

# Carroll County Landscape Manual



**Carroll County, Maryland**  
**April 2013 Edition**



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# CARROLL COUNTY LANDSCAPE MANUAL

## DEFINITIONS

Any term not defined in this Manual shall have the meaning as defined in Chapter 157. Any term not defined in Chapter 157 shall have the meaning as defined in any chapter of the Code. Any term not defined in the Code in any chapter shall have its generally accepted meaning.

**Adjacent Road** – Any public motorway whose right-of-way line is contiguous with the property line of the subject parcel, including but not limited to, local, County, and State roads.

**Buffer Area** – An area designated to reduce the impact of dissimilar land uses.

**Caliper** – The diameter of a tree taken 6” above ground level up to and including 4” caliper size and 12” above the ground level for larger sizes.

**Champion Tree** – The largest tree of its species within the United States, the State, county, or municipality.

**Commercial Development** – For landscape purposes, development requiring a building permit, including, but not limited to, office, retail, manufacturing, institutional and multi-family dwellings, but excluding single and semi-detached residential.

**Display Areas** – That portion of a parking lot used to display merchandise for sale or lease.

**Drive-Thru Service Lane** – Any private roadway used for access to or stacking space at carry-out windows for customers in motor vehicles, including, but not limited to, drive-thru restaurants and banks.

**Interior Roadway** – The portion of a local system roadway that is primarily intended for access and circulation within a development and is a minimum of 30 feet in length.

**Intermediate Arterial** – See “Roadways”

**Local System Roadways** – See “Roadways”

**Major Collectors** – See “Roadways”

**Mini-Storage Service Lane** - That area of a road that abuts a mini-storage and is for the purpose of ingress and egress to that use.

**Minor Arterial** – See “Roadways”

**Minor Collectors** – See “Roadways”

**Panhandle Lot** – A lot so shaped and situated that its only frontage to the public street is an in-fee strip of land that may contain a driveway and may contain water and sewer lines and other utilities.

**Parking Lot Area** – All internal paved areas used for parking, excluding area reserved solely for loading and vehicle storage, and including islands, medians, driveways, aisles, cartways, stacking, service bays, and excess areas because of design configuration.

**Planting Area** – An area of land designated for trees and/or shrubs and/or groundcovers.

**Planting Unit or PU** – A unit of measurement for determining the quantity of plant materials required.

**Principal Arterial** – See “Roadways”

**Roadways** – Roadways can be classified into six categories: intermediate arterial, local system, major collector, minor arterial, minor collector and principal arterial. Following are the definitions of the six categories:

- **Intermediate Arterial** – An intermediate arterial supplements the principal arterial system. Intermediate arterials provide service to trips of a moderate length while distributing travel to smaller geographic areas than those served by principal arterials. Examples: MD 140 west of Westminster to Frederick County line, MD 97 north of MD 496 to Pennsylvania State line.
- **Local System Roadways** – Local roads or streets provide for direct access to individual land uses. They discourage through traffic and are typically low in traffic volumes and speed. Examples: Pinch Valley Road, Mayberry Road, Snydersburg Road and most internal subdivision streets.
- **Major Collector** – A major collector provides for both land access and movement within residential, commercial, industrial or agricultural areas. They are the links from the land uses to the arterials. Major collector roads provide service to areas not on an arterial route and to other important traffic generators such as schools, parks, etc. Examples: Uniontown Road, Deer Park Road, Woodbine Road, Bachman Valley Road (MD 496).
- **Minor Arterial** – Minor arterial roadways provide a lower level of mobility while placing more of an emphasis on land access than the other arterial classifications. These roadways typically provide a link to the collector roadway system and connect small population centers to the overall arterial system. Examples: MD 482, MD 194, MD 31.
- **Minor Collectors** – Minor collectors provide service to the remaining traffic generators and are spaced at intervals consistent with population densities. They

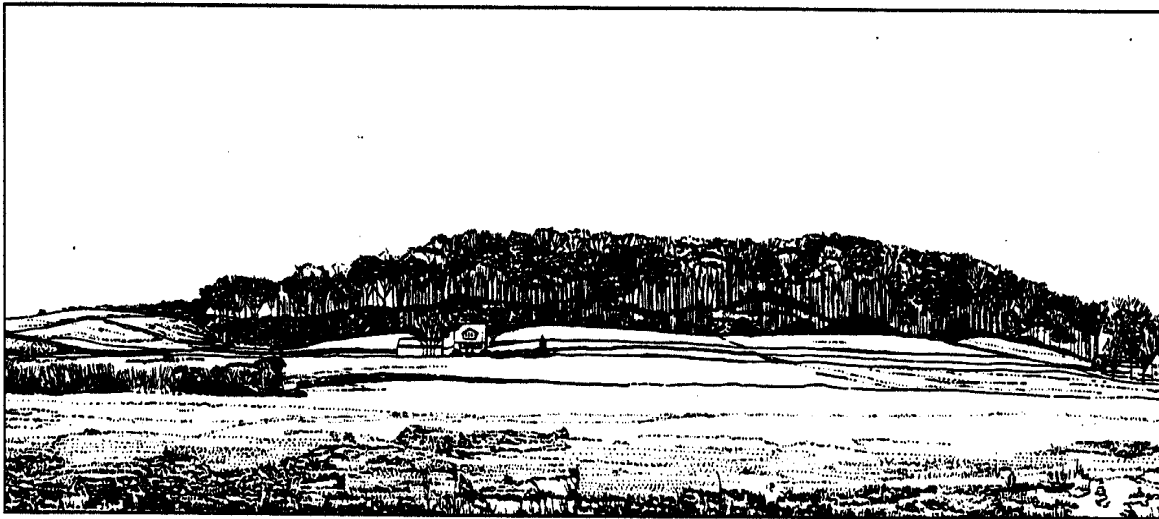
bring all developed areas to major collectors or arterials. Examples: Nicodemus Road, Gillis Falls Road, Kays Mill Road, Bark Hill Road.

