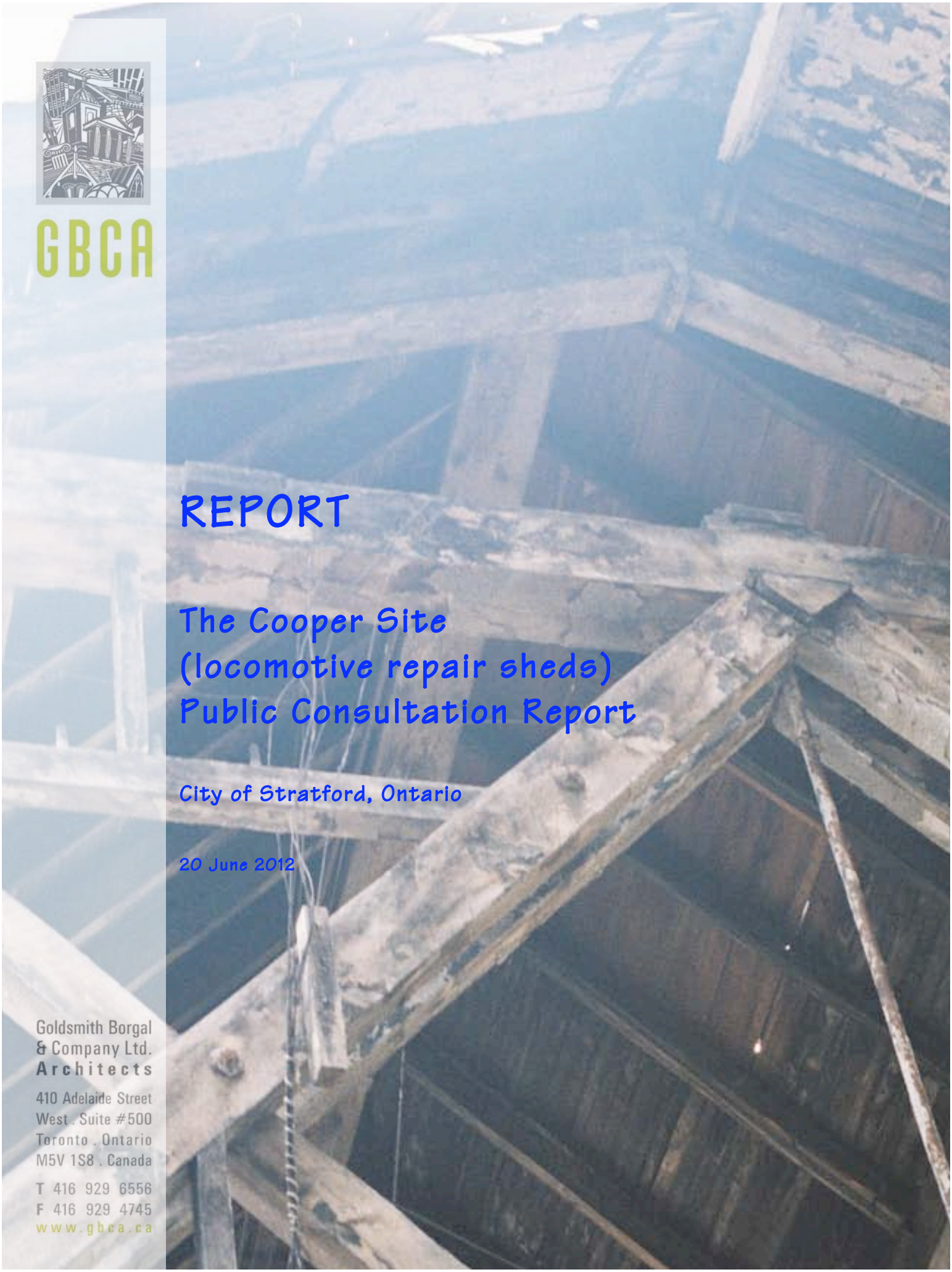

GBCA

REPORT

The Cooper Site (locomotive repair sheds) Public Consultation Report

City of Stratford, Ontario

20 June 2012

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1. Introduction

1.1 General Parameters

Goldsmith Borgal & Co. Ltd. Architects (GBCA) was contracted in mid-2010 to assess the merits of the former Stratford Locomotive Repair facility (located on lands known as the Cooper Site). The assessment is based on a combination of research into the site's heritage merit as defined by Provincial requirements for heritage sites, an individual and public consultation process, and by reference to general costs and implications of the various options for use or re-cycling of the building on the site.

The objectives of the process are to determine the most appropriate use or range of uses for the building on the site and to make recommendations to council as to the merits of the various options related to the future of the site.

1.2 Process

At the outset, a series of background documents, including some prepared by previous owners, were reviewed in respect of the site. The site was visited and photographs were taken of the building and its condition.

The approach to this report was considered open-ended. No instructions were provided by City officials as to desired outcomes or recommendations. Comments from the City included concerns with respect to the City's potential costs related to the site and these have been considered in the same manner as comments by others.

Following a preliminary meeting, a meeting was held on 21 December 2010 with the Mayor, the CAO, the City's solicitors and the Director of Development and Planning to discuss the site, the issues surrounding the site and the process going forward.

During the above meeting, it was mutually agreed to set up a meeting with various interested members of the community. These included Thor Dingman, Michael Wilson and the Chair of Heritage Stratford. This meeting was held on the morning of 26 January 2011.

Subsequently, interviews with interested parties were conducted on the afternoon of 26 January 2011. A total of 19 interested persons or groups such as the City Centre Committee, the University and others were invited to provide input as to the potential or realistic use or disposition of the building and several of these attended the afternoon session. To provide a national perspective to the issue, the attendees at these meetings included Natalie Bull, Executive Director of the Heritage Canada Foundation.

Minutes were taken for all interview sessions and these are as noted in Appendix B.

