

**Bethel Township Zoning Resolution Article 38 – Landscape and Buffer Regulations – Updated March 2018**

**ARTICLE 38**

**LANDSCAPE AND BUFFER REGULATIONS**

**Section 38.01 Purpose**

The purpose of landscaping and screening regulations is to promote and protect the public health, safety and welfare through the preservation and protection of the environment by recognizing the vital importance of plant materials in the ecological system.

The purposes of this Article are to:

- A. Promote the preservation and replacement of major trees;
- B. To promote the proper utilization of landscaping as a buffer between certain land uses to minimize the possibility of nuisances.
- C. To encourage the enhancement of the visual environment, ensure public safety, moderate the micro-climate and minimize nuisances, primarily noise, visual pollution, and glare.
- D. To protect surrounding property values.

**Section 38.02 Applicability**

The requirements of this Article shall apply to new property development and any collective substantial expansion or change in land use, except for single family dwellings and agricultural uses. Substantial expansion or modification of the existing structures shall be defined based on the criteria established below:

Any expansions of 500 square feet or less shall be exempt from the Applicability Section of this Article.

| <b>When the Existing Structure is....</b> | <b>A Substantial Expansion is....</b> |
|---|---------------------------------------|
| 0 - 1,000 Sq. Ft.                         | 50% or Greater                        |
| 1,001-10,000 Sq. Ft.                      | 40% or Greater                        |
| 10,001-25,000 Sq. Ft.                     | 30% or Greater                        |
| 25,001-50,000 Sq. Ft.                     | 20% or Greater                        |
| 50,001 Sq. Ft. and larger                 | 10% or Greater                        |

**Section 38.03 Minimum Materials and Standards**

The following describes the minimum landscaping and screening standard requirements for all developments. Interior, perimeter and buffer zone landscaping relate to vehicular use areas.

#### A. General Requirements

1. All plant material shall be sound, healthy, live plants installed and maintained in accordance to acceptable nursery industry procedures.
2. All fences used to meet the landscaping requirements of this Article shall extend to within two (2) inches of the ground grade.
3. Landscape plant materials shall be installed within nine (9) months after a building or site is developed.
4. Earthen mounds shall have a maximum slope of three (3) to one (1) (3:1), which is to say that three (3) feet of horizontal space is required for each one (1) foot vertical change in elevation. The crest or top of the mound shall be rounded with elevation changes maintained one (1) foot off of the centerline of the mound. Furthermore, earthen mounds or berms shall be designed and constructed with variations in physical alignment throughout the length of the mound or berm.
5. When adjacent to other properties under same ownership, landscape materials may be placed on either the adjoining parcel or on the boundary line.
6. When adjacent to other properties under different ownership, landscape materials may be placed on the boundary lines if the different owners agree, in writing, to the arrangement, and if the agreement is filed with the Zoning Administrator/Enforcing Officer as a public record.
7. Perimeter landscaping and/or screening and buffer zone landscaping shall be a minimum of fifteen (15) feet in width.

#### B. Street Tree Requirements

1. The subdivider or owner has the option of installing street trees. The placement of trees shall not be within a public right-of-way unless specifically approved by the Zoning Administrator/Enforcing Officer.
2. All trees selected and planted shall be subject to approval of plant materials by the Zoning Administrator/Enforcing Officer.
3. No tree shall be planted directly over or under or within ten (10) feet of a utility line.
4. The minimum spacing between trees is forty-five (45) feet for large shade trees, thirty-five (35) feet for medium trees and twenty-five (25) feet for ornamental trees. The recommended maximum spacing of all street trees is sixty (60) feet.
5. If a developer elects the Township standard street sections, only ornamental or medium trees may be used. Where the developer elects to dedicate additional right of way, shade

trees may be used for street trees. A minimum of five (5) feet shall be dedicated.

6. Tree limbs extending over a sidewalk shall be trimmed to such an extent that no portion shall be less than eight (8) feet above walks. Tree limbs extending over streets shall be trimmed to such an extent that no portion shall interfere with the normal flow of traffic.

#### C. Interior Landscaping for Off-Street Parking Areas

Interior landscaping shall include groundcover and other plant materials located within an off-street parking area and shall be regulated as follows:

1. Any off-street parking area, including aisles, excluding loading, unloading and storage areas, in a Business or Industrial District, consisting of more than 5,000 square feet of area, or twenty (20) or more vehicular parking spaces, shall have interior landscaping.
2. Space required for interior landscaping shall be in addition to any required front, side or rear yard or any required perimeter or buffer zone landscaping requirements.
3. The purpose of requiring interior landscaping is to:
  - a. Help reduce glare and heat build-up;
  - b. Promote interior islands for pedestrian safety and traffic separation;
  - c. Visually reduce and break up large expanses of pavement;
  - d. Reduce surface and storm water run-off.
4. Interior landscaping shall be provided at the ratio of one (1) shade tree for every twenty (20) parking spaces or fraction thereof. Other landscape materials, such as grass and shrubs, may also be used in addition to the required shade trees.
5. The minimum soil area or pervious surface area per tree shall be the size of one parking stall or 180 square feet, whichever is greater.
6. In order to encourage the required interior landscape areas to be properly dispersed, no individual landscape area shall be larger than 400 square feet in size.
7. The shortest distance to a tree in an interior landscaped area from the edge of pavement where vehicles overhang shall be three (3) feet.
8. To retain visibility within the off-street parking area, trees shall have a clear trunk of at least five (5) feet above the ground.
9. Pervious surfaces not containing a tree shall be landscaped with shrubs (not exceeding three (3) feet in height), and/or ground cover, including grass.

10. The layout and design of interior landscaping shall be at the discretion of the applicant but shall be approved by the Zoning Administrator/ Enforcing Officer.
11. All landscaping shall be maintained in a healthy condition, kept free of weeds and debris, and replaced as needed.
12. Interior landscaped areas shall be sufficiently protected damage from vehicles.

#### D. Perimeter Landscaping

Perimeter landscaping shall be required to soften the edges of the off-street parking area. Perimeter landscaping shall not constitute "screening" of the off-street parking area.

1. In any multifamily or commercial use or district, perimeter landscaping is required in all side and rear yards where off-street parking areas occur.
2. Landscaping shall include trees and a combination of: grass, shrubs, or earthen mounds.
3. Where existing vegetation occurs adjacent to off-street parking areas, perimeter landscaping will be subject to review by the Zoning Administrator/Enforcing Officer.
4. Trees used for perimeter landscaping shall meet the following spacing requirements:
  - a. Shade trees, twenty-five (25) feet to thirty (30) feet on center;
  - b. Evergreen trees, fifteen (15) feet to twenty (20) feet on center;
  - c. Ornamental trees, twelve (12) feet to thirty (30) feet on center; and
5. Shrub materials used for landscaping shall be confined to common planting beds. There shall be one (1) shrub for every ten (10) lineal feet of the portion of the parking area that the shrub is landscaping.
6. All areas not occupied by off-street parking areas, planting areas, trees or shrubs shall be planted and maintained with grass.

#### E. Screening

1. Where an off-street parking area occurs in a Business, Office or Industrial District and is located within eighty (80) feet of a residentially zoned property or residential use in a non-residentially zoned property, or where an off-street parking area occurs within a multi-family use and is located within forty (40) feet of a property used or zoned for a single or two-family residential use, screening shall be installed, repaired, replaced and maintained to a total height of not less than five (5) feet above the parking lot grade. Such required screening shall only be required along the sides of the off-street parking area where viewed from the residentially zoned or used property. The screening of off-street loading areas and

service courts shall be at least five (5) feet above the dock or bay that it is screening.

2. Screening may consist of walls, fences, natural vegetation, earthen mounds or a combination thereof.
3. Natural vegetation screening shall have a minimum opacity of seventy-five (75) percent in all seasons.
4. Parking lot screening shall conform to the following standards:
  - a. All screening shall be installed and maintained in a neat and orderly manner and kept free of weeds and other debris.
  - b. The use of year-round vegetation with year-round foliage, such as evergreen shrubs or trees, is required when used as the primary screening material.
  - c. Screening shall be reasonably uniform in height and opacity along its entire length.
  - d. When screening of live plants is installed, either alone or in combination with other materials, the plants shall be:
    1. Mature to a minimum height of two (2) feet at the time of installation;
    2. Selected for year-round, dense foliage adequate to shield residences from headlight glare;
    3. Selected to achieve the height and density required within three (3) years of installation; and
    4. Maintained in a healthy, live state and replaced as needed to comply with the original site plan and the specifications and standards outlined in this section.
  - e. When screening from a public right-of-way, screening shall be maintained between 2 ½ and 3 ½ feet in height.