- **Principal Arterial** – A principal arterial links large population or employment centers. Principal arterials can range from expressways to two-lane roadways. They are inter-county or interstate oriented and indicative of long travel lengths. Examples: MD 30, MD 140 from Baltimore County line through Westminster.

**Specimen Tree** – A tree having a diameter of 30 inches or more measured at 4.5 feet above the ground, a tree having at least 75 percent of the diameter of the current State champion of that species, or a champion tree.

**Use in Common** – A private driveway serving two or more properties and which provides vehicular access to a public street.

**Xeriscape** – A sustainable landscape that conserves water and is based on sound horticultural principles.



*The scenic quality of the existing woods is preserved in this rural residential development.*

# **PART ONE**

## **GOAL**

## **I. GOAL**

Landscapes in Carroll County range from rural forest and pastures, to residential developments of varying densities, some bordered by commercial corridors, to urban streetscapes and commercial centers. Institutions such as hospitals, colleges, schools, and houses of worship contribute attractive estate-like landscapes that generate a sense of spaciousness to their communities. This Landscape Manual's goal has been refined to reflect the purpose of landscape in relation to environmental quality, rural development, community conservation efforts, and economic enhancement in commercial areas.

It is the goal of this Manual to use the landscape elements in land development in an organized and harmonious fashion that will enhance the physical environment of Carroll County for the benefit and enjoyment of its citizens. Landscaping should be used to:

- Improve environmental quality.
- Increase species diversity
- Preserve rural character.
- Contribute to the aesthetic and economic value of neighborhoods.
- Enhance neighborhood security.
- Foster the economic vitality of commercial development.

### **A. Environmental Quality**

Development is subject to various environmental regulations, forest conservation, stormwater management, sediment and erosion control, stream/forest buffers and critical areas. Where Forest Conservation or other environmental regulations achieve the goal of protecting natural resources, this Landscape Manual does not impose overlapping requirements. The Landscape Manual provides for appropriate screening and transitions between the buildable areas and the undisturbed areas of development.

It is the policy of Carroll County to maintain the purity of its air resources and to control detrimental impacts from air pollutants upon public health, property, environmental resources, and climate, and to slow the build-up of greenhouse gases in the atmosphere that contribute to global warming. In conjunction with the County's forest program and regulations, the Landscape Manual encourages the retention and the planting of trees that help reduce greenhouse gases and ambient air pollution. Wooded and landscaped areas also enhance cooling and sheltering of buildings and increase habitat diversity.

### **B. Preservation of Rural Character**

The site layout and landscape patterns of new development shall incorporate design principles that will help retain the essential visual, spatial, and environmental qualities of the traditional landscape. Natural landscapes shall be treated with sensitivity and respect.



### **C. Neighborhood Security**

Landscape design must be sensitive to public safety concerns and the perception of a comfortable and safe environment. Neighborhood security is built on the ability of people to feel responsible and in control of their surroundings. Landscape design must allow surveillance of private and public properties, open spaces, and roadways that make up neighborhoods. Design and maintenance of planting and lighting play important roles in providing a secure neighborhood environment. Landscape areas in residential and commercial developments shall be maintained and kept free from refuse and debris to present a healthy and prosperous appearance.

### **D. Commercial Image**

The County's older communities are often characterized by traditionally styled homes, tree-lined streets, and an inter-connected road network. Commercial areas are often an integral part of older communities and have a strong impact on the viability and public perception of the neighborhood. The commercial corridors provide the main travel ways that connect people from work, school, and shopping to their homes. The commercial area along these travel ways must be clean, well maintained, comfortable, and appealing to the passerby in order to project a positive image about the adjacent residential areas. The landscape treatment of commercial development plays an important role in expressing economic vitality of commercial corridors and securing the stability of the adjoining neighborhoods.

## **II. OBJECTIVES**

Landscape is an essential element of good site design. Basic planning principles to address image, circulation, open space, and recreation must be employed if the objectives are to be accomplished.

Objectives of this Landscape Manual are summarized as follows:

- A. **Landscape Design** - Provide landscape design that is functional, cost-effective and sound.
- B. **Site Design** - Foster site design that preserves natural vegetation and landforms.
- C. **Spatial Relationships** - Articulate spatial relationships and provide image and structure to the built environment.
- D. **Complement the Built Environment** - Complement the built environment through planting which:
  - 1. Reduces soil erosion.
  - 2. Establishes comfort zones and windbreaks.
  - 3. Provides visual screens and buffers.
  - 4. Reduces glare, noise and heat.
  - 5. Provides shade.

