

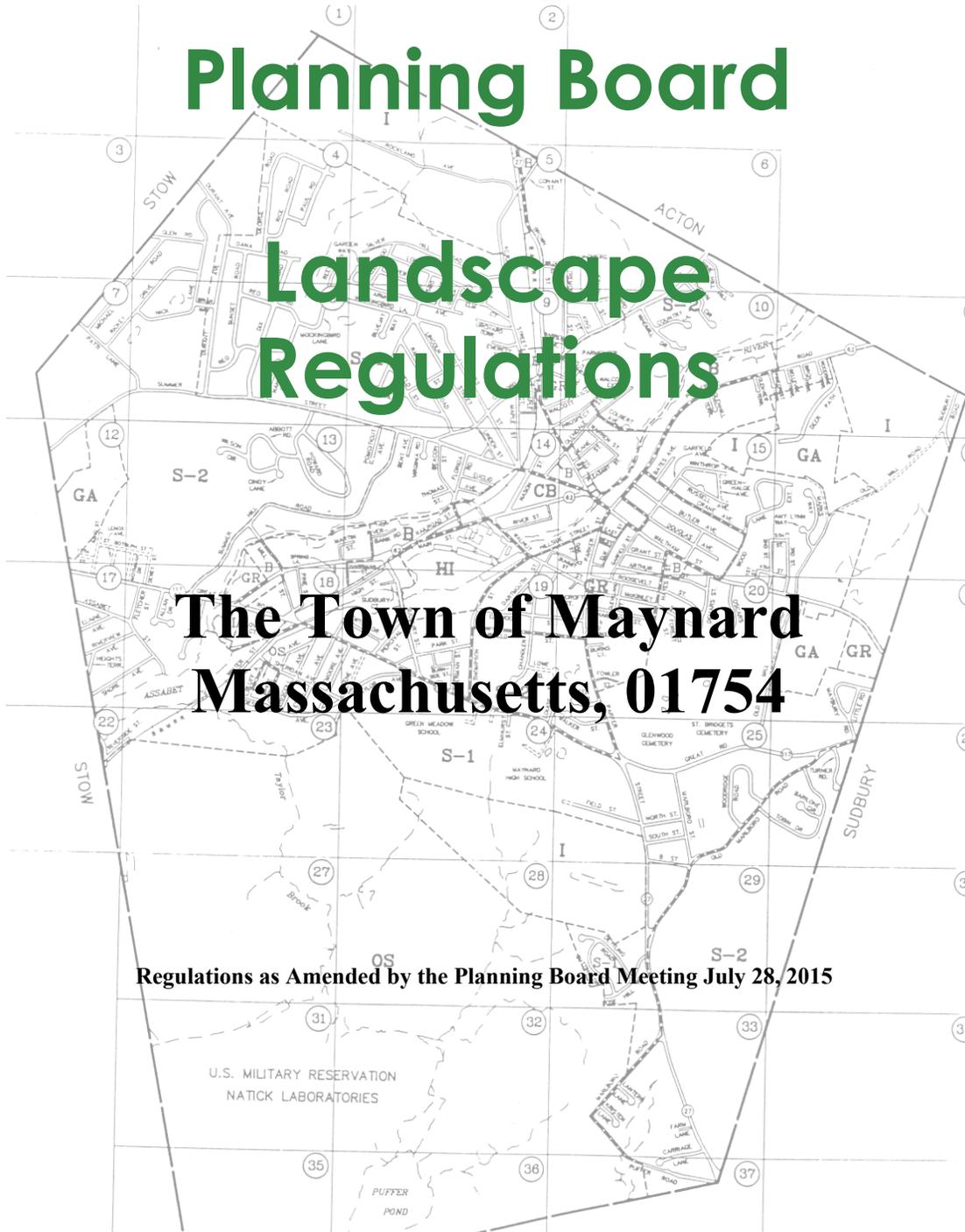


Planning Board

Landscape Regulations

The Town of Maynard Massachusetts, 01754

Regulations as Amended by the Planning Board Meeting July 28, 2015



Maynard Planning Board Landscape Regulations

1. **Purpose** The purpose of this document is 1) to outline the Planning Board's required Landscape Design Drawing Requirements to accompany applications for Site Plan Approval, Special Permit or Design Review, and 2) to provide Landscape Design Standards to guide the landscape design of all new project proposals.
2. **Applicability** All applications for Site Plan approval, Special Permit, or Design Review shall include Landscape Design Documents (Existing Conditions Documents, Landscape Plan, Landscape Maintenance Plan, as described herein.)
3. **Guiding Principles** The Town's impetus for applying landscape standards to projects is found throughout the Maynard Community Development Principles adopted by the Board of Selectman in 2011. Because of the myriad of ways landscaping can positively affect the community they are a vehicle to implement the vision of the *Community Development Principles*. Directing attention to landscape design ensures that the entire community benefits from development through an enhanced visual experience, higher property values, the protection of the natural environment, and an improved quality of life. Landscape design can improve air quality, buffer noise, promote energy and wildlife conservation, facilitate traffic flow, promote water conservation and mitigate the impact of otherwise incompatible uses.
 - 3.1. Following these guiding **principles**, project proposals shall generally seek to:
 - Reinforce and extend existing patterns of outdoor spaces and vegetation.
 - Support functional purposes, such as spatial definition, visual screening, creation of privacy, and management of microclimate or drainage;
 - Increase public safety, both pedestrian and vehicular, through carefully planned design elements.
 - Enhance the appearance of the proposed development and its context;
 - Protect desirable trees, topography, historic features, natural systems and habitat;
 - Enhance the pedestrian environment;
 - Increase the tree canopy.

4. Drawing Requirements

4.1. General Requirements

- 4.1.1. Use of a Massachusetts registered landscape architect is strongly recommended for the design of any project that is significant in size or scope.
- 4.1.2. Where the applicable project requires construction of five (5) or more parking spaces, or two (2) or more dwellings, the Landscape Plan shall be prepared, signed and sealed by a Massachusetts registered landscape architect.
- 4.1.3. The Massachusetts registered landscape architect of record shall be available present the proposal to the Board if requested by the

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Planning Board Chair.

- 4.1.4. For all deliberations for Site Plan Approval, Special Permit or Design Review, the applicant shall coordinate with the Planning Board to arrange for a site visit by all Board members.

4.2. Existing Conditions Documents

- 4.2.1. Survey by professional land surveyor, licensed in the Commonwealth of Massachusetts. Printed black and white, 24" x 36" minimum plan size.
- 4.2.2. Photo board depicting existing conditions of the property, existing vegetation, streetscape, vehicular intersections, and other manmade or natural features relevant to the project proposal.
