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Transmittal

To:	Municipality of Clarington	**Project No.:**	25120
Address:	40 Temperance Street	**Date:**	August 25, 2025
	Bowmanville, ON L1C 3A6	**Your No.:**	
Attention:	Ms. Jennifer Stycuk		
Project Name:	Camp 30 Cafeteria Building 2020 Lambs Road, Municipality of Clarington		

For your:	❑	Approval	**Via:**	❑	Mail
	❑	Distribution		❑	Courier
	■	Information and use		❑	By hand
	❑	Review and comment		❑	To be picked up
Action taken:	❑	Reviewed		❑	Fax
	❑	Reviewed as modified		■	E-mail
	❑	Revise and resubmit			
	❑	Not reviewed			

Qty.:	Drawing No.:	Issue No.:	Revision No.:	Description:
1	Copy	-	-	Structural Condition Review Report

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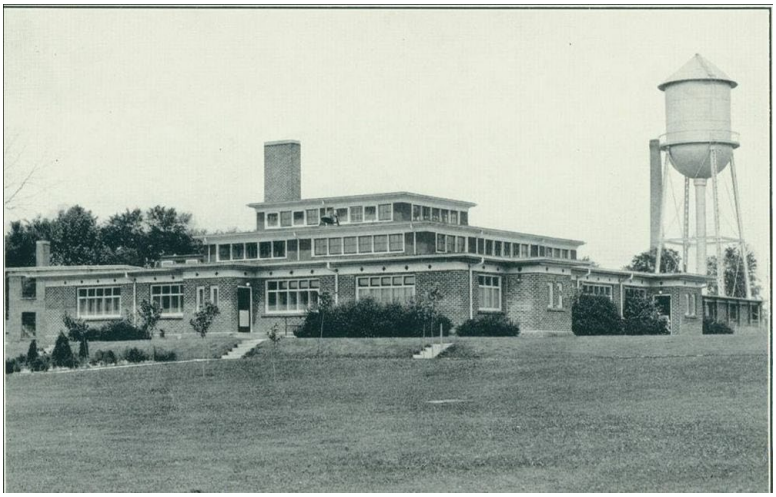
Structural Condition Review

Camp 30 Cafeteria Building

2020 Lambs Road, Municipality of Clarington

The Corporation of the Municipality of Clarington



BBA PROJECT NO. 25120

August 25, 2025

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PART 1 – INTRODUCTION

1.1 AUTHORIZATION

This structural condition assessment has been undertaken by Barry Bryan Associates, Architects, Engineers, and Project Managers (BBA), for the existing Cafeteria Building at the Camp 30 site in Bowmanville on behalf of the Municipality of Clarington. Authorization to undertake this study was received from Jennifer Stycuk, Acting Manager of Facilities, from the Municipality of Clarington.

1.2 OBJECTIVES

The objective of the structural assessment for this project was to complete a follow-up site visit, from BBA's previous review completed in 2022, to assess the structural condition of the Camp 30 Cafeteria Building, located at 2020 Lambs Rd in Bowmanville, ON., following the partial roof collapse of the structure. This report includes the assessment of the structure and provides next-step recommendations based on the reviewed conditions.

1.3 REVIEW METHODOLOGY

BBA completed a non-intrusive, non-destructive, visual inspection of the building structure on June 30, 2025. In addition to the review of the collapsed roof sections, the structural and non-structural elements were investigated for evidence of varying levels of deterioration, distress, and/or corrosion, and any areas of concern were documented.

In brief, the structural assessment included review of the following:

- Corrosion of structural steel framing.
- Deterioration of structural components, including, but not limited to, concrete, timber studs and joists, bearing walls, slabs, and roofing elements.
- Deterioration/cracking of external brick wall systems.
- Excessively deflected structural elements.

Reference drawings of the existing structure were not available at the time of review.

1.4 STATEMENT OF LIMITATION

All comments and observations in this report are based on visual observations made during the inspection on June 30, 2025.

No intrusive or destructive testing or opening of the building system was completed during the inspection. Further, a detailed structural review of the steel connections was not completed.

There are no comments on the components that were not exposed to view.

Any design and/or construction deficiencies not recorded were not evident at the time of the inspection.

PART 2 – BUILDING BACKGROUND AND DESCRIPTION

2.1 BACKGROUND

The Dining Hall Building is located at the Camp 30 site, which is located at 2020 Lambs Road in Bowmanville. The 42.5 ha (105 acre) site was formerly owned by Darch Farm and was donated to the Ontario government in the early 1920s to establish The Boys Training School, later renamed the Ontario Training School for Boys. It is understood that the building originally operated as a cafeteria for the training school, which completed construction in 1925.

The school operated for a few years; however, the property was appropriated by the Government of Canada to convert the school into a prisoner of war camp, Camp 30, by 1941. In 1942, there was an uprising at Camp 30, known today as the “Battle of Bowmanville”. During this uprising, German officers barricaded themselves within the cafeteria; the uprising had only lasted three days. Occupation of Camp 30 had ended in 1945, with the end of WWII. The site resumed operation as a training school, which continued operation until 1979, when the then named Pine Ridge School, closed. At the time of closing, neither the municipality nor the province wanted to retain the site due to the high costs of ownership.

In the years to follow, 1983 to 2008, the property was primarily used as different schools by different owners. In 2007, Lambs Road School Property Ltd. purchased the property. However, shortly after, in 2009, the buildings were added to the Municipal Report due to the historic significance of this site. Around this time, a condition survey and structural assessment were completed, which concluded that the buildings were still in surprisingly good condition, despite significant vandalism, fires, and exposure to external elements.

It is understood that the Municipality of Clarington had recently gained ownership of the cafeteria building. The building is one of the remaining four structures on the overall Camp 30 Site Plan.

Due to the lack of maintenance and upkeep since closure in 2008, as well as the rampant vandalism that the site has experienced since the original site assessment in 2009, the building is showing evidence of severe deterioration and defacing of the exterior building elements.

In 2025, a portion of the South-East roof collapsed.

2.2 BUILDING DESCRIPTION

The building is single-storey in height with a partial atrium, a basement area, and approximately 10,000 square feet in building area. The building structure appeared to consist of flat roofs at varying elevations to suit the atrium and changes in the ceiling heights throughout the building. The roof construction appeared to consist of a wood plank decking supported on wood rafters spaced at approximately 24” on centre, where exposed. The wood roof rafters appeared to be supported by a combination of the exterior load-bearing brick masonry walls and interior structural wood and/or steel beams that are supported by concrete wrapped structural steel columns.

The interior of the building consisted of interior stud partition walls and perimeter double wythe brick masonry walls. Most of the wood framing on the interior of the building was partially concealed with the original lath and plaster ceiling and wall finish.

The exterior walls consisted of double wythe brick masonry walls. The interior of the walls were finished with lath and plaster. The perimeter walls included multiple window openings, which had the original wood window frames in place, and the majority were covered with plywood hoarding since the glazing had been broken or removed. The perimeter walls appeared to be supported on a multi-wythe brick masonry foundation wall system that was observed from the interior of the building in the basement.

The exterior perimeter walls at the clerestory areas consist of what appeared to be wood stud framing and wood siding with an interior lath and plaster ceiling. Windows at these clerestory locations were framed between the wood studs and mostly boarded with plywood since the glazing had been broken.

The ground floor consists of what appeared to be a reinforced concrete floor slab. The concrete slab systems span between a combination of reinforced concrete drop beams and concrete-encased steel beams that span 20’-0” between load-bearing brick masonry piers and are spaced at approximately 11’-0” on centre.

PART 3 – OBSERVATIONS

BBA attended the Camp 30 Cafeteria Building on June 30, 2025, to visually review the area of the collapsed roof and the general condition of the structural building components. A summary of findings is itemized as follows:

1.1 ROOF STRUCTURE

There were three (3) elevations of roof: upper clerestory, mid clerestory, and low roof. Each of the roof areas were generally lightly sloped to promote positive drainage away from the building or to a previous collection system. The roofs generally consisted of wood plank decking supported by timber rafters that span between the external wall and internal wood and/or steel transfer beams. It was observed at the lower roof level that several of the wood rafters had been doubled up, though it could not be confirmed if this was an existing condition or reinforcing.

The roof framing at all levels was generally severely deteriorated at the time of the site visit.

Previous observations (2022):

- The roofing appears from drone footage to be fully comprised in most locations. There was excess water staining observed throughout the building.
- The wood decking was completely rotted in many locations as a result of prolonged exposure to the exterior elements.
- The wood roof decking and rafters showed excessive deterioration and/or deflected (sagging) showing evidence of localized failures likely resulting from prolonged exposure to moisture.
- The structural steel transfer beams, where exposed, were in poor condition and had evidence of severe surface corrosion resulting from exposure to the exterior elements.
- The roof beams were supported by concrete encased structural steel columns. The concrete encasing had locally been removed, however, in general the structural steel columns appeared in fair to good condition. We did not observe any excessive deterioration or evidence of structural distress at the time of the site visit.

The following observations were made at the time of visit (2025):

- At the North-West corner of the structure, where excessive deterioration and localized failure of the roof deck was previously observed, a larger portion of the roof deck and ceiling has collapsed (Photo 001).
- Along the South side of the structure, the ceiling along the low roof was actively failing (Photo 002).
- At the South-East corner of the structure, complete collapse of the roof system was observed (Photo 003, 004).
- At the North-East and South-West corners, deterioration and localized failure of the roof deck was observed, as well as active collapse of the ceiling below (Photo 005).

The roof structure was in very poor condition at the time of the site visit, with localized failure and roof collapse observed throughout the building. The structure, in its current condition, is at end of life and additional collapse under general loading is possible without immediate stabilization or replacement.

1.2 CLERESTORY WALLS

The upper-level framing between the elevation changes in the clerestory consisted of wood panel exterior façade supported by 2x4 timber stud infill. The stud walls were partially finished with lath and plaster that had failed throughout the interior of the space.

The visible clerestory framing and cladding showed severe deterioration at the time of the site visit.

Previous observations (2022):

- The exterior cladding had fully failed in many locations, leaving the interior of the building exposed to the exterior elements.
- Excessive moisture exposure was observed from the interior of the clerestory walls. Likely a result of water penetration through the open windows, exterior wall cladding, and deteriorated roof.
- The transfer beams supporting the clerestory walls were corroded (rusted) as a result of prolonged exposure to moisture.
- The wood window framing and glazing in the clerestory walls appeared deteriorated and had been boarded with plywood.
- We could not confirm the connection of the top and bottom of the wall; however, it is likely made with nail fasteners, which have deteriorated with exposure to prolonged moisture.

The following observations were made at the time of visit (2025):

- Continued deterioration of the clerestory walls was observed throughout (Photo 007).
- Additional damage and deterioration were observed around areas of vandalism and break-in (Photos 008 and 009).

The elevated clerestory walls were in poor condition at the time of the site visit. We believe that partial collapse of the wall system is possible with further exposure to the exterior elements and severe weather conditions. Full reinforcing and/or replacement of the clerestory wall system is required to structurally stabilize the building structure and continue operation.

1.3 GROUND LEVEL STRUCTURE

The ground floor slab and ground level walls were not reviewed from the interior of the structure at this time due the low roof deterioration.

1.4 BASEMENT & FOUNDATION WALLS

Safe access to the basement was not possible and thus was not reviewed at this time.

1.5 EXTERIOR BRICK MASONRY WALLS & CHIMNEY

The exterior walls of the ground floor consisted of double wythe brick masonry walls finished with an interior lath and plaster finish. The walls appeared constructed with a conventional running bond pattern; we did not observe any stretcher coursings or tie joists between the two (2) wythes of wall during our site visit. The wall was in poor condition at the time of our site visit, with various areas where localized collapse had occurred, fully deteriorated mortar joints, and failing brick masonry units. The chimney was also included in the review of the exterior masonry walls.

The primary focus for the exterior walls was to review the structural integrity of the bearing wall where the localized roof collapse had occurred. Our observations are as follows:

- At the South-East concern where the roof collapse had occurred, the load-bearing exterior wall has cracked and deflected (Photos 010 and 011).
- From ground level, the chimney structure appeared to be heavily deteriorated and bulging at its upper-most section (Photo 012).

The exterior walls were in very poor condition at the time of review. We believe that partial collapse of the South-East corner and chimney structure is possible with further exposure to the exterior elements and severe weather conditions. Full reinforcing and/or replacement of these areas is required to structurally stabilize the building structure and continue operation.

PART 4 – RECOMMENDATIONS

The structural components of the building, specifically those related to the roof collapse, were reviewed for evidence of further damage and deterioration. The comments and observations presented in this report are based on visual observations made during the site investigations completed on June 30, 2025.

The structure as is, at the time of visit, was in very poor condition, with localized failures and severe-to-advanced deterioration occurring on various structural elements of the building. It is the opinion of BBA that further collapse of the building structure is probable with further prolonged exposure to the exterior elements and high loading conditions (i.e. wind storms, and heavy snow loading).

We have summarized below our recommendations for each of the structural components as follows:

ROOF STRUCTURE:

The roof structure was severely deteriorated at all levels of the building, with localized collapses throughout. It is the opinion of BBA that the roof structure is at the end of life; it is recommended that the following remedial repair and replacement work be completed:

- A collapse perimeter should be set up around all areas of heavy deterioration. No persons should enter these areas other than those permitted for remedial works. Should use of the building continue, complete engineered shoring for the roof structure and support structure should be installed.
    - Replacement of the deteriorated wood plank decking. Salvage decking in good condition where possible.
    - Replacement of the deteriorated wood rafters. Salvage wood rafters where possible.
- Conduct a closeup visual review of the interior structural steel transfer beams. Complete reinforcing as necessary. It is believed that reinforcing will be required on at least 75% of the structural components.
- Installation of a new roof with historic flashings, fascia, and soffits to match the original building condition.

It is BBA's recommendation that the access be fully removed, and collapse perimeters be installed around the areas of heavy deterioration and collapse. Should the municipality continue use of the structure, extensive temporary shoring and a complex demolition program will be required to complete the roof replacement and restoration work.

GROUND-LEVEL & CLERESTORY WALLS:

The ground-level and clerestory walls were severely deteriorated. The wood panel exterior appeared rotted and/or damaged due to prolonged exposure to the external elements and the presence of moisture. Extreme deterioration and localized failure of the stud walls and double-wythe brick masonry walls were observed throughout. It is the opinion of BBA that the clerestory and ground-level walls are at the end of life and require the following repair and replacement work:

- All load-bearing walls shall be included in the roof structure collapse zone.
- A complete engineered shoring plan for the load-bearing walls shall be installed if access to the structure remains, or if remedial works are to commence.
    - Replacement of the deteriorated wood panelling. Salvage panels where possible. Re-introduction of moisture resisting membrane is recommended.
    - Replacement of the deteriorated wood studs. Salvage studs where possible.
    - Replacement of the deteriorated window frames and installation of new glazing.
    - Re-pointing and replacement of damaged and deteriorated masonry and masonry joints.
    - Re-finish internal walls with lath and paster, or similar, to match the original building finish.

Extensive temporary shoring of the load-bearing walls and a complex demolition program will be required to complete the multi-level wall replacement and restoration work for the structure to remain accessible.

EXTERIOR BRICK MASONRY WALLS:

The double wythe exterior brick masonry was severely damaged and deteriorated, with localized failure and collapse observed. Generally, we observed significant cracking, separation of the wall wythes, and displacement of the mortar. It is the opinion of BBA that the exterior clay brick masonry walls and chimney are at the end of life in the current condition; it is recommended that due to the extensive amount of failures and unstable conditions of the existing brick masonry walls and chimney, a collapse perimeter should be set up around all areas of heavy deterioration. No persons should enter these areas other than those permitted for remedial works. The collapse area is to include a perimeter for the chimney. Due to the possible scale of collapse, it is recommended that the entire structural footprint be designated as a collapse perimeter.