### **III. LANDSCAPE ELEMENTS**

Landscape elements are used to accomplish the desired objectives. A general listing of landscape elements is as follows:

1. Topography (existing) and landforms.
2. Planting.
3. Grading.
4. Fences, walls and berms.
5. Paths and sidewalks.
6. Lighting.
7. Landscape furniture.
8. Miscellaneous structures.

Through creative and sensitive application of many related elements, the landscape architect can create a successful integration of architectural and landscape elements. A thorough understanding of these elements and their effective application will result in a positive addition to the community as well as pleasant individual experiences for the residents of the area.

## **PART TWO**

# **LANDSCAPING REQUIREMENTS**

## LANDSCAPING REQUIREMENTS

### **I. RESIDENTIAL**

#### **A. Parking Lots**

1. Perimeter Screening
  - a. Adjacent to public rights-of-way, screening shall comply with Class B requirements. A minimum 15-foot landscape area is required from the property line.
  - b. A minimum 6-foot landscape strip with Class B screening, is required between paved surfaces of the site adjacent to non-residential parking.
  - c. Adjacent to residential structures a minimum 10 foot Class A screening is required.
  - d. Berms and grade changes may be used to screen parking areas.
2. Interior Landscaping
  - a. Reserve minimum 10% of parking lot area for interior landscape. Required interior landscaping shall be installed in peninsulas, islands, or planting breaks to separate:
    - i. Parking lot entrances from adjacent parking spaces.
    - ii. Interior roads with no public right-of-way from parking bays.
    - iii. Changes in aisle and bay orientation.
    - iv. Interior drives from parking spaces.

Plantings are to be at one PU per 12 parking spaces.

- b. Landscape islands and medians shall be mounded unless utilized for stormwater management measures.
- c. The minimum width of the planting area medians or islands shall be 10 feet, from face of curb to face of curb.
- d. Parking lots containing less than 5,000 square feet of paved area are exempt from interior landscaping.
- e. Landscape islands shall be required after every 12 parking spaces.

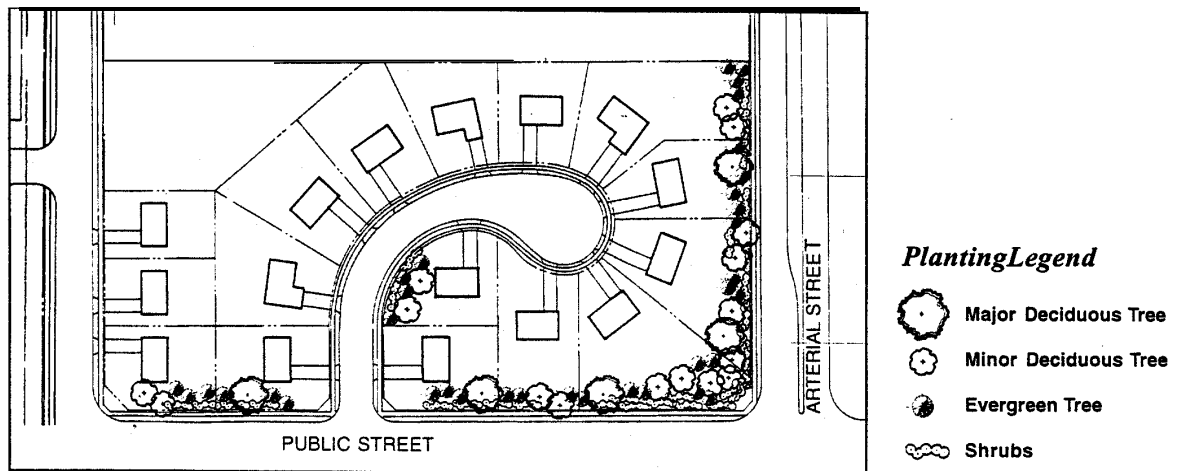
- f. Parking lot medians are required between rows of parking.
- g. Grade changes may be utilized within parking lot medians.
- h. Interior landscape areas may be consolidated to preserve specimen trees pursuant to §157.20.F of the Code.
- i. These interior landscaping requirements may be modified at the discretion of the County.

**B. Rear/Side Yards Adjacent to Streets**

1. Local System Roadways and Minor Arterials

- a. Screening of a dwelling unit is required where a rear or side lot line abuts a public right-of-way. Screening shall comply with “Class A” requirements. A minimum 15-foot landscape area is required from the property line.
- b. If fencing is utilized, it shall be set back 15 feet from the right-of-way in conjunction with trees and shrubs. The required trees and shrubs shall be provided on the street side of the fence.

***Example Rear/Side Yard Adjacent to Streets***



2. Intermediate and Principal Arterials

- a. The landscape area shall extend a minimum of 30 feet from the property line with a 5-foot high berm installed.
- b. No slopes greater than 3:1 on the berm.

- c. Planting quantities shall be calculated at double the Class A requirement.
- d. Planting shall be distributed across the entire berm for noise attenuation.

