GBCA

REPORT :

The Royal Cape Breton Yacht Club

30 March 2013

For:
The Sydney Architectural Conservation Society
and
The Heritage Canada Foundation

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1. INTRODUCTION

1.1 Background to this Report

At the request of The Heritage Canada Foundation and the Sydney Architectural Conservation Society, the undersigned visited Sydney, Cape Breton between 28 February and 3 March 2013 to view and render an opinion on the condition and potential for continued use of the Royal Cape Breton Yacht Club building on the Sydney waterfront. The building is one of only a handful of clubhouses built for clubs in Canada with Royal charters and is one of the older clubs in Canada having being constructed just after the turn of the 20th Century.

This brief report has been completed on a Pro Bono basis (for the public good) and is intended to provide a professional opinion[1] on matters relating to the subject site. The desired outcome is that the opinions rendered here may stimulate actions in the interests of the community at large and in support of the preservation of this important historic site for the benefit of all Canadians. The findings are general and would require further analysis going forward.

The building was designed in a combination of "shingle"style with Queen Anne style details in the form of corner turrets. Facing the water are observation balconies which, unusual for clubs in Canada, are of two levels rather than one. A colonial revival belfry was also designed, of which only a stump remains at the centre of the roof.

[1] The author of this report has extensive experience in the assessment of heritage structures in Canada, the U.S. and the Caribbean over a career spanning almost 40 years; is a Fellow of the Royal Architectural Institute of Canada; and a past National President of the Canadian Association of Heritage Professionals. For the convenience of the reader, a C.V. has been appended to this current report.

1.2 History of the Site

Sydney had an unofficial yacht club, one of the earliest such clubs in Canada, which was based at the home of local merchant John Bourinot,. In 1850, he organized and held races on Sydney Harbour with his residence serving as the unofficial club until 1899 when it was razed by fire.

As a result of the fire, several leaders of the local business community formalized the yachting activities by forming a new club, the Cape Breton Yacht Club and a building, the subject of this report, was erected in 1900. The founders of the club included officials of the Dominion Coal Company and the Dominion Iron and Steel Company as well as others nationally prominent people such as Sir William Van Horne of Canadian Pacific Railway fame. Many of the founders were central to Sydney becoming an industrial centre and thus the club is directly associated with the development of the community in those years. An Admiralty warrant was issued in 1901 and, in 1902, a Royal warrant was issued by King Edward VII allowing the club to fly the blue, rather than red, ensign as it became one of only a handful of Royal clubs in Canada.

The club was central to the social scene in Sydney in the following years of its use and was visited by a large number of nationally and internationally noted individuals. These included Guglielmo Marconi, the wireless telegraph inventor; Andrew Carnegie, steel baron; Robert E. Peary, the first non- indigenous person to reach the North Pole; Alexander Graham Bell, telephone inventor; Casey Baldwin, aeronaut; Gilbert Grosvenor, National Geographic Magazine editor; Gertrude Vanderbilt -Whitney, American sculptor; the Duke of Connaught, son of Queen Victoria; Sir Ramsay MacDonald, British Prime Minister; Franklin D. Roosevelt, United States President; and Queen Elizabeth II. Indeed, it is related that Peary used the club during his later exploration trips and it was from Sydney that the telegram was sent to New York announcing his successful visit to the Pole.

During both WW I and WW II, Sydney Harbour was used as an anchorage for convoys and as a base for escort ships. During these wars, the officers of the ships were extended club privileges while in port.

The replacement building was originally designed by a local architect, then the designs were modified by an eminent Boston architect, Richard Clipston Sturgis, who later became the president of the American Institute of Architects.

Within the past year, due to the costs of upkeep, the clubhouse was sold to Enterprise Cape Breton Corporation (ECBC) and the club has associated with a local marina. While the slips and moorings will be maintained, the survival of the clubhouse itself has become an issue.

The subject building is the last remaining historic structure along Sydney's waterfront. It is located adjacent to a modern hotel and only a few hundred yards from a new cruise ship terminal that, in 2013, is projected to deliver over 90,000 visitors to the Sydney waterfront.

2. EVALUATION OF THE SITE

2.1 Evaluation of the RCBYC Clubhouse

Evaluation of a site such as this takes several tracks. There is a "soft" evaluation which determines its historical importance, and the physical evaluation which determines condition and potential for continued use. These are discussed in this following section.

2.2 Historical Evaluation

2.2.1 Overview of Evaluation Process

The criteria for evaluation of properties in Nova Scotia are laid out in a document published by the Ministry of Communities, Culture and Heritage entitled "Heritage Places in Nova Scotia . . . what you need to know". While the document appears to suggest that a request for heritage designation be initiated by the owner, the provincial Heritage Property Act allows for proposals for designation from advisory committees set up at the provincial or municipal levels.

