

Bill No. 4-07  
Concerning: Outdoor Lighting  
Standards – Established  
Revised: 02-09-07 Draft No. 5  
Introduced: February 13, 2007  
Expires: August 13, 2008  
Enacted: \_\_\_\_\_  
Executive: \_\_\_\_\_  
Effective: \_\_\_\_\_  
Sunset Date: None  
Ch. \_\_\_\_\_, Laws of Mont. Co. \_\_\_\_\_

## COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

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By: Council President Praisner

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**AN ACT** to:

- (1) establish outdoor lighting standards, including standards relating to shielding, aiming, efficacy, color rendition, power density, illuminance, luminance, controls, and off-site spill;
- (2) require a person to obtain approval of a lighting plan from the Department of Permitting Services before applying to the Planning Board for site plan approval or to the Board of Appeals for a special exception;
- (3) require applicants for certain types of building permits, electrical permits, and use and occupancy permits to submit a lighting plan to the Department of Permitting Services for approval;
- (4) create certain exemptions;
- (5) authorize the Director of the Department of Permitting Services to grant certain types of modifications;
- (6) establish certain penalties;
- (7) establish a compliance deadline for existing outdoor lighting; and
- (8) generally amend the law relating to outdoor lighting in the County.

By amending

Montgomery County Code  
Chapter 2, Administration  
Section 2-112

By adding

Montgomery County Code  
Chapter 29B, Light Control

<b>Boldface</b>	<i>Heading or defined term.</i>
<u>Underlining</u>	<i>Added to existing law by original bill.</i>
[Single boldface brackets]	<i>Deleted from existing law by original bill.</i>
<u>Double underlining</u>	<i>Added by amendment.</i>
[[Double boldface brackets]]	<i>Deleted from existing law or the bill by amendment.</i>
* * *	<i>Existing law unaffected by bill.</i>

*The County Council for Montgomery County, Maryland approves the following Act:*

1 **Sec. 1. Section 2-112 is amended as follows:**

2 **2-112. Jurisdiction.**

3 \* \* \*

4 (c) The Board has the following appellate jurisdiction.

5 \* \* \*

6 Section 29B-12 County light control law

7 \* \* \*

8 **Sec. 2. Chapter 29B, Light Control is added as follows:**

9 **Chapter 29B, Light Control**

10 **29B-1. Short Title.**

11 This Chapter may be cited as the Montgomery County Light Control Law

12 **29B-2. Policy.**

13 This Chapter is intended to reduce excessive, inefficient, improperly aimed,  
14 and poorly shielded outdoor light that harms the public health and welfare  
15 by degrading the nighttime visual environment, impairing the use and  
16 enjoyment of property, creating safety hazards relating to glare, and wasting  
17 energy.

18 **29B-3. Definitions.**

19 In this Chapter, the following words have the meanings indicated.

20 “**Building**” has the meaning stated in Section 59-A-2.1.

21 “**Building permit**” means a building permit issued by the Department under  
22 Chapter 8.

23 “**Candela**” means a standard unit of light intensity in a specific direction,  
24 equal to 1 lumen per steradian.

25 “**Color rendering index**” means a method for describing the effect of a light  
26 source on the color appearance of objects compared to a reference light of  
27 the same color temperature.

28 “Department” means the Department of Permitting Services.

29 “Director” means the Director of the Department of Permitting Services or  
 30 the Director’s designee.

31 “Efficacy” means the amount of lumens produced by a lamp or light source  
 32 per unit of power, expressed in lumens per watt.

33 “Electrical equipment” has the meaning stated in Section 17-11.

34 “Electrical permit” means an electrical permit issued by the Department  
 35 under Chapter 17.

36 “Enforcement officer” means a person authorized under Section 29B-9 to  
 37 enforce this Chapter.

38 “Footcandle” means a unit of illuminance equal to 1 lumen per square foot.  
 39 This is the illuminance provided by a light source of 1 candela at a distance  
 40 of 1 foot.