**II. NON-RESIDENTIAL (COMMERCIAL, INDUSTRIAL, INSTITUTIONAL AND GOVERNMENTAL)**

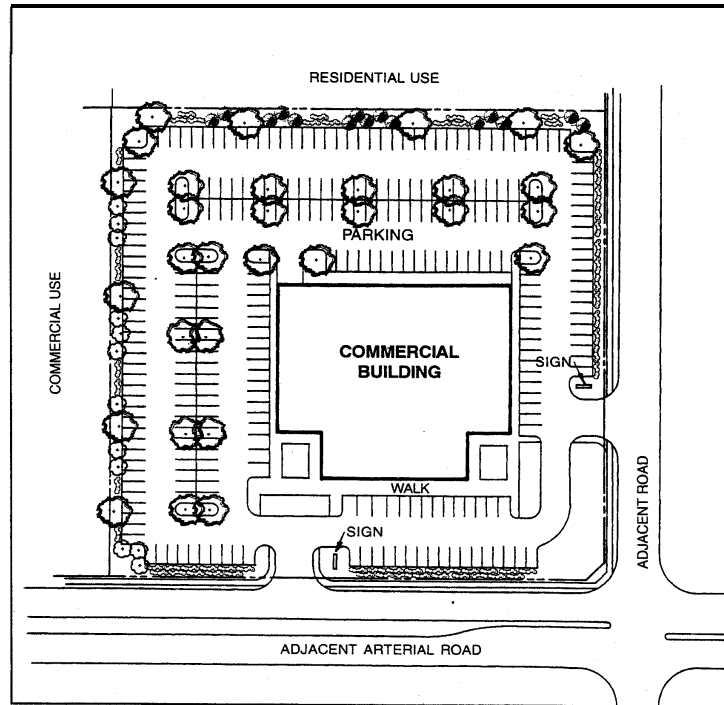
**A. Buildings**

- 1. Adjacent to public rights-of-way (no parking lot in between), screening shall comply with Class B requirements.
- 2. Adjacent to residential zones or uses, a minimum 10-foot wide Class A screen is required.
- 3. For redevelopment, a brick or decorative block wall may be utilized where a landscape strip is not feasible.
- 4. Berms and grade changes may be used to screen buildings.





**B. Parking Lots/Parking Structures**

- 1. Perimeter Screening
  - a. Adjacent to public rights-of-way, screening shall comply with Class B requirements.
  - b. A minimum 6-foot Class B landscape strip between paved surfaces of the site and adjacent residential parking lots is required.
  - c. Adjacent to residential zones or uses (other than parking areas) a minimum 10 foot wide Class A screen is required.
  - d. For redevelopment, a brick or decorative block wall may be utilized where a landscape strip is not feasible.
  - e. Berms and grade changes may be used to screen parking areas.

## Example - Perimeter Parking Lot Screening



### Planting Legend

-  Major Deciduous Tree
-  Minor Deciduous Tree
-  Evergreen Tree
-  Shrubs

2. Interior Landscaping
  - a. Reserve minimum 10% of the parking lot area for interior landscaping. Required interior landscaping shall be installed in peninsulas, islands, or planting breaks to separate:
    - i. Parking lot entrances from adjacent parking spaces.
    - ii. Interior roads with no public right-of-way from parking bays.
    - iii. Changes in aisle and bay orientation.
    - iv. Interior drives from parking spaces.
    - v. Plantings are to be at one PU per 12 parking spaces.
  - b. Landscape islands and medians shall be mounded, unless utilized for stormwater management measures.

- c. The minimum width of parking lot medians or islands shall be 10 feet from face of curb to face of curb.
- d. Parking lots containing less than 5,000 square feet of paved area are exempt from interior landscaping.
- e. Landscape islands shall be required after every 12 parking spaces.
- f. Grade changes may be utilized within parking lot medians.
- g. Interior landscape areas may be consolidated to preserve specimen trees pursuant to § 157.20.F of the Code.
- h. The interior landscaping requirements may be modified at the discretion of the County.

3. **Parking Structures:**

- a. Where parking structures are located along public streets, the area between the edge of the public right-of-way and the face of the structure must be landscaped with street trees and ground level plants. The area shall be a minimum of 15 feet in width, unless the structure is architecturally enhanced.
- b. Where parking occupies the ground floor and is visually open to the street, provide Class B screening and street trees as required in the street frontage section.
- c. Masonry walls and ground level plantings must provide screening between column supports where the ground floor is occupied by vehicles.

**C. Outside Display Areas**

- 1. Where outside display areas are adjacent to public rights-of-way, a Class D screen shall be required.
- 2. A minimum 6-inch high curb is required to separate the display surface from the planting area.
- 3. Display areas shall not be placed or displayed within the landscape strip or public right-of-way.
- 4. Areas dedicated to customer and employee parking are subject to the requirements of the non-residential parking lots. Areas dedicated to storage of vehicles, equipment, and merchandise shall be subject to the non-residential storage and loading area requirements.



