

~~(57) Subsection 3109.6. Electrical Requirements. Add new subsection to read as follows:~~

~~"Subsection 3109.6.1. Electrical Requirements.~~

- ~~1. "All electrical installations provided for, installed and used in conjunction with private residential pools, shall be in conformance with the Electrical Code, Chapter 7, City of Gaithersburg Code."~~
- ~~2. No current-carrying electrical conductors shall cross private residential swimming pools, either overhead or underground, or within 15 feet of such pools, except wiring for associated pool equipment, such as lights, pool pump motors, etc.~~
- ~~3. All metal fences or railings near or adjacent to pools, which might become electrically active as a result with broken overhead conductors or from any other cause, shall be effectively grounded."~~

~~(5881) Subsection 3109.6.2. Annual Inspection Requirements. Add new subsection to read as follows:~~

~~"Subsection 3109.6.2. Annual Inspection Requirements. All public and community swimming pools shall be inspected on a yearly basis to determine compliance with applicable City codes and ordinances. NOTE: Private certification by an electrician licensed in the City is permitted."~~

(82) Add new Section 3111, Green Building Requirements.

3111.1 Scope. All buildings, and the accompanying building sites, listed in this section shall be constructed in accordance with the green building standards that are referenced herein.

3111.2 Commercial and High Rise Residential Buildings

3111.2.1 Scope. For the purpose of this subsection, these requirements shall pertain to newly constructed or "substantially improved"* commercial and high rise residential buildings equal to or larger than 10,000 square feet. Substantially improved structures include renovations or reconstruction of existing buildings with at least 10,000 square feet of gross floor area that alter more than 50% of the GFA and additions that double the building's footprint or add at least 10,000 square feet of GFA, and/or as defined below:

* Substantial improvement, as defined by the International Existing Building Code, is any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure, before the improvement or repair is started.

3110.2.2 Requirements. Applicable structures equal to or larger than 10,000 square feet, but no larger than 50,000 square feet, must achieve a certification from the U.S. Green Building Council's (USGBC) Leadership in Energy and

Environmental Design (LEED®) green building rating system of a Certified-level rating or higher in LEED NC 2.2 or LEED CS 2.0 OR comply with energy and environmental design standards that the City Manager may adopt by regulation, pursuant to Section 2-10 of the City Code, as equivalent to a Certified-level rating in the appropriate LEED rating system. Applicable structures equal to or larger than 50,000 square feet must achieve a certification from the USGBC LEED green building rating system of a Silver-level rating or higher in LEED NC 2.2 or LEED CS 2.0 OR comply with energy and environmental design standards that the City Manager may adopt by regulation, pursuant to Section 2-10 of the City Code, as equivalent to a Silver-level rating in the appropriate LEED rating system.

3111.2.3 Submittals. Prior to the issuance of grading permits, the applicant shall submit documentation showing the project has been registered with the USGBC and the applicable LEED registration fee has been paid OR meets the standards that the City Manager may adopt by regulation as equivalent to the appropriate LEED rating system. The applicant shall also submit a checklist that is prepared, signed, and dated by the project LEED accredited professional OR a checklist that is approved by the City Manager that demonstrates the applicant meets with the equivalent standards.

3111.2.4 Verification. No later than eighteen (18) months after the receipt of a Certificate of Use and Occupancy, the applicant shall provide proof to that the required LEED-level rating was obtained.

3111.2.5 Waiver. A waiver or modification of the green building requirements may be granted by the Planning Commission, upon recommendation by the City Manager or his/her designee, based upon a finding that unique physical characteristics of the property or the project make strict compliance with Section 3111 impracticable; however, financial hardship of meeting LEED shall not be the sole basis for approving a waiver or modification.

3111.3 Multifamily Residential Structures

3111.3.1 Scope. For the purpose of this subsection, the scope shall include multifamily buildings and sites designed as Use R-2 and R-3 buildings that are type V construction and 4 stories or less in height, and do not fall under the purview of the International Residential Code as single family dwellings. This shall include the multifamily portion of any mixed or multi-use building. These requirements shall pertain to new construction of, reconstruction of, additions to, or substantial improvement* (as defined in the International Existing Building Code) of multi-family buildings as described above.

* Substantial improvement, as defined by the International Existing Building Code, is any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure, before the improvement or repair is started.

