

TOWNSHIP OF MILLBURN

ORDINANCE 2716-25

ORDINANCE AMENDING AND SUPPLEMENTING THE TOWNSHIP OF MILLBURN

DEVELOPMENT REGULATIONS AND ZONING ORDINANCE

WHEREAS, the Master Plan Reexamination and Update, adopted December 19, 2018, includes Objective 1.01 to “Protect the character of established residential neighborhoods and encourage land use and development at an appropriate scale and density;” and

WHEREAS, the Master Plan Reexamination and Update includes Objective 6.01 to “Require private development to incorporate sustainable design practices that control run-off, improve streetscapes, increase energy efficiency, and preserve open space and greenways;” and

WHEREAS, the Master Plan Reexamination and Update includes Objective 6.01 to “Adopt green building standards;” and

WHEREAS, the Master Plan Reexamination and Update recommends the Township “promote clear, user friendly, and transparent application, review and public hearing processes for development proposals and applications;” and

WHEREAS, the Township regulates lighting standards under Article 5, Design and Performance Standards, § DRZ 512, Lighting, § DRZ 516.8, Landscaping and § DRZ 521, Shade Trees; and

WHEREAS, the Township seeks to replace existing standards for the Township’s site plan standards for development with a more robust and modern set of regulations.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWNSHIP COMMITTEE OF THE TOWNSHIP OF MILLBURN, IN THE COUNTY OF ESSEX AND STATE OF NEW JERSEY, AS FOLLOWS:

Section 1. Article 5, Design and Performance Standards, § DRZ 512, Lighting, is hereby repealed in its entirety and replaced by § DRZ 512, Lighting, as enumerated below:

§ DRZ 512, Lighting

a. Purpose.

1. The purpose of this section is to ensure that exterior lighting associated with development protects public safety, enhances visibility for pedestrians and vehicles, and preserves the character of surrounding neighborhoods. These regulations are intended to minimize light pollution, glare, and light trespass onto adjacent residential properties; to conserve energy; and to promote a dark sky environment consistent with ecological and community goals. All lighting shall be designed to complement the established visual and architectural character of the surrounding area, including adjacent residential neighborhoods, civic spaces, and traditional streetscapes, while providing adequate illumination for safety and functionality.

b. Lighting plan.

1. A lighting plan prepared by a professional holding the Lighting Certified (LC) credential issued by the National Council on Qualifications for the Lighting Professions (NCQLP) shall be provided with all major subdivision applications

and all site plan applications. A minor site plan may submit a lighting plan prepared by a Lighting Certified Professional or other qualified professional.

2. The lighting plan must include a scalable drawing of the site with all existing and proposed outdoor light fixtures clearly depicted and accurately located.
3. All outdoor lighting, such as building and sidewalk illumination, driveways with no adjacent parking, the lighting of signs and ornamental lighting, shall be shown on the lighting plan, in sufficient detail to allow a determination of effects upon adjacent properties, traffic safety and overhead sky glow.
4. The plan shall include manufacturer specification sheets (also known as “cut sheets”) for all proposed lighting fixtures, showing fixture design, shielding, total light output in lumens, correlated color temperature (CCT), color rendering index (CRI), and any relevant lighting certifications. As-built verification of installed fixture types, shielding orientation, and mounting heights may be required prior to the issuance of a final certificate of occupancy.
5. Mounting pole shape, material, color, and foundation details.
6. Mounting heights, details, shielding, tilt angles, and orientations.
7. A photometric plan, including all existing and proposed fixtures, providing illumination levels in 0.5 footcandle increments, upon the points of a 10 foot by 10 foot calculation grid, superimposed upon pavement areas and pedestrian walkways, as well as site boundaries. Photometric plans shall use 0.5 footcandle increment contouring across the site generally but shall include point-by-point calculations with a resolution of 0.01 footcandles along all shared property lines with residential zones or uses. Photometric calculations shall be conducted using IES-approved or equivalent photometric software calibrated and verified for accuracy. All readings shall be taken at a height of 30 inches above grade (consistent with industry standard pedestrian-level assessment) unless otherwise noted. The point-by-point analysis at residential property lines shall include a grid no larger than 1-foot spacing to ensure accuracy of 0.01 fc resolution.
8. Tabulations that demonstrate compliance with required uniformity ratios. Site plans with physically disjointed areas shall require separate tabulations for each area. Uniformity Ratio is defined as the ratio of the average illuminance to the minimum illuminance in a given area (Avg:Min), calculated for lit areas only, excluding dark zones and areas not intended to be illuminated.
9. The lighting plan shall include details of automatic dimming or shutdown systems to ensure compliance with security lighting requirements during non-operating hours.
10. The approving authority shall make exception, where required, to permit increased average light intensity at ATM locations, as per N.J.S.A. 17:16K-10.

