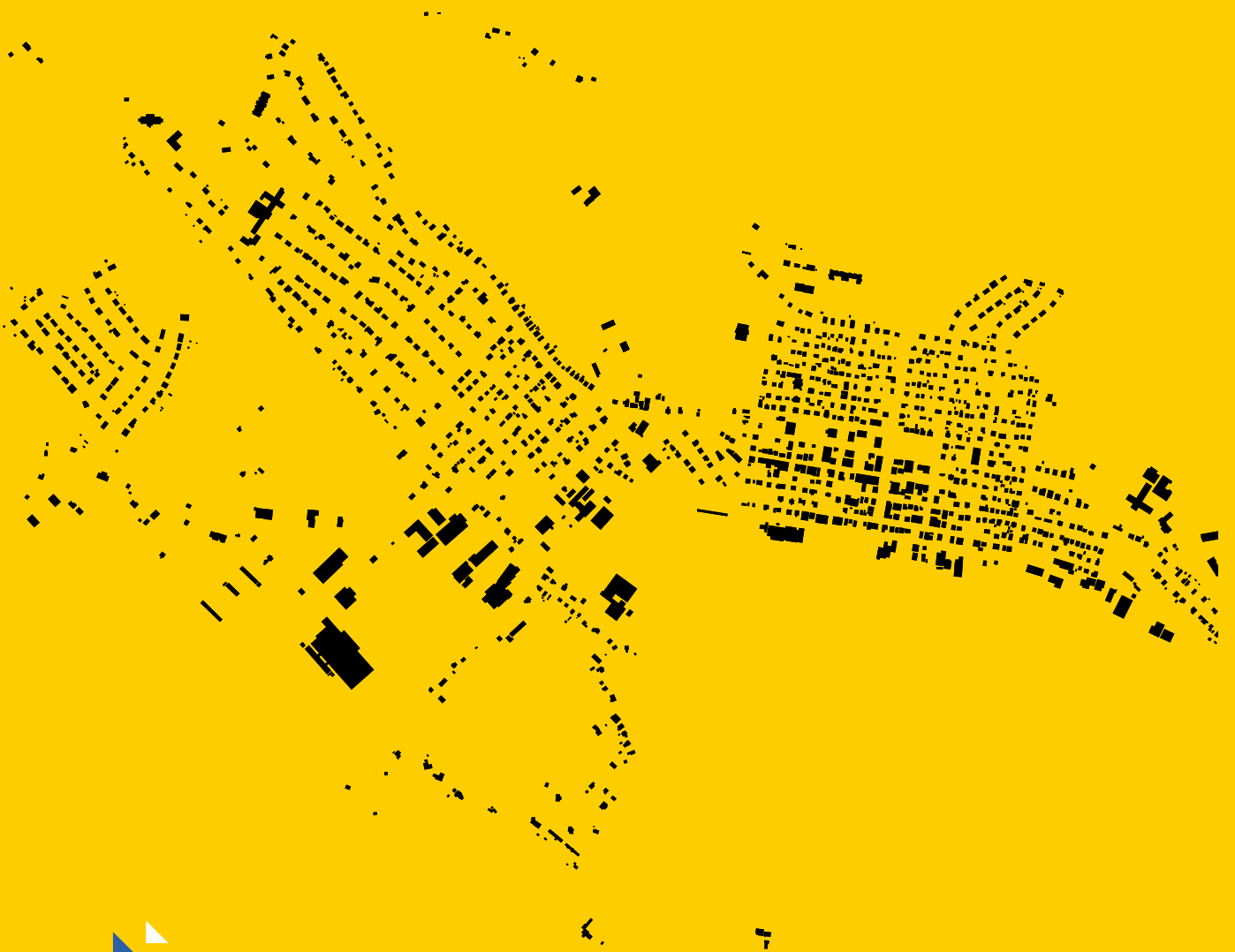


3/8

DISCUSSION PAPER

JUNE 2019

BUILT HERITAGE AND STREETSCAPES



Discussion Paper 3/8
Built Heritage and Streetscapes
June 2019

Project Lunenburg
Town of Lunenburg Comprehensive Plan

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Lunenburg is world-renowned for its original colonial architecture, the colourful streetscapes and its working waterfront. Old Town Lunenburg is one of only two urban communities in North America designated as a UNESCO World Heritage site. The town has undergone many changes from the original eighteenth-century colonial town blocks and yet the overall visual character of the Old Town remains remarkably intact.

Part of the unique appeal of Lunenburg is that it is a living heritage site where year-round residents live, work and care for the town's heritage resources. As Lunenburg readies for the future, citizens need new ways to continue safeguarding the town's heritage, while adapting to ever changing circumstances and sustaining the entrepreneurial and resourceful spirit.

The streets of Lunenburg are an integral part of its character. They are more than public utilities. They are places of social and commercial encounter, and function as a major public space where interactions unfold, in particular chance interactions and connections with neighbours and acquaintances. Many of Lunenburg's streets are also places to do business. They are public showcases, meant to exhibit what Lunenburg's shops, services and restaurants have to offer.

In the seven by nine street blocks of Old Town Lunenburg, 36 percent of land is public street right-of-way. This represents an immense opportunity to create more attractive public spaces for citizens and visitors, and deepen the historic relevance. Implementing street treatments that create pleasant, fulfilling, community-oriented places, would result in significant place-making through one third of the Old Town.

This discussion paper is the third in a series of eight which provide context for the Town of Lunenburg and lay the foundation for the Town's Comprehensive Plan. They provide essential information for thoughtful input. This paper looks at the qualities and opportunities for protection and evolution of built heritage and public streets.

BUILT HERITAGE

Lunenburg is a living heritage site rather than a collection of museums. As the town continues to evolve, what are Lunenburg's tangible and intangible heritage resources that need to be safeguarded and enhanced? How can new development be integrated in ways that continue Lunenburg's rich built heritage?



The purpose of this section of the Discussion Paper is to review the current state of built heritage resource management, describe best practices in heritage conservation, and to identify considerations that could affect Lunenburg's future. This section of the Discussion Paper has been prepared by Landscape Architect and Cultural Heritage Specialist Wendy Shearer (OALA, FCSLA, ASLA, CAHP).

To date, Lunenburg Council, heritage staff and the municipal Heritage Advisory Committee have provided sound guidance for the appropriate activities that will sustain the historic features of the designated District. Nevertheless, there have been several changes in heritage conservation planning since the heritage designations of Lunenburg took place and it is important to review how these changes may inform the future of heritage conservation in Lunenburg. Specifically, the Standards and Guidelines for the Conservation of Historic Places in Canada (Second Edition, 2011) (S and G) by Parks Canada was not available when the Lunenburg designations or Design Guidelines were initially put in place. Much of this analysis considers the S and G for the Lunenburg context.



Lunenburg is an excellent example of a designed and continuing evolved Cultural Heritage Landscape. The character-defining elements of the architecture, the streetscapes, waterfront features, and open spaces have undergone many changes from the original eighteenth-century colonial grid survey and yet the overall visual character has remained remarkably intact. The evolution of Lunenburg has included the gradual move from an economy based on agriculture to one based on fishing and shipbuilding, and increasingly tourism. Small industrial and technology sectors have further diversified the town's economy. Despite these changes, the physical form of the settlement has remained intact and the culture of heritage preservation and restoration has ensured that the community is a living heritage site rather than a collection of museums. The multiple boundaries of heritage designations in Old Town along with individually designated heritage properties encourage the continuation of this authentic heritage character.

The cultural landscape of streets, landforms and topography, views and the features of a working waterfront comprise the significant context to the built heritage. In analyzing the various cultural landscape components, it is possible to add to the list of character-defining elements that have heritage value to be considered in decision making. This decision making should be guided by The Standards and Guidelines for the Conservation of Historic Places in Canada (Second Edition, 2011) (S and G) by Parks Canada (see definitions on page 6).



One of the key contributors to management is the various designations that are in place requiring conservation of the heritage values associated with Lunenburg. The outstanding heritage resources of Lunenburg Historic District have been recognized through a number of designations:

- ▶ Old Town Lunenburg National Historic District National Historic Site (NHS) in 1991
- ▶ World Heritage Site (WHS) in 1995
- ▶ Municipal Heritage Conservation District (HCD) under the provincial Heritage Property Act, in 2000
- ▶ individual properties designated or listed as national, provincial or municipal heritage sites.

The NHS and WHS designations recognize and commemorate the universal importance of Lunenburg to the national and world community. These designations describe the heritage values associated with the historic place. The day to day safeguarding of the historic place is the responsibility of the local municipality and is guided by the municipal HCD Plan and By-Law with Design Guidelines. The original Plan and By-Law were approved in 2000 and are in the process of being updated in 2019.

These heritage designations have identified the various heritage resources, their heritage values and the associated character-defining elements (CDE) that must be safeguarded. The protection of the designated resources has been carefully managed for the past several years guiding the changes that have occurred in a manner that has protected the significant heritage of Lunenburg.

Current Best Practices in Heritage Conservation

► Standards and Guidelines for the Conservation of Historic Places in Canada

The Standards and Guidelines for the Conservation of Historic Places in Canada (Second Edition, 2011) (S and G) by Parks Canada was not available when the Lunenburg designations or Design Guidelines were initially put in place. The S and G is considered best practices in heritage conservation and contains a planning process, principles and recommendations for the care and restoration of heritage buildings, archaeological sites and cultural landscapes. It has been adopted by all Canadian provinces and territories including Nova Scotia.

The S and G is available to add to the existing heritage management tools. It is user friendly with clear standards, definitions, and illustrated actions to guide decisions regarding changes affecting heritage resources. The document can provide objective guidance to property owners and the Town.

The S and G identify the three-step process of Understanding, Planning and Implementation as the recommended approach to heritage conservation. Where the heritage values associated with historic places are tangible and evident in the physical resources on site, these are the character-defining elements (CDE) requiring conservation. Intangible heritage values may also be associated with the historic place. These are found in the cultural practices, memories, stories and history of the community.

► Cultural Landscape Concept

One of the important components of the S and G is the description of a Cultural Landscape and the various components that contribute to heritage value and character. This definition considers a grouping of individual elements that together have heritage significance and is a useful way of approaching the Lunenburg Heritage Conservation District. Understanding the District as a collection of features provides a basis for future planning for conservation of the heritage resources.

The Standards and Guidelines for the Conservation of Historic Places in Canada provides the following definition:

Cultural Landscape: Any geographical area that has been modified, influenced, or given special cultural meaning by people.

- Designed cultural landscapes were intentionally created by human beings;
- Organically evolved cultural landscapes developed in response to social, economic, administrative or religious forces interacting with the natural environment. They fall into two sub-categories:
 - » Relict landscapes in which an evolutionary process came to an end. Its significant distinguishing features are, however, still visible in material form.
 - » Continuing landscapes in which the evolutionary process is still in progress. They exhibit significant material evidence of their evolution over time.
- Associative cultural landscapes are distinguished by the power of their spiritual, artistic or cultural associations, rather than their surviving material evidence.

► Interventions

The key definitions in the S and G document describe the various interventions that are valid conservation activities. For the general public, a common misconception is that heritage conservation focuses on preservation without accommodating continued change. The definitions below show the range of activities that fall under the term conservation.

KEY DEFINITIONS

Conservation: all actions or processes that are aimed at safeguarding the character-defining elements of an historic place so as to retain its heritage value and extend its physical life. This may involve *Preservation, Rehabilitation, Restoration*, or a combination of these actions or processes.

Preservation: the action or process of protecting, maintaining, and/or stabilizing the existing materials, form, and integrity of an *historic place*, or of an individual component, while protecting its *heritage value*.

Rehabilitation: the action or process of making possible a continuing or compatible contemporary use of an *historic place*, or an individual component, while protecting its *heritage value*.

Restoration: the action or process of accurately revealing, recovering or representing the state of an *historic place*, or of an individual component, as it appeared at a particular period in its history, while protecting its *heritage value*.

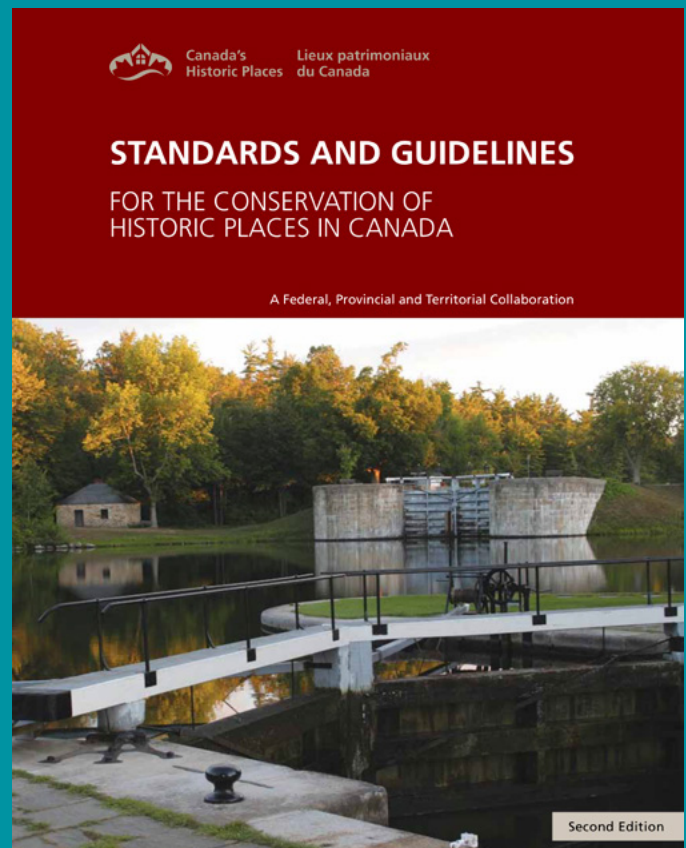
For any property, it may be appropriate to select a combination of interventions to properly plan for conservation actions. The choice of type of intervention is based on the nature of the heritage resource, its condition and use. For example, the intervention that is appropriate for a heritage residence that will continue in use may be a combination of preservation of character-defining elements, restoration of missing or deteriorated elements based on documentary or other evidence, or rehabilitation to accommodate current issues of accessibility or sustainability. The underlying conservation principle is to keep the heritage resources in use through repair and maintenance and careful restoration when needed.

