BAYFRONT INDUSTRIAL AREA RENEWAL STRATEGY URBAN DESIGN GUIDELINES

APPENDIX A
MARCH 2022





TABLE OF CONTENTS

1	INTRO	DDUCTION	1	5	PUBL	IC REALM & OPEN SPACE GUIDELINES	31
	1.1	Context for the Guidelines	1		5.1	What is the Public Realm?	31
	1.2	Importance of Industrial Heritage	1		5.2	Gateways	33
	1.3	The Bayfront Strategy and Urban Desig	n 1		5.3	Streetscapes	38
	1.4	Purpose of the Guidelines	2		5.4	Road Safety	46
	1.5	Implementation of the Guidelines	2		5.5	Paving within the Right-of-Way	47
	1.6	Organization of the Guidelines	2		5.6	Parks & Open Spaces	48
2	GENEI	RAL CHARACTER AREAS	5		5.7	Public Art	57
	2.1 What is a Character Area?		5	6	PRIVA	ATE REALM GUIDELINES	61
	2.2	How the Character Areas were defined	5		6.1	What is the Private Realm	61
	2.3	Why Use Character Areas?	5		6.2	Prestige Industrial	61
	2.4	Character Areas of the Bayfront	5		6.3	General Industrial	64
3	URBA	N DESIGN PRINCIPLES	9		6.4	Warehouse & Logistics	67
	3.1	City of Hamilton Urban Design Principle	s 9		6.5	Office	69
	3.2	The Bayfront Urban Design Principles	9		6.6	Supporting Commercial + Retail	72
	3.3	Sustainable Design Standards	13		6.7	Arterial Related Commercial	75
4	GENERAL DESIGN GUIDELINES		17	7	QUIC	K WINS	79
	4.1	Site Organization	17		7.1	Public Realm Improvements	80
	4.2	Built Form	17		7.2	Private Realm Improvements	81
	4.3	Material Palette	18				
	4.4	Landscape Design	18				
	4.5	Road Design	22				
	4.6	Parking & Internal Circulation	22				
	4.7	Sustainable Design	23				
	4.8	Lighting and Safety	24				
	4.9	Signage	24				
	4.10	Fencing and Screening	27				

1 INTRODUCTION



1 INTRODUCTION

1.1 Context for the Guidelines

The Bayfront Industrial Area (the Bayfront) is the Cit's largest employment area and is part of the City of Hamilton's expansive waterfront. The Bayfront is nestled between the City's recreational waterfront to the west, Lake Ontario to the north, the Queen Elizabeth Way to the east and generally follows the alignment of Barton Street to the south between Woodward Avenue and Wellington Street. Refer to Figure 1 for a map of the study area and the extent of where the urban design guidelines apply.

The Bayfront Industrial Area Urban Design Guidelines (Urban Design Guidelines) document is an appendix and companion to the Bayfront Industrial Area Renewal Strategy (Bayfront Strategy) which outlines actions for guiding the renewal of the Bayfront. The Urban Design Guidelines help to shape the design and development in the area to align with the parent Bayfront Strategy document. The Urban Design Guidelines have been formatted as an appendix so that it is used as a standalone document.

1.2 Importance of Industrial Heritage

Bayfront's industrial landscape is an important part of Hamilton's rich history, present landscape, and has great potential to play a significant role in the future of Hamilton's unique waterfront environment.

"Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education." - The Nizhny Tagil Charter for the Industrial Heritage, The International Committee for the Conservation of the Industrial Heritage (TICCIH), 2003.

The Bayfront Industrial Area has active heavy industrial sites that may undergo significant physical changes as their technologies change. And

there is tension between a legacy that many in the community love, but also dismiss as unsightly and barren. The City of Hamilton has a unique opportunity unlike any other in the country to build on the unique tangible and intangible industrial heritage of the area. As such, adaptive reuse considerations are a fundamental principle of the urban design framework, as well as showcasing the industries at work. Careful consideration of the spatial structures and configurations, the relationship between each site and its surrounding context, significant views of unique building elements, machinery, equipment, and views of the harbour should lead the conversations on any new development, redevelopment and additions.

1.3 The Bayfront Strategy and Urban Design

The Bayfront Strategy gives an overall understanding and recommendations for anticipated change to this vitally important part of the City. Design plays a critical part in realizing the success of the Bayfront Strategy, and it is a visible and "tactile" measure to understanding how actions are being taken. Urban design, landscape architecture and built form improvements can help to bring a heightened sense of place, while also exhibiting a continued ability to foster positive social, economic, and environmental change to the Bayfront area. The design principles and site specific strategies will help guide in the renewal of the Bayfront and support the physical and emotional attachment of residents for this part of the City. It is very important to understand the potential of design to bridge the gap between policy and action. Design is a tool which offers adaptation, value, and heritage. It provides an opportunity to envision change in the Bayfront and continually support the direction of the Bayfront Strategy.

The City of Hamilton has overarching Urban Design Policies located in the Urban Hamilton Official Plan (UHOP) specifically in Chapter B, Section 3.3. These policies and principles apply to both the public and private realm in order to achieve good urban design resulting in a socially, economically, and environmentally successful City. The City has Site Plan Guidelines which apply city-wide and include urban design. However, the provisions for industrial

commercial areas are broad. Urban design is evaluated within more focused areas and plans such as corridor plans or secondary plans. Individual sites and areas can also be evaluated using urban design studies. As the Bayfront is a sizeable area, they require contextually specific urban design guidelines. The Urban Design Guidelines distill the City's Urban Design policies and apply them to the applicable lands with the Bayfront Strategy's boundary.

1.4 Purpose of the Guidelines

This document is designed to read as a supporting appendix to the Bayfront Strategy and Action Plan and will provide over-arching design intent, and design principles. The purpose of this document is to provide practical urban design guidance for existing sites and new development in the Bayfront. The document provides general design guidelines for both public and private uses, guidelines on how to approach the public realm, and guidelines which pertain to the private realm. The private realm guidelines also discuss how to treat interface areas between industrial and existing residential areas. The private realm guidelines will also provide focus on specific land uses including: Prestige & General Industrial, Warehousing & Logistics, Office, Supporting Commercial & Retail as well as Arterial Related Commercial.

1.5 Implementation of the Guidelines

The Urban Design Guidelines and other objectives found within this document apply to both private and public development initiatives in the Bayfront.

Appendix "B" to Report PED14117(d) Page 6 of 90

They are to be utilized in conjunction with other relevant planning requirements such as zoning.

The Urban Design Guidelines will provide design direction for public spaces and private areas and are meant to be reviewed and used by the following:

- planners;
- design and engineering professionals (architects, landscape architects, civil engineers etc.);
- land owners and business owners;
- city staff; and,
- residents.

1.6 Organization of the Guidelines

The Urban Design Guidelines are organized into the following sections:

Section 1 - Introduction

Section 2 - General Character Areas

Section 3 - Urban Design Principles

Section 4 - General Design Guidelines

Section 5 - Public Realm Specific Guidelines

Section 6 - Private Realm Specific Guidelines

Section 7 - Quick Wins

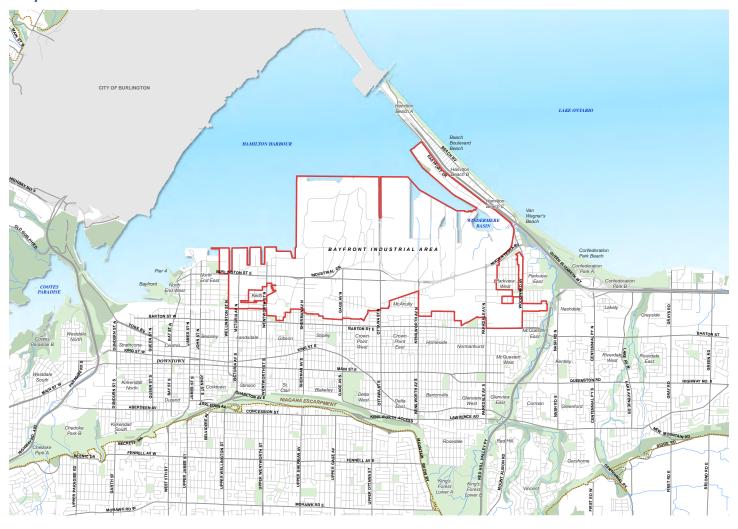


View depicting the many levels of industry functioning in the Bayfront. At-grade roads, elevated roads, and overhead infrastructure intertwine the horizon. Credit: Dillon Consulting



Appendix "B" to Report PED14117(d) Page 7 of 90

Figure 1 Study Area Context









Appendix "B" to Report PED14117(d) Page 8 of 90 2 GENERAL CHARACTER AREAS



2 GENERAL CHARACTER AREAS

2.1 What is a Character Area?

The urban landscape within the Bayfront area is unique because it is not uniform throughout but rather is made up of different areas which vary in character. These variations include types and intensity of use, the presence of residential areas, and hierarchies and types of transportation infrastructure. These different areas can be distinguished from each other by how they appear visually and are experienced physically. These are known as character areas. The character areas are in a state of transformation but are still a key part of the area's identity.

2.2 How the Character Areas were defined

In order to determine the delineation of the boundaries for each of the character areas, there was an analysis completed using the Official Plan land use designations as well as an overal on-site evaluation to determine the physical character of each of the areas. Larger landowners and industries created distinct boundaries as they developed, as an example the steel uses near the waterfront and the Port Authority.

2.3 Why Use Character Areas?

The Bayfront is so large and complex it would be difficult to try to develop overall guidelines for the entirety of the area. Breaking up the Bayfront into areas of similar character will help determine the appropriate guidelines for the public and private areas including the street typologies which will respond to the specific needs of that range of uses. More intense industrial uses have different requirements than residential or commercial uses.

2.4 Character Areas of the Bayfront

The Bayfront is not a single use/ industry, it is a rich tapestry of uses that have evolved over time. The diversity of land uses in the Bayfront has always enriched the community and the preservation of this diversity of land uses is a very important part of developing a holistic successful and growing employment area for the City.

The character areas basic uses summarized within this document include, but are not limited to the following:

2.4.1 Traditional Industrial Areas

This area provides a very diverse and impactful impression to the overall composition of land in the Bayfront and is composed predominantly of traditional heavy industrial activities. It is very important that these uses and their diverse needs are allowed to continue to function. The design guidelines are not to impede the functions of these areas, but are to support and create a better interface with the community.

2.4.2 Light and Support Industries

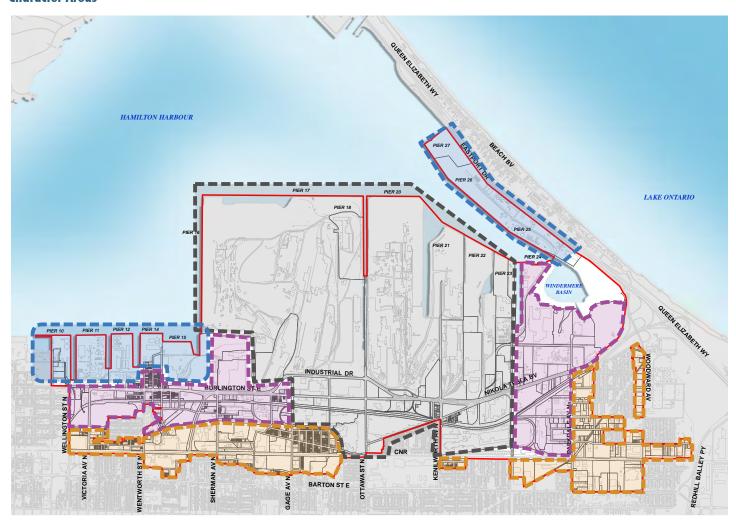
Along with the active industrial practices of the Bayfront, there will always be a need to provide supportive commercial-retail and office support to the traditional industrial uses. This includes a diverse array of commercial uses, and supports the changing nature of employee needs within the area.

2.4.3 Port Uses – Working Waterfront

It is always important to recognize that this is an important and active port, which services the region. Through good design we have the ability to celebrate the connection of this part of the city with its waterfront. Views to the water and its nautical activity are very important to preserving the heritage quality of the site, while always allowing for visual and possible safe physical access to the water's edge, where possible.



Figure 2 Character Areas



2.4.4 Transitional Zones

The transitional zones provides an area of transition between the more intense uses more commonly associated with the Bayfront and the more residential areas south of the study area closer to the Escarpment. This transition is a very important part of how the Bayfront physically connects with the rest of the City. Having a gradual transition from the heavy industry with a mixed range of light industrial and commercial as a buffer for the residential helps to soften the impact and minimize land use conflicts.



Transitional Zones



Appendix "B" to Report PED14117(d) Page 11 of 90



Heavy industrial. Hamilton, Ontario. Credit: Dillon Consulting



Light and support industries. Hamilton, Ontario. Credit: Dillon Consulting



Port uses - working waterfront. Hamilton, Ontario. Credit: Dillon Consulting



Transitional zones. Hamilton, Ontario. Credit: Dillon Consulting



3 URBAN DESIGN PRINCIPLES



3 URBAN DESIGN PRINCIPLES

3.1 City of Hamilton Urban Design Principles

The City of Hamilton currently has a number of overall Urban Design Principles which can be found in the UHOP (see Volume 1, Chapter B – Communities, Section 3.3.2.3).

The Bayfront's Urban Design Principles have been developed using the City's UHOP Urban Design Principles as a base.

3.2 The Bayfront Urban Design Principles

The overarching theme for the Urban Design Principles is to reflect the Bayfront Strategy's Vision and Objectives which can be found in the Bayfront Strategy, Chapter 4 – Vision for the Bayfront.

It should be noted that the precedent imagery within this document is meant for informational and inspirational purposes.

3.2.1 Overall Principles

The Overall Principles are applicable to both public and private realms.

- 1. Urban design should foster a sense of City pride and identity through:
 - Respecting existing character, built form and landscape where appropriate;
 - Promoting quality design consistent with the vision for the area as an economic centre;
 - iii. Recognizing and protecting cultural heritage where appropriate;
 - iv. Enhancing the natural heritage and the urban forest canopy;
 - v. Contributing to the character and ambiance of the area through appropriately designed streetscapes and open spaces;



Incorporating public art and cultural heritage, Light of the Moon Sculpture. Grand Rapids, Michigan. Credit: Igor Mitoraj



- vi. Respecting prominent views and vistas to the water to the Escarpment and to infrastructure which contributes to the Bayfront's identity;
- vii. Creating appropriate transitions between the public and private realm; and,
- viii. Incorporating public art.
- Public and private development and redevelopment should create spaces that physically connect the public and private realms by:
 - Logically organizing space using the design, placement and construction of new buildings, streets and landscaping;
 - ii. Recognizing that each building represents a part of a visual whole;
 - iii. Creating accessible streetscapes which also function as public space;
 - iv. Addressing transitional areas through the use of landscaping and other visual screening elements; and,

Appendix "B" to Report PED14117(d) Page 14 of 90

- v. Creating public spaces that are human scale, comfortable, and publicly visible and accessible.
- 3. Enhance and support community health and well-being by:
 - i. creating high quality and safe public realm (streetscapes, parks, and open spaces) which promote and support active transportation;
 - encouraging development of complete and compact communities or neighbourhoods that contain a variety of land uses, transportation, recreational, and open space uses; and,
 - iii. reducing air, noise, and water pollution through the promotion of active transportation, innovative building and site design, provision of greenspace and stormwater management facilities, using appropriate paving treatments, promoting energy efficiency, using innovative construction materials.



