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Heritage Resources Centre
Centre des ressources du patrimoine
environment.uwaterloo.ca/research/hrc/

Graphic design by Amy Calder, amy@cawdor.ca

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ARCH, TRUSS & BEAM

THE GRAND RIVER WATERSHED HERITAGE BRIDGE INVENTORY



UNIVERSITY OF
WATERLOO



MARCH 2013

ARCH, TRUSS & BEAM:

The Grand River Watershed Heritage Bridge Inventory

Prepared By

Lindsay Benjamin, Primary Author, Heritage Resources Centre
Dr. Barbara Veale, Contributing Editor, Grand River Conservation Authority
Dr. Robert Shipley, Editor, Heritage Resources Centre
Kayla Jonas Galvin, Editor, Heritage Resources Centre
Melissa Davies, Researcher/Writer, Heritage Resources Centre

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PREFACE

Bridges – primarily road but also railway– are important cultural features within the Grand River watershed and support the national status of the Grand River and its major tributaries as Canadian Heritage Rivers. Some, such as the timber covered bridge of West Montrose, are unique survivors of once common designs. A few, such as the massive, nine-span concrete bowstring bridge across the Grand River at Caledonia, are visually arresting in their scale and form. Yet most of the structures in the watershed are “ordinary” steel or concrete bridges. However, close examination can reveal that they are anything but ordinary in what they can tell us about the past and present. And many, with steel trusses or concrete arches rising above the land have an aesthetic quality.

Bridges, like people, have finite lives. Increased traffic loads, salt damage, and freeze/thaw cycles are some of the common factors affecting bridge life. These events are predictable and the loss of key bridges can be planned for. This is why an inventory, like this one of the Grand River watershed, is so important. The inventory can highlight structures before they become a crisis. With pro-active planning it may be possible to reuse the bridge in less strenuous locations, sympathetically repair rather than replace the bridge, or encourage the design of a new structure to be of equal visual quality to the one it replaced.

But the inventory is not only for management. For those that have a hankering for old bridges, *Arch, Truss & Beam: The Grand River Watershed Heritage Bridge Inventory* is a gazetteer for anyone that wants to explore the area. You can discover parts of Ontario and the adjoining resources you never knew existed.

Christopher Andrae, PhD



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EXECUTIVE SUMMARY

Bridges are an important component of our human heritage, representing an evolution in building materials and techniques as well as reflecting the aesthetics of the time. Early bridges help to demonstrate the role of rivers in the industrial and cultural development of Canada. Bridges in the Grand River watershed act as passageways through time, providing clues as to how and why local communities and economies developed and evolved. These remaining heritage bridges should be interpreted, conserved and celebrated as vestiges linking our collective present to our past.

Heritage bridges represent an endangered species in the 21st century, with many contemporary issues challenging conservation efforts. Rural bridges are experiencing capacity issues due to the intensification of agricultural practices and large new machinery. And with urbanization spreading throughout the watershed in the form of new residential growth and increasing road networks and capacities, heritage bridges are often ill-equipped to compete with newer construction techniques in terms of ease of approvals, affordability and load capacity. Newer structures are not built with an emphasis on design, materials and aesthetics as they once were. Restrictive municipal and provincial budgets have led to an increasing number of utilitarian bridges crossing the watershed's rivers, resulting in an ever-increasing loss of the area's unique cultural heritage identity.

The Grand River Conservation Authority (GRCA), on behalf of watershed municipalities, is the steward of the Canadian Heritage River designation for the Grand River and its major tributaries and has advocated the need for a comprehensive inventory of heritage bridges in the watershed for many years. In 2012, the GRCA and the Heritage Resources Centre at the University of Waterloo formed a partnership to carry out *Arch, Truss, Beam: The Grand River Watershed Heritage Bridge Inventory*. The goal of this study was to support the designation of the Grand River and its four tributaries, identify and encourage the listing or designation of bridges with significant cultural heritage value under the *Ontario Heritage Act*, as well as promote the unique character and tourism potential of structures located in each watershed municipality.

To undertake this inventory, the 39 watershed municipalities (seven upper-tier, 26 lower-tier and six single-tier) and two First Nations were contacted to obtain information on bridges under their jurisdiction. This resulted in full municipal cooperation in the study. Various provincial, private and community organizations, as well as local residents were consulted to gather further background research. Maps were reviewed and site visits carried out to functional and abandoned bridges, as well as abutments. Each bridge that exhibited potential cultural heritage value was evaluated using the *Ontario Heritage Act's (OHA), Ontario Regulation 9/06: Criteria for determining cultural heritage value or interest*. Of the 678 bridges inventoried, 167 (25%) were found to have heritage value. As well, 38 demolished structures were identified that were most likely heritage bridges. Additionally, 13 bridges formally designated under the *OHA* were identified. Figure 1 illustrates the inventory's main findings.

This inventory hopes to contribute to the growing discourse surrounding heritage conservation in Ontario, while building on the seminal work undertaken by the Toronto and Region Conservation Authority, *Crossing the Humber: The Humber River Heritage Bridge Inventory*. This project represents the adaptation of the bridge inventory process as a conservation planning tool to meet the unique context of the Grand River watershed: the largest inland watershed in southwestern Ontario, comprised of 6,800 km². This tool could be further adapted by other watersheds to elaborate on the base of knowledge surrounding the conservation of Ontario's heritage bridges.

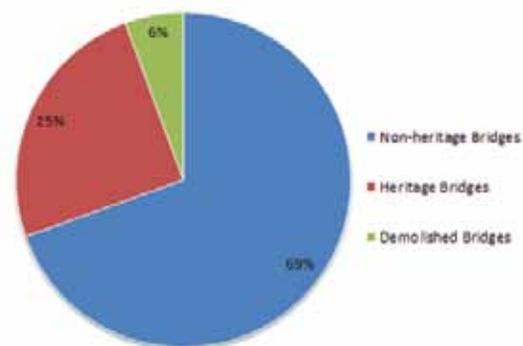


Figure 1. Summary of inventoried bridges in the Grand River watershed.



1.0 Introduction

The awareness of cultural heritage assets in Canada is growing. Many cities and other municipalities now have professional planners on staff dealing with heritage issues. Perhaps more importantly, most communities also have dedicated volunteers working to conserve historic sites.

Both heritage planning professionals and concerned citizens require an ever-increasing amount of reliable information in order to do their work. When called upon to comment and advise decision makers, heritage experts must be clear on the values that buildings and sites possess, what might be acceptable changes and which proposals would compromise the historic value.

Bridges are one class of heritage structures that are particularly important to our understanding of the cultural landscape around us. Few other types of human built features are as iconic and can be considered landmarks as often as bridges. In many cases they are the key structures that give character to an area whether rural or urban.

This study is intended to equip heritage advocates with the solid information they need to provide the best advice possible to decision makers at all levels. We hope that readers find it useful.

*Robert Shipley PhD, MCIP, RPP, CAHP
Director, Heritage Resources Centre*

1.1 Background

In 1987, the Grand River Conservation Authority (GRCA), on behalf of its member municipalities, spearheaded a participatory process to have the Grand River and its major tributaries, the Speed, Eramosa, Nith and Conestogo Rivers, declared Canadian Heritage Rivers (CHR). This status was achieved in 1994 based on outstanding river-related human heritage and recreational features/values of national significance. The status gives national recognition to the rivers but carries no regulatory or legal restrictions.

While there is a general awareness throughout the Grand River watershed that the Grand River and its major tributaries are Canadian Heritage Rivers, people are often unaware of the heritage features/values for which this honour was based. Because many of these features/values are aging and deteriorating, there is significant pressure on municipalities and landowners to replace them with modern structures (i.e. bridges) or to raze them (i.e. buildings) to facilitate new development. In many cases, decisions to demolish a heritage structure are made without knowledge that it is important to the heritage river designation. The creation and perpetuation of this knowledge was the impetus to inventory the watershed's heritage resources.

The *Heritage River Inventory*, carried out from 1988-1990 prior to obtaining the designation, initially included only the 12 heritage bridges identified in the Ontario Heritage Bridge Program (1991). Historic bridges represent one of the key themes contained in the *Cultural Framework for Canadian Heritage Rivers*, released in 2000 by the Canadian Heritage Rivers Board. This framework revealed a significant gap in the *Heritage River Inventory* because the heritage value of most bridges within the Grand River watershed had not been formally assessed, leaving their significance to the heritage river designation undetermined. Concurrently, because of their deteriorating condition, a growing number of historic bridges throughout the watershed were being replaced. Consequently, the Heritage Working Group, a group formed in 1995 to promote heritage features and values that support the Canadian Heritage River designation, identified that an update to the *Heritage River Inventory* with a primary focus on heritage bridges was needed.

In 2003, Robinson Heritage Consulting was retained to undertake a *Grand River Heritage Bridge Inventory (Grand Old Bridges)* in support of the first decadal Monitoring Report for the Grand River required for submission



to the Canadian Heritage Rivers Board in 2004. Given the budget for the project, the inventory work was based on secondary sources of information; no primary research was carried out. The consultants considered 99 bridges throughout the watershed, most of them along the main stem of the Grand River. A total of 69 bridges were considered to have heritage significance, supporting the heritage river designation. Due to the limitations of the study, the inventory cannot be viewed as a definitive reference on the historic value of all bridge structures in the Grand River watershed, as a limited study area was explored. The *Grand Old Bridges* inventory was supplemented by information obtained through a comprehensive inventory (*Spanning the Generations, Phases 1-3*) of heritage bridges in Waterloo Region undertaken by the Regional Municipality of Waterloo in 2004 and 2007. However, knowledge of historic bridges in other parts of the watershed was still unexplored.

From March 2012 to March 2013 the Heritage Resources Centre (HRC) at the University of Waterloo, in partnership with the GRCA and the Heritage Working Group, undertook a comprehensive inventory of heritage bridges within the Grand River watershed in an effort to inventory and evaluate as many bridges as possible. This inventory and report has been compiled to support the watershed's unique river-related heritage as well as to promote the outstanding structures that should be conserved for future generations and celebrated as cultural relics of our past accomplishments. The Toronto and Region Conservation Authority's ground-breaking inventory, *Crossing the Humber: The Humber River Heritage Bridge Inventory* (2011), has been used as a template to guide this work.

1.2 Project Goals

An inventory and evaluation of the significance of bridges in the Grand River watershed has never been carried out, with the exception of *Grand Old Bridges* and the Region of Waterloo's *Spanning the Generations*. This report provides a comprehensive inventory of bridges in the watershed with the goal of identifying structures with cultural heritage value eligible for listing or designation under the *Ontario Heritage Act*. A primary goal of the project was to ensure that each municipality in the watershed cooperated in providing information on bridges under their jurisdiction; this was achieved watershed-wide. This inventory should be viewed as an initial step in establishing an ever-evolving inventory of heritage bridges that can be continuously updated as further information is obtained.

This bridge inventory will provide a planning tool for decision-makers to consult when work associated with a bridge is contemplated. It will:

- identify whether or not a bridge has heritage significance at both the regional and watershed scales. If deemed significant, the bridge would be considered an important feature that supports the heritage river designation for the Grand River and its major tributaries
- ensure consistency in the criteria and approach used to evaluate bridges across municipalities and build on the work already completed by the Region of Waterloo
- identify bridges with heritage value to promote appropriate policies and procedures for management of these assets as set out by the *Provincial Policy Statement*, the *Ontario Heritage Act* and guided by the Ontario Heritage Tool Kit produced by the Ministry of Tourism, Culture & Sport
- identify whether or not a Heritage Impact Assessment (HIA) would be required as part of an Environmental Assessment (EA) process. If required, the information supplied in this inventory would provide a base for further research, thereby saving time and expense for the proponent
- provide easily accessible information about the cultural heritage value of a bridge for planners, engineers, architects, property owners, municipal heritage committees, developers, the tourism industry, educators and the interested members of the general public through the GRCA's Grand River Information Network (GRIN) mapping tool, thereby saving time and expense in searching for information
- provide a central element of a municipal cultural plan that begins with mapping local cultural assets and then leverages these resource for economic development and community building
- foster civic identity and pride by drawing attention to the heritage and development of communities within the Grand River watershed



1.3 Evolution of Bridge Building in the Grand River Watershed

The history of bridge construction is important to understanding the cultural and developmental evolution of any area. It has relevance not just locally, but speaks to the development of Canada as a nation. As technological advances were made, construction techniques improved and life ways were able to advance and adapt to the landscape. Canadian Heritage Rivers are celebrated for their representation of this evolution not just in settlement patterns but also in the evolution of building technology, most notably bridges.

The Grand River and its major tributaries (Nith, Conestogo, Speed, Eramosa), designated Canadian Heritage Rivers, played a significant role in the settlement of the area. Bridges over these rivers allowed settlers to spread and communities to develop and thrive. Ingenuity was needed to build structures that could span large watercourses and handle the unpredictability of flooding and harsh winters. It was this development of technology and innovation that allows us to trace our past through the bridges that remain today.

First Nations peoples occupied the land of the Grand River watershed prior to the arrival of the Pennsylvania-Dutch Mennonite pioneers who settled in the area around 1800. The First Nations' strong knowledge of the landscape led to the identification of areas that allowed for the most accessible means across the watershed's many streams and rivers. Often these crossings were fords, such as Brant's Crossing in the City of Brantford and Doon and Bridgeport in the City of Kitchener. Today many of these fords are still used as active crossings and archaeological sites remain at some of the most notable bridges in the watershed, such as the Cayuga Bridge in Haldimand Township.

Following the First Nations' understanding of the land, Pennsylvania-Dutch Mennonite pioneers began to settle the area building bridges out of timber at these early crossings. In order to accommodate agricultural land, the settlers cleared forests, accumulating vast quantities of logs. This resulted in the construction of cheap and efficient timber bridges. Initially, these timber bridges consisted of two straight logs laid across the stream with smaller boards placed across to create a deck. These bridges, however, proved ineffective for rivers with larger spans. Therefore, settlers used their knowledge of building barn roofs and applied it to bridge structures by utilizing king and queen post trusses in their design. Timber was also used to build crib abutments and piers for bridges with more than one span.

Railway companies introduced more elaborate truss bridges in Ontario around 1850. By this date, numerous truss designs had been developed. Pratt and Warren trusses, seen throughout the Grand River watershed, were patented in 1844 and 1848 respectively. Truss bridges, at the time, were being built using wrought iron due to its functionality and malleability. Wrought iron bridges were most often found in thriving industrial towns that could afford their construction. For example, both Brantford and Paris had wrought iron bridges built in the 1870s. Timber bridges were still extremely popular in Ontario until the 1890s when steel became a more affordable bridge material. The first steel highway bridges appeared in Ontario around 1885. American steel truss bridges were the first to become popular in south-western Ontario, including Carnegie Steel from Pittsburgh, Pennsylvania. After 1900, companies in Hamilton (Hamilton Bridge Company Ltd.) and Walkerville began producing steel for bridge construction and can be identified to this day by their builder-plates displayed on the ends of bridges.

Steel bridges allowed for larger load limits and continued to be built well into the automobile era. It was common for these bridges to be built high above the river's flood plain, as evidenced in several steel truss bridges in the Grand River watershed due to its varying flow levels. Steel pony truss bridges were relatively inexpensive and could be constructed quickly. These bridges are scattered throughout the rural areas of the watershed. Through trusses were built where a large span was to be crossed, or where large loads were anticipated.

Although steel truss bridges were soon found throughout Ontario, many municipalities still could not afford to construct them due to the high price of materials. As a result, concrete arch bridges with a simple design, built with local labour and material, were often a better option for building affordable, yet durable spans in these municipalities. The first reinforced concrete arch in Ontario was built in 1906. The oldest concrete bridge in the Grand River watershed is an earth-filled concrete arch bridge, built in 1908 in the Township of Centre Wellington along the former Fourth Line.



In 1899, A.W. Campbell, a government instructor in road building, encouraged the use of concrete to provide an inexpensive, long-lasting bridge material. Concrete became a dominant material for bridge building in southern Ontario from this time on, as local aggregates were easily accessible for local contractors. Several stone bridges were also built around the turn of the century, but masonry was not used in excess to build bridges in Ontario due to the required time, money and skill.

Another concrete design also became significant in this era: the concrete bowstring arch, or concrete truss bridge. The first of its kind was built over the Etobicoke River in 1909. One of the most significant concrete bridge builders in the Grand River watershed was Charles Mattaini. He was responsible for many of the concrete bowstring bridges built between 1903 and 1929 in Wellington County, and several bridges in the Region of Waterloo and Grey County. Originally from northern Italy where concrete bowstring bridges were common, Mattaini introduced the design to Ontario and more specifically, the watershed. These single-lane concrete bowstring bridges are of particular importance to Wellington County, more specifically the Township of Centre Wellington, because of their age, style and concentration in numbers. These bridges are indicative of the transition from horse-drawn vehicles to motorized vehicles and farm equipment. They also demonstrate the existence of an organized public works body as many of these bridges were overseen by Mattaini, but built with local labour and materials. Experimentation with the bowstring bridge design can be seen throughout the watershed by examining the varying stream sizes and technical skills. Many of these structures are still in use, proving the durability of this particular design. However, along with steel truss bridges, they represent the most endangered bridge type in the watershed. Bowstring bridges are quickly being demolished to make way for larger, increased load bearing structures that can accommodate two lanes of high-speed traffic.

After 1929, Mattaini gave permission for Barber & Young to use his design. Hired by the Wellington-Guelph County Council, Barber & Young refined the design and continued to build bowstring bridges both in and outside of the watershed. Mattaini did not patent or sell the design of these bridges. Instead he chose to leave a legacy in Canada as thanks for welcoming him and his family. Barber & Young continued to build many noteworthy bowstring bridges in the watershed, including Kitchener's five-span Bridgeport Bridge in 1934. Other prominent bridge builders constructed impressive multi-span bowstring bridges, such as the nine-span Caledonia Bridge constructed by Randolph MacDonald Co. Ltd. in 1927, and the seven-span Freeport Bridge built by Campbell & Lattimore in 1926.

Simple, solid slab concrete bridges were also favourable during this period, as they were easy to build and ideal for short spans. Concrete beam bridges were built to cross larger spans. Around 1930, the rigid frame bridge was introduced and quickly became the favoured design for highway overpasses. This style can be seen dating back to the early 1920s in the Grand River watershed, and is a common bridge design still seen today.

World War I caused bridge construction to slow due to reduced labour, money and demand. After the war ended, there was a spike in personal motorized vehicle use, which meant that larger, stronger bridges needed to be built. During the Great Depression, bridge construction increased despite an economic downturn. Public works programs were established to create make-work projects for the unemployed by increasing government work initiatives such as the construction of many concrete structures in the watershed.

During the period from 1914 to 1930, there were a variety of materials and designs available to those building bridges. This led to discussion amongst engineers about the aesthetics of bridge design and how much visual impact a bridge should have on the surrounding environment. As early as 1911, Professor C.R. Young noted in a paper read to the Canadian Society of Civil Engineers that there was a lack of attention to the aesthetics in bridge design and that it reflected "graceless structural outlines, misuses of ornamental features, poor finishes, surface discolouration and untidy and ill-kept approaches and surroundings" (Cuming, 1983). Also, in 1915, an editorial in *The Canadian Engineer* commented on the increased need for aestheticism in bridge designs (Cuming, 1983). Engineers at the time were described as being too concerned with building bridges from a utilitarian perspective with little care for the surrounding natural environment. By 1939, engineers and road builders were confident in the visual appeal of the structures they were building. However, Victor Murray, an assistant engineer with the Ontario Department



of Highways stated in *The Canadian Engineer* in 1939 that “a departure from the strictly functional is no longer considered a sign of weakness” (Cuming, 1983). He continued to state, “a beautifully designed bridge has a certain value to a community which cannot easily be expressed in dollars, but which pays in the pride that it creates in a community” (Cuming, 1983). This observation still has relevance today for the many who value the cultural heritage value of an ascetically appealing bridge.

In 1939, the Second World War caused bridge construction to slow dramatically. Few bridges were built throughout the province due to high costs and the low availability of labour. After the war, however, bridge construction once again rapidly increased as part of the ‘building boom.’ Thousands of bridges were constructed and rehabilitated. Several of these were large projects including bridges on the Trans-Canada Highway and Highway 401. These larger projects required longer bridges and overpasses. To accommodate these needs, the use of pre-cast and pre-stressed concrete began to appear and continues to be the most widely used material in bridge construction today.

With the rapid population increase, there was a greater demand for bridge capacity, as well as an increased focus on safety. The design philosophy in 1965 was based on safety and engineering considerations. The Ontario Department of Highways stated that “the ideal situation is one where the motorist is unaware he was crossing a bridge” (Cuming, 1983). This design was implemented by having no part of the bridge projecting above the road deck, carrying the shoulders of the road across the bridge and by having low, concrete, simple guardrails. Aside from a few exceptional bridges such as the Burlington Skyway (1958) and several steel through truss bridges built in the watershed (Fergus, Elora, Drayton) during the 1950s and 1960s, many standardized rigid frame bridges were quickly built throughout the watershed and the province in an attempt to reach optimum efficiency. This represented a significant diversion from the sentiments of engineers in the first half of the 20th century who placed an increasing value on bridge design and aesthetics. Many of these newer bridges were plain and lacked decoration to reduce construction time. During this period, any steel, iron or timber bridge that was deemed unsafe and in need of repair was demolished and quickly rebuilt using this standardized design, resulting in the loss of many of Ontario’s earliest and most unique structures.

However, there are some extant success stories in the watershed representing designation, rehabilitation and sympathetic new construction. Brant County has taken commendable strides to conserve the Brant Bowstring Bridge (B4), the only of its type in the County. Its decision not to demolish the bridge, but rather to designate it, indicates the active role the County is taking in protecting and preserving its heritage despite development pressure. Similarly, the Township of East Garafraxa has dedicated significant funds to the rehabilitation of the McPherson Bridge (EX1), a majestic double bowstring arch (tied) crossing the Grand River. The City of Guelph has undertaken the designation of more bridges than any other watershed municipality, with five bridges protected under Part IV of the *Ontario Heritage Act*. The Township of Guelph/Eramosa is taking the initiative to rebuild new structures that reflect the local evolution of bridge design. The character of the area coupled with the designs of original builders and engineers significant to the community are being reflected. For example, the Eden Mills Bridge (RGE1) was reconstructed in 1998 to reflect the elegance of the 1913 concrete bowstring arch bridge it replaced. And Hagan’s Bridge (RGE2), a camelback pony truss structure was constructed in 1995, a rare find so late in the 20th century. As well, the Region of Waterloo has invested heavily in the rehabilitation of the Freeport Bridge (K1) and Bridgeport Bridge (K2), ensuring the conservation of these rare multi-span concrete bowstring arch structures for future generations.

2.0 Purpose

The purpose of this inventory is to:

1. Identify and record as many bridge crossings in the Grand River watershed as possible regardless of heritage significance
2. Evaluate each bridge to determine if it possesses significant cultural heritage value



3. Compile background research on identified heritage bridges that may lead to listing on a municipal heritage register or designation under the *Ontario Heritage Act*
4. Support the Canadian Heritage River designation for the Grand River and its major tributaries (Nith, Conestogo, Speed and Eramosa Rivers)
5. Contribute to cultural mapping efforts throughout the watershed by increasing community awareness of the significance of heritage bridges, remnants and demolished structures
6. Encourage heritage tourism through cultural planning
7. Contribute to the growing discourse surrounding conservation planning in Ontario

2.1 Scope of focus

This inventory evaluated bridges that cross bodies of water in the Grand River watershed, including each of the five Canadian Heritage Rivers (Grand, Nith, Speed, Eramosa, Conestogo) and their tributaries. Bridge types recorded include those that carry vehicles, rail and pedestrians, and may be active, inactive, remnant or demolished (if information is available). For the most part, remnant bridges included abutments and/or piers. A cut off age of 35 years was decided upon. Although the provincial norm for a resource to be considered heritage is 40 years, 35 years was chosen to provide a broader view of the watershed's existing and future heritage resources. These structures may be located on public or private property, and constructed of any material (see Appendix G for a general overview of Ontario bridge types). Due to the vast area encompassed by the watershed (6,800 km²), culverts were not evaluated as their numbers proved too numerous. All heritage bridges have been captured with site visits and photographs and included in an overall bridge inventory database.

Following the example set by the Toronto and Region Conservation Authority's (TRCA) award-winning inventory, *Crossing the Humber: The Humber River Heritage Bridge Inventory*, the definition of "heritage" used to guide this inventory is "based on the age of a known structure, its uniqueness, rarity, and contribution to community culture and character" (2011).

2.2 Limitations

Due to the extensive scope of this inventory and the limited temporal and financial resources available, some limitations were unavoidable. The roadblocks experienced throughout the research process have been included to aid in streamlining future inventory work.

The necessary reliance on multiple sources to obtain information made it difficult to ensure some bridges were not missed through human error. For example, failure to attach an Ontario Structural Integrity Management (OSIM) report for one bridge among many in an email, etc. Of the 678 structures that were inventoried, several more would have been included if unused roads, private property and rail lines were explored. More bridges in the Region of Waterloo could also have been identified, however site visits were not conducted as the Region had been extensively studied in two previous inventories: *Grand Old Bridges* and *Spanning the Generations*. To ensure time remained to visit and inventory unexplored portions of the watershed, bridge information for the Region of Waterloo was extracted from existing resources.

The collection of archival information was also difficult as most relevant information is scattered throughout the watershed's 39 municipalities and two First Nations, and maintained in varying degrees of organization by a plethora of archives, groups, societies and committees. Information on builders, architects and engineers was scarce and would have required a great deal of archival research.

It is hoped that further research on the watershed's bridges will continue to be undertaken building on the methodology and growing this inventory.



The inventory's inclusion of 167 structures did not permit in depth archival research on any one structure, rather background information on each bridge was provided.

A specific obstacle that hindered the identification and evaluation process was the inability to confirm the exact construction date of some bridges. The absence of historical records or incomplete maintenance reports contributed to the necessity of hypothesizing some construction periods. Although the inclusion of this data would have allowed for more precise evaluations, it is not believed to have negatively impacted the integrity of the inventory.

Locating unknown watercourse names was another obstacle. GRCA GIS staff provided support in identifying unknown rivers, creeks and streams. However, many of the smaller watercourses are not formally named, resulting in an entry of "Unknown" in the inventory's river crossing section.

The determination of an acceptable work plan for a heritage bridge requires a case-specific balancing of all concerns. It is hoped that this inventory will help to guide decisions that will affect bridges' in the future.

It must be stated that this inventory is not intended to take the place of environmental and municipal planning processes. This is a first step in evaluating the watershed's heritage bridges, not a definitive and exhaustive list of all extant heritage bridges or an account of each structure's cultural heritage value.

3.0 Methodology

The methodology of this inventory included five stages of research:

1. Data gathering and bridge identification (sec. 3.1)
2. Field inspections (sec. 3.2)
3. Archival research (sec. 3.3)
4. Community knowledge (sec. 3.4)
5. Evaluation (sec. 4.0)

Note: The methodology and criteria used for evaluation needs to be cognizant of the vast number of bridges found in this 6,800 km² watershed, and the limited time and financial/staff resources available to complete the project. The information in this report is current as of February 1, 2013.

3.1 Bridge Identification

The goal of this inventory was to identify as many bridges within the Grand River watershed as possible. A reliance on mapping and secondary sources of information, along with site visits was the chosen approach to bridge identification.

To identify bridges in the watershed and conduct archival research, the following groups were consulted:

- Municipal and Regional Public Works departments
- Municipal and Regional Planning departments
- Municipal and Regional Engineering Services departments
- Municipal and Regional Roads Superintendents
- Municipal Heritage Committees
- Six Nations of the Grand River Territory Band Council; Mississaugas of the New Credit Band Council
- Railway companies (Canadian National, Canadian Pacific)
- Grand River Conservation Authority (bridge files, HIA reports, EA notices)
- Ministry of Tourism, Culture and Sport (bridge files, HIA reports, EA notices)
- Ministry of Transportation



- Museums and archives
- Local historic groups and associations
- Local historians
- Local residents
- Historicbridges.org

The resources most vital to the inventory came from municipal, regional and provincial sources, and included:

- Ontario Structural Integrity Management (OSIM) reports
- Municipal Structure Inspection reports
- Previous inventories: *Spanning the Generations* (2004 & 2007), *Grand Old Bridges* (2004), Township of Centre Wellington Pilot Bridge Inventory (2009)

The information gathered from these sources was compiled in a database including all identified bridges in the watershed. The specific data fields include:

- | | |
|---|---------------------------------------|
| • Bridge ID Number | • Significant Dates |
| • Heritage Bridge (Yes/No) | • Builder |
| • Bridge Name | • Engineer |
| • Other Names | • Architect |
| • Street Location | • Bridge Type |
| • Crossing Type (Road, Railway, Pedestrian) | • Materials |
| • Road Carried | • Number of Spans |
| • River Crossed | • Number of Lanes |
| • Community | • Road Length (Metres and Feet) |
| • Municipality | • Road Width (Metres and Feet) |
| • Coordinates (UTM, Zone) | • Load Rating (Tonnes) |
| • MTO Site Number | • Markings/Distinguishing Features |
| • Owner | • Plaques (Local/Provincial/National) |
| • Category Access (Public/Private) | • CHRS Code |
| • Original Construction Date | • Notes |
| • Construction Date (Circa) | • Sources |

A complete list of all non-heritage bridges recorded in this inventory is provided in Appendix C.

3.2 Field Inspection

Following the first stage of research, 678 bridges were included in the inventory. Information on each structure was reviewed to determine if a site visit was necessary. Site visits were carried out to bridges with potential cultural heritage value. This decision was made based on a bridge's age, construction type, its surrounding context, recommendations from the public, all in combination with information contained in Ontario Structural Integrity Management (OSIM) reports obtained from municipalities.

To ensure the watershed was systematically explored, a watershed-wide map was consulted to assist in dividing the area into more manageable sections. Of the 39 upper, lower and single-tier municipalities and two First Nations that comprise the watershed, 33 were found to contain bridges requiring field inspections. The remainder of the municipalities are only partially located in the watershed and were not reported to contain potential heritage bridges. As a result, they are not referenced in this report or included in the maps provided in Appendix A. To facilitate the organization of site visits, small-scale maps were created for each municipality and potential heritage bridges were plotted.



To guide these site visits, an assessment protocol was created by the project's Steering Committee. The Committee was comprised of a diverse group of professionals working in the heritage, environmental and engineering fields. The assessment protocol included the creation of a 'Field Identification Form' (Appendix B) to record site and bridge specific details, as well as a procedure for photographic documentation. The goal of the Field Identification Form was to record the location, type, materials, size, context and accessibility of a bridge. Additional factors based on heritage designation criteria included in *Ontario Regulation 9/06* were incorporated into the form to aid researchers in determining if the bridge warranted further investigation as a candidate heritage bridge. Additional factors assessed if the bridge was 35 years or older, contributed to a cultural heritage landscape, was a rare survivor, remnant or unique type.

To determine the existence of railway structures within the watershed, municipal maps were reviewed to locate rail lines. Bridges that could be accessed via public property were documented. Given time constraints, structures that proved difficult to access were not included. Information was requested from railway companies, however the resources received did not facilitate the identification of additional bridges.

Due to the noted time and financial constraints associated with this project, private structures were not exhaustively researched. However, seven notable bridges were discovered while conducting field inspections of other structures, and included active and abandoned bridges, along with remnant abutments. The oldest earth-filled concrete arch bridge (1908) in the watershed was discovered on private property in the Township of Centre Wellington.

The Project Manager, a University of Waterloo co-op student and a Summer Experience Student carried out the assessment and photography of 367 structures between June and September of 2012. The information gathered was added to the electronic database to aid in the creation of a short list of bridges with heritage significance. This list represented structures that merited further archival research and evaluation, to be discussed in Section 4.

3.3 Archival Research

The objective of this inventory was to identify bridges that have potential heritage value and could be listed on a municipal register or designated following additional research and evaluation. As such, a cursory amount of research was conducted on each bridge in an effort to examine and include as many structures as possible in the inventory.

Following the data gathering and field inspection stages of research, the compiled short list of bridges with anticipated heritage significance was further researched. Although information on some structures was not available or did not exist, museums, archives, heritage committees, libraries, historians and members of the public were consulted to gather archival information.

3.4 Community Knowledge

Local expertise, knowledge and community networks of the project team were relied upon to supplement archival research. Through reaching out to colleagues and researching additional suggestions, more site visits were carried out to newly discovered bridges, and the history of identified bridges grew richer. As well, the knowledge held by local residents encountered in the field, and their willingness to share their history passed down through generations of collective memory, further supplemented the research. Four bridges included in the inventory now have more intricate histories thanks to the insight of residents and property owners.



4.0 Evaluation

In order to narrow the short list of bridges to a definitive list of heritage structures, evaluation criteria adapted from *Ontario Regulation 9/06: Criteria for determining cultural heritage value or interest* was applied (see Appendix I). The TRCA's inventory, *Crossing the Humber*, proved to be an effective test case for the application of these criteria, and inspired its use in this research.

The adapted criteria contained in *Ontario Regulation 9/06* read as follows:

Design/Physical Value

- I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method
- II. Displays a high degree of craftsmanship or artistic merit
- III. Demonstrates a high degree of technical or scientific achievement

Historic/Associative Value

- I. Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community
- II. Yields, or has the potential to yield, information that contributes to an understanding of a community or culture
- III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community

Contextual Value

- I. Is important in defining, maintaining or supporting the character of an area
- II. Is physically, functionally, visually or historically linked to its surroundings
- III. Is a landmark

The criteria were adapted slightly from the original form to incorporate the word “engineer” in the third criteria under historic/associative value. Due to the nature of bridges, engineers may hold significant associative value as they directly influence a bridge's construction, function and appearance.

Following a provision in the *Ontario Heritage Act (OHA)* in 2005, *Ontario Regulation 9/06* was created. Although previous inventories did not have the option to evaluate bridges in this way, it now allows for consistent and objective evaluation criteria, representing a step towards designation under the *OHA*.

Upon applying these criteria to heritage bridges with potential cultural heritage value, 167 heritage bridges and 38 demolished structures were identified. The extant heritage bridges are comprised of: 160 bridges (one bridge includes a culvert) and seven abutments (two with piers).

Three bridges in the Township of Guelph/Eramosa were reconstructed to reflect more traditional heritage bridge types seldom used in contemporary construction. Their location can be seen on the Township of Guelph/Eramosa map in Appendix A and brief summaries can be found in the demolished bridge list in Appendix E. This report does not include a full review and assessment of reconstructed bridges with unique or heritage elements located in the Grand River watershed. Further study is required in this regard. The three bridges included in Appendix F illustrate some of the municipal efforts that have been made to design contemporary structures that reflect historic bridge building aesthetics.

The application of these criteria is the only way to effectively encourage the protection of bridges and to help municipal staff identify structures of local and provincial interest, thus aiding them in the designation process.



Although 167 heritage bridges in the Grand River watershed is a significant number, that figure would have been higher if not for the demolition and replacement of older, often times deteriorating bridges. Information on 38 demolished, and probable heritage bridges, has been recorded in this inventory (Appendix E). Many of these structures have been replaced with newer bridges capable of handling increased traffic volumes and loads or were removed due to deteriorating conditions. The total number of heritage bridges would have also been significantly higher if culverts were included, along with bridges that span roads and railways.

Each heritage bridge was evaluated against the criteria discussed above. A description, current image and evaluation of the 167 heritage bridges can be found in the following pages.



Caledonia Bridge

(Argyle Street North Bridge)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. HD1	Type: Concrete Bowstring Arch
Ownership: Ministry of Transportation	Span: Nine
Construction Date: 1927	Dimensions: 200.3m x 2.9m (LxW)
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Caledonia Bridge spans the Grand River on Argyle Street North, between Forfar Street West and Caithness Street in the town of Caledonia. The property consists of a nine-span concrete bowstring arch bridge that was constructed in 1927. It is the longest bowstring arch bridge in Ontario and Canada. Due to its outstanding design and scale, the structure was included on the Ontario Heritage Bridge List in 1990. It is the only remaining concrete bowstring arch bridge in Haldimand County and one of few remaining examples of this bridge type as the demolition of similar structures of shorter length have been accelerating in recent years.

The Caledonia Bridge is the fourth permanent bridge to be constructed at this crossing. The first bridge, of crib and frame construction, was washed away by ice and floods. The second bridge, constructed in 1842, was a 60-foot (18m) wide, six-span wooden structure reinforced with steel plates. It was constructed to provide permanent and unimpeded passage to the plank road between Hamilton and Port Dover. After 19 years this structure was also destroyed by the elements. In 1875, a large and impressive five-span iron Whipple Arch truss bridge was constructed. This crossing became a toll bridge, and adjacent to the structure a red and buff brick Gothic revival house was built for the new bridge's toll keeper. Tolls were collected until about 1890 to help defray the cost of the bridge, which was roughly \$22,500. This former toll house still sits next to the Caledonia Bridge. It has been designated for its cultural heritage value under Part IV of the *Ontario Heritage Act* (By-law 655/88).

In 1925, this third bridge on site collapsed under the weight of a truck carrying a load of stone. Following negotiations between the Provincial government and the County Council, the existing Caledonia Bridge was constructed in 1927. It was built by the Department of Public Highways of Ontario and Randolph MacDonald Co. Limited, and was designed by A. B. Crealock, bridge engineer with the Department of Public Works. The bridge's erection took five months and was undertaken from June to November of 1927. Its opening was celebrated by the town with a street dance.



The Caledonia Bridge is a landmark gateway to the town centre. It provides both a vehicular and pedestrian link between the residential areas to the south and the commercial core. For those passing through Caledonia it demarcates the entrance to the community and the exit from it. The arches are graceful with slight indentations. Pedestrian sidewalks on either side allow for excellent scenic viewing both up and down the Grand River. The bridge is a locally recognized heritage asset that contributes to the special character of Caledonia and the surrounding landscape.

The bridge is part of a group of four multiple-span concrete bowstring arch bridges spanning the Grand River that were erected in the same time period and in a similar style. These bridges are a part of the upgrading work that took place to the transportation networks in Ontario, after World War I, to accommodate the increased number of automobiles. This group includes three bridges within the Region of Waterloo: the Freeport Bridge and Bridgeport Bridge in the City of Kitchener, and the Main Street Bridge in the City of Cambridge.

Due to the Caledonia Bridge's deteriorating condition, it underwent short-term repairs in 2008. It is likely that the bridge will be replaced in 2016 with a wider structure able to accommodate heavy traffic.

Sources: *Historicbridges.org*
GRCA Heritage Bridge Inventory
Barbara Martindale
Archaeological Services Inc., Heritage Bridge Impact Assessment, January 2004



Cayuga Bridge

(Grand River Bridge)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. HD2	Type: Pratt Through Truss
Ownership: Haldimand County	Span: Five
Construction Date: 1924	Dimensions: 190.5m x 8.4m (LxW)
Water Crossing: Grand River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Cayuga Bridge is located on Talbot Road (Highway 3) between Maple Road and Ouse Street in the Town of Cayuga. This bridge is recognized as a rare survivor on a provincial highway of a multi-span through truss steel bridge. It is an attractive structure that marks the entrance to or exit from Cayuga on the west edge of the community. The bridge is associated with the Talbot Road, an early road in southwestern Ontario that was taken over by the Department of Highways in 1920 as part of the development of a provincial highway system. The bridge is the third structure over the Grand River in Cayuga and the second at this location. The first bridge (1842) was situated to the north of the existing bridge and the second bridge (1871) was located on the same alignment as the existing bridge. The bridge is also situated in a site of archaeological importance. Three time periods are represented on the west riverbank, and the entire flood plain is an active site. Stage 4 archaeological salvage efforts have recovered ceramics, tools, and remnants of a historic stone structure.

The Department of Highways under George Hogarth, Chief Engineer, prepared a design for the Cayuga Bridge in 1923. The Department of Highway Annual Report (1925) states that the Grand River Bridge at Cayuga was completed in 1924 and replaced “an old iron bridge that was not only unsafe but entirely unsuited to present day traffic” (p. 69). The Canadian Engineering and Contracting Company constructed the concrete substructure for the sum of \$57,000 and the Dominion Bridge Company supplied and erected the steel superstructure for \$57,000. The Department of Highways provided the balance of the work. The total cost of the bridge was \$126,600.

The Grand River Bridge at Cayuga is a five span, steel bridge. The through truss design uses Pratt trusses with parallel chords. The steel members provided by Carnegie Steel are riveted in place and the steel superstructure is bolted to concrete piers. On the north side of the bridge, a six-foot wide sidewalk is cantilevered on the outside of the truss with original lattice railing. Plaques, likely maker’s plaques, located on the end truss at either end of the bridge beside the sidewalk are visible in historical photographs. However, they appear to have been removed in the early 1970s.



Repairs to the piers were undertaken in March 1971. An extensive rehabilitation of the bridge took place in 1976 including the installation of a new concrete deck, repair of the truss members, rehabilitation of expansion joints and bearings and repair of concrete retaining walls, wing walls and abutments. The rehabilitation steel work is identifiable from the original by the 'Abitibi' steel members bolted in place.

The Cayuga Bridge is a rare survivor as few truss bridges remain in use within the Provincial highway system and it is the only surviving steel through truss bridge on a provincial highway in southwestern Ontario. Only 15 through truss bridges exist on provincially-owned roads in the Province of Ontario. It is also notable for the number of spans (5), its total length, concrete piers and walkway on the north side. The structure is visually appealing and contributes to the character of the surrounding cultural heritage landscape. It is a physical landmark in the Town of Cayuga and acts as a gateway into and out of the community from the west.

Due to heavy truck traffic the Cayuga Bridge has deteriorated. It is scheduled for replacement by the end of 2013.

Sources: GRCA Heritage Bridge Inventory
Lacie Williamson (Feb. 8, 2012). *The Dunnville Chronicle*: "County eager to begin Cayuga bridge construction"
Unterman McPhail Associates. (2005). *Heritage Impact Assessment: Grand River Bridge*



Seneca Bridge



General Information	Physical Details
Bridge No. HD3	Type: Warren Pony Truss
Ownership: Haldimand County	Span: Single
Construction Date: 1912	Dimensions: Unknown
Water Crossing: Black Creek	Materials: Linerod Steel



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Seneca Bridge is a small steel and concrete Warren pony truss bridge that crosses Black Creek on River Road (Highway 54) in Seneca Park, Haldimand County. Following the 1912 Good Road Convention's guidelines, the bridge was constructed to handle all the road traffic between Caledonia and Cayuga.

The Good Road Convention, at Toronto on May 7, 1912, recommended that all new bridges from 4-40 feet in length be built with steel beams embedded in concrete for structural stability. Any bridge over 40 feet (12m) in length should be built solely of steel. The Seneca Bridge, built in 1912, and following these recommendations, has lasted more than 100 years. Though it is no longer in use, the bridge's steel under supports and decorated side crash walls remain intact.

Constructed by local contractor Melvin Runchey, the bridge stands as a testament to the area's economic development. It is also one of very few remaining bridges constructed of Linerod steel.

The Ontario provincial government took over control of River Road between Cayuga and Caledonia from the Country, in or before 1937. At that time, it was renamed Highway 54. The Seneca Bridge handled all traffic between the two towns from 38 years until 1950 when it was closed and replaced with a larger structure. The Seneca Bridge was designated for its cultural heritage value under the *Ontario Heritage Act* in 1984 through Haldimand County By-law 443/84.

Sources: Canadian Register of Historic Places
GRCA Heritage Bridge Inventory



York Bridge

(Structure Number 980906)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. HD4	Type: Girders
Ownership: Haldimand County	Span: Four
Construction Date: 1935	Dimensions: 166.1m x 8.6m (LxW)
Water Crossing: Grand River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The York Bridge is located on Haldimand Road 9, 0.4 km east of River Road in the community of York. This four-span steel girder bridge was built in 1935. It spans the Grand River upon concrete piers and abutments. The deck carries two lanes of traffic and is adorned with metal railings. It represents a landmark in the community of York linking the small commercial centre to the River Road, which leads to the nearby Town of Caledonia. The York Bridge underwent rehabilitation in 2007.

Sources: *Haldimand County Municipal Structure Inspection Forms, 2011, G. Douglas Vallee Limited*
Historicbridges.org



Dunnville Bridge

(Structure Number 980309)
(Grand River Bridge (Dunnville))



General Information	Physical Details
Bridge No. HD5	Type: I-beam
Ownership: Haldimand County	Span: Eight
Construction Date: 1963	Dimensions: 180m x 9.5m (LxW)
Water Crossing: Grand River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Dunnville Bridge is located on Rainham Road (Queen Street), 0.1 km west of Highway 3 (Main Street) in the Town of Dunnville. This eight-span steel I-beam bridge was constructed in 1963. It crosses the Grand River and is set upon concrete piers and abutments. The deck carries two lanes of traffic and metal railings with concrete ends embossed with decorative horizontal lines.

Bridges have been located at this site since the 1830s when the Welland “feeder” canal was built here. Earlier structures were of wood construction. The current bridge’s piers are significantly wider than the bridge deck indicating that they may have previously carried another structure.

The Dunnville Bridge represents a landmark in the area linking the smaller community of Byng to the Town of Dunnville on the north shore of the Grand River. The bridge underwent rehabilitation in 1991 and 2011.

Sources: *Haldimand County Municipal Structure Inspection Forms, 2011, G. Douglas Vallee Limited*
Haldimand County Museum & Archives



Caledonia Railway Bridge



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. HD6	Type: Structural Steel
Ownership: Canadian National Railway	Span: Eleven
Construction Date: 1911	Dimensions: Unknown
Water Crossing: Grand River	Materials: Steel, Masonry, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Caledonia Railway Bridge is located 0.7 km west of Argyle St. North in the Town of Caledonia. The Northern & Northwestern Railway originated this line of track in 1875 and later fell under ownership of the Grand Trunk Railway. The current railway bridge was constructed in 1911 and is now owned by the Canadian National Railway. It still carries an active rail line through the Town of Caledonia.

The bridge's eleven-span structural steel frame is set high above the Grand River on alternating concrete and masonry piers. It is sited just east of a dam across the Grand River. Due to the bridge's physical prominence it acts as a landmark along the riverscape in the Town of Caledonia, joined by the Grand River Mill and striking Caledonia bowstring arch bridge located just south of this structure.

Source: Andrae, C. (1997). *Lines of Country: An atlas of railway and waterway history in Canada*



Cayuga Railway Bridge



General Information	Physical Details
Bridge No. HD7	Type: Pratt Deck Truss
Ownership: Canadian National Railway	Span: Five
Construction Date: 1902	Dimensions: Unknown
Water Crossing: Grand River	Materials: Steel, Masonry, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Cayuga Railway Bridge is located north of Talbot Road (Highway 3), between Maple Road and Munsee Street North in the Town of Cayuga. The first railway bridge at this site spanning the Grand River, built in 1872, was replaced after an accident on the bridge in 1877. The present bridge was constructed in 1902. The bridge is a five-panel rivet-connected Pratt deck truss that is set above the Grand River on four piers of varying design and construction materials. Some of the piers are composed of decoratively embossed concrete, masonry or a combination of both. It is likely that the original abutments and piers were built of stone while later rehabilitation efforts resulted in the use of concrete.

The advent of the railways to the towns along the Grand River drew trade away from the river. The Great Western Railway began the Canada Air Line as an alternate route to the Canadian Southern Railway. The line ran from Fort Erie through Welland Junction, Canfield, Tillsonburg and St. Thomas to meet up with the Great Western Railway at Glencoe. The Cayuga Subdivision between Robbins and St. Thomas opened for traffic in 1873. The rail line ran east to west along the north side of Cayuga with a station located close to where Munsee Street North (Highway 54) crosses the rail line. After a series of amalgamations, the line became part of the Canadian National (CN) Railway system in 1923. CN owned this line until it was abandoned in 1996.

The bridge's physical prominence contributes to the riverscape in the Town of Cayuga, joined by the multi-span Cayuga Bridge located just south of this structure.

Sources: Andraee, C. (1997). *Lines of Country: An atlas of railway and waterway history in Canada*
 Historicbridges.org
 Unterman McPhail Associates. (2005). *Heritage Impact Assessment: Grand River Bridge*



Former River Road Bridge



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. HD8	Type: Half Through Girders
Ownership: Unknown	Span: Single
Construction Date: c.1920	Dimensions: Unknown
Water Crossing: Holmes Creek	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The former River Road Bridge is located parallel to River Road, 3.9 km south of Highway 3. It was constructed circa 1920 and is estimated to be one of few early remaining half through girder bridges in Haldimand County. The bridge is now abandoned and was likely closed to traffic in 1965 when River Road was realigned and the current concrete rigid frame bridge, Structure Number 000017, was built.

There is little information available on this structure. Large stones in the concrete and the impression of thin board marks used to set the concrete on site indicate that it is of early construction. The bridge exhibits solid concrete railings embossed with decorative square and rectangular panels, as well as square concrete top caps and pronounced concrete footings. "Art Gibson 1950" is hand written in one of the concrete of abutments, perhaps indicating a previous rehabilitation date as the concrete appears newer than the rest of the bridge.

Source: Haldimand County Municipal Structure Inspection Forms, 2011, G. Douglas Vallee Limited



Lorne Bridge

(City of Brantford Site Number 125020)



General Information	Physical Details
Bridge No. BF1	Type: Open Spandrel Arch
Ownership: City of Brantford	Span: Three
Construction Date: 1924	Dimensions: 133.5m x 22m (LxW)
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Lorne Bridge spans the Grand River on Colborne Street between Brant Avenue and Icomm Drive in the City of Brantford. The property consists of a three-span reinforced concrete arch bridge that was constructed in 1924. It is located on the Grand River near Brant's Crossing, a ford representing an historic crossing.

The first bridge on this site was timber and was constructed in 1812. The wooden structure collapsed when the first team of horses crossed it. Next, an iron bridge was built, but it was destroyed by high waters in 1878. In response, the original Lorne Bridge was built in 1879, and it was named after the Marquis of Lorne. The Marquis of Lorne, who served as Governor General of Canada from 1878-1883, helped found the National Art Gallery and married Queen Victoria's fourth daughter. Cracks in the first Lorne Bridge necessitated the bridge's replacement with the current structure, which was built between 1923 and 1924.

Brantford City Engineer, Frank P. Adams, designed the three-span reinforced concrete arch bridge. The bridge was constructed by the Port Arthur Construction Company. The Lorne Bridge is a good example of the period when bridge construction shifted from a reliance on steel to concrete. Adams designed the bridge in concrete because he felt it was superior to steel. He believed concrete bridges were easier to maintain and were able to display beauty and design more prominently. Unlike steel, concrete strengthened over time and the material required no painting or rust removal. The foundation support consists of three identical arches set upon abutments and together these arches span 424 feet (129m). Between each arch and the super structure are a series of looped braces. The design creates a distinct light shadow effect.

R.S. Middleton, City Engineer, reconstructed the superstructure in 1980. The reconstruction removed the original decorative balustrades and improvements were made to the deck. However, the stairs leading from the bridge to Lorne Park still feature the 1920s decorative open balustrades with thick handrails and tear drop-shaped balusters and flag masts. A plaque with the city's crest is located on the north side of the bridge and identifies the construction date and



individuals, organizations and companies involved in the construction of Lorne Bridge.

The Lorne Bridge spans the Grand River and is a prominent landmark in Brantford. The northern reaches of the bridge rest close to the Dufferin Armouries, the neighbouring Lorne Park and Boer War Memorial, along with the nearby bridges spanning the Grand River, all of which contribute to the formation of an important cultural heritage landscape in the City of Brantford.

Sources: *City of Brantford Bridge Appraisal Data*
GRCA Heritage Bridge Inventory
Lorne Bridge Designation Report, Heritage Resources Centre, 2009



T.H. & B. Railway Bridge



General Information	Physical Details
Bridge No. BF2	Type: Half Through Beams
Ownership: City of Brantford	Span: Four
Construction Date: 1890	Dimensions: Unknown
Water Crossing: Grand River	Materials: Steel, Timber, Masonry



Evaluation Form		Check
Design/Physical Value		
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method		✓
II. Displays a high degree of craftsmanship or artistic merit		
III. Demonstrates a high degree of technical or scientific achievement		
Historic/Associative Value		
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community		✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture		✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community		
Contextual Value		
I. Is important in defining, maintaining or supporting the character of an area		✓
II. Is physically, functionally, visually or historically linked to its surroundings		✓
III. Is a landmark		

General Description

The Toronto, Hamilton and Buffalo Railway (T.H. & B.) Bridge spans the Grand River between Colborne Street West and Veterans Memorial Parkway in the City of Brantford. The structure is a four-span steel half through beam bridge with a timber deck, steel piers and cut stone masonry abutments that was constructed in 1890. "Illinois, USA" is pressed in the bridges steel beams, indicating the steel was likely sourced from the Illinois Steel Company. At this time it was the world's largest steel company and formed in 1889 through the merger of most of the large Chicago-area mills—including North Chicago, South Works, Union, and Joliet. Importing steel from the USA was a common occurrence in steel bridge construction in Ontario as the material was easily transported by rail.

The T.H. & B. Railway likely built this bridge. In the 1870s the T.H. & B. Railway was organized as an attempt to break the stranglehold that the Great Western Railway (G.W.R.) (soon to amalgamate with the Grand Trunk Railway (G.T.R.)), had taken on southern Ontario – specifically the network they had established in and around Hamilton and Lake Ontario. The T.H. & B.'s first line stretched south from Hamilton to Port Dover, where it linked with other American lines and was able to successfully divert traffic and business away from the G.W.R. and G.T.R. The T.H. & B. continued to strike alliances with other companies such as Canadian Pacific. These alliances allowed the smaller rail line to construct and operate sections of a much larger line owned by a much larger company. By the late 1890s, the Grand Trunk monopoly on southern Ontario had been shattered. Competition began to spring up all over the area. Small, independent companies followed the example set by the T.H. & B. and made agreements with larger American companies. The result was a highly competitive market that allowed the Hamilton and Brantford area to prosper from its strategic central location and proximity to the US border. The Brantford T.H. & B. Railway station, constructed in 1896, still exists at 60 Market Street South and is located on the City of Brantford's heritage inventory.

The bridge has been converted from a railway crossing to pedestrian trail, and now carries the Dike Trail. The T.H. & B. Railway Bridge is one of four bridges that span the Grand River in close proximity to Brantford's downtown. This bridge contributes to a cultural heritage landscape with the Dike Trail CNR Truss Bridge, Lorne Bridge, Lorne Park and the designated, Jubilee Terrace Park. This structure and the Dike Trail CNR Truss Bridge both carry the Dike Trail, part of the larger Gordon Glaves Memorial Pathway.

Sources: Bensman, D. & Wilson, M.W. *Iron and Steel. Encyclopedia of Chicago*; *Hamilton Heritage Structure Assessment, 2002*; *Andreae, C. (1997). Lines of Country: An atlas of railway and waterway history in Canada*



Dike Trail CNR Truss Bridge



General Information	Physical Details
Bridge No. BF3	Type: Through Truss
Ownership: City of Brantford	Span: Four
Construction Date: c.1920s	Dimensions: Unknown
Water Crossing: Grand River	Materials: Steel, Timber, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Dike Trail CNR Truss Bridge spans the Grand River carrying the Dike Trail, 0.3 km south of Colborne Street West in the City of Brantford. The structure is a four-span steel double through truss bridge with a timber deck and concrete piers and abutments. It exhibits unusual rolled angles, known as bulb angles, that compose some of the bridge's built up members. The use of bulb angles, rather than simple angles, is quite unusual to find on a truss bridge such as this.

The bridge's two truss spans are very similar but not identical. This could indicate that one span was damaged or destroyed and replaced at some time. Its date of construction is estimated to be circa the 1920s. This bridge may have been a part of the Grand Trunk Railway carrying a rail line that connected Brantford to southern Ontario and the US. The Canadian National Railway eventually took over ownership of the track before it was decommissioned in phases. This structure has been converted to a pedestrian bridge. The original train tracks and ties are still located below the timber deck, providing context for its original use.

The Dike Trail CNR Truss Bridge is one of four bridges that span the Grand River in close proximity to Brantford's downtown. This bridge contributes to a cultural heritage landscape with the T.H. & B. Railway Bridge, Lorne Bridge, Lorne Park and the designated, Jubilee Terrace Park. This structure and the T.H. & B. Railway Bridge both carry the Dike Trail, part of the larger Gordon Glaves Memorial Pathway.

Sources: *Andraee, C. Lines of Country: An atlas of railway and waterway history in Canada, 1997*
Nathan Holth, 2013



Grand River Abutments



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. BF4	Type: Concrete Abutments
Ownership: n/a	Span: n/a
Construction Date: post-1900	Dimensions: Unknown
Water Crossing: Grand River	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Grand River Abutments are located on the east and west banks of the Grand River between Veterans Memorial Parkway (Grand River Crossing Bridge) and the T.H. & B. Railway Bridge in the City of Brantford.

It is unknown whether the bridge was a railway or road bridge, but its use of concrete rather than masonry signifies it was likely constructed after 1900. There are large rocks in the concrete and a thin board finish is still visible, both features that indicate an early construction date. The abutments are skewed, with the western base located further south along the Grand River than the eastern base.

The Grand River Abutments are located among four bridges that span the Grand River in close proximity to Brantford’s downtown. The abutments contribute to a cultural heritage landscape with the T.H. & B. Railway Bridge, Dike Trail CNR Truss Bridge, Lorne Bridge, Lorne Park and the designated, Jubilee Terrace Park.



Murray Street Bridge

(City of Brantford Site Number 136010)



General Information	Physical Details
Bridge No. BF5	Type: Solid Spandrel Arch
Ownership: City of Brantford	Span: Single
Construction Date: 1921	Dimensions: 34.7m x 14.7m (LxW)
Water Crossing: Mohawk Waterway	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Murray Street Bridge is located on Murray Street, 0.02 km north of Greenwich Street in the City of Brantford. This solid spandrel arch was designed by City Engineer Frank P. Adams and built in 1921 over the Brantford Cut of the Grand River Navigation Company Canal and Lock System (now the Mohawk Waterway). Brantford's economic development was spurred by the opening of the Grand River Navigation Company's canals that linked Brantford by water to the Welland Canal and important industrial cities like Buffalo. The Brantford Cut was the final part of the system to be built and opened to great fanfare in 1848. This canal brought freight and passengers right into Brantford's downtown and increased trade and attracted new businesses to the area.

The popularity of solid spandrel bridges was concentrated in the period from 1905 to 1919, and by 1919 there were at least 22 of these bridges with spans over 60 feet (18 m) reported in Ontario. The popularity of the design began to decline by 1919, although they continued to be built in small numbers into the 1930s. The 60-foot span of the Murray Street Bridge is perhaps typical of the decorative use of the arch in later years. In the 1920s, open spandrel arches and bowstring bridges tended to replace the solid spandrel arches for longer spans and concrete beam bridges for shorter spans. This explains Frank P. Adams' choice to use an open spandrel design for the nearby Lorne Bridge in 1924, just three years after the construction of this solid spandrel structure.

The bridge is a single span structure of reinforced cast-in-place concrete with an elliptical arch with a smooth soffit. The thin board finish is still visible in the concrete. Concrete railings with decorative tear-shaped balustrades extend along both sides of the deck and curve around the corner of Murray Street extending onto Greenwich Street. Designed by Frank P. Adams, the distinctive Beaux-Arts style balustrade design with cast concrete railing and balusters had been used earlier in the Alfred Street Bridge, Brantford (pre-1911) and later in the Lorne Bridge, Brantford (1924). In 2003 the original balustrade forms were used to make replacement balusters during the repair and rehabilitation of the upper level of the bridge.

A city plaque is affixed to the structure commemorating those responsible for its design and construction.

Sources: City of Brantford Bridge Appraisal Data; GRCA Heritage Bridge Inventory; Cultural Heritage Evaluation Report: Middleport Road Bridge, Unterman McPhail Associates, January 2010; Karen Dearlove, Activehistory.ca, 2011



Great Western Railway Bridge Remnants



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. B1	Type: Masonry Piers and Abutments
Ownership: County of Brant	Span: Four
Construction Date: 1858	Dimensions: Unknown
Water Crossing: Grand River	Materials: Masonry



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Great Western Railway Bridge remnants are located along the Cambridge to Paris Rail Trail, between West River Road South and East River Road, parallel with Blue Lake Road.

The bridge deck is gone, but the stone piers and abutments remain. The cut stone piers supported a metal truss bridge that linked Harrisburg to Paris. The original bridge was built in 1858 and the remaining remnants are among the oldest in the watershed. The eastern abutment has become the Murray Lookout, a scenic stop along the Cambridge to Paris Rail Trail owned and maintained by the Grand River Conservation Authority. The County of Brant owns the piers.

Sources: GRCA Heritage Bridge Inventory
Grand Old Bridges Inventory



Paris Railway Bridge



General Information	Physical Details
Bridge No. B2	Type: Pratt Deck Truss
Ownership: Canadian National Railway	Span: Three
Construction Date: c.1860	Dimensions: Unknown
Water Crossing: Grand River	Materials: Steel, Masonry, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Paris Railway Bridge is located between Grand River Street North and Willow Street, north of Portland Road and John Avenue in the Town of Paris. Although the date of construction is unknown, it is likely that the Grand Trunk Railway built this structure circa 1860. It originally carried a line that connected Goderich to Fort Erie and the US border. Although the Grand Trunk line between Paris and Stratford was eventually decommissioned, the bridge is now owned by the Canadian National Railway and still carries an active rail line through the Town of Paris.

The bridge’s steel truss frame is set high above the Grand River on concrete and cut stone piers and abutments. Due to the bridge’s physical prominence it acts as a gateway marking the entrance to and from Paris.

Sources: GRCA Heritage Bridge Inventory
 Andraee, C. *Lines of Country: An atlas of railway and waterway history in Canada, 1997*



Nith River Bridge

(Structure Number 1-0023-00)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. B3	Type: Solid Spandrel Arch
Ownership: County of Brant	Span: Two
Construction Date: 1932	Dimensions: 35m x 13.4m (LxW)
Water Crossing: Nith River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Nith River Bridge is located on Grand River Street, 0.2 km south of William Street where the Grand and Nith Rivers converge in the Town of Paris. A plaque on the bridge commemorates those responsible for its 1932 construction, notably Keystone Contractors Ltd. and engineer A.L.S. Nash. This two-span reinforced concrete solid spandrel arch bridge displays a high degree of artistic merit. It is decorated with false arches, dentils, columns, and a symmetrical railing system of posts and balustrades. In 2005, portions of the railing were removed.

Pedestrians are welcomed to cross the bridge with ease as sidewalks line both sides of the bridge. The Nith River Bridge, along with the other structures that cross the Grand River in the Town of Paris, contributes to a valuable cultural heritage landscape.