In the course of carrying out our work, it was determined that further investigative work was required to establish the scope of work and costs related to the various options for the site, including demolition and the creation of a brownfields site, demolition and creation of a fully remediated site, preservation of the ruins in situ pending potential future uses and preservation of a portion of the original structure as a commemoration with removal of the remainder. A Building Condition Assessment report has been prepared by Reed Jones Christoffersen Consulting Engineers and is considered in this report. The investigation produced details for three options contemplated for the building and provided an estimate of costs related to those options. Subsequent to our review of the findings of the RJC investigation, our report was completed and made available for a public meeting of Stratford City Council on 27 June 2012.

1.3 Access to Site

We (the consultants) had excellent cooperation from the City of Stratford who arranged for access to the site. The City also provided a security guard who was present at all times while we were on site.

2. History of site

2.1 Historical Background

To properly assess the site, it is necessary to examine its history to determine its historical significance. The significance includes the opportunities represented by the site and its structures as well as the costs and environmental constraints posed by either development or demolition. The value of the site will be examined both in terms of the cultural value to the community and financial and economic issues related to the site. This historical background is included in the next section of this report.

2.2 Strategic Positioning

Considered the most important factor in the early development of Stratford, the railways not only fostered growth of key industries, such as agriculture, farm implements, furniture manufacturing and iron works, but also, with much of the local population being employed by the railways, they were instrumental in the economic and cultural maturity of this southwestern Ontario town. At a very early date, railway lines ran out of Stratford in six different directions, making it a strategically placed hub for competing railways.

In choosing Stratford as the site for its new consolidated facilities and divisional centre in 1870, the Grand Trunk Railway introduced a number of buildings onto the landscape of the town—the most notable of which was the locomotive repairs shops and associated structures forming a substantial industrial complex covering, at one time, close to 40 acres. By 1923, when the Grand Trunk Railway was merged with the government-owned Canadian National Railway, the complex had undergone a number of additions and expansions.

Reference should be made to the photographs included in the text below as well as in Appendix C.

2.3 Early Development from 1871 to 1909

The Grand Trunk Railway's locomotive repair shops were erected in 1871. These facilities were expanded in 1889 due primarily to the growth of the company as a result of the takeover of the Great Western Railway (1882) and the Northern & North Western lines (1888). The Great Western Railway locomotive shops in Hamilton were closed and production was consolidated in Stratford.

A new management structure at the end of the nineteenth century made the Grand Trunk more profitable and they came to dominate the railway business in western Ontario. Further expansions ensued at the outset of the twentieth century, spanning between the years 1904 and 1909. The Stratford Locomotive Repair

facility dates from this 1909 period. The physical expansions to the complex coincided with the need for more space due to the increased size of the locomotives. The picture at right shows a portion of an 1889 structure, demolished in 2010, with the bulk of the newer 1909 wing to the left.

2.4 WWI to 1958

The First World War saw the shops at their busiest, while the period after the War saw the transfer to Stratford of machinery and mechanical staff from a number of other locations throughout the province. In 1926 the Canadian Northern Railway shops in Leaside, Toronto, closed and the work was transferred to Stratford. In 1933, staff and machinery were relocated from the Northern & North Western Lines shops at the foot of Spadina in Toronto.

Eventually, the Stratford facility became the largest in the entire Canadian National Railway system. The site included a number of buildings, which served not only the CNR's production needs, but also the needs of the community at large. The CNR classroom for apprentices, library and concert room ultimately led to the construction of the YMCA on the outskirts of the industrial site (from 1904 to 1968, the "Y" building was heated by hot water pipes connected to the boilers in the shops).

Although the Grand Trunk Railway officials looked well into the future, believing that they took into account the need for larger and stronger structures that would accommodate the modern locomotives, additions were continually required. With the introduction of even larger locomotives, the shops had to yet again be enlarged and in 1947 an addition to the early twentieth century building was undertaken.

With the advent of diesel locomotives, the usefulness of the shops began to decline with the site used to dismantle old steam engines in its latter years. The site was gradually transferred, from 1958 to 1964, to Cooper-Bessemer Ltd., a fabricator of boilers. Cooper-Bessemer operated the site until the mid-1980's after which time the site was acquired by Landawn Shopping Centres. The City of Stratford first acquired the site in the early 1990's after which it was acquired by private interests. In 2009, the site was expropriated by the City of Stratford with possession to the City occurring in early 2010.

3. The Site

3.1 Site Description

The Stratford Locomotive Repair facility is located to the south of the core areas of Stratford on lands known as the Cooper Site. This large complex of buildings was a locomotive repair facility originally established by the Grand Trunk Railway for the repair of locomotives in the late 19th century. While the main building on site was constructed in 1909, earlier structures have been lost to fire or demolition (as a result of structural instability). The east wing (a boiler tube repair facility) was removed in 2010 and was originally constructed c. 1889. The building can be seen in the Google image of the City to the south of the core area (circled). The sheer size of the building can be seen in relation to the community in which it sits. City Hall is also identified with a star in the image.

The overall Cooper Site consists of an area of approximately 19 acres of which a portion has been severed to support the development of a new building for a University of Waterloo satellite campus.

To the north of the site is the City core, a short walk from the site. Immediately to the south of the site is a rail line which links Stratford to the Port of Goderich and the CN Rail network. Just to the east of the site is the Stratford Railway station.

3.2 Building

3.2.1 Building Area

The Stratford Locomotive Repair facility was illustrated in a plan prepared by Mr. Thor Dingman of Stratford on behalf of an application by a group lead by Alan Gough to adaptively re-use the building as a sound studio (in 1992). This plan has been reproduced in a reduced format in Appendix A. As noted on the plan, the building at that time included the following areas:

Tender Shop (now demolished)	3,033 sq.m.
Sandblasting Shop (now demolished)	160 sq.m.
Tooling Shop	2,289 sq.m.
Carpenter Shop	607 sq.m.
Office	1,060 sq.m.
Boiler/Machine Shop	4,716 sq.m.
Erecting Shop	5,078 sq.m.
Annex	2,712 sq.m.
Annex w.r. (now demolished)	212 sq.m.
Smith Shop c. 1889 (demolished in 2012	1,344 sq.m.
Mezzanine	3,035 sq.m.
Total area c.1992	24,246 sq.m.
Total ground coverage c.1992	21,211 sq.m.
Approximate current ground coverage	19,497 sq.m.

