

ARTICLE 21

LANDSCAPE STANDARDS AND TREE REPLACEMENT

Sec. 21.01 Purpose

- a. The intent of this Article is to promote the public health, safety and welfare by establishing minimum standards for the design, installation and maintenance of landscape improvements. Landscaping is viewed as a critical element contributing to the aesthetics, development quality, stability of property values, and the overall character of the City. The standards of this Article are intended to help achieve a number of functional and environmental objectives such as:
1. Promoting the implementation of the City of Fenton Master Plan and subarea studies.
 2. Defining and articulating outdoor spaces and architectural elements.
 3. Obscuring, integrating and complementing various site elements.
 4. Assisting in directing safe and efficient movement of vehicular and pedestrian circulation.
 5. Screening headlights to reduce glare and incidental pollution.
 6. Reducing the physical impact between adjacent land uses.
 7. Providing landscape treatments that are consistent with adjacent sites and parcels within the surrounding area.
 8. Providing incentives to preserve quality existing plant material.
 9. Providing reasonable standards to bring developed sites, which existed prior to the adoption of these standards, into compliance with the requirements contained herein.
- b. The standards contained in this Article are considered the minimum necessary to achieve the objectives identified above. In several instances these standards are intentionally flexible to encourage flexibility and creative design. Additional landscaping beyond the minimum specified is encouraged to further improve the function, appearance and value of the property.

Sec. 21.02 Landscape Plan Specifications

- a. A separate detailed landscape plan shall be submitted as part of the site plan review process.
- b. The landscape plan shall demonstrate that all requirements of this Article are met and shall:
1. Illustrate location, spacing, species, and size of proposed plant material.
 2. Separately identify compliance with the minimum numeric requirements for greenbelts, buffer zones, parking lot trees, detention ponds, and interior landscaping; required trees or materials cannot be double counted.
 3. If applicable, identify compliance with the numeric requirements for tree replacement and preservation.
 4. Provide, as determined by the Planning Commission, typical cross sections to illustrate views from adjacent land uses and the slope, height and width of proposed berms or landscape elements.
 5. Identify trees and other landscape elements to be preserved.
 6. Delineate the location of tree protection fence and limits of grading at the perimeter of areas that to be preserved.
 7. Provide significant construction details to resolve specific conditions such as limits of grading adjacent to areas with trees and vegetative cover to be preserved, tree wells to preserve existing trees or culverts to maintain natural drainage patterns.
 8. Provide details to ensure proper installation and establishment of proposed plant material.
 9. Identify grass areas and other methods of ground cover.
 10. Identify a landscape maintenance program including a statement that all diseased, damaged or dead materials shall be replaced in accordance with standards of this Ordinance.

Sec. 21.03 Replacement of Removed Trees

A tree survey shall be submitted with any site plan for new development. The survey shall identify the location, species and size of existing trees on the proposed site. Existing trees that are greater than eight (8) caliper inches that are planned to be removed shall be replaced on the site in accordance with the following standards:

- a. Removed trees between eight (8) and eighteen (18) caliper inches shall be replaced at a rate of 50% of the total diameter breast height (dbh).
- b. Removed trees greater than eighteen (18) caliper inches shall be replaced at a rate of 75% of the total dbh.
- c. Removed trees greater than thirty (30) caliper inches shall be replaced at a rate of 100% of the total dbh.
- d. Trees that are dead or diseased, with no visible growth, as determined by the Building Official/Zoning Administrator, are exempt from replacement requirements.
- e. A summary table of existing trees shall be provided, indicating those trees that will be removed.

Sec. 21.04 Incentives to Preserve Existing Trees

The standards listed below are intended to encourage the preservation of quality and mature trees by providing credits toward required landscape components.

- a. Trees intended to be preserved shall be indicated on the site plan.
- b. To obtain credit, the preserved trees shall be arranged to meet the intent of this Article, be of high quality, as confirmed by the City, and at least 2.5" caliper in size for deciduous trees, 6 ft. in height for evergreen trees.
- c. Each deciduous tree preserved that is between 2.5" to 7.9" caliper in size and evergreen tree that is between 6 ft. to 19 ft. shall be calculated as one (1) required tree, two (2) credits for deciduous trees with a caliper of 8" or greater and evergreen trees greater than 19 ft.
- d. The landscape plan shall include a matrix that lists required trees and credits for preserved trees.
- e. During construction, tree protection fencing shall be placed ten (10) feet beyond the drip-line of the tree. The ground area within the fence line shall be maintained with vegetative landscape material or pervious surface cover. The Planning Commission may allow pedestrian pathways, driveways or parking within the dripline upon determination that the setback from the trunk of the tree is suitable to reasonably ensure protection of the tree and the public. Storage of soils or other materials within the dripline is prohibited.
- f. If trees are lost within three (3) years after completion of the construction, the property owner shall replace with new trees equal to the number of tree credits granted.
- g. Tree credits may account for up to fifty percent (50%) of the required trees and be applied anywhere on the site.

