

EX18.7 Appendix A Part 2

EXPO 2025 CANADA

**Site Analysis, Masterplan, Transport
and Infrastructure**

Revision II - October 2016 - Final

EXPO 2025



ARUP

SITE AREA:
320ha

SHIP CHANNEL
AREA:
41ha



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This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

SUMMARY

The Port Lands site has been identified as the most viable site for hosting the World Expo Canada 2025 as it has the necessary capacity and can fulfill the requirements as specified by the BIE. Based on discussions with Waterfront Toronto there is a unique opportunity in their planning for an Expo in 2025 as much of the core infrastructure can be in place but significant development works will not have taken place.

The Port Lands offers an area that could provide all the necessary infrastructure and provisions needed for a World Expo and can turn the underutilized site into a new urban asset that will exemplify the ambitions of a future sustainable, green, vibrant mixed use community and become a new piece of Toronto's revitalised waterfront.

This site analysis report provides a high level assessment of the suitability of the Toronto Port Lands to host the Expo 2025. The footprint requirements we have used are based on BIE (Bureau International des Expositions) guidelines and recent successful World Expos. The site has been reviewed in terms of location, scale, constraints and opportunities, connections to the transport network (especially transit) and dependence on the

completion of other critical infrastructure projects. We have considered the impact that hosting a World Expo in this location would have on Toronto before, during and after the event itself and the potential for this site to contribute to the stated aspirations of the City of Toronto, province and country. We have developed a preliminary Expo masterplan concept alongside conceptual visualisation.

MASTERPLANNING

In order to verify the spatial suitability of the Port Lands site we have developed and tested a number of possible masterplans. The masterplan we propose is led by Waterfront Toronto's existing framework plan. By adopting this plan for the Expo we maximise the amount of legacy infrastructure that will be delivered, activate a number of important heritage buildings and showcase this new city quarter.

TRANSPORT

As with all large scale events, a multi-modal travel demand management approach is taken for the transport strategy, making use of transit, the road network and active mobility options. The strategy is integrated with the overall Expo planning to help ensure that Expo related travel demand is greatest outside general network peaks. The approach makes full use of existing and proposed transit, in particular the new transit hub and GO station in the First Gulf Site (East Harbour Development) which is an important part of bringing people to and from the Expo. In addition a range of temporary measures are proposed, which learn from approaches taken during the Pan Am games, CNE and major events around the world to help achieve the increased accessibility to the site and discourage the use of private vehicles.



INFRASTRUCTURE AND OVERLAY

Key factors in the suitability of the Toronto Port Lands as a site for the World Expo 2025 are the timely completion of a number of planned critical infrastructure projects. The event infrastructure required to host a World Expo is a combination of temporary or 'overlay' and permanent infrastructure.

The adopted masterplan will maximise the amount of permanent infrastructure installed in order that the site can be transformed into its legacy state in as short a time-frame as possible.

CONCLUSION

Overall this site analysis illustrates at this stage that it is feasible for the World Expo 2025 to be hosted in the Port Lands. The site is of sufficient size and is comparable to previous World Expos. There are also viable transport solutions either currently planned or that could be implemented, coupled with appropriate demand management measures to bring visitors to and from the site.

The feasibility of Expo 2025 is dependent on a number of requirements which are discussed in this report. The three most critical of these are:

- Funding of and implementation of the Lower Don Flood Protection works, in line with current schedules with funding approval in early 2017.
- Implementation of the new GO station on the First Gulf Site (East Harbour Development) and associated capacity and infrastructure improvement works to the rail network by Metrolinx.
- The successful implementation of an expedited process for City of Toronto and Provincial approvals, both for infrastructure and building works for the Expo and interfacing projects.

It also appears from this initial site analysis that the well-developed long term masterplan for the Port Lands by Waterfront Toronto allows much of the infrastructure to support the Expo to be permanent. Additionally, this masterplan could allow a number of the Expo pavilions and facilities to be constructed as permanent facilities and planned with legacy in mind.

These plans illustrate the evolution of the Port Lands through the whole process of the Expo, that will be explained in further detail throughout this site analysis section of the Feasibility Report.



EXISTING - 2016 (PAGE 22)

The Port Lands is an industrial and recreational neighborhood located about 5 kilometres south-east of downtown on the former Don River delta and most of Ashbridge's Bay. Landmarks include the Port Lands Energy Center, Cherry Beach, Ashbridge's Bay Wastewater Treatment Plant, and the now defunct, Hearn Generating Station.



EXPO OVERLAY - 2025 (PAGE 44)

The Expo would act as a catalyst for the site's future development and would help implement on-going masterplans such as the Port Land Framework, respecting the masterplan layout as well as the transport and infrastructure strategies, while incorporating inherited building structures that define the character and history of the site.



LEGACY - POST 2025 (PAGE 114)

Expo 2025 would consider the adaptable urban structure of the Port Land's Framework Masterplan. Its potential to evolve and adapt to future needs will be key for the development of the requirements of the Expo and will facilitate the post-Expo transformation of the site.

1 INTRODUCTION

(Expo, Site and Overall Programme and Objectives)

This report is part of the wider Feasibility Study that has been undertaken by Arup for the World Expo Canada Bid Corporation in relation to the consideration of the Toronto Expo Bid in 2025. From early July until September 2016 Arup were commissioned to undertake a high level site analysis and concept masterplan. This work contributed alongside other consultants such as PwC and Lord Cultural Resources who have carried out studies regarding prospective visitor capacity, legacy opportunities and vision that has provided the foundation for this study.

Arup's work has been based on the information provided by the Client, other consultants and information made available by various stakeholders to the team as part of an initial consultation process. The objective of the work has been to establish if the Toronto Port Lands could host an World Expo in 2025 and to undertake a preliminary assessment of likely transport and infrastructure works that may be required.

The work that has been carried out focused on this objective and so should not be relied upon in any other context. This study is a first step in a much more detailed technical study that is required prior to Canada submitting a formal bid to the BIE.

The next steps should include more detailed consultation, additional data gathering to verify assumptions, further technical analysis and development of the Expo theme.

WHY AN EXPO

A World Expo is a global event that aims at educating the public, sharing innovation, promoting progress and fostering cooperation. Held every five years, Expos provide an opportunity for the development of new ideas and innovations that will address the challenges facing humanity, which influence an Expo's theme.

World Expos are analogous to the Summer Olympics in their combined power to provide host cities with a heightened profile on a world stage through bringing real economic opportunities, investment and business visitors. Mega-events of this scale can act as a catalyst for transformative regeneration opportunities and provide a tangible economic boost that extends across supply-chains, jobs and the entire country.

Countries bid to host the World Expo for a range of reasons:

- A unique and unparalleled way of promoting a city and country – its culture and tourist attractions, its business credentials, its global status;
- A way of attracting millions of visitors and delivering significant business opportunities through trade and investment deals;
- A means of demonstrating leadership in bringing nations and citizens together to discuss solutions for the problems the world is facing; and
- A powerful way to kick-start a physical development and leave behind a major legacy.

THE OPPORTUNITY

Delivering a new piece of Toronto's city fabric at this speed and scale brings the opportunity to create a place that can be reflective of the government's innovation, climate change and smart cities agendas. The legacy site could act as a catalyst to Toronto's ambitions to create physical and virtual corridors to other knowledge and technology hubs distributed around the region and country.

Hosting the World Expo 2025 on this site could help catalyse the long anticipated redevelopment the Toronto Port Lands into the city's consciousness and onto the world stage. The fixed deadline of the Expo opening day will drive the completion of critical 'enabling works' including the introduction of naturalised flood protection and the realignment of Don River and transit works. The Expo itself could act as a showcase for government investment in ambitious initiatives and agendas that are already planned.

This report includes a number of workstreams:

MASTERPLANNING

A preliminary concept masterplan of the Expo has been developed. This has looked at:

- A site analysis of the proposed area to accommodate the land use requirements needed for the major components of the desired Expo programme.
- An assessment of opportunities to advance urban planning objectives and community building initiatives.
- Opportunities to align the future Expo masterplan with the Port Lands Precinct Plan.
- Operational, transport and infrastructure requirements to deliver the Expo.

TRANSPORT

A preliminary transportation analysis has been conducted to gauge the principal strengths, weaknesses, opportunities and threats associated with the proposed Expo. This looks at:

- Different tiers within the transportation network including modes/ systems catering to interregional or international travel, regional travel, district and local trips, and movement around and within the Expo site
- Overall profiles for Expo visitors including forecast diurnal arrivals and departures, and potential primary mode splits
- Comparison of forecast Expo travel metrics to network peak metrics
- Potential high-level trip distribution and assignment to and from the Expo site itself
- Key influencing variables including major transit infrastructure existing or proposed in close proximity to the Expo site (e.g. the planned Unilever Site GO Transit Hub and the East Bayfront LRT) and forecast peak hour arterial road network volume-to-capacity
- Land availability in proximity to the Expo site to cater to parking and pick-up/ set-down activity.

INFRASTRUCTURE

A preliminary study was conducted to look at the existing infrastructure proposals and plans, the needs of the Expo and the long term infrastructure needs. In particular this considers the planned Don River works and its associated infrastructure. The work focused on aligning the Expo infrastructure with the future long term infrastructure needs and Minimizing the temporary requirements.

On the next page, an eye level visualisation standing on Don Roadway, looking South-East towards the Canadian National Pavilion, at the Expo 2025 in the Port Lands, Toronto.

IMPLEMENTATION SCHEDULE

A preliminary implementation schedule has been developed. This looks at:

- Other known projects underway in and around the Expo
- The expected design and construction periods for the Expo and its pavilions
- The integration and overlap between the Expo construction and other projects.
- Key risks, opportunities and critical projects or activities.



Fig. 1.1: © September 2016 - ARUP - Expo 25 Toronto - Rights Reserved

2 EXPO ANALYSIS

Expo Benefits

In order to develop a masterplan for the site a preliminary consideration of the potential benefits of the Expo has been undertaken. This in turn allows the preliminary masterplan to be developed in the context of these potential benefits and improve the alignment of the masterplan with current and future plans for the city.

EXPO BENEFITS FOR THE PORT LANDS

The legacy proposition (end-state) relies on the physical development of the Port Lands. However, unlike previous major events, the need for the event to act as a catalyst for the City of Toronto infrastructure development is not at the forefront for Expo 2025 – the relevant major city infrastructure plans are well developed and their undertaking looks promising regardless of the Expo. Indeed, the masterplan proposed in this Site Analysis report fully respects the proposed Port Lands precinct plan. This presents a unique and very significant opportunity that the Expo masterplan can align its works and infrastructure very accurately with the infrastructure proposal proposed for the longer term development. This provides particular confidence that infrastructure built for the Expo will be appropriate and suitable to meet the long term needs of the site.

The Expo could prove to be a catalyst in realizing the City of Toronto building vision of the Port Lands centered on climate change/sustainable communities, innovation/job creation, youth, diversity and social/cultural development - a vision that is aligned with many government initiatives and agendas.

Therefore, the overarching rationale for Expo is not only in accelerating the Port Lands' infrastructure development, but in accelerating the realization of an ambitious vision for a model neighbourhood, that is a representation/microcosm of the high-level vision and direction for Canada.

The hosting of a World Expo repurposes the Port Lands as a living laboratory which will act to verify the benefits of The Smarter Toronto initiative and to accelerate the rollout of the Smart Cities benefits to the rest of the City of Toronto and the Region.

With careful planning, mechanisms can be put in place that allow the building elements erected for Expo to be efficiently repurposed post-Expo. Landscaping and public assets delivered for the Expo will leave a high quality environment of water, canals, art, iconic buildings, cultural facilities and mature parks for the enjoyment for the enjoyment of the Port Lands and Greater Toronto residents alike.

