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Abstract

The City of Annapolis, the capital of Maryland, is set in the heart of the Chesapeake Bay. Only 29 miles east of Washington D.C., Annapolis has a population of 36,524 people, with a population density of 5,326 people per square mile. Annapolis has several public transportation options, including an eight-route bus system and railway connecting the city to nearby Washington D.C. and Baltimore.

Annapolis uses an integrated approach in regulating the planning, design, and sustainability of buildings. The city's sustainable building law mandates that three main categories of construction meet green building requirements and standards: (1) all applications for new construction or modification to any type of building greater than 7,500 square feet; (2) all public buildings; and (3) attached single family homes. Each of the three categories sets out different expectations and requirements in construction and modifications.

The larger structures are only required to meet Leadership in Energy and Environmental Design (LEED) certification level, or an equivalent, which is identified by the Director of the Department of Neighborhood and Environmental Programs for the City of Annapolis. The City of Annapolis seeks to lead by example in requiring that all its buildings (construction category two) meet LEED-Silver standards or an equivalent. The ordinance mandates that category three projects (smaller-sized residential construction or modifications) simply meet standard LEED-certification. The smaller-sized residential requirement also enumerates five or more types of single or attached homes as falling into the residential category; this is very unique to Annapolis, where attached (row) homes are common and this ordinance looked to capture those building structures. Regardless of the slight deviation in categorical LEED requirements among the categories, the failure to achieve the required LEED level results in the refusal of a Certificate of Occupancy or Final Certificate of Use.

Annapolis' ordinance emphasizes the application process for developing and constructing sustainable structures. Site plan review is a major part of the requirements for being allowed to build any of the three categories, in which, again the Director of the Department of Neighborhood and Environmental Programs supervises. As part of the application and development process, Annapolis requires a written explanation of how exactly LEED points will be achieved and a LEED score card – further demonstrating the City's desire for not just a promise, but a definite plan of LEED point achievement.

Two committees are directly involved in establishing and improving Annapolis' green building requirements. The Housing and Community Development Committee is a city-based committee that reviews city projects and plans, which must meet LEED-Silver requirements. The Environmental Review Committee is required to and responsible for reviewing the City's existing environmental practices, including green building requirements set forth in the ordinance. This document provides the two ordinances establishing these committees.

Resource

MUNICIPAL CODE – ANNAPOLIS, MARYLAND

TITLE 17: BUILDINGS & CONSTRUCTION

Chapter 17.14. Green Buildings: Energy Efficiency and Environmental Design

§ 17.14.010 to § 17.14.070

§ 17.14.010 Policy.

This chapter is intended to provide an integrated approach to the planning, design, construction and operation of certain buildings and their surrounding landscape so as to mitigate energy use and environmental impacts, and to promote sustainable development.

§ 17.14.020 Applicability.

A. This article shall apply to applications for building and trades permits in the following categories:

1. All applications for new construction of or major modifications to residential, non-residential and commercial buildings of greater than seven thousand five hundred square feet of gross floor area;
2. All applications for new construction of or major modifications to public buildings regardless of size;

3. All applications for new construction of or major modifications to five or more single family or attached homes on one lot or as a subdivision, and any single family home in excess of three thousand two hundred fifty square feet in size.

4. The ordinance codified in this section shall take effect on January 1, 2009, for all projects not already in the site design review process, and July 1, 2009 for residential structures.

§ 17.14.030 Definitions.

"Department" means the Department of Neighborhood and Environmental Programs.

"Director" means the Director of the Department of Neighborhood and Environmental Programs.

"Green Building Council" means the U.S. Green Building Council, an organization that has developed and published the LEED rating system to measure the energy and environmental performance of a building.

"LEED" means the series of Leadership in Energy and Environmental Design (LEED) rating systems developed by the Green Building Council.

"LEED accredited professional" means any person who has passed the LEED Professional Accreditation Exam administered by the Green Building Council.

"LEED certified-level" means the lowest of the LEED rating systems.

"LEED rating system" means the particular LEED rating system that applies to a building.

"LEED scorecard" means the checklist developed by the Green Building Council for the purpose of calculating a score on the LEED rating system.

"LEED silver level rating" means the second lowest of the LEED rating systems.

"Major modification" means a structural modification to an existing building that alters greater than fifty percent of the gross floor area or results in an increase of greater than fifty percent of the gross floor area or where the number of parking spaces is increased by more than twenty percent.