Public open space and low impact development, Tanner Springs Park. Pearl District Portland, Oregon. Credit: Stephanie Braconnier



3.2.2 Public Realm Principles

- 4. Places should be flexible and able to adapt to future changes by:
 - Creating sites and spaces that can be used for a variety of uses in response to changing conditions (social, economic, technological, environmental); and,
 - ii. Encouraging innovative design.
- 5. Streets shall be designed as important public spaces and shall include, where appropriate:
 - Adequate, accessible and continuous space for active transportation as well as transit, other vehicles and utilities;
 - ii. Continuous pedestrian facilities;
 - iii. Landscaping (street trees / boulevards using appropriate hardy species, see Section 4.4 for species list); and,
 - iv. Amenities such as lighting, seating, signage as applicable.

Appendix "B" to Report PED14117(d) Page 15 of 90

3.2.3 Private Realm Principles

- 6. Redevelopment should enhance the character of the existing environment by:
 - Complementing existing surroundings using design and placement of buildings and pedestrian amenities;
 - ii. Respecting the existing context by adaptively reusing cultural and natural heritage features;
 - iii. Allowing built form to evolve over time through additions and alterations which match the character of the area; and,
 - iv. Encouraging a harmonious and compatible approach to infilling by minimizing shade impacts to adjacent uses.



Respecting existing character, built form and landscape where appropriate, Zhongshan Shipyard Park. Zhongshan City, Guangdong Province. Credit: Kongjian Yu, Yang Cao



- 7. Promote environmental sustainability through the following:
 - Promoting compact development and built form where applicable;
 - ii. Encouraging on-site stormwater management and infiltration using LID techniques;
 - iii. Encouraging green building certification or similar sustainable design tools for buildings and infrastructure for new and redevelopment (e.g. LEED, Green Globes, Park Smart, BREEAM etc.);
 - iv. Embracing bird-friendly design considerations;
 - Designing with nature including a diverse and and native selection of plantings;
 - vi. Encourage reduction in resource consumption and energy efficiency;

Appendix "B" to Report PED14117(d) Page 16 of 90

- 8. Creating places that are safe, accessible, connected and easy to navigate using the following design applications:
 - Connecting buildings and spaces through safe and efficient streets, sidewalks and paths;
 - ii. Providing accessible connections to all buildings and paces for all;
 - iii. Locating public buildings so they are visible from the street and provide shelter where appropriate;
 - iv. Integrating conveniently located public transit and active transportation infrastructure;
 - v. Providing appropriate wayfinding signage using the City's Standard Wayfinding Program;
 - vi. Providing pedestrian scale lighting; and,
 - vii. Including urban braille components along heavily used pedestrian corridors.



Allowing built form to evolve over time through additions and alterations. Burbank Water and Power EcoCampus. Los Angeles, California. Credit: AHBE Landscape Architects



3.3 Sustainable Design Standards

Sustainable design standards, like those set by the Canada Green Building Council, are highly encouraged and supported. New development in the Bayfront should strive to successfully achieve green building certification or demonstrate the achievement of equivalent sustainable design measures within their development (LEED, Green Globes, Park Smart, BREEAM etc.). In any case, sustainable design measures are prioritized. Some of these rating systems / checklists measure the technical aspects of built structures such as building systems, architectural sciences and infrastructure which are better prescribed through detailed design and building approvals review. Others also look at the site or area as a whole in terms of urban design, sustainable design and site planning components which are outlined in the following guidelines document. Improving scoring of all aspects both building and site design can assist in creating more sustainable sites and buildings.

Appendix "B" to Report PED14117(d) Page 17 of 90

Any certification program requires planning and knowing what level you are trying to achieve. Certification systems often involve verification that the design and construction of the building and site achieves the parameters in the program. Certification may involves the following steps:

- 1. Determine the rating system you will use.
- 2. Register your project.
- 3. Submit your certification application.
- 4. Await application review.
- 5. Receive certification decision.

The Bayfront will continue to be a place of industrial practices, warehouse and logistics, as well as supporting services. New and retrofitted buildings/sites may need to have different rating systems and programs utilized and applied due to the complex nature of their use and operation. Having regard for fundamental parameters for design and building siting will help any development to create efficiencies and advance sustainability.



Example of reduction of hardscape to improve site filtration, Ford Motor Company Factory Green Roof, River Rouge, MI Credit: Xero Flor America, LLC



Example of LEED Silver Certified building. Woodward Environmental Lab & Operations Centre. Credit: City of Hamilton



Contextual sensitivity to each site's environmental conditions should always be considered as part of the inclusion of any green building or sustainable rating standard. These fundamental parameters include:

1. Landscape Elements:

- i. Preservation and enhancement of natural heritage amenities on site;
- ii. Invest in on-site stormwater management, including detention or retention ponds, where possible;
- iii. Improve on site infiltration by reduction of hardscape;
- Reduce manicured sodded area and replace with softer native plant species;
- v. Protect current healthy trees on site;
- vi. Reinforce new tree planting on site to advance City's urban forestry objectives see Section 4.4, Guideline 12 Species Table;

Appendix "B" to Report PED14117(d) Page 18 of 90

- vii. Take existing advantage of microclimatic features; and,
- viii. Reduce the amount of impervious paving.

2. Building and Siting:

- New buildings should be oriented to take advantage of seasonal winds and solar exposure;
- ii. Building design should allow for natural ventilation and flow, where possible;
- iii. Fenestration and orientation of building should allow for passive solar exposure;
- iv. Building should be sited to reduce the effects of extreme seasonal conditions and create micro-climatic conditions, i.e., protected courtyards and outdoor amenity areas;



Reducing energy consumption through building design and siting, Industrial Wood Innovation Research Lab at University of Northern British Columbia is Passive House certified, Prince George B.C., Credit: UNBC



- v. Building envelopes should be operable in order to adapt for seasonal changes;
- vi. Use of bird-friendly designs (avoidance of reflective glass and certain lighting elements); and,
- vii. Incorporation of green walls for both internal and external use should be considered.

3. Circulation:

- Employment areas require high quality open spaces and efficient connections to facilitate multiple functions such as working, shopping and leisure activities;
- Sites should have safe connections to municipal active transportation networks;
- ii. On-site cycling facilities should be placed in priority locations on site;

Appendix "B" to Report PED14117(d) Page 19 of 90

- iii. Secure bike storage, shower and locker facilities should be incorporated into building and site design;
- iv. Building envelopes should be operable in order to adapt for seasonal changes;
- Electric Vehicle Charging facilities should be provided for operational and personal vehicles where possible;
- vi. Priority parking should be permitted for sustainable vehicle users;
- vii. Priority parking should be permitted for carpooling users;
- viii. Provide internal transit shelters within private buildings; and,
- ix. Connections to nearby transit stations/stops should use site furnishings and landscape treatments to ensure user comforts year round.



Encouraging LEED tools for buildings and infrastructure, high energy efficient exterior, maximizing natural lighting, rainwater harvesting, recycled materials etc. Stageline Industrial Building, QC. Credit: Newswire



Appendix "B" to Report PED14117(d) Page 20 of 90 4 GENERAL DESIGN GUIDELINES



4 GENERAL DESIGN GUIDELINES

4.1 Site Organization

General site organization should always have regard for positioning of the buildings and the elements on the site including parking, servicing and utilities, storage, mechanical, landscaping, etc.

Guideline 1. Administration/office related components of the buildings will address the street and provide pedestrian entry into the site from the street or customer/visitor parking areas.

Guideline 2. Loading, parking and storage should be sited away from the public street and if possible sited around or behind office/employment uses.

Guideline 3. Screen loading and waste areas from public view using building mass, freestanding walls and landscaping.

Guideline 4. Outdoor storage, utilities and mechanical systems, lighting and other elements of poor visual quality require aesthetic consideration for screening including the use of walls or landscaping.

Guideline 5. Loading areas should not conflict with on-site waste management, visitor or public vehicular circulation.

4.2 Built Form

Architectural design plays an important role in defining the identity of the Bayfront. Areas of public interface should be prioritized and functional aspects should be located to the side or back of the site. Special consideration must be given to the thoughtful integration of essential building functions.

Guideline 1. Ensure building massing and heights relate to adjacent buildings.

Guideline 2. Mechanical equipment should be placed away from highly visible locations. House mechanical equipment below grade if possible, or within building envelope. If located on rooftops, equipment should be located away from street and screened if visible from adjacent street.

Guideline 3. Buildings should have adequate setbacks to provide visual and physical separation from adjacent uses, encourage a positive relationship with the street, allow for landscaping and allow for screening of mechanical and service areas.

Guideline 4. New and redeveloped buildings should incorporate sustainable design measures, promote energy and thermal efficiency, and utilize innovative technologies where possible.



Example of building and landscape site organization. Credit: John T



4.3 Material Palette

The level of design and materiality of buildings can help characterize and define the street and enhance the sense of place as well as contribute to the overall urban design quality for the area. The architectural quality of buildings enhance the public realm by ensuring attention to appearance and elements of massing, façade articulation, openings, and the location and design of entrances.

Guideline 1. Primary building facades should be designed with high quality and durable materials, while incorporating interesting architectural details. Concrete/concrete block should not be used on primary building facades that are street facing or highly visible to the public realm.

Guideline 2. Buildings located further into the site on deeper lots may have more functional building designs as required for the use.

Guideline 3. Ensure that side and rear façade materials complements surrounding development materials and colours.

Appendix "B" to Report PED14117(d) Page 22 of 90

4.4 Landscape Design

Well defined landscapes should be included within and at the edges of all sites to make new and existing development within the Bayfront appealing and comfortable. Landscape design shall be used to mitigate the impacts of industrial uses and provide screening of visually poor site elements.

Guideline 1. The landscape strategy for all sites should be functional and aesthetically pleasing with four season interest. A diversity of species will be planted to support biodiversity and ensure a robust and resilient landscape. Native species will be prioritized, and invasive species will not be used.

Guideline 2. Promote the incorporation of green infrastructure within hardscapes to ensure the successful provision of greenscapes within streetscapes and boulevards within urban areas. Technologies will improve the long term health of installed landscaping e.g. Silva Cells, Strata Cells etc. This is also applicable for streetscapes.

Guideline 3. Incorporate low impact development practices such as using native and drought resistant vegetation; minimal maintenance design; bioswales; impervious parking. Designs should also look to manage dust and mud tracking.



Example of high quality materials and architectural detail, IntraUrban Business Park. Vancouver, British Columbia Credit: PC Urban



Appendix "B" to Report PED14117(d) Page 23 of 90



Building frontage with clean and crisp architectural surface, TTR Industrial Park. Surprise, Arizona. Credit: Cawley Architects

Buildings with functional design, Berrel Berrel Krätler Architekten Fire Station. Pratteln, Basel-Landschaft. Credit: Radek Brunecky





Building frontage details with corten steel exterior. Credit: Ilaria Academy



Appendix "B" to Report PED14117(d) Page 24 of 90



Parking lot with swale, Kimberling Shopping Center. Kimberling City, Missouri. Credit: Grownative.org

Guideline 4. Planting materials should be low maintenance, pest and disease resistant.

Guideline 5. Any non-planting elements of landscape design should be locally sourced to reduce carbon footprint (locally quarried stone etc.).

Guideline 6. Where appropriate, high branching deciduous trees should be planted along all lot lines and within parking islands to help provide shade, reduce the urban heat island effect, and provide other environmental benefits.

Guideline 7. Ensure landscape zones are designed with materials that support stormwater runoff and on-site infiltration.

Guideline 8. Ensure shade trees are used for parking landscape zones.

Guideline 9. Back-lotting is generally a discouraged practice, however in circumstances where it cannot be avoided landscaping buffers and landscape strips along interior property lines should be provided as a visual transition between properties and to enhance stormwater management on site.

Guideline 10. Employee and visitor amenities should be located in convenient locations in relation to building entrances.

Guideline 11. Public or private amenity areas should include seating, accessible pathways, shading with structures or trees. Locations should reflect the context.



Hamilton

Parking lot with landscaping and permeable pavers. Credit: John T



Shaded seating area, The Bloedel Conservatory, Vancouver British Columbia. Credit: Stephanie Braconnier

Guideline 12. Plant material should be placed to ensure clear views into and out of amenity areas to maintain safety and security.

Guideline 13. Landscape planting materials should support biodiversity and prioritize using native species. The following tables consists of some approved species by the City's Forestry department.

Shade Trees - Large Caliper (≥ 40cm DBH at maturity)

Common Name	Scientific Name		
Common Hackberry	Celtis occidentalis		
Prairie Sentinel	Celtis occidentalis		
Hackberry	'Prairie Sentinel'		
Princeton Sentry Gingko	Gingko biloba 'Princeton Sentry'		
Cinkan	,		
Ginkgo	Ginkgo biloba		
Espresso Kentucky	Gymnocladus dioicus		
Coffeetree	'Espresso'		
London Planetree	Platanus x acerifolia		
	'Bloodgood'		
Bosque Elm	Ulmus parvifolia		
·	'Bosque'		
Accolade Elm	Ulmus x 'Accolade'		

Appendix "B" to Report PED14117(d) Page 25 of 90



Office building LID, Szcecin, Poland. Credit: Mike Mareen

Ornamental Trees - Small Caliper (≤ 40cm DBH at maturity)

Common Name	Scientific Name		
Spring Snow Crabapple	Malus x 'Spring Snow'		
Persian Ironwood	Parrotia persica		
Kwanzan Cherry	Prunus serrulata 'Kwanzan'		
Ornamental Pear	Pyrus calleryana ' Chanticleer'		
Ivory Silk Lilac	Syringa reticulata ' Ivory Silk'		



4.5 Road Design

There is an existing and extensive road network within the Bayfront in varying degrees of quality. There is also future potential for larger industrial lots to subdivide leading to opportunities for additional streets and connections. There are a variety of ways to improve the visual quality of the road network in the Bayfront while also improving the multi-modal dynamic.

Guideline 1. Roadway materials should also be designed with durability in mind to accommodate truck traffic and winter maintenance.

Guideline 2. Roads should be designed / redesigned where appropriate with narrower vehicular rights of way to reduce the amount of hardscape and to include more room for active transportation infrastructure and landscaping elements. Designs should be in compliance with the City's ongoing Complete Liveable Better Streets Design Manual and consider the turning radius of trucks.