 - 4.2.2.1. Photos shall be presented as 8" x 10" minimum size color prints, mounted or printed on a presentation board for display at the public meeting. A PowerPoint presentation is also acceptable.
 - 4.2.2.2. Applicant should provide sufficient imagery to adequately depict the breadth of the existing conditions for the Board and the public's consideration.
 - 4.2.2.3. Include one color aerial photograph. Photography from free, online sources (Google, Bing) are acceptable.

4.3. Landscape Plan

- 4.3.1. The plan shall include a north arrow, a scale, a title block including the name and address of the project, a date, a sheet number, applicable zoning district development standards (both required and as proposed) and the name and address of the Landscape Architect who prepared the plan (if applicable).
- 4.3.2. Landscape Plans shall be of sufficient scale as to allow a determination of compliance with standards as set forth in these regulations. 1" = 10' or 1" = 20' is recommended. Plans shall be a minimum size of 24" x 36".
- 4.3.3. Use of color rendering for clarity of presentation and visual readability is required to enable a concise presentation.
- 4.3.4. Show and label, on an independent plan if necessary, all mature trees and significant planted features to be removed, altered or destroyed through the construction.
- 4.3.5. Show and label all exterior landscape features, including trees, shrubs, ground cover, lawn areas, signage, storm water retention areas, utilities, decks, fences, hardscape (roadways, driveways, sidewalks, patios), site lighting, trash and snow storage areas, parking, topsoil stockpile, and any other proposed features or uses. All easements and rights-of-way shall be depicted. Other features relevant to the specific project may be required to be labeled at discretion of Planning Board
- 4.3.6. Show and label existing features (trees, walls, rock outcroppings, etc.) that are to remain should be depicted on the plan and labeled accordingly. Removal, demolition or elimination of any site feature labeled to remain on an approved plan will require a Planning Board determination to ascertain if the action constitutes a substantive

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change to the plan. Regardless of whether or not the action was deliberate, a substantive change may require site plan modification by the Planning Board.

- 4.3.7. Show all property lines, applicable setback and buffer lines, or adjacent structures (neighboring residences, businesses, etc.)
- 4.3.8. Plan should show all proposed topography at two (2) foot contour intervals and clearly label all general, consistent slope patterns across large areas of pavement or landscape.
- 4.3.9. Include a list of all plant material proposed on the project, including an identifying label, quantity, botanical name and variety, size at installation, spacing if applicable, and any other pertinent information.
- 4.3.10. Provide the grass seed(s) mixture, a seeding rate schedule and the method of distributing the seed, as well as proposed mulching type and strategy.
- 4.3.11. Details of proper planting procedures, as per industry standard for trees, shrubs, and ground covers shall be graphically depicted on the plan or as an attachment to the plan. If trees are to be planted in pits, under pavement, or with grates, details of this shall be provided.