Nova Scotia has signed on to the National Register of Historic Places and appears to have adopted the Standards and Guidelines for the Conservation of Historic Places in Canada as a policy. In reading this material, it appears, therefore, that the process for evaluation of heritage sites and their listing in Nova Scotia is similar to most of the other jurisdictions in Canada. An evaluation process is used across Canada and by many municipalities and upper tier governments to determine the importance of heritage structures. Parks Canada uses scored criteria to evaluate the importance of heritage sites owned by federal agencies. In other jurisdictions, by satisfying only one criteria, a structure could be deemed to be historic but in the federal area the total composite score is used to determine heritage importance.

The evaluation of an historic site is based on policies adopted internationally. These policies and processes arise from a series of international charters, the most important one being the Venice Charter for Conservation and Restoration of Historic Sites and Monuments which dates to 1931. The federal government review process, under the Federal Heritage Buildings Review Office, implemented these standards several decades ago and has applied them to all buildings in federal ownership of an age of 40 years or older. Their criteria for review is typical of other evaluation processes and includes the following three major criteria:

- the historical associations of the site, including moments in history or association with important persons or events
- the architecture of the site, including the importance of the architect or designer
- the environment of the site's location - is it prominent, for example.

Each site in the Canadian federal inventory of buildings, when it reaches 40 years of age, is evaluated for its heritage significance. This evaluation date is similar to many

other jurisdictions world wide, including the U.S. National Parks Service, and is intended to evaluate from the perspective of those from later generations than those immediately involved in creating the site. At the federal level, the evaluation is done by a panel of experts from Parks Canada and associated agencies and is a scored evaluation. The results are remarkably consistent. By no means do all sites achieve heritage status. Those buildings that reach a score less than 50 are not deemed to be historically important and can be modified or disposed of with no further consideration. Between 50 and 74, buildings are deemed to be "Recognized" and must be cared for under federal standards by representatives of the custodial departments. Above 75, the buildings are deemed to be "Classified" and any modifications or renovations must be reviewed by the Federal Heritage Buildings Review Office with technical input from the associated Public Works branch, the Heritage Conservation Directorate.

Therefore, it is useful to apply the evaluation criteria to the subject building to determine how it stands in respect of the federal scoring system. The table on the following page captures the categories for evaluation, provides the maximum potential scores, and informally scores the Royal Cape Breton Yacht Club Building[2].

[2] A more formal scoring process may see a variation in the final score, but in our opinion the variation would not be significant. The scoring panel for this report consisted of an architectural historian, a conservation architect and a museum specialist all of whom are employees of GBCA. A local panel could be convened using the same scoring system to determine if the results may be different than those listed here.

Historic Associations	**RCBYC Score**
Thematic How well does the building illustrate an important theme in Canadian history? A. One of best examples (15) B. Very good example (8) C. Convenient or useful example (5) D. Obscure example (0)	8
Person/Event What is the level of importance of a directly associated person or event? A. National/ international (10) B. Regional (6) C. Community (4) D. No association (0)	10
Local Development How well does the building illustrate a significant phase in the development of the community, or a major change or turning point in the community's history? A. One of best examples (10) B. Very good example (6) C. Convenient or useful example (4) D. Obscure Example (0)	6
Architecture	**RCBYC Score**
Aesthetic Design What is the visual quality of the building (proportion, scale, detail) in the context of an architectural style or type? A. Excellent (25) B. Very Good (13) C. Good (9) D. Fair or poor (0)	13
Functional Design What is the functional quality of the building (effectiveness of materials, layout and method of construction) in the context of engineering history and functional types? A. Excellent (15) B. Very Good (8) C. Good (5) D. Fair or poor (0)	8
Craftmanship and Material What is the quality of the workmanship and the handling of materials? A. Excellent (10) B. Very Good (6) C. Good (4) D. Fair or poor (0)	4
Designer What is the significance of this building as an illustration of the work of an important designer? A. One of the best examples (5) B. Very good example (3) C. Known example (2) D. Designer not identified (0)	3
Subtotal	52

Environment	**RCBYC Score**
Carried from previous page	52
Site What is the integrity of the historical relationship between the building and its associated landscape? A. Unchanged (10) B. Changed and character retained (6) C. Changed and character heavily altered (4) D. Character destroyed (0)	6
Setting What is the influence of the building on the present character of the area with which it is associated? A. Establishes present character (20) B. Reinforces present character (11) C. Compatible with present character (8) D. Negative influence (0)	11
Landmark What is the nature of the building's identity within the community? A. Symbol of city/ region (15) B. Conspicuous or familiar - city/ region (8) C. Conspicuous or familiar - neighbourhood (5) D. Not conspicuous or familiar (0)	8
Total Score	77

Based on the above score, a building held under the federal inventory of structures would receive the maximum protection going forward and tight controls would be placed on any changes proposed. There is no doubt that the RCBYC building qualifies as a significant heritage resource.

2.3 Physical Evaluation

The evaluation is based on a brief site visit and examination of the site and related documents but is filtered through many decades of experience in dealing with important heritage sites. More detailed analysis is recommended in the comments below. The more exacting and detailed the analysis, the better is the possibility of reducing anticipated overall costs in favour of addressing the needs of the site without excessive intervention. The notion of "it it ain't broke, don't fix it" is a perfectly valid approach to a site of this type.

