



2025 GROUP B PROPOSED CHANGES TO THE I-CODES

April 27 – May 6, 2025
Doubletree by Hilton
Universal Orlando - Orlando, FL

First Printing

Publication Date: March 2025

Copyright © 2025

By

International Code Council, Inc.

ALL RIGHTS RESERVED. This 2024-2026 Code Development Cycle, Group B (2025 Proposed Changes to the 2024 *International Codes* is a copyrighted work owned by the International Code Council, Inc. Without advanced written permission from the copyright owner, no part of this book may be reproduced, distributed, or transmitted in any form or by any means, including, without limitations, electronic, optical or mechanical means (by way of example and not limitation, photocopying, or recording by or in an information storage retrieval system). For information on permission to copy material exceeding fair use, please contact: Publications, 4051 West Flossmoor Road, Country Club Hills, IL 60478 (Phone 1-888-422-7233).

Trademarks: "International Code Council," the "International Code Council" logo are trademarks of the International Code Council, Inc.

PRINTED IN THE U.S.A.

**2025 GROUP B – PROPOSED CHANGES TO THE
INTERNATIONAL PROPERTY MAINTENANCE / ZONING
CODE**

PROPERTY MAINTENANCE / ZONING CODE COMMITTEE

Erik Karl Fritzberg, RA, CBO, CPHC, CFM-*Chair*
Professional Architect III
J. S. Held, LLC
Pittsburgh, PA

James Allen-*Vice Chair*
Fire Marshal/Code Enforcement Officer
City of Prestonsburg
Prestonsburg, KY

Rudolph (Rudy) Beuc, RA, CBO, NCARB, AIA
Architect
R. Beuc Architects
Webster Groves, MO

Kevin Gore, CFM
Chief Building Official
City of Perry
Kathleen, GA

William Hyde, EFO, CFO
Fire Chief
Rogers Fire Department (AR)
Rogers, AR

Tina Mathew, RA, LEED AP, CFM
Code Development Architect
New York City Department of Buildings
New York, NJ

William (Glen) Merchant
Building Official
City of Mountain Brook
Mountain Brook, AL

Lucas Pump, MCP
Building Inspector
City of Cedar Rapids
Cedar Rapids, IA

Dawn Purushothaman, CFPS
Fire and Life Safety Engineer
Jacobs
Abu Dhabi United Arab Emirates

Erik S. Waddell
Rep: Code Official Association of Alabama
Chief Building Inspector
City of Athens, Alabama
Tuscumbia, AL

Staff Secretariat:
LaToya Carraway, Ph.D
Technical Staff
International Code Council
Central Region Office

TENTATIVE ORDER OF DISCUSSION 2025 PROPOSED CHANGES TO THE INTERNATIONAL ZONING CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does not necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some Z code change proposals may not be included on this list, as they are being heard by another committee.

G1-25 Part III

G17-25 Part II

Z1-25

Z2-25

Z3-25

Z1-25

IZC: SECTION 202, SECTION 202 (New), 601.1

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org); Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgac@iccsafe.org)

2024 International Zoning Code

Delete without substitution:

~~POOLS (SWIMMING), HOT TUBS AND SPAS.~~

~~**Above-ground/on-ground pool.** See “*Private swimming pool.*”~~

~~**Barrier.** A fence, a wall, a *building wall*, the wall of an above-ground swimming pool or a combination thereof, which completely surrounds the swimming pool and obstructs access to the swimming pool.~~

~~**Hot tub.** See “*Private swimming pool.*”~~

~~**In-ground pool.** See “*Private swimming pool.*”~~

~~**Power safety cover.** A pool cover that is placed over the water area, and is opened and closed with a motorized mechanism activated by a control switch.~~

~~**Private swimming pool.** Any *structure* that contains water over 24 inches (610 mm) in depth and that is used, or intended to be used, for swimming or recreational bathing in connection with an occupancy in *Use Group R-3* and that is available only to the family and guests of the householder. This includes in-ground, above-ground, and on-ground swimming pools, hot tubs and spas.~~