Guideline 3. Stormwater should be managed locally along streets where feasible with low impact development techniques and plantings in order to reduce the loading on the existing system.

Guideline 4. Active transportation infrastructure should be incorporated per the recommendations in the City of Hamilton's Transportation Master Plan.

Guideline 5. Establish a continuous canopy of shade trees along roadways where possible. Utilize green technologies to bolster long term health of urban canopy (e.g. Silva Cells, Strata Cells etc.)

Appendix "B" to Report PED14117(d) Page 26 of 90

4.6 Parking & Internal Circulation

Parking and internal circulation plays a key part of how we navigate through sites. These needs are diverse depending upon the user and nature of land use, and specific business needs. The general intent is to support a logical and interconnected system of streets, sidewalks, and pathways that balance mobility requirements and pedestrian safety and comfort on-site.

Guideline 1. Future designs should look to reduce the amount of hardscape and/or use of permeable materials and low impact development techniques in the long term.

Guideline 2. Entrances to sites (parking and servicing areas) should be located on local streets and should be located to minimize the number of entry points to maximize building frontage and minimize the number of curb cuts required.

Guideline 3. At intersections driveway are to be located away from the intersection to avoid conflicts with active traffic.

Guideline 4. Parking, amenity areas, and pedestrian circulation should be free from physical barriers.

Guideline 5. Future designs should seek to break up surface parking areas into smaller parking courts with high quality landscaping treatment and pedestrian walkways. Plant 1 tree for every 5 parking spaces.



Building with shade structure. Credit: Zhu Difeng



4.7 Sustainable Design

Climate change resiliency and adaptation along with environmentally sensitive design practices are key to ensuring a healthy and sustainable future for the Bayfront and the wider context. A clear attempt to incorporate innovative, practical site design and architecture can play a role in reducing adverse impacts of climate change. There is also a need to monitor climate change related events (rain, temperatures etc.) and adjust accordingly over time. Understandably, not all sites and land uses will be able to support each of the following considerations; however during the site planning process each development proposal should consider the following measures.

Guideline 1. Treat minimum 50% of the site's hardscape (excl. roof) for urban heat island (shade structures, shade trees, high albedo materials etc.)

Guideline 2. Reduce urban heat island effect by reducing the amount of paved areas. Maximum 3.5 parking spaces per 1000 sq. ft. of GFA.

Guideline 3. 5% of all parking spots to be preferred spots (special spots that are in close proximity to entrance or in a covered area) which are allocated for carpool and/or electric vehicles. Required AODA barrier-free spaces provided as regulated and are not included in the 5% count.

Guideline 4. Position buildings to take advantage of passive solar and prevailing winds for air flow

Appendix "B" to Report PED14117(d) Page 27 of 90

and micro-cooling in amenity areas. Incorporate building accents to shade the fenestration on south facing facades.

Guideline 5. Incorporate green roof technology (minimum 20% of available roof space) to assist building cooling and provide additional amenity areas in appropriate locations. Capturing and storing water at peak-flow rain events for irrigation of planting areas. If green roofs are not attainable, other sustainability measures should be considered including high albedo/reflective surfaces and treatments and/or incorporation of renewable energy (solar panels, wind turbines),

Guideline 6. Minimum 20% of total lot area to be open space (tree canopy, decorative plantings, amenity areas, buffers.) Provide on-site stormwater infiltration areas within open space and parking areas. Plant minimum 1 tree for every 5 parking spaces.

Guideline 7. Minimum 20% of materials for new buildings and site construction to be locally sourced (within 800km of final manufacturing site, or 2400km if shipped by rail or water.)

Guideline 8. Minimum 10% of construction materials to be recycled materials, or renewable materials.

Guideline 9. Minimum 50% of wood products to be certified in accordance with the Forest Stewardship Council (FSC).



Warehouse building with well lit parking lot and pedestrian areas. Credit: Dima Moroz



Guideline 10. Minimum 50% of landscape materials should be native / locally sourced and drought / disease / pest tolerant. Invasive species shall not be used.

Guideline 11. Minimum 1% of energy for site to be derived from renewable resources.

Guideline 12. Employ green building design and sustainable site design standards for planning and detailed design of any new development where applicable as per Section 3.3 of this document.

4.8 Lighting and Safety

Lighting is an important element for safety and comfort in both public and private settings and can enhance the visual appeal of sites.

Guideline 1. Pedestrian and parking areas should have adequate illumination so that it is perceived as safe. Pedestrian scale lighting should be used where appropriate to provide additional ground level lighting and also create enhanced aesthetics where possible.

Guideline 2. Lighting should be used as an accent feature for architectural highlighting as well as within the design of landscape elements.

Guideline 3. New developments or redeveloped sites should aim to install energy efficient light fixtures.

Appendix "B" to Report PED14117(d) Page 28 of 90

Guideline 4. Spillover of lighting, up-lighting and over illumination should be avoided in all cases. Lighting should be bird-friendly.

Guideline 5. In all cases Crime Prevention Through Environmental Design (CPTED) practices should be utilized. Landscaping shall not impede any views across open parking lots of into buildings.

Guideline 6. Landscaping should help to attenuate noise where it may affect an adjacent use.

4.9 Signage

There are two categories of signage for the Bayfront. The first is wayfinding which helps orient visitors and users to areas within the area and beyond. This particular type of signage has several hierarchies with varying functions and location criteria. These signs are located along the roadways and mark physical cues at site level, streets and at gateways. The second type of signage is interpretive signage. These highlight important themes and cultural elements and are located at a site by site basis depending on the appropriate program.

Having a consistent palette and design of signage provides an opportunity for helping to establish a sense of place and creating a 'brand' for the Bayfront.

All signage must be compliant with the City's Sign By-law No. 10-197.



Timmins Gateway Sign. Timmins, Ontario. Credit: JayTee88



4.9.1 Wayfinding

Bollards

Bollard type wayfinding are useful to identify the primary access points for industries and can identify tenants and their subsequent addresses. They vary in size depending on if there are multiple tenants on one site. Bollards are located at primary access points.

Pedestrian Kiosks

Install pedestrian kiosks at the major pedestrian entry points in the Bayfront especially along active transportation corridors. Kiosks to follow the designs set out by the City's Wayfinding Signage Strategy.

THE GARDENS THE OVERLOOK

Rise Park bollard signage. Credit: RSM Design



Bunker Hill directional streetscape signage. Credit: Society for Experiential Graphic Design

Streetscape Signage

This type of signage is placed along the street edge. There are two kinds of streetscape signs; ones that are located at the primary access points of a site, or at street intersections. The access point sign identifies the address, company name and logo for a high profile building. The intersection sign identifies multiple names of industries and highlights any public uses nearby or points of interest. This type of signage requires additional lighting in order to properly highlight the information.

Appendix "B" to Report PED14117(d)

Page 29 of 90

Gateway Marker

Gateway markers are located within the public area of a major gateway and are a major arrival feature. They identify the gateway as well as denote the unique area. These require accent lighting for optimal views.



Streetscape entrance signage. Forthriver Innovation Centre, Belfast, Ireland. Credit: Ascot House



Adelaide pedestrian kiosk. Credit: Michael Freilinger





Fulton Market District Gateway Marker. Credit: Sterling Bay Properties

Local Road Marker

Local road markers are located at the intersections for all roads and identify street names. They are a branded version of a local street sign.

Major Vehicular Signage

Vehicular street signs should be used at major intersections and will direct motorists from the QEW into the Bayfront and towards the West Harbour and other major destinations.

4.9.2 Interpretive Signage

Interpretive signage should be in response to nearby or views of ecological features (waterfront, escarpment), heritage elements, features visible in the public right of way which describe the working features of the Port or the large long standing industries which are synonymous.

Theming of interpretation signage will be determined on a case by case basis in discussions with internal and external stakeholders as well as the public if appropriate. Themes should relate to those found within the Bayfront including but not limited to:

- Industrial;
- Historical;
- Community Driven;
- Water and the Port; and,
- Heritage in the Neighbourhood.

Appendix "B" to Report PED14117(d)
Page 30 of 90



Example of local road marker. Credit: RSM Designs



Example of major streetscape signage example.



Example of interpretive signage. Credit: The Interpretive Design Company



4.9.3 Sign Guidelines

Guideline 1. All signage will adhere to the City of Hamilton's Sign By-Law. In the eventof a conflict between these guidelines and the City of Hamilton By-Law, the provisions of the Sign By-Law shall prevail.

Guideline 2. Signage for sites and buildings should look to incorporate sustainable technologies (timers, solar power, wind power) to reduce energy needs.

Guideline 3. Signage should be clearly visible from a distance and should have clear and legible typefaces and colours aiming to comply with Accessibility for Ontarians with Disabilities Act (AODA) guidelines as well as provide easy wayfinding for staff and visitors.

Guideline 4. Well-designed free standing signage is encouraged where applicable.

Guideline 5. Multiple occupant buildings should integrate signage into the building façade to reduce sign clutter.

Guideline 6. Materials should be durable and the design should complement the building/development design style.

Guideline 7. Rooftop signage is not permitted. Façade signage is permitted at a maximum of 15% of the building's façade.

Appendix "B" to Report PED14117(d) Page 31 of 90

4.10 Fencing and Screening

In general, fencing and screening should be discouraged in order to highlight and frame views to signature products and iconic infrastructure that is synonymous with the character of the Bayfront. However, considering the nature of land uses and operations, it is likely that specific areas of development sites will require safety and security fencing. Building orientation, landscaping and grading can help mitigate the need for fencing and screening in some cases. Fencing and screening in public view should be reviewed as part of the site plan approval process. If fencing is deemed to be required, the following should be considered:

Guideline 1. Fencing in public view should incorporate upgraded materials, including cast iron, metal slats, or in some cases wood.

Guideline 2. Fencing should be incorporated into building design and reference similar materials.

Guideline 3. Incorporating low stone or concrete walls can reduce the height required for fencing/screening.

Guideline 4. Incorporating higher growing planting and coniferous species can reduce the visual impacts of fencing/screening.

Guideline 5. Combination of grading and fencing/screening should be considered.

Guideline 6. Where possible living walls or mural walls should be incorporated as an alternative or as a break to the fence line.

Guideline 7. Sites with outdoor storage or stockpiles, especially if visible from the public right of way should be screening with visually appealing fencing, grading or other screening measures.



Appendix "B" to Report PED14117(d) Page 32 of 90



Louvered screening with galvanized steel. Credit: Lang and Fulton



Example of High quality architectural security fencing. Credit: Omega Fence



Appendix "B" to Report PED14117(d) Page 33 of 90



Example of aesthetically pleasing security fencing: Credit: Ameristar Fence



Example of wood, brick and metal screening fence. Credit: Fenetrac





5 PUBLIC REALM & OPEN SPACE GUIDELINES

5.1 What is the Public Realm?

The public realm is the area between (and within) buildings that are municipally owned space and publicly accessible and is used by the general public including sidewalks, streets, squares, parks, trails and open spaces.

The opportunities and guidelines for the public realm will be explored through precedent imagery and cross sections where appropriate. There are a variety of aspects which comprise the public realm and they are outlined in the following sections.

Greening the Bayfront

Greening can be done throughout the Bayfront in both the public and private realms. Greening pertains to overall increased tree and shrub plantings to help the Bayfront increase its current canopy cover from 3% to help achieve the overall city-wide goal of 35%.

Appendix "B" to Report PED14117(d) Page 35 of 90

Public Access to Waterfront

One of the most severely lacking features along this particular stretch of waterfront is the limited public access. Opportunities exist to develop lookout type features to view the harbour. Examples include 'Windows to the Lake' or a boardwalk to the water through redevelopment, intensification and partnerships with entities like the Port Authority. One lookout has been constructed by the Port Authority at their Hillyard building parking lot. A formal lookout tower opportunity could occur at the existing Windermere Basin where there are already at grade lookouts which offer open views to the water. Refer to Figure 2: Public Access to the Waterfront to see existing and proposed locations for potential public access to the waterfront.



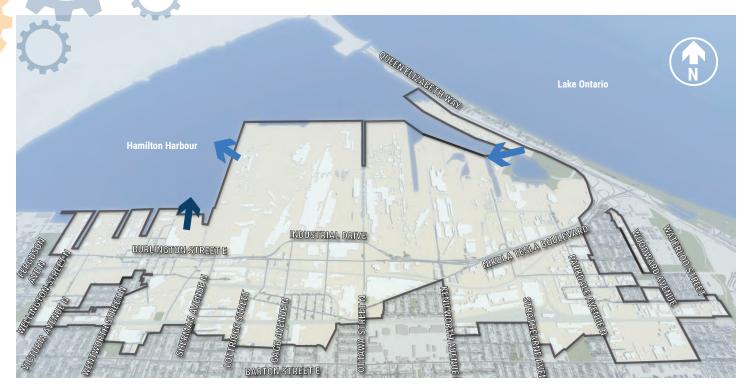
View of wildlife habitat installed at revitalized Windermere Basin Park. Hamilton, Ontario. Credit: Dillon Consulting



Example of greening using paving and soil cell system for maximum overhead canopy, East Bayfront. Toronto, Ontario. Credit: Dillon Consulting



Figure 3
Public Access to the Waterfront



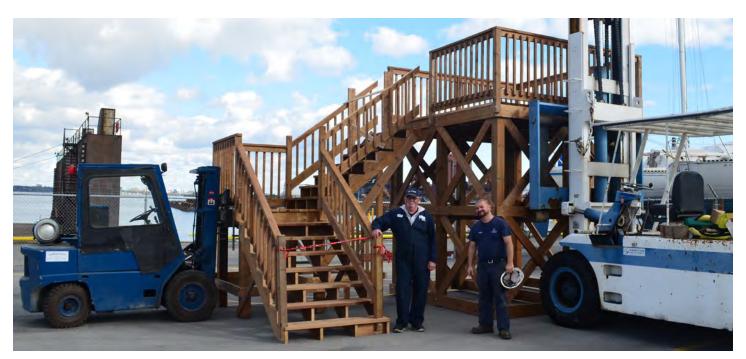


Existing Public Access to Waterfront through lookout.



Potential Public Access to Waterfront through "Window to the Lake", Boardwalk or lookout.

Note: Information contained in this figure is for illustrative purposes only to inform the analysis and development of the Bayfront Industrial Area Renewal Strategy and Action Plan



Waterfront lookout platform recently built at Hamilton Port Authority building. Hamilton, Ontario. Credit: Hamilton Port Authority



Appendix "B" to Report PED14117(d) Page 37 of 90

5.2 Gateways

Gateways are important entry points into unique areas within a City. Their main role is to identify and highlight a distinct area. Gateways are important urban design tools as they help to create a wayfinding feature, enhance the overall public realm and create an identity and foster a sense of place. Existing gateways in the Bayfront Industrial Area offer little in place making and identifying prominent geographical and built environment features. There are two hierarchies of gateways proposed for the Bayfront: major and minor and they vary in scale and complexity.