2.3.1 Overview

The building was in active use until the end of 2012. As a result, most of the expected safety requirements are in place and general maintenance has been good although, as a result of the abandonment of the site, the interiors have an unkempt appearance. When a building is left unheated and un-maintained over an extended period of time, deterioration accelerates at an exponential pace. While time is still available for decision-making at the property, in a few years, if left unused, the building will rapidly deteriorate and may become un-useable.

2.3.2 Architectural

Exterior
The exterior of the building has been modified with a variety of changes over the years. Most obvious is the extension of the second floor onto the original balcony with the moving of the second floor balcony to the west. The upper balcony, which was a change from the original design (originally there was only one balcony), remains in its original position. Deterioration or degradation of the original building is also visible. Original curved windows in the corner turrets have been replaced with flat glazed modern units; central belfry on the roof has been reduced to a stub; and the finials on the corner turrets are in poor condition and at risk of loss.

The roofing material appears to be low-end residential quality and appears to have reached the end of its service life. The original shingle walls are hidden by metal siding but the original shingles likely remain on the walls.

Changes have been made to windows and entrances on the various elevations. The balcony rails are of relatively modern design using historic revival pickets to meet code-compliance (space between members of a balcony rail should be no more than 4 inches).

Regardless of changes, however, the building is remarkably intact and faithful to its original design. It is entirely possible to fully restore the building to its original exterior appearance, particularly as there is both physical evidence on the site and a large number of early photographs that document it at various periods in its life.

Immediate work should concentrate on stabilizing the building envelope such as replacing the shingles and ensuring that windows are closed and a modest amount of heat is on. This will buy time to make decisions about using the building and getting

partners who can actively program it going forward while ensuring that any deterioration because of lack of use is minimized.

Interior

As would be expected for a building of this vintage, there have been many interior alterations done over the years which, cumulatively, have devalued its appearance. It is typical of the life span of a heritage site that there is an initial period of "newness" and "modernism", then a period of modest renovations to meet changed expectations, then a period of "modernizing" to update and "freshen" the interiors. This last stage can be problematic as the refreshing is typically based on modern ideas at the time they are done but which rapidly date and, in so doing, devalue the original appearance of the building and clash with the remaining original aesthetic components of the building.

However, as with most such alterations, the original character-defining features of the building are either present under later work or can be inferred by adjacent surfaces or "witnesses" in the form of paint tracings, shadowing or traces of the original. It is therefore possible to do a restoration of the interior to better fit its original appearance at some point in the future. At present, with a clean-up and re-activation of services, the spaces can be used for a variety of purposes with the only requirement being adherence to current safety standards. As with the exterior, early photographs would be an excellent way in which to supplement the physical evidence of the earlier nature of the interiors.

2.3.3 Structural

Overview of Conservation Approach

Prior to the site visit, we were provided a copy of a structural report entitled "Preliminary Structural Assessment, Royal Cape Breton Yacht Club" dated May of 2011 and prepared by CBCL Limited, Consulting Engineers. This is a competent engineering report and explores in detail the structural movement of the building and consequent requirements for repair.

While the undersigned's observations are consistent with those of the report, the conclusions differ in terms of the extent of renovations required for the site. It would appear that the engineers were briefed in a manner that renovations to the building would bring it to the equivalent of a "like new" state and thus the recommendations are based on an aggressive and comprehensive upgrade to the entire fabric of the building.

When dealing with heritage sites, the international approach imposed on conservation specialists is one of "minimum" intervention - that is the minimum work required to ensure that the structure is safe and useable for the intended purposes. Taken from this perspective, the suggested overall costs of renovation for the site may be higher than necessary in the immediate term to re-activate the site. While the overall budget of $2.5 million would be consistent with the creation of an entirely new structure (or bringing the existing structure up to "like new" condition), it must be borne in mind that the bulk of that structure already exists, albeit requiring some repairs, which can be phased in small work packages over an extended period of time.

It is especially important to note that the structure is of wood frame which is a material that is relatively light in weight and can fairly easily be supplemented, above grade, with additional structure as required using relatively simple technologies. This is unlike heavy masonry buildings, especially rubble walled stone buildings, which are considerably more difficult to repair and demand considerable care in the work.

The 1929 Tidal Wave

The engineering report examines, in a professional manner given the limited brief, the "as-found" conditions and comments on the existing state of the property. However, when conservators approach a building of this vintage, the first step is to examine the history of the structure to determine how it would have been originally built (including the design parameters used), and the environmental factors which may have acted to cause observed deformation or damage. This research is usually done in the form of written records (club minutes for instance) which would define the scope of work at any given time and datable photographs of the interior or exterior of the building showing the sequence of changes.

