
CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

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PLANNING COMMISSION

To: City Council

From: Daniel Hubbell, Planning Commission Chair

Date: January 26, 2022

RE: ZTR21-005 Noise and Lighting Code Amendment

ATTACHMENTS: A. Planning Commission Recommended Amendments to 19.02.020 Development standards.

On behalf of the Planning Commission, I am pleased to present our recommendation on ZTR21-005, the noise and lighting code amendment.

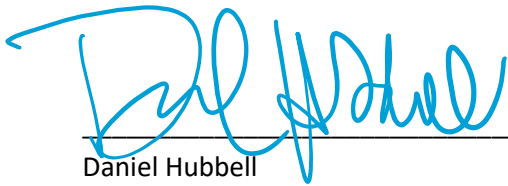
This code amendment was proposed during the 2020 annual docket submittal process in the fall of 2020, and the City Council later added it to the final docket by Resolution 1594. The Planning Commission worked on this amendment beginning in November 2021. The Planning Commission recommended code amendment would add a new subsection Mercer Island City Code (MICC) 19.02.020 Development standards to regulate external lighting in residential zones (Attachment A).

This matter first came before the City of Mercer Island Planning Commission on November 17, 2021. The Planning Commission held an open record public hearing on January 26, 2022. No public comment was received related to this amendment. The Planning Commission considered the staff reports dated November 10, 2021, and January 18, 2022, as well as the decision criteria for code amendments found in MICC 19.15.250(D) in making its recommendation.

After deliberation and thoughtful revisions, the Commission recommends the draft code amendment shown in Attachment A. The Planning Commission recommended code amendment would regulate external lighting fixtures in residential zones to reduce light spillover beyond property lines while allowing property owners to continue lighting their property for safety, security, and decoration.

The original docket request added to the Planning Commission work program by Resolution 1594 also included considering possible changes to MICC 8.24.020 Types of nuisances to address noise from commercial landscaping equipment. The Planning Commission considered possible amendments during the public hearing on January 26, but ultimately recommend no further action to regulate the noise from landscaping equipment.

Additionally, the Commission wanted to bring another issue to the City Council's attention for further consideration. While the Planning Commission ultimately did not recommend amendments to MICC 8.24.020, the Commission would like the City Council to consider a ban gas-powered landscaping tools such as mowers, leaf blowers, and weed trimmers. A ban could address the significant air pollution, adverse health impacts from air pollution, greenhouse gas emissions, and noise generated by the use of gas-powered landscaping tools. The Planning Commission recognizes that a gas-powered landscaping tool ban is beyond the scope of the docketed development code amendment and outside the Commission's purview of the development regulations in MICC Title 19. That said, while the Commission cannot make a specific recommendation on a code amendment, we do recommend that the City Council consider adopting a ban on gas-powered landscaping tools.



Daniel Hubbell
Planning Commission Chair
City of Mercer Island



Date

1 **MICC 19.02.020 Development standards.**

2
3 *A. Minimum net lot area.*

- 4
- R-8.4: The net lot area shall be at least 8,400 square feet. Lot width shall be at least 60 feet and lot depth shall be at least 80 feet.
- R-9.6: The net lot area shall be at least 9,600 square feet. Lot width shall be at least 75 feet and lot depth shall be at least 80 feet.
- R-12: The net lot area shall be at least 12,000 square feet. Lot width shall be at least 75 feet and lot depth shall be at least 80 feet.
- R-15: The net lot area shall be at least 15,000 square feet. Lot width shall be at least 90 feet and lot depth shall be at least 80 feet.

5
6 1. Minimum net lot area requirements do not apply to any lot that came into existence before
7 September 28, 1960. In order to be used as a building site, lots that do not meet minimum net
8 lot area requirements shall comply with MICC 19.01.050 (G)(3).

9
10 2. In determining whether a lot complies with the minimum net lot area requirements, the
11 following shall be excluded: the area between lateral lines of any such lot and any part of such
12 lot which is part of a street.

13
14 *B. Street frontage.* No building will be permitted on a lot that does not front onto a street acceptable to
15 the city as substantially complying with the standards established for streets.

16
17 *C. Yard requirements.*

18
19 1. *Minimum.* Except as otherwise provided in this section, each lot shall have front, rear, and
20 side yards not less than the depths or widths following:

21
22 a. Front yard depth: 20 feet or more.

23
24 b. Rear yard depth: 25 feet or more.

25
26 c. Side yards shall be provided as follows:

27
28 i. *Total width.*

29
30 (a) For lots with a lot width of 90 feet or less, the sum of the side yards'
31 width shall be at least 15 feet.