~~**Private swimming pool, indoor.** Any *private swimming pool* that is totally contained within a *private structure* and surrounded on all four sides by walls of said *structure*.~~

~~**Private swimming pool, outdoor.** Any *private swimming pool* that is not an indoor pool.~~

~~**Public swimming pool.** Any swimming pool other than a private swimming pool.~~

~~**Spa.** See “*Private swimming pool.*”~~

Add new definition as follows:

SWIMMING POOL. Any structure or product intended for swimming, bathing or wading; designed and manufactured to be connected to a circulation system; installed aboveground, inground, onground, or partially aboveground; and not intended to be drained and filled with each.

601.1 Commercial and commercial/residential zones. Allowable commercial (C) zone and commercial/residential (CR) zone *uses* shall be:

C Zone

Division 1. The following *uses* are permitted in a C, Division 1 zone:

Minor automotive repair, automotive motor fuel dispensing facilities, automotive self-service motor fuel dispensing facilities, business or financial services, convenience and neighborhood commercial centers (excluding wholesale sales), family and group day care facilities, libraries, mortuary and funeral homes, public and governmental services, police and fire department stations, places of religious worship, public utility stations, and restaurants.

Division 2. The following *uses* are permitted in a C, Division 2 zone:

Any *uses* permitted in C, Division 1 zones, and *light commercial* (excluding wholesale sales), *group care facilities*, physical fitness centers, *religious*, cultural and fraternal activities, *rehabilitation centers*, and schools and colleges operated for profit (including commercial, vocational and trade schools).

Division 3. The following *uses* are permitted in a C, Division 3 zone:

Any *uses* permitted in C, Division 2 zones, and *amusement centers* (including bowling alleys, golf driving ranges, miniature golf courses, ice rinks, swimming pool and billiard halls, and similar recreational uses), automotive sales, building material supply sales (wholesale and retail), cultural institutions (such as museums and art galleries), *community commercial centers* (including wholesale and retail sales), health and medical institutions (such as *hospitals*), *hotels* and *motels* (excluding other residential occupancies), commercial printing and publishing, taverns and cocktail lounges, indoor *theaters*, and *self-storage warehouses*.

Division 4. The following *uses* are permitted in a C, Division 4 zone:

Any *uses* permitted in C, Division 3 zones, and *major automotive repair*, commercial bakeries, *regional commercial centers* (including wholesale and retail sales), plastic products design, molding and assembly, small metal products design, casting, fabricating, and processing, manufacture and finishing, storage yards, and wood products manufacture and finishing.

CR Zone Permitted (commercial/residential) (CR) zone *uses* shall be:

Division 1. The following *uses* are permitted in a CR, Division 1 zone:

Any *use* permitted in a C, Division 1 zone, and residential *use* permitted, except in the *story* or *basement* abutting *street grade*.

Division 2. The following *uses* are permitted in a CR, Division 2 zone:

Any *use* permitted in a C, Division 2 zone, and residential *use* permitted, except in the *story* or *basement* abutting *street grade*.

Reason: IZC uses the term 'swimming pool' in 501.1 and 601.1. It does not use the other terms currently defined under the current definition.

The term proposed would be consistent with ISPSC.

This proposal is submitted by the ICC Building Code Action Committee (BCAC) and ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at [BCAC webpage](#).

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned

International Codes or portions thereof. In 2023 and 2-24 PMGCAC has held several virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a coordination of defined terms. There is no change to requirements.

Staff Analysis: This proposal is simply duplicating a definition from the IBC and IPC. The definition cannot be revised in this proposal as it is scoped to another committee.

