



GWINNETT COUNTY

Community Outdoor Lighting Efficiency Policy

The design, installation, and operation of outdoor lighting for commercial and multifamily facilities in Gwinnett County, including site lighting and exterior lights on buildings, are regulated by the “Georgia State Minimum Standard Energy Code” and the Gwinnett County Unified Development Ordinance. Gwinnett County is granted authority by sections 8-2-26 and 8-2-27 of the Official Code of Georgia Annotated to administer the “Georgia State Minimum Standard Energy Code” for all construction located within the county except for incorporated cities. The International Energy Conservation Code, published by the International Code Council and adopted by the state of Georgia with Georgia Supplements and Amendments, constitutes the official “Georgia State Minimum Standard Energy Code”, herein referred to as “the energy code”.

The energy code contains the mandatory requirements pertinent to power and controls for exterior lighting which establish the basis for this policy. The Zoning Resolution further supplements the energy code by specifying allowable illumination levels for site lighting and power limits for individual lighting fixtures.

Responsible parties engaged in construction activities including but not limited to contractors and design professionals must comply with the requirements for exterior lighting per the energy code and the Zoning Resolution for commercial and multifamily projects. Site development including design, erection, construction and alteration of any building are typical activities which must be completed in accordance with the applicable requirements.

The Department of Planning and Development actively enforces the energy code and the Zoning Resolution through plan review, permitting, and inspection of construction projects with exterior lighting systems as described in the sections which follow.

Prior to issuance of a building permit, the building designer (Architect and/or Engineer) must submit construction drawings for the proposed exterior lighting system(s) to the department for energy code compliance review which include an energy code compliance report for the exterior lighting based on either IECC Table 505.6.2 (Lighting Power Densities for Building Exteriors) of

the International Energy Conservation Code (IECC) or ASHRAE/IESNA STANDARD 90.1 (Lighting Power Densities for Building Exteriors). The energy code compliance report is typically prepared using COMcheck – ASHRAE 90.1 Standard Code Version which is an energy code compliance software program developed by the U.S. Department of Energy.

The construction drawings for exterior site lighting associated with parking lots, walkways, access drives, loading/unloading areas, and landscaped areas must specify the locations for all lighting fixtures, the proposed types of fixtures and light poles, and point-by-point photometrics designed in accordance with IESNA (Illuminating Engineering Society of North America). Vendor drawings are required for all specified exterior light fixtures. Site lighting must be designed to satisfy the allowable illumination levels for site lighting and power limits for individual lighting fixtures as defined by the Zoning Resolution. Department plan review staff review the site lighting construction drawings to determine compliance with the Zoning Resolution requirements.

Department plan review staff also review the construction drawings for each proposed exterior lighting system to verify that the following energy code performance documentation is included prior to authorizing issuance of a building permit:

- Time-scheduling or photosensor devices for automatic control of exterior lighting when sufficient daylight is available or when the lighting is not required during nighttime hours.
- Each exterior lighting fixture (other than low-voltage landscape lighting) that operates at greater than 100 watts must contain lamps having a minimum efficiency of 60 lumens per watt unless the fixture is controlled by a motion sensor or qualifies for one of the exceptions granted by the energy code.

Outdoor lighting installation is monitored by the electrical inspectors during appropriate stages of construction prior to issuance of the Certificate of Occupancy or Certificate of Completion. In particular, department inspection staff routinely observe each building, building addition, and associated exterior lighting system(s) to ensure that the types and locations of exterior lighting fixtures, and lighting fixture controls installed during construction are consistent with that specified on the construction drawings authorized for issuance of a building permit.

Prior to final inspection of exterior site lighting by the department electrical inspector, the site lighting design professional-of-record for

the project is required to submit to the Chief Electrical Inspector a signed letter which states that he/she has observed the project site lighting in operation at night in the absence of daylight to verify that the installed lighting is consistent with the site lighting plans authorized for construction by the department.

Additional Information:

Contact Building Plan Review staff at (678) 518-6000 for additional information regarding energy code requirements for outdoor lighting.