TORONTO: A SHORT HISTORY OF URBAN FORM

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Introduction

The City of Toronto occupies a broad plateau which slopes gently back from the north shore of Lake Ontario. This plateau is cut by a series of river valleys running to the north, as well as by a modest escarpment running from east to west. The existing grid of major streets in the city has been laid over this plateau. An Indian settlement before the arrival of European explorers, Toronto already boasted an accessible shoreline and a protected harbour.

The European settlement which led to the City's present form was only established in the late 18th century. Toronto remained a fragile social and economic satellite of Montreal until late in the 19th century. It is only since the end of World War II that the pattern of growth has occurred which has brought the city to the attention of the world at large. Today, Toronto is a city of some 700,000 people forming an increasingly integral part of a metropolitan community of 2,500,000. Metropolitan Toronto, in turn, forms the centre for a region of the province of Ontario which has a population of more than 4,000,000.

As an urban artifact, Toronto has at its centre a relatively densely built-up core, closely surrounded on three sides by a series of residential neighbourhoods which still bear strong markings of their 19th century origins. High density by North American urban standards – or even by suburban Canadian ones – these residential neighbourhoods are, nevertheless, relatively low density by urban European ones. Many of them continue, even to the present day, to be largely made up of two and three-storey, semi-detached and row houses, all with their own front and back yards. Arranged along the innumerable tree-lined streets, they give the city its most characteristic urban image. In almost all of these neighbourhoods the extant built form is either first or second generation construction. Only in Toronto's core does one find historic evidence of three or four successive generations of buildings on a single site. What is more, so ubiquitous is this extensive residential fabric of two or three storey housing along treed streets that, viewed from above, the city still reads largely as forest – with the mature urban trees being in many areas taller than the houses. To the west, north and east, forming a second ring beyond the 19th century neighbourhoods, are those of the 20th century. Most of them, within Toronto proper, do not depart in any significant degree, from the morphological characteristics of their closer-in 19th century predecessors. However, they are slightly less dense, and provide slightly greater allowance for cars.

One further neighbourhood of importance to Toronto's urban image lies to the south of its downtown core. This is the small archipelago known as the Toronto Islands, once a thriving summertime community. Even today, this mixture of parkland and residential neighbourhoods forms a poignant miniature of a typical residential neighbourhood of the contemporary downtown towers across the historic harbour which was such a key rationale of Toronto's original settlement.

The Foundation of Toronto

Aitken's evocative drawing of 1793 concisely captures the key elements of the historic foundation of Toronto. Sharply defined is the form of the harbour, as well as that of the distinct penisula which was severed from the mainland to become the "Toronto Islands" described above, as a result of a violent storm later in the 19th century. To the north shore of the harbour can be seen the beginning of the gently sloping plateau which was to provide the base for Toronto settlement for the entire 19th century. Bounded on the east by the valley of the Don River, this plateau stretches some five kilometres north before it meets the escarpment, which was the shoreline of "Lake Iroquois" in prehistoric times. To the west, the plateau of central Toronto – never as sharply defined as it was to the north and east. As a result, more of the city's 19th century growth occurred to the west than to the east, until the period, at the turn of the 20th century, when bridges across the Don Valley became sufficiently frequent for growth to the east to finally begin catching up.

Aitken's drawing also depicts the generic form of Toronto's urban design growth in the 19th century. The "ten blocks" he depicted formed the vehicle whereby a Georgian Garrison town was originally brought into being here. George William's 1813 sketch plan of "York in Upper Canada", shows in considerable detail, the state of settlement in the Garrison town some 20 years after Aitken. A time before much growth had occurred, this was when the emerging pattern of urban development along the shoreline to the west – and even up the spine of Yonge Street the major route to hinterland settlement as far north as Lake Simcoe – has just begun to be evident.