41 “Full-cutoff” or “full-cutoff light fixture” means a light fixture that is  
 42 designed to block the amount of light emitted from the fixture at certain  
 43 angles in compliance with the IESNA “full-cutoff” or “full cut-off light  
 44 fixture” standard or another equivalent standard identified in regulations.

45 “IECC” means the version of the International Energy Conservation Code  
 46 adopted by the County under Section 8-13.

47 “IESNA” means the Illuminating Engineering Society of North America.

48 “Illuminance” means the amount of light falling on a unit area of surface  
 49 (luminous flux per unit area), measured in footcandles.

50 “Initial light output” means the amount of light emitted by an outdoor light  
 51 fixture when it is new, as identified in the manufacturer’s specifications.

52 “Lighting plan” means a lighting plan required by Section 29B-6.

53 “Lighting professional” means:

- 54 (1) a professional engineer who is licensed by the State; or

55           (2) an individual who has successfully completed the lighting  
56           certification exam conducted by the National Council on  
57           Qualifications for the Lighting Profession or an equivalent  
58           exam identified in regulations.

59           “**Luminance**” means the amount of light emitted by an outdoor light fixture  
60           or reflected by a surface, measured in candelas per square foot.

61           “**Low wattage fluorescent light**” means a fluorescent light of 25 watts or  
62           less.

63           “**Low wattage incandescent light**” means a halogen light of 75 watts or less  
64           or a non-halogen incandescent light of 100 watts or less.

65           “**Lumen**” means 1 unit of luminous flux. This unit is used to measure the  
66           amount of light emitted from a light source. One lumen is equal to the  
67           amount of light emitted by a light source of 1 spherical candela that falls on  
68           a 1 square-foot surface located 1 foot away.

69           “**Luminaire**” means a complete lighting assembly, including any lamp,  
70           housing, reflector, lens, or shield.

71           “**Off-site spill**” means light that falls beyond the boundary of the property  
72           on which a light fixture is located.

73           “**Outdoor display area**” means an area where products or services are sold  
74           or displayed.

75           “**Outdoor light fixture**” means any permanent, temporary, or portable  
76           luminaire used outdoors, including any light fixture used to illuminate:

- 77           (1) a building or structure;
- 78           (2) a driveway;
- 79           (3) a parking facility;
- 80           (4) an outdoor display area;
- 81           (5) an outdoor performance area;

82           (6)    a recreational area or facility;

83           (7)    a road;

84           (8)    a sidewalk or path;

85           (9)    a sign; or

86           (10) a yard, park, or landscape.

87           “Outdoor lighting system” means the outdoor light fixture or outdoor light  
88           fixtures, and any accompanying accessories, used to illuminate a particular  
89           building, structure, or area.

90           “Parking facility” has the meaning stated in Section 59-A-2.1.

91           “Planning Board” means the Montgomery County Planning Board of the  
92           Maryland-National Capital Park and Planning Commission.

93           “Planning Director” means the Director of the Montgomery County  
94           Department of Planning.

95           “Power density” means the amount of electricity used to generate light per  
96           unit of area, expressed in watts per square feet.

97           “Recreational area or facility” means an outdoor building, structure, or area  
98           designed for active recreation, whether publicly or privately owned,  
99           including a baseball diamond, basketball court, soccer field, football field,  
100           golf course, tennis court, swimming pool, or other area or facility identified  
101           in regulations.

102           “Sign” has the meaning stated in Section 59-A-2.1.

103           “Site plan” means a site plan or amendment to a site plan approved by the  
104           Planning Board under Division 59-D-3.

105           “Special exception” means a special exception or amendment to a special  
106           exception approved by the Board of Appeals under Division 59-G.

107           “Structure” has the meaning stated in Section 59-A-2.1

108 “Total light output” means the total initial light output, measured in lumens,  
 109 of an outdoor lighting system.