Sec. 21.05 Design Standards

a. **Greenbelts.** A greenbelt shall be planted or preserved along public right-of-ways, private road easements, and designated frontage roads and access drives. The greenbelt is intended to provide a transition between the roadway and an existing or proposed land use. Greenbelts shall be provided in accordance with the following requirements:

1. The width of the greenbelt shall be thirty-five (35) feet in residential districts and twenty (20) feet in nonresidential districts.
2. Greenbelts shall include only living materials and planting beds, except for approved sidewalks, bike paths, signs, driveways, and essential services.
3. Where sidewalks are located within the greenbelt, plant material shall be provided on each side of the pathway to provide visual and physical separation between the vehicular and pedestrian circulation.
4. The greenbelt shall contain a minimum of one (1) canopy tree and six (6) upright shrubs per thirty (30) linear feet, or fraction thereof, of street frontage including any openings for driveways, pathways or easements. The Planning Commission may approve the substitution of evergreen trees for up to fifty percent (50%) of the required canopy trees when appropriate in consideration of the land use and existing character of adjacent uses. A hedgerow with upright shrubs planted four to five feet on center along the entire road frontage may also be utilized.
5. Ornamental trees may be used to diversify greenbelt planting requirements, provided two (2) ornamental trees shall be provided for each one (1) required canopy tree.
6. Greenbelt plantings shall be arranged to simulate a natural setting such as massing or staggered rows, except where the Planning Commission finds a more formal arrangement would be consistent with the established character of the area.
7. Greenbelts shall be designed to ensure adequate sight visibility for motorists, adequate clearance for pedestrians and vehicles, clearance from overhead over head utility lines, adequate separation from underground utilities and accessibility to fire hydrants. Where such conditions prohibit full compliance, the Planning Commission may adjust the location of the required materials so as long as the design intent is met.

b. **Buffer Zones**

1. A buffer shall be provided between the subject site and all adjacent properties, developed or undeveloped, in accordance with the table on the following page.
2. The Planning Commission shall use the table on the following page as the minimum requirements necessary and determine whether landscaping, a wall, a berm, or combination of these elements are needed to attain the intended screening.
3. The use of canopy trees and associated understory are encouraged while walls and berms are discouraged.
4. Buffer zones shall include only living materials and planting beds, except for approved sidewalks, bike paths, signs, driveways, and essential services.

CITY OF FENTON ZONING ORDINANCE

Buffer Zones

Zoning or Proposed Use of Subject Site	Zoning or Use of Adjacent Site										
	Single-Family	Multiple-Family	Manufactured Housing	Office	Institutional, Medical or Municipal Use	Central Business District	Commercial	Industrial	Outdoor Storage Areas in any District	Public Utility Buildings & Structures in any District	Parking Lots
Single-Family	none	B	A	B	A	A	A	A	A	A	A
Multiple-Family	B	none	A	B	A	A	A	A	A	A	A
Manufactured Housing	A	A	none	A	A	A	A	A	A	A	A
Office	B	B	A	none	B	B	B	B	B	A	B
Institutional	A	A	A	B	none	B	A	B	B	A	B
Central Business District	A	A	A	B	B	none	B	A	A	A	B
Commercial	A	A	A	B	B	B	none	A	A	A	B
Industrial	A	A	A	B	A	A	A	none	B	B	B
Outdoor Storage Areas in Any District	A	A	A	B	B	A	A	B	none	B	B
Public Utility Buildings & Structures in Any District	A	A	A	A	A	A	A	B	none	none	B
Parking Lots	A	A	A	B	B	B	B	B	B	B	none

Buffer Zone A 30 foot minimum width, along the property line with two (2) canopy trees and four (4) shrubs, or one (1) canopy tree, one (1) evergreen and four (4) shrubs per twenty (20) linear feet, rounded upward, and including a wall, berm or combination of these elements as determined by the Planning Commission