32
33 (b) For lots with a lot width of more than 90 feet, the sum of the side
34 yards' width shall be a width that is equal to at least 17 percent of the
35 lot width.

1 ii. *Minimum side yard width.* The minimum side yard width is five feet or 33
2 percent of the aggregate side yard total width, whichever is greater.

3
4 iii. *Variable side yard depth requirement.* For lots with an area of 6,000 square
5 feet or more, the minimum side yard depth abutting an interior lot line shall be
6 the greater of the minimum side yard depth required under subsection
7 (C)(1)(c)(ii) of this section, or as follows:
8

9 (a) Single-family dwellings shall provide a minimum side yard depth of
10 seven and one-half feet if the building:

11 (1) For nongabled roof end buildings, the height is more than 15
12 feet measured from existing or finished grade, whichever is
13 lower, to the top of the exterior wall facade adjoining the side
14 yard; or
15

16 (2) For gabled roof end buildings, the height is more than 18
17 feet measured from existing or finished grade, whichever is
18 lower, to the top of the gabled roof end adjoining the side yard.
19

20 (b) Single-family dwellings with a height of more than 25 feet measured
21 from the existing or finished grade, whichever is lower, to the top of the
22 exterior wall facade adjoining the side yard shall provide a minimum
23 side yard depth of ten feet.
24

25
26 2. *Yard determination.*

27 a. *Front yard.*

28 i. *Front yard — General.* For lots that are not corner lots or waterfront lots, the
29 front yard shall extend the full width of the lot and is determined using the
30 following sequential approach, in descending order of preference, until a front
31 yard is established:
32

33 (a) The yard abutting an improved street from which the lot gains
34 primary access.
35

36 (b) The yard abutting the primary entrance to a building.
37

38 (c) The orientation of buildings on the surrounding lots and the means
39 of access to the lot.
40

41 ii. *Front yard — Corner lots.* On corner lots the front yard shall be measured
42 from the narrowest dimension of the lot abutting a street. The yard adjacent to
43 the widest dimension of the lot abutting a street shall be a side yard; provided:
44
45
46

(a) If a setback equivalent to or greater than required for a front yard is provided along the property lines abutting both streets, then only one of the remaining setbacks must be a rear yard.

iii. *Front yard — Waterfront lots.* On a waterfront lot, regardless of the location of access to the lot, the front yard may be measured from the property line opposite and generally parallel to the ordinary high water line.

iv. This section shall apply except as provided for in MICC 19.08.030 (F)(1).

b. *Rear yard.* Except as allowed in subsections (C)(2)(a)(ii) and (iii) of this section, the rear yard is the yard opposite the front yard. The rear yard shall extend across the full width of the rear of the lot, and shall be measured between the rear line of the lot and the nearest point of the main building including an enclosed or covered porch. If this definition does not establish a rear yard setback for irregularly shaped lots, the code official shall establish the rear yard based on the following method: The rear yard shall be measured from a line or lines drawn from side lot line(s) to side lot line(s), at least ten feet in length, parallel to and at a maximum distance from the front lot line.

c. *Side yard.* Any yards not designated as a front or rear yard shall be defined as a side yard.

3. *Intrusions into required yards.*

a. *Minor building elements.*

i. Except as provided in subsection (C)(3)(a)(ii) of this section, porches, chimney(s) and fireplace extensions, window wells, and unroofed, unenclosed outside stairways and decks shall not project more than three feet into any required yard. Eaves shall not protrude more than 18 inches into any required yard.

ii. No penetration shall be allowed into the minimum side yard setback abutting an interior lot line except where an existing flat-roofed house has been built to within 18 inches of the interior side yard setback line and the roof is changed to a pitched roof with a pitch of 2:12 or steeper, eaves may penetrate up to 18 inches into the side yard setback.

b. *Hardscape and driveways.* Hardscape and driveways not more than 30 inches above existing grade or finished grade, whichever is lower, may be located in any required yard; provided, that driveways may exceed the 30-inch limit when a permit applicant demonstrates the proposed height is the minimum feasible to meet the standards in MICC 19.09.040.

c. *Fences, retaining walls and rockeries.* Fences, retaining walls and rockeries are allowed in required yards as provided in MICC 19.02.050.

d. *Garages and other accessory buildings.* Garages and other accessory buildings are not allowed in required yards, except as provided in MICC 19.02.040.

e. *Heat pumps, air compressors, air conditioning units, and other similar mechanical equipment.* Heat pumps, air compressors, air conditioning units, and other similar mechanical equipment may be located within any required yard provided they will not exceed the maximum permissible noise levels set forth in WAC 173-60-040, which is hereby incorporated as though fully set forth herein. Any such equipment shall not be located within three feet of any lot line.

f. *Architectural features.* Detached, freestanding architectural features such as columns or pedestals that designate an entrance to a walkway or driveway and do not exceed 42 inches in height are allowed in required yards.

g. *Other structures.* Except as otherwise allowed in this subsection (C)(3), structures over 30 inches in height from existing grade or finished grade, whichever is lower, may not be constructed in or otherwise intrude into a required yard.