19th Century evolution

For all its military expediency, the plan of "ten blocks" *did* indicate vestiges of an ambitious idea for towns in Ontario. This idea had been conceived by Sir Guy Carleton, Lord Dorchester, in Quebec City, in 1789. According to his proposals for ideal "inland" towns, a grid of town lots was to be surrounded by a ring of green space, beyond which a series of "park lots" for country estates and agricultures, was to be established. Cane's detailed map of Toronto from 1842, depicts the degraded version of Lord Dorchester's vision which had been put in place in Toronto by that date... The "ten blocks" so notably visible in Aitken's plan from 1793 are still readable here. Front Street runs along the shore line. One block to the north, the main spine of the settlement in those days, was King Street. One block above that, was Lot Street, the original boundary of the town, and the baseline for the series of "park lots" stretching on ewhole concession grid to the north.

As of 1842, urban development of the park lots had already begun – especially along the east and west sides of the increasingly important spine to the north – Yonge Street. What is more, the colonial establishment had selected what is considered an appropriate site for a "university", on a prominent rise of land two parks lots west of Yonge Street. A tree lined "College Avenue" running north to it can also clearly be seen on Cane's map.

An 1847 view of Toronto looking north-west "from the top of the jail", shows an informative panorama of Toronto. In the foreground lie the original "ten blocks", still housing many of the original structures built there. The spine of development stretching north along Yonge Street is also quite evident. Not clearly visible from this vantage point because it lies so far to the west is a poignant urban design effort of the early 19th century Toronto. Contemplating the great precedent of Edinburgh New Town, a group of pioneering Torontonians

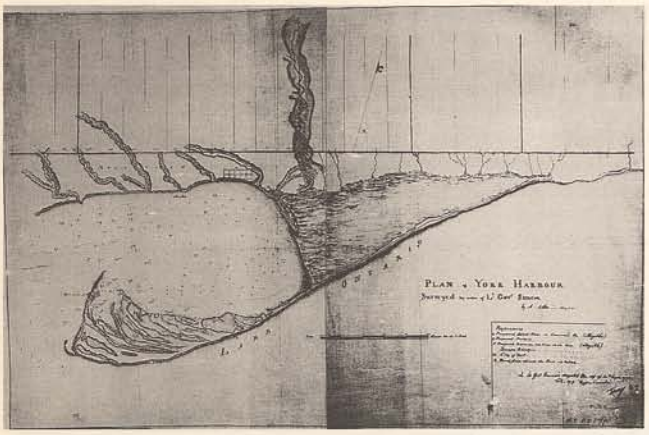
1/ Map showing the main streets of Toronto, laid over its characteristic topography.

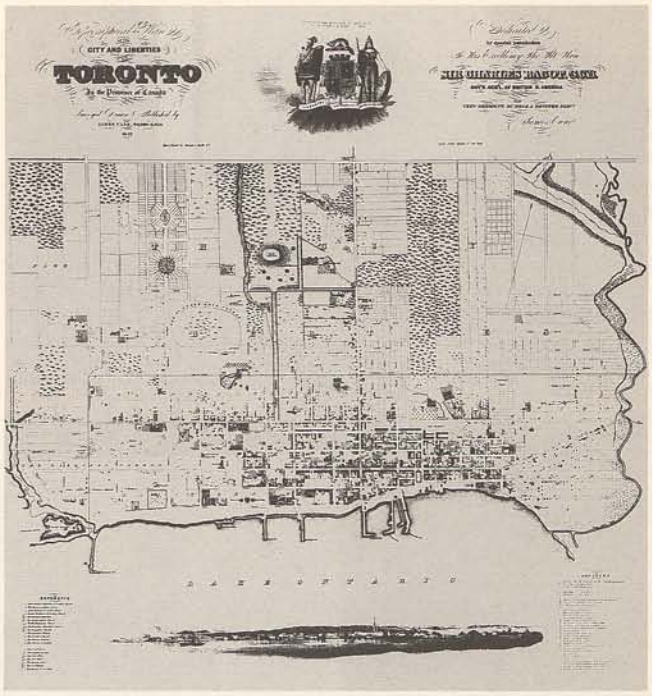
attempted to lay out a great boulevard uniting two squares in the 1830s in the "Garrison Lands" between the original town and Fort York. Victoria Square (incorporating an existing military burial ground) to the west and Clarence Square on the east side of Spadina Avenue were to be linked by a wide, and gracious boulevard named "Wellington Place". The 1847 aerial panorama shows the concept as it was imagined by a Captain of the Royal Engineers in 1836. The visionaries' grand idea was begun, but before it was fully built, the city's whole relationship to the harbour began to be transformed by the creation of a rail corridor all across the waterfront. As a result, the level of urban amenity foreseen by the idea's creators, was soon to be prejudiced by expansionist industry. As of 1847, the date of the illustration just prior to the creation of the new waterfront rail corridor, the shoreline of the harbour is still visible as it existed when the close adjaceny of shipping-to-docks-to-buildings directly on the south side of Front Street still formed the city's mid-century relationship to the harbour.