Sources: Municipal Structure Inspection Form, County of Brant
GRCA Heritage Bridge Inventory

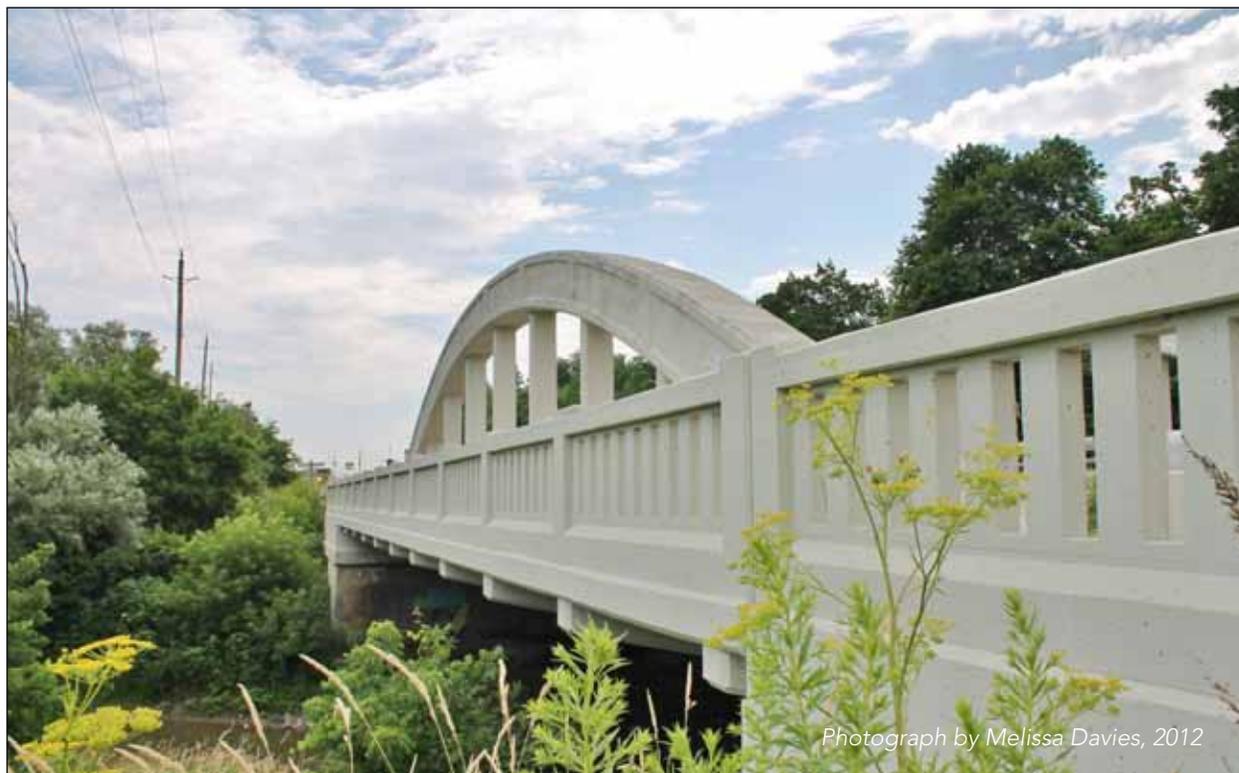


Brant Bowstring Bridge

(Fairchild Creek Bridge)

(Starr Bridge)

(Structure Number 1-0065-01)



General Information	Physical Details
Bridge No. B4	Type: Concrete Bowstring Arch
Ownership: County of Brant	Span: Single
Construction Date: 1931	Dimensions: 31m x 7.2m (LxW)
Water Crossing: Fairchild Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Brant Bowstring Bridge spans the Grand River on Colborne Street East between Brant Avenue in Brantford and Gilkison Street in the County of Brant. The property consists of a single-span concrete bowstring arch bridge that was constructed in 1931. The County of Brant designated the bridge in 2006 for its historic and architectural significance under Part IV of the *Ontario Heritage Act* (By-law 198-06).

The Brant Bowstring Bridge is the only bowstring arch bridge in the County of Brant. Spanning the Grand River on Colborne Street East at the boundary between the City of Brantford and the County of Brant, it serves as a gateway marker. Built in 1931 of reinforced concrete, it was part of the Ontario Government's upgrading of transportation networks after World War I to accommodate the increasing number of automobiles in the area. The bridge's bowstring design was popular in the 1920s and 1930s as it required minimal material, was simple to install and could easily accommodate vehicular traffic.

The Brant Bowstring Bridge, located next to the simple rigid frame Likins Bridge, exhibits decorative concrete railings, balustrades and deck beams and a sidewalk along the north side. It is considered by some to be the sister bridge to the Main Street Bridge in Cambridge, which was also constructed in 1931 using the bowstring design. The inclusion of pedestrian sidewalks is a unique feature of bowstring arch bridges located in urban settings.

The Brant Bowstring Bridge was threatened with demolition by scheduled repair work. However, the Brant Heritage Committee was successful in presenting the importance of the bridge to Council who in early 2006, subsequently approved work for rehabilitation at a cost of \$1.1 million. In addition to this, Council changed its name from Starr Bridge to the Brant Bowstring Bridge.

Sources: County of Brant By-law 198-06
 Canadian Register of Historic Places
 GRCA Heritage Bridge Inventory
 Municipal Structure Inspection Form, County of Brant



Glen Morris Road Bridge

(Structure Number 1-0002-00)



General Information	Physical Details
Bridge No. B5	Type: Earth-filled Masonry Arch
Ownership: County of Brant	Span: Single, plus culvert
Construction Date: c.1854	Dimensions: 11.8m x 6.1m (LxW)
Water Crossing: Unknown	Materials: Masonry



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Glen Morris Road Bridge is located on Glen Morris Road East, 0.1 km east of Branchton Road in the Township of South Dumfries. Constructed circa 1854, this is likely the second oldest bridge remaining in the Grand River watershed, after the Mill Creek Bridge (1837) in the City of Cambridge. The Great Western Railway Company constructed this cut stone bridge over Glen Morris Road East to link Harrisburg with Galt. It is a beautiful example of masonry work.

The abutments and superstructure are composed of finely tooled, rock-faced stone. The keystone at the centre of each arch has no date imprint, but is bordered by finely detailed voussoirs. Its unique double arches allow both the road and a stream to pass under it. Little is known about this structure. The design and craftsmanship point to a pre-confederation construction date. The age, materials, and design characteristics of the structure contribute greatly to its cultural heritage value. The Glen Morris Road Bridge includes the only culvert in this heritage bridge inventory and has been included as an exception due to its unique design and outstanding construction. The Township of South Dumfries designated this bridge in 1991 under Part IV of the *Ontario Heritage Act*.

Sources: *Municipal Structure Inspection Form, County of Brant*
Brant County Driving Tour, 2009
Hamilton Heritage Bridge Inventory
Ontario Heritage Properties Database



Mill Street Bridge

(Structure Number 1-0082-00)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. B6	Type: Earth-filled Spandrel Arch
Ownership: County of Brant	Span: Single
Construction Date: 1922	Dimensions: 21.8m x 5.7m (LxW)
Water Crossing: Whiteman Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Mill Street Bridge is located on Mill Street, 0.6 km north of Brant County Highway Number 53. The bridge is associated with the historical theme of the 19th and 20th century development of road transportation in the former townships that now comprise the County of Brant. The bridge was constructed in 1922 and is one of two surviving earth-filled solid spandrel concrete arch bridges in the County of Brant, joined by the Cleaver Road Bridge.

The Bridge's early date of construction fits the typical age range, 1905-1919, when this bridge type was popular. Most of the early activity in concrete bridge construction in Ontario focused on the earth-filled, solid spandrel arch form. The first arches were semicircular in shape while later developments used an elliptical form to achieve longer spans. The popularity of solid spandrel bridges, like this one, appears to have declined after 1919, although they continued to be built in small numbers into the 1930s.

The Mill Street Bridge is a single span, solid spandrel concrete arch structure of reinforced cast-in-place concrete. The thin board finish is still visible in the concrete. It has an elliptical arch with a smooth soffit. Solid concrete spandrel walls contain the earth-filled core used to build up the structure to the road deck. Solid concrete railings extend along both sides of the deck and include decorative features highlighted with recessed panels set between concrete posts. The bridge is considered a good example of functional engineering design clearly expressing the transfer of loads through the arch to the abutments. The simple arch design is sculptural in its proportions and shape. No significant modifications to the bridge have been carried out.

Sources: *Municipal Structure Inspection Form, County of Brant*
Cultural Heritage Evaluation Report: Middleport Road Bridge, Unterman McPhail Associates, January 2010



Cleaver Road Bridge

(Structure Number 1-0083-00)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. B7	Type: Earth-filled Spandrel Arch
Ownership: County of Brant	Span: Single
Construction Date: 1922	Dimensions: 18.8m x 5.5m (LxW)
Water Crossing: Whiteman Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Cleaver Road Bridge is located on Cleaver Road, 1.2 km north of Brant County Highway Number 53. The bridge is associated with the historical theme of the 19th and 20th century development of road transportation in the former townships that now comprise the County of Brant. The bridge was constructed in 1922 and is one of two surviving earth-filled solid spandrel concrete arch bridges in the County of Brant, joined by the Mill Street Bridge.

The Bridge’s early date of construction fits the typical age range (1905-1919) when this bridge type was popular. Most of the early activity in concrete bridge construction in Ontario focused on the earth-filled, solid spandrel arch form. The first arches were semicircular in shape while later developments used an elliptical form to achieve longer spans. The popularity of solid spandrel bridges appears to have declined after 1919, although they continued to be built in small numbers into the 1930s.

The Cleaver Road Bridge is a slightly skewed single span, solid spandrel concrete arch structure of reinforced cast-in-place concrete. The thin board finish is still visible in the concrete. It has an elliptical arch with a smooth soffit. Solid concrete spandrel walls contain the earth-filled core used to build up the structure to the road deck. Solid concrete railings extend along both sides of the deck and include decorative features highlighted with recessed panels set between concrete posts. The ends of the railings are slightly angled outward widening the initial access to the bridge deck. The bridge is considered a good example of functional engineering design clearly expressing the transfer of loads through the arch to the abutments. The simple arch design is sculptural in its proportions and shape.

No significant modifications to the bridge have been made over the years. Water Survey of Canada benchmarks are located on both the southwest and northeast ends of the bridge, one is labeled 0-804-607.

Sources: *Municipal Structure Inspection Form, County of Brant*
Cultural Heritage Evaluation Report: Middleport Road Bridge, Unterman McPhail Associates, January 2010



Burt Road Bridge

(Structure Number 1-0006-00)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. B8	Type: Pony Truss
Ownership: County of Brant	Span: Single
Construction Date: c.1920	Dimensions: 15.9m x 4m (LxW)
Water Crossing: Fairchild Creek	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Burt Road Bridge is located on Burt Road, 0.3 km south of Brant County Highway Number 5 in the community of South Dumfries. It was constructed circa 1920 and is the only remaining steel truss road bridge in the County of Brant. The Reaker Bridge, which was of similar construction and estimated to have been built in the same year, was demolished in late 2012.

Burt Road Bridge is skewed 35 degrees to Fairchild Creek. It is riveted and has a concrete deck and abutments. The bridge is closed and an approval for demolition was granted in October 2011. However, as of July 2012 it was still in place.

Sources: *Municipal Structure Inspection Form, County of Brant*
GRCA Bridge Environmental Assessment Notices



Harry Martin Bridge

(Structure Number 1-0080-00)



General Information	Physical Details
Bridge No. B9	Type: T-beam
Ownership: County of Brant	Span: Single
Construction Date: 1955	Dimensions: 30.6m x 8.5m (LxW)
Water Crossing: Whiteman Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Harry Martin Bridge is located on Maple Avenue North, 1.5 km north of Brant County Highway Number 53 near the community of Burford. It was constructed in 1955 and is one of few early T-beam bridges built in the County of Brant during the 1950s.

This bridge has unique concrete and metal railings that reflect the Art Deco style. The concrete balustrades are embossed with a series of three lines and the metal balustrades follow a uniformly appealing triangular pattern. The Harry Martin Bridge contributes to a picturesque setting along Maple Avenue North.

Despite the widespread use of T-beam structures in the United States from the 1920s to the 1960s, there was a more limited use of this bridge type within Ontario. The concrete rigid frame, introduced in Ontario in the 1930s, continued to be the dominant bridge type in the province during the 1950s when pre-stressed precast concrete beam and post-tension cast in place structures were introduced in the 1960s. Therefore, the Harry Martin Bridge is a rare and decorative example of later T-beam bridge construction in the Grand River watershed.

Sources: *Municipal Structure Inspection Form, County of Brant*
Cultural Heritage Evaluation Report, May 2012, Unterman McPhail Associates



Cunningham Bridge

(Structure Number 1-0130-00)



General Information	Physical Details
Bridge No. B10	Type: Timber
Ownership: County of Brant	Span: Single
Construction Date: 1962	Dimensions: 8.1m x 6.2m (LxW)
Water Crossing: McKenzie Creek	Materials: Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Cunningham Bridge is located on Jenkins Road, 0.2 km west of Cockshutt Road in the community of Oakland. This is the only wooden bridge remaining in the County of Brant. It is constructed of an undefined vernacular style and features a timber deck, superstructure, wingwalls, and support logs affixed to the abutments. The bridge is set at a ten degree skew to McKenzie Creek.

Although little is known about the structure directly, it is apparent that it was named for the Cunningham Family who settled at East Oakland at the turn of the 19th century and remained on the site for generations. Although a bridge inspection report from 1985 indicates the bridge was constructed in 1962, it is likely it was constructed much earlier, perhaps in the late-19th to early-20th century. Access across McKenzie Creek at this site would have been necessary for the Cunningham's who farmed the area and for those attending the school located on Cunningham's property, which was operational from 1862 to 1965. A flour mill was also located along Jenkins Road at the East Oakland Pond, further necessitating a bridge at this crossing. Local knowledge indicates there was a structure here as far back as 1935. Plans for a proposed steel bridge at this site also date to 1935. It is possible the bridge was constructed of timber rather than steel.

The Cunningham Bridge underwent rehabilitation efforts in 2011. Photographs from 1968 indicate the structure once had white painted wooden railings. They have since been removed and replaced with a concrete barrier wall that obscures any view of the structure with the exception of the timber deck.

Sources: *Municipal Structure Inspection Form, County of Brant*
Oakland History Volume 1, 2 and 4



John Leishman Bridge

(Structure Number 1-0081-00)



General Information	Physical Details
Bridge No. B11	Type: I-beam
Ownership: County of Brant	Span: Four
Construction Date: 1956	Dimensions: 36.8m x 8.8m (LxW)
Water Crossing: Whiteman Creek	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

John Leishman Bridge is located on Bishops Gate Road, 1.5 km north of Brant County Highway Number 53 near the community of Burford. Constructed in 1956, it is the oldest I-beam structure in the County of Brant. Its early construction date sets it apart from the numerous other I-beam bridges in the County.

Plaques commemorating those responsible for the construction of John Leishman Bridge are located on opposite sides of the bridge’s simple concrete railings. Specifically, the plaque pays homage to County Engineer, R.M. Lee and John Leishman, the Road Foreman and bridge’s namesake.

John Leishman Bridge underwent repairs in 1998.

Source: *Municipal Structure Inspection Form, County of Brant*



Grand River Bridge

(Structure Number 1-0024-00)



General Information	Physical Details
Bridge No. B12	Type: I-beam
Ownership: County of Brant	Span: Five
Construction Date: 1967	Dimensions: 120m x 9.1m (LxW)
Water Crossing: Grand River	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Grand River Bridge is located on Dundas Street East, 1.1 km west of Paris Road in the Town of Paris. The bridge crosses both the Grand River and Ball Street and is prominent feature in the view along the Grand River in the Town of Paris. It is located slightly south of the now demolished Willow Street Bridge, a wrought iron truss bridge constructed in 1877 and removed in 1988.

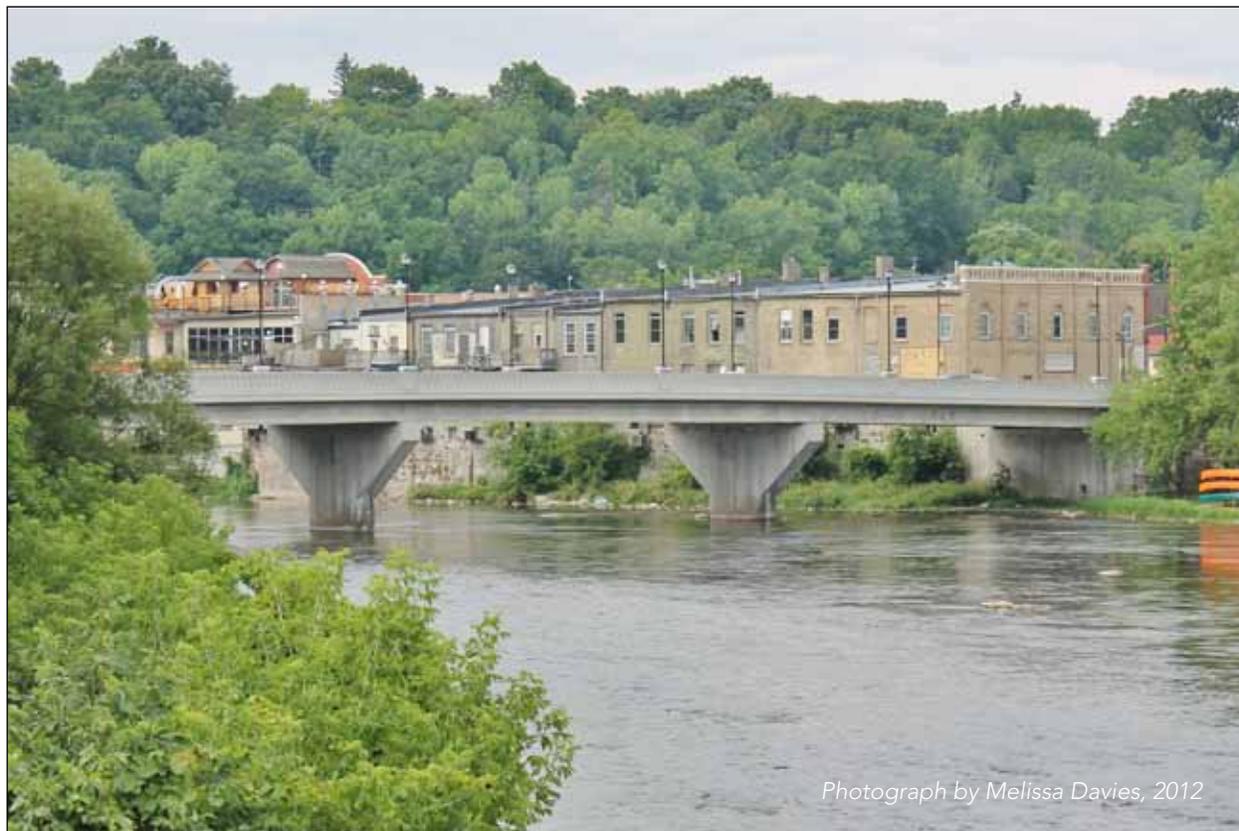
Constructed in 1967, the Grand River Bridge is slightly skewed and set upon unique concrete piers and decoratively arched and painted steel I-beams. The railings are simple and constructed of concrete and metal. The Grand River Bridge underwent repairs in 2005 and 2009.

Source: *Municipal Structure Inspection Form, County of Brant*



William Street Bridge

(Structure Number 1-0159-00)



General Information	Physical Details
Bridge No. B13	Type: I-beam
Ownership: County of Brant	Span: Four
Construction Date: 1968	Dimensions: 110.5m x 11m (LxW)
Water Crossing: Grand River	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The William Street Bridge is located on William Street, 0.1 km east of Grand River Street North in the Town of Paris. The attractively designed bridge features prominently in the view along the Grand River and acts as a gateway to downtown Paris.

Constructed in 1968, this bridge replaced a multi-span through truss bridge built in the late 19th century. The William Street Bridge is set upon concrete piers and exhibits decorative concrete railings and balustrades and classically designed streetlights. The William Street Bridge underwent repairs in 1985 and in 2012 the parapet walls and streetlights were replaced and repairs were made to the girders, piers and abutments. The bridge has sidewalks on both sides, allowing pedestrians safe passage into downtown Paris.

Sources: *Municipal Structure Inspection Form, County of Brant*
Brant County Museum & Archives



New England School Road Abutments



General Information	Physical Details
Bridge No. B14	Type: Abutments
Ownership: Private	Span: Single
Construction Date: c.1920s	Dimensions: Unknown
Water Crossing: Big Creek	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The New England School Road abutments are located parallel to and just south of McBay Road, 4.8 km south of Brant County Highway Number 2/53, east of the City of Brantford. The abutments are just south of the Jack Devereaux Bridge that now carries McBay Road across Big Creek. The abutments were constructed circa the 1920s and appear to have originally carried New England School Road, which now ends at McBay Road.

According to local knowledge, a man, with the last name Simpson, poured the abutments, and there is memory of the bridge crossing these remnants since 1944, but it was likely there longer. There have been three bridges on this site, two of which were demolished when McBay Road and Big Creek were rerouted, possibly when the Jack Devereaux Bridge was built in 1958. One of these bridges is remembered to have been steel. The last bridge on site was demolished between 1988 and 1990.

Source: County of Brant Resident



Canning CNR Bridge



General Information	Physical Details
Bridge No. BB1	Type: Steel Girder on Pier and Abutments
Ownership: Canadian National Railway	Span: Two
Construction Date: c.1900	Dimensions: Unknown
Water Crossing: Nith River	Materials: Steel, Masonry, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The two-track Canning CNR Bridge is located just south of Township Road 2, east of Canning Road. Although the date is unknown, it is likely that this structure was built in the early 1900s. The first tracks at this crossing were laid by the Great Western Railway as early as 1863. By the late 19th century Great Western Railway had merged with the Grand Trunk Railway (GTR). The GTR took over ownership and by 1917 a second track had been added. This trestle now carries the Canadian National Railway through the community of Canning. The bridge’s steel girder frame is set high above the Nith River on a central concrete pier and two steep masonry abutments.

The Canning CNR Bridge is located just south of the pedestrian Canning (South-East) Truss Bridge.

Sources: Andraee, C. Lines of Country: An atlas of railway and waterway history in Canada, 1997
 GRCA Heritage Bridge Inventory



Canning (South-East) Truss Bridge

(Terryberry Bridge)



General Information	Physical Details
Bridge No. BB2	Type: Pratt Through Truss
Ownership: Township of Blandford-Blenheim	Span: Single
Construction Date: c.1898	Dimensions: 40.8m x 4.8m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Canning (South-East) Truss Bridge is located just north of Township Road 2, east of Canning Road. This structure is a simply supported Pratt through truss of steel with concrete abutments. If the estimated date of construction (1898) is correct, this bridge is an early example of field riveting. The abutments have been scored to represent blockwork. The former wood deck was removed around 1960, and the bridge is now used as a pedestrian walking trail. A water survey benchmark is located on a post beside the bridge. The structure is set in a secluded area, but is visible from the nearby Canning CNR Bridge located to the south. A steel beam deck bridge replaced a truss bridge over the Nith River in the hamlet of Canning, which was similar to this bridge, in 1999.

The Canning (South-East) Truss Bridge belongs to a group of six remaining steel truss bridges in the Township that range in age from the late 19th century to 1937. This group includes: Oxford-Waterloo Road Bridge, Blandford-Blenheim Bridge #20, Blandford-Blenheim Bridge #24, Silver Bridge and Blandford-Blenheim Bridge #25.

Sources: GRCA Heritage Bridge Inventory
 Ministry of Culture Bridge Inspection Form, 1982
 Grand Old Bridges, Robinson Heritage Consulting, 2004



Oxford-Waterloo Road Bridge

(Blandford-Blenheim Bridge #3)

(Bridge #37/B-OXF)

(Bridge #32)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. BB3	Type: Camelback Pratt Through Truss
Ownership: Township of Blandford-Blenheim Township of Wilmot	Span: Single
Construction Date: 1912	Dimensions: 44.6m x 4.2m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Oxford-Waterloo Road Bridge is located on Oxford Waterloo Road, 0.05 km west of River Road, spanning both the Township of Blandford-Blenheim (Oxford County) and Wilmot Township (Region of Waterloo). The Hamilton Bridge and Tool Company constructed this single-lane structure in August of 1912. The Oxford-Waterloo Road Bridge is a steel camelback Pratt through truss with eight panels and riveted connections. The original railings have been removed and in 1990 the substructure was rehabilitated and the deck was replaced. The bridge's east abutment was reconstructed after Hurricane Hazel caused damage in 1954.

This structure is the second oldest steel truss bridge in the Township of Blandford-Blenheim after the Canning (South-East) Truss Bridge. Including the Oxford-Waterloo Road Bridge, there are six remaining steel truss bridges in Blandford-Blenheim that range in age from the late 19th century to 1937. This group includes: Canning (South-East) Truss Bridge, Blandford-Blenheim Bridge #20, Blandford-Blenheim Bridge #24, Silver Bridge and Blandford-Blenheim Bridge #25.

Among the remaining through truss bridges in the Region of Waterloo, the Oxford-Waterloo Road Bridge is the oldest existing camelback through truss. Other camelback through trusses in the Region were built later: the Winterbourne and Bridge Street Bridges were built in 1913 and the Chamber's Bridge was built in 1930.

This bridge is considered a rare survivor due to the increasing occurrence of steel truss bridges being demolished but not replaced. It is also a significant landmark as it represents the transition between Wilmot and Blandford-Blenheim Townships.

Sources: Township of Blandford-Blenheim OSIM Reports 2011
Historicbridges.org
Spanning the Generations, Phase 3, 2007



Blandford-Blenheim Bridge #20

(Township Road 12 Bridge East)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. BB4	Type: Camelback Through Truss
Ownership: Township of Blandford-Blenheim	Span: Single
Construction Date: 1920	Dimensions: 41.1m x 4.8m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Blandford-Blenheim Bridge #20 is located on Township Road 12, 3.1 km east of Blenheim Road. It was constructed in 1920 and belongs to a group of six remaining steel truss bridges in the Township that range in age from the late nineteenth century to 1937. This group includes: Canning (South-East) Truss Bridge, Oxford-Waterloo Road Bridge, Blandford-Blenheim Bridge #24, Silver Bridge and Blandford-Blenheim Bridge #25.

Specially, this bridge is grouped with Blandford-Blenheim Bridges #24 and #25. They are located on Township Road 12, each one concession apart, crossing the Nith River. They exhibit similar construction details, although each bridge was constructed nine years apart. However, each bridge has something different in its overall design resulting from the varying conditions at the three river crossings. Township Road 12 offers a unique opportunity to observe how bridge designs were adjusted to accommodate different site conditions, such as span lengths and alignment skews.

Blandford-Blenheim Bridge #20 is a steel, seven-panel, rivet-connected camelback through truss. Aside from its early date of construction, this bridge, along with others in its group, is rare due to its use of Carnegie Steel. Although it is not uncommon for steel used in Ontario's bridges to be sourced from the United States, it is less common to find Carnegie steel in the Grand River watershed. The Carnegie Steel Company, headed by Andrew Carnegie, was located in Pittsburg, Pennsylvania and was in operation from 1892 to 1901 before it was purchased by The United States Steel Company.

The bridge underwent repairs in 1995, 1997 and 2004. This bridge is considered a rare survivor due to the increasing occurrence of steel truss bridges being demolished but not replaced.

Sources: Township of Blandford-Blenheim OSIM Reports 2011, GRCA Heritage Bridge Inventory
Historicbridges.org



Blandford-Blenheim Bridge #24



General Information	Physical Details
Bridge No. BB5	Type: Pratt Through Truss
Ownership: Township of Blandford-Blenheim	Span: Single
Construction Date: 1929	Dimensions: 40.8m x 5.4m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Blandford-Blenheim Bridge #24 is located on Township Road 12, 1.2 km west of Blenheim Road. It was constructed in 1929 and belongs to a group of six remaining steel truss bridges in the Township that range in age from the late nineteenth century to 1937. This group includes: Canning (South-East) Truss Bridge, Oxford-Waterloo Road Bridge, Blandford-Blenheim Bridge #20, Silver Bridge and Blandford-Blenheim Bridge #25.

Specially, this bridge is grouped with Blandford-Blenheim Bridges #20 and #25. They are located on Township Road 12, each one concession apart, crossing the Nith River. They exhibit similar construction details, although each bridge was constructed nine years apart. However, each bridge has something different in its overall design resulting from the varying conditions at the three river crossings. Township Road 12 offers a unique opportunity to observe how bridge designs were adjusted to accommodate different site conditions, such as span lengths and alignment skews.

Blandford-Blenheim Bridge #24 is a steel, eight-panel, rivet-connected Pratt through truss that underwent rehabilitation in 1980. Aside from its early date of construction, this bridge, like some of the others in its group, is rare due to its use of Carnegie Steel. Although it is not uncommon for steel used in Ontario's bridges to be sourced from the United States, it is less common to find Carnegie steel in the Grand River watershed. The Carnegie Steel Company, headed by Andrew Carnegie, was located in Pittsburg, Pennsylvania and was in operation from 1892 to 1901 before it was purchased by The United States Steel Company.

Blandford-Blenheim Bridge #24 is considered a rare survivor due to the increasing occurrence of steel truss bridges being demolished but not replaced.

Sources: Township of Blandford-Blenheim OSIM Reports 2011
GRCA Heritage Bridge Inventory
Historicbridges.org



Blandford-Blenheim Bridge #25



General Information	Physical Details
Bridge No. BB6	Type: Pratt Through Truss
Ownership: Township of Blandford-Blenheim	Span: Single
Construction Date: 1937	Dimensions: 40.8m x 4.9m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Blandford-Blenheim Bridge #25 is located on Township Road 12, 0.3 km east of Oxford County Road 8. It was constructed in 1937 and belongs to a group of six remaining steel truss bridges in the Township that range in age from the late nineteenth century to 1937. This group includes: Canning (South-East) Truss Bridge, Oxford-Waterloo Road Bridge, Blandford-Blenheim Bridge #20, Blandford-Blenheim Bridge #24 and Silver Bridge.

Specially, this bridge is grouped with Blandford-Blenheim Bridges #20 and #24. They are located on Township Road 12, each one concession apart, crossing the Nith River. They exhibit similar construction details, although each bridge was constructed nine years apart. However, each bridge has something different in its overall design resulting from the varying conditions at the three river crossings. Township Road 12 offers a unique opportunity to observe how bridge designs were adjusted to accommodate different site conditions, such as span length and alignment skew.

Blandford-Blenheim Bridge #25 is a steel, seven-panel, rivet-connected Pratt through truss that underwent rehabilitation in 1997. Aside from its early date of construction, this bridge is unique due to its use of Algoma Steel. The steel used for most truss bridges in Ontario was sourced from the United States. However, "ALGOMA CANADA" is pressed in the bridge's steel girders, indicating that the material was sourced in Canada from Algoma Steel, a company founded in 1902 and located on the St. Marys River in Sault Ste. Marie, ON.

Blandford-Blenheim Bridge #25 is considered a rare survivor due to the increasing occurrence of steel truss bridges being demolished but not replaced.

Sources: *Township of Blandford-Blenheim OSIM Reports 2011*
GRCA Heritage Bridge Inventory
Historicbridges.org



Silver Bridge

(Blandford-Blenheim Bridge #39)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. BB7	Type: Warren Through Truss
Ownership: Township of Blandford-Blenheim	Span: Single
Construction Date: 1930	Dimensions: 38.7m x 4.5m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Silver Bridge is located on Blenheim Road, 0.25 km south of Oxford County Road 39. It was constructed in 1930 and belongs to a group of six remaining steel truss bridges in the Township that range in age from the late nineteenth century to 1937. This group includes: Canning (South-East) Truss Bridge, Oxford-Waterloo Road Bridge, Blandford-Blenheim Bridge #20, Blandford-Blenheim Bridge #24, and Blandford-Blenheim Bridge #25.

Silver Bridge is a steel, eight-panel, rivet-connected double-intersection Warren through truss. The bridge deck underwent rehabilitation in 1996. This bridge is rare due to its use of Carnegie Steel. Although it is not uncommon for steel used in Ontario's bridges to be sourced from the United States, it is less common to find Carnegie steel in the Grand River watershed. The Carnegie Steel Company, headed by Andrew Carnegie, was located in Pittsburg, Pennsylvania and was in operation from 1892 to 1901 before it was purchased by The United States Steel Company.

Silver Bridge is considered a rare survivor due to the increasing occurrence of steel truss bridges being demolished but not replaced.

Sources: *Township of Blandford-Blenheim OSIM Reports 2011*
Historicbridges.org
GRCA Heritage Bridge Inventory



Lot 1, Conc IX, Blenheim Bridge

(Oxford County Bridge 976105)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. BB8	Type: Slab on I-girders
Ownership: Oxford County	Span: Three
Construction Date: 1965	Dimensions: 86.5m x 10.6m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Lot 1, Conc IX, Blenheim Bridge is located on a rise of Trussler Road, 0.14 km north of Blandford-Blenheim Township Concession Road 9. It was constructed in 1965 and is paired with Lot 1, Conc X, Blenheim Bridge, a similarly designed structure with concrete and green painted metal railings on Trussler Road. Although this bridge type is commonly found, Lot 1, Conc IX, Blenheim Bridge is a good example of the style and is part of a well-designed pair that adds context to Trussler Road.

The date “1965” is engraved in the end of the decoratively ribbed concrete portion of the railings and the concrete piers exhibit icebreakers.

Source: Oxford County Biennial Bridge Inspection Reports, 2010



Lot 1, Conc X, Blenheim Bridge

(Oxford County Bridge 976356)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. BB9	Type: Slab on I-girders
Ownership: Oxford County	Span: Three
Construction Date: 1965	Dimensions: 70.3m x 10m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Lot 1, Conc X, Blenheim Bridge is located on a rise of Trussler Road, 0.25 km south of Greenfield Road. It was constructed in 1965 and is paired with Lot 1, Conc X, Blenheim Bridge, a similarly designed structure with concrete and green painted metal railings on Trussler Road. Although this bridge type is commonly found, Lot 1, Conc X, Blenheim Bridge is a good example of the style and is part of a well-designed pair that adds context to Trussler Road.

The bridged is skewed to the watercourse by 16 degrees and the concrete piers display ice breaks. The date “1965” is engraved on the sides of the northwest and southeast railings of the decoratively ribbed concrete portion of the railings.

Source: Oxford County Biennial Bridge Inspection Reports, 2010



Blandford-Blenheim Bridge #5



General Information	Physical Details
Bridge No. BB10	Type: Rigid Frame
Ownership: Township of Blandford-Blenheim	Span: Single
Construction Date: 1960	Dimensions: 15.1m x 10.5m (LxW)
Water Crossing: Wilmot Creek	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Blandford-Blenheim Bridge #5 is located on Township Road 14, 0.3 km west of County Road 22. It was constructed in 1960 and is one of the earliest examples of a rigid frame structure found in the Township of Blandford-Blenheim. It is representative of concrete rigid frame bridges built throughout the watershed in the 1960s. This bridge is paired with Blandford-Blenheim Bridge #8, which is also located on Township Road 14 and built in the same year.

Blandford-Blenheim Bridge #5 has a slightly arched deck and simple concrete railings.

Source: Township of Blandford-Blenheim OSIM Reports 2011



Blandford-Blenheim Bridge #8



General Information	Physical Details
Bridge No. BB11	Type: Rigid Frame
Ownership: Township of Blandford-Blenheim	Span: Single
Construction Date: 1960	Dimensions: 10.5m x 9.2m (LxW)
Water Crossing: Unknown	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Blandford-Blenheim Bridge #8 is located on Township Road 14, 0.5 km east of Blandford-Blenheim/East Zorra-Tavistock Boundary. It was constructed in 1960 and is one of the earliest rigid frame structures found in the Township. It is representative of the concrete rigid frame bridges built throughout the watershed in the 1960s. This bridge is paired with Blandford-Blenheim Bridge #5, which is also located on Township Road 14 and built in the same year.

Blandford-Blenheim Bridge #8 has a slightly shorter span than other similar bridges and depicts simple concrete railings.

Source: Township of Blandford-Blenheim OSIM Reports 2011



Roulston Bridge

(Site Number 64)



General Information	Physical Details
Bridge No. PE1	Type: Pony Truss
Ownership: Township of Perth East	Span: Single
Construction Date: c.1920	Dimensions: 18.7m x 5.8m (LxW)
Water Crossing: Smith Creek	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Roulston Bridge is located on Road 129, 0.1 km south of Line 64 (Mill St. E) in the community of Milverton. It was constructed circa 1920 and is one of two remaining steel truss bridges in the Township of Perth East, joined by a pony truss located on private property at 4424 Line 76.

Roulston Bridge is a riveted pony truss with a concrete deck and abutments set quite high above the Smith Creek floodplain amidst a picturesque rural landscape. The bridge’s north end stringers were replaced in 2003. This pony truss represents a rare survivor in the Grand River watershed, as steel truss bridges are increasingly being removed but not replaced.

Source: Perth East 2011 Bridge & Culvert Biennial Inspection Reports (Book 2 of 2)



Line 76 Truss Bridge



General Information	Physical Details
Bridge No. PE2	Type: Pony Truss
Ownership: Private	Span: Single
Construction Date: c.1920	Dimensions: 15.2m x 4.3m (LxW)
Water Crossing: Tributary of Nith River	Materials: Steel, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Line 76 Truss Bridge is located on private property on Line 76, just east of Road 129 in the community of Newton. This uniquely simple pony truss was constructed circa 1920 and is one of two remaining steel truss bridges in the Township of Perth East, joined by the Roulston Bridge.

The Line 76 Truss Bridge appears to be a pin jointed pony truss with a timber deck and very small concrete abutments. The bridge is now located on private agricultural land but was originally built by the Township of Perth East and located somewhere along Line 76. The bridge was moved to its current location in 1963. This pony truss represents a rare survivor in the Grand River watershed, as steel truss bridges are increasingly being removed but not replaced.

Source: Property Owner



Site Number 71 Bridge



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. PE3	Type: Rigid Frame
Ownership: Township of Perth East	Span: Single
Construction Date: c.1930	Dimensions: 20.2m x 7.2m (LxW)
Water Crossing: Smith Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Site Number 71 Bridge is located on Line 80, 0.2 km east of Perth Road 131. It was constructed circa 1930 and is one of the earliest rigid frame bridges remaining in the Township of Perth East. It is representative of rigid frame bridges built in this era throughout the watershed. However, Site Number 71 Bridge is more decorative than other rigid frames, exhibiting art deco inspired concrete balustrades with inset boxes embossed with varying line lengths. The thin board finish is still visible in the concrete.

Source: Perth East 2012 Bridge & Culvert Biennial Inspection Reports (Book 2 of 2)



Site Number 72 Bridge



General Information	Physical Details
Bridge No. PE4	Type: Rigid Frame
Ownership: Township of Perth East	Span: Single
Construction Date: c.1940	Dimensions: 18.8m x 8.5m (LxW)
Water Crossing: Nith River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Site Number 72 Bridge is located on Line 80, 0.2 km east of Road 129, east of the hamlet of Burns. It was constructed circa 1940 and is one of the earlier rigid frame bridges remaining in the Township of Perth East. It is slightly skewed to the watercourse, displays a uniquely decorative design and is paired with Site Number 74 Bridge.

Site Number 72 Bridge is representative of the rigid frame bridge type built in this era throughout the watershed. However, it is uniquely decorative on the river facing sides with large, solid square pilasters with smaller square top caps and embossed lines. The pilasters placed between the start of the abutments and the elliptical arch, as well as at the abutment ends, project outward slightly and run all the way to the ground. These pilasters feature three embossed lines. The thin board finish is still very visible in the bridge's concrete.

Source: Perth East 2011 Bridge & Culvert Biennial Inspection Reports (Book 2 of 2)



Site Number 74 Bridge



General Information	Physical Details
Bridge No. PE5	Type: Rigid Frame
Ownership: Township of Perth East	Span: Single
Construction Date: c.1940	Dimensions: 16.2m x 8.6m (LxW)
Water Crossing: Smith Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Site Number 74 Bridge is located on Line 76, 0.1 km west of Perth Road 131. It was constructed circa 1940 and is one of the earlier rigid frame bridges remaining in the Township of Perth East. It displays a uniquely decorative design and is paired with Site Number 72 Bridge.

Site Number 74 Bridge is representative of the rigid frame bridge type built in this era throughout the watershed. However, it is uniquely decorative on the river facing sides with large, solid square pilasters with smaller square top caps and embossed lines. The pilasters placed between the start of the abutments and the elliptical arch, as well as at the abutment ends, project outward slightly and run all the way to the ground. These pilasters feature three embossed lines.

Source: Perth East 2011 Bridge & Culvert Biennial Inspection Reports (Book 2 of 2)



Site Number 75 Bridge

(Private Access)



General Information	Physical Details
Bridge No. PE6	Type: Rigid Frame
Ownership: Township of Perth East	Span: Single
Construction Date: c.1940	Dimensions: 16m x 6.6m (LxW)
Water Crossing: Nith River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Site Number 75 Bridge is located off Line 76, 0.4 km west of 128 Road and provides access to a private farmstead. It was constructed circa 1940 and is one of the earlier rigid frame bridges remaining in the Township of Perth East.

Site Number 75 Bridge is representative of the rigid frame bridge type built in this era throughout the watershed. However, it displays a uniquely decorative design with its use of steel beam railings mixed with art deco inspired concrete balustrades. The large, solid square pilasters are embossed with three lines and exhibit smaller square top caps. The wing walls on this structure are unique, as they project from the abutment in a triangular form on each side of the bridge. The thin board finish is quite visible on the concrete abutment walls beneath the bridge.

Source: Perth East 2011 Bridge & Culvert Biennial Inspection Reports (Book 2 of 2)



Millbank Bridge

(Site Number 88)



General Information	Physical Details
Bridge No. PE7	Type: Rigid Frame
Ownership: Township of Perth East	Span: Single
Construction Date: c.1970	Dimensions: 21.3m x 11.1m (LxW)
Water Crossing: Nith River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Millbank Bridge is located on Elgin Street, between Princess Street and Church Street, in the community of Millbank, in the Township of Perth East. It was constructed circa 1970 and contributes to a cultural heritage landscape in Millbank, joining two neighbourhoods over the Nith River along the gently curving Elgin Street.

This concrete rigid frame bridge has metal railings and a pleasing elliptical arch. The bridge appears to be celebrated by the community due to its adornment with flowers and plaques commemorating locals. A larger plaque was erected by The Millbank Association to thank community members for their help with a local Beautification Competition.

Source: Perth East 2012 Bridge & Culvert Biennial Inspection Reports (Book 2 of 2)



Nithvale Bridge

(Nith Road Bridge)



Spanning the Generations, 2007

General Information	Physical Details
Bridge No. ND1	Type: Pratt Through Truss
Ownership: Unknown	Span: Single
Construction Date: 1883	Dimensions: 30m x 5m (LxW)
Water Crossing: Nith River	Materials: Wrought Iron, Steel, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Nithvale Bridge spans the Nith River 0.05 km south of Piper Street at the end of Nith Road and is thought to be the third bridge at this crossing. Built in 1873 by Alex Mathison for \$1,426, the Nithvale Bridge is the older of two abandoned truss bridges in the Township of North Dumfries, joined by the Piper Street Steel Truss Bridge located just to the south. This structure is the oldest truss bridge in the Region of Waterloo, having been built early in the era of truss bridge construction.

The Nithvale Bridge is an eight-paneled, single span, Pratt through truss bridge constructed of both wrought iron and steel. This use of materials reflects the transition in bridge building that took place in the late 1800s where the reliance on wrought iron shifted to steel. Few wrought iron bridges remain in the watershed, furthering speaking to the uniqueness of this structure. The Nithvale Bridge is pin-jointed rather than riveted, suggesting it was built before riveting technology reached the area. In 1914, the Hamilton Bridge Company added a short, steel girder span to the south end of the truss. The bridge was closed to vehicular traffic in 1967 due to safety concerns. However, the bridge is still used by pedestrians today.

The Nithvale Bridge is said to be a landmark linked to the previous Village of Nithvale. The small village was home to two sawmills and a flourmill. The village never flourished due to increased development in neighbouring towns that eventually amalgamated to form the Village of Ayr. Today, the Nithvale Bridge remains abandoned and almost completely concealed by foliage along Piper Street.

The Nithvale Bridge and the Piper Street Steel Truss Bridge form a pair of two truss bridges in the Township of North Dumfries. Other similar truss bridges within the Region of Waterloo include: Wellesley Bridge #6, Holland Mills Road Bridge, Black Bridge Road Bridge, Conestogo Bridge, Haysville Bridge (demolished), the Hartman Bridge and Shade Street Bridge.

Sources: GRCA Heritage Bridge Inventory
Spanning the Generations, Phase 1, 2004
Spanning the Generations, Phase 3, 2007



Piper Street Steel Truss

(Slabtown Bridge)



General Information	Physical Details
Bridge No. ND2	Type: Pratt Through Truss
Ownership: Private	Span: Single
Construction Date: c.1915	Dimensions: Unknown
Water Crossing: Nith River	Materials: Steel



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Piper Street Steel Truss Bridge, also known as the Slabtown Bridge, was built circa 1915. It is located on private agricultural land 0.2 km east of Trussler Road and 0.05 km south of Piper Street, near the Village of Ayr, in the Township of North Dumfries. The bridge is a riveted Pratt through truss with a similar design to other early trusses in the area. The structure likely required a highly skilled bridge crew to assemble it. If it had been pin-jointed together, rather than riveted, it could have been easily secured by hand.

The Piper Street Steel Truss Bridge is the oldest remaining riveted truss bridge in the Township of North Dumfries, and is one of two remaining Pratt truss bridges. The other bridge that belongs to this set is the Nithvale Bridge. Located in close proximity to each other, during major flood periods on the Nith River, they both usually suffer the same damage. However, the Piper Street Steel Truss Bridge has been built with heavier construction than the Nithvale Bridge and fares better.

Several repairs have been made to the bridge throughout its lifetime. The deck has been replaced multiple times and the abutment foundations have been filled with cement twice. Aside from the noted repairs, the original steel truss and the overall form of the bridge has remained intact in order to preserve the bridges historical integrity.

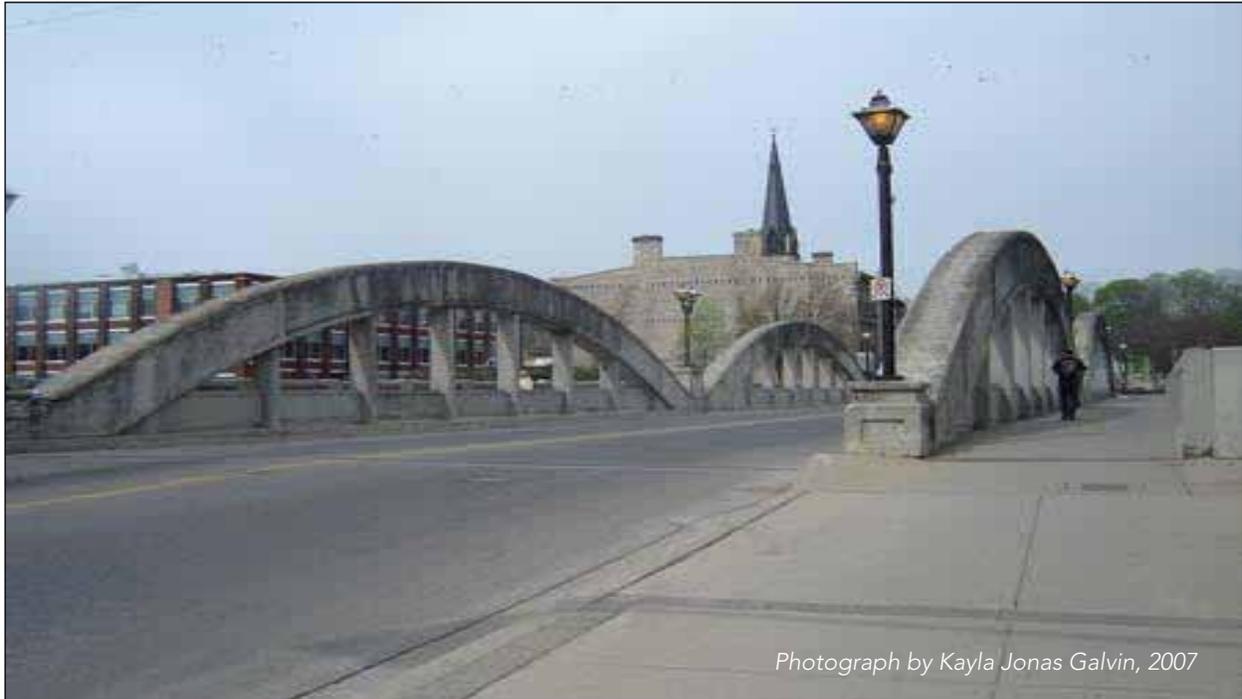
The structure is also referred to as the Slabtown Bridge after the historic hamlet that was located just to the west. The small village had a sawmill and several smaller houses for its workers, and the bridge represents a landmark that reminds people of this historic settlement. Presently, the ruins of the sawmill and the millrace can still be seen near the bridge and a wooden house, built circa 1860, remains beside the structure. The bridge's rustic appearance also provides a strong sense of character that contributes to its surrounding rural landscape.

The Piper Street Steel Truss Bridge and the Nithvale Bridge form a pair of two truss bridges in the Township of North Dumfries. Other similar truss bridges within the Region of Waterloo include: Wellesley Bridge #6, Holland Mills Road Bridge, Black Bridge Road Bridge, Conestogo Bridge, Haysville Bridge (demolished), the Hartman Bridge and Shade Street Bridge.

Sources: GRCA Heritage Bridge Inventory
Spanning the Generations, Phase 3, October 2007



Main Street Bridge



General Information	Physical Details
Bridge No. C1	Type: Concrete Bowstring Arch
Ownership: Regional Municipality of Waterloo	Span: Two
Construction Date: 1931	Dimensions: 59.6m x 18.5m (LxW)
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Main Street Bridge spans the Grand River between Water and Melville Streets, in the former City of Galt, now the City of Cambridge. The bridge is a multiple-span concrete bowstring arch bridge and was constructed in 1931. The property was designated by the City of Cambridge in 1982 for its heritage value under Part IV of the *Ontario Heritage Act* (By-law 2225). The Cambridge Main Street Bridge has also been listed on the Ontario Heritage Bridge list, a list of provincially-significant bridges maintained by the Ministry of Tourism, Culture and Sport.

Cambridge's Main Street Bridge is located in the historic centre of the former City of Galt and spans the Grand River, a Canadian Heritage River. It is part of a group of four multiple-span concrete bowstring arch bridges spanning the Grand River that were erected in the same time period and in a similar style. These bridges are a part of the upgrading work that took place to the transportation networks in Ontario, after the First World War, to accommodate the increased number of automobiles. This group includes two other bridges within the Region of Waterloo, the Freeport Bridge and the Bridgeport Bridge in Kitchener. The fourth bridge, the Caledonia Bridge is located in the community of Caledonia.

The Cambridge Main Street Bridge crosses the Grand River and connects the east and west sides of downtown Galt, making it the most important bridge in the City of Cambridge. The first bridge on this site was a three-span steel truss bridge built in 1819 and rebuilt 1858. The current bridge was commissioned by the former City of Galt, at a cost of approximately \$55,000. The structure was designed by Archibald B. Crealock, a consulting engineer from Toronto and was built in four months, by W.H. Yates Construction Company Limited of Hamilton. The official opening of the Main Street Bridge took place on December 22, 1931.

The Cambridge Main Street Bridge is a reinforced concrete bowstring arch bridge with decorative concrete rails and balustrades. The bridge's bowstring design was popular in the 1920s and 1930s as it required minimal material, was simple to install and could easily accommodate vehicular traffic. The bridge's abutments and piers are built entirely on limestone bedrock. Two lanes of cars can cross the bridge and eight-foot wide sidewalks, one on either side of the vehicular traffic, allow for safe pedestrian passage.

Sources: City of Cambridge By-law 2225; City of Cambridge Report, 2002; Municipal Structure Inspection Form, County of Brant; *Spanning the Generations, Phase 2*



Black Bridge

(Black Bridge Road Bridge)



General Information	Physical Details
Bridge No. C2	Type: Pratt Through Truss
Ownership: City of Cambridge	Span: Single
Construction Date: c.1916	Dimensions: 35m Length
Water Crossing: Speed River	Materials: Steel



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Black Bridge spans the Speed River on Black Bridge Road, 2.4 km east of Highway 24, in the community of Hespeler, in the City of Cambridge. Lying on the border of the Township of Puslinch and the City of Cambridge it contributes to the surrounding scenic rural landscape. Typical of the era, the bridge is a single-lane, pin-jointed, steel Pratt through truss bridge, which was constructed in 1916. The bridge was designated by the City of Cambridge in 2003 for its cultural value or interest under Part IV of the *Ontario Heritage Act* (By-law 16-03).

It is predicted that the bridge was constructed circa 1916 due to a wooden timber with '1916' stamped on the bottom discovered during one of the repairs the bridge has undergone. Despite these extensive repairs in 1931 and 1996, the Black Bridge has retained its original form. It is the only remaining steel bridge of its kind in the City of Cambridge. The history of the bridge is commemorated with a Region of Waterloo interpretive plaque located on the west side of the structure.

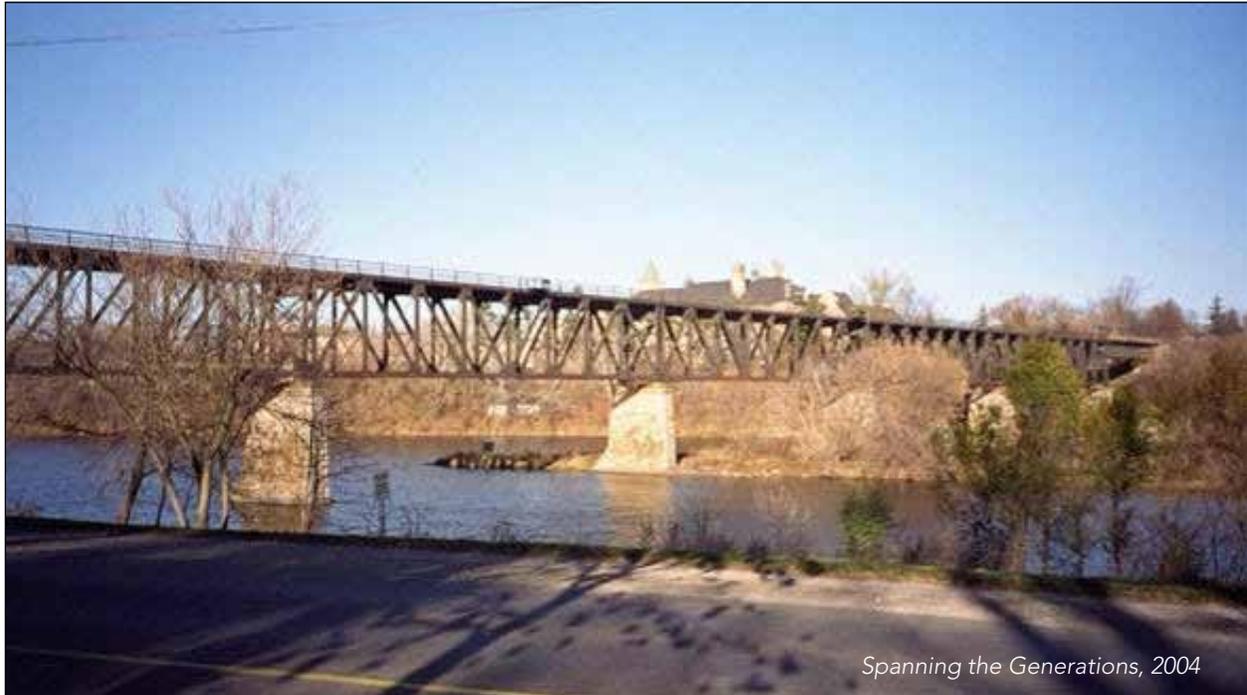
On site, there is evidence of a wooden bridge present as early as 1910. Black Bridge Road was historically part of Block Line, an important boundary in Waterloo County. Block Line divided Wilson's Upper Block from Wilson's Lower Block, and was used as a reference point on several historic maps dating back to 1805.

The Black Bridge is one of a group of similar truss bridges located in the Region of Waterloo including: Wellesley Bridge #6, Holland Mills Road Bridge, Piper Street Steel Truss Bridge, Nithvale Bridge, Conestogo Bridge, Haysville Bridge (demolished), the Hartman Bridge and Shade Street Bridge.

Sources: GRCA Heritage Bridge Inventory
Heritage Bridge Plaque Draft, Region of Waterloo
Spanning the Generations, Phase 3, 2007
The Canadian Register of Historic Places



Grand River Viaduct



General Information	Physical Details
Bridge No. C3	Type: Deck Truss on Piers
Ownership: City of Cambridge Canadian Pacific Railway	Span: Three
Construction Date: c.1880	Dimensions: 313.6m Length
Water Crossing: Grand River	Materials: Steel, Masonry



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Grand River Viaduct carries the Canadian Pacific Railway (CPR) across the Grand River just north of Park Hill Road in the City of Cambridge. The Grand River Viaduct is a landmark and acts as a gateway into the downtown area of Galt. The viaduct can only be seen from downstream locations such as the Park Hill Road Bridge. It is estimated that the Credit Valley Railway built this three-span, steel deck truss viaduct circa 1880 as this was roughly when the railway was constructed through Galt.

The bridge is part of a significant landscape in Galt. The associated Canadian Pacific Railway station is located at 10 Front Street and is composed of two brick and stone buildings built between 1898-1900. The two structures, a railway station (1898-1899) and express shed (1900), were designated under Part IV of the *Ontario Heritage Act* in 1991. They reflect the importance of the railway to the social and industrial development of the community of Galt. The completion of this CPR station in 1899 affirmed the existing mutual significance of town and railway. When a local electric railway system was created, the electric trains met the steam trains at this station, playing an even larger social and economic role in the community.

Sources: GRCA Heritage Bridge Inventory
 Spanning the Generations, Phase 3, 2007
 Canadian Register of Historic Places
 Andrae, C. (1997). *Lines of Country: An atlas of railway and waterway history in Canada*



Blair Stone Arch

(Abandoned Arch)



Spanning the Generations, 2004

General Information	Physical Details
Bridge No. C4	Type: Stone Masonry Arch
Ownership: City of Cambridge	Span: Single
Construction Date: Unknown	Dimensions: Unknown
Water Crossing: Bowman Creek/Blair Creek	Materials: Masonry



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

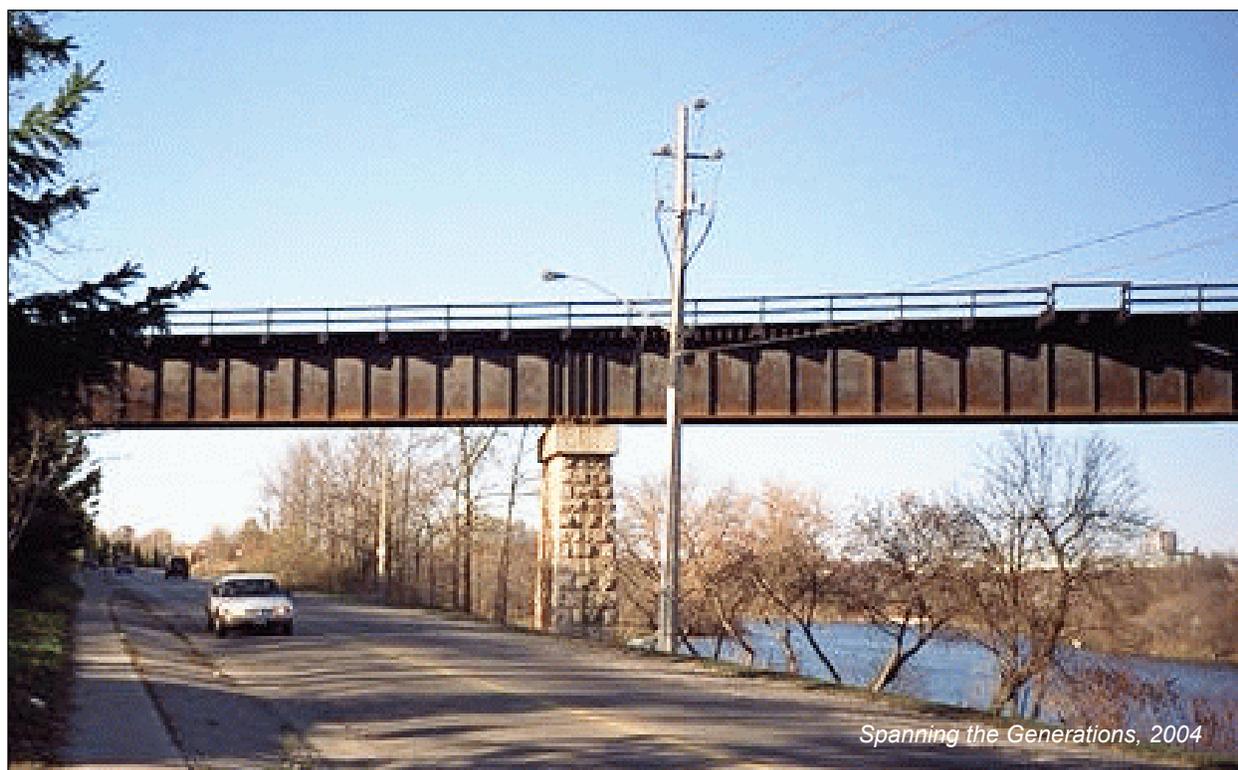
The Blair Stone Arch is an abandoned stone masonry arch bridge located over Bowman Creek/Blair Creek, 25 m west of the intersection of Blair Road and Fountain Street in the City of Cambridge. Based on the unique design of the bridge and the materials used, it is likely of very early construction. In Ontario, several stone bridges were built around the turn of the century, however masonry was not used in excess due to the time, money and skill that was required. Concrete quickly became a more popular building material. As a result, the Blair Stone Arch represents a rare survivor in the watershed and the province.

The bridge appears to have been abandoned for a number of years and is now only suitable for pedestrian use.

Sources: GRCA Heritage Bridge Inventory
Spanning the Generations, Phase 1, 2004
Discovering Heritage Bridges on Ontario Roads, David Cuming, 1983



George Street Underpass



General Information	Physical Details
Bridge No. C5	Type: Deck Plate Girder
Ownership: City of Cambridge Canadian Pacific Railway	Span: Three
Construction Date: 1931	Dimensions: Unknown
Water Crossing: Grand River	Materials: Steel, Masonry



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The George Street Underpass spans both George Street and the Grand River, 0.15 km north of James Street in the City of Cambridge. It is a three-span, steel deck truss on masonry piers and abutments. There is a concrete cap on the bridge engraved with the year '1931', the bridge's date of construction. The bridge is maintained and partly owned by the Canadian Pacific Railway and is a portion of the Grand River Viaduct. It is located near several other railway bridges that carry the same track just outside of downtown Galt.

Sources: GRCA Heritage Bridge Inventory
Spanning the Generations, Phase 1, 2004



Mill Creek Overpass



General Information	Physical Details
Bridge No. C6	Type: Structural Steel
Ownership: City of Cambridge	Span: Single
Construction Date: Pre-1900	Dimensions: Unknown
Water Crossing: Mill Creek	Materials: Steel, Masonry



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Mill Creek Overpass spans Mill Creek in the north end of Soper Park near Elgin and Samuelson Streets in the City of Cambridge. It is a single-span railway viaduct constructed of structural steel. The Credit Valley Railway likely built this bridge circa 1880, as this was the year the railway was laid through Galt. The abutments are composed of rock-faced stone, further supporting the bridge's estimated date of construction pre-1900. The Credit Valley Railway was short lived and ownership of the line passed to the Canadian Pacific Railway in the late 19th century.