Major gateways often contain features such as signage, lighting, architectural forms, special landscaping, and are often along major arterial roads. Three potential major gateways have been identified, with two found along Nikola Tesla Boulevard and Burlington Street East, and the third located between Beach Road and the QEW.

Minor gateways provide a more subtle sense of arrival to an area which is often achieved with simple signage and landscaping. Several potential minor gateways have been identified for north-south roads intersecting along the southern edge of the study area.

The following potential major and minor gateways shown on Figure 4: Mapping of Potential Gateways, identify areas with key entrances to the Bayfront Industrial Area.



Example of Gateway, Distillery District. Toronto, Ontario. Credit: Gilberto Mesquita



Figure 4
Mapping of Potential Gateways





Potential Major Gateway Feature (Signage, Lighting, Architectural Feature, Landscaping)



Potential Minor Gateway Feature (Signage, Landscaping)

Note: Information contained in this figure is for illustrative purposes only to inform the analysis and development of the Bayfront Industrial Area Renewal Strategy and Action Plan



Example of a major type gateway feature, Sands Casino. Bethlehem, Pennsylvania. Credit: Michael D. Tedesco



5.2.1 Major Gateway

Guideline 1. Major gateways should be provided at the prominent entrances and exits in the Bayfront along the Burlington Street East / Nikola Tesla Boulevard corridor.

Guideline 2. Major gateway locations should share a common theme or design element to mark the ends of the Bayfront Industrial Area.

Guideline 3. Elements for the major gateways may include but are not limited to: signage, native planting, feature lighting, public art, or architectural details that are reflective of the character of the Bayfront.

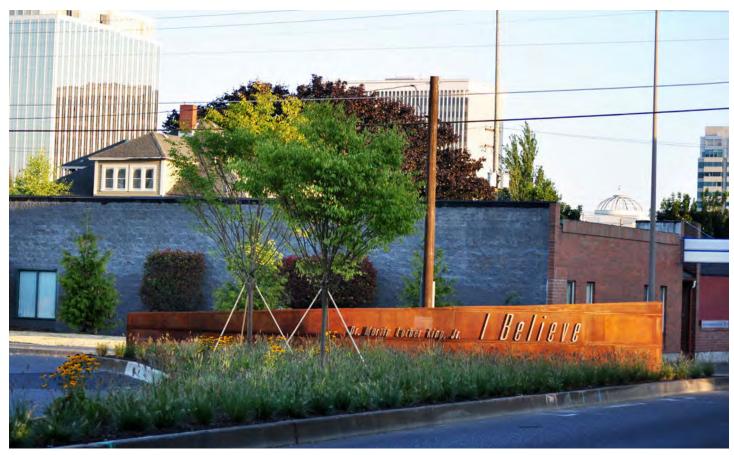
Appendix "B" to Report PED14117(d) Page 39 of 90

5.2.2 Minor Gateway

Guideline 1. Minor gateways should be provided at entrances to the Bayfront along the north/south connector roads.

Guideline 2. Minor gateways should have a common theme or design elements.

Guideline 3. Elements for the minor gateways may include but are not limited to: signage, native planting and feature lighting.



Example of a minor type gateway feature, Martin Luther King Jr. Blvd. Portland, Oregon. Credit: 2.ink Studio





Example of wayfinding and interpretative signage, Evergreen Brickworks. Toronto, Ontario. Credit: Debbie Adams



Wayfinding

The wayfinding in the Bayfront is predominantly arterial road related and automobile oriented. The addition of an additional layer of information, perhaps one that is more of scale geared towards pedestrians or cyclists would help to bring clarity and efficiency to the area and create a unified look. Having a cohesive range of wayfinding signage is an easy way to bring an identity to an area, and create an environment which visitors feel safe traversing since they have a better idea of where they are going. Wayfinding can be applied throughout the Bayfront wherever there is access on the public road right-of-way.

Important Views and Vistas

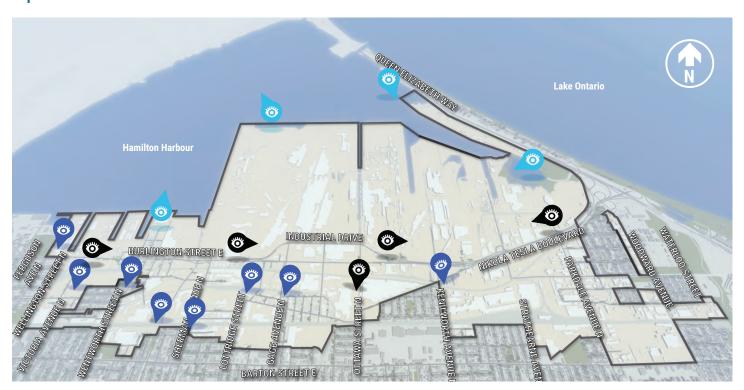
There is a variety of views of, from and within the Bayfront which are important and require consideration. The view of the Bayfront is one of the first glimpses of Hamilton that you see when you arrive over the Skyway Bridge. There are also internal views from the Bayfront to the waterfront, to the Niagara Escarpment along north/south roads and of iconic industrial infrastructure synonymous

with the area from or over the road. View corridors to the waterfront should be enhanced since they are few and far between. Opening up locations for public access to take advantage of views, providing areas/infrastructure for lookouts, allowing public access are all strategies to improve waterfront views. View corridors to the Escarpment should be protected. No new infrastructure or buildings should inhibit views to the escarpment. Views of infrastructure should be enhanced and preserved. Overhead infrastructure is synonymous with the area. Existing infrastructure should be kept in good working and visual condition. Obsolete infrastructure, if safety is maintained should be kept as visual elements. There are also opportunities to enhance views with public art applied to infrastructure. Views should also be opened and enhanced towards landmarks.

Refer to **Figure 4: Important Views and Vistas** to see locations for important views and vistas to be preserved, protected or enhanced. This represents the long term vision for the Bayfront and some of the illustrated views will be accomplished sooner than others.



Figure 5
Important Views and Vistas





Maintain views of iconic industrial overhead infrastructure.



Protect views of the Niagara Escarpment.



Enhance views to and from the water.

Note: Information contained in this figure is for illustrative purposes only to inform the analysis and development of the Bayfront Industrial Area Renewal Strategy and Action Plan



View of the escarpment and industrial infrastructure from Burlington Street East. Hamilton, Ontario.

Credit: Dillon Consulting



View of the industrial waterfront. Hamilton, Ontario. Credit: Dillon Consulting



5.3 Streetscapes

Streetscape Improvements

Improving the streetscapes is one effective way to bring visible change to the Bayfront. Many visitors experience the Bayfront from the road network, and much of it has the appearance of requiring improvements and repairs. The pedestrian experience also is limited. There are two hierarchies of streetscape improvements that were suggested: major and minor. Major streetscaping may be used along Nikola Tesla Boulevard / Burlington Street East and could include the following improvements: landscaping, street trees, accommodation of active transportation facilities, pedestrian amenities such as benches, and, incorporation of wayfinding or cultural interpretation signage where appropriate.

Minor streetscaping could occur on the various north-south streets which connect to the major arterial road and into the rest of the city and could include improvements such as: landscaping, accommodation of active transportation amenities, and inclusion of pedestrian amenities. Refer to **Figure 5: Streetscape Improvements** to see locations for streetscape improvements.

Figure 6 Streetscape Improvements



Potential Major Streetscaping Improvements (Greening, Street Trees, Active Transportation, Pedestrian Amenities, Wayfinding / Cultural Interpretation Signage.)

Potential Minor Streetscaping Improvements (Greening, Active Transportation, Pedestrian Amenities)

Note: Information contained in this figure is for illustrative purposes only to inform the analysis and development of the Bayfront Industrial Area Renewal Strategy and Action Plan



Appendix "B" to Report PED14117(d) Page 43 of 90



Example of potential streetscape imporvements along proposed future LRT corridor. Hamilton, Ontario. Credit: Dillon Consulting

There are a variety of streetscapes currently in the Bayfront with different functions. Over time their functions and needs will evolve which will spark a desire for a different design approach. An example of this new approach is entitled Complete-Livable-Better (CLB) Streets and it balances the needs of multiple modes and users throughout the right-of-way placing priority of pedestrian and active transportation movement. This approach is also contextually based on elements that can be added or removed depending on the location. The City of Hamilton has developed their own Complete Liveable Streets Design Manual and guidelines have been aligned to comply with this document.

Typologies that are present within the Bayfront Industrial Area include: Industrial Roads, Connectors and Neighbourhood Streets. However, depending on context, there are certain typologies which require different variations in order to better respond to the conditions in the Bayfront. The typologies have also been explored in cross section to best highlight the elements that are being proposed in each corridor. There are six cross sections in total and the elements and layout are described in the following sections. Refer to Figure 7: Street Typologies for a map showing the location of each typology in the Bayfront.

5.3.1 Industrial Roads

Industrial Roads are important goods movement corridors. They are major streets that cross the Bayfront in an east-west direction providing access into the Bayfront Industrial Area. Access is provided for all modes of travel to industrial, warehouses, and other employment areas. Industrial Roads are designed to accommodate higher vehicle capacities, including goods movement, as well as transit vehicles, cyclists and pedestrians.

The City's CLB Design Manual has identified Burlington Street east of Wellington to be an Industrial Road. There is a transition between highly residential on the west side, to heavy industrial through the Bayfront and then there is a transition to the QEW / highway right-of-way.

Guideline 1. Transit is accommodated in mixed traffic.

Guideline 2. Bike lanes, cycle tracks or multi-use paths provided for active transportation.

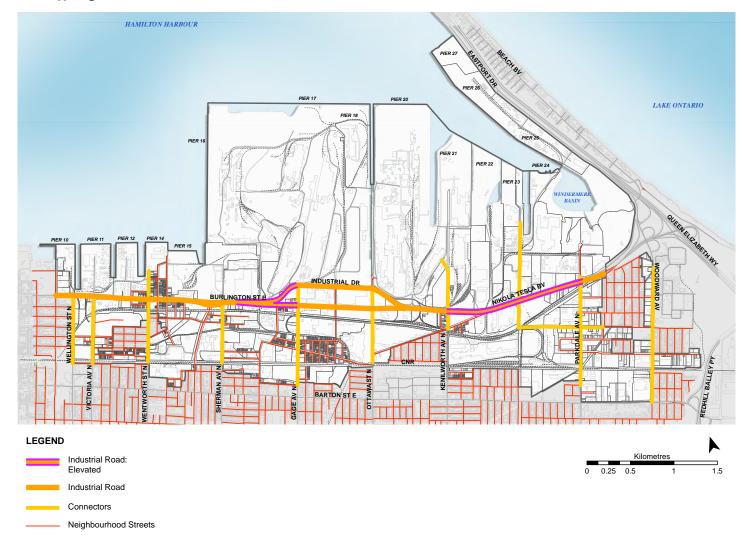
Guideline 3. Provide mid-block pedestrian crossings as well as crossing opportunities at intersections.

Guideline 4. No on street parking in order to facilitate efficient movement of goods.

Guideline 5. Sidewalks or multi-use paths provided on both sides of the street.



Figure 7
Street Typologies





Elevated / At Grade Condition

This particular typology represents the portion of the remaining elevated portion of Nikola Tesla Boulevard. The aim is to accommodate the required elements while also treating and transforming the underutilized portion underneath the infrastructure. The goal is to successfully maintain the efficient movement of goods, while also providing an interesting experience underneath the elevated portion through improved hardscaping, treating the large blank walls with public art murals, and/or providing interesting under infrastructure lighting along the underside of the elevated roadway.

Appendix "B" to Report PED14117(d) Page 45 of 90

At key locations, additional amenities such as benches additional lighting, landscaping and tree planting will also help to improve the microclimate of the area and the feeling of comfort for pedestrians and public space users. Refer to Figure 16 Structural Aesthetics for potential under infrastructure aesthetic locations for a map showing where the potential aesthetic treatments are as well as intersections for potential additional public space.



Figure 8: Industrial Road (Elevated) - General Condition



Figure 9: Industrial Road (Elevated) - Additional Public Realm Condition (at key intersections)



Appendix "B" to Report PED14117(d) Page 46 of 90

At Grade Condition

This particular typology is meant to represent the Industrial Road / Burlington Street East sections of the road right-of-way which is entirely at grade. Generally this occurs to the west of Ottawa Street North. It is assumed that the Wilcox Street portion of the elevated expressway will be removed in the future as directed by the City, therefore this condition will also be considered at-grade. Currently the area is characterized by two lanes of traffic in both directions, and a centre turning lane that is interrupted briefly by a landscaped median. There is a sidewalk only on one side.

There is the possibility of making the travel lanes and/or the centre median narrower in order to accommodate the cycling facilities and adequate pedestrian amenities. Adding swales will help to mitigate higher rainfall events and will improve the microclimate.

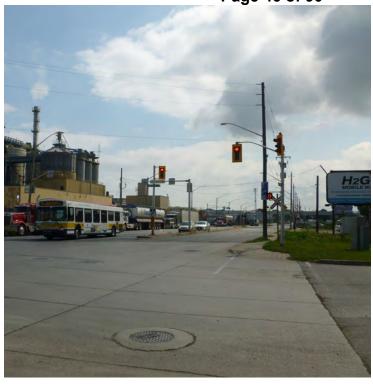




Figure 10: Industrial Road - At Grade Condition

5.3.2 Connector

Connector roads connect residential neighbourhoods to other parts of the city. In this case the connector roads are the roads that connect to Burlington Street East / Nikola Tesla Boulevard and run southward towards Barton and into the more commercial and residential parts of the city to the south of the Bayfront Industrial Area. They provide direct connections through the industrial area to the main east-west arterials to the north and south and have a higher capacity than local streets. They should be able to support active transportation and pedestrian movement and should also offer landscaping and trees to buffer adjacent uses.

Guideline 1. Right of way width is between 20 to 30 metres.

Guideline 2. Typically sidewalks are located on both sides of the right of way, or a multi-use trail with pedestrian amenities.

Guideline 3. Landscaping should include curb-side mature tree plantings.

