Industrial District showing the permanent Eastern Gap of the Toronto Harbor and the marsh lands prior to the land fill.
(City Planning, Portlands Planning Framework, 2017)



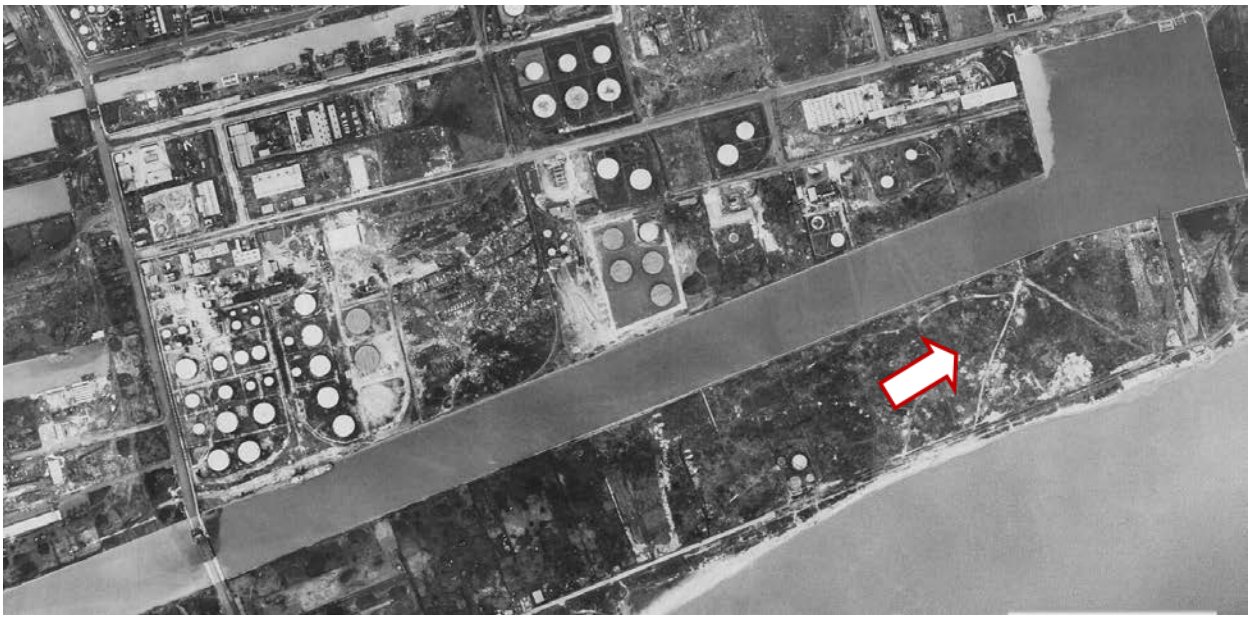

5. Toronto Harbor Commissioners Waterfront Development: Eastern Section, Plan 1912: showing the proposed infilled land just beyond the Eastern Gap with the shipping channel and the turning basin. Note the strip of parkland between Unwin Avenue and the lakeshore (City Planning, Portlands Planning Framework, 2017)



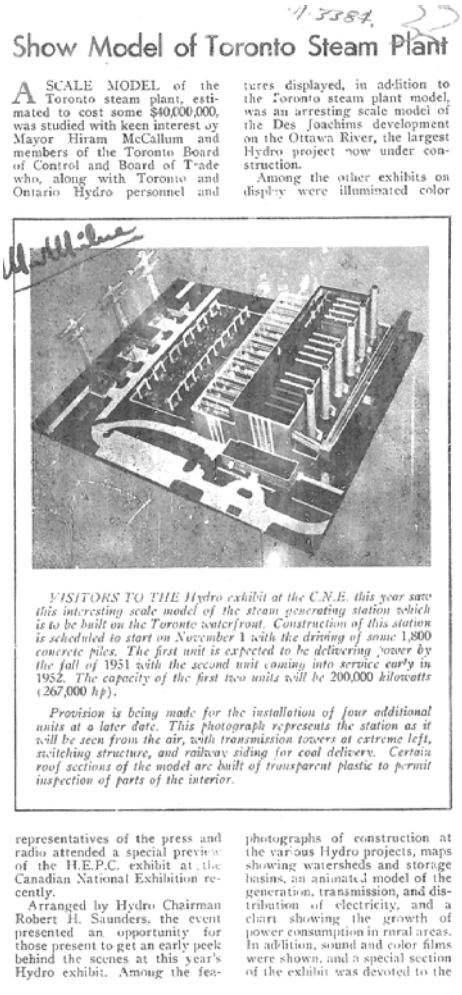
6. Goads Atlas, 1924: showing the relationship of the Toronto Islands and the Eastern Channel to the Port Lands shipping channel and turning basin as constructed with Commissioner Street on the north side of the channel and Unwin Avenue (unlabelled) on the south. (City of Toronto Archives [CTA])



7. "Toronto Harbor Commission billboard advertising Port Lands sites, [between 1910 and 1930?]," (CTA, Fonds 200, Series 1465, File 119, Item 128)



8. 1947 Aerial Photograph showing the undeveloped site at 440 Unwin Avenue (CTA, City of Toronto Aerial Photo 22 D)



## Show Model of Toronto Steam Plant

A SCALE MODEL of the Toronto steam plant, estimated to cost some $40,000,000, was studied with keen interest by Mayor Hiram McCallum and members of the Toronto Board of Control and Board of Trade who, along with Toronto and Ontario Hydro personnel and representatives of the press and radio attended a special preview of the H.E.P.C. exhibit at the Canadian National Exhibition recently.