Buffer Zone B 10 foot minimum width, along the property line with one (1) canopy tree and four (4) shrubs, or one (1) evergreen tree and four (4) shrubs per twenty (20) linear feet, rounded upward

Along U.S. 23 Right-of-Way A six (6) foot high berm shall be provided and meet the planting requirements of buffer A

- c. **Parking Lot Landscaping.** Parking lot landscaping shall be provided in accordance with the following standards:
1. Landscaping shall be dispersed evenly throughout the parking lot in order to break up large expanses of pavement and assist with vehicular and pedestrian flow.
 2. At least one (1) canopy tree shall be provided per eight (8) parking spaces provided.
 3. All of the required parking lots trees shall be placed within the parking lot envelope as described by the area including the parking lot surface and extending outward ten (10) feet from the edge of the parking lot.
 4. A minimum of one-third (1/3) of the trees shall be placed within parking islands located inside the perimeter of the parking lot.
 5. Parking lot islands shall be curbed and be at least one-hundred (100) square feet in area. Islands within parking lots having less than 100 spaces may be a minimum of ten (10) feet in width, parking areas with more than one-hundred (100) spaces shall have islands at least twenty (20) feet in width. The depth of the island shall be two (2) feet shorter than an adjacent parking space.
 6. Only trees, shrubs, grass or other living ground cover shall be used within parking lot islands.
 7. The design and layout of the parking lots shall provide appropriate pedestrian circulation and connections to perimeter pedestrian connections.
- d. **Detention/Retention Pond Landscaping.** Ponds shall be located outside required setbacks and designed to provide a natural appearance. Detention and retention ponds shall be provided in accordance with the following standards:
1. Side slopes shall be such that the perimeter of the pond shall not need to be fenced.
 2. One (1) canopy or evergreen tree and ten (10) shrubs are required per fifty (50) feet of pond perimeter, as measured along the top of the bank elevation. The required landscaping shall be planted in a random pattern, not limited to the top of the pond bank.
 3. Where a natural landscape is found not to be particular or desirable the Planning Commission may require some type of decorative fencing.
- e. **Interior Site Landscaping.** Site landscaping shall be located near building entrances, along building foundations, along pedestrian walkways, near service areas or as landscaped plazas.
- f. **Residential and Site Condominium Developments.** Landscaping for single-family and multiple-family residential developments shall be provided in accordance with the following requirements:
1. Street trees shall be provided at a rate of one (1) tree per forty (40) linear feet of frontage, or thereof, along all interior roads. The Planning Commission may determine that existing trees preserved within ten (10) feet of the road edge may fulfill the street tree requirement for that portion of the road. Trees should generally be planted between the sidewalk and road curb, in consideration of intersection sight distance.
 2. The landscape plan shall also include details of the cul-de-sac islands, project entrances, accessory buildings and common open space areas.
- g. **Right-of-Way Landscaping.** Public rights-of-way shall be planted with grass or other suitable living plant material and maintained by the owner or occupant of the property. Trees and shrubs may be planted within the right-of-way with permission from the appropriate authority with jurisdiction over the street.
- h. **Accessory Site Components.** In addition to required screens or walls, site elements such as waste receptacles, air conditioner units, utility boxes and other similar components shall be appropriately screened with plant material.

Sec. 21.06 Specifications for Landscape Improvements and Plant Materials

- a. **Wall Standards.** While walls are not necessarily encouraged, certain situations may be appropriate for provision of a wall. When provided, walls shall meet the following requirements:
 - 1. Walls shall be located on the lot line or within the required setback when it is desired to have plant material on both sides of the wall.
 - 2. Walls shall be continuous except for openings for pedestrian connections as approved by the Planning Commission.
 - 3. Walls shall be constructed of the primary building material of the principal structure as determined by the Planning Commission.
 - 4. The height of any wall shall be as determined by the Planning Commission based on the intended screening.

- b. **Berm Standards.** While berms are not necessarily encouraged, they may be appropriate in certain situations. In instances where wider open spaces are available between uses, the Planning Commission may allow the substitution of a berm with additional landscaping in place of the wall requirement. Berms shall be constructed with horizontal and vertical undulations so as to represent a natural appearance with a crest area at least four (4) feet in width. Berms shall be planted with trees, shrubs or lawn to ensure that it remains stable. The exterior face of the berm shall be constructed as a earthen slope. The interior face of the berm may be constructed as an earthen slope or retained by means of a wall, terrace or other similar method. The maximum slope of the berm shall not exceed one (1) foot of vertical rise to three (3) feet of horizontal distance.