"New construction" means a new stand-alone building or any major modification to an existing building. New construction does not include any change to an existing portion of a building.

"Non-residential building" means a building not used as a dwelling. A non-residential building does not include: (a) accessory building or structure; (b) parking garage that is not heated or cooled; (c) any other building characterized as a miscellaneous building in the ICC International Building Code.

"Public building" means any building or facility owned, leased or funded at a level of at least thirty percent by municipal government including, but not limited to, water and wastewater treatment plants, water and wastewater pumping stations, garage or depot. State and federal buildings are excluded from this category as they are not subject to local government regulations.

§ 17.14.040 Standards and requirements.

A. Any new construction of or major modification to a commercial or mixed use building of greater than seven thousand five hundred square feet of gross floor area must achieve:

1. A certified-level rating in the appropriate LEED rating system, as certified by the Green Building Council; or
2. A certified-level rating in the appropriate LEED rating system as verified by the Director or a qualified person approved by the Director; or
3. Energy and environmental design standards that the Director identifies as equivalent to certified-level rating in the appropriate LEED rating system, as verified by the Director or a qualified person approved by the Director.

B. Any new construction of or major modification to a public building, regardless of size, must achieve, at a minimum:

1. A silver level rating in the appropriate LEED rating system, as certified by the Green Building Council; or
2. A silver level rating in the appropriate LEED rating system as verified by the Director or a qualified person approved by the Director; or
3. Energy and environmental design standards that the Director identifies as equivalent to a silver level rating in the appropriate LEED rating system, as verified by the Director or a qualified person approved by the Director.

C. Any new construction of or major modification to five or more single family or attached homes on one lot or as a subdivision, and any single family home in excess of three thousand two hundred fifty square feet in size, must achieve:

1. A certified-level rating in the appropriate LEED rating system as certified by the Green Building Council; or

2. A certified-level rating in the appropriate LEED rating system as verified by the Director or a qualified person approved by the Director; or
3. Energy and environmental design standards that the Director identifies as equivalent to a certified-level rating in the appropriate LEED rating system, as verified by the Director or a qualified person approved by the Director.

§ 17.14.050 Site plans.

A. Applications.

1. Those applications defined in Section 17.14.020 that require Site Design Review shall provide application information as required by City Code Chapter 21.22, Site Plan Design Review. In addition, applicants for Site Design Review shall provide:

- a. Design plans, including a LEED scorecard, that shows how the building's surrounding landscape will comply with the applicable standard under Section 17.14.040; and
- b. LEED scorecard showing the LEED points that a building will obtain; and
- c. Written explanation of how the building and surrounding landscape will obtain the LEED points identified in the LEED scorecard.

2. Applications for a building permit must submit to the Department:

- a. Design plans for the building and landscape that are likely to achieve the applicable standard under Section 17.14.040 as certified by a LEED accredited professional or otherwise approved by the Green Building Council or verified by the Director or a qualified person designated by the Department; and
- b. A LEED scorecard and any other document or information the Department finds necessary to decide whether the building and landscape will achieve the applicable standard under Section 17.14.040.

B. Review and Approval.

1. The Department shall require compliance with Section 17.14.040 as a condition of any building permit issued for construction as defined in Section 17.14.020;
2. The Department shall not issue a final certificate of use and occupancy for any construction as defined in Section 17.14.020 unless it finds that the building has achieved the applicable standard under Section 17.14.040. For those buildings seeking any green building certification, the applicant must submit all documentation that a green building was designed and constructed and that an

application for any green building certification was submitted to the appropriate green building certifying body as a condition of the issue of a final certificate of use and occupancy.

§ 17.14.060 Variance.

There are no variances to the requirements of this chapter, except as defined in Chapter 21.22.120, Site Design Plan Review.

§ 17.14.070 Appeal.

Appeals of a decision by the Director pertaining to this chapter shall be made to the Building Board of Appeals.

MUNICIPAL CODE – ANNAPOLIS, MARYLAND

TITLE 2: ADMINISTRATION

Chapter 2.48 – Boards, Commissions, and Committees

Article XII. HOUSING AND COMMUNITY DEVELOPMENT COMMITTEE

§ 2.48.340 Housing and Community Development Committee.