4.4. Supporting Documents

- 4.4.1. Landscape Maintenance Plan – *required for all projects*. Plan shall:
 - o contain a description of how the development will maintain the aesthetic appearance, health and viability of the landscape, consistent with Section 11.15 of these regulations.
 - o identify funding sources for landscape maintenance
 - o identify type (i.e. mowing, manual service, snow plowing), frequency of service, and any special activities that may be required.
- 4.4.2. Irrigation Design and Product Cut Sheets – *if applicable*
 - o Plan drawing along with cut sheets of components – highlight water efficient elements of the design
- 4.4.3. Lighting Design and Product Cut Sheets – *if applicable*
 - o Plan drawing along with cut sheets of all fixtures
 - o Photometric calculations may be required for review by the Planning Board or Department of Public Works

5. Landscape Design Standards

5.1. Purpose: These standards are included to provide baseline guidance for landscape design for proposed projects in Maynard. While each project will be reviewed based on its unique context and parameters, the Planning Board expects Design Standards to be integrated into project design to the greatest extent possible. Compliance with these standards, in the judgment of the Board, is criteria for project approval.

5.2. **Low Impact Development (LID)** Projects should embrace the principles of Low Impact Development, an approach to site development that manages stormwater as close to its source as possible and seeks to support site ecology, native plants and resource conservation. LID projects employ the following

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strategies:

- Preserving, enhancing or recreating naturally existing site features, natural systems and drainage patterns.
- Managing stormwater as close to its source as possible,
- Minimizing impervious surfaces.
- Encouraging infiltration of stormwater into the ground where appropriate.
- Utilization of native plant material and soils that is naturally suited to the site and region.
- Emphasis on small scale, economical and decentralized features. throughout the landscape rather than reliance on large, expensive and complicated infrastructure.

Examples of specific strategies that contribute to LID development include bio-retention facilities, rain gardens, vegetated roof tops, roof leader disconnection, rain barrels, native plant buffers, and permeable pavements, among others.

5.3. Existing Vegetation, Topography, and Soils

- 5.3.1. All efforts shall be made to protect and preserve valuable existing plant material, especially mature trees.
- 5.3.2. Projects shall protect and enhance existing topographical patterns and avoid unnecessary disturbance to existing drainage systems.
- 5.3.3. Projects shall appropriately manage any on-site soil resources throughout the completion of the project so as to minimize the need for importing topsoil.
- 5.3.4. Projects shall include a plan to eradicate any invasive species from the site during the course of construction, and include provisions for long term management of invasive species.
- 5.3.5. Clearing of vegetation and alteration of topography shall be restored with comparable native vegetation planted in disturbed areas as needed to enhance or restore wildlife habitat, slope stabilization and natural buffers.
- 5.3.6. Existing trees to remain shall be protected from damage from construction equipment through the use of adequate tree protection fencing and tree armor. Roots shall be protected from compaction by limiting construction traffic to outside of root zone, defined as the area beneath the tree's drip line.
- 5.3.7. Areas of the site that experience excessive soil compaction, dangerous to the health of tree roots, shall be de-compacted to a depth of 12", and to a level that will allow for proper root growth and infiltration of water, where appropriate.

5.4. Streetscapes

- 5.4.1. "Streetscapes" are defined as the public / private space between buildings and the street edge.
- 5.4.2. Streetscapes shall utilize vegetation to create separation between buildings and the street edge. Plantings shall be contiguous, with the

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exception of driveways, and consider existing neighborhood patterns of vegetation and tree canopy in adjacent areas.

- 5.4.3. All plantings and landscape elements shall allow for adequate sight lines for pedestrians and not encroach on a clear path of travel.
- 5.4.4. The use of shade trees is strongly encouraged to shade and cool paved areas and buildings, and to provide contiguous canopy cover for pedestrians.

5.5. Parking Areas

Vegetation within parking areas shall provide visual and climatic relief from broad expanses of pavement. All parking areas shall be properly screened and landscaped to protect adjacent property from undesirable effects of parking lots such as lighting, sound, dust, and views of cars, and to preserve the appearance and character of the surrounding neighborhoods. Standards for the landscaping of parking areas are contained within Section 6.1.15 of the Zoning By-laws. In addition the following requirements shall apply:

- 5.5.1. Trees and soil plots shall be so located so as to provide visual relief and sunlight and wind interruption within the parking area, and designed to assure safe patterns of internal circulation for both vehicles and pedestrians.
- 5.5.2. When appropriate, planted parking islands and other vegetated spaces should be utilized to manage surface runoff and promote infiltration of stormwater.
- 5.5.3. Projects with five (5) or more parking spaces are required to be designed by a Massachusetts licensed landscape architect.