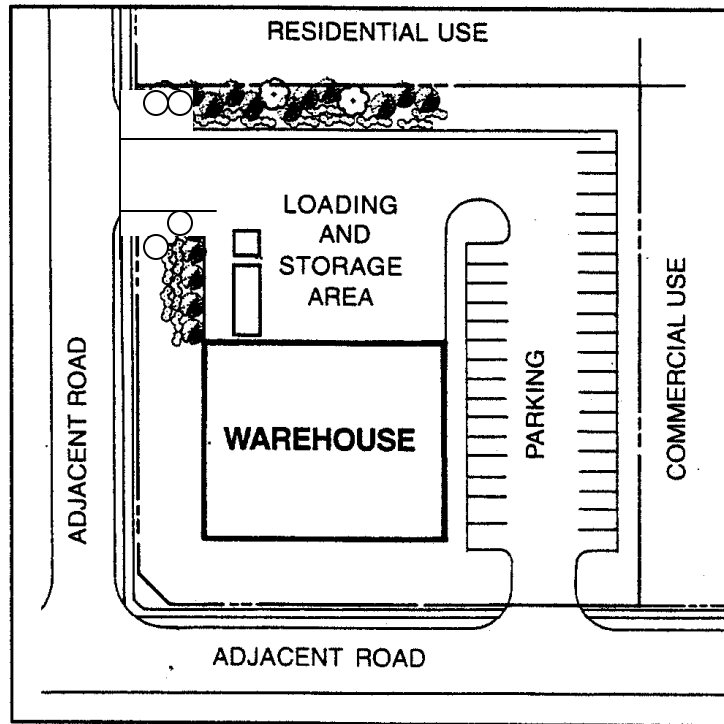
**D. Service Lanes**

1. Where mini-storage service lanes and doors, drive-thru service lanes and stacking spaces, menu boards and teller facilities are adjacent to public rights-of-way a class B screen shall be required.
2. Provide 6 feet of landscape space between paved surfaces and lot lines adjacent to commercial uses or zones. Plant at one PU per 25 linear feet of paving perimeter.
3. A Class A screen is required adjacent to residential and institutional properties.
  - a. Provide a 15-foot landscape strip along property boundaries.
  - b. Fences and/or walls shall be located on the inside edge of the required buffer. Planting shall be located on the street side of the fence/wall.
  - c. A brick or decorative block wall may be considered as an alternative.




**E. Outdoor Storage and Loading Areas**

1. Class A screening is required for loading and storage areas adjacent to public and private streets.
  - a. A minimum 15-foot landscape strip is required.
  - b. Fencing or walls shall be set back from the property line with planting on the street side.
2. Class A screening is required for loading and storage areas from all adjacent non-residential uses, except similar industrial uses.
3. Class C screen within a 15-foot landscape strip is required to screen loading and storage areas from all adjacent residentially zoned or used properties.

## *Example Outdoor Storage or Loading*



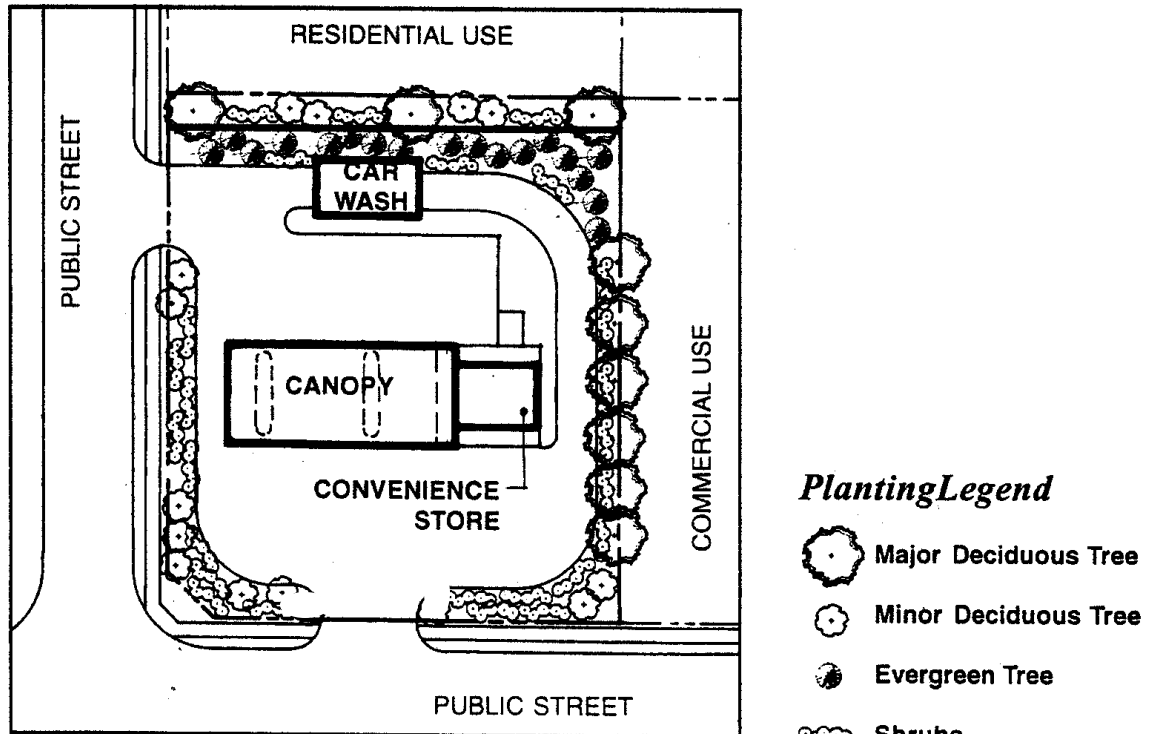
### *Planting Legend*

-  Minor Deciduous Tree
-  Evergreen Tree
-  Shrubs

### **F. Automotive Uses (Fuel Stations and Car Washes)**

1. Adjacent to public rights-of-way, screening shall comply with Class B requirements.
2. Adjacent to commercial zones or uses, or institutional uses, a minimum 10-foot wide Class A screen is required.
3. Adjacent to residential zones or uses, a Class C screen is required.