When the original use is no longer feasible, the key goal is to accommodate compatible new uses that retain the character-defining elements. There are several successful examples of this adaptation found in Lunenburg notably in the conversion of several of the former industrial buildings to new uses. For example, the prominent fish processing building complex is now the Fisheries Museum of the Atlantic. These new uses

have been inserted into the historic buildings without requiring major changes to the scale or visual character of the buildings or their settings. These examples provide excellent precedents for future rehabilitation projects.

► New Design

In addition to the conservation activities related to existing heritage resources, the S and G contain guidance for the incorporation of new design in a heritage setting. Standard 11 provides a recommended approach for new additions and new construction. It recommends that new work be compatible with, subordinate to and distinguishable from the historic place. There are several vacant properties in and adjacent to the townsite and this Standard provides an approach to assist in evaluating proposals. There are already some infill projects in the historic district that successfully demonstrate this approach and are precedents for the future. These projects are examples of a new vernacular architecture that respects the scale, form, setback and massing of the streetscape into which the new buildings have been inserted.



World Heritage Site Designation



The **World Heritage Site** 1995 designation summarized the unique history and outstanding universal value (OUV) of Old Town Lunenburg. The rationale for the recognition of Lunenburg described it as an urban complex, recognized for its heritage value as a group of properties that, when taken together, form a harmonious representation of town planning and vernacular architecture. It also recognized the close association with the Atlantic fisheries and ship building and the remarkable level of conservation of the heritage resources.

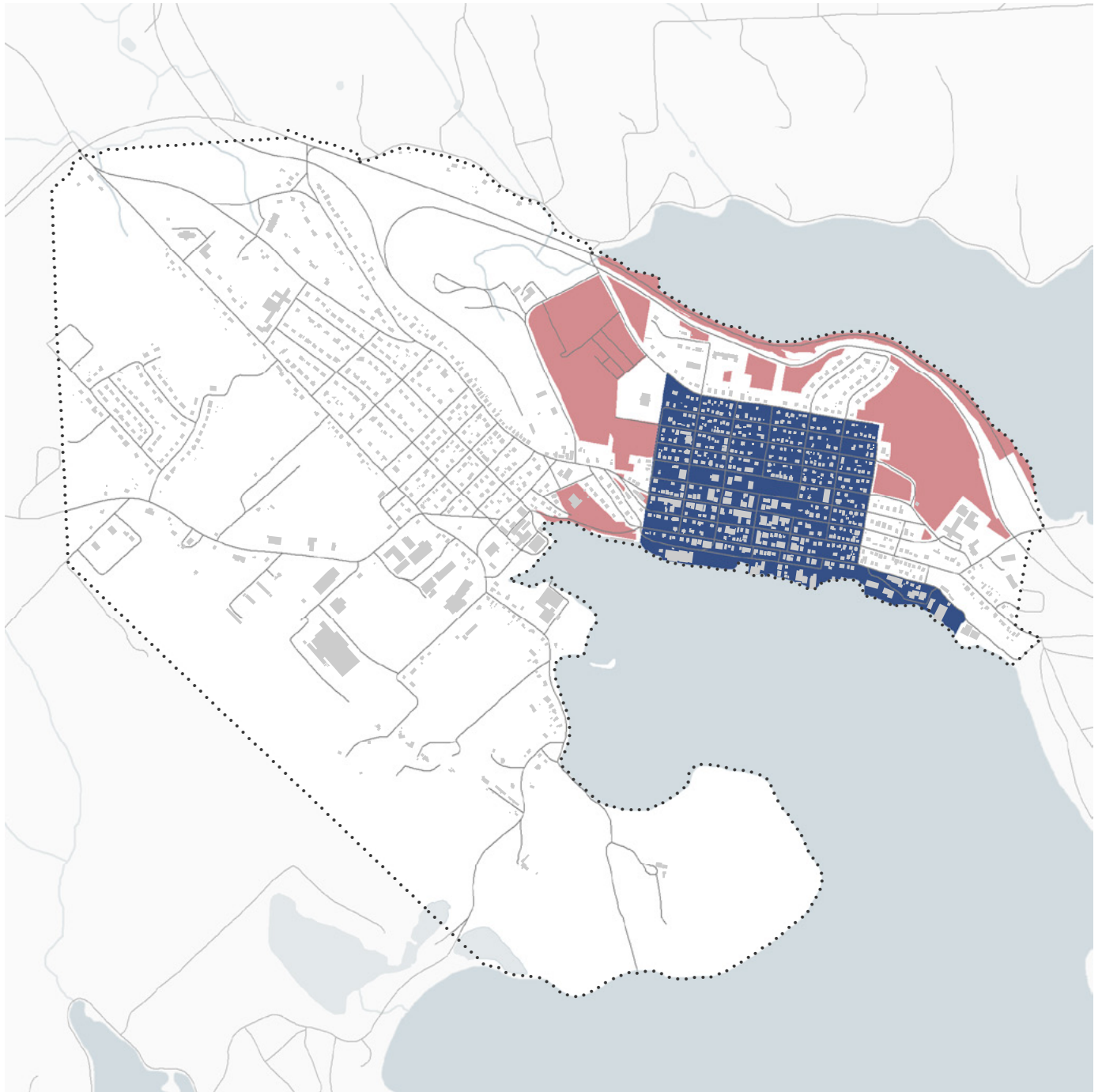
Key evidence of the Outstanding Universal Value that deserves protection for the benefit of all humanity is the surviving intact layout based on the British planned town pattern. As well, the collection of various buildings of a variety of ages, styles, materials, and form that together create an aesthetic composition of natural landform and architecture.

The original WHS designation was defined by a boundary that primarily included the original townsite grid with an extension to the east along the waterfront to include the industrial buildings there related to fishing and shipbuilding. In 2017, the map was revised to include a defined buffer zone. The boundary of the WHS includes an area of 33.85 ha but does not include Block House Hill with its remnant defence earthworks, the French Cemetery, Hillcrest Cemetery, or the Lunenburg Academy (designated individually as a NHS). These significant heritage resources are located within areas identified as the WHS Buffer Zone (32.44 ha).

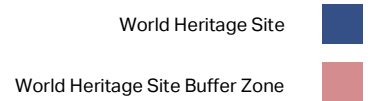
WHS designation is an overarching commemoration that does not provide detailed or specific guidance on the management of individual components and their details. The WHS designation requires that there is a management framework in place to guide the conservation of the site to ensure its continuing authenticity and the integrity of its heritage resources. The required management of Lunenburg is provided by the Town in the Heritage Conservation District Plan and By-Law.

General reporting to the World Heritage Centre is provided by the Town of Lunenburg and is co-ordinated with Parks Canada staff who are responsible to report on all WHS designated sites on behalf of Canada. The reporting is done every several years and focuses on activities that have taken place affecting the WHS. It may also identify emerging issues that could be reported on future reports. This high-level review of conservation activities is suited to the generalized level of detail included in the WHS designation. It relies on the Town to manage the day to day responses to change.





World Heritage Site and Buffer Zone
2017 Updated Boundaries



National Historic District National Historic Site Designation

Lunenburg was designated a **National Historic District National Historic Site** in 1991 and was listed on the Canadian Register of Historic Places in 2005. The listing includes several key components that assist with guiding the management of the District. It includes a Description of Historic Place, Heritage Value and Character-defining Elements (CDEs).

The character-defining elements are the heritage components that must be conserved so that the heritage value is sustained. In the National Historic Site designation, the CDEs are organized according to the important periods of construction in Lunenburg's past. The identified CDE's are summarized as follows:

- ▶ the street grid
- ▶ open space
- ▶ small building lots for dwellings
- ▶ the variety of building types
- ▶ bright painted colours
- ▶ predominant wood construction
- ▶ skyline dominated by church steeples
- ▶ buildings dating from the 18th century up to the 1940's sympathetically scaled commercial buildings on Lincoln, St. John's Anglican Church
- ▶ orientation to harbour
- ▶ large scale waterfront industrial buildings
- ▶ shipyards used for shipbuilding and retrofitting
- ▶ waterfront buildings supporting work and community life of fishing industry.

A list of character-defining elements is an important basis for evaluating proposed changes in order to evaluate how the changes could impact the heritage value. The list of CDEs should be comprehensive in order to provide a good basis for planning. Currently, the CDEs for Lunenburg do not include all the components of the cultural heritage landscape of Lunenburg that make an important contribution to the heritage value over and above the built heritage resources. These include the specific visual relationships that are within, to and from Old Town and its setting. Furthermore, the Mi'kmaq presence on the land and associated harvesting, hunting and fishing should be acknowledged. The early Acadian settlement history is evident in the French cemetery and should also be identified. As well the remnants of the early defence of the townsite and the harbour from Block House Hill and Gallows (formerly Barracks) Hill are important CDE's.

An example of a historic building sensitively rehabilitated for a compatible new use.



The Heritage Conservation District Plan and By-Law



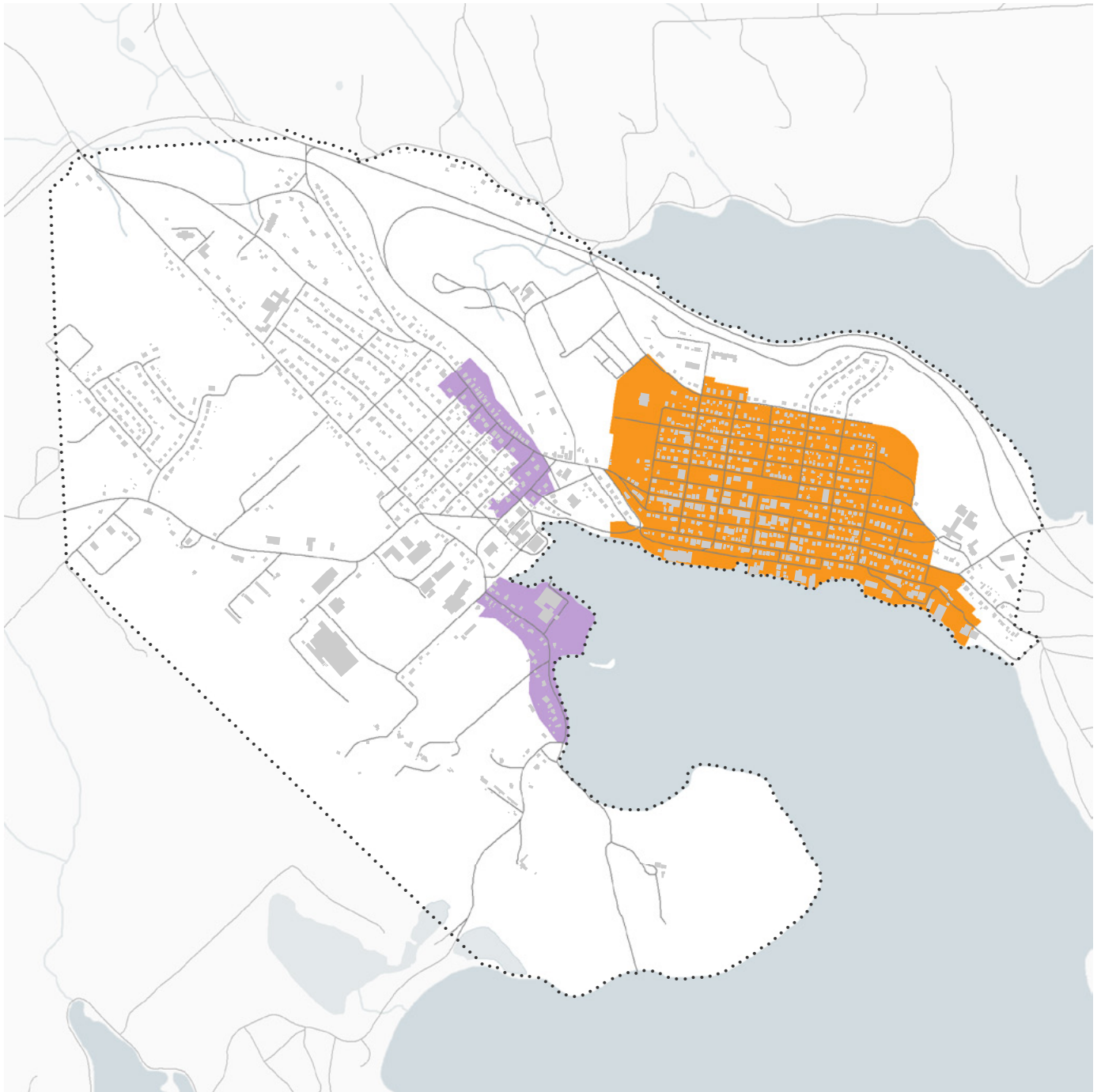
The designation as a **Heritage Conservation District** (HCD) dates from 2000 and includes a thorough Plan and By-Law with Design Guidelines. These were enacted by the municipality under the authority of the provincial Heritage Property Act and are in the process of being updated in 2019.