Arranged by Hydro Chairman Robert H. Saunders, the event presented an opportunity for those present to get an early peek behind the scenes at this year's Hydro exhibit. Among the features displayed, in addition to the Toronto steam plant model, was an arresting scale model of the Des Joachims development on the Ottawa River, the largest Hydro project now under construction.

Among the other exhibits on display were illuminated color photographs of construction at the various Hydro projects, maps showing watersheds and storage basins, an animated model of the generation, transmission, and distribution of electricity, and a chart showing the growth of power consumption in rural areas. In addition, sound and color films were shown, and a special section of the exhibit was devoted to the

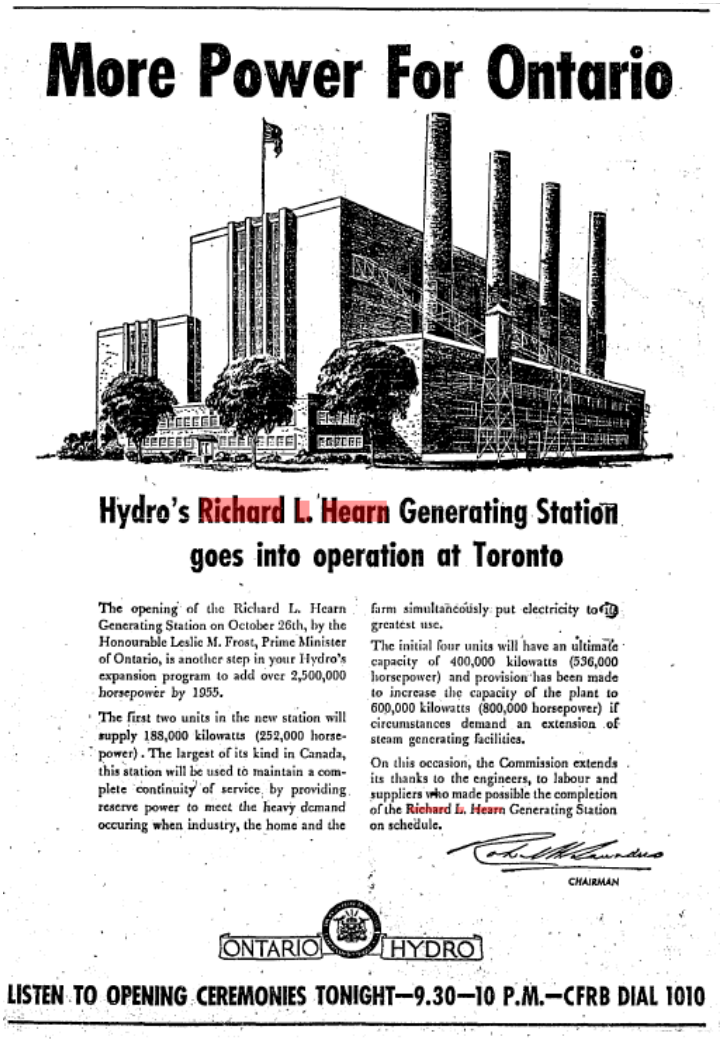


*VISITORS TO THE Hydro exhibit at the C.N.E. this year saw this interesting scale model of the steam generating station which is to be built on the Toronto waterfront. Construction of this station is scheduled to start on November 1 with the driving of some 1,800 concrete piles. The first unit is expected to be delivering power by the fall of 1951 with the second unit coming into service early in 1952. The capacity of the first two units will be 200,000 kilowatts (267,000 hp).*

*Provision is being made for the installation of four additional units at a later date. This photograph represents the station as it will be seen from the air, with transmission towers at extreme left, switching structure, and railway siding for coal delivery. Certain roof sections of the model are built of transparent plastic to permit inspection of parts of the interior.*

29

9. Photograph of the article featuring the model of the Hearn Generating Station: "Show Model of Toronto Steam Plant," *Electrical Digest*, September, 1949, p 29



# More Power For Ontario

## Hydro's Richard L. Hearn Generating Station goes into operation at Toronto

The opening of the Richard L. Hearn Generating Station on October 26th, by the Honourable Leslie M. Frost, Prime Minister of Ontario, is another step in your Hydro's expansion program to add over 2,500,000 horsepower by 1955.

The first two units in the new station will supply 188,000 kilowatts (252,000 horsepower). The largest of its kind in Canada, this station will be used to maintain a complete continuity of service by providing reserve power to meet the heavy demand occuring when industry, the home and the farm simultaneously put electricity to its greatest use.

The initial four units will have an ultimate capacity of 400,000 kilowatts (536,000 horsepower) and provision has been made to increase the capacity of the plant to 600,000 kilowatts (800,000 horsepower) if circumstances demand an extension of steam generating facilities.

On this occasion, the Commission extends its thanks to the engineers, to labour and suppliers who made possible the completion of the Richard L. Hearn Generating Station on schedule.