Z1-25

Z2-25

IZC: 801.2, 801.2.4, 801.3, 801.3.1, 801.3.1.1 (New), 801.3.1.2 (New), 801.3.2, 801.3.2.1 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Zoning Code

801.2 Parking space requirements. *Parking spaces* shall be in accordance with Sections 801.2.1 through 801.2.4.

Revise as follows:

801.2.4 Accessible spaces. Accessible *parking spaces* and passenger loading zones shall be provided in accordance with the building code. ~~Passenger loading zones shall be designed and constructed in accordance with ICC A117.1.~~

801.3 Parking stall dimension. Parking stall dimensions shall be in accordance with Sections 801.3.1 and 801.3.2.

801.3.1 Width. A minimum width of 9 feet (2743 mm) shall be provided for each parking stall.

Exceptions:

1. Compact parking stalls shall be not less than 8 feet (2438 mm) wide.
2. Parallel parking stalls shall be not less than 8 feet (2438 mm) wide
- ~~3. The width of a parking stall shall be increased 10 inches (254 mm) for obstructions located on either side of the stall within 14 feet (4267 mm) of the access aisle.~~
- ~~4. Accessible *parking spaces* shall be designed in accordance with ICC A117.1.~~

Add new text as follows:

801.3.1.1 Adjacent obstructions. The width of a parking stall shall be increased 10 inches (254 mm) for obstructions located on either side of the stall within 14 feet (4267 mm) of the parking stall.

801.3.1.2 Accessible parking spaces. The width of accessible parking spaces and access aisles shall comply with ICC A117.1.

Revise as follows:

801.3.2 Length. A minimum length of 20 feet (6096 mm) shall be provided for each parking stall.

Exceptions:

1. Compact parking stalls shall be not less than 18 feet (5486 mm) in length.
- ~~2. Parallel parking stalls shall be not less than 22 feet (6706 mm) in length.~~

Add new text as follows:

801.3.2.1 Parallel parking. Parallel parking stalls shall be not less than 22 feet (6706 mm) in length.

Reason:

The purpose of this change is to correct technical inconsistencies.

Section 801.2.4 talks about parking and passenger loading zones, but then only sends you to ICC A117.1 for passenger loading zones. The reference is not needed because the reference the building code will get a reference to ICC A117.1 for both parking and passenger loading zones in Section 1101.2.

801.3.1 is only for the width of the parking spaces. Exceptions 3 and 4 are more restrictive requirements than the main text. An exception is a choice, so these need to be stated as requirements.

801.3.1.1 Regular parking stalls do not have access aisles, that is a term used for accessible parking spaces.

801.3.1.2 This section is for width, which for accessible parking spaces would include the access aisle.

801.3.2 is only for the length of the parking spaces. Exception 2 is more restrictive requirements than the main text. An exception is a choice, so these need to be stated as requirements.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at [BCAC webpage](#).

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is an editorial clarification of parking stall requirements.

Z2-25

Z3-25

ICC: 104.5.1.1 (New), SECTION 202 (New), SECTION 809 (New), 809.1 (New), 809.2 (New), 809.3 (New), 809.4 (New), 809.5 (New), 809.6 (New), 809.6.1 (New), 809.6.2 (New), TABLE 809.6.2 (New), 809.6.3 (New), 809.6.4 (New), 809.6.5 (New), 809.6.6 (New), 809.6.7 (New), 809.6.8 (New), 809.6.8.1 (New), TABLE 809.6.8.1 (New), 809.6.8.2 (New), 809.6.9 (New), 809.6.9.1 (New), 809.6.9.2 (New), 809.6.10 (New), ICC Chapter 14 (New), IES (New)

Proponents: Rick Utting, representing Dark Sky

2024 International Zoning Code

Add new text as follows:

104.5.1.1 Permit required. Permits are required for adding artificial light into the outdoor environment. Permit shall include outdoor lighting plans that include both of the following:

1. *Luminaire* identification (i.e., manufacturer, model number, type), luminaire quantities, installation locations, mounting heights, targeted directions, buildings, and other physical objects within the site that could affect the lighting outcome.
2. Site plan and *Illuminance* calculation plots, for non-Residential Use applications including buildings and other physical objects within the site that could affect the *illuminance* outcome, demonstrating conformance with this ordinance, including the sports lighting luminous-intensity *light trespass* limit.

