

## Urban Design Brief

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## 1 Introduction

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WMTA is pleased to submit the enclosed Site Plan Application on behalf of the federal Department of Fisheries and Oceans for redevelopment of their Canadian Coast Guard Station, located at 114 Division Street in the Town of Cobourg. This Urban Design Brief demonstrates how the proposal meets the Town of Cobourg municipal policies related to Urban Design, Landscape Design, Community Design and Sustainability.

## 2 Site + Neighbourhood Context

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The site is located on the east pier of Cobourg Harbour, at municipal address 114 Division Street in the Town of Cobourg, Ontario. The lot is leased from the Town of Cobourg, and consists of two parcels: a fenced-in parcel to the east containing Search and Rescue Station buildings; and a concrete pier to the west, forming part of the east pier of Cobourg Harbour, where the Canadian Coast Guard (CCG) boat is moored. Road access is via Division Street, which extends from downtown Cobourg through a municipal parking lot. Refer to the Appendix for lease area plan.



**Figure 1: Site context**

### **Surrounding Context**

The subject property is in an area largely defined by leisure and recreational activities. The site is also near the commercial functions of downtown Cobourg. The following is a summary of adjacent land uses and buildings:

**North:** Immediately north of the subject property is a municipal parking lot, through which access to the site is gained. Slightly east of the parking lot is a seasonal campground. Beyond the parking lot, to the north, are several condominiums and commercial mixed-use buildings containing restaurants, shops and offices. Further north is the commercial core of Cobourg, which is characterized by low scale mixed-use buildings containing retail and other uses.

**East:** Directly east of the subject property is the municipal beach, which includes a concession stand, playground, sports facilities, picnic area and band shell. An east-west oriented boardwalk connects the beach to the harbour area. North east of the beach is a mixed neighbourhood including offices, institutional and recreational uses.

**South:** Immediately south of the subject property is the East Pier, which encloses Cobourg Harbour (located to the west). The pier is a publicly accessible, municipally-owned infrastructure.

**West:** Immediately west of the site is Cobourg Harbour and Marina. To the north of the harbour is a pedestrian promenade and municipal park flanked by two, three and four storey condominium developments.

### 3 The Project

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The project entails replacement of the existing Canadian Coast Guard (CCG) marine Search and Rescue Station (SAR).

The existing lot parcels contain several buildings, including: a one-story dwelling, a one-story frame building, and a portable structure on the main parcel. The existing lot is serviced by water mains, sanitary sewer, power and communication lines. Other utilities, such as gas and storm sewer, are not available onsite. Refer to the legal plan of survey dated March 2017 (in appendix) and Figure 1 (below) for site context in the City of Cobourg. The related accessory buildings located on the pier include: a workshop/garage, garden shed and hydrographic station.

Redevelopment will include demolition and removal of existing buildings, including the detached dwelling, portable office, detached garage, and accessory buildings.

#### a. summary of proposed development

Located on the East Pier, the Canadian Coast Guard Search and Rescue Station is oriented to the Cobourg Harbour where the CCG dock their boat. The Station is located within a partially fenced, irregularly shaped lot, measuring approximately 80.0 m x 100.0 m. The principal entrances to the dwelling and workshop are oriented to the harbour, and have direct access from the publicly accessible pier. The area in front of these entrances will be paved. Low maintenance landscaping will be incorporated in front of the dwelling. Refer to the site plan in appendix.

The site is serviced by water mains, sanitary sewer, power and communication lines. As noted, there is no natural gas line or storm sewer, and no intention to extend these services to the property. Site development will include storm water management, lighting and signage.

#### b. design statement

Given the prominent nature of the site, the form of the building is both domestic in scale and feeling, while conveying a modern professional image for the Canadian Coast Guard. The roofline is treated as a sculptural element, with triangular forms suggestive of abstracted sails. The simple form will be legible



and easily identifiable, even from a distance. It will serve as a marker for boaters and as a visual boundary between the beach and harbour areas. The design is intended to harmonize with the character of Cobourg's Heritage Waterfront.