4. *Setback deviation.* The code official may approve a deviation to front, side, and rear setbacks pursuant to MICC 19.15.040.

D. *Gross floor area.*

1. Except as provided in subsection (D)(3) of this section, the gross floor area shall not exceed:

a. R-8.4: 5,000 square feet or 40 percent of the lot area, whichever is less.

b. R-9.6: 8,000 square feet or 40 percent of the lot area, whichever is less.

c. R-12: 10,000 square feet or 40 percent of the lot area, whichever is less.

d. R-15: 12,000 square feet or 40 percent of the lot area, whichever is less.

2. *Gross floor area calculation.* The gross floor area is the sum of the floor area(s) bounded by the exterior faces of each building on a residential lot, provided:

a. The gross floor area shall be 150 percent of the floor area of that portion of a room(s) with a ceiling height of 12 feet to 16 feet, measured from the floor surface to the ceiling.

b. The gross floor area shall be 200 percent of the floor area of that portion of a room(s) with a ceiling height of more than 16 feet, measured from the floor surface to the ceiling.

c. Staircases shall be counted as a single floor for the first two stories accessed by the staircase. For each additional story above two stories, the staircase shall count as a single floor area. For example, a staircase with a ten-foot by ten-foot dimension that accesses three stories shall be accounted as 200 square feet (100 square feet for the first two stories, and 100 square feet for the third story).

d. For the purposes of calculating allowable gross floor area, lots created in a subdivision through MICC 19.08.030 (G), Optional standards for development, may apply the square footage from the open space tract to the lot area not to exceed the minimum square footage of the zone in which the lot is located.

3. *Allowances.*

a. The gross floor area for lots with an area of 7,500 square feet or less may be the lesser of 3,000 square feet or 45 percent of the lot area; or

b. If an accessory dwelling unit is proposed, the 40 percent allowed gross floor area may be increased by the lesser of five percentage points or the actual floor area of the proposed accessory dwelling unit, provided:

i. The allowed gross floor area of accessory buildings that are not partially or entirely used for an accessory dwelling unit shall not be increased through the use of this provision;

ii. The lot will contain an accessory dwelling unit associated with the application for a new or remodeled single-family home; and

iii. The total gross floor area shall not exceed 4,500 square feet or 45 percent of the lot area, whichever is less.

E. *Building height limit.*

1. *Maximum building height.* No building shall exceed 30 feet in height above the average building elevation to the highest point of the roof.

2. *Maximum building height on downhill building facade.* The maximum building facade height on the downhill side of a sloping lot shall not exceed 30 feet in height. The building facade height shall be measured from the existing grade or finished grade, whichever is lower, at the furthest downhill extent of the proposed building, to the top of the exterior wall facade supporting the roof framing, rafters, trusses, etc.

3. Antennas, lightning rods, plumbing stacks, flagpoles, electrical service leads, chimneys and fireplaces, solar panels, and other similar appurtenances may extend to a maximum of five feet above the height allowed for the main structure in subsections (E)(1) and (2) of this section; provided:

a. Solar panels shall be designed to minimize their extension above the maximum allowed height, while still providing the optimum tilt angle for solar exposure.

b. Rooftop railings may not extend above the maximum allowed height for the main structure.

4. The formula for calculating average building elevation is as follows:

Formula: Average Building Elevation = (Weighted Sum of the Mid-point Elevations) ÷
(Total Length of Wall Segments)

Where: Weighted Sum of the Mid-point Elevations = The sum of: ((Mid-point Elevation
of Each Individual Wall Segment) × (Length of Each Individual Wall Segment))

For example for a house with ten wall segments:

$$(A \times a) + (B \times b) + (C \times c) + (D \times d) + (E \times e) + (F \times f) + (G \times g) + (H \times h) + (I \times i) + (J \times j) \\ a + b + c + d + e + f + g + h + i + j$$

Where: A, B, C, D... = The existing or finished ground elevation, whichever is lower, at
midpoint of wall segment.

And: a, b, c, d... = The length of wall segment measured on outside of wall.