## Example Automotive Use

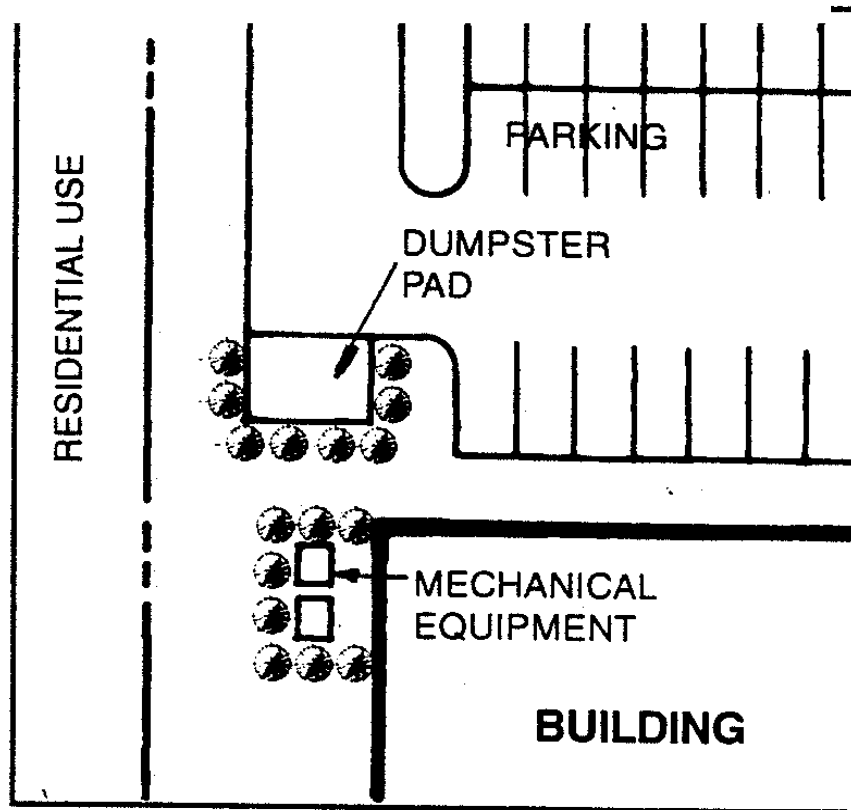


### III. OTHER

#### A. Dumpsters and Ground-Mounted HVAC

1. Class A screen is required for dumpsters and ground-mounted HVAC equipment. The linear feet of screening shall be measured along the perimeter.
2. Dumpster enclosures must be placed a minimum of 15-feet off rights-of-way and adjacent residential zones or uses.
3. Dumpsters shall have operable front gates where the dumpster is visible from public street, entry drive, or adjacent residential zone or use.
4. Dumpsters and ground-mounted HVAC shall be screened from entrance drives.
5. When using a dumpster enclosure a low growing shrub planting surrounding the enclosure will be required.

*Example – Dumpsters and Ground Mounted HVAC*



***Planting Legend***

 Evergreen Tree

**B. Stormwater Management Facilities**

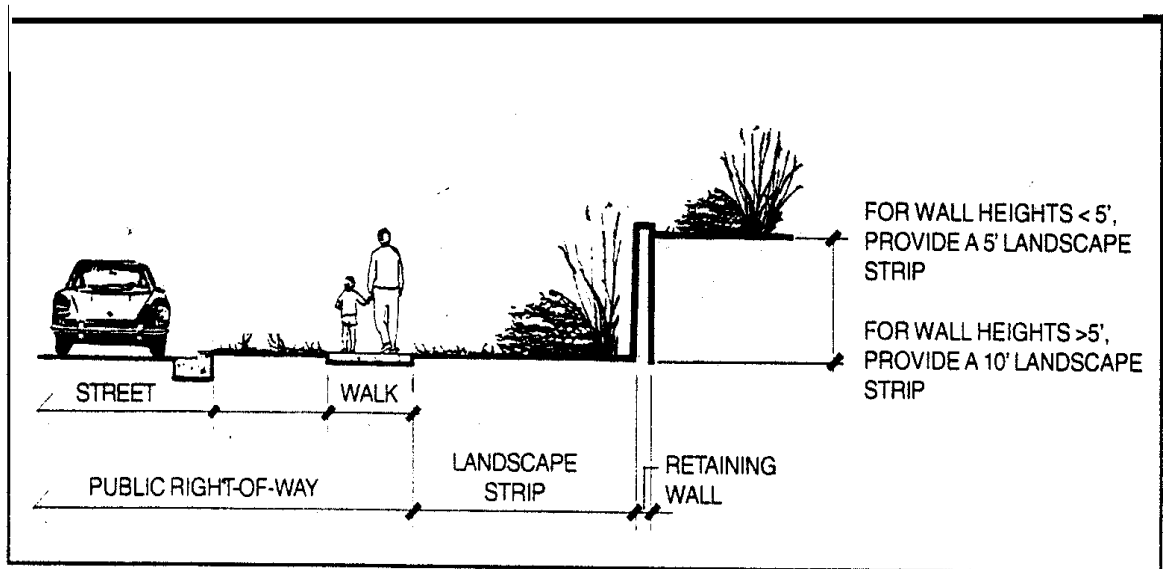
1. Non-residential ponds that are not exempt from MD378 criteria (deeper than 4 feet with an engineered dam) must be screened where adjacent to residentially used or zoned properties. Screening shall be Class A with a minimum 10-foot wide landscape area.
2. No trees, shrubs, or other woody vegetation may be planted closer than 15 feet from the toe of a fill embankment and no closer than 25 feet from a riser structure.