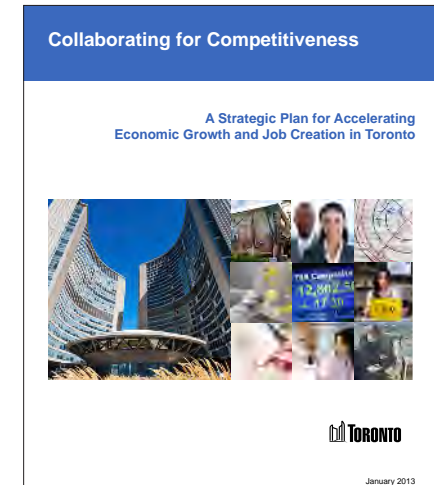


Fig. 2.1: © January 2013 - Collaborating for Competitiveness - Rights Reserved

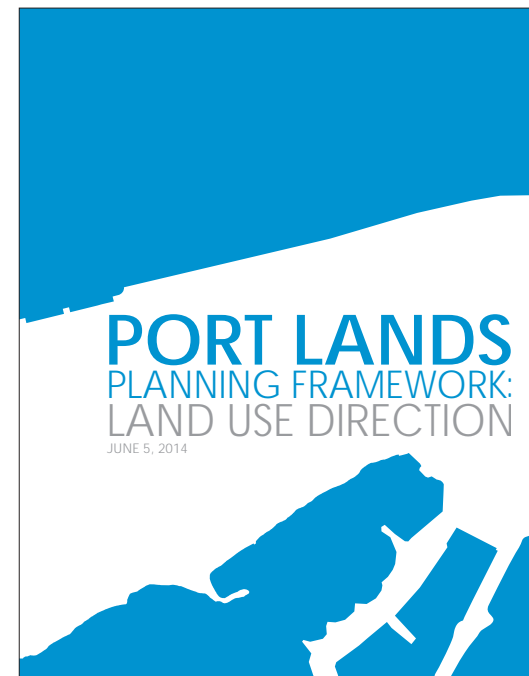


Fig. 2.2: © June 2014 - Port Lands City Planning Framework - Rights Reserved

EXPO BENEFITS FOR TORONTO

The vision of the 2015 Toronto City Plan is about creating an attractive and safe city that evokes pride, passion and a sense of belonging - a city where people of all ages and abilities can enjoy a good quality of life. A city with:

- vibrant neighbourhoods that are part of complete communities;
- affordable housing choices that meet the needs of everyone throughout their life;
- attractive, tree-lined streets with shops and housing that are made for walking;
- a comprehensive and high quality affordable transit system that lets people move around the city quickly and conveniently;
- a strong and competitive economy with a vital downtown that creates and sustains well-paid, stable, safe and fulfilling employment opportunities for all Torontonians;
- clean air, land and water;
- green spaces of all sizes and public squares that bring people together;
- a wealth of recreational opportunities that promote health and wellness;

- a spectacular waterfront that is healthy, diverse, public and beautiful;
- cultural facilities that celebrate the best of city living; and
- beautiful architecture and excellent urban design that astonish and inspire.

The Expo presents a moment-in-time to focus City and National initiatives, providing a timeframe and powerful political mandate to do what is necessary for their realization, all the while bringing them under one umbrella, allowing the opportunity for the sum of the parts to be greater than the whole.

The Expo could extend the vision and aspirations for Canada and Toronto by creating synergies through the integration of long-term plans and the identification of additional opportunities to optimise these plans.

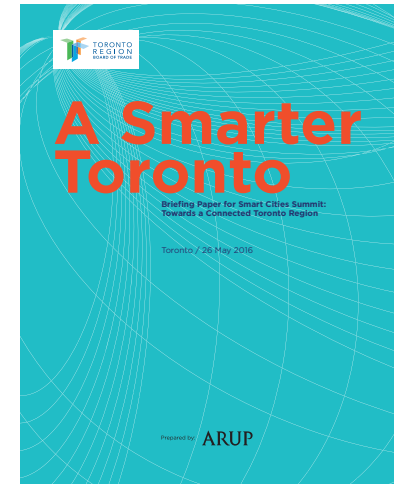


Fig. 2.3: © 2016 - A Smarter Toronto, Smart Cities Summit - Rights Reserved



Fig. 2.4: © June 2015 - Toronto City Plan - Rights Reserved

Expo Scale Comparison

1967: MONTREAL

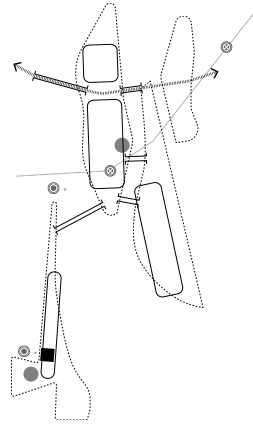
Site Area: 365ha

Attending Countries: 62

Visitors: 50.00M

Theme: 'Man and His World'

Expo '67 was one of the most successful of the 21st century with the most attendees to that date and 62 participating nations. The lack of a clear legacy plan led to deterioration of the site until it was demolished in the 1980's and incorporated into a municipal park run by the city of Montreal.



1970: OSAKA

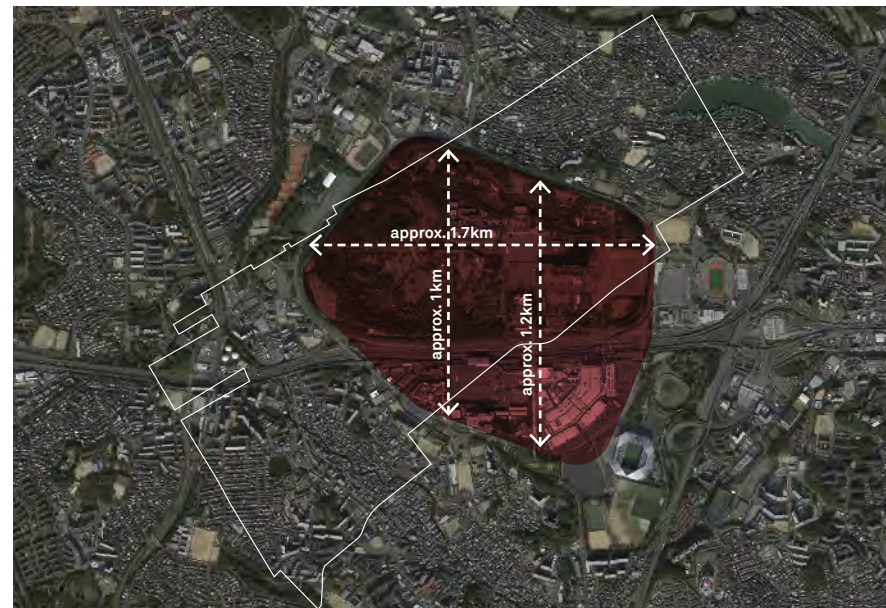
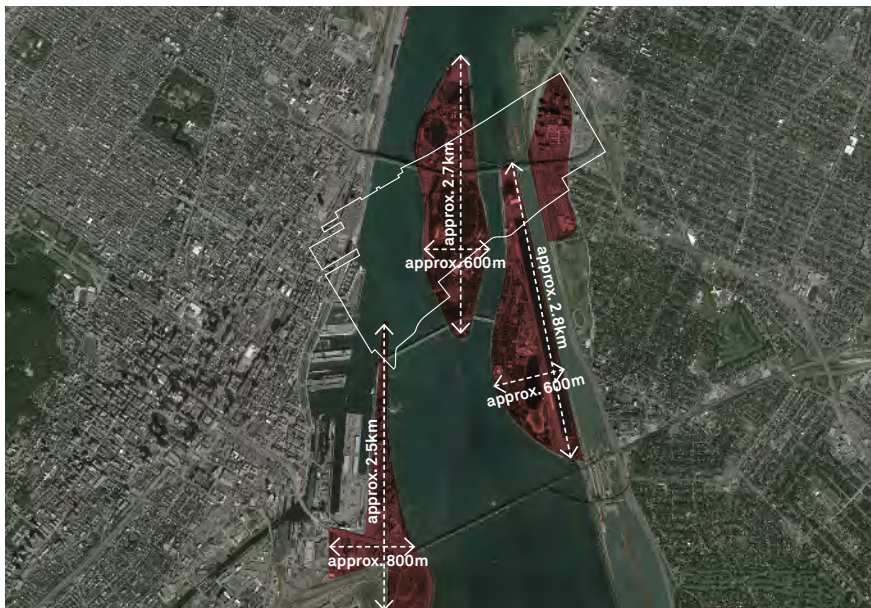
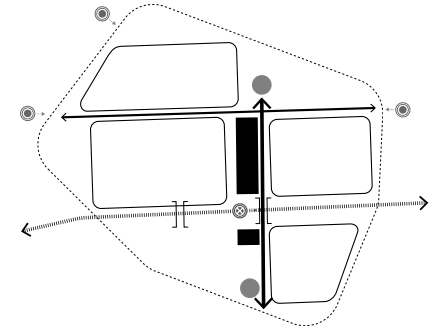
Site Area: 180ha

Attending Countries: 75

Visitors: 22.00M

Theme: 'Progress and Harmony for Mankind'

Expo '70 was founded on the ideas that the wisdom of all the peoples of the world would come together in this place and stimulate ideas; the second was that it would be less of an exposition and more of a festival. Expo '70 featured demonstrations of early mobile phones, local area networking and maglev train technology.



1986: VANCOUVER

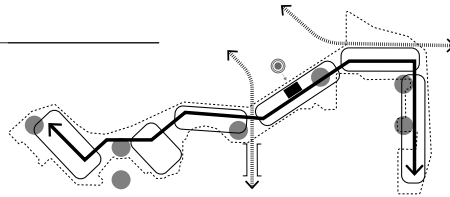
Site Area: 70ha

Attending Countries: 54

Visitors: 22.11M

**Theme: 'Transportation and Communication:
World in Motion - World in Touch'**

Expo '86 remains the last to be held in North America. The site was a former rail yard and industrial wasteland which is now a combination of recreational parkland and high rise accommodation. This Expo famously left a C\$311M deficit but is widely viewed as a success in terms of its impact on the transition of Vancouver into a 'global city'.



1992: SEVILLE

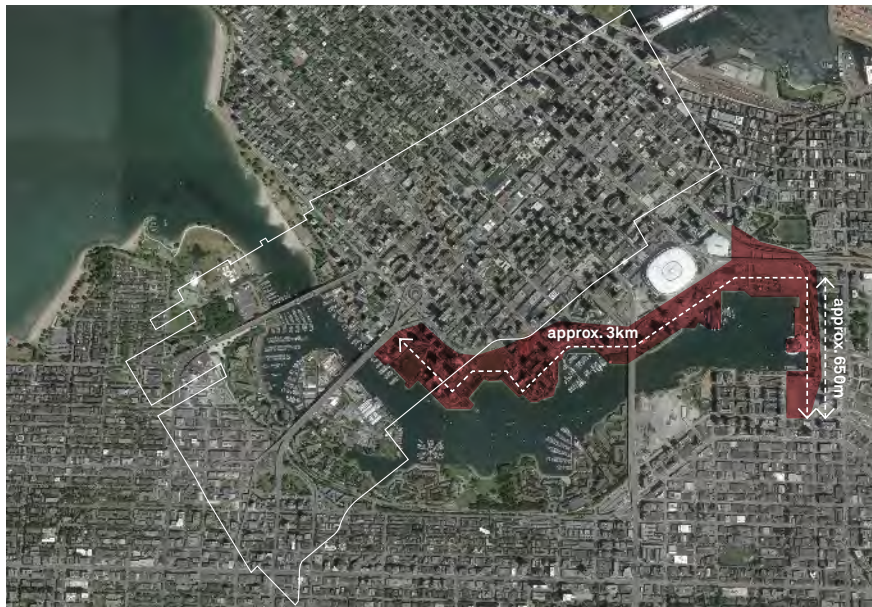
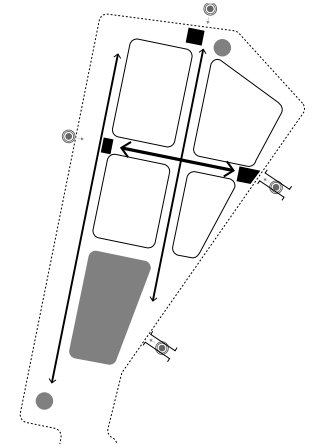
Site Area: 215ha

Attending Countries: 108

Visitors: 41.80M

Theme: 'The Age of Discovery'

A successful Expo in terms of visitor numbers, event reviews and legacy transportation driving delivery of the first operational section of high speed rail in Spain. Since the event much of the former Expo site has been left to become a derelict space which is viewed by many as a national embarrassment.



1998: LISBON

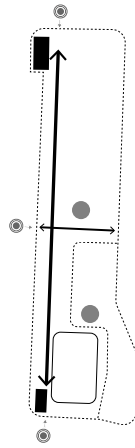
Site Area: 70ha

Attending Countries: 146

Visitors: 11.00M

Theme: 'The Oceans: A heritage for the Future'

This recognized Expo is widely viewed as a great success regenerating a neglected district in Lisbon's Eastern area. The Oceanarium is one of the legacy highlights, one of the largest aquariums in the world receiving around 7m visitors in the three years after opening in 1998. Since 1998, in Lisbon, tourism has increased faster than in any other European city with a fully transformed Expo site.