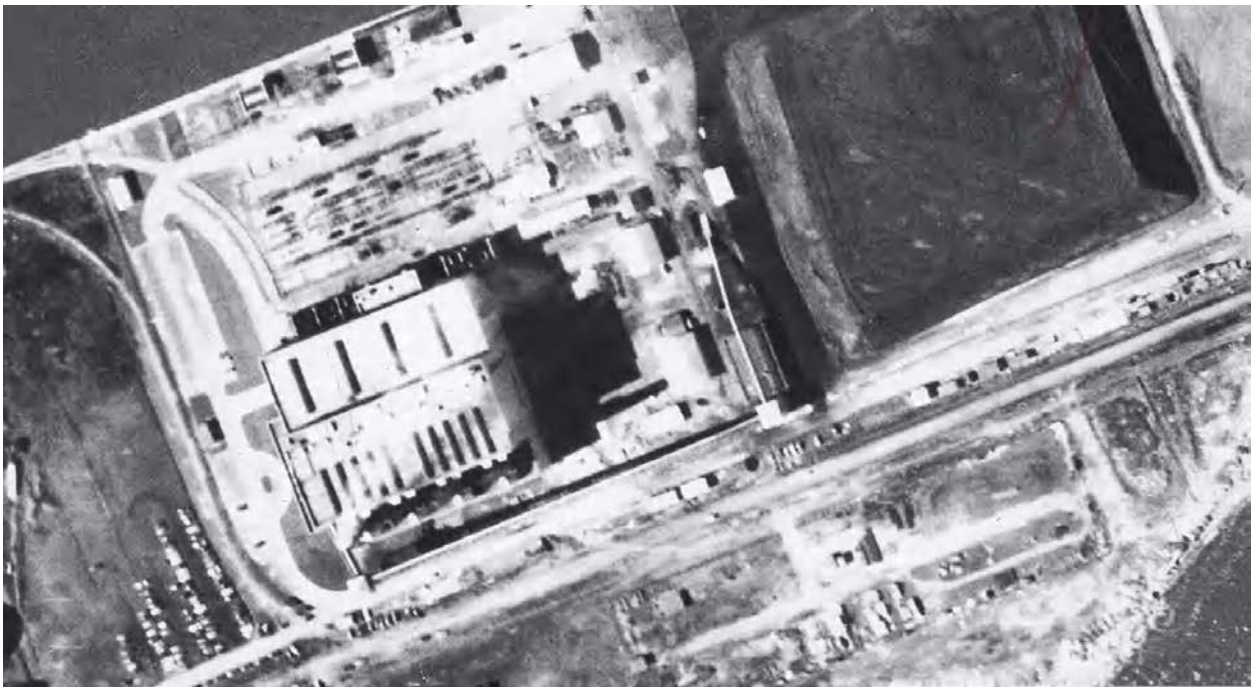
CHAIRMAN

ONTARIO HYDRO

**LISTEN TO OPENING CEREMONIES TONIGHT—9.30—10 P.M.—CFRB DIAL 1010**

10. Advertisement in the Toronto Daily Star, 26 October 1951 for the opening ceremony of the Richard L. Hearn Generating Station which was broadcast of the radio (TDS, 26 October, 1951, p 12.)


11. Richard L. Hearn photographed switching on the switch of the new power generating station, 1951 (OPG News)

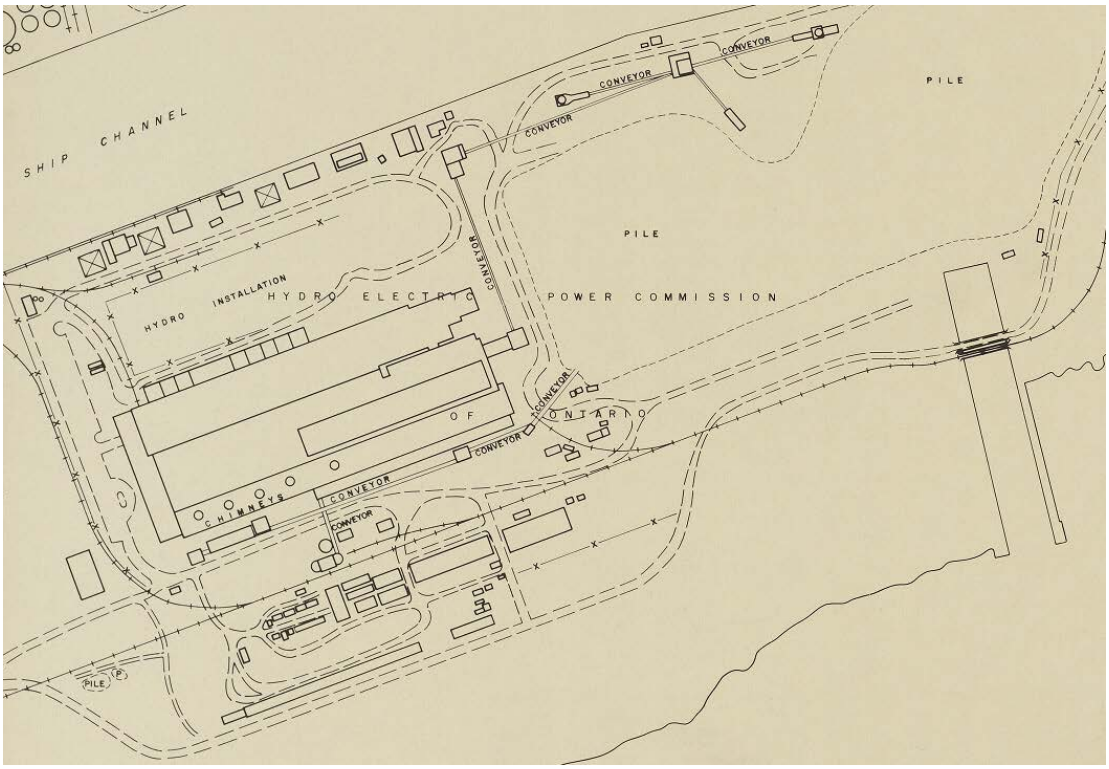


12. 1953 Aerial Photograph showing the first stage of the Hearn completed (CTA, Aerial photograph 189, 1953)

