

Facility Evaluations for Strategic Asset Management

Design & Technology Series #22



Fig. 1: Northen Lights Regional Health Centre

What are Facility Evaluations?

Facility Evaluations are more than just technical reviews – they obtain the data required to support strategic asset management for public infrastructure. Standardizing the maintenance of high-quality and reliable Facility Condition Assessment (FCA) data enables key asset management functions, such as capital planning, maintenance prioritization, and risk mitigation.

Using VFA, a cloud-based asset management platform, the Facility Evaluation Program (FEP) helps Government of Alberta ministries translate complex building data into meaningful insights. Facility evaluations identify deferred maintenance, assess system performance, and benchmark facility conditions key metrics, such as the Facility Condition Index (FCI). The result is a solid foundation for evidence-based decision-making, improved operational efficiency, and long-term sustainability of public infrastructure.

The Facility Evaluation Program (FEP) plays an important role in this process by:

- Reviewing FCA reports for technical accuracy
- Ensuring consistency in how building systems and deficiencies are documented
- Providing guidance to Facility Managers and/or client stakeholders on interpreting data
- Supporting ministries in aligning facility data with strategic planning and reporting requirements

The Facility Evaluation Program empowers ministries to make informed decisions that optimize resources, reduce risk and extend the useful life of public infrastructure, by bridging the gap between raw assessment data and actionable insights.

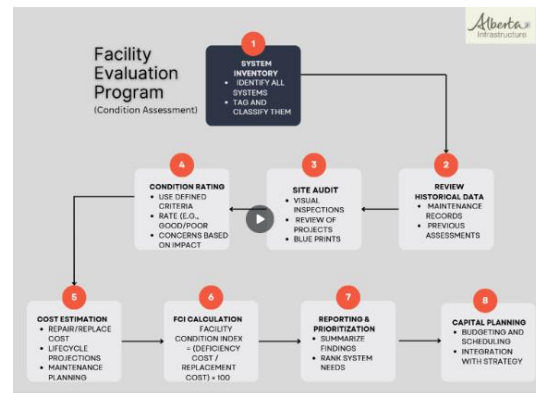


Fig. 2: Facility Evaluation Program Methodology

Purpose and Strategic Value

The Facility Evaluation Program plays a critical role in the effective asset management and long-term sustainability of infrastructure. They provide a comprehensive understanding of a facility's current condition and future maintenance needs, enabling informed decision-making and strategic resource allocation.

Facility Evaluations support three core strategic objectives:

Financial Planning

Facility Evaluations provide ministries with the data needed to justify and plan capital investment. By identifying building system condition and quantifying deferred maintenance, evaluations help prioritize projects based on urgency, cost, and lifecycle impact. Some examples include:

- Forecasting future maintenance and renewal costs
- Supporting annual budget development (e.g., CMR for schools, IMR for other client ministries)
- Enabling data-driven capital planning and funding allocation
- Improving transparency and accountability in infrastructure spending
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Operational Efficiency

Facility Evaluations identify building systems inefficiencies and guide improvements that enhance performance, reduce operating costs and improve the user experience by:

- Detecting outdated or underperforming systems (e.g., HVAC, lighting, automation)
- Recommending upgrades such as LED lighting and occupancy sensors
- Using historical data to reduce reactive maintenance and improve planning
- Ensuring compliance with building codes and operational standards

Risk Mitigation

Facility Evaluations help to proactively identify and address significant risks before they escalate into costly failures or safety hazards. For example:

- Uncovering structural vulnerabilities and safety concerns
- Identifying regulatory gaps and code compliance issues
- Providing evidence for risk-based prioritization of repairs
- Supporting emergency preparedness and business continuity planning



Fig. 3 (Above): Roof water ponding, Barrhead Healthcare Centre



Fig. 4 (Left): Cracked main wood roof joist, Barrhead Healthcare Centre

Facility Condition Index (FCI)

Facility Condition Index (FCI) is a numerical benchmark used to assess and compare the condition of facilities or portfolios of facilities. It indicates the proportions of deficiencies relative to replacement cost. FCI is typically based on data gathered during a Facility evaluation.

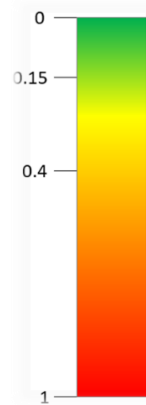
$$\text{FCI} = \frac{\text{Total of Requirements (Repair, Upgrade, Renewal Needs) (\$)}}{\text{Replacement Value of Building (\$)}}$$

- **Included in FCI:** Building System Lifecycle (Renewal), reliability (repairs), mandatory building codes, Hazardous Materials and abatement.
- **Not Included in FCI:** Building accessibility, capacity, energy, mission, operating efficiency, studies, and grandfathered building codes.

Note: The Ministry's budgetary strategy relies on the FCI values to help amortize assets. The FCI used for determining improvements shall be based on the most recent assessment of the specific building at the time the betterment is planned.

Interpreting FCI Ratings

The colour spectrum below represents the classification of a facility's condition:



- **Green:** Good condition (newer or renovated)
- **Yellow:** Fair condition
- **Red:** Poor condition (major work needed)

Note: Older Facilities often have higher FCI ratings as some expensive building components such as HVAC, walls, lights, and ventilation systems may require major repairs or replacement. For example, an FCI of 0.1 signifies a 10 percent deficiency which is generally considered to be low. An

FCI of 0.7 means that a building needs extensive repair.

Benefits of Facility Evaluation

Facility Evaluations deliver:

- Reliable and accurate facility data
- The identification of deferred maintenance liabilities
- Insight into building system-level performance
- Prioritization of renewal and repair projects

These outcomes support asset lifecycle forecasting, risk mitigation, and strategic capital planning. Standardized facility evaluation assessments enhance facility portfolio comparisons, budget justifications, and stakeholder confidence.