3111.3.2 Requirements.

1). Energy Performance: Improve overall energy performance by designing and building high performing ENERGY STAR qualified homes by meeting or exceeding the following requirements¹:

Requirements 'a-g' meet those included in the ENERGY STAR Qualified Homes National Builder Option Package (BPO) (as of September 19, 2007). Requirements 'h-i' exceed the BPO program and are included in LEED Homes and Green Communities criteria.

- (a) Cooling equipment: 13 SEER A/C; OR ENERGY STAR qualified heat pump (11.5 EER/ 8.5 HSPF), or be in compliance with the International Energy Conservation Code/2009.
- (b) Heating equipment: ENERGY STAR qualified gas furnace (90 AFUE); OR ENERGY STAR qualified heat pump; OR ENERGY STAR qualified boiler (85 AFUE); OR 85 AFUE oil furnace. Homes with heat pumps in Climate Zone 4 must have an HSPF > 8.5, which exceeds the ENERGY STAR minimum of 8.2 HSPF, or be in compliance with the International Energy Conservation Code/2009.
- (c) Water heaters:
Gas (EF): 40 Gal = 0.61 60 Gal = 0.57 80 Gal = 0.53
Electric (EF): 40 Gal = 0.93 50 Gal = 0.92 80 Gal = 0.89
Oil or Gas: Integrated with space heating boiler,
or be in compliance with the International Energy Conservation Code/2009.
- (d) Appliances: Install ENERGY STAR qualified clothes washers, dishwashers, and refrigerators.
- (e) Lighting: Reduce electric load due to lighting by selecting and installing the following measures, or be in compliance with the International Energy Conservation Code/2009:
 - (i) Efficient exterior lighting- All exterior lighting shall have automatic photocell, motion, or timer controls. Outdoor lighting shall have a horizontal cutoff to eliminate light trespass from the building and site and to minimize impact on nocturnal environments. Use downlighting instead of uplighting.
 - (ii) Efficient interior lighting- Install at least four ENERGY STAR-labeled lighting fixtures or ENERGY STAR Advanced Lighting Package in all interior units. Install compact fluorescent lamps (CFLs) or equivalent in at least 80% of applicable light fixtures.

(2) Healthy Living Environment: Protect occupants from exposure to contaminants by meeting or exceeding the following ventilation, source control, and source removal measures²:

- a) Heating, Ventilation, and Air Conditioning (HVAC) sizing: Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America Manual, Parts J and S, to prevent short-cycling of heating or air conditioning and ensure adequate dehumidification. (The HVAC unit may be upsized at the discretion of the building code official.) Compliance with the 2009 International Energy Conservation Code is also acceptable.
- b) Garage isolation: Provide a continuous air barrier between the conditioned (living) space and any unconditioned garage space to prevent the migration of any contaminants into the living space. In single-family houses with attached garages, install a CO alarm inside the house on the wall that is attached to the garage or is outside the sleeping area.
- c) Water heaters- mold prevention: Use tankless hot water heaters or install conventional hot water heaters in rooms with drains or catch pans piped to the exterior of the dwelling and with non-water sensitive floor covering.
- d) Water heaters- minimizing CO: Specify direct vented or combustion sealed water heaters if the heater is located in a conditioned space.
- e) Cold water pipe insulation: Insulate exposed cold water pipes in climates and building conditions susceptible to moisture condensation.
- f) Building Materials: Building materials shall meet or exceed the following requirements:
 - (i) Structural plywood conforming to PS1 and PS2 and oriented strand board shall be made with exterior-type adhesives. Exterior-type adhesive is evident by the appearance of "Exposure 1" or "Exterior" in the panel trademark.
 - (ii) Particleboard and medium density fiberboard (MDF) shall be certified compliant with the low formaldehyde emission standards ANSI A208.1 and A208.2, respectively.
 - (iii) Hardwood plywood shall be compliant with ANSI/HPV HP-1-2004 and U.S. HUD Title 24, Part 3280.
 - (iv) Carpets, carpet pad, and carpet adhesives shall carry the Carpet and Rug Institute (CRI) Green Label or documented to meet the CRI Green Label testing program criteria for low-emitting products. Products labeled with the CRI Green Label Plus also meet this requirement.
 - (v) Permeability rating of finishes used on the interior side of a home's exterior walls in hot humid and humid mixed climates shall be greater than '1'.