Within the HCD, there are 663 lots with many individual buildings that have additional designations. **National Historic Sites** include the Lunenburg Academy (1983), the Knaut-Rhuland House (2003) and St. John's Anglican Church (1998). **Provincial Designations** include the three properties listed above in 1984, 1989 and 1983 respectively and the Lennox Tavern (1992), Zion Lutheran Church (1996) and Solomon House (1996). There are **61 municipally designated properties** in the Heritage District identified between 1983 and 2003.



The architecture of Lunenburg has been analyzed in several inventories and this work has created an extensive description of the history of the settlement from its founding in the eighteenth century to the 1940's. These documents provide a solid foundation for the safeguarding of the existing built heritage resources.

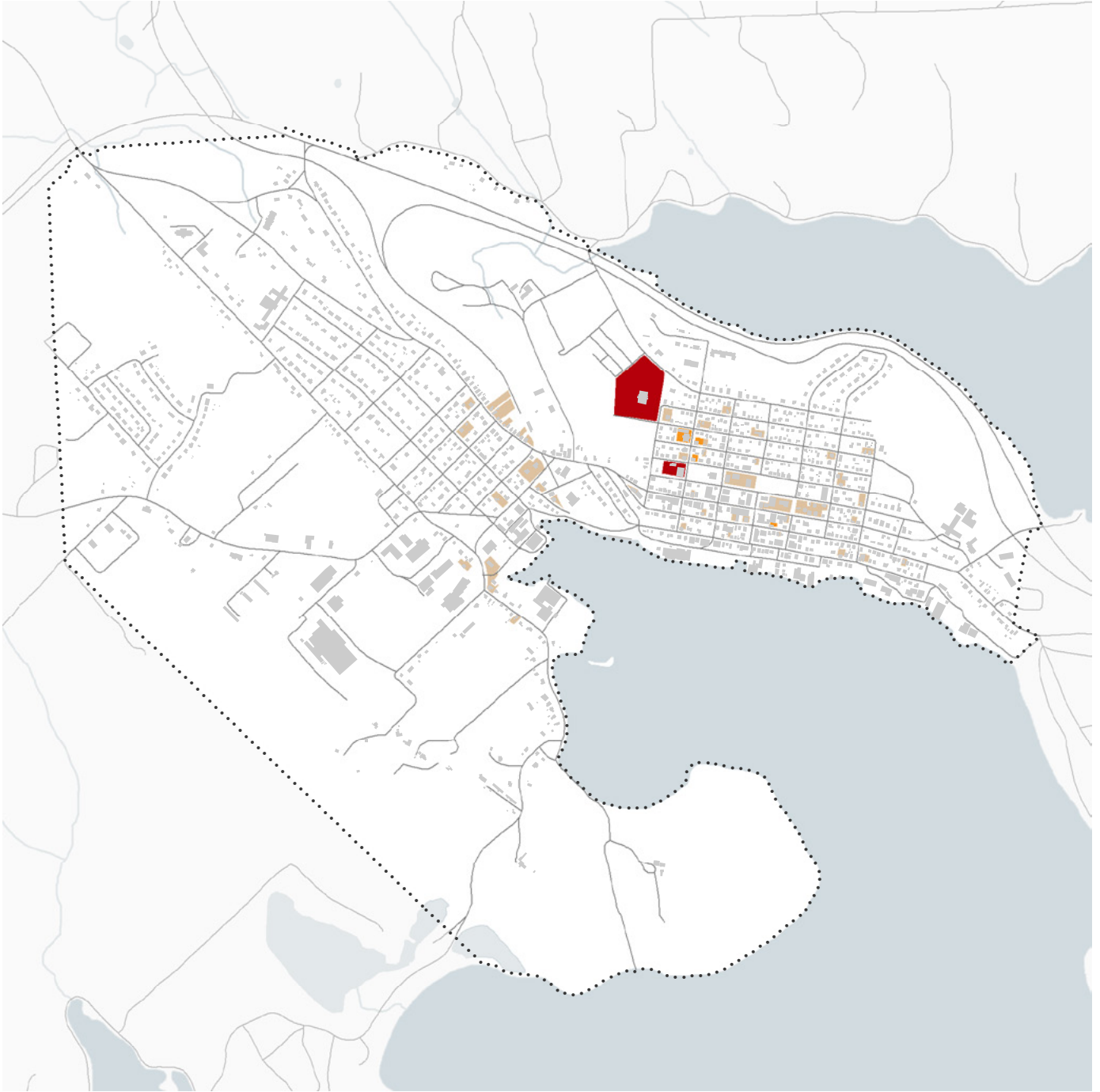
Stemming from this analysis and inventorying, the HCD Plan and By-Law include detailed guidance in the form of Design Guidelines and a summary of the building styles and features that are to be preserved or restored. This is managed through a review and approval process integrated with the planning regulations of the Land Use By-Law and building permit requirements.

Several aspects of the setting of the buildings have also been identified, but it is this component of the inventory and understanding of the heritage value of Lunenburg that could be expanded to provide guidance for alterations, new development or infill projects.



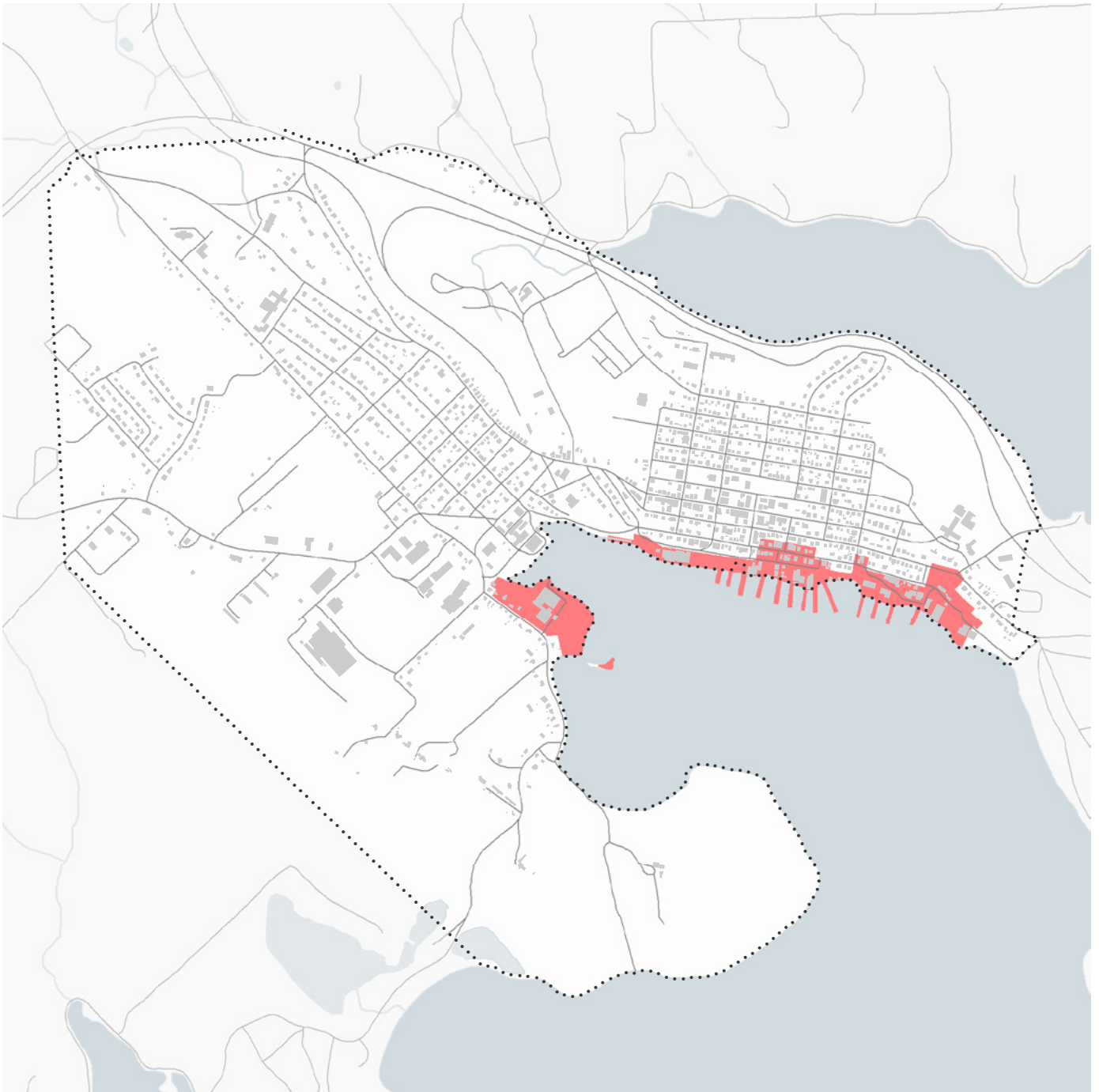
Heritage Conservation District Map
Heritage Conservation District Plan, 2000

Heritage Conservation District 
Architectural Control Area 



Individual Heritage Property Designations

- Federal Heritage Designation
- Provincial Heritage Designation
- Municipal Heritage Designation



Waterfront Buildings Area Map
Heritage Conservation District Plan, Draft 2019

Waterfront Building Area



Built Heritage Post-1940's

The original and draft Heritage Conservation By-Law identify the relevant dates of heritage value in Lunenburg from 1753 to the 1940's, the end of the Bluenose 1 era. This captures the various style periods when the majority of the built form of Lunenburg was established.

Current best practices consider built heritage resources older than 40 years as having heritage value potential. In Lunenburg there are buildings that were built between the 1940's and the 1980's that may have heritage potential. Many of these later additions reflect the change in appreciation of a heritage setting and the values of national institutions or corporations in using a standard design and materials rather than modifying the standard to address the local context. While the buildings of Lunenburg are identified as being primarily of wood construction, there are examples of brick and stone masonry construction for institutional and commercial uses, such as the Town Hall, bank buildings and the Olde Poste Centre.

In the early years of heritage conservation, it was common to select a terminal date and manage sites to limit or remove the resources that were added after that key date. This approach is very appropriate for museum sites. However, for a community such as Lunenburg that has survived because of its ability to adapt to economic realities resulting from drastic changes in the fishery and shipbuilding industry, the current limit of the 1940's does not allow for later buildings to be considered as having heritage value. The recognition that heritage buildings were added after the 1940's, and will continue to be added in various locations within and around the designated area, is a key step in managing change.

The management of change requires an understanding of the long period of community life in Lunenburg and how historic places evolve over time. Acknowledgement of this evolution requires that any new additions be managed to be sympathetic to the historic precedent and a reflection of the best design of the current time rather than a replication of past styles. There are examples of the reuse of historic buildings for new uses and new construction that are creating a new vernacular style. This approach is inspired by the materials and form of the historic building collection and the successful examples embody its scale and form. Continued management of new design may require additional inventory and evaluation of the built heritage resources added after the 1940's.

An example of infill development sensitive to the scale of the streetscape.



Contemporary Considerations

The S and G acknowledges that continued change is expected and there are principles and guidance that can assist in managing change so the heritage values of Lunenburg are sustained. In addition to the guidelines for the protection of built heritage, cultural landscapes and archaeological resources, the S and G includes other factors that must be considered in planning for heritage conservation., such as safety, accessibility and sustainability, including energy efficiency objectives. It also provides specific information regarding Window, Doors and Storefronts that is relevant to the conservation of these types of features in the Lunenburg HCD.

The S and G approach suggests that a balance of various interests may be required so that a selected approach to restoration can be accomplished while at the same time carefully incorporating features that enhance these additional considerations. Working with building officials who are familiar with Building Code requirements that have been modified for heritage properties is a key part of finding an acceptable solution. Accommodating new standards in designated buildings and landscapes requires a collaborative approach to find creative design solutions. The priority is to keep the heritage fabric intact with the necessary improvements to continue its occupancy. Decisions must be made on a case by case basis depending on the reasons for designation including the features that are part of the CDEs and the heritage value.

The S and G provide specific guidance for new additions or new development::

“Conserve the heritage value and character-defining elements when creating any new additions to an historic place or any related new construction. Make the new work physically and visually compatible with, subordinate to, and distinguishable from the historic place.”

The streetscape remains intact and enhanced with an appropriate new addition.

New Additions

The best practices for new additions in heritage areas are based on the principle that as historic places evolve over time, it is valuable to show changes added in different periods. Lunenburg is an example of such a place, where the evolution is visible in its variety of architectural styles. Despite the changes in tastes and economics over time that resulted in additions such as the “Lunenburg bump”, and the Arts and Crafts residences, there remains a harmonious cohesion to the varied architectural collection. This is in part because of the scale and form of the buildings and the comfortable visual character where the tallest features on the skyline are the church steeples.

There are numerous opportunities in Old Town Lunenburg for infill development. It is on these vacant lots where the scale, form and setback of new dwellings can be managed to conserve the streetscape. Wholesale replication of buildings or features is not necessary and if implemented, the public may be confused as to the authenticity or integrity of the feature.

Decisions about restoration or replication of missing features based on documentary or other evidence must be made on the specific situation. The end goal is to ensure that the heritage fabric is protected and new construction enhances the historic place by being a sympathetic addition appropriate in scale, form, massing and setbacks.