13. "Richard L. Hearn Generating Station" photograph, early 1950s showing the west and south elevations as constructed with the two-storey administration block and the original four chimneys (CTA, Fonds 1128, Series 380, Item 202)

14. "Richard L. Hearn Generating Station, c 196?" showing the third floor extension of the administration block during the expansion of the facility between 1959 and 1961. (CTA, Fonds 1257, Series 1057, Item 0750)

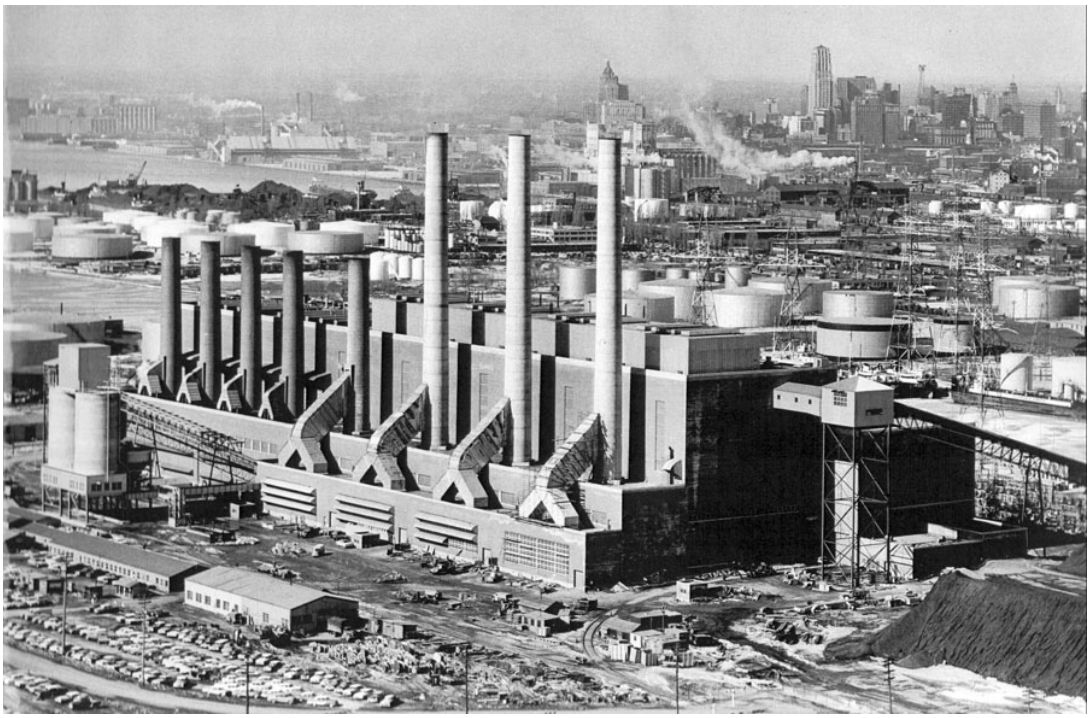

15. View of the principal, west and south elevations showing the completion of the third storey of the office block and its extension as a plainer corner block with punctured window at the first and third storey (SIPA, 2013)



16. City of Toronto, Dept. of Public Works Aerial Survey Plan of the Hearn site showing the footprint of the 1959-61 extension with only one of four new additional chimneys complete. (Drawing 3C, CTA)


17. 1961 Aerial photograph showing the extension complete with 4 new chimneys - the later three tallest are casting long shadows (CTA, Map 28)

18. Post-1960 photograph showing Phase II complete with a view of the shipping channel, turning basin and Ashbridges Bay beyond. The construction of the Leslie Street Spit has not yet begun (Courtesy of R. Unterman)



19. Post-1960 photograph showing the completed extension of the east half of the plant showing the south elevation with the chimneys. Note the tower at the east end which still survives today (Courtesy of R. Unterman)

20. 1971 Aerial photograph showing the new 213 metre high chimney is complete and the other 8 have been removed. (CTA, Map 31)

21. View of the Hearn from Unwin Avenue showing the principle west and south elevations and base of chimney stack (Heritage Preservation Services [HPS], 2016)