110 **29B-4. Scope.**

111 This Chapter applies to all outdoor light fixtures and outdoor lighting  
 112 systems in the County, except when a different requirement or standard is  
 113 expressly required by State law.

114 **29B-5. Standards.**

115 (a) Shielding and aiming.

116 (1) An outdoor light fixture with a total light output greater than  
 117 2,000 lumens must:

118 (A) be a full cut-off fixture and installed and maintained  
 119 level, without any upward or sideward tilt unless  
 120 necessary to prevent off-site spill; and

121 (B) comply with any other shielding or aiming requirement  
 122 specified in regulations.

123 (2) An outdoor light fixture with a total light output of 2,000  
 124 lumens or less that is not a full cut-off fixture must:

125 (A) have a downward aim that does not exceed 45 degrees  
 126 from vertical; and

127 (B) comply with any other shielding or aiming requirement  
 128 specified in regulations.

129 (b) Efficacy. An outdoor light fixture must have an efficacy equal to the  
 130 greater of:

131 (1) 60 lumens per watt;

132 (2) the efficacy required by the IECC, if applicable; or

133 (3) the efficacy established in regulations based on nationally  
 134 recognized standards or best practices.

135 (c) Color rendition. An outdoor light fixture must have a color rendering  
 136 index of at least 20.

137 (d) Power density. An outdoor lighting system must have a power density  
 138 equal to the lesser of the power density:

139 (1) required by the IECC, if applicable; or

140 (2) established in regulations based on nationally recognized  
 141 standards or best practices.

142 (e) Illuminance.

143 (1) The County Executive must adopt regulations that set  
 144 illuminance standards for:

145 (A) buildings;

146 (B) driveways;

147 (C) parking facilities;

148 (D) recreational areas and facilities;

149 (E) roads;

150 (F) sidewalks and paths;

151 (G) signs;

152 (H) outdoor display areas;

153 (I) outdoor performance areas;

154 (J) yards, parks, and landscapes; and

155 (K) any other particular type of building, structure, or area, if  
 156 the County Executive finds that an illuminance standard  
 157 would further the policy described in Section 29B-2.

158 (2) The illuminance standards set by regulation must be based on:

159 (A) the use of the building, structure, or area that is  
 160 illuminated;

161 (B) IESNA recommended practices;

- 162                   (C) other nationally recognized standards or best practices;  
 163                                   and  
 164                   (D) any other criteria identified in regulations that would  
 165                                   further the policy described in Section 29B-2.
- 166 (f) *Luminance.* The County Executive must adopt regulations that set  
 167                   limits on luminance for signs and building facades based on IESNA  
 168                   recommended practices and other nationally recognized standards and  
 169                   best practices.
- 170 (g) *Controls.*
- 171                   (1) An outdoor light fixture must be turned off during day light  
 172                                   hours.
- 173                   (2) The County Executive may adopt regulations based on the  
 174                                   criteria listed in subsection (i) that require an outdoor light  
 175                                   fixture outdoor lighting system to:
- 176                                   (A) automatically turn off at specified times;  
 177                                   (B) automatically lower lighting levels at specified times;  
 178                                   (C) be controlled by a motion sensor; or  
 179                                   (D) use any other control that the County Executive finds  
 180   necessary to serve the policy described in Section 29B-2.
- 181 (h) *Off-site spill.* The County Executive must adopt regulations based on  
 182                   the criteria listed in subsection (g) that set limits on off-site spill from  
 183                   an outdoor lighting system.
- 184 (i) *Regulations.* Regulations adopted under subsection (f) regarding  
 185                   lighting controls or subsection (g) regarding off-site spill must be  
 186                   based on:
- 187                   (1) the use of the building, structure, or area that is illuminated;  
 188                   (2) the level of ambient brightness in the surrounding area;



- 189           (3) IESNA recommended practices;  
 190           (4) other nationally recognized standards or best practices; and  
 191           (5) any other relevant criteria identified in regulations that would  
 192                 further the policy described in Section 29B-2.