PART 5 – CONCLUSIONS

A structural condition review was completed on June 30, 2025, by Barry Bryan Associates, Architects, Engineers, and Project Managers, for the existing Cafeteria Building at the Camp 30 site in Bowmanville on behalf of the Municipality of Clarington. The purpose of this visit was to visually assess the structural condition of the building and provide a summary of the condition with recommendations for possible next steps.

The structural review, which was conducted from areas of the building that were safely accessible, included the following components: roof structure, clerestory and ground-level walls, and exterior brick masonry walls. All areas of the building at the time of the visit were not safely accessible for close-up visual inspection, resulting from excessive debris in the path of travel, unsafe suspended equipment/piping, and blocked paths of travel or possible structurally unstable conditions overhead.

The structure of the existing Cafeteria building is in very poor condition, with areas of active structural collapse occurring. All structural components above the finished ground floor elevation have severely deteriorated from exposure to the exterior elements. The building must NOT be occupied and requires appropriate collapse perimeters to be established.

The historic sensitivities of this building are understood, and preservation is the priority. However, stabilization and/or restoration of these severely deteriorated and failed components will be nearly impossible since most of the existing timber framing is rotted and has evidence of severe deterioration. Additionally, the multi-wythe brick masonry walls have fully separated, locally failed, and severely shifted. We are recommending that the wood roof structure and supporting walls at the clerestory, along with exterior brick masonry walls, be deconstructed, utilizing a salvaging program for any materials that are found to be in fair to good condition for re-use. The salvaged materials can be utilized into a possible reconstruction of the existing building from the ground floor up.

The existing ground floor structure, foundations, and basement slab require a comprehensive cleaning and structural restoration and stabilization of the remaining elements. It is our opinion that the ground floor slab, basement slab, and supporting foundations can be restored for re-use in the redevelopment or stabilization of the building, should collapse be avoided. However, we recommend that immediate action be taken to prevent further, more advanced, structural deterioration and additional collapse of the building structure.

BUDGET

The budget for this type of project is extremely difficult to provide, including rough Orders of Magnitude costs due to the unprecedented nature of this type of project. Several considerations must be reviewed when providing a budget estimate:

1. Abatement work required prior to, or during any work.
2. Temporary stabilization program to safely access the building (i.e. temporary shoring program).
3. Salvage program with a deconstruction plan is far more complex in comparison to standard demolition since the existing building components must be protected for possible re-use.
4. Salvaged materials need to be inventoried, tagged, and stored.
5. There is additional intrusive review and testing required to confirm the adequacy of existing elements to remain (i.e., ground floor slab, basement foundations, basement slab, and building structural steel columns and steel beams.

We believe the costs to reconstruct a replica building without any salvage considerations will be far more economical in comparison to a partially salvaged and restored option. However, we understand the historic requirements for preservation of buildings that are designated as historically significant. We have outlined key itemized areas of pricing for the project; however, we do not have a precedent to provide budgets against for the work:

1.	Temporary shoring / stabilization	$ 450,000.00
2.	Abatement	(Unknown)
3.	Deconstruct / salvage structure (ground floor up)	$1,500,000.00

4.	Protection of existing columns and structural steel beams	$ 250,000.00
5.	Provide temporary heating	$ 400,000.00
6.	Provide positive drainage (basement sump)	$ 150,000.00
7.	Re-instate power	$ 400,000.00
8.	Restore basement foundation	$ 750,000.00
9.	Basement waterproofing	$ 300,000.00
10.	Restore basement slab	$ 150,000.00
11.	Restore ground floor slab (assuming existing slab properties are suitable)	$ 450,000.00
12.	Reinforce steel beams/columns salvaged in place.	$ 350,000.00
13.	Reinstate mechanical electrical systems	(Unknown)
14.	Reconstruct replica from ground floor up	$4,750,000.00

We trust the above information meets your requirements. Should you have any further questions, please do not hesitate to contact our office.

Yours very truly,

BARRY BRYAN ASSOCIATES

Architects, Engineers, Project Managers

Matthew Ficara, P. Eng., M.A.Sc.

Doug McLaughlin, P. Eng.

August 25, 2025

PHOTGRAPHS

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

Photo 11

Photo 12