

# BUILDING CONDITION ASSESSMENT

SAND/SALT DOME

191274 13<sup>TH</sup> LINE  
EAST GARAFRAXA, ONTARIO

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**1.0 EXECUTIVE SUMMARY**  
**1.1 Introduction**

Keller Engineering performed a Building Condition Assessment (“BCA”) of 191274 13<sup>th</sup> Line East Garafraxa, ON. (“Site”) on October 24, 2023, on behalf of The Township of East Garafraxa (“Client”). The report that follows is based on that review. The weather was sunny and approximately 17°C.

**1.2 General Site Description**

The Site is composed of 1 building. The building is a one-level rounded cone structure with one open side for stockpiling salt and sand used for road salting operations in the winter. The building was constructed in 1987. The site size is approximately 4,452 m<sup>2</sup> (1.1 acres). The building has a footprint of approximately 730 m<sup>2</sup> (7,854 ft<sup>2</sup>). The site area excluding the building is mainly trimmed grass, trees, gravel, and asphalt pavement. The surrounding area is primarily fields and residential homes. The Site is accessed off 13<sup>th</sup> Line. For the purposes of this report, the building’s elevation facing 13<sup>th</sup> Line is facing east and is located on the west side of the 13<sup>th</sup> Line.

**1.3 General Site Details**

|  |  |
|--|--|
| <b>City/Town:</b>                          | East Garafraxa   |
| <b>Province:</b>                           | Ontario  |
| <b>Number of Stories:</b>                  | 1  |
| <b>Year Built:</b>                         | 1987   |
| <b>Structure:</b>                          | Poured concrete substructure, structural wood framing with wood strapping, and wood roof deck superstructure.  |
| <b>Exterior:</b>                           | Not applicable.  |
| <b>Roof:</b>                               | Sloped single tab laminate shingled roofing.   |
| <b>Plumbing:</b>                           | Not applicable.  |
| <b>Heating, Ventilation &amp; Cooling:</b> | Ventilation fan.   |
| <b>Electrical:</b>                         | Underground.<br>Copper wiring<br>LED interior and exterior lighting.   |
| <b>Services:</b>                           | Potable Water: Not applicable.<br>Sewer: Not applicable.<br>Storm: Not applicable, surface.<br>Fuel: Not applicable.<br>Electricity: Hydro One Networks Inc. |

**1.4 Summary of Facility Condition Index (“FCI”)**

The current condition of the building and components is expressed as a percentage derived from the ratio of aggregated total cost of repairs/renewal/upgrades to the current replacement value of the building. This ratio is referred to as the Facility Condition Index (“FCI”). Refer to **Appendix B** for a detailed description.

The aggregated total costs estimated for the building is \$465,465.00 adjusted for inflation. The current replacement value of the building and appurtenances is estimated to be \$4,500,000.00.

Based on the estimated values, the FCI for this building is 10% and is classified as Fair.

Refer to Section 2.3, Standards of Reference, for definitions and classifications.

**1.5 General Condition**

The building is in fair condition compared to other structures of similar age and use. In our opinion, maintenance activity has been fair. As a result, the property is showing effects of wear and tear at an average rate compared with other similar facilities. Refer to Section 3.0, Systems and Observations.

Overall, the structure is in fair condition compared to other developments of similar age and use.

Overall, the building envelope is in fair condition compared to other developments of similar age and use.

The lighting and exhaust fan are in fair to good condition.

The Owner advised that they are not aware of any outstanding work orders, building code violations, building code infractions, building ordinances and municipal health and fire safety by-laws violations.

**1.6 Recommendations for Further Study**

We have not identified the need for a Life Safety Audit and Designated Substances Survey to review conditions to protect people based on building construction, protection, and occupancy features.

**2.0 PURPOSE AND SCOPE**

**2.1 Purpose**

The purpose of this BCA is to determine the current condition of the building envelope, systems, paved areas, utilities, and site improvements, and to assign an FCI value for the building.

## 2.2 Scope & Methodology

Keller Engineering, formerly Criterium-Jansen Engineers performed the BCA according to the scope as generally defined in ASTM 2018-15. The survey is based on a review of available documents, an examination of the building and the Site; in particular, the foundation walls (where visible), the roof, the framing, mechanical systems, paved areas, and utilities.

The report contains the following:

- A description of the overall condition of buildings components and systems and conditions that may limit the expected useful life of the buildings and their components.
- Information about significant deficiencies, deferred maintenance items, and material code violations based on a visual survey of the building and grounds, research of documents, and conversations with people who have knowledge about the facility.