The building is conceived as two modules, accommodating the different functions and requirements of Coast Guard activities: namely, a two-storey residential module and a single storey garage and workshop. The modules are linked by a single storey connecting breezeway that accommodates an office and ancillary functions. While the Search and Rescue Station is a place of work, it remains a non-public facility, where no formal interaction with the public occurs.



Figure 2: View from harbour



Figure 3: View from beach

### c. Construction method + materials

Based on the Federal Government directive for all new buildings to be Net Zero Carbon Neutral ready, a *Passivhaus* design approach is being adopted for the residential wing and connecting breezeway. Given that the garage will be open to the elements for extended periods of time, a more conventional construction method is proposed here.

The exterior walls of the dwelling and breezeway will consist of wood frame structural system, with high levels of insulation required by the *Passivhaus* standard. An airtight layer will be provided, and tested with a blower door prior to finishing materials being installed. Exterior windows will be triple-glazed insulating glass units in aluminium-clad wood frames. Windows will be operable to allow for natural ventilation. Window locations are configured to allow for natural daylighting, while restricting sightlines into the building. The main floors are concrete slab on grade, with no basement. The *Passivhaus* standard means that the building will consume 80% less energy than a conventional building, and will rely primarily on sunshading and insulation to remain cool in summer months.

The exterior walls of the garage wing will be a structural steel frame, with steel stud back up wall, topped by a translucent, insulated panel system above. The translucent panel will provide diffuse, uniform natural light, and superior thermal performance on the south elevation. Conventional glazing will be provided on the north elevation. The garage door will also be a translucent, upward bi-folding

premanufactured hangar door, to provide maximum flexibility for manoeuvring the boat trailer into the garage.

Cladding materials on all modules will be light colour cement board shiplap panels, installed as a vented rain screen. Sloped metal roofs, with overhangs and drainage system will be provided throughout. A robust structural steel armature for the rain gutters will be provided to create a durable, low-maintenance solution.

#### **d. Landscape design + exterior lighting**

As noted, the area in front of the entrances will be paved. Low-growing and low maintenance landscaping will be incorporated in front of the dwelling. The fenced-in area to the sides and rear of the building will be sodded. An existing stand of mature trees will be retained. To improve site security and privacy for the CCG crews, the perimeter fence will be replaced with a prefabricated metal picket fence.

The subject site is located adjacent to the Cobourg Beach, which is considered an Environmental Constraint Area. The site contains four large mature birch trees, one mature willow tree, and a stand of three smaller birch trees. These trees will be retained and protected during construction.

The site lighting will be provided by wall mounted LED flood lights, aimed to illuminate the ground and 'wash' the walls to create a gentle glow. Reflected light from the light-coloured walls will also contribute to the site lighting, thus avoiding the appearance of security infrastructure. Dimmable controls on the lighting will enable it to be adjusted to establish a balance between adequate lighting on the ground and brightness. With this approach to lighting, the station will be a visible marker on the shoreline at night.

Crime Prevention Through Environmental Design principles have been incorporated, with improved lighting and an absence of dark concealed spaces providing a safer environment.





Figure 4: View from pier



## 4 Policy and Design Considerations

### a. Town of Cobourg Official Plan

The subject lands are designated “Public Open Space / East Pier” on Schedule F — Harbour Area, forming part of the East Pier / Victoria Park Area in the Town of Cobourg Official Plan (May 2018 Consolidation). While this area is considered underutilized, it has the potential for development of significant public uses and attractions. Development policies seek to ensure that public access to the area is maintained and maximized, while allowing for compatible public and private uses, including maintaining the Canadian Coast Guard Station on the east pier.