Add new definition as follows:

ARTIFICIAL LIGHT AT NIGHT (ALAN). Light that is created from human technology, rather than a naturally occurring process. Also known as anthropogenic lighting.

CANDELA (CD). The unit of measure for luminous intensity.

CORRELATED COLOR TEMPERATURE (CCT). The measured color appearance of light emitted by a light source described using a nominal value stated in kelvins (K).

FULLY SHIELDED. A *Luminaire* designed or shielded in such a manner that no light is emitted, either directly or indirectly, at or above a horizontal plane running through the lowest light-emitting part of the luminaire.

ILLUMINANCE. Measured in *Lux* or footcandles, the total luminous flux incident at a point on a surface.

LIGHT LEVEL. The maintained *luminance* or *illuminance* value.

LIGHT TRESPASS. *ALAN* illuminating past property lines without permission.

LIGHTING ZONES. A system describing the luminous environment and related lighting conditions based on land uses and expected tasks. These range from natural and intrinsically dark zones to very bright zones.

LUMEN (lm). A unit of measure of the *luminous flux* of a light source.

LUMINAIRE. A complete lighting unit, including the light source, housing, optics, electronics, and other necessary components for the purpose of providing outdoor illumination.

LUMINANCE. The intensity of light emitted from a surface per unit area in a given direction.

LUX(lx). The SI metric system unit of measure for *illuminance*.

NADIR. A downward vertical vector directly beneath a *luminaire*, opposite to zenith.

NIGHTTIME HOURS. The time between 10 PM and sunrise, or 7 AM (whichever comes earlier). For businesses and events with operating hours later than 10 PM, nighttime hours will begin one hour after closing.

NON-ESSENTIAL. Lighting that is not directly associated with the physical safety of motor vehicle and pedestrian threats, including but not limited to: landscape lighting, illuminated signage or advertising after business hours, façade lighting, vacant sports fields, and seasonal lighting.

RESIDENTIAL USE. Municipal zoning districts dedicated exclusively to places of low-rise (i.e., 3 stories or less) human residence and dwelling. Examples include single family, duplex, dual family, multi-family, apartment, townhouse, and mobile home. This does not include mixed-use or commercial districts with combined dwellings.

SEASONAL LIGHTING. Outdoor or site lighting that is portable, temporary, decorative, and used in connection with holidays and traditions. This includes but is not limited to string lighting, icicle lighting, and lighted inflatables, none of which are intended for general

illumination.

SECURITY LIGHTING. Illumination used specifically to protect people, property, and infrastructure from criminal threat.

Add new text as follows:

SECTION 809 **EXTERIOR LIGHTING**

809.1 General. This section shall apply to the installation, alteration or replacement of outdoor lighting within the jurisdiction. This section applies to all sources of outdoor lighting installed, new, altered, or replaced within the *jurisdiction*.

Exceptions:

1. Lighting requirements mandated by a broader authority than the *jurisdiction*, including but not limited to:
 - 1.1. Navigational lighting systems regulated by the Federal Aviation Administration and the US Coast Guard.
 - 1.2. Conflicting illumination requirements in the *International Building Code* or *International Residential Code*, as applicable.
 - 1.3. Conflicting Department of Transportation illumination requirements
 - 1.4. Lighting for worker safety as mandated by the Occupational Safety and Health Administration.
2. Luminaires installed for the benefit of public safety, including but not limited to:
 - 2.1. Security lighting as required by the code official.
 - 2.2. Temporary lighting required by emergency responders to facilitate emergency operations.
3. Luminaires replicating historical character and lighting effect that are protected by historical registration, or as permitted by the *jurisdiction*.
4. Temporary and semi-permanent lighting approved for special events, festivals, and community benefit, provided the lighting complies with *light trespass* requirements and shall not add further disruption to ecological migration or habitat.
5. Seasonal Lighting, where approved.