2000: HANNOVER

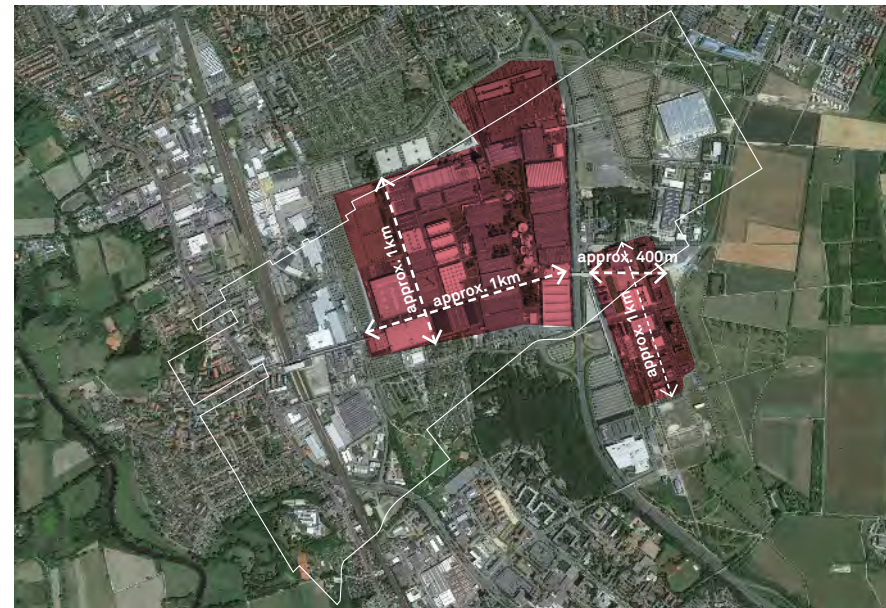
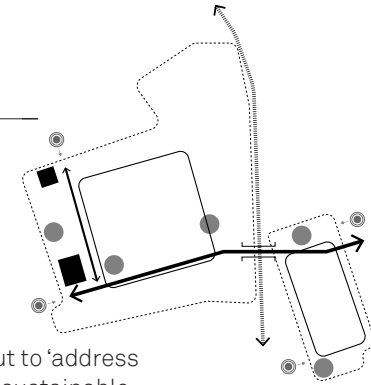
Site Area: 160ha

Attending Countries: 155

Visitors: 25.00M

Theme: 'Man, Nature, Technology'

Expo 2000 had sustainability at its core, setting out to 'address the difficult issue of imagining and encouraging a sustainable future'. It was not a financial success with a shortfall of around two thirds of invested budget, due to lower than projected visitor numbers. Hannover relied on reusing the grounds as a technology cluster/park, firms did not move in as anticipated and parts remain unkempt. The main legacy benefits can be found outside the park in the new Kronsberg residential district.



2010: SHANGHAI

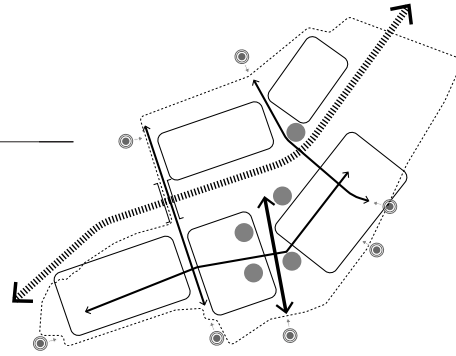
Site Area: 528ha

Attending Countries: 192

Visitors: 74.00M

Theme: 'Better City, Better Life'

Shanghai's theme responded to the world's rapidly urbanising nature, addressing issues of sustainable development and the necessity to improve planning decisions and management of cities globally. Along with the Beijing Olympics China used the Expo to strengthen its position on the World stage. Much criticism has been raised around the relocation of people in attempt to 'clear' the Expo site.



2015: MILAN

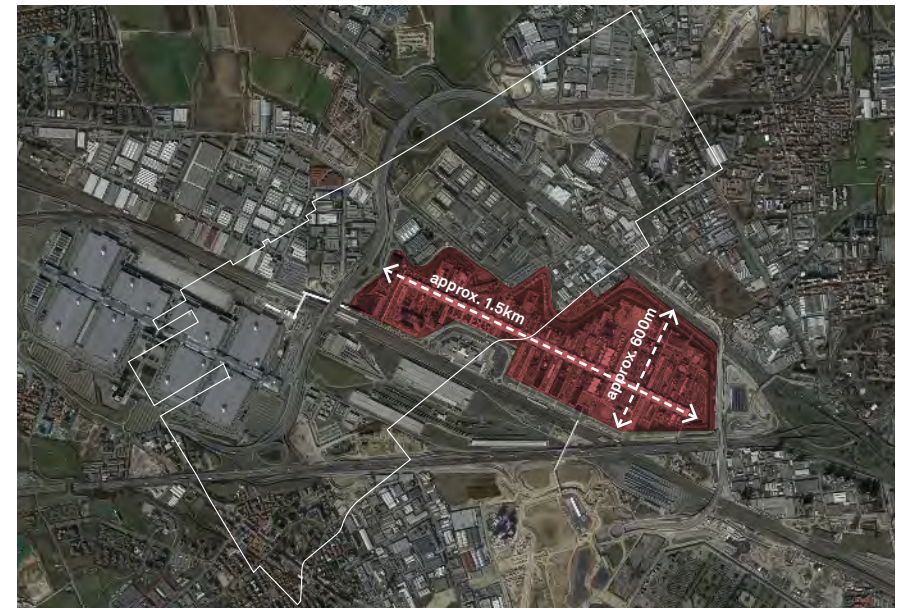
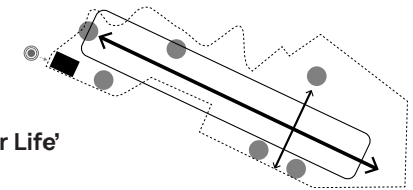
Site Area: 85ha

Attending Countries: 75

Visitors: 21.00M

Theme: 'Feeding the Planet, Energy for Life'

The theme was in response to a growing global population and the concerns about the quality and quantity of food availability in the future. The organisers very much viewed Expo as a branding exercise for Milan and Italy. Despite some political scandal along the way this Expo is widely viewed as a success.



Expo Masterplan Design

Due to the high level nature of this early stage of the assessment, Arup has prepared a high level master plan based around a generic 187 hectare Expo site. This is inclusive of the 42 hectare ship channel that runs across the site and needs to be kept operational to a certain level.

We have assumed that all the necessary infrastructure, support services, external works and building plots will be accommodated within this area.

The building types and areas are based upon research obtained whilst reviewing similar sized Expos. These areas can be summarised as follows:

- **Plaza Entrances:** Three entrances in separate site locations; allowance including provisions for security processes, visitors' orientation and information;
- **Exhibition Pavilions (Plots Only):** Based on around 150 countries participating in the Expo. The Host City will provide hard standings with capped off services in pre-determined 55 locations on a mixture of varying plot sizes (small, medium and large). Further smaller units will be available within larger individual pavilions;
- **Exhibition Pavilions:** These will allow individual countries not wanting to construct a standalone building to construct smaller units (150m² – 350m² GFA) within the confines of single larger bespoke pavilion;
- **Theme Pavilions:** Themed pavilions will be constructed and fitted out by the Host City to highlight the Expo theme. Part of this space could be internal exhibit fit-out and this could be funded by Corporate Sponsorship;
- **Corporate Pavilions:** These could be standalone pavilions for the major Sponsors or contained within a larger building for other sponsoring opportunities. The Host City provides hard standings with capped off services in pre-determined locations for the big sponsors and the building shell and core for the smaller ones
- **Welcome Pavilion:** This will be a visitor's welcome center and guest services area;
- **Expo Center:** This will be one of the key Expo features. It will be a space for indoor cultural and entertainment activities. It may include auditorium, covered plaza, and meeting spaces.
- **Host Country/Region/City Main Feature Pavilions:** These are the main pavilions constructed as a showcase and the central attractions within the Expo;
- **Semi Open Air Theatre:** This will be a permanent or temporary covered structure with a large stage area and approx. 10,000 - 12,000 seats;
- **Education Center:** This will be an education center for workshops and teaching facilities;
- **Media Center:** This will be a structure suitable for housing the world's press and broadcasters requirements during the event. It may include broadcast studios, press workrooms, press conference center, etc.
- **Food and Beverage Services:** A range of food and beverage offers should be available across the site to allow visitors a variety of options including fine dining, restaurants, food courts and takeaway outlets;
- **Serviced Areas:** These will consist of temporary structures constructed by the Host City and fitted out to accommodate WCs, security, first aid stations, prayer rooms, event services and back of house compound areas;
- **External works:** including roads, car parking, paving to Expo area, landscaping, external lighting, circulation and open space; and
- **Support and operations areas:** Office areas and services compounds capable of accommodating mixture of operation will be provided. The location of these areas needs to be strategically chosen within the site boundary to allow easy operations throughout all the Expo period.

In addition to the facilities with the Expo housing is typically provided by host countries. This is to house the range of foreign working who will come to set up their pavilions and operate them through the Expo. This housing does not need to be on the Expo site and can be located some distance from the site so long as it has suitable transit accessibility. It is proposed to provide 1,000 housing units for Expo workers. It is proposed that this is located on existing sites designated for affordable housing around the city. These would be built as affordable housing and used as Expo housing before and during the Expo.

VISITOR AND COUNTRY ASSUMPTIONS

PwC has undertaken analysis on the number and profile of visitors to the Expo. These provide the following information on the proposed Expo.

The Expo2025 site will run daily for six months from May 1st 2025 until October 31st 2025.

The projections indicate an Expo visitation of around 30 million. The average daily visitation is around 165,000. As observed in previous Expo and shown in PwCs work the actual daily visitation will vary significantly, increasing at weekends and towards the end of the Expo.

Around 150 participating countries have been projected for the Expo 2025. Of these participating countries we assume that 55 would have their own standalone pavilion, located in different plot size options (large 4500m², medium 2500m² and small 500m²). The balance of the participating countries can fit out their exhibition space within one of the exhibition buildings that the organization will provide.

MASTERPLAN FLEXIBILITY / RESILIENCE

The design and delivery of a major event such an Expo is a complex and dynamic process. The current preliminary masterplan presented in this report responds to the key assumptions drafted based on the current model of Expo.

This conceptual masterplan which is expected to evolve during the following design stages should respond to the requirements not only of the Expo but to set the basis of the long-term vision for the Port Lands representing the lasting legacy of this Expo.

The current masterplan is being kept flexible to accommodate changes in these City legacy plans. Expo plots follow the Port Lands' current masterplan key parameters and road alignments but it has developed its own character and anchor points. These are planned to align and compliment those in the long term masterplan.

The masterplan responds to the space and visitor requirements defined in the assumptions but its structure is capable of accommodating certain expected growth or reduction of these requirements. The current masterplan is structured around two main open axis that connect to the city and the ship channel that gives it its character. The areas occupied by pavilions can flex if needed and allow the Expo site to grow or reduce in extension without losing its character.

The masterplan is planned to respond well to flexible demand through the whole Expo period. Expos have a visitor distribution that it is quite variable throughout its duration, presenting peaks of visitors that would represent more than 20% of the average.

Strategies should be put in place to avoid unsustainable over-provision of space, too much space during periods of lower visitor demand may detract from the Expo experience, conversely, too little space on peak days could compromise the visitors' comfort.

The preliminary layout of the proposed Expo has been tested against the programme of the required pavilions, back of house and public transition space and the available space in the Port Lands site which has been advised as 100ha minimum. During this process Arup has been mindful to allow sufficient flexibility to accommodate existing developments which will remain in operation during Expo.

By allowing for a multi-area approach the layout calibrates specific functional needs of the Expo programme against potential future increases in visitor numbers from the current baseline. Adjacent areas of open space such Cherry Beach, the Shipway and other common public areas could be used for the Expo, allowing for a degree for flexibility and adaptability within the Expo layout. There will need to be further assessments and iterations of the current masterplan as specific programmatic requirements emerge.

