

ORDINANCE NO. 2022-20 - FINAL PUBLICATION

CITY OF CAMBRIDGE

In the Year Two Thousand and Twenty-three

AN ORDINANCE

That the Zoning Ordinance of the City of Cambridge be amended on a petition by the City Council as follows:

**ORDERED: That section 22.25.1(c) of Article 22, entitled Sustainable Design and Development, be amended to read as follows.**

(c) Net Zero Narrative: A written description of how the Green Building Project is being designed in response to the City's Net Zero Action Plan, which seeks to neutralize greenhouse gas emissions resulting from buildings by reducing their energy use intensity and promoting renewable sources of energy. This information is provided for advisory review by CDD staff, and CDD may provide a questionnaire template to the developer for completing this narrative. At a minimum, this narrative shall include the following information:

1. Anticipated building envelope performance, including roof, foundation, walls and window assemblies, and window-to-wall ratio;
2. Anticipated energy loads, baseline energy simulation tool assumptions, and proposed energy targets, expressed in terms of site energy use intensity ("EUI"), source EUI (expressed as British Thermal Unit (BTU) per square foot per year), and annual greenhouse gas emissions projected until 2050, expressed as Metric Tons of Carbon Dioxide Equivalents (MTCO<sub>2e</sub>), and calculated in accordance with the standards and requirements established in Chapter 8.67 of the Municipal Code ("Building Energy Use") and associated regulations. If anticipated tenant plug loads (EUI and emissions) are provided, they shall be separately broken out and clearly identified as such;
3. A description of ways in which building energy performance has been integrated into aspects of the Green Building Project's planning, design, and engineering, including building use(s), orientation, massing, envelope systems, building mechanical systems, on-site and off-site renewable energy systems, and district-wide energy systems;
4. A description of the technical framework by which the Green Building Project can be transitioned to net zero emissions prior to 2050 (acknowledging that such a transition might not be economically feasible at first), including future net zero emissions options

for building envelope, HVAC systems, domestic hot water, interior lighting, and on- and off-site renewable energy sources;

5. A description of programs provided by local utility companies, government agencies, and other organizations that provide technical assistance, rebates, grants, and incentives that can assist in achieving higher levels of building performance, summarizing which entities have been contacted and which programs could be utilized in the Green Building Project; and
6. An assessment of the technical and financial feasibility to meet the projected HVAC and domestic hot water demands of the building (as set forth in Paragraph (2) above) using energy systems that do not consume carbon-based fuels on-site (to include solar photovoltaics and hot water, ground source, water source or air source heat pumps, district energy, geothermal systems, and/or similar systems) compared to code-compliant energy systems that consume carbon-based fuels on-site (including, where applicable, the construction or expansion of energy plants controlled by the developer that may be necessary to produce energy for that specific building), which shall include the cost of installation, maintenance and upkeep of the energy system and its components (incorporating programs and incentives as set forth in Paragraph (5) above). This paragraph will become effective on February 23, 2021.
7. Embodied Emissions: A whole building lifecycle analysis of the estimated emissions generated by the construction of the Green Building Project. The Assistant City Manager for Community Development shall promulgate regulations for how these estimated emissions are to be reported. Such regulations shall include at minimum the required reporting of estimated lifecycle emissions generated by the use of major building materials, including but not limited to wood, concrete, steel, aluminum and glass, using embodied emissions modeling software and industry standards acceptable to CDD staff. This paragraph will become effective on the date of final promulgation of the regulations for Green Building Projects that have not yet completed the initial stage of administrative review by such date, and shall not impose a requirement on any building project that does not meet the standard threshold for project review special permit of 50,000 square feet or includes housing units.

In City Council March 6, 2023.

Ordained as amended by a yeas and nays vote:-

Yeas 9; Nays 0; Absent 0.

Attest:- Diane P. LeBlanc, City Clerk

A true copy;



ATTEST:-

Diane P. LeBlanc, City Clerk