Views are an important element of the Lunenburg Cultural Landscape. The key historic views are defined by visual relationships. The following visual relationships contribute to the unique character of Lunenburg:

- views within the settlement are dominated by the architecture and are generally framed by the buildings along the streets or terminated by the buildings such as the Lunenburg Academy.
- views are affected by the topography with the view from the north west towards the settlement dominated by the Lunenburg Academy.
- the views south from the waterfront are open and panoramic terminating on the distant rolling landscape of the Golf Course, the shore along Tannery Road on the western limit of the historic view and the open sea on the eastern edge.
- the iconic panoramic views of the Old Town on the hillside from the harbour and the Golf Course
- views from the north-south streets are framed by the adjacent buildings with the waterfront and its ever-changing mix of vessels as the focal points.
- views along several of the east west streets terminate at the Lunenburg Academy and are framed by the narrow setbacks of the adjacent buildings and the informal edge of the street, landscape features such as hedges and front yard trees.

Many of these views extend beyond the defined limit of the Heritage Conservation District and the World Heritage Site and at the present time there is little guidance for changes in the views outside the boundary. However, the changes in these neighbouring lands have the potential to affect the key character-defining views from Lunenburg. Many of the historic views beyond the HCD boundary may be managed by other planning tools such as the Land Use By-Law.



Lunenburg is a very popular destination attracting visitors arriving by a variety of means, tour busses, private cars, pleasure craft and small boats shuttling passengers from cruise ships anchored offshore. Part of the unique appeal of Lunenburg is that it is a living heritage site where year-round residents live, work and care for the town's heritage resources. The management of Lunenburg relies on volunteers to provide fire protection and other volunteer activities that keep the community thriving throughout the year and not only in the summer season when tourism increases and seasonal residents appear. Tourist accommodations in inns and B and B's are found throughout the lower areas of the HCD and outside its boundary. They are integrated in the heritage character of the HCD.

The rapid growth of on-line listings for whole-home short-term rentals could potentially impact negatively on the heritage building stock and indirectly on quality of the community life. The growing number of such listings changes the availability of heritage properties occupied by year-round residents and tenants. It is these residents and the operators of commercial inns and B and B's that maintain and restore their properties. The potential impact of short-term rentals on Lunenburg heritage buildings is greater than some of the larger urban centres because there is a limited number of properties in Old Town. It can be expected that the number of posted listings will continue to grow affecting the balance of year-round occupancy by Lunenburg citizens who are actively involved in the conservation of the built heritage and community life.

Based on the experience of other communities, short-term rentals have contributed to a major shift away from permanent occupancy of the historic place. This results in a seasonal tourist destination rather than a living community. Future management of the heritage resources may require introducing controls over the location and number of the short-term rentals. This may be accomplished in the Land Use By-Law.

There are communities that have undergone significant changes as a result of the growing number of cruise ship passengers who are visiting and in their sheer numbers changing the quality of experience for residents and visitors alike. The compact size and topography of Lunenburg focus visitors to the lower level of the townsite. The working waterfront provides a genuine experience for the visitor but introduces potential conflict between the public and the industrial operations. Increased visitation creates pressure to convert buildings to new uses to serve the tourist industry rather than the current industrial uses. This trend has the potential to impact negatively on the cultural heritage value of Lunenburg that has been a key part of the WHS and NHS designations that recognized the continued industrial heritage as significant.

Further, many of the retail operations in Lunenburg celebrate the vibrant arts community with pottery and artworks produced locally. Increased cruise ship visitation has the potential to change the retail offerings to suit that market focusing on smaller portable purchases. While tourism supports local business owners who maintain the heritage resources in Lunenburg, it is an issue when tourist numbers overwhelm the historic place making it less inviting for year-round residents. Planning for increased tourism is required as well as an approach to manage changes to the buildings and their setting particularly on the waterfront and the commercial streets.

Planning for Unexpected Change

Most proposed alterations and additions go through a review and approval process that allows for consultation and review between the property owner, the Town and frequently the public. This process takes place over an anticipated period of time. There are however situations where change is sudden and unplanned. The disastrous fire at St. John's Anglican Church is one such example. Other examples may include sudden damage by extreme weather, including high winds, lightning, storm surge and flooding. Rising sea levels also have great potential to affect conservation activities in an historic place.

Planning for reconstruction and renewal after these events should be based on best practices and principles for conservation and based on policies developed before such events occur. The early buildings and the later additions such as the "Lunenburg Bump" have resulted in continued changes in the community over the centuries and are an important part of the story of resilience of Lunenburg citizens. This practice of care and renewal is an intangible heritage value of Lunenburg. An example of recent activities that add heritage value to Old Town Lunenburg is the rebuilding of St. John's Anglican Church. The story of the extensive renewal work and the community pride and effort that went into the rebuilding adds to the ongoing story of the conservation activities in Lunenburg.

Acknowledgement of Indigenous Land

There is recognition today in Canada, especially since the findings of the Truth and Reconciliation Commission, that reconciliation with indigenous peoples is greatly needed. One of the first steps that communities may make to advance reconciliation is to acknowledge the First Peoples on whose traditional territories we live and work. The Mi'kmaq people have been present in Merliguesh (Lunenburg) long before the arrival of European settlers, and the territory falls within the area covered by the Treaties of Peace and Friendship.

The WHS and NHS designations process focus on listing the British colonial period and its built form as the significant part of Lunenburg's history to be safeguarded and commemorated. Current best practice is to respect and acknowledge the earlier layers of the past and the value associated with traditional indigenous use of the land. Many indigenous practices such as harvesting, fishing and hunting left little physical evidence in the archaeological record. These practices were nearly lost, and the next generation of indigenous people are striving to maintain land rights, and preserve and pass on the cultural traditions of their ancestors. Discussions with the Mi'kmaq community would inform how to best broaden the historic and contemporary narrative of Lunenburg to include the First Nations perspective.

STREETSCAPES

Good streets do not just happen. They are designed with purpose and cared for continuously. What can we learn from Lunenburg's old streets and from great streets in other places? How could Lunenburg's existing streets evolve and what should new streets look like?



Lunenburg features a great variety of street types. Each street's layout and design characteristics are closely tied to the period in Lunenburg's 266 year history in which it was developed.

► Old Town: Established 1753

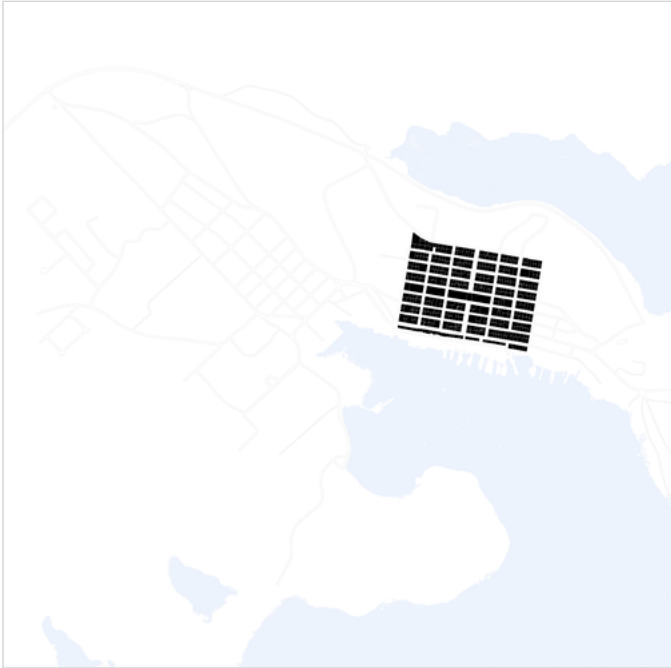
In Old Town Lunenburg, the rectangular street grid has been described as the best surviving example of a British colonial policy of creating new settlements with a pre-designed model town plan regardless of the existing terrain. Situated on a neck of land between the Front and Back Harbours, the Old Town streets were laid out in a rectangular grid pattern on the steep hillsides, facing south. The Town Plan consisted of 6 divisions of 8 blocks each, each division extending up the hill from the shore. A central core of 4 blocks was reserved for public purposes. Within each block, there were 14 lots, each 40 ft. wide by 60 ft. deep. A central street, King Street, 80 ft. in width, ran from the shore to the central public core of the town. Streets running uphill were 48 ft. wide and streets parallel to the harbour were 40 ft. wide.

► 19th Century

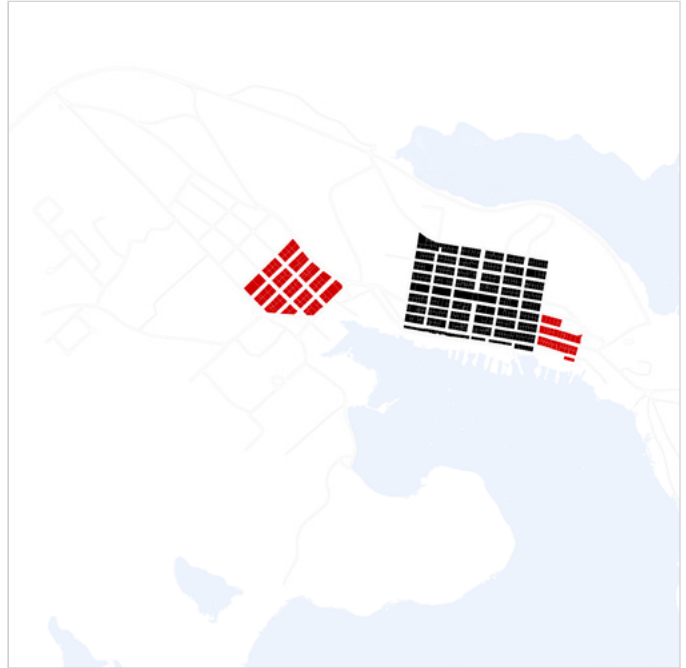
Over the first 100 years the town grew steadily. By the mid 19th century, the town had outgrown its old boundaries and, in 1862, part of the surrounding Common Land was subdivided to facilitate expansion. Areas immediately to the east and west of the old town were laid off in building lots and other larger parcels, and an area further west beyond the head of the harbour was subdivided to create the core of what became known as the "New Town". The 80 New Town lots created in 1862 were somewhat larger than those in the Old Town, each being 70 x 79 ft, laid out with 8 lots to a block instead of 14. Streets were 60 ft wide. The New Town area quickly became fashionable and in 1878, a third division of New Town lots was added between Brook Street and Green Street.

► 20th Century

With the continued expansion of the fishing industry and during the Age of Sail, Lunenburg was a hive of activity in the 1920s and 30s. By the 1950s, Lunenburg was a mature fishing port with prosperous industrial and commercial activities. In this period, more land was subdivided and developed in the upper reaches of the New Town, on the north side of Creighton Street at the "back of Town", and on the eastern end of Pelham Street. In more recent times, expansion has continued, although at a considerably slower pace. There are new subdivisions overlooking the Back Harbour (Prince and Hopson Streets extended) and the most recently developed streets are on the western side of town (Centennial Ave., Wolff Ave. and Morash Lane).



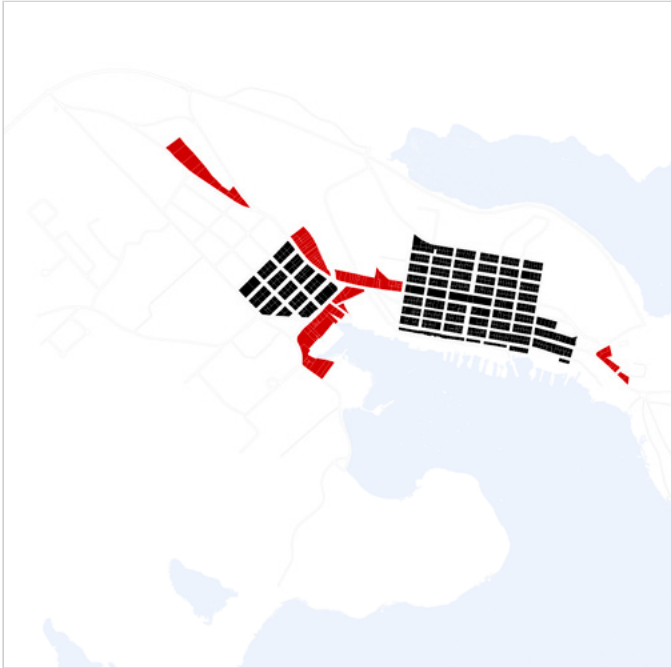
Old Town - established 1753



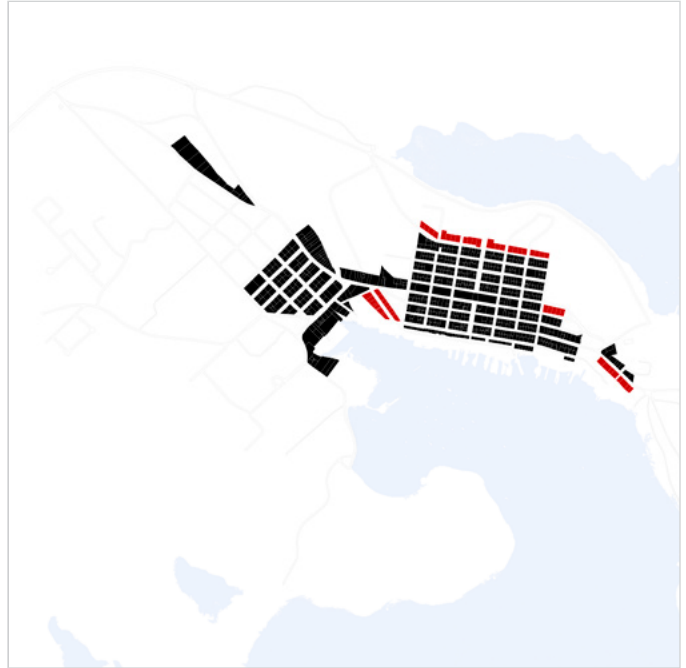
New Town: subdivided from Common in 1862 & 1878

Lunenburg Development 1753 to Present

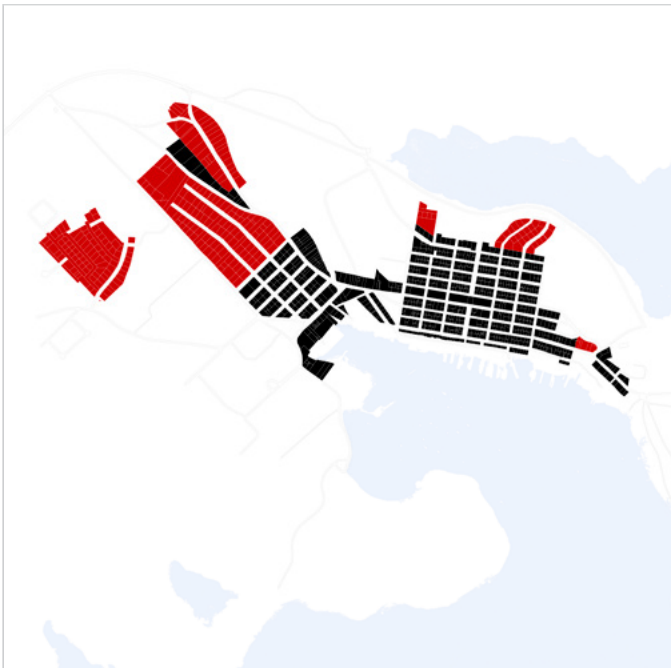
This sequence of maps shows the subdivision of land over Lunenburg's history—adopted from Plaskett (2018).