c. Street lighting.

1. Street lighting of a type supplied by or approved by the utility and of a type and number approved by the Board shall be provided for all street

intersections and along all arterial, collector and local streets as deemed necessary for safety reasons.

2. Wherever electric utility installations are required to be underground, the applicant shall provide for underground service for street lighting.

d. Parking areas.

1. All parking areas and walkways thereto and appurtenant passageways, building entrances, loading areas and driveways required for nonresidential or multifamily uses shall be adequately illuminated during the hours of operation which occur after sunset.
2. For sites adjoining a residential zone or use, all parking area lighting shall be shielded from the glare of illumination from site lighting and automobile headlights.
3. Freestanding lights within parking lots shall be protected to avoid being damaged by vehicles. Freestanding lights at the perimeter of parking lots shall be aligned with the parking stall striping and located a minimum of 2 1/2 feet to the edge of curb. The exposed concrete light foundation shall not exceed two inches above grade or six inches above grade if located within a lawn area.

e. Security lighting.

1. With the exception of light sources for twenty-four-hour businesses, all site lighting for non-residential uses shall be reduced in intensity to the minimum necessary for security purposes when a facility is not in operation. This shall also apply to any lighting associated with signage.
2. Multifamily and mixed residential/non-residential sites shall maintain minimum safety lighting levels for the safety of residents after sunset.
3. When lighting is reduced for security purposes during non-operating hours, illumination shall be limited to the minimum levels necessary for safety and site surveillance. The average horizontal illuminance shall not exceed 0.2 footcandles, with a minimum of 0.05 footcandles and a maximum uniformity ratio of lit areas (excluding dark zones) of 10:1, except where otherwise limited in §512.f.7 for residential adjacency. Security lighting shall be designed and located to comply with all applicable maximum illuminance levels, including the 0.01 footcandle maximum at shared residential property lines (§512.f.5, §512.f.7.c). Where overlapping requirements exist, the most restrictive shall apply.
4. Lighting used for security purposes shall be fully shielded and positioned to avoid light spillover beyond the property line. Where a site abuts a residential zone or use, all non-essential lighting shall be automatically shut off or dimmed in compliance with §512.f.7.b. Security lighting that remains in operation shall comply with the light trespass limits and uniformity standards in this section.

f. Lighting color and intensity.

1. All proposed fixtures shall have a correlated color temperature of between 2700K and 3000K.
2. All light sources shall have a Color Rendering Index (CRI) of at least 70 to ensure adequate visibility and safety in general outdoor areas such as parking lots, driveways, and site lighting. A minimum CRI of 80 shall be required for building entrances, pedestrian walkways, plazas, or other areas requiring high visual acuity or color differentiation.
3. All lights shall be full cutoff fixtures as defined by the Illuminating Engineering Society (IES), providing concealed source, nonglare lighting directed downward. Full cutoff fixtures shall be fully shielded to prevent upward or horizontal light distribution and shall emit no light above 90 degrees from nadir, as defined by the IES. The direct light source shall not be visible from adjacent streets or properties.
4. The lens of the light shall be flush with the fixture housing and shall be parallel to the ground. Movable fixture housing is prohibited.
5. Required Illuminance Levels (footcandle)