809.2 Intent. This section is intended to protect the health and welfare of residents living in the *jurisdiction*, enhance its character and quality of life, prevent inappropriate and poorly installed outdoor lighting, reduce lighting conflicts between property owners, prevent the increase of potentially harmful sky glow, and preserve the naturally dark sky for the benefit of residents, visitors, wildlife, and the environment.

809.3 Existing Installations. Existing outdoor lighting lawfully installed prior to adoption of this code shall be considered legal and repairable but non-conforming. Non-conforming *luminaires* shall be replaced where one of the following occurs:

1. The code official determines that an outdoor light source constitutes a hazard to public safety or constitutes a nuisance.
2. Where a property is re-zoned for a new land use.
3. The code official determines a date whereupon all lighting shall comply with this section.

809.4 Interference with motor vehicles. ALAN must not interfere with the safe movement of motor vehicles. Any lighting that distracts or disables the vision of a motor vehicle operator or contributes to traffic control confusion shall be prohibited.

- 1.

2. Beacons and searchlights, except for emergency use by authorized first responders.

809.5 Beacons and searchlights. Beacons and searchlights shall be prohibited, except for emergency use by emergency responders.

809.6 Outdoor lighting requirements. Outdoor luminaires and luminaire installations shall comply with federal and state law; county and local codes; the *International Energy Conservation Code*, the *International Building Code* and the *International Residential Code*, as applicable.

809.6.1 Lighting zones. The jurisdiction shall assign lighting zones to all property within the jurisdiction in accordance with the lighting zones as defined in ANSI/IES RP43-25.

809.6.2 Light level. Unless otherwise specified in this section, lighting installed for an outdoor use shall not exceed 25% more than the light level in accordance with the applicable standard in Table 809.6.2.

TABLE 809.6.2 LIGHTING STANDARD SCOPE

<u>Lighting Standard</u>	<u>Scope</u>
ANSI/IES RP-2	Outdoor Retail Spaces
ANSI/IES RP-6	Outdoor Sports and Recreational Areas
ANSI/IES RP-7	Outdoor Industrial Areas
ANSI/IES RP-8	Roadway and Parking Facilities
ANSI/IES RP-40	Port Terminals
ANSI/IES RP-43	Outdoor Pedestrian Areas

809.6.3 Distribution. Luminaires emitting more than 1,000 lumens shall be fully shielded and shall emit no more than 5% of their total lumen output greater than 80 degrees from nadir.

Exceptions:

1. Festoon string lighting where individual lamps emits less than 50 lumens, and the lumen density of the string is not greater than 25 lumens per foot.
2. Directional luminaires used for façade illumination that are shielded and aimed to hit their target and such that the light is contained by architectural elements.
3. Sports lighting as approved.

809.6.4 Trespass. Light trespass limits shall be measured at any location along a property line both horizontally at the ground plane facing upward and vertically at 5 feet (1524 mm) above grade with the meter aimed toward the light source in question. Commercial properties shall comply with Section 809.6.9.2.

Light trespass complying with this section shall meet all of the following:

1. Luminaire light sources shall not be visible from federal or state designated wilderness, natural area, habitat, or reserves, and light trespass and shall measure no greater than 0.1 lux.
2. Light trespass onto Waters of the United States shall measure no greater than 1 lux.
3. Light trespass onto residential use property shall measure no greater than 1 Lux.

809.6.5 Curfew. Non-essential outdoor lighting, including but not limited to landscape and decorative lighting elements, shall be

extinguished during *nighttime hours*. Where applicable, outdoor lighting shall dim or be extinguished during *nighttime hours* as required by the *International Energy Conservation Code*.