193           (i) More stringent zoning requirements. If Chapter 59 establishes a  
 194                 lighting standard that is more stringent than a standard established  
 195                 under this Section, an outdoor lighting system must comply with the  
 196                 standard established in Chapter 59.

197 **29B-6. Site plans, special exceptions, building permits, use and occupancy**  
 198 **permits, and electrical permits; lighting plans.**

199           (a) Site plans. Except as provided in subsection (d), a person must obtain  
 200                 the Director's approval of a lighting plan before applying to the  
 201                 Planning Board for site plan approval under Division 59-D-3.

202           (b) Special exceptions. Except as provided in subsection (d), a person  
 203                 must obtain the Director's approval of a lighting plan before applying  
 204                 to the Board of Appeals for a special exception under Division 59-G-  
 205                 1.

206           (c) Permits. A person must obtain the Director's approval of a lighting  
 207                 plan before the Director issues any of the following permits:

208                 (1) a building permit for a building or structure that includes an  
 209                         outdoor lighting system;

210                 (2) a use and occupancy permit for a building or structure that  
 211                         includes an outdoor lighting system; and

212                 (3) an electrical permit for electrical equipment that includes an  
 213                         outdoor lighting system.

214           (d) Exemption. A person need not obtain the Director's approval of a  
 215                 lighting plan before applying to the Planning Board for site plan

216 approval or the Board of Appeals for a special exception if the  
217 combined total light output of the outdoor lighting system for the  
218 building, structure, or area that is the subject of the application is less  
219 than 7000 lumens.

220 (e) Contents of lighting plan.

221 (1) If the combined total light output of the outdoor lighting system  
222 for the building, structure, or area that is the subject of the  
223 application is 14,000 lumens or less, a lighting plan must  
224 include:

225 (A) the number and type of outdoor light fixtures;

226 (B) a diagram showing the location and height of each  
227 outdoor light fixture;

228 (C) the manufacturer's specifications for each outdoor light  
229 fixture; and

230 (D) any other information that that the Director finds  
231 necessary to determine whether a lighting plan complies  
232 with this Chapter.

233 (2) If the combined total light output of the outdoor lighting system  
234 for the building, structure, or area that is the subject of the  
235 application is greater than 14,000 lumens, a lighting plan must  
236 be certified by a lighting professional and include:

237 (A) the number and type of outdoor light fixtures;

238 (B) a diagram showing the location and height of each  
239 outdoor light fixture;

240 (C) the manufacturer's specifications for each outdoor light  
241 fixture

242 (D) the size of each illuminated building, structure, or area;

243                   (E) for each illuminated building, structure, or area, the  
 244                   efficacy and power density of the outdoor lighting  
 245                   system;

246                   (F) for each illuminated building, structure, or area, the level  
 247                   of illuminance and off-site spill; and

248                   (G) any other information that that the Director finds  
 249                   necessary to determine whether a lighting plan complies  
 250                   with this Chapter.

251           (f) Conditional approval of lighting plan. If the Director finds that a  
 252           lighting plan for a site plan or special exception complies with this  
 253           Chapter, the Director must:

254                   (1) approve the lighting plan subject to approval by the  
 255                   Planning Board or Board of Appeals; and

256                   (2) issue a written approval clearly indicating that approval  
 257                   of the lighting plan by the Planning Board or Board of  
 258                   Appeals is a condition of the Director's approval.

259           (g) Lighting plan amendments. If the Planning Board or Board of Appeals  
 260           requires that a lighting plan approved by the Director be changed  
 261           before approving a site plan or special exception, the applicant must  
 262           obtain the Director's approval of a lighting plan amendment that  
 263           implements the required change before the Planning Board or Board  
 264           of Appeals approves the site plan or special exception.