Other Areas: subdivided from Common in the late 19th century



Areas developed 1920s–1940s



Areas developed 1950s–1980s



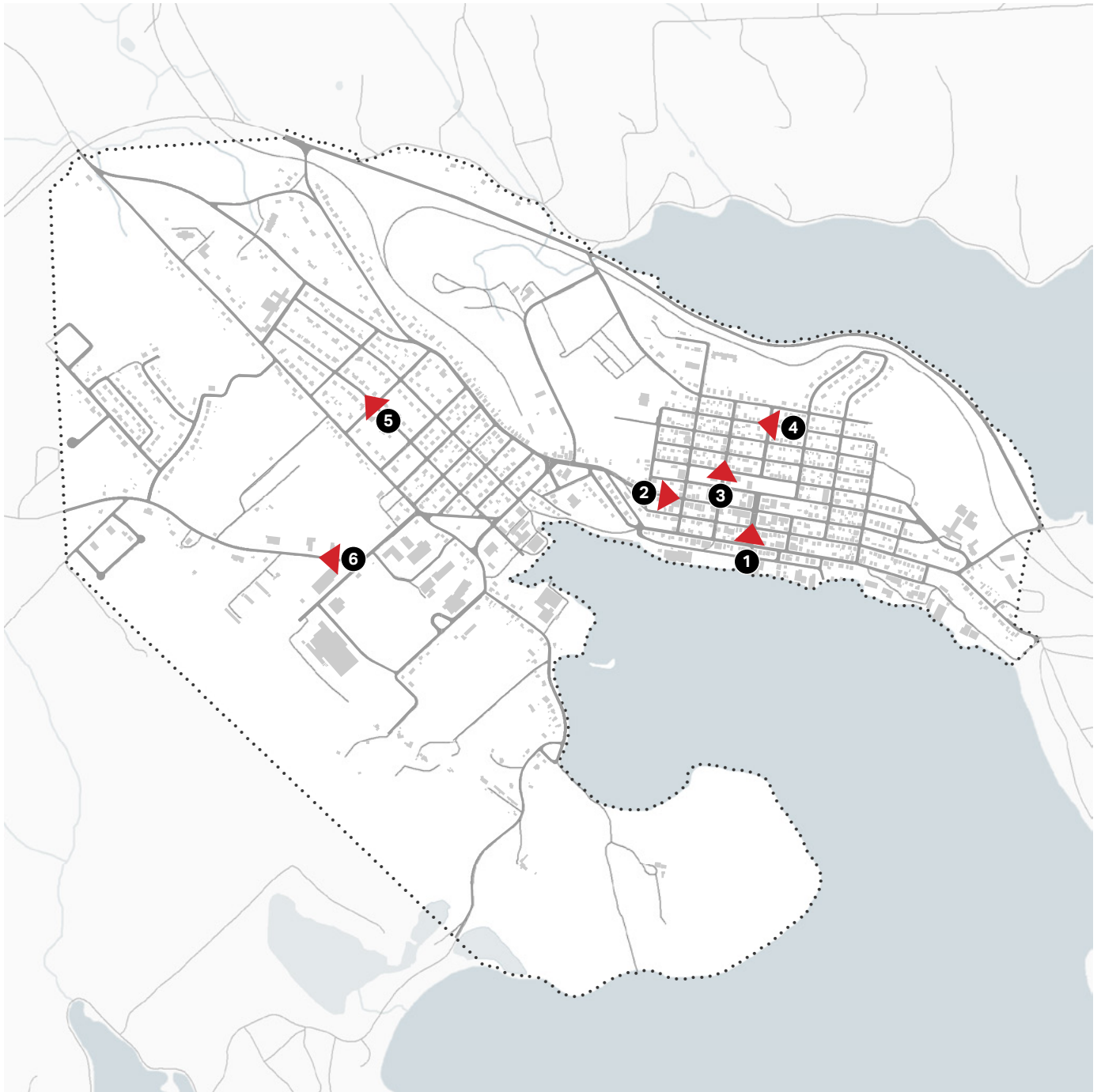
Lunenburg today



The way people experience a street is closely tied to the attributes of the terrain and designable qualities. Certain physical qualities are required to make good streets. These qualities are few in number and appear to be straightforward, but in practice street design is not so simple. The most important qualities are directly related to social and economic criteria for good city-building and placemaking, including:

- ▶ accessibility
- ▶ safety and comfort
- ▶ publicness and interaction
- ▶ bringing people together
- ▶ participation/responsibility in the creation and maintenance of the street

Drawing conclusions for the treatment of Lunenburg's streets of tomorrow requires an understanding of Lunenburg's streets of today. The street cross sections presented here are samples of streets laid out during various periods of Lunenburg's history and with primary roles ranging from residential use, retail activity or simply moving vehicles.



Street Cross Section Locations

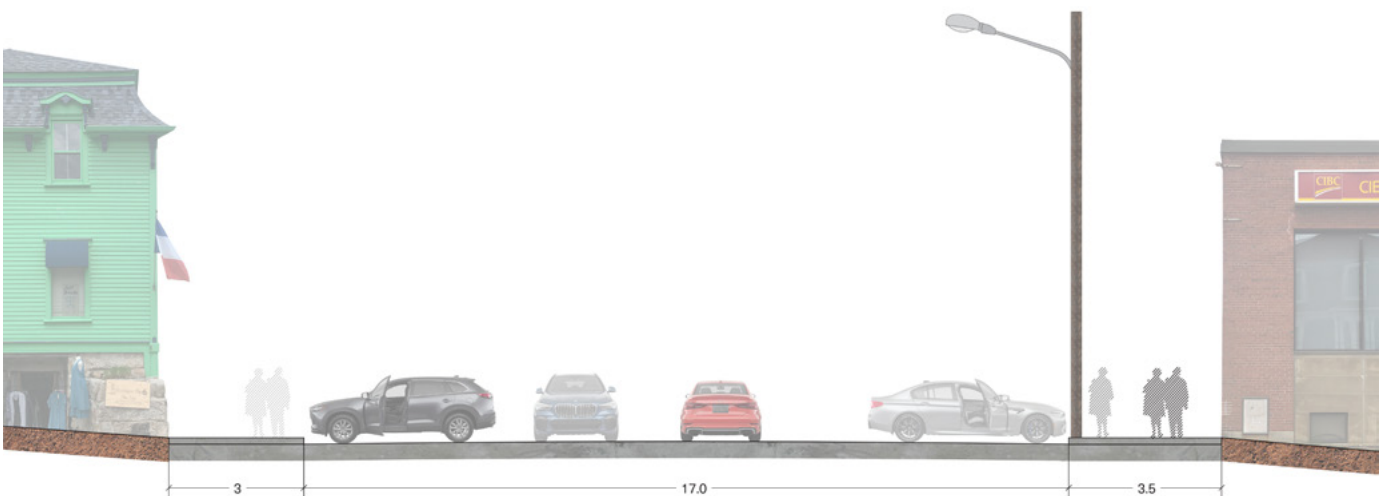
- King Street ①
- Lincoln Street ②
- Duke Street ③
- Lawrence Street ④
- Brook Street ⑤
- Victoria Road ⑥

King Street

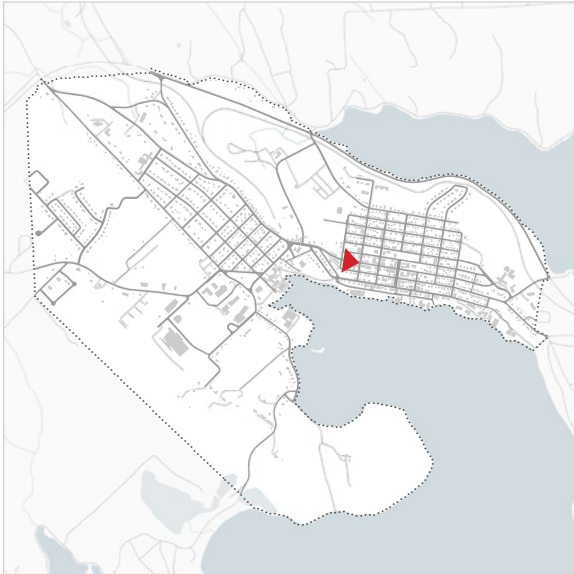


King Street extends from north to south at the centre of the original street grid pattern in the Old Town centre. It is the only 24m (80 feet) wide road in the colonial network of seven north-south streets, all of which are 24m (48 feet) wide. The downtown portion of King Street terminates at the war memorial and band stand. It features a selection of businesses, shops, restaurants and banks. Each side of the street is flanked with diagonal car parking and predominantly sidewalks abutting the buildings. Other elements along the buildings include a variety of steps including stone, clay brick, and concrete steps and ramps. Some edges feature softscape treatments such as planting beds with low iron fence, a narrow grass verge with small trees and some individual planting containers.

~24m ROW



Lincoln Street

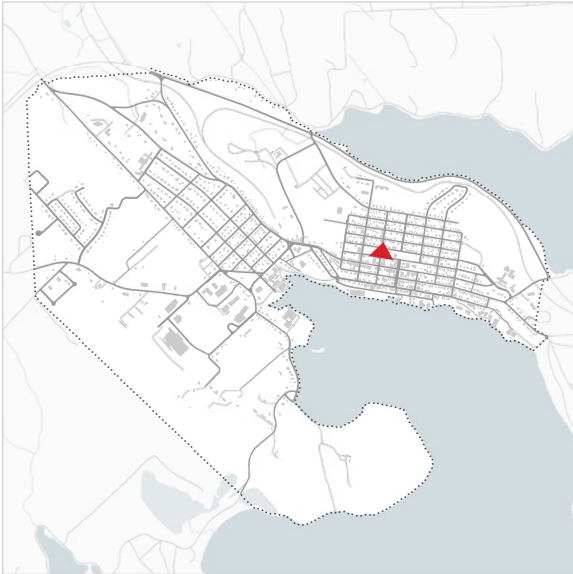


Lincoln Street is one of the original nine east-west streets, 12m (40 feet) wide, and the main vehicular route into Old Town. The street is dominated by shops, restaurants and businesses whose buildings abut narrow sidewalks. The one-way street has one lane for vehicles and one row of street parking. The roadway also accommodates periodic delivery vehicles. Most buildings' main floors are at the same grade as the sidewalk allowing barrier-free entry; others have steps to the front door.

~12m ROW



Duke Street

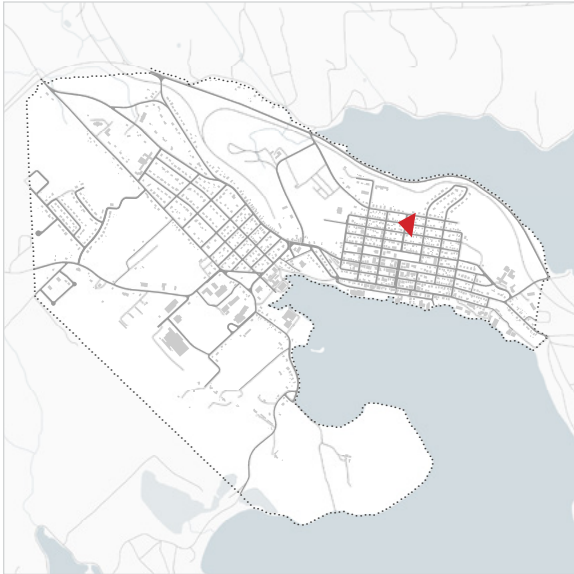


Duke Street runs north-south and links the commercial part of Old Town with the residential area. Along with Hopson and Kaulbach it has a semi-formal structure with sidewalks. The sidewalks run most of the length of Duke until Lawrence Street. The treatments at the edge of the roadway varies between buildings abutting the sidewalk and planting beds or grass areas between buildings and sidewalk.

~14m ROW



Lawrence Street



Lawrence Street is a typical Old Town residential street. The right-of-way treatment varies. Curb runs along a large section of the northern side, with grass predominantly meeting the asphalt edge elsewhere. Front yards typically have asphalt, flagstone or gravel driveways. In some sections, planting beds and hedgerows abut the asphalt edge. A portion of the street has an asphalt swale.

