

# INTRODUCTION

This User's Guide is a companion to the Climate Resilience Inventory (CRI) form that you submit to the City of Calgary with your planning applications. The User's Guide is a reference to help explain the information requested in the CRI form, and provide policy background.

Information gathered through the CRI form is intended to assist in the evaluation of applications for alignment with the climate policies of the Municipal Development Plan and Calgary Climate Strategy. Data collected will be used to inventory current practices.

If additional clarity is required, please do not hesitate to contact: CPclimate@calgary.ca

## **Certification**

**Description:** Certifications are independent, third-party verification that a building's design meets high standards of sustainable and environmentally responsible development. Certifications validate sustainability strategies and can help market developments to prospective purchasers, tenants, community members, financiers, and approving authorities. Certifications are not required, but may support recommendations of approval.

**Policy:** MDP section 2.6, Calgary Climate Strategy Mitigation Plan Program Pathways A, B, H.

**Instructions:** Indicate if the proposed project is seeking third-party certification. If yes, indicate the type and level (example: "LEED Platinum"). If your project is not seeking certification explain why not by identifying any issues or barriers (such as costs, project schedule, or unfamiliarity with certification systems). Indicate if energy modeling for the proposed building(s) has been conducted and if it exceeds the minimum energy code requirements for new buildings, or over existing building performance for major renovations.

## Energy Efficiency and Renewables

**Description:** Energy efficiency is the goal of using less energy to provide the same products or levels of service. Improved energy efficiency reduces the demand for fossil fuels, can make buildings more comfortable, and reduces operating costs. Renewable energy does not produce GHGs and includes solar, wind, and geothermal heat. Low carbon and renewable energy helps to decrease GHG emissions and energy usage in buildings and neighbourhoods, and reduces energy costs.



**Policy:** MDP section 2.6.5, Calgary Climate Strategy Mitigation Plan Program Pathways A, B, D.

**Instructions:** Describe any energy-efficient design approaches or features that will improve energy performance over the minimums identified in the National Energy Code for Buildings. Indicate if technology or equipment is being used to improve efficiency of energy generation (ex. combined heat and power) or if technology is being used to recover waste heat from waste water or industrial processes. Indicate if the proposal includes any: on-site renewable energy generation (such as solar PV or solar thermal, micro-wind, geothermal), rough-ins for future installations, or connection to district energy systems. Include the kW output of any proposed solar installations.

#### Low-Carbon Mobility

**Description:** Low-Carbon mobility refers to infrastructure and modes of transportation that are environmentally sustainable or reduce climate impacts through minimizing greenhouse gas emissions.

Policy: Calgary Climate Strategy Mitigation Plan Program Pathways F, G.

**Instructions:** Describe the design features that will reduce or minimize travel by private vehicles, support the uptake of electric vehicles (ex. charging infrastructure), or facilitate travel by low-carbon modes (examples: transit, walking, cycling).

#### **Green Infrastructure**

**Description:** Green infrastructure is an interconnected network of natural green and engineered green elements that provide ecological services (ex. water filtration, air filtration, food production) in urban environments. These features can mitigate climate change by sequestering carbon and enhance adaptive capacity to extreme weather.

**Policy:** MDP section 2.6.1, Calgary Climate Strategy Mitigation Plan Program Pathway K and Adaptation Plan Programs 3, 13, 14, 16.

**Instructions:** Identify and explain any proposed green infrastructure features that exceed minimum policy or bylaw requirements. Examples could include green roofs and walls, permeable paving, LID features, rainwater harvesting, tree and shrub plantings, low-water landscaping, and on-site food production such as planter beds or food-bearing plantings.

If green roof technology is included specify the area (m<sup>2</sup>) of the green roof feature and percentage of total roof area covered.



For all applications indicate the total area of permeable surface (m<sup>2</sup>) and percentage total site area that is permeable.

# Flood and Disaster Resilience

**Description:** Resilience is the capacity to respond to, withstand, and recover from floods and other natural disasters. Enhanced disaster resilience will limit risks to life and property of a changing climate.

**Policy:** MDP Section 4.4, Calgary Climate Strategy Mitigation Plan Program Pathway K and Adaptation Plan Programs 2, 4, 5, 9, 10, 16.

**Instructions:** Explain any features that will reduce vulnerability to natural disasters or enhance the capacity to respond and recover. Examples may include backup power systems, flood barriers, or disaster refuge areas and safe rooms.

Identify if the proposed building(s) will meet Passive House Standards. Passive House Standards significantly enhance a building's ability to maintain critical life-support conditions (such as temperature and air quality) in the event of extended loss of electricity and/or heating fuel.