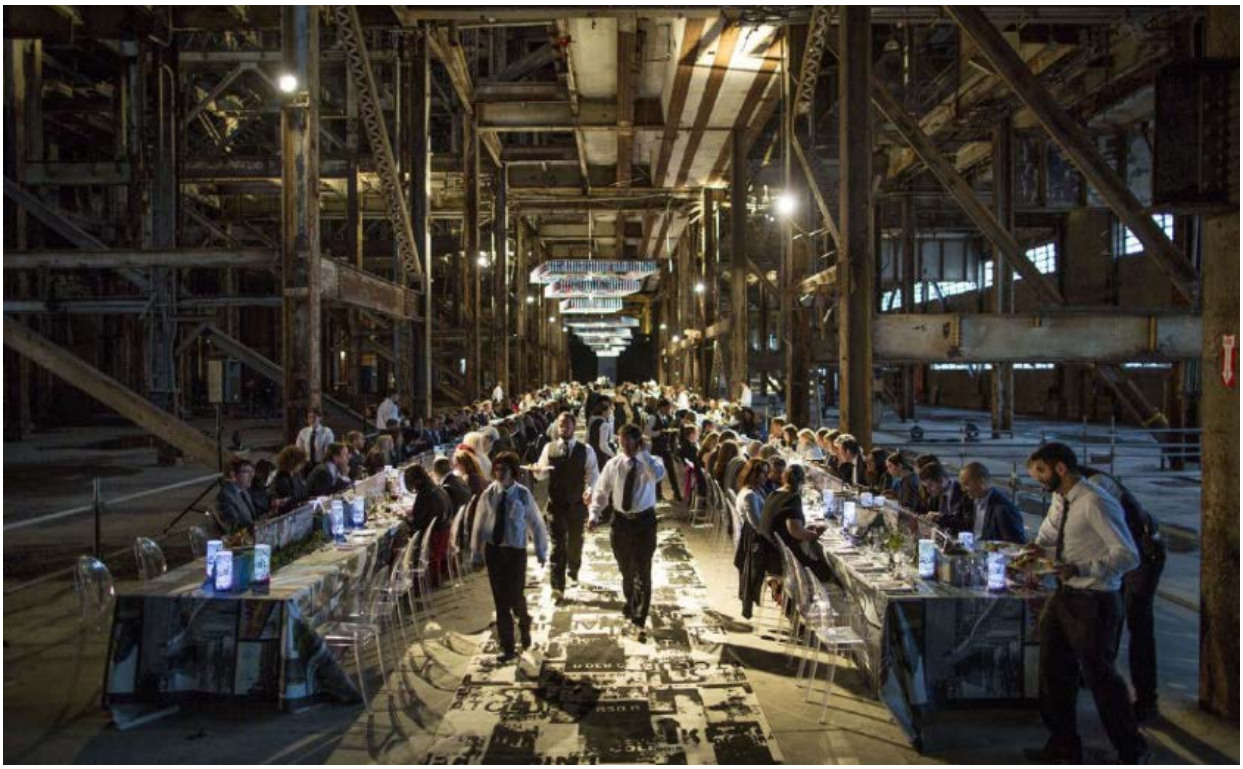
22. South elevation, facing Unwin Avenue, looking west, showing Phase 2, 1959-61 extension which included the additional one storey unit (HPS, 2014)

23. East elevation with the 1959-61 additions including the tower and the single storey blocks (HPA, 2014)

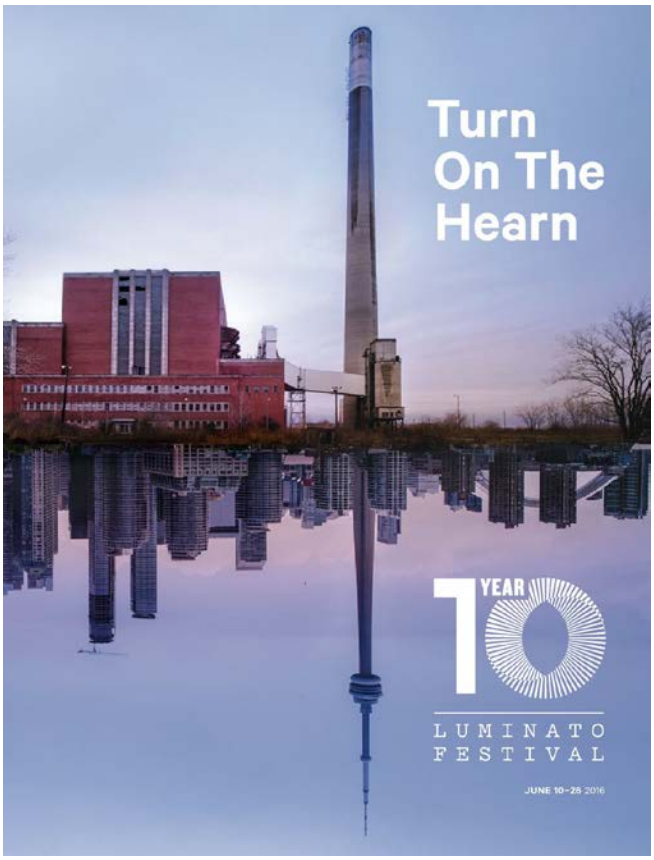
24. North elevation (HPS, 2014)

25. Hearn, Boiler Hall during the Unsound Festival, June 2015 (David Leyes, 2015 https://www.toronto.com/news-story/6128669-hearn-generating-station-to-produce-cultural-energy-during-2016-luminato-festival/)

26. The Hearn, Interior Turbine Hall, Luminato, 2016 (HPS, 2016)



27. The Hearn, Interior, Boiler Hall, Kick-off Party for the Luminato festival 2014 (Carlos Osario, Toronto Star, July 7, 2014)