Use Area or Location	Minimum	Average	Maximum
Parking Lots and Driveways	0.25	1.0	5.0
Pedestrian Walkways and Sidewalks	0.5	1.0	3.0
Building Entrances	1.0	2.0	10.0
At shared property line with mixed- or non-residential use, or public street	--	--	0.5
At shared property line of residential zone or use*	--	--	0.01

*Verification of 0.01 fc maximum must be confirmed through point-by-point photometric analysis using a resolution of at least 0.01 footcandles

NOTE: Where pedestrian safety concerns warrant - such as mid-block crossings or public transit stops - higher minimum illuminance may be required subject to review by the Board, provided light trespass standards are still met. Higher minimum illuminance levels for pedestrian safety features shall be justified by documented need (e.g., crime statistics, accident history, or transit stop design standards) and shall continue to comply with maximum light trespass limits set forth herein

6. The maximum to minimum uniformity ratio of lit areas (excluding dark zones) shall be as follows:
 - a. 4:1 for parking lots

- b. 3:1 for pedestrian walkways and sidewalks
 - c. 2:1 for building entrances and areas requiring higher security
- 7. Where a non-residential or multifamily development abuts a residential zone or use:
 - a. The average horizontal illuminance at ground level within 30 feet of the shared lot line shall not exceed 0.5 footcandles. The maximum single point value shall not exceed 1.0 footcandle, and the uniformity ratio shall not exceed 4:1.
 - b. The maximum illuminance level for light trespass on to residential properties shall be no more than 0.01 footcandles at or beyond the property line. Light trespass measurements shall be taken at a height of 5 feet above grade (to simulate average eye level for residential light trespass assessment) at the property line during nighttime operating hours.
 - c. NOTE: The above standards apply in addition to §512.e, which governs security lighting. In all cases, the most restrictive standard shall apply.
- g. Height of fixture.
 - 1. For parking areas and driveways, lighting shall be provided by fixtures with a mounting height not more than 15 feet, measured from the finished grade ground level to the centerline of the light source.
 - 2. For pedestrian walkways, sidewalks and building entrances, lighting shall be provided by fixtures with a mounting height not more than 12 feet, measured from the finished grade ground level to the centerline of the light source.
 - 3. Where a non-residential or multifamily development abuts a residential zone or use, lighting for parking areas and driveways shall be provided by fixtures with a mounting height not more than 12 feet, measured from the finished grade ground level to the centerline of the light source.
 - 4. Where a non-residential or multifamily development abuts a residential zone or use, lighting for pedestrian walkways, sidewalks and building entrances shall be provided by fixtures with a mounting height not more than 10 feet, measured from the finished grade ground level to the centerline of the light source.
 - 5. Fixture size and pole diameter shall be proportionate to mounting height and consistent with the scale of adjacent buildings and streetscape, to minimize visual bulk and glare. Maximum pole diameter shall not exceed 8 inches. The fixture dimensions shall be proportional to the pole height.
- h. Style.
 - 1. The style of any light fixture or light standard shall be consistent with the architectural style, materials, and historic context of the principal building. Additionally, where applicable, lighting design shall respect and reinforce the established architectural and streetscape patterns of adjacent properties and the broader neighborhood, including scale, color, and detailing.

2. In non-historic areas, lighting style shall be compatible with the prevailing architectural vocabulary, materials, and scale within the immediate vicinity as determined by the approving authority.
- i. Other requirements
 1. All site lighting shall be maintained and periodically tested to ensure continued compliance with all requirements. Maintenance inspections and photometric testing shall be conducted following IES standards or equivalent, and documented results shall be submitted to the Planning or Zoning Board annually or upon request.
 2. Freestanding lights or light fixtures attached to utility poles are prohibited within the road right-of-way with the exception of streetlights.
 3. To achieve the above requirements, the intensity of light sources, light shielding, and similar characteristics shall be subject to site plan approval.
 4. Shade trees shall be planted a minimum of 10 feet from any freestanding lighting fixture, provided this distance may be increased as necessary to accommodate root growth or full canopy spread at maturity.