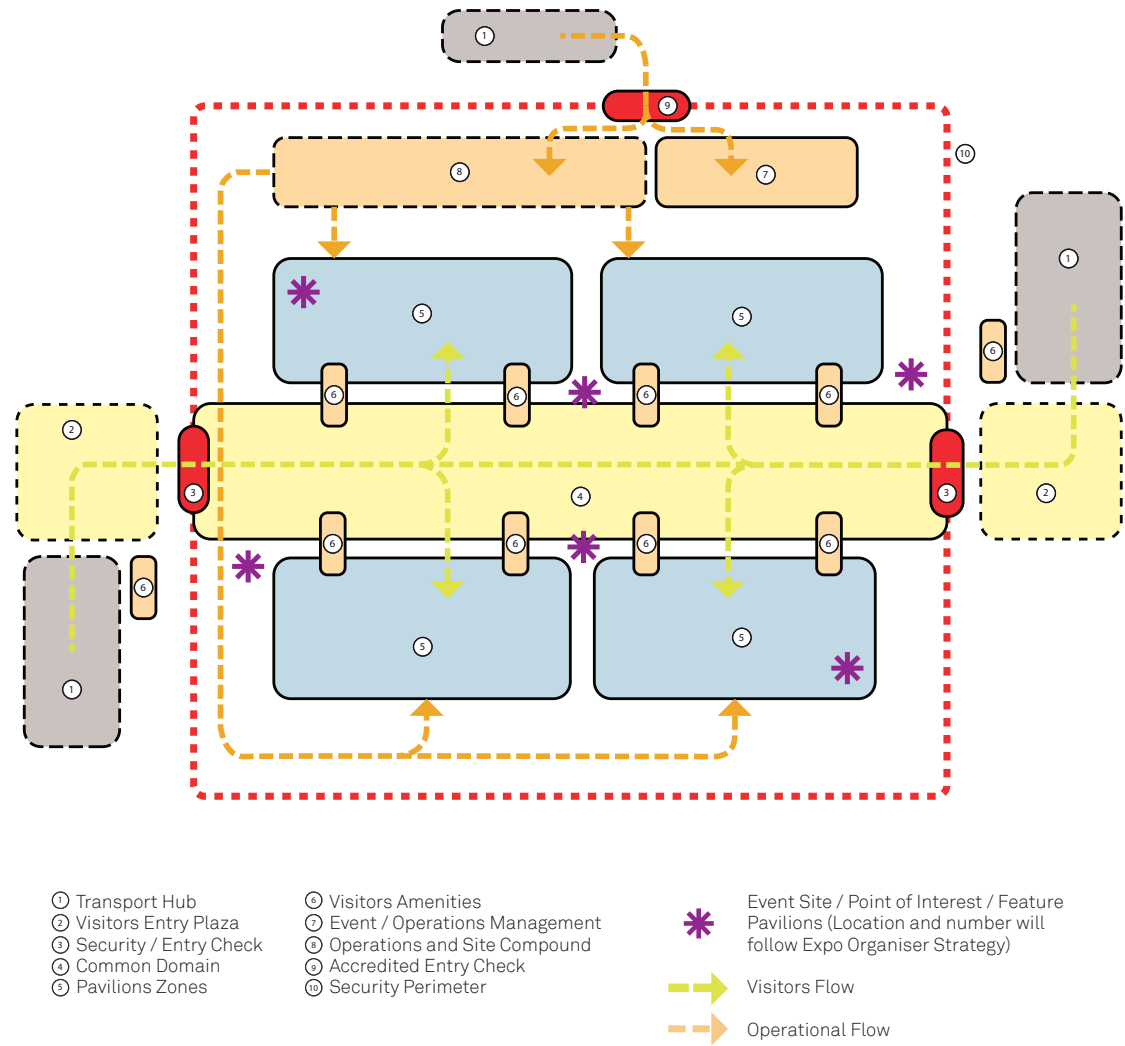
EXPO GENERIC OPERATIONAL DIAGRAM

The Toronto Expo site is planned as a single site surrounded by a secure perimeter (the nature of which will be defined much later). Visitors will arrive to the site through defined transportation hubs controlled by the organisers.

They will go through security procedures before entering the site and their access will be limited to the area defined as Front of House. Back of House (operations and site compounds) will have access restricted to accredited staff.

Pavilions can be zoned in areas to provide structure to the visitors' experience. A Common Domain area will link these pavilions zones and host most of the Spectators amenities. Spectators' points of interest should be distributed along this Common Domain to avoid overcrowding.

Operational routes will link all the site during on/off hours to allow the correct servicing of the site.



- ① Transport Hub
- ② Visitors Entry Plaza
- ③ Security / Entry Check
- ④ Common Domain
- ⑤ Pavilions Zones
- ⑥ Visitors Amenities
- ⑦ Event / Operations Management
- ⑧ Operations and Site Compound
- ⑨ Accredited Entry Check
- ⑩ Security Perimeter
- * Event Site / Point of Interest / Feature Pavilions (Location and number will follow Expo Organiser Strategy)
- Visitors Flow
- Operational Flow

Fig. 2.5: Expo Site - Generic Operational Diagram

DESCRIPTION	PLOT AREA FOOTPRINT PER UNIT (m ²)	TOTAL PLOT AREA FOOTPRINT (m ²)	PLOT EFFICIENCY (PLOT BUILDABILITY)	BUILDING FOOTPRINT (m ²)	ESTIMATED NUMBER OF FLOORS	GFA (m ²)
EXPO SITE AREA						
3 Plaza Entrances	approx. 16,500	50,000	100%	N/A	N/A	50,000
1 Expo Center	25,000	25,000	80%	20,000	2.0	40,000
1 Theatre	15,000	15,000	80%	12,000	1.0	12,000
1 Educational Center	10,000	10,000	70%	7,000	2.0	14,000
1 Media Center	20,000	20,000	80%	16,000	1.0	14,000
EXHIBITION PAVILIONS – COUNTRIES (55 COUNTRIES)						
18 Small	500	9,000	60%	5,400	TBD	TBD
22 Medium	2,500	55,000	60%	33,000	TBD	TBD
15 Large	4,500	67,500	60%	40,500	TBD	TBD
EXHIBITION PAVILIONS – HOST COUNTRY AND CITY						
1 Host Country	15,000	15,000	70%	10,500	3.0	31,500
4 Host City / Province (Toronto & Ottawa–Ontario, Montreal–Quebec, Vancouver–British Columbia)	approx. 11,000	45,000	70%	31,500	3.0	94,500
THEMATIC PAVILIONS						
1 Clusters (for 90 countries)		25,000	70%	17,500	1.4	25,000
3 Welcome Pavilion	3,300	9,900	50%	4,950	2.0	9,900
2 Theme Pavilion	5,000	10,000	50%	5,000	2.0	10,000
INTERNATIONAL ORGANISATIONS & NGOS						
35 Small	500	17,500	60%	10,500	TBD	TBD
10 Medium	2,500	25,000	60%	15,000	TBD	TBD
4 Large	4,500	18,000	60%	10,800	TBD	TBD
CORPORATE PAVILIONS						
7 Large	2,600	4,200	60%	16,520	TBD	TBD
FOOD AND BEVERAGE						
		75,000	80%	60,000	1.0	60,000
TRANSPORT						
		50,000	100%	N/A	N/A	50,000
SUPPORT/OPERATIONS						
1 Administration / Management (enclosed)		7,150	90%	29,500	2.3	15,000
1 Logistics / Warehouse (enclosed)		4,800	90%			10,000
1 Security and emergency services (enclosed)		4,800	90%			10,000
1 Clean and Waste (enclosed)		2,930	90%			6,000
1 Central Catering (enclosed)		9,550	90%			20,000
1 Site Management: stores, workshops and staff areas (enclosed)		3,600	90%			7,500
1 Site Management: stores, workshops and staff areas (compound)		7,500	100%	N/A	N/A	7,500
1 Logistics / Warehouse (compound)		10,000	100%			10,000
1 Security / Emergency Parking (compound)		4,000	100%			4,000
1 Clean and Waster (compound)		2,000	100%			2,000
1 Central Catering (compound)		8,000	100%			8,000

Table 2.1: Expo Typical Land Use Area Requirements

3 SITE ANALYSIS



The site analysis will cover:

- Key Projects
- Land Availability
- Expo Site
- Open Spaces
- Transport
- Infrastructure

The Port Lands site has been identified as the most viable site for hosting the Toronto Expo 2025 as it has the necessary capacity and can fulfill the requirements as specified by the Bureau International des Expositions (BIE). The Port Lands offers an area of approximately 356 ha (880 acres) that was created through the filling in of Ashbridges Bay in the early 20th century as a new district to serve the city's growing industrial sector. The high level plan that Waterfront Toronto and City of Toronto are developing complements the necessary infrastructure and provisions needed for a World Expo. It will turn the under-utilized site into a new urban asset that exemplifies the ambitions of a future sustainable, green, vibrant mixed use community and become a new piece of Toronto's revitalised waterfront.



Fig. 3.1: Port Lands Site Context



URBAN

Inner Toronto is connected to the city through a number of corridors that link the waterfront to the city.

The integration of the Port Lands as a future extension of the city can enable Toronto to showcase its incredible transformation and one that will set the stage for a future vision of how the city may develop in the next decade. The Expo can act as a catalyst to develop strong public-private relationships and gain economic and social support to develop a new piece of the city.



GREEN

Outer Toronto is a diverse open space characterized by the natural and artificial; the Don River, ravines, parks, squares and linear open spaces completing a network of Green.



BLUE

A fluid and constructed carved framework of water exists as part of a communal resource enabling a system of microclimate, tree growth, habitats and recreational use.







PORT LANDS

The Port Lands is where the two faces of Toronto come together. As has been illustrated in the Framework, Toronto is both a city by the lake and the Port Lands is a city in the lake. A framework of Blue and Green creates a diversity of open space character that is integrated with key streets that unite the Port Lands back to the city.

Key Projects

The Port Lands and surrounding area is planned to go through significant change over the next decade. A number of large development projects are planned and it is the intention that the Expo integrates into these projects closely. These projects form the framework onto which the Expo is planned and are themselves part of the longer term planning for the site.

This section sets out the understanding and assumptions for key projects that most closely integrate with the Expo and it is on the basis of this

-  Lower Don River
-  First Gulf Development (Unilever Site)
-  East BayFront Transit to Cherry St.
-  Gardiner Expw. and Lake Shore Blvd. Reconfiguration

understanding that the plans for the Expo have been developed. In addition to the four set out below there are a number of other key projects that will interface with works including the extension of Broadview Avenue, a range of capacity enhancement works by Metrolinx and infrastructure projects by the City of Toronto and others such as key water and waste water works. Discussions have been ongoing with the City of Toronto about these projects and how the Expo will interface with them. For the basis of this study it is assumed that the Downtown Relief Line will not be in operation before the Expo.

LOWER DON RIVER

Estimated 2023

A key flood protection project being developed by Waterfront Toronto. The focus of this project is naturalisation of the mouth of the Don River in order to protect the surrounding area from flooding. The works include significant earthworks and the implementation of key road and servicing infrastructure onto the site. This project provides a key part of the site and platform for the Expo. Based on information provided by Waterfront Toronto the project is scheduled to be completed by the third quarter of 2023.



Fig. 3.2: Key Projects

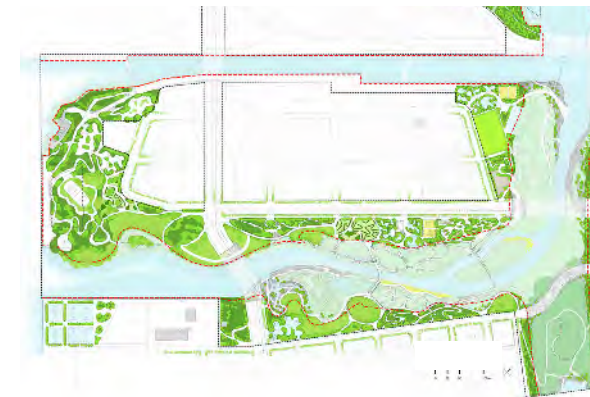


Fig. 3.3: © March 2016 - Due Diligence Report, Villiers Island - Rights Reserved

FIRST GULF DEVELOPMENT (UNILEVER SITE)

Estimated 2023

First Gulf are developing the Unilever site to the North of the Toronto Port Lands. The masterplan includes a new transit hub which includes a major new GO station, connection to the extended Broadview Streetcar and future connection to the Downtown Relief Line. It also includes the extension of Broadview Avenue to Lakeshore Boulevard and overall site preparation works.

