

**CHAPTER 11
LANDSCAPING AND SCREENING**

Section 1100.00 Landscaping and Screening

Section 1100.01 Purpose

The purpose of these regulations shall be to minimize adverse visual impacts, noise, light, and air pollution between various uses, which abut one another by altering the areas of transition between the land uses. In addition these regulations increase the desirability of living and working in Ravenna Township by improving the air quality and enhancing the visual character of residential, commercial and industrial districts by protecting public and private investments, and promoting high-quality development. All landscaping plans shall enhance the physical environment and the development's aesthetic character.

Section 1100.02 Applicability

These regulations shall apply to all multi-family residential, institutional, commercial and industrial uses within the Township.

Section 1100.03 Approval Process

Landscaping and screening shall be reviewed as part of the development's review process. Landscape buffering must start within 90 days of a conditional use permit regardless of when the use actually begins.

Section 1100.04 Plant Substitutions

Due to the seasonal planting problems and lack of plant availability, approved landscape plans may require minor revisions. Such revisions to planting plans may only be justified if one of the following applies:

- A. There is no reduction in the quality of plant material.
- B. There is no significant change in the size or location of plant materials.
- C. Proposed plants are of the same general category, (i.e., shade, ornamental, or evergreen trees) and have the same general design characteristics (mature height, crown spread) as the materials being replaced.
- D. Proposed materials must be compatible with the area to ensure healthy tree growth.
- E. If these criteria are not fulfilled, changes to the approved plans must be resubmitted and reviewed by proper reviewing authority.

Section 1100.05 Landscaping Plan Submittal Requirements

The landscaping plan shall contain at a minimum, the following:

- A. Location, general type and quality of existing vegetation, including specimen trees.

Chapter 11 - Landscaping and Screening

- B. Existing vegetation to be saved.
- C. Methods and details for protecting existing vegetation during construction and the approved sediment control plan.
- D. Locations and labels for all proposed plants.
- E. Plant lists or schedules with the botanical and common name, quantity, and spacing and size of all proposed landscape material at the time of planting.
- F. Location and description of other landscape improvements such as earth berms, walls, fences, screens, sculptures, fountains, street furniture, lights, and courts or paved areas.
- G. Planting and installation details as necessary to ensure conformance with all required standards.

Section 1100.06 Landscaping Minimum Site Requirements

- A. A minimum area of at least 15% of each site (exclusive of parking lot landscaping requirements) is to be landscaped.
- B. The landscaping shall be either continuous and/or comprised of scattered arrangements situated on the lot. At a minimum, landscaping shall be located in the following locations on a site in such a manner as to minimize adverse impacts associated with the proposed use and enhance the aesthetic character of the site:
 - 1. A minimum of five (5) feet deep along the property frontage abutting a public right-of-way.
 - 2. Any side or rear lot line of a property that is zoned to allow a non-residential use that abuts to a property zoned to allow for a residential use shall have a landscaped buffer of trees and shrubs of at least 20 feet in width to provide a complete screen.
- C. The landscaped area must be covered by living vegetation such as ground cover, shrubs and trees. The minimum size requirements for trees and shrubs shall be:

Plant Type	Size at Planting
Ornamental	1" to 1-1/2" caliper *
Deciduous	1" to 1-1/2" caliper *
Large Deciduous	1-1/2" to 2" caliper *
Shrubs (Small)	3' tall
Shrubs (Large)	5' tall

* Caliper measurements (diameter shall be taken six inches above grade for trees under four inches in diameter and 12 inches above grade for trees four inches in diameter and larger.

Section 1100.07 Fences

Fences may be incorporated with landscaping and screening in accordance with Section 610.06.

Chapter 11 - Landscaping and Screening

Section 1100.08 Berming

Berming is an earthen mound that is designed to provide visual interest, screen undesirable views, and decrease noise. Berming may be used as an effective method of complementary landscaping and screening in accordance with the following guidelines:

- A. The berm shall be located between the right-of-way and the building setback lines.
- B. Berming shall generally vary in height, width and length to create a free-form naturalistic effect.
- C. The slope of a berm shall not exceed a 2.5:1 width to height ratio.
- D. The design of berms shall include provisions for drainage that is tied into the entire site system if necessary or applicable.
- E. Berms shall be planted with ground cover and other plant materials to prevent erosion.
- F. Berms and other plant materials used collectively shall be viewed as a unified element and must be in compliance with all provisions of this Resolution.