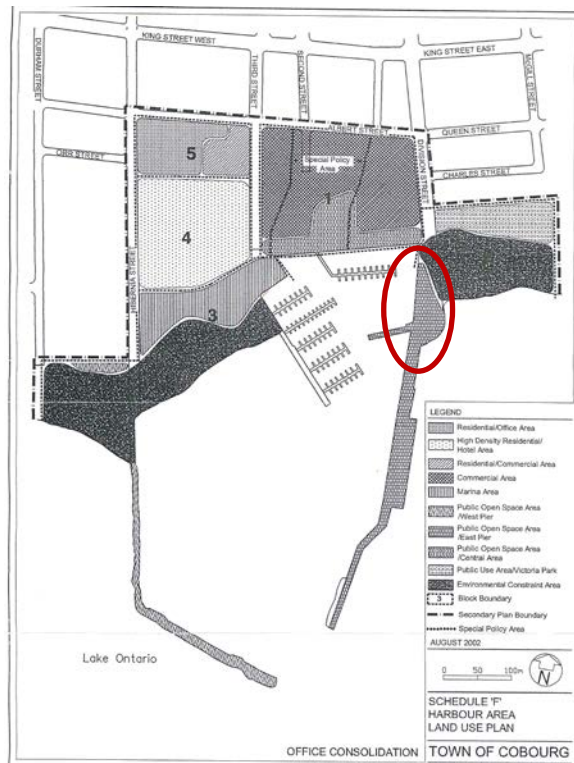


Figure 5: Schedule 'F', Harbour Area Land Use Plan.

Policy 11.5.3.2 (b) states that the present location of the Search and Rescue Station “*creates a barrier to public access to the pier,*” and suggests that the Town will initiate discussions with the Coast Guard to obtain the relocation of the facilities. While those discussions are beyond the scope of the present analysis, it is the premise of this application to redevelop the property in its current configuration. That is, the existing workshop and garden shed located on the west side of the pier will be removed, and all Coast Guard functions will be consolidated on the east side of the pier, replacing the existing assembly of buildings.

The east pier is a publicly owned asset. Through redevelopment of the CCG site and consolidation of all functions on the east side of the pier, public access to the East Pier will be maintained and the potential for redesign of the pier to attract people to this area will not be impeded by the presence of the Search and Rescue Station.

**The proposed development conforms to the policies of the Official Plan, including the policies of Section 11.5.3. The proposed development will positively contribute to the East Pier by achieving several of the Town's objectives with regards to promoting the visual attractiveness of the waterfront; enhancing the public open space; supporting development of the harbour, its marina and associated boating/tourism activities; celebrating public spaces; and supporting sustainable development.**

### **Harbour Area Secondary Plan**

The Harbour Area Secondary Plan (Section 11 of the OP) identifies key goals for continued development of the Harbour Area, including maintaining and enhancing public access to the waterfront; promoting development that supports Cobourg's economy; new design that supports and strengthens connections with the Main Central Area (located immediately north of the Harbour); and encouraging positive awareness of the Harbour as a vital part of Cobourg's downtown. The Secondary Plan assumes the continued presence of the Canadian Coast Guard on the pier.

**The design of the new Search and Rescue Station (SAR) seeks to enhance the public realm experience and key views of the downtown from the waterfront, while conveying the professional and progressive image of the Canadian Coast Guard.**

**Located within an open space area of the Harbour, and adjacent to an Environmental Constraint Area (namely, Cobourg Beach) the redeveloped SAR will provide a focal point along the waterfront, enhancing the visual appeal of the area, while respecting its environmentally sensitive surroundings. In particular, the design of the building and its site is responsive to the need to preserve the natural environment and provide for careful stormwater management.**

## **Community Design Policies**

### **views (OP 5.2.2)**

New development shall be designed to preserve, enhance and/or create significant views of the following features:

- a) Lake Ontario;
- b) view from the Harbour to the Victoria Hall Clock Tower in accordance with the requirements of the Harbour Area Secondary Plan;
- c) important institutional or other buildings;
- d) open spaces; and,
- e) natural features.

### **landscape design**

The Town shall ensure that appropriate landscaping is provided in new development and redevelopment to:

- i) maintain and enhance the character of existing developed areas;
- ii) allow for the creation of strong landscaped features in newly developing areas, including stormwater management facilities which shall be designed as important components of the Greenlands System, such that they will be incorporated in development in a manner which enhances views and access through street frontage; and,
- iii) protect and enhance environmental features and open space areas having regard for the policies of Section 4, Greenlands System.

### **safe community design**

The design, orientation and landscape and lighting plan promotes safety and security for both the public and building occupants.