Sources: *Spanning the Generations, Phase 1, 2004*
Andreae, C. (1997). Lines of Country: An atlas of railway and waterway history in Canada



Blair Bridge



General Information	Physical Details
Bridge No. C7	Type: Rigid Frame
Ownership: Regional Municipality of Waterloo	Span: Three
Construction Date: 1957	Dimensions: Unknown
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

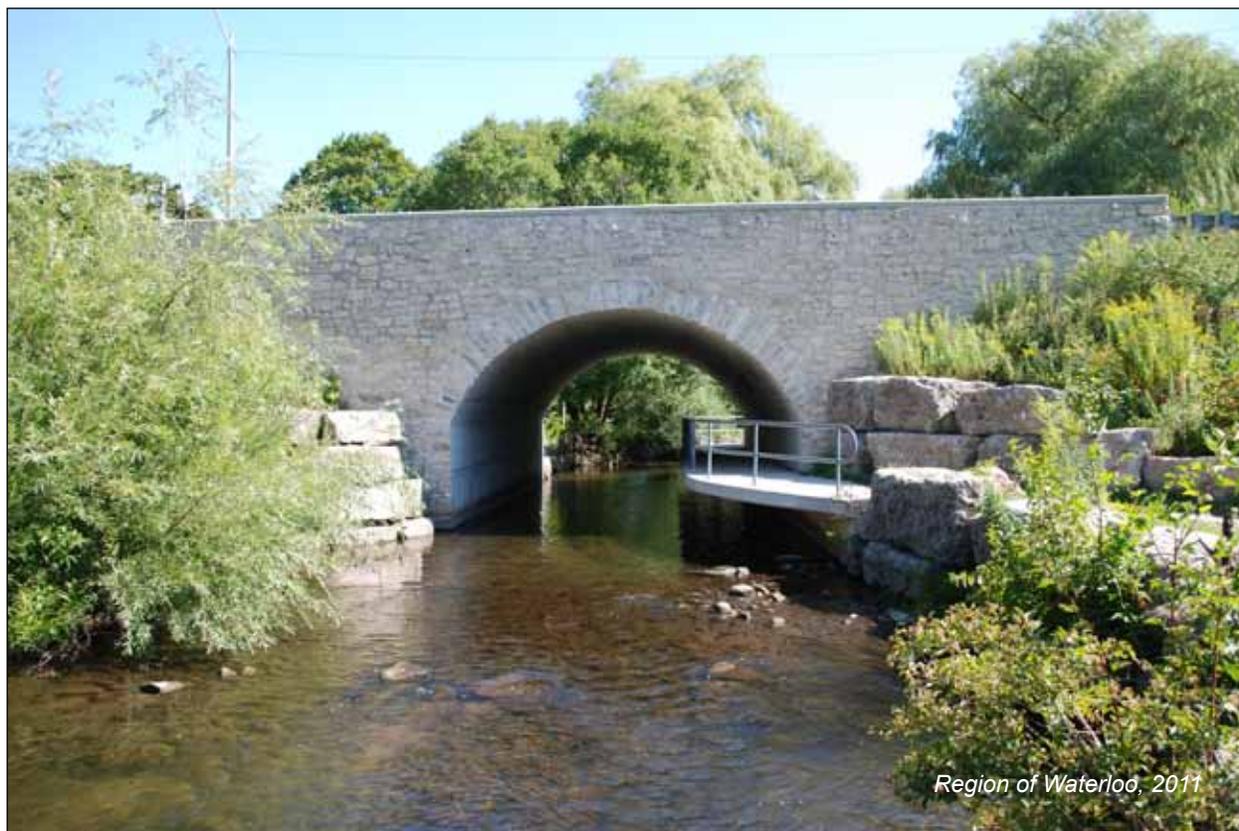
The Blair Bridge is located on Fountain Street, east of Blair Road in the City of Cambridge. Designed by D.M. Jordon, the bridge was built in 1957 and officially opened on December 12, 1957. It was constructed by R.A. Blyth and engineered by M.M Dillon. The Blair Bridge was dedicated to Joseph A. Armstrong. The bridge's three arched spans of reinforced concrete maintain an ascetically appealing look and contribute to the history and prominence of the Blair Village Heritage Conservation District, which was designated under Part V of the *Ontario Heritage Act* in 2002.

Historically, there have been several other bridges over the Grand River downstream from this location in the community of Blair, including a shingle-roofed covered bridge built as early as 1835. An iron bridge replaced the covered bridge in 1857 and remained in use until 1957 when the Blair Bridge was built. The iron piers of this previous bridge can still be seen downstream from the Blair Bridge.

Sources: *GRCA Heritage Bridge Inventory*
Spanning the Generations, Phase 1, 2004
Historical Information - Evolution of Blair, City of Cambridge



Mill Creek Bridge



General Information	Physical Details
Bridge No. C8	Type: Masonry Arch
Ownership: Regional Municipality of Waterloo	Span: Single
Construction Date: 1837	Dimensions: 5.7m x 11.4m (LxW)
Water Crossing: Mill Creek	Materials: Stone



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Mill Creek Bridge is located on Dundas Street in the City of Cambridge's Soper Park. It was constructed in 1837, making it the oldest documented bridge in the Region of Waterloo and likely the oldest in the Grand River watershed. British pioneers, John Galt and thousands more first used the bridge, representing a historic link to the Region's past. Today, the bridge crosses Mill Creek via Dundas Street and the pedestrian sidewalks that pass through the arch beneath the bridge.

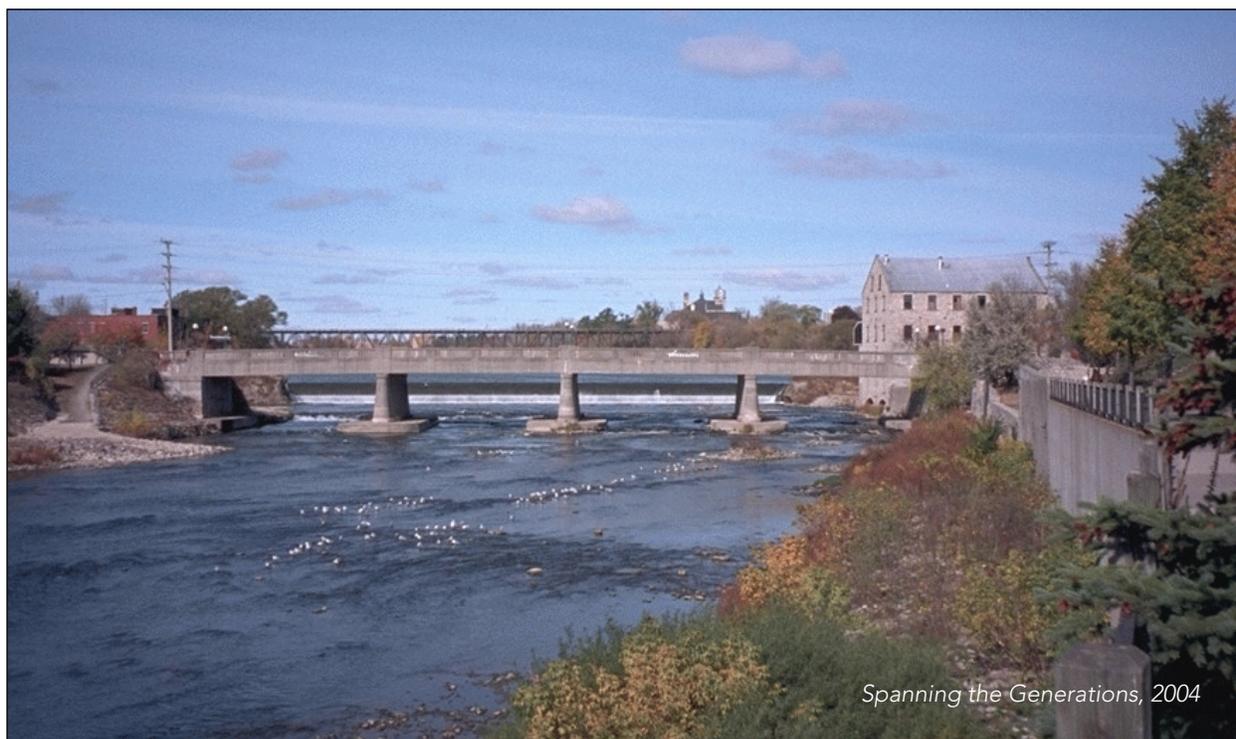
In 2004, this unique bridge underwent major reconstruction, including the replacement of the existing concrete and replication of the original structure. The roadway was widened and new parapet walls composed of natural stones were installed to replace the previous steel railings. The original stones were individually numbered before reconstruction and were incorporated in the facing of the new structure and parapet walls to disguise the reconstructed concrete arch beneath. A plaque was erected on site in 2007 by the Region of Waterloo to celebrate the bridge's significant historic past.

Sources: GRCA Heritage Bridge Inventory
Spanning the Generations, Phase 1, 2004
Cambridge Times, 2007



Park Hill Road Bridge

(Queen Street Bridge)



General Information	Physical Details
Bridge No. C9	Type: T-beam
Ownership: Regional Municipality of Waterloo	Span: Four
Construction Date: 1933	Dimensions: 83.7m x 12.4m (LxW)
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Park Hill Road Bridge is located on Park Hill Road, 0.5 km west of Water Street in the City of Cambridge in the area of old Galt. This four-span concrete T-beam structure was built in 1933 and features decorative concrete railings and piers.

The Park Hill Road Bridge is credited as one of three bridges that contributed to the early development of Galt. This bridge is part of a grouping of bridges that cross the Grand River allowing passage into downtown Galt. The other bridges in this group include the Main Street Bridge and the Concession Street Bridge. Together they represent local landmarks and gateways as travelers enter the downtown core.

The Cambridge Mill Race Park is located to the southeast of the Park Hill Road Bridge, an area consisting of old mill ruins along with an excavated mill raceway. The Turnbull Knitting Mill was built on this site in 1867 and became part of Dobbie Industries in 1946. Water was still used to power the mill in the 1950s and the business ran well into the 1970s. The site of the mill was dedicated in 1977 to recognize the contribution of the pioneering manufacturers and the importance of the river to this community. A Grand River Canadian Heritage River designation plaque is also located in this park.

In 2002 Park Hill Road was widened and the bridge was reconstructed. However, this work respected the original fabric of the bridge as the structure retains the same design and the new railing and lighting replicate original features.

Sources: GRCA Heritage Bridge Inventory
Spanning the Generations, Phase 1, 2004
The Mill Race Plaque



King Street Bridge



General Information	Physical Details
Bridge No. C10	Type: Box Girder
Ownership: Regional Municipality of Waterloo	Span: Three
Construction Date: c.1924	Dimensions: 56.4m x 20.1m (LxW)
Water Crossing: Speed River	Materials: Precast Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The King Street Bridge is located on King Street, 0.11 km west of Chopin Drive in the City of Cambridge. The original bridge at this site was likely built in 1924, however a large portion of the bridge was replaced in 1987. The northern most end of the bridge, the portion that crosses the millrace, is the only portion of the 1924 bridge remaining. This three-span structure was rebuilt to look similar to the original bridge. It is now a box girder bridge constructed of pre-cast concrete. Efforts were made to decorate the bridge with embossed concrete, built in flowerbeds and several lamp posts that line the bridge railings on both sides.

A CPR railway bridge is located directly to the north of the bridge, along with remnants of a dam once used to power the millrace. The millrace belongs to Dover Flour Mills located to the west of the bridge. They have retained the function of the mill raceway should they require waterpower in the future.

Sources: GRCA Heritage Bridge Inventory
Spanning the Generations, Phase 1, 2004



Speed Island Trail Bridge



General Information	Physical Details
Bridge No. C11	Type: I-Beam
Ownership: City of Cambridge	Span: Three
Construction Date: c.1950	Dimensions: Unknown
Water Crossing: Speed River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Speed Island Trail Bridge is located 0.5 km west of Beavertdale Road on the Speed Island Trail in the City of Cambridge and leads to an island with a private home. It is believed that the bridge was built circa 1950. The structure is a three-span, I-beam bridge constructed of steel and concrete. The abutments and piers appear to be quite old as the thin board finish is still visible in the concrete. The deck has also been recently replaced, possibly around 1990. The City of Cambridge has no records of the bridge, however it was likely a public works project.

Source: *Spanning the Generations, Phase 1*



Elgin Street Bridge



General Information	Physical Details
Bridge No. C12	Type: Solid Slab
Ownership: City of Cambridge	Span: Two
Construction Date: c.1930	Dimensions: Unknown
Water Crossing: Mill Creek	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Elgin Street Bridge is located at the end of Elgin Street, near the north exit of Soper Park in the community of Galt, City of Cambridge. It is located just south of the Mill Creek Overpass. Previously a road bridge, the structure is now only suitable for pedestrian use. The bridge is a two-span, precast concrete slab structure with solid, decorative concrete railings embossed with rectangles and featuring pronounced end posts with square top caps. The two-span construction of this bridge is a unique feature, seldom seen in a structure of this type and design spanning such a narrow watercourse.

Source: *Spanning the Generations, Phase 1*



Holland Mills Road Bridge



General Information	Physical Details
Bridge No. WT1	Type: Pratt Through Truss (Pin Jointed)
Ownership: Township of Wilmot	Span: Single
Construction Date: 1910	Dimensions: 30.5m x 4.9m (LxW)
Water Crossing: Nith River	Materials: Steel, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Holland Mills Road Bridge is located on Holland Mills Road, 0.3 km south of Bleams Road, just outside the Town of New Hamburg in the Township of Wilmot. The bridge was likely built in 1910, however it is believed that it may have been built earlier due to the way the bridge truss has been hammered together. It was constructed by the Hamilton Bridge & Tool Company. The structure is a steel, pin-jointed Pratt through truss with a timber deck, which was replaced in 1978. The wooden piles of a previous bridge can be seen 40m northwest of the bridge. There was previously a woollen and gristmill located on the Nith River near this site. However, the Holland Mills Road Bridge is the only remaining structure that signifies this past development.

The bridge belongs to a grouping of several steel truss bridges in the Township that symbolize the rural community and landscape of Wilmot. The other bridges in the group include: Shade Street Bridge, Hartman Bridge, Haysville Bridge (demolished), Oxford-Waterloo Road Bridge, and Bridge Street Bridge. Of these, the Oxford-Waterloo Road Bridge is the existing prototype, even though the Holland Mills Road Bridge was likely constructed earlier. Although it is the oldest steel truss bridge in the Township, it was not the first to be built. The bridge was originally built in northern Ontario and was moved to Holland Mills Road between 1925 and 1930. Since its relocation, the bridge has not been significantly modified. It is the oldest pin-jointed structure in the Township and is representative of the era in which it was built.

The Holland Mills Road Bridge has been considered for replacement due to safety concerns.

Sources: *Spanning the Generations, Phase 1*
Spanning the Generations, Phase 3
 GRCA Heritage Bridge Inventory
 Historicbridges.org



Bridge Street Bridge

(Bridge #34/B-T9)

(Bridge #28)



General Information	Physical Details
Bridge No. WT2	Type: Pratt Camelback Through Truss
Ownership: Township of Wilmot	Span: Single
Construction Date: 1913	Dimensions: 45.7m x 4.1m (LxW)
Water Crossing: Nith River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Bridge Street Bridge is located on Bridge Street, east of Tye Road near the community of Haysville in the Township of Wilmot. The bridge is a single-span, eight-paneled, welded, Pratt camelback through truss. The Hamilton Bridge Company built this structure in 1913 and its plans date to August 1912. This company has been responsible for constructing many steel truss bridges in the Grand River watershed. The bridge spans 47.5m over the Nith River and exhibits a concrete deck. It has been repaired several times, with a significant amount of rehabilitation efforts undertaken in 1982. A load limit of 11 tonnes is enforced in order to ensure the longevity of the bridge.

The Bridge Street Bridge has a similar design to the Oxford-Waterloo Bridge, located downstream. The Oxford-Waterloo Bridge is the prototype for this design in the Township of Wilmot as it was constructed a year earlier, in 1912. As a pair they represent significant landmarks in the Township.

The Bridge Street Bridge provides a gateway on Bridge Street in Wilmot Township. It also provides a connection from the community of New Dundee to the community of Haysville. The bridge belongs to a group of other significant through camelback truss bridges in the Region of Waterloo. These other bridges include the Chambers and Winterbourne Bridges in Woolwich Township and the Oxford-Waterloo Road Bridge located to the south in Wilmot Township.

Sources: *Spanning the Generations, Phase 1, 2004*
Spanning the Generations, Phase 3, 2007
GRCA Heritage Bridge Inventory



Hartman Bridge

(New Hamburg Bridge)



General Information	Physical Details
Bridge No. WT3	Type: Pratt Through Truss
Ownership: Regional Municipality of Waterloo	Span: Single
Construction Date: 1936	Dimensions: 41.5m x 11.4m (LxW)
Water Crossing: Nith River	Materials: Steel



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Hartman Bridge is located on Huron Street in the Township of Wilmot, 0.2 km east of Waterloo Street, within the New Hamburg Heritage Conservation District (HCD). The HCD was designated under Part V of the Ontario Heritage Act in 1992 (Bylaw 92-90). The HCD is comprised of the historic downtown core of the Town of New Hamburg. The community was originally settled along the Nith River in the early 19th century, but underwent significant commercial and industrial development when the Grand Trunk Railway arrived in 1856. The District is anchored with two landmark structures, the B & W Mills and the Hartman Bridge.

This structure was built in 1936 during the Great Depression, on the site of the Village's original Hartman Bridge. Both bridges were named after the Hartman family who initially owned the land across the river but donated it for the bridge construction. The current bridge was designed by County Engineer D.J. Emery and was built by the Hamilton Bridge Company, a significant bridge building company within the Grand River Watershed, building many steel truss bridges in various municipalities.

The structure is a steel Pratt through truss bridge crossing the Nith River in a single, 41.5m span. The bridge includes a concrete sidewalk with a steel-latticed handrail. Although concrete bridges were popular in the 1930s, the steel bridge design was chosen for both economic and practical reasons during the Great Depression. This bridge, along with the other truss bridges in the Township, depicts the evolution of truss bridge design and technology in the early 20th century. A commemorative plaque, erected in 2007 by the Region of Waterloo, celebrates the history associated with the bridge. Maker's plaques, a County plaque and The Hamilton Bridge Company's oval-shaped plaque are also found on the bridge.

Hartman Bridge is the last remaining steel truss bridge on the Waterloo Regional road system and was nominated to the Ontario Heritage Bridge List in 2005. It was also ranked number four of the top ten heritage bridges in the Region of Waterloo in the 2004 bridge inventory, *Spanning the Generations*. The Heritage Canada Foundation selected the Hartman Bridge for its National Achievement award for its perceived value as a heritage structure in the community following its 2006 bridge restoration project. The structure was only slightly altered during this restoration,



the largest modification being the deck replacement and repainting.

The Hartman Bridge is seen as a landmark structure within the Town of New Hamburg and the Region of Waterloo. Both the current and previous bridge served as an important link between the west and east sides of town, helping to make the core of the district a commercial centre in the Township of Wilmot. The bridge's inclusion in the New Hamburg HCD ensures the future preservation and survival of the prominent landmark.

Sources: *Spanning the Generations, Phase 1*
Spanning the Generations, Phase 3
GRCA Heritage Bridge Inventory
The Canadian Register of Historic Places
Historicbridges.org
Region of Waterloo, Hartman Bridge Plaque



Shade Street Bridge

(D.J. Emery Bridge)
 (Township of Wilmot Bridge No. 20015)
 (Bridge #15)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. WT4	Type: Pratt Through Truss
Ownership: Township of Wilmot	Span: Single
Construction Date: 1953	Dimensions: 46.9m x 10.4m (LxW)
Water Crossing: Nith River	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Shade Street Bridge, also known as the, the D.J. Emery Bridge, is located on Shade Street, east of Perth Street near the Town of New Hamburg in the Township of Wilmot. The Canadian Bridge Company built this riveted Pratt through truss in 1953, the year of D.J. Emery's passing. D.J. Emery was the Waterloo County Engineer from 1932 to 1953, working on many of the bridges within the Region.

This bridge is unique as it became less common to find steel bridges built in the 1950s, as concrete was proving to be a cheaper and easier construction material. The Shade Street Bridge is constructed of steel with a reinforced concrete deck and abutments and includes a four-foot wide sidewalk on its north side. A maker's plaque and commemorative plaque are located on the structure. This bridge is the second on the site, having replaced a 1903 structure.

The Shade Street Bridge has a similar design to the Hartman Bridge, which was built earlier in 1936. Together, both of these bridges contribute to the appeal of the Town of New Hamburg and add to the rustic and rural character of the Township. This bridge acts as a gateway to the Town.

Sources: *Spanning the Generations, Phase 1, 2004*
Spanning the Generations, Phase 3, 2007



Suspension Bridge



General Information	Physical Details
Bridge No. WT5	Type: Suspension
Ownership: Private	Span: Single
Construction Date: post-1950	Dimensions: Unknown
Water Crossing: Nith River	Materials: Wire, Wood



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Suspension Bridge is located north of the intersection of Christner Road and Waterloo Street near the community of New Hamburg in the Township of Wilmot. It is a privately owned and constructed bridge that spans the Nith River. The date of construction is not known, but it is assumed to have been built in the last half of the 20th century. It is the only known suspension bridge within the Grand River watershed and represents a very unique vernacular style and landmark in the community.

Source: *Spanning the Generations, Phase 1, 2004*



Freeport Bridge



General Information	Physical Details
Bridge No. K1	Type: Concrete Bowstring Arch
Ownership: Regional Municipality of Waterloo	Span: Seven
Construction Date: 1926	Dimensions: 160.1m x 11m (LxW)
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Freeport Bridge spans the Grand River on King Street East between Riverbank Drive and Stonegate Drive in the City of Kitchener. The property consists of a seven-span concrete bowstring arch bridge that was constructed between 1925 and 1926.

It was designated by the City of Kitchener in 2001 for its historical and/or architectural value under Part IV of the *Ontario Heritage Act* (By-law 2001-208). The history of the bridge is commemorated on site with a Region of Waterloo interpretive plaque. The Freeport Bridge has also been listed on the Ontario Heritage Bridge list, a list of provincially-significant bridges maintained by the Ministry of Tourism, Culture & Sport.

The Freeport Bridge spans the Grand River and serves as a gateway between the City of Kitchener and the City of Cambridge on the Old Highway 8. It is part of a group of four multiple-span concrete bowstring arch bridges spanning the Grand River that were erected in the same time period and are similar in style. This group of bridges represents the upgrading of the transportation networks that occurred in Ontario after World War I to accommodate the increased number of automobiles. The group includes two other bridges within the Region of Waterloo, the Main Street Bridge in Cambridge and the Bridgeport Bridge in Kitchener. Of these three bridges, the Freeport is the oldest. The fourth bridge, the Caledonia Bridge, is located in the community of Caledonia.

A prominent landmark in the Region of Waterloo, the Freeport Bridge is widely recognized as the most important bridge in the Region. The current Freeport Bridge is the fourth consecutive bridge in this location. The first bridge was erected in 1820, with successive constructions in 1865, circa 1880 and this bridge in 1925.

A.B. Crealock, the Bridge Engineer for the Province of Ontario in the 1920s, designed this reinforced concrete bowstring arch bridge. Construction began in 1925 and was finished in 1926 at an estimated cost of \$85,000. The bridge's bowstring design was popular in the 1920s and 1930s as it required minimal material, was simple to install and could easily accommodate vehicular traffic. It has a length of 160 meters, with seven spans and six piers. Two lanes of cars can cross the bridge and the six-foot wide sidewalk is a unique feature found on this bowstring arch bridge.

Sources: City of Kitchener By-Law 2001-208, *Reasons for Designation*; *Spanning the Generations: Heritage Assessment, Freeport Bridge, 2004*; *Freeport Bridge Heritage Plaque Unveiling Information, 2005*; *Canadian Register of Historic Places*



Bridgeport Bridge



Region of Waterloo, 2012

General Information	Physical Details
Bridge No. K2	Type: Concrete Bowstring Arch
Ownership: Regional Municipality of Waterloo	Span: Five
Construction Date: 1934	Dimensions: 126m x 10.7m (LxW)
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Bridgeport Bridge, located in the community of Bridgeport, spans the Grand River on Bridge Street East between Lancaster Street West and Tyson Drive in the City of Kitchener. It is a five-span reinforced concrete bowstring arch bridge that was constructed in 1934 and is included on the Ontario Heritage Bridge List.

The Bridgeport Bridge connects the north and south portions of the former Village of Bridgeport. The current bridge is the fourth consecutive bridge in this location and as such provides an important linkage to the history of the community. The first bridge, a wire suspension bridge, was erected in 1836 by John Wissler to reach his tannery. Two wooden bridges replaced the wire bridge after it had fallen into the river. These structures were replaced in 1897 by a two-span steel Pratt through truss bridge, followed by the construction of the current Bridgeport Bridge in 1934.

The Bridgeport Bridge was a public works project during the Great Depression. During this time, to create work for those unemployed, various levels of governments created construction projects and offered subsidies for large infrastructure projects. The Bridgeport Bridge was constructed with local, provincial and federal contributions.

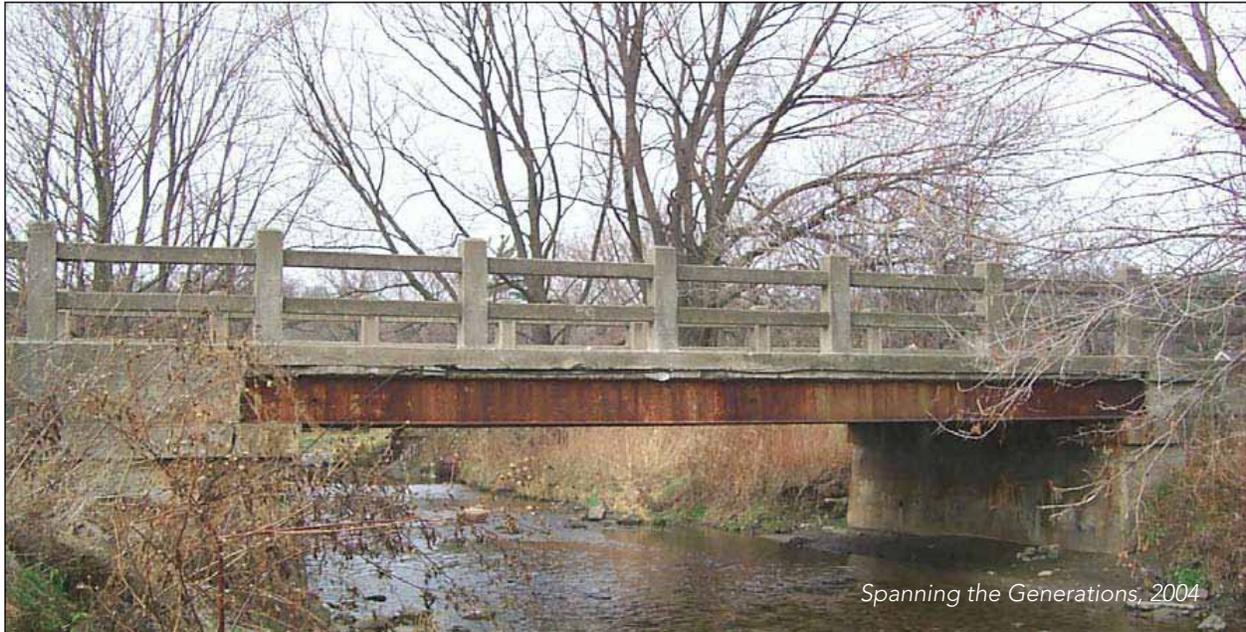
This reinforced concrete bowstring arch bridge was designed by D.J. Emery, the Waterloo County Road Superintendent, and constructed by Storms Contracting Co Ltd. Construction was completed in 1934 at an estimated cost of \$65,600. The bridge's bowstring design is representative of a style that was popular in the 1920s and 1930s. It required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic. It has a length of 126 meters, with five spans and four piers. Two lanes of cars can cross the bridge and a wide sidewalk is an unique feature found on this bowstring arch bridge.

The Bridgeport Bridge spans the Grand River and serves as a gateway between the Region of Waterloo and Wellington County. It is an important landmark in the region and forms part of a group of four multiple-span concrete bowstring arch bridges spanning the Grand River that were erected in the same time period and in a similar style. This group of bridges represents the upgrading of the transportation networks that occurred in Ontario after World War I to accommodate the increased number of automobiles. The group includes two other bridges within the Region of Waterloo, the Main Street Bridge in Cambridge and the Freeport Bridge in Kitchener. The fourth bridge, the Caledonia Bridge, is located in the community of Caledonia.

Sources: *Designation Report*, Heritage Resources Centre, 2009
Spanning the Generations: Heritage Assessment, Bridgeport Bridge, 2004



Huron Road Bridge



General Information	Physical Details
Bridge No. K3	Type: I-Beam
Ownership: City of Kitchener	Span: Single
Construction Date: 1930	Dimensions: 13.3m x 5.7m (LxW)
Water Crossing: Schneider Creek	Materials: Reinforced Concrete, Steel



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Huron Road Bridge is located on Huron Road, 0.21 km east of Homer Watson Boulevard in the former Village of Doon in the City of Kitchener. Huron Road was an early colonization road built from 1828-1831 by the Canada Company, which was responsible for opening the million-acre Huron Tract. Built in 1930, this structure is unique as it represents the earliest example of a bridge with a visible I-beam in the Region of Waterloo. It is a single-span concrete bridge with a steel I-beam superstructure. It exhibits decorative concrete railings representative of the era in which it was constructed. The Huron Road Bridge, which crosses Schneider Creek, contributes to the character of the area, along with a pedestrian wooden bridge that lies to the north, in the Doon Heritage Village in Kitchener's south end. The structure was reconstructed in 2012.

Sources: GRCA Heritage Bridge Inventory
Spanning the Generations, Phase 1, 2004
Warren Stauch, 2013



Roos Island Bridge

(Victoria Park Bridge)



General Information	Physical Details
Bridge No. K4	Type: Cantilever Through Truss
Ownership: City of Kitchener	Span: Three
Construction Date: 1896	Dimensions: Unknown
Water Crossing: Schneider Creek	Materials: Cast Iron, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Roos Island Bridge is located in Victoria Park, south of Jubilee Drive, near the terminus of Water Street South in the City of Kitchener. The structure, built in early May 1896, is set in Victoria Park, a Romantic-style 60-plus acre park. Queen, Joseph, and Victoria Streets, as well as Highland Road and West Avenue in Kitchener, bound the associated neighbourhood. It includes hundreds of homes and has been designated as a Heritage Conservation District under Part V of the *Ontario Heritage Act*. Schneider Creek runs through the park and creates a small lake that surrounds three islands. The Roos Island Bridge provides pedestrian access to the island for which it was named and access to the Park's bandstand. Roos Island was named after one of the park's founders, William Roos, a member of the Board of Park Management.

The Roos Island Bridge is a cast iron cantilevered pin-connected through truss structure. It was constructed the year the park was opened in 1896 for \$740 by the Central Bridge & Engineering Company of Peterborough, ON and designed by architect, William H. Law, also of Peterborough, ON. The Central Bridge & Engineering Company appears to have engaged in a variety of projects including work on the Trent-Severn Canal.

This structure is one of very few cast iron bridges remaining in Ontario. It is a rare example of a pre-1900 cantilever truss, and is perhaps one of the simplest and shortest expressions possible of this design. Cantilever trusses were normally reserved for extremely long spans, such as the St. Lawrence River. The use of this complex structure type for a short crossing is unusual. It may have been designed as a cantilever to provide an unusual design for pedestrians to enjoy. The bridge reflects the Romantic style landscape of the park, and is delicately decorated with hanging lamps, overhead bracing and thin railings. The bridge retains ornate builder plaques on top of the single overhead bracing that runs between the main posts. "Jones & Laughlins" is imprinted in the bridge's trusses. These cast iron components were sourced from the Jones and Laughlin Steel Company. Although they originally only produced iron, they eventually went on to produce steel and provided the most able competition to the Carnegie Steel Company in the vicinity of Pittsburg, US.



Although the bridge underwent rehabilitation in 1974-75 at a cost of \$25,300, it remains largely unaltered, reflecting its original appearance. This is quite significant as the Roos Island Bridge is over 100 years old and represents the only original bridge (there were once ten bridges) remaining in Victoria Park. As such, this bridge is a visual landmark and valuable centerpiece in Victoria Park.

Sources: *Historicbridges.org*
Nicholas Hill, Victoria Park HCD Study, 1995
Rych Mills & Victoria Park 100th Birthday Historical Committee, Victoria Park 100 Years of a Park & Its People, 1996



Iron Horse Trail Trestle Bridge



Photograph by Lindsay Benjamin, 2012

General Information	Physical Details
Bridge No. K5	Type: Trestle
Ownership: City of Kitchener	Span: Three
Construction Date: c.1903	Dimensions: 18.4m x 2.6m (LxW)
Water Crossing: Schneider Creek	Materials: Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Iron Horse Trail Trestle Bridge is located on the pedestrian Iron Horse Trail that passes through Victoria Park, .29 km south of Victoria Street South, just east of West Avenue in the City of Kitchener. The structure is a railway trestle constructed entirely of timber and built circa 1903. The bridge spans Schneider Creek on two piers and abutments constructed entirely of timber.

The Iron Horse Trail is located along a 5 km portion of abandoned right-of-way of the Grand River Railway between Ottawa Street in Kitchener and Allen Street in Waterloo. Originally built as the Preston & Berlin Railway, the electrically-operated rail line was to provide a direct means of transportation for the municipalities in the southerly portion of the County, including Galt, Preston, Hespeler and the intervening sections to and from Berlin, the county town. At the same time it was hoped to provide the towns of Berlin and Waterloo, as well as the surrounding district with a long-desired railway connection for passenger, freight and express traffic with the Canadian Pacific Railway at Galt.

On August 18, 1903, a by-law was passed by the Town of Berlin authorizing the Preston & Berlin Railway to extend its freight line from a point on King Street, across Cedar Grove Avenue, to and along Wilmot, Turek, Park and Victoria Streets. This brought the railway line to a point beside Victoria Park where a freight shed and yard tracks were to be built. This extension of the line was likely when the Iron Horse Trail Trestle Bridge was constructed by A.A. McDonald & Co., the firm awarded the contract to construct the Preston & Berlin Railway. The Preston & Berlin Street Railway and the Galt, Preston & Hespeler Street Railway were amalgamated in 1908, under the name Berlin, Waterloo, Wellesley & Lake Huron Railway Company and leased to the Canadian Pacific Railway for 99 years. In 1914, the name was changed to the Grand River Railway Company Limited.

Following the closure of the line, the Iron Horse Trail Trestle Birdge was incorporated into the publically accessible Iron Horse Trail. The tracks were retained, signifying the structure's historic past.

Sources: City of Kitchener OSIM Form, Bridge 852, April 2008
William Miller, Preston & Berlin Street Railway, 2004



Freeport Viaduct



General Information	Physical Details
Bridge No. K6	Type: Through Girder
Ownership: City of Kitchener	Span: Seven
Construction Date: c.1930	Dimensions: Unknown
Water Crossing: Grand River	Materials: Steel, Concrete, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

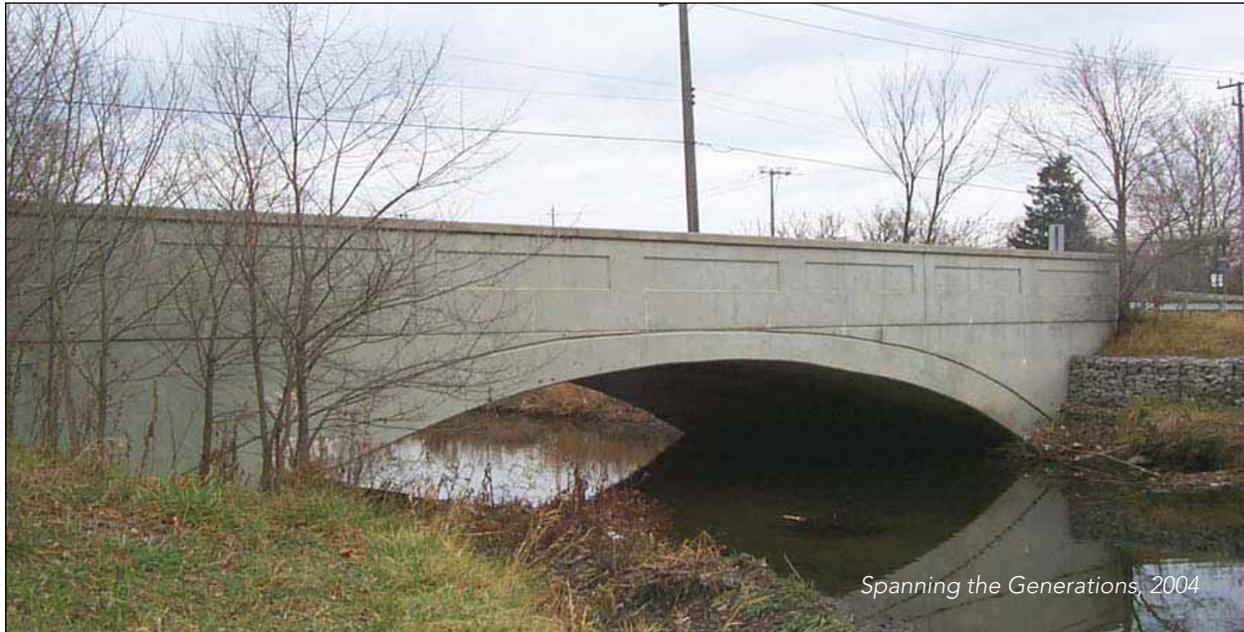
General Description

The Freeport Viaduct is located just east of the Freeport Bridge and King Street, 0.2 km north of Riverbank Drive in the City of Kitchener. Although this bridge features traditional railway construction, it is significant as an example of very long deck plate girder construction. This railway viaduct is composed of structural steel, with timber ties and concrete piers and abutments. The sides and tops of some of the piers exhibit decorative masonry. It is anticipated that this structure is likely as old as the Freeport bridge, circa 1930. The Grand River Railroad passed through this area as early as 1903 and the railroad is now owned by the Canadian Pacific Railway.

Sources: *Spanning the Generations, Phase 1, 2004*
 Historicbridges.org
 Chris Andreae, *Lines of Country: An atlas of railway and waterway history in Canada, 1997*



Schneider Creek Bridge 1



General Information	Physical Details
Bridge No. K7	Type: Earth-filled Concrete Arch
Ownership: City of Kitchener	Span: Single
Construction Date: 1929	Dimensions: 20m x 8.1m (LxW)
Water Crossing: Schneider Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Schneider Creek Bridge 1 is located on Doon Village Road, 0.3 km south of Homer Watson Boulevard in the community of Doon, City of Kitchener. It was constructed in 1929 and is one of only two remaining earth-filled concrete arch bridges in the City, along with its partner bridge Schneider Creek Bridge 2. It features solid concrete railings with decorative embossed rectangles and a defined arch. A second solid railing wall is located between the sidewalk and the road on the north side of the bridge to protect pedestrians from traffic, an unique addition to this type of structure. Schneider Creek Bridge 1 has undergone significant rehabilitation, however its single-lane construction is indicative of its age.

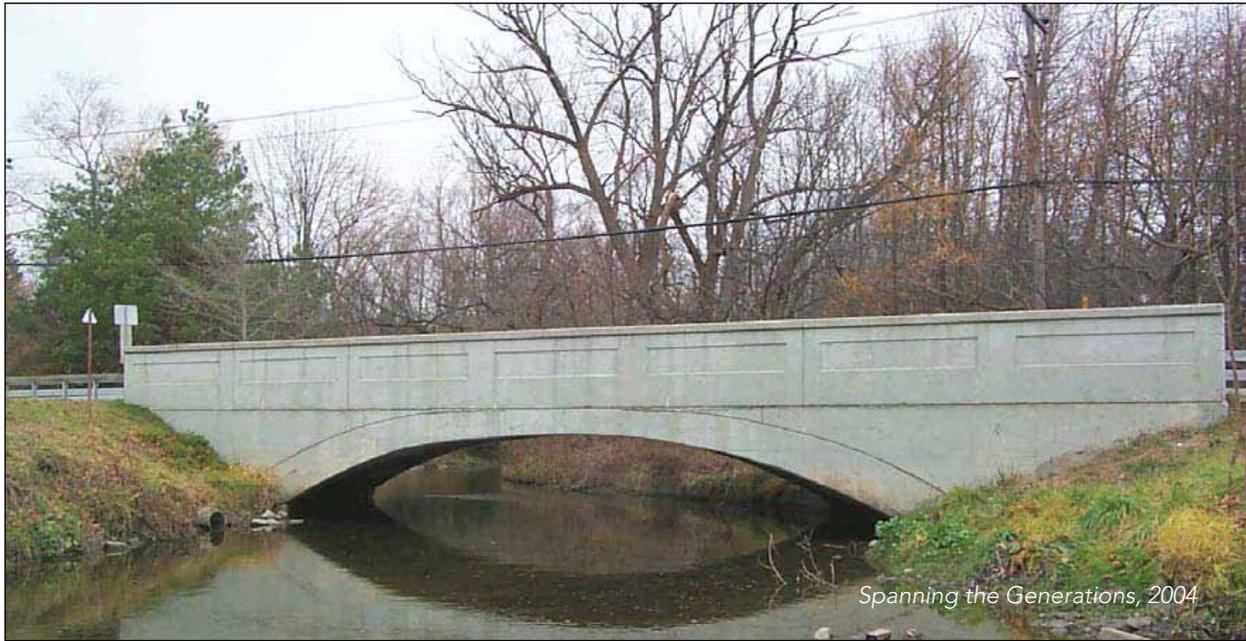
Arched bridges are one of the oldest bridge forms and are very efficient at supporting large loads over a long period of time. Most of the early activity in concrete bridge construction in Ontario focused on the earth-filled, solid spandrel arch form. This bridge type gained in popularity because they were easy and inexpensive to build. However, the popularity of solid spandrel bridges appears to have declined after 1919, although they continued to be built in small numbers into the 1930s since it was still an economic structure in circumstances where solid ground permitted adequate foundations.

Many of these early 20th century earth-filled concrete arches have been removed from the Province's roads because they are too narrow to meet modern traffic needs. As a result, solid spandrel concrete arch bridges in active use, such as Schneider Creek Bridge 1, are now considered rare survivors.

Sources: *Spanning the Generations, Phase 1*
Cultural Heritage Evaluation Report: Benham Bridge, Unterman McPhail Associates, July 2010



Schneider Creek Bridge 2



General Information	Physical Details
Bridge No. K8	Type: Earth-filled Concrete Arch
Ownership: City of Kitchener	Span: Single
Construction Date: 1929	Dimensions: 18.3m x 8.1m (LxW)
Water Crossing: Schneider Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Schneider Creek Bridge 2 is located on Doon Village Road, 0.38 km south of Homer Watson Boulevard in the community of Doon, City of Kitchener. It was constructed in 1929 and is one of only two remaining earth-filled concrete arch bridges in the City, along with its partner bridge Schneider Creek Bridge 1. It features solid concrete railings with decorative embossed rectangles and a defined arch. A second solid railing wall is located between the sidewalk and the road on the north side of the bridge to protect pedestrians from traffic, a unique addition to this type of structure. Schneider Creek Bridge 2 has undergone significant rehabilitation, however its single-lane construction is indicative of its age.

Arched bridges are one of the oldest bridge forms and are very efficient at supporting large loads over a long period of time. Most of the early activity in concrete bridge construction in Ontario focused on the earth-filled, solid spandrel arch form. This bridge type gained in popularity because they were easy and inexpensive to build. However, the popularity of solid spandrel bridges appears to have declined after 1919, although they continued to be built in small numbers into the 1930s since it was still an economic structure in circumstances where solid ground permitted adequate foundations.

Many of these early 20th century earth-filled concrete arches have been removed from the Province's roads because they are too narrow to meet modern traffic needs. As a result, solid spandrel concrete arch bridges in active use, such as Schneider Creek Bridge 2, are now considered rare survivors.

Sources: *Spanning the Generations, Phase 1*
Cultural Heritage Evaluation Report: Benham Bridge, Unterman McPhail Associates, July 2010



Wellesley Bridge No. 6 Bridge

(Chalmers-Forrest Road Bridge)



Photograph by Lindsay Benjamin, 2009

General Information	Physical Details
Bridge No. WS1	Type: Pratt Through Truss
Ownership: Township of Wellesley	Span: Two
Construction Date: c.1910	Dimensions: 44m x 4.8m (LxW)
Water Crossing: Nith River	Materials: Steel. Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

Wellesley Bridge No. 6 spans the Nith River on Chalmers-Forrest Road (Township Road 18 South) between Perth Line 56 and Township Road 3 in the Township of Wellesley. The property consists of a Pratt through truss bridge that was constructed circa 1910 by an unknown builder. The Bridge spans the Nith River, south of the Hamlet of Kingwood. At one time it provided a gateway to the south along Township Road 18 South for residents of the hamlet.

Wellesley Bridge No. 6 is one of twelve through truss bridge structures remaining in Waterloo Region today, and the only structure of this type in Wellesley Township. It is believed that the bridge was constructed and used elsewhere and then moved to its current location.

The Bridge represents a literary landmark within the community as it was featured in Jane Urquhart's award winning Canadian novel, "The Stone Carvers." Urquhart was inspired by this structure due to its strong visual appeal and situation at the bottom of a valley on Chalmers-Forrest Road, resulting in a surprise vista as you head south from Kingwood.

The Bridge is a slim, single-lane, single-span, pin jointed steel Pratt through truss structure. It has a laminated timber and asphalt paint deck and a concrete pier. It maintains its original pole railings and has attractive caps on the ends of the top cord. Its design, a good representation of the Pratt truss style originally patented in the United States in 1844, reflects the evolution of bridge building technology. It features vertical beams in compression and diagonal tie rods in tension. This type of bridge construction represented a step forward in the transition from timber and iron to wholly metal structures. Wellesley Bridge No. 6 is an early example of this type of steel bridge construction, which proliferated after 1900 as it was easy to erect and relatively inexpensive.

The bridge falls into a group of other Pratt through truss structures in the Region of Waterloo, which include the Nithvale and Piper Street Bridges in North Dumfries, the Hartman, Shade Street and Holland Mills Road Bridges in Wilmot, the Blackbridge Road Bridge in Cambridge, and the Conestogo Bridge in Woolwich. Within the Region of Waterloo, Wellesley Bridge No. 6 is considered the fourth oldest Pratt through truss and one of four remaining pin-jointed structures.

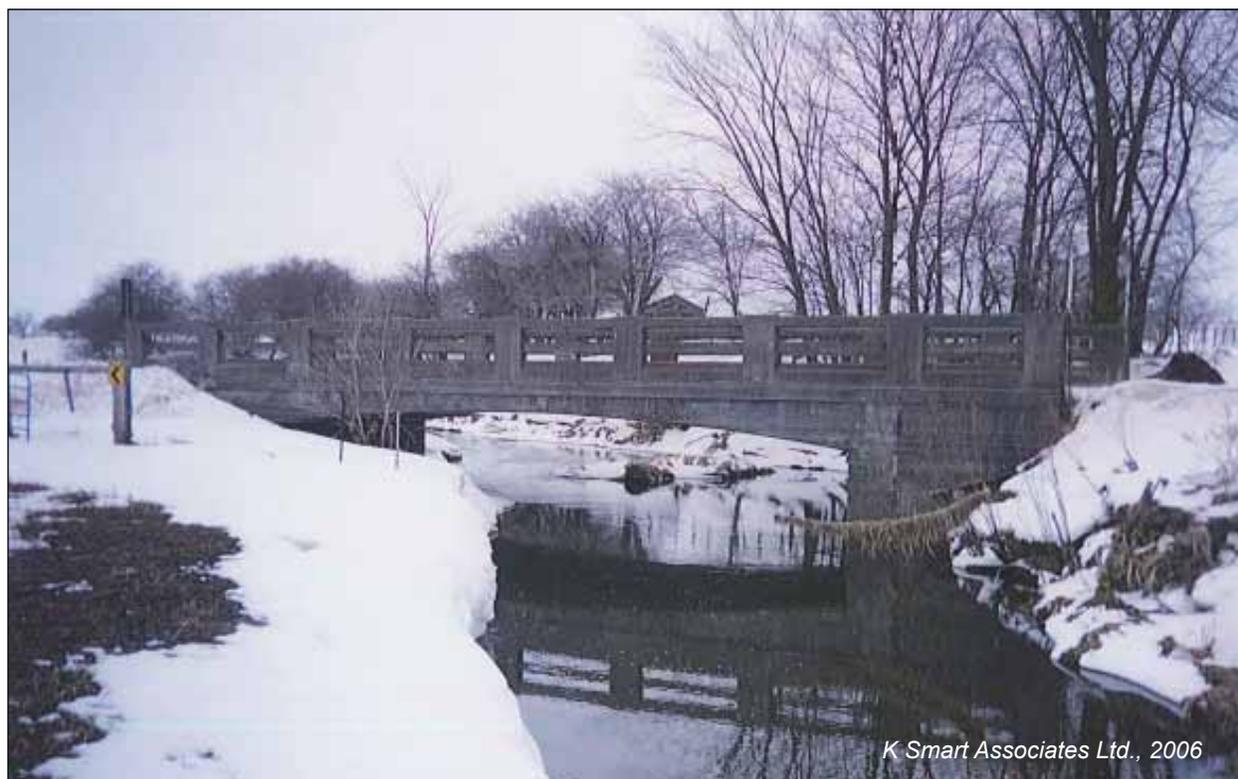
It has undergone numerous improvements and alterations over time, but in 2006 it was decided that the bridge should be closed and vehicular traffic deterred as it was no longer structurally sound.

Sources: GRCA Heritage Bridge Inventory; K Smart Associates Limited, Municipal Structures Inventory and Appraisal Study Report, Township of Wellesley; Spanning the Generations, Phase 3, 2007; Heritage Resources Centre, Wellesley Bridge No. 6 Designation Report, 2009



Dewar Bridge

(Wellesley Bridge No. 5)



General Information	Physical Details
Bridge No. WS2	Type: Rigid Frame
Ownership: Township of Wellesley	Span: Single
Construction Date: 1934	Dimensions: 16.4m x 7m (LxW)
Water Crossing: Tributary of the Nith River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Dewar Bridge is located on Chalmers-Forrest Road (Township Road 18 South), 1.4 km south of Streicher Line near the community of Kingwood. It was constructed in 1934 and is the earliest rigid frame bridge remaining in the Township of Wellesley. It is representative of the bridge type built in this era throughout the watershed. The Dewar Bridge, however, is more decorative than other rigid frames, depicting elaborate concrete railings and engravings that detail those involved in the bridge's construction. The Dewar Bridge was built during the depression with relief labour as a public works project.

Source: K Smart Associates Limited, *Municipal Structures Inventory and Appraisal Study Report, Township of Wellesley*



Wellesley Bridge No. 17



General Information	Physical Details
Bridge No. WS3	Type: Concrete Arch
Ownership: Township of Wellesley	Span: Single
Construction Date: 1946	Dimensions: 30m x 8.5m (LxW)
Water Crossing: Nith River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

Wellesley Bridge No.17 is located on Deborah Glaister Line (Township Road 3 West), 1 km east of Road 116 in the community of Kingwood. It was constructed in 1946 and is the only remaining concrete arch bridge in the Township of Wellesley and one of few remaining in the Region of Waterloo. The bridge exhibits a unique design, but it is similar to the Floradale Bridge and Schuett Bridge, both concrete earth-filled arch structures located in the neighbouring Township of Woolwich.

Wellesley Bridge No.17 has a relatively long span and graceful arch. The concrete is embossed with horizontal lines that extend the length of the bridge. It features decorative art deco inspired metal railings with concrete balustrades over the arch and solid concrete railings at each end of the bridge. The thin board finish is still visible in the concrete. Abutments of a previous bridge can be seen just to the south of this structure.

Many of these early 20th century concrete arches have been removed from the Province's roads because they are too narrow to meet modern traffic needs. As a result, solid spandrel concrete arch bridges in active use, such as Wellesley Bridge No.17, are now considered rare survivors.

Sources: K Smart Associates Limited, *Municipal Structures Inventory and Appraisal Study Report, Township of Wellesley Spanning the Generations, Phase 1, 2004*



West Montrose Covered Bridge

(Kissing Bridge)



General Information	Physical Details
Bridge No. WC1	Type: Covered
Ownership: Regional Municipality of Waterloo	Span: Two
Construction Date: 1881	Dimensions: 62.4m x 5.1m (LxW)
Water Crossing: Grand River	Materials: Timber, Steel, Concrete, Stone



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The West Montrose Covered Bridge is a late-19th century covered wooden bridge that spans the Grand River in the rural village of West Montrose, in the Township of Woolwich. Connecting Hill Street, Covered Bridge Drive and Rivers Edge Drive, the bridge is just over 200 feet (61 m) in length and covered with red-painted pine paneling and a gable roof. It is one of two remaining covered bridges in Ontario, joined by the Covered Lattice Truss Bridge built in the City of Guelph in 2009. It is also the second oldest surviving bridge in the Region of Waterloo. It was designed by a local contractor, John Bear, who, with his brother Benjamin, constructed the bridge in 1881 as a replacement for an earlier open bridge at the same location.

Originally, the bridge was constructed solely of wood. Over the course of more than a century, a number of improvements have been made to maintain the function and integrity of the bridge. It escaped demolition in 1942 due its picturesque appearance and sound condition. The bridge materials today are a mix of wood, stone, asphalt, concrete and steel, representing not only the evolution of bridge technology but also the stewardship of the Township, the Region and the Province. While the materials have been altered from the original, the form of the bridge designed by John Bear has been largely retained.

The 'Kissing Bridge', as it was appropriately nicknamed due to the intimacy and privacy that the covered bridge offered its travellers, is an iconic structure. It is a prominent and recognizable feature in arguably one of the most picturesque landscapes in Ontario. It is also representative of the early history of Woolwich Township and of an earlier time in the village. The local Hartwick family is intimately connected with this bridge, as they lived in a stone house nearby and assumed the duty of hanging lanterns each evening on the bridge's portals.

The West Montrose Covered Bridge was designated in 2007 by the Township of Woolwich as being of cultural heritage value or interest under Part IV of the *Ontario Heritage Act* (By-law 60-2007). It has also been listed on the Ontario Bridge List since 1962, a list of provincially-significant bridges maintained by the Ministry of Tourism, Culture & Sport, and is recognized by a plaque erected by the Ontario Heritage Trust. Additionally, the bridge is located within a Cultural Heritage Landscape Policy Area in the village of West Montrose, as determined by the Township of Woolwich.

Sources: *Spanning the Generations, Phase 1 & Phase 2, 2004*
GRCA Heritage Bridge Inventory; Ministry of Culture Bridge Inspection Form, 1979; Canadian Register of Historic Places



Winterbourne Bridge



General Information	Physical Details
Bridge No. WC2	Type: Pratt Camelback Through Truss
Ownership: Township of Woolwich	Span: Two
Construction Date: 1913	Dimensions: 95m x 4.3m (LxW)
Water Crossing: Grand River	Materials: Steel, Timber, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Winterbourne Bridge is located on Peel Street, 0.65 km west of Katherine Street in the Township of Woolwich. It is a camelback Pratt through truss constructed of steel with a laminated timber deck. The Grand River is quite wide at this crossing, resulting in the use of a double-span truss. Longer structures and multi-spans indicate greater engineering and technical achievement, as they are less common and prove more difficult to build. The bridge is also pin connected. This method of construction is less common than rivet-connections, and often found on earlier structures before field riveting was made possible.

The Winterbourne Bridge is one of three remaining truss bridges in the Township of Woolwich, including the Conestogo Bridge and Chamber's Bridge. An unknown builder constructed the bridge in 1913, making it the oldest existing camelback through truss structure in the Township. In the Region of Waterloo, the Oxford-Waterloo Road Bridge, located in Wilmot Township, is the oldest existing camelback through truss having been built in 1912, a year earlier than the Winterbourne Bridge. At least two bridges were constructed at this site before the current Winterbourne Bridge. It has experienced no major modifications other than a deck replacement in 1983. Precautions are being taken to preserve the bridge including a 20km/h speed limit and a 10-tonne load limit.

The Winterbourne Bridge is an important landmark in the rural landscape as it is the only significant double-span camelback Pratt through truss bridge in the Region. It also acts as a gateway to the Village of Winterbourne. The structure has strong visual appeal and has been captured by a local aerial photographer, Carl Hiebert and famous local artist, Peter Etril Snyder.

The Winterbourne Bridge belongs to the group of through camelback truss bridges in Waterloo Region. The other through camelback truss bridges in the Region includes the Oxford-Waterloo Road, the Chamber's and the Bridge Street Bridges. However, this structure is the only double-span.

Sources: *Spanning the Generations, Phase 1, 2004*
Spanning the Generations, Phase 3, 2007
GRCA Heritage Bridge Inventory
Historicbridges.org



Conestogo Bridge

(Glasgow Bridge)
(Bridge #25)



General Information	Physical Details
Bridge No. WC3	Type: Pratt Through Truss (Pin Jointed)
Ownership: Township of Woolwich	Span: Two
Construction Date: 1886	Dimensions: 39.8m x 5.5m (LxW)
Water Crossing: Conestogo River	Materials: Steel, Timber, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Conestogo Bridge, also known as the Glasgow Bridge, is located on Glasgow Street South, 0.3 km south of King Street in the village of Conestogo, Woolwich Township at the base of a steep hill in a vast open floodplain. Constructed in 1886 by The Hamilton Bridge Company, which at the time was known as the Hamilton Bridge and Tool Company, this structure is a pin-jointed, steel Pratt through truss with a timber deck that carries a single lane of traffic. It is among the oldest steel truss bridges remaining in Canada and is the second oldest truss bridge in the Grand River watershed after the Nithvale Bridge (1873), located in the Township of North Dumfries. A discrepancy in construction dates has been found in previous bridge inventories, however the truss superstructure stylistically dates to the 1880s and maker's plaques dated 1886 are affixed to the ends of the structure's top cord. The bridge undoubtedly dates to 19th century, however it is possible the abutments and piers may be of newer construction.

There are several unique construction details observed on the Conestogo Bridge, such as heavy use of pin connections in the bracing and the use of non-traditional eyebars (or eye rods). These details may be the only surviving examples in Ontario. This technique is generally found only on earlier truss bridges, such as this. The bridge's two-span structure is also significant in that it required greater engineering skills and technical achievement to construct, as this bridge would have proven more difficult to build than a similar single-span structure. The bridge underwent rehabilitation in 1984 in response to its natural deterioration.

The beauty of the Conestogo Bridge is so intriguing that it attracted two local artists, Carl Hiebert and Peter Etril Snyder, to capture pictures of it. A painting done by Peter Etril Snyder entitled, "Conestogo Flats" depicts the Conestogo Bridge in the right corner of the painting.

The Conestogo Bridge is a significant landmark in the area. Along with the Winterbourne Bridge, it is one of only two double-span through truss bridges located in the Region of Waterloo. However, because the Winterbourne Bridge is a camelback through truss, this structure is a prototype of a pure double-span Pratt through truss bridge in the Region.



It is located within the historic Mennonite community of Conestogo on the border of the City of Waterloo, acting as a gateway between urban and rural settings. The Conestogo Bridge belongs to a group of 13 through trusses in the Region of Waterloo and a group of Pratt through truss bridges including: the Nithvale, Piper Street Steel Truss, Wellesley Bridge #6, Holland Mills Road, Haysville (demolished), Hartman, Shade Street and Black Bridge Road bridges.

Sources: *Spanning the Generations, Phase 1, 2004*
Spanning the Generations, Phase 3, 2007
GRCA Heritage Bridge Inventory
Historicbridges.org



Chamber's Bridge

(Pilkington-Woolwich Bridge)

(Bridge #16)



General Information	Physical Details
Bridge No. WC4	Type: Camelback Pratt Through Truss
Ownership: Township of Woolwich	Span: Single
Construction Date: 1930	Dimensions: 47.5m x 4.3m (LxW)
Water Crossing: Grand River	Materials: Steel, Timber, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Chamber's Bridge spans the Grand River on Weisenburg Road, 2.4 km west of Katherine Street North near the community of Inverhaugh in the Township of Woolwich. The one-lane, timber deck, camelback Pratt through truss was built in 1930 by an unknown builder and engineered by Herbert J. Bowman. It is believed that the superstructure was brought to the Grand River from another location in 1946. This is also the year when the west abutment was constructed. Several other bridges have been located at this crossing prior to the current bridge, the first as early as 1845. Knowledge of these previous structures helps to explain the superfluous pier that is not structurally necessary for supporting the current bridge but may indicate a previous double-span bridge. In a 1906 Atlas, the bridge was seen located next to John Chamber's land. This is probably why it was named the "Chamber's Bridge." The structure is also part of the Grand Valley Trail, which travels along the west end of the Grand River and crosses the bridge.

In 1994, the bridge was deemed unsafe and closed to both vehicles and pedestrians due to its deteriorating deck and rusting steel supports. This resulted in an eight-year closure of the bridge between 1994 and 2002. The bridge underwent repairs and is now open to the public with a posted load limit of three tonnes.

The Chamber's Bridge belongs to the larger group of camelback Pratt through truss bridges in Waterloo Region. The other significant bridges in this group include the Winterbourne Bridge also in Woolwich Township and the Oxford-Waterloo Road and Bridge Street bridges in Wilmot Township.

Sources: *Spanning the Generations, Phase 1, 2004*
Spanning the Generations, Phase 3, 2007
GRCA Heritage Bridge Inventory



St. Jacobs Viaduct



General Information	Physical Details
Bridge No. WC5	Type: Deck Truss
Ownership: Township of Woolwich	Span: Two
Construction Date: 1890	Dimensions: Unknown
Water Crossing: Conestogo River	Materials: Steel, Limestone



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The St. Jacobs Viaduct is located south of Regional Road 17, across the Conestogo River, in the Village of St. Jacobs, Township of Woolwich. It is a two-span deck truss railway viaduct constructed of structural steel with limestone abutments. The quarried limestone blocks were hauled to their current location by wagons. The viaduct was built in 1890 for the Grand Trunk Railway, now part of the Canadian National Railway. It was part of a railway extension to Elmira and was the most expensive portion of the railroad built. It is possible that there was an older structure at this location, as wooden piers from a previous viaduct are still in place.

In the past, many carloads of cattle, sheep and pigs were shipped annually from St. Jacobs for export. The village became one of the leading shipping points on the Galt & Elmira Branch of the Grand Trunk Railway. It is a reminder of the past when rails were the main method of transportation and necessary for the establishment of communities. The viaduct also contributes to the historic charm of the St. Jacobs area as it can be viewed from King Street North (Regional Road 8), which travels through the village and from the Grand River Walking Trail that hugs the Conestogo River.

Sources: *Spanning the Generations, Phase 1, 2004*
"Historic St. Jacobs" Waterloo County Chronicle



Mennonite Bridge

(St. Jacobs Buggy Bridge)

(Woolwich Bridge No. 310121)



Photograph by Lindsay Benjamin, 2012

General Information	Physical Details
Bridge No. WC6	Type: Solid Slab
Ownership: Township of Woolwich	Spans: Seven
Construction Date: 1962	Dimensions: 23.2m x 4.9m (LxW)
Water Crossing: Conestogo River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Mennonite Bridge is a low-level, seven-span, concrete slab bridge that spans 23.2 m over the Conestogo River. It is located on Three Bridges Road, 0.61 km west of Henry Street, just west of the Village of St. Jacobs. The bridge is sited next to the St. Jacobs dam. The first dam at this site was built in the 1840s to provide power to a sawmill. The materials for the bridge were provided to a Mennonite community by Woolwich Township. Volunteers from the Old Order Mennonite community built the bridge in 1962 over three days. Due to annual flooding, permanent railings were not built on the bridge. Rather, portable railings are installed along both sides of the bridge. It is considered to be a hidden tourist attraction in the St. Jacobs area and frequented by pedestrians on the Grand River Walking Trail, which follows the Conestogo River.

Sources: *Spanning the Generations, Phase 1, 2004*
Bridges, Township of Woolwich Website



Floradale Bridge



General Information	Physical Details
Bridge No. WC7	Type: Concrete Earth-filled Arch
Ownership: Township of Woolwich	Span: Single
Construction Date: 1913	Dimensions: 9.3m x 8.5m (LxW)
Water Crossing: Unknown	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Floradale Bridge is located on Floradale Road, just north of the Village of Floradale in the Township of Woolwich. It is a single span concrete earth-filled arch structure. Earth filling of early concrete arches such as this was typically used for small spans. They were filled with earth, rocks and or other types of fill, and the spandrel walls served as retaining walls.