**C. Slopes and Retaining Walls**

3. Retaining Walls

- a. Provide a 5-foot wide landscape area at the base of the retaining walls less than 5 feet in height.
- b. Provide a 10-foot wide landscape area at the base of retaining walls 5 feet in height or greater.
- c. Plantings shall be at one PU per 25 linear feet at the base of the wall.
- d. Where limited space is justified, the use of acceptable climbing vines may be utilized to reduce the landscape area to 3-feet.

## *Retaining Walls*



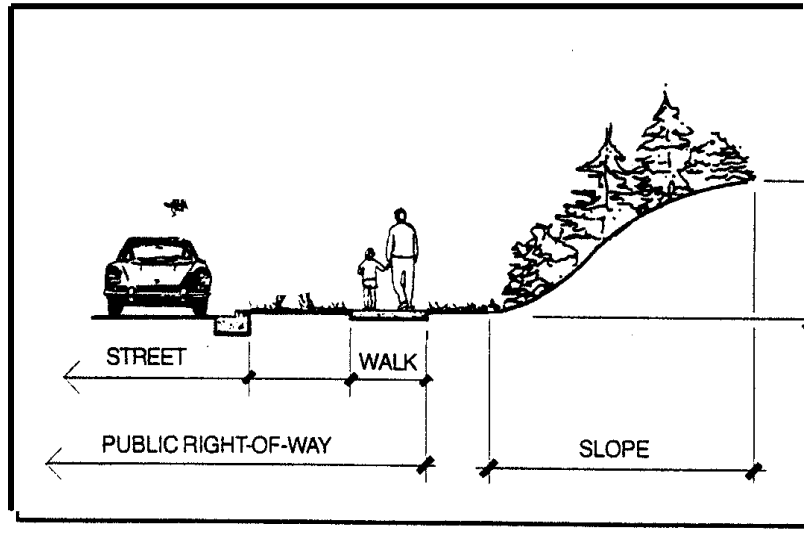
### 4. Slopes

- a. Slopes greater than 3:1, exceeding 10 feet in height on non-lot areas, shall be planted. Planting shall be in accordance with the following formula:

Slope Area (in Square Feet) Divided by 400 = PU's Required

- b. This requirement does not apply to public rights-of-way, utility easement or stormwater management facilities.
- c. Plantings shall be a mixture of shrub masses and evergreen/deciduous trees.

## *Slopes and Embankments*



### **D. Parks**

1. Landscaping shall enhance the natural attractiveness of an area; channel people along reinforced pathways and help disguise maintenance areas and other human-made structures. Landscaping should support rather than dictate planning efforts.
2. To remain consistent with the natural environment, use of plants native to the region are encouraged. Where appropriate, larger stock (>1.5") should be utilized.
3. There are other human needs besides aesthetics, which shall be considered when providing landscaping for park areas. Design decisions should not focus exclusively on the form of the area; the function is a primary concern. The effect landscaping has on user safety and convenience shall be addressed. For instance, tall, dense shrubs along quiet walkways may create dangerous conditions, particularly in some urban areas; poisonous plant or those with thorns are inappropriate in most use areas; some plants, such as the female Ginkgo, bear fruit, which emits offensive odors. Factors such as these do not always preclude the use of certain plant materials.
4. Landscaping decisions shall incorporate not only recreationists by also other "users" of the park: the managers, programmers, and maintenance staff. Some areas may need to be kept free of vegetation to provide for security purposes. And programmers may require a mixture of sunny and shaded areas for various activities.

5. The important part to remember is how landscaping will affect all these groups both immediately and some time after newly introduced plants reach maturity.
  - a. Landscaping shall be site specific. Every park will have different landscaping aspects that will require varied landscaping applications.
  - b. Emphasis shall be placed on landscaping the entrance to the park. Landscaping shall portray a public park entrance.
  - c. Parking areas shall be adequately landscaped to reduce heating of the impervious surface.
  - d. Natural resources within the park shall be landscaped to protect and conserve the natural resource.
  - e. Landscaping shall be provided at pavilions.
  - f. Residential buffers and street frontage shall be specific to the site. The type of buffer will vary as well. Dense screening shall be discouraged.
  - g. Landscaping shall be considered throughout the park. Emphasis shall be placed on providing security and function as well as aesthetics. A mixture of sunny and shaded areas for various activities is recommended.
  - h. Any required forest conservation shall provide the required-forested area and work with the proposed landscape design.
  - i. Special selection shall be site specific and diverse. Species selected shall be well suited for park conditions.
  - j. Non-residential requirements including parking lots, dumpsters, stormwater management facilities, slopes and retaining walls shall apply to parks when establishing planting unit quantity.