Section 2. Article 5, Design and Performance Standards, § DRZ 516.8, Landscaping and § DRZ 521, Shade Trees, are hereby repealed in their entirety and replaced by DRZ 513, Landscaping and Shade Trees, as enumerated below:

§ DRZ 513, Landscaping and Shade Trees

- a. Purpose.
 1. The purpose of this section is to ensure that site development enhances the visual character of the Township, provides screening and buffering of incompatible uses, reduces heat islands, preserves the natural environment, and supports ecological health through the use of native plantings.
- b. General Requirements
 1. Landscaping Plan.
 - a) All major site plans and major subdivisions shall submit a landscape plan prepared by a licensed landscape architect. A minor site plan may submit a landscape plan prepared by a licensed landscape architect or other qualified design professional.
 - b) Existing Conditions Inventory: All landscape plans shall include a complete inventory of existing landscape features, including all trees, shrubs, and groundcovers. At a minimum, the plan shall include:
 1. Vegetation Types
 - i. Identification of all existing trees, shrubs, groundcovers, and other significant vegetation on the site.
 2. Species Identification
 - i. Common and botanical names of all inventoried vegetation.

3. Size and Measurement
 - i. For trees, diameter at breast height (DBH) in inches;
 - ii. For shrubs and other woody vegetation, height and spread at the time of inventory.
 4. Condition Assessment
 - i. A rating of each tree or major vegetation feature as excellent, good, fair, or poor, with explanatory notes for each rating;
 - ii. Any observed structural damage, disease, pest infestation, or other health concerns.
 5. Disposition
 - i. Clear indication whether each inventoried feature is to be preserved, relocated, or removed.
 6. Tree Preservation Requirements
 - i. All trees subject to Chapter 11 – Tree Preservation must be individually labeled on the plan with all required data.
 - ii. A tree removal permit shall be required for all trees 10 inches in diameter, as defined in Chapter 11 – Tree Preservation
- c) Proposed Landscaping Plan: All landscape plans shall clearly depict and label all proposed plantings. At a minimum, the plan shall include:
1. Plant Schedule
 - i. A tabular schedule listing each proposed species (botanical and common name), size at planting (caliper or container size/height), spacing, and quantity.
 2. Symbols and Legends
 - i. A graphic symbol for each species, keyed to the plant schedule. Symbols shall be drawn to scale, representing expected canopy spread or mature size as appropriate.
 - ii. A legend shall be provided explaining all symbols used.
 3. Location and Spacing
 - i. Accurate placement of proposed plantings at their intended locations, drawn to scale, including required spacing between plantings, setbacks from buildings, utilities, and paved surfaces.
 4. Layering and Grouping
 - i. Plans shall indicate areas of clustered planting, foundation planting, buffers, screening areas, and street

tree alignments. Distinctions between canopy trees, understory trees, shrubs, and groundcover must be clear.

5. Supplemental Details

- i. Installation details for tree pits, planting beds, or other special conditions (such as tree grates in paved areas or raised planters).
- ii. Proposed soil volume and depth for tree planting areas where applicable.

6. Consistency with Other Plans

- i. Proposed plantings must be consistent with required canopy coverage plans, buffer requirements, and parking lot landscaping requirements.

d) Canopy Coverage Plan for Paved Areas and Parking Areas: All landscape plans shall include a canopy coverage plan depicting anticipated shade tree canopy coverage 20 years following initial planting. The canopy coverage plan shall:

