

Amendment – Proposal C to the City of Burlington Comprehensive Development Ordinance (CDO) last updated July 18, 2014

August 31, 2015

The University of Vermont Medical Center (UVM Medical Center) proposes the following change to the *City of Burlington Comprehensive Development Ordinance*.

Overview / Statement of Purpose

The University of Vermont Medical Center (UVM Medical Center) proposes the following amendment to the City of Burlington Comprehensive Development Ordinance (CDO) dated July 18, 2014. The amendment in Proposal C includes:

4. *Lot coverage:*

Clarify how Green Roofs are handled for lot coverage calculations. It will affect all zoning districts where green roof infrastructure could be used for stormwater runoff management.

Amendment – Proposal C
The City of Burlington Comprehensive Development Ordinance (CDO),
Last Updated July 18, 2014

Amendment #4: Lot Coverage – Green Roofs

This proposed amendment addresses how a green roof is counted when calculating lot coverage for a proposed project. At present the CDO is silent as to how green roofs are treated with respect to lot coverage. When UVM Medical Center’s Renaissance Project was approved, the green areas above the underground garage were considered to be green for lot coverage purposes. When the Radiation Oncology project was approved a few years later, the DRB decided that it didn’t know how to calculate the lot coverage – whether, like the garage, it should be considered green space, or not. But they ruled that the Medical Center campus would be within allowed lot coverage regardless, so they approved the project without deciding either way. Since then, it has remained unclear as to what UVM Medical Center’s current lot coverage is. This issue is likely to arise with other projects in the City as green roofs become more common. The purpose of this proposed amendment is to clarify this matter. This proposed amendment is not intended to address stormwater *incentives* for installing green roofs, which we understand the Planning Commission is working on separately. This is solely designed to clarify how lot coverage is calculated when a project includes a green roof.

In general, we are aware of three different circumstances affecting how the City might wish to calculate lot coverage with green roofs. The distinctions relate to the physical location and circumstances of a green roof and consequently how the green roof is perceived by the general public.

The first situation is where the building or structure is wholly or substantially underground so that the general public perceives the green roof as simply additional ground area. A good example of this is UVM Medical Center’s underground garage. When one is walking on top of it, one is hardly aware that one is actually on a roof. In this circumstance, our proposal is that the green areas of such a green roof would be calculated as 100% green space, because for all intents and purposes, they are.

At the other extreme is a green roof on top of a conventional above-ground building; for example, if the Medical Center were to have a green roof on top of McClure (which it does not). Under this circumstance, the general public will not perceive it to be green space unless they happen to go up to the roof. Nonetheless, the green roof has some of the benefits of green space, so under this circumstance we propose that 50% of the green areas of the green roof be green space for lot coverage purposes.

The third circumstance is between the first two – that is, a building which is partially underground. A good example of this is UVM Medical Center’s Radiation Oncology building which is built into the hillside on the east end of the Ambulatory Care Center. A pedestrian approaching from the south perceives the roof as simply additional ground area because it is more or less at grade with the quadrangle in front of the Ambulatory Care Center. But pedestrians approaching from the north have a view of the north facade and portions of the east façade of the Radiation Oncology building. Under such a circumstance, we propose that if less than 50% of all exterior walls of a building are exposed, 100% of the green roof area would be calculated as green space, but if more than 50% of all exterior walls of a building are visible only 75% of the green roof area would be allowed to be green space for lot coverage purposes.

Proposed CDO Language:

Article 5: Citywide General Regulations

Part 2: Dimensional Requirements

Section 5.2.3 Lot Coverage Requirements, (b) Exceptions to Lot Coverage:

9. Anticipate the proposed Low Impact Development (LID) Amendment to CDO dated July 2, 2015 will be added.

Add in the following:

10. A building with a green roof that is entirely or substantially underground such that the green roof is substantially at grade with the surrounding area and 50% or less of all sides of a building are visible above grade, shall count 100% of the green areas of the roof as green area for lot coverage purposes.

If a building is partially underground such that in one or more direction the roof is substantially at grade with the surrounding land, but more than 50% of all sides of a building are visible, shall count 75% of the green roof area as green area for lot coverage purposes.

Where a green roof is not substantially at grade with the surrounding land, 50% of the green areas of the roof shall be considered green for lot coverage purposes.

In all cases, exposed impervious surfaces and structures within the green roof shall be calculated as lot coverage.

Article 13: Definitions

Add in the following definitions.

Green Roof: A green roof is a building roof that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also

include additional layers such as a root barrier and drainage and irrigation systems. Pre-planted tray systems with green roof layers combined into small units shall qualify as a green roof. The depth of soil and planted material shall be at least two (2) inches to be considered a functional Green Roof area. Container gardens with plants in pots or roofs painted a reflective color without plants shall not qualify as a green roof for purposes of this section.

In order to assist the Planning Commission, we prepared the following information that discusses this proposed CDO change along with additional information to address the above requirements.

Compliance with Municipal Development Plan

The proposed amendment is in conformance with the **2014 planBTV Burlington’s Municipal Development Plan** as described below.

- a) *Conformance with or furthers the goals and policies contained in the municipal plan, including the effect of the proposal on the availability of safe and affordable housing.*

The proposed Comprehensive Development Ordinance (CDO) amendment change is in conformance with and further the goals and policies contained in the *2014 planBTV Burlington’s Municipal Development Plan* in the following ways.

In the “Our Community Vision: A “Sustainable” Burlington” chapter for the Municipal Development Plan, it states *“If we succeed, Burlington is a leader in the development and implementation of energy efficiency measures that reduce energy costs, enhance environmental quality, improve security and sustainability, and enhance economic vitality.”* The proposed zoning amendment will encourage the use of green roofs in development, which help to reduce building energy costs and enhances environmental quality through better stormwater treatment methods.

It also states *“...If we are to succeed in creating a truly sustainable community, future development within the City of Burlington must further the following principles.”* The proposed zoning amendment will help to further several of these principles.

- “• Concentrate mixed-use, high density development within growth centers including the center city, neighborhood activity centers, and institutional core campuses.”*

Accounting for green roof credit when calculating lot coverage will help the City to encourage high density development within these areas of the city.

- “• Support long-term solutions over short-term fixes to community needs and problems.”*

Green roof credit when calculating lot coverage will support long term solutions for stormwater management within the city.

The proposed zoning amendment will have no effect on the availability of safe and affordable housing within the City of Burlington.

(b) Is compatible with the proposed future land uses and densities of the municipal plan.

The proposed amendment does not change the proposed future land uses and densities as described in the municipal plan for the Institutional Core Campus overlay districts or any other zoning district.

(c) Carries out, as applicable, any specific proposals for any planned community facilities.

The proposed amendment does not carry out any specific proposals for planned community facilities.