5. Screening of Industrial Uses shall conform to the following standards:

Where a lot in an Industrial District abuts a residential district or use, such as a residence on an agricultural parcel, a landscape screen or buffer of forty (40) feet in width shall be provided if no solid masonry wall is utilized. If a solid masonry wall of at least six (6) feet in height is utilized, the buffer may be reduced to fifteen (15) feet in width.

The arrangement of plantings in the buffer or screening area shall be effective in creating a solid year-round screen that screens to a height of eight (8) feet. The use of mounding in combination with plantings is encouraged to ensure that the minimum height is reached within three (3) years of

installation. Where mounding is not used, either dense evergreens or a solid opaque fence shall be used to ensure the screening is continuous at all times of the year.

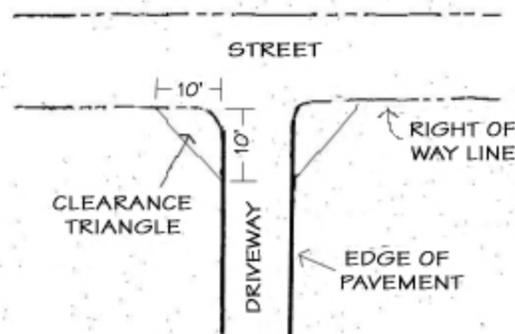
Within the required landscape buffer or screened area, the following improvements, individually or in combination, shall be provided:

- a. Shade trees shall be planted on an average of one (1) tree for every thirty (30) feet of the yard length. Ornamental or evergreen trees may be substituted for shade trees.
  - b. Shrubs, measuring a minimum of two (2) feet at planting, and clustered or spaced linearly to form a continuous dense hedge. Where shrubs are used in combination with other materials, the use of shrubs shall comprise fifty percent (50%) of the required landscape buffer.
  - c. Mounding, with a minimum top width of at least two (2) feet and a maximum side slope for front and back sides of three (3) feet horizontal to one (1) foot vertical (3:1). Such mounding shall not exceed eight (8) feet in height and shall be planted with a combination of ground cover, shrubs and trees.
  - d. A solid opaque fence eight (8) feet in height erected along one hundred percent (100%) of the yard length with appropriate landscaping, including trees, shrubs, to soften visual elements of the fence or an interrupted solid, opaque fence six (6) feet in height and supplemented with landscaping in order to create a solid visual screen along the entire yard length.
  - e. Areas not planted with trees or shrubs shall be maintained as turf or other groundcover.
6. Screening is also required between:
- a. Single and multifamily uses;
  - b. Any residential and commercial, office or industrial use; and
  - c. Commercial and industrial uses.
  - d. Off-street parking areas and parking lots and the public right-of-way.

Screening shall be required to be established and maintained by the more intensive of the abutting uses (e.g. a commercial property shall establish and maintain a screen when adjacent to a residential use).

## **Section 38.04 Obstructions to Visibility at Intersections**

- A. To ensure that landscape materials do not constitute a driving hazard, a sight triangle shall be observed at all street intersections or driveways with streets. Within this sight triangle, trees shall be permitted so long as (except during early growth stages) only their trunks are visible between the ground and eight (8) feet above the ground, or they otherwise do not present a traffic visibility hazard.
- B. At street intersections, the sight triangle is the area measured thirty (30) feet from the street intersection. No material shall be allowed to grow more than thirty-two (32) inches in height above the street grade within this sight triangle.
- C. At intersections of driveways with streets, the sight triangle shall be established by locating the intersection of the driveway pavement edge and the street right-of-way line within two ten (10) foot triangles. No landscaping over thirty-two (32) inches in height above the driveway grade may be maintained within this sight triangle.



### Section 38.05 Screening of Service Structures in Non-Residential Districts

#### A. Generally

The screening of service structures such as dumpster enclosures, HVAC equipment, transformer boxes, loading docks, service courts, etc. shall be as follows:

1. Screening may consist of walls, fences, natural vegetation or a combination thereof.
2. Natural vegetation screening, during full foliage, shall have minimum opacity of seventy-five (75) percent.
3. Fences and walls shall have an opacity of 100 percent.