Section 1100.09 General Requirements

- A. In cases where quality woodlands exist, preservation of these existing trees should be incorporated as part of the landscaping. Additional plant material should be used if needed to achieve an effective visual screening.
- B. Landscaped screens shall be designed to complement other landscaping occurring naturally on the site, planted previously, or approved additions that are part of a site plan review. Wherever possible, existing vegetation and land form shall be used to create screens.
- C. Species and sizes of plant material shall be chosen to best accomplish an adequate screen, e.g., evergreens for visual year-round screening and deciduous trees for seasonal screening.
- D. When noise is likely to be a concern, the screen shall be of sufficient construction to be an effective noise buffer.
- E. Natural slope and existing vegetation may be substituted for some or all of the requirements above, provided that these features serve to screen the area from adjoining properties and roadways.
- F. All required landscaping and screening shall be installed within 18 months following the issuance of a Certificate of Zoning Compliance.
- G. If weather conditions necessitate a delay in the installation of any landscaping or screening, the applicant shall provide a schedule indicating the completion date for the approved landscaping in writing with the Township Zoning Inspector.
- H. Appendix A, Plant Guide for Landscaping and Screening, of this Resolution contains a plant

Chapter 11 - Landscaping and Screening

list to serve as a guide for the recommended plant materials. This list is based upon plants that are most likely to thrive in this climate and perform their intended function.

Section 1100.10 Landscape Standards and Specifications

- A. The following standards shall guide the number and placement of plantings for landscaping within the Township:
1. Shade Trees for Street Planting
 - a. Shade trees shall be planted by the applicant along their side of the property that fronts along any road, public or private, to ensure protection from noise, glare, and visual incompatibility. In locations where healthy and mature shade trees exist, the requirements for new trees may be waived or modified.
 - b. Street trees shall be spaced at intervals of no greater than 40 feet, and shall be placed so as to avoid interference with power lines and vehicle line of sight.
 - c. Street trees shall be planted at the following distances from:
 1. Public sidewalk and curbs: large trees- four (4) ft; medium trees- three (3) feet, and small trees two (2) feet.
 2. Sewer or water lines: At least 10 feet away from sewer or water lines, and at least 5 feet from a driveway.
 3. Overhead utility lines: 10 feet and may not be planted underneath unless they are dwarf trees.
 4. Street corners and fire hydrants: 35 feet from street corners measured from the point of nearest intersecting curbs or curb lines. No tree shall be planted closer than 10 feet from any fire hydrant.
 - d. Tree species shall be selected according to the following criteria:
 1. Cast moderate shade to dense shade in the summer.
 2. Survive at least 30 years.
 3. Mature height: 50 feet or greater for large trees, 30 – 50 feet for medium trees, 10 - 30 feet for small trees, and less than 10 feet for dwarf trees.
 4. Tolerant of pollution and direct or reflected heat.
 5. Requires little maintenance by being structurally sound and insect and disease resistant.
 6. Be able to survive with no irrigation after establishment.

Chapter 11 - Landscaping and Screening

7. Be of native origin, provided the tree meets the above criteria.
 - e. In Storefront areas, the street trees shall consist of deciduous species that branch above eight (8) feet to facilitate viewing of storefronts, signage and vehicle line of sight.
2. Perimeter/Buffer Landscaping and Screening
- a. Screening shall be used to protect adjoining properties from noise, glare, and uses, which are visually incompatible with neighboring uses. Screening is required:
 1. On sites which involve loading and unloading, (including storage of vehicles and boats), trash, or disposal areas.
 2. When noise not typically occurring in residential areas is expected to project onto nearby properties.
 3. Where any commercial or industrial use abuts a residential use.
 - b. The screen shall be capable of providing at least 75% opacity within two (2) years of installation.
 - c. Screening shall consist of trees and plants and may include masonry or wood fencing used with or without berms. Screening shall consist of a functional and a well designed combination of the following:
 1. Vegetative ground cover.
 2. Coniferous and deciduous shrubs.
 - a. Selected plant material will reach and maintain a height of at least five (5) feet at full growth.
 - b. Plants shall measure a minimum of three (3) feet in height at the time of planting and are expected to attain a height of five (5) feet in three (3) years.
 - c. Evergreen shrubs shall not normally be planted any closer than six (6) feet on center.
 - d. Shrubs shall not normally be planted closer than 6 feet to planted trees, nor within the drip line of existing protected trees.
 - e. For buffer areas, evergreen shrubs shall be provided at the following rates:

<u>Buffer Width</u>	<u>One Shrub Per</u>
20 ft. or less	50 sq.ft. of buffer
21 to 30 ft.	75 sq.ft. of buffer
31 to 50 ft.	125 sq.ft. of buffer
> 50 ft.	

Chapter 11 - Landscaping and Screening

3. Coniferous and Deciduous Trees
 - a. Trees shall be distributed along entire length of any buffer area.
 - b. Trees shall be planted at the following rate:

<u>Buffer Width</u>	<u>One Tree Per</u>
20 ft. or less	200 sq.ft. of buffer
21 to 30 ft.	300 sq.ft. of buffer
31 to 50 ft.	350 sq.ft. of buffer
> 50 ft.	400 sq.ft. of buffer

4. Parking Lot Landscaping

All parking lots or parking lots of six (6) spaces or more shall be landscaped with native trees and shrubs. The purpose of the requirement is to provide protection from the sun, noise, glare and pollutants, while providing shade and a partial visual screening of the activity on the lot.