Most of the early activity in concrete bridge construction in Ontario focused on the earth-filled, solid spandrel arch form. The main construction period between 1905-1919 for solid spandrel arch bridges in Ontario was a relatively short time span of 14 years. This bridge type gained in popularity because they were easy and inexpensive to build. Many of these early 20th century earth-filled concrete arches have been removed from the Province's roads because they are too narrow to meet modern traffic needs. As a result, solid spandrel concrete arch bridges such as this that remain in active use are considered rare survivors.

Sources: *Spanning the Generations, Phase 1, 2004*
Cultural Heritage Evaluation Report: Benham Bridge, Unterman McPhail Associates, July 2010



Stone Road Bridge

(McQuillan's Bridge)
(Boundary Road Bridge)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. G1	Type: Bowstring Arch (Tied)
Ownership: City of Guelph	Span: Single
Construction Date: 1916	Dimensions: 21.3m Length
Water Crossing: Eramosa River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Stone Road Bridge, or McQuillian's Bridge, is located parallel to Stone Road, between Victoria Road South and Watson Parkway South in the City of Guelph. It was constructed in 1916 and spans the Eramosa River on what was then the boundary line between the Township of Guelph and the Township of Puslinch. The bridge is an early example of reinforced concrete bowstring truss construction or tied arch span, and was built to replace an earlier wooden span, commonly called McQuillan's Bridge, due to the proximity of this river crossing to lots cleared and settled by the McQuillan family.

The Stone Road Bridge was built under the direction of Wellington County Engineer A. W. Connor as a sturdy and more permanent structure to meet the demand for better road conditions required by increased settlement and agricultural production in the area. The bridge was built by Charles Mattaini, a local contractor and craftsman who developed skills in the use of concrete for many local building projects and, in particular, bridges. Mattaini, a native of northern Italy, built over fifty bridges that were constructed in this area, and his work was well known and admired outside of Wellington County. The Stone Road Bridge is the only example of the concrete bowstring arch form within the City of Guelph and is one of few remaining examples of this type in the watershed.

The first span of this bridge type in Ontario was built in 1909 and featured a system of cross bracing between the vertical hangers. While these bridges share a basic form, there is considerable variety among the structures. The Stone Road Bridge is distinguished from the 1909 Ontario prototype in that it does not include a system of cross bracing. This form of design was later to become typical of the standard practice of concrete bowstring arch construction in Ontario that was most popular between 1915 and 1930. The Stone Road Bridge is also distinguished by the height of its arches, which required them to be connected by a single cross beam, inscribed with the date of construction. The bridge's graceful arches and simple design are considered to be a significant element of the riverscape at this location.

The introduction and success of the concrete bowstring arch bridge reflects the transition from horse-drawn vehicles to motorized forms of transportation as this type of bridge provided a safer and more durable design than the traditional timber bridge found commonly in rural areas in the 19th century. The concentration of this bridge type in Wellington



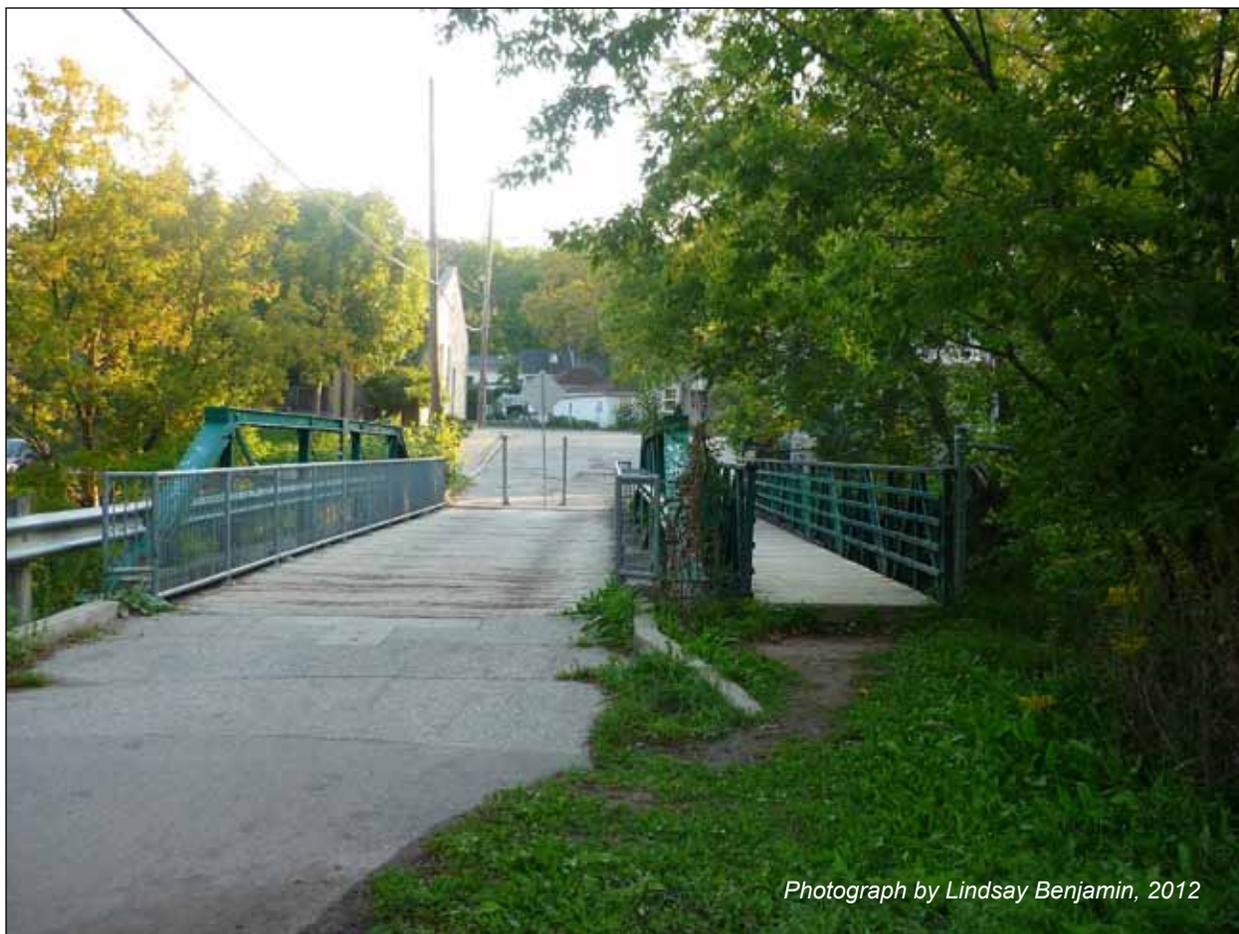
County is notable and reflects the availability of local aggregate and the particular skills of a local craftsman. The Stone Road Bridge is included on the Ontario Heritage Bridge List, spans a designated Canadian Heritage River route and is considered to be an early and rare surviving example of concrete bowstring arch construction in a local, provincial and national context.

In 2000, Stone Road East underwent rehabilitation and was widened to two lanes. The City of Guelph decided to re-route the road in order to preserve the bridge. The bridge was designated in 2004 for its cultural heritage value and interest under Part IV of the *Ontario Heritage Act* (By-law (2004)-17357A). The bridge is now used as a pedestrian bridge and is part of the municipal trail system.

Sources: *City of Guelph Inventory of Heritage Structures*
GRCA Heritage Bridge Inventory
Ministry of Culture Bridge Inspection Form, 1983
Bridges and Structures of Cultural Heritage Value in the City of Guelph
The Canadian Register of Historic Places



Norwich Street East Bridge



Photograph by Lindsay Benjamin, 2012

General Information	Physical Details
Bridge No. G2	Type: Pony Truss
Ownership: City of Guelph	Span: Single
Construction Date: 1882	Dimensions: 18.3m Length
Water Crossing: Speed River	Materials: Steel, Iron, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Norwich Street East Bridge is located on Norwich Street East, 0.05 km southwest of Arthur Street North in the Goldie Mill neighbourhood in the City of Guelph. This steel and iron bridge was built in 1882 by the Hamilton Bridge Company at a cost of just over \$1,000 to City Council, who commissioned the work.

A bridge spanned the Speed River at this location as early as 1860 and was known first as “the Wellington Foundry Bridge” and later “the Inglis-Hunter Bridge” because of its close proximity to one of the very early industries in Guelph, established circa 1860 on the easterly bank of the river.

The bridge became an important link in the movement of materials across the river, serving the needs of the many foundries and mills which occupied this area in the mid-1800’s, and the choice of iron over the more traditional and less expensive wooden bridge reflects the growing industrialization of the community. Today, this single span bridge acts as a gateway to the residential area on the east side of the Speed River and serves as a connecting link between the east and west sides of what is now known as the Goldie Mill Neighbourhood. The bridge is the only surviving example of several iron and steel bridges which once existed in Guelph, and is important as a distinctive heritage feature of the riverscape in this area. It was designated by the City of Guelph under Part IV of the *Ontario Heritage Act* (By-law 1998-15786) in 1998.

Sources: City of Guelph Inventory of Heritage Structures
 GRCA Heritage Bridge Inventory
 Ministry of Culture Bridge Inspection Form, 1983
 Canadian Register of Historic Places



CNR Railway Viaduct



General Information	Physical Details
Bridge No. G3	Type: Simple Span Girders on Piers
Ownership: Canadian National Railway	Span: Seven
Construction Date: c.1857	Dimensions: Unknown
Water Crossing: Speed River	Materials: Steel, Limestone



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The CNR Railway Viaduct crosses the Speed River in downtown Guelph at the intersection of Macdonell Street and Woolwich Street. Constructed of limestone and steel, it is a functional, multi-double pier structure of seven bays straddling an earlier roadway. It exhibits rusticated stone piers and abutments, four built up steel girders, wooden cross ties, and a modern railed catwalk. It was built circa 1857 by the Grand Trunk Railway (GTR), a company established to build a railway line across Canada, from coast to coast. However, in 1919 the government took over the GTR and today it is owned by the Canadian National Railway. It appears that the viaduct supported two tracks at one time, however, only one track remains.

The context of the site surrounding the CNR Railway Viaduct has substantial historic and cultural value. On the east abutment, there is a tablet that marks the spot where John Galt, the General Agent of the Canada Company, cut the first tree in founding the City of Guelph on April 23rd. 1827.

The viaduct is also sited in close proximity to a number of other bridges. It sits above the Old Speed River Bridge, now abandoned, and to the west of the CPR Speed River Bridge and the remnants of Allan's Mill. All of these sites, along with the CNR Railway Viaduct, contribute to the culture heritage value of Guelph's historic downtown.

Sources: *City of Guelph Inventory of Heritage Structures*
GRCA Heritage Bridge Inventory
The Canadian Encyclopedia: Grand Trunk Railway of Canada



Old Speed River Bridge

(Old Allan's Dam Bridge)



Photograph by Lindsay Benjamin, 2012

General Information	Physical Details
Bridge No. G4	Type: Multi-Beam
Ownership: City of Guelph	Span: Two
Construction Date: c.1930	Dimensions: 36.7m x 7.3m (LxW)
Water Crossing: Speed River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Old Speed River Bridge is located near the intersection of Macdonell Street and Woolwich Street, spanning the Speed River. This steel and concrete bridge was built circa 1930 by the Hamilton Bridge Company. Decorated concrete balustrades support ornamental metal railings in the Art Deco style. The bridge lies cradled under two spans of the CNR Railway Viaduct above. Now abandoned, the bridge once carried Macdonell Street.

The Old Speed River Bridge, along with several nearby historic sites such as the CNR Railway Viaduct, the CPR Speed River Bridge and Allan's Mill remnants, actively contribute to a cultural heritage landscape surrounding Guelph's downtown core.

Built in 1830, the remnants of Allan's Mill can be seen to the east of the bridge. Vestiges of this mill remain, including a dam and a weir underneath the bridge that regulates and slows the flow of the river.

Sources: City of Guelph Inventory of Heritage Structures
GRCA Heritage Bridge Inventory



Heffernan Street Footbridge



Photograph by Lindsay Benjamin, 2012

General Information	Physical Details
Bridge No. G5	Type: Open Spandrel Arch
Ownership: City of Guelph	Span: Two
Construction Date: 1914	Dimensions: 149.3m Length
Water Crossing: Speed River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Heffernan Street Footbridge, located in the downtown area of Guelph, crosses the Speed River connecting Woolwich Street and Arthur Street. It was built in 1914 by Galbraith and Cate and designed by Ernest E. Clawson, the City Engineer. It replaced an earlier metal arch bridge. There has been a footbridge at this location since 1881 that connects the residential neighborhood on one side to the downtown commercial core on the other.

The bridge was designated under Part IV of the *Ontario Heritage Act* (By-law 1990-13541) for its heritage value by the City of Guelph in 1990. Shortly after this designation, parts of the bridge were reconstructed between 1990 and 1991. The original open-spandrel arch design was maintained as well as the open-poured concrete balustrade railings, and the twin pier pedestal supports to the approaches with solid paneled balustrades. The bridge is a unique feature along the Speed River and has become a landmark within Guelph's downtown area.

Sources: *City of Guelph Inventory of Heritage Structures*
GRCA Heritage Bridge Inventory
Grand Old Bridges
Canadian Register of Historic Places



Gordon Street Bridge

(Dundas Street Bridge)



Photograph by Lindsay Benjamin, 2012

General Information	Physical Details
Bridge No. G6	Type: Earth-filled Solid Spandrel Arch
Ownership: City of Guelph	Span: Four
Construction Date: 2001	Dimensions: Unknown
Water Crossing: Speed River	Materials: Pre-Cast Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Gordon Street Bridge is located on Gordon Street, 0.9 km north of Water Street in the City of Guelph. It was built in 2001 to replace a 4-span steel beam bridge with masonry abutments and piers, originally built circa 1935. Although it does not reflect the original structure, it complements Gow’s Bridge, visible downstream from this structure, with its arches and multiple arched spans. The bridge design also includes patterned concrete balustrade piers, ornamental steel balustrades and integrated decorative lampposts. The bridge won the Precast Concrete Material Development & Innovation Award at the 2001 Ontario Concrete Awards.

The Gordon Street Bridge contributes to a cultural landscape with the designated Boat House and Covered Lattice Truss Bridge to the north, Gow’s Bridge to the south and Royal City Park adjacent to the structure. The bridge also acts as a gateway between the University and Downtown areas of Guelph.

Sources: *City of Guelph Inventory of Heritage Structures*
GRCA Heritage Bridge Inventory
City of Guelph 2006 Structure Inventory



Gow's Bridge

(McCrae Boulevard Bridge)



Photograph by Lindsay Benjamin, 2012

General Information	Physical Details
Bridge No. G7	Type: Masonry Arch
Ownership: City of Guelph	Span: Three
Construction Date: 1897	Dimensions: 41.2m x 5.7m (LxW)
Water Crossing: Speed River	Materials: Limestone



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Gow's Bridge is located on McCrae Boulevard, 0.11 km north of Water Street in the City of Guelph. Built in 1897 by Daniel Keleher, a local contractor, it replaced a wooden bridge constructed at this site in 1852. Both the old bridge and the new were referred to as Gow's Bridge due to their proximity to Gow's Mill, a wooden mill and tannery owned by Guelph businessman and politician Peter Gow. Gow was the mayor of Guelph in 1866.

Gow's Bridge is made of locally quarried limestone, making it the only surviving example of several stone bridges that once crossed the rivers in Guelph. During construction, a structure called "falsework" was used to temporarily support the arch. The bridge's design is comprised of pilastered abutments, a centre pier and parapets with projecting base and cap bands. The bridge contributes to the surrounding cultural landscape consisting of Royal City Park, one of the city's largest parks, the upstream Gordon Street Bridge and to the south The John McCrae House, a limestone cottage circa 1858 where John McCrae (author of *In Flanders Fields*) was born.

Gow's Bridge was designated under Part IV of the *Ontario Heritage Act* (By-Law (1990)-13471) by the City of Guelph in 1990. The designation covers all elements of the south and middle spans and all of the piers, each of which is constructed of stone. The north span was reconstructed in 1997 when the entire bridge was rehabilitated. Gow's Bridge is also included on the Ontario Heritage Bridge List.

Sources: City of Guelph Inventory of Heritage Structures
 Canadian Register of Historic Places
 GRCA Heritage Bridge Inventory
 Ministry of Culture Bridge Inspection Forms, 1983 and 1989



CPR Speed River Bridge



General Information	Physical Details
Bridge No. G8	Type: Deck Plate Girder and Abutments
Ownership: Canadian Pacific Railway	Span: Single
Construction Date: 1884	Dimensions: Unknown
Water Crossing: Speed River	Materials: Steel, Limestone



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The CPR Speed River Bridge is located southeast of the intersection of Wellington Street East and Macdonell Street just outside the downtown core of the City of Guelph. This deck plate girder bridge has a steel superstructure, while the rusticated abutments are made of locally quarried limestone. Guelph Junction Railway built the bridge in 1884 to Canadian Pacific Railway standards. Owned by the City of Guelph, the company still exists today and is the only federally chartered railway in Canada.

Along with the Old Speed River Bridge, the CNR Railway Viaduct and the remnants of Allan's Mill, the CPR Speed River Bridge contributes to a cultural heritage landscape that surrounds Guelph's downtown core.

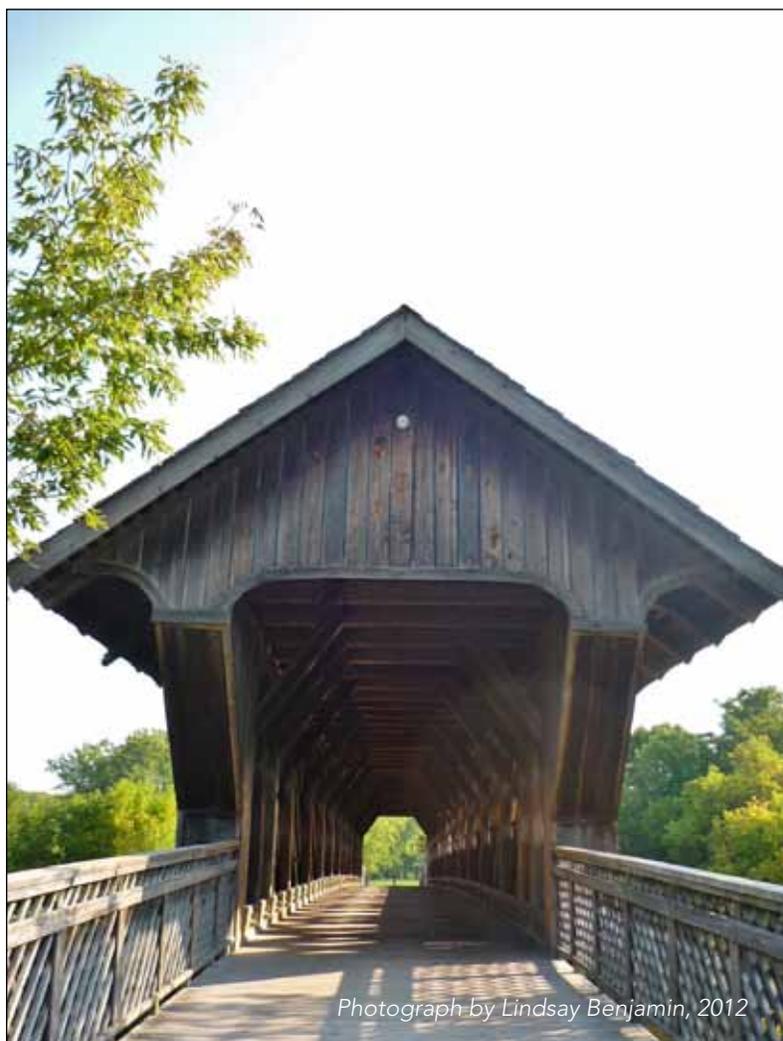
In 1830, a wooden mill was erected on this site for the Canada Company. Shortly after, William Allan purchased the mill in 1831 and built a five-storey stone structure. The Allan family ran the water power and grist mill until 1876. In 1966, the mill was destroyed by a fire. On the site of the mill, a cairn was constructed with the intact stone that remained after the fire. The remnants of Allan's Mill are located to the southeast of the bridge.

Sources: City of Guelph Inventory of Heritage Structures
 GRCA Heritage Bridge Inventory
 Ontario Southland Railway Inc
 Allan's Mill Cairn Plaque
 Historical Atlas of the County of Wellington, Ontario



Covered Lattice Truss Bridge

(Towne Lattice Bridge)



General Information	Physical Details
Bridge No. G9	Type: Covered Lattice Truss Frame
Ownership: City of Guelph	Span: Three
Construction Date: 1992	Dimensions: Unknown
Water Crossing: Speed & Eramosa River	Materials: Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Covered Lattice Truss Bridge is located in York Road Park, between Gordon Street and York Road in the City of Guelph. The Timber Framers Guild of America constructed the bridge in 1992. It was built by over 400 timber framers who were gathered in Guelph for a five-day convention. Located at the confluence of the Speed and Eramosa Rivers, the bridge links the Eramosa River Trail and the Silvercreek Trail.

The lattice trusses incorporated into the design of this bridge are an evolved version of the Town Truss, patented by Ithiel Town in 1820. The superstructure of the bridge is made completely out of timber, including wooden dowels that hold the structure together and a wood shake roof. Some of the beams used in the bridge were cut from a willow tree that previously grew at the site, as indicated by a plaque on the bridge interior. The bridge sits upon two masonry piers.

The Covered Lattice Truss Bridge actively contributes to the cultural landscape surrounding the downtown core of Guelph. It is located just north of the Gordon Street Bridge and The Boat House, a wooden framed building that is the last of a series of boat houses to be associated with Guelph's river systems, and also designated under Part IV of the *Ontario Heritage Act* in 1997. Popular in the summer due to its restaurant and ice cream business, The Boat House is one of the most visited historic sites in Guelph.

Sources: GRCA Heritage Bridge Inventory
Canadian Register of Historic Places



Niska Road Bridge



General Information	Physical Details
Bridge No. G10	Type: Bailey Bridge (Double Truss)
Ownership: City of Guelph	Span: Single
Construction Date: 1974	Dimensions: 36.6m x 5.5m (LxW)
Water Crossing: Speed River	Materials: Steel, Masonry, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Niska Road Bridge crosses the Speed River 0.35 km west of Pioneer Trail. The one-lane Bailey bridge was built in 1974 and is the only of its type in the City of Guelph. The Bailey bridge is a pre-fabricated, portable, truss bridge that was developed by the British during World War II for military use. This type of bridge requires no heavy equipment or specialized tools to construct and is typically used for temporary crossings. The Niska Road Bridge has a steel structure with a timber deck and masonry abutments.

It is speculated that the bridge was chosen to be one-lane in order to discourage vehicles from using the road as a main artery. However, the bridge still carries a large amount of traffic due to the residential area to the east.

Sources: GRCA Heritage Bridge Inventory
Bailey Bridges Inc.



Wooden Trestle Railway Bridge



General Information	Physical Details
Bridge No. G11	Type: Trestle
Ownership: City of Guelph	Span: Seven
Construction Date: c.1900	Dimensions: Unknown
Water Crossing: Eramosa River	Materials: Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Wooden Trestle Railway Bridge is located between Stone Road East and Victoria Road South in the City of Guelph. The Guelph Junction Railway likely constructed this structure circa 1900. The rail line eventually fell under ownership of the Canadian Pacific Railway, but it has now been abandoned. The bridge is owned by the City of Guelph and is located on a footpath, inaccessible by car, near industrial land in the south end of Guelph. Limited information is available on this structure. The trestle is an early, and now rare, type of railway bridge in that it is constructed entirely of timber.

Source: City of Guelph 2006 Structure Inventory



Blatchford Bridge



General Information	Physical Details
Bridge No. PL1	Type: Warren Pony Truss
Ownership: County of Wellington	Span: Single
Construction Date: 1949	Dimensions: 32.4m x 8.1m (LxW)
Water Crossing: Speed River	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Blatchford Bridge is located on County Road 32, 0.80 km south of County Road 124. It was constructed in 1949 and is one of two remaining steel truss bridges in the Township of Puslinch, and represents the only pony truss. The Blatchford Bridge is similar in appearance to other pony trusses in Wellington County and built during the same time period, generally between 1949 and 1954.

The Dominion Bridge Company Ltd. constructed this steel pony truss bridge for the County of Wellington. Established in 1886, this company was a Canadian steel bridge constructor based in Lachine, Quebec, and eventually growing to have plants located across Canada. Contractor A.H. MacLellan and County Engineer, W.H. Keith, are credited with working on this bridge and many other truss bridges in the County. The Blatchford Bridge underwent repairs in 1992.

Located directly east of the bridge, remnant concrete abutments remain indicating the alignment of a previous bridge parallel to the Blatchford Bridge.

Sources: GRCA Heritage Bridge Inventory
County of Wellington, 2007 Bridge Appraisals



Little's Bridge

(Structure 0003)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. PL2	Type: Solid Slab
Ownership: Township of Puslinch	Span: Single
Construction Date: 1910	Dimensions: 6.9m x 4.2m (LxW)
Water Crossing: Aberfoyle Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Little’s Bridge is located on Sideroad 25 North, 0.18 km south of Concession Road 7. It was constructed in 1910 and is the earliest concrete solid slab bridge built in the Township of Puslinch and is the only one of this design. It is also one of the earliest of its type in the watershed. Little’s Bridge displays an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. Although this is a railing design seen throughout the watershed, the craftsmanship of Little’s bridge sets it apart. The solid railings are thinner than others and the embossed decoration is more precise. The board finish used to set the concrete on site during construction is still visible.

Source: Ontario Structure Inspection Form, Township of Puslinch



Cook's Mill Road Bridge Abutments



General Information	Physical Details
Bridge No. PL3	Type: Masonry Abutments
Ownership: Township of Puslinch	Span: n/a
Construction Date: c.1900	Dimensions: Unknown
Water Crossing: Eramosa River	Materials: Masonry



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Cook's Mill Bridge Abutments are located approximately 20 m east of Cooks Mill Road and the current Cook's Bridge, and 0.4 km west of Watson Road South. Due to the use of masonry and the mature tree that has grown through the abutments, its date of construction is estimated to be circa 1900. After 1900, concrete was a more commonly relied upon building material. The bridge the abutments supported likely aligned with the historic routing of Cooks Mill Road. The current bridge on site was constructed in 1958, and is one of a series of bridges that accommodated this crossing of the Eramosa River.

Sources: Ontario Structure Inspection Form, Township of Puslinch
Chris Andraee, May 2012



Benham Bridge

(Wellington County Bridge No. 00075)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. GE1	Type: Earth-filled Concrete Arch
Ownership: County of Wellington	Span: Single
Construction Date: 1910	Dimensions: 21.3m x 4.3m (LxW)
Water Crossing: Eramosa River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Benham Bridge is located on Eramosa-Erin Townline, 1.8 km south of Wellington Road 124 near the community of Everton. The Benham Bridge was constructed in 1910 and is classified as a single span, solid spandrel concrete arch structure of reinforced cast-in-place concrete. The elliptical arch has a smooth soffit and the concrete wingwalls contain the earth-filled core used to build up the structure to the road deck. For this reason, the bridge is also referred to as an earth-filled arch structure. The Benham Bridge is the only of its type in the Township of Guelph/Eramosa, and one of few remaining in the Grand River watershed.

The bridge was engineered by the firm of Bowman & Connor, a prolific and well-known bridge engineering company based in Toronto and Berlin (Kitchener) in the early 20th century, along with King Cooper, a local mason. Today, the bridge is considered a good example of functional engineering design clearly expressing the transfer of loads through the arch to the abutments. The simple arch design is sculptural in its proportions and shape. A Ministry of Natural Resources survey bench mark (V010 856052) is located on the southwest abutment.

Most of the early activity in concrete bridge construction in Ontario focused on the earth-filled, solid spandrel arch form. The main construction period between 1905-1919 for solid spandrel arch bridges in Ontario was a relatively short time span of 14 years. This bridge type gained in popularity because they were easy and inexpensive to build. Many of these early 20th century earth-filled concrete arches have been removed from the Province's roads because they are too narrow to meet modern traffic needs. As a result, solid spandrel concrete arch bridges in active use are now considered rare survivors.

Sources: *Benham Bridge, Class Environmental Assessment Study, McCormick Rankin, April 2012*
Benham Bridge, Cultural Heritage Evaluation Report, Unterman McPhail Associates, July 2010
County of Wellington, 2007 Bridge Appraisals
GRCA Heritage Bridge Inventory



Rothsay Bridge



General Information	Physical Details
Bridge No. ML1	Type: Pony Truss
Ownership: Township of Mapleton	Span: Single
Construction Date: 1952	Dimensions: 18.7m x 8.3m (LxW)
Water Crossing: Mallet River	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Rothsay Bridge is located on County Road 7, 0.30 km west of Wellington County Road 10 in the community of Rothsay. It was constructed in 1952 and is one of six remaining steel truss bridges in the Township of Mapleton, five of which are pony trusses. In addition to the Rothsay Bridge, the group of pony truss bridges includes: Mallet River, Simmon's, Flax, Moorefield and Bosworth Bridges. All of which were constructed between 1949 and 1954, with the exception of the Mallet River Bridge, which was constructed in 1910.

The Hamilton Bridge Company Ltd. constructed this steel pony truss bridge for the County of Wellington. This company was established in 1872 and responsible for the fabrication and erection of many steel bridges in Ontario. The steel used for most truss bridges in Ontario was sourced from the United States. However, "ALGOMA CANADA" is pressed in the bridge's steel girders, indicating that the material was sourced in Canada from Algoma Steel, a company founded in 1902 and located on the St. Marys River in Sault Ste. Marie, ON. Contractor A.H. MacLellan and County Engineer, W.H. Keith are credited with working on this bridge and many other truss bridges in the County. The Rothsay Bridge underwent rehabilitation in 1991.

Sources: County of Wellington Bridge Inventory
County of Wellington, 2007 Bridge Appraisals



Moorefield Bridge



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. ML2	Type: Pony Truss
Ownership: Township of Mapleton	Span: Single
Construction Date: 1954	Dimensions: 22.6m x 8.3m (LxW)
Water Crossing: Moorefield Creek	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Moorefield Bridge is located on County Road 10, 2.90 km south of Wellington County Road 8 in the community of Moorefield. It was constructed in 1954 and is one of six remaining steel truss bridges in the Township of Mapleton, five of which are pony trusses. In addition to the Moorefield Bridge, the group of pony truss bridges includes: Mallet River, Simmon's, Flax, Bosworth and Rothsay Bridges. All of which were constructed between 1949 and 1954, with the exception of the Mallet River Bridge, which was constructed in 1910. The Moorefield Bridge and Flax Bridge are very similar in appearance and dimensions and were constructed in the same year by the same group of County of Wellington staff.

The Dominion Bridge Company Ltd. constructed this steel pony truss bridge for the County of Wellington. Established in 1886, this company was a Canadian steel bridge constructor based in Lachine, Quebec, and eventually growing to have plants located across Canada. The steel used for most truss bridges in Ontario was sourced from the United States. However, "ALGOMA CANADA" is pressed in the bridge's steel girders, indicating that the material was sourced in Canada from Algoma Steel, a company founded in 1902 and located on the St. Marys River in Sault Ste. Marie, ON. Contractor A.H. MacLellan and County Engineer, W.H. Keith, are credited with working on this bridge and many other truss bridges in the County.

The Moorefield Bridge underwent a deck replacement and guiderail installation in 1994.

Sources: County of Wellington Bridge Inventory
County of Wellington, 2007 Bridge Appraisals



Flax Bridge



General Information	Physical Details
Bridge No. ML3	Type: Pony Truss
Ownership: Township of Mapleton Township of Wellington North	Span: Single
Construction Date: 1954	Dimensions: 22.3m x 7.9m (LxW)
Water Crossing: Mitchell's Creek	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Flax Bridge is located on County Road 11, 0.01 km south of Wellington County Road 109. It was constructed in 1954 and is one of six remaining steel truss bridges in the Township of Mapleton, five of which are pony trusses. In addition to the Flax Bridge, the group of pony truss bridges includes: Mallet River, Simmon's, Moorefield, Bosworth and Rothsay Bridges, all of which were constructed between 1949 and 1954, with the exception of the Mallet River Bridge, which was constructed in 1910. The Moorefield Bridge and Flax Bridge are very similar in appearance and dimensions and were constructed in the same year by the same group of County of Wellington staff.

This steel pony truss bridge was constructed for the County of Wellington by contractor A.H. MacLellan and County Engineer, W.H. Keith. Both are credited with working on many other truss bridges in the County. The Flax Bridge is set above the floodplain and has concrete railings on the north ends of the bridge.

Sources: County of Wellington Bridge Inventory
County of Wellington, 2007 Bridge Appraisals



Emerson Simmons Bridge

(Simmons Bridge)



General Information	Physical Details
Bridge No. ML4	Type: Pony Truss
Ownership: Township of Mapleton	Span: Two
Construction Date: 1952	Dimensions: 65.3m x 10.1m (LxW)
Water Crossing: Conestogo River	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Emerson Simmons Bridge is located on County Road 11 (Wellington Street), 0.20 km north of Wellington County Road 8 in the community of Drayton. It was constructed in 1952 and is one of six remaining steel truss bridges in the Township of Mapleton, five of which are pony trusses. In addition to the Emerson Simmons Bridge, the group of pony truss bridges includes: Mallet River, Bosworth, Flax, Moorefield and Rothsay Bridges, all of which were constructed between 1949 and 1954, with the exception of the Mallet River Bridge, which was constructed in 1910.

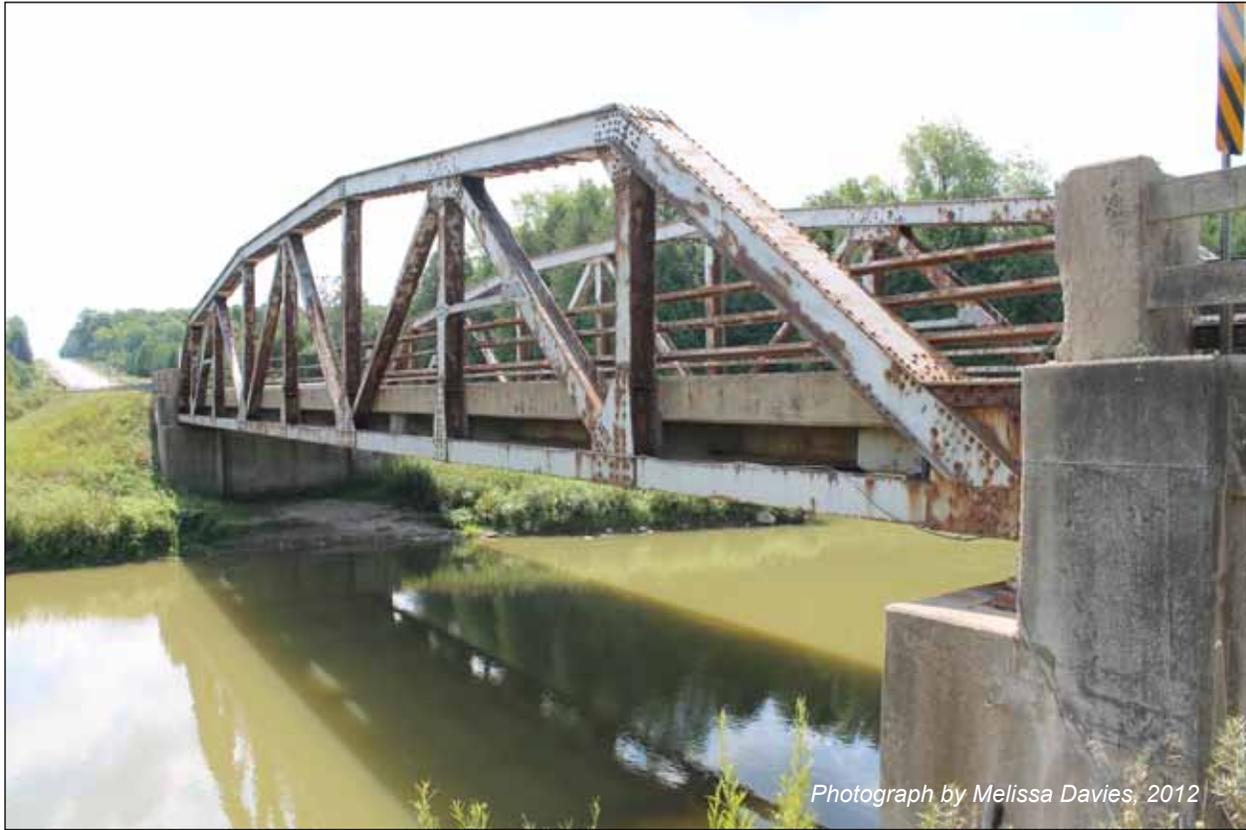
This two-span steel pony truss bridge was constructed for the County of Wellington by contractor A.H. MacLellan and County Engineer, W.H. Keith, both of which are credited with working on many other truss bridges in the County. The bridge is set at a 45 degree skew, and is unique for its double truss, required to span the Conestogo River. The steel used for most truss bridges in Ontario was sourced from the United States, however, "ALGOMA CANADA" is pressed in the bridge's steel girders. This indicates that the material was sourced in Canada from Algoma Steel, a company founded in 1902 and located on the St. Marys River in Sault Ste. Marie, ON.

The bridge was dedicated to Emerson Simmons to "commemorate long and distinguished service as a bridge foreman." The Simmons Bridge underwent repairs in 1993, and included a deck replacement and installation of guide rails.

Sources: County of Wellington Bridge Inventory
County of Wellington, 2007 Bridge Appraisals
Emerson Simmons Bridge plaque, 1957



Bosworth Bridge



General Information	Physical Details
Bridge No. ML5	Type: Howe Camelback Pony Truss
Ownership: Township of Mapleton	Span: Single
Construction Date: 1949	Dimensions: 42.1m x 8.6m (LxW)
Water Crossing: Conestogo River	Materials: Steel, Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Bosworth Bridge is located on County Road 7, 0.90 km east of Wellington County Road 11 in the community of Bosworth. It was constructed in 1949 and is one of six remaining steel truss bridges in the Township of Mapleton, five of which are pony trusses. In addition to the Bosworth Bridge, the group of pony truss bridges includes: Mallet River, Simmon's, Flax, Moorefield and Rothsay Bridges, all of which were constructed between 1949 and 1954, with the exception of the Mallet River Bridge, which was constructed in 1910.

This steel Howe camelback pony truss bridge was constructed by the Hamilton Bridge Company Ltd. for the County of Wellington. This company was established in 1872 and responsible for the fabrication and erection of many steel bridges in Ontario. Nearly all of the steel for bridges made by this company came from producers in the United States. Contractor A.H. MacLellan and County Engineer, W.H. Keith, are credited with working on this bridge and many other truss bridges in the County. The Bosworth Bridge underwent repairs in 1987.

Sources: GRCA Heritage Bridge Inventory
County of Wellington, 2007 Bridge Appraisals



Mallet River Bridge

(MB002)



General Information	Physical Details
Bridge No. ML6	Type: Pony Truss
Ownership: Township of Mapleton	Span: Single
Construction Date: 1910	Dimensions: 17m x 5.5m (LxW)
Water Crossing: Mallet River	Materials: Steel, Reinforced Concrete, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Mallet River Bridge is located on Sideroad 6, 0.08 km south of Wellington County Road 109. It was constructed in 1910, making it the oldest steel truss bridge remaining in the Township of Mapleton and one of the oldest in Wellington County. There are six remaining steel truss bridges in the Township of Mapleton, five of which are pony trusses. In addition to the Mallet River Bridge, the group of pony truss bridges includes: Bosworth, Simmon's, Flax, Moorefield and Rothsay Bridges, all of which were constructed between 1949 and 1954, much later than the Mallet River Bridge.

Aside from its early date of construction, this bridge is unique due to the decorative reinforced concrete railings with chamfered balustrades found on each end of the trusses. The thin wooden boards used to set the concrete on site during construction are still visible. The Mallet River Bridge is constructed of steel with a timber deck and is set at a 15 degree skew to the Mallet River.

Sources: *Burnside Municipal Bridge Inspections, Township of Mapleton, 2010*
Ministry of Culture Bridge Inspection Form, n.d.



Princess Elizabeth Bridge



General Information	Physical Details
Bridge No. ML7	Type: Pratt Camelback Through Truss
Ownership: Township of Mapleton	Span: Single
Construction Date: 1947	Dimensions: 50m x 8.4m (LxW)
Water Crossing: Conestogo River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Princess Elizabeth Bridge is located on County Road 12, 0.20 km south of Wellington County Road 45 near the community of Glen Allan. It was constructed in 1947, and is the only remaining steel through truss bridge in the Township of Mapleton. Set above the floodplain, the bridge has a long span and is visible from all directions in the surrounding scenic valley of rolling agricultural land. The prominent placement of the Princess Elizabeth Bridge represents a notable landmark in the rural community.

The bridge is a steel Pratt camelback through truss with a concrete deck and abutments. It was constructed by the Hamilton Bridge Company Ltd., a company established in 1872 and responsible for the fabrication and erection of many steel bridges in Ontario. Nearly all of the steel for bridges made by this company came from producers in the United States. However, "ALGOMA, CANADA" is pressed in some of the bridge's steel girders, indicating the Canadian sourcing of steel. Algoma Steel, founded in 1902 was located on the St. Marys River in Sault Ste. Marie, ON. "BETHLEHEM, USA" is also pressed into the steel girders of the Princess Elizabeth Bridge, indicating that the Hamilton Bridge Company Ltd., more traditionally, sourced steel from the United States. The Bethlehem Steel Corporation, based in Bethlehem, Pennsylvania, was the second largest producer of steel in the US, and also had a factory in Buffalo.

Sources: County of Wellington, 2007 Bridge Appraisals
 Discovering Heritage Bridges on Ontario Roads, David Cuming, 1983
 Montreal Gazette, February 7, 1928



Township of Mapleton Bridge PB024



General Information	Physical Details
Bridge No. ML8	Type: Concrete Bowstring Arch
Ownership: Township of Mapleton	Span: Single
Construction Date: c1920	Dimensions: 9m x 6m (LxW)
Water Crossing: Yatton Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Bridge PB024 is located on Sideroad 17, 1.3 km south of 4th Line. It was constructed circa 1920 and represents one of only two remaining concrete bowstring arch bridges in the Township of Mapleton, paired with the nearby Bridge PB025. At one time, 36 concrete bowstring arch bridges were found in Wellington County. The bowstring design was popular during this period as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic.

Charles Mattaini, a local bridge builder who immigrated to Canada from northern Italy, is likely responsible for the design and/or construction of this bridge. In Italy, bowstring bridges were common and Mattaini studied their design and how to work with cement. He is credited with bringing the bowstring design to southern Ontario where he constructed many of these bridges in Wellington County between 1903 and 1929.

While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. Bridge PB024 is set quite high above the floodplain and because it spans across a narrow stream, it is relatively small with shorter concrete arches. It displays decorative concrete balustrades and chamfered posts that flank each arch. Vegetation has built up on the sides of the bridge, however it remains open to vehicular traffic.

Sources: *Burnside Municipal Bridge Inspections, Township of Mapleton, 2010*
Discovering Heritage Bridges on Ontario Roads, David Cuming, 1983
Pat Mestern, 2012



Township of Mapleton Bridge PB025



General Information	Physical Details
Bridge No. ML9	Type: Concrete Bowstring Arch
Ownership: Township of Mapleton	Span: Single
Construction Date: c.1920	Dimensions: 14.4m x 5.5m (LxW)
Water Crossing: Yatton Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Bridge PB025 is located on Sideroad 18, 0.13 km north of 3rd Line. It was constructed circa 1920 and represents one of only two remaining concrete bowstring arch bridges in the Township of Mapleton, paired with the nearby Bridge PB024. At one time, 36 concrete bowstring arch bridges were found in Wellington County. The bowstring design was popular during this period as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic.

Charles Mattaini, a local bridge builder who immigrated to Canada from northern Italy, is likely responsible for the design and/or construction of this bridge. In Italy, bowstring bridges were common and Mattaini studied their design and how to work with cement. He is credited with bringing the bowstring design to southern Ontario where he constructed many of these bridges in Wellington County between 1903 and 1929.

While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. Bridge PB025 is set roughly 15 feet (5m) above the floodplain on tall abutments due to the bridge's location on a hill. It displays decorative concrete balustrades and chamfered posts that flank each arch. The thin boards that were used to set the cement on site left marks still visible in the cement.

Sources: *Burnside Municipal Bridge Inspections, Township of Mapleton, 2010*
Discovering Heritage Bridges on Ontario Roads, David Cuming, 1983
Pat Mestern, 2012



Glen Allan Bridge Remnants



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. ML10	Type: Remnant Abutments and Railings
Ownership: Township of Mapleton	Span: Single
Construction Date: 1915	Dimensions: 48.8m x 4.6m (LxW)
Water Crossing: Conestogo River	Materials: Concrete, Masonry



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Glen Allan Bridge remnants are located on Old County Road 45, north of the current Glen Allan Bridge. The abutments, set high above the flood plain, indicate the alignment that County Road 45 once took. Constructed in 1915, it was a Pratt camelback through truss with an usual offset and a concrete balustrade approach. It was demolished in 2006, but both abutments and railings on the west side were retained.

The abutments constructed of concrete and masonry line the edges that face the Conestogo River. The names of the municipal officials, designer and builders responsible for the bridge are impressed into the reinforced concrete railings. The south side engravings read: Glen Allan Bridge, JNO. Tilker. Contractor, Harriston. JNO. Armstrong, Inspector, Bowman & Connor Engineers, Toronto & Berlin, Ont. The north side engravings read: LM Young Harriston, County Road Supt, E Box Warren, Arthur, Stickney, Reeve, Drayton, A B M Collican, Dep Reeve, Peel, County Wellington Ontario.

The engineers that worked on this bridge formed the firm of Bowman & Connor between 1905 and 1909, with offices in Toronto and Berlin (Kitchener). The firm became a prolific and well-known bridge engineering company in Wellington County in the early 20th century.

The Glen Allan Bridge's elaborately designed, grand concrete balustrade approach made it unique in the Grand River watershed. Although the bridge is no longer intact, the remaining abutments and balustrade contribute to a cultural heritage landscape in the historic community of Glen Allan.

Sources: GRCA Heritage Bridge Inventory
 Glen Allan Bridge Plaque, County of Wellington
 Benham Bridge, Cultural Heritage Evaluation Report, Unterman McPhail Associates, 2010



Township of Mapleton Bridge MB009



General Information	Physical Details
Bridge No. ML11	Type: T-beam
Ownership: Township of Mapleton	Span: Single
Construction Date: 1958	Dimensions: 26m x 8m (LxW)
Water Crossing: Moorefield Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Township of Mapleton Bridge MB009 is located on Sideroad 15, 0.22 km north of Concession 8. It was constructed in 1958 and belongs to a grouping of early T-beam bridges built in the Township of Mapleton during the 1940s and 1950s. This group includes bridges PB001, PB016 and PB019. Like this bridge, they each display an early experimentation with concrete. The thin board marks used to set the concrete on site are still visible. This bridge has concrete railings and a plaque commemorating those responsible for its construction. It was built by contractor L.M. Arnott and County Engineer, W.H. Keith, who is credited with working on many bridges in Wellington County.

Despite the widespread use of T-beam structures in the United States from the 1920s to the 1960s, there was a more limited use of this bridge type within Ontario. The concrete rigid frame, introduced in Ontario in the 1930s, continued to be the dominant form of bridge construction in the province during the 1950s when pre-stressed precast concrete beam and post-tension cast-in-place structures were introduced in the 1960s.

Sources: *Burnside Municipal Bridge Inspections, Township of Mapleton, 2010*
Cultural Heritage Evaluation Report, May 2012, Unterman McPhail Associates



Township of Mapleton Bridge PB001



General Information	Physical Details
Bridge No. ML12	Type: T-beam
Ownership: Township of Mapleton	Span: Single
Construction Date: c.1950	Dimensions: 10.6m x 9.2m (LxW)
Water Crossing: Unknown	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Township of Mapleton Bridge PB001 is located on Sideroad 17, 0.4 km south of Wellington County Road 109. It was constructed circa 1950 and belongs to a grouping of early T-beam bridges built in the Township of Mapleton during the 1940s and 1950s. This group includes bridges MB009, PB016 and PB019. Like this bridge, they each display an early experimentation with concrete. This bridge has concrete railings and can accommodate two lanes of traffic.

Despite the widespread use of T-beam structures in the United States from the 1920s to the 1960s, there was a more limited use of this bridge type within Ontario. The concrete rigid frame, introduced in Ontario in the 1930s, continued to be the dominant form of bridges in the province during the 1950s when pre-stressed precast concrete beam and post-tension cast-in-place structures were introduced in the 1960s.

Sources: *Burnside Municipal Bridge Inspections, Township of Mapleton, 2010*
Cultural Heritage Evaluation Report, May 2012, Untermaier McPhail Associates



Township of Mapleton Bridge

PB016



General Information	Physical Details
Bridge No. ML13	Type: T-beam
Ownership: Township of Mapleton	Span: Single
Construction Date: c.1950	Dimensions: 13.8m x 8m (LxW)
Water Crossing: Parker Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

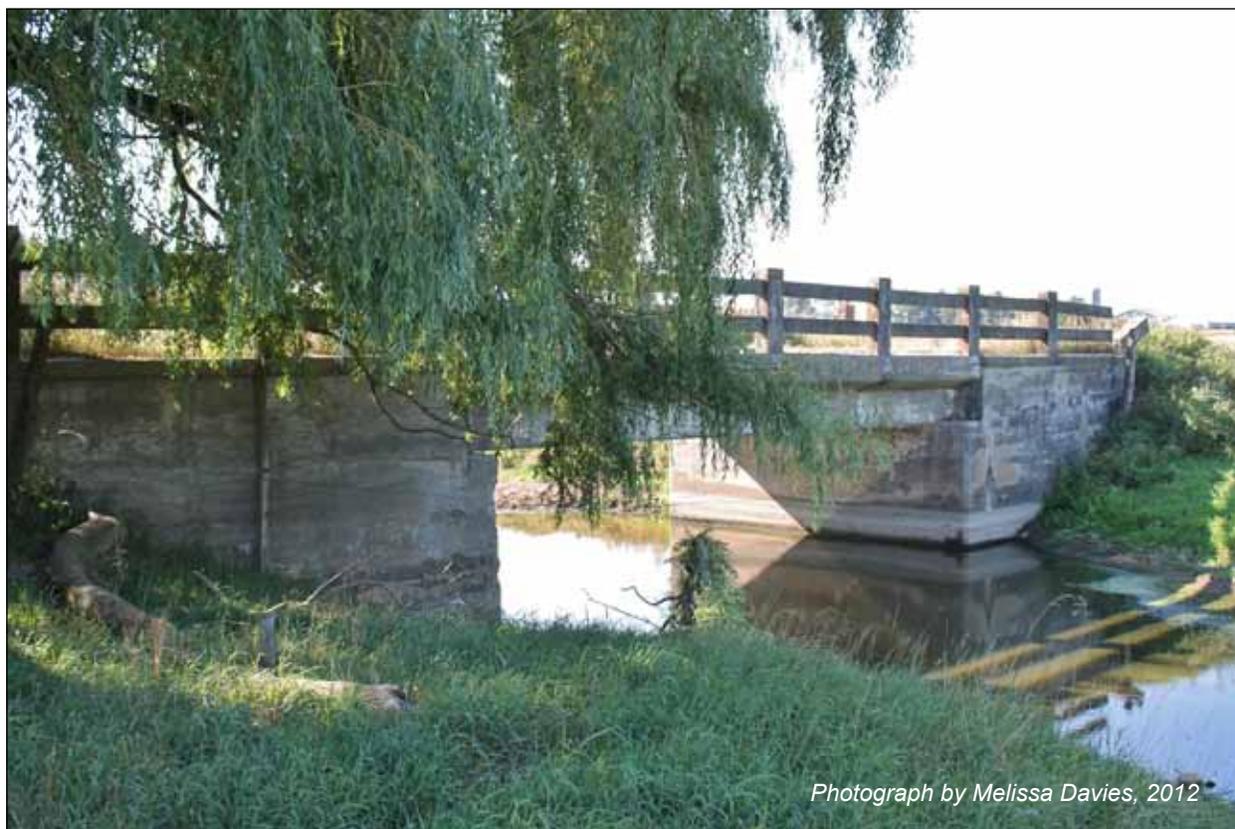
Township of Mapleton Bridge PB016 is located on Sideroad 17, 1.1 km south of 12th Line. It was constructed circa 1950 and belongs to a grouping of early T-beam bridges built in the Township of Mapleton during the 1940s and 1950s. This group includes bridges MB009, PB001 and PB019. Like this bridge, they each display an early experimentation with concrete. This bridge has concrete railings and can accommodate one-and-a-half lanes of traffic.

Despite the widespread use of T-beam structures in the United States from the 1920s to the 1960s, there was a more limited use of this bridge type within Ontario. The concrete rigid frame introduced in Ontario in the 1930s continued to be the dominant form of bridges in the province during the 1950s when pre-stressed precast concrete beam and post-tension cast-in-place structures were introduced in the 1960s.

Sources: *Burnside Municipal Bridge Inspections, Township of Mapleton, 2010*
Cultural Heritage Evaluation Report, May 2012, Unterman McPhail Associates



Township of Mapleton Bridge PB019



General Information	Physical Details
Bridge No. ML14	Type: T-beam
Ownership: Township of Mapleton	Span: Single
Construction Date: c.1940	Dimensions: 10m x 6.1m (LxW)
Water Crossing: Canagagigue Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Township of Mapleton Bridge PB019 is located on Sideroad 19, 0.4 km north of 6th Line. It was constructed circa 1940 and belongs to a grouping of early T-beam bridges built in the Township of Mapleton during the 1940s and 1950s. This group includes bridges MB009, PB001 and PB016. Like this bridge, they each display an early experimentation with concrete. Bridge PB019 is set above the floodplain, slightly skewed, can accommodate a single lane of traffic and has simple concrete railings.

Despite the widespread use of T-beam structures in the United States from the 1920s to the 1960s, there was a more limited use of this bridge type within Ontario. The concrete rigid frame introduced in Ontario in the 1930s continued to be the dominant form of bridges in the province during the 1950s when pre-stressed precast concrete beam and post-tension cast-in-place structures were introduced in the 1960s.

Sources: *Burnside Municipal Bridge Inspections, Township of Mapleton, 2010*
Cultural Heritage Evaluation Report, May 2012, Unterman McPhail Associates



Concession 14 Bridge



General Information	Physical Details
Bridge No. ML15	Type: Solid Slab
Ownership: Private	Span: Single
Construction Date: c.1930	Dimensions: Unknown
Water Crossing: Conestogo River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Concession 14 Bridge is located roughly 15 m south of Concession 14, and aligned parallel to the road, just east of Wellington Road 11. It was constructed circa 1930 and is estimated to be one of the earliest solid slab bridges in the Township of Mapleton.

This bridge has been abandoned for a long period of time and is located on private property. As a result, there is little relevant information available. The large stones in the concrete and the impression of thin board marks used to set the concrete on site indicate that it is an early structure. Only one portion on the concrete railings remain, depicting decorative chamfered balustrades with embossed circles. This bridge is slightly skewed and it is likely that at one time it carried the previous alignment of Concession 14.



Centre Wellington Bridge 2-WG



General Information	Physical Details
Bridge No. CW1	Type: Half-through Girders
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1921	Dimensions: 11.6m x 6.4m (LxW)
Water Crossing: Unknown	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 2-WG is located on Third Line, 1.3 km north of Eramosa-West Garafraxa Townline. It was constructed in 1921 and belongs to a grouping of early half-through girder bridges built in the Township during the 1920s. This group includes Centre Wellington bridges 8-WG, 5-E, 5-P and 30-P. Like this bridge, they each display an early experimentation with concrete, which has resulted in decorative concrete railings with a solid centre portion and balustrades on each side. The thin boards used to set the concrete on site during construction left imprints that are still visible. This bridge is the most decorative out of the group. Portions of the bridge are in poor condition, however, it is better preserved than the others in its group.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Old Fourth Line Bridge



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. CW2	Type: Earth-filled Concrete Arch
Ownership: Private	Span: Single
Construction Date: 1908	Dimensions: Unknown
Water Crossing: Tributary of Eramosa River	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	✓
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Old Fourth Line Bridge is located on private property approximately 50 m south of Centre Wellington Bridge 3-WG on Fourth Line, just north of Eramosa-West Garafraxa Townline. It was constructed in 1908 and is the oldest concrete bridge in the Grand River watershed. It is one of only two remaining earth-filled concrete arch bridges in the Township, along with Centre Wellington Bridge 12-N. The Rutherford Family has lived on this property since 1857. They housed the builder, last name Laurie, and his team on their farm while the bridge was being constructed in 1908.

Earth filling of early concrete arches such as this was typically used for small spans. They were filled with earth, rocks and or other types of fill, and the spandrel walls served as retaining walls. Local earth was used to fill this bridge, and the approaches were built with hand scrapers and concrete mixed by hand. Engravings are found on top of the railings that list the names of local councilor “Alfred Bailey” and “Jim Campbell, Reeve” along with the construction date of “1908.”

Most of the early activity in concrete bridge construction in Ontario focused on the earth-filled, solid spandrel arch form. The main construction period between 1905-1919 for solid spandrel arch bridges in Ontario was a relatively short time span of 14 years. This bridge type gained in popularity because they were easy and inexpensive to build. Many of these early 20th century earth-filled concrete arches have been removed from the Province’s roads because they are too narrow to meet modern traffic needs. This was the case for the Old Fourth Line Bridge, which was abandoned after Fourth Line was rerouted around 1950. As a result, solid spandrel concrete arch bridges in active use are now considered rare survivors.

The property owners purchased the bridge from the Township for \$1 in 1978 and it remains abandoned on their property.

Sources: Township of Centre Wellington 2008 Structure Inventory Data
Bruce Rutherford, June 2012
Cultural Heritage Evaluation Report: Benham Bridge, Unterman McPhail Associates, July 2010



Centre Wellington Bridge 4-WG



General Information	Physical Details
Bridge No. CW3	Type: Concrete Bowstring Arch
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1923	Dimensions: 7.3m x 6.2m (LxW)
Water Crossing: Unknown	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 4-WG is located on Fifth Line, 0.6 km south of Wellington Road 18. It was constructed in 1923 and is one of only seven remaining concrete bowstring arch bridges built in the Township of Centre Wellington from roughly 1915 to 1930. At one time, 36 concrete bowstring arch bridges were found in Wellington County, with a high concentration in Centre Wellington. The bowstring design was popular during this period as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic.

Charles Mattaini, a local bridge builder who immigrated to Canada from northern Italy, is likely responsible for the design and/or construction of this bridge. In Italy, bowstring bridges were common and Mattaini studied their design and how to work with cement. He is credited with bringing the bowstring design to southern Ontario where he constructed many of these bridges in Wellington County between 1903 and 1929.

While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. Centre Wellington Bridge 4-WG, because it spans across a small stream, is relatively small with shorter concrete arches. It displays decorative concrete balustrades and chamfered posts that flank each arch.

Sources: Pat Mestern, 2012
 David Cuming, *Discovering Heritage Bridges on Ontario Roads*, 1983
 GRCA Heritage Bridge Inventory
 Township of Centre Wellington 2008 Structure Inventory Data



Centre Wellington Bridge 8-WG



General Information	Physical Details
Bridge No. CW4	Type: Half-through Girders
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1925	Dimensions: 14.2m x 6.4m (LxW)
Water Crossing: Unknown	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 8-WG is located on Seventh Line, 0.4 km south of Sideroad 25. It was constructed in 1925 and belongs to a grouping of early half-through girder bridges built in the Township of Centre Wellington during the 1920s. This group includes Centre Wellington bridges 2-WG, 5-P, 30-P and 5-E. Like this bridge, they each display an early experimentation with concrete, which has resulted in decorative concrete railings with a solid centre portion and balustrades on each side. The thin boards used to set the concrete on site during construction left imprints that are still visible. This bridge is unique to the group as it has the longest span and is skewed to the river. Portions of the bridge are in very poor condition and some balustrades are missing.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Centre Wellington Bridge 9-WG



General Information	Physical Details
Bridge No. CW5	Type: Concrete Arch
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1925	Dimensions: 11.9m x 5m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 9-WG is located on Seventh Line, 1 km north of Sideroad 20. It was constructed in 1925 and belongs to a small grouping of early concrete arch bridges built in the Township of Centre Wellington in the first quarter of the 1900s. This group includes Centre Wellington bridges 16-WG, 12-N and Old Fourth Line Bridge. This bridge has a concrete cast-in-place deck, and a comparatively tall arch. The thin boards used to set the concrete on site during construction are still visible. Arthur Tedquck (spelling unconfirmed) is believed to have been the engineer responsible for this bridge.

Many of these early 20th century concrete arches have been removed from the Province’s roads because they are too narrow to meet modern traffic needs. As a result, solid spandrel concrete arch bridges in active use, such as Centre Wellington Bridge 9-WG, are now considered rare survivors.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Centre Wellington Bridge 16-WG



General Information	Physical Details
Bridge No. CW6	Type: Concrete Arch
Ownership: Township of Centre Wellington	Span: Single
Construction Date: c.1910	Dimensions: 16.1m x 5.3m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 16-WG is located on Fifth Line, 0.73 km north of Wellington Road 19. It was constructed circa 1910 and belongs to a small grouping of early concrete arch bridges built in the Township of Centre Wellington in the first quarter of the 1900s. This group includes Centre Wellington bridges 9-WG, 12-N and Old Fourth Line Bridge. This bridge has a concrete cast-in-place deck, and the thin boards used to set the concrete on site during construction have left very visible imprints.

Arched bridges are one of the oldest bridge forms and are very efficient at supporting large loads over a long period of time. Most of the early activity in concrete bridge construction in Ontario focused on the solid spandrel arch form. This bridge type gained in popularity because they were easy and inexpensive to build. However, the popularity of solid spandrel bridges appears to have declined after 1919. Many of these early 20th century concrete arches have been removed from the Province's roads because they are too narrow to meet modern traffic needs. As a result, solid spandrel concrete arch bridges in active use, such as Centre Wellington Bridge 16-WG, are now considered rare survivors.

Sources: *Township of Centre Wellington 2008 Structure Inventory Data*
Ministry of Culture Bridge Inspection Report, 1983



Centre Wellington Bridge 21-WG



General Information	Physical Details
Bridge No. CW7	Type: Concrete Bowstring Arch (Tied)
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1929	Dimensions: 19.2m x 5.7m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

Centre Wellington Bridge 21-WG crosses Irvine Creek and allows passage along First Line just west of Sideroad 15 within the former Township of West Garafraxa. Built in 1929, it represents a prominent landmark in the area and is one of seven surviving concrete bowstring trusses in the Township of Centre Wellington. Although this bridge type is found across Ontario, the Township of Centre Wellington has been noted for its especially large collection. Centre Wellington Bridge 21-WG is similar to a group of prominent bowstring arch bridges that included the Gibson Bridge, Shiloh Bridge, Hogan's Bridge, Cox Creek Bridge, Stirton Bridge, Cheese Factory Bridge and McDougall's Bridge. Due to structural concerns and subsequent replacement, only the Shiloh and Gibson Bridges remain from this group of Wellington County bowstring trusses.

The single lane and one-and-a-half lane concrete bowstring trusses of Wellington County are unique to the province because of their age, style and concentration in numbers. Built primarily in the period from 1915 to 1930, these structures reflect the transition from horse-drawn vehicles to the new motorized age. The introduction of the bowstring truss reflects the need to provide a safe and durable structure, capable of withstanding frequent use, heavy loads and the inevitable scrape or two. The robust concrete bowstring trusses on the rural back roads of Wellington County illustrate the success of this particular design, which has stood the test of time.