A. There is created a Housing and Community Development Committee. The committee consists of seven members who are the three members of the Housing and Human Welfare Committee of the City Council, the chair of the Annapolis Housing Authority, or the chair's designee, and three residents of the City who possess a demonstrated interest in housing and community development concerns and who shall be appointed by the Mayor and confirmed by the City Council. The terms of the aldermen and the chair of the Annapolis Housing Authority shall be identical with their terms of office. Each resident member shall serve for a term of three years, or until the member's successor is appointed and qualified, commencing on the first day of June, the term of no more than one member expiring each year.

B. The chair of the Housing and Human Welfare Committee shall be the chair of the Housing and Community Development Committee. The committee shall meet monthly and special meetings may be called by the chair. No fewer than two working days' notice shall be given prior to each meeting. A written agenda shall be prepared for each meeting. Revisions may be made only by unanimous consent of the members present. Action of the committee shall be by majority vote of the members present. Three members of the committee shall constitute a quorum for the transaction of business, provided that no fewer than two of the aldermanic members are present.

C. The Housing and Community Development Committee shall plan and implement the housing and community development projects throughout the City, exercise all of the powers and functions of redevelopment and urban renewal, subject to other

limitations of law, manage and improve the housing stock in the City, coordinate the Federal, State and private resources toward development activities in the City and perform other duties and functions which shall be assigned to it by the City Council. All policy, program, and administrative actions taken by the committee must have the concurrence of a majority vote of the membership as provided in subsection B of this section, and must be submitted to the City Council for consideration and approval. The committee shall review and approve all personnel involved in housing and community development activities.

MUNICIPAL CODE – ANNAPOLIS, MARYLAND

TITLE 2: ADMINISTRATION

Chapter 2.48 – Boards, Commissions, and Committees

Article XIII. ENVIRONMENTAL REVIEW COMMITTEE

§ 2.48.350 Environmental Review Committee.

- A. The goal of the City is to lead by example so as to encourage residents and business owners to use reusable and recyclable materials and to purchase goods from companies that practice energy use reduction and sequestration of carbon dioxide.
- B. In furtherance of this goal, there is hereby established an Environmental Review Committee within the municipal government. The Committee consists of the Directors of the Departments of Neighborhood and Environmental Programs (DNEP), Public Works, Central Services, and Recreation and Parks. The Director of DNEP shall serve as the chair.
- C. As a minimum, the Committee shall:
1. Review existing practices of the City to assure that its policies and procedures foster the use of materials that are compostable, recyclable, and reusable.
 2. Assess the effectiveness of the voluntary environmental reusable bag program.
 3. Assess the value of bans and/or fees on materials in furtherance of the City's goals.
 4. Develop a plan for distribution of re-useable bags as part of and consistent with the City's recycling plan as defined in Chapter 10.18 of the Annapolis City Code.
 5. Assist the various City offices to ensure that contracting procedures do not discriminate against reusable, recycled, or environmentally preferable products without sufficient justification.

6. Evaluate environmentally preferable products to determine the extent to which they may be used by the City and its contractors.
7. Review and revise contracting procedures to maximize the specification of designated environmentally preferable products where available.
8. Following installation of computer software capable of data gathering for such purposes, facilitate data collection on purchases of designated environmentally preferable products by the City and its contractors and report the data to the City Council by July 31st of each year.
9. Prior to fiscal year 2009, the Committee shall:
 - a. Begin issuing to all City organizational elements purchasing specifications that comply with U.S. Environmental Protection Agency Comprehensive Procurement Guidelines for products. Recovered Materials Advisory Notices (RMAN) shall be used as a reference for determining the recycled content specifications for these products. Third party certifications, such as Energy Star, Eco Logo and Green Seal, shall also be acceptable to identify preferred products.
 - b. Monitor the implementation of the following:
 - (1) To the extent available, all printing and copy paper products shall consist of a minimum of thirty percent post-consumer recycled fiber.
 - (2) All janitorial paper products and plastic garbage bags shall consist of a minimum of fifty percent post-consumer content.
 - (3) A ten percent price preference for processed chlorine-free paper shall be applied to (one hundred percent) of photocopy-grade and janitorial paper purchases.
 - (4) Returning used toner cartridges for remanufacture and purchase re-manufactured toner cartridges when practicable.
 - (5) Where available, no janitorial cleaning or disinfecting products shall contain ingredients that are identified by United States Environmental Protection Agency or the National Institute for Occupational Safety and Health as carcinogens, mutagens, or teratogens.
 - (6) Phase out the use of chloroflourocarbon containing refrigerants, solvents and other products when without risk of voiding manufacturers' warranties on the equipment in which it is applied.
 - (7) All surfactants shall meet EPA standards as "readily biodegradable." No detergents shall contain phosphates.