5.6. Planted Buffers and Visual Screening

- 5.6.1. Planted buffers, in combination with fencing or berms shall be used to reduce the impacts of development (ambient light, noise and air pollution, etc.). The use of adequate visual screening is required. Incompatibility is affected by zoning district and or/adjacent uses but will ultimately be determined by the Board's discretion on a site specific basis. Typical incompatibilities would include, but are not limited to, residential/commercial, multifamily/single family etc. Uses proposed will also be considered by the Board when reviewing buffers.
- 5.6.2. Planted buffers shall consist of a combination of native plantings of trees, shrubs and groundcovers, primarily evergreen, and accented with deciduous plants, staggered in rows of substantially sight-impervious foliage. Deciduous trees shall be spaced a maximum of 20' apart. Shrubs shall generally be spaced upon their ability to efficiently screen views within a maximum two (2) year timeframe. All buffers must be a minimum of six (6) feet tall at time of installation. A 10 foot minimum width is recommended for all buffers.
- 5.6.3. Where a vegetated buffer is not practical or feasible, the Planning Board may allow or require the use of an opaque fence, wall or berm in addition to, or in lieu of planted areas.
- 5.6.4. Dumpsters, transformers, loading, storage, refuse storage and disposal

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areas shall be screened from view of adjacent properties and public ways.

5.7. Lawn Areas

It is recognized that lawn areas planted with turf grass require significant care, often necessitating the use of fertilizers, pesticides and large quantities of water to maintain. Lawn maintenance is often performed with equipment, requiring fossil fuel consumption, and producing noise and dust pollution. It is recommended proposed designs:

- minimize lawn areas to only spaces where people will gather or play.
- consider alternative ground covers that require less maintenance and water.
- Utilize “Low-Mow” native grass species, and seed mixes with higher quantities of Fescue grasses, are desirable alternatives to typical Kentucky Bluegrass seed.
- Artificial turf is prohibited.

5.8. Irrigation

Irrigation systems, while helpful to maintain plant health during the establishment of vegetation, are large consumers of water, requiring proper installation and seasonal maintenance. When irrigation systems are required, the design should utilize drip irrigation emitters with intelligent water management features such as rain and moisture sensors.

- 5.8.1. Projects utilizing irrigation systems are required to comply with the “Town of Maynard Water Rules and Regulations” as published by the Department of Public Works
- 5.8.2. Projects must submit documentation of the water efficient components of the proposed system, including cut sheets and calculations.
- 5.8.3. All irrigation systems should be properly commissioned to avoid improper settings and overwatering. Documentation of commissioning is to be submitted to the Building Inspector upon project completion.
- 5.8.4. Plant species should be chosen to avoid the need for irrigation after the establishment period, typically two growing seasons.
- 5.8.5. When possible, projects shall utilize water from rooftop collection or runoff from hardscape areas to offset the need to irrigate with Municipal or well water.

5.9. Site Lighting

- 5.9.1. Site lighting shall be designed to:
 - Reduce light pollution, trespass, intensity, and glare in order to preserve and enhance the natural, scenic, and aesthetic qualities of the Town.
 - Conserve energy and decrease lighting cost without decreasing night time safety, security, and productivity.
 - Preserve the night sky as a natural resource to enhance nighttime enjoyment of property within the Town.
 - Enhance the safety and security of pedestrians, residents and private

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property.

- 5.9.2. Utilize “Dark Sky” compliant lighting standards when appropriate.
<http://www.darkskysociety.org/handouts/LightingPlanGuidelines.pdf>
- 5.9.3. Lighting fixtures shall be chosen to be architecturally consistent with the project context. Cut sheets of all proposed lighting shall be provided to the Planning Board for review.
- 5.9.4. No outdoor light fixtures using sodium vapor or metal halide lamps shall be allowed, unless specifically authorized by the Planning Board.
- 5.9.5. Luminaires attached to a building for area lighting shall be mounted no higher than twelve (12) feet above grade;
- 5.9.6. Pole mounted exterior lighting fixture types shall be mounted no higher than fifteen (15) feet above grade.
- 5.9.7. Refer to the Department of Public Works standards for street lighting design.

