



a division of Englobe



Report for:

VILLAGE OF CREMONA

SCADA BUILDING - BUILDING CONDITION ASSESSMENT

Prepared By:

**Marshall Dushinski, E.I.T.
Structural Engineer**

Date: May 8, 2026

Project #: 2490-019-01

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Village of Cremona
205 1 St E
Cremona, AB T0M 0R0

May 8, 2026
File: N:\2490-019-01\L01-1.0

Attention: Karen O'Connor
Chief Administrative Officer

Dear Ms. O'Connor

Re: SCADA Building - Building Condition Assessment

We are pleased to submit a report for the above referenced Building Condition Assessment. We thank you for the opportunity to be of service and to have prepared this report on your behalf. MPE can offer Structural, Mechanical, Electrical and Civil engineering services if the Village would like to proceed with the repairs and recommendations made within this report.

Should you have any questions or require additional information, please contact the undersigned.

Yours truly,

MPE a Division of Englobe

A handwritten signature in black ink, appearing to read "MD", followed by a horizontal line.

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MHD:DB

CORPORATE AUTHORIZATION

This report has been prepared by MPE a division of Englobe under authorization of the Village of Cremona. The material in this report represents the best judgment of MPE a division of Englobe given the available information.

Any use that a third party makes of this report, or reliance on or decisions made based upon it is the responsibility of the third party. MPE a division of Englobe accepts no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions taken based upon this report.

Should any questions arise regarding content of this report, please contact the undersigned.

MPE a division of Englobe



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PERMIT TO PRACTICE	
MPE, a division of Englobe Corp.	
Signature	_____
APEGA ID	87467
Date	May 8th, 2026
PERMIT NUMBER: P 7841	
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)	

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APPENDIX A : FACILITY EVALUATION FORMS

1 INTRODUCTION

The Village of Cremona (Village) has retained MPE a division of Englobe (MPE) to conduct a Building Condition Assessment of the Village of Cremona Supervisory Control and Data Acquisition (SCADA) Building located 500m north of Township Road 301A Northwest of Cremona, Alberta (51.559980, -114.531878). The purpose of the following assessment is to provide an overview of the observable general condition of the building and to identify representative deficiencies, along with recommendations for repair and maintenance, to aid the Village in asset maintenance planning.



1.1 LIMITATION OF ASSESSMENT

No record drawings were available for review. This assessment is limited to a visual review of the exposed interior and exterior building components. Below grade or concealed structural, mechanical, or electrical

components were not assessed. Exterior soil properties, foundations and water tables were also not assessed.

The review of the building envelope is based on the observed visual condition at the time of inspection only. Its performance as it relates to the current edition of the National Energy Code of Canada for Buildings was not evaluated as part of this assessment.

Please note the recommendations in this report are based on our professional experience and judgement. The costs presented herein are established with broad unit rates that are subject to change as a result of inflation, contractor discretion, tariffs, and price/availability of materials at the time of repair.

1.2 SITE INVESTIGATION

MPE performed site investigations on April 7th and 8th, 2026, which were conducted by MPE personnel Ian Cabales (Electrical), Dallin Bullock (Mechanical) and Marshall Dushinski (Site/Structural/Envelope). Various Village of Cremona employees were also present while the investigations were taking place.

2 BUILDING CONDITION ASSESSMENT

2.1 EXISTING CONSTRUCTION

Based on visual observation and typical construction practices for similar facilities, the SCADA building appears to be a prefabricated light gauge structural steel building mounted on a steel skid. The skid structure is believed to be supported on a screw pile foundation. The building has a single man door and one window opening. Information regarding the year of construction, original structural record drawings, building shop drawings, and building material specifications was not available.

2.1.1 Roof

The roof configuration appears to be a gable roof system sloping towards the north and south sides of the building. The roofing material is a standing seam metal roofing assembly complete with a metal fascia on the east and west gable ends of the building. The interior face of the roof is complete with a pre-finished steel liner.



Figure 1: Standing Seam Steel Roofing

2.1.2 Walls

The walls of the building are suspected to be light gauged steel complete with exterior steel cladding and interior pre-finished steel lining. Various exterior steel patching panels have been installed at what are suspected to be past mechanical or electrical openings.