In this case, one of the major events that this building was exposed to was the tidal wave of 1929 which resulted from a magnitude 7.2 earthquake on the Grand Banks off Newfoundland. There was considerable damage caused by this tidal wave in harbours on the south coast of Newfoundland and the north coast of Cape Breton, including Sydney Harbour, particularly at the inner end of harbours which, as they narrow, cause tidal waves to accelerate and enlarge (the best example in Nova Scotia is, of course, the Bay of Fundy). The wave hit the shore all along Sydney Harbour and was apparently several feet high causing the loss of several buildings adjacent to the RCBYC clubhouse.

It would be difficult to believe that the clubhouse was <u>not</u> damaged during this event. Part of the evidence would be suggested by the fact that the massive concrete retaining wall and heavy brick portions of the building (the chimneys and their foundations) would be minimally affected while lighter framed elements would be at significant risk from wave pressure or floating off their foundations. It must be emphasized that the heaviest portions of this structure are fireplace/chimney structures, the retaining wall structure at the east side of the building at the lower floors, and the footing pads and

foundation piers cast in concrete. These elements would be the least likely to be affected by a tidal surge and, based on their stability appear to have been placed on properly designed footings[3]. They do not appear to have moved significantly, if at all. It can only be assumed, then, that the original structure was properly engineered and built. The engineering report suggested that the retaining wall is intact and in good condition. The settlement of wood floors appears to be either side of the masonry elements, particularly the fireplaces.

If archival records exist of the newspapers of the time, there should be photographs of the damage to buildings in Sydney Harbour and there would be no doubt that the RCBYC clubhouse would be visible in some with, perhaps, a written report of the damage. It was common for newspapers of the time to produce small souvenir booklets of photographs for sale to the local public and such booklets may have been produced after the event (the author of this report has two such booklets produced after the 1917 explosion in Halifax). Evidence of damage from the Halifax explosion still surfaces in buildings in Halifax (96 years later) as does evidence of damage from a major munitions storage facilities explosion in New Jersey a couple of weeks prior to the Halifax event[4]. As has recently been seen with recent tidal waves and tidal surges, the damage can be as extensive as that following an explosion and any structure that was in the line of such a wave, particularly the portions constructed of lightweight framing materials, would have been affected.

Causes of Observed Damage

Therefore, the causes of any observed damage or distress should include an assessment of <u>when</u> they occurred. The observed movements in the horizontal, and partially the vertical, alignments of the walls may potentially be considered to be from one of at least three sources, or a combination thereof:

- initial poor design, which does not appear to be the case due to the solidity of the heavy masonry components of the structure which were properly designed. As well, despite movement and deflection, the building has served the test of time for over 100 years and, regardless of the current framing requirements of codes, can be considered to have been load tested in service.

- on-going creep or sway from wind or earth movements, or overly heavy occupant loads, causing gradual deflection - which is possible as all building components can deform given enough loading, whether static or cyclical. This may be a contributing factor to observed distress as some load-carrying elements are under-sized based on current codes. However, calculation of load carrying capacity of wood framing members of buildings of this vintage can sometimes lead to understating the strength of the structure as current codes are not based on earlier materials which tended to be full dimension, free of defects and knots and of finer grain.

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[3] I have had Mr. Eric Jokinen P.Eng., a former colleague at UMA engineering and with whom I have worked on many projects over the past 25 year across Canada, the U.S. and Caribbean, review my structural comments in this regard. Eric has reinforced my opinions and can be available to assist with this project in future if necessary. Eric wrote a book entitled "Canadian Heritage Preservation", published in 1992, on the engineering of repairs to heritage structures and, for several years we worked in the same firm as the late Martin Weaver who wrote a significant textbook in conservation architecture and with whom worked across Canada, the U.S. and the Caribbean.

[4] The undersigned has been involved in assessing structures in both Halifax and New Jersey which were extant at the time of those explosions and which exhibit damage from the blasts.

or

- a sudden one-time event that caused much of the observed damage which either was then stable after repairs or continued to move as a result of out-of alignment conditions.

A more comprehensive assessment might be made to determine the cause and consequence of the major movements rather than simply stating that movement had occurred. That assessment would then more precisely determine the extent, if any, of on-going movement and the degree of intervention required for stability.

As to stability, the Building Code Commission in Ontario has accepted, for heritage structures, that a load test for an existing structure consists of a period of 40 years without progressive movement or damage due to imposed loads. This may be the same in Nova Scotia as both codes are based on the National Building Code[5]. If it can be determined that the major movement of the structural elements of the RCBYC building occurred once in 1929, was repaired, and has been stable since that time, the scope of major repairs may be reduced. For example, while sloped floors may pose some discomfort, provided they are not a direct safety issue, they can be accepted as a part of the character of the building as such conditions are accepted at other heritage sites world-wide.