A view of the city only three decades later, shows the dramatic urban impact of the advent of the railway. Not only has a major landfill begun to occur; a whole new linear element has stretched across in front of the fabric of the existing city, breaking the historic connection to the water which was part of its original raison d'etre. This "break", in urban design terms, continues to reverberate right down to the present day. But, at the same time that it separated the urban fabric of Toronto from the harbour, the railway also set in motion a whole series of other transformations. Large-scale grain elevators, warehouses, and manufacturing establishments are visible in this illustration along the whole alignment of the rail corridor. Nearby urban precincts, including the ill-fated Victoria Square and Clarence Square all began to feel the pressure of the new urban industrialization. It is not surprising to learn that towards the end of the century, the social and political establishment was beginning to consider relocating the Legislative Assembly Building (originally built to face the lake) to the prominent site safely far to the north of the new despoiled waterfront, on the plot of land originally foreseen as the site of the proposed "University" at the top of College Avenue.

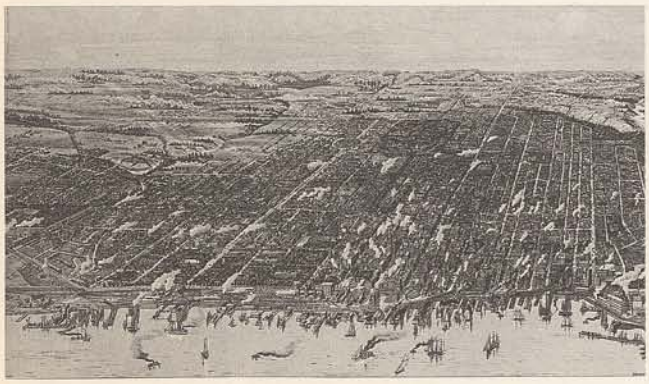
While these dramatic urban transformations were proceeding, the vernacular residential development of Toronto continued to proceed quite straightforwardly. It was in large measure, during the prosperous second half of the 19th century, that the extensive, and utterly characteristic, residential fabric of the city came into being. Even today, this fabric shows a very high degree of consistency, both morphologically and typologically. Rows of relatively long and narrow blocks were laid out on a rectilinear grid; each block comprised a quite standardized series of lots from 15 to 20 to 25 feet wide and from 90 to 120 feet deep. In "better" neighbourhoods, a mid-block service lane accomodating stables or sheds was incorporated. In the most modest neighbourhoods (where stables did not exist) it was provided, and in the wealthiest ones where wide frontages permitted on-site access to the rear of the lot, it was rarely provided.

Detached, semi-detached, or row houses were erected on such characteristic lots. Some were only one storey cottages, but most were two to three-storey houses, taking one or the





2/ Aitken's Plan from 1793, showing the original harbour and the «ten blocks» (City of Toronto Archives).
3/ Cane's map of 1842 (City of Toronto Archives).
4/ A view of Toronto from the water in 1878 (City of Toronto Archives).
5/ A typical residential street scene of the late 19th century.



other of the above mentioned forms. Each house had its own front and backyard, and both architecture and landscape, focused on the front facade, the front yard, and on the street itself. In a typical street scene of the late 19th century the pattern of planting, both private (in the fenced yards) and public (on treed boulevard) provided a very high level of urban amenity.