The first phase of the development, which will be located in the northern part of the site, owned by First Gulf, is scheduled for completion in 2023. This includes the completion of the transit hub and key roads in the site. The southern part of the site, which is owned by TPLC (Toronto Port Lands Company), will not be in use at this stage. It has been suggested that this land could be available for the Expo to use including for transport, this would be subject to agreement with TPLC. By 2025 it is expected that the transit hub will be served by 4-5 tracks.

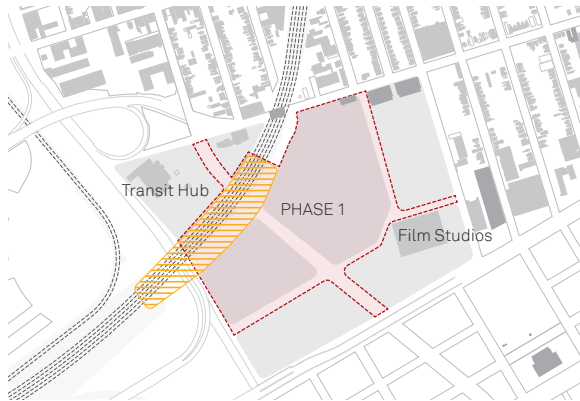


Fig. 3.4: First Gulf Development - Unilever Site Programme

EAST BAYFRONT TRANSIT TO CHERRY STREET

Estimated 2024

Waterfront Toronto and TTC are planning an extension of the existing LRT system along Queens Quay from Union Station (and the existing Harbourfront and Spadina Streetcars) through to a new terminus loop on Queens Quay between Parliament Street and Cherry Street.

It is expected that this extension be completed and operational by the end of 2024 and would provide a connection from the Expo site to Union Station where passengers can connect to other street car, subway and rail services.

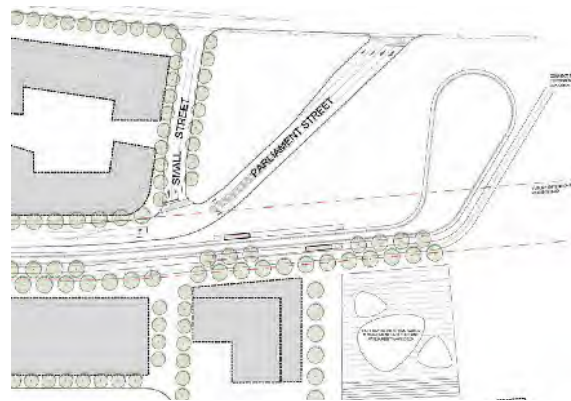


Fig. 3.5: © 2016 - East Bayfront Transit - Rights Reserved

GARDINER EXPRESSWAY & LAKE SHORE BOULEVARD RECONFIGURATION

Estimated 2024

The City of Toronto has selected a scheme for the reconfiguration of the Gardiner Expressway and Lakeshore Boulevard around the mouth of the Don River. This reconfiguration work creates a series of future development parcels of land, which could be used to support the Expo. It is currently assumed that this project would be substantially completed by early 2024 and that the land freed up for development would be available for the Expo to use.



Fig. 3.6: © 2016 - Waterfront Toronto - Gardiner Expressway - Rights Reserved

Land Availability

In determining the suitability of Toronto Port Lands as a site for a registered Expo, initial consultation has been undertaken with some of the key landowners and stakeholders in order to determine the land available to host the Expo. This consultation has also focused on understanding the key technical requirements of the site and the long term planning.

There are a number of different owners and lease holders across the site. Some of the key parties in relation to the site planning are:

Waterfront Toronto

Formally created in 2001, Waterfront Toronto has a 25-year mandate to transform 800 hectares (2,000 acres) of brownfield lands on the waterfront into beautiful, sustainable mixed-use communities and dynamic public spaces. The majority of waterfront land is owned by the government who handed over organizational control to Waterfront Toronto. Waterfront Toronto have a masterplan for the Port Lands with detailed and well progressed planning for the area north of the Ship Channel and West of Don Roadway including the Lower Don works described earlier.

The objective of the Expo is to make full use of the proposed works by Waterfront Toronto and to integrate closely with their long term masterplan. Based on discussions with Waterfront Toronto there is a unique opportunity in their planning for an Expo in 2025 as much of the core infrastructure can be in place but significant development works will not have taken place.

The principles of the proposed Expo are planned to align closely with those of Waterfront Toronto to create a smart, liveable and sustainable place.

First Gulf

First Gulf are developing 'the Unilever Site', also known as East Harbour to the north of the Port Lands. As described earlier part of the site will not yet be developed by 2025 so could be made available for use for the Expo subject to agreement by TPLC. The site and masterplan include a proposed transit hub and Go station.

Toronto Port Lands Company (TPLC)

Toronto Port Lands Company manage all of the municipal land in the Port Lands and are responsible for leases. They have provided confirmation that much of the required land is city land and can be made available for 2025. They have confirmed that the following key parties will still be in place in 2025;

- Pinewood Studios (see below).
- Concrete Campus (Lafarge) - following further discussion it is understood this facility will remain operational through the Expo, however measures can be put in place to manage and reduce both ship and vehicle movement during the day.
- City Works Yard - These sites are still operational however not all are required for the Expo and interim measures will be required to use these sites.
- Salt Yard - As with the works yard this is part of the City of Toronto's operations and measures will need to be undertaken, including managing supply and making use of other storage sites in the City of Toronto to use this land during the Expo.

Pinewood Studios

The 11-hectare lot features seven purpose-built soundstages and one converted warehouse, ranging from 10,000 square feet (930 m²) to 46,000 square feet (4,300 m²). The largest soundstage, called the

Mega Stage, is more than 46,000 square feet (4,300 m²) and is the largest purpose-built soundstage in North America. The facilities are designed to accommodate the production of five simultaneous mid-sized feature films, or two massive projects.

The site also includes a number of back lot locations that are currently undeveloped. At this stage and following preliminary discussion with Pinewood Studios the intention is that the main facilities and stages will remain outside the Expo site while some of the back lot spaces are available for use as part of the Expo.

The presence of Pinewood Studios in Toronto Port Lands aligns with the long term aspirations for this area of the city. The Expo masterplan does not use Pinewood Studios land and assumes that through operational interventions their business should be able to continue throughout the event uninterrupted. Pinewood Studios themselves have development proposals for the site. Elements of the Expo in particular facilities such as a media center, could be built as part of the Expo and form part of the longer term Pinewood Development. It has also identified that there could be further synergies between the Expo and film studios which could involve further integration of land uses which could be explored as the plans develop.

Ontario Power Generation

Ontario Power Generation (OPG) own the Hearn Building and surrounding land including the current generating and live electrical infrastructure. The Hearn Building is currently used for special events, however, the site is complicated by the extensive electrical infrastructure in front of it, which also crosses the canal and includes overhead power lines. Relocation of this electrical infrastructure, including

undergrounding of the power cables is envisaged in the long term but is both costly and time consuming. At this stage of planning the Hearn Building and currently unoccupied land around it is understood to be available as part of the Expo. Given the complex nature of the site, including ownership and leases it is expected currently that this occupation would be on a temporary basis for the Expo and returned to the current owner at the end of the Expo. It is also assumed that the current electrical infrastructure will remain in place and in operation and that the Expo can work around these.

Other Land Uses and assumptions

In addition, some further assumptions based on consultation and available information have been made to determine the site availability.

Cherry Beach and Sports Facilities

While it is the intention of the Expo masterplan to limit the impact on existing recreational facilities and the access to these by the public it is also assumed that some of this land, in particular parts that are not currently developed could be used in support of the Expo.

Commissioners Street Waste Transfer Station

The site of this heritage building is currently used as waste transfer and in the long term plan is expected to form

part of a large park. It is assumed that the waste transfer function could be relocated in time for the Expo with the site and building forming part of the Expo.

Ship Channel

The waterfront nature of the Expo

presents an opportunity to use the water as part of the space to host the Expo. Following preliminary consultation it is understood that the Channel would remain active and open to shipping throughout the Expo. However, the timing of boat movement could be managed to limit disruption

to the Expo. It is also understood that barges or boats of up to around 50 foot width, can be moored on both sides of the channel for the duration of the Expo. In addition it has been confirmed that the waterway would be suitable to run ferry services to and from the Expo.



Fig. 3.7: © February 2015 - TPLC Land Ownership Plan - Rights Reserved

Expo Site

EXPO BOUNDARY LINE

The boundary of the Expo takes into account the Port Lands area as well as several adjoining parcels. To the north of the Keating Channel space created by the realignment of the Gardiner Expressway and the southern part of the First Gulf Development allow for necessary access points and entrance plazas to occur next to transit nodes. Within the Expo the boundary accommodates the need to keep the Pinewood development operational throughout the Expo event. Other areas that will remain operational during the Expo are the Lafarge site as well as the substation and ancillary features near the Hearn building. The boundary also incorporates the area of Cherry Beach and the Marina within the available land but has determined them not to be needed in the preliminary masterplan.

These areas will however need to be considered if the capacity of the Expo needs to increase.

- Not Available Land
- Available Land
- Expo Site Area
- 1 Lafarge Site
- 2 Pinewood Studios Site
- 3 Electrical Substation
- 4 City Facility

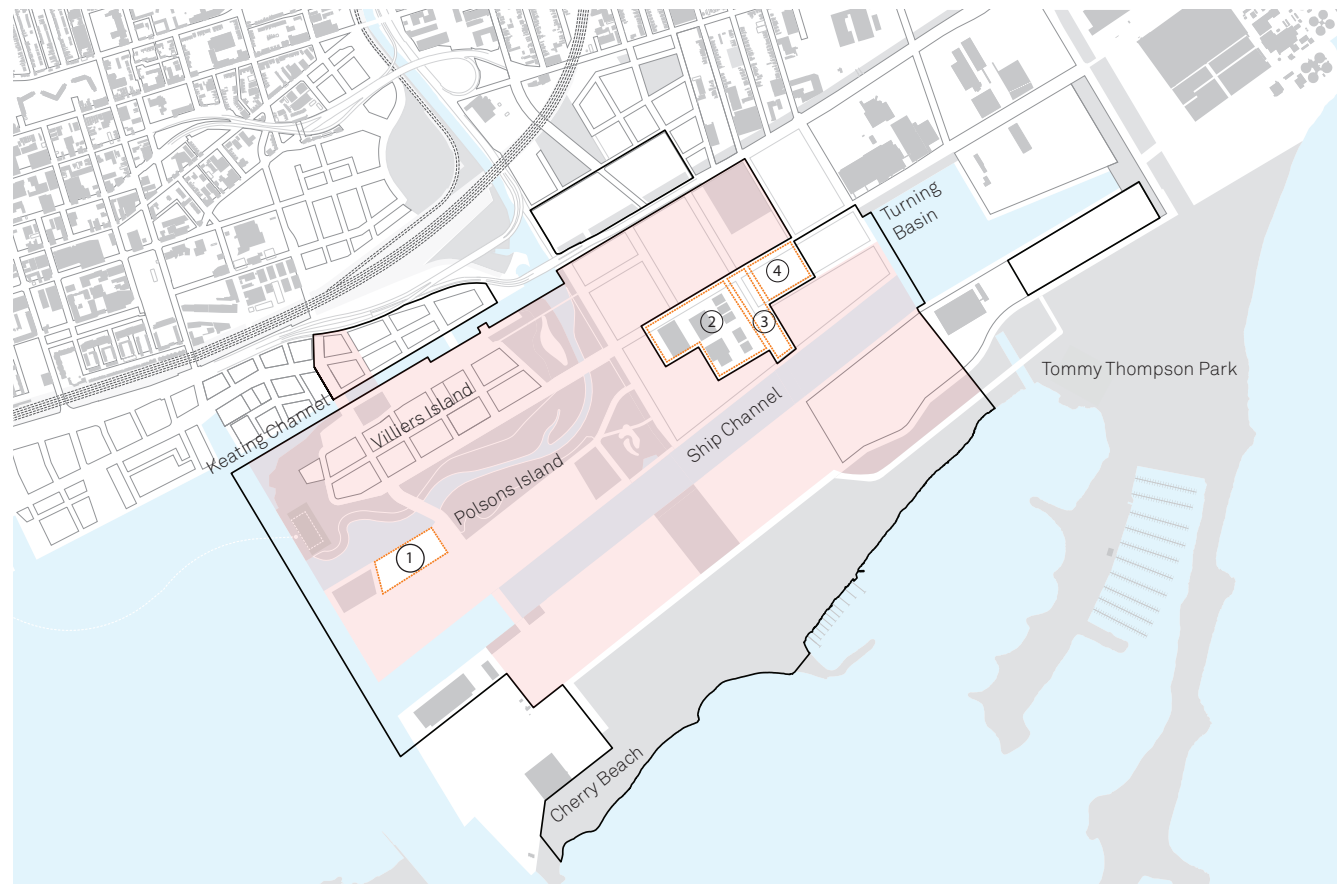


Fig. 3.8: Expo Site Boundary

Site Conditions by 2025

OPEN SPACE

The open space character is varied comprised of existing parks, beaches, underutilized industrial sites, privately leased areas and regionally significant ecological areas that are joined together. The open space will be significantly enhanced by the naturalisation of the Lower Don River, with a varied reserve for wildlife, cultural and social life and active recreation. The Port Lands open space character will vary from the new Don River park to new areas of recreation in the Tommy Thompson park and is more than 250 ha (620 acres) in size. The park represents some of the largest existing natural habitat on the Toronto waterfront with wildflower meadows including some of the best nature areas with recreational opportunities including hiking, cycling, rollerblading and fishing. Cherry Beach Park is popular with kite-boarders and for swimming. The landscape is a combination of both the constructed and natural being a legacy of its industrial past.