- c. **Plant Material.** All plant material shall be hardy to the City of Fenton, be free of disease and insects and conform to the American Standard for Nursery Stock of the American Nurserymen. Landscaped areas shall include only living plant materials and planting beds, no pebbles or stones are permitted.

- d. **Minimum Sizes and Spacing.** The minimum plant sizes and spacing shall be provided in accordance with the following:
 - 1. Wherever screening is required, screening shall consist of closely spaced evergreen plantings which can be reasonably expected to form a complete visual barrier. Deciduous plant material may be used for variety to supplement evergreen plantings.

Minimum Sizes and Spacing		
Type of Plant Material	Minimum Plant Sizes	Spacing Requirements
Deciduous canopy trees	2½ in. caliper	25 ft. on-center
Ornamental trees	2 in. caliper 6 ft. height (clump form)	15 ft. on-center
Evergreen trees	8 ft. height	15 ft. on-center
Narrow evergreen trees	4 ft. height	12 ft. on-center
Deciduous shrubs	3 ft. height	4 ft.-6 ft. on-center
Upright evergreen shrubs	3 ft. height	3 ft.-4 ft. on-center
Spreading evergreen shrubs	18 in.-24 in. spread	6 ft. on-center

- e. **Mixing of Species.** The overall landscape plan shall not contain more than thirty-three percent (33%) of any one plant species. The use of native species and mixture of trees from the same species

association is strongly encouraged.

- f. **Trees Not Permitted.** The following trees are not permitted as they split easily, their wood is brittle, their roots clog drains and sewers, and they are unusually susceptible to disease or insects. The Planning Commission may however allow trees from this list when associated with an appropriate ecosystem. Trees not permitted are as follows: Box Elder, Elms, Tree of Heaven, Willows, Soft Maples (silver), Poplars, Horse Chestnut (nut bearing), Ash, Ginkgo (female), Cottonwood, Mulberry, Black Locust, Honey Locust (with thorns).
- g. **Planting Beds.** Bark used as mulch shall be maintained at minimum of two (2) inches deep. Planting beds shall be edged with plastic, metal, brick or stone in residential districts and metal edging in all other zoning districts.
- h. **Topsoil.** Top soil shall consist of a 4" base for lawn areas and an 8"-12" base within planting beds.
- i. **Proximity to Utilities.** Plant material shall not be located in a manner that will interfere with or cause damage to underground utility lines, public roads or other public facilities.
- j. **Lawn Grasses.** Lawn grasses shall be planted in species normally grown as permanent lawns in Genesee County. Grasses may be plugged, sprigged, seeded or sodded except that rolled sod, erosion reducing net or suitable mulch shall be used in swales or other areas susceptible to erosion and shall be staked where necessary for stabilization. When complete sodding or seeding is not used, nursegrass seed shall be sown and mulched for immediate protection until permanent coverage is achieved. Grass sod and seed shall be free of weeds and noxious pests or disease.

Sec. 21.07 Minimum Standards for Installation, Irrigation and Maintenance

- a. **Timing of Planting.** All required plant material shall be planted prior to issuing a Final Certificate of Occupancy. In the event that the project is completed during a time of year when planting is impractical, a financial guarantee in the amount of the remaining improvements shall be provided in a form of payment acceptable to the City.
- b. **Completion of Improvements.** Tree stakes, guy wires and tree wrap shall be removed after completion of the initial growing season.
- c. **Irrigation.** All landscaped areas shall be provided with an underground irrigation system.
- d. **Maintenance.** Landscaped areas and plant materials required by this chapter shall be kept free from refuse and debris. Plant materials, including lawn, shall be maintained in a healthy growing condition, neat and orderly in appearance in accordance with the approved site plan. If any plant material dies or becomes diseased, it shall be replaced within thirty (30) days written notice from the City or within an extended time period as specified in said notice.

Sec. 21.08 Standards for Compliance for Existing Sites

In any case where the building and/or parking area is being increased by at least twenty-five percent (25%) over the originally approved site plan or is being changed to a more intense use as determined by the Planning Commission, the site shall be brought into full compliance with the landscape standards herein. In instances where the increase in building and/or parking area is less than twenty-five percent (25%) over the original site plan, the extent of new landscaping shall be equal to four percent (4%) of compliance for every one percent (1%) of increase in building or parking footprint. For example, a building or parking area increase of ten percent (10%) requires forty percent (40%) compliance with the landscape standards.