"City Beautiful". Aspirations in the Early 20th Century

Shortly after the turn of the century, a new generation of urban visionaries in Toronto launched a second campaign to lift the level of aspirations for urban design in the city by forming a group called "the Guild for Civic Art". One of the group, the then-young architect John Lyle, prepared several ambitious plans for the restructuring of downtown Toronto, all of which followed in significant degree the principles of the movement now known as the "City Beautiful". Among the varied schemes proposed by the Guild and its successors, were a major upgranding of College Avenue (which by this time had been absorbed within the fabric of downtown). Moreover, College Avenue, as originally conceived, did not extend south of Lot Street (or as it was known by this time Queen Street), since it was one of the boundaries of park lot development. A key and difficult component of the Guild's plans for University Avenue (the name College Avenue had by then acquired) involved its southerly extension through the already built-up westerly part of Toronto's 19th century core. This extension finally did occur, but it didn't happen until the late 1940s, and the form it took did not allow the ambitious urban intentions of the Guild as they has been proposed in the 1920s.

Other schemes conceived by the Guild included: a proposal for a grand new boulevard linking the new "Union Station" at the south end of the downtown to a site for a proposed new municipal complex at the north end; and an extention of Bloor Street – the east-west arterial at the north limit of the park lots eastward across the Don Valley to the underdeveloped plateau to the east. Federal Avenue as the downtown boulevard was named, never came to be, but the extension of Bloor Street and the creation of the Bloor Viaduct across the Don did. This impressive viaduct, now so famous since its mythologization in Michael Ondaatje's recent novel "In The Skin of a Lion", is probably the chief urban legacy of the Guild, which otherwise had a sadly limited influence on the evolving form of the City. Somewhat more successful in implementing their reformist ideas for Toronto before World I were the instigators of a proposed new "garden suburb" named "Lawrence Park". Here, we see evidence of the formal ambitions of its designers to vary road patterns from the neutrality of the ubiquitous grid of characteristic 19th century residential development; respond to an incorporated topographical features as part of the image of the neighbourhood; and provide community focuses and visual emphases, as part of the physical form of the suburbs. Many of Lawrence Park's "garden suburb" origins are still visible today.

6/ A 1920s aerial view.

7/ A 1940s view.

Later 20th Century Evolution

Downtown

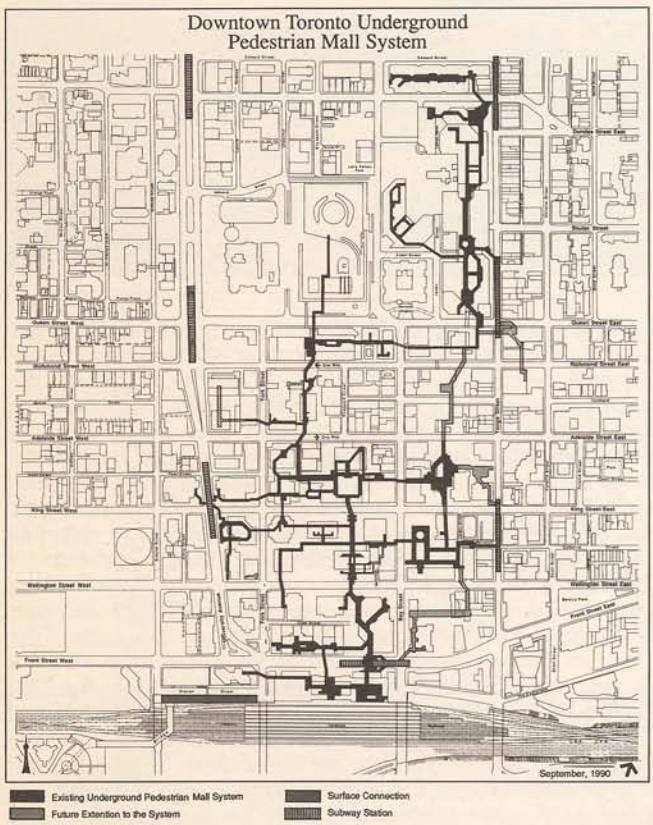
By 1900, the city's downtown had shifted westward from the original "ten blocks" to the north-south axis of Yonge Street – and even beyond. Decisive evidence of this late 19th century shift, is the location of the new City Hall. It opened in 1899 on the axis of Bay Street, several blocks north and west of the former one, which had been location at the water's edge at Front and Jarvis Streets. As of 1900, the city's downtown comprised a relatively tightly built up fabric of three to five storey warehouse and office buildings, generally built with masonry perimeter walls, and heavy-timber internal structures. Erected party-wall to party-wall on their lot lines, these typical buildings had a formal face to the principal street, and service access from the area lane. The typical urban fabric which was the result of this typology is clearly visible in a turn-of-the-century aerial view of the downtown.