28. Luminato Festival Poster, 2016

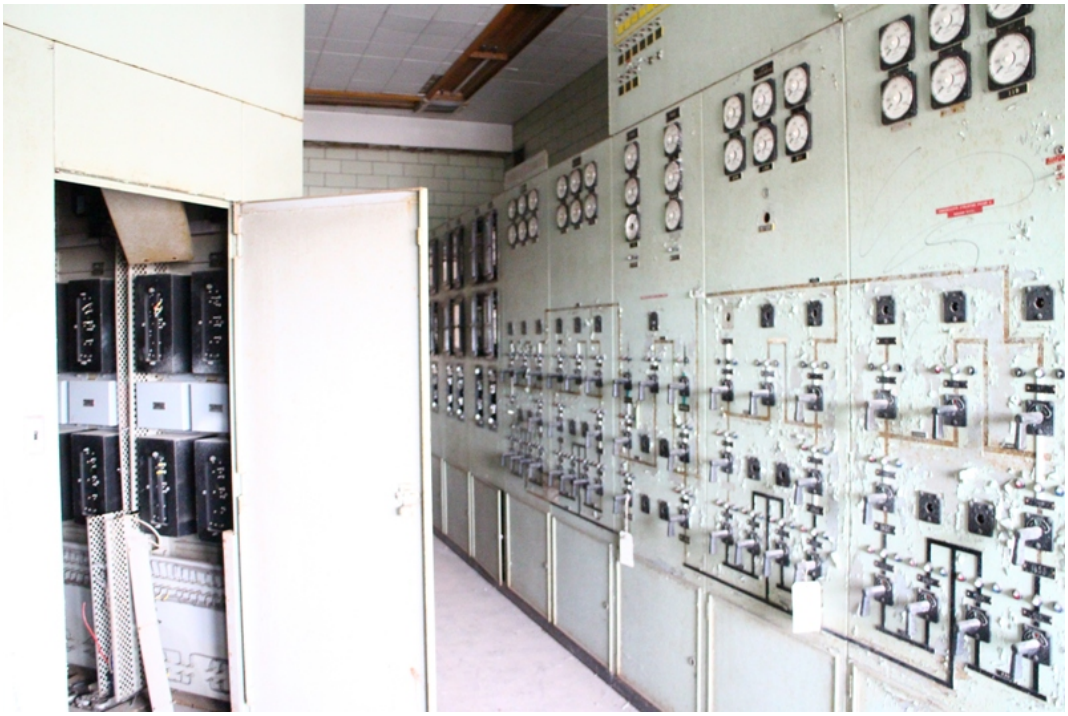
29. Principal, west elevation showing the lower, three-storey administration block and above the central Boiler Hall and to the left, the Turbine Hall
(City Planning, Strategic Initiatives and Policy Analysis [SIPA], 2014)

30. Principal, west elevation, showing the limestone pier and coping details
(SIPA, 2014)

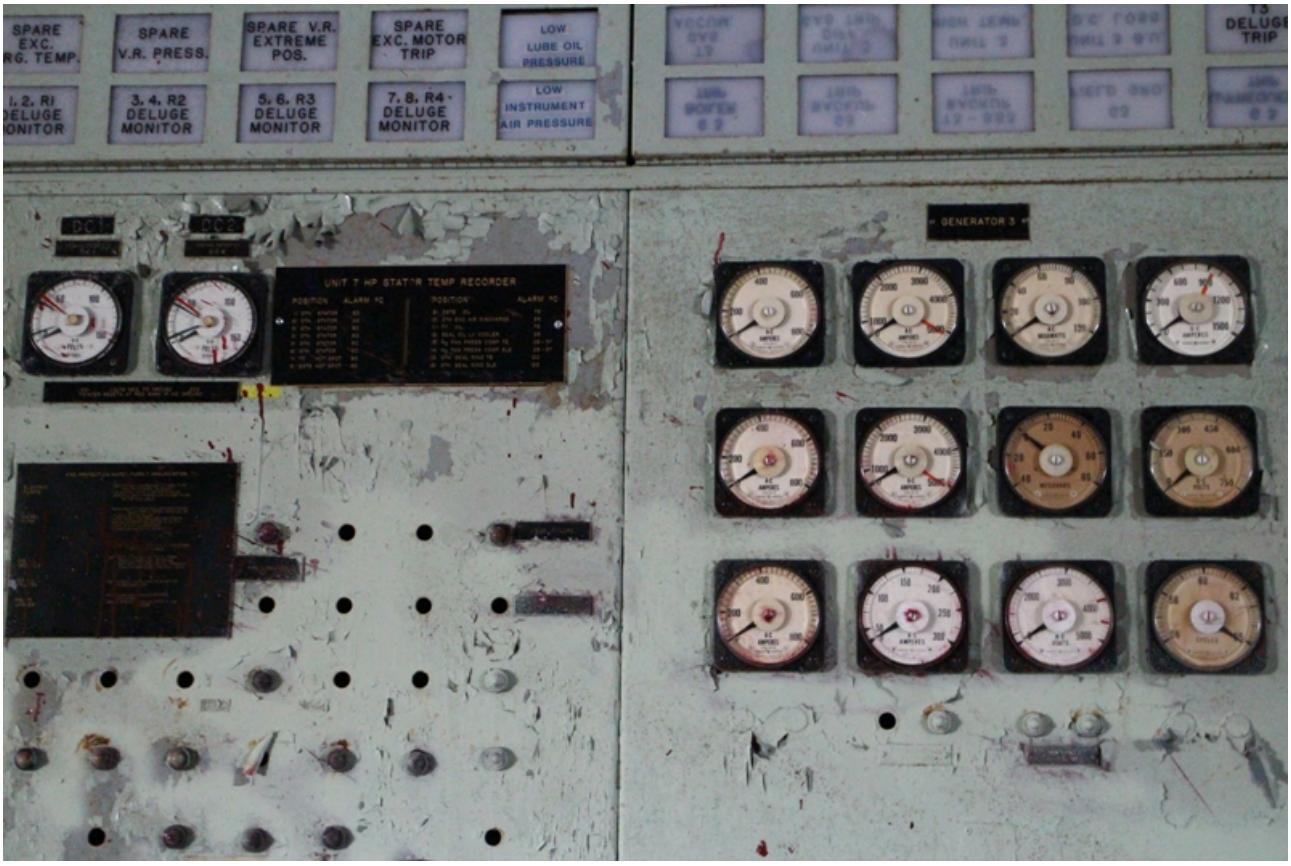
31. Principal Entry, west elevation, showing the remains of the circular driveway and planting, the stair, the canopy and doors with linear handrails and the limestone piers, all characteristic of the Style Moderne style. Above note the horizontal band of windows with a continuous linear band of limestone, and broad limestone piers flanking aluminum alloy sash windows (SIPA, 2014)

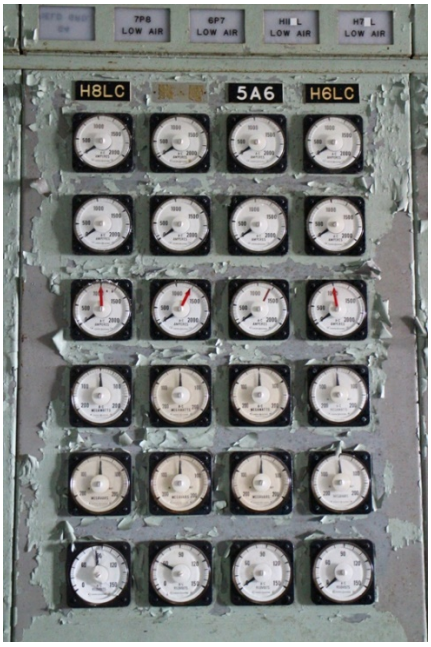

32. Interior entrance lobby of administration block which continues the minimal, linear Style Moderne spirit of the exterior especially in the use of metal alloys in the handrails and limestone cladding (SIPA, 2013)

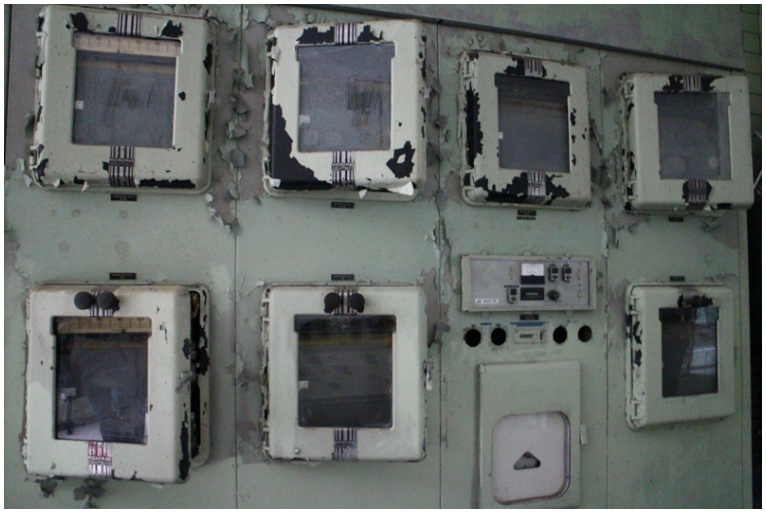
33. Interior of the Control Room (SIPA, 2014)



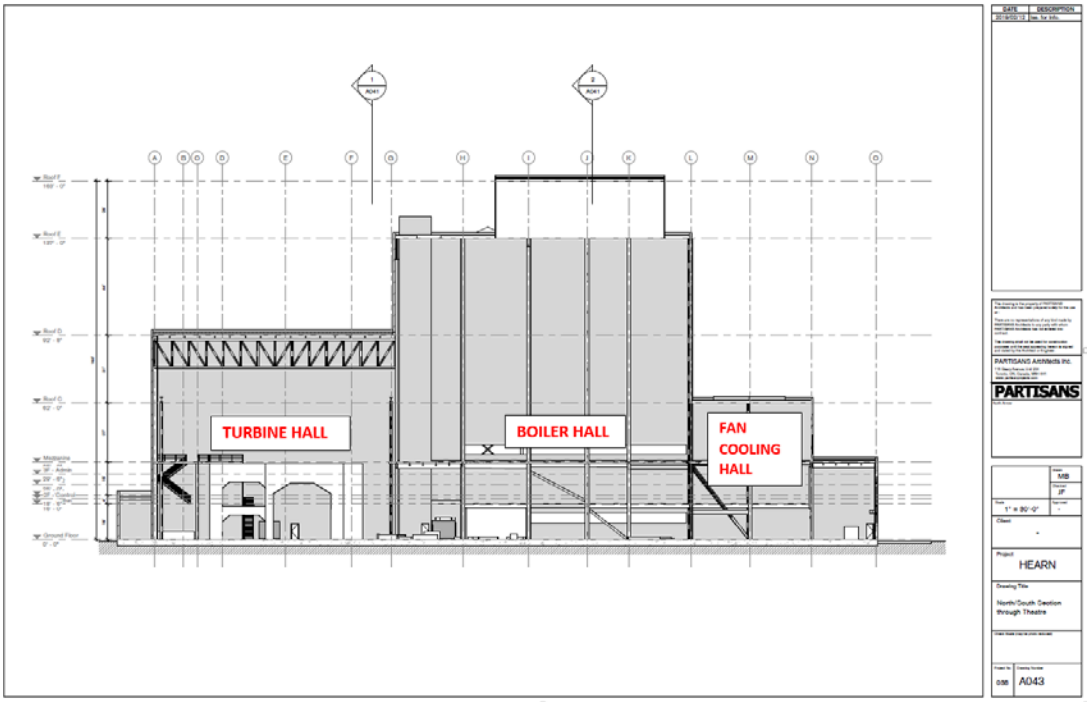
34. View of the Control Panels (SIPA, 2014)