- a. Buffering and Screening From Roadway
 1. All parking lots and loading areas that abut a road right-of-way shall be landscaped.
 2. Parking lots adjacent to residential properties require screening either through walls, opaque fences, berming or landscape screening that will be at least six (6) feet in height and provide at least seventy-five (75) percent opacity within two (2) years of installation.
 3. In cases where substantial grading is necessary that results in a parking lot lower in elevation than the surrounding or adjacent right-of-way, the resulting embankment must be planted with low shrubs and shade or ornamental trees.
- b. Parking Lot Interior Landscaping
 1. No less than ten percent (10%) of the interior of parking areas shall be landscaped. This is necessary to break up the visual expansiveness of lots and to reduce glare and heat. Amounts greater than ten percent (10%) interior landscaping may be necessary to effectively shade the parking lot, reduce the impact of noise and fumes as well as the visual impact of glare, headlights, parking lot lights from the public right of way and from adjoining properties. To achieve these objectives, the following shall be utilized at a minimum:
 - a. Create planting islands to be located throughout the lot and planted with shade trees, low shrubs and/or ground cover. These should be located at the ends of parking rows.
 - b. Provide landscaped islands in compliance with Section 1100.10.A.3.b2 General Guidelines for All Parking Lots, in the amount, equal to one (1)

Chapter 11 - Landscaping and Screening

landscaped island with a shade tree for every ten to fifteen (10-15) parking spaces. The landscaped islands shall be located throughout the interior portion of the parking area.

- c. All trees shall be no less than two-inches (2") diameter as measured twelve-inches (12") above grade. Each tree shall be provided with at least forty (40) square feet of unpaved area around its trunk.
2. General Guidelines for All Parking Lots
 - a. Use deciduous shade trees with ground cover or low shrubs as the primary landscape material within parking lots. Avoid tall shrubs or low branching trees that will restrict visibility.
 - b. For planted islands that are parallel to spaces, islands should be a minimum of nine feet (9') wide to allow doors to open.
 - c. For planted islands that are perpendicular to spaces, islands should be a minimum of eight feet (8') wide to allow for overhang of parked cars. If parking is only on one side of the island, an eight foot wide planted island is still required.
 3. In large parking lots, separate pedestrian walkways are to be provided to allow safe movement within the lot. These walkways should generally be oriented perpendicular to and between parking bays. Adjacent to the walks, trees should be planted. These plantings will aid in the identification of walkway locations within the lot and in providing erosion control and shade for the pedestrian.

Section 1100.11 Enforcement and Maintenance

The property owner shall ensure the proper maintenance of all plant material. If any plant material dies, the property owner must replace it. Failure to replace dead or diseased plants constitutes a zoning violation subject to the penalty provisions of this Resolution.

Section 1100.12 Tree Preservation and Care During Construction

- A. Every effort shall be made during construction to preserve existing healthy trees and shrubs on the site.
- B. Preservation of trees and vegetation of special significance due to size, age, habitat, or historical significance is highly encouraged.
- C. A mature tree, tree mass or forest shall be considered to remain only if it meets all of the following criteria:
 1. The outermost branches of the tree(s) are at least five feet from any proposed buildings, structures, paving, parking or utilities (overhead or underground).

Chapter 11 - Landscaping and Screening

2. The outermost branches of the tree (s) are at least five feet from any proposed changes in grade or drainage such as excavations, mounding or impoundments.
 3. The tree(s) are clear of any proposed sight triangles, and do not by their location or apparent health, pose any undue threat to the health, safety and welfare of the community.
- D. Mature trees, tree masses, or woodlands, which the applicant intends on saving shall be designated "Tree Save Area" on landscaping plans.
- E. All "Tree Save Areas" shall be unmistakably delineated in the field so that it is obvious to all equipment operators and other construction personnel. A temporary physical barrier such as a snow fence shall be erected a minimum of one foot outside the drip line on all sides of individual trees, trees masses or woodlands prior to major clearing or construction. The barrier shall be placed to prevent the disturbance to or compaction of soil inside the barrier, and shall remain until construction is complete. The barrier shall be shown on the landscape plan.
- F. The following practices are considered harmful in a "Tree Save Area:"
1. Grading or trenching.
 2. Placing backfill near trees.
 3. Driving or parking equipment in "Tree Save Areas."
 4. Dumping of trash.
 5. Storage of construction materials and supplies, oil or paint in close proximity to tagged trees.
- G. Mature trees, tree masses, or woodlands which the applicant intends on removing shall be designated "To Be Removed" on landscaping plans.
- H. The applicant shall justify the removal of any mature trees, tree masses and woodlands. The applicant must make evident that the vegetation removal is minimized by showing that no alternative site layouts are possible, and that no alternative clearing or grading plan would reduce the loss of mature trees, tree masses and forests.
- I. Transplanting Existing Plant Material: Specimen trees or individual trees moved from woodlands or tree masses designated "To Be Removed" may be transplanted from one area of the site to another, conforming to the requirements of this Section.
- J. Trees to be saved should be selected prior to siting the buildings, parking lots and other site improvements. Factors to consider include: existing and proposed grading, age, condition and type of tree, location of site improvements and utility connections.
- K. Grading should be done in a manner to avoid destruction and damage to trees and tree stands. Grading must take existing drainage patterns into consideration and the disruption of those

patterns minimized.