1. Projection Method – Be based on the projected mature canopy spread of each tree species as published by the U.S. Department of Agriculture (USDA) Plants Database, New Jersey Department of Environmental Protection (NJDEP), or other authoritative horticultural sources.
2. Calculation Basis – Depict the projected canopy area of each tree as a circle (or species-specific canopy shape) drawn to scale on the plan, centered on the tree's planting location.
3. Overlap Treatment – Where projected canopies overlap, the overlapping area shall be counted only once toward total site canopy coverage.
4. Measurement Area – Canopy coverage shall be expressed as a percentage of the total paved area of the site (including parking lots, drive aisles, and paved yards) and shall also include canopy extending over sidewalks and pedestrian circulation areas. Canopy extending beyond the property line shall not be counted toward coverage.
5. Time Horizon – Coverage calculations shall assume a 20-year growth period from the date of planting, unless existing mature trees are being preserved, in which case current canopy spread may be credited immediately.
6. Tabulation – A table shall be provided on the plan showing, for each species:
 - i. Botanical and common name
 - ii. Number of trees planted

- iii. Projected mature canopy spread (diameter in feet)
- iv. Individual and cumulative canopy area (square feet)
- v. Percent contribution toward total required canopy coverage.

2. Native Plants

- a) At least 70% of all new proposed trees, shrubs, and groundcovers shall be native. The use of deer-resistant native species is preferred. The use of invasive species, including those listed on the New Jersey Invasive Species Strike Team Do Not Plant List, is prohibited. Native plants or trees shall be consistent with the definition provided in Millburn Code § 18-3.1.
- b) The Township Environmental Commission shall be responsible for maintaining a current reference list of recommended native species and native substitutes for commonly planted invasive species. This list may be compiled from sources such as the USDA Plants Database, the New Jersey Invasive Species Strike Team Do Not Plant List, the Native Plant Society of New Jersey, or other reputable sources as determined appropriate. This list shall be made publicly available through the Township website or other Township-recognized platforms.

3. All Seasons Coverage

- a) Landscape plans shall include a combination of deciduous and evergreen plantings to ensure seasonal interest and year-round screening.

4. Minimum Plant Sizes, at planting:

- a) Shade trees: 2.5"–3" caliper
- b) Ornamental trees: 2.5" caliper
- c) Evergreen trees: 6–8 feet in height
- d) Shrubs: 18–24 inches in height at planting

c. Street Tree Requirements

1. Location and Spacing:

- a) Large canopy street trees shall be planted at 30 to 40 foot intervals, adjusted at the Township Forester's discretion based on species and site conditions.
- b) Where curb strips are less than four (4) feet wide, or where overhead utility wires are present, only small-stature native trees or columnar native cultivars shall be used. Species selection must account for mature height and branching structure to avoid conflict with infrastructure.
- c) Shade trees should be located, where feasible, to the south and west of buildings to maximize summer shading and reduce cooling loads.

2. Setbacks:

- a) Trees shall be planted a minimum of 10 feet from underground utilities, driveways, fire hydrants, and light poles.
 - b) Where overhead utility lines are present, tree selection and placement must ensure clearance at maturity. Final approval shall be subject to utility company and Township Forester, Board or Municipal Engineer, Superintendent of Public Works, or other designated official, review.
- d. Buffers and Screening
- 1. Buffers shall be provided in conformance with § DRZ 609.3 – Buffers.
 - 2. For sites adjoining a residential zone or use, all parking area lighting shall be shielded from the glare of illumination from site lighting and automobile headlights by buffers and screening.
- e. Paved Area and Parking Area Landscaping
- 1. Interior Planting Ratio:
 - a) A minimum of one (1) shade tree per five (5) parking spaces shall be provided.
 - b) No more than eight (8) contiguous parking spaces shall be permitted without a landscaped island.
 - 2. Islands:
 - a) Landscaped islands shall be a minimum of 8 feet in width and 18 feet in length (or the full length of an adjacent parking stall).
 - b) Each island intended for tree planting shall provide at least 150 square feet of uncompacted soil surface area per tree.
 - c) Each parking row must terminate in a landscaped island (end island) containing at least one tree.
 - d) Landscape islands shall have a minimum soil depth of 36 inches.
 - e) Landscape islands shall be designed to incorporate stormwater BMPs consistent with NJDEP guidelines unless physical site constraints are demonstrated in writing to preclude such design.
 - 3. Perimeter Screening:
 - a) Parking areas adjacent to public streets or residential zones or uses must be screened by a minimum 3-foot-high planting of shrubs, ornamental grasses, or low berms of the same height.
 - 4. Canopy Coverage:
 - a) All paved areas (including parking lots, drive aisles, and paved yards) shall achieve a minimum of 30% shade coverage by tree canopy at maturity, as demonstrated in the canopy coverage plan required under § DRZ 513.b.1.d.
 - b) For educational and religious uses located within residential zoning districts, the minimum coverage shall be 40%.