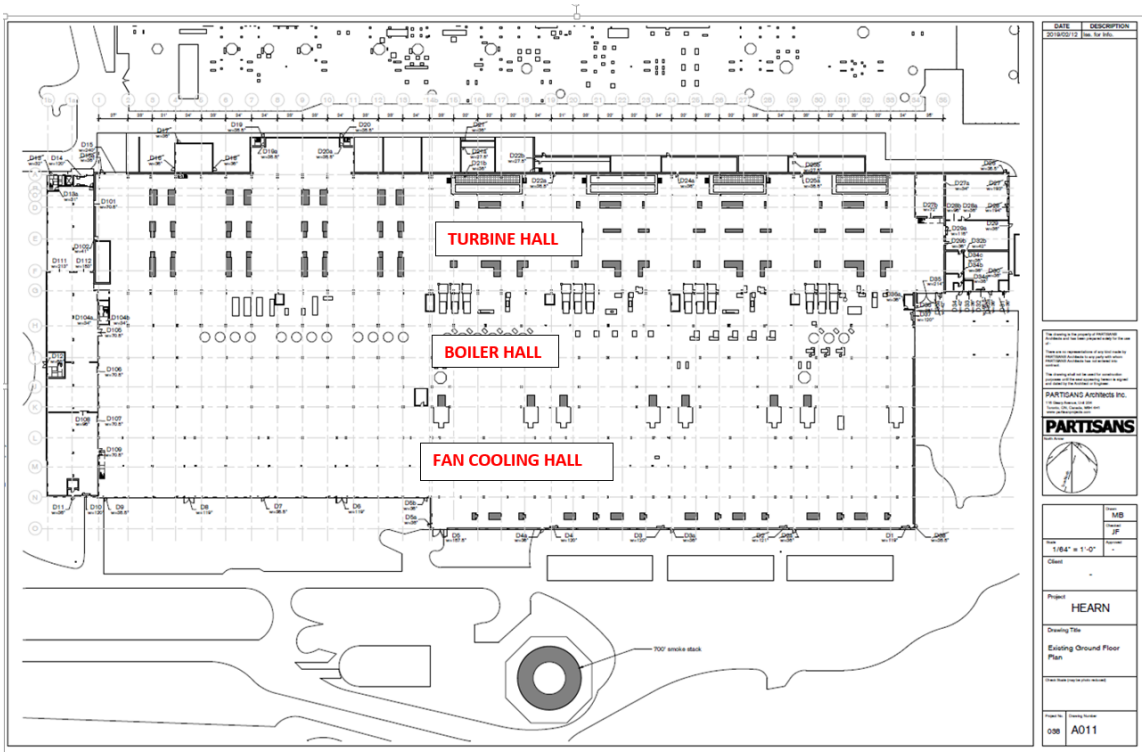



35. Photographs of the instrument panels in the Control Room (SIPA, 2013)




36. PARTISANS Architects Inc., Section of the Hearn prepared for Luminato May, 2016 (Courtesy PARTISAN Architects Inc., 2019)




37. PARTISANS Architects Inc., First Floor Plan of the Hearn prepared for Luminato, May 2016, showing the location of the Turbine Hall with its concrete structure represented by solid black footprints, the adjacent Boiler Hall and the Fan Cooling Room with the office block across the west end of the plan (Courtesy of PARTISANS Architects Inc., 2019)

38. Interior view looking south from the Turbine Hall through the Boiler Room to the Fan Room (SIPA, 2013)

39. Interior View of the Turbine Hall looking from west to east through successive structures constructed to support 8 turbines (SIPA, 2014)

40. Interior View of a full-height structural bay in the Turbine Hall (HPS, 2014)

41. Interior view looking east with the Boiler Room to the left and Fan Room to the Right (SIPA, 2014)

42. Aerial view showing the location of the outbuildings as below (Google 2019)


43. Chlorine Building (SIPA, 2013)


44. "Outbuilding B" (SIPA, 2013)


45. Entry Gate House (HPS, 2014)

46. View of the switching station on the north side of the property with north elevation and chimney stack of the Hearn (SIPA, 2014)

47. View from the north edge of the property at 440 Unwin Avenue across the shipping channel towards the downtown core (SIPA, 2014)


City of Toronto Archives, Series 1465, File 329, Item 8

48. "R. L. Hearn Generating Station and Commissioners Street Incinerator," representing the industrial character on the north side of the shipping channel and turning basin. The photograph, looking south on Logan Avenue was taken pre-1971 before the subsequent acquisition of the Hearn's 213m chimney and the replacement of the incinerator's three towers with a single tower of 137m (Series 1465, File 329CTA).

City of Toronto Archives, Series 1465, File 123, Item 12

49. View of the Hearn from the Leslie Street Spit, c 1976, showing the bucolic natural and recreational quality of the south side of the Hearn's setting
(CTA, Series 1465m File 123, Item 12)

50. Aerial view of the Hearn's context showing the contrasting dual character of the industrial aspect to the west and north of the shipping channel and turning basin and the bucolic recreational quality established by the strip of parkland including the Martin Goodman Trail and the Leslie Street Spit on the south (Google Maps)