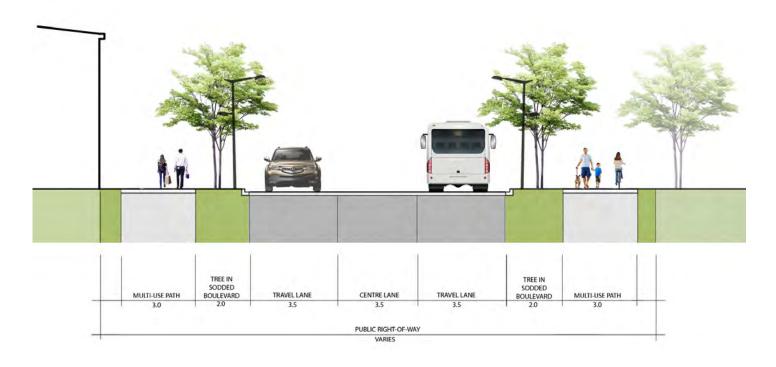


Figure 11: Connector Street



5.3.3 Neighbourhood Streets

This street typology has the function of providing direct access to residential areas. They usually have lower traffic volumes and are largely used by people within the community. Neighbourhood Streets should be able to provide safe movement for cyclists and pedestrians and provide an extensive and mature street tree canopy.

Guideline 1. Goods movement is to be limited on Neighbourhood Streets.

Guideline 2. Sidewalks are to be on both sides of the street and cyclists share the road with motorists.

Guideline 3. Street trees are to be planted on both sides of the road to foster a mature canopy.

The evolution of the Bayfront has created differing conditions with areas that have a mix of employment uses directly abutting residential uses.

Mixed Industrial

Throughout this typology there should be sidewalks on both sides with wider sidewalks on the residential side. Street trees should be provided on both sides, and on street parking will be permitted only on the residential side of the street.

Appendix "B" to Report PED14117(d) Page 48 of 90

Residential

The residential only Neighbourhood Street will have sidewalks on both sides as well as tree planting in order to achieve mature street tree canopy coverage. Street parking can occur on both sides of the street.

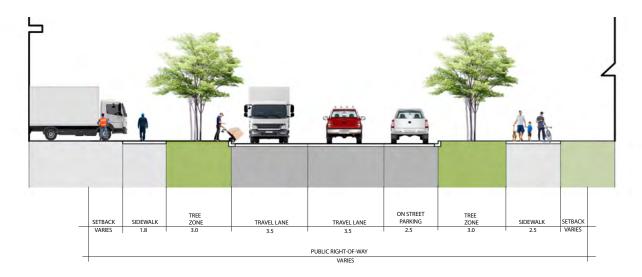


Figure 12: Neighbourhood - Mixed Industrial





Figure 13: Neighbourhood - Residential Only

Trails and Connections

There are numerous opportunities to connect to the existing and proposed trail and cycling networks within the Bayfront. Due to the limited nature of the existing and available public open space, the active transportation and trails are the key connectors to the existing and proposed trails and cycling facilities

such as to the Waterfront Trail network and then to the proposed extension to the Pipeline Trail at the south east end of the site. There are also opportunities to utilize decommissioned rail lines for trails.



Example of urban cycling infrastructure. Indianapolis, Indiana. Credit: Indianapolis Convention and Visitors Association



Example of recreational cycling along a former rail corridor, the Atlanta Beltline. Atlanta, Georgia. Credit: Atlanta Beltline

5.4 Road Safety

In general, there is a need to make improvements throughout the street network in order to minimize conflicts between different modes of traffic and to reduce further risk of conflict between truck, transit, pedestrian and active transportation traffic. It should also be noted that the network should strive for Universal Accessibility and elements in the following sections should be designed to be AODA compliant.

5.4.1 Cycling & Pedestrians

According to the Ontario Traffic Manual Book 18, all roadways are considered to be shared roadways (with cyclists) unless cycling is specifically restricted. Therefore it should be important to make sure that cyclists have at least the basic levels of safety throughout the Bayfront. In some cases where appropriate this would be removing the cyclists from the travelled portion of the road.

Guideline 1. Roads that truly should not carry cyclists should be signed appropriately.

Guideline 2. Off and on-road cycling facilities should be provided where appropriate and should align with the City of Hamilton Transportation Master Plan.

Guideline 3. Adequate pedestrian connections should be made from transit facilities to points of interest and connecting into private businesses.

Appendix "B" to Report PED14117(d) Page 50 of 90

5.4.2 Crossings and Pedestrian Facilities

Crosswalks

According to the Ontario Traffic Manual Book 15 Pedestrian Crossing Treatments, safety between motorized and non-motorized is directly related to the amount of interaction between pedestrians, cyclists and motorized vehicles.

Guideline 1. Crossings should be provided at intersections and mid-block to avoid illegal road crossings by pedestrians.

Guideline 2. Consolidate and space out crossing appropriately to reduce pedestrian and vehicle conflict.

Guideline 3. Reduce the distance of the pedestrian crossings to allow for more time to cross the road lanes.

Guideline 4. Sidewalks where applicable should not be overly narrow or located directly adjacent to traffic.

Guideline 5. Crossings should be well lit and should have clear sightlines free from vegetation or objects.



Example of cycling track adjacent road. Shenzhen, Guangdong Province. Credit: Sorbis



Railway Crossings

The presence of active rail lines in the area trigger a need for adequately designed at grade or physically separated crossings for railways. Railway companies are responsible for any and all facilities located within the rail line right-of-way. Municipalities or road authorities are responsible for the area that leads up to the railway right-of-way.

Guideline 1. Pedestrian railway crossings should be smooth, continuous and slip resistant.

Guideline 2. Crossings should be clearly defined so that users know where to cross.

Guideline 3. There should be adequate signage, a level crossing and a separation between motorized and non-motorized movement at the rail crossings.

Guideline 4. The minimum width for a pedestrian crossing is 1.5 metres.

Guideline 5. Passive or active devices may be used to assist pedestrians depending on the conditions such as fencing, swing gates, barriers, pavement markings and signage. Additional active devices may be needed such as flashing lights, automated gates, signals, etc.

Guideline 6. Wherever feasible, a gradeseparated crossing of a rail line is preferred.

Appendix "B" to Report PED14117(d) Page 51 of 90

Paving within the Right-of-Way

Within certain typologies or near gateways there lies an opportunity to utilize higher quality paving materials such as unit pavers to add to the aesthetic.

Guideline 1. Paving materials require a high degree of strength and resilience to withstand heavy truck traffic due to the employment nature of the Bayfront.

Guideline 2. Paving treatments (both on and off road) should be resilient to winter maintenance practices (salt and snow clearing).

Guideline 3. Roads should be maintained on an adequate schedule to ensure that road surfaces which have deteriorated (large cracks and potholes) should be repaired to prevent hazards to drivers.



Example of clear separation between motorized and non-motorized movement, Zhongshan Shipyard Park. **Zhongshan City, Guangdong Province. Credit: Turenscape**



Example of clearly marked crossings, Grace Hospital. Winnipeg, Manitoba. Credit: Leif Norman



5.6 Parks & Open Spaces

Considering the current open space dynamic (approx. 4%), it is important to develop strategy to include buffering lands along with spaces that are tied to the overall public realm. Many of these areas may act as landscape buffers to conflicting land uses; however these areas also offer an important opportunity to create active transportation connections and a more integrated community.

Appendix "B" to Report PED14117(d) Page 52 of 90 Public Open Space – Improvements and New Spaces

When areas of potential change come up for redevelopment, it is strongly suggested that some type of public open space be incorporated to help provide employees and/or residents with additional amenities. The areas on the map show existing parks and the symbols are located within the boundaries of the areas of potential change to show how to provide more equitable access throughout the Bayfront. These spaces could be more urban or greener depending on the context of the redevelopment. Refer to Figure 13: Public Open Space - Improvements and Potential New Spaces to see locations of existing and potential conceptual locations for public open spaces based on spatial organization and future development potential.

Figure 14
Public Open Space - Improvements and Potential New Spaces





Potential opportunities to improve existing public spaces.



Potential locations for public spaces following redevelopment in intensification areas.

Note: Information contained in this figure is for illustrative purposes only to inform the analysis and development of the Bayfront Industrial Area Renewal Strategy and Action Plan



5.6.1 Landscape

Guideline 1. The landscaping elements throughout the Bayfront in the public realm should be high-quality as well as distinctive and thematic to unify the visual character of the area and provide sense of place.

Guideline 2. The landscape elements should support and enhance the natural heritage and ecology of the area by designing natural groves of trees, using low impact development techniques (bioswales/rain gardens), and selecting low maintenance native plant species.

Guideline 3. The landscapes in the parks and open spaces should achieve a regulated microclimate for users of the space by providing shelter and shade.

Guideline 4. Landscape elements should include native plantings for pollinators in order to support the City of Hamilton's goal of becoming a 'Bee City' as well as to support local biodiversity.

Guideline 5. Natural features, parks, and landscaped areas should be linked wherever possible to enhance connectivity and create an overall linked network including connecting to Windermere Basin and the Waterfront Trail.

Appendix "B" to Report PED14117(d) Page 53 of 90

5.6.2 Paving

Guideline 1. Where appropriate a variety of high quality paving materials are to be used including unit paving type systems.

Guideline 2. Pedestrian paths in parks and amenity areas should aim to be permeable to slow stormwater runoff during intense rain events.

Guideline 3. Paving should be able to withstand the weight of a regular truck to facilitate year round maintenance.



Outdoor amenity space in business park. Brussels, Belgium. Credit: Nate Hovee



Appendix "B" to Report PED14117(d) Page 54 of 90



Example of an industrial rain garden, Totem Ocean Trailer Express, Tacoma, WA. Credit: Katie Campbell



Example of unified visual character of the area creating a sense of place, James E. Clyburn Research Center. Charleston, South Carolina. Credit: Seamon Whiteside + Associates

5.6.3 Outdoor Open / Amenity Space

Guideline 1. Employment and transitional uses should provide access to appropriately scaled outdoor amenity areas for employees, visitors, and in some cases residents to use where applicable.

Guideline 2. Amenity spaces should be connected to a pathway system or pedestrian network to promote accessibility.

Guideline 3. Amenity spaces should have appropriate seating.

Guideline 4. Design of amenity spaces should be aesthetically pleasing and comfortable to users.

Appendix "B" to Report PED14117(d) Page 55 of 90

5.6.4 Active Transportation Connections

Guideline 1. Road rights-of-way and public open spaces should provide connections and amenities to support active transportation (commuter/recreational) such as sidewalks, multi-use pathways and bicycle lanes where applicable.

Guideline 2. Pathways that connect and run through the parks and open spaces are to be barrier free.

Guideline 3. Pathways should be lit with pedestrian scaled lighting and should be clearly marked to define the route and extent of the space.



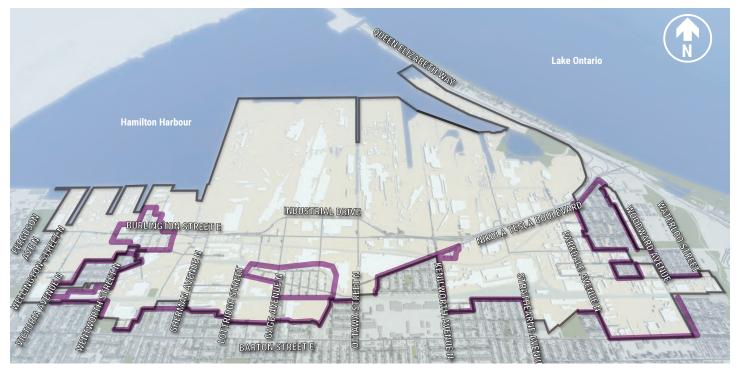
Employee outdoor amenity area with seating, landscaping and shade, McDonald's Headquarters. Chicago, IL. Credit: Garrett Rowland



Buffer Area Improvements

During consultation it has been noted that there have been land use compatibility issues between residential and industrial uses. Interventions can be accomplished both publicly (within the public right-of-way) and privately (incentives for private owners). Treatments could include landscape screening (tall grasses, shrubs and trees), decorative fencing, or murals. Refer to Figure 14: Buffer Area Improvements to see where the buffer areas exist and are located.

Figure 15 Buffer Area Improvements



Potential Special Treatment of 'Edge' Zones between Residential and Industrial Uses. Landscaping, Murals, Screening Trees.

Note: Information contained in this figure is for illustrative purposes only to inform the analysis and development of the Bayfront Industrial Area Renewal Strategy and Action Plan



Appendix "B" to Report PED14117(d) Page 57 of 90

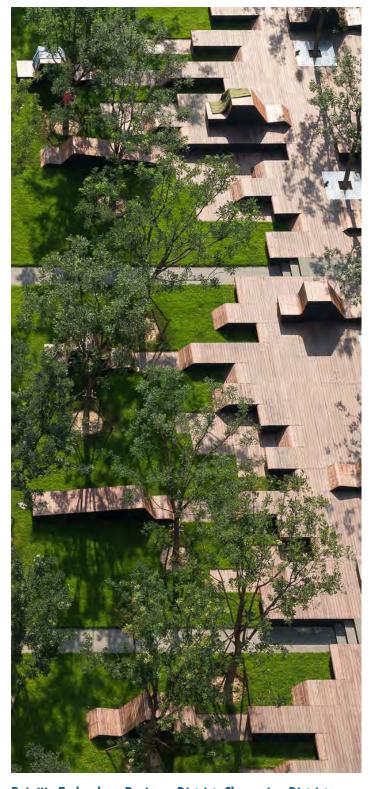


Example of decorative grasses as privacy element to screen industrial uses.



Example of decorative mural to screen industrial uses.





Beiqijia Technology Business District. Changping District, Beijing. Credit: Martha Schwartz Partners



Grand Mall Park. Yokohama, Kanagawa. Credit: STGK Inc.

Appendix "B" to Report PED14117(d) Page 59 of 90

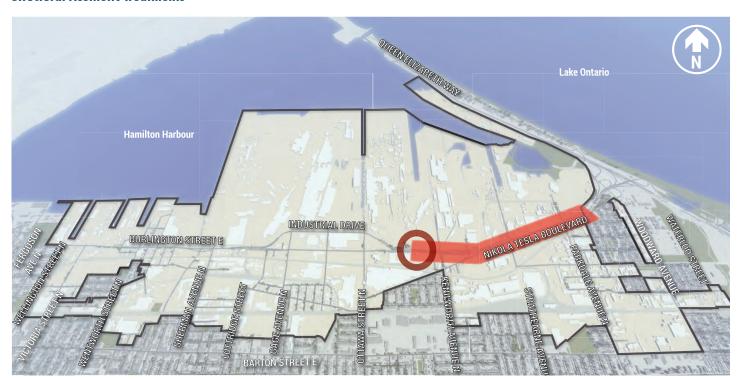
Structural Aesthetic Treatments

One of the things that make the Bayfront unique is the express / collector type overpass structure that comprises Nikola Tesla Boulevard / Burlington Street. Many use the upper portion to move through the Bayfront quickly and efficiently. Those who require local access, and access to the businesses in the east end of the study area will use the ground level road system. The area underneath the structure is utilitarian and there are pockets of underutilized space which could provide an opportunity for a protected public open space. The spaces currently are largely hard concrete areas, with little lighting and no greenery. These spaces

represent a blank canvas. Along the length of the elevated roadway, there is an opportunity to apply interesting aesthetic treatments such as lighting and murals.