The statements in the report are opinions about the present condition of the subject property. They are based on visual evidence available during a diligent review of all reasonably accessible areas. Standard BCA practices excludes the operation of equipment by the field observer and is to be conducted without the aid of special protective clothing, exploratory probing, removal or relocation of materials, testing, or the use of equipment, such as ladders, stools, scaffolding, metering/testing equipment, or devices of any kind, etc. It is literally the field observer's visual observations while walking through the subject property. The study is not an exhaustive technical evaluation. Such an evaluation would entail a significantly larger scope than this effort. For additional limitations, see Section 5.0. As per standard BCA practices, the user of this report is required to arrange for the field observer to receive timely complete, supervised, and safe access to the subject property's improvements including roofs. Where access was not provided Keller Engineering is obligated to state within the report all such material impediments that interfered with the conducting of the assessment.

Our mandate for this BCA excluded assessment of the facility's compliance to accessibility related standards and the Accessibility for Ontarians with Disabilities Act. Barrier Free Design of the National Building Code of Canada governed handicap accessibility guidelines for buildings constructed after 1990. Possible retroactive compliance for buildings constructed prior to 1990 was not required until subsequent provincial legislation was enacted. A significant change of building use or an Authority Having Jurisdiction may trigger the need for accessibility related building upgrades under certain circumstances. As the timing, scope of work and associated costs cannot be reasonably predicted, we have not included any Capital Costs for future upgrades in the term of the report.

## 2.3 Standards of Reference

For your reference, the following definitions may be helpful:

All ratings are determined by comparison to other buildings of similar age and construction type.

All directions (left, right, rear, etc.) are taken from the viewpoint of an observer standing in front of the building and facing it.

### Condition

*Excellent:* Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.

*Good:* Component or system is sound and performs its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

*Fair:* Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong expected life.

*Poor:* Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

*Critical:* Immediate repair/replacement recommended in less than 1 year. Physical deficiencies that require immediate action as a result of existing or potentially unsafe conditions, building code violations, poor or deteriorated conditions of a critical element or system, or a condition that if left "as is" would result in a critical element or system failure.

### Priority

**Urgent** – Immediate repair/replacement recommended in less than 1 year. Physical deficiencies that require immediate action as a result of existing or potentially unsafe conditions, building code violations, poor or deteriorated conditions of a critical element or system, or a condition that if left "as is" would result in a critical element or system failure.

**High** – Repair/replacement anticipated within the first 2 years. Physical deficiencies including deferred maintenance that may not warrant immediate attention but require repairs or replacements that should be undertaken on a priority basis, taking precedence over routine preventive maintenance work within a zero to one-year time frame. Included are such physical deficiencies resulting from improper design, faulty installation,

and/or substandard quality of original systems or materials. Components or systems that have exceeded their expected useful life that may require replacement to be implemented within a zero to one-year time frame are also included.

Medium - Repair/replacement is anticipated between 3 to 5 years.

Low - Replacement is not anticipated within the first 5 years.

Facility Condition (“FCI”) Levels

Good Condition (0-5% FCI) – Asset is in reasonable condition and does not require capital expenditure.

Fair Condition (6-10% FCI) – Asset is deteriorating, requires capital expenditure and will likely become “poor” within a few years if not addressed.

Poor Condition (11-30% FCI) – Asset is deteriorated and requires immediate capital expenditure.

Critical (31% + FCI) – Asset is in disrepair or dilapidated and requires urgent significant capital expenditure.

*Repair/Replacement Reserves* - Non-routine maintenance items that will require significant expenditure over the timeframe of this study. Included are items that will reach the end of their estimated useful life during the term of the study or in the opinion of the consultant will require attention during that time. Items with estimated expenditures below \$5,000.00 are below the capital threshold for this study and may or may not be reported since it is anticipated that those items will be repaired/replaced within the scope of regular building maintenance. The recommended repairs will be scheduled appropriately over a 20-year period in 5-year intervals. All the prices quoted are in Canadian 2023 dollars and are presented in the Capital Expenditure Tables.

**3.0 SYSTEMS AND OBSERVATIONS**

**3.1 Site Improvements**

**3.1.1 Paving & Curbing**

Description

Observations & Comments

Refer to **Appendix B**, Facility Condition Index Table for the estimated time-period of replacement or repairs and associated estimated costs.

There is a paved asphalt driveway and main lot that circulates the property. There is a graveled area on the west and south side of the property. Precast concrete barricades are provided at the northeast side of the property to protect the fuel tanks.

The asphalt driveway at the entrance to the main lot, and the main lot are in poor condition with deterioration in the form of longitudinal/transverse cracking, and alligating. A budget for replacement has been allowed for during the time-period of this report.

Gravel/screenings at the side of the building are settled with localized bare/eroded areas. Replacement is not anticipated during the timeline of this report. Costs associated with repairs are expected to be below the Capital Threshold and are not included.

The precast concrete barricades are in poor condition with damaged, cracked, and stained concrete. A budget for replacement has been allowed for during the time-period of this report.