The reinforced concrete bowstring arch bridge design was popular as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic. This bridge has a length of 19.2 feet (5.8m), with one span with eight stringers. One-and-a-half lanes can cross the structure, which is a unique characteristic of this group of bridges. While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. Centre Wellington Bridge 21-WG is characteristically tall and steep, and connected by a cross-tie beam because it arches across the Irvine Creek, a wider watercourse. The construction date is likely pressed in the concrete on the centre of the cross tie, which is covered by a height clearance sign.

Sources: Township of Centre Wellington 2008 Structure Inventory Data
GRCA Heritage Bridge Inventory
Centre Wellington Bridge 21-WG Designation File, Heritage Resources Centre, 2009



Gibson Bridge

(Centre Wellington Bridge 24-WG)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. CW8	Type: Concrete Bowstring Arch
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1917	Dimensions: 24.3m x 5.5m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Gibson Bridge was designed and engineered by Bowman and Connor, and constructed by C. Mattaini, Construction. Replacing a wooden bridge, it was completed in 1917 at an estimated cost of \$2,595. It represents the earliest tied bowstring arch bridge in the Township of Centre Wellington and reflects the existence of relatively well-organized public administrative bodies. The bridge's bowstring design was popular in the 1920s and 1930s as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic.

Charles Mattaini, a local bridge builder who immigrated to Canada from northern Italy, is responsible for the design and construction of this bridge. In Italy, bowstring bridges were common and Mattaini studied their design and how to work with cement. He is credited with bringing the bowstring design to southern Ontario where he constructed many of these bridges in Wellington County between 1903 and 1929.

While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. The Gibson Bridge, because it arches across the Irvine Creek, a wider watercourse, is characteristically tall and steep, connected by a single prominent cross-tie inscribed with its date of construction. It has a length of 24.3 meters, with one span. One-and-a-half lanes cross the structure, which is a unique characteristic of this group of bridges. The bridge has chamfered balustrades with decorative circles pressed into the concrete on each side of the arch.

The Gibson Bridge is a prominent landmark in the Township of Centre Wellington (West Garafraxa) as it is one of very few surviving concrete bowstring trusses in Wellington County. Although this bridge type is found across Ontario, the Township of Centre Wellington has been noted for its especially large collection, of which only seven now remain. The Gibson Bridge was originally constructed as a group of 36 concrete bowstring trusses in the County that were erected in the same time period and designed in a similar style. This group of bridges represented the upgrading of the transportation networks that occurred in Ontario after World War I to accommodate an increased number and weight of newer automobiles. The group included the Shiloh Bridge, Hogan's Bridge, Cox Creek Bridge, Stirton Bridge, Cheese Factory Bridge and McDougall's Bridge. Due to structural concerns and subsequent replacement, only the Shiloh and Gibson Bridges remain from this group of Wellington County bowstring trusses. The Gibson Bridge is included on the Ontario Heritage Bridge List.

Sources: Heritage Resources Centre, Gibson Bridge Designation File, 2009; Pat Mestern, 2012



Centre Wellington Bridge 27-WG



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. CW9	Type: Concrete Bowstring Arch
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1918	Dimensions: 15.3m x 5.4m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 27-WG is located 0.75 km west of Sixth Line on Sideroad 20, which skews to accommodate the alignment of the bridge. It was constructed in 1918, making it one of the earliest of its type in Wellington County. The bridge is one of only seven remaining concrete bowstring arch bridges built in the Township of Centre Wellington from roughly 1915 to 1930. At one time, 36 concrete bowstring arch bridges were found in Wellington County, with a high concentration in Centre Wellington. The bowstring design was popular during this period as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic.

Charles Mattaini, a local bridge builder who immigrated to Canada from northern Italy, is likely responsible for the design and construction of this bridge. In Italy, bowstring bridges were common and Mattaini studied their design and how to work with cement. He is credited with bringing the bowstring design to southern Ontario where he constructed many of these bridges in Wellington County between 1903 and 1929.

While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. Centre Wellington Bridge 27-WG is a relatively average size overall, with other bridges of its type being found both larger and smaller. The imprints of wooden boards used to set the concrete on site are still visible on the bridge. It displays concrete balustrades imprinted with decorative circles and chamfered posts that flank the north side of the arch.

Sources: Pat Mestern, 2012
Township of Centre Wellington 2008 Structure Inventory Data
GRCA Heritage Bridge Inventory
David Cuming, *Discovering Heritage Bridges on Ontario Roads*, 1983



Centre Wellington Bridge 29-WG



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. CW10	Type: Concrete Bowstring Arch (Tied)
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1928	Dimensions: 22.6m x 6.4m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

Centre Wellington Bridge 29-WG is located on Sideroad 15, 0.7 km west of Second Line. Built in 1928, it represents a prominent landmark in the area and is one of seven surviving concrete bowstring trusses in the Township of Centre Wellington. Although this bridge type is found across Ontario, the Township of Centre Wellington has been noted for its especially large collection of 36 concrete bowstring arch bridges. Centre Wellington Bridge 29-WG is similar to a group of prominent bowstring arch bridges that included the Gibson Bridge, Shiloh Bridge, Hogan's Bridge, Cox Creek Bridge, Stirton Bridge, Cheese Factory Bridge and McDougall's Bridge. Due to structural concerns and subsequent replacement, only the Shiloh and Gibson Bridges remain from this group of Wellington County bowstring trusses.

The single lane and one-and-a-half lane concrete bowstring trusses of Wellington County are unique to the province because of their age, style and concentration in numbers. Built primarily in the period from 1915 to 1930, these structures reflect the transition from horse-drawn vehicles to the new motorized age. The introduction of the bowstring truss reflects the need to provide a safe and durable structure, capable of withstanding frequent use, heavy loads and the inevitable scrape or two. The robust concrete bowstring trusses on the rural back roads of Wellington County illustrate the success of this particular design, which has stood the test of time.

The reinforced concrete bowstring arch bridge design was popular as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic. This bridge has a length of 22.6m, with one span with eight stringers. One lane can cross the structure, which is a unique characteristic of this group of bridges. While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. Centre Wellington Bridge 29-WG is characteristically tall and steep, and connected by a cross-tie beam because it arches across the Irvine Creek, a wider watercourse. The construction date is likely pressed in the concrete on the centre of the cross tie, which is covered by a height clearance sign.

Sources: Township of Centre Wellington 2008 Structure Inventory Data
GRCA Heritage Bridge Inventory
Discovering Heritage Bridges on Ontario Roads, David Cuming, 1983



Centre Wellington Bridge 30-WG



General Information	Physical Details
Bridge No. CW11	Type: Pratt Through Truss
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1942	Dimensions: 26m x 6.7m (LxW)
Water Crossing: Irvine Creek	Materials: Steel



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 30-WG is located on Sideroad 15, 0.7 km west of Sixth Line. It was constructed in 1942, making it the oldest steel through truss bridge in the Township of Centre Wellington. There are five remaining steel truss bridges in Centre Wellington, three of which are through trusses.

Centre Wellington Bridge 30-WG is a six-panel rivet-connected Pratt through truss. "USA" is pressed into the bridges' steel panels, indicating an American company supplied the steel, however the specific company is unknown. The bridge is in poor condition and has been closed to the public.

Sources: *Township of Centre Wellington 2008 Structure Inventory Data*
Historicbridges.org



Centre Wellington Bridge 1-P



General Information	Physical Details
Bridge No. CW12	Type: Pony Truss (Pin Jointed)
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1890	Dimensions: 11.8m x 4.5m (LxW)
Water Crossing: Carroll Creek	Materials: Steel, Timber



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Centre Wellington Bridge 1-P is located on Sideroad 5, 0.9 km east of Eighth Line West. It was constructed in 1890; making it the oldest steel truss bridge remaining in the Township of Centre Wellington. There are five remaining steel truss bridges in Centre Wellington, and together with the Salem Bridge, Centre Wellington Bridge 1-P is one of only two remaining pony truss bridges.

Aside from its early date of construction and pin jointing, now a rare feature, this bridge is unique due to its uncharacteristically short span. The bridge is constructed of steel with a timber deck. It is in poor condition and has been closed to the public.

Sources: *Township of Centre Wellington 2008 Structure Inventory Data*
GRCA Heritage Bridge Inventory
Ministry of Culture Bridge Inspection Report, 1983



Centre Wellington Bridge 5-P

(Lot 3, Concession 2, Hitching's Tract)



General Information	Physical Details
Bridge No. CW13	Type: Half-through Girders
Ownership: Township of Centre Wellington Township of Woolwich	Span: Single
Construction Date: 1920	Dimensions: 13.7m x 5.2m (LxW)
Water Crossing: Cox Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 5-P is located on Weisenberg Road, 0.45 km north of Sideroad 12. It was constructed in 1920 and is the earliest in a grouping of half-through girder bridges built in the Township of Centre Wellington during the 1920s. This group includes Centre Wellington bridges 2-WG, 8-WG, 30-P and 5-E. Like this bridge, they each display an early experimentation with concrete, which has resulted in decorative concrete railings with a solid centre portion and balustrades on each side. The thin boards used to set the concrete on site during construction left imprints that are still visible.

This bridge was engineered by the firm of Bowman & Connor who had offices in Toronto and Berlin (Kitchener). The firm became a prolific and well-known bridge engineering company in Wellington County in the early 20th century. This bridge is closed to the public and portions of the decorative balustrades are missing.

Sources: *Township of Centre Wellington 2008 Structure Inventory Data*
Benham Bridge, Cultural Heritage Evaluation Report, Unterman McPhail Associates, 2010



Centre Wellington Bridge 26-P



General Information	Physical Details
Bridge No. CW14	Type: T-beam
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1940	Dimensions: 10.2m x 6.3m (LxW)
Water Crossing: Unknown	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Centre Wellington Bridge 26-P is located on First Line West, 0.1 km south of Sideroad 5. It was constructed in 1940 and belongs to a grouping of early T-beam bridges built in the Township of Centre Wellington during the 1920s and 1940s. This group includes Centre Wellington bridges 28-P, 32-P, 3-N, 1-E, 6-E and 33-P. Like this bridge, they each display an early experimentation with concrete. This bridge has concrete chamfered balustrades with decorative embossed circles and represents a prominent feature in the landscape. It is clearly visible in the valley on approach from roads leading to the north, east and west.

Both ends of the north railings and the east abutment have been recently rehabilitated.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Centre Wellington Bridge 28-P



General Information	Physical Details
Bridge No. CW15	Type: T-beam
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1926	Dimensions: 11.3m x 5.7m (LxW)
Water Crossing: Carroll Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 28-P is located on Sideroad 11, 0.7 km west of Eighth Line West. It was constructed in 1926 and belongs to a grouping of early T-beam bridges built in the Township of Centre Wellington during the 1920s and 1940s. This group includes Centre Wellington bridges 26-P, 32-P, 3-N, 1-E, 6-E and 33-P. Like this bridge, they each display an early experimentation with concrete. This bridge has concrete chamfered balustrades with decorative embossed circles. The thin boards used to set the concrete on site during construction left imprints that are still visible. Engravings are found on the bottom railings that read, "Martin, Oct 26, 1926; Inspector ALMA On; ELMIRA". Bridge 32-P has similar engravings to this bridge.

Bridge 28-P is in poor condition and has been closed to the public. A replacement bridge has been constructed directly to the east, which allows predominantly agricultural traffic to cross Carroll Creek.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Centre Wellington Bridge 30-P



General Information	Physical Details
Bridge No. CW16	Type: Half-through Girders
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1929	Dimensions: 8.8m x 6.5m (LxW)
Water Crossing: Unknown	Materials: Reinforced Concrete



Evaluation Form		Check
Design/Physical Value		
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method		✓
II. Displays a high degree of craftsmanship or artistic merit		
III. Demonstrates a high degree of technical or scientific achievement		
Historic/Associative Value		
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community		
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture		
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community		
Contextual Value		
I. Is important in defining, maintaining or supporting the character of an area		✓
II. Is physically, functionally, visually or historically linked to its surroundings		
III. Is a landmark		

General Description

Centre Wellington Bridge 30-P is located on Sideroad 5, 0.2 km west of Wellington Road 7. It was constructed in 1929 and is the last in a grouping of early half-through girder bridges built in the Township of Centre Wellington during the 1920s. This group includes Centre Wellington bridges 2-WG, 8-WG, 5-P and 5-E. Like this bridge, they each display an early experimentation with concrete, which has resulted in decorative concrete railings with a solid centre portion and balustrades on each side. The thin boards used to set the concrete on site during construction left imprints that are still visible. This bridge is unique to the group as it has the shortest span. Portions of the bridge are in poor condition but it is better preserved than others in its group.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Centre Wellington Bridge 3-N



General Information	Physical Details
Bridge No. CW17	Type: T-beam
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1942	Dimensions: 26.3m x 6.7m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 3-N is located on Beatty Line North, 0.2 km south of Sideroad 10 North. It was constructed in 1942 and belongs to a grouping of early T-beam bridges built in the Township during the 1920s and 1940s. This group includes Centre Wellington bridges 26-P, 28-P, 32-P, 33-P, 1-E, and 6-E. Like this bridge, they each display an early experimentation with concrete. This bridge is unique among the group due to its Art Deco inspired concrete balustrades and long deck length needed to span Irvine Creek. This bridge is in better condition than others in its group.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Irvine Street Bridge

(Centre Wellington Bridge 9-N)



General Information	Physical Details
Bridge No. CW18	Type: Concrete Bowstring Arch (Tied)
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1929	Dimensions: 25.9m x 6.1m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Irvine Street Bridge is located on Irvine Street, 1.4 km south of Sideroad 10. Built in 1929, it represents a prominent landmark in the area and is one of seven surviving concrete bowstring trusses in the Township of Centre Wellington. Although this bridge type is found across Ontario, the Township of Centre Wellington has been noted for its especially large collection. The Irvine Street Bridge is similar to a group of prominent bowstring arch bridges that included the Shiloh Bridge, Hogan's Bridge, Cox Creek Bridge, Stirton Bridge, Cheese Factory Bridge and McDougall's Bridge. Due to structural concerns and subsequent replacement, only the Shiloh and Gibson Bridges remain from this group of Wellington County bowstring trusses.

The single lane and one-and-a-half lane concrete bowstring trusses of Wellington County are unique to the province because of their age, style and concentration in numbers. Built primarily in the period from 1915 to 1930, these structures reflect the transition from horse-drawn vehicles to the new motorized age. The introduction of the bowstring truss reflects the need to provide a safe and durable structure, capable of withstanding frequent use, heavy loads and the inevitable scrape or two. The robust concrete bowstring trusses on the rural back roads of Wellington County illustrate the success of this particular design, which has stood the test of time.

The reinforced concrete bowstring arch bridge design was popular as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic. This bridge has a length of 25.9m, with one span with 10 stringers. One lane can cross the structure, which is a unique characteristic of this group of bridges. While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. The Irvine Street Bridge is characteristically tall and steep, and connected by a cross-tie beam because it arches across the Irvine Creek, a wider watercourse. The construction date, "1929", is pressed in the concrete on the centre of the cross-tie.

Minutes from a 2011 meeting of Heritage Centre Wellington indicated that this bridge is the best candidate for preservation and possible designation out of the group of seven remaining concrete bowstring arch bridges in the Township.

Sources: *Discovering Heritage Bridges on Ontario Roads*, David Cuming, 1983; GRCA Heritage Bridge Inventory; *Historicbridges.org*; Township of Centre Wellington 2008 Structure Inventory Data



Centre Wellington Bridge 12-N



General Information	Physical Details
Bridge No. CW19	Type: Earth-filled Concrete Arch
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1925	Dimensions: 10.3m x 6.2m (LxW)
Water Crossing: Irvine Creek	Materials: Reinforced Concrete



Evaluation Form		Check
Design/Physical Value		
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method		✓
II. Displays a high degree of craftsmanship or artistic merit		
III. Demonstrates a high degree of technical or scientific achievement		✓
Historic/Associative Value		
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community		
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture		✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community		
Contextual Value		
I. Is important in defining, maintaining or supporting the character of an area		✓
II. Is physically, functionally, visually or historically linked to its surroundings		✓
III. Is a landmark		

General Description

Centre Wellington Bridge 12-N is located on Washington Street, 0.3 km north of Wellington Road 18. It was constructed in 1925 and is one of only two remaining earth-filled concrete arch bridges in the Township of Centre Wellington, along with Old Fourth Line Bridge. It features concrete railings with decorative embossed circles and chamfered balustrades.

Arched bridges are one of the oldest bridge forms and are very efficient at supporting large loads over a long period of time. Most of the early activity in concrete bridge construction in Ontario focused on the earth-filled, solid spandrel arch form. This bridge type gained in popularity because they were easy and inexpensive to build. However, the popularity of solid spandrel bridges appears to have declined after 1919, although they continued to be built in small numbers into the 1930s since it was still an economic structure in circumstances where solid ground permitted adequate foundations. This was the case for Centre Wellington Bridge 12-N as existing limestone was used to form an abutment base on the west side of the bridge, a unique feature. Concrete was used to form the abutment on the east side of the bridge.

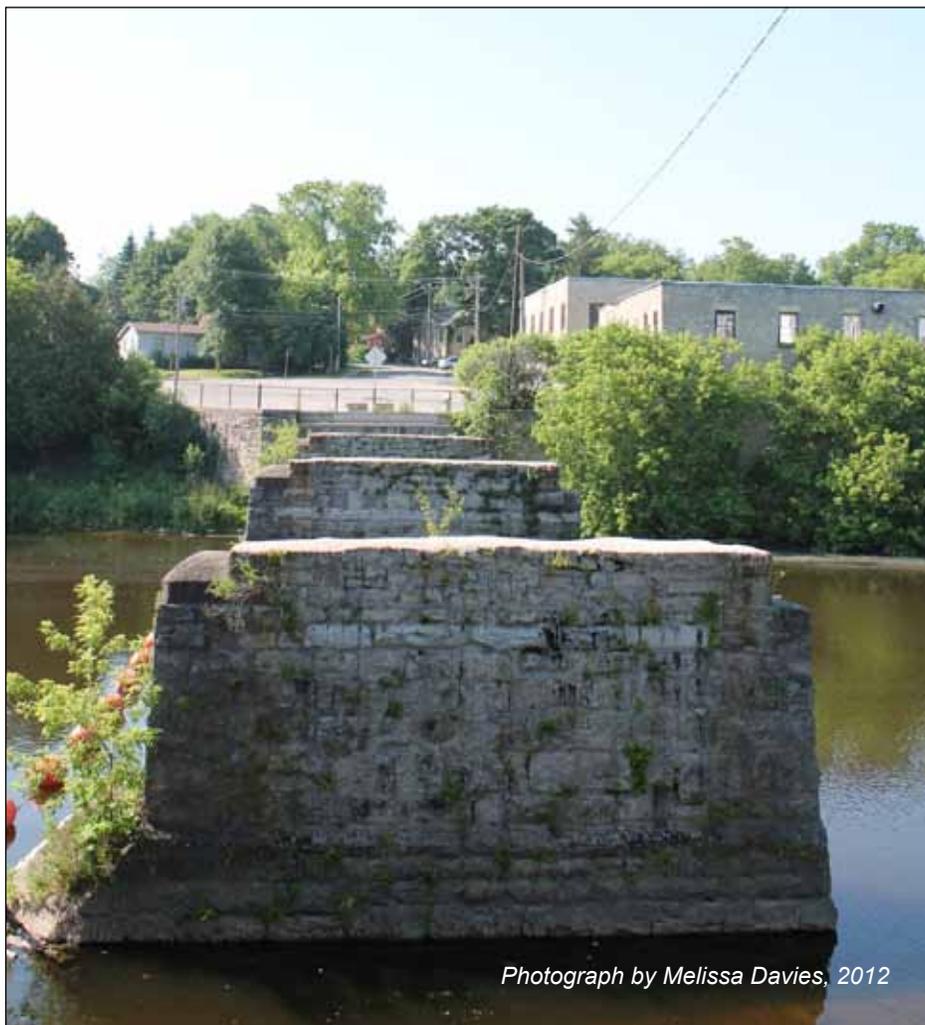
Many of these early 20th century earth-filled concrete arches have been removed from the Province's roads because they are too narrow to meet modern traffic needs. As a result, solid spandrel concrete arch bridges in active use, such as Centre Wellington Bridge 12-N, are now considered rare survivors.

Sources: Township of Centre Wellington 2008 Structure Inventory Data
Cultural Heritage Evaluation Report: Benham Bridge, Unterman McPhail Associates, July 2010



Victoria Street Bridge

(Centre Wellington Bridge 1-EL)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. CW20	Type: Piers and Abutments
Ownership: Township of Centre Wellington	Span: Four
Construction Date: 1899	Dimensions: 64.2m x 4.9m (LxW)
Water Crossing: Grand River	Materials: Stone



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Victoria Street Bridge (Centre Wellington Bridge 1-EL) is located at Victoria Street, between West Mill Street and Ross Street in the Village of Elora. Removed in 2005 due to its deteriorated condition, the Victoria Street Bridge was one of the oldest surviving steel bridges in Ontario.

The original bridge at this site was constructed in 1842. The cut-stone piers that remain supported the third and fourth bridges built there in 1871 and 1899, respectively. Reid-Riddell Engineering built the pin joint truss bridge in 1899, over the falls and close to Islet Rock in Elora. For 70 years the bridge assisted in the transport of flour from the local mill to the market in Guelph, herds of cattle to and from the cattle market in Elora and supplies and construction materials to Elora and communities further north.

With the completion of the Metcalfe Street Bridge in 1954, the Victoria Street Bridge was closed to vehicular traffic in 1969. One sidewalk remained open and the structure began a new life as a pedestrian bridge. By the mid-1970s the sidewalk too was closed and pedestrians had to wait until 1983 to once again have access to the bridge. That year Metro Goldwyn Mayer (MGM) chose Elora as the setting for a Hollywood movie called, "Mrs. Soffel" and they paid \$35,000 to help restore the bridge. The project involved laying two large steel beams over the bridge superstructure and surfacing it with a wood plank deck. Later that year the bridge was reopened to pedestrians.

Over time, the structure was not maintained and continued to deteriorate. Although it had been designated under the Part IV of the *Ontario Heritage Act* in 1983, funding for the proper restoration was not forthcoming and the bridge was de-designated by the Township in 2004 (By-law No. 2004-58). Until 2005 the bridge provided a viewpoint and gathering place in the Village, as well as an important link between the parking area on the south bank of the Grand River and the commercial activity on Mill Street. The stone piers still remain, contributing to a cultural heritage landscape in scenic Elora. The piers and abutments represent a viable base for future bridges to build upon.

Sources: Township of Centre Wellington 2008 Structure Inventory Data; GRCA Heritage Bridge Inventory
Victoria Street Walking Bridge Plaque, June 2011; Township of Centre Wellington By-law No. 2004-58



Shiloh Bridge

(Centre Wellington Bridge 3-E)



General Information	Physical Details
Bridge No. CW21	Type: Concrete Bowstring Arch
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1919	Dimensions: 14.5m x 5.8m (LxW)
Water Crossing: Speed River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Shiloh Bridge spans the Speed River on Sixth Line between Side Road 30 and Wellington Road 22 in the Township of Centre Wellington, and serves as a gateway across the watercourse in Eramosa. Constructed in 1919 by Charles Mattaini, it replaced a previous wooden bridge. The Shiloh Bridge is among the earliest bowstring arch bridges in the Township of Centre Wellington and reflects the existence of relatively well-organized public administrative bodies. The bridge's bowstring design was popular from approximately 1915 to 1930 as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic.

While of a basic type, there is considerable variety among all the bowstring truss structures in Wellington County. The Shiloh Bridge, because it arches across a narrow portion of the Speed River, is not as tall and steep as others in its group. It has a length of 14.5 meters, with one span and five stringers. One-and-a-half lanes cross the structure, which is a unique characteristic of this group of bridges. The bridge has chamfered balustrades with decorative circles pressed into the concrete on each side of the arch.

The Shiloh Bridge is a prominent landmark in the Township of Centre Wellington (former Eramosa Township) as it is one of very few surviving concrete bowstring trusses in Wellington County. Although this bridge type is found across Ontario, the Township of Centre Wellington has been noted for its especially large collection. The Shiloh Bridge was originally constructed as a group of many concrete bowstring trusses in the County that were erected in the same time period and designed in a similar style. This group of bridges represented the upgrading of the transportation networks that occurred in Ontario after World War I to accommodate an increased number and weight of newer automobiles. The group included the Gibson Bridge, Hogan's Bridge, Cox Creek Bridge, Stirton Bridge, Cheese Factory Bridge and McDougall's Bridge. Due to structural concerns and subsequent replacement, only the Shiloh and Gibson Bridges remain from this group of Wellington County bowstring trusses.

Source: Heritage Resources Centre, Shiloh Bridge Designation File, 2009



Centre Wellington Bridge 5-E



General Information	Physical Details
Bridge No. CW22	Type: Half-through Girders
Ownership: Township of Centre Wellington	Span: Single
Construction Date: 1923	Dimensions: 13.3m x 6.4m (LxW)
Water Crossing: Speed River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Centre Wellington Bridge 5-E is located on Fourth Line, 1.5 km north of Wellington Road 22. It was constructed in 1923 and belongs to a grouping of early half-through girder bridges built in the Township of Centre Wellington during the 1920s. This group includes Centre Wellington bridges 2-WG, 8-WG, 5-P and 30-P. Like this bridge, they each display an early experimentation with concrete, which has resulted in decorative concrete railings with a solid centre portion and balustrades on each side. The thin boards used to set the concrete on site during construction left imprints that are still visible. Portions of the bridge are in very poor condition.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Centre Wellington Bridge 6-E



General Information	Physical Details
Bridge No. CW23	Type: T-beam
Ownership: Township of Centre Wellington	Span: Single
Construction Date: c.1921	Dimensions: 10.4m x 5.7m (LxW)
Water Crossing: Tributary of Speed River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Centre Wellington Bridge 6-E is located on Third Line, 0.1 km south of Eramosa-West Garafraxa Townline. It is the oldest remaining example of a concrete T-beam bridge structure in the former township of Eramosa. If constructed c.1921 as records indicate, earlier than its estimated date of c.1940, it is the oldest example of this bridge type in the Township of Centre Wellington. The retention of the original handrail contributes to its design character. The detailing of the end and intermediate posts of the handrail system, i.e., decorative circle embossed and chamfered edges, are considered to be of some artistic merit and indicative of the design elements of its time. It has lost a few handrail posts on the north end and is in very poor condition. Bridge 6-E maintains the rural character of the area and is physically, functionally, visually, and historically linked to its surroundings. Several bridges, starting in the 19th century, have been built at the same location.

There are a number of examples of this bridge type in the Township of Centre Wellington, principally located in the former geographic township of Pilkington. The next oldest example in the municipality is the Noah Road Bridge (Centre Wellington Bridge 33-P) dating to 1922.

According to a Cultural Heritage Evaluation Report conducted in May 2012, demolition is pending for Centre Wellington Bridge 6-E.

Sources: Township of Centre Wellington 2008 Structure Inventory Data
Cultural Heritage Evaluation Report, May 2012, Unterman McPhail Associates



David Street Bridge

(Irvine River Bridge)



General Information	Physical Details
Bridge No. CW24	Type: Open Spandrel Deck Arch on a Central Masonry Pier
Ownership: County of Wellington	Span: Two
Construction Date: 1867 (pier), 2004 (bridge)	Dimensions: 46.3m x 11.7m (LxW)
Water Crossing: Irvine River	Materials: Reinforced Concrete, Stone



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	✓
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The David Street Bridge is located on David Street, 0.3 km east of Wellington Road 7, over the Elora Gorge in the Village of Elora. The bridge was replaced in 2004 but represents a well-documented, long history of bridge construction on this site.

Beginning in 1819, the first bridge onsite was the old Indian log bridge. To attract new settlers to North Pilkington, a group of Elora businessmen financed the next bridge at this site in 1847. Built by David Foote, John Cattanoek and Sailor James Gairns, it was heralded as the first cantilever bridge in North America. The next bridge at this river crossing was built in 1867, after the founding of Salem, just north of Elora. It was a timber truss bridge with a centre stone pier, which remains today. The magnificent pier was constructed by Charles Lawrence, one of Elora's early stonemasons, and engineered by A.W. Connor. This timber structure was condemned within eight years and in 1887 the bridge was replaced with a steel pin connected truss bridge on the same pier. The next bridge was built in 1921 of concrete. The present bridge, the seventh at this location, was constructed by Wellington County in 2004. Its design reflects the 1921 version, while employing very different modern materials and techniques. Though no longer a supporting element, the 1867 pier was restored to preserve the appearance of the 1921 bridge. The bridge is included on the Ontario Heritage Bridge List and is an important landmark as well as a scenic element in the Elora Gorge.

Sources: County of Wellington 2007 Bridge Appraisals
 GRCA Heritage Bridge Inventory
 The Grand River, ON, A decade in the Canadian Heritage Rivers System: A review of The Grand Strategy 1994-2004, Barbara Veale, GRCA, May 2004
 Ministry of Culture Bridge Inspection Form, 1983
 David Street Bridge – Irvine River Pier Plaque, Heritage Centre Wellington



Salem Bridge

(Woolwich Street Bridge)



General Information	Physical Details
Bridge No. CW25	Type: Warren Pony Truss
Ownership: County of Wellington	Span: Single
Construction Date: 1952	Dimensions: 32.6m x 9.8m (LxW)
Water Crossing: Irvine Creek	Materials: Steel



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

The Salem Bridge (Woolwich Street Bridge) is located on Woolwich Street West, 0.1 km east of Wellington Road 7. It was constructed in 1952, and represents a landmark in the small community of Salem. There are five remaining steel truss bridges in Centre Wellington, and together with Centre Wellington Bridge 1-P, the Salem Bridge is one of only two remaining pony truss bridges. This bridge is a traditionally composed mid-20th century pony truss. It could be thought of as a companion bridge to the Metcalfe Street Bridge in Elora as they were both built within a year of each other and share similar design details.

Contractor, Albert Reeves and the Hamilton Bridge Company with County Engineer, W.H. Keith, constructed this rivet-connected Warren pony truss bridge for the County of Wellington. "Bethlehem, USA" is pressed in the bridge's steel beams as they were cast by the Bethlehem Steel Corporation, based in Bethlehem, Pennsylvania and Buffalo, New York. This company was at one time America's second-largest steel producer, operating from 1857 to 2003. It was not uncommon for steel used in truss bridge construction to be sourced from the United States.

The Salem Bridge contributes to a cultural heritage landscape given its location next to the historic Wissler Mill. Built circa 1852, Wissler's Mill was a gristmill that ceased operation in 1965. It was subsequently converted to a private residence.

Sources: *Township of Centre Wellington 2008 Structure Inventory Data*
Historicbridges.org
Harold Stiver, Ontario's Old Mills, 2012



Metcalfe Street Bridge

(Badley Bridge)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. CW26	Type: Parker Camelback Through Truss
Ownership: County of Wellington	Span: Three
Construction Date: 1952	Dimensions: 71.9m x 11.4m (LxW)
Water Crossing: Grand River	Materials: Steel



Evaluation Form		Check
Design/Physical Value		
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method		✓
II. Displays a high degree of craftsmanship or artistic merit		
III. Demonstrates a high degree of technical or scientific achievement		
Historic/Associative Value		
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community		
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture		
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community		
Contextual Value		
I. Is important in defining, maintaining or supporting the character of an area		✓
II. Is physically, functionally, visually or historically linked to its surroundings		
III. Is a landmark		✓

General Description

Metcalf Street Bridge (Badley Bridge) is located on Metcalf Street (Wellington Road 21), 0.2 km south of Wellington Road 18 in the Village of Elora. It was constructed by 1953 and is one of five remaining steel truss bridges in Centre Wellington, three of which are through trusses.

The Metcalf Street Bridge is a nine-panel rivet-connected Parker camelback through truss. Contractor, A.H. MacLellan and the Hamilton Bridge Company, with County Engineer, W.H. Keith, constructed the bridge and are named in maker's plaques located on the bridge. MacLellan and Keith were also responsible for the construction of the Caldwell Bridge, a similar truss built two years later in the nearby Village of Fergus.

This bridge represents a landmark in the Village and provides a distinctive gateway into or out of downtown Elora. Sidewalks on both sides of the bridge allow consistent use by both vehicles and pedestrians.

Sources: *Township of Centre Wellington 2008 Structure Inventory Data*
GRCA Heritage Bridge Inventory
Historicbridges.org



Caldwell Bridge



General Information	Physical Details
Bridge No. CW27	Type: Camelback Through Truss
Ownership: County of Wellington	Span: Single
Construction Date: 1955	Dimensions: 50m x 10m (LxW)
Water Crossing: Grand River	Materials: Steel



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The Caldwell Bridge is located on Wellington Road 43 (Gartshore Street), 0.7 km north of Wellington Road 18 in the Village of Fergus. It was constructed in 1955 and is one of five remaining steel truss bridges in the Township of Centre Wellington, three of which are through trusses.

The Metcalfe Street Bridge is a rivet-connected camelback through truss. Contractor, A.H. MacLellan and the Dominion Bridge Company Limited of Toronto, with County Engineer, W.H. Keith, constructed the bridge and are noted in plaques located on the bridge. MacLellan and Keith were also responsible for the construction of the Metcalfe Street Bridge (Badley Bridge), a similar truss built two years earlier in the nearby Village of Elora.

This bridge represents a landmark in the Village and a sidewalk on the west side of the bridge allows for consistent use by both vehicles and pedestrians.

Source: Township of Centre Wellington 2008 Structure Inventory Data



Bridge 3



General Information	Physical Details
Bridge No. E1	Type: T-beam
Ownership: Town of Erin	Span: Single
Construction Date: 1920	Dimensions: 10.9m x 5.6m (LxW)
Water Crossing: Eramosa River	Materials: Reinforced Concrete



Evaluation Form		Check
Design/Physical Value		
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method		✓
II. Displays a high degree of craftsmanship or artistic merit		
III. Demonstrates a high degree of technical or scientific achievement		
Historic/Associative Value		
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community		
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture		
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community		
Contextual Value		
I. Is important in defining, maintaining or supporting the character of an area		✓
II. Is physically, functionally, visually or historically linked to its surroundings		✓
III. Is a landmark		

General Description

Bridge 3 is located on 1st Line, 1.6 km south of Wellington Road 124. It is one of the earliest remaining examples of a concrete T-beam bridge structure in the Grand River watershed. It is also the oldest example of this bridge type in Wellington County, outdating the estimated construction date of Centre Wellington Bridge 6-E by one year.

The retention of the original handrail contributes to its design character. The detailing of the end and intermediate posts of the handrail system, with a decorative circle embossed and chamfered edges, is considered to be of some artistic merit and indicative of the design elements of its time. A portion of the railing has been lost on the east side. Bridge 3 maintains the rural character of the area and is physically, functionally, visually, and historically linked to its surroundings.

Sources: *Summary Action Report, 2008*
Centre Wellington Bridge 6-E, Cultural Heritage Evaluation Report, Unterman McPhail Associates, May 2012



Hay's Bridge

(Wellington North Bridge 34)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. WN1	Type: Solid Slab
Ownership: County of Wellington	Span: Single
Construction Date: 1920	Dimensions: 8.2m x 6.3m (LxW)
Water Crossing: Unknown	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

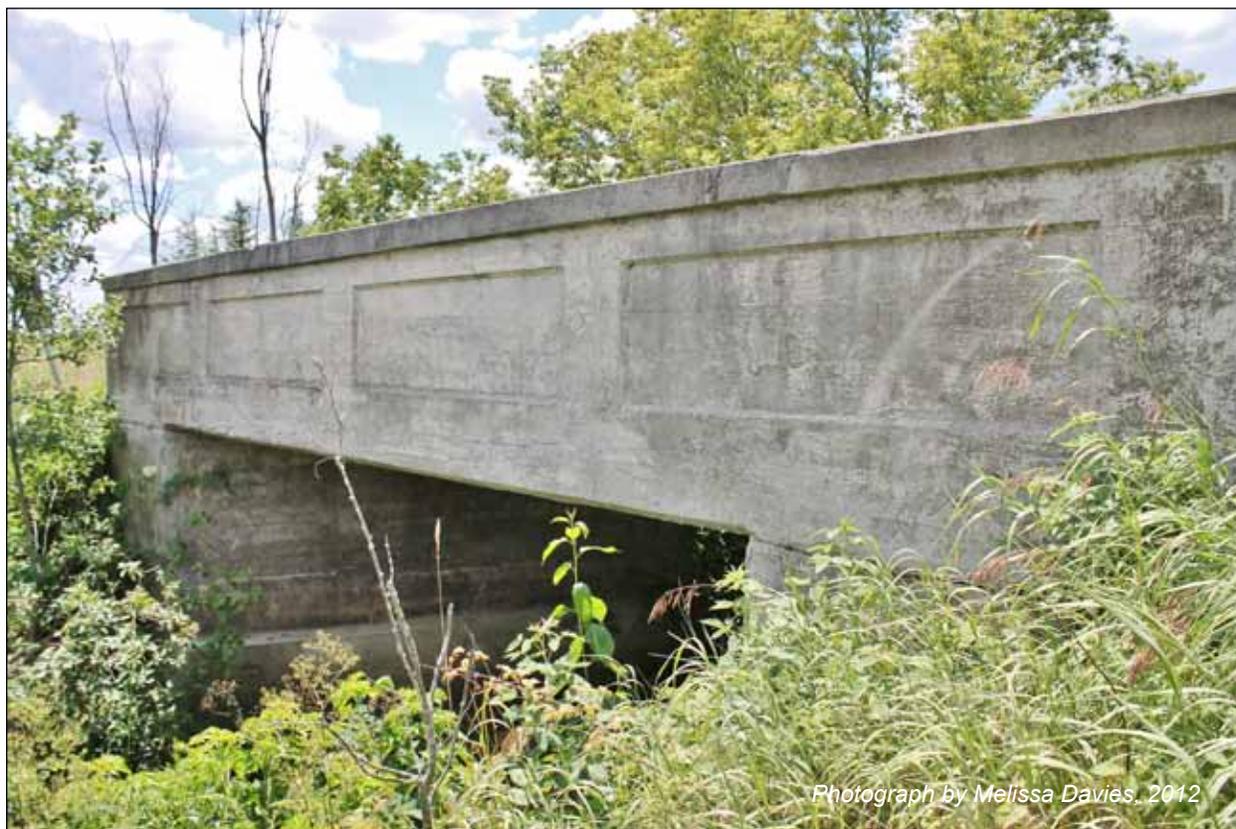
General Description

Hay’s Bridge is located on East-West Luther Townline, 0.3 km north of Line 12. It was constructed in 1920 and belongs to a grouping of three remaining reinforced concrete solid slab bridges built in the Township of Wellington North in roughly the same year. This group also includes Boyd’s Bridge and Wellington County Bridge 36. Like this bridge, they each display an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. The thin boards used to set the concrete on site during construction left imprints that are still visible. Like Boyd’s Bridge, this structure is set quite high above the floodplain and has very large wing walls.

Source: County of Wellington, 2007 Bridge Appraisals



Wellington County Bridge 36



General Information	Physical Details
Bridge No. WN2	Type: Solid Slab
Ownership: County of Wellington	Span: Single
Construction Date: c.1920	Dimensions: Unknown
Water Crossing: Unknown	Materials: Reinforced Concrete



Evaluation Form		Check
Design/Physical Value		
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method		✓
II. Displays a high degree of craftsmanship or artistic merit		
III. Demonstrates a high degree of technical or scientific achievement		
Historic/Associative Value		
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community		
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture		
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community		
Contextual Value		
I. Is important in defining, maintaining or supporting the character of an area		✓
II. Is physically, functionally, visually or historically linked to its surroundings		
III. Is a landmark		

General Description

Wellington County Bridge 36 is located on East-West Luther Townline, 1 km south of Line 12. It was constructed circa 1920 and belongs to a grouping of three remaining reinforced concrete solid slab bridges built in the Township of Wellington North in roughly the same year. This group also includes Boyd's Bridge and Hay's Bridge. Like this bridge, they each display an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. The thin boards used to set the concrete on site during construction left imprints that are still visible. Like the other bridges in its group, this structure is set quite high above the floodplain.



Boyd's Bridge

(Wellington North Bridge 38)



General Information	Physical Details
Bridge No. WN3	Type: Solid Slab
Ownership: Township of Wellington North	Span: Single
Construction Date: 1920	Dimensions: 14.9m x 4.6m (LxW)
Water Crossing: Conestogo River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Boyd's Bridge is located on Sideroad 3, 0.3 km north of Line 6 in the community of West Luther. It was constructed in 1920 and belongs to a grouping of three remaining reinforced concrete solid slab bridges built in the Township of Wellington North in roughly the same year. This group also includes Hay's Bridge and Wellington County Bridge 36. Like this bridge, they each display an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. The thin boards used to set the concrete on site during construction left imprints that are still visible. This structure is set quite high above the floodplain and has very large wing walls.

Source: Township of Wellington North Bridge Appraisals



Gordonville Bridge



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. WN4	Type: T-beam
Ownership: County of Wellington	Span: Two
Construction Date: 1930	Dimensions: 23.8m x 9.6m (LxW)
Water Crossing: Conestogo River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Gordonville Bridge is located on County Road 14, 0.4 km north of Line 6 in the community of Gordonville. It was constructed in 1930 and is the earliest and one of very few T-beam structures remaining in the Township of Wellington North. Its arched double-span also makes the structure unique, as few two-span T-beam bridges have been observed in the Grand River watershed. This bridge displays an early experimentation with concrete. The thin boards used to set the concrete on site during construction left imprints that are still visible and it appears the concrete over the arches was molded by hand. This bridge was widened in 1955 and underwent repairs in 1994.

According to information contained in Charles Mattaini's journal, it is likely that the Gordonville Bridge replaced a 1919 concrete bowstring arch bridge that he designed and constructed. Mattaini was a prominent builder of concrete bowstring arch bridges in Wellington County between 1903 and 1929.

Sources: *County of Wellington, 2007 Bridge Appraisals*
Charles Mattaini's Journal
Pat Mestern, 2012



Conestogo River Bridge #4



General Information	Physical Details
Bridge No. WN5	Type: Rigid Frame
Ownership: County of Wellington	Span: Single
Construction Date: 1931	Dimensions: 16m x 11.5m (LxW)
Water Crossing: Conestogo River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Conestogo River Bridge #4 is located on Wellington Road 109, 1.7 km east of Highway 6 near the community of Arthur. It was constructed in 1931 and belongs to a group of four concrete rigid frame bridges built in close proximity heading east along Wellington Road 109. These bridges were built for the County of Wellington in 1931 and 1934 and include Conestogo River Bridge #5, #6 and #10.

Conestogo River Bridge #4 is an early example of the concrete rigid frame. This bridge type was introduced in Ontario in the 1930s and continued to be the dominant form of highway bridges in the province during the 1950s until the introduction of pre-stressed precast concrete beam and post-tension cast-in-place structures in the 1960s. This structure has decorative concrete railings and underwent repairs in 1989. "The Kings Highway 1931" is engraved on the base of the south railing.

Sources: County of Wellington, 2007 Bridge Appraisals
David Cuming, *Discovering Heritage Bridges on Ontario Roads*, 1983
GRCA Heritage Bridge Inventory



Conestogo River Bridge #5



General Information	Physical Details
Bridge No. WN6	Type: Rigid Frame with Arch
Ownership: County of Wellington	Span: Single
Construction Date: 1931	Dimensions: Unknown
Water Crossing: Conestogo River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Conestogo River Bridge #5 is located on Wellington Road 109, 0.7 km east of Highway 6 near the community of Arthur. It was constructed in 1931 and belongs to a group of four concrete rigid frame bridges built in close proximity heading east along Wellington Road 109. These bridges were built for the County of Wellington in 1931 and 1934 and include Conestogo River Bridge #4, #6 and #10. Conestogo River Bridge #5 is the only in the group to exhibit a steep, pronounced arch. The structure has decorative concrete railings, and a much more extended east abutment than west. The thin board marks used to set the concrete on site are still visible.

Conestogo River Bridge #5 is an early example of the concrete rigid frame. This bridge type was introduced in Ontario in the 1930s and continued to be the dominant form of highway bridges in the province during the 1950s until the introduction of pre-stressed precast concrete beam and post-tension cast-in-place structures in the 1960s.

Sources: David Cuming, *Discovering Heritage Bridges on Ontario Roads*, 1983
GRCA Heritage Bridge Inventory



Conestogo River Bridge #6



General Information	Physical Details
Bridge No. WN7	Type: Rigid Frame
Ownership: County of Wellington	Span: Single
Construction Date: 1931	Dimensions: 18.5m x 11.6m (LxW)
Water Crossing: Conestogo River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

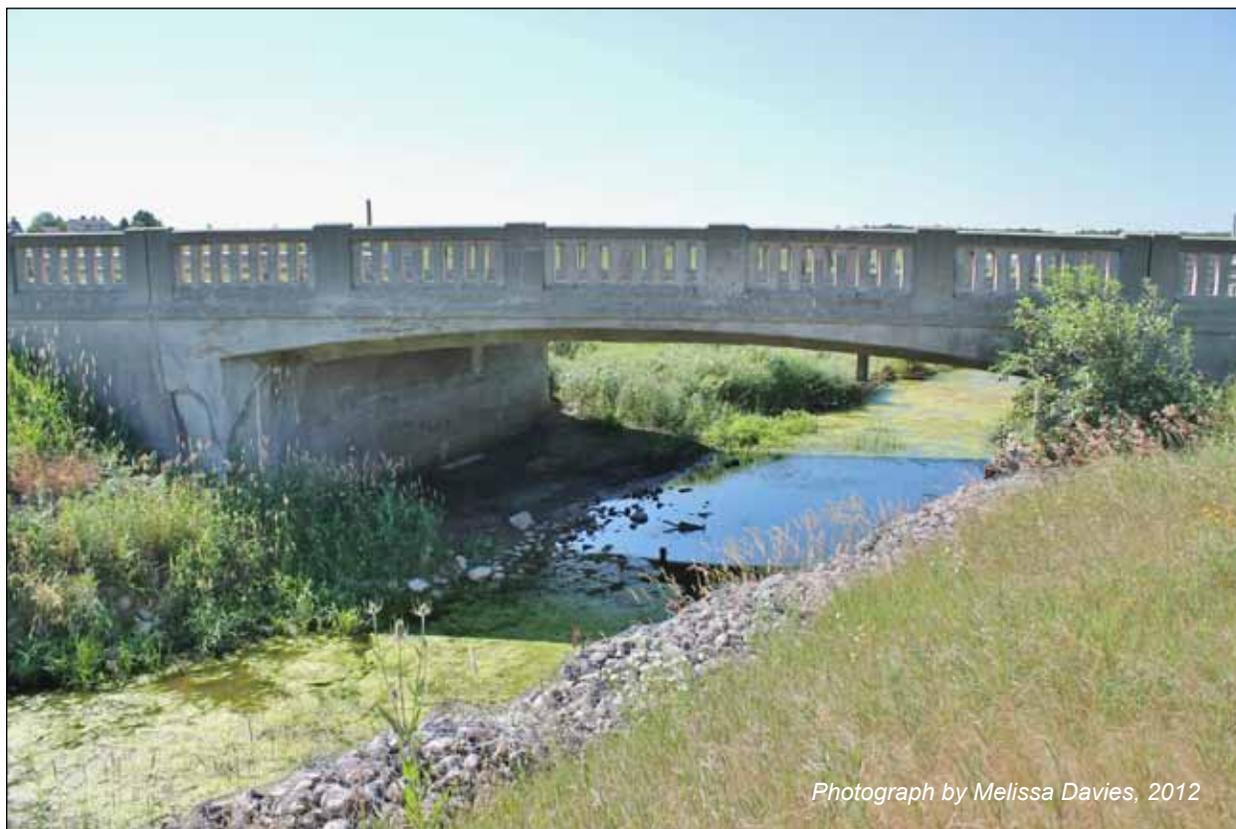
Conestogo River Bridge #6 is located on Wellington Road 109, 0.2 km east of Highway 6 near the community of Arthur. It was constructed in 1931 and belongs to a group of four concrete rigid frame bridges built in close proximity heading east along Wellington Road 109. These bridges were built for the County of Wellington in 1931 and 1934 and include Conestogo River Bridge #4, #5 and #10.

Conestogo River Bridge #6 is an early example of the concrete rigid frame. This bridge type was introduced in Ontario in the 1930s and continued to be the dominant form of highway bridges in the province during the 1950s until the introduction of pre-stressed precast concrete beam and post-tension cast-in-place structures in the 1960s. This structure has decorative concrete railings and underwent repairs in 1989.

Sources: County of Wellington, 2007 Bridge Appraisals
 County of Wellington Bridge Inventory
 David Cuming, *Discovering Heritage Bridges on Ontario Roads*, 1983
 GRCA Heritage Bridge Inventory



Conestogo River Bridge #10



General Information	Physical Details
Bridge No. WN8	Type: Rigid Frame
Ownership: County of Wellington	Span: Single
Construction Date: 1934	Dimensions: 13.5m x 11.4m (LxW)
Water Crossing: Conestogo River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Conestogo River Bridge #10 is located on Wellington Road 109, 2.9 km east of Highway 6 near the community of Arthur. It was constructed in 1934 and belongs to a group of four concrete rigid frame bridges built in close proximity heading east along Wellington Road 109. These bridges were built for the County of Wellington in 1931 and 1934 and include Conestogo River Bridge #4, #5 and #6.

Conestogo River Bridge #10 is an early example of the concrete rigid frame. This bridge type was introduced in Ontario in the 1930s and continued to be the dominant form of highway bridges in the province during the 1950s until the introduction of pre-stressed precast concrete beam and post-tension cast-in-place structures in the 1960s. This structure has decorative concrete railings and underwent repairs in 1989 and 2007. “The Kings Highway 1931” is engraved on the base of the south railing. A benchmark for geodetic surveying (#883061) is located on north sidewalk.

Sources: County of Wellington, 2007 Bridge Appraisals
 County of Wellington Bridge Inventory
 David Cuming, *Discovering Heritage Bridges on Ontario Roads*, 1983
 GRCA Heritage Bridge Inventory



Dirksen Farm Bridge



General Information	Physical Details
Bridge No. WN9	Type: Pony Truss
Ownership: Private	Span: Single
Construction Date: c.1900	Dimensions: Unknown
Water Crossing: Conestogo River	Materials: Steel, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Dirksen Farm Bridge is located on private property on Highway 109, 0.5 km west of Sideroad 7 outside the community of Arthur. It was constructed circa 1900 and is the only steel truss bridge in the Township of Wellington North, and one of the oldest in Wellington County.

Aside from its early date of construction, this bridge is unique due to its use of Carnegie Steel. Although it is not uncommon for steel used in Ontario's bridges to be sourced from the United States, it is less common to find Carnegie steel in the Grand River watershed. The Carnegie Steel Company, headed by Andrew Carnegie, was located in Pittsburg, Pennsylvania and was in operation from 1892 to 1901 before it was purchased by The United States Steel Company.

Due to the early construction date of this bridge, it is likely that it was once located at another nearby water crossing and later moved to its current location on the Dirksen Family Farm.

Sources: Paul Karuse, *The Battle For Homestead, 1880-1892*
Politics, Culture, and Steel, 1992



MacPherson Bridge

(East Garafraxa Bridge 7)
(12th Line Bridge)



General Information	Physical Details
Bridge No. EX1	Type: Double Concrete Bowstring Arch (Tied)
Ownership: Township of East Garafraxa	Span: Two
Construction Date: 1921	Dimensions: 52m x 5.6m (LxW)
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

The MacPherson Bridge spans the Grand River on 12th Line, 0.6 km south of 15th Sideroad. Constructed in 1921 and engineered by U.W. Christie, the bridge is a two-span tied double concrete bowstring arch bridge. It is the only remaining bowstring arch bridge in the Township of East Garafraxa and is one of very few double bowstring arch bridges built in the Grand River watershed. It underwent repairs in 1985 and 2007.

The MacPherson Bridge was part of the Ontario governments upgrading of transportation networks after World War I to accommodate the increasing number of automobiles in the area. The bridge's bowstring design was popular in the 1920s and 1930s as it required minimal material, was simple to install and could easily accommodate vehicular traffic.

The MacPherson Bridge is located on a rise of 12th Line and is set approximately 30 feet (9m) above the floodplain. It is noteworthy for the length of its spans as well as its multi-span configuration. It exhibits decorative concrete rails, balustrades and tied arches along with very pronounced ice breaks on the east side of the pier. The thin board finish is still visible in the concrete. Perhaps the most striking feature of the bridge is its heavy skew. Aside from the arches being offset from each other to accommodate this skew, the single overhead tie rod for each span does not follow the skew angle. As a result, the tie rods do not meet at the same location on each arch. Interestingly, It does not appear that the contractor placed an emphasis on maintaining a perfect curve to the concrete arches, as slight variances are discernable. This is a contrast to other concrete bowstring arch bridges in the watershed where every curve and detail was constructed as close to perfection as possible.

Remains of a stone pier from a previous bridge located near this crossing are still visible 18m downstream from the MacPherson Bridge.

Sources: Ministry of Culture Bridge Inspection Report, 1985
 Historicbridges.org
 Township of East Garafraxa Bridge and Large Culverts Capital Forecast 2011



East Garafraxa Bridge 8

(13th Line Bridge)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. EX2	Type: Pratt Through Truss
Ownership: Township of East Garafraxa	Span: Single
Construction Date: 1913	Dimensions: 36.5m x 3.6m (LxW)
Water Crossing: Grand River	Materials: Steel, Timber, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

East Garafraxa Bridge 8 is located on 13th Line, 0.7 km south of 15th Sideroad. It was constructed in 1913 and is the only remaining steel truss bridge in the Township of East Garafraxa and is one of the oldest through truss bridges in the Grand River watershed. A long-time resident of the Township indicated that at the time of construction teams of horses were hired to build up the approaches to the bridge and workers were paid \$2.50 per day for their efforts.

East Garafraxa Bridge 8 is a steel Pratt through truss with six panels and riveted connections. It has a timber deck and large concrete abutments. It was constructed by The Hamilton Bridge Works Company Ltd., indicated by a makers plaque located above the southern entrance. 13th Line dramatically skews around the Grand River to allow the bridge the shortest span possible. This was done in an effort to reduce construction costs, as it was more affordable to build a straight bridge, rather than a skewed bridge.

East Garafraxa Bridge 8 remains largely unaltered, undergoing minor repairs in 1972 and 2001. This bridge is considered a rare survivor due to the increasing occurrence of steel truss bridges being demolished but not replaced in the watershed and province-wide.

Sources: *Township of East Garafraxa Bridge and Large Culverts Capital Forecast 2011*
Historicbridges.org



East Garafraxa Bridge 14



General Information	Physical Details
Bridge No. EX3	Type: Poured-in-place Beams
Ownership: Township of East Garafraxa	Span: Single
Construction Date: c.1940s	Dimensions: 9.2m x 5.5m (LxW)
Water Crossing: Butler Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

East Garafraxa Bridge 14 is located on 10th Sideroad, 0.3 km west of 13 Line. It was constructed circa the 1940s and is the only bridge of its type remaining in the Township of East Garafraxa. This structure was constructed on site and the concrete support beams were poured in place. It exhibits uniquely tapered concrete balustrades with triangular pointed top caps. The thin board finish is still visible in the concrete abutments, which support a relatively short span.

Source: Township of East Garafraxa Bridge and Large Culverts Capital Forecast 2011



Grand River Bridge



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. EX4	Type: Rigid Frame
Ownership: County of Dufferin	Span: Three
Construction Date: 1953	Dimensions: 43.1m x 11.6m (LxW)
Water Crossing: Grand River	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Grand River Bridge is located on Highway 109, 0.2 km west of East Junction 25 near the community of Waldemar in the Township of East Garafraxa. It was constructed in 1953 and is the earliest of this bridge type found in the Township. The concrete rigid frame was introduced in Ontario in the 1930s and continued to be the dominant form of highway bridges in the province during the 1950s until the introduction of pre-stressed precast concrete beam and post-tension cast in place structures became more popular in the 1960s. This structure is representative of the larger, stronger concrete rigid frame bridges built after World War II to accommodate an increase in personal motorized vehicles.

The three-span, elliptically arched Grand River Bridge is set quite high above the floodplain on two piers. The piers exhibit pronounced triangular shaped ice breaks. A benchmark from the Department of Highways is located on the southwest side of the bridge.

Sources: *Dufferin County Grand River Bridge List*
County of Dufferin OSIM Report
Cuming, David, J. (1951). Discovering Heritage Bridges on Ontario's Roads



Keldon Bridge

(Hooker Bridge)
(ELGV Bridge #1)



General Information	Physical Details
Bridge No. GV1	Type: Concrete Bowstring Arch
Ownership: Town of Grand Valley	Span: Single
Construction Date: 1929	Dimensions: 16.4m x 5.5m (LxW)
Water Crossing: Mud Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	✓

General Description

Keldon Bridge is located on Sideroad 27-28, 0.3 km south of Highway 89 in the community of Keldon. It was engineered by Christie & Beattie and constructed in 1929. Keldon Bridge represents the only remaining concrete bowstring arch bridge in the Town of Grand Valley. This bridge is paired with the very similar Jonston Bridge in the neighbouring Township of Amaranth, which was also engineered by Christie & Beattie, designed in the same style and constructed in the same year.

The bowstring design was popular in the early 1900s as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic. Many of these structures were built in the Grand River watershed, however they are quickly disappearing due to demolition and replacement with wider, more load-bearing structures.

While of a basic type, there is considerable variety among bowstring truss structures. The concrete trusses on the Keldon Bridge are shallow and thick. Solid railing walls merge into the arch and display decorative embossed squares and a slightly protruding capped end post. Due to damage, only the southwest end post remains. The railings located in the centre of the arch are open balustrades that span between each stringer. The thin board finish is still visible in the concrete.

Keldon Bridge is clearly visible to motorists on Highway 89 as it is set amongst a picturesque agricultural landscape. It thus represents a landmark within the community of Keldon.

Sources: *ELGV Bridge Inspections Summary, 2011*
Ministry of Culture Bridge Inspection Report, 1985
Discovering Heritage Bridges on Ontario Roads, David Cuming, 1983



ELGV Bridge #7



General Information	Physical Details
Bridge No. GV2	Type: Rigid Frame
Ownership: Town of Grand Valley	Span: Single
Construction Date: c.1920	Dimensions: 15.2m x 4.9m (LxW)
Water Crossing: Black Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

ELGV Bridge #7 is located on Sideroad 24-25, 0.2 km south of Concession Road 8-9. It was constructed circa 1920 and is the only bridge of its kind remaining in the Town of Grand Valley, however it is similar to structures found in the Townships of Amaranth and Wellington North.

This bridge displays an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings, which are comparatively taller and thicker than other similar structures. The thin board finish is still visible in the concrete.

Source: ELGV Bridge Inspections Summary, 2011



ELGV Bridge #10



General Information	Physical Details
Bridge No. GV3	Type: Rigid Frame
Ownership: Town of Grand Valley	Span: Single
Construction Date: c.1930	Dimensions: 9.8m x 4.9m (LxW)
Water Crossing: East Luther Grand Tributary 1	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

ELGV Bridge #10 is located on Sideroad 27-28, 1 km south of Concession Road 12-13. It was constructed circa 1930 and is one of the earlier rigid frame bridges remaining in the Town of Grand Valley. It is representative of the bridge type built in this era throughout the watershed. However, ELGV Bridge #10 is more decorative than other rigid frames, depicting art deco inspired concrete balustrades embossed with varying line lengths.

Source: ELGV Bridge Inspections Summary, 2011



Concession 6 Abutments



General Information	Physical Details
Bridge No. GV4	Type: Abutments
Ownership: Town of Grand Valley	Span: Single
Construction Date: c.1910s	Dimensions: Unknown
Water Crossing: Grand River	Materials: Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

The Concession 6 Abutments are located just south of County Road 25 and align with Concession 6 in the Town of Grand Valley. They are located perpendicular to Grand River Structure No. 2, which now carries County Road 25 across the Grand River. The abutments are estimated to have been constructed circa 1910 and appear to have originally carried Concession 6, which has now been realigned around County Road 25 and the newer Grand River Structure No. 2.

The large concrete abutments would have carried the previous structure high above the floodplain. Given the shape of the abutments, they likely supported a steel truss bridge.



Jonston Bridge

(Amaranth Structure No. 12)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. A1	Type: Concrete Bowstring Arch
Ownership: Township of Amaranth	Span: Single
Construction Date: c.1929	Dimensions: 5.5m Width
Water Crossing: Willow Brook	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	✓
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

Jonston Bridge is located on 6th Line, 0.2 km south of 15th Sideroad. It was constructed circa 1929 and represents one of only two remaining concrete bowstring arch bridges in the Township of Amaranth, along with Sproules Bridge. It was engineered by Christie & Beattie. Jonston Bridge is paired with the very similar Keldon Bridge in the neighbouring Town of Grand Valley, which was also engineered by Christie & Beattie, designed in the same style and constructed in the same year.

The bowstring design was popular in the early 1900s as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic. Many of these structures were built in the Grand River watershed, however they are quickly disappearing due to demolition and replacement with wider, more load-bearing structures.

While of a basic type, there is considerable variety among bowstring truss structures. The concrete trusses on Jonston Bridge are shallow and thick. Solid railing walls merge into the arch and display decorative embossed squares and a slightly protruding capped end post. The railings located in the centre of the arch are open balustrades that span between each stringer. The thin board finish is still visible in the concrete.

Sources: *Township of Amaranth 2008 Structure Inventory*
Grand River Watershed - Bridge in MCzCR Inventory
Discovering Heritage Bridges on Ontario Roads, David Cuming, 1983
MCL List of Heritage Bridges, March 22, 1994



Sroules Bridge

(Amaranth Structure No. 13)



Photograph by Melissa Davies, 2012

General Information	Physical Details
Bridge No. A2	Type: Concrete Bowstring Arch
Ownership: Township of Amaranth	Span: Single
Construction Date: 1912	Dimensions: 3.9m Width
Water Crossing: Willow Brook	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Sproules Bridge is located on 6th Line, 0.4 km north of 15th Sideroad. It was constructed in 1912 and represents the oldest concrete bowstring arch bridge remaining in the Grand River watershed. It is also one of only two remaining concrete bowstring arch bridges in the Township, along with Jonston Bridge.

The bowstring design was popular in the early 1900s as it required minimal material, was simple to install, represented newer construction materials and could easily accommodate vehicular traffic. Many of these structures were built in the Grand River watershed, however they are quickly disappearing due to demolition and replacement with wider, more load-bearing structures.

While of a basic type, there is considerable variety among bowstring truss structures. Sproules Bridge has relatively small arches and its concrete trusses and railings are uniquely thin. Concrete railings flank each arch of the bridge and end with a decoratively topped post. The thin board finish is still visible in the concrete and a plaque appears to be missing from the bridge.

Sources: *Township of Amaranth 2008 Structure Inventory*
Grand River Watershed - Bridge in MCzCR Inventory
Discovering Heritage Bridges on Ontario Roads, David Cuming, 1983



Amaranth Structure No. 2



General Information	Physical Details
Bridge No. A3	Type: Solid Slab
Ownership: Township of Amaranth	Span: Single
Construction Date: c.1920	Dimensions: 4m Width
Water Crossing: Mud Creek	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Amaranth Structure No. 2 is located on 7th Line, 1.5 km north of Wellington Road 109. It was constructed circa 1920 and belongs to a group of five remaining reinforced concrete solid slab bridges built in the Township of Amaranth during the same time period. This group includes Amaranth Structure No. 10, 11, 15 and 17. Like this bridge, they each display an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. This bridge is less decorative and has a slightly shorter span than the other bridges in its group. The thin board finish is still visible in the concrete. Amaranth Structure No. 2 is set quite low to the watercourse and does not have wing walls.