A disastrous fire in 1904 destroyed a considerable portion of the area illustrated here. New building regulations, which were subsequently implemented, intersected with changes in building technology and with a new wave of economic expansion to lead to the first wave of construction of "skyscrapers" – elevator-service office buildings of fireproof construction up to 20 storeys high – in the years just prior to the onset of World War I. Although they departed significantly (in height) from their predecessors of the 19th century, these buildings did not depart from their site planning principles. They were still built property-line to property-line, and manifested public faces to the street – at the street lot line – and "party walls" along their other lot lines. Thus the characteristic form of the system of public space of the city's downtown was more or less preserved in its 19th century form, even as these new structures began to fundamentally alter the skyline. After this, Toronto's skyline was no longer punctuated decisively by the spires of churches and other public institutions. Instead, these older icons of collective insitutional presence began to give way to a 20th century one, dominated by the newly powerful urban institutions of commerce.

Even the larger scale development of the 1920s and 1930s in the core did not fundamentally alter the relationship of building types to urban morphology which had been operative since the middle of the 19th century. Sophisticated examples of construction from that period such as the Royal York

Hotel and the Canadian Bank of Commerce varied from their prewar interest on the part of their designers, in the form of the urban tower silhouetted against the sky. Unlike the prewar buildings discussed above, the towers of the Royal York and the Bank of Commerce left the "party wall" condition behind in favour of "in the round". Yet these projects still respected the ground-level pattern of street space, street wall and party wall which had been such a strong, if unconscious, tradition in Toronto since the middle of the 19th century. As late as the 1940s, this morphology still held, even in the continuity of the fabric of the core had been somewhat eroded by the systematic demolition of numerous secondary buildings to provide parking lots.

With the great development boom of the 1960s and 70s, significantly more drastic change began to occur. The first



8/ A Contemporary plan of the Underground Pedestrian Mall Sistem

tower of the Toronto Dominion Centre of Ludwig Mies van der Rohe introduced a new typology of buildings to the fabric of the downtown core. Like their late '20s and '30s predecessors, the Toronto Dominion Centre and its '60s and '70s successors, presented themselves very strongly as profile objects to be read symbolically against the sky. But they did not stop at this. Unlike the early generation of buildings, they saw themselves as objects for contemplative viewing also at ground level. Thus the characteristic forms of the typical skyscrapers of the '60s and '70s involved deep setbacks and large open plazas, in which the "pure" towers stood free of urban encumbrance, right down to the ground As a result, for the first time in history of Toronto core, the roles of street space, street wall and party wall all began to become irrelevant, and an amorphous form of "corporate open space" began to extend throughout it.