Required Repairs
Notwithstanding the conservation approach, the structural report does identify issues which should be corrected. Some of the issues identified are discussed as follows:

- The primary structural issue appears to be the settlement or displacement of foundations. It appears that the original building was constructed on soil rather than bedrock and that the bearing area of the foundation pads may have been insufficient to support the imposed loads over time or became displaced due to a major event. Of interest is that the fireplaces, which are of massive masonry down to their footings, and the retaining wall at the east side of the ground floor, also of massive poured concrete, appear to be stable and that the displacement along the central line (in line with the fireplaces) is related to the lighter-weight wood framing. Since it appears that the retaining wall and fireplace foundations were properly engineered, it can only then be inferred that the original designers and builders also properly engineered the footings under the framed supports and walls. It is also logical to assume that the observed movement may have been caused by an event that undermined some of the bearing points, in an irregular fashion, causing the observed movement in the walls.

- It is noted that the bearing line under the original west side of the main balcony was amended at some time in the past which is evidenced by round steel support posts supported on battered (slope-sided) concrete piers. This renovation, which appears to have been done prior to the mid-twentieth century, appears to be stable and appears to have coincided with the extension of the second floor and addition of the upper balcony. The alignment of posts on this later change appears to be good and

[5] The author of this current report has sat on standards committees on various occasions including, most recently, the development of the CSA standard S850-12 which standardizes the design and assessment of buildings subjected to blast loads.

properly founded. If this addition was completed as a part of the repairs after the tidal wave of 1929, it is possible that repairs to the club house were supplemented by the extension of the balcony and second floor. In any event, the original supports for the deck would have been severely compromised by the wave and may have had to have been replaced at that time. Certainly, the "batter" or angular slope of the poured concrete bases under the porch/second floor wall was typical of the manner in which porch posts were designed in the 1920's and 30's (in an arts and crafts style) and the oversize iron posts are consistent with that dating. More research is necessary to determine the timing and detailing of these elements. Such information may be found be in club records.

- A wall at the second floor has tipped outward and the framing is therefore eccentrically loaded. The connections to the wall should be examined by removal of interior finishes. The movement of the wall may have been partially caused by the tidal wave. However, this type of configuration, where the collar ties between the rafters are located above the wall-head plate bearing point of the rafters can also cause this type of deflection - the lower ends of the rafters bend with the load of the roof and push the wall out. With removal of the interior finishes, the rafter ends and the wall studs could be reinforced by "sistering" (the addition of additional thickness or stud), or by the installation of bolted-on steel plates or channels in the wall to reinforce the studs and the connection of the plate with the rafters While an elegant solution would be to pull the wall back into place, this may not be absolutely necessary as some of the movement of heritage buildings can be considered to be a part of their character (witness the many Tudor-vintage structures in the UK which are valued for their charm due to the movement of their heavy timbers over the centuries). The issue is to ensure the maintenance of structural stability. It would be interesting, on removal of the finishes, to find previous repairs resulting from damage from, perhaps, the tidal wave.

Repair Technologies

Regardless of the random arrangement of supports, the building has stood the test of time as a result of its structural redundancy. New approaches can be layered over a successful long-lived structure if it is performing; remedial work can be done where required and as required.

- Certainly, the foundations under the wood framing need repair. They should be checked to see if they have actually settled or whether the wood frame structure had been moved off them. Foundation repairs can be done efficiently with helical

micro-piles[6] (no soils report was provided in the structural assessment and that would be the first set of tests to determine what the building is sitting on and where bedrock is located). The ground floor sheathing would have to be removed around the posts, and the floor joists cut back to provide a working area. Some forms of micro-piles allow for the attachment of brackets which can be used to literally jack footing pads into place (with the gap underneath packed with fill concrete when the correct position is attained). Other options would simply be the installation of small piles and the creation of new bearing pads or excavation and the creation of pad footings. Perimeter foundations should be checked for bearing and alignment and then the sill plates packed and adjusted to level. On completion, the floor is reinstalled.

- The building is of lightweight wood framing and can be jacked and pulled into alignment with relatively simple and portable devices such as bottle jacks and "come-alongs". Where framing members require amendment or reinforcement, the interior finishes can be removed in the location of the required repair, the repairs effected by installation of additional wood members or bolted steel shapes such as small channels, and then the finishes reinstated. Repair of a sloped wall, for example, may not require it to be reconstructed plumb - appropriate in-wall repairs and connections can be made which leave the wall in place while meeting its required load carrying and moment-resisting requirements to meet safe operating requirements.

2.3.4 Mechanical

Mechanical improvements will ultimately be required, particularly to the heating system. Preservation of the cast iron radiation system is encouraged as the units are a part of the heritage character of the site and the curved radiators in the turrets on the upper floors turrets are very rare.

With considerable work on the restoration and re-cycling of historic buildings, particularly in the U.S., new methods and technologies have been developed to re-cycle cast iron systems. GBCA was involved recently with the retro-fit of a significant church in Windsor where the cast iron radiators were maintained in use but connected to a modern heating system at a cost considerably less than the replacement of the a piped boiler-run system.