Converted to imperial measurement, the current ground coverage of the building on the site is approximately 209,863 square feet or approximately 4.8 acres.

Following a fire which damaged the north end of the complex, the Tender Shop (1904) and Sandblasting Shop were demolished. This portion of the site was recently remediated and severed to permit the development of the University of Waterloo satellite campus building.

In 2010, the Smith Shop (1889) was also demolished as a result of significant structural damage due to rot in wood trusses and displaced masonry walls. The Smith Shop was constructed of masonry bearing walls with wood trusses and rafters supporting a planked wood roof (planks running east/west direction). The roof rafters ran north/south in the direction of the roof pitch and were supported on wood purlins running perpendicular to the rafters. The purlins were supported on peaked wood trusses. This demolition was fully recorded for posterity and forms the subject of a separate report.

The Stratford Locomotive Repair facility building consists of a sheet steel clad concrete and masonry structure with a superstructure of riveted iron supporting a wood sheathed roof. Our research uncovered various stages of construction of this main structure with early photographs included in Appendix C.

3.2.2 Design

The structure dates from 1907 to 1909—it took 18 months to erect in its entirety. Planned in 1906, the Grand Trunk Railway officials looked well into the future, anticipating the need for larger and stronger structures that would accommodate the heavy locomotives then coming into service.

By 1900, a single-storey factory type with roof truss systems had been developed in response to the need for large unbroken expanses of floor space, high ceilings and ample natural light. Either load-bearing masonry walls, or a skeleton frame structure, supported steel frame roof trusses of various designs. Large hoists and cranes were installed along the girders to move the locomotives. Machine shops, along with foundries and forges, favoured general utility structures with a rectilinear exterior form and large open, interior spaces. A key design element of these buildings was the amount of fenestration. Roof monitors not only supplemented the light provided by large windows, but also allowed adequate ventilation through operable skylight segments. The various roof types of industrial buildings often created dramatic interior spaces, as is the case with the subject building.

The structure was surveyed and engineered by the Railway Shops Department of the Arnold Company of Chicago. Construction of one of the biggest building projects in Stratford's history began in August of 1907. The structure included a long linear Erecting Shop (the tallest of the spaces) attached to a Machine shop, followed by another even shorter linear building, which served as the Carpenter's Shop. The new structure had to be erected on and around the site of the existing buildings, which remained in operation during the construction period. Given its massive size, the construction was undertaken in phases—once the west end (on the site of the 1888 Boiler Shop) was complete and operable in the summer of 1908, the work on the east end began (the old Erecting Shop and part of the Machine Shop were torn down to make way for the second phase of construction). By the fall of 1908 the massive linear Erecting and Machine Shops had marched eastward, meeting with and connected to one of the 1871 shops—now overshadowed by its state-of-the-art neighbour. (Note: The 1871 shops became the Forge and Blacksmith Shops and were engulfed by another building expansion in 1904). Also in 1908 a new Powerhouse, and associated smokestack, was constructed. Running

perpendicular from the west end of the new Erecting and Machine shop was the Tender Shop (previously erected in 1903-04).

The steel superstructure for the massive shops was supplied by the Canadian Bridge Company Limited of Walkerville (Windsor, Ontario). The Canadian Bridge Company (later a division of the Dominion Steel and Coal Corporation) was a prominent manufacturer of bridges, transmission towers and supplier of structural steel. The reinforced concrete for the base structure was supplied by the Forest City Paving Company of London, Ontario. The foundation consists of concrete piles and column footings—the piles driven in groups and capped with reinforced concrete—as well as spread footings.

As was common for buildings of this typology and date, the Erecting and Machine shops featured large windows, which allowed the interior to be flooded with daylight. These openings were glazed with multi-pane metal-frame industrial windows, spanning from above ground level to the underside of the crane assembly. Above the crane assembly, another set of windows extended to just below the roofline. The substantial ratio of void to solid created a dramatically modern site in Stratford, especially along the St. David Street frontage.

This impressive glazed façade was greatly altered in 1949 when an annex was completed. Running along the entire southern frontage, the annex extended the width of the building in order to accommodate even bigger locomotives. The aesthetic of the 1949 annex is markedly different than the 1907-1909 buildings. The linear, strip windows were becoming the norm for industrial buildings in the 1940s, and would soon become fashionable for other building types as architecture progressed into the modern period. The introduction of this annex structure, reaching to just below the clerestory windows of the erecting shops southern wall, dramatically altered both the interior and exterior of the original building.

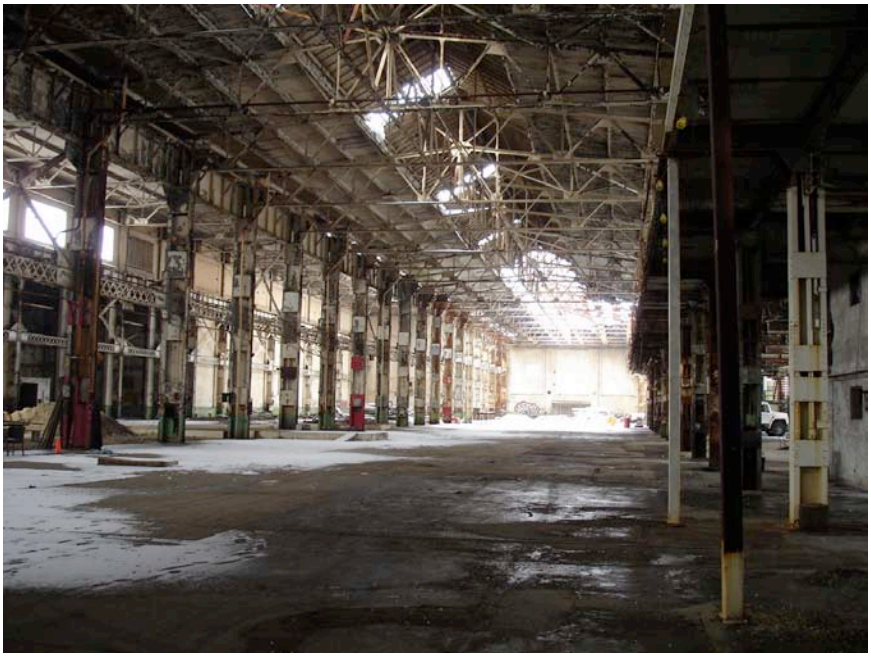
The erecting and machine shops were particularly well lit as daylight also entered through the roof monitor that ran the length of both the machine and the erecting shops. These roof monitors served a dual purpose, allowing for not only light, but also serving as much needed ventilators for the steam engines below.

The machinery housed within the erecting and machine shop also evolved over time. Overhead electric cranes of varying capacities serviced the dozens of bays. And, an elaborate steam heating system was incorporated. A balcony/mezzanine ran along the length of the machine shop on its north side.

Although structurally sound, the existing building is currently in a disheveled state, both as a consequence of its loss of windows and their

details and of the deteriorated conditions of the more-recently added cladding (previous photograph).

The earliest wings of the main building have been lost to a combination of fire (the north wing) and decay-induced demolition (the easternmost wing). The east wing, in particular, was an elegant and carefully constructed brick building with a strong rhythm of exterior fenestration and intricate and delicate polychrome brick detailing with careful attention paid to foundation and roof design in a manner more in tune with British railway and industrial building practice of the time than American (photograph above during demolition)



4. Heritage Value

4.1 Criteria for Determining Cultural Merit

The Ontario Heritage Act provides that a property may be designated if it meets criteria under O.Reg. 9/06 as follows:

> 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).*

As noted, for designation purposes, the act states that as long as the site meets one of the three criteria it can be considered eligible for designation.

4.2. Heritage Assessment

In the following text, we provide a preliminary heritage assessment of the Cooper Site using the above criteria.

5.2.3.1 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,

Our research has indicated that there are very few structures of this type, built for this purpose, in Ontario and, indeed, in Canada. We discuss a few of these in the next Section. Therefore, it is our opinion that this criterion is met.

ii. displays a high degree of craftsmanship or artistic merit, or

The structure does not have a high degree of artistic merit (the criteria are not clear). Although we note the similarity of the 1907 building scheme to the Behrens-designed plant in Germany accepted as a seminal advance in industrial modern design, the design execution of the exterior of the subject building is crudely executed (being of poorly formed poured concrete, a material which was a "high tech" material of its time) and typical of more pedestrian examples in the U.S. and Europe where a building's function took primacy over its appearance. However, the elaborate interior structure is of a high order of engineering skill with large areas of windows in the original building creating an illuminated and airy interior as seen in early photographs. Therefore, the building is of interest in terms of its design. It is our opinion that the criterion is partially met with respect to craftsmanship

iii. demonstrates a high degree of technical or scientific achievement.

The mass and scale of the building, particularly with respect to the structural frame and truss system, represents a high level of engineering achievement. It is our opinion that this criterion is met.

5.2.3.2 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,

The locomotive shops were a key factor in the development of the community and supported other social aspects of the community including initiating services such as the library, the YMCA and the fire services among others. It is our opinion that this criterion is met.

ii. *yields, or has the potential to yield, information that contributes to an understanding of a community or culture,*

The Cooper Site and its connections to the community locally, provincially, and nationally, can yield information contributing to

the understanding of Stratford and its development. It is our opinion that this criterion is met.

iii. *demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.*

We have no information to date with respect to any individual associated with the design of the structure and cannot conclude that this criterion is met. However, the Canadian Bridge Company erected many engineering monuments in Ontario and was therefore significant in the development of the province. It is our opinion that this criterion is partly met due to the importance of the design organization.

5.2.3.3 The property has contextual value because it,

i. is important in defining, maintaining or supporting the character of an area:

The location and size of the complex had a major impact on the organization of the streets and properties in the local area and was a significant contributor to the development of adjacent residential areas and the characters of those working neighbourhoods. It is our opinion that this criterion is met.

ii. is physically, functionally, visually or historically linked to its surroundings, or

Bounded by the rail line and the downtown core, using the local street network for access, and deeply linked to the historical development of the community, it is our opinion that this building meets this criterion.

iii. is a landmark

Given the scale of the building, despite the removal of some significant portions, it is our opinion that the building meets this criterion.

4.3 Conclusion

As noted earlier, to be considered a property of Cultural and Heritage Value or Interest, it must meet only one of the three categories in the Criteria for Determining Cultural Merit. Based on our examination, it is our conclusion that this site meets the criteria in whole or in part in all three categories. Therefore, it is our opinion that this site is of heritage value and worthy of preservation or commemoration. We explore some examples of this approach in the next section.

5. Precedents for re-use or Commemoration

5.1 General Comment

Whether the site is preserved in whole, in part or completely redeveloped, it is necessary to look at the options that may be available in its re-use. As a matter of principle the goal is to find a viable adaptive reuse. That use must be sensible given the size of the structure and its context (community, population, etc.) This examination includes how other similar sites are used in other locations, and the potential for re-use of all or part of the structure in Stratford.

There are many large industrial buildings in Canada, the U.S. and Europe which have been converted to new cultural uses and which are of a scale similar to that of the Cooper Site. Above is an illustration of a former Ford plant which has been converted for public uses in California.

The large interior spaces of these structures render them suitable to conversion to a variety of new uses. A review of the photographs of the main original building (refer to Appendix D) suggests it could also be adaptively reused, provided a suitable user and use is identified.

5

5.2 Precedents for adaptive re-use

Whether the final preferred option is re-use of all or part of the structure or commemoration, it is useful to examine how other communities have dealt with buildings of this type. Although there are several precedents for the re-use of former railway maintenance structures in other communities in Toronto, Montreal and Winnipeg, we must consider the context in which those developments occurred: Winnipeg is approximately 20 times the size of Stratford, Montreal is over 80 times larger than Stratford and greater Toronto is fully 200 times the size of Stratford. Therefore, the economics of re-use of the Cooper Site are radically different in Stratford than sites in the other cited locations.

Other studies for the site have reported that various proposed occupancies of the site may be non-viable. As an example, hotel occupancy is very seasonal and the amount of accommodation in the City meets current and foreseeable demand. Due to the relatively small size of the community, the viability of additional retail is questionable - although a typical supermarket has an area of between 40 to 50,000 square feet (approximately 1/3 the size of the remaining portion of the repair shops), the requirement for new retail sites in Stratford is currently not extant as there is more than sufficient capacity at present.

Should the University of Waterloo downtown campus be successful, there may be a future need for additional facilities. The University has shown the merit in the re-use of industrial buildings – its School of Architecture was moved off campus to downtown Cambridge and into a former industrial building on the bank of the Grand River. Construction of such facilities within the framework of the subject structure could present a design possibility and be environmentally conscious as it would see the re-cycling of a portion, or portions, of the existing structure. However, potential contamination issues associated with this site could prevent re-use without significant demolition and mitigation.

In our opinion, given the sheer size of the structure within its local context, the adaptive re-use of the entire structure is not a realistic possibility. While it remains possible to retain the building or its shell for potential future use, this would require stabilization and "mothballing" as to ensure future usability of the structure and on-going safety to the public while protecting the structure from the elements and mishap. This process would require removal of redundant portions of the building, removal of components that are damaged or dangerous, hazardous materials mitigation and securing the structure by keeping water off key components and the installation of appropriate fencing. There is a significant cost attached to this type of an option and this is discussed later in this document.

5.3 Precedents for Commemoration

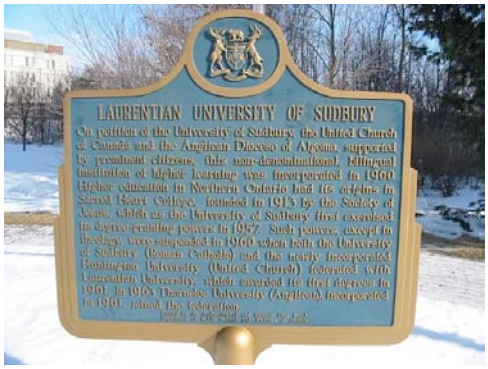
The key issue related to the building is its sheer size - it is a nationally-scaled building in a small community. While, as noted by some of the respondents to our

study, although of modest size Stratford is unusual in that it has an internationally sized profile and attracts, as a result of the Stratford Festival, a substantial tourist population many times that of its resident population. Indeed, the vision of Stratford is national and creative. A part of creativity is to determine opportunities that others may not acknowledge and to build on them. Therefore, examination of the Cooper Site as a potential opportunity must form a part of this study process.

In the event that the adaptive reuse of the entire structure or the stabilization and "mothballing" of the entire structure is determined to not be viable, consideration must be given to the removal of all or part of the structure and its appropriate commemoration. Some options are listed in the following sections – these options are not necessarily mutually exclusive and an appropriate commemoration strategy may involve a combination of all or parts of each.

5.3.1 Site Signage

The simplest form of commemoration would be an historical plaque. Such plaques are provided through programs at both the provincial and federal levels. An example is shown at right. Federal plaques are typically for national historic sites. This option would require expenditures to cover the cost of complete demolition of the building and any associated remediation.



5.3.2 Site Signage and Park

In addition to the site sign option, a park established in this location could be of sufficient size to attract either tourists or local members of the community to avoid the risk of site degradation due to vandalism. Site signage could be integrated with the park to fully describe the site and its past history. The size of the park would be open to discussion although there would be a cost to the City for commemoration of this type. The final scope of such a park or commemorative feature would be subject to a future site planning exercise.

5.3.3 Retention of Some Building Frames

Partial mitigation of the site by removal of the bulk of the superstructure but retaining and re-using portions of the floor slab and some of the column foundation piers would considerably reduce the financial costs to the City of retention, and still permit development of the site in a variety of ways. The retention of some of the frames could allow the full size of the original building to be appreciated while allowing development to proceed in and around the erected frames. Some of the foundation piers for the frames

could be left in place as well as a portion of the existing floor pending future development plans. The presence of this interesting set of artifacts in the landscape would provide a "hook" around which new development could be designed which, as an added dimension of interest, could be attractive to institutional sites.

Precedents for the use of frames to express the volume of a previous site use exist at sites such as Les Forges du Saint-Maurice, just outside of Trois Rivieres, in Quebec which is a National Historic Site of Canada, and birthplace of Canada's iron industry.

Therefore, one option for interpretation and commemoration would be the retention of some of the structural frames that could be incorporated as standing objects between future developments at the site. The frames and some of the foundation piers could define the former scale of the building with their locations incorporated into parking areas or small pocket parks which, in any event, may be a required component of the development of the site. All of this would be subject to an appropriate master planning exercise.

6. Public input

6.1 General Issues

The intent of this report was to obtain ideas and opinions from a variety of sources and to assess how the site may be used or developed in the future. Two meetings were held with interested parties. The first included invited members of the public with a strong heritage interest. The second group responded to a wider invitation and included the Chamber of Commerce, and other groups. No "political balance" was sought in respect of the invitees and no influence was placed on their opinions when offered during the sessions. This section presents and discusses the input – comments from individuals are also recorded in the Appendices along with press clippings and other documentation. This discussion is by no means exhaustive – there will doubtless be a continuing flow of opinion surrounding the future of this site that may result in refinements to decisions as time progresses.

Prior to discussing the issues, we must emphasize that our brief was to find the best option for the City of Stratford to deal with the site - no specific direction was provided as to what that option might be. In the following pages, we discuss the input received to date from the public and from City representatives. The intention is to outline the overall scope of opinions related to the site, its fiscal and physical constraints and to use these opinions to produce a set of options with which the City can move forward.

6.2 General Opinions

There are a number of conflicting opinions related to this site. There are, of course, many things to consider that would refine these competing positions which can be expressed as two predominant themes:

- It's ugly and too expensive to keep - tear it down

Several comments have been made in Stratford that the site is ugly. This opinion, however, is no reason to discount the site's potential nor its intrinsic heritage value. It must be understood at the outset that <u>any</u> proposal for the remediation and development of the site would be dealt with on the basis of good planning and design and that only an attractive and rational solution would be an acceptable goal. We have earlier cited several examples of heritage sites which have been re-developed and which are now or will be outstanding architectural achievements for the communities in which they reside.

The issue of cost is more significant. We deal with this issue later in this report.

- It's heritage, and an opportunity - keep it

We have established in an earlier chapter that the site is indeed one of heritage significance which may lead the City to deal with it in a manner which would not be the case if the building were simply a brownfields site in need of reclamation.

We have also, in earlier chapters, indicated several examples of how the site can be used in a manner which would render it an opportunity. A careful and balanced examination of the opportunities which the site represents is a driving force behind this current report and should encourage a solution or set of solutions which are appropriate in all respects.

6.3 The Input Process

As part of GBCA's proposal as to how public consultation should occur, prior to the preliminary invitational meetings a meeting was held at City Hall with Mayor Dan Mathieson and Chief Administrative Officer of the City, Mr. Ron Shaw. It was agreed during that meeting that, while their perspectives would be heard and considered, such opinions were not to be considered a direction in respect of the outcome of the report.

Two consultation sessions with invited members of the public were held on 26 January 2011 in the Stratford City Hall:

- The morning meeting was attended by 8 invited people including public individuals interesting in the preservation of the building, heritage activists, the Executive Director of the Heritage Canada Foundation and the Chair and Vice Chair of Heritage Stratford. The session was two hours in length.

- The afternoon session included invited individuals from a broader range of the community. These nineteen people included four from the morning session. The format of this meeting was similar to the morning session where each person at the table was asked to present their opinion on the site, its importance to them and their desires in respect to its future.

Each session was preceded by a short presentation that included an outline of the overall issues related to the site, a brief discussion on precedents found at similar sites in other municipalities, and some statistics.

Notes were taken with respect to the input provided by the attendees at each meeting. The notes are included in Appendix B of this report but they have been amended to render them anonymous - rather than named, each speaker is assigned a designation of Speaker 1, Speaker 2 etc. The attendees are named in the Appendix for both meetings, and listed alphabetically - this list does not correspond to the sequence in which each spoke. The objective has been to gain valid and varied input to the process in an objective rather than emotional manner.

The attendees were encouraged to submit further information related to the issues raised at the meetings and three submissions were received. In addition, reference was made to articles published in the local newspaper regarding the site.

A subsequent meeting was held on 7 June 2011 as a public meeting before members of Council sitting as a Committee of the Whole. Presentations were given by the former owner, and local members of the community to whom questions were posed by members of council. The information from this meeting was compiled and is contained within this current report.

The results of these meetings together with background research and consultation were compiled into the present report. It is the intent to present these options at a public meeting.

We have provided a synopsis of ideas for the site in the following section. These have been distilled from the comments presented in more detail in Appendix B.

6.4 Discussion on Comments

Based on the public consultation there are a range of opinions related to the potential disposition of the site. We have distilled some of these opinions as follows to demonstrate their range:

- Location of a tourism centre or transit hub could re-focus development in downtown Stratford to the area to the south of City Hall. A transportation hub for municipal buses was suggested as this site is in close proximity to the railway station with consequent potential for connection to VIA and possibly future GO transit.

- Currently, the commercial development of the City tends to "peter out" south of the market square. Combined with the new resident population created by the University of Waterloo in the north area of the site, a higher population density could create some potential for uses on site.

- Tourists could be drawn to the site if it were developed simply as a park under an open frame skin. The sheer size of the structure could be a draw in and of itself. A park could be established within the space, or part of the space, including off-site parking for the core area and theatres. In winter, the site could be closed due to lower occupancy requirements. The Don Valley Brick Works in Toronto is an example of this approach.

- The strategy for many heritage sites is to lengthen and enhance the experience of tourists to a given area. This extension of time results in increased amounts of funds left by tourists in the community. This site could contribute to Stratford as a tourist draw over and above the Festival.

- Gradual evolution of the development of preserved portions of the building would buy time for the site for other creative initiatives to be developed.

Ground mitigation costs would be minimized, and maintenance should be low as the structure should be resistant to the weather for many years.

- We cannot turn every heritage site into a museum. Each must have a contemporary and viable use for its appropriate inclusion in the fabric of its community. However, a portion of this site could be used as a museum with particular emphasis on the railroad. This could be a tourist draw.

- The idea of winnowing the site down its essence may re-establish the original elegance of the first parts of the building, including the glass windows and spaces, while removing the accretions dating from later in the 20th Century. Later additions could be interpreted within public spaces within the remaining renovated structure. It was noted that City Hall in Stratford was once slated for demolition in a manner similar to the one lost in Kitchener. Retention was a boon to the community due to the character it gives to the centre of the Central Business District.

- It is very easy to demolish or erase something. It is much harder to create something out an existing opportunity. But the payoff could be greater. The Blyth festival, which salvaged several key buildings in the core of a community of only 900 persons, is an example. The Blyth festival project (which received funding from both the provincial and federal governments), cost approximately $2,000,000 and represented a total expenditure in the community of over $2,000 per resident although only 1/3 of this was locally raised at the county and municipal level. The same numbers applied to Stratford would yield an equivalent project value of $60,000,000 – all of which the City would have to raise as a two thirds subsidy is simply not available in the present economy. Therefore, Blyth cannot be used as an example in the current economy and more limited but still expensive stabilization would be required if the structure is retained in speculation that things may change in the future.

- Green issues related to the loss of structures and consequent loss of embodied energy is a significant issue. One square foot of brick in a wall is the equivalent of 1 gallon of gasoline in terms of the energy required to make the brick, bring it to a site and erect it. Thus the preservation of a major structural work is an inherently green process given that it preserves the potential of the structure and should permit new uses to be developed with a creative head start.

- Issues such as heritage value/ financial/ and condition could be separated as each creates its own impact and bias towards a final outcome.

- Union participation (machinists union) and CN rail should be approached for possible funding support.

- The site should be demolished as it contributes nothing to Stratford.

7. Costs

7.1 General Comment

A development of the costs of the various options for the site was not a part of the mandate of this current report, which is intended only to develop a set of reasonable options for the site. The success of any chosen path would then require testing by a variety of methods including the cost to the City and potential availability of supporting funding from other levels of governments, and the public at large. It is up to the City to evaluate the alternatives and a part of this evaluation took place between of June 2011 and June 2012 with the engineering evaluation of the costs of various options.

It must be understood that demolition of the superstructure of the building would not represent the full magnitude of costs related to remediating the site. Indeed, there was a substantial cost related to full environmental remediation for the area at the north of the site for the development of the new building for a satellite campus for the University of Waterloo.

7.2 Reed Jones Christofferson Report

During the period between June of 2011 and May of 2012, the consulting firm of Reed Jones Christofferson (RJC) conducted a structural evaluation of the building. The work included a full engineering survey of the superstructure and foundation structure at the site and assessed the cost impact of retention or removal of these elements.

Three options for the structure were assessed which included:

- Do nothing
- Rehabilitation of Superstructure
- Building Demolition

This report has been provided to the City under separate cover. However, it is useful to discuss briefly the implications of each of these options (we note that the commemoration option was not assessed as a part of the RJC report).

7.2.1 Do Nothing

The conclusion for this option is “At a minimum, if nothing is done to improve the functional performance of the roofing and exterior wall systems and thus limit the structure from ongoing deterioration, we recommend that the City further restrict access to the property and building by erecting a permanent fenced enclosure around the property.”

RJC projected the costs of the fence at approximately $375,000. This amount does not include an itemization for future liabilities associated with the condition of the building as it deteriorates on site.

7.2.2 Rehabilitation of the Superstructure

This strategy would essentially see a series of works including repair, reinforcing, restoration and protection of the structure to reinstate structure stability and all for the structure's future re-use. The report discussed the extent of repairs which were essentially directed to elements showing serious or unstabilizing deterioration or areas which, if not sheathed, would rapidly deteriorate. Considerable removal of damaged or deteriorated materials, such as roof sheathing, would be required.

The conclusion: "With the future use of the building and projected timing of construction unknown, protection of the structure would also be required to maintain its integrity for that period of vacancy." Replacement of roofing, protection of steel with a recommended Galvafroid coating, cladding of wall openings for weather and vandal protection, and other interventions would be required to mothball the building pending some future unknown use or redevelopment. The costs include continuing maintenance costs into the future, and an unknown date for future use.

The RJC report projects the cost of this option at approximately $4,600,000 for up front process. No budget is provided for annual on-going maintenance and monitoring nor can an estimate be provided for the long-term costs as the number of years the site may remain static is unknown.

7.2.3 Building Demolition

The RJC report lists all of the tasks required to remove the building from the site and remediate to "Brownfield" status. Additional costs would still be required to remediate the site to "Greenfield" status. The initial capital costs would be lower, but at the complete loss of the historical value of the site.

The RJC report estimates the demolition to Brownfield site status at $1,200,000. However, additional costs would be required to completely mitigate the site pending future development.

7.3 Commemoration

This option was not a part of the RJC study. However, it could preserve a significant commemorative component of the site, permit a wide variety of development opportunities and considerably reduce the potential costs to the municipality.

An estimate of the commemoration option would be subject to the preparation of a master plan for the site.

8. Options for Use of the Site

8.1 Preamble

In every project management scenario, a series of options is explored to determine which may be the best option on which to proceed. The analysis of these options draws on the various parameters surrounding the proposed task and moves in the direction of conclusion that presents the best fit that incorporates all of the parameters.

At this stage of the process, it is possible to outline several options that may be considered for the future of the site. These will be presented at a public meeting following the issuance of this report. Responses collected during the public meeting will be used to further refine the analysis and move the process towards a recommendation.

8.2 Options for re-use

The Locomotive Repair Shops on the Cooper Site may be considered a variety of things at a macro level, or a combination of them:

- a significant financial, environmental and safety liability,
- a public development opportunity,
- a heritage opportunity

We discuss each of these briefly.

8.2.1 Fiscal, Environmental and Safety Unknowns

As noted above, the RJC report provides estimates for the cost of stabilizing the structure. In addition, there would also be continuing but not currently itemized costs for maintenance, security and protection of the structure pending future development. This could represent a significant and unknown outlay of costs to the City with no defined limit.

8.2.2. Development Opportunity

Existing adjacent uses or new occupants could expand onto the site and, by use of a portion of the existing building, re-cycle and re-use the existing framework of the building. Use of the site by one large development is probably not feasible due to its size.

Uses could include ground/plane parking (or multi-storey parking) to take pressure for parking off the core area; a library; an expansion to the university campus; a park or parkette; bus terminal, etc. – all of which could co-mingle within the unifying presence of some of the existing steel

framework or foundation piers. Portions of the exterior walls could be retained attached to retained piers to provide additional visual interest.

8.2.3 Heritage Opportunity

Given the cultural value and scale of the site, its re-use or commemoration could provide an enhancement to Stratford's heritage landscape, a reference point for those whose history resides in the community and a potential tourism draw for visitors.

8.3 Detailed Options

In project management, preliminary studies are typically done to identify the range of options to be explored prior to decisions being made on a specific project or task. This broad-brush over-view helps to direct resources to areas that may be appropriate and avoids the risk of using resources on "dead ends". In a preliminary manner, and based on the public input and our own observations, we list here and discuss a series of scenarios.

8.3.1 Do Nothing

This option is not realistic. At a minimum, the site will require improvement to remove safety risks to the public and risks of further damage or vandalism. This option does not account for heritage issues that we have concluded require addressing in some form.

8.3.2 Demolish the Building and Perform Brownfield Mitigation

With this option, the issues of heritage relevance and potential opportunities for the existing building are not acknowledged. The costs of total mitigation of the site to "greenfield" status are not currently known.

8.3.3 Demolish the Site Superstructure and Leave Only Slab and Foundation

This scenario is variable. At a minimum, it may see the superstructure removed while portions, particularly the floor slabs and foundation walls, remain. This could mitigate unknown costs to the City. Other sites of this type have been, and are, successfully being re-used without the requirement for complete sub-grade mitigation. Assuming there is no environmental risk, the remaining slab can be used for a variety of uses including parking, or (as an example) a bus station (both of which can take pressure off the market area behind City Hall), or other at grade uses which are yet to be determined. Heritage commemoration would be implicit due to the re-use of the floors and portions, or stubs, of the original pier foundations could be left in place as a part of this commemoration.

8.3.4 Retain the Superstructure

As discussed in the previous section, retention of the superstructure pending

its potential use by the City in any future development will be extremely costly and would include on-going costs due to an unknown date for any such development, or whether such development would occur at all. This would be untenable economically although it would preserve the maximum potential for heritage interpretation.

8.3.5 Demolish a Portion of the Superstructure and Leave Slab and Foundation

This scenario would leave the iron superstructure, or portions of it, open to the weather. These frames are robust and could stand in the weather for over 100 years without significant maintenance although some protection from rain (flashing an paint) would be recommended. Leaving a portion of the structure would still provide a significant commemoration of the site. Other uses, including parking, a site park, bus centre, etc. could be developed on the slab as above with the site framed by the remaining frames (possibly located at each end of the building area). Commemorative frames of this scale and magnitude could leverage potential related uses to the site or its adjacent area in the form of tourist facilities or create architectural and historical uses.

8.3.6 Demolish Selective Portions of the Superstructure Only

The idea behind this option would be to remove later additions to the original building thus reducing it to its "essence". This option would leverage the potential of the site as encouraged by some of the attendees of the meetings. The area under the frames could be used as noted in the previous option, but encouragement would be given to both civic and private developers to use the frames and infill them with a variety of uses. These may include a small commemorative park, a bus depot, parking, restaurant, library, sports facility, university campus expansion, museum, etc. Spaces between the uses could be left, as with the previous option, with the original frames exposed to the weather in a manner that would demonstrate the full scale of the building. Such a development would evolve over a period of years and could become an attraction in it own right. However, the up-front costs for stabilization, the unknown overall development period and constraints posed by the existing structure on potential uses would result in potential costs to the City and impose unknowable issues related to the success of disparate uses.

8.3.7 Restore the Building to its Original Appearance

While restoration of heritage structures is a preferred option for heritage sites of this importance, the scale of the structure in this context is such that this approach would be difficult to justify in a community the size of Stratford. While portions of the exterior could be restored and incorporated in a variety of development schemes, full restoration would not be a reasonable approach.

9. Conclusions

9.1 General Conclusions

The seriously unstable eastern end of the building together with the fire-damaged north wings have both been removed. While the building frame is robust enough to be exposed to the weather for the short term, there are a considerable number of components such as roofing, minor framing, concrete structural components, and systems and fittings that would be severely affected by deterioration and which could become dangerous if not removed and safety risks mitigated. Security must remain in place until the site is redeveloped if left in its current condition. These issues will represent a sizeable cost simply to stabilize the structure and retain it for an unknown future use. Therefore:

- Complete demolition and mitigation of the site will be costly and would not preserve heritage values nor take advantage of some of the potential opportunities the site presents.

- Complete retention of the core of the main building for a variety of potential uses of at least some parts of the structure could be done. Uses may include a bus terminal, off site parking in support of the core area (which would free up the market area to the south of City Hall for a market and park), expansion of the library or YMCA. However, such retention will require initial stabilization and protection and thus will create even higher costs and ongoing costs as the time frame for re-development of the site must remain open ended.

- Heritage restoration of the Locomotive Shops is unfeasible due to its sheer scale. The extent of restoration or conservation or commemoration should be the objective of on-going discussions and planning.

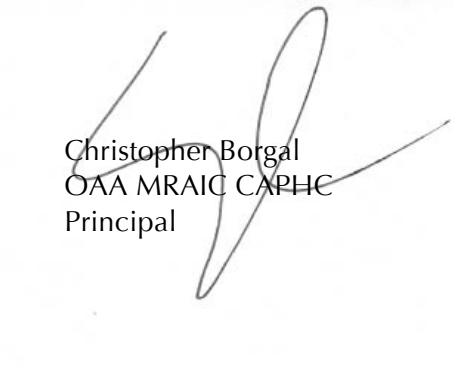
- Of the suite of the compromise options (see 8.3.5 and 8.3.6 above) that should be considered is the preservation of a currently undefined part of the building's structural frame (and possible retention of all or portions of the floor slab). The retained components could occupy a portion of the site while still providing provision of development room in a unique setting.

10. Closure

This report has been written by the Consultant (Goldsmith Borgal & Company Ltd. Architects (GBCA) for the benefit of the client to whom it is addressed. The information and data contained herein represent the Consultant' best professional judgement in light of the knowledge and information available to the consultants at the time of preparation. Except as required by law, this report and the information and data contained herein are to be treated as confidential and may be used and relied upon only by the Client, its officers and employees. The Consultant denies any liability whatsoever to other parties who may obtain access to this report for any injury, loss or damage suffered by such parties arising from their use of, or reliance upon, this report or any of its contents without the express written consent of the Consultant and the Client.

The Consultants have prepared this report in accordance with the Scope of Services agreed with the Client.

Yours sincerely
Goldsmith Borgal & Co. Ltd. Architects



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