At key locations there may be opportunities to further develop the space as long as it does not create conflict between pedestrians and roadway uses. These potential pockets of public space could also include plantings (where appropriate) and furnishings. Refer to **Figure 15: Structural Aesthetic Treatments**.

Figure 16
Structural Aesthetic Treatments





Potential Underpass Aesthetic Treatments, Murals, Lighting etc.



Potential Public Open Space Improvements, Seating, Planting etc.

Note: Information contained in this figure is for illustrative purposes only to inform the analysis and development of the Bayfront Industrial Area Renewal Strategy and Action Plan



Appendix "B" to Report PED14117(d)
Page 60 of 90



Example of revitalized space underneath overhead infrastructure, The Bentway. Toronto, Ontario. Credit: Stephanie Braconnier



Example of revitalized space underneath overhead infrastructure, Wabash Lights. Chicago, Illinois. Credit: Jack C. Newell

5.7 Public Art

Opportunities for Public Art

Public art is another way for municipalities to bring stronger identities or stronger sense of place to an area. Art helps connect people to spaces and areas, and they also help to be informal wayfinding features for people in the area. The Bayfront has such an interesting history of development that there are numerous ways it can be represented in public art. The theme can also be reflective of the particular neighbourhood or event that is contextually significant. Public art could potentially be located in the gateways as well as in the existing and new public spaces.

One part of the objectives outlined in the Bayfront Strategy is to tell the Bayfront's story through public art, there is also a recommendation to undertake a Public Art Program which would help to finalize types, themes and locations of public art in the Bayfront. There are different types of public art which can be incorporated into the landscape.

5.7.1 Sizes and Types of Public Art

Small to Medium Public Art

There are a number of different small to medium scale public art elements that can be included in the design for the Bayfront. Small to medium public art installations are placed with emphasis on context and have the opportunity to become more interactive. Some types of treatments could include but are not limited to:

- Paving treatments interesting paving treatments or painted images on sidewalks, roads and hardscape plazas.
- Murals images painted on or affixed to existing walls or infrastructure such as large blank wall faces or on silos (e.g. Granville Island concrete plan.).
- Temporary / movable installations this type of art is easily placed and is interactive with the public. They are placed in public spaces and can be moved (e.g. A Kit of Parks portable park kit).



"The Dancers" art sculpture. Denver, Colorado. Credit: photo-ua



- Aesthetic treatment of infrastructure there are numerous ways public art can be included on new or existing infrastructure. Concrete impressions can be used for new walls or barriers and sculptural elements can be affixed to existing ones (e.g. Rt. Hon. Herb Gray Parkway).
- Permanent interactive public art these are elements that are fixed within the public realm and the public can interact with it. They are often incorporated into furnishings or have unique features like interesting lighting or waterplay. (e.g. The Bean, Chicago).
- Medium sized installations this type of art are located in public spaces and are less interactive and more visual. They are also considered permanent or semi-permanent. (e.g. the book in Celebration Square, Mississauga).

Large Scale Public Art

 Gateways – public art is often used in gateways, especially near significant transportation infrastructure which acts as a visual cue. Elements are very often large, overhead and/or vertical which act as a marker (e.g. Sands casino, Bethlehem Pennsylvania).

5.7.2 Locations

Guideline 1. Selection of sites should be conducted in consultation with internal and key stakeholders and the public and should be placespecific.

Guideline 2. Public art should be included in public areas with high pedestrian usage and multimodal visibility, especially at gateway locations and in open spaces.

Guideline 3. 'Art in Public Places' such as donated art, community art, integrated, art and art on publicly accessible private property is encouraged.

Appendix "B" to Report PED14117(d) Page 62 of 90

Guideline 4. Public art should create sense of place and contribute to the identity of the area.

Guideline 5. Public art should contribute to a more aesthetically pleasing transitions between residential areas and employment / industrial uses.

Guideline 6. Where possible, art should be interactive and seamlessly integrated into the public spaces or natural areas.

Guideline 7. Art should be appropriate and sensitive to the context (larger, vertical installations integrated at the major gateways, small to medium art placed in public spaces and on publicly accessible, privately owned open space.)

5.7.3 Curation, Installation and Implementation

Guideline 1. New capital projects throughout the Bayfront, especially at key intersections or high pedestrian areas should incorporate public art within their budget.

Guideline 2. Pieces that are highly visible or significant should be selected through a design competition process in order to highlight and support local artists (where desired) and promote the creativity and inspiration of the Bayfront.

Guideline 3. Public art installations should be multi-functional where appropriate, and have complementary and interesting grading, landscape elements or lighting. They should also be durable and low-maintenance.



Appendix "B" to Report PED14117(d) Page 63 of 90



Example of contextually themed public art, Evergreen Brickworks. Toronto, Ontario.

Credit: Ferruccio Sardella



Example of contextually themed public art, Evergreen Brickworks. Toronto, Ontario.

Credit: Sean Deckert/Calnicean Projects





6 PRIVATE REALM GUIDELINES

6.1 What is the Private Realm

The private realm includes lands that are owned and maintained by private individuals or businesses. Essentially lands that are beyond the property-line / road-right-of way are considered the private realm.

The Bayfront's private realm includes many culturally significant properties and structures. Wherever possible, adaptive reuse should be used in the redevelopment of properties. Preserving the unique industrial heritage elements through adaptive reuse can help highlight how industries have influenced and shaped our present and future. Retention and adaptive reuse of historic buildings within the Bayfront is the preferred method for private development.

It should be noted that Legal Non-Conforming Residential uses have not been addressed in this section due to their transitional nature.

This section will focus on the private realm and the specific employment and employment related land uses in the Bayfront.

6.1.1 Land uses in the Bayfront

This document will focus on six main private land uses in this chapter:

- Prestige Industrial;
- General Industrial;
- Warehousing and Logistics;
- Office;
- Supporting Commercial & Retail; and,
- Arterial Related Commercial.

Appendix "B" to Report PED14117(d) Page 65 of 90

6.1.2 Exploring the Land Use Guidelines in 3D

This document will be using a 3D approach to illustrate how the various land use specific guidelines can be applied to a simple axonometric model, essentially illustrating how to achieve them and what the quick wins are in terms of urban design. There are models to depict each of the various land uses that are or will be present in the Bayfront Industrial Area and how to apply the guidelines accordingly.

6.1.3 Land Uses and Character Areas

The previous chapter outlined the various character areas. This section will discuss the various land uses and will indicate which character area(s) the land use is most likely to be found within. Some land uses may be found within more than one character area.

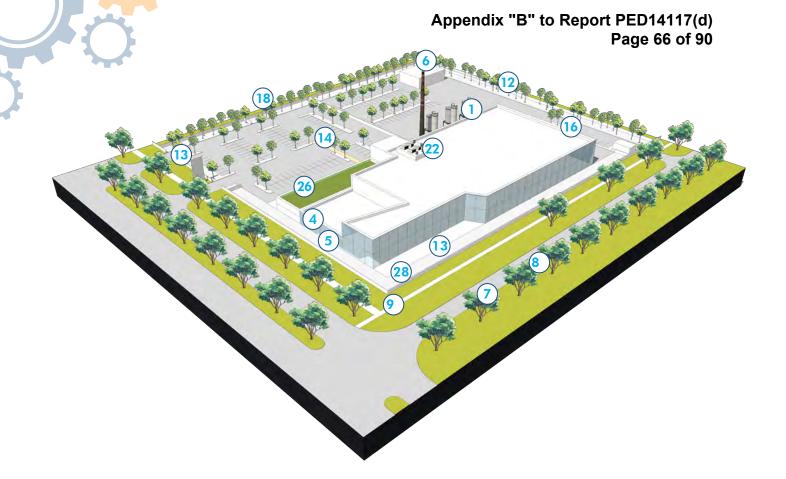
6.2 Prestige Industrial

6.2.1 Description and Use

Prestige Industrial sites are important in revitalizing the economic viability and maintaining and enhancing the continued employment growth in the Bayfront. Design of these facilities will vary based upon the specific needs of the property owner and the types of production occurring on site. There will be no outdoor storage on Prestige Industrial sites with an emphasis on high quality operations and clean industries (manufacturing and production.) Prestige industrial properties are to be designed to a higher standard than General Industrial sites. Better site design leads to better efficiency in production. The standards and guidelines related to light industrial sites and should be applied with flexibility for contextual and functional needs.

Prestige Industrial sites are encouraged to be located in highly visible locations such as near gateways and along Transitioning Avenues such as Burlington Street. Prestige Industrial Areas can be found within any of the character areas as long as it's visible.





Massing and Density (page 61)

1

Material Palette (page 62)



Landscape and Amenity Areas (page 62)

7 8 9 11 12 13

Parking and Circulation (page 63) 14 16 20

Loading & Service Areas (page 63)

Building Design (page 63)



Security (page 63)



Figure 17: Example depiction of Prestige Industrial

6.2.2 Massing and Density

Guideline 1. Industrial components of the building and site should be located to the rear of the site.

Guideline 2. Building heights are governed by the city's Zoning By-law and should reflect the nature of the operations and use.

Guideline 3. Security building may be required upon entry to properties.

6.2.3 Material Palette

Guideline 4. The main office and visitor entry should be designed with high quality materials and architectural treatments.

Guideline 5. Steel, corten steel, aluminum, wood, copper, concrete and glass should be considered as cladding material in order to highlight and reflect the area's industrial heritage. Efforts should be made to reduce the use of non-characteristic materials such as stucco.

Guideline 6. Ancillary buildings should provide similar design qualities to the office components of building.

6.2.4 Landscape and Amenity Areas

Guideline 7. A minimum of 15% of the area must be landscaped, and one tree for every five parking spaces should be provided with adequate soil volume for optimal tree health.

Guideline 8. 60 % of the lot perimeter should be landscaped with buffer planting / screening/ street trees.

Guideline 9. Landscaping and street trees should not obstruct important views to main building components for visibility and should also not obstruct sightlines into or out of site access points.

Guideline 10. Apply high quality and decorative landscape planting and paving treatments to complement the building frontage.

Guideline 11. Prominent entry points and private outdoor amenity areas should use different paving materials and treatments and provide pedestrian scaled lighting.

Guideline 12. Landscape buffers should also be encouraged to screen loading areas and service areas in the rear of Prestige properties.

Guideline 13. Where applicable water features or art installations should be incorporated into the landscape of a Prestige site.

6.2.5 Parking and Circulation

Guideline 14. Provide raised walkways (minimum 1.5 metres) around perimeter of buildings where they abut drive aisles, parking and service areas.

Guideline 15. Entrances to parking and loading areas will be located on local streets and should be located to minimize the number of entry points to maximize building frontage and minimize the number of curb cuts.

Guideline 16. Employee parking and transport should be separated from visitor parking areas.

Guideline 17. Loading circulation must be designed to allow for the least amount of conflict between pedestrians.

Guideline 18. Screen parking from public view using landscaping.



Appendix "B" to Report PED14117(d) Page 67 of 90

6.2.6 Loading & Service Areas

Guideline 19. Screen waste bins from public view using solid screens compatible in materials and colour to the principal structure or in-ground waste management containers/system.

Guideline 20. Loading and waste management areas should not conflict with on-site visitor or public vehicular circulation.

Guideline 21. Transformers and other outdoor mechanical systems or equipment, and other items of poor visual quality are to be screened by the use of masonry walls in approved high quality finish or mature and dense landscaping materials.

Guideline 22. All rooftop mechanical equipment shall be concealed by screening in a manner compatible with the architectural character of the building or concealed by incorporating it with the building roof so that it is not seen from ground level. Such equipment shall be painted or prefinished consistent with the colour scheme of the building.

6.2.7 Building Design

Guideline 23. Vertical design elements should be prominent and offer interest through special lighting and display features.

Guideline 24. Orient all building entrances along the primary street and provide direct access to pedestrian walkways.

Guideline 25. Buildings should aim to achieve a high level of green building or sustainable design certification.

Guideline 26. Large building roofs should encourage the use of green roof technology where possible.

6.2.8 Security and Fencing

Guideline 27. Security gates (if needed) should be located at the primary site entrance.

Guideline 28. Decorative walls (if needed) shall be designed to be consistent with the architecture of the primary building and include landscaping, lighting, and other elements to enhance their visual impact on the public realm.

6.3 General Industrial

6.3.1 Description and Use

The General Industrial sites capture the majority of the existing uses within the Bayfront. They are and will continue to be important for economic stability and growth. General Industrial sites will function as a general catch-all for a variety of industrial uses as well as acting as a hybrid of a retail and industrial space, each of these properties will provide for large exhibition spaces for equipment as well as supporting office and administrative uses. This will also be supported by large parking areas to allow for employee and customer parking, as well as outdoor display and/or storage of heavy machinery and product. These properties are large and will attract regional, national and international patrons. The standards and guidelines related to these sites should be applied with flexibility to contextual and functional needs. General Industrial sites may have large areas for outdoor storage and may have access to rail or port infrastructure.

General Industrial Sites should largely be situated within the **Heavy Industrial** and **Working Waterfront** character areas. Any that are within the **Light and Support Industries** or **Transitional Area** may look to be phased to a less intense use over time.

6.3.2 Massing and Density

Guideline 1. Building heights shall conform to the city's Zoning By-law and will be appropriate for the use and operation contained within.

Guideline 2. Office areas (if applicable) in the building will have maximum exposure to surrounding streets.

Guideline 3. Office components of the building/site may differ than that of the active industrial operations. Opportunities exist to create a pedestrian scale building that welcomes visitors.

Guideline 4. Security buildings may be required upon entry to properties.

Guideline 5. Ensure that buildings, storage and operations on sites allow for views towards Lake Ontario.

Appendix "B" to Report PED14117(d) Page 68 of 90

6.3.3 Material Palette

Guideline 6. Provide glazing along building frontage to ensure visibility indoors and provide a chance for the public to watch active industrial operations (where appropriate).

Guideline 7. The main office and/or visitor area should be designed with high quality materials and architectural treatments. Steel, corten steel, aluminum, wood, copper, concrete and glass should be considered as cladding material in order to highlight and reflect the area's industrial heritage. Efforts should be made to reduce the use of non-characteristic materials such as stucco.

Guideline 8. Ancillary buildings should provide similar design qualities to the office component.

6.3.4 Landscape and Amenity Areas

Guideline 9. Landscaping and street trees should not obstruct important views to main building components for visibility and should also not obstruct sightlines into or out of site access points.

Guideline 10. Apply high quality and decorative planting and paving treatments to complement the building.

Guideline 11. Prominent entry points and outdoor amenity areas should use different paving materials and treatments and provide pedestrian scaled lighting.

Guideline 12. Provide raised walkways (minimum 1.5m) around perimeter of buildings where they abut drive aisles, parking and service areas.

Guideline 13. Ensure shade trees are used for parking and landscape zones. One tree for every five parking spaces should be provided with adequate soil volume for optimal tree health.

Guideline 14. Landscape buffers should be encouraged to screen outdoor storage and loading areas.

Guideline 15. Large building roof areas should be designed with green roof technology, where possible.



Appendix "B" to Report PED14117(d) Page 69 of 90 12 1 12 1 23 24 4 11 25 9

Massing and Density (page 64)

124

Material Palette (page 64)

678

Landscape and Amenity Areas (page 64)

9 (11) (12) (14) (15)

Parking and Circulation (page 65)

17 18

Loading and Storage (page 65)

22)

Building Design (page 66)

23 24

Safety and Security (page 66)



Signage (page 66)



Figure 18: Example depiction of General Industrial

6.3.5 Parking and Circulation

Guideline 16. Entrances to parking and loading areas should be located to minimize the number of entry points to maximize building frontage and minimize the number of curb cuts required.

Guideline 17. Loading circulation must be designed to allow for the least amount of conflict between vehicles and pedestrians.

Guideline 18. Employee parking and transport should be separated from visitor parking areas to maintain security.

Guideline 19. Screen parking from public view using landscaping.

6.3.6 Loading and Storage

Guideline 20. Screen loading and storage areas from public view using building mass, freestanding walls and landscaping.

Guideline 21. Screen waste bins from public view using solid screens compatible in materials and colour to the principal structure or in-ground waste management containers/system.

Guideline 22. Transformers, storage tanks and other outdoor mechanical systems or equipment, and other items of poor visual quality are to be screened by the use of masonry walls in approved finish or mature and dense landscaping materials.

Guideline 23. All rooftop mechanical equipment shall be concealed by screening in a manner compatible with the architectural character of the



building or concealed by incorporating it with the building roof so that it is not seen from ground level. Such equipment shall be painted or prefinished consistent with the colour scheme of the building.

6.3.7 Building Design

Guideline 24. Buildings generally shall not be greater than 100 metres in length.

Guideline 25. Orient all primary building entrances to public areas and primary streets as well as direct access to pedestrian walkways.

Guideline 26. Street oriented building façades shall be designed with higher quality material and architectural definition.

6.3.8 Security and Fencing

Guideline 27. Security gates (if required) should be located at the primary site entrance and must not obstruct the road or sidewalks when in use.

Guideline 28. Decorative walls or fences (if required) shall be designed to be consistent with the architecture of the primary building and include landscaping, lighting, and other elements to enhance their visual impact on the public realm.

Guideline 29. Outdoor storage areas should be appropriately fenced to protect assets and avoid trespass, but should still allow visual interaction to reflect the industrial character of the Bayfront.

Appendix "B" to Report PED14117(d) Page 70 of 90

6.3.9 Signage

Guideline 30. Signage should be placed at site entry points and be designed with a similar architectural style as the primary building.

Guideline 31. Incorporate signage that complements, and is consistent with, the overall building design and material palette.

Guideline 32. Permanent signage should be designed with an appropriate scale and be clearly visible from the street while not overwhelming the site.

Guideline 33. A maximum of 1 sign should be added to each entry point to reduce signage clutter.

Guideline 34. Signage should be appropriately lit for nocturnal visibility and exposure.

Guideline 35. Appropriate fencing and signage should be included between the rail corridor and the regular circulation areas within the site to avoid unauthorized access and hazards.

Guideline 36. Outdoor storage areas should be appropriately signed to protect assets and avoid trespass.

Guideline 37. Landscape buffers to screen rail lines must maintain a min. 3 metres ROW on each side to prevent any obstructions to rail use operations.



6.4 Warehouse & Logistics

6.4.1 Description and Use

The Warehouse and Logistics format is designed to provide community storage, distribution, and packaging services in the Bayfront. These building sites are often designed with production and shipping efficiency, generally supported by a large warehouse building as well as ancillary office or administration uses on-site. They also provide generous hardscape areas for continued truck traffic and manoeuvring. The standards and guidelines related to the warehouse and distribution typology sites should be applied with flexibility to specific contextual and functional needs.

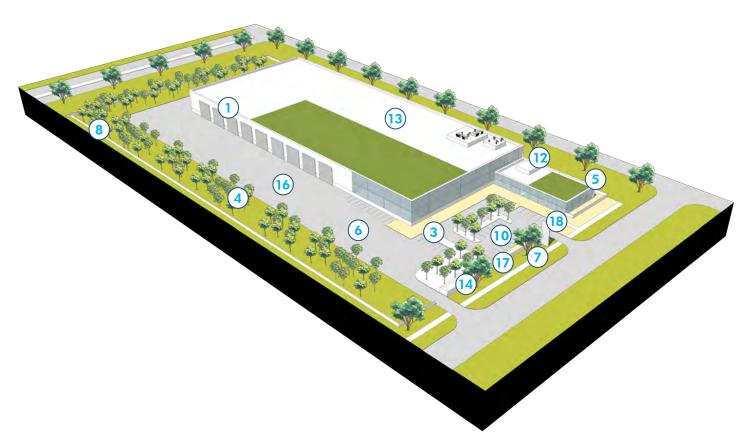
Appendix "B" to Report PED14117(d) Page 71 of 90

Warehousing and Logistics should largely be situated within the **Heavy Industrial** and **Light and Support Industries** areas.

6.4.2 Massing and Density

Guideline 1. Building heights shall conform to the city's Zoning By-law and should be appropriate for the use and operations such as (warehouse, office, ancillary uses.)

Guideline 2. Warehouse building components may be taller in order to necessitate the use. Administration buildings may be shorter as required.



Massing and Density (page 67)



Landscape and Amenity Areas (page 68)



Loading and Storage (page 68)



Building Design (page 68)



Security and Fencing (page 68)



Signage (page 68)



Parking and Circulation (page 68



Figure 19: Example depiction of Warehousing & Logistics



6.4.3 Landscape and Amenity Areas

Guideline 3. Prominent entry points and outdoor amenity areas should use different paving materials and treatments and provide pedestrian scaled lighting.

Guideline 4. Landscape buffers should be encouraged to screen outdoor storage yards and loading areas. One tree for every five parking spaces should be provided with adequate soil volume for optimal tree health.

Guideline 5. Landscaping and street trees should not obstruct important views to main building components for visibility and should also not obstruct sightlines into or out of site access points especially access points for truck logistics.

6.4.4 Parking and Circulation

Guideline 6. Loading circulation must be easy and clear to navigate through the site and allow for the least amount of conflict between pedestrians, employees and visitors.

Guideline 7. Screen parking from public view using landscaping.

6.4.5 Loading and Storage

Guideline 8. Screen loading and storage areas from public view using building mass, freestanding walls and landscaping.

Guideline 9. Screen waste bins from public view using solid screens compatible in materials and colour to the principal structure, or use in-ground waste management containers/system.

Guideline 10. Loading and waste management areas should not conflict with on-site visitor or public vehicular circulation.

Appendix "B" to Report PED14117(d) Page 72 of 90

Guideline 11. Transformers, storage tanks and other outdoor mechanical systems or equipment, and other items of poor visual quality are to be screened by the use of masonry walls in approved finish or mature and dense landscaping materials.

Guideline 12. All rooftop mechanical equipment shall be concealed by screening in a manner compatible with the architectural character of the building or concealed by incorporating it with the building roof so that it is not seen from ground level. Such equipment shall be painted or prefinished consistent with the colour scheme of the building.

6.4.6 Building Design

Guideline 13. Buildings generally shall not be greater than 100 metres in length.

Guideline 14. Security building to be placed at entry point and support control access if required.

6.4.7 Security and Fencing

Guideline 15. Security gates (if required) should be located at the primary site entrance and must not obstruct the road or sidewalks when opening/closing.

Guideline 16. The overall site area including parking, amenity areas, and pedestrian circulation should be free from physical barriers.

Guideline 17. Decorative walls (if required) shall be designed to be consistent with the architecture of the primary building and include landscaping, lighting, and other elements to enhance their visual impact on the public realm.

6.4.8 Signage

Guideline 18. Maximum of 1 sign should be added to each entry point, to reduce signage clutter and confusion.

Guideline 19. Signage should be appropriately lit for nocturnal visibility and exposure.



6.5 Office

6.5.1 Description and Use

Office buildings should be located within high profile sites along highly visible roads and locations within the Bayfront Industrial Area. Development for Office land use will require a higher design standard to help create an environment to attract and support businesses and related industries. The standards and guidelines relating to built form, architectural detail, and site plan design, including aspects such as site access, parking, landscaping and pedestrian amenities.

Office uses should be situated within the **Light and Support Industries** and **Transitional Areas**.

6.5.2 Massing and Density

Guideline 1. Building heights shall conform with the city's Zoning By-law and should be appropriate for the use and operation.

Guideline 2. Ensure adjacent buildings relate in terms of scale, height and configuration.

Guideline 3. Floor to ceiling heights should reflect the needs of office and administrative uses.

Guideline 4. Screen mechanical penthouses and integrate into the design of the buildings. Green roofs, blue roofs, solar capture equipment and/or cool roofing materials shall be encouraged.

Guideline 5. Upper floors of mid-rise buildings should be set back from the walls of the building facing a street or open space.

6.5.3 Material Palette

Guideline 6. A variety and well-proportioned mixture of exterior building materials and colours should be used to create visual interest and to avoid monotony, but must be consistent with a palette of materials approved for the Bayfront Industrial Area.

Appendix "B" to Report PED14117(d) Page 73 of 90

Guideline 7. Exterior building materials should consist of those that are high quality, durable, economically-maintained, and of a quality that will retain their appearance over time. Steel, corten steel, aluminum, wood, copper, concrete and glass should be considered as cladding material in order to highlight and reflect the area's industrial heritage.

Guideline 8. Create interest using colour; lighting; incorporate energy efficient or green architecture design or elements which are visible from public spaces; incorporate artistic elements; and/or, utilize signage as an animating device.

6.5.4 Landscape and Amenity Areas

Guideline 9. Outdoor amenity spaces associated with office developments generally shall be located and designed to function as a public space and shall be accessible from the street and adjoining development parcels, where feasible. Where ground level amenity space cannot be accommodated, rooftop patio spaces should be considered with accompanying gardens and plantings.

Guideline 10. Landscaping and street trees should not obstruct important views to main building components for visibility and should also not obstruct sightlines into or out of site access points. One tree for every five parking spaces should be provided with adequate soil volume for optimal tree health.

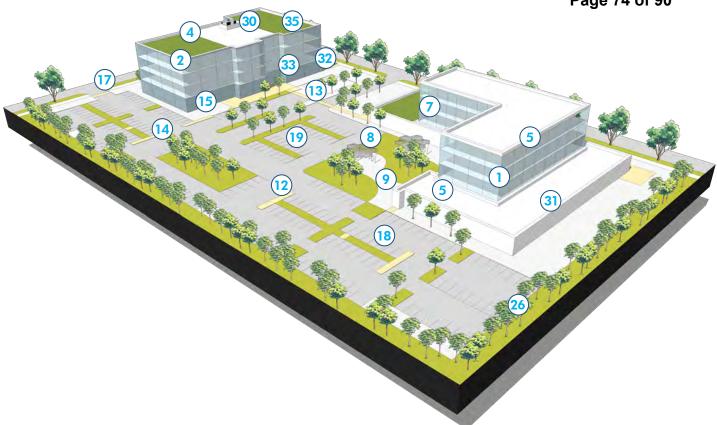
Guideline 11. All site amenities should be an integral part of the overall design, rather than an undeveloped parcel, stormwater facility, or unusable perimeter buffer.

Guideline 12. Provide well-defined, clearly identifiable and safe pedestrian movements. This shall be achieved through different paving materials, colours, special landscape treatments, pedestrian-scale lighting (e.g., lighted bollards).

Guideline 13. Provide direct pedestrian linkages from the sidewalk to main entrances visible from the street.



Appendix "B" to Report PED14117(d) Page 74 of 90



Massing and Density (page 69)

1245

Material Palette (page 69)

78

Landscape and Amenity Areas (page 69)

9 12 13 14 15

Parking and Circulation (page 70)

17)(18)(19

Loading and Storage (page 71)

26 30

Building Design (page 71)

(31) (32) (33) (35

Figure 20: Example depiction of Office

Guideline 14. Provide direct pedestrian linkages from parking areas to building entrances.

Guideline 15. Provide raised walkways (minimum 1.5 metres wide) around the perimeter of all buildings where they abut driveway aisles, parking and service areas, except at overhead or loading doors. Ramps and curb depressions shall be provided in appropriate locations to allow for barrier-free access to buildings.

Guideline 16. Link pedestrian systems in a continuous network internal to the site, to public sidewalks, and to adjacent sites, where feasible.

6.5.5 Parking and Circulation

Guideline 17. Entrances to parking and servicing areas generally shall be on local streets and should be consolidated in order to maximize and accentuate building frontages and/or front yards and minimize the number of curb cuts required. Shared driveways and parking ramps between two properties shall be encouraged.

Guideline 18. Locate parking servicing to the side or rear of buildings, where the building itself screens them from view. Screen parking from view using landscaping.

Guideline 19. Encourage visitor parking that is easily accessible to the main entrance.



Guideline 20. Provide shared vehicular access between sites where possible.

Guideline 21. Surface parking shall be permitted at the rear or sides of buildings.

Guideline 22. Pedestrian access and entryways to parking structures shall be clearly identified and well lit.

Guideline 23. Adequate provision for on-site parking for employees and visitors should be provided, based on the nature and scale of activities planned.

Guideline 24. Visitor parking shall be located convenient to administration and office areas.

Guideline 25. Truck parking areas shall be separate from car parking areas.

6.5.6 Loading and Storage

Guideline 26. Screen loading and storage areas from public view using building mass, freestanding walls and landscaping.

Guideline 27. Screen waste bins from public view using solid screens compatible in materials and colour to the principal structure, or use in-ground waste management containers/system.

Guideline 28. Loading and waste management areas should not conflict on-site visitor or public vehicular circulation.

Guideline 29. Transformers, storage tanks and other outdoor mechanical systems or equipment, and other items of poor visual quality are to be screened by the use of masonry walls in approved finish or mature and dense landscaping materials.

Guideline 30. All rooftop mechanical equipment shall be concealed by screening in a manner compatible with the architectural character of the building or concealed by incorporating it with the building roof so that it is not seen from ground level. Such equipment shall be painted or prefinished consistent with the colour scheme of the building.

Appendix "B" to Report PED14117(d) Page 75 of 90

6.5.7 Building Design

Guideline 31. Buildings generally shall not be greater than 80 metres in either direction. Long buildings shall break up their perceived mass with evenly spaced vertical recesses or other articulation and/or changes material.

Guideline 32. Orient all primary building entrances to directly access the sidewalk.