c) Outdoor play areas and assembly spaces shall include additional tree plantings sufficient to maximize shade and reduce heat exposure.

f. Maintenance and Replacement

1. All landscaping shall be maintained in a healthy, orderly, and attractive condition. Dead or dying plant materials must be replaced within the next growing season, between mid-April and the end of October.
2. All landscape installations shall be guaranteed for a minimum of two (2) years from the date of the issuance of a certificate of occupancy.
3. Landscape beds and tree pits shall be mulched with organic mulch to a depth of no more than 2 inches. Where necessary, irrigation or slow-release watering systems (e.g., drip irrigation systems or watering bags) may be required to ensure establishment.
4. A post-installation inspection by the Township Forester, Board or Municipal Engineer, Superintendent of Public Works or other designated official, shall be required prior to the issuance of a certificate of occupancy.
5. All newly installed deciduous trees shall have deer protection installed with adequate clearance to allow for growth and constructed to remain in place around the trunk for a minimum of two years.

Repealer. All ordinances or parts of ordinances contrary to or inconsistent with the provisions of this Ordinance are hereby repealed to the extent of such conflict or inconsistency.

Section 3. Severability. Each section, subsection, paragraph, sentence, clause and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause and phrase. If any portion of this Ordinance, or its application to any person or circumstances, shall be adjudged or otherwise determined to be invalid, unconstitutional, preempted, void, or ineffective for any clause or reason, such determination shall not affect the remaining provisions of this Ordinance, and the application of such remaining provisions shall not be affected thereby and shall remain in full force and effect, and to this end, the provisions of this Ordinance are severable.

Section 4. Effective Date. This Ordinance shall take effect immediately upon final passage and publication according to law.

Section 5. Prior actions. All actions of the Township of Millburn taken prior to the date of adoption hereof contemplated by this Ordinance are hereby ratified and approved.

Section 6. Codification. This Ordinance may be renumbered for codification purposes.

Section 7. The Township Clerk is hereby authorized and directed to forward this ordinance to the Planning Board for its review and comment as authorized by the Law.

Section 8. The Township Clerk is hereby authorized and directed to provide such notice and publication of this matter so as to permit the conduct of all public hearings as are required by the Law.

Section 9. The Township Clerk is hereby authorized and directed to forward this ordinance to the Essex County Planning Board after final adoption, as provided by the Law.

Ordinance 2716-25

ATTEST:

MILLBURN TOWNSHIP

Christine A. Gatti, RMC
Township Clerk

By: _____
Annette Romano, Mayor

1st Reading and Introduction: 9/2/2025
1st Publication: 9/11/2025
Referral to Planning Board: 9/3/2025
Notice to County Planning Board Prior to Adoption:
Notice to Clerks of Adjoining Municipalities:
Notice to Affected Property Owners: N/A
2nd Reading: 10/7/2025
Adoption: 10/7/2025
2nd Publication: 10/16/2025
Filing with County Planning Board: 10/8/2025

CERTIFICATION

I, Christine A. Gatti, Clerk of the Township of Millburn, in the County of Essex, State of New Jersey, do hereby certify that the foregoing is a true and correct copy of an Ordinance duly adopted by the Township Committee at a regular meeting held on the 7th day of October, 2025.

Christine A. Gatti, RMC
Township Clerk