Fig. 3.9: Site Conditions by 2025: Open Space Provision

ROAD AND TRANSIT

Figure 3.10 summarizes the key transport infrastructure elements around the site.

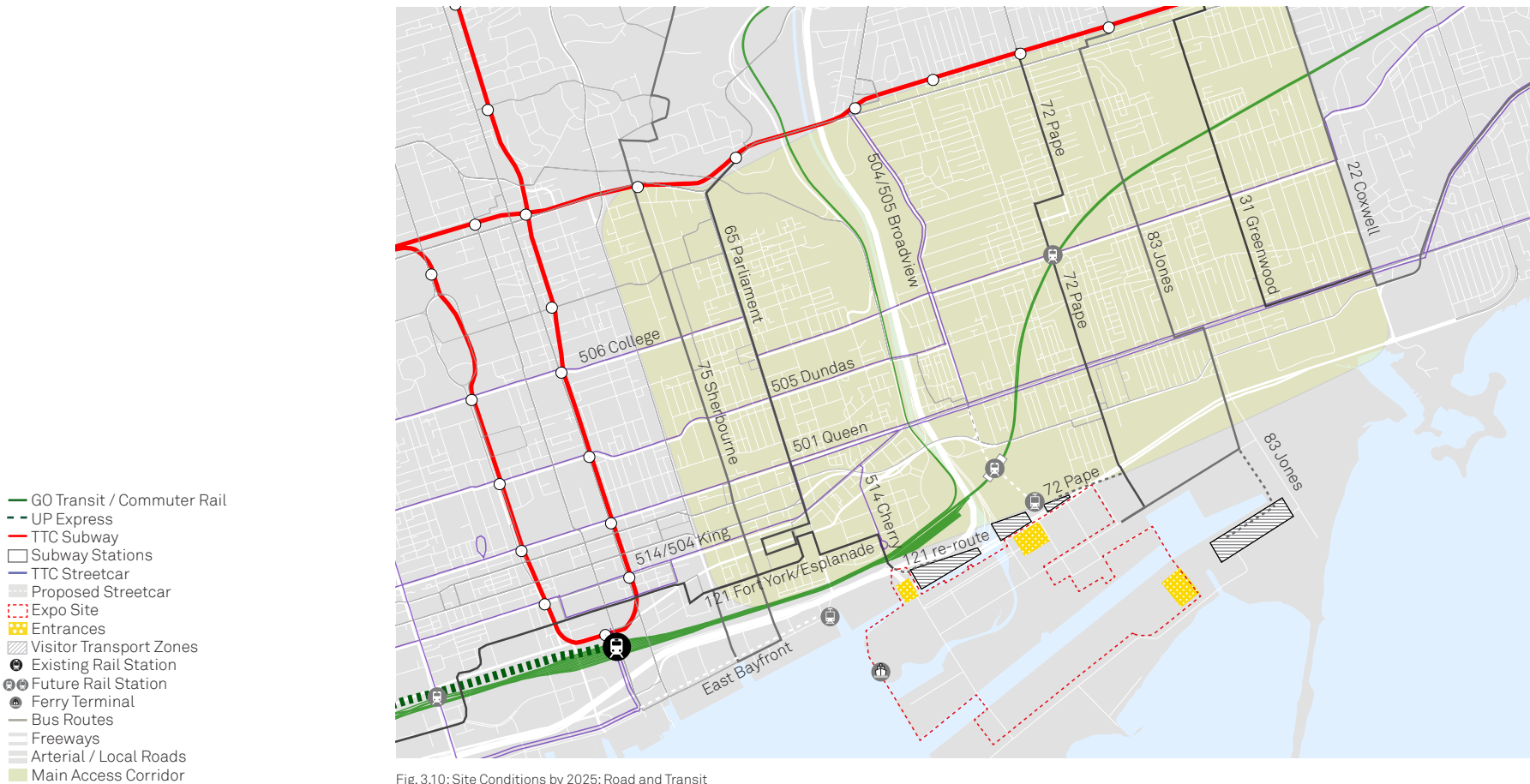


Fig. 3.10: Site Conditions by 2025: Road and Transit

INFRASTRUCTURE

There are a number of proposed infrastructure projects around the site that shape the infrastructure proposals for the Expo. Figure 3.11 illustrates these key projects.

The Expo infrastructure proposals deliver the final permanent infrastructure across the site where practical. This infrastructure will also serve the Expo.

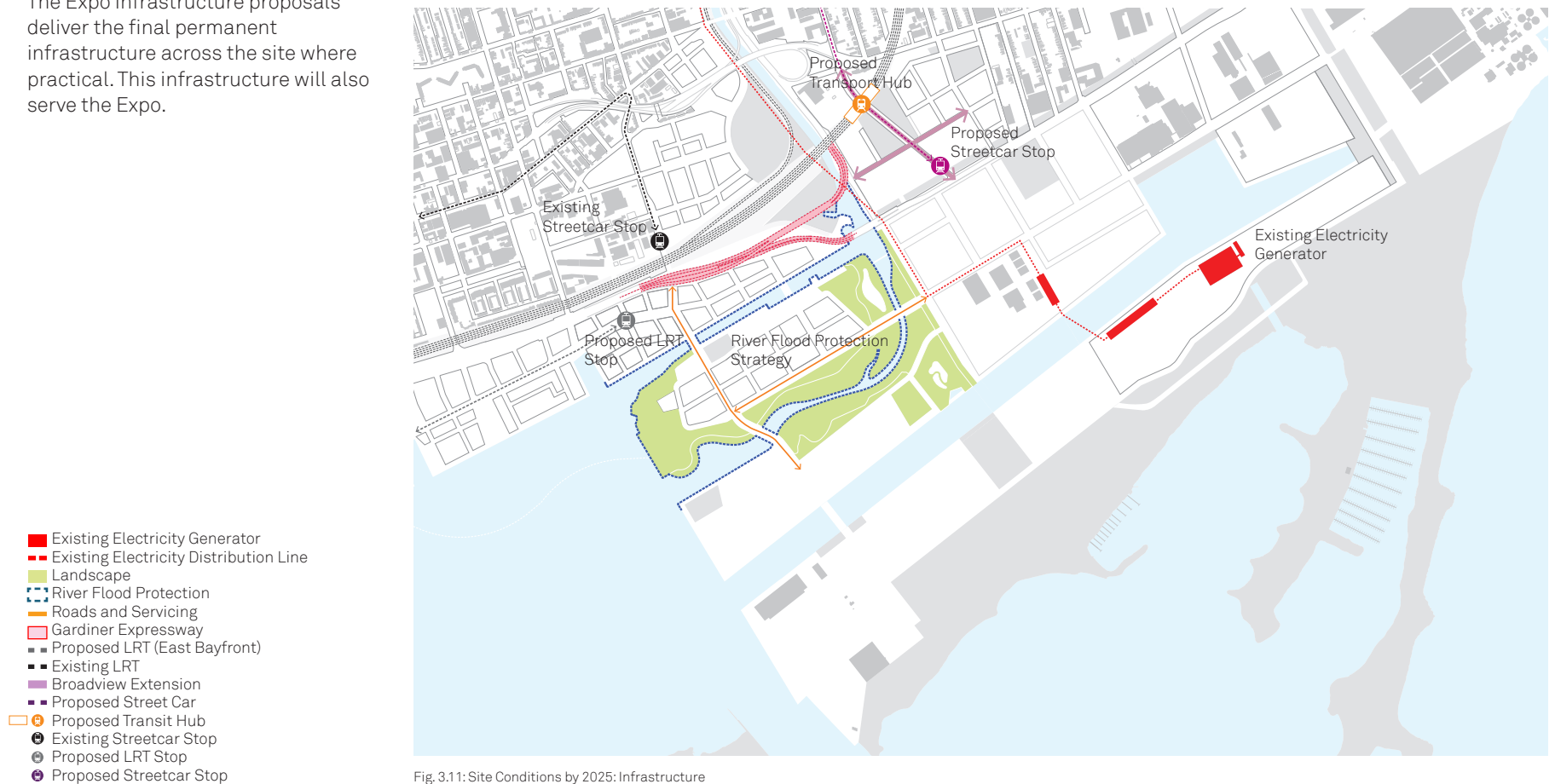


Fig. 3.11: Site Conditions by 2025: Infrastructure

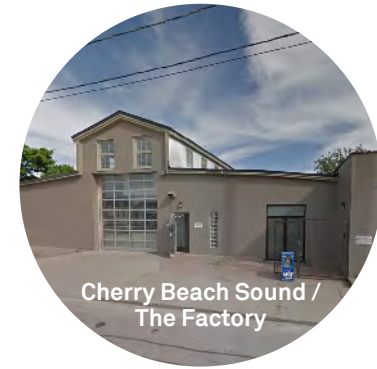
CULTURAL HERITAGE BACKGROUND

The Port Lands contains a number of buildings and structures that are listed on the City of Toronto's inventory and represent the physical heritage of the area in the early 20th century as a new industrial district to serve the growing city.

This built environment is composed of important elements related to the history of Toronto's waterfront. Interventions such as industrial buildings, bank buildings that were constructed to provide financial services to the expanding industrial users in the area and office buildings that were used to facilitate administration of the harbour comprise a significant cultural heritage landscape. Railway lines and existing silos reinforce the industrial legacy of the site.

Buildings include:

1. Cherry Beach Sound / Factory (1912) one of the original industrial buildings constructed in the Port Lands following the plan by the Toronto Harbour Commission
2. Hearn Generating Station (1949) - coal fired electrical plant and dominant visual element
3. William McGill and the Bank of Montreal buildings (1920) - part of the first phase of building construction in the Port Lands
4. Essroc Toronto Silos - prominent landmarks marking the entrance to the Port Lands and terminate the view westward on Villiers Street
5. Lafarge Site - previously Canada Cement Company
6. Dominion Boxboards Building on Polson Street
7. Dominion Bank
8. Toronto Harbor Commissioners Storage Building
9. City of Toronto Incinerator (1953) - example of civic infrastructure building in the post-war period and dominant landmark within the streetscape of Commissioners Street.