Guideline 33. Design building entrances to be prominent in the façade using techniques such as height, massing, overhang, shadow, punctuation and/or change in roof line.

Guideline 34. Divide façades vertically to be consistent with traditional bays and building widths.

Guideline 35. Building roof areas should be designed with accessible and useable green roof technology and amenity spaces where possible.

6.5.8 Security and Fencing

Guideline 36. Security gates should be located at the primary site entrance and must not obstruct the road or sidewalks when in use.

Guideline 37. The overall site area including parking, amenity areas, and pedestrian circulation should be free from physical barriers.

Guideline 38. Decorative walls shall be designed to be consistent with the architecture of the primary building and include landscaping, lighting, and other elements to enhance their visual impact on the public realm.



Supporting Commercial + Retail

6.6.1 Description and Use

Supporting Commercial & Retail sites are located within residential and commercial blocks. They are often located at the intersections of two streets and provide local commercial services for the nearby community. Designed to be a hospitable place each neighbourhood commercial site will look to prominently address the street and provide adequate parking for the suggested floor area.

Appendix "B" to Report PED14117(d) Page 76 of 90

Commercial sites are expected to vary in scale based upon their location in the Bayfront Industrial Area. Development should be designed to complement the surrounding architectural quality and aesthetic. The standards and guidelines related to neighbourhood commercial sites should be applied with flexibility to contextual needs.

Support Commercial & Retail uses should be situated within the Light and Support Industries and Transitional Areas.



Massing and Density (page 73)



Material Palette (page 73)



Landscape and Amenity Areas (page 73



Parking and Circulation (page 73



Loading and Storage (page 73



Building Design (page 74



Signage (page 74)



Figure 21: Example depiction of Supporting Commercial + Retail



6.6.2 Massing and Density

Guideline 1. Commercial and support uses heights shall conform to the city's Zoning by-law.

Guideline 2. Ensure building massing and heights relate to adjacent buildings.

Guideline 3. Provide periodic breaks in the building wall to allow for connections and views towards the rear parking areas.

Guideline 4. Provide articulation to the building through varying heights at corners and site entry points.

Guideline 5. Floor to ceiling heights should reflect the appropriate use and operation of the commercial and support use.

Guideline 6. Rooftop mechanical equipment should be placed away from highly visible locations and the street.

6.6.3 Material Palette

Guideline 7. Exterior building materials should provide some visual interest and avoid monotony.

Guideline 8. Ensure that the palette complements surrounding development materials and colours.

Guideline 9. Create interest by applying higher quality materials at highly visible locations, including corners and site entry points.

6.6.4 Landscape and Amenities

Guideline 10. Landscaping and street trees should not obstruct important views to main building components for visibility and should also not obstruct sightlines into or out of site access points.

Guideline 11. Prominent entry points and outdoor amenity areas should use different paving materials and treatments and provide pedestrian scaled lighting.

Guideline 12. Provide clear pedestrian linkages from parking areas to the buildings.

Appendix "B" to Report PED14117(d) Page 77 of 90

Guideline 13. Provide raised walkways (minimum 1.5 metres) around perimeter of buildings where they abut drive aisles, parking and service areas.

Guideline 14. Ensure shade trees are used for parking landscape zones. One tree for every five parking spaces should be provided with adequate soil volume for optimal tree health.

Guideline 15. Provide landscape integration of streetscape design and support of street trees.

6.6.5 Parking and Circulation

Guideline 16. Entrances to parking and loading areas should be located to minimize the number of entry points to maximize building frontage and minimize the number of curb cuts required.

Guideline 17. Shared driveways between adjacent properties should be encouraged.

Guideline 18. Locate parking to the rear of the site, with minimal visibility to streetscape. Provide landscape screening for parking where visible from the street.

Guideline 19. Loading circulation must be easy and clear to navigate through the site and allow for the least amount of conflict between pedestrians.

6.6.6 Loading and Storage

Guideline 20. Screen loading and storage areas from public view using building mass, freestanding walls and landscaping.

Guideline 21. Screen waste bins from public view using solid screens compatible in materials and colour to the principal structure, or in-ground waste management containers/system.

Guideline 22. Loading and waste management areas should not conflict with on-site visitor or public vehicular circulation.



Guideline 23. Transformers, storage tanks and other outdoor mechanical systems or equipment, and other items of poor visual quality are to be screened by the use of masonry walls in approved finish or mature and dense landscaping materials.

Guideline 24. All rooftop mechanical equipment shall be concealed by screening in a manner compatible with the architectural character of the building or concealed by incorporating it with the building roof so that it is not seen from ground level. Such equipment shall be painted or prefinished consistent with the colour scheme of the building.

6.6.7 Building Design

Guideline 25. Buildings generally shall not be greater than 50 metres in either direction.

Guideline 26. Orient all primary building entrances to access pedestrian circulation walkways.

Guideline 27. Orient secondary building entrances to the street.

Appendix "B" to Report PED14117(d) Page 78 of 90

Guideline 28. Street oriented building façade should be provided with higher quality materials and architectural definition.

Guideline 29. Divide façades vertically to be consistent with unit widths and building features.

6.6.8 Signage

Guideline 30. Maximum of 1 sign should be added to each entry point, to reduce signage clutter and confusion.

Guideline 31. Signage should be appropriately lit for nocturnal visibility and exposure.

Guideline 32. Signage of commercial units should be placed with consistency in scale and location.



6.7 **Arterial Related Commercial**

6.7.1 Description and Use

The Arterial Related Commercial properties are large scale retail sites that are located along major roadways to ensure maximum visibility. These large building often exhibit larger items, such as cars and boats and that can be seen from a distance. Highway commercial sites will be designed to have both indoor and outdoor display areas depending upon the user and have exterior storage and loading bays. High quality architectural treatment is

Appendix "B" to Report PED14117(d) Page 79 of 90

encouraged to create an appealing showroom area. Site planning will vary to meet the demands of each owner with the following general components.

Arterial Related Commercial uses should be situated within the Light and Support Industries and **Transitional Areas.**



Massing and Density (page 76)

Material Palette (page 76)

(8)

Loading and Storage (page 77)

Building Design (page 77)

Signage (page 77)

Landscape and Amenity Areas (page 76)

(12)(14)(15)(17)(18)(19)(20)(21)(22)

Figure 22: Example depiction of Arterial Related Commercial



6.7.2 Massing and Density

Guideline 1. Highway commercial buildings shall conform to the city's Zoning By-law.

Guideline 2. Ensure building massing and heights relate to adjacent buildings.

Guideline 3. Ancillary buildings and structures should be designed to accommodate the appropriate use and operations.

Guideline 4. Interesting and dynamic glazing and façade treatments should be encouraged along the street frontage.

Guideline 5. Floor to ceiling heights are typically 6-10 metres (retail mezzanine).

Guideline 6. Rooftop mechanical equipment should be placed away from highly visible locations and the public street.

6.7.3 Material Palette

Guideline 7. Building frontage (along most highly visible façade) should be designed and treated with high quality materials and architectural detail.

Guideline 8. Provide a minimum of 80% glazing along building frontage to ensure visibility indoors.

Guideline 29. Steel, corten steel, aluminum, wood, copper, concrete and glass should be considered as cladding material in order to highlight and reflect the area's industrial heritage. Efforts should be made to reduce the use of non-characteristic materials such as stucco.

Guideline 9. Ensure that side and rear façade materials complements surrounding development materials and colours.

Guideline 10. Ancillary buildings should be consistent with the design quality of the primary retail building.

Appendix "B" to Report PED14117(d) Page 80 of 90

6.7.4 Landscape and Amenity

Guideline 12. Apply high quality and decorative landscape planting and paving treatments to complement the building frontage.

Guideline 13. Landscape design should create visual interest without blocking display areas.

Guideline 14. Landscaping and street trees should not obstruct important views to main building components for visibility and should also not obstruct sightlines into or out of site access points.

Guideline 15. Create outdoor paved exhibit areas that are integrated as part of the site frontage.

Guideline 16. Incorporate low impact development practices such as using native, drought, pest and disease resistant vegetation.

Guideline 17. Ensure landscape zones provide storm-water runoff and on-site infiltration.

Guideline 18. Prominent entry points and outdoor amenity areas should use different paving materials and treatments and provide pedestrian scaled lighting.

Guideline 19. Provide clear pedestrian linkages from parking areas to the buildings.

Guideline 20. Provide raised walkways (minimum 1.5 metres) around perimeter of buildings where they abut drive aisles, parking and loading areas.

Guideline 21. Ensure shade trees are used for parking and landscape zones. One tree for every five parking spaces should be provided with adequate soil volume for optimal tree health.

Guideline 22. Large building roofs should encourage the use of green roof technology where possible.



6.7.5 Parking and Circulation

Guideline 23. Entrances to parking should be located to minimize the number of entry points to maximize building frontage and minimize the number of curb cuts required.

Guideline 24. Shared driveways between adjacent properties should be encouraged.

Guideline 25. Locate retail parking along the side of primary retail buildings with minimal visibility to streetscape. Provide landscape screening.

Guideline 26. Loading circulation must be easy and clear to navigate through the site and reduce conflicts with pedestrian circulation.

6.7.6 Loading and Storage

Guideline 27. Screen loading and storage areas from public view using building mass, freestanding walls and landscaping.

Guideline 28. Screen waste bins from public view using solid screens compatible in materials and colour to the principal structure, or in-ground waste management containers/system.

Guideline 29. Loading and waste management areas should not conflict with on-site visitor or public vehicular circulation.

Guideline 30. Transformers, storage tanks and other outdoor mechanical systems or equipment, and other items of poor visual quality are to be screened by the use of masonry walls in approved finish or mature and dense landscaping materials.

Guideline 31. All rooftop mechanical equipment shall be concealed by screening in a manner compatible with the architectural character of the building or concealed by incorporating it with the building roof so that it is not seen from ground level. Such equipment shall be painted or prefinished consistent with the colour scheme of the building.

Appendix "B" to Report PED14117(d) Page 81 of 90

6.7.7 Building Design

Guideline 32. Buildings generally shall not be greater than 50 metres in either direction.

Guideline 33. Orient all primary building entrances along the primary frontage with direct connections to pedestrian walkways and sidewalks.

Guideline 34. Street oriented building façades shall provide higher quality material and architectural definition, including a minimum of 80% glazing.

Guideline 35. Signage should be placed at site entry points and be designed with a similar architectural style as the primary building.

Guideline 36. Vertical design elements should be prominent and offer interest through special lighting and display features

6.7.8 Signage

Guideline 37. Incorporate signage into the overall building design style and material palette.

Guideline 38. Permanent signage should be designed to be of an appropriate scale with clear visibility along from the street.

Guideline 39. Maximum of 1 sign should be added to each entry point, to reduce signage clutter and confusion.

Guideline 40. Signage should be appropriately lit for nocturnal visibility and exposure.



7 QUICK WINS



7 QUICK WINS

At over 1600 hectares, transformation of the Bayfront will take decades. And while the transformation for the area as a whole is expected to take time, there are a number of the design ideas expressed in this document which can be applied in the short term. The following section illustrates a few examples of how modest public and private investments in tree planting, landscaping, public art and active transportation infrastructure can help to initiate momentum over the short term.



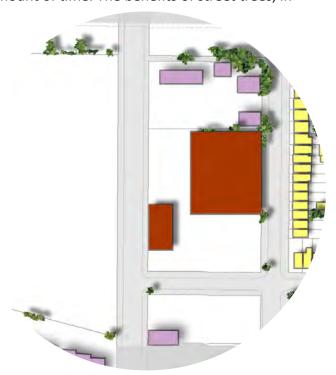
Example of industrial building adaptive reuse in the Westinghouse HQ Building. Credit: mcCallumSather



7.1 Public Realm Improvements

There are interventions which the City can begin to apply within the publicly accessible right-of-way which will begin to visually and physically transform the Bayfront.

Something as simple as the introduction of continuous street trees where appropriate can, if installed with the right tools and techniques can be very effective at making a big impact in a little amount of time. The benefits of street trees, in



Existing Conditions







Appendix "B" to Report PED14117(d)

In addition to street trees, the introduction of bioswales and/or rain gardens will also help with immediate visual aesthetics as well as slowing and storing stormwater instead of directing it to municipal sewer infrastructure.



Quick Win - Streetscaping



Examples of streetscaping and low impact development techniques (rain gardens, bioswales) Credit: Left: SCAPE, Buffalo Niagara Medical Campus | Middle: Gautier+Conquet Architects, France | Right: Dan Wendt, Chicago MWRD

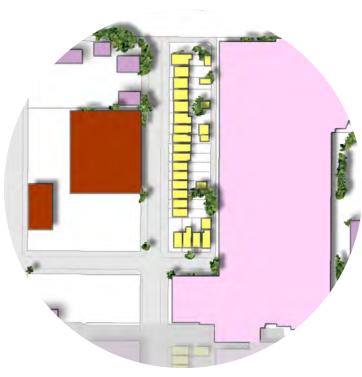


7.2 Private Realm Improvements

As a complement to the interventions which the City can accomplish along the right-of-way, there are simple and effective interventions which private industry can be encouraged to undertake (through incentives or grants) in order to help with transitions between uses or along the public right-of-way, especially those which historically may have had compatibility issues in the past (industrial uses adjacent to residential uses).

Appendix "B" to Report PED14117(d) Page 85 of 90

Artistic murals along long blank walls or on external equipment or storage features are a creative way to soften and lighten the transition with little to no space. Another is the use of decorative fencing for visual screening and security, and the other is the use of visual buffer or screening landscaping with taller bushes, hedges or grasses.



Existing Conditions



Quick Win - Decorative Fencing, Murals Screening Landscape







Examples of visual screening techniques, murals, decorative fencing and adaptive reuse of heritage industrial buildings. Credit: Left: Arthur Lierman Landscape Architecture | Middle: Ameristar | Right: Industryous Photography



Appendix "B" to Report PED14117(d) Page 86 of 90



Existing Condition at Kenilworth Ave. N and Burlington St. E. Credit: City of Hamilton



Visual depiction of above area with layered small scale improvement options (e.g. infrastructure mural, decorative fencing and streetscape enhancements.) Credit: City of Hamilton



Appendix "B" to Report PED14117(d) Page 87 of 90



Existing Condition at Kenilworth Ave N. and Dofasco. Credit: City of Hamilton



Visual depiction of above area with layered small scale improvement options (e.g. infrastructure mural, decorative fencing and streetscape enhancements.) Credit: City of Hamilton



Appendix "B" to Report PED14117(d) Page 88 of 90



Panorama of Existing Condition at Princess Street and Sherman Ave. N. Credit: City of Hamilton



Visual depiction of above area with layered small scale options (e.g. building mural, decorative /screening planting and streetscape enhancements.) Credit: City of Hamilton



Appendix "B" to Report PED14117(d) Page 89 of 90