Ongoing maintenance is required to keep surfaces renewed, including crack sealing. Once asphalt is replaced, this work should be scheduled for regular maintenance. Typically, pavement resurfacing, or reconstruction is recommended every 20 years depending on the wearing patterns.

**3.1.2 Flatwork**

Description

There is no flatwork on the property. Not applicable.

**3.1.3 Landscaping & Appurtenances**

Description

Landscaping on the site consists of grass and trees at the south, east, and west sides of the property.

There are exterior light fixtures at the front of the building.

Observations & Comments

Landscaping and appurtenances are in fair condition with plant overgrowth in the gravel sections, damaged/aged grass/sod etc. Costs associated with repairs are expected to be below the Capital Threshold and are not included.

**3.2 Structure & Building Envelope**

**3.2.1 Substructure**

Description

The foundation of the building is cast-in-place poured concrete.

Observations & Comments

The substructure is in fair condition with localized cracks/fractures, rust stains, moss algae and other discolourations. There is some localized damage likely due to impact from machinery. Replacement is not anticipated during the timeline of this report. A budget for localized repairs has been allowed for during the time-period of this study.

**3.2.2 Superstructure**

Description

The structure is composed of wood framing with wood bracing/strapping, joists/beams, and wood sheathing.

There is an exterior roof overhang for the open section of the dome.



|   |   |
|---|---|
| <p>Observations &amp; Comments</p>              | <p>We observed no adverse conditions concerning visible superstructure systems.</p> <p>There are localized holes and wood deterioration in the roof overhang. A budget for localized repairs has been allowed for during the time-period of this study.</p> <p>Replacement of wood superstructures is not anticipated during the timeline of this report. A budget for future localized repairs has been allowed for during the time-period of this study.</p>  |
| <p><b>3.2.3 Exterior</b></p> <p>Description</p> | <p>The structure is composed of the roof and foundation.</p>  |
| <p><b>3.2.4 Roofing</b></p> <p>Description</p>  | <p>The structure has a sloped shingled roof with single tab laminate shingles. The roofing is supported by wood sheathing.</p>  |
| <p>Observations &amp; Comments</p>              | <p>It was reported that localized repairs including shingle replacement as needed has been completed in the past. The shingle roofing condition is consistent with their age with localized curling and granule loss. There are localized shingles that are lifting due to pulled out nails. Replacement is anticipated to occur within the timeframe of this report. The wood sheathing is aged and stained. A budget for replacement has been allowed for during the time-period of this study.</p> <p>There is exposed wood fascia and nail heads near the top of the roof overhang. It was reported that installation of new sheet metal, replacement of fascia boards and nail sealants is planned to be completed next month. Costs associated with repairs are expected to be below the Capital Threshold and are not included.</p> <p>Once the roofing is replaced, further localized repairs, on an as required basis, can be performed at a cost below the Capital Threshold.</p> |
| <p><b>3.3 Mechanical Systems</b></p>            |   |
| <p><b>3.3.1 Plumbing</b></p> <p>Description</p> | <p>There are no plumbing systems in the sand dome. There are fuel tanks at the rear of the building but are rented. Not applicable.</p>   |
| <p><b>3.3.2 HVAC</b></p> <p>Description</p>     | <p>There is 1 ventilation fan on the roof of the sand dome.</p> <p>Review of process related equipment is beyond the scope of this mandate.</p>   |
| <p>Observations &amp; Comments</p>              | <p>It was reported that the fan received recent maintenance. The fan is in fair condition; however, it will reach the end of its service life within the timeframe of this study. A budget for replacement has been allowed for during the time-period of this report.</p>  |

**3.3.3 Electrical**

Description

Electricity enters the service building underground to service panels located inside of the sand dome. Interior and exterior lighting is LED.

Review of process related equipment is beyond the scope of this mandate.

Observations & Comments

The electrical system appears adequate for the building functions with localized repairs required. We have included a budget for electrical repairs including thermographic scanning during the time-period of this study.

Interior and exterior lighting is in fair condition; however, lighting systems will be nearing end of their expected service life within the timeframe of this study. Costs associated with replacement is expected to be below the Capital Threshold and are not included.

Based upon the age of the original equipment, a budget for thermographic scanning is recommended. Typically, periodic thermographic scanning is recommended by utility and insurance companies. For the main switches, breakers and other connections, scans should be completed and repeated as part of regular maintenance every 3 years, note that an amount is included in the short term, but in subsequent years the thermographic scan will fall under regular maintenance. Local replacement/repairs of electrical equipment may be required following these scans. Repairs to visible deficiencies noted, will need to be completed. Electrical repairs are considered a high priority. Typically, the power distribution system should last for decades if not for the life of the building if properly maintained. Since the extent and timing of work cannot be predicted, we assume that this can be performed on as needed basis at cost less than the capital threshold.

An electrical design load calculation was not performed and is beyond the scope of this report. The Owner did not identify existing issues related to power insufficiency.