² Requirements 'a-e' are derived from the Enterprise Foundation's Green Communities Criteria and requirement 'f' is derived from ENERGY STAR with Indoor Air Package Specifications (as of September 19, 2007).

- (3) Waste Management: Divert construction, demolition, and land clearing materials from landfill disposal and reduce the demand for virgin resources by developing a Construction, Demolition, and Land clearing (CDL) Waste Management Plan with a goal to divert a minimum of 50% (by weight) of CDL waste from the landfill by one, or a combination of the following activities: salvage, reuse, source-separated CDL recycling, or co-mingled recycling.
- (i) The plan should include such CDL materials, but not limited to: acoustical ceiling tiles, appliances, asphalt, asphalt shingles, brick, cabinets, cardboard packaging, carpet and carpet pad, concrete, doors, drywall, fixtures, fluorescent lights and ballasts, garage doors, glass (window), glass (other), green waste and land clearing debris, gypsum board, metals, paint, plastic, wood, field office waste (office paper, aluminum cans, glass, plastic, and office cardboard), and other salvage materials. The plan must be submitted as part of the permit application and will address the materials used or deconstructed on site, management method, hauler, destination, approximate quantities, and handling procedures.
 - (ii) The plan shall be posted at the job site and implementation shall include:
 - 1. Waste prevention and recycling activities will be discussed at each safety meeting
 - 2. As each new subcontractor comes on-site, the recycling coordinator will present him/her with a copy of the Waste Management Plan and provide a tour of the recycling areas.
 - 3. The subcontractor will be expected to make sure all their crews comply with the Waste Management Plan.
 - 4. All recycling containers will be clearly labeled.
 - 5. Lists of acceptable/unacceptable materials will be posted throughout the site.
- (4) Homeowner Education: Educate the homeowner about the home's green features and the operation and maintenance of key features and equipment related to optimizing home performance by completing the following:
- (a) Owner's Manual: Provide a homeowner manual, to be included in the submittal of building plans, that includes the following:
 - i) A guide for homeowners and renters that explains the intent, benefits, use and maintenance of green building features, and encourages additional green activities such as recycling, landscaping, and use of healthy cleaning materials;
 - ii) Instructions and a routine maintenance plans for all appliances, HVAC operation, water-system turnoffs, lighting equipment and other systems that are part of each occupancy unit; and

- iii) An occupancy turnover plan that describes in detail the process of educating the tenant about proper use and maintenance of all building systems.
- (b) Homeowner and New Resident Orientation: Provide a walk-through and orientation to the homeowner or new resident that reviews the building's green features, operations, and maintenance.

(5) Sustainable Sites

1. Four Story Multifamily Residential

- a. Priority LEED NC credits that directly address some of the critical environmental issues facing this region and the bay³:
 - i. Site selection (SSC1);
 - ii. Transportation- parking capacity (SC4.4);
 - iii. Stormwater design quantity control (SS6.1);
 - iv. Stormwater design quality controls (SS6.2).
 - v. Non-roof heat islands (SS7.1);
 - vi. Roof heat islands (SS7.2);
 - vii. Water efficient landscaping- reduce by 50% (WEC1.1);
 - viii. Water use reduction – 20% (WEC3.1);
 - ix. Construction IAQ Management Plan – During Construction (EQ3.1)
 - x. Construction IAQ Management Plan – Before Occupancy (EQ3.2)

3111.3.3 Waiver. A waiver or modification of the green building requirements may be granted by the Planning Commission, upon recommendation by the City Manager or his designee, based upon a finding that unique physical characteristics of the property or the project make strict compliance with Section 3110 impracticable; however, financial hardship shall not be the sole basis for approving a waiver or modification.

~~(5983)~~ Subsection 3302.3. Construction in Occupied Buildings. Add new subsection to read as follows:

“Subsection 3302.3. Construction in Occupied Buildings. Existing occupied buildings and/or spaces shall not remain occupied during construction operations.

Exception: Where the building or space is adaptable to a phasing operation that clearly demonstrates to the building official that the health, safety, and welfare of the occupants of that building is not jeopardized in any way by the construction project, and that the provisions set forth in subsection 3302.3.1 can be met.”

³ See attached for a summary of the credit requirements.