809.6.6 Controls. *Luminaires* activated by motion detection shall automatically turn off or return to their dimmed state not greater than 5 minutes after activity is no longer detected.

809.6.7 Spectrum. The maximum allowable correlated color temperature (*CCT*) for outdoor *luminaires* is 3000 K.

Exceptions:

1. Where required for public safety the maximum outdoor CCT is not required .
2. Sports lighting shall comply with Section 809.6.10.1.

809.6.8 Residential Use. *Residential uses* shall also comply with Sections 809.6.8.1 and 809.6.8.2.

809.6.8.1 Lighting for residential use. Lighting for *residential use*, excluding roadway, parking, and public right-of-way, shall be exempt from the requirement in Section 809.6.2 provided no single *luminaire* exceeds 1,000 *lumens* and the total installed *lumens* per dwelling, prorated for multifamily, does not exceed light limitation in Table 809.6.8.1.

TABLE 809.6.8.1 RESIDENTIAL LUMEN ALLOWANCE PER DWELLING

Property Size (acre)	Property Size (sf)	Lz0	Lz1	Lz2
1.33	58,000+ sf	5,200	13,000	22800
1.00	43,000 sf	4,600	11,500	20200
0.75	32,000 sf	4,100	10,200	17900
0.50	21,000 sf	3,500	8,700	15300
0.33	14,000 sf	2,800	7,000	12300
0.25	10,800 sf	2,400	5,900	10400
0.20	8,700 sf	2,000	5,000	8800
0.13	5400 sf	1,500	3,600	6300
0.05	2,100 sf	850	1,700	3000
0.03	< 2,100 sfr	850	850	1500

809.6.8.2 Maximum light trespass. *Light trespass* leaving *residential use* property shall be no greater than 1 *lux*.

809.6.9 Commercial uses and retail uses. Commercial uses shall also comply with Sections 809.6.9.1 and 809.6.9.2.

809.6.9.1 Lighting for commercial and retail uses. Lighting for commercial and retail uses shall be exempt from the requirement in 809.6.2, provided there is no *luminaire* installed on the property capable of exceeding a total output greater than 3,000 *lumens*.

809.6.9.2 Commercial and retail light trespass. *Light trespass* from commercial and retail uses onto adjacent public right-of-way shall be no greater than 3 *lux* where measured 20 feet (6 meters) past the property line.

809.6.10 Sports and recreation areas. Lighting for sports and recreation areas shall comply with 809.6. through 809.6.7 and all of the following:

1. Eighty-five percent (85%) of the *lumens* generated by sports lighting *luminaires* shall be confined to within 10 meters (33 feet) or a distance of one pole height, whichever is greater, of the playing field or the spectator track or bleacher area, whichever is greater.
2. Lighting installations for aerial sports shall have a maximum of 8% of the total *lumen* output to be emitted above 80 degrees from *nadir*

3. The maximum CCT for outdoor sports lighting shall be the lowest possible for the sport, class of play, and viewing audience as required by ANSI/IES RP-6, or approved alternate, but shall not exceed 5700 K.

Add new standard(s) as follows:

ICC

International Code Council, Inc.
200 Massachusetts Avenue, NW, Suite 250
Washington, DC 20001

IECC - 24

International Energy Conservation Code

IRC - 24

International Residential Code

IES

Illuminating Engineering Society
120 Wall Street, Floor 17
New York, NY 10005-4001
United States

ANSI/IES RP-2-20

Lighting Retail Spaces

ANSI/IES RP-6-22

Lighting Sports and Recreational Area

ANSI/IES RP-7-21

Lighting Industrial Facilities

ANSI/IES RP-8-22

Lighting Roadway and Parking Facilities

ANSI/IES RP-40-19

Lighting Port Terminals

ANSI/IES RP-43-25

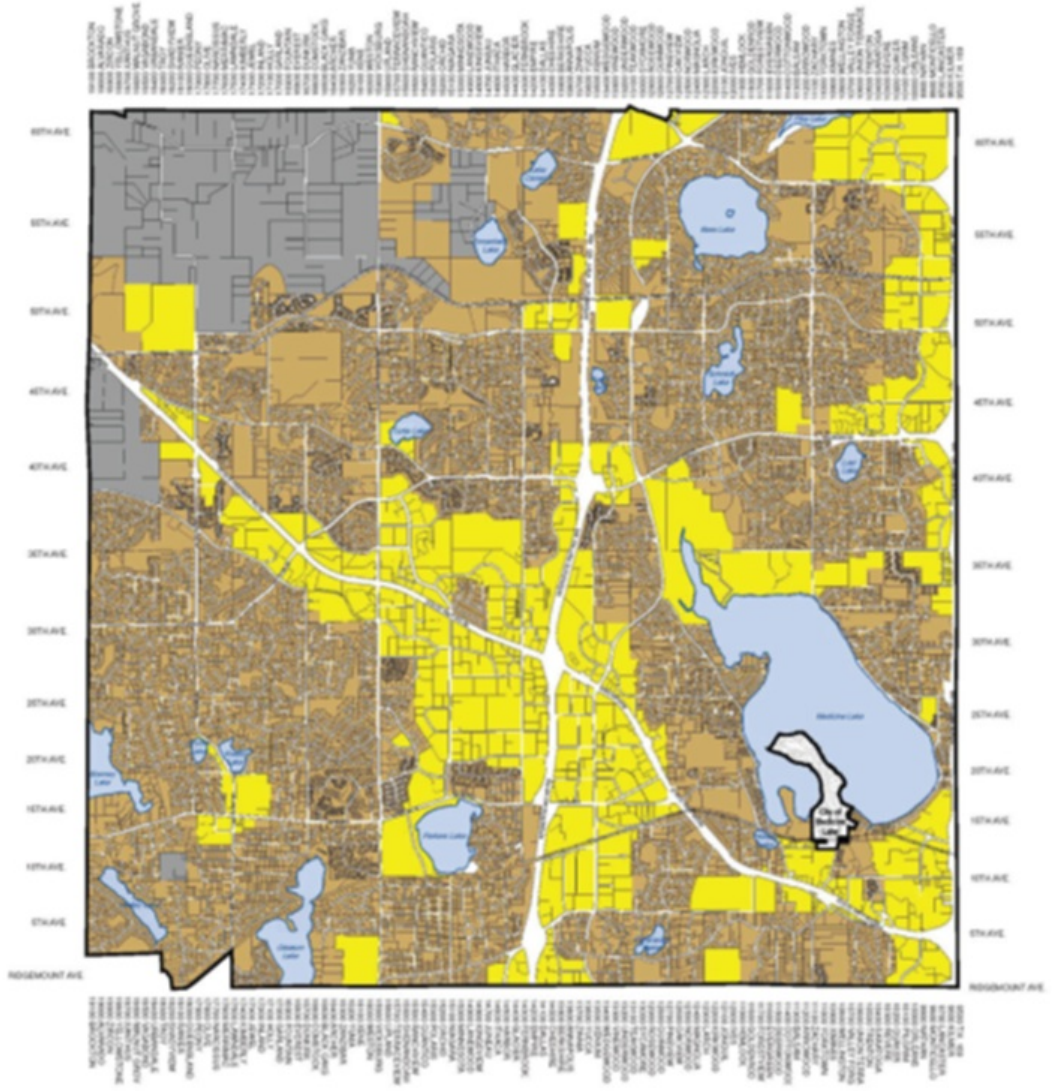
Lighting Design for Outdoor Pedestrian Applications

Reason: Light pollution is caused by poorly executed lighting designs that emit unnecessary light into the sky, beyond property boundaries, and cause unsafe glare conditions in outdoor nighttime environments. Nighttime light pollution is expanding at a rate which doubles every eight years, causing concern for astronomical observations and wildlife, pollinator, and human well-being. Simple steps can be taken to improve the visual quality of the outdoor nighttime environment, reduce energy consumption, and mitigate light pollution. Having these steps documented in the international zoning code would provide municipalities much needed guidance and offer a substantial improvement to current conditions.