- Heritage Structures
- Potential Cultural Heritage Landscape
- Potential Cultural Heritage Landscape (Railway)
- Geological Heritage
- Railway
- Views

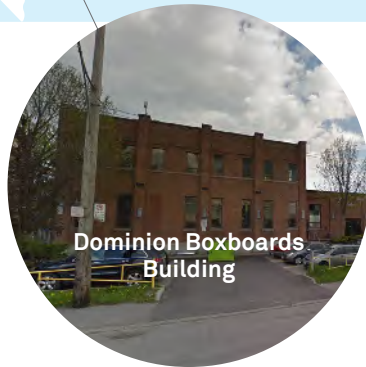
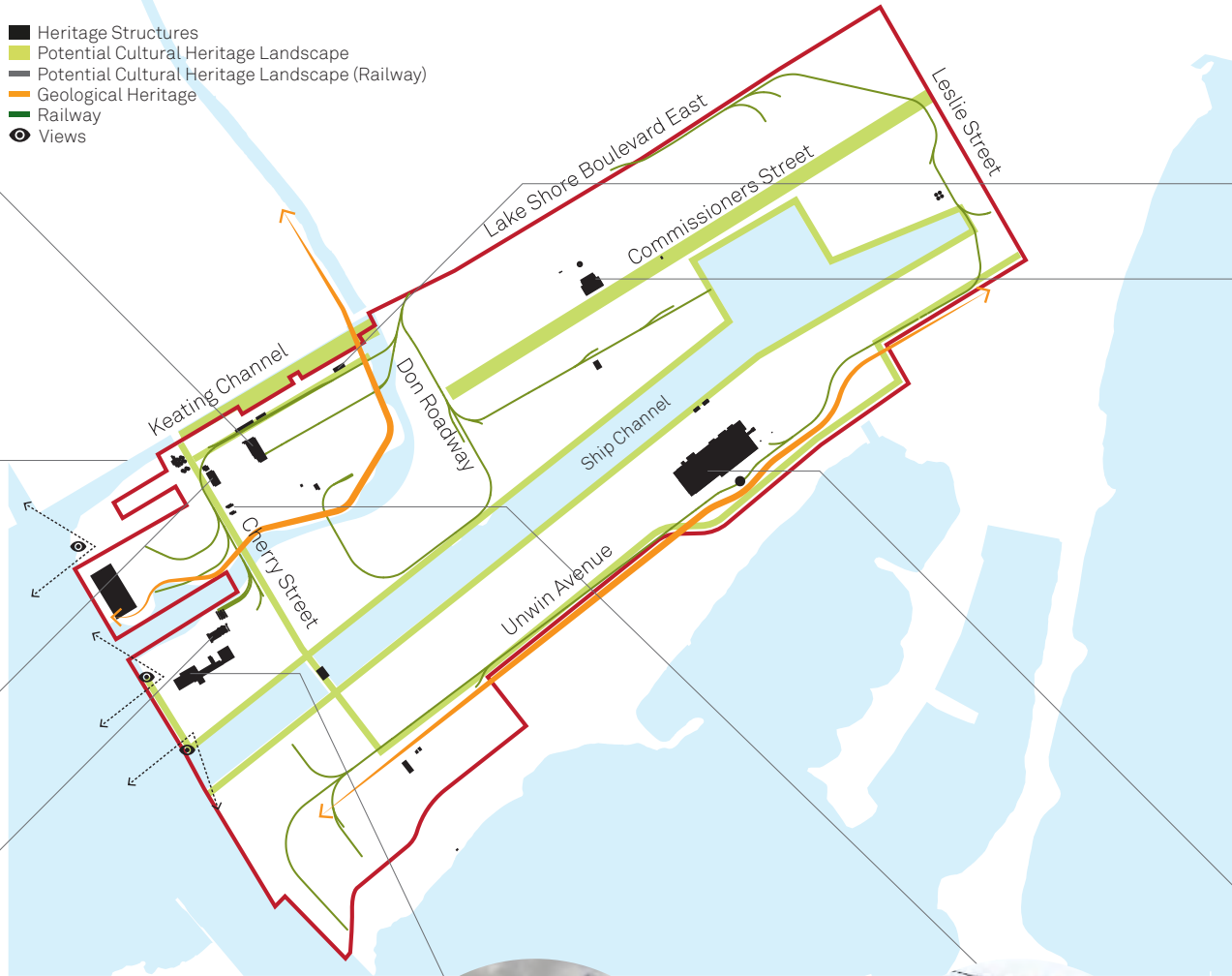


Fig. 3.12: Cultural Heritage Background

Summary of Key Constraints and Opportunities

The Port Lands is an exciting site that provides an opportunity to achieve economic and social objectives including expanding existing business and attracting new investment by encouraging a broad mix of uses. There is opportunity to merge the natural and urban fabric into a green, integrated and sustainable community.

Some of the key site constraints include:

Flooding

Currently much of the site is at risk of flooding due to the low lying land and Don River. Significant works, as proposed by the Don River Works, are required to reduce the flood risk. These works are required in order to allow significant development.

Ground Conditions and Contamination

The reclaimed nature of the site and industrial history mean much of the site is on poor ground and has some contamination. Ground works for development will need to be planned and designed to appropriately manage these elements, including in some locations deeper foundation works and remediation works.

Infrastructure and Services

The existing site has limited utility networks and those that are present are unlikely to have sufficient capacity to serve future development. Additionally, there are a number of major services crossing the site, including overhead power lines, that in the long term will need to be relocated.

Pedestrian and Road Connections

The site has limited connectivity, new connections are needed over the Ship Channel and Keating Channel. Additionally there is currently limited transit capacity serving the site.

The Opportunity

The site has great potential and the masterplan and Waterfront Toronto's development objectives look to realise this. The greatest opportunity for an Expo masterplan is to closely align with this existing masterplan, this would allow the Expo to actively support the long term objectives in particular:

- Enhancing open spaces, parks and the waterfront
- Linking the city to the beach
- Promoting a clean and green environment
- Creating a dynamic and diverse community
- Creating a smart and sustainable development.

Additionally the waterfront nature of the site provides substantial opportunity which can be realised both during the construction of the Expo and also during the Expo itself. Water can be used as part of the site by hosting barges and floating pavilions, it can also be used for water transport, bringing people to and from the site.

- < Views
- Existing LRT
- - Proposed LRT
- Proposed Streetcar
- - Possible Connections
- Main Connections
- Possible Landmarks
- Existing Park
- Proposed Park
- Public Promenade
- Beach
- ||||| Temporary Narrowing of the Channel
- ▨ Sites Not Available for Expo
- Heritage Buildings
- Existing Buildings



Fig. 3.13: Summary of Constraints and Opportunities

Framework Plan

The framework for the Port Lands is a resilient but adaptable urban structure that allows for a flexibility and evolving legacy to accommodate future developments that have yet to be defined.

The framework will incorporate and celebrate an inherited built heritage and will exemplify in its regeneration a richness in the evolution of future uses. This flexibility of use might be initially one of creative industry and commerce but perhaps later new living and communities.

The opportunity will be to preserve through the framework an indefinite potential and one that will recognise and capitalise on its existing identity and character.

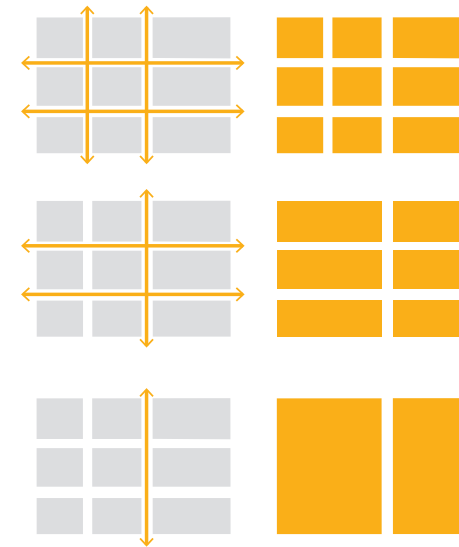


Fig. 3.14: Framework Masterplan Plot Adaptability

Flexibility and Adaptability

The flexible local street network on the Port Lands Framework Masterplan allows for adaptable blocks to accommodate diverse uses.

- Railway
- Public Open Space
- Beach
- Heritage Building
- Existing Building



Fig. 3.15: Framework Masterplan - Drawing based on information from Waterfront Toronto (Background + Context, Review Exercise, March 2016)

4 EXPO MASTERPLAN

Key Planning Concepts

The revitalization process will provide a framework of open spaces within a suitable density for future neighborhoods, where movement and access are facilitated alongside critical infrastructure including flood protection.

A number of common urban planning principles will bridge the ambition of the Port Lands legacy framework and the planning objectives of the Expo. These will vary from addressing an adaptable development programme, responding to the public connections to the city and imagining a new identity this new part of the city.



1. ACCELERATING DELIVERY



2. HUMANIZING THE URBAN SCALE



3. CREATING A NEW DESTINATION



4. BRIDGING DOWNTOWN AND THE WATERFRONT



5. ENHANCING PUBLIC RECREATIONAL OPPORTUNITIES



6. INTEGRATING INTO THE URBAN FABRIC



7. CULTIVATING HERITAGE AND HISTORICAL ASSETS



8. OFFERING A DIVERSE MODERN WORKING AND LIVING ENVIRONMENT



9. A CONNECTED PLACE



10. ACHIEVING A CLIMATE SENSITIVE DESIGN



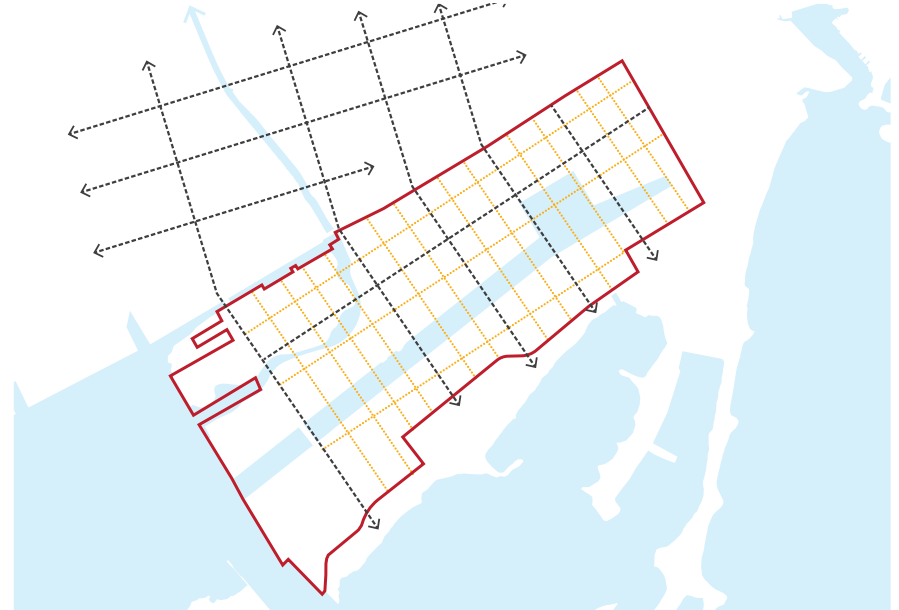
ACCELERATING DELIVERY

- Realizing existing masterplans (planning strategy).
- Revitalizing existing heritage buildings for use in the long term plans.



HUMANIZING THE URBAN SCALE

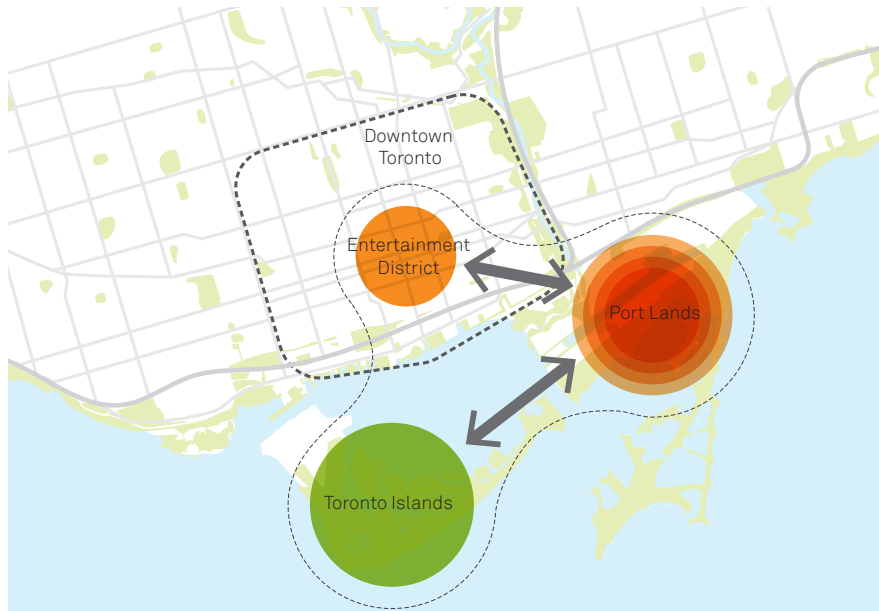
- De-scaling transition of work, leisure and living - an adaptable design for both scales:
 - Expo
 - Legacy





CREATING A NEW DESTINATION

- Port Lands will provide a complimentary but unique cultural destination to the existing leisure and tourist offer of the Toronto Islands.
- Enhancing the connection to the Toronto Entertainment District (main cultural hub in the City).