Source: *Township of Amaranth 2008 Structure Inventory*



Amaranth Structure No. 10



General Information	Physical Details
Bridge No. A4	Type: Solid Slab
Ownership: Township of Amaranth	Span: Single
Construction Date: c.1920	Dimensions: 4.9m Width
Water Crossing: Willow Brook	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Amaranth Structure No. 10 is located on 7th Line, 1.5 km south of 15th Sideroad. It was constructed circa 1920 and belongs to a group of five remaining reinforced concrete solid slab bridges built in the Township of Amaranth during the same time period. This group includes Amaranth Structure No. 2, 11, 15 and 17. Like this bridge, they each display an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. This bridge exhibits the finest decorative detailing and is the best preserved of the group. The thin board finish is still visible in the concrete. Amaranth Structure No. 10 is set quite high above Willow Brook on large abutments.

Source: *Township of Amaranth 2008 Structure Inventory*



Amaranth Structure No. 11



General Information	Physical Details
Bridge No. A5	Type: Solid Slab
Ownership: Township of Amaranth	Span: Single
Construction Date: c.1920	Dimensions: 4.6m Width
Water Crossing: Willow Brook	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

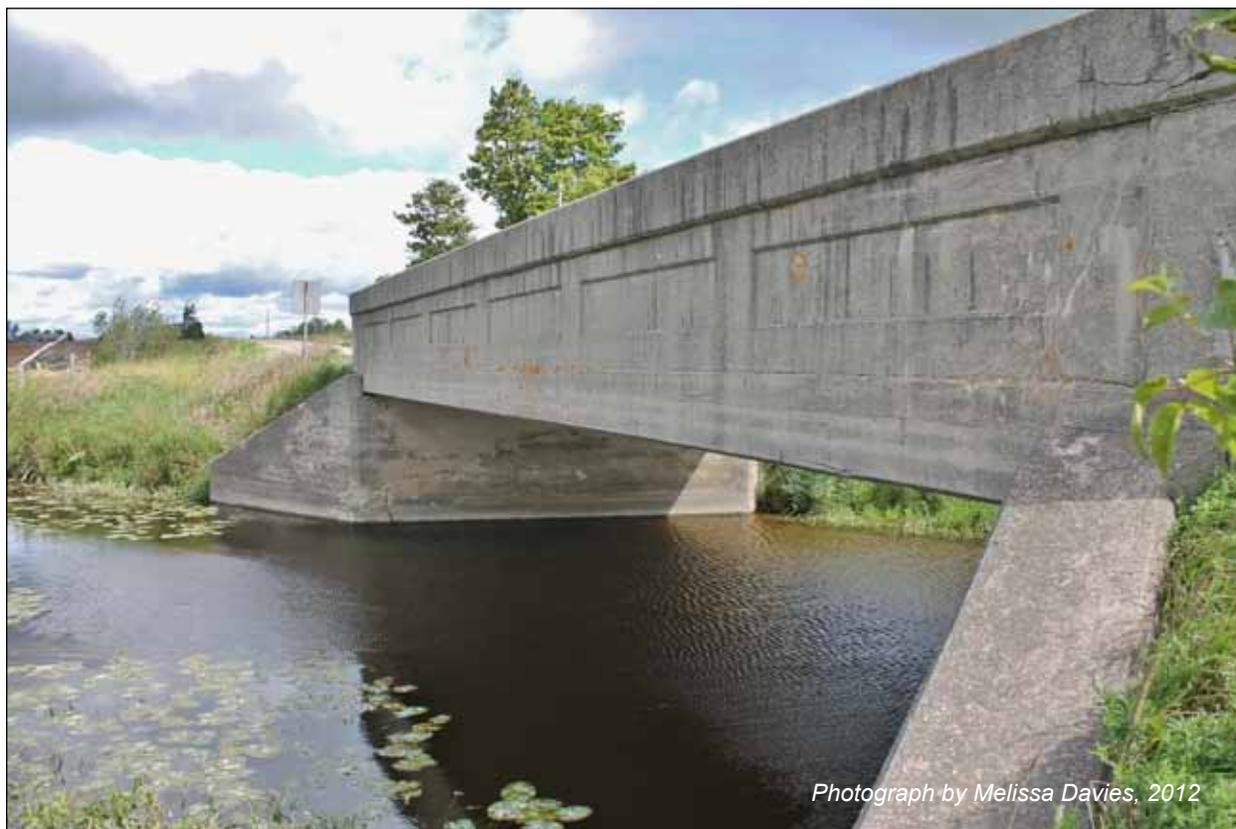
General Description

Amaranth Structure No. 11 is located on 15th Sideroad, 0.5 km west of 6th Line. It was constructed circa 1920 and belongs to a group of five remaining reinforced concrete solid slab bridges built in the Township of Amaranth during the same time period. This group includes Amaranth Structure No. 2, 10, 15 and 17. Like this bridge, they each display an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. Amaranth Structure No. 11 is set quite high above Willow Brook on large abutments. The thin board finish is still visible in the concrete.

Source: *Township of Amaranth 2008 Structure Inventory*



Amaranth Structure No. 15



General Information	Physical Details
Bridge No. A6	Type: Solid Slab
Ownership: Township of Amaranth	Span: Single
Construction Date: c.1920	Dimensions: 4.9m Width
Water Crossing: Willow Brook	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Amaranth Structure No. 15 is located on 7th Line, 0.9 km south of 20th Sideroad. It was constructed circa 1920 and belongs to a group of five remaining reinforced concrete solid slab bridges built in the Township of Amaranth during the same time period. This group includes Amaranth Structure No. 2, 10, 11 and 17. Like this bridge, they each display an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. Amaranth Structure No. 15 is skewed by ten degrees and is set quite high above Willow Brook on large abutments. The thin board finish is still visible in the concrete.

Source: *Township of Amaranth 2008 Structure Inventory*



Amaranth Structure No. 17



General Information	Physical Details
Bridge No. A7	Type: Solid Slab
Ownership: Township of Amaranth	Span: Single
Construction Date: c.1920	Dimensions: 5m Width
Water Crossing: Willow Brook	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Amaranth Structure No. 17 is located on 20th Sideroad, 0.2 km east of 7th Line. It was constructed circa 1920 and belongs to a group of five remaining reinforced concrete solid slab bridges built in the Township of Amaranth during the same time period. This group includes Amaranth Structure No. 2, 10, 11 and 15. Like this bridge, they each display an early experimentation with concrete, which has resulted in decoratively embossed solid concrete railings. Amaranth Structure No. 17 is skewed by five degrees and its concrete railings are slightly shorter than the other bridges in its group. The thin board finish is still visible in the bridge's concrete.

Source: *Township of Amaranth 2008 Structure Inventory*



Dufferin Bridge No. 10

(Southgate Bridge No. S1)



General Information	Physical Details
Bridge No. MC1	Type: Through Truss
Ownership: County of Dufferin Township of Southgate	Span: Single
Construction Date: 1920	Dimensions: 25.6m x 6m (LxW)
Water Crossing: Grand River	Materials: Steel, Timber, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	✓
III. Is a landmark	

General Description

Dufferin Bridge No. 10 is located on Melancthon-Proton Townline, 1.04 km north of Highway 89 on the border of the Township of Melancthon in Dufferin County and the Township of Southgate in Grey County. It was constructed in 1920 and is the only remaining steel truss bridge in the Township of Melancthon.

Dufferin Bridge No. 10 is a truss frame structure with a timber deck and curb. It is supported by seven longitudinal and four transverse riveted steel I-beams. Remnant abutments from a previous structure remained on either side of the current bridge and they were incorporated into the newer abutments, although they bear no weight.

Melancthon-Proton Townline dramatically skews around the Grand River to the northwest to allow the bridge the shortest span possible. This was done in an effort to reduce construction costs, as it was more affordable to build a straight bridge, rather than a skewed bridge.

East Garafraxa Bridge 8 remains largely unaltered, undergoing railing improvements in 1994 and restoration work in 1997. This bridge is considered a rare survivor due to the increasing occurrence of steel truss bridges being demolished but not replaced in the watershed and province-wide.

Sources: *Dufferin County Grand River Bridge List*
County of Dufferin OSIM Report
Southgate Bridge Inspections, 2010
2010 Southgate Municipal Bridge Appraisal



G. Anderson Bridge

(Melancthon Bridge #11)



General Information	Physical Details
Bridge No. MC2	Type: Rigid Frame
Ownership: Township of Melancthon	Span: Single
Construction Date: c.1960	Dimensions: 22m x 8.5m (LxW)
Water Crossing: Grand River	Materials: Reinforced Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	✓

General Description

G. Anderson Bridge is located on 8th Line SW, 3.4 km north of Highway 89. It was constructed circa 1960 and is representative of the concrete rigid frame bridges built in the 1960s and found in the Township of Melancthon and throughout the watershed. This bridge is unique due to its prominent and picturesque siting over the Grand River at the intersection of 8th Line SW and Side Road 270. It represents a landmark in the agricultural landscape.

G. Anderson Bridge is skewed by 35 degrees, has simple concrete railings and displays a pleasing elliptical arch.

Source: *Township of Melancthon Municipal Structure Appraisals, 2010*



Abandoned Railway Bridge



General Information	Physical Details
Bridge No. MC3	Type: Half Through Beams
Ownership: Township of Melancthon	Span: Single
Construction Date: c.1874	Dimensions: Unknown
Water Crossing: Grand River	Materials: Steel, Timber, Concrete



Evaluation Form	Check
Design/Physical Value	
I. Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓
II. Displays a high degree of craftsmanship or artistic merit	
III. Demonstrates a high degree of technical or scientific achievement	
Historic/Associative Value	
I. Has direct association with a theme, event, belief, person, activity, organization, or institution that is significant to the community	✓
II. Yields, or has the potential to yield, information that contributes to an understanding of the community or culture	✓
III. Demonstrates or reflects the work or ideas of an architect, artist, engineer, builder, designer or theorist who is significant to a community	
Contextual Value	
I. Is important in defining, maintaining or supporting the character of an area	✓
II. Is physically, functionally, visually or historically linked to its surroundings	
III. Is a landmark	

General Description

The Pedestrian Railway Bridge spans the Grand River perpendicular to 250 Sideroad, 0.38 km west of Highway 10 in the Township of Melancthon. The structure is a single-span steel half through beam bridge with a timber deck and concrete abutments. The Toronto Grey & Bruce Railway likely constructed the first bridge on this site circa 1874, the year the railway was constructed. Due to impressions left in the abutments it appears that a previous structure, likely a truss bridge, has been removed and replaced with the current half through beam bridge. It is also likely that the current structure was brought to this site from another location. The rail line, which was absorbed by the Canadian Pacific Railway in the late nineteenth century, was abandoned circa 1988.

The bridge has been converted from a railway crossing to a pedestrian and snowmobile trail and is sited in a very picturesque agricultural landscape.

Source: Andrae, C. (1997). *Lines of Country: An atlas of railway and waterway history in Canada*



5.0 RESULTS

Results from *Arch, Truss & Beam: The Grand River Watershed Heritage Bridge Inventory* have been analyzed to isolate trends. The following charts and graphs look at specific aspects of the 167 heritage bridges inventoried, such as bridge types, age ranges, ownership categories, demolition figures and designation trends.

Below, Table 1 represents a breakdown of the watershed by municipality indicating total bridges inventoried, total heritage bridges, demolitions and designations. Municipalities with no bridges recorded were only partially located in the watershed and did not contain identified heritage structures. Although the Mississaugas of the New Credit is entirely located in the watershed, no bridges were included in the inventory as information was unavailable.

Table 1. Complete details of bridges identified in the Grand River watershed.

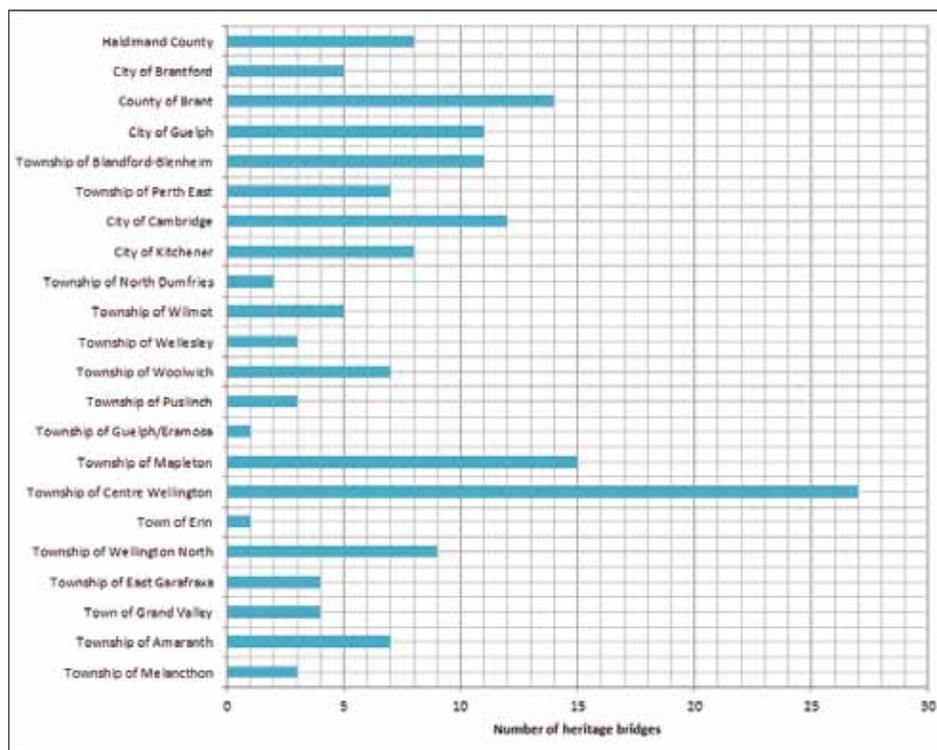
Municipality	Total	Heritage	Demolished	Designated
Single-tier				
Haldimand County	27	8	0	1
Norfolk County	0	0	0	0
Six Nations of the Grand River	19	0	0	0
Mississaugas of the New Credit	0	0	0	0
City of Brantford	9	5	1	0
City of Hamilton	5	0	0	0
County of Brant	80	14	3	2
City of Guelph	30	11	2	5
Upper & Tower-tier				
Oxford County				
Township of Blandford-Blenheim	55	11	1	0
Township of East Zorra-Tavistock	0	0	0	0
Township of Norwich	0	0	0	0
City of Woodstock	0	0	0	0
Perth County				
Township of Perth East	22	7	0	0
Municipality of North Perth	0	0	0	0
Region of Waterloo				
City of Cambridge	26	12	1	2
City of Kitchener	18	8	0	1
City of Waterloo	0	0	0	0
Township of North Dumfries	7	2	0	0
Township of Wilmot	11	5	1	1
Township of Wellesley	26	3	0	0
Township of Woolwich	20	7	1	1
Wellington County				
Township of Puslinch	14	3	1	0
Township of Guelph/Eramosa	34	1	3	0



Township of Mapleton	70	15	5	0
Township of Centre Wellington	91	27	6	0
Town of Erin	6	1	0	0
Township of Wellington North	38	9	4	0
Halton Region				
Town of Milton	4	0	0	0
Town of Halton Hills	0	0	0	0
Dufferin County				
Township of East Garafraxa	7	4	2	0
Town of Grand Valley	23	4	3	0
Township of Amaranth	18	7	3	0
Township of Melancthon	18	3	1	0
Grey County				
Township of Southgate	0	0	0	0
Total	678	167	38	13

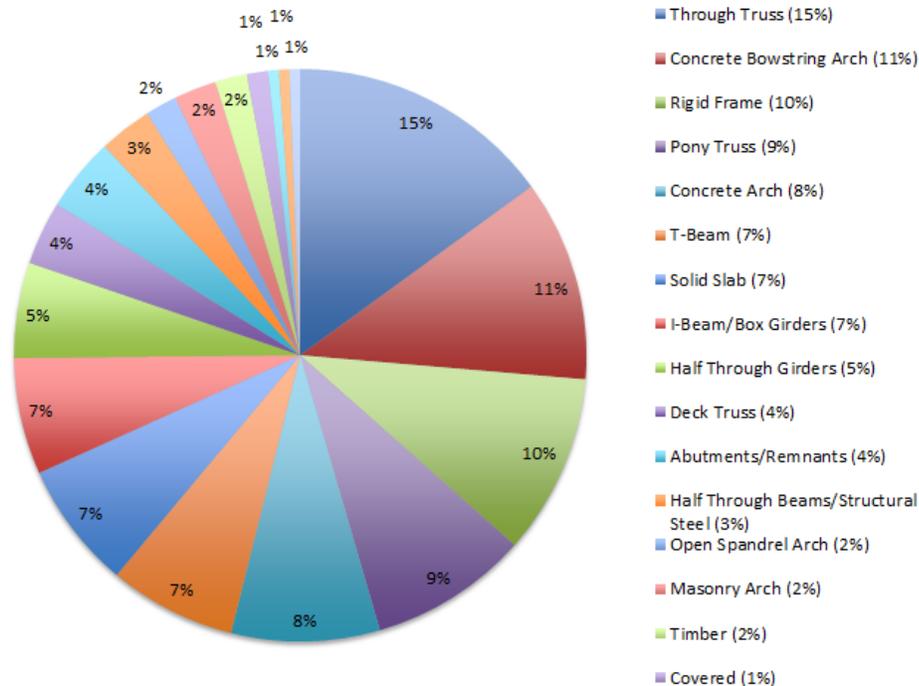
Figure 2 graphically represents the distribution of heritage bridges across the watershed’s municipalities. It is apparent that some municipalities house more heritage bridges than others. This can be due to the size of the municipality, occurrence of rivers and streams, as well as local bridge building techniques. Wellington County, specifically the Townships of Centre Wellington and Mapleton, contain the highest number of heritage bridges (16% and 9%, respectively) in the watershed. The high proportion of concrete bowstring arch and steel truss bridges in the County may explain this finding.

Figure 2. Number of heritage bridges identified in watershed municipalities.



A number of different bridge types were found in the watershed, however some were more commonly identified. Figure 3 breaks down the percentage of each bridge type found in the inventory. Through trusses, concrete bowstring arch, rigid frame, pony truss and concrete arch bridges, respectively, were the most plentiful. The predominance of these structures speaks to the regional historic trends in bridge construction observed in the watershed and more fully discussed in Section 1.3 of this report.

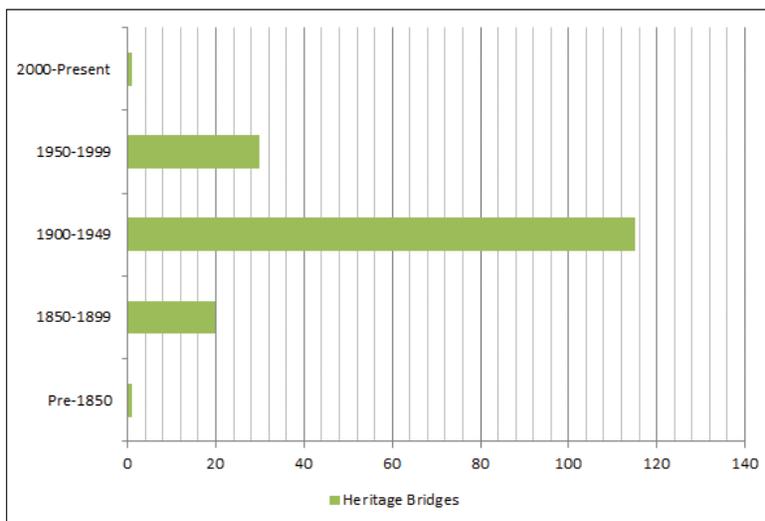
Figure 3. Heritage bridges identified by type.



Periods of construction were analyzed and revealed that a majority of the watershed's heritage bridges (115 or 69%) were constructed between 1900-1949 (Figure 4). The commonly found truss and concrete bowstring arch bridges typically constructed during this period support the finding. Twenty (12%) bridges were constructed during the period from 1850-1899. This small number is accounted for by the loss of very old structures over time. Conversely, the limited number of bridges (19%) constructed from 1950-1999 is due to the newness of the structures and their inability to meet the criteria for inclusion set in the projects scope (sec. 2.1). Most notably, many did not meet the 35-year age cut off.

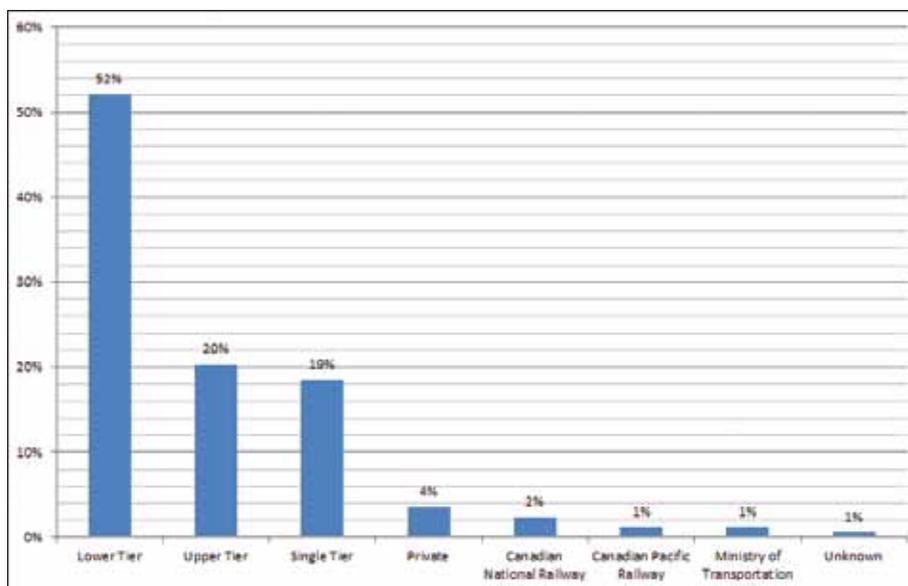


Figure 4. Heritage bridges by age range.



Ownership categories were analyzed in an effort to determine which levels of government, organizations or individuals would be best suited to actively conserve heritage structures in the watershed (Figure 5)¹. The results indicate that lower-tier municipalities own 52% of the bridges with significant cultural heritage value. However, that number combined with the figures for upper-tier (20%) and single-tier (19%), accounts for 91% of bridge ownership. As a result, incentives and support should be provided to assist these regions, counties, cities and townships in maintaining and rehabilitating, designating and celebrating their heritage bridges.

Figure 5. Ownership of heritage bridges by category.



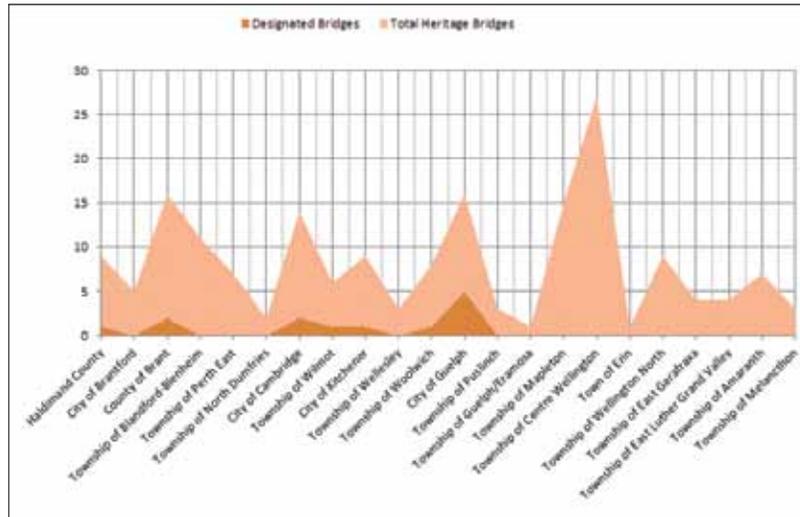
Thirteen bridges in the Grand River watershed have been designated under the *Ontario Heritage Act* (see Appendix D). Figure 6 graphically represents the municipalities in which these designated structures are located.

¹ Single-tier municipalities are represented by one level of governance responsible for providing a municipality with all services. In the case of two levels of governance, a county or region shares responsibilities with their constituent cities, towns, townships or villages and are often referred to as upper and lower-tier municipalities, respectively (MMAH, 2013).



It also draws a comparison between the total number of heritage bridges identified in this inventory by the total number of structures formally designated under the *OHA*. The municipalities with a high number of designations, such as the City of Guelph with five, represent a conservation model other municipalities can learn from, adopting their best practices.

Figure 6. Location of designated heritage bridges by municipality.



Although conservation is the goal of this report, it is also necessary to comment on trends threatening heritage bridge retention. Figure 7, below, indicates the number of heritage bridges demolished to date in each watershed municipality. The most alarming rates of demolition are occurring in Wellington County, home to a number of concrete bowstring arch, truss and concrete arch bridges. Figure 8 indicates that these bridge types are the most threatened. It is also necessary to note, however, that the municipalities with the highest number of bridges naturally have correspondingly high numbers of heritage bridges and demolitions.

Figure 7. Demolished bridge numbers by municipality.

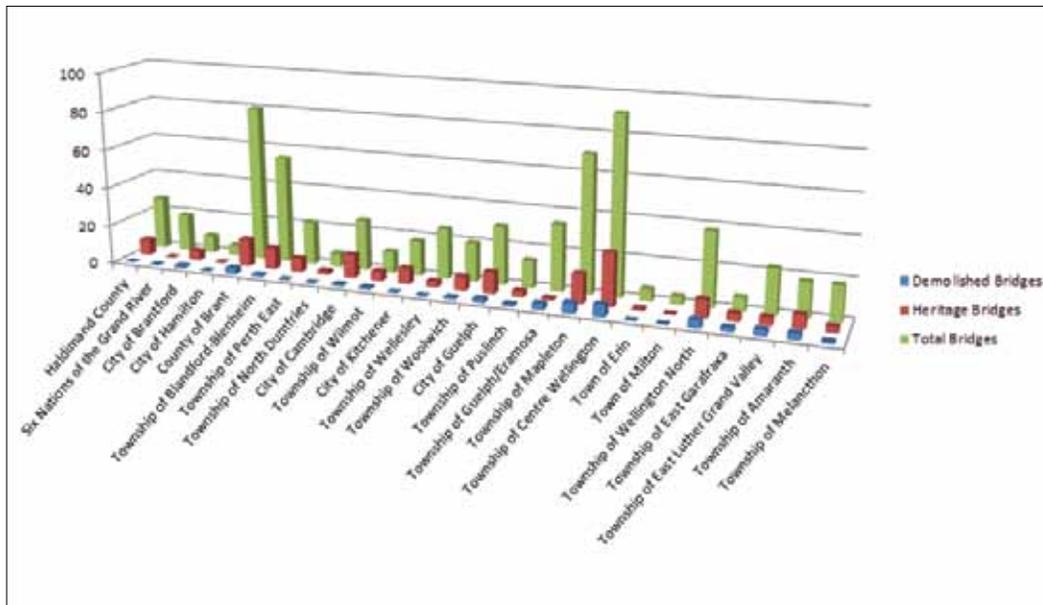
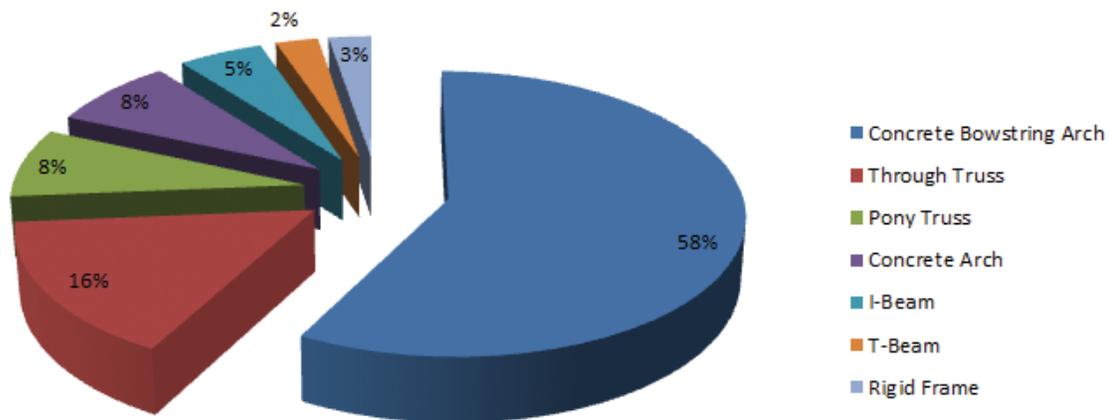


Figure 8. Demolished bridges by type.



6.0 FUTURE OPPORTUNITIES

Arch, Truss & Beam: The Grand River Watershed Heritage Bridge Inventory provides opportunities for heritage conservation and planning. Consistency across the province in this endeavour leads to the identification of similar future opportunities as those discussed in the TRCA's inventory, *Crossing the Humber*. They include:

- listing of all identified heritage bridges on the GRCA's GIS GRIN mapping system for use in cultural planning efforts, community education and heritage tourism
- undertaking further research on the watershed's bridges, building on and growing this inventory as more information becomes available
- review of the inventory that will assist in determining if a Heritage Impact Assessment will be required as part of the Environmental Assessment planning review process for applications that may impact heritage bridges
- conserving bridges through adaptive reuse in an effort to give the structure new life while meeting community needs, such as the creation of pedestrian bridges
- incorporating heritage bridges into municipal official planning documents, such as pedestrian and recreational master plans
- providing a model that is easily adaptable, and could be used to undertake further inventory work in other municipalities in Ontario
- additional municipal inventories could be merged into a province-wide inventory, allowing for the comparative analysis of bridges and trends across Ontario

7.0 NEXT STEPS

Following the completion of this inventory, the next steps include:

1. Distribution of the inventory results to watershed municipalities, stakeholders and interested individuals.
2. Updating the GRCA's GIS GRIN mapping system with the identified heritage bridge locations.
3. Updating the GRCA's Heritage River Inventory in support of the 20-year Heritage River Monitoring Report for the Grand River, due in 2014. Corresponding heritage summaries, evaluation criteria and photographs will be made available to encourage public education and heritage awareness throughout the watershed.



4. Adding the identified heritage bridges to *Building Stories*, an online interactive inventory of historic places in Canada. The site is a widely applicable tool well suited to crowd sourcing information. It is a perfect venue for the public to enter additional details on each structure, thus enriching its significance and usefulness as a planning tool. Inclusion on the site will assist in drawing tourists to the watershed as bridges of interest can be visited individually or as a group by customizing driving tours.
5. Encouraging municipalities to further evaluate bridges with identified heritage significance under their jurisdiction in an effort to pursue official recognition and protection under Section 27 and/or Section 29, Part IV of the *Ontario Heritage Act* (see Appendix H).

Note: It should be noted that designation applications must originate from the municipality in which the bridge is located. Municipal designation would not apply to federal or provincial crown properties or to active railway bridges regulated under the Canada Transportation Act. These bridges should still be listed as cultural heritage properties of interest on their respective municipal heritage registers (TRCA, 2011).

8.0 CONCLUSION

Following a year of detailed investigation, 167 heritage and 38 demolished bridges have been inventoried in the Grand River watershed, culminating in the publication of *Arch, Truss & Beam: The Grand River Watershed Heritage Bridge Inventory*. It will also contribute to the maintenance of the Grand River's Canadian Heritage River status and recognition of the collaborative efforts of each watershed municipality in the promotion, protection and conservation of our limited stock of heritage bridges.

This inventory has taken strides to:

- Recognize bridges of cultural heritage value and significance to watershed communities to the extent possible noting the limitations outlined in Section 2.2
- Identify groups with jurisdiction over most heritage bridges, notably regional and local municipalities
- Foster civic identity and pride by drawing attention to the heritage and development of a community
- Provide easily accessible information about cultural heritage value for land-use planners, architects, consultants, property owners, developers, the tourism industry, educators and interested members of the general public
- Represent a central element of municipal cultural planning that begins with mapping local cultural resources and then leverages these resources for economic development and community building

Comprehensive work of this scale has not been undertaken in the watershed, and will serve to broaden awareness of the area's cultural heritage infrastructure.

It is hoped that the example set in this inventory, along with the ground-breaking work pioneered by the Toronto and Region Conservation Authority, will inspire other watershed communities located along Canadian rivers to recognize, conserve and celebrate their unique cultural heritage resources.



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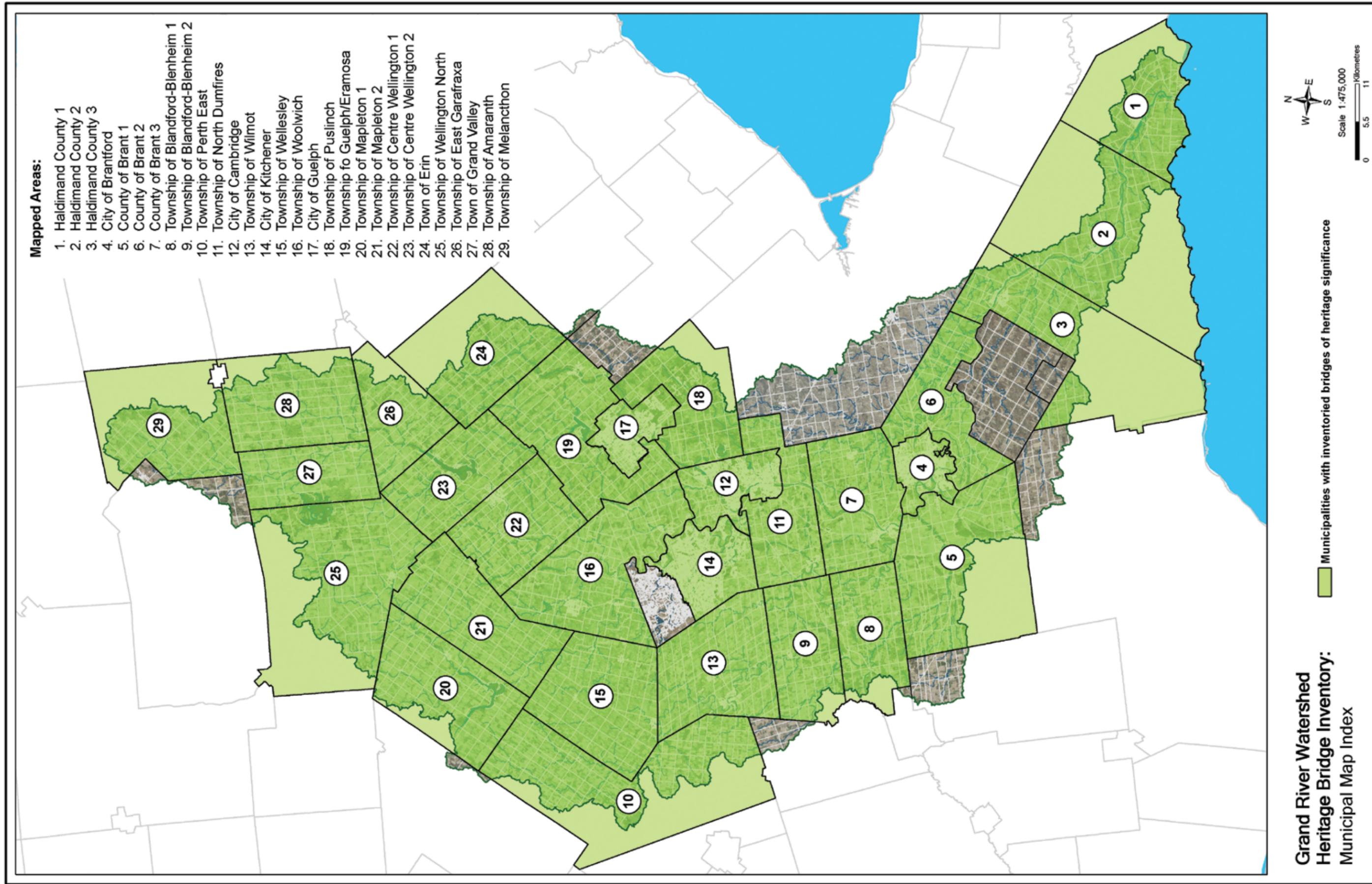
Wellington County Archives. (n.d.) *Charles Mattaini collection.*

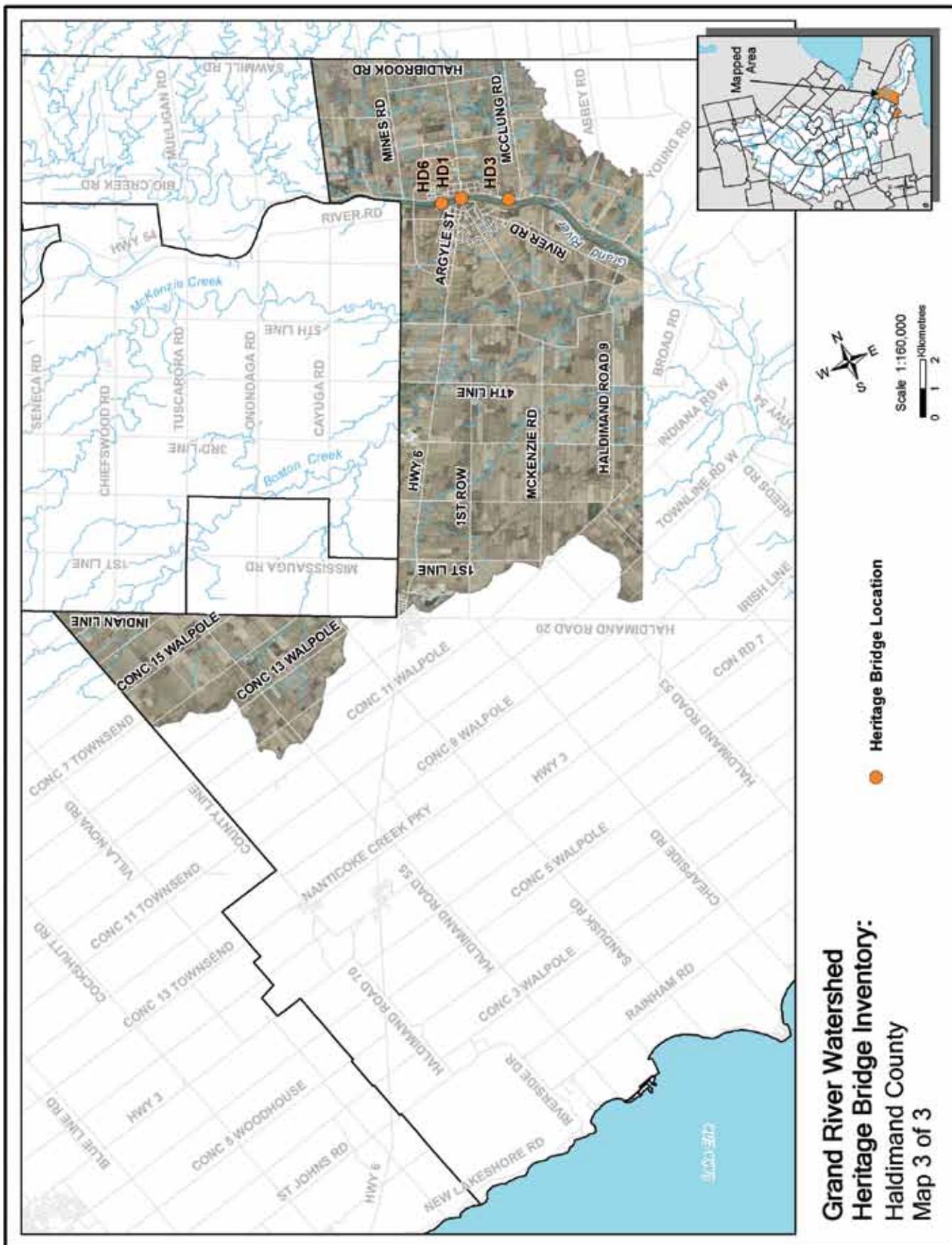


APPENDICES



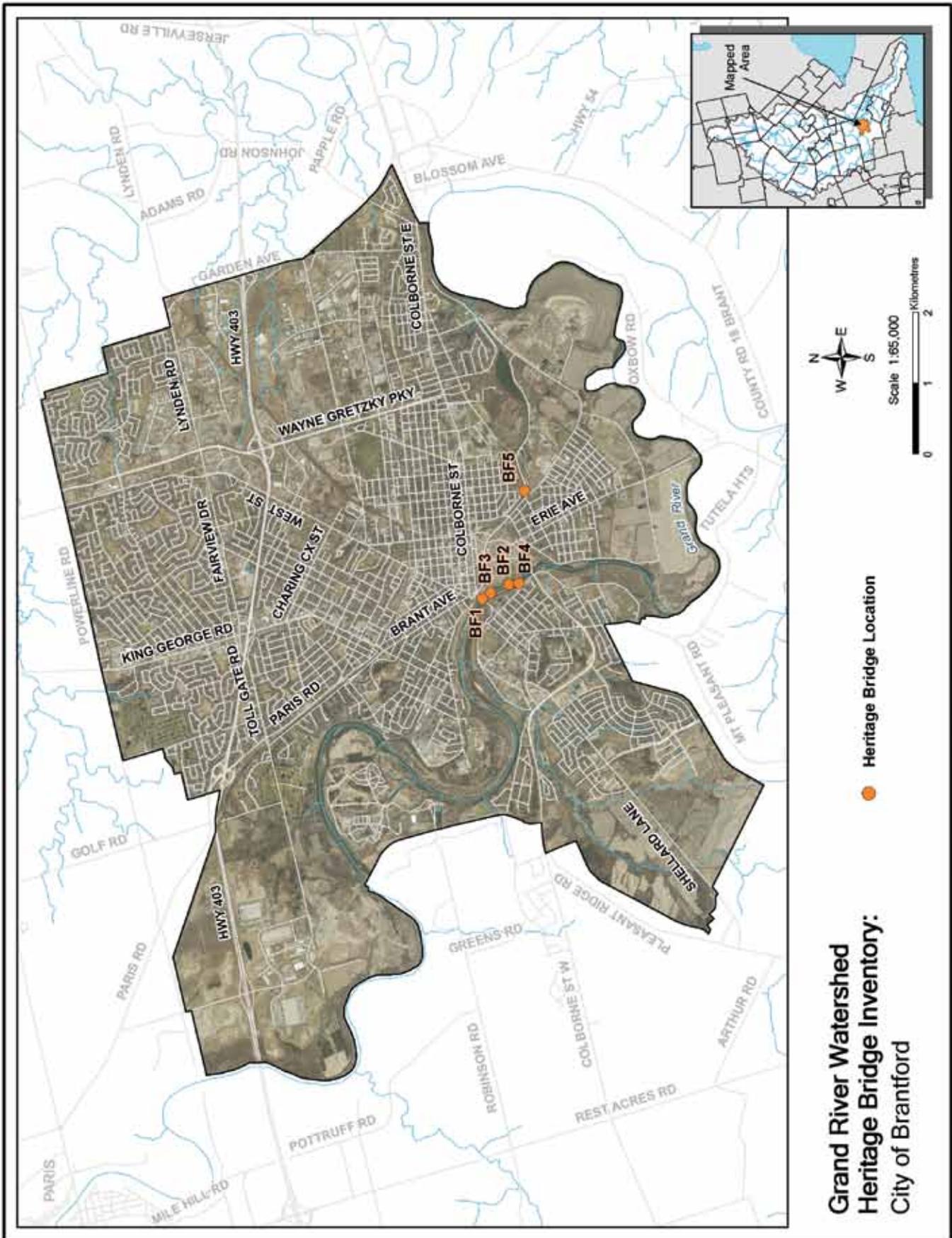
APPENDIX A: Heritage bridge maps by municipality

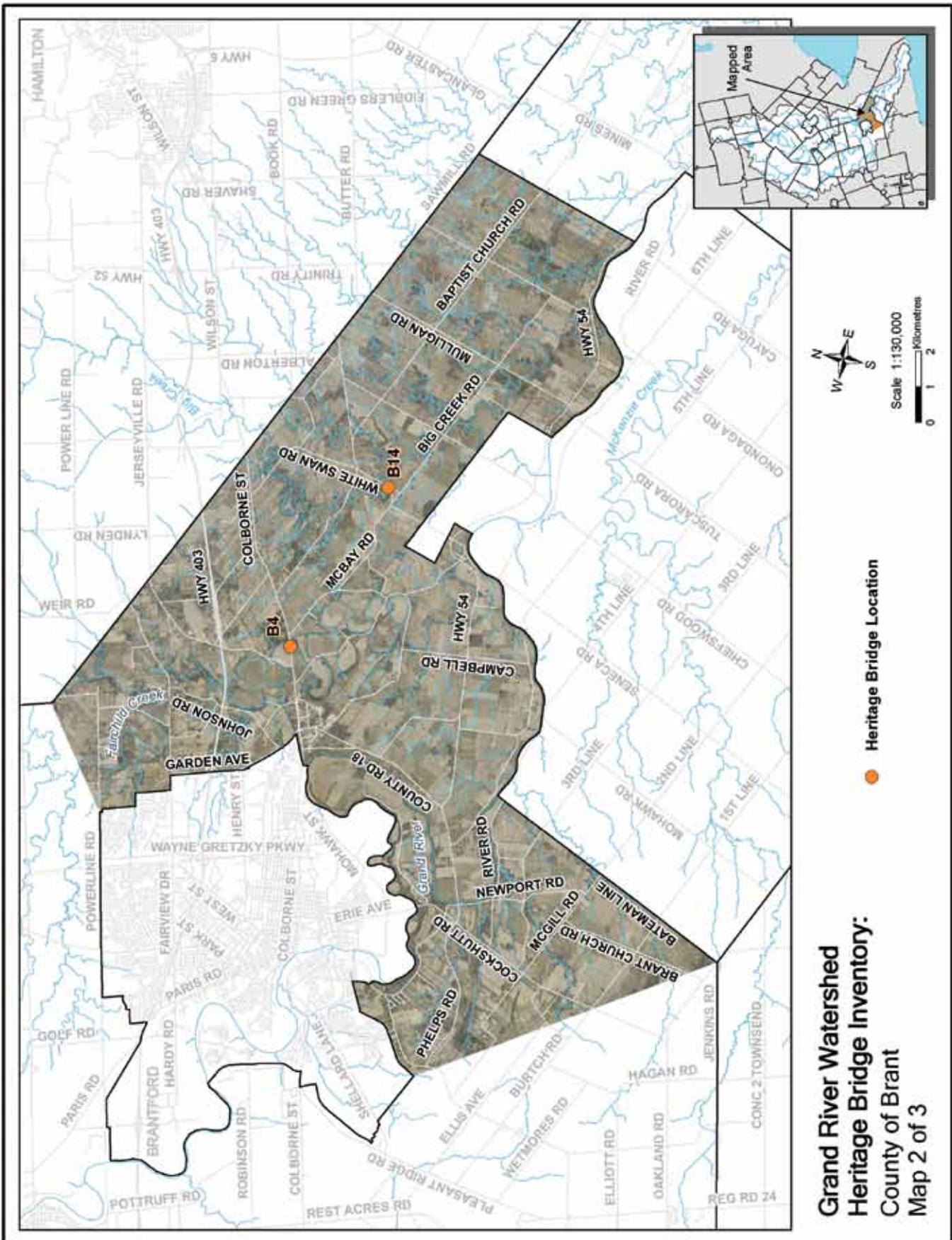




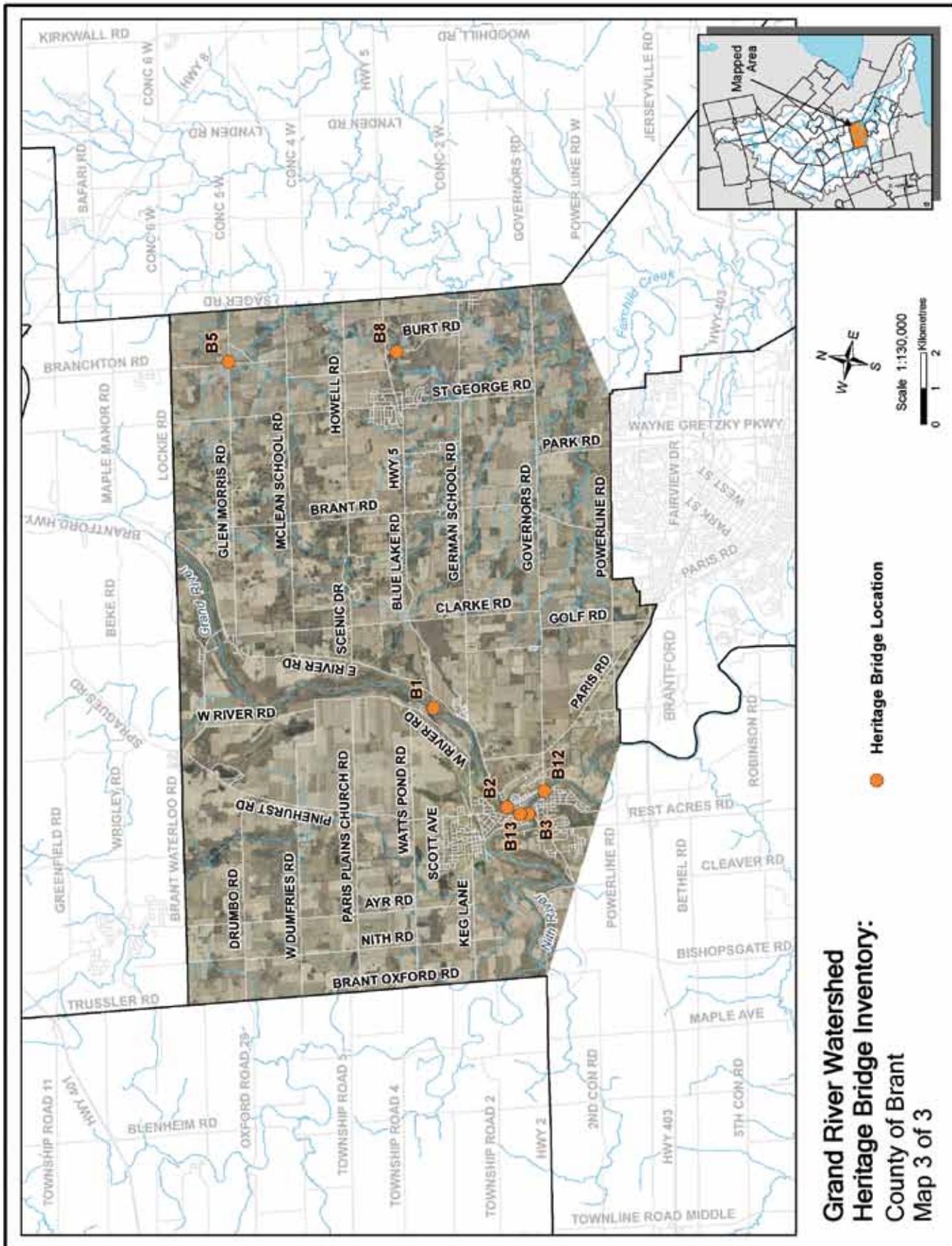
**Grand River Watershed
Heritage Bridge Inventory:
Haldimand County
Map 3 of 3**

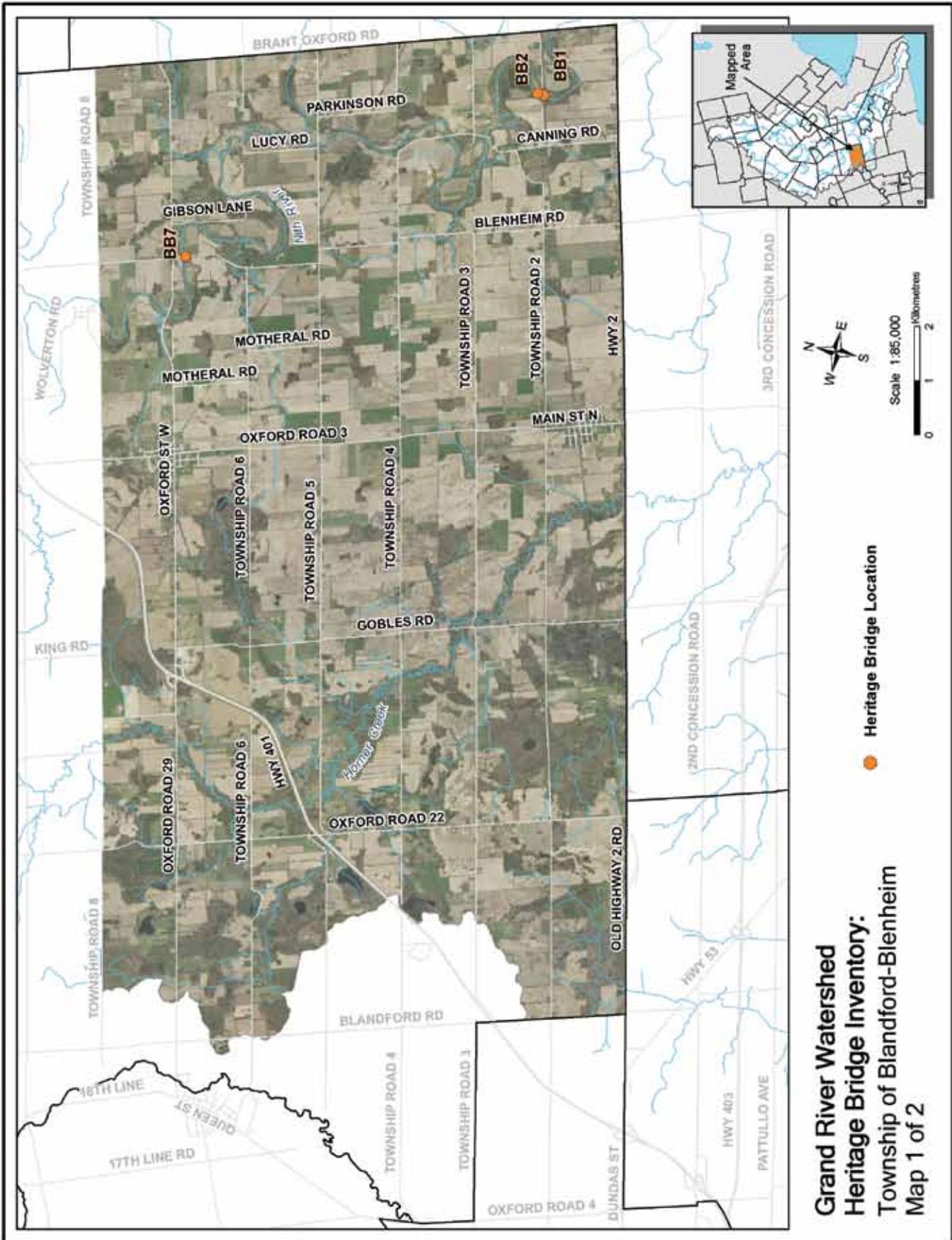


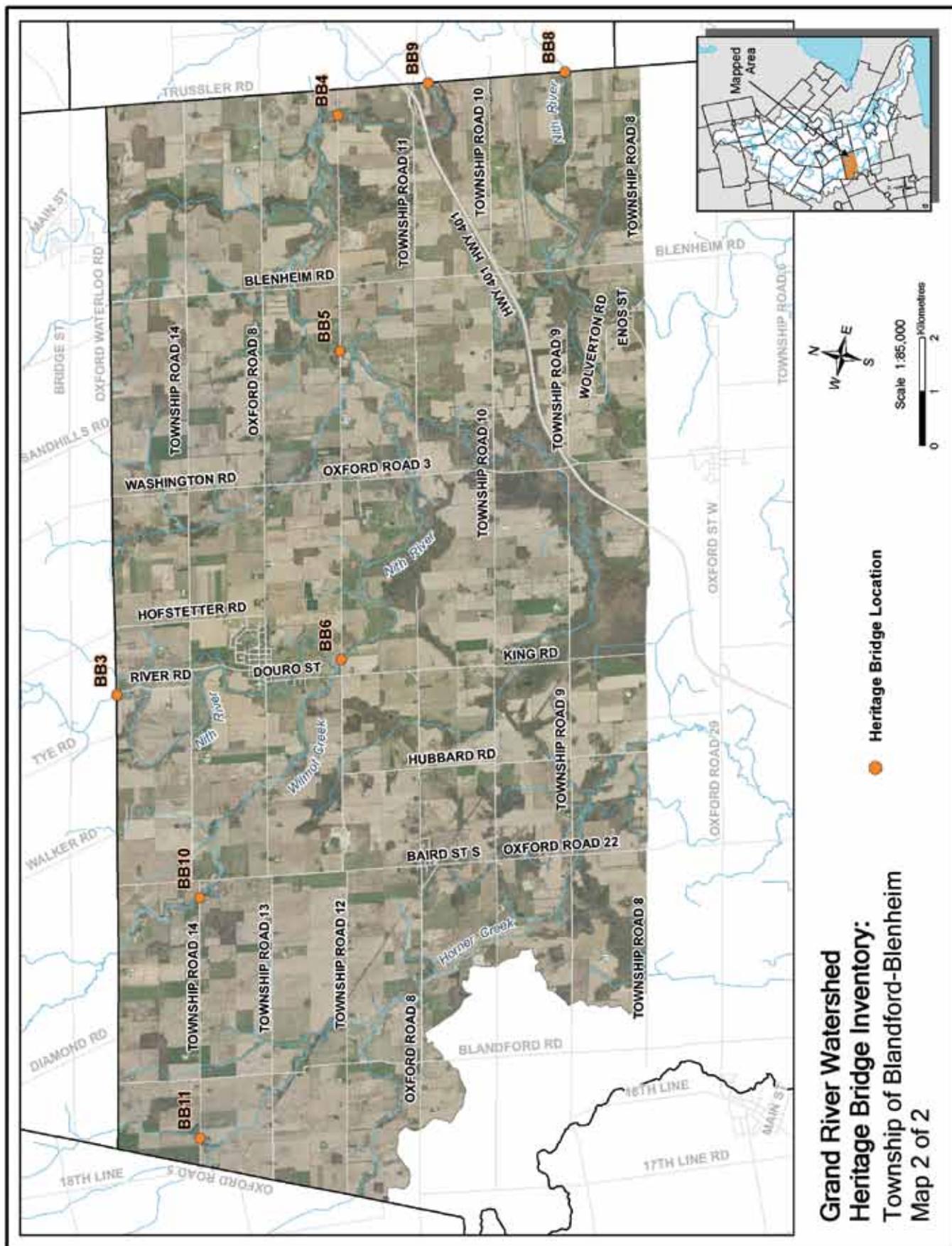


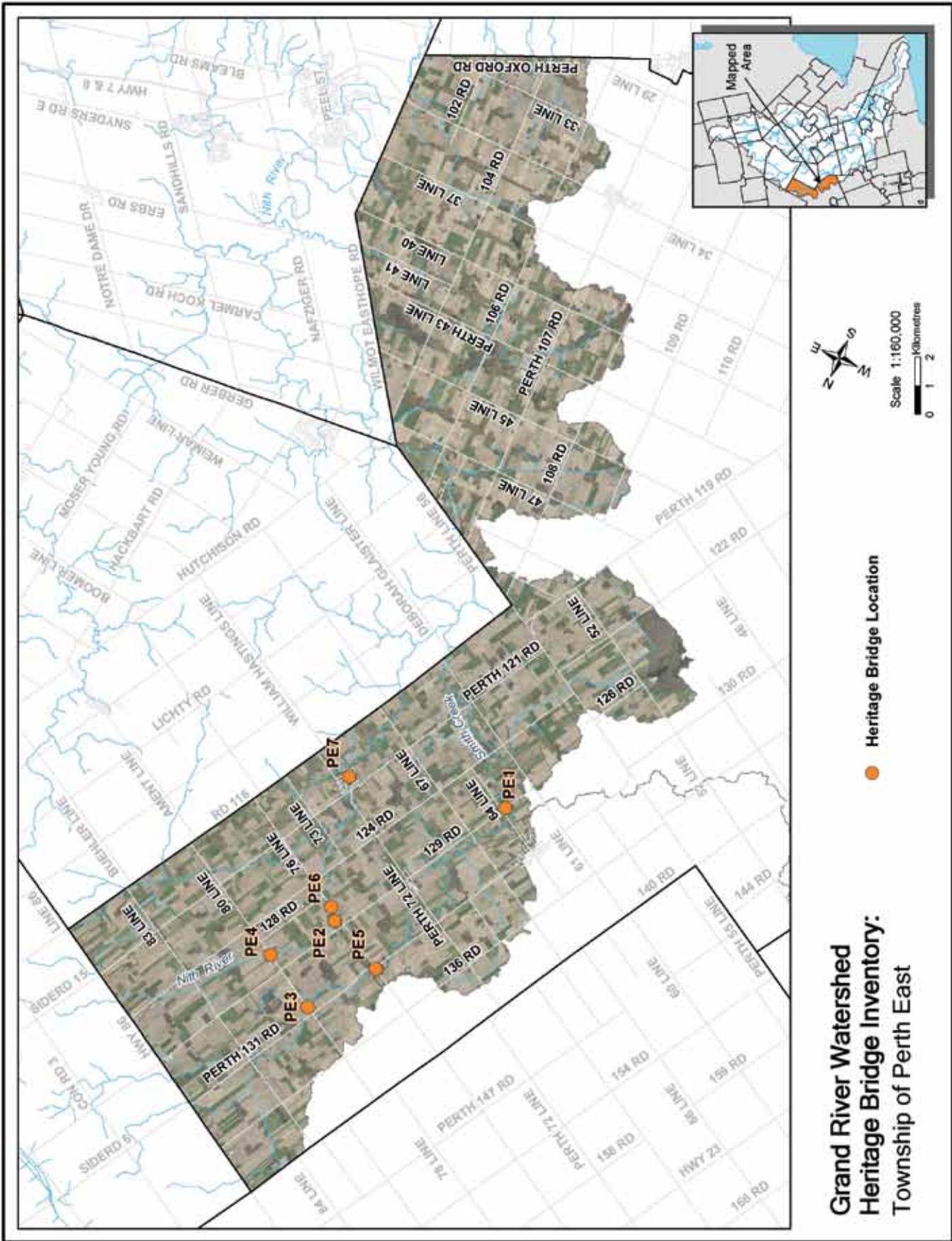


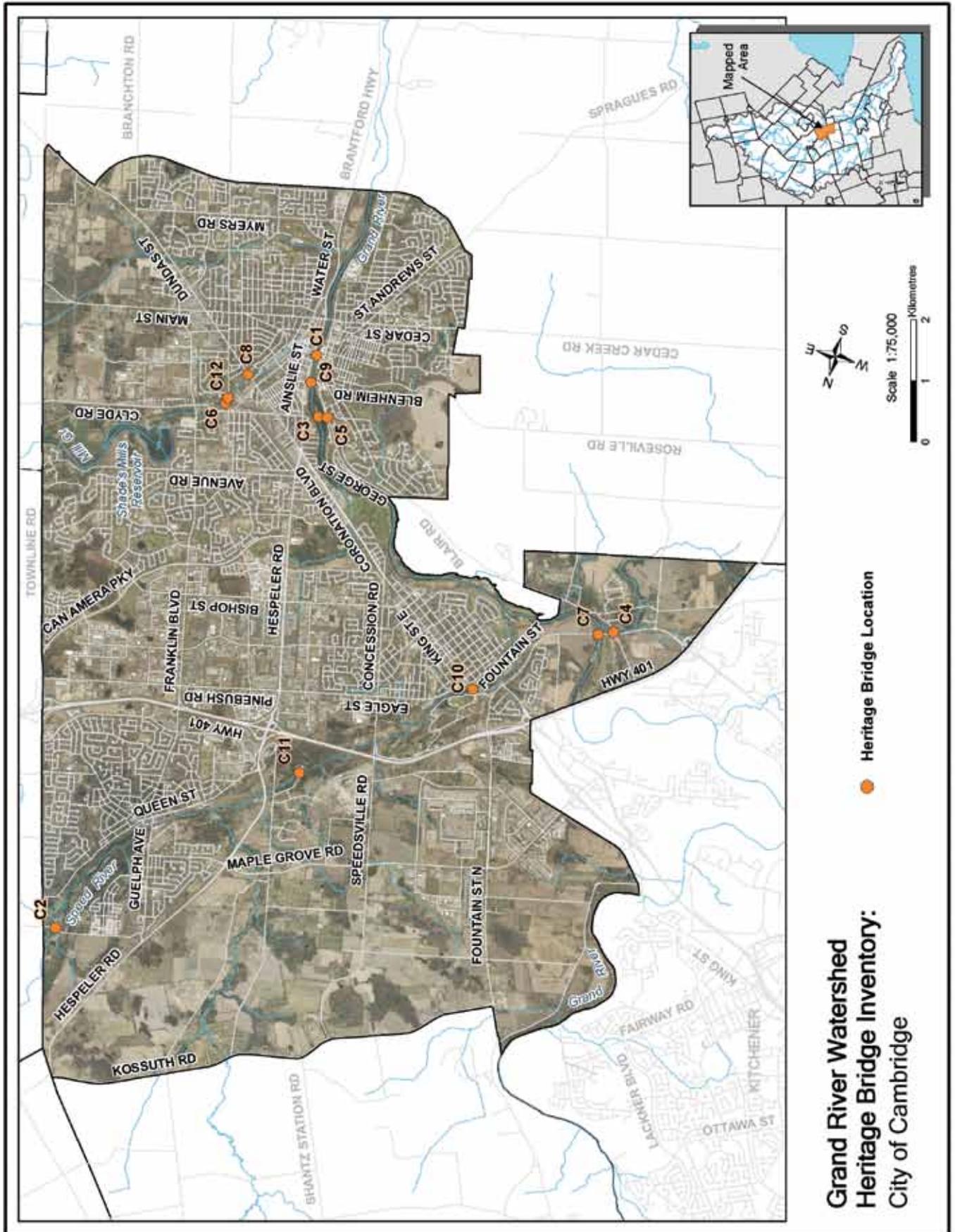
**Grand River Watershed
Heritage Bridge Inventory:
County of Brant
Map 2 of 3**