**3.4 Special Systems**

**3.4.1 Security**

Description

The structure does not have a security system. Not applicable.

**3.4.2 Fire Protection & Life Safety**

Description

Life safety consists of a fire extinguisher.

Observations & Comments

The Point of Contact advised that he was not aware of any outstanding work orders, building code violations, building code infractions, building ordinances and municipal health and fire safety by-laws violations.

Life safety systems need to be tested and inspected annually by a life safety service provider. All general maintenance costs should be covered by the annual operating budget. The life safety systems were visually examined, where possible, during the walkthrough assessment. The system components were randomly reviewed to assess their overall types and condition. It should be noted that the mandate did not include a review of the National Building and Fire Codes, or compliance of the property to these codes. This report also does not consider future changes to the National Building and Fire Code and municipal regulations obliging building upgrades.

**3.5 Interior Elements**

**3.5.1 Finishes**

Description

There are no interior finishes. Not applicable.

**3.6 Miscellaneous**

**3.6.1 Maintenance & Other**

Observations & Comments

Planned maintenance is necessary for the longevity of assets and to control and reduce repair and replacement costs. Preventative maintenance work should be completed promptly.

From our observations we did not see anything that could not be repaired. There are some current items that require maintenance, but every building requires maintenance.

**4.0 REPAIR/ REPLACEMENT RESERVES**

Refer to **Appendix B, Schedule of Anticipated Reserve Requirements.**

**5.0 LIMITATIONS**

The information, observations, and conclusions described in this report are valid on the date of the report and have been made under the terms, conditions, limitations, and constraints noted in the report. We prepared the report for the exclusive use of the Client. No other individual or party shall be entitled to rely upon the report without our express written consent. If another individual or party relies on the report, such individual or party shall indemnify and hold Keller Engineering, formerly Criterium-Jansen Engineers, harmless for any damages, losses, or expenses incurred because of such use. Any use or reliance of the report by an individual or party other than the Client shall constitute acceptance of these terms and conditions. Any electronic copies of this report that are provided, are for the convenience of the Client, and are not to be construed as the original or final report.

The report is limited to the visual observations made during our review. We did not remove materials, conduct any destructive or invasive testing, move furnishings or equipment, or undertake any digging or excavation. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of review. We did not undertake to completely assess the stability of the buildings or the underlying foundation soil since this effort would require excavation and destructive testing. Likewise, this is not a seismic assessment.

We do not render an opinion on uninspected portions of the facility.

We did not perform any computations or other engineering analysis as part of this evaluation, nor did we conduct a comprehensive code compliance investigation. We did not provide an environmental assessment or opinion on the presence of any environmental issues such as asbestos, hazardous wastes, toxic materials, the location, and presence of designated wetlands, IAQ, etc.

The report is not to be considered a warranty of condition, and no warranty is implied. The photographs are an integral part of this report and must be included in any review.

If opinions of probable costs are presented, they are preliminary only. Opinions are based on our general knowledge of building systems and the contracting/construction industry. When appropriate, we have relied on standard sources, such as Means Building Construction Cost Data, to develop opinions of probable costs. However, for some items for which we have developed opinions of probable costs (e.g., structural repairs), no standard guide for developing such costs exists. It is not the intent of the BCA to provide/prepare exact quantities or identify the exact locations of items or systems as a basis for preparing the opinions of costs.

We have performed no design work as part of the study, nor have we obtained competitive quotations or estimates from contractors as this also is beyond the scope of the project. The actual cost to remedy deficiencies and deferred maintenance items that we have identified may vary significantly from estimates and competitive quotations from contractors.

This report has been prepared in strict confidence. No reproduction or reuse is permitted without express written consent. Furthermore, we will not release this report to anyone without your permission. If you have any questions about this report or review, please call.

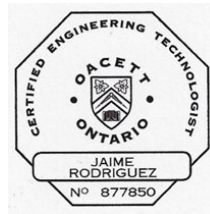
Thank you for the opportunity to be of assistance to you.

Report Prepared by:

Report Reviewed by:

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**APPENDIX A**

**SELECTED PHOTOGRAPHS**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**

View of the sand dome entrance.

Sand and salt are held in the structure.

The structure is not heated.

One side of the dome is open with a roof overhang.

Photo Number

**1**



**Description:**

General view of the sand dome.

Equipment is stored around the dome.

The side of the property is gravel and limestone screenings.

Photo Number

**2**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**  
General view of  
the property.

Photo Number  
**3**



**Description:**  
Asphalt pavement  
at the entrance  
that provides  
access to the  
works garage and  
salt/sand dome.

The asphalt on the  
driveway is  
cracked and  
deteriorated.  
There are stress  
cracks noted.

Photo Number  
**4**



Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**

There is a tree stump in the driveway.

The asphalt is cracked and deteriorating around the tree stump.