To promote safety and security in public places and minimize the potential for crime urban design should result in clear, unobstructed views of areas such as parking lots, parks, public institutions and open spaces, while streetscapes should be designed to encourage active public use and natural surveillance opportunities. In particular, the following measures shall be followed:

- i) the design and siting of new buildings and structures shall provide opportunities for visual overlook and ease of public access to adjacent streets, parks and open spaces;

- ii) clear, unobstructed views to parks and open spaces shall be provided from adjoining streets;
- iii) appropriate lighting, visibility and opportunities for informal surveillance shall be provided for all walkways, parking lots, parking garages and open space areas;
- iv) landscape elements shall be selected and sited in order to maintain views for safety and surveillance;
- v) the sharing of such facilities as parking and walkways shall be encouraged to increase use and public presence in such areas;
- vi) design which promotes a sense of community ownership for public spaces by maximizing use, control and surveillance opportunities by occupants of adjacent buildings and frequency of use by the public shall be encouraged;
- vii) the provision of views into, out of and through publicly accessible interior spaces shall be encouraged; and,
- viii) design which precludes entrapment or the perception of entrapment through properly identified exits and signage shall be encouraged.

#### **external building design**

in evaluating the external design of buildings the Town shall seek design which reflects the directions in the Town's Urban Design and Landscape Guidelines and, in particular:

- i) includes sustainable building practices such as the use of green roofs and solar panels with the achievement of LEED or Energy Star or other similar certification or equivalent being encouraged;
- ii) complements the massing patterns, rhythms, character and context of adjacent existing development, while recognizing that built form evolves over time and that new buildings should not necessarily replicate existing buildings;
- iii) clearly defines public and private spaces;
- iv) is designed to incorporate the principles of universal design to ensure access and visitability for all individuals, while recognizing the need for balance where designated heritage properties and properties in Heritage Conservation Districts are involved;
- v) is in scale with surrounding development; and,
- vi) is designed to ensure that all buildings, and, in particular, any commercial, mixed use or institutional buildings are designed to animate and create a positive interface with the street through:



- a) the use of architecture and facade treatment (e.g. landmark features, recesses, projections, canopies) of the buildings, including appropriate variation in materials and textures and colours of building ;
- b) front doors and generous real windows ,or in some cases three dimensional display windows, on any major walls facing streets;
- c) strong pedestrian connections to the street, are carefully positioned to minimize impacts on the street; and,
- d) the location of outdoor activity areas (e.g. patios), landscaping and other site design elements.

### Gateway areas

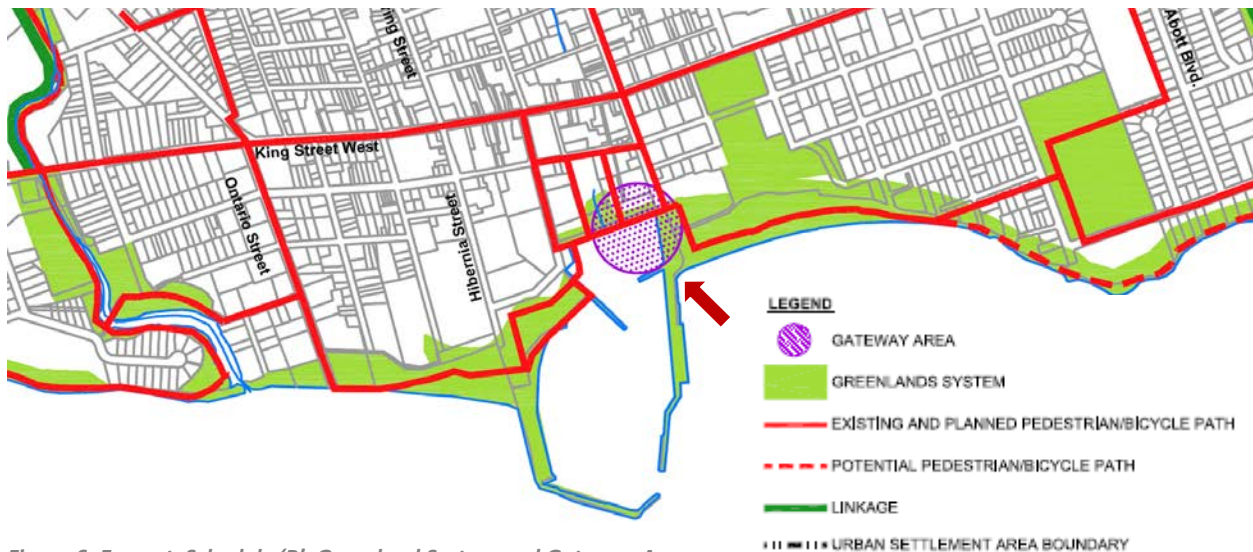


Figure 6: Excerpt, Schedule 'B', Greenland System and Gateway Areas.