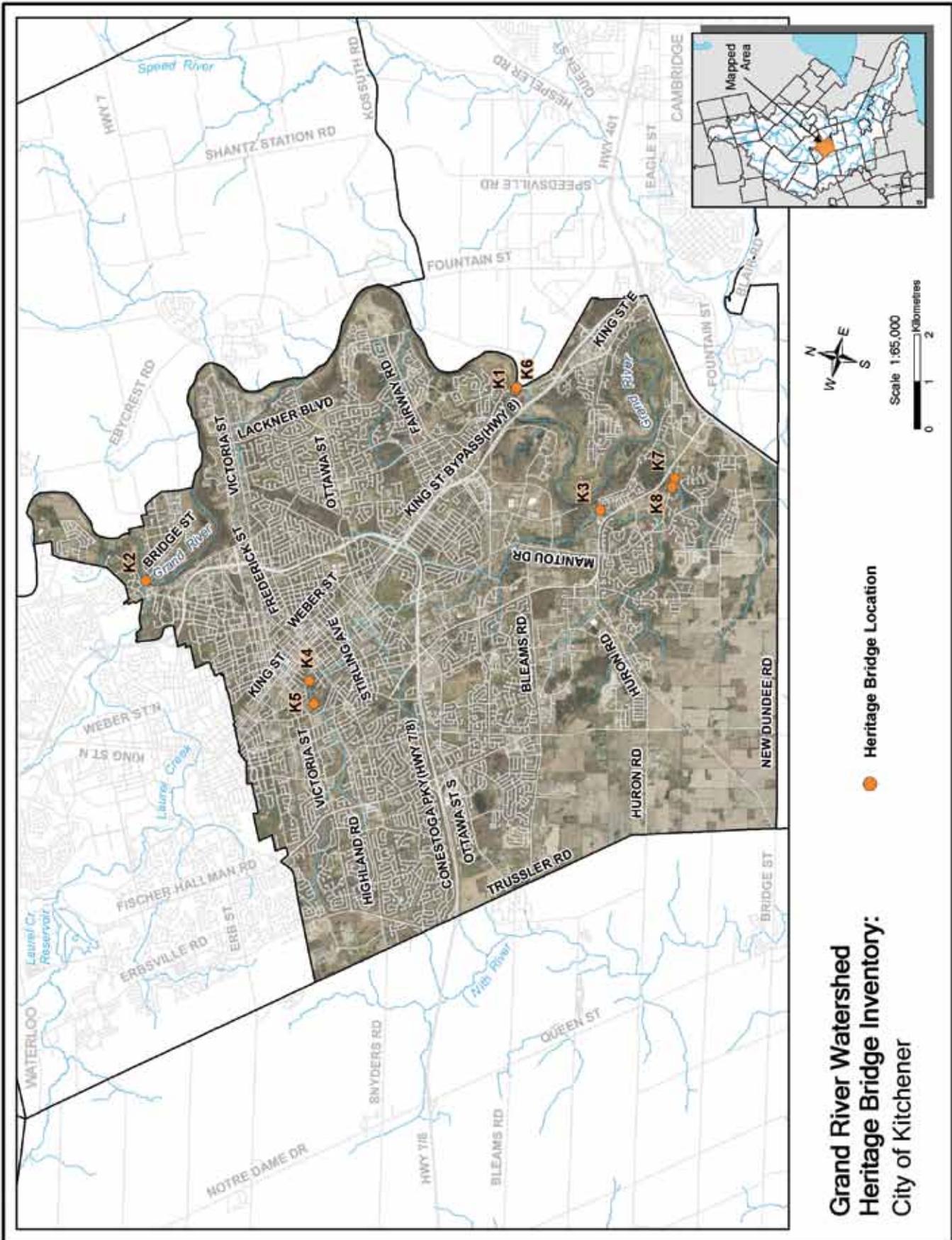


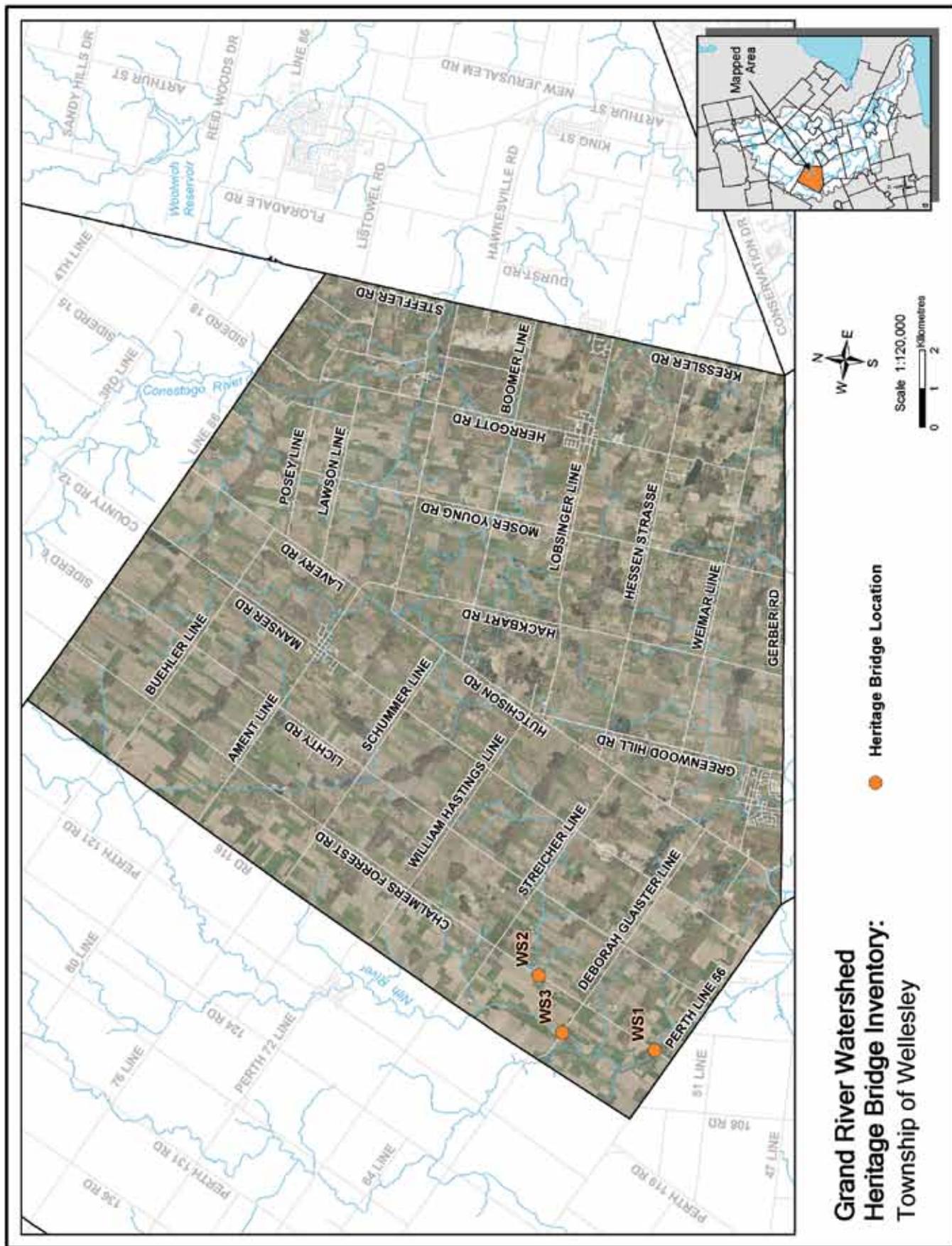


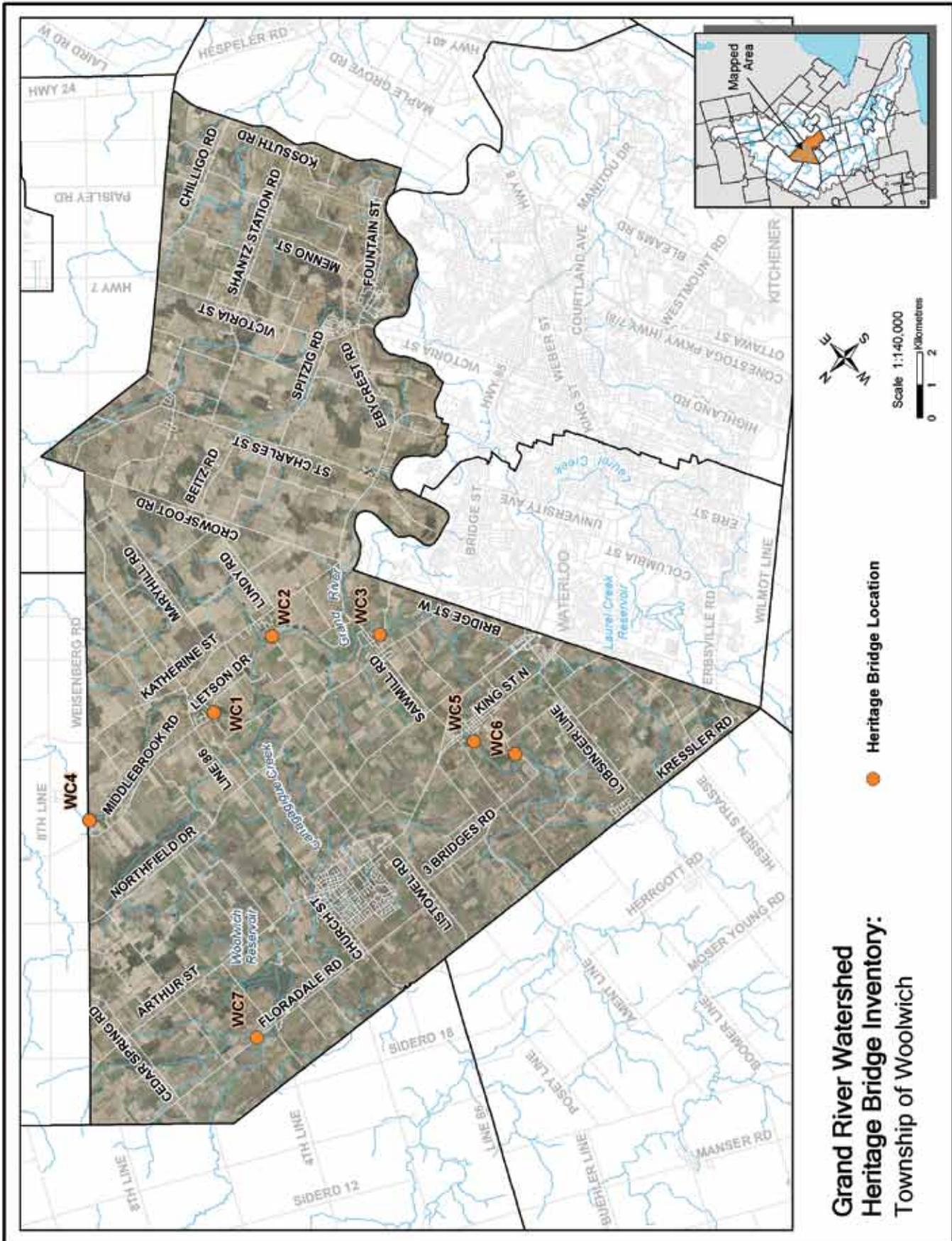


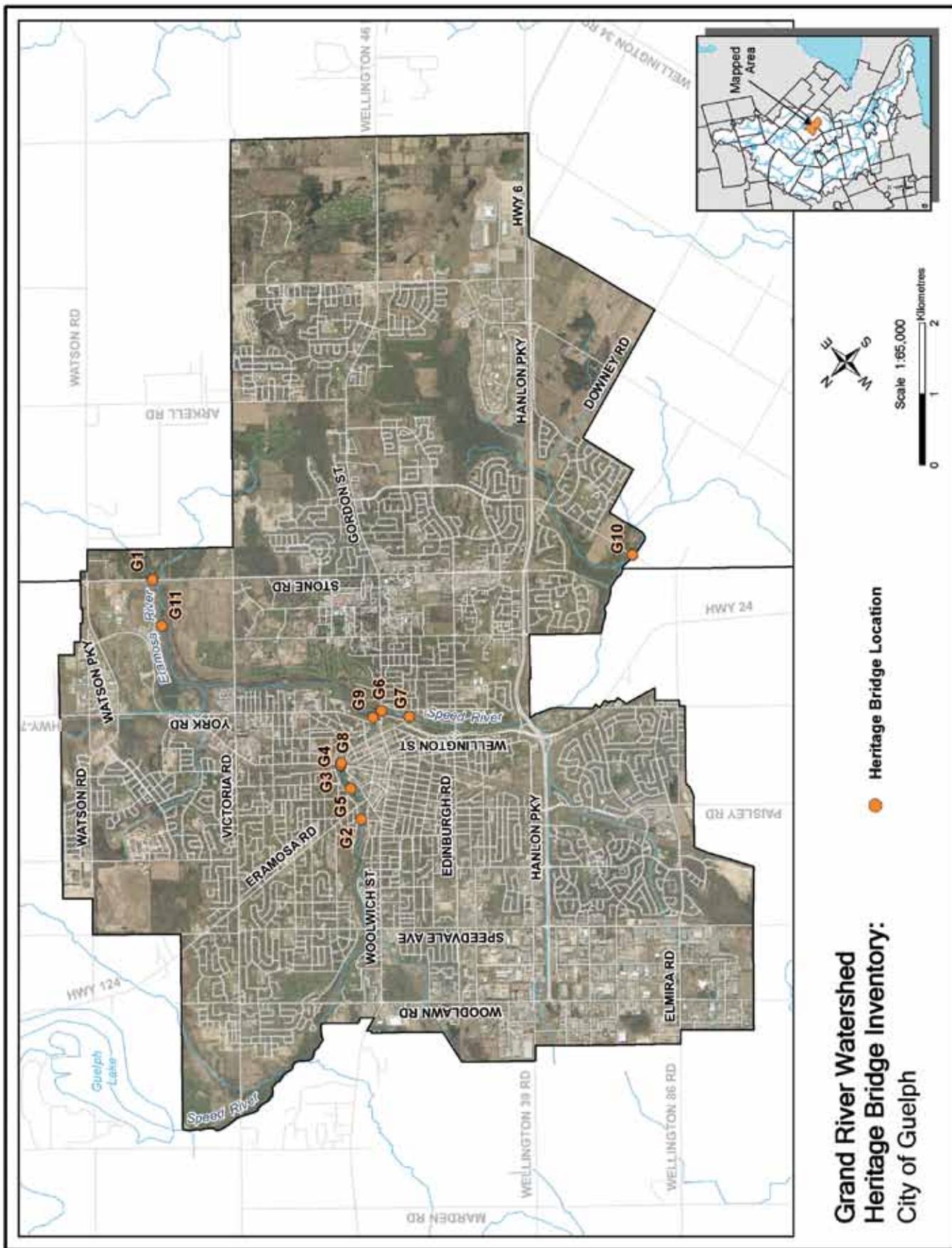


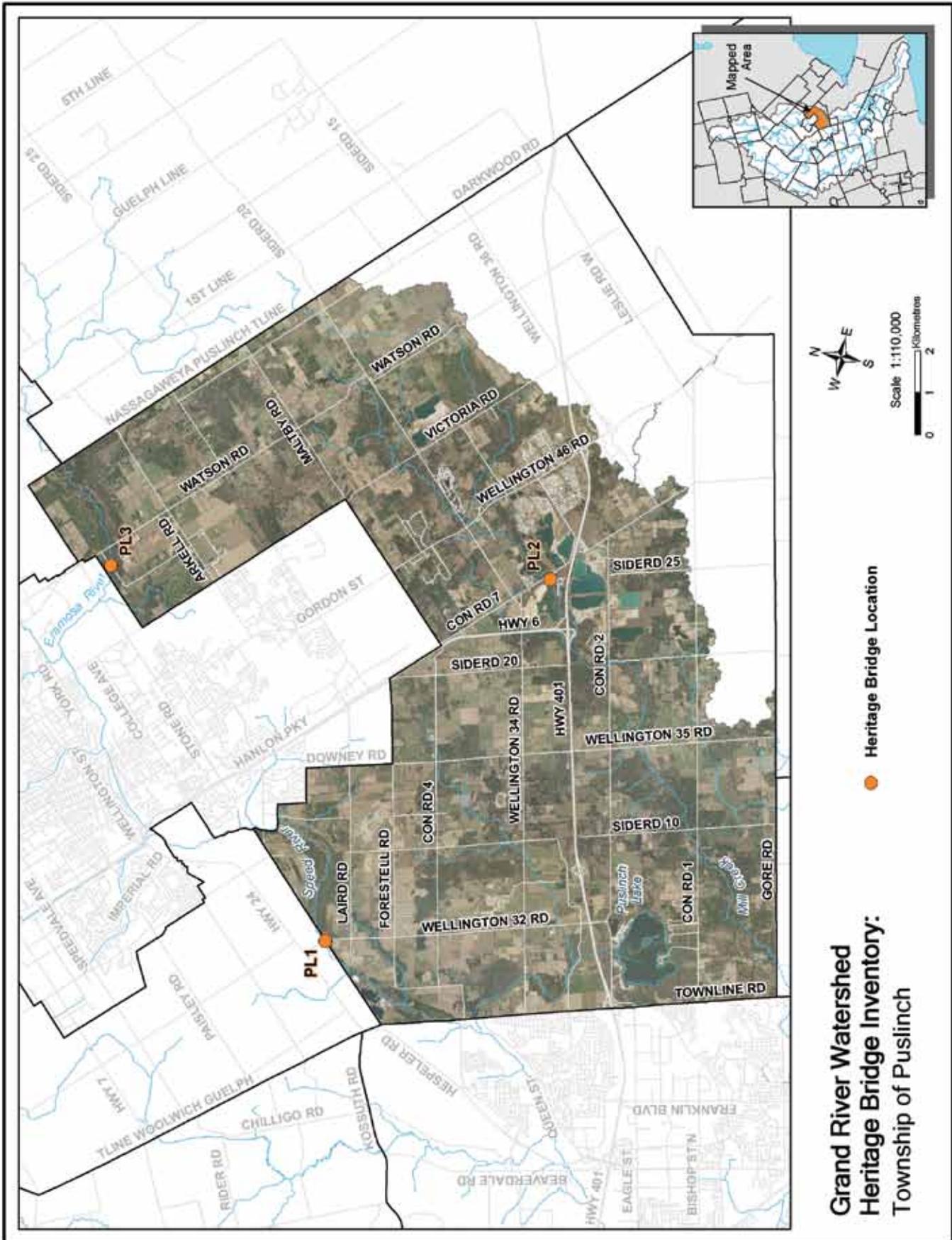


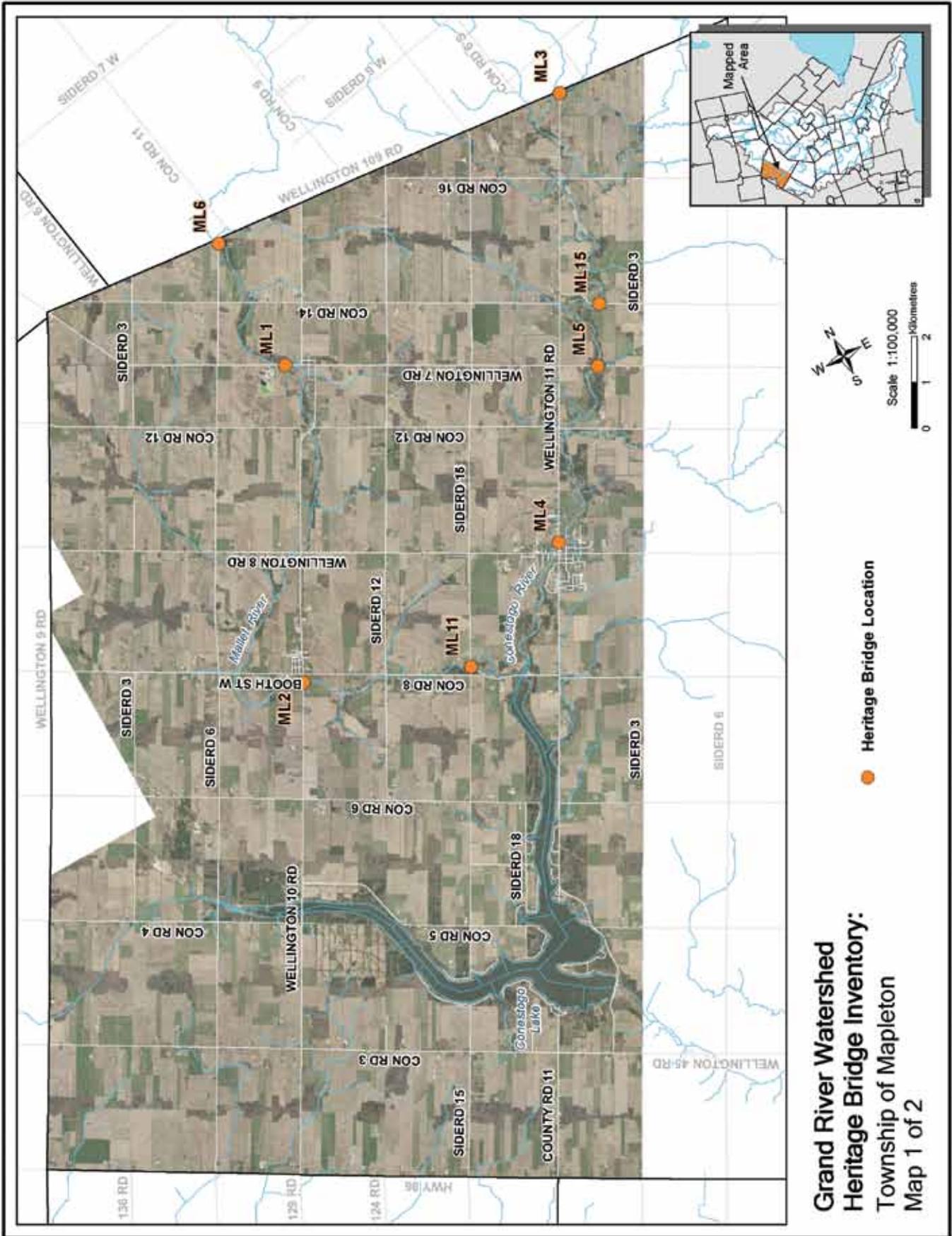


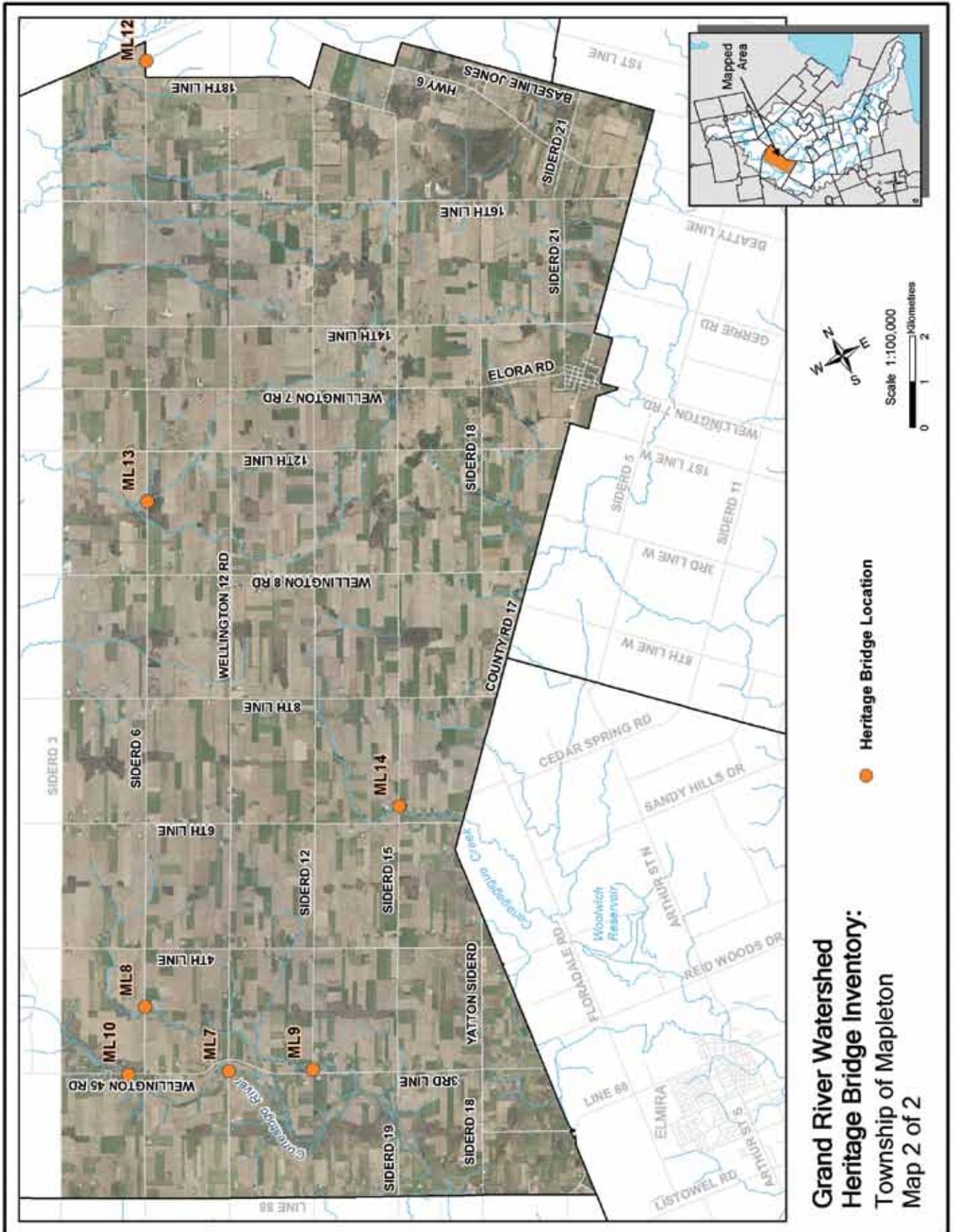


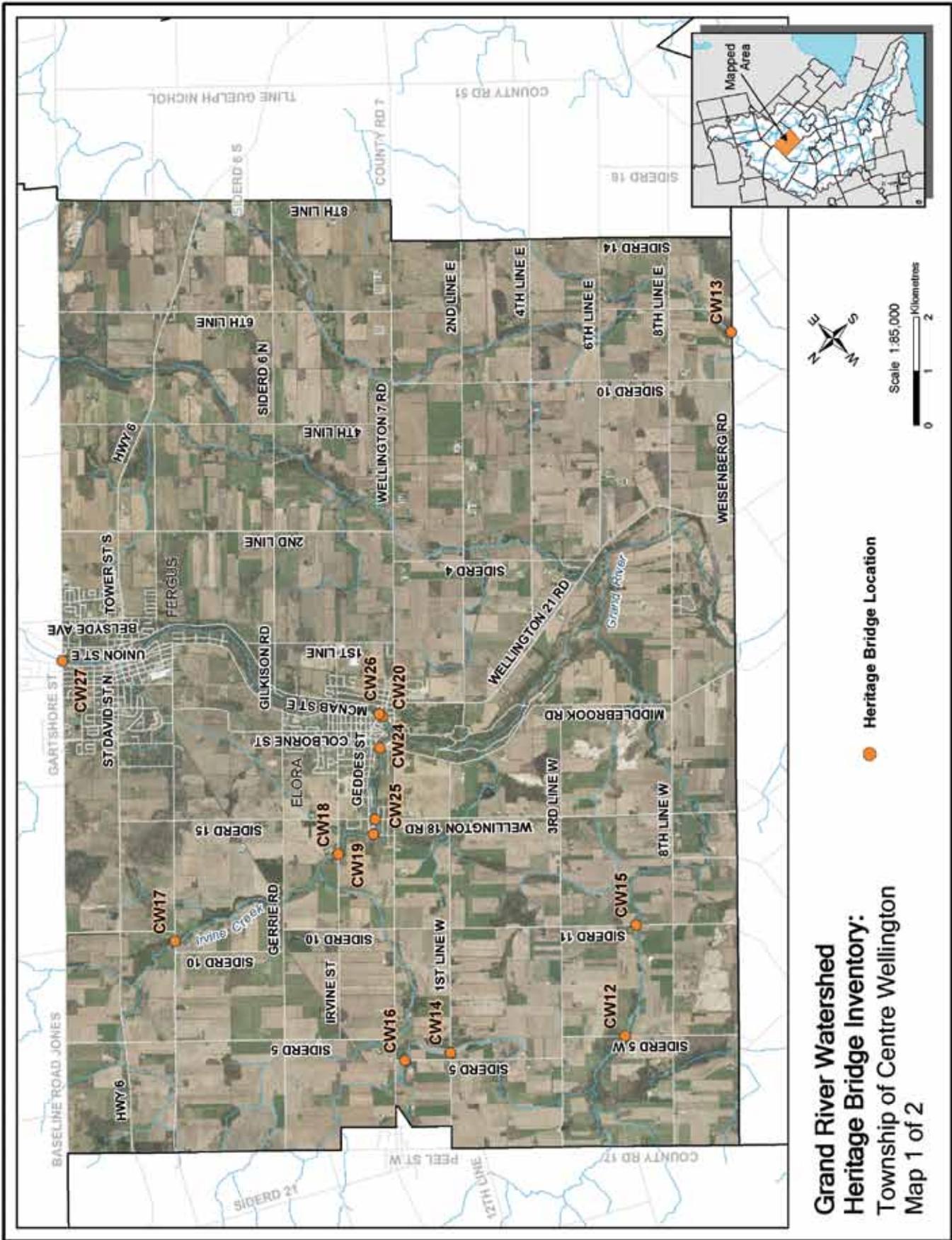


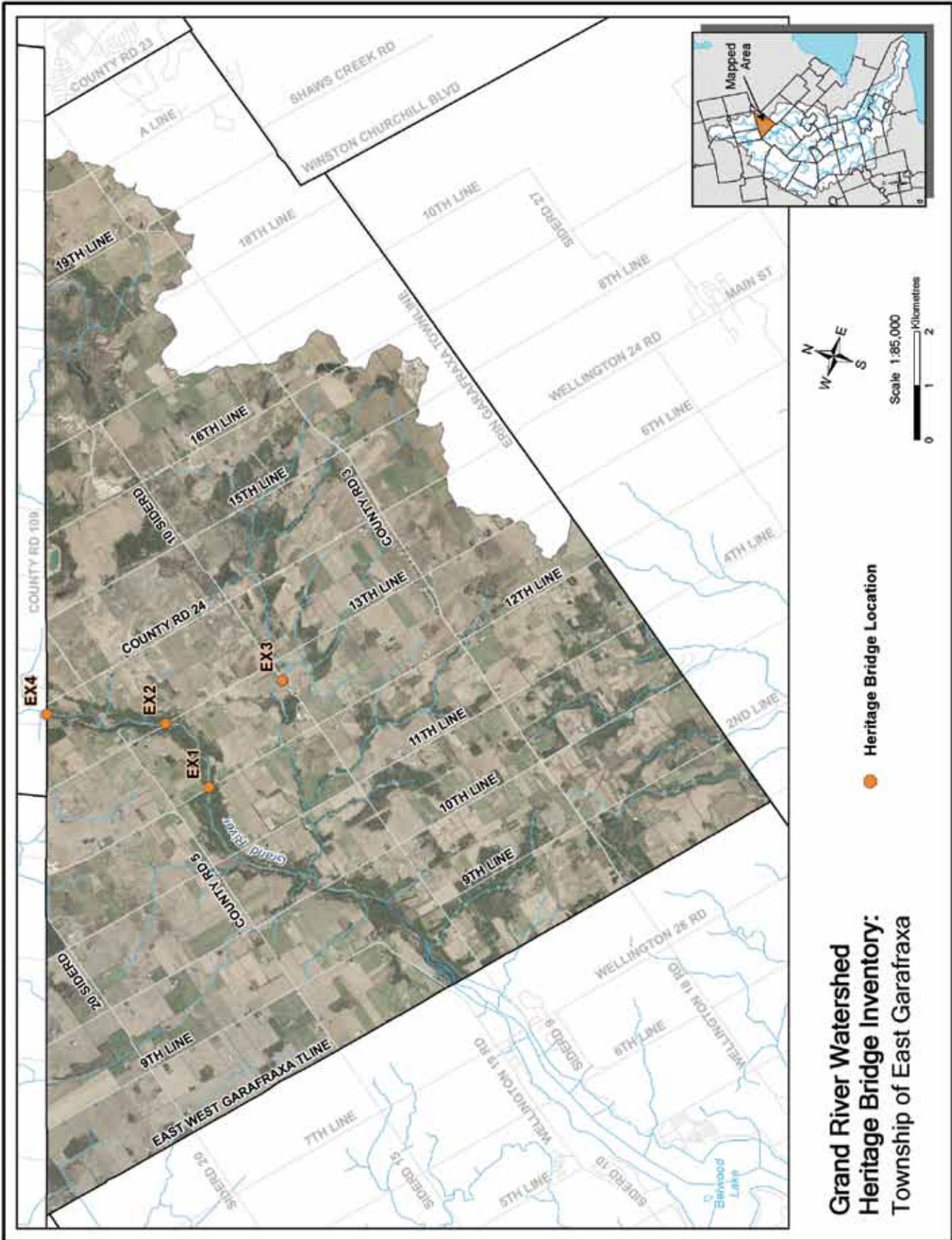


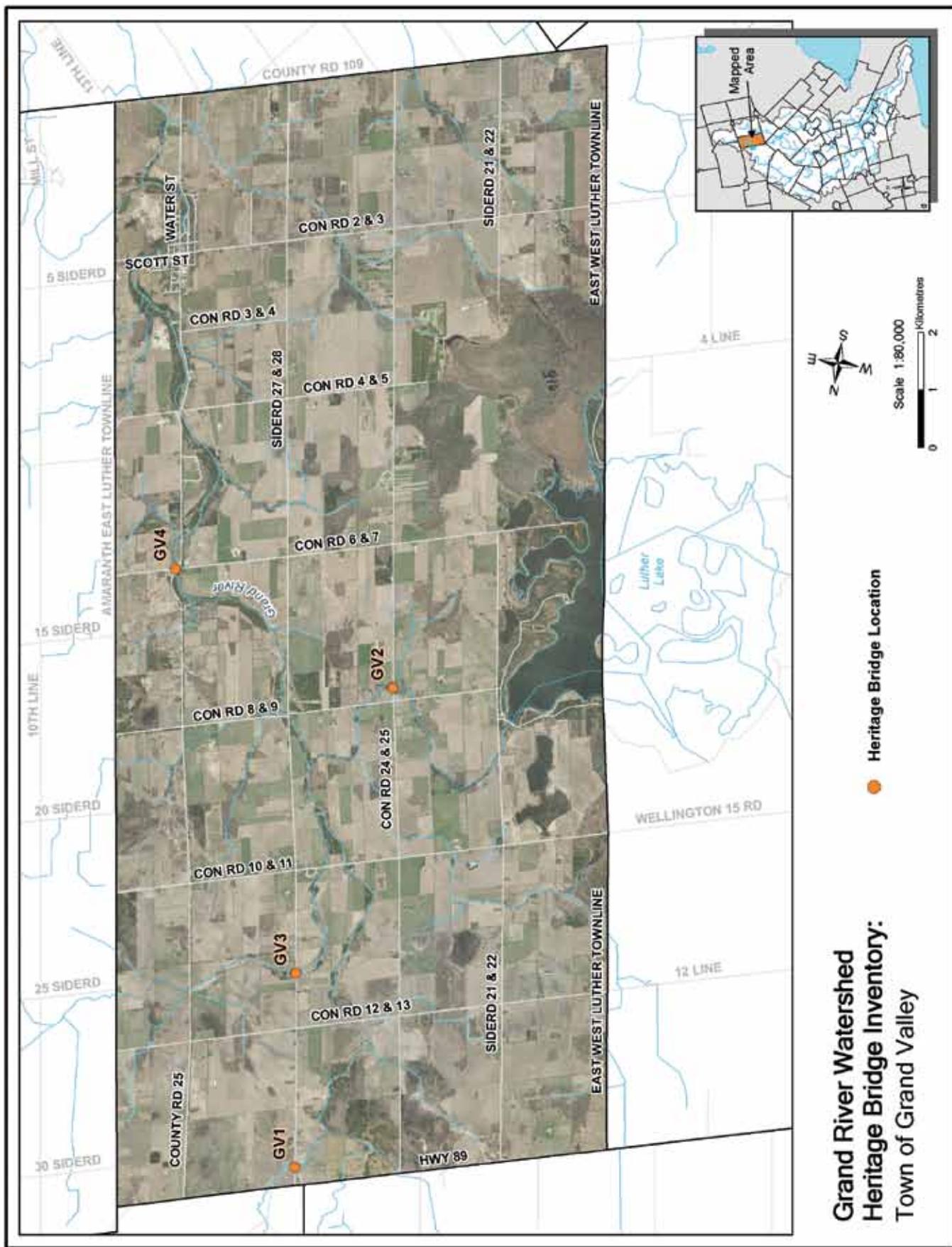


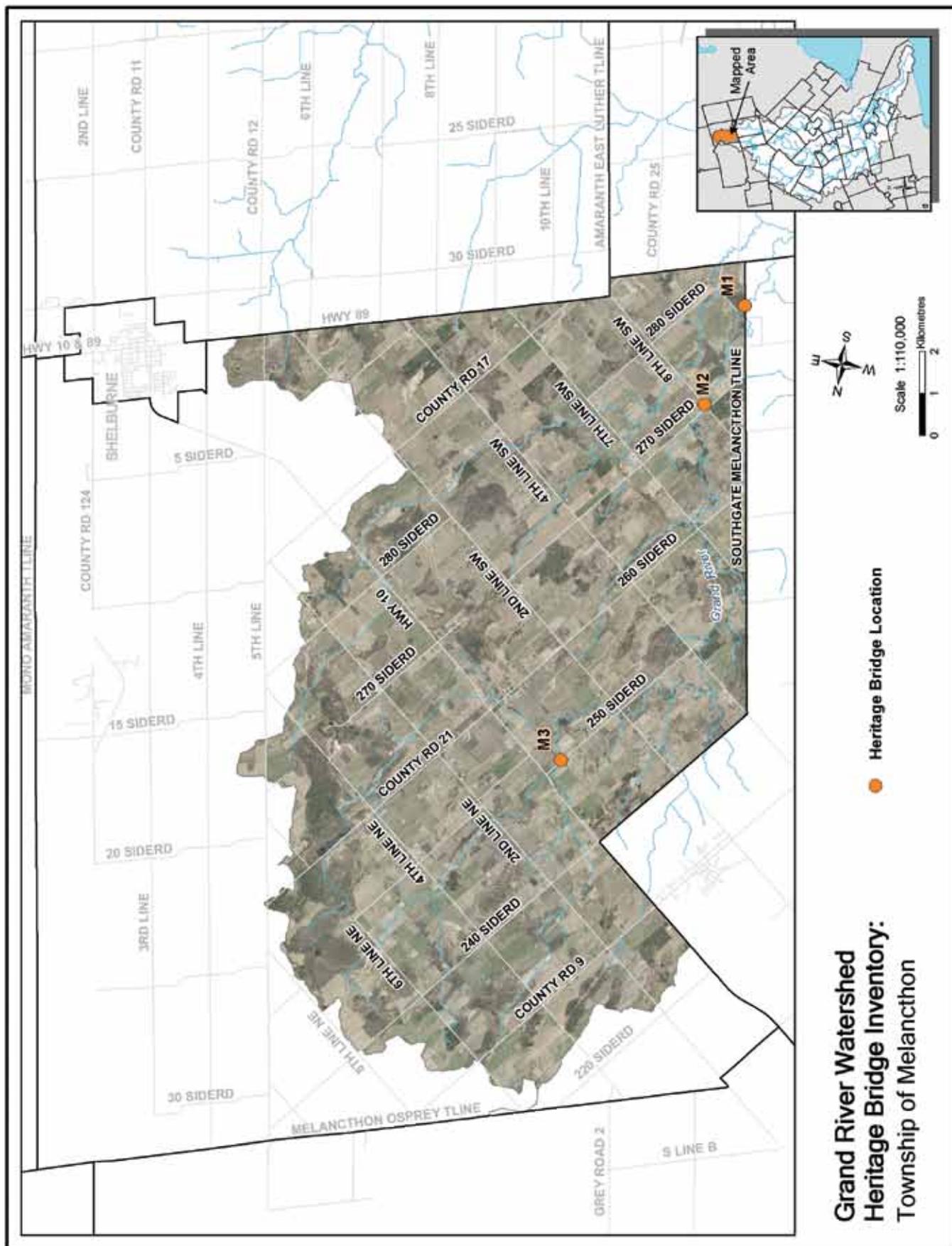












APPENDIX B: Field Identification Form

Grand River Watershed Heritage Bridge Inventory Field Identification Form

Bridge ID Number: _____

Bridge Name: _____

Location (street, highway #, lot #): _____

Closest Major Intersection: _____

Community/Municipality: _____

Coordinates (GPS): _____

Crossing Type: Road Railway Pedestrian

Name of watercourse crossed: _____

Access: Public Private

Materials:

Timber Masonry Steel Concrete Other _____

Notes on additional materials: _____

Bridge Type or Remnant (see bridge type list): _____

Number of Lanes: _____ Number of Spans: _____

Unique Characteristics (plaque, date, medallion, markings, materials, proportions, etc.):

Notes: _____

Orientation of Photo
& Site Sketch:



Context: Bridge set above floodplain
 Bridge skewed to angle of the watercourse
 Abandoned or remnant bridge on site
 Contributes to a cultural landscape

For Office Use: If one of these boxes is checked, conduct evaluation.

Warrants further investigation if bridge is:

- 35 years or older OR
- Unique bridge OR
- Remnant OR
- Rare survivor



APPENDIX C: List of non-heritage bridges inventoried

The following is a list of the 473 non-heritage bridges identified in the Grand River watershed over the course of this inventory.

Bridge Name(s)	Location	Municipality	MTO Site No.
Black Creek Bridge	Highway 6, 1.1 km north of Greens Road	Haldimand County	9-1
Boston Creek Bridge	Plank Road, 0.55 km south of Fourth Line	Haldimand County	9-15
McKenzie Creek Bridge	Plank Road, 0.65km north of Fifth Line	Haldimand County	9-16
Grand River Bridge (Caledonia Bypass)	Caledonia Bypass (Highway 6) just south of Caithness St. W.	Haldimand County	9-130
River Road Bridge	River Road, 3.9 km south of Highway 3	Haldimand County	000017
Aldridge Bridge (Structure Number 000031)	River Road, 1.8 km north of Townline Road	Haldimand County	000031
Pearl Bridge (Structure Number 000032)	River Road, 0.5 km south of Haldimand Road 9	Haldimand County	000032
Indiana Road Bridge (Structure Number 000033)	Indiana Road, 1.3 km west of River Road	Haldimand County	000033
Second Line Road Bridge (Structure Number 000035)	Second Line, 0.3 km east of Highway 6	Haldimand County	000035
Third Line Oneida Bridge (Structure Number 000036)	Third Line Road, 3.1 km east of Highway 6	Haldimand County	000036
Lang's Bridge (Structure Number 000040)	5th Line, 0.1 km east of Mohawk Road	Haldimand County	000040
Richert Rd., South Cayuga (Structure Number 000049)	Richert Road, 0.02 km east of Link Road	Haldimand County	000049
River Road Bridge (Structure Number 000059)	River Road, 0.3 km west of South Cayuga Road	Haldimand County	000059
Sulphur Creek Bridge (Structure Number 980308)	Rainham Road, 0.2 km East of Haldimand Road 11	Haldimand County	980308
Cranston Bridge (Structure Number 980904)	Haldimand Road 9, 0.35 km south of Fourth Line	Haldimand County	980904
Boston Creek Bridge (Structure Number 980905)	Haldimand Road 9, 3.0 km north of Fourth Line	Haldimand County	980905
County Road 29 Bridge (Structure Number 982901)	County Road 29, 0.15 km east of Highway 6	Haldimand County	982901
County Highway 66 Bridge (Structure Number 986601)	County Road 66, 1.6 km east of Highway 6	Haldimand County	986601
Aikens Road Bridge (Structure Number D00011)	Aikens Road, 0.55 km north of Haldimand Road 20	Haldimand County	D00011
Bridge No. 1	Fourth Line, 0.55 km east of Bateman Line	Six Nations of the Grand River	
Bridge No. 3	First Line, 0.65 east of Mohawk Road	Six Nations of the Grand River	
Bridge No. 4	Seneca Road, 0.55 km south of Second Line	Six Nations of the Grand River	



Bridge No. 5	Second Line, 0.65 km east of Seneca Road	Six Nations of the Grand River	
Bridge No. 6	Third Line West, 0.15 km west of Chiefswood Rd.	Six Nations of the Grand River	
Bridge No. 7	Chiefswood Road, 0.35 km north of Third Line	Six Nations of the Grand River	
Bridge No. 8	Fifth Line, 1.2 km east of Chiefswood Road	Six Nations of the Grand River	
Bridge No. 9	Fourth Line, 1.2 km east of Chiefswood Road	Six Nations of the Grand River	
Bridge No. 10	Tuscarora Road, 0.55 km north of Fifth Line	Six Nations of the Grand River	
Bridge No. 11	Tuscarora Road, 0.1 km south of First Line	Six Nations of the Grand River	
Bridge No. 12 (Boston Creek Bridge No. 48)	Second Line, 0.65 km west of Onondaga Road	Six Nations of the Grand River	
Bridge No. 14	Onondaga Road, 0.6 km north of Fifth Line	Six Nations of the Grand River	
Bridge No. 15	Onondaga Road, 0.1 km north of Second Line	Six Nations of the Grand River	
Warner Bridge Bridge No. 17	Cayuga Road, 0.3 km north of Fifth Line	Six Nations of the Grand River	
Bridge No. 18	Cayuga Road, 1.0 km north of Second Line	Six Nations of the Grand River	
Bridge No. 19	Cayuga Road, 1.0 km south of Second Line	Six Nations of the Grand River	
Delaware Bridge Bridge No. 20	Third Line, 1.9 km east of Cayuga Road	Six Nations of the Grand River	
Bridge No. 21	Second Line, 0.65 km east of Cayuga Road	Six Nations of the Grand River	
Chiefswood Bridge Bridge No. 22	Chiefswood Road, 0.18 km north of Sixth Line	Six Nations of the Grand River	
Locks Rd. over Mohawk Creek (Site Number 138010)	Locks Road, 0.9km south of Colborne Street East	City of Brantford	
Erie Ave. over Grand River (Site Number 146010)	Erie Avenue, 0.9 km south of Birkett Lane	City of Brantford	
Grand River Crossing (Site Number 135010)	Veterans Memorial Parkway, 0.1 km south of Market Street	City of Brantford	1-169-1972
Bridge ID: 33-103	Weirs Road, 0.7 km south of Regional Road 5	City of Hamilton	
Bridge ID: 8-128		City of Hamilton	
Bridge ID: 6-124	Studiman Road, 0.55 km north of Highway 8	City of Hamilton	
Bridge ID: 25-107	Lyden Road, 0.65 km north of Regional Road 5	City of Hamilton	
Bridge ID: 20-111	5th Concession Rd West, 0.45 km east of Sager Rd	City of Hamilton	
Gurney Creek Whiteman Bridge	Rest Acres Road, 0.2 km north of Robinson Road	County of Brant	1-85
Grand River Bridge, East Bound Lane	Highway 403, just west of Oak Park Road	County of Brant	1-147/1



Grand River Bridge, West Bound Lane	Highway 403, just west of Oak Park Road	County of Brant	1-147/2
Horner Creek Bridge, 403 East Bound Lane		County of Brant	1-148/1
Horner Creek Bridge, 403 West Bound Lane		County of Brant	1-148/2
Kenny Creek Bridge, 403 East Bound Lane		County of Brant	23-310/1
Kenny Creek Bridge, 403 West Bound Lane		County of Brant	23-310/2
Fairchild Creek Bridge, 403 East Bound Lane		County of Brant	1-192/1
Fairchild Creek Bridge, 403 West Bound Lane		County of Brant	1-192/2
Brant Mill Bridge (Structure Number 1-0129-00)	Brant Mill Road, 1.2 km south of Oakland Road	County of Brant	1-0129-00
W.D. Foulds Bridge (Structure Number 1-0001-00)	Glen Morris Road West, 0.2 km north of East River Road	County of Brant	1-0001-00
Cockshutt Bridge (Structure Number 1-0089-00)	Cockshutt Road, 1.2 km north of Phelps Road	County of Brant	1-0089-00
Newport Bridge (Structure Number 1-0163-00)	County Road 18, 0.6 km east of Cockshutt Road	County of Brant	1-0163-00
Putman Bridge (Structure Number 1-0193-00)	Brant-Oxford Road, 0.9 km south of Keg Lane	County of Brant	1-0193-00
Mechanic Street Footbridge (Structure Number 1-ftbr-01)	Mechanic Street, 0.2 km west of Grand River Street North	County of Brant	1-ftbr-01
Pedestrian Footbridge (Structure Number 1-ftbr-02)	150 m southwest of the intersection of Broadway and West River Street	County of Brant	1-ftbr-02
Baptist Church Road Bridge (Structure Number 1-0063-00)	Baptist Church Road, 1.1 km east of White Swan Road	County of Brant	1-0063-00
Dougherty Bridge (Structure Number 1-0109-00)	Big Creek Road, 0.1 km west of Mulligan Road	County of Brant	1-0109-00
Martin Bridge (Structure Number 1-0064-00)	Baptist Church Road, 1.4 km west of Mulligan Road	County of Brant	1-0064-00
Peddie Bridge (Structure Number 1-0110-00)	Big Creek Road, 2.4 km west of County Road 22	County of Brant	1-0110-00
Sanderson Bridge (Structure Number 1-0004-00)	McLean School Road, 1.2 km east of Branchton Road	County of Brant	1-0004-00
Likins Bridge (Structure Number 1-0065-02)	Colborne Street East, 0.5 km east of Jerseyville Road	County of Brant	1-0065-02
Dixon Bridge (Structure Number 1-0112-00)	Big Creek Road, 1.6 km west of County Road Number 22	County of Brant	1-0112-00
C. George Spencer Bridge (Structure Number 1-0007-00)	German School Road, 0.4 km east of St. George Road	County of Brant	1-0007-00
Cauley Bridge (Structure Number 1-0067-00)	Muir Road South, 2.2 km south of County Highway Number 53	County of Brant	1-0067-00
McBlain Bridge (Structure Number 1-0113-00)	Brant County Road #22, 0.4 km north of County Highway Number 54	County of Brant	1-0113-00



Beaver Creek Bridge (Structure Number 1-0010-00)	County Highway No. 5, 2.1 km east of St. George Road	County of Brant	1-0010-00
Douglass Bridge (Structure Number 1-0116-00)	County Highway No. 54, 0.2 km east of County Road Number 22	County of Brant	1-0116-00
Trainer Bridge (Structure Number 1-0068-00)	West Quarter Townline Road, 1.7 km south of County Highway Road 53	County of Brant	1-0068-00
Little Creek Bridge (Structure Number 1-0117-00)	County Highway No. 54, 1.9 km east of County Road Number 22	County of Brant	1-0117-00
Horner Creek Bridge (Structure Number 1-0012-00)	County Highway No. 2, 1.5 km west of Middle Townline Road	County of Brant	1-0012-00
Weir Bridge (Structure Number 1-0069-00)	West Quarter Townline Road, 1.0 km south of County Highway Road Number 53	County of Brant	1-0069-00
Lynburner Bridge (Structure Number 1-0013-00)	2nd Concession Road, 1.6 km west of Middle Townline Road	County of Brant	1-0013-00
Stewart Bridge (Structure Number 1-0070-00)	West Quarter Townline Road, 1.3 km north of County Highway Number 53	County of Brant	1-0070-00
Church Bridge (Structure Number 1-0014-00)	Maple Avenue, 0.6 km south of County Highway Number 2	County of Brant	1-0014-00
Haney Bridge (Structure Number 1-0072-00)	5th Concession Road, 0.4km west of Middle Townline Road	County of Brant	1-0072-00
Lawrence Bridge (Structure Number 1-0073-00)	Third Concession Road, 0.9 km west of Middle Townline Road	County of Brant	1-0073-00
Potruff Road Bridge (Structure Number 1-0019-00)	Potruff Road, 2.0 km north of Robinson Road	County of Brant	1-0019-00
Reid Bridge (Structure Number 1-0074-00)	4th Concession Road, 0.5 km west of Middle Townline Road	County of Brant	1-0074-00
Tiece Bridge (Structure Number 1-0075-00)	Middle Townline Road, 1.5 km north of County Highway Number 53	County of Brant	1-0075-00
S. Hodge Bridge (Structure Number 1-0076-00)	6th Concession Road, 0.9 km east of Middle Townline Road	County of Brant	1-0076-00
Flanner Bridge (Structure Number 1-0077-00)	Middle Townline Road, 0.7 km south of County Highway Number 53	County of Brant	1-0077-00
Fowler Bridge (Structure Number 1-0078-00)	East Quarter Townline Road, 0.8 km north of County Highway Number 53	County of Brant	1-0078-00
McKay Bridge (Structure Number 1-0030-00)	Governor's Rd East, 1.7 km east of St. George Road	County of Brant	1-0030-00
Drake Bridge (Structure Number 1-0031-00)	Governor's Rd East, 1.9 km east of St. George Road	County of Brant	1-0031-00
Powerline Road Bridge (Structure Number 1-0047-00)	Powerline Road, 2.9 km east of Park Road North	County of Brant	1-0047-00
McMillan Road Bridge (Structure Number 1-0048-00)	McMillian Road, 0.7 km north of Lynden Road	County of Brant	1-0048-00
Johnson Bridge (Structure Number 1-0049-00)	Lynden Road, 2.2 km east of Garden Avenue	County of Brant	1-0049-00
Misener Bridge (Structure Number 1-0050-00)	Johnson Road, 1.3 km south of Lynden Road	County of Brant	1-0050-00
Poag Bridge (Structure Number 1-0051-00)	Johnson Road, 2.4 km south of Lynden Road	County of Brant	1-0051-00



Robinson Road Bridge (Structure Number 1-0084-00)	Robinson Road, 0.6 km east of King's Highway 24	County of Brant	1-0084-00
Bob Devereaux Bridge (Structure Number 1-0052-00)	Jerseyville Road, 0.5 km north of County Road Number 2/53	County of Brant	1-0052-00
May Whiting Bridge (Structure Number 1-0053-00)	Brant School Road, 0.43 km south of County Road Number 2/53	County of Brant	1-0053-00
Nellis Bridge (Structure Number 1-0095-00)	County Highway No. 54, 1.3 km west of Old Onondaga Road	County of Brant	1-0095-00
Yeigh Bridge (Structure Number 1-0054-00)	County Highway No 53, 0.9 km east of Middle Townline Road	County of Brant	1-0054-00
Howell Bridge (Structure Number 1-0096-00)	Old Onondaga Road, 0.5 km east of Campbell Road	County of Brant	1-0096-00
Whiting Bridge (Structure Number 1-0055-00)	Brant School Road, 0.8 km south of County Highway 2/53	County of Brant	1-0055-00
Thomson Bridge (Structure Number 1-0097-00)	Brant School Road, 3.4 km south of County Highway Number 2/53	County of Brant	1-0097-00
White Swan Bridge (Structure Number 1-0057-00)	White Swan Road, 0.8 km south of County Highway Number 2/53	County of Brant	1-0057-00
Langford Church Road Bridge (Structure Number 1-0059-00)	Langford Church Road, 3.4 km south of County Highway Number 2/53	County of Brant	1-0059-00
VanSickle Bridge (Structure Number 1-0098-00)	Pauline Johnson Road, 0.35 km north of Big Creek Road	County of Brant	1-0098-00
Buist Bridge (Structure Number 1-0099-00)	Big Creek Rd., 0.2 km east of Pauline Johnson Rd.	County of Brant	1-0099-00
Jack Devereaux Bridge (Structure Number 1-0062-00)	McBay Road, 4.8 km south of County Highway Number 2/53	County of Brant	1-0062-00
Horner Creek Bridge, 401 East Bound Lane		Township of Blandford-Blenheim	23-117/1
Horner Creek Bridge, 401 West Bound Lane		Township of Blandford-Blenheim	23-117/2
Nith River Bridge, 401		Township of Blandford-Blenheim	23-124
Blandford-Blenheim Bridge #1	Oxford Waterloo Road, 2.3 km west of Trussler Road	Township of Blandford-Blenheim	023-0058
Blandford-Blenheim Bridge #2	Township Road 14, 0.7 km west of Washington Road	Township of Blandford-Blenheim	023-0050
Blandford-Blenheim Bridge #4	Township Road 14, 2.7 km east of County Road 22	Township of Blandford-Blenheim	023-0048
Blandford-Blenheim Bridge #6	Oxford Waterloo Rd, 1.2 km west of County Rd 22	Township of Blandford-Blenheim	023-0041
Blandford-Blenheim Bridge #7	Oxford Waterloo Rd, 0.8 km west of Blandford Rd	Township of Blandford-Blenheim	023-0039
Blandford-Blenheim Bridge #9	Township Road 13, 0.4 km west of Blandford Road	Township of Blandford-Blenheim	023-0033
Blandford-Blenheim Bridge #10	Blandford Rd, 0.4 km south of Township Road 13	Township of Blandford-Blenheim	023-0032



Blandford-Blenheim Bridge #11	Township Road 12, 0.8 km east of Blandford Road	Township of Blandford-Blenheim	023-0031
Blandford-Blenheim Bridge #12	Blandford Road 0.4 km south of Township Road 12	Township of Blandford-Blenheim	023-0030
Blandford-Blenheim Bridge #16	Township Road 10, 1.4 km west of County Road 22	Township of Blandford-Blenheim	023-0092
Blandford-Blenheim Bridge #17	Township Road 9, 0.3 km west of County Road 22	Township of Blandford-Blenheim	023-0101
Blandford-Blenheim Bridge #18	Hubbard Road, 0.4 km north of Township Road 8	Township of Blandford-Blenheim	023-0103
Blandford-Blenheim Bridge #19	Township Road 8, 2.0 km east of County Road 22	Township of Blandford-Blenheim	023-0104
Blandford-Blenheim Bridge #23	Blenheim Road, 0.5 km south of Oxford Road 8	Township of Blandford-Blenheim	023-0056
Blandford-Blenheim Bridge #26	Township Road 10, 0.2 km east of County Road 3	Township of Blandford-Blenheim	023-0295
Blandford-Blenheim Bridge #27	Township Road 6, 0.6 km east of County Road 26	Township of Blandford-Blenheim	023-0106
Blandford-Blenheim Bridge #29	Township Road 5, 0.8 km east of County Road 22	Township of Blandford-Blenheim	023-0107
Blandford-Blenheim Bridge #30	Township Road 4, 3.0 km east of County Road 22	Township of Blandford-Blenheim	023-0184
Blandford-Blenheim Bridge #31	Gobles Road, 0.4 km north of Township Road 3	Township of Blandford-Blenheim	023-0185
Blandford-Blenheim Bridge #32	Township Road 3, 0.2 km east of Gobles Road	Township of Blandford-Blenheim	023-0186
Blandford-Blenheim Bridge #33	Township Road 2, 4.6 km west of County Road 22	Township of Blandford-Blenheim	023-0187
Blandford-Blenheim Bridge #35	Township Rd 4, 0.7 km north of Township Road 3	Township of Blandford-Blenheim	023-0190
Blandford-Blenheim Bridge #36	Canning Road, 0.3 km south of Township Road 3	Township of Blandford-Blenheim	023-0191
Blandford-Blenheim Bridge #37	Township Road 4, 0.01 km east of Blenheim Road	Township of Blandford-Blenheim	023-0293
Blandford-Blenheim Bridge #38	Township Road 5, 1.9 km east of Blenheim Road	Township of Blandford-Blenheim	023-0189
Blandford-Blenheim Bridge #40	Township Road 8, 3.2 km east of County Road 3	Township of Blandford-Blenheim	023-0128
Blandford-Blenheim Bridge #41	Blenheim Road, 1.9 km north of Township Road 8	Township of Blandford-Blenheim	023-0129
Blandford-Blenheim Bridge #46	Township Road 14, 1.7 km east of Oxford Road 43	Township of Blandford-Blenheim	023-0327
Blandford-Blenheim Bridge #51	Oxford Road 43, 0.04 km south of Oxford Road 8	Township of Blandford-Blenheim	
Blandford-Blenheim Bridge #65	Township Road 13, 0.1 km west of Oxford Road 8	Township of Blandford-Blenheim	
Blandford-Blenheim Bridge #66	Township Road 13, 0.2 km west of Oxford Road 8	Township of Blandford-Blenheim	



Blandford-Blenheim Bridge #67	Township Road 13, 1.9 km west of Oxford Road 8	Township of Blandford-Blenheim	
Lot 21, Conc. VI/VII, Blenheim Bridge (Oxford Bridge 806522)	Oxford Road 29, 1.85 km east of Oxford Road 22	Township of Blandford-Blenheim	
Lot 8, Conc. VI/VII, Blenheim Bridge (Oxford Bridge 807313)	Oxford Road 29, 2.6 km east of Wilmot Street	Township of Blandford-Blenheim	
Lot 18/19, Conc. XII, Blenheim Bridge (Oxford Bridge 856550)	Oxford Road 8, 1.3 km south of Albert Street	Township of Blandford-Blenheim	
Lot 18/19, Conc. XII, Blenheim Bridge (Oxford Bridge 856645)	Duoro Street, 0.35 km south of Albert Street	Township of Blandford-Blenheim	
Lot 4, Conc. X/XI, Blandford Bridge (Oxford Bridge 886117)	Oxford Road 8, east of Blandford Road	Township of Blandford-Blenheim	
Lot 12/13, Conc. XI, Blenheim Bridge (Oxford Bridge 896407)	Oxford Road 3, 0.1 km north of Township Road 11	Township of Blandford-Blenheim	
Lot 4, Conc. XII/III, Blenheim Bridge (Oxford Bridge 927566)	Oxford Road 8, 1.4 km east of Oxford Road 43	Township of Blandford-Blenheim	
Lot 1/24, Conc. VIII, Blandford Blenheim Culvert (Oxford Structure No. 816111)	Oxford Rd. 22, 1.35 km north of Township Road 8	Township of Blandford-Blenheim	
Rupert Bridge (Site Number 7)	Line 106, 1.2 km south of Perth Line	Township Perth East	
Site Number 15	King Street, 0.9 km south of Perth Line	Township Perth East	
Site Number 59	Road 124, 0.2 km north of Line 61	Township Perth East	
Site Number 60	Road 124, 0.55 km south of Line 76	Township Perth East	
Site Number 65	Line 64, 0.4 km west of Road 129	Township Perth East	
Site Number 69	Line 83, 0.45 km east of Perth Road 131	Township Perth East	
Site Number 70	Line 83, 0.1 km west of Perth Road 131	Township Perth East	
Clemmer Bridge (Site Number 73)	Line 80, 0.6 km east of County Road 20	Township Perth East	
Site Number 78	Line 76, 0.5 km west of Perth County Road 121	Township Perth East	
Site Number 81	Line 73, 1.2 km east of Road 124	Township Perth East	
Site Number 82	Line 73, 0.75 km east of Road 124	Township Perth East	
Site Number 83	Line 67, 0.5 km west of Road 116	Township Perth East	
Site Number 84	Line 67, 0.26 km west of Road 129	Township Perth East	
Site Number 87	Line 61, 0.2 km west of Road 116	Township Perth East	
Site Number 1530	Road 105, 0.1 km south of County Road 7 & 56	Township Perth East	
Mill Creek Bridge, North Dumfries	North Dumfries Township Road 17 (now Shellard Road), south of Gore Road	Township of North Dumfries	
Footbridge	North Dumfries Twp. Rd. 13 (now Footbridge Road), west of Hwy 24 (Brantford Hwy)	Township of North Dumfries	
Stanley-Piper Street Bridge	Stanley-Piper Street, west of Northumberland Street	Township of North Dumfries	
Abandoned Stone Masonry Arch (Culvert)	0.5 km south of Footbridge Road, along abandoned rail line	Township of North Dumfries	
Eden Creek Bridge	Northumberland Street (Regional Road No. 58), north of Hwy 401	Township of North Dumfries	33-125



Speed River Bridge (West Channel)	401 East Bound Lanes	City of Cambridge	33-146/1
Speed River Bridge (West Channel)	401 West Bound Lanes	City of Cambridge	33-146/2
Speed River Bridge (East Channel)	401 East Bound Lanes	City of Cambridge	33-147/1
Speed River Bridge (East Channel)	401 West Bound Lanes	City of Cambridge	33-147/2
Speedsville North Bridge	Speedsville Road, south of the 401	City of Cambridge	
Speedsville South Bridge	Speedsville Rd., 0.35 km north of Thorman Dr.	City of Cambridge	
Beaverdale Road Bridge	Beaverdale Rd., south of Hunt Club Rd.	City of Cambridge	
Old Fisher Mills Bridge	Old Fisher Mills Road, south of Chilligo Road	City of Cambridge	
Pedestrian Walkway	North of Russ Street	City of Cambridge	
Mill Race Bridge	King Street, 0.2 km south of Fountain Street	City of Cambridge	33-153
Moffat Creek Bridge	Water Street, 0.5 km north of Myers Road	City of Cambridge	
Ellis Creek Bridge	Kossuth Road, 0.2 km east of Beaverdale Road, Lot 89, German Company Tract	City of Cambridge	33-212
Concession Street Bridge	Concession St., 0.05 km west of Water St.	City of Cambridge	33-179
Nith River Bridge	New Hamburg	Township Wilmot	33-125
Lot 22, Conc. I & II (Twp Wilmot Bridge No. 000204)	Huron Road, 0.2 km east of Haysville Road	Township Wilmot	
Bridge #30	Oxford-Waterloo Road, east of Oxford Road 5	Township Wilmot	
Bridge #31	Oxford-Waterloo Road, west of Walker Road	Township Wilmot	
New Hamburg Viaduct	West of New Hamburg, 0.2km north of Shade St	Township Wilmot	
Grand River Bridge (Freeport)		City of Kitchener	33-137
Grand River Bridge	401 East Bound Lane	City of Kitchener	33-141/1
Grand River Bridge	401 West Bound Lane	City of Kitchener	33-141/2
Courtland Ave. - Schneider Creek Overpass	East Bound Lane	City of Kitchener	33-224/1
Courtland Avenue Schneider Creek Overpass	West Bound Lane	City of Kitchener	33-224/2
Balzer Road Bridge	Balzer Rd., 0.30 km west of Courtland Ave.	City of Kitchener	33-352
Doon Village Road Bridge	Doon Village Road, 0.09 km west of Tilt Drive	City of Kitchener	
Vanier Drive Bridge	Vanier Drive, 0.03 km south of Shelley Drive	City of Kitchener	
Breslau Bridge	Highway 7 (Victoria St), south of Ebcrest Rd.	City of Kitchener	33-100
Walter Bean Grand River Pedestrian Bridge	Walter Bean Grand River Trail, .5km north of Doon Valley Drive	City of Kitchener	
Wellesley Bridge No. 1	Road 116, 60m south of Deborah Glaister Line	Twp Wellesley	33-16
Wellesley Bridge No. 2	Road 116, 0.5km south of Streicher Line	Twp Wellesley	33-14
Wellesley Bridge No. 3	Road 116, 1.6km north of Ament Line	Twp Wellesley	25-63
Wellesley Bridge No. 4	Road 116, 200m north of Buehler Line	Twp Wellesley	25-64
Wellesley Bridge No. 7	Lichty Road, .016km south of Streicher Line	Twp Wellesley	33-23
Wellesley Bridge No. 9	Hutchinson Rd (Township Rd 12 North), west of Regional Rd 17	Twp Wellesley	33-28



Wellesley Bridge No. 10	Lavery Road (Township Road 12 North), 2.0km north of Buehler Line	Twp Wellesley	33-5
Wellesley Bridge No. 12	Ament Line (Township Road 11 West), 1.1km east of Road 116	Twp Wellesley	33-1
Wellesley Bridge No. 13	Streicher Line (Township Road 5 West), 1.6km west of Mauser Road	Twp Wellesley	33-26
Wellesley Bridge No. 14	Streicher Line (Township Road 5 West), 1.0km west of Manser Road	Twp Wellesley	33-2
Wellesley Bridge No. 15	Streicher Line (Township Road 5 West), 1.4km west of Manser Road	Twp Wellesley	33-24
Wellesley Bridge No. 16	Streicher Line (Township Road 5 West), 0.65km east of Road 116	Twp Wellesley	33-203
Wellesley Bridge No. 18	Greenwood Hill Road, 1.6km north of Gerber Road (Regional Road 10)	Twp Wellesley	33-22
Wellesley Bridge No. 19	Hackbart Road, 1.1km south of Ament Line (Regional Road 17)	Twp Wellesley	33-29
Wellesley Bridge No. 20	Moser-Young Road, 0.16km south of Boomer Line	Twp Wellesley	33-25
Wellesley Bridge No. 21	Moser-Young Road, 1.1km north of Ament Line (Regional Road 17)	Twp Wellesley	33-31
Wellesley Bridge No. 23	Boomer Line, 0.2km west of Moser-Young Rd	Twp Wellesley	33-36
Wellesley Bridge No. 24	Boomer Line, 1.6km east of Moser-Young Rd	Twp Wellesley	
Wellesley Bridge No. 25	Broadway Street, 0.6km east of Herrgott Rd	Twp Wellesley	33-39
Wellesley Bridge No. 26	Nafziger Rd, 0.2km north of Queen's Bush Rd	Twp Wellesley	33-138
Wellesley Bridge No. 27	Geddes St., 0.15km north of Ament Line	Twp Wellesley	33-101
Bamberg Creek Bridge	Moser-Young Road (Regional Road No. 14), south of Bamberg	Twp Wellesley	
Railway Abutments	South of Hwy 86, east of Powell Rd (Twp Rd 4A)	Twp Wellesley	
Hopewell Creek Bridge		Twp Woolwich	
Beitz' Bridge	Greenhouse Rd, .12km south Hopewell Creek Rd	Twp Woolwich	
Lot 69, German Company Tract	Hill St., 0.6 km east of Northfield Drive East	Twp Woolwich	
Klein's Bridge	Woolwich Township Road No. 64a, 0.33 km east of Township Roads 64 and 64a	Twp Woolwich	033-0108
Lot 82, German Company Tract	New Jerusalem Rd, .35 km north of South Field Dr	Twp Woolwich	
Lot 114/115, German Company Tract	Reid Woods Drive, east of Peel Township Line	Twp Woolwich	
Floradale Road Bridge (Woolwich Bridge No. 050106)	Floradale Road, south of Reid Woods Drive	Twp Woolwich	33-276
Lot 64, German Company Tract (Woolwich Bridge No. 170160)	Weisenburg Road, 2.5 km west of Katherine Street North	Twp Woolwich	
Martin's Bridge (Woolwich Bridge No. 370143)	Martin Grove Road, north of Regional Road 15	Twp Woolwich	033-0108
Lot 19, German Company Tract (Woolwich Bridge No. 360139)	Maple Grove Road, west of Reg. Rd. 8 (Weber Street North)	Twp Woolwich	



Lot 122, German Company Tract (Woolwich Bridge No. 040106)	Floradale Road, 0.40 km south of Township Road 5 (Sideroad 18)	Twp Woolwich	
Spies Bridge, Lot 122 German Company Tract (Woolwich Bridge No. 010105)	Sideline 18, 0.15 km south of Floradale Road	Twp Woolwich	
New Stone Road Bridge	Stone Road East, between Victoria Road South and Watson Parkway South	City of Guelph	
Speed River Bridge, Hwy 6	East Bound Lane	City of Guelph	35-404/1
Speed River Bridge, Hwy 6	West Bound Lane	City of Guelph	35-404/2
Speed River Bridge #1	E-S and W-S Ramp	City of Guelph	35-578
Speed River Bridge #2	S-E/W Ramp	City of Guelph	35-579
Downey Road Bridge	Downey Road, 0.11 km south of Woodlawn Glen	City of Guelph	35-0346
Edinburgh Road Bridge (Middle Branch Bridge)	Edinburgh Rd, 0.15 km south of Wellington Road North	City of Guelph	35-0311
Woodlawn Road Bridge	Woodlawn Rd E, 1.00 km east of Woolwich St	City of Guelph	35-0319
Speedvale Avenue Bridge (Berlin Road Bridge)	Speedvale Ave, 0.075 m east of Woolwich St	City of Guelph	35-0318
Eramosa Road Bridge	Eramosa Road, 0.11 km east of Woolwich St	City of Guelph	35-0329
Allan's Dam Bridge (MacDonell St. Bridge)	MacDonell St, 0.06 km east of Woolwich St	City of Guelph	
Victoria Road South Bridge	Victoria Road, 0.36 km south of York Road	City of Guelph	
Riverside Park Pedestrian Bridge	Riverside Park	City of Guelph	
Pond Creek Pedestrian Bridge	South of Wellington Street and Holiday Street	City of Guelph	
Silver Creek Pedestrian Bridge	South of Wellington Street	City of Guelph	
Memorial Drive Earth Dam, Sluiceway & Pedestrian Bridge		City of Guelph	
McCrae Dam and Pedestrian Bridge	0.15 km west of McCrae Blvd	City of Guelph	
Lot 31/32, Conc. I/II, Nassagaweya (Bridge No. 2)	First Line, Nassagaweya, 4.4 km north Sideroad 25	Town of Milton	
Lot 27, Conc. 1 & 2, Nassagaweya (Bridge No. 61)	First Line, Nassagaweya, .95 km north Sideroad 25	Town of Milton	
Lot 25, Conc. II/IV	Guelph Line, 0.3 km south of Sideroad 25	Town of Milton	010-0000
Blue Spring Creek Bridge	Guelph Line, 1.9 km north of Sideroad 25	Town of Milton	010-0004
Cook's Bridge (Cook's Mill Bridge) (Structure 0001)	Cooks Mill Road, 0.4 km west of Watson Road South	Township Puslinch	
Moyer's Bridge (Structure 0004)	Concession Road 7, 0.85 km south of Wellington Road 34	Township Puslinch	
Structure 0005	Leslie Rd W, 0.55 km east of Watson Rd S	Township Puslinch	
Structure 0006	Concession 1, 0.35 km west of Sideroad 10 S	Township Puslinch	
French's Bridge (Structure 0007)	Sideroad 10 South, 0.21 km north of Concession 1	Township Puslinch	
Structure 0008	Gore Road, 0.85 km east of Townline Road	Township Puslinch	
Structure 2003	90 m north of Stroy's Bridge	Township Puslinch	
Paddock Bridge	County Rd 35, 2.9 km south of County Rd 34	Township Puslinch	35-363



Watson Road Bridge	Watson Rd, 2.5 km east of County Rd 24	Township Puslinch	35-335
Lot 3, Conc. II/III, Puslinch	Wellington Rd 34, 0.9 km east of Wellington Rd 33	Township Puslinch	
Eramosa River Bridge (Rockwood)	Main St. South, south of Alma Street (Highway 7)	Twp Guelph/Eramosa	35-341
Conc. 2/3, Div. D Guelph Twp	County Road 7, 0.70 km north of Highway 6	Twp Guelph/Eramosa	35-324
Lot 12, Conc. IV/V Eramosa	County Rd 27, 1.00 km south of County Rd 124	Twp Guelph/Eramosa	
Barrie Hill Bridge	County Rd 29, 2.2 km south of County Rd 22	Twp Guelph/Eramosa	35-385
Lot 32, Conc. I/II Eramosa	County Road 29, 3.30 km south of Highway 7	Twp Guelph/Eramosa	10-232
Lot 14/15, Conc. III Guelph	County Road 30, 1.10 km west of Highway 6	Twp Guelph/Eramosa	
Monkey Bridge	County Rd 38, 0.5 km south of Conservation Rd	Twp Guelph/Eramosa	35-320
Lot 1, Conc. X, Guelph Twp	County Rd 38 (Victoria Rd), 0.5km south Mill Rd	Twp Guelph/Eramosa	
Lot 5, Conc. III/IV Eramosa (Bridge 44093) (Eramosa River Bridge)	Wellington Road 44, 0.40 km south of Highway 7	Twp Guelph/Eramosa	35-337
Lot 4, Conc. III/IV Eramosa	Wellington Road 33, 0.50 km south of Hwy 7	Twp Guelph/Eramosa	
Everton Bridge	County Road 49 (Evert Street), 1.4 km south of County Road 124	Twp Guelph/Eramosa	35-299
Guelph/Eramosa Bridge 2	Seventh Line, 0.5 km east of 20th Sideroad	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 5	Sixth Line, 0.1 km north of Sideroad 20	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 7	Fifth Line, 1.4 km north of Sideroad 20	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 10	Fourth Line, 1.25 km north of Sideroad 20	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 11	Fourth Line, 1.2 km north of Sideroad 20	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 13	Indian Trail, 1.7 km east of County Road 29	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 14	Third Line, 0.7 km north of Sideroad 20	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 20	Sideroad 20, 0.7 km west of Sixth Line	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 21	Sideroad 20, 0.2 km west of Sixth Line	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 22	Sideroad 20, 0.8 km west of Seventh Line	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 82	York Street, 0.05 km east of Barden Street	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 2003	Seventh Line, 0.7 km south of Sideroad 20	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 2012	Fourth Line, 2.2 km north of Sideroad 20	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 2013	Fourth Line, 2.8 km north of County Road 124	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 2015	Fourth Line, 1.8 km south of County Road 124	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 3001	Jones Baseline, 0.7 km north of Guelph/Nichol Townline	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 3003	Mill Road, 0.3 km west of Jones Baseline	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 3006	Third Line, 1.3 km north of County Road 124	Twp Guelph/Eramosa	
Guelph/Eramosa Bridge 3007	Mill Road, 1.2 km west of Jones Baseline	Twp Guelph/Eramosa	
McNabb Bridge	Wellington Rd 11, 2.9 km north of Wellington Rd 7	Twp of Mapleton	035-0108
Lawless Bridge	County Road 8, 0.23 km west of County Road 10	Twp of Mapleton	35-93
Walker Bridge	County Road 8, 0.10 km west of County Road 10	Twp of Mapleton	35-91
Main St. Bridge	County Road 8, 0.15 km west of County Road 11	Twp of Mapleton	35-172
Lot 6, Conc. X/XI Peel	County Road 8, 2.30 km west of County Road 12	Twp of Mapleton	



Maxwell Bridge	County Road 10, 0.40 km north of County Road 8	Twp of Mapleton	35-102
Wyandot Bridge	County Road 10, 6.20 km north of County Road 86	Twp of Mapleton	35-158
Lots 9/10, Conc.1 Maryborough	County Road 10, 0.80 km north of County Road 86	Twp of Mapleton	35-416
Arnold Bridge	County Rd 11, 1.30 km south of County Road 109	Twp of Mapleton	35-119
Lots 9/10, Conc. 9 Peel	County Road 12, 1.90 km south of County Road 8	Twp of Mapleton	35-176
Lots 9/10, Conc. 13 Peel	County Road 12, 0.30 km south of County Road 7	Twp of Mapleton	
Lots 9/10, Conc. XIV Peel	County Road 12, 0.30 km north of County Road 7	Twp of Mapleton	
Glen Allan Bridge	County Road 45, 1.40 km east of County Road 11	Twp of Mapleton	035-0240
Conestogo River Bridge	County Road 86, 4.70 km east of County Road 12	Twp of Mapleton	35-0252
Smith Creek Bridge	County Road 86, 0.70 km west of County Road 10	Twp of Mapleton	35-0160
Lot 1, Conc. III Maryborough	Wellington Road 9, 2.15 km south of Conc IV/V Maryborough	Twp of Mapleton	035-0153
Sanderson Bridge	Wellington Rd 12, 2 km north of Wellington Rd 7	Twp of Mapleton	35-111
Thorpe Bridge (Lots 9/10, Conc. 3 Peel)	Wellington Road 12, 1 km north of Wellington Road 45	Twp of Mapleton	35-243
Lot 1, Conc. XI Nichol	Wellington Rd 17, .3 km west Conc XIV/XV Peel	Twp of Mapleton	
MB001	Concession 16, 0.6 km east of Sideroad 15	Twp of Mapleton	
MB004	Concession 14, 0.1 km west of Wellington Rd 11	Twp of Mapleton	
MB005	Sideroad 6, 0.14 km south of Wellington Road 8	Twp of Mapleton	
MB006	Concession 8, 0.45 km east of Sideroad 6	Twp of Mapleton	
MB007	Concession 8, 0.3 km east of Sideroad 12	Twp of Mapleton	
Bailey Bridge (MB008)	Concession 8, 1.1 km east of Sideroad 12	Twp of Mapleton	35-163
MB013	Sideroad 6, 0.25 km north of Concession 4	Twp of Mapleton	
MB014	Concession 4, 0.1 km east of Sideroad 3	Twp of Mapleton	
PB003 (Conestogo River Bridge)	16th Line, 0.8 km east of County Road 11	Twp of Mapleton	
PB004 (Conestogo River Bridge)	16th Line, 1.4 km east of County Road 11	Twp of Mapleton	
PB006	Sideroad 18, 0.1 km south of 16th Line	Twp of Mapleton	
PB007	16th Line, 0.13 km west of Sideroad 19	Twp of Mapleton	
PB008	Sideroad 16, 0.85 km north of the 14th Line	Twp of Mapleton	
PB010	14th Line, 0.95 km east of County Road 11	Twp of Mapleton	
PB011	Sideroad 21, 0.1 km south of 14th Line	Twp of Mapleton	
PB012	12th Line, 0.24 km east of County Road 11	Twp of Mapleton	
PB013	Sideroad 16, 0.35 km south of 12th Line	Twp of Mapleton	



PB014	12th Line, 0.6 km west of County Road 12	Twp of Mapleton	
PB015	12th Line, 0.45 km west of County Road 17	Twp of Mapleton	
PB020	Floradale Road, 0.08 km north of 6th Line	Twp of Mapleton	
PB021	4th Line, 0.1 km west of Sideroad 17	Twp of Mapleton	
PB022	4th Line, 0.5 km west of Sideroad 18	Twp of Mapleton	
PB026	3rd Line, 0.55 km east of Sideroad 18	Twp of Mapleton	
PB027	3rd Line, 0.8 km east of Sideroad 18	Twp of Mapleton	
PB028	3rd Line, 0.95 km east of Sideroad 18	Twp of Mapleton	
PB029	Sideroad 17, 0.15km south of 16th Line	Twp of Mapleton	
PB030	Sideroad 17, 1.2 km north of Wellington Road 8	Twp of Mapleton	
PB031	Sideroad 21, 0.5 km south of 16th Line	Twp of Mapleton	
PB032	Sideroad 16, 1.4 km south of Wellington Road 8	Twp of Mapleton	
Sideroad 18 Bridge	Sideroad 18, 1.0 km north of 8th Line	Twp of Mapleton	
Sideroad 17 Bridge	Sideroad 17, 1.2 km north of Wellington Road 8	Twp of Mapleton	
Centre Wellington Bridge 3-WG	Fourth Line, 0.05 km north of Eramosa-West Garafraxa Townline	Township of Centre Wellington	35-432
Centre Wellington Bridge 6-WG	George Street, 0.02 km west of Nelson Street	Township of Centre Wellington	
Centre Wellington Bridge 6B-WG	George Street, 0.02 km west of Nelson Street	Township of Centre Wellington	
Centre Wellington Bridge 11-WG	Sideroad 25, 0.05 km west of Seventh Line	Township of Centre Wellington	35-148
Centre Wellington Bridge 13-WG	Sixth Line, 0.36 km north of Sideroad 20	Township of Centre Wellington	35-145
Centre Wellington Bridge 17-WG	Fifth Line, 0.6 km north of Sideroad 15	Township of Centre Wellington	35-149
Centre Wellington Bridge 18-WG	Fifth Line, 1 km north of Sideroad 15	Township of Centre Wellington	35-143
Centre Wellington Bridge 19-WG	Fifth Line, 1.2 km north of Sideroad 15	Township of Centre Wellington	35-142
Centre Wellington Bridge 20-WG	Second Line, 1.3 km north of Wellington Road 19	Township of Centre Wellington	35-206
Centre Wellington Bridge 22-WG	First Line, 1.55 km south of Sideroad 15	Township of Centre Wellington	35-203
Centre Wellington Bridge 23-WG	First Line, 1.65 km south of Sideroad 15	Township of Centre Wellington	35-204
Centre Wellington Bridge 28-WG	Sideroad 20, 0.15 km west of Wellington Road 16	Township of Centre Wellington	35-140
Centre Wellington Bridge 31-WG	Second Line, 0.18 km north of Wellington Road 18	Township of Centre Wellington	35-215
Centre Wellington Bridge 3-P	Eighth Line East, 0.55 km south of Sideroad 12	Township of Centre Wellington	35-305
Centre Wellington Bridge 4-P	Sideroad 12, 0.5 km east of Weisenberg Road	Township of Centre Wellington	35-304
Centre Wellington Bridge 9-P	Sixth Line East, 0.4 km south of Sideroad 12	Township of Centre Wellington	35-307



Centre Wellington Bridge 10-P	Fourth Line East, 0.07 km north of Sideroad 14	Township of Centre Wellington	35-308
Centre Wellington Bridge 11-P	Fourth Line East, 1 km south of Sideroad 10	Township of Centre Wellington	35-365
Centre Wellington Bridge 14-P	Sideroad 4, 0.45 west of Fourth Line East	Township of Centre Wellington	35-266
Centre Wellington Bridge 18-P	Middlebrook Road, 0.6 km east of Eighth Line West	Township of Centre Wellington	
Centre Wellington Bridge 21-P	Eighth Line West, 0.7 km south of Wellington Road 18	Township of Centre Wellington	35-259
Centre Wellington Bridge 22-P	Eighth Line West, 0.2 km north of Noah Road	Township of Centre Wellington	35-254
Centre Wellington Bridge 24-P	Third Line West, 0.7 km north of Sideroad 5	Township of Centre Wellington	35-188
Centre Wellington Bridge 32-P	Noah Road, 0.75 km west of Eighth Line West	Township of Centre Wellington	35-380
Noah Bridge (Centre Wellington Bridge 33-P)	Noah Road, 0.65 km west of Eighth Line West	Township of Centre Wellington	35-381
Centre Wellington Bridge 10-N	Irvine Street, 0.23 km north of Sideroad 15	Township of Centre Wellington	
Centre Wellington Culvert 21-N	Gerrie Road, 0.2 km north of Sideroad 5	Township of Centre Wellington	35-190
Centre Wellington Bridge 1-F	Between Menzies Lane and Fergus Market	Township of Centre Wellington	
St. David Street Bridge (Centre Wellington Bridge 2-F)	Highway 6 (St. David Street), 0.09 km north of Queen Street	Township of Centre Wellington	35-210
Beatty Dam Remnants	South of Highway 6 (St. David Street), north of Tower Street	Township of Centre Wellington	
Milligan Footbridge	Between Highway 6 (St. David Street) and Tower Street	Township of Centre Wellington	
Centre Wellington Bridge 2-EL	Arthur Road, between Water Street and Bissell Park	Township of Centre Wellington	35-271
Centre Wellington Bridge 1-E	Seventh Line, 0.1 km north of Sideroad 30	Township of Centre Wellington	35-226
Centre Wellington Bridge 2-E	Sideroad 30, 0.1 km west of Seventh Line	Township of Centre Wellington	35-225
Centre Wellington Bridge 4-E	Fifth Line, 1.3 km south of Sideroad 30	Township of Centre Wellington	35-223
Centre Wellington Bridge 7-E	Third Line, 1.6 km south of Sideroad 30	Township of Centre Wellington	35-282
Centre Wellington Bridge 8-E	Third Line, 0.7 km north of Wellington Road 22	Township of Centre Wellington	35-280/281
Eagle Bridge (Elora Walking Bridge #1)	Between South River Road & Wellington Road 18	Township of Centre Wellington	
Robb's Creek Culvert	Highway 6, north of Sideroad 5	Township of Centre Wellington	35-213
Irvine Creek Bridge	Highway 6, between Sideroad 5 and 10	Township of Centre Wellington	35-211



Elora Gorge Crossing (Elora Gorge Bridge)	Wellington Road 7, 0.7 km north of Wellington Road 21	Township of Centre Wellington	35-415
Moore's Bridge (Lot 3/4 Conc XI Nichol)(Bridge 7045)	Wellington Road 7, 1.5 km south of Wellington Road 17	Township of Centre Wellington	35-185
Burnett's Bridge (Bridge 7046)	Wellington Road 7, 2.3 km south of Wellington Road 17	Township of Centre Wellington	35-192
Lot 22, Concession IV/V West Garafraxa	Wellington Road 16, 6 km south of Wellington Road 109	Township of Centre Wellington	
Creebank Bridge	Wellington Road 17, 0.7 km east of Wellington Road 8	Township of Centre Wellington	35-181
Lot 2, Concession VI Nichol	Wellington Road 17, east of Woolwich-Pilking-ton Townline	Township of Centre Wellington	
Tower Street Bridge (Bridge No. 018055)	Tower Street South (Wellington Road 18), 0.07 km south of St. Andrew Street	Township of Centre Wellington	35-209
Carroll Creek Bridge	Wellington Rd 18, 5.9 km east of Wellington Rd 7	Township of Centre Wellington	35-258
Lot 5/6, Concession VI West Garafraxa	Wellington Rd 18, 2.6 km east of Wellington Rd 26	Township of Centre Wellington	
Scott Bridge	Wellington Road 22, 2.7 km east of Highway 6	Township of Centre Wellington	35-278
Lot 9, Concession VIII/IX Nichol	Wellington Road 22, 0.3 km east of Highway 6	Township of Centre Wellington	
Belwood Bridge	Wellington Road 26, 0.4 km south of Wellington Road 19	Township of Centre Wellington	35-152
Dow Bridge	Wellington Road 29, 0.2 km north of Wellington Road 22	Township of Centre Wellington	35-279
Penford Bridge	Wellington Road 16, 6 km north of Wellington Road 19	Township of Centre Wellington	35-141
Concession III Eramosa (Centre Wellington Bridge 1-WG)	Eramosa-West Garafraxa Townline, 0.3 km east of Third Line Eramosa	Township of Centre Wellington	35-219
Alma Bridge	County Road 17, 0.10 km west of County Road 7	Township of Centre Wellington	
Lot 1, Concession XI Nichol	County Road 17, 0.30 km west of Concession XIV/XV Peel	Township of Centre Wellington	
Lot 2, Concession VI Nichol	County Road 17, 0.80 km south of County Road 17	Township of Centre Wellington	
Bridge 6	3rd Line, 1.5 km north of Wellington Road 124	Town of Erin	
Bridge 12	Sideroad 17, 0.2 km east of Third Line	Town of Erin	
Lot 24, Conc. XIV/XV Erin	Wellington Rd 24, 1 km north of Wellington Rd 22	Town of Erin	
Lot 17, Conc. XI Erin Twp	Wellington Rd 125, .4km south Wellington Rd 124	Town of Erin	
Eramosa River Bridge (Hwy 124)	Wellington Road 124, 1 km east of Wellington Road 125	Town of Erin	
Wellington North Bridge 18	Concession 2, 0.7 km south of Sideroad 7 East	Township of Wellington North	35-82
Wellington North Bridge 20	Sideroad 7 West, 1.4 km east of Concession 9	Township of Wellington North	35-73



Wellington North Bridge 21	Sideroad 8 West, 1.0 km west of Concession 2	Township of Wellington North	35-80
Wellington North Bridge 23	Concession 9, 0.85 km south of Sideroad 7 West	Township of Wellington North	35-69
Wellington North Bridge 24	Concession 9, 0.95 km south of Sideroad 7 West	Township of Wellington North	35-70
Wellington North Bridge 25	Sideroad 8 West, 0.25 km east of Concession 9	Township of Wellington North	35-71
Wellington North Bridge 26	Concession 9, 0.55 km south of Sideroad 8 East	Township of Wellington North	35-72
Wellington North Bridge 27	Sideroad 9, 0.1 km east of Highway 6	Township of Wellington North	35-79
Wellington North Bridge 28	Concession 11, 0.8 km north of Highway 6	Township of Wellington North	35-97
Wellington North Bridge 31	Sideroad 10 West, 1.0 km east of Concession 4 South	Township of Wellington North	35-122
Wellington North Bridge 32	Sideroad 10 West, 0.3 km south of Highway 6	Township of Wellington North	35-123
Wellington North Bridge 33	East-West Luther Townline, 1.0 km north of Line 12	Township of Wellington North	
Lennox's Bridge (Wellington North Bridge 37)	Line 8, 1.3 km east of Highway 14	Township of Wellington North	35-84
Cook's Bridge West (Wellington North Bridge 39)	Line 6, 0.2 km east of Sideroad 3	Township of Wellington North	35-86
Cook's Bridge East (Wellington North Bridge 40)	Line 6, 0.3 km east of Sideroad 3	Township of Wellington North	35-87
Wellington North Bridge 41	Sideroad 7, 0.4 km north of Wellington Road 109	Township of Wellington North	35-89
Wellington North Bridge 42 (Conestogo River Bridge)	Second Line, 0.05 km south of Wellington Road 109	Township of Wellington North	
Farley's Creek Bridge	Highway 6, 0.55 km north of Wells Street	Township of Wellington North	35-125
Mitchell's Creek Bridge	Highway 6, 0.55 km east of Wellington Road 11	Township of Wellington North	35-128
Ostrander Bridge	Jones Baseline, 2.00 km south of County Road 109	Township of Wellington North	
Lot 26, Conc. IV/V W. Garafraxa	Wellington Road 16, 3.30 km south of Wellington Road 109	Township of Wellington North	
Lot 9/10, Conc. II West Luther	County Rd 16, 2.00 km north of County Road 109	Township of Wellington North	
Lots 18/19, Conc. XI	East-West Luther Townline, 0.3 km north of Wellington Road 15	Township of Wellington North	35-31
McGrath Bridge	Wellington Road 12, 0.20 km north of Wellington Road 109	Township of Wellington North	35-117
Lot 14, Conc. IX/X W Luther	Wellington Road 15, 3.00 km east of Wellington Road 16	Township of Wellington North	
East Garafraxa Bridge 10	11th Line, 1.1 km north of 10th Sideroad	Twp East Garafraxa	
Mud Creek Bridge	Highway 89, 0.1 km east of 280 Sideroad	Town Grand Valley	4-120



Grand River Bridge (Keldon)	Highway 89, 0.8 km west of Sideroad 27-28	Town Grand Valley	4-133
Highway 25 Bowstring Truss Bridge		Town Grand Valley	
Grand River Structure No. 2	County Rd 25, 8.5 km north of West Junction 109	Town Grand Valley	4-0064
Roy Hunter Bridge	County Road 15, 1.0 km east of Sideroad 24-25	Town Grand Valley	4-0041
ELGV Bridge #3	Sideroad 21-22, north of Wellington Rd 15/Conc 11	Town Grand Valley	
ELGV Bridge #4	Sideroad 24-25, 0.3 km south of Wellington Rd 15	Town Grand Valley	
ELGV Bridge #5		Town Grand Valley	
ELGV Bridge #6	Concession Rd 8-9, 0.3 km east of Sideroad 24-25	Town Grand Valley	
ELGV Bridge #8	Concession Road 8-9, 0.2 km west of Highway 25	Town Grand Valley	
ELGV Bridge #9	Concession Rd 8-9, 0.2 km west of Sideroad 24-25	Town Grand Valley	
ELGV Bridge #11	Concession Rd 2-3, 0.9 km west of Sideroad 27-28	Town Grand Valley	
Hall Bridge (ELGV Bridge #12)	Sideroad 27-28 and Concession Road 8-9	Town Grand Valley	
ELGV Bridge #13	Sideroad 21-22, 1.1 km north of Concession Rd 8-9	Town Grand Valley	
Main Street Bridge (ELGV Bridge #15)	Main Street South, 0.17 km south of County Rd 25	Town Grand Valley	
Ross Brown Bridge	County Road 15, 1.3 km east of Sideroad 24-25	Town Grand Valley	
County of Dufferin Bridge Number 1 (Amaranth-East Luther Boundary Bridge)	Amaranth-East Luther Townline, 1.42 km north of Highway 9	Twp of Amaranth	4-142
Amaranth Structure No. 3	8th Line, 1.5 km north of Highway 109	Twp of Amaranth	4-104
Amaranth Structure No. 5	Station Road, just east of 10th Line	Twp of Amaranth	4-155
Amaranth Structure No. 6 (Irvine Bridge)	10th Line, 0.7 km south of 5th Sideroad	Twp of Amaranth	4-101
Amaranth Structure No. 7	5th Sideroad, 0.45 km west of 9th Line	Twp of Amaranth	4-102
Amaranth Structure No. 8	9th Line, 0.1 km north of 5th Sideroad	Twp of Amaranth	4-66
Amaranth Structure No. 14	6th Line, 1.0 km north of 15th Sideroad	Twp of Amaranth	4-74
Amaranth Structure No. 19	6th Line, 1.2 km north of 25th Sideroad	Twp of Amaranth	4-49
Melancthon Bridge #1	4th Line SW, 1.0 km north of Highway 89	Twp of Melancthon	
Corbetton Bridge (Melancthon Bridge #2)	Sideroad 260, 0.2 km west of Highway 10	Twp of Melancthon	
Leader Bridge (Melancthon Bridge #5)	2nd Line SW, 1.4 km north of County Road 17	Twp of Melancthon	
Held Bridge (Melancthon Bridge #6)	4th Line SW, 1.7 km north of County Road 17	Twp of Melancthon	4-19
Gray Bridge (Melancthon Bridge #7)	7th Line SW, 1.5 km south of 270 Sideroad	Twp of Melancthon	
Melancthon Bridge #8	7th Line SW, 0.6 km south of 270 Sideroad	Twp of Melancthon	



Anderson Bridge (Melancthon Bridge #9)	8th Line SW, 2.5 km north of Highway 89	Twp of Melancthon	
Hutchinson Bridge (Melancthon Bridge #10)	280 Sideroad, 0.02 km east of 10th Line South-west	Twp of Melancthon	
Riverview East Bridge (Melancthon Bridge #13)	260 Sideroad, 0.06 km east of 7th Line SW	Twp of Melancthon	
Witowski Bridge (Melancthon Bridge #14)	4th Line SW, 0.5 km north of 250 Sideroad	Twp of Melancthon	
Oldfield Bridge (Melancthon Bridge #15)	2nd Line SW, 0.07 km north of 250 Sideroad	Twp of Melancthon	
Sack Bridge (Melancthon Bridge #16)	250 Sideroad, 2.2 km west of Highway 10	Twp of Melancthon	
Isaac Bridge (Melancthon Bridge #17)	250 Sideroad, 0.37 km west of Highway 10	Twp of Melancthon	
Fluney Bridge (Melancthon Bridge #18)	2nd Line NE, 0.75 km south of County Road 21	Twp of Melancthon	



APPENDIX D: Designated bridges

The following bridges, located in the Grand River watershed, have been designated under Part IV of the *Ontario Heritage Act*:

Property Name	Seneca Bridge (HD3)
Street Address	651 Caithness Street East
County or Regional Municipality	Haldimand County
Date of Designation	1984/10/15
By-law Number	By-law 443/8
Construction Date	1912
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

Property Name	Brant Bowstring Bridge (B4)
Street Address	Colborne Street East, 0.5 km east of Jerseyville Road
County or Regional Municipality	County of Brant
Date of Designation	2006/09/19
By-law Number	By-law 198-06
Construction Date	1931
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

Property Name	Stone Railway Bridge (Glen Morris Road Bridge) (B5)
Street Address	Glen Morris Road East
County or Regional Municipality	County of Brant
Date of Designation	1991/11/9
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

*Source: Ministry of Culture. (2005). *Ontario Heritage Properties Database*. Retrieved from: <http://www.hpd.mcl.gov.on.ca>

Property Name	Main Street Bridge (C1)
Street Address	Main Street, 0.1 km west of Water Street
Municipality	City of Cambridge
County or Regional Municipality	Regional Municipality of Waterloo
Date of Designation	1982/07/19
By-law Number	By-law 2225
Construction Date	1931
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

Property Name	Black Bridge (C2)
Street Address	8 Black Bridge Road
Municipality	City of Cambridge
County or Regional Municipality	Regional Municipality of Waterloo
Date of Designation	2003/01/20
By-law Number	By-law 16-03
Construction Date	1916
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV



Property Name	Freeport Bridge (K1)
Street Address	King Street E, 0.2 km north of Riverbank Drive
Municipality	City of Kitchener
County or Regional Municipality	Regional Municipality of Waterloo
Date of Designation	2001/11/05
By-law Number	By-law 2001-208
Construction Date	1925-1926
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

Property Name	West Montrose Covered Bridge (WC1)
Street Address	Covered Bridge Drive, 0.1 km north of Rivers Edge Drive
Municipality	Township of Woolwich
County or Regional Municipality	Regional Municipality of Waterloo
Date of Designation	2007/08/14
By-law Number	By-law 60-2007
Construction Date	1881
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV Ontario Heritage Bridge List

Property Name	New Hamburg Heritage Conservation District – Hartman Bridge (WT3)
Street Address	Boulee Street to the south and the Nith River to the north, east and west
Municipality	Township of Wilmot
County or Regional Municipality	Regional Municipality of Waterloo
Date of Designation	1992/10/13
By-law Number	By-law 92-90
Construction Date	1939
Protection Designator	<i>Ontario Heritage Act</i> designation – Part V

Property Name	Stone Road Bridge (G1)
Street Address	Stone Road East, between Victoria Road South and Watson Parkway South
Municipality	City of Guelph
Date of Designation	2004/02/16
By-law Number	By-law (2004)-17357A
Construction Date	1916
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

Property Name	Norwich Street Bridge (G2)
Street Address	Norwich Street East, 0.05 km southwest of Arthur Street North
Municipality	City of Guelph
Date of Designation	1998/06/15
By-law Number	By-law 1998-15786
Construction Date	1882
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV



Property Name	Heffernan Street Footbridge (G5)
Street Address	Heffernan Street, between Woolwich Street and Arthur Street
Municipality	City of Guelph
Date of Designation	1990/05/07
By-law Number	By-law 1990-13541
Construction Date	1914
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

Property Name	Gow's Bridge (G7)
Street Address	McCrae Blvd, 0.11 km north of Water Street
Municipality	City of Guelph
Date of Designation	1990/05/14
By-law Number	By-law (1990)-13471
Construction Date	1897
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

Property Name	Covered Lattice Truss Bridge (G9)
Street Address	York Road Park, between Gordon Street and York Road
Municipality	City of Guelph
Date of Designation	1997
Construction Date	1992
Protection Designator	<i>Ontario Heritage Act</i> designation – Part IV

Source (unless otherwise noted): Parks Canada. (2013). *Canadian Register of Historic Places*. Retrieved from: <http://historicplaces.ca>.



List of demolished bridges

City of Brantford						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Grand Trunk Railway Bridge (Gordon Glaves Grand River Crossing)	DBF1	Oak Hill Trail, part of the Gordon Glaves Memorial Pathway, 1 km south of Hardy Road in the Brant Conservation Area over the Grand River in the City of Brantford	Three-span steel truss railway trestle	Built c.1877 Replaced 1999	Steel Truss and Girder with timber deck and concrete piers	The Brantford, Norfolk and Port Burwell Railway built the bridge circa 1877. After the Canadian National Railway removed this track line, the structure was replaced to carry the Gordon Glaves Memorial Pathway, a segment of the Trans-Canada Trail System.

County of Brant						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Willow Street Bridge (Paris Wrought Iron Bridge)	DB1	Directly north of the Grand River Bridge (Dundas Street West) over the Grand River in the Town of Paris	Wrought Iron Pratt Through Truss	Built 1877 Demolished 1988	Not replaced	Willow Street Bridge built in 1877 by the Wrought Iron Bridge Company of Canton, Ohio. Two spans were Stearns trusses and the third a Pratt. Wrought iron lamp brackets and decorative posts were found on the catwalk. The piers were constructed of stone and concrete. Although originally open to automobiles, the bridge carried pedestrians only from 1931-1988. The bridge deck was removed in 1969 but still allowed for pedestrian use.
Middleport Road Bridge (Structure Number 1-0100-00)	DB2	Middleport Road, 1.5 km north of County Highway No. 54 over Big Creek in the community of Middleport	Earth-filled Spandrel Arch	Built circa 1930 Demolished 2012	Not yet replaced	The Middleport Road Bridge was a single span, solid spandrel concrete arch structure of reinforced cast-in-place concrete. It had an elliptical arch with a smooth soffit. Solid concrete spandrel walls contained the earth filled core. Solid concrete railings extended along both sides of the deck and included decorative features highlighted with recessed panels set between concrete posts. The bridge replaced an earlier wood structure in approximately the same location. The bridge was one of three surviving earth filled solid spandrel concrete arch bridges in the County of Brant, and the only one within the former Township of Onondaga. The others include the extant Mill Street Bridge and Cleaver Road Bridge.



Reaker Bridge (Structure Number 1-0111-00)	DB3	Mulligan Road, 1.6 km north of County Highway Number 54 over Big Creek in the community of Onondaga	Steel Pony Truss	Built circa 1920 Demolished 2012	Not yet replaced	Reaker Bridge was riveted with a concrete deck and abutments. This structure was one of two remaining steel truss road bridges in the County of Brant. The other remaining truss is the Burt Road Bridge, estimated to have been built in the same year.
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Township of Blandford-Blenheim

Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Blandford-Blenheim Bridge #21	DBB1	Township Road 11, 2.8km east of Blenheim Road over the Nith River	Steel Pratt Through Truss	Built 1920 Replaced 2008	Concrete CPCI Girders	Blandford-Blenheim Bridge #21 was built in 1920. It is a one-span steel truss bridge owned and maintained by the Township of Blandford-Blenheim.

City of Cambridge

Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
King Street Mill Race Bridge	DC1	King Street, 0.13 km west of Chopin Drive over the Speed River in the community of Preston	T-beam and slab concrete	Built 1930 Replaced 2005	Concrete Culvert	The bridge's open concrete railing was a distinguishing feature. It was proposed that the railings be salvaged for display, possibly in Riverside Park. The larger portion of this bridge was replaced in 1987 with a similar concrete design, although with a solid balustrade. A smaller bridge section spans the north millrace and is still original.

Township of Wilmot

Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Haysville Bridge	DWT1	Huron Road, .2km east of Tye Road over the Speed River in the community of Haysville	Steel Through Truss	Built 1930 Replaced 2000	Concrete Bridge	The Haysville Bridge was constructed in 1930 by the Hamilton Bridge & Tool Company, and engineered by Herbert Johnstone. It was assembled on site. The bridge was a single span steel through truss, 49.9m long by 6.1m wide. A flood destroyed the original bridge at this site in 1883. A remnant abutment from this first bridge remains.



Township of Woolwich						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Schuett Bridge	DWC1	Maryhill Road, west of Township Road 61 over Cox Creek in the community of Winterbourne	Concrete Earth-filled Arch	Built 1913 Replaced 2006	Concrete Rigid Frame	Schuett Bridge was a one-span concrete earth filled arch structure built in 1913. It was 15.2m long and 3.9m wide.

City of Guelph						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Neeve Street Bridge	DG1	Crosses the Speed River 0.05 km east of Wellington Street East in the City of Guelph	Triple-span, reinforced concrete structure	Built 1913 Replaced 1996	Two-span reinforced concrete arch bridge made to look like stone to reflect the traditional masonry buildings and bridges once common in Guelph	There have been several bridges at this location since the mid-1850s. Previous bridges were made of timber and steel. The 1913 bridge featured two shallow arches and streetcar railway lines. The design of the shallow arches is reflected in the current bridge's design.
Wyndham Street Bridge (Crawford St. Bridge) (Old Huskisson St. Bridge)	DG2	Wyndham Street, between Woolwich Street and Arthur Street North over the Speed River	Three-span barrel arch structure	Built 1909 Replaced 1992	Concrete Rigid Frame	Many bridges on this site. Before the 1909 structure, a footbridge was located on the site in 1872.

Township of Puslinch						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Story's Bridge (Structure 0002)	DPL1	Sideroad 10 North, north of Laird Road West over the Speed River	Steel Pratt Through Truss	Built 1908 Demolished August 2012	Unknown	The Story's Bridge was at least the second bridge at this crossing and Charles Mattaini was hired to build new concrete abutments, at a cost of \$795, and the Stratford Bridge Company built the structure for \$1,307 - for a total of \$2,102. The bridge deck was removed after 1993. Bridge became a pedestrian walkway but was closed to the public after 2007. The bridge and abutments were removed in July 2012.



Township of Guelph/Eramosa						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Eden Mills Bridge (Guelph/Eramosa Bridge 81)	DGE1 RGE1	York Street, 0.1 km west of Wilson Street (Township Road 28) over the Eramosa River in the community of Eden Mills	Concrete Bowstring Arch	Built 1913 Replaced 1998	Bowstring Arch, Rigid Frame with Vertical Legs	Concrete bowstring arch bridge built in 1913 by Charles Mattaini and Bowman & Connor Engineers. Was listed on the Ontario Heritage Bridge List. Due to considerable community debate, the new bridge was designed with decorative arches that resemble the old bowstrings. Located 200 m from reconstructed Guelph/Eramosa Bridge 82 and old Eden Mill, contributing to a cultural heritage landscape along York Street in the community of Eden Mills.
Hagan's Bridge	DGE2 RGE2	Jones Baseline, 1.60 km south of County Road 22 over the Speed River	Concrete Bowstring Arch (tied)	Built 1917 Replaced 1995	Steel Camelback Pony Truss	Concrete bowstring arch (single cross tie) bridge built by Charles Mattaini with concrete balustrades with square posts, likely demolished and replaced in 1995. Was on the Ontario Heritage Bridge List.
Armstrong Bridge	DGE3	Jones Baseline, 2.9 km south of County Road 22	Concrete Bowstring Arch	Built 1918 Replaced 1964	T-beam Rigid Frame	Likely replaced the previous Armstrong Bridge, a concrete bowstring arch built by Charles Mattaini in 1918.

Township of Mapleton						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Stirton Bridge (MB011)	DML1	Concession 8, 0.8 km west of Wellington Road 11 over the Conestogo River	Concrete Bowstring Arch	Built 1916 Replaced 1996	Precast Concrete Girders	Constructed by J. Langdan Construction and Bowman & Conner Engineers and was 1.5 lanes and one span with concrete balustrades and chamfered concrete posts.
Denstedt Bridge (MB012)	DML2	Sideroad 12, 0.1 km south of Concession 8 over Moorefield Creek	Concrete Bowstring Arch	Built 1912 Replaced 2007	Concrete Through Arch	
PB002 (Conestogo River Bridge)	DML3	16th Line, 0.13 km east of County Road 11 over the Conestogo River	Concrete Bowstring Arch	Built c.1920 Replaced 1988	Concrete I-beam	Built by J. Tilker of Harriston with inscriptions in the concrete that read: "A.B. M.C. Colgan, Reeve. H. Barkwell, H. Beal, T.B. Farrel, A. Ruler, Council" "E. Gainer Inspr, J. Tilker Contractor Harriston"



Cheese Factory Bridge	DML4	County Road 8 over the Mallet River near Rothsay	Concrete Bowstring Arch	Built 1918	Unknown	Structure was one span, 15.3m by 5.5m and cost \$4,964.19 to construct. Inscriptions in concrete: "Erected AD 1918" "W.D. McClellan, Inspector, Harriston" John Tilker, Contractor, Harriston" JM Young, County Road Supt., Harriston" "CH Dixon, Reeve Maryboro" "WB Howes, County Roads, Minto"
MB003	DML5	Concession 14, 0.7 km east of Sideroad 6 over the Mallet River	Concrete Bowstring Arch	Demolished and replaced 2009	Concrete Slab on Box Girder	

Township of Centre Wellington						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Centre Wellington Bridge 19-P (Middlebrook Bridge)	DCW1	Middlebrook Road, 0.3 km east of Eighth Line West over Carroll Creek	Concrete Bowstring Arch	Built 1935 Demolished June 2011	Concrete I-beam	Structure was one span, 16.2 m by 5.9 m.
Centre Wellington Bridge 20-P (Wilson's Bridge; 8th Line Bridge)	DCW2	Eighth Line West, north of Wellington Road 21 at Wilson's Flats over the Grand River	Steel Warren Pony Truss	Built: west side 1920, east side 1938 Replaced December 2010	Concrete I-beam	Bridge was closed in 2002. Structure was 46.7 m by 5.7 m.
Centre Wellington Bridge 6-N (Gerrie Road Bridge; Piercy's Bridge)	DCW3	Gerrie Road, 0.5 km south of Sideroad 10 South over Irvine Creek	Concrete Bowstring Arch	Built 1933 Replaced 2007	Pre-stressed I-girder	Structure was 27.4 m by 4.9m.
Atkinson Bridge (Centre Wellington Bridge 25-WG)	DCW4	Jones Baseline, 0.35 km north of Sideroad 15 over Irvine Creek	Concrete Bowstring Arch (tied)	Built 1929 Demolished 2011 Replaced 2012	Concrete Rigid Frame	Structure was 25 m by 5.9 m. The names of municipal officials, designer, builders were impressed in the reinforced concrete railings.
Cox Creek Bridge (Howe Bridge #2)	DCW5	Third Line West, north west of Sideroad 11, Pilkington over Cox Creek	Concrete Bowstring Arch	Built 1916	Unknown	Built by J.E. Bauman and Charles Mattaini, one span, 9.1 m by 5.5 m. Was listed on the Ontario Heritage Bridge List.



Rea Bridge	DCW6	Wellington Road 16, 1 km north of Wellington Road 19 over Irvine Creek	Concrete Bowstring Arch	Built 1925 Replaced 2009	Concrete Bridge	Reinforced concrete bowstring arch bridge had a 22.9m span and 5.8m width.
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Township of Wellington North						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Conestogo River Bridge #2	DWN1	Wellington Road 109, 2.8 km east of Wellington Road 11 over the Conestogo River near Arthur	Concrete Bowstring Arch	Built 1916 Replaced 1996	Precast Concrete Girders	Constructed by J. Langdan Construction and Bowman & Conner Engineers and was 1.5 lanes and one span with concrete balustrades and chamfered concrete posts.
Four Mile Creek Bridge	DWN2	Highway 6, 0.75 km south of Sideroad 9 West over Four Mile Creek near Arthur	Concrete Bowstring Arch	Built 1930 Replaced 2003	Precast Concrete I-beams	Built during the height of the popularity of this bridge design by the Ontario Department of Highways. Had an inscription that read "The Kings Highway 1930."
Mallet River Bridge	DWN3	Wellington Road 109, 0.1 km west of Maryborough Road 6 over the Mallet River	Concrete Bowstring Arch	Built 1930 Replaced 1957	Arched T-beam Rigid Frame	Bridge had concrete balustrades with chamfered concrete posts.
Burke Bridge	DWN4	Arthur Side Road 3	Concrete Bowstring Arch	Built 1920	Unknown	Engravings in concrete read: "Burke Bridge Erected AD 1920", "J. McLellan, Reeve Arthur", "W.G. Morrison Inspector", "John Tilker, Contractor Harrison"

Township of East Garafraxa						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Haws Bridge #2 (East Garafraxa Bridge 6)	DEX1	11th Line, 0.45 km south of 15th Sideroad over the Grand River	Double Concrete Bowstring Arch (tied)	Built 1922 Replaced 1987	CPCI Girders	Haws Bridge #2 was a concrete double bowstring arch with tie rods built in 1922 and designed by civil engineers, Wheelock & Christie.
East Garafraxa Bridge 9	DEX2	10th Line, 1.6 km north Sideroad 10 over the Grand River	Steel Pony Truss	Built 1912 Replaced 2008	CPCI Girders	This steel, two-span pony truss with a length of 42.6m was replaced in 2008 to make way for a two-lane structure.



Town of Grand Valley						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Amaranth Street Bridge (Dufferin Bridge No. 2)	DGV1	Amaranth Street East (East Luther-Grand Valley Townline), 0.60 km east of Highway 25 over the Grand River in Grand Valley	Double Concrete Bowstring Arch	Built 1919 Replaced December 2002	Concrete Box Girders	In 1883 a wooden bridge was built on this site but was destroyed by a flood in 1918. In 1919 civil engineers, Wheelock & Christie, built the double concrete bowstring arch bridge.
Black Bridge	DGV2	County Road 25, 5.6 km north of West Junction 109 over the Grand River in Grand Valley	Concrete Bowstring Arch	Built November 1931 Replaced 2007	Girder, I-beams	The first Black Bridge was constructed in 1903 by a man named Black, and served the community well until a bus loaded with soldiers returning to Camp Borden, caused the wooden bridge to collapse under its weight. The next bridge on site, a concrete bowstring arch bridge was said to be the longest single-span bowstring arch bridge in the province. The cost to the County was roughly \$12,300 and 35 tons of steel and 1,075 barrels of cement were used in the construction. It became a local landmark for almost 80 years and was a rare example of the larger double lane bowstring bridges used by highway engineers at the time. The 2007 replacement bridge is located slightly upstream from site of original Black Bridge.
ELGV Bridge #2 (Turner Bridge)	DGV3	Concession Road 12-13, 0.2 km east of Sideroad 24-25 over the Grand River	Concrete Bowstring Arch	Built 1922 Replaced 1987	Concrete Box Girders	Replaced the 1922 Turner Bridge, a concrete bowstring arch with two ties and concrete balustrades built by civil engineers, Wheelock & Christie.

Township of Amaranth						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Wilson Drain Bridge (Amaranth Structure No. 1)	DA1	6th Line, 0.4 km north of Highway 109	Concrete Rigid Frame	Built c.1926 Replaced 2007	Steel Beam Bridge	Was a one-lane bridge.
Amaranth Structure No. 9 (Dufferin Bridge No. 5) (Barber Bridge)	DA2	8th Line, 0.5 km north of Highway 10 over Willow Brook	Unknown	Built 1935 Replaced 2008	Steel Beam Bridge	



Amaranth Structure No. 18	DA3	25th Sideroad, 1.1 km east of 7th Line over Willow Brook	Unknown	Built c.1916 Replaced 2007	Rigid Frame	Was a one-lane bridge.
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Township of Melancthon						
Bridge Name	Code	Location	Type	Significant Dates	Replacement Structure	Notes
Riverview Bridge South (Melancthon Bridge #12)	DMC1	7th Line SW, 1.8 km north of 270 Sideroad over the Grand River in the community of Riverview	Steel Pony Truss	Original date of con- struction unknown Replaced 2007	Steel I-beam	

APPENDIX F: Reconstructed bridges with unique/heritage elements

This report does not include a full review and assessment of reconstructed bridges with unique/heritage elements located in the Grand River watershed. Further study is required in this regard. The bridges included in Appendix F illustrate some of the municipal efforts that have been made to design contemporary structures that reflect historic bridge building aesthetics.



Name: Eden Mills Bridge
 Other name: Guelph/Eramosa Bridge 81
 Bridge code(s): RGE1, DGE1
 Community: Eden Mills
 Lower-tier: Township of Guelph/Eramosa
 Upper-tier: Wellington County
 River Crossed: Eramosa River
 Current bridge type: Concrete Bowstring Arch,
 Rigid Frame (vertical legs)
 Bridge reconstruction date: 1998
 Original bridge type: Concrete Bowstring Arch
 Original construction date: 1913



Name: Hagan's Bridge
 Bridge code(s): RGE2, DGE2
 Lower-tier: Township of Guelph/Eramosa
 Upper-tier: Wellington County
 River Crossed: Speed River
 Current bridge type: Camelback Pony Truss
 Bridge reconstruction date: 1995
 Original bridge type: Concrete Bowstring Arch
 Original construction date: 1917



Name: Guelph/Eramosa Bridge 82
 Bridge code(s): RGE3
 Community: Eden Mills
 Lower-tier: Township of Guelph/Eramosa
 Upper-tier: Wellington County
 River Crossed: Eramosa River
 Current bridge type: Rigid Frame (vertical legs)
 Bridge reconstruction date: 2005
 Original bridge type: Unknown
 Original construction date: Unknown



APPENDIX G: General overview of Ontario bridge types

Type	Comments
Timber	Typically used for agricultural areas in the 1800s with log beams and rock filled timber cribs. Material was readily available. King and Queen timber posts were used until the 1900s for longer spans. Timber trestles were constructed for rail after 1850. Timber is suitable in tension and compression.
Masonry	Used principally in Ontario for structure foundations. Little skilled labour for bridges available so only a few constructed. When it was used they were frequently built in rough stone and mortar.
Cast Iron	Though used in the United Kingdom from the early 1800s for arches and beams there was little iron industry in Canada until later and so it was infrequently used. Cast iron is good in compression but not tension and there were many beam failures.
Wrought Iron	Wrought iron had improved strength and was not brittle. It also had good tension and compression. It replaced the cast iron bridges when the railway arrived (1830s in Britain and 1850s in Canada). Wrought iron was used for plate girders and many different truss types that were largely developed in the United States. They were no longer used after 1900. The era of “catalogue” bridges started at this time.
Steel	Steel had higher strength in compression and tension and better quality control but rusted more than wrought iron. Developed in the 1860s, Ead’s Arches in St. Louis, US was the first major user of steel in 1873. The period coincided with better analytical capability; creation of the first engineering school in Canada at the University of New Brunswick; and the emergence of the Canadian Society of Civil Engineers in 1886 (principal founders Keefers, Gzowski, Fleming). Railways produced the first bridge specifications after 1870. Steel became the major material for bridge construction after 1870 replacing wrought iron.
Concrete	Although used in various formats in Europe since Roman times, the emergence of Portland Cement in 1855 produced concrete of higher quality, strength and durability. Used then for mass concrete walls, abutments and footings. Good in compression but cracked in tension.
Reinforced Concrete	Steel reinforcing of concrete in tension areas resulted in much wider use. Then it was used for beams as well as arches. Developed first in France in the 1880s, the first super structure use in Ontario was for the arch bridge in Massey in 1906. The first rigid frames were introduced on the Queen Elizabeth Highway in 1938 and then widely used on Highways 400 and 401 in the 1940s and 1950s. Reinforced concrete replaced mass concrete for wall, abutments, piers and footings in the 1930s.
Pre-stressed Concrete	Developed by Freyssinet in France in the 1930s to eliminate cracking of concrete in tension areas, the first of these beams occurred in Ontario in 1954. Can be used pre-cast; cast in place either pre or post tensioned. Presently the most widely used bridge construction material.

(Summary courtesy of Roger Dorton, 2011
First published in *Crossing the Humber: The Humber River Heritage Bridge Inventory*, 2011)



APPENDIX H: Excerpt from the *Ontario Heritage Act*, Sections 27 and 29, Part IV

Ontario Heritage Act

PART IV

CONSERVATION OF PROPERTY OF CULTURAL HERITAGE VALUE OR INTEREST

Register

27. (1) The clerk of a municipality shall keep a register of property situated in the municipality that is of cultural heritage value or interest. 2005, c. 6, s. 15.

Contents of register

(1.1) The register kept by the clerk shall list all property situated in the municipality that has been designated by the municipality or by the Minister under this Part and shall contain, with respect to each property,

- (a) a legal description of the property;
- (b) the name and address of the owner; and
- (c) a statement explaining the cultural heritage value or interest of the property and a description of the heritage attributes of the property. 2005, c. 6, s. 15.

Designation of Properties by Municipalities

Designation by municipal by-law

29. (1) The council of a municipality may, by by-law, designate a property within the municipality to be of cultural heritage value or interest if,

- (a) where criteria for determining whether property is of cultural heritage value or interest have been prescribed by regulation, the property meets the prescribed criteria; and
- (b) the designation is made in accordance with the process set out in this section. 2005, c. 6, s. 17 (1).



APPENDIX I: Ontario Regulation 9/06

Ontario Heritage Act

ONTARIO REGULATION 9/06 CRITERIA FOR DETERMINING CULTURAL HERITAGE VALUE OR INTEREST

Consolidation Period: From January 25, 2006 to the e-Laws currency date.
No amendments.

Criteria

1. (1) The criteria set out in subsection (2) are prescribed for the purposes of clause 29 (1) (a) of the Act. O. Reg. 9/06, s. 1 (1).

(2) A property may be designated under section 29 of the Act if it meets one or more of the following criteria for determining whether it is of cultural heritage value or interest:

1. The property has design value or physical value because it,
 - i. is a rare, unique, representative or early example of a style, type, expression, material or construction method,
 - ii. displays a high degree of craftsmanship or artistic merit, or
 - iii. demonstrates a high degree of technical or scientific achievement.
2. The property has historical value or associative value because it,
 - i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,
 - ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or
 - iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.
3. The property has contextual value because it,
 - i. is important in defining, maintaining or supporting the character of an area,
 - ii. is physically, functionally, visually or historically linked to its surroundings, or
 - iii. is a landmark. O. Reg. 9/06, s. 1 (2).

Transition

2. This Regulation does not apply in respect of a property if notice of intention to designate it was given under subsection 29 (1.1) of the Act on or before January 24, 2006. O. Reg. 9/06, s. 2.

Source: Province of Ontario. (2006). Ontario Heritage Act: Ontario Regulation 9/06. Retrieved from: <http://www.search.e-laws.gov.on.ca/en/isysquery/4f288e3d-4bea-4010-ad0a-e3ce4a8c16cf/1/doc/?search=browseStatutes&context=#hit1>.