At the same time that it launched the generic concept of the "tower in the plaza", Mies' Toronto Dominion Centre also launched yet another highly influential new urban design idea almost inadvertently. In his desire to conceptualize a contemplative plaza, upon which to dispose his object-towers and pavilions, Mies persuaded his clients to develop the retail component of their development as a series of shop one level below grade, served by a network of underground walkways. Later on, developers of adjoining parcels of land saw fit not only to emulate this model of retail development, but also obtained permission to connect the new underground walkways they had just created to those which already existed — even passing beneath the city streets if necessary. This phenomenon spread rapidly, and its result, 20 years later, is a network of some six kilometres of underground pedestrian routes stretching through much of the downtown core, and linking dozens of blocks to each other as well as to the city's underground rapid transit system. The present extent of this extraordinary new urban element in Toronto's core is depicted in a contemporary plan of the underground pedestrian mall system. Since the developments of the 1960s and '70s, a series of countervailing urban pressures has come into play, some capping densities in the core, and others arguing for a return to a model of urban design which would be closer to that of the 1920s and '30s, discussed above. According to the more recent urban design principles, high rise elements of the schemes could indeed stand tall and free against the sky, but it was argued that their bases ought to be more integrated into the existing fabric of the downtown, both the historic pattern of street space, as well as that of the street-wall. Last but not least, conditions of microclimatic amenity which will encourage pedestrian activities at grade have also recently been called for. This is something the free-standing towers of the 60s and 70s, in their time, severely prejudiced (to the extent that in seasons of high winds, certain outdoor areas in the downtown had become uninhabitable). A contemporary view of the ensemble of towers now extant, some "pure" towers of the 60s and 70s still standing, as well as other, more "hybrid", recent ones.

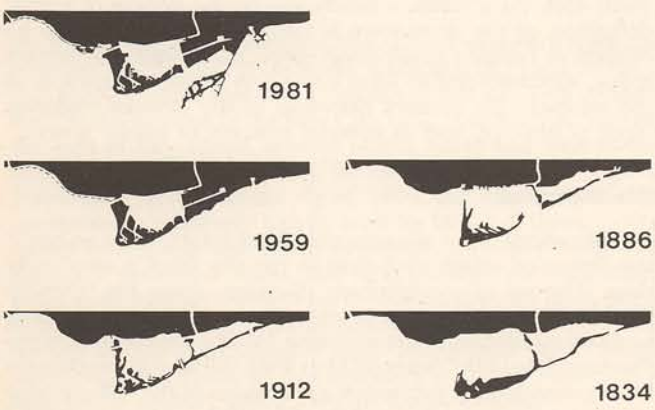
Many of the shifts in the relationship of building-typology to urban morphology in Toronto's core can be read in comparative figure ground drawings of the core circa 1924 and today. The former shows the coherent pattern of street space and street wall in the public realm and the simple relationship of building types to their street face, party wall and service lane is also clear. Any mid-block open space, which existed circa 1924 was still circumstantial in urbanistic terms, devoted to purely private or service functions.

The contemporary drawing shows how dramatically all of this has not changed. First of all, the overall scale and grain of the morphology has altered. Most of the lanes, and even some of the streets, have vanished and a pattern of full block or close-to-full-block developments has superseded them. A currently existing pattern of open space comprising 60s plazas in part, and more deliberately composed recent spatial figures as well, is also legible. Service access has now been largely accomodated in section, rather than in plan (one level below the underground walkway system). It is also true that recent years have also seen filled in — most smaller, undeveloped lots from the 1960s and 70s, lots which in that era would not have been thought economically viable development sites. As a result, a newly sharpened system of spatial definition of the downtown is once again beginning to be evident in Toronto's core street space, street wall, and project space, all combined to form a modern Toronto analogue of the famous 18th century drawings of the Roman engraver Nolli of his city, and *its* seminal concept of public space.