5.10. Soil Standards

- 5.10.1. All top soil placed on site shall be clean of roots, plants, sod, stones, clay lumps, and other extraneous materials that may be harmful to plant growth.
- 5.10.2. Projects shall preserve and reuse existing surface soil, to the greatest extent possible. Topsoil stockpile location is required to be identified on the Landscape Plan.
- 5.10.3. Imported topsoil shall come from naturally well-drained construction or mining sites where topsoil occurs at a minimum of four (4) inches deep. Do not obtain soil from agricultural land, bogs, or marshes. Soil shall not be excessively acid or alkaline nor contain toxic substances that may be harmful to plant growth.
- 5.10.4. Recommended Soil Specification: ASTM D5268, 5.5 to 7 pH range, minimum 4 percent organic material content; free of stones 1 in. or larger in any dimension or other extraneous materials harmful to plant growth.

5.11. Plant Material Standards

- 5.11.1. Plants utilized shall consist of healthy, vigorous stock, grown in a recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae and defects such as knots, sun-scale, injuries, abrasions or disfigurement. The Designated Town inspector can refuse the placement of any plant that does not satisfy these conditions, up to one week after installation.
- 5.11.2. All plant material shall be guaranteed for a minimum of one full year, or two growing seasons, from date of installation. Within this time period, any dead plant material that is not thriving in a healthy manner, must be promptly replaced at the earliest appropriate season, and at the owner’s expense.
- 5.11.3. Plant selection shall be appropriate for the proposed use, soil, siting and other environmental conditions, and shall maintain clear lines of sight for vehicles and pedestrians.
- 5.11.4. **Deciduous Trees** shall be at least two (2) inches in caliper (measured

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at breast height) at time of planting. **Evergreen trees** shall be a minimum of 6-8' in height at time of planting. **Shrubs and hedges** shall be at least thirty (48) inches in height at time of planting and have a spread of twenty four (24) inches.

- 5.11.5. The use of native plant material is recommended to reduce water consumption, promote local ecology and maximize the success of the planting. Xeriscaping techniques are also recommended to reduce irrigation demand.
- 5.11.6. All planting beds should be mulched with a minimum of two (2) inches of bark mulch to retain moisture, prevent the growth of undesirable plants, and maintain soil temperature. When adjacent to sidewalks, mulch must be edged with wood, stone or steel edging to prevent migration into the adjacent sidewalk.
- 5.11.7. It is prohibited to plant, introduce or propagate species identified in the Massachusetts Invasive Plant Advisory Group report <http://www.mass.gov/eea/docs/dfg/nhosp/land-protection-and-management/invasive-plant-list.pdf>.
- 5.11.8. All proposed developments are required to comply with regulations related to the control of Asian Longhorn Beetle, an infestation that poses a serious threat to the urban tree canopy, and afflicts the greater Worcester area. For more information, visit <http://www.worcesterma.gov/city-manager/asian-longhorned-beetles>.

5.12. Landscape Maintenance

- 5.12.1. Replacement of failed plant material shall be the responsibility of the owner.
- 5.12.2. All projects shall provide a Landscape Maintenance Plan to the board that shall outline a proposed strategy for landscape maintenance, including funding sources, frequency and type of service, etc.
- 5.12.3. Plant material shall be carefully maintained during establishment, inclusive of watering, fertilizing, pruning and general care.
- 5.12.4. Plant beds shall be maintained to be free of dead plant material, weeds, and trash and shall be maintained in order to promote a healthy and safe environment for both the plants and the general public.
- 5.12.5. Lawn areas shall be well maintained to keep the growth healthy, green, well trimmed and free of trash and weeds.
- 5.12.6. Organic products shall be used whenever feasible during installation, establishment and continued maintenance for such needs as pesticides, herbicides and fertilizing.

5.13. Waivers

- 5.13.1. Nothing contained in these regulations shall preclude the Planning board from the ability to wave some or all of these requirements. Additionally, applicants may propose an "Alternative Landscape Plan" (ALP) that due to unique circumstances may be more suitable for a specific site. The Board is under no obligation to accept an ALP.

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ADDITIONAL RESOURCES

LANDSCAPE ARCHITECTURE

[Boston Society of Landscape Architects](#)
[American Society of Landscape Architects](#)

PLANT SELECTION

[Trees, Shrubs and Vines for Low Maintenance Landscapes](#)
[Choosing Sustainable Plants](#)
[Rain Gardens for Improving Water Quality](#)
[Drought Tolerant Plants](#)

LOW IMPACT DEVELOPMENT

[Environmental Protection Agency - Low Impact Development Resource](#)
[National Resources Defense Council - Low Impact Design](#)