The Harbour Area is identified as a gateway area; that is a major entrance to the town. The design of the area should conform to the following policies:

- a) buildings and structures shall incorporate architectural, landscaping or other features which emphasize the unique nature of the community;
- b) buildings or structures are sited and massed toward the major intersection; and,
- c) parking areas shall be at the rear or side of buildings.
- d) The Town shall incorporate features such as landscaping and signage in the road allowance to clearly identify gateway areas.

## **b. Urban and Landscape Design Guidelines**

The Town of Cobourg's Urban Design and Landscape Guidelines provide urban design guidance aimed at allowing the Town to assess, promote, and achieve appropriate design for proposed developments on both public and private lands.

Emphasis in the Guidelines is placed on ensuring that new development is consistent with existing, adjacent properties. The SAR is somewhat unusual in that it does not have immediate neighbours. The building will be viewed in the round as a pavilion, rather than as a building with a distinct front or back.

The proposed redevelopment of the Canadian Coast Guard Station supports several of the Private Realm guidelines. In particular, it:

- a) Includes a porch to provide a transitional space at the entry
- b) A creative arrangement of windows expresses the internal organization of the building while providing views, natural ventilation, and passive solar gain;
- c) Proposes a distinctive roofline for the two modules of the building, creating variety within the architectural composition

**The proposed development is consistent with the Urban and Landscape Design Guidelines for private realm development.**

## **c. Sustainability**

The Town of Cobourg has adopted a Sustainability Strategy (OP 4.8) that promotes a culture of conservation through environmentally friendly development. The strategy encourages building and landscape design that demonstrates commitment to sustainability through conservation of water, air quality, energy and other resources; waste reduction and management; reduction of greenhouse gases; and the creation of livable, healthy and productive environments; among other objectives.

The Town's Urban Design Guidelines (UDG 4.1) further elaborate on tangible strategies to achieve sustainable building and landscape design.

Specific design objectives addressed in this project are discussed in the table below:

<b><i>New Building Design</i></b>	
<i>The Town should encourage new developments to seek LEED or similar certification demonstrating a commitment to sustainability by meeting higher performance standards in environmental responsibility and energy efficiency (UDG 4.1 b)</i>	The project is designed to Passivhaus standards, and is anticipated to consume only 20% of the energy of a comparable building designed in compliance with the Ontario Building Code.

<i>Porous surfaces or landscaped areas should be used to capture roof drainage and minimize water runoff. (UDG 4.1.d).</i>	The existing landscaped areas will be retained, and stormwater will be managed on the property.
<b>Landscaping</b>	
<i>Existing significant trees, tree stands, and vegetation should be protected and incorporated into site design and landscaping (UDG 4.1.a).</i>  <i>It shall be a priority to preserve significant trees and other natural vegetation which occur in and adjacent to the Environmental Constraint Area. (OP 4.5.1)</i>	It is a priority of the Town to preserve significant trees and natural vegetation, whether adjacent to Environmental Constraint Areas, the Park Land System, or on public or private lands. The existing site is located adjacent to the Cobourg Beach, which is considered an Environmental Constraint Area. The subject site contains four large mature birch trees, one mature willow tree, and three smaller birch trees. These trees provide shade during the summer, as well as visual screening from the adjacent public realm. <b>These trees are proposed to be retained and protected during construction.</b>
<b>Site Layout and Building Orientation</b>	
<i>Passive solar design should be considered when designing block layout, buildings, transportation corridors and open spaces. (UDG 4.2.1.f)</i>	Passive solar design has been incorporated to the extent possible due to the proportions of the property and functional requirements of the station.

#### **d. Downtown Cobourg Master Plan**

The Downtown Master Plan aspires to redesign the East Pier, where the Search and Rescue Station is located, to improve pedestrian access to the pier from the beach and downtown.