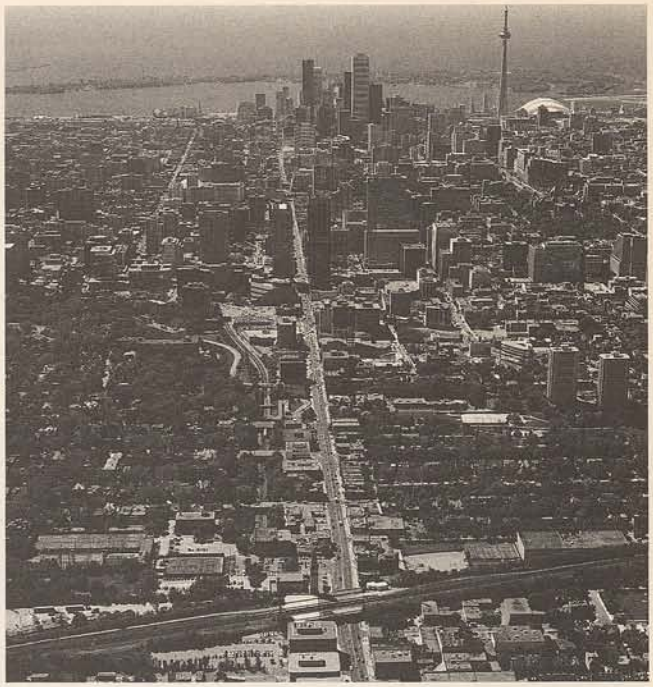
The Waterfront

Modifications to the shoreline of Lake Ontario were an ongoing theme of urban evolution in the city from a very early date. The set of evolutionary diagrams from the Toronto Harbor Commission summarizes the process of landfilling and rationalization of the shoreline (or as it is now known) the "harbour head-line", form 1834 to 1981. Most of these changes were generated by successive expansions of the rail corridor which, beginning in the middle of the 19th century, stretched across the waterfront, immediately in front of the historic city causing the system of shipping piers and warehouses at the water's edge to be shifted further south.

9/ The Evolution of Toronto's Waterfront.



10/ The set of evolutionary diagrams from the Toronto Harbour Commission.
11/ An aerial panorama of downtown Toronto from east showing the undeveloped portions of the Railway Lands, the eastern harbour, and the Don Valley.



From the middle of the 19th century right through to the advent of World War I expansion after expansion of the rail corridor occurred both to the south and the north. To the north, the sites of the former Legislative Assembly Building and Lieutenant Governor's mansion were taken over for trans-shipment yards. An entire working class neighbourhood north of the Gooderham and Worts Distillery at the east end of downtown was eliminated for similar reasons. Then, too, southerly extension also continued, with the shipping piers being displaced even further out into the harbour. By 1914 the scale of activity along the various rail lines had become sufficiently intense as to create considerable conditions of congestion everywhere the major north-south streets of the city met the east-west rail line at level crossings. Over a decade of protracted deliberations (all through the first World War, and after) was taken to determine what sort of grade separation between the east-west rail corridor and the north-south streets ought to be introduced. Should the rail line be lowered and the roads elevated, or vice versa?

Pragmatic considerations directed to keeping both the roads and the rail corridor above the water table finally governed, and a hybrid scheme was proposed whereby the rail corridor would be located on an elevated embankment from the Don River west to York Street. From the point westward, it was proposed that it would gradually slope down, to permit streets from Spadina Avenue westward to go over top of it. At the same time, it was resolved to develop once and for all, a new harbour headline, well beyond any of the obsolete piers still standing from the late 19th century. Thus the mid-1920's saw the beginning of the major landfill and bridge engineering work which led to the configuration of roads, railways and headline along Toronto's waterfront. This has remained in place till the present day. 1920's view of the landfill and railway viaduct show this major engineering undertaking of the 1920s in process. Vestiges of old piers being buried, forms of new embarkment, and the new sea wall in place in the far distance, can all be seen.

After these varied works were completed in the early 1930s, and after the program of development of industry to occupy the newly created sites – a process only concluded in the 1950s – Toronto's downtown was well and truly disconnected visually, and for any purposes more urban than those of industry or shopping, from the waterfront which had created the city in the late 19th century. The process of reconnecting the core to the waterfront is now a major theme of contemporary core area planning and urban design in the city.