265           (h) Condition of permits. The Department must require compliance with  
 266           this Chapter as a condition of any building permit, use and occupancy  
 267           permit, or electrical permit.

268    **29B-7. Exemptions.**

269           The following types of lighting are exempt from the requirements of  
 270           this Chapter:

- 271           (1)   an outdoor lighting system that consists solely of low wattage  
 272                 incandescent lights or low wattage fluorescent lights if the total  
 273                 light output of the system is 7,000 lumens or less;  
 274           (2)   an emergency light used by or at the direction of police, fire  
 275                 protection, medical personnel, or correctional officers;  
 276           (3)   an outdoor lighting system used to illuminate an airport or  
 277                 correctional facility; and  
 278           (4)   any other outdoor lighting system exempted in regulations.

279    **29B-8. Modifications.**

280           (a)   Authorized. The Director may allow an applicant to modify a  
 281                 requirement of this Chapter if the applicant shows that:

- 282                 (1)   compliance would be impractical and unduly burdensome;  
 283                 (2)   the public interest would be served by the modification;  
 284                 (3)   the modification is consistent with the intent of this Chapter;  
 285                         and  
 286                 (4)   the modification would not cause excessive glare or off-site  
 287                         spill on adjacent property or the surrounding area.

288           (b)   30 days or less.

- 289                 (1)   The Director may allow an applicant to modify a requirement of  
 290                         this Chapter for up to 30 days without holding a public hearing.  
 291                 (2)   The Director must not renew a modification granted under this  
 292                         subsection.

293           (c)   More than 30 days. The Director may allow an applicant to modify a  
 294                 requirement of this Chapter for longer than 30 days only after

295 providing notice as required by subsection (d) and holding a public  
296 hearing as required by subsection (e).

297 (d) Notice.

298 (1) Within 10 days after the Director receives an application for a  
299 modification, the Director must mail written notice of the  
300 application to adjacent property owners and, in the Director's  
301 discretion, any other interested person.

302 (2) The written notice must contain:

303 (A) the name of the applicant, the case number, and the date,  
304 time, and place of the hearing;

305 (B) a description of the requested modification;

306 (C) a statement indicating that the complete application is  
307 available for inspection at the Department;

308 (D) the address, telephone number, and business hours of the  
309 Department; and

310 (E) an explanation of any requirements for written or oral  
311 testimony at the hearing.

312 (e) Hearing.

313 (1) The Director must hold a hearing on a modification application  
314 no sooner than 30 days after mailing the notice required by  
315 subsection (d).

316 (2) If the Director finds that an emergency poses an immediate  
317 threat to the public health, safety, or interest, the Director may  
318 reduce the notice period required by paragraph (1).

319 (3) The Director must issue a decision within 30 days after:

320 (A) the hearing; or

321                   (B) if the Director holds the record open after the hearing, the  
 322                   close of the record.

323           (f) Signs. At least 30 days before the hearing, and for 30 days after the  
 324           Director issues a decision on the application, the applicant must  
 325           provide notice of the hearing by posting a conspicuous sign that  
 326           conforms to design, content, size, and location requirements set by  
 327           regulation.

328           (g) Conditions. If the Director allows a modification, the Director must  
 329           require the applicant to use the best technology and strategy  
 330           reasonably available to mitigate the adverse affects of any outdoor  
 331           lighting system that does not comply with this Chapter.

332 **29B-9. Enforcement authority.**

333           (a) Generally. The Director must enforce this Chapter.

334           (b) Concurrent authority. The County Executive may delegate concurrent  
 335           authority to enforce this Chapter to the Police Department, any other  
 336           Executive department, or any applicable municipal agency in any  
 337           municipality in which this Chapter applies.

338 **29B-10. Complaints.**

339           (a) Written complaint. Any person may file a written complaint with the  
 340           Department alleging that an outdoor lighting system does not comply  
 341           with this Chapter.