~12m ROW



Brook Street



Brook Street runs northwest-southeast in New Town. New Town is characterized by wider, green, residential streets. Houses are set back far away from the edge of the right-of-way, creating deep front yards with driveways, lawns, trees and planting beds to meet the asphalt. Along the eastern section, there are gravel shoulders separating asphalt and softscape. At the western end, informal parking occurs on the southern side by visitors to the hospital and health centre. Intermittently, there are swales and culverts but predominantly the grade slopes up away from the asphalt.

~17m ROW



Victoria Road



Victoria Road is a local arterial road with a roadway character that changes between the edge of town to New Town, and between residential and commercial areas. A long stretch is dominated by commercial buildings with large asphalt car parks adjoining the right-of-way. Some have little access control, others have planting beds along the street front and between driveways. Some areas feature a swale or ditch. A sidewalk runs on one side of the street from Faulkland Street to Centennial Avenue.

~17m ROW



Comfort



Sun and shade, precipitation, and exposure to wind play an important role in determining the sense of comfort in an urban environment. The best streets are comfortable, at least as comfortable as they can be in their settings. They offer warmth or sunlight when it is cool, and shade and coolness when it is hot. They offer reasonable protection from the elements without trying to avoid or negate the natural environment.

► Climate

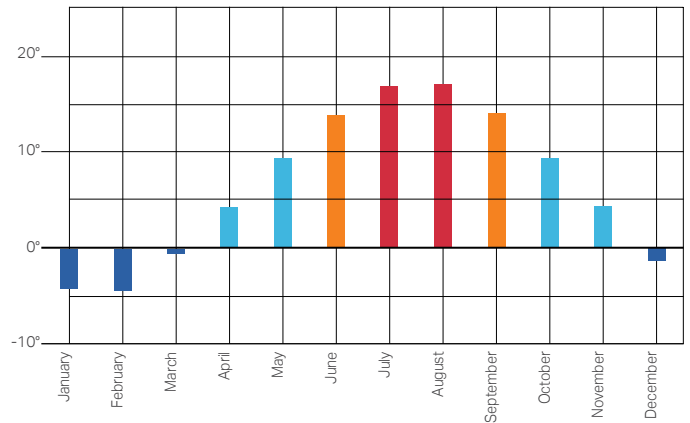
The climate of Lunenburg can be described as temperate, with warm summers and mild winters. Although Lunenburg is on the coast, the climate is greatly influenced by inland conditions, the ocean moderating climatic extremes. These two influences of the colder temperatures from the interior, and the coastal setting result in milder winters and cooler summers than inland. Due to the South Shore's exposure to the Gulf Stream, Lunenburg also experiences a slight seasonal lag with a longer fall and warmer waters than the province's west coast.

Generally, Lunenburg can be described as cool and wet, the average temperature being 6.5 °C. The warmest month of the year is August, which has an average annual temperature of 17.1 °C. The coldest month of the year is February, with an average temperature of -4.4 °C. Lunenburg's moderate temperatures generally enable an active year-around street life, especially if streets and public spaces are designed to maximize comfort.

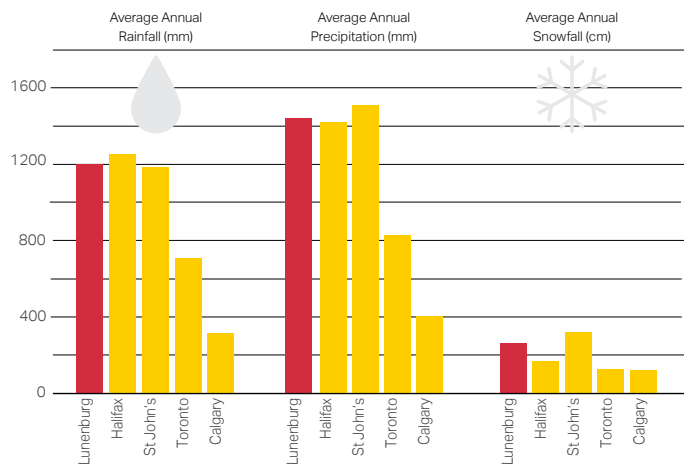
► Precipitation

While Lunenburg has a mild climate, it experiences a great deal of precipitation. The driest month, July, sees 85 mm of rain, while the wettest, December, sees 149 mm. While this amount of rain is significant in comparison to cities across Canada, it is similar to other maritime cities such as Halifax and St. John's. In total Lunenburg experiences 138 days with rain, and 36 days with snow per year. Given this environment, protection from rain greatly enhances how residents and visitors experience Lunenburg's streets.

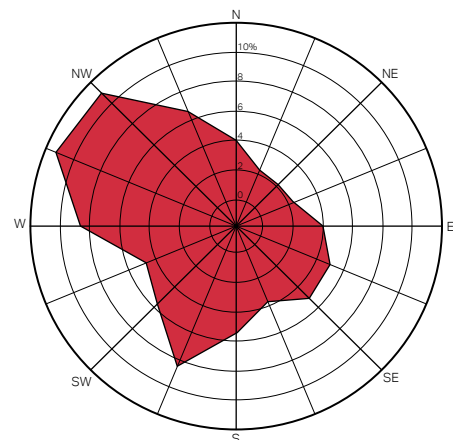
Town of Lunenburg's Average Temperature (° C)



Annual Weather Statistics



Prevailing Winds





► Wind Exposure

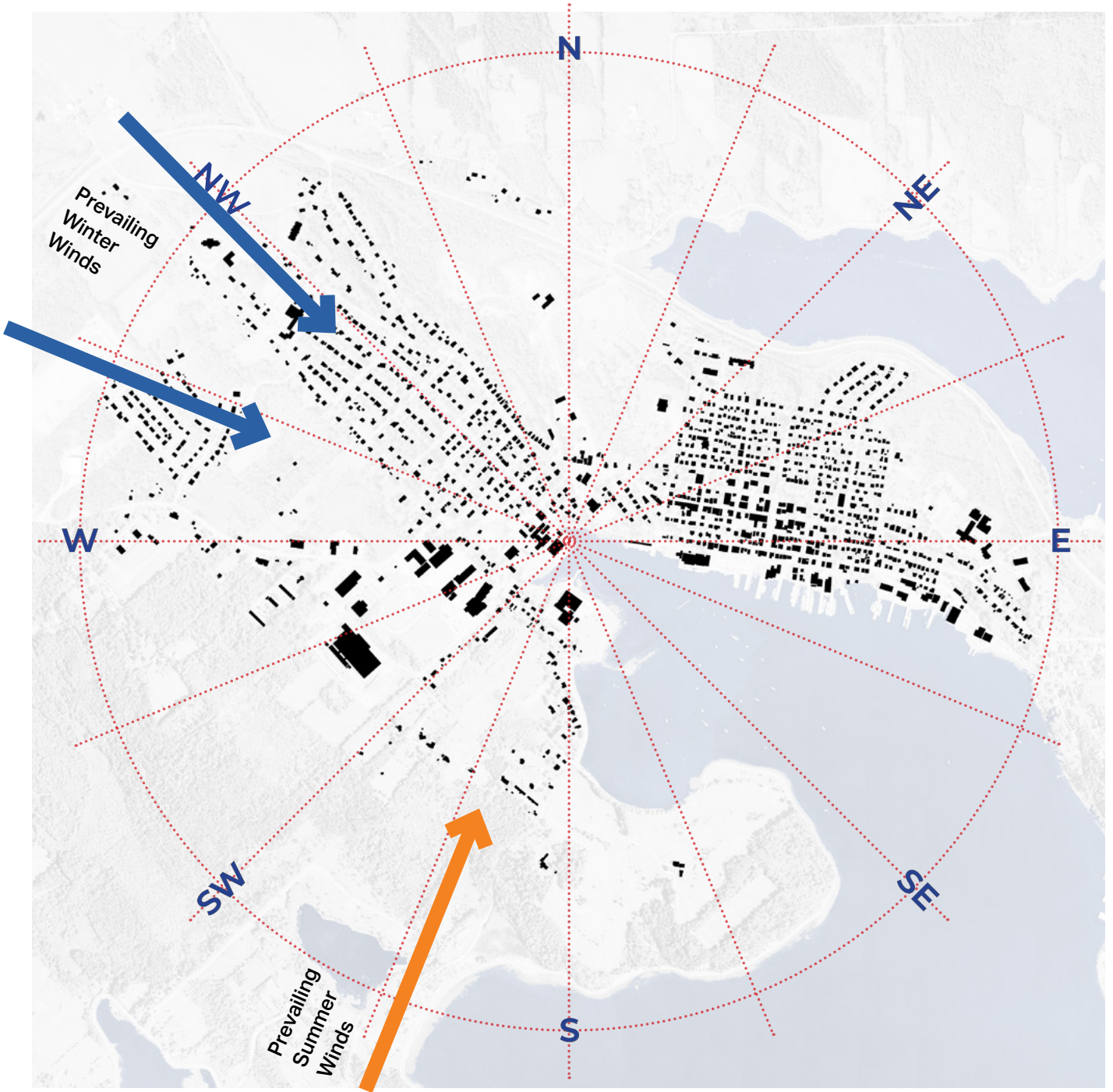
There is seasonal variation in the wind speeds and directions impacting Lunenburg, with the average winter wind speed at 13.4 km/hr and the dominant direction coming from north-west. In the summer, warmer temperatures bring less wind, with the average wind speed of 10 km/hr and the dominant direction from the south.

Typically, urban street winds measure 25-40 percent of the winds outside an urban environment, unless placement and height of buildings are such that winds are accelerated. In the Old Town street grid, east-west streets are more susceptible to wind canyon effects in the winter, while in the summer, north-south streets channel slower flow of air blowing up the South Shore of the province.

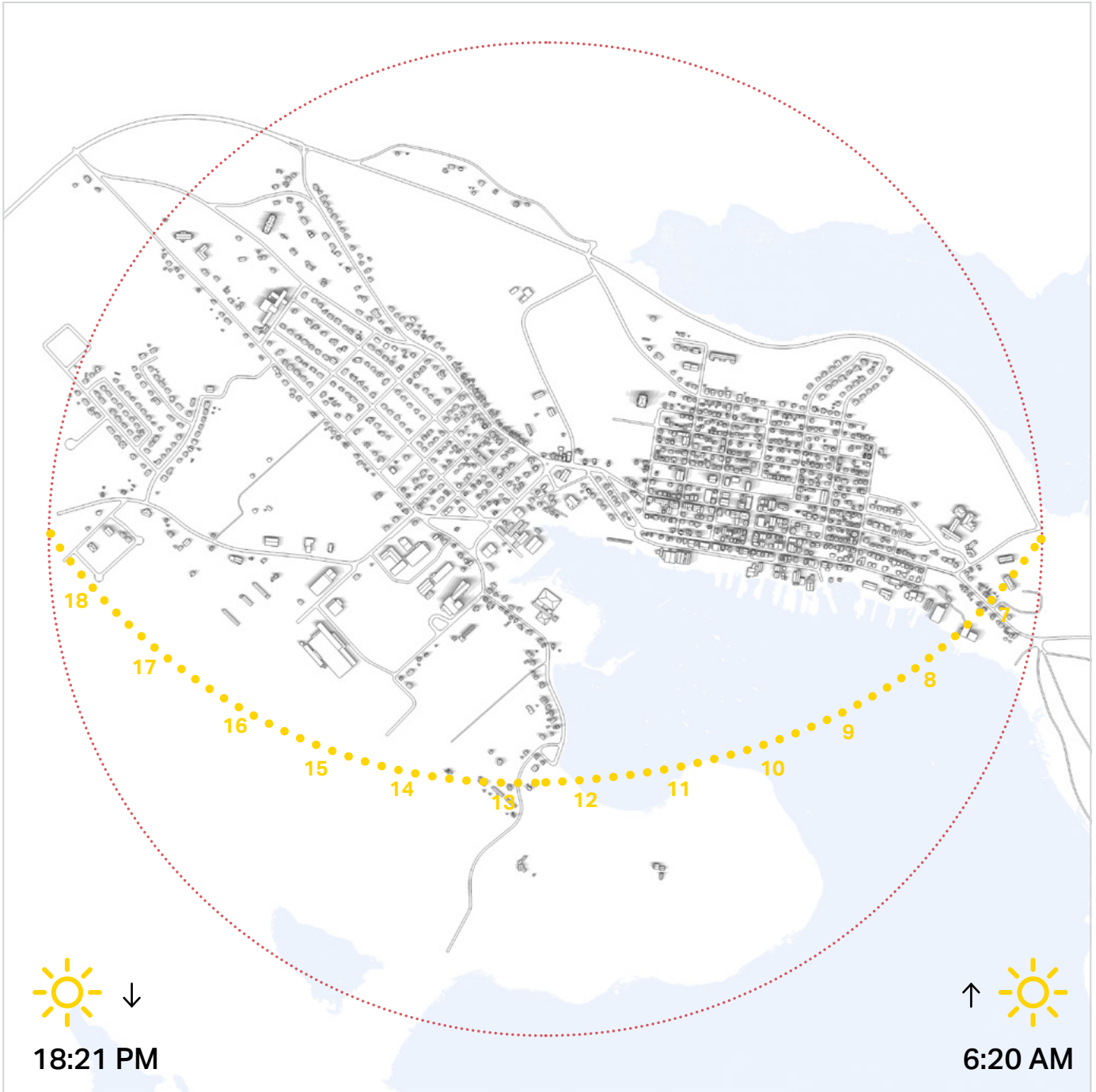
► Solar Exposure

Sun penetration and shadow casting play a critical role in determining the sense of comfort in along Lunenburg's streets. In an often cool and breezy climate, sun conditions have significant impact on pedestrian comfort, the viability of sidewalk cafés, and the overall brightness and attractiveness of streetscapes. Under windless conditions, when no solar radiation is present, a pedestrian dressed in normal attire without an overcoat generally requires temperatures in the 20 to 25 degree range to feel comfortable. In Lunenburg's climate, public spaces and sidewalks benefit from sun exposure to ensure a pedestrian's thermal comfort even during the summer season.

On the date of the spring equinox (March 20), Old Town Lunenburg's streets that run north-south have sunny sidewalks on both sides of the street between 10am and 2pm. Before and after, either the eastern or western sidewalk is shaded by the adjacent buildings. On Old Town streets running east-west, the southern sidewalk is shaded by buildings all day, while the northern sidewalk is largely sunny between 8am and 4pm.



Prevailing Winds

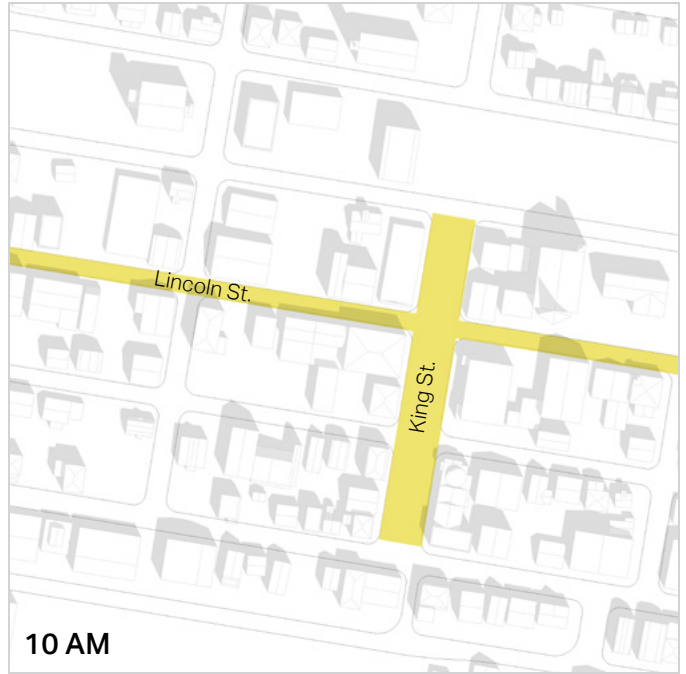


Building Shadow Composite - Spring Equinox, March 20

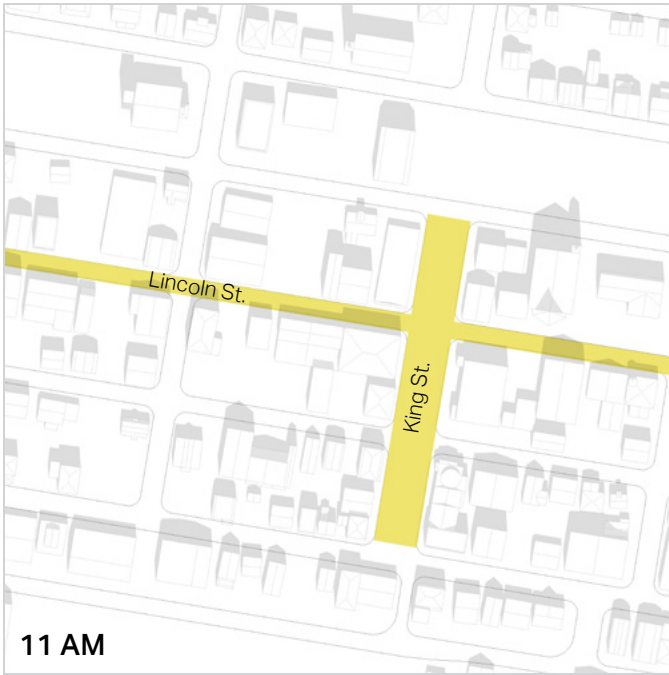
There are two equinoxes every year—in March and September—when the sun shines directly on the equator and the length of night and day are nearly equal.



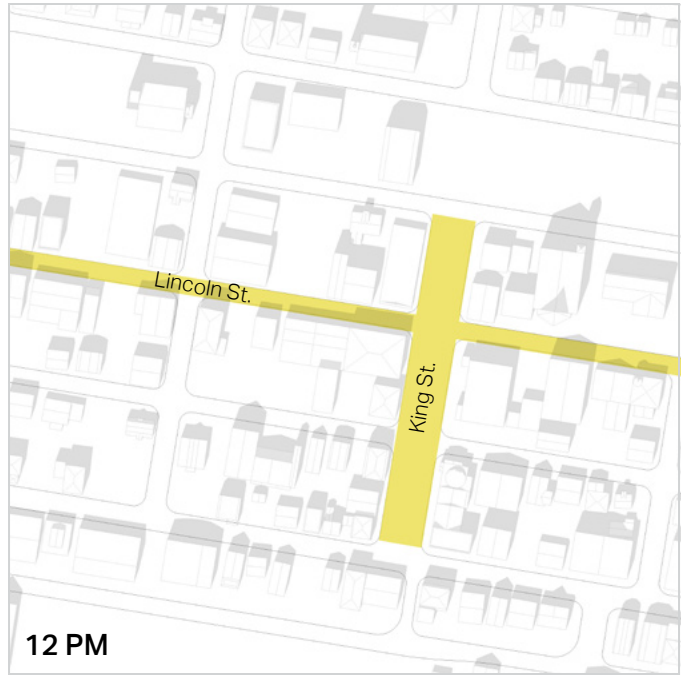
9 AM



10 AM



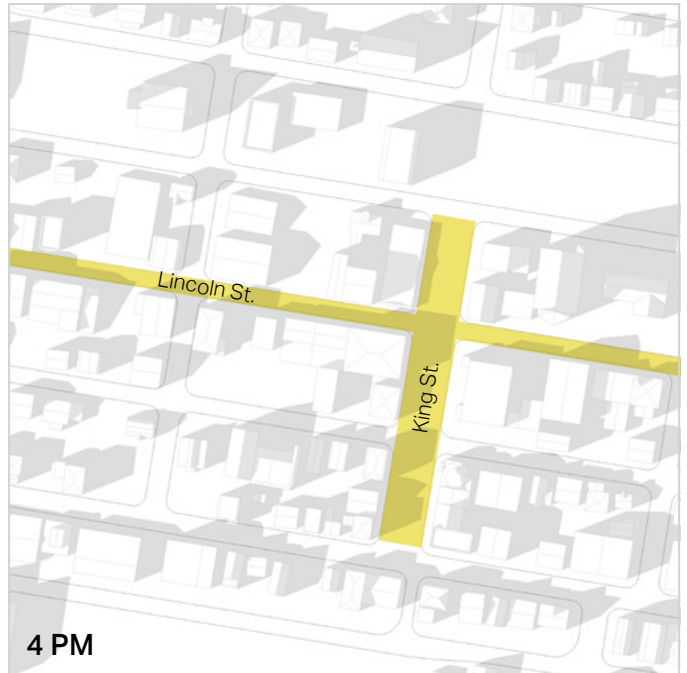
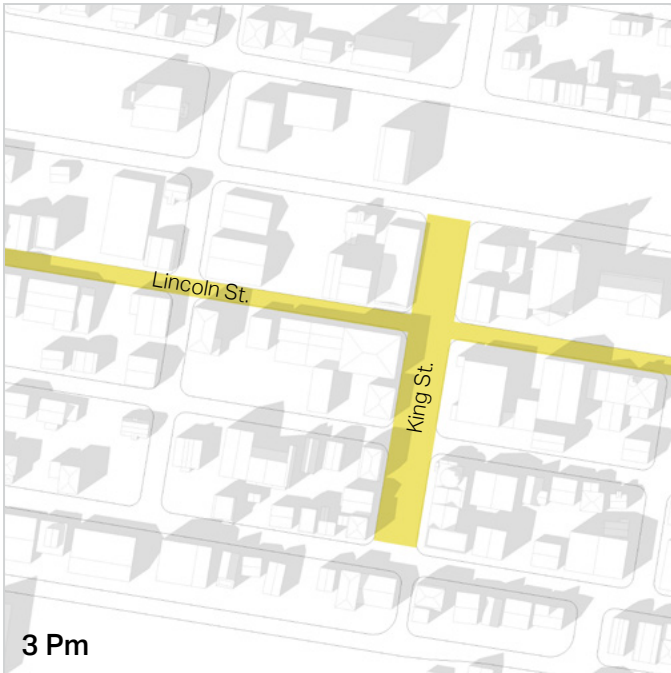
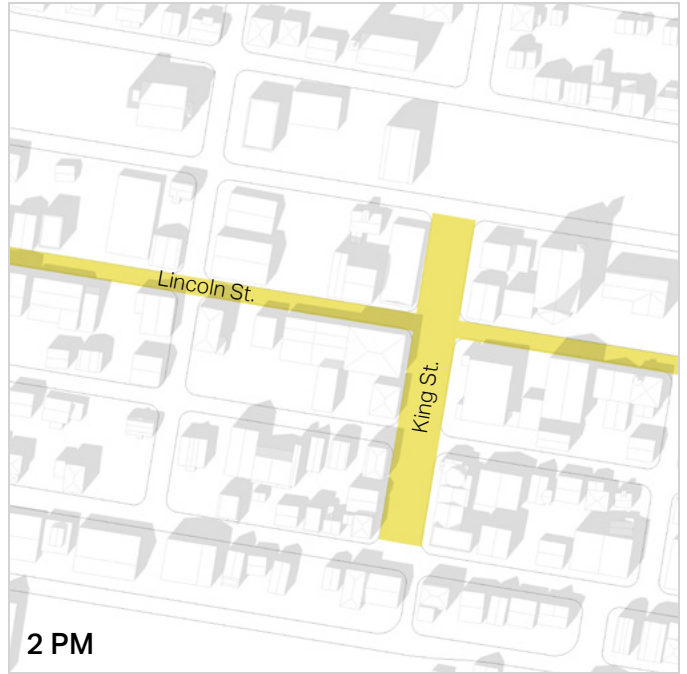
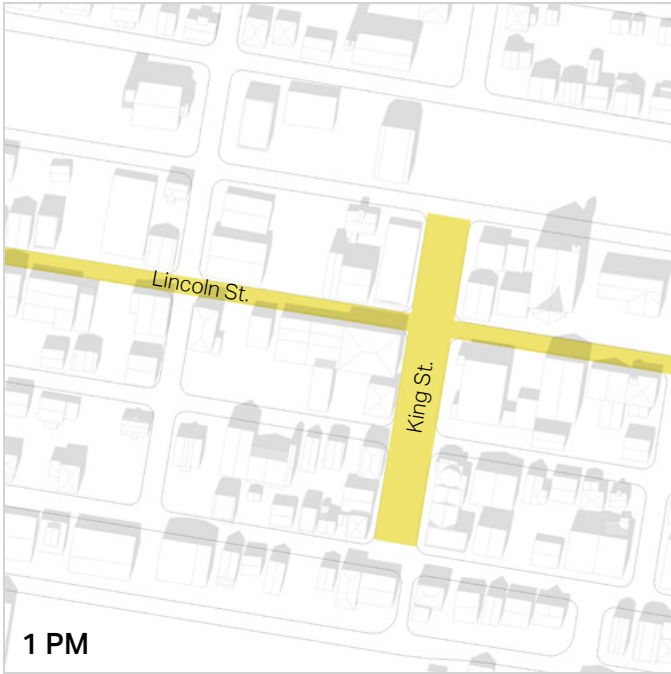
11 AM



12 PM

Old Town Street Sun Exposure - Spring Equinox, March 20

Pictured are shadows that buildings cast on north-south and east-west running streets in Old Town Lunenburg between 9am and 4pm.



Street Trees



Street trees are working trees, serving the community by delineating roadways, calming traffic, reducing street noise, extending the life of asphalt¹, shading pedestrians, welcoming visitors, filtering pollutants, reducing energy consumption², and minimizing stormwater runoff.

Lunenburg's Green Infrastructure report is based on the assertion that municipal trees should be recognized as green infrastructure. The report assesses the current condition of the Town tree network attempting to maximize the benefits derived from municipal trees, while minimizing municipal costs. The report recognizes that trees are an important cultural and natural resource but problems exist with funding, infrastructure and utility clearance, and ongoing maintenance. To mitigate these problems the report outlines desirable species for the climate and a detailed pruning schedule to cut down on municipal costs.

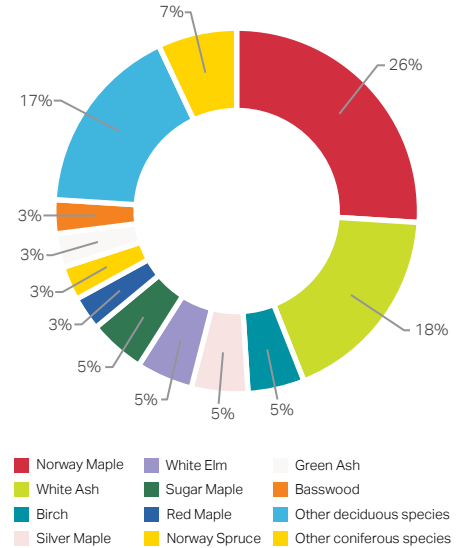
Currently Lunenburg has 1025 municipal trees, of which most are in good health or fair condition, but several are in need of work in order to restore their health and extend their lives. Of the species planted there are also trends of low performance trees, such as Norway maple, white ash, and green ash, which struggle with the coastal climate of Lunenburg. In the future it is recommended that these species be discontinued from planting within the Town in favour of beech, basswood, linden, red oak, hackberry, and sugar maple. Maintaining a diversity in tree species is essential to avoid tree diseases.