Figure 2: Steel Wall Cladding



Figure 3: Interior Steel Wall Lining

2.1.3 Floor

The floor structure is unknown as there was no exposed structural floor components as they were covered by a resilient flooring material. It is suspected that the floor structure is light gauged steel framing sitting atop the steel skid frame. There is steel grating on the west exterior side of the building that extends outwards about 610mm (2') and spans the width of the building.



Figure 4: Interior Flooring



Figure 5: Exterior Grating

2.1.4 Foundation

The foundation is suspected to be helical steel piles, though all foundation components were concealed at the time of the assessment. The pile layout and capacities are unknown.

2.2 SITE OVERVIEW

2.2.1 Condition

The site around the building is grass with a mild slope away from the building foundation. There were no erosion channels observed on the ground surface at the time of the assessment; however, drainage performance was not evaluated beyond visual observation.



Figure 6: Building Site

2.2.2 Drainage

There are no eavestroughs, downspouts, or downspout extensions on the building. With the roof slope directing water to the north and south sides of the building. With no roof drainage system, roof surface runoff is directed to the north and south base of the building.



Figure 7: Missing Roof Drainage System

2.3 ENVELOPE

The standing seam steel roof decking is in fair to poor condition as the steel is warped at the overhanging edges in many instances. This can cause tears in the sheet metal and eventually result in roof leaking if left unattended to. The steel sheet metal wall panels are in poor condition with rust staining, patched sections, dents, and staining across the wall surfaces. Fascias on the east and west ends of the building are in similar condition as the steel wall panels. The exterior grating appears to be in fair condition with little denting and no signs of corrosion or rusting.



Figure 8: Roof Decking Warping



Figure 9: Wall Cladding Dents

The man door, door frame, and weather stripping are worn out as corrosion is visible on the door/hinges and staining is evident across most of the surfaces. The window glass and frame are also worn out as

corrosion was visible on the window frame and frost covered the bottom portion of the window glass interior. These items being worn out result in poor thermal performance and moisture intrusion that can accelerate subsequent building deterioration.



Figure 10: Worn Out Man Door



Figure 11: Worn Out Window

Damage to the interior building envelope was observed throughout the building, though the overall interior building envelope condition was fair. The metal wall panels show surface discoloration and staining due to corrosion-related runoff. The joint caulking appears to be cracked in many instances. These items could be related is rust runoff is leaking through the cracked joint caulking and staining the interior metal lining. The linoleum flooring is in poor condition with substantial staining and instances of ripping.



Figure 12: Interior Steel Liner Staining



Figure 13: Cracked Joint Caulking



Figure 14: Stained and Ripped Linoleum Flooring

2.4 STRUCTURAL

Based on visual observations of accessible components, the apparent structural condition of the superstructure appears to be fair. No analytical verification of structural capacity or integrity was performed. There was some corrosion identified on the steel skid frame beneath the building. Although corrosion was observed on the steel skid frame, it does not appear, based on visual observation, to be advanced at this time.



Figure 15: Steel Skid Corrosion

2.5 MECHANICAL

2.5.1 HVAC

The SCADA building is heated by an electric unit heater and an electric oil-filled radiator heater. The electric unit heater is a Dimplex EUH05B31T rated at 5 kW. The heater is wall-mounted, installed close to the ceiling, and positioned above the window. The unit's thermostat is mounted on the wall in close

proximity to the heater. Based on the unit's nameplate, the unit was manufactured or installed in approximately 2000. The heater appears to be securely mounted, with no visible signs of burning, overheating, or damage. Minor corrosion is present, which is consistent with the unit's age. The electric oil-filled radiator heater is a Honeywell unit that is floor-mounted (bolted in place) and installed adjacent to the water piping riser system. The unit appears to have a plastic housing. The exact model and age cannot be determined due to the absence of a nameplate. However, it is assumed to have been installed at the same time as the unit heater, which was in 2001. The radiator heater appears to have typical surface wear, including scratches, dirt, and dust accumulation. Though there is a chipped plastic component at the bottom of the unit, the control knobs are intact, and there are no signs of oil leakage. Overall, the unit heater and the radiator heater appear to be in good working condition. Unit heaters and oil-filled radiator heaters typically have an expected service life of approximately 30 years. Given that the units were installed in 2001, they have an estimated remaining service life of approximately 5 years, provided they are properly maintained.



Figure 16: Wall-mounted Electric Unit Heater



Figure 17: Floor-mounted Electric Oil-filled Radiator
Heater

2.6 ELECTRICAL

2.6.1 Lighting

The existing lighting system consists of surface mounted T8 fluorescent lighting and is manually controlled using a switch located near the entrance. Overall illumination appears to be adequate for the space, however the lamps exhibit inconsistent colour temperature and lumen depreciation due to age. It is

important to note that starting January 1, 2026 the import and manufacture of Linear Fluorescent Lights are prohibited in Canada under the Products Containing Mercury Regulations.



Figure 18: Existing Light Fixture

2.6.2 Distribution

The building is fed from a 120/240V, 1Ph, Fortis Utility Transformer installed in a utility pole, with the utility meter mounted outside the building exterior. The transformer fed a 120/240V, 1Ph, panel. A phase converter and step-up transformer were installed to support the 600V, 3Ph motor loads. Based on available record drawings, the electrical equipment appears to be installed in 2012. Based on the observed condition, the electrical equipment is generally in good operational condition. There are no visible signs of damage or rusting. Minor housekeeping issues were observed, such as dust accumulation and debris on equipment surfaces.



Figure 19: Fortis Utility Transformer

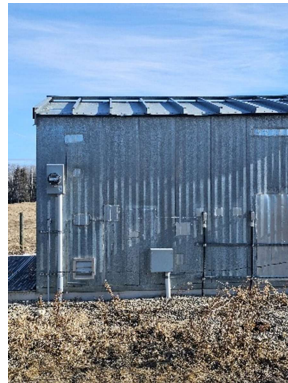


Figure 20: Fortis Utility Meter



Figure 21: Existing Electrical Equipment

3 RECOMMENDATIONS

The recommendations outlined in the following sections of this report are to be read in conjunction with the applicable observations described in **Section 2** and the “Facility Evaluation Form” in **Appendix A**. The building has several contributing factors that, if left in its current state, could lead to a diminished service life. The following are recommendations for remediation to protect against further degradation and prolong the service life of the building. A cost summary and classification regarding timeline for repair has been provided in the “Facility Evaluation Form” in **Appendix A** of this report.

3.1 SITE

Eavestroughs should be installed on the north and south sides of the building. Downspouts and downspout extensions should be installed as to direct water from the eavestroughs away from the building foundation. Eavestrough, downspout, and downspout extensions should be pre-finished metal to match roofing and/or cladding colour for exterior application as recommended by an accredited architect in the Province of Alberta.

3.2 ENVELOPE

Standing seam steel roofing should be replaced with a pre-finished product for exterior application as recommended by an accredited architect in the Province of Alberta to reduce the potential for roof leakage.

Exterior steel sheet wall panels should be replaced with a pre-finished steel sheet or corrugated steel wall panel product for exterior applications as recommended by an accredited architect in the Province of Alberta.

The man door, door frame, and weather stripping should be replaced with an industrial grade exterior door that is finished with an exterior grade paint and primer as recommended by an accredited architect in the Province of Alberta to improve overall building enclosure performance and reduce the potential for moisture intrusion.

The window glass and frame should be replaced with an industrial product as recommended by an accredited architect in the Province of Alberta to improve building energy performance and prevent moisture intrusion.

The rust runoff stained interior steel wall lining should be cleaned properly as outlined by the product fabricator to reduce the potential for further deterioration.

The joint caulking around the interior liner should be reapplied to the interior face building envelope liner joints with an exterior grade caulking product with tensile adhesive and cohesive capacity.

The linoleum flooring should be replaced with an industrial grade product as to prevent further ripping and provide simple surface cleaning.

3.3 STRUCTURAL

The corrosion of the steel skid should be monitored. A rust prohibiting paint should be applied to the steel skid in the meantime as to minimize the potential for continued corrosion. If condition worsens, a structural assessment should be completed which may result in member replacement.

3.4 MECHANICAL

3.4.1 HVAC

The electric unit heater and oil-filled radiator heater are generally in good condition, with minor corrosion and slight damage to the exterior housing. Given their age and estimated remaining service life of approximately 5 years, it is recommended that replacement should be planned within the next 5 years to ensure continued reliability.

3.5 ELECTRICAL

3.5.1 Lighting

It is recommended that existing fluorescent lighting be retrofitted with LED technology or full fixture replacement, depending on project scope and budget. In addition, it is recommended to install an occupancy sensor to allow for lights to automatically turn off when no motion is detected. This would improve energy efficiency and provide more consistent lighting performance.

3.5.2 Distribution

From condition perspective, the electrical system appears functional and compliant with typical installation practices. The only recommendation is to address the housekeeping issues, which include the removal of dust and debris accumulation above the equipment. It is also recommended to perform a routine maintenance review by a qualified electrician to confirm proper operation of the phase converter and motor controls to ensure continued reliability of the system.

4 BUDGETARY COST

Reference the “Facility Evaluation Form” in **Appendix A** for a budgetary cost estimate of each recommended item described in **Section 3**.

5 FACILITY CONDITION INDEX

The Facility Condition Index (FCI) outlined below is a value calculated based on the total repair/renewal costs projected over the coming 5 year period in direct relation to the total replacement cost of the facility in current construction markets.

$$\frac{5 \text{ Year Repair/Renewal Costs}}{\text{Replacement Cost}} = \text{FCI Rating } \%$$

Provided FCI ratings as appropriate:

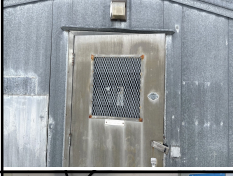
- Good: 0% to 10% FCI
- Fair: 10% to 25% FCI
- Poor: 25% to 60% FCI
- Prohibitive to repair: 60% + FCI

Based on our assessment the current 5-year renewal costs are \$33,000.00. The projected cost to replace a facility of similar size and construction methodology is an estimated \$160,000.00; therefore, the Facility Condition Index for the Admin Office, Fire Hall, and Library Building is considered fair at 20.6%.

APPENDIX A:

FACILITY EVALUATION FORMS

Facility Evaluation Form
Part I - Architectural Structural

Section 1	Item	Rating	Risk Factor	Photo	Comments/Concerns	Estim. Cost
1.1	Site Conditions					
1.1.1	Eavestroughs, Downspouts, and Downspout Extensions	1	Medium		Eavestroughs should be installed on the north and south sides of the building. Downspouts and downspout extensions should be installed as to direct water from the eavestroughs away from the building foundation. Eavestrough, downspout, and downspout extensions should be pre-finished metal to match roofing and/or cladding colour for exterior application as recommended by an accredited architect in the Province of Alberta.	\$ 5,000.00
1.2	Building Envelope					
1.2.1	Roof Decking	3	High		Standing seam steel roofing should be replaced with a pre-finished product for exterior application as recommended by an accredited architect in the Province of Alberta to prevent roof leaking.	\$ 10,000.00
1.2.2	Wall Cladding	2	High		Exterior steel sheet wall panels should be replaced with a pre-finished steel sheet or corrugated steel wall panel product for exterior applications as recommended by an accredited architect in the Province of Alberta.	\$ 18,000.00
1.2.3	Man Door, Door Frame, and Weather Stripping	2	Medium		The man door, door frame, and weather stripping should be replaced with an industrial grade exterior door that is finished with an exterior grade paint and primer as recommended by an accredited architect in the Province of Alberta to improve building energy performance and prevent moisture intrusion.	\$ 3,000.00
1.2.4	Window and Window Frame	3	Medium		The window glass and frame should be replaced with an industrial product as recommended by an accredited architect in the Province of Alberta to improve building energy performance and prevent moisture intrusion.	\$ 5,000.00
1.2.5	Interior Steel Liner	2	Low		The rust runoff stained interior steel wall lining should be cleaned properly as outlined by the product fabricator as to prevent further deterioration.	\$ 250.00

Project No.: 2490-019-01
Date: April 2026

Facility Evaluation Form

Part I - Architectural Structural

Building: Cremona SCADA Building

Section 1	Item	Rating	Risk Factor	Photo	Comments/Concerns	Estim. Cost
1.2.6	Interior Steel Liner Joint Caulking	2	Medium		The joint caulking around the interior liner should be reapplied to the interior face building envelope liner joints with an exterior grade caulking product with tensile adhesive and cohesive capacity.	\$ 500.00
1.2.7	Linoleum Flooring	2	Medium		The linoleum flooring should be replaced with an industrial grade product as to prevent further ripping and provide simple surface cleaning.	\$ 2,500.00
1.3	Structural					
1.3.1	Corroding Steel Skid	3	High		The corrosion of the steel skid should be monitored. A rust prohibiting paint should be applied to the steel skid in the meantime as to minimize the potential for continued corrosion. If condition worsens, a structural assessment should be completed which may result in member replacement.	\$ 5,000.00
	Overall Building Site Condition & Estimated Costs					\$ 49,250.00