F. Lot coverage—Single-family dwellings.

1. *Applicability.* This section shall apply to the development of single-family dwellings including, but not limited to, the remodeling of existing single-family dwellings and construction of new single-family dwellings. This section does not apply to regulated improvements.

2. *Landscaping objective.*

a. To ensure that landscape design reinforces the natural and wooded character of Mercer Island, complements the site, the architecture of site structures and paved areas, while maintaining the visual appearance of the neighborhood.

b. To ensure that landscape design is based on a strong, unified, coherent, and aesthetically pleasing landscape concept.

c. To ensure that landscape plantings, earth forms, and outdoor spaces are designed to provide a transition between each other and between the built and natural environment.

d. To ensure suitable natural vegetation and landforms, particularly mature trees and topography, are preserved where feasible and integrated into the overall landscape design. Large trees and tree stands should be maintained in lieu of using new plantings.

e. To ensure planting designs include a suitable combination of trees, shrubs, groundcovers, vines, and herbaceous material; include a combination of deciduous and evergreen plant material; emphasize native plant material; provide drought-tolerant species; and exclude invasive species.

3. *Lot coverage—Landscaping required.*

a. *Minimum area required.* Development proposals for single-family dwellings shall comply with the following standards based on the net lot area:

Lot Slope	Maximum Lot Coverage (house, driving surfaces, and accessory buildings)	Required Landscaping Area
Less than 15%	40%	60%
15% to less than 30%	35%	65%
30% to 50%	30%	70%
Greater than 50% slope	20%	80%

b. *Hardscape.*

i. A maximum of nine percent of the net lot area may consist of hardscape improvements including, but not limited to, walkways, decks, etc., and provided:

(a) The hardscape for lots with a net lot area of 8,400 square feet or less may be the lesser of 755 square feet or 12 percent of the net lot area.

ii. Hardscape improvements are also permitted in the maximum lot coverage area established in subsection (F)(3)(a) of this section.

c. *Softscape and driveways.*

i. The required landscaping area in subsection (F)(3)(a) of this section shall consist of softscape improvements, except where used for hardscape improvements pursuant to subsection (F)(3)(b) of this section.

ii. Driveways and other driving surfaces are prohibited within the landscaping area.

For example, a flat lot with a net area of 10,000 square feet shall provide a minimum 6,000 square feet of landscaped area. Up to 900 square feet of the landscaped area may be used for a walkway, patio, or deck or other hardscape area. The remainder of the area shall be used for softscape improvements, such as landscaping, tree retention, etc.

d. Development proposals for a new single-family home shall remove Japanese knotweed (*Polygonum cuspidatum*) and Regulated Class A, Regulated Class B, and Regulated Class C weeds identified on the King County Noxious Weed list, as amended, from required landscaping areas established pursuant to subsection (F)(3)(a) of this section. New landscaping associated with new single-family home shall not incorporate

any weeds identified on the King County Noxious Weed list, as amended. Provided, that removal shall not be required if the removal will result in increased slope instability or risk of landslide or erosion.

e. *Allowed adjustments.* A one-time reduction in required landscaping area and an increase in the maximum lot coverage are allowed, provided:

i. The total reduction in the required landscaping area shall not exceed five percentage points, and the total increase in the maximum lot coverage shall not exceed five percentage points; and

ii. The reduction in required landscaping area and increase in maximum lot coverage are associated with:

(a) A development proposal that will result in a single-story single-family dwelling with a wheelchair accessible entry path, and may also include a single-story accessory building; or

(b) A development proposal on a flag lot that, after optimizing driveway routing and minimizing driveway width, requires a driveway that occupies more than 25 percent of the otherwise allowed lot coverage area. The allowed reduction in the required landscaping area and increase in maximum lot coverage shall not exceed five percent, or the area of the driveway in excess of 25 percent of the lot coverage, whichever is less.

For example, a development proposal with a driveway that occupies 27 percent of the otherwise allowed lot coverage may increase the total lot coverage by two percent; and

iii. A recorded notice on title, covenant, easement, or other documentation in a form approved by the city shall be required. The notice on title or other documentation shall describe the basis for the reduced landscaping area and increased lot coverage.

G. *Parking.*

1. *Applicability.* Subsection (G)(2) of this section shall apply to all new construction and remodels where more than 40 percent of the length of the structure's external walls have been intentionally structurally altered.

2. *Parking required.*

a. Each single-family dwelling with a gross floor area of 3,000 square feet or more shall have at least three parking spaces sufficient in size to park a passenger automobile; provided, at least two of the stalls shall be covered stalls.

b. Each single-family dwelling with a gross floor area of less than 3,000 square feet shall have at least two parking spaces sufficient in size to park a passenger automobile; provided, at least one of the stalls shall be a covered stall.