## **E. Landfills**

1. Berm height shall be a minimum of 10-foot in length with a maximum of 3:1 slopes.
2. Berms shall be required for visual screening of active landfilling operations.
3. Forest Conservation plantings may be substituted for screening requirements.
4. Minimum 70-foot wide perimeter buffer shall be provided.
5. Where forests exist, berms or screening will not be required.
6. If the buffer area is not forested, screening shall be established before filling may begin. Plant at one PU per 200 square feet of buffer area. 100% of the PU's shall be evergreen and deciduous trees. Evergreen trees shall be a minimum of 6 feet in height and deciduous trees shall be a minimum of 1.5 inches in caliper at installation.

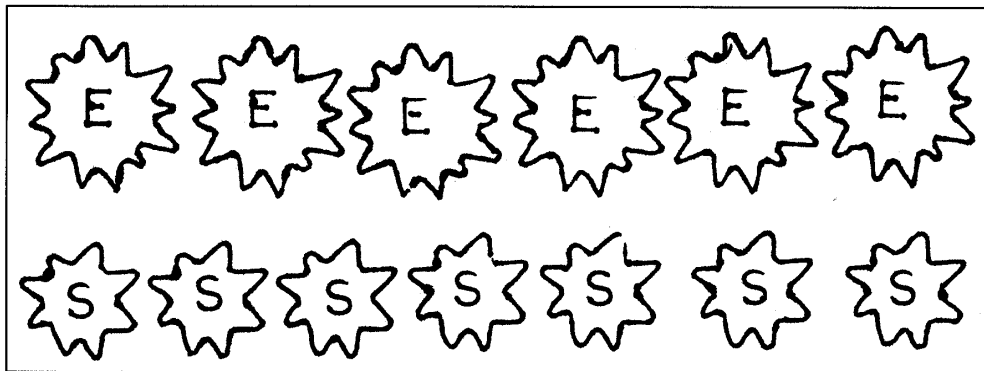
## **F. Telecommunication Towers**

1. **Visual Impacts** – Whenever a tower is less than 500 feet from a public right-of-way or neighboring property, The visual impacts of the tower and ancillary structures shall be mitigated for nearby viewers through landscaping. The landscaping and buffering of communication towers shall be required around the perimeter of the tower and ancillary structures. Ancillary structures include, but are not limited to, buildings and equipment. Required landscaping shall be installed outside the fence or wall.
2. **Required Landscaping** – All required landscaping shall be xeriscape tolerant or irrigated and properly maintained to ensure good health and vitality.
  - a. A row of evergreen trees a minimum of 6 feet tall on 10-15 foot centers shall be planted and maintained at locations surrounding the tower, and buildings and equipment such that maximum screening from adjacent lands and rights-of-way are achieved.
  - b. A row of mixed evergreen and deciduous shrubs shall be planted in front of the evergreen trees referenced in (a) above on appropriate centers to form a continuous hedge. Evergreen shrubs shall be at least 30 inches high at planting capable of growing to at least 36 inches in height within 18 months. Deciduous shrubs shall be at



least 24 inches high at planting capable of growing to at least 30 inches in height within 18 months, OR

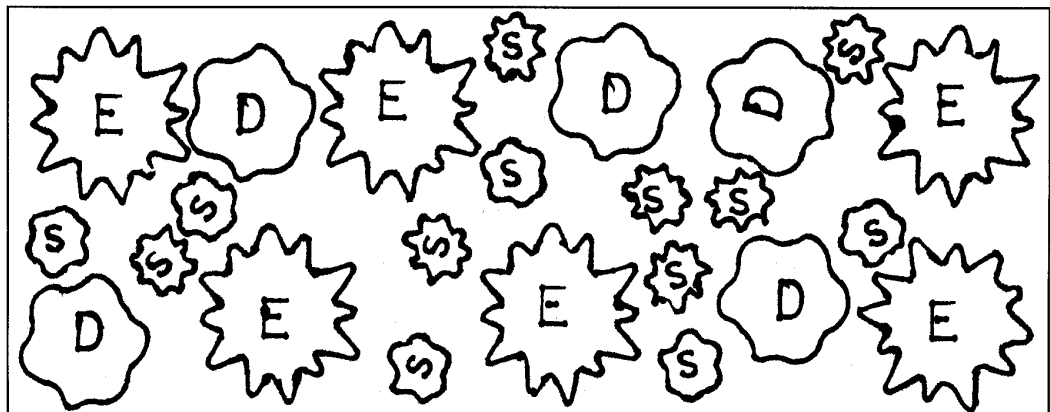
- c. A mix of major and minor deciduous trees, evergreen trees, and evergreen and deciduous shrubs in groupings may be used only if trees are provided at a density great enough to create a dense screen. Evergreen trees shall be planted on 10-15 foot centers and 6-8 feet tall at installation. Large deciduous trees shall be planted on 15-foot centers and 1½ inch caliper at installation. Minor deciduous trees shall be planted on 15-foot centers and 1½ inