Asset Condition and Climate Impact Scoring Tool (ACCIST)

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fcm.ca/assetmanagementprogram

About This Tool

The ACCIST tool was developed in conjunction with the course **AM301: Asset Management for Climate Resilience - Focus on Buildings**, which explored how municipalities can integrate climate change impact considerations into their asset management activities.

This tool aligns with Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure and the principles of ISO55000 (asset management) and ISO31000 (risk). The course was delivered through on-line training in 2022. We thank the participants in the course who provided feedback on the draft tool.

There is a PowerPoint presentation that provides an overview of the ACCIST Tool.

Current Release: Version 1.0 (June 2023)

Should you have any questions regarding this tool, please contact:

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Step 0: Data Entry

Data entry tabs: "3-Facility Details", "4-Facility Assessment", and "5-Facility Climate Impact".

Within these sheets, cells that require staff input are unshaded. For example, the sheet "3-Facility Details" is to be utilized by staff to catalogue the municipality's facility assets.

The sheet "4-Facility Assessment" is to be used by staff to self-assess the **condition and performance** of the municipality's facility assets and asset components. Each row represents a unique building or structure.

The sheet "5-Facility Climate Impact" is to be utilized by staff to self-assess the **climate hazard impacts** of the municipality's facility assets and asset components. The Name, Description and Address of each building will be automatically populated into the "4-Facility Assessment" sheet and the "5-Facility Climate Impact" sheet based on staff input in the sheet "3-Facility Details".

The sheets "2a-Condition Rating Table", "2b-Performance Rating Table", and "2c-Climate Interaction Tables" are implemented to guide staff assessment on the condition and performance of, and climate impact on an asset.

Step 1: Asset Entry

Staff should provide details for each asset or facility, where available.

Staff input is needed for the following columns in "3-Facility Details":

A = Asset ID
B = Import ID
C = Index
D = Service Area (Approx.)
E = Name of building
F = Building category
G = Description of building
H = In-service date
J = Address of building
K = Replacement cost
L = Adjusted quantity / area
M = Unit of measure

Step 2: Condition Rating

Staff should provide a **condition score for each building component** (as appropriate - not all buildings will contain all building component types), as **identified in Columns N to AA under Building Component Condition Rating.**

Only the numerical condition score, as indicated below**, is to be entered into the appropriate cell.**

If a facility does not contain one of the identified component categories please write N/A in the cell.

A building Condition Rating Table is provided in sheet "2a-Condition Rating Table" to guide staff in considering and assessing the condition of buildings.

Condition will be assessed based on five condition scores in line with the Canadian Infrastructure Report Card. **The condition scores are as follows:**

Condition	Condition Score	Description of Condition
Very Good	1	Like new, physical sound
Good	2	Minor superficial deterioration
Fair	3	Showing deterioration and wear
Poor	4	Major portion of the asset is deficient
Very Poor	5	Physically unsound and unreliable

Please continue to sheet "2a-Condition Rating Table" to review the guide to building condition assessment.

Then continue to sheet "4-Facility Assessment" and input numerical condition scores for building components as appropriate.

Step 3: Performance Rating

Staff should provide a **performance score for each building component**, (as appropriate - not all buildings will contain all building component types) as **identified in Columns AB to AO under Building Component Performance Rating.**

As a general rule please provide a performance score for all components which receive a condition score.

Only the numerical performance score, as indicated below, **is to be entered**.

If a facility does not contain one of the identified component categories please write N/A in the cell.

A building Performance Rating Table is provided in sheet "2b-Performance Rating Table" to guide staff in considering and assessing the condition of buildings.

The performance will be assessed on a 1 to 5 scale. **The performance scores are as**

Perfromance	Performance Score	Description of Current Performance
ALWAYS RELIABLE	1	Consistent performance with no or very minimal history of failure. Level of service maintained at desired levels.
USUALLY RELIABLE	3	Performance typically meets requirements, some history of under-performance or failure causing intermittent level of service decrease
NOT RELIABLE	5	Inconsistent performance with several instances of failure causing decrease or loss of service

Step 4: Comments and Notes

Provide any additional comments or notes in Column AP.

These may include:
- Descriptions of sub-components
- Comments on specific sub-component condition
- Comments on specific sub-component performance
- Past or ongoing issues
- Current or planned projects that would change component performance or condition
- Potential future site issues

*Use "Alt"+"Enter" to start text on a new line if entering multiple comments (i.e. similar to a new paragraph).

Step 5: Facility Climate Assessment

Staff should **provide an impact rating for potential climate hazard interactions with facility components** in tab "5-Facility Climate Impact".

Climate hazards have been prepopulated to include:
- High Winds and Wind Storms
- Heavy/Intense Precipitation, flooding
- Severe Thunderstorms
- Extreme Temperatures
- Winter Storms
- Weathering

A description of each of the hazards listed above is included in the "2c-Climate Interaction Tables" sheet. Depending on the location of the municipality in scope, climate hazards can be modified.

Consider each building component and how it interacts with the climate hazards - if the component has historically experienced an impact or likely will, **include an impact score for all interactions between climate hazards and facility components, in the appropriate cells.**

Scores are on a scale of 1 to 5, and described below. **Include impact**

Climate Hazard Impact	Score	Description of Impact
Low Impact	**1**	Short duration impact, low to no down time, low repair costs (if any), no significant loss of serviceability
Medium Impact	**3**	Medium duration impact, some down time, medium repair costs, some loss of functionality and serviceability
High Impact	**5**	Long duration impact, longer down time, high repair costs, loss of functionality and serviceability

Step 6: Review Condition, Performance, and Climate Impact Scores

To assist with prioritization and next steps, staff should **review Condition, Performance and Climate Impact Scores.** Review scores in tab "4-Facility Assessment". Climate scores will automatically populate in this tab.

Consider facility components as well as facility scores as a whole. Condition, Performance and Climate Impact scores can support prioritization of Asset Management action.