[6] There are several manufacturers. Essentially, a sloped plate (or plates) is welded around the steel tube of the pile forming a “screw” which is then screwed into the ground. The size of the bearing of the plate is designed to carry the loads once the appropriate depth is reached. The screwing is done by a hydraulic device attached to the boom of a small vehicle such as a “Bobcat” - some types of Bobcats are designed to pass through the width of a 3’ door. For confined headroom, the screw lengths are shortened and assembled as the pile is screwed into the ground. Our most recent use of this technology was in holding up the wall of a major church while a new basement, 2 meters below the existing, was excavated adjacent.

In the interim, an examination should be made of the existing systems with a view to getting them operational while meeting the requirements of the local authorities to provide at least a base-line of heat in the building to protect it from deterioration. Longer term upgrades could then be done as and when funds are raised and depending on the nature of the chosen use for the property.

The plumbing system should be checked to determine its condition and a program of improvements instituted to upgrade piping where required. This program would be one of repair rather than wholesale replacement.

2.3.5 Electrical

Electrical improvements will likely be required although many improvements were made during the lifespan of the building. An examination should be made of the existing systems with a view to determining the compliance of the system with current codes. Then the approach would be to use compliant systems while putting into place a program of replacement to meet the requirements of the local power authority.

Longer term upgrades could also then be done as and when funds are raised and depending on the nature of the chosen use for the property.

2.3.6 Summary

It is the professional opinion of the undersigned that the subject building is both capable of being repaired for use and that its preservation is entirely feasible with a gradual program of renovations and restoration over a period of years. It is also the opinion of the undersigned that the site is a valuable heritage resource and should be retained.

3. APPROACH TO PRESERVATION

3.1 Stabilization

The first step in any project of this type is to stabilize the site in terms of weather (keep the water out), and structure (if amendments are necessary, temporary jack posts or bracing can be installed). Regular monitoring for security purposes is essential and steps must be taken to minimize vandalism.

3.2 Negotiation

The next step is to verify the potential uses for the building and to determine what codes or standards would immediately require upgrading. Re-use of a structure in a manner that it has always been used typically requires less upgrading and costs than the re-purposing of the site for new, potentially more limiting, occupancies. Discussions with local authorities would be critical in this regard and this must be done with appropriate design backup to support the approach. Should major renovations proceed, the site could be deemed to fall under the full requirements of current codes which could escalate costs. The approach, in line with the notion of minimum intervention, should be gradual.

3.3 Ethical Work

It is useful to provide a couple of overview points to speak about both the legal obligation to preserve national monuments and the moral obligation as well:

Federal Policy Regarding Heritage Sites

Federal custodianship of federal heritage sites is governed by the Treasury Board Manual and its policies and the Canadian Environmental Assessment Act. While Crown Corporations appear to operate at arms length from some government policies, their activities are not exempt from examination by the Auditor General[7].

Of interest is that Treasury Board Manual, which describes the requirements of federal policy, requires that heritage resources must be treated on an equal basis with all other considerations. That means that a significant heritage site must be protected rather than removed on the basis of other considerations such as costs or health and safety. Efforts must be made by the Crown to meet all criteria including to preserve heritage sites, ensure their safety, and find a suitable economic use for them.

[7] The undersigned provided an extensive assessment and review for the Auditor General for Canada during the construction of the recently completed Canadian Museum of Nature in Ottawa, for example.

It would be useful to research this issue to determine what real or moral obligations ECBC has with respect to relevant laws governing the federal government and its agencies.

It's Green

It cannot be emphasized enough that the preservation of heritage buildings is a.green process. According to studies completed by the U.S. Park service, as much as 30% of the contents of landfills are the components and pieces of former buildings. This insane statistic is an anomaly in the history of the world where past generations saw the value, in purely economic terms, of existing structures and saw to their continual adaptation and re-use. This makes both economic and environmental sense. When a structure also possesses great historical value, the payoff to a community is immense. All agencies, whether private or public, will more and more be encouraged to re-use and celebrate these resources as we move further into the 21st century. The carbon footprint of removing then re-constructing buildings is simply not sustainable.

Much is made of LEED standards for new construction and that the impression has been left that only a new replacement building can be environmentally sound. In fact, LEED was developed to upgrade the quality of the construction of new buildings so that the new buildings are better environmentally but pays very little attention to the fact that the greenest building is one that is already in place. There are many statistics that support this - for instance, one square foot of brick masonry in a wall has an "embodied energy"[8] of 1 gallon of gasoline. Add all of these materials up in a structure and the value is staggering. Re-use of an existing building can save the equivalent energy of tens of thousands of recycled pop cans.

[8] The energy it took to source the raw materials, make the materials, transport them both for manufacture and then to the site, and erect them into place.

It's Labour Intensive

Restoration is more labour intensive than materials expenses and keeps more jobs in the local community. The work can also be an opportunity for trades education; it can attract employment grants; and, if done in small and easy to handle packages, can also be volunteer intensive provided the work is properly supervised.

3.4 Finding a Use

With an appropriate balance between the costs of renovation and operational income, any heritage structure can be re-cycled. In the case of the subject building, its connection to significant historical personages can be an attraction in its own right. The location of the site on Sydney Harbour adds to its potential, particularly given the potential for viewing harbour activities and even sunsets from this site.