Photo Number

**5**



**Description:**

Small, localized repairs to the asphalt have been completed previously.

Photo Number

**6**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

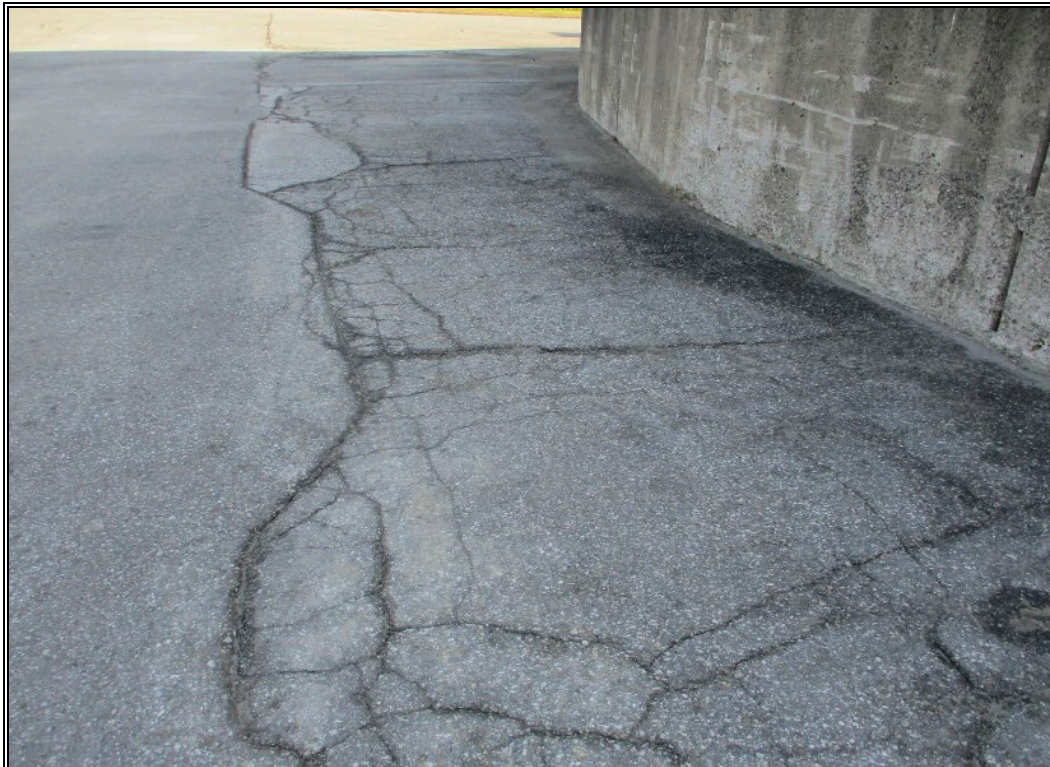
Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**  
The asphalt pavement is cracked and deteriorated.

Photo Number  
**7**



**Description:**  
The asphalt is cracked and worn around the dome.

Photo Number  
**8**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**

There is an interior light that is manually operated.

The dome is a wood framed structure with wood strapping.

Photo Number  
**9**



**Description:**

Typical interior view of the condition of the wood structure.

The wood structure is original.

Photo Number  
**10**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**  
The entrance walls are scratched and pitted from machinery.

Photo Number  
**11**



**Description:**  
There are metal connections supporting the structure.

Photo Number  
**12**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**

It was reported that installation of new sheet metal, replacement of fascia boards and nail sealants is planned to be completed next month.

There are two exterior lights that are operated by sensor.

Photo Number

**13**



**Description:**

The concrete barricades are cracked, and pieces of concrete are missing.

There is a fire extinguisher.

The fuel tanks are rented.

Photo Number

**14**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**

There is localized concrete damage of the walls likely due to impact from operations.

Photo Number  
**15**



**Description:**

There are cracks along the wall.

Walls are stained.

There is rust from corroded reinforcing steel.

Photo Number  
**16**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**

There is damage to the wall from machinery impact.

Photo Number

**17**



**Description:**

The dome has single tab laminate shingles.

There is localized granule loss and curling.

Photo Number

**18**

Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**

The are localized shingles that are lifting due to pulled out nails.

Photo Number  
**19**



**Description:**

The peak of the dome is metal.

Photo Number  
**20**



Location:  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

Photo Taken by:  
Jaime Rodriguez  
Emma Bresil

Date:  
October 24, 2023



**Description:**

There is a fan at the top of the dome to ventilate moisture from the interior.

The fan is operated by an electric motor with a manual switch.

The fan belt was recently replaced.

Photo Number  
**21**



**Description:**

Localized shingles have been replaced as needed.

Photo Number  
**22**

**Location:**  
191274 13<sup>th</sup> Line  
East Garafraxa, ON

**Photo Taken by:**  
Jaime Rodriguez  
Emma Bresil

**Date:**  
October 24, 2023



**Description:**

Adhesive is visible from shingles that have blown off and need to be replaced.