BRIDGING DOWNTOWN AND THE WATERFRONT

- A green corridor between Tommy Thompson Park and Don Valley (North-South).
- Enhancing a continuous, accessible waterfront for Toronto (East-West).





ENHANCING PUBLIC RECREATIONAL OPPORTUNITIES

- Respond to the character of the site by integrating the water (Ship Channel) into the Masterplan and integrating it with the main uses.
- Become a gateway to Tommy Thompson Park (part of Lake Ontario Park Masterplan).
- Establish a network of paths, boardwalks and routes that organizes and provides access to space and activities.



INTEGRATING INTO THE URBAN FABRIC

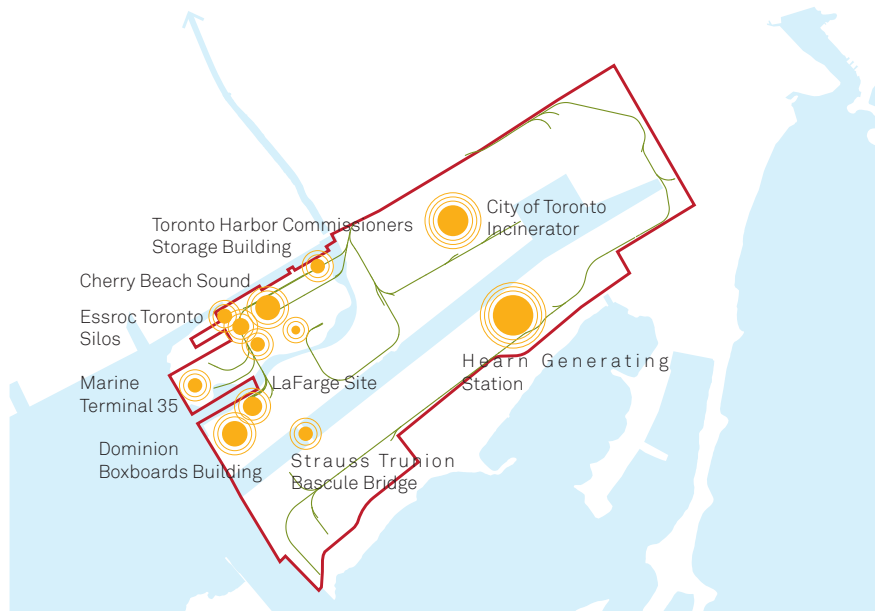
- Continue the existing urban structure and the Precinct Plan concept of “Stitching the City” through the main north-south signature streets (Cherry, Don Broadway, Broadview, Carlaw, Caroline and Leslie Street).
- Promoting a Masterplan that celebrates the activities generated around the “Foot of Toronto” and links them to the city from the Port Lands.





CULTIVATING HERITAGE AND HISTORICAL ASSETS

- Integration of existing heritage / listed buildings (respect the intrinsic character of the area).
- Regenerate the Hearn and other heritage buildings as a major attraction feature, for example the Tate Modern in London, UK.
- Revitalization of the docks/waters edge.



OFFERING A DIVERSE MODERN WORKING AND LIVING ENVIRONMENT

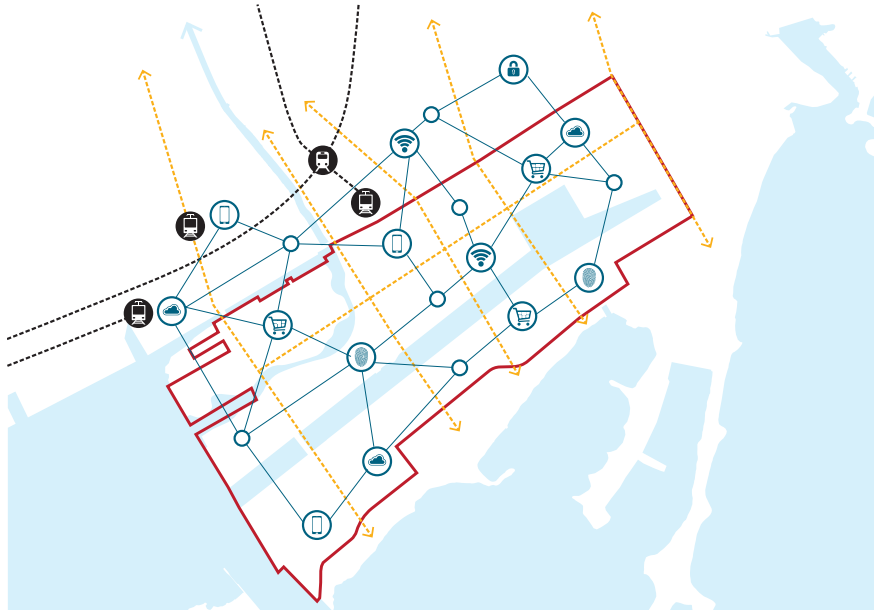
- Supporting entrepreneurship and flexible living.





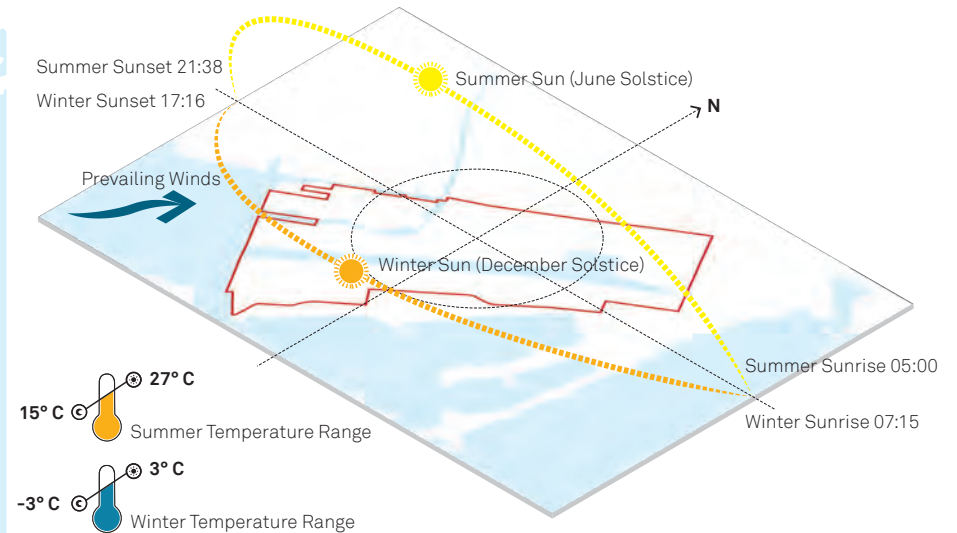
A CONNECTED PLACE

- Virtually and physically connected.
- Accommodating the needs of all types of users while developing a flexible circulation framework.
- Internal and external connectivity with the multimodal movement network.



ACHIEVING A CLIMATE SENSITIVE DESIGN

- An all season approach to design.
- Providing shade for comfortable summer outside spaces with low cooling requirement.
- Planning for winter sun by maximising the available sun to create enjoyable and usable open spaces.
- Protect open spaces from wind by creating street patterns and structures that break and block the wind.
- Provide planned winter activities to attract people to open spaces all year round (i.e. "Frozen Beach").



The Baselands

Expo 2025 Preliminary Masterplan

EXPO OPERATIONAL DIAGRAM: MAIN ZONES AND ADJACENCIES

The abstract generic Expo operational diagram defined previously in this report is now applied to the proposed Expo masterplan. The reality of the site makes the masterplan a more complex operational diagram. The model has evolved and gains complexity but the key zoning, adjacencies and operational flow principles are maintained to ensure smooth Expo operations.

The proposed Expo has three visitor entry points that are directly connected to the three transportation hubs. Each entry point will have security screening facilities and adequate space will be provided between the visitor drop off points and prior to the security check points (Expo accesses).

Visitors gain access to the Expo “Common Domain” or general circulation area having passed through the security check points. In the proposed scheme this area is articulated in three axis, two of them run north-south following the River Don direction and the third one in a perpendicular direction that follows the ship channel. The three axis are directly related to the open space framework planned in legacy.

The pavilions areas are distributed in zones of sizes ranging from 3 to 18 ha. Expo organisers can assign individual themes to each zone allowing the visitor to structure different experiences based on different time availability, number of visits or their own interests. Key feature pavilions and other buildings of special interest are distributed strategically across common domain to attract visitors to all the Expo sites in the most homogeneous way and avoid the risk of overcrowded spots.

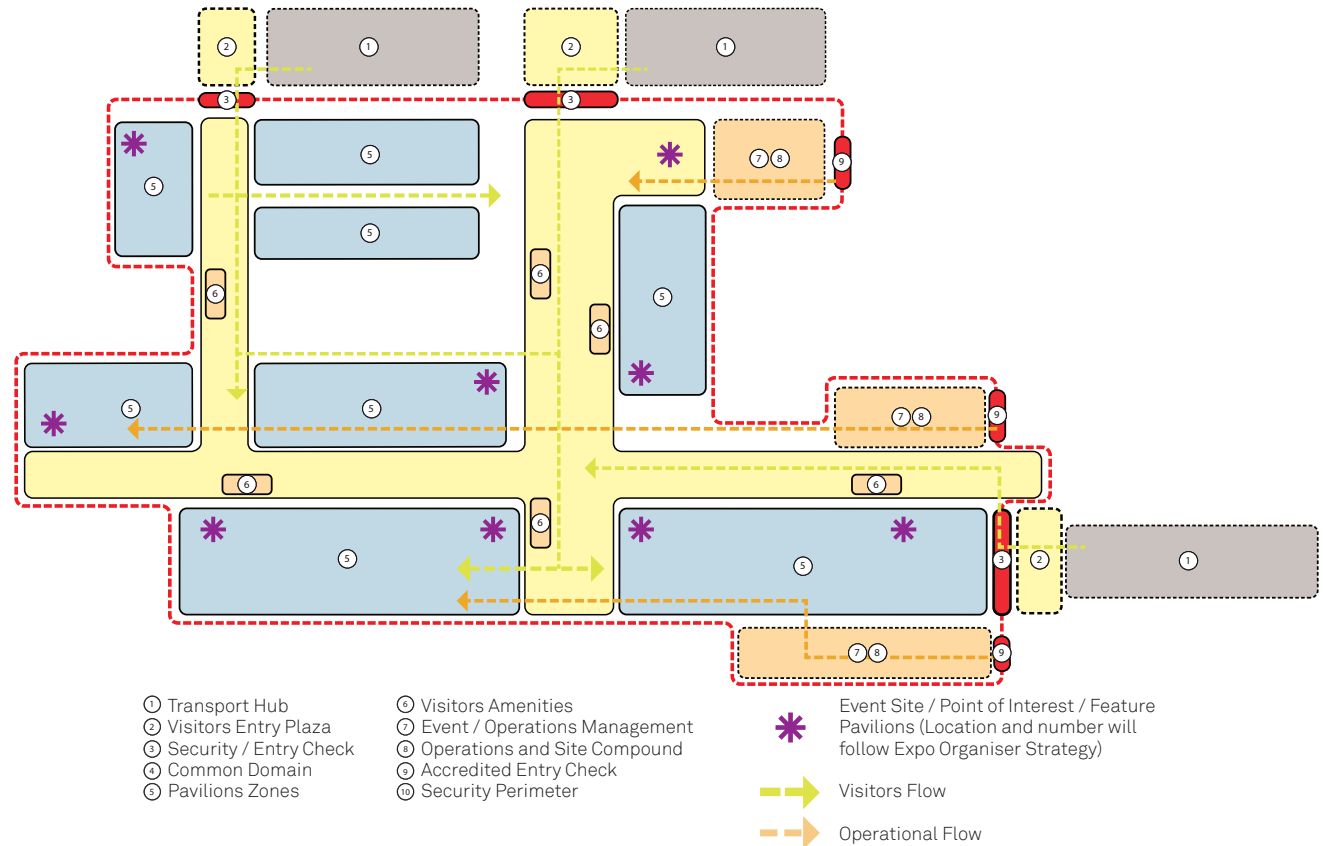


Fig. 4.1: Expo 2025 Operational Diagram adapted to the Toronto Port Lands