Key views (p17): Key views from the marina and lakefront are identified as an opportunity to define a sense of arrival and transition from the waterfront to the town centre.

East Waterfront Neighbourhood (p42): The plan encourages retail development along the lower end of Division Street, as well as enhancement of the Cobourg Trailer Park – both with the aim of encouraging and improving pedestrian access to the waterfront. The plan further encourages redevelopment of the Eastern Pier, including repurposing the Coast Guard buildings, and incorporating seating and enhanced boardwalks.

Public Space (p58): The vision for the public realm is to strengthen and enhance pedestrian connections, in particular along the waterfront.

Waterfront Parks (p68): The Master Plan anticipates relocation of the Search and Rescue Station, reuse of the existing Coast Guard buildings for a beach use, and Eastern Pier enhancements including construction of a boardwalk, sun shelters, and seating.

The Search and Rescue Station sits adjacent to several sites that have been identified for enhancement or redevelopment, including the south end of Division Street, the adjacent Trailer Park, and the public realm of the East Pier itself. Key views of the downtown from the marina are to be protected.

The west side of the East Pier is determined to be inadequate to support relocated buildings. As a result, the redeveloped Search and Rescue Station will remain in its current location. It is the intent of the CCG that public access to the pier will not be impeded by the location of the Station buildings or operations.

#### **e. Downtown Cobourg Vitalization Community Improvement Plan**

The Downtown Cobourg Vitalization Community Improvement Plan (CIP) aims to improve the quality, design and economic prospects of the study area through financial and other incentive programs. Among several key development and land use issues, the Plan identifies the desire to attract more people into the downtown and waterfront area by offering a range of affordable housing options, and encouraging the renovation of existing buildings for residential use. Emphasis is placed on the need for deteriorated buildings to be repaired and for the design of alterations and/or new buildings to focus on façade improvements. The report highlighted the advantage of initiating “catalytic projects” – well-designed projects that will have a significant positive impact on the identity of the downtown and waterfront area.

**With this initiative in mind, the design of the CCG Search and Rescue Station aims to serve as an important landmark in the Harbour area and along the waterfront. The dynamic form of this building will contribute to shaping future development in this area by offering a high quality, signature design, in a highly visible location.**

#### **f. Zoning**

Under the City of Cobourg Zoning By-Law (#85-2003, Revised March 2004), the Search and Rescue Station site is zoned as OS-2 (H-1) – Open Space Exception 2, Holding Provision Exception 1. The Open Space (OS) zoning provisions promote public land uses, and allows buildings and structures associated with permitted uses only. The Holding Zone provision would normally limit re-development until the lands are placed into another zone. **However, since the use is for public service, it is understood that these zoning provisions do not apply (By-law Section 5.3.2), and that a zoning by-law amendment is not required to permit redevelopment of the site.**

#### **g. Ganaraska Region Conservation Authority**

The Ganaraska Region Conservation Authority (GRCA) were consulted and provided input to the site design, including recommendations for stormwater management. A permit from the GRCA will not be required. **Refer to the Stormwater Management Brief, provided as part of the present Site Plan Application, for further description of the approach to site servicing and grading.**



## **h. National Regulatory Requirements**

The design and construction of this facility is subject to the regulatory requirements of the *National Building Code Act* and will therefore comply with the appropriate sections of *National Building Code* (NBC), *National Fire Code* and *National Electrical Code*, which regulate all aspects of the construction of buildings as defined in the *Building Code Act*.

Based on occupancy classification and building size, the NBC prescribes requirements for fire protection, fire-fighting capacity, fire-fighting access routes, locations of fire department connections, construction materials, energy efficiency, building limiting distance, number of exits, barrier-free design, and plumbing systems.

## **5 Conclusion**

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The proposed Site Plan application conforms to the policies and objectives of the Official Plan, the Downtown Cobourg Master Plan, and the Waterfront Plan; and complies with the Urban and Landscape Design Guidelines.

We look forward to the opportunity to discuss this application with you. Please do not hesitate to contact the undersigned should you have any questions regarding any aspect of the application.

Allan Teramura

Principal, Watson MacEwen Teramura Architects