Photo Number

**23**

**APPENDIX B**

**FACILITY CONDITION INDEX**

## Facility Condition Index Table

NA = Not Anticipated during the timeframe of the report based on the condition at the time of the study.

BLW = Below Capital Threshold

The recommendations and comments included in this report are based on the collective experience of Keller Engineering. Any costs or other comments contained herein do not necessarily infer that subcontracts, quotes, or opinions of other professionals were solicited.

This table summarizes probable costs of repairs or replacements, including both labor and materials. These costs are based on our general knowledge of building systems, local contracting/construction industry conditions, and other sources such as Means Building Construction Cost Data. We have performed no design work as part of this study, nor have we obtained competitive quotations or estimates. Costs are uninflated.

Condition Values:

1. 0-10 Excellent. "As new" condition.
2. 11-30 Good. Sound an performs its function.
3. 31-60 Fair. Repair or replacement may be required to prolong life.
4. 61-80 Poor. Component has failed or cannot be relied on to perform function.
5. >81 Critical. Immediate repair/replacement is less than 1 year and may relate to safety or code violations.

### Township of East Garafraxa - Sand/Salt Dome 191274 13th Line, East Garafraxa

#### REPAIR/REPLACEMENT RESERVES

| ITEM   | DESCRIPTION  | UNIT COSTS & TIME-PERIOD ESTIMATES |             |              |               |               |            | CONDITION ESTIMATE |                 | ANTICIPATED PRIORITY       |                      |                | PREDICTED LIFE CYCLE       |            |                 |              |                           |
|--|--|------------------------------------|-------------|--------------|---------------|---------------|------------|--------------------|-----------------|----------------------------|----------------------|----------------|----------------------------|------------|-----------------|--------------|---------------------------|
|  |  |                                    | YEARS 1 - 5 | YEARS 6 - 10 | YEARS 11 - 15 | YEARS 16 - 20 | TOTAL      | CONDITION LEVEL    | CONDITION VALUE | IMPORTANCE WEIGHTING SCALE | PRIORITY VALUE INDEX | PRIORITY LEVEL | INCEPTION YEAR (ESTIMATED) | ACTUAL AGE | LIFE EXPECTANCY | OBSERVED AGE | REMAINING LIFE EXPECTANCY |
|  |  | 2023                               | 2024 - 2028 | 2029 - 2033  | 2034 - 2038   | 2039 - 2043   | 20 YEAR    |                    |                 |                            |                      |                |                            |            |                 |              |                           |
| <b>1.0 SITE IMPROVEMENTS</b>                 |  |                                    |             |              |               |               |            |                    |                 |                            |                      |                |                            |            |                 |              |                           |
| 1.1 Paving                                   | Asphalt - Main Lot & Driveway - Replacement                      |                                    | \$ 400,000  |              |               |               | \$ 400,000 | Poor               | 70              | 50                         | 62                   | High           | 1987                       | 36         | 25              | 35           | 0                         |
|  | Gravel/Screenings - Side - Regrading - BLW                       |                                    |             |              |               |               | \$ -       | Fair               | 35              | 25                         | 31                   | Medium         | 1987                       | 36         | 25              | 30           | 0                         |
|  | Concrete Barracades - Fuel Tank Protection - Replacement         |                                    | \$ 5,000    |              |               |               | \$ 5,000   | Poor               | 65              | 25                         | 49                   | Medium         | 1987                       | 36         | 40              | 40           | 0                         |
| 1.2 Flatwork                                 | Not applicable   |                                    |             |              |               |               | \$ -       | -                  | -               | -                          | -                    | -              | -                          | -          | -               | -            | -                         |
| 1.3 Landscaping                              | Plants & Trees - Overgrowth - Trimming/removals - BLW            |                                    |             |              |               |               | \$ -       | Fair               | 50              | 20                         | 38                   | Medium         | 1987                       | 36         | 100             | 40           | 60                        |
|  | Grass/Sod & Soil - Repairs - BLW                                 |                                    |             |              |               |               | \$ -       | Fair               | 40              | 20                         | 32                   | Medium         | 1987                       | 36         | 50              | 40           | 10                        |
| <b>2.0 STRUCTURE &amp; BUILDING ENVELOPE</b> |  |                                    |             |              |               |               |            |                    |                 |                            |                      |                |                            |            |                 |              |                           |
| 2.1 Substructure                             | Standard Foundations - Repairs                                   |                                    |             | \$ 10,000    |               |               | \$ 10,000  | Fair               | 40              | 60                         | 48                   | Medium         | 1987                       | 36         | 75              | 40           | 35                        |
| 2.2 Superstructure                           | Structural Wood Framing - Dome & Roof Overhang - Repairs         |                                    |             | \$ 5,000     |               |               | \$ 5,000   | Fair               | 40              | 60                         | 48                   | Medium         | 1987                       | 36         | 75              | 35           | 40                        |
| 2.3 Exterior                                 | Not applicable - See Roofing                                     |                                    |             |              |               |               | \$ -       | -                  | -               | -                          | -                    | -              | -                          | -          | -               | -            | -                         |
| 2.4 Roofing                                  | Shingled Sloped Roofing - Replacement                            |                                    |             | \$ 25,000    |               |               | \$ 25,000  | Fair               | 50              | 60                         | 54                   | High           | 2010                       | 13         | 25              | 10           | 15                        |
|  | Sheet Metal - Repairs - BLW                                      |                                    |             |              |               |               | \$ -       | Fair               | 50              | 60                         | 54                   | High           | 1987                       | 36         | 30              | -            | -                         |
| <b>3.0 MECHANICAL SYSTEMS</b>                |  |                                    |             |              |               |               |            |                    |                 |                            |                      |                |                            |            |                 |              |                           |
| 3.1 Plumbing                                 | Not applicable   |                                    |             |              |               |               | \$ -       | -                  | -               | -                          | -                    | -              | -                          | -          | -               | -            | -                         |
| 3.2 HVAC                                     | Ventillation Fan - Replacement                                   |                                    |             | \$ 5,000     |               |               | \$ 5,000   | Fair               | 40              | 60                         | 48                   | Medium         | 2015                       | 8          | 20              | 10           | 10                        |
| 3.3 Electrical                               | Distribution & Wiring Systems - Repairs & Thermographic Scanning |                                    | \$ 5,000    |              |               |               | \$ 5,000   | Fair               | 60              | 65                         | 62                   | High           | 1987                       | 36         | 50              | 30           | 20                        |
|  | Interior & Exterior Lighting - Replacement - BLW                 |                                    |             |              |               |               | \$ -       | Fair               | 40              | 65                         | 50                   | Medium         | 2000                       | 23         | 20              | 15           | 5                         |
| <b>4.0 SPECIAL SYSTEMS</b>                   |  |                                    |             |              |               |               |            |                    |                 |                            |                      |                |                            |            |                 |              |                           |
| 4.1 Security                                 | Not applicable   |                                    |             |              |               |               | \$ -       | -                  | -               | -                          | -                    | -              | -                          | -          | -               | -            | -                         |
| 4.2 Fire & Life                              | Fire Extinguisher - BLW  |                                    |             |              |               |               | \$ -       | -                  | -               | -                          | -                    | -              | -                          | -          | -               | -            | -                         |
| <b>5.0 INTERIOR ELEMENTS</b>                 |  |                                    |             |              |               |               |            |                    |                 |                            |                      |                |                            |            |                 |              |                           |
| 5.1 Finishes                                 | Not applicable   |                                    |             |              |               |               | \$ -       | -                  | -               | -                          | -                    | -              | -                          | -          | -               | -            | -                         |
| <b>6.0 MISCELLANEOUS</b>                     |  |                                    |             |              |               |               |            |                    |                 |                            |                      |                |                            |            |                 |              |                           |
| 6.1 Other                                    | Not applicable   |                                    |             |              |               |               | \$ -       | -                  | -               | -                          | -                    | -              | -                          | -          | -               | -            | -                         |