The increasing awareness sky glow and light pollution has resulted in many countries, states, and municipalities trying to address the problem, with mixed success. In the United States, twenty-two states have now enacted some level of outdoor lighting legislation citing energy conservation, dark sky protection, visual safety, astronomical research, or environmental health. At a more local level, outdoor lighting requirements are becoming more popular as standard language within municipal code as community residents and advocates highlight the degradation of their nighttime environment; the safety, ecological, and biological risks of light at night; and the wasted energy of light that has no useful purpose. Over the last decade, several concerns have emerged with these enacted requirements; these include the incorrect vocabulary and metrics being used, the lack of requirements with proven effectiveness, and the inconsistency from city to city.

DarkSky International (DarkSky), a nonprofit organization, appraises the latest scientific research to provide outdoor lighting leadership. Along with the Illuminating Engineering Society (IES), DarkSky authored the Five Principles for Responsible Outdoor Lighting. Based upon these, DarkSky has prepared a template for municipal code language that promotes improved human vision at night and reduces light waste and light pollution, resulting in safer working environments, improved aesthetics, and better nighttime environments for human and ecological conditions. The template includes technically correct definitions and includes easily implementable requirements that meet lighting standards while avoiding excessive light levels, light trespass, and light unnecessarily entering the sky.

Sample light zone map.



Light Zone Map

Adopted November 23, 2004
As Amended through November 15, 2007

Legend

Light Zone

- LZ-1: Dark Ambient Illumination
- LZ-2: Low Ambient Illumination
- LZ-3: Medium Ambient Illumination
- City Limits
- Lake

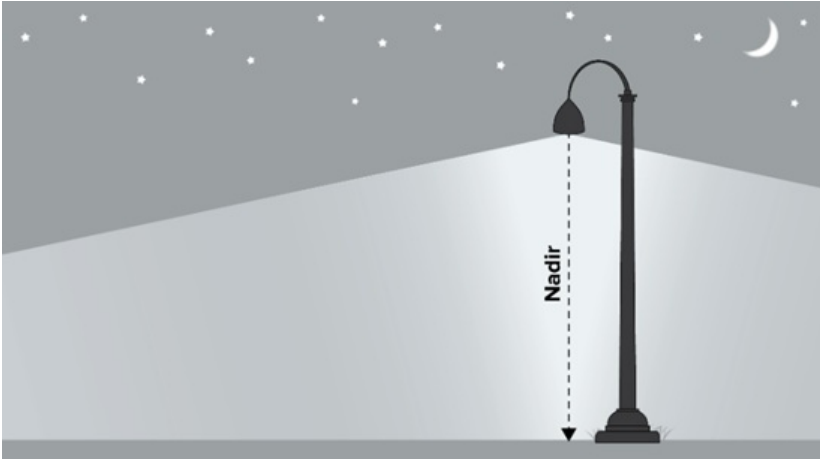


City of
Plymouth, Minnesota



This represents a compilation of information and data from city, county, state and federal agencies that are not being fully revised. Information should be fully verified and confirmed with original source documents.

The defined term Nadir shown in a figure



Cost Impact: Decrease

Estimated Immediate Cost Impact:

\$0.00. This will reduce the cost of lighting. For new construction, there are no known negative cost impacts.

Estimated Immediate Cost Impact Justification (methodology and variables):

Proper outdoor lighting installations could reduce global end-user energy costs by approximately \$15-30 Billion per year.