#### B. Service Courts and Loading Dock Areas

#### C. Trash Container Receptacles

1. All areas used for service and loading activities shall be screened along the entire rear lot line and side lot line to the building set-back line in all commercial, office and industrial uses.

2. Where a loading area abuts a Residential District or use, screening eight (8) feet in height is required around all loading areas.
3. Where a loading area abuts a non-residential district or use, screening six (6) feet in height is required around all loading areas except when adjoining an Industrial District or another service court.

Screening of trash receptacles and dumpster enclosures is as established in Section 30.25, Dumpster and Trash Enclosure Areas.

### Section 38.06 Prohibited Locations and Species

- A. No trees shall be planted over any storm or sanitary sewers.
- B. The following plant materials are prohibited in a street right of way:

| <u>Scientific Name</u>       | <u>Common Name</u>      |
|------------------------------|-------------------------|
| <u>Trees</u>                 |                         |
| Abies species                | Fir                     |
| Acer negundo                 | Box Elder               |
| Acer saccharinum             | Silver Maple            |
| Aesculus hippocastanum       | Horsechestnut           |
| Ailanthus altissima          | Tree-of- Heaven         |
| Betula pendula               | European Birch          |
| Catalpa sepciosa             | Catalpa                 |
| Celtis occidentalis          | Hackberry               |
| Chamaecyparis species        | False Cypress           |
| Crataegus oxyaxantha 'Pauli' | Paul's Scarlet Hawthorn |
| Fraxinus                     | Ash                     |
| Ginko bilboa                 | Ginko                   |
| Juniperus virginiana         | Eastern Red Cedar       |
| Liriodendron tulipifera      | Tulip Tree              |
| Maclura pomifera             | Osage Orange            |
| Morus alba                   | White Mulberry          |
| Pinus strobes                | Eastern White Pine      |
| Populus species              | Poplars                 |
| Robinia pseudoacacia         | Black Locust            |
| Salix species                | Willows                 |
| Sorbus aucuparia             | European Mountain Ash   |
| Ulmus species                | Elms                    |
| <u>Shrubs</u>                |                         |
| Abelia grandiflora           | Glossy Abelia           |
| Berberis species             | Barberry                |

Caprifoliaceae species  
Forsythia species  
Rosa species  
Spiraea species

Honeysuckle  
Forsythia  
Rose  
Spiraea

### **Section 38.07 Maintenance**

- A. All shrubs, trees, grass, ground covers and other plantings shall be well maintained, properly weeded, properly pruned, mulched and kept free of trash and other unsightly material and/or debris. Required screening material which does not survive shall be replaced by an owner within six (6) months after the material dies.
- B. Fences, walls and other screening structures shall be maintained and kept in good condition.

### **Section 38.08 Landscaping Plan Required Prior to Issuance of Zoning Certificates and Certificates of Occupancy**

All portions of the lot upon which a building or parking area is not constructed shall be landscaped. A preliminary landscaping plan shall be submitted by the owner or developer of the lot or tract of land at the time the zoning certificate is applied for. The landscaping plan shall contain:

- A. The location and general description (i.e. trees, shrubs, grass, etc.) of areas to be landscaped.
- B. The size, caliper and height of plant materials at the time of planting and at the time of maturity.

No zoning certificate shall be issued until such plan has been approved by the Zoning Administrator/Enforcing Officer.

### **Section 38.09 Modifications**

The Zoning Administrator/Enforcing Officer may approve modifications to the landscaping and screening requirements. The Zoning Administrator/Enforcing Officer shall base their decision on ALL of the following criteria:

- A. The specific conditions exist which are unique to the applicant's land;
- B. The manner in which the strict application of the provision of this Article would deprive the applicant of a reasonable use of the land in a manner equivalent to the use permitted other landowners in the same zone;
- C. The unique conditions and circumstances are not the result of actions of the applicant or previous owners subsequent to the adoption of this Article;
- D. Reasons that the modification shall preserve, not harm, the public safety and welfare, and shall not alter the essential character of the neighborhood; and

E. A demonstration that the applicant has provided for a buffer that achieves the spirit of this Article.

The existing buffers and screening provide sufficient protection to adjacent properties such that the intent and spirit of this Article is achieved.