(8) The City shall procure wood products that originate only from managed, recycled or sustainable wood product operations.

(9) Purchased or leased electronic equipment including photocopiers, computers, printers, lighting systems, HVAC, kitchen and laundering appliances, and energy management systems must meet U.S. Environmental Protection Agency (EPA) or U.S. Department of Energy (DOE) energy efficiency standards. Where applicable, the energy efficiency function must remain enabled on all energy efficient equipment. As part of any purchase or lease agreement for electronic equipment, a vendor must supply life cycle costs for each item.

(10) All motor oil shall contain a minimum twenty-five percent re-refined base stock, and shall be used only when without risk of voiding manufacturers' warranties on the equipment in which it is applied. All re-refined oil must be American Petroleum Institute certified.

(11) All motor vehicles operated by the City shall use recycled propylene glycol antifreeze where practicable, and shall be used only when without risk of voiding manufacturers' warranties on the equipment in which it is applied.

(12) Paint purchased by the City or its contractors shall contain the minimum amount necessary of volatile organic compounds, and shall contain maximum recycled content where available.

(13) The City shall implement an integrated pest management program for pest control. Any chemicals used to eliminate or deter insect pests and undesirable vegetation shall be the most readily and completely biodegradable product available for the given application, and shall be applied in a manner that is least likely to come into contact with humans and any other animals for which treatment is not intended.

(14) All construction and renovation at least thirty percent funded by the City shall incorporate Silver LEED "green" building practices;

(15) The City shall give preference to products that are produced and are within a reasonable geographic distance such that transportation costs, energy use and carbon dioxide generation do not outweigh the benefits of lower product costs.

(16) All departments, offices, and agencies shall ensure that they and their contractors/consultants use double-sided copying. All photocopiers purchased by the City following adoption of this policy are required to be capable of double-sided copying when the equipment has the capability to copy double-sided.

(17) The City shall reduce or eliminate its use of products that contribute to the formation of dioxin and furan compounds.

D. The following are environmentally preferred products:

1. Compostable and vegetative products;
2. Horticultural mulch made with recycled land clearing and other wood debris, but avoiding the use of non-sterile mulch which may contain non-native plant species;
3. Construction materials made with recycled cement concrete, wood, glass or asphalt;
4. Alternative fuels and vehicles and rolling stock that utilize same including, but not limited to, electric, hybrid, compressed natural gas, hydro-diesel, hydrogen, biodiesel and ethanol. When comparing costs of alternative vs. conventional fuels and vehicles, the city shall give preference to alternative fuels and vehicles if their costs are no more than ten percent higher than conventional products;
5. Cement and asphalt concrete containing glass cullet, recycled fiber or plastic, tire or rubber;
6. Lubricating oil and hydraulic oil with re-refined oil content;
7. Recycled plastic products;
8. Remanufactured products made from recycled tire rubber, including rubber mats and play field surfaces;
9. Low wattage/high efficiency lighting fixtures, including but not limited to traffic signals, crosswalks, street lights and all interior and exterior building fixtures, including fixed ballast fluorescent fixtures and motion sensitive switches;
10. Solar powered traffic signals, traffic signs, street lights and buildings wherever available;
11. Remanufactured laser printer toner cartridges;
12. Other products as designated by the Mayor and/or the Mayor's designee, the Task Force and/or Coordinator; and
13. No fertilizer with phosphorous shall be used on any land owned by the City of Annapolis, whether such land is located within or outside of the City's boundaries, except where a soil test determines that the soil is deficient.

E. The Environmental Review Committee will formulate a plan by May 31, 2008, to promote the use of reusable shopping bags in the City of Annapolis. It will establish

a goal of a forty percent reduction in the use of plastic and paper checkout bags in large retail chain stores by May 31, 2009.

F. Nothing contained in the policy of this section shall be construed as requiring a department or contractor to procure products that do not perform adequately for their intended use, exclude adequate competition, or are not available at a reasonable price in a reasonable period of time. The city shall give preference to any environmentally preferable products if their costs are no more than ten percent higher than conventional products.

G. One year from adoption of the ordinance codified in this section, the Environmental Review Commission will evaluate the effectiveness of the internal and voluntary programs for reusable materials and make recommendations in furtherance of these efforts.