342           (b) Contents. A complaint must be in writing and contain:

343           (1) the name and address of the complainant;

344           (2) the address and, if known, the name of the owner of the  
 345           building, structure, or area that allegedly does not comply with  
 346           this Chapter; and

347           (3) a description of the alleged violation.

348 (c) Inspection. Within 30 days after receiving a complaint, the  
349 Department must inspect the building, structure, or area to determine  
350 the validity of the complaint.

351 (d) Notice of violation and corrective order.

352 (1) If the Department finds that a building, structure, or area does  
353 not comply with this Chapter, the Department must issue a  
354 notice of violation and corrective order.

355 (2) The notice of violation must identify the Section of this Chapter  
356 that has been violated and the date, nature, and extent of the  
357 violation.

358 (3) The corrective order must describe the action required to  
359 correct the violation and direct the owner to correct the  
360 violation within a specified period.

361 (e) Notice to complainant. Within 14 days after inspection, the Director  
362 must mail the results of the inspection to the complainant, including a  
363 copy of any notice of violation and corrective order.

364 (f) Re-inspection. When the time to correct a violation ends, the  
365 Department must re-inspect the building, structure, or area to  
366 determine whether the violation has been corrected.

367 (g) Additional authority. The authority granted by this Section is in  
368 addition to any authority granted to the Director under Chapter 8  
369 regarding building permits and use and occupancy permits, Chapter  
370 17 regarding electrical permits, or Division 59-G-1 regarding special  
371 exceptions.

372 **29B-11. Penalties and injunctive relief.**

373 (a) Penalties. A violation of this Chapter is a Class A civil violation.  
374 Each day a violation continues is a separate offense.

375 (b) Injunctive relief. The Department may seek injunctive or other  
 376 appropriate judicial relief to stop or prevent any continuing violation  
 377 of this Chapter.

378 **29B-12. Appeals.**

379 A person aggrieved by a final decision of the Director regarding a lighting  
 380 plan under Section 29B-6 or a modification under Section 29B-8 may appeal  
 381 the decision to the Board of Appeals, under the procedures specified in  
 382 Section 2-113, within 30 days after the Director issues the decision.

383 **29B-13. Regulations**

384 The County Executive must adopt regulations under method (2) as necessary  
 385 to administer this Chapter. Those regulations must:

386 (a) set standards for shielding, aiming, efficacy, color rendition, power  
 387 density, illuminance, luminance, controls, and off-site spill that are  
 388 consistent with Section 29B-5;

389 (b) identify any outdoor lighting system that is exempt from this Chapter  
 390 under Section 29B-7, in addition to those that are listed in Section  
 391 29B-7;

392 (c) set standards for the design, content, size, and location of the sign that  
 393 must be posted by an applicant before a public hearing on a  
 394 modification under Section 29B-8;

395 (d) set fees sufficient to offset the cost of administering this Chapter; and

396 (e) identify equipment and techniques that must be used to measure  
 397 compliance.

398 **Sec. 3. Applicability; initial regulations.**

399 (a) Chapter 29B, as added by this Act, applies to any building permit, use  
 400 and occupancy permit, electrical permit, special exception, or site plan  
 401 for which an application is filed on or after January 1, 2008.



402 (b) Any outdoor light fixture or outdoor lighting system lawfully installed  
403 before and operable on January 1, 2008 that does not comply with  
404 Chapter 29B, as added by this Act, must be brought into compliance  
405 by January 1, 2013.

406 (c) By September 15, 2007, the County Executive must adopt, and submit  
407 to the Council under County Code Section 2A-15, regulations that  
408 meet the requirements of Section 29B-13, as added by this Act.

409 *Approved:*

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411

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Marilyn Praisner, President, County Council

Date

412 *Approved:*

413

414

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Isiah Leggett, County Executive

Date

415 *This is a correct copy of Council action.*

416

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Linda M. Lauer, Clerk of the Council

Date