| FACILITY CONDITION INDEX (FCI)                       |                     |             |              |               |               |                   |
|--|---------------------|-------------|--------------|---------------|---------------|-------------------|
| <b>Current Estimated Replacement Value of Assets</b> | <b>\$ 4,500,000</b> |             |              |               |               |                   |
|  | IMMEDIATE           | YEARS 1 - 5 | YEARS 6 - 10 | YEARS 11 - 15 | YEARS 16 - 20 | TOTAL             |
|  | 2023                | 2024 - 2028 | 2029 - 2033  | 2034 - 2038   | 2039 - 2043   |                   |
| <b>Current Aggregated Total Costs Estimate</b>       | \$ -                | \$ 410,000  | \$ 5,000     | \$ 40,000     | \$ -          | <b>\$ 455,000</b> |
| <b>Inflated Aggregated Total Costs</b>               | \$ -                | \$ 419,430  | \$ 5,115     | \$ 40,920     | \$ -          | <b>\$ 465,465</b> |
| <b>Current FCI</b>                                   | 0%                  | 9%          | 0%           | 1%            | 0%            | <b>10% FAIR</b>   |

FCI Classifications:

1. FCI = 0-5% Good Condition. Asset in reasonable condition and does not require capital expenditure
2. FCI = 6-10% Fair Condition. Asset is deteriorating, requires capital expenditure and will likely become "poor" within a few years if not addressed.
3. FCI = 11-30% Poor Condition. Asset is deteriorated and requires immediate capital expenditure.
4. FCI = > 31% Critical Condition. Asset is in disrepair or dilapidated and requires urgent significant capital expenditure.

## APPENDIX C

## RESUMES

25 First Street  
Orangeville, Ontario L9W 2C8  
Tel: 519-940-0571  
Email: info@kellerengineering.com



## *Jim Rammos, P.Eng., IEEE ~ CURRICULUM VITAE*

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### AREAS OF EXPERTISE

Mr. Rammos has extensive knowledge and experience in the Building Science and Forensics industry. His specific areas of expertise include building science, thermographic scanning, mechanical & electrical engineering, new and restoration construction, reserve fund studies, performance audits, mechanical & electrical systems designs and assessments.

### QUALIFICATIONS

Keller Engineering, located in Orangeville, Ontario services Southern Ontario and South Saskatchewan. We specialize in building inspection and commercial real estate consulting services. Our firm is a consulting engineering company that combines the resources of engineering leaders with the service and responsiveness of your own dedicated, local firm. With broad expertise and carefully controlled standards of quality our engineers provide a resource base that offers our clients the highest quality engineering evaluations.

Keller Engineering services encompass investigations and analyses vital to property acquisition and management, including: Due Diligence Reports, Property Condition Assessments, Reserve Studies, Performance Audits, Environmental Site Assessments, Construction Plan and Cost Reviews, Construction Loan Monitoring, Construction Quality Inspections, Structural Investigations, Facilities Management Consulting, Forensic Engineering, Insurance Investigations, and Design and Related Services.

Jim Rammos, P.Eng., IEEE is a Senior Engineer at Keller Engineering. Mr. Rammos is a licensed Professional Engineer in the province of Ontario and has over 25 years of engineering experience. To complement his portfolio of work Mr. Rammos also works with our clients to complete restoration work, building condition assessments, capital replacement studies and is a certified thermographer to complete electrical thermographic scanning and energy audits.

25 First Street  
Orangeville, Ontario L9W 2C8  
Tel: 519-940-0571  
Email: info@kellerengineering.com



## EDUCATION

- Bachelor of Technology (B.Tech.), Ryerson Polytechnical University, Toronto, ON
- Bachelor of Engineering (B.Eng.), University of Toronto, Toronto, ON
  - Major: Mechanical Engineering
- Bachelor of Applied Science (B.A.Sc.), University of Toronto, Toronto, ON
  - Major: Electrical Engineering
- Professional Engineer, Professional Engineers Ontario, licensed since 1995
- BCIN – Building Code Identification Number 35394
- Certified Thermographer – Level 1, since 2007

## PROFESSIONAL REGISTRATIONS

Licensed, Association of Professional Engineers of Ontario (PEO)  
American Society of Heating, Refrigeration & Air-Conditioning Engineers (ASHRAE)  
Canadian Society for Mechanical Engineers (CSME)  
Canadian Automated manufacturing Society (CAMS)  
Institute of Electronics & Electrical Engineers (IEEE)  
Ontario Building Envelope Council (OBEC)

## ***Jaime Rodríguez, B.Tech. (Arch.Sc.), C.E.T., RRO*** ***~ CURRICULUM VITAE***

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### **AREAS OF EXPERTISE**

Mr. Jaime Rodriguez specializes in building science and building envelope engineering. Jaime provides design & replacement/repair planning, quality control, building envelope forensics, diagnostic testing, and contract management services. He is primarily engaged in engineering project management, providing technical expertise, and building science/engineering design and property condition assessments.

### **QUALIFICATIONS**

Keller Engineering, located in Orangeville, Ontario services Southern Ontario and South Saskatchewan. We specialize in building inspection and commercial real estate consulting services. Our firm is a consulting engineering company that combines the resources of engineering leaders with the service and responsiveness of your own dedicated, local firm. With broad expertise and carefully controlled standards of quality our engineers provide a resource base that offers our clients the highest quality engineering evaluations.

Keller Engineering services encompass investigations and analyses vital to property acquisition and management, including: Due Diligence Reports, Property Condition Assessments, Reserve Studies, Performance Audits, Environmental Site Assessments, Construction Plan and Cost Reviews, Construction Loan Monitoring, Construction Quality Inspections, Structural Investigations, Facilities Management Consulting, Forensic Engineering, Insurance Investigations, and Design and Related Services.

Jaime Rodríguez is Senior Project Manager at Keller Engineering. Mr. Rodriguez is a Certified Engineering Technologist in the Province of Ontario and has over 20 years of engineering experience. Jaime has effective problem-solving skills that provide practical engineering, project management & field applied solutions.

### **EDUCATION**

- Bachelor of Technology (B.Tech.), Ryerson University, Toronto, ON

### **PROFESSIONAL REGISTRATIONS**

Certified Engineering Technologist, Ontario Association of Engineering Technicians and Technologists (OACETT).

International Institute of Building Enclosure Consultants (IIBEC), RRO Designation.