As this report is only preliminary in nature, only a few suggestions can be offered assuming the site is operated by a Trust. These include:

- The building is a short distance (approximately 425 metres) from the Cruise Ship Terminal. With as many as 4,000 tourists, many American, at a time visiting from ships, this building – which is an authentic heritage site with connections to several American heroes – should be able to attract a reasonable proportion of visitors during lay-overs. Indeed, in 2013, over 90,000 potential visitors are projected to arrive via ship to the terminal. Simple visitation, rather than events, would require relatively modest repairs and upgrades particularly if access was from the boardwalk rather than from Esplanade at the upper level. A simple exhibit could solicit donations to the project.

- The restaurant across the road has apparently expressed an interest in the facility. Rental of the site by such a business could permit it to offer lobster dinners or other local events to both ship-borne visitors as well as the broader community.

- It is unlikely that the site could attract an individual operator due to the small size of the Sydney market. But a consortium of potential users, brokered through an operating Trust for the site, could offer a variety of programming options directed to

harbourside activities and the overall community and keep the building open year round while organizing on-going restoration and upgrading.

- Meetings for small groups as a mini-conference venue. The uniqueness of the site could pair with adjacent hotels for colloquia or conferences.

- Small exhibitions and displays could be installed to interpret the site or the site could be used by groups for such displays.

- Arts and crafts shows in support of local artisans could take advantage of the site's unique setting and include both inside and outside booths on the space between the building and the boardwalk. Indeed, a summer arts sale with booths and activities could promote the site, raise funds and serve as a weekend attraction for both the community and visitors from ships, cars and local hotels.

- Weddings and receptions are always a mainstay of sites such as this and this site would be no exception.

The number of possibilities for the use and programming of the site are varied and its distinctive location and beautiful views, as well as the variety of interior spaces, lend it well as a potentially successful place in downtown Sydney.

4. MONEY

4.1 Costs

A wide variation in costs can be expected when dealing with the upgrading or restoration of heritage sites. There is always the risk of the hidden or unknown when approaching work of this type, and a reasonable contingency of at least 12 to 15% should be carried in any budget. When dealing with an existing structure, no one can fully estimate the costs of a final project as there are unknowns which cannot immediately be determined. However, those unknowns can both increase or decrease as a result of hidden issues - in many cases, costs applied to a heritage site are overstated as if the intention is to make it a brand new building rather than considering that the bulk of the building is already in place and useable.

Since the work is a matter of risk reduction based on the experience of the professionals involved, it is more appropriate to stage the work in modest packages rather than take on all work at once. Such staging deals with variables of a smaller magnitude. Where, for instance a hidden defect stops all other work because of a need to complete a specific phase in a comprehensive project, there can be serious costs escalations for delays. However, smaller packages done individually can keep both costs and schedules under control and result in cost-efficient work.

It appears that several numbers have been put forward for the cost of preserving this building which range to as high as $3.8 million. Cost presented in the engineering report were listed as $2.5 million which appears to have been based on new building construction rates applied to the size of the current structure and escalated because it is a heritage project. While this amount could certainly be spent over a long term if a brand-new quality is desired, in our view the approach should be one of progressive expenditure rather than all at once (as at Sacred Heart Church in downtown Sydney which was progressively restored over many years).

In other words, it is recommended that needed stabilization of, principally, the foundations, be done at about $100k[9]. Next would be to do cosmetic repairs including the roof (say $25k to $50k) and get the heat and exit provisions operational (probably another $100k to $200k). Then, develop uses and keep the structure intact so that it can be integrated with any proposed waterfront development. The most expensive future work would likely be the provision of accessibility improvements which might, depending on requirements of the municipality or ECBC, require an elevator for long-term use as a public facility. Interim work, such as providing access at grade and use of the bottom floor from those using the board walk, might get the process going by allowing visitation and use while other improvements are on-going (properly scheduled of course so that construction is safely isolated from the areas in use).

Final work could be the full restoration of the exterior to a wood-shingled and roofed structure and restoration of the balconies (using the original arrangement of rails with

[9] The price could be higher or lower, but the whole building could probably be jacked up and moved for $150,000. Our firm has been involved in the relocation of several buildings in Toronto and area ranging in weight up to 800 tons and considerably larger than the subject building. The most recent was the move of a 400 ton brick building and involved jacking and moving it twice over a two year period (to a storage area then back on site) with a cost of $220,000. The RCBYC building probably weighs slightly less (not including chimneys and fireplaces) and would simply be jacked up rather than moved.

glass infills rather than wood pickets). Each stage should be fully funded prior to proceeding and a long-term fund raising plan in place.

A preliminary cost for immediate work could be established as follows:

1.	Foundations	$100,000 - 150,000
2.	Miscellaneous structural repairs	50,000 - 100,000
3.	Re-roofing	20,000 - 25,000
4.	Temporary heat	15,000 - 20,000
5.	Basic code related items - budget	25,000 - 50,000
Total immediate work		Approximately $210,000 - 345,000

If a contingency was added in the amount of about $135,000 to cover unforeseen conditions and exigencies it would match the larger amount.

4.2 Funding

Creative ways to find funds are what makes projects of this type feasible. A few suggestions are made:

- Start a campaign to attract visitors from the cruise ships. When American and international passengers realize how important the site was to Arctic exploration and U.S. and international history, donations should be forthcoming both on immediate visits and on-going. Current bookings are for 94,000 passengers per year. Let's say only 20% of the passengers per year visit the property and from each of these an average $5 donation is received. That would be a revenue stream of $94,000 per year.

- Solicit local donations and donations of labour and materials. Target an amount of $25,000 in goods and services

- Apply for municipal, provincial and federal grants. Target a modest amount to start with on-going applications for a series of small projects. Say $100,000 as a start.

- Request ECBC to provide an up-front amount for good will - say $250,000 for an elevator - to create local jobs and enhance the waterfront.

- Revenue stream from leases, such as the restaurant catering lobster dinners, weddings, etc. plus employment incentive grants would add more to the bottom line once repairs are completed to support each activity. Initial target of $10,000.

- Put a master plan and business plan together emphasizing the historical importance of the building and then target the charitable trusts of prominent families or corporations associated with the structure. Such approaches require a professionally created document illustrating the worth of the proposed project and the relevance to the trust fund. Major endowment funds are typically operated by prominent US industrial families (the DuPonts for instance) - target for such a donation could be several hundred thousand dollars. The site's operating trust would have to build a business case of this kind and demonstrate the initiation of a viable a fund-raising process.

5. CONCLUSION

5.1 Summary of Issues

Based on information provided prior to the site visit; observations made during the site visit; and subsequent research into the site, its architecture and its history, it is the undersigned's professional opinion that the RCBYC clubhouse is a building of significant importance and that this significance is not only local to the Sydney or Cape Breton area but extends out to international importance due to, particularly, the following:

Design – The design of this club is of interest particularly in respect of its positioning on the side of the hill overlooking the harbour. In most yacht clubs, decks are provided at the upper floor to permit viewing of boats during races. In this case, modifications subsequent to the original design allowed for a double tier of viewing platforms. Moreover, the original central cupola/bell tower and the corner turrets at the upper floor created an interesting and unique design unusual in buildings constructed for this purpose. The building has had a long standing presence on Sydney's waterfront.

Designer – The designer of this building was Richard Clipston Sturgis of Boston. He was a noted architect during his career and was President of the Boston Institute of Architects; the American Institute of Architects (1913-1915) (which, in and of itself, was a singular achievement); the Society of Arts and Crafts Boston (1917-1920); and a member of the Boston School Board. His papers are archived in the Boston Athenaeum.

Development of the Community - Based on the members who began the club, the site has an extensive association with economic and cultural development of the community.

Association with historical events - Sydney was on the direct route north for explorers seeking reach the North Pole. The building was at the centre of several expeditions associated with the discovery of the North Pole and the fact of the discovery was telegraphed to the world by Peary from Sydney. The clubhouse was central to the visits by explorers to the community. As well, the building is associated with both world wars in that many if not all of the officer corps of various navys took advantage of the facilities. The building has been visited by many notable personages including members of the Royal Family and the President of the United States.

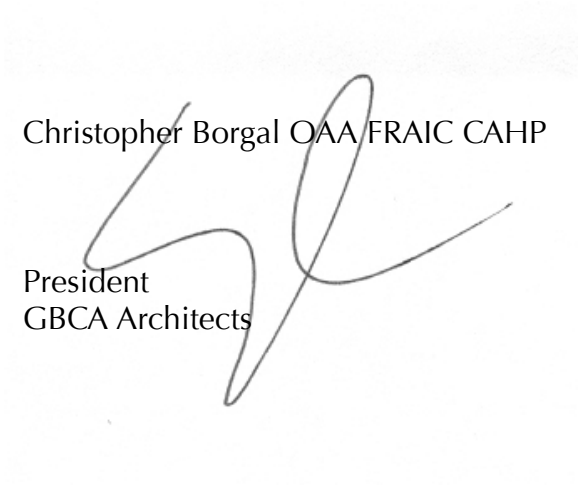
5.2 Conclusion

This building is of exceptional importance as a heritage site. Its importance is not confined to Sydney nor Cape Breton. In the undersigned's opinion, this site is of national and, indeed, international significance. Every effort should be made by all parties to ensure its survival and to ensure it has a viable use that will keep it visible and present to the public.

5. CLOSURE

It has been a privilege and a pleasure to provide these words which flow directly from almost 40 years in this field and my personal work on approximately 2,000 individual structures. In my experience, when a community coalesces around an issue of this type and remains focussed there is nothing that cannot be accomplished. The community can realize the merits of a site such as this for its own benefit.

The information and data contained herein represents undersigned's best professional judgment in light of the knowledge and information available to the undersigned at the time of preparation. The author 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 author and those to whom it is addressed, namely the client.



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