Finally, the report found that the size/age diversity of Lunenburg's green infrastructure was less than ideal. To avoid all municipal trees from maturing at once, continuous replenishment of trees is necessary. This can be viewed by the width of the trees, in which the number of young trees (0-12in) should be noticeably larger than the number of middle aged trees (13-24in).

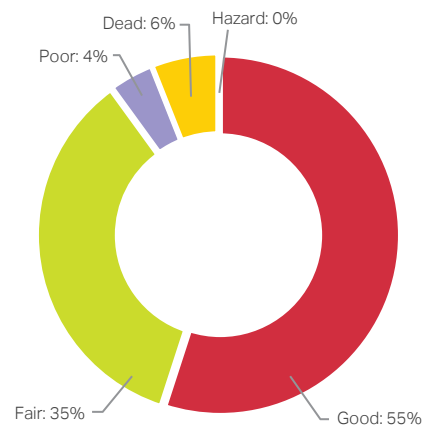
¹ When exposed to high temperatures the binders in asphalt break down and cracks form. Street trees provide shade and thus reduce the temperature of asphalt, leading to slower deterioration of the binding.

² Trees help to modify local climate by lowering air temperature, increasing humidity, influencing wind speeds and reducing glare. In the warmer months of the year, urban areas can maintain lower air temperatures when trees are strategically planted along streets and near buildings, reducing the need for heating and cooling systems.

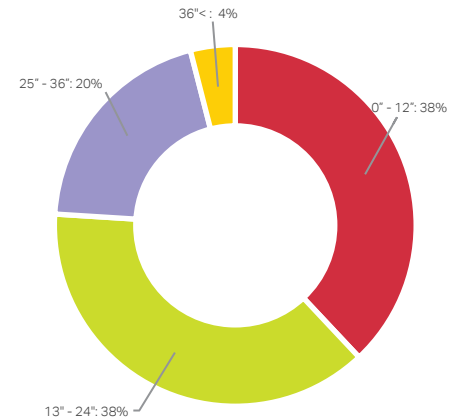
Top 10 Tree Species Distribution



Current State of Tree Health



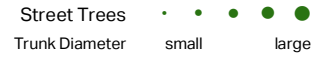
Tree Width Distribution





Street Tree Distribution

Mapped here are 669 municipal trees that were assigned a civic address point in Lunenburg’s Green Infrastructure Report. The remaining 356 municipal trees that could not be geo-referenced are located in municipal parks or along large private properties.





In addition to the street characteristics described in the previous sections, there are a number of other qualities required to make good streets.

► Places for People

Vehicles often share public street right-of-ways with people on foot. Driving in a car however, is not how you meet people. It is on foot that you see people's faces and statures and that you meet and experience them. That is how public socializing and community enjoyment in daily life can most easily occur. And it is on foot that one can be most intimately involved with Lunenburg's environment; with stores, houses, the natural environment and with people. Good streets invite leisurely, safe walking. They have walkways that permit people to walk at varying paces, including most importantly a leisurely pace, with neither a sense of overcrowding, nor of being alone.

► Definition

Good streets have definition. They have boundaries that communicate clearly where the edges of the street are, that set the street apart, that keep eyes on and in the street, that make it a place. Streets are defined in two ways: vertical, which has to do with height of buildings or walls or trees along a street; and horizontally, which has most to do with the length of and spacing between whatever is doing the defining. The wider a street gets, the more mass or height it takes to define it. Tighter spacing of buildings is more efficient than looser in achieving street definition.

► Qualities that Engage the Eye

Good streets help the eye to stay engaged. It is the many different surfaces over which light constantly moves that keeps eyes engaged; separate buildings, many separate windows and doors, or surface changes. Or it can be the surfaces themselves that move and therefore attract the eye: people, leaves, signs or the water in the Lunenburg harbour. While visual complexity is required, it must not be so complex as to become chaotic or disorienting.

► Transparency

Good streets have a quality of transparency at their edges, where the public realm of the street and the less public, often private realm of property and buildings meet. One can see or have a sense of what is behind whatever it is that defines the street, one senses an invitation to view or know, if only in the mind, what is behind the street wall.

► Complementary

Buildings on good streets get along with each other. They are not the same but they express respect for one another, most particularly in height and in the way they look. It is not necessarily the time of construction or similarity of styles that accounts for the design complementarity of buildings along a good street. Rather, it is a series of characteristics, all of which are rarely present on any one street, but enough are there to express regard and respect, one for another and for the street as a whole. The variables are materials, color, cornice lines and belt courses, buildings sizes, window openings and their details, entrances, bay windows, porches, overhangs and shadow lines.

► Maintenance

Care of trees, materials, buildings and all the parts that make up a street is essential. It is more than a matter of keeping things clean and in good repair. It involves the use of materials that are relatively easy to maintain and street elements that last and will stand the test of time.

► Quality of Construction and Design

Workmanship and materials and how they are used impact a street's quality, or the lack thereof. The inappropriate use of materials is often less a matter of money than of choice. Understanding the history of the design of details and materials in public streets is a strong basis for design quality.



Streetscapes Case Studies

► Street Design Standards

In 2018, the District of Lunenburg updated their Subdivision By-law with new street design standards. The updated standards added rural and urban laneway designations, allowing for development along narrower roads with smaller turning radii, reminiscent of many historic rural Nova Scotia communities. By avoiding overbuilt roads, these new designations are designed for lower speeds which enhance the pedestrian environment and change the overall character of the streetscape.

The District of Lunenburg's new road design standards conform with new standards set out by the Transportation Association of Canada, with posted speed limits as low as 30km/h, a minimum 20 metre right-of-way, and minimum 3 metre travel lanes.

The Urban Street Design Guide compiled by the National Association of City Transportation Officials demonstrates how green laneways benefit residential areas with low traffic and infrequent maintenance. Green laneways can address storm water management and reduce the heat island effect by introducing permeable pavement, reflective surfaces, native plants and rain gardens. As these roads tend to run parallel to major streets they eliminate the need for driveways on main streets and offer an ideal route for cyclists and other active transportation users. These can be pedestrian-only streets or shared by all users, with design features like bollards, paint, and contrasting pavers indicating the intended users.



► Innovative Stormwater Management

Innovative stormwater management can treat and slow water runoff coming from impervious roadways, sidewalks and building surfaces. Hardscapes like concrete and asphalt prevent rain from being absorbed, and increased stormwater flows overburden municipal water systems and contaminate local water bodies. This can in turn contribute to flooding and erosion, a major risk for both natural habitats and human-made infrastructure.

Innovative Stormwater management comes in many forms. Bioswales are the most flexible and effective option; a vegetated depression that captures, treats and filters water. Bioswales are often the preferred option for curbless streets, where planted ditches can be easily transformed to best capture runoff. For example, sewage overflow and flooding has been a reoccurring issue in Detroit, Michigan, so in 2015 the city began installing bioswales along the road network. The example seen below was planted in the highway median, typical of the city's recent interventions.

Other stormwater management systems include flow-through planters which connect to underground pipes; previous strips of linear landscaped areas; and previous pavement along streets, gutter strips, parking lanes, sidewalks, and public spaces—anywhere landscaping is not possible or desired.



► Pop-up or Interim Design

Pop-up or interim designs create temporary spaces which often function to build support and test projects before going into construction. This process allows the designers to make changes and adjust the design in response to issues or feedback.

One example of pop-up design, parklets are public seating platforms which replace parking spaces. These gathering spots can encourage socializing, draw attention to local businesses, and improve accessibility of the public realm. Without interrupting the sidewalk, parklets increase seating opportunities and often incorporate bike racks, greenery and café uses. These tend to be a partnership between the municipality and local business or resident associations, and can be removed in the winter for snow and ice removal purposes. Parklet proponents sometimes partner with local artists or student groups to showcase unique, engaging and beautiful design. The design seen below was built by two architecture students in New Haven, Connecticut. The students used wood from dismantled homes and felled trees, creating abstract forest canopies and furnishing the parklet with tables crafted by a local builder.

Similar to parklets, pop-up plazas take over underutilized roadway space where there is low traffic and a lack of pedestrian amenities, to create a public space. These plazas can be large or small and use low-cost materials like movable planters and seating. Partners maintain, oversee and program the space depending on the intended uses.

Another example of a pop-up design, temporary street closures include play streets, block parties, street markets, and open streets. Using barriers to keep cars (and potentially cyclists) out of the roadway, street furniture and programming can transform the block. This concept takes full advantage of roads (typically off peak-hour), and increases foot traffic for local businesses. This can be used either as a test run for future pedestrian or shared streets, or as a reoccurring seasonal or weekly event. While no parking or through traffic is allowed, loading and unloading should be allowed during specified times. Notices and signage ahead of the event alert drivers of the closure and detail alternate routes where necessary.

Street closures come with endless opportunities and the emphasis can be on recreation, active transportation, fitness, shopping, food, or arts. This may create space for programming like open-air concerts; exercise classes; food truck parties; local shopping events; craft fairs; art exhibitions; or dance performances. In the below London example, one community shut down the street for a block party and residents contributed potluck meals, set up decorations and organized their own entertainment.



The Town of Lunenburg Specifications for Subdivisions include the design parameter for the construction of new streets. The narrowest street right-of-way currently permitted in the town is 50 ft on a Low Volume Street. Low Volume Streets are defined as Public Streets which connect to "Local" Public Streets, typically permanent cul-de-sacs and crescents with no opportunity for extension.



Characteristic	Minor Collector	Local - 50 km/hr	Low Volume - 30 km/hr*
Traffic service & function	Traffic movement of equal importance w/ land access	Land access 1 st consideration, traffic 2 nd	Aesthetics 1 st , land 2 nd , traffic 3 rd
Maximum number of lots or dwelling units	n/a	n/a	30
Maximum distance b/w intersections	365 m (1,200 ft)	365 m (1,200 ft)	365 m (1,200 ft)
Maximum street length	n/a	n/a	(a) with walkway connecting to another st: 750 feet (230 metres) (b) without walkway: 330 feet (100 metres)
Parking	permitted	permitted - one side	not permitted
Sidewalks	required on one side	required on one side	not required
Average daily volume	up to 3,000	less than 1,000	less than 300
Average running speed	30 -50 km/hr	30-50 km/hr	15-30 km/hr
Vehicle types	all types w/ truck limits	passenger & service vehicles, limits on lg vehicles	passenger and service vehicles
Design speed	50 km/hr	50 km/hr	30 km/hr
Minimum right-of-way width	20 - 25 m (66 - 80 ft)	16 - 20 m (50 - 66 ft)	16 - 20 m (50 - 66 ft)
Minimum grade	1%	1%	1%
Maximum grade	8%	10% **	10% **
Minimum centreline radius	see TAC	100 m (328 ft)	30 m (66 ft)
Minimum sight distance	85 m (280 ft)	65 m (213 ft)	45 m (148 ft)
Typical road cross section	as determined by Town Engineer	as determined by Town Engineer	as determined by Town Engineer
Minimum K factors	see TAC	crest: 7 sag: 12	crest: 2 sag: 4
Minimum curb radius	10 m (30 ft)	7.5 m (25 ft)	7.5 m (25 ft)

Source: Town of Lunenburg Specifications for Subdivisions

* Public Streets which connect to "Local" Public Streets, typically permanent cul-de-sacs and crescents with no opportunity for extension

** A 12% grade may be allowed under exceptional circumstances

See: TAC—Transportation Association of Canada—Geometric Design Guide

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Built Features: Built features can include archaeological remains, residential, commercial and institutional buildings and structures, such as dams or bridges and site furniture including fences.

Circulation: Circulation refers to individual elements that facilitate or direct movement and travel. This includes: Paths, traditional trails, roads, parkways, highways, railways, canals and portages. Characteristics include alignment, width, finished grade or gradients, surface materials, edge treatment, infrastructure and relationships with neighbouring features

Ecological Features: Ecological Features include natural elements that can be part of a larger ecosystem and may have heritage value.

Evidence of Land Patterns: Land patterns are how naturally occurring elements fit with human-made elements, the mutual influences and interactions between nature and humans and the interrelationships of large-scale elements.

Evidence of Land Use: features that express or support a past or continuing land use, human use of the natural environment.

Evidence of Traditional Practices: Traditional practices are based on close observation and understanding of a local landscape by a cultural community who has a long association with that place. They include beliefs, wisdom, activities, traditions and skills and are passed down to generations providing a sense of continuity.

Landforms: Naturally occurring landforms include mountains, hills, canyons, valleys and planes. Human made landforms include terraces, embankments, ramparts, berms, ditches and swales. Considerations are shape, slope, dimensions and geological material.

Spatial Organization: features that define the volume of an outdoor space. The position of natural and built elements and how they are visually and physically related.

Visual Relationships: Visual relationships are between an observer and a landscape or landscape feature (a viewscape) or between the relative dimensions of landscape features (scale). A viewscape may follow the rules of pictorial composition, elements are located in the foreground, middle ground and background.

Vegetation: Vegetation refers to trees, shrubs, herbaceous plants, grasses, vines, aquatic and wetland plants and other living plant material. May include individual specimens, designed groupings, hedges, crops, reforested areas on hillsides, and naturally occurring plant communities.

Water Features: Water features include constructed elements, canals, ponds, reflecting pools and fountains, as well as, natural elements such as lakes, rivers and streams. Their role may be functional or aesthetic or a combination of both.





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BUILT HERITAGE AND STREETSCAPES

JUNE 2019

UPLAND