3. No construction or remodel shall reduce the number of parking spaces on the lot below the number existing prior to the project unless the reduced parking still satisfies the requirements set out above.

4. Except as otherwise provided in this chapter, each lot shall provide parking deemed sufficient by the code official for the use occurring on the lot; provided, any lot that contains ten or more parking spaces shall also meet the parking lot requirements set out in appendix A of this development code.

H. *Easements*. Easements shall remain unobstructed.

1. *Vehicular access easements*. No structures shall be constructed on or over any vehicular access easement. A minimum five-foot yard setback from the edge of any easement that affords or could afford vehicular access to a property is required for all structures; provided, that improvements such as gates, fences, rockeries, retaining walls and landscaping may be installed within the five-foot yard setback so long as such improvements do not interfere with emergency vehicle access or sight distance for vehicles and pedestrians.

2. *Utility and other easements*. No structure shall be constructed on or over any easement for water, sewer, storm drainage, utilities, trail or other public purposes unless it is permitted within the language of the easement or is mutually agreed in writing between the grantee and grantor of the easement.

I. *Large lots*. The intent of this section is to ensure that the construction of a single-family dwelling on a large lot does not preclude compliance with applicable standards related to subdivision or short subdivision of the large lot. Prior to approval of a new single-family dwelling and associated site improvements, accessory buildings, and accessory structures on large lots, the applicant shall complete one of the following:

1. *Design for future subdivision*. The proposed site design that shall accommodate potential future subdivision of the lot as follows:

a. The proposed site design shall comply with the applicable design requirements of chapters 19.08, Subdivision, 19.09, Development, and 19.10, Trees, MICC.

b. The proposed site design shall not result in a circumstance that would require the removal of trees identified for retention, as part of a future subdivision.

c. The proposed site design shall not result in a circumstance that would require modifications to wetlands, watercourses, and associated buffers as part of a future subdivision.

d. Approval of a site design that could accommodate a potential future subdivision does not guarantee approval of such future subdivision, nor does it confer or vest any rights to a future subdivision.

2. *Subdivide*. Prior to application for a new single-family dwelling, the property is subdivided or short platted to create all potential lots and building pads permitted by zoning. The proposed single-family dwelling shall be located on a lot and within a building pad resulting from a recorded final plat.

3. *Limit subdivision*. Record a notice on title, or execute a covenant, easement, or other documentation approved by the city, prohibiting further subdivision of the large lot for a period of five years from the date of final inspection or certificate of occupancy.

J. Building pad. New buildings shall be located within a building pad established pursuant to chapter 19.09 MICC. Intrusions into yard setbacks authorized pursuant to MICC 19.02.020(C)(3) may be located outside of the boundaries of the building pad.

K. Exterior Lighting.

1. Applicability. This section applies to all exterior lighting serving residential uses installed after the effective date of this ordinance in the R-8.4, R-9.6, R-12, and R-15 zones. The following lighting types are exempt:

a. Permitted lighting within a public right-of-way or easement for the purpose of illuminating roads, trails, and pedestrian ways;

b. Repair of lighting fixtures existing prior to the effective date of this ordinance;

c. Emergency lighting;

d. Pathway and landscaping lighting fixtures producing less than 200 lumens;

e. Temporary seasonal lighting; and

f. Lighting required by state or federal law.

2. Standards.

a. All exterior lighting shall be designed to minimize light trespass onto neighboring properties.

b. All exterior lighting must be either fully or partially shielded except that four unshielded lighting fixtures not exceeding 450 lumens each are allowed.

i. Fully shielded means the lighting fixture has a solid opaque barrier at the top of the fixture in which the bulb is located and the fixture is angled so the bulb is not visible below the barrier.

1 ii. Partially shielded means a fixture is shielded by a solid opaque barrier or
2 angled no more than 45 degrees above straight down, which is half-way between
3 perpendicular and parallel to the adjacent grade.

4
5 c. Each exterior lighting fixture shall not exceed 1,600 lumens.

6
7 d. Exterior lighting fixtures shall be designed so that they do not project their output:

8
9 i. Onto neighboring properties;

10 ii. Past the object being illuminated;

11 iii. Skyward;

12 iii. Onto a public roadway;

13 iv. Onto a trail or pedestrian way; or

14 v. Onto biodiversity areas, fish and wildlife habitat conservation areas, or
15 wetlands.

16
17 e. Exterior lighting fixtures with a motion sensor must not be activated by off-site
18 movement.