Condition Ratings: 1 - Emergency/Critical 2 - Poor/Unsatisfactory 3 - Marginal 4 - Good 5 - Excellent F.I. - Further investigation required
risk Factors: Urgent - Replace Immediately High - Replace in 1-2 years Medium - Replace in 5-10 years Low - Replace in 15 years or mor

Facility Evaluation Form
Part II - Mechanical

Section 2	Item	Rating	Risk Factor	Photo	Bldg. Section	Description/Condition	Estim. Cost
2.1	HVAC						
2.1.1	Electric Unit Heater and Oil-filled Radiator Heater	4	Medium		Wall and Floor of Building	The electric unit heater and oil-filled radiator heater are generally in good condition, with minor corrosion and slight damage to the exterior housing. Given their age and estimated remaining service life of approximately 5 years, it is recommended that replacement should be planned within the next 5 years to ensure continued reliability.	\$ 6,000.00
Overall Mechanical System Condition & Estimated Costs							\$ 6,000.00

Facility Evaluation Form
Part III - Electrical

Section 3	Item	Rating	Risk Factor	Photo	Bldg. Section	Description/Condition	Estim. Cost
3.1	Lighting						
3.1.1	Interior Lighting System	4	Low			The existing lighting consists of T8 fluorescent lighting and is manually controlled by a switch located in the entrance door. There could be difficulty in getting replacement bulbs in the future as they are being phased out. It is recommended to upgrade to LED and line voltage occupancy sensor.	\$ 5,000.00
3.2	Distribution						
3.2.1	Electrical equipment consisting of 120/240V panelboards, phase converter, step-up transformer, 347/600V panelboards, and soft starter.	4	Low			Based on the observed condition, the electrical equipment is generally in good operational condition. There are no visible signs of damage or rusting. Minor housekeeping issues were observed, such as dust accumulation and debris on equipment surfaces.	\$ 35,000.00
Overall Electrical System Condition & Estimated Costs							\$ 40,000.00

Site, Architectural, and Structural			
Evaluation Category	Risk Factor	Replace/Repair Timeline	Estimated Cost
Site Conditions	Urgent	Immediate	\$ -
	High	1-2 Years	\$ -
	Medium	5-10 Years	\$ 5,000.00
	Low	>15 Years	\$ -
Building Envelope	Urgent	Immediate	\$ -
	High	1-2 Years	\$ 28,000.00
	Medium	5-10 Years	\$ 11,000.00
	Low	>15 Years	\$ 250.00
Structural	Urgent	Immediate	\$ -
	High	1-2 Years	\$ 5,000.00
	Medium	5-10 Years	\$ -
	Low	>15 Years	\$ -
Sub-Total	Urgent	Immediate	\$ -
	High	1-2 Years	\$ 33,000.00
	Medium	5-10 Years	\$ 16,000.00
	Low	>15 Years	\$ 250.00
Mechanical			
Evaluation Category	Risk Factor	Replace/Repair Timeline	Estimated Cost
HVAC	Urgent	Immediate	\$ -
	High	1-2 Years	\$ -
	Medium	5-10 Years	\$ 6,000.00
	Low	>15 Years	\$ -
Sub-Total	Urgent	Immediate	\$ -
	High	1-2 Years	\$ -
	Medium	5-10 Years	\$ 6,000.00
	Low	>15 Years	\$ -
Electrical			
Evaluation Category	Risk Factor	Replace/Repair Timeline	Estimated Cost
Lighting and Emergency Lighting	Urgent	Immediate	\$ -
	High	1-2 Years	\$ -
	Medium	5-10 Years	\$ -
	Low	>15 Years	\$ 5,000.00
Distribution	Urgent	Immediate	\$ -
	High	1-2 Years	\$ -
	Medium	5-10 Years	\$ -
	Low	>15 Years	\$ 35,000.00
Sub-Total	Urgent	Immediate	\$ -
	High	1-2 Years	\$ -
	Medium	5-10 Years	\$ -
	Low	>15 Years	\$ 40,000.00
Total			
Evaluation Category	Risk Factor	Replace/Repair Timeline	Estimated Cost
Total	Urgent	Immediate	\$ -
	High	1-2 Years	\$ 33,000.00
	Medium	5-10 Years	\$ 22,000.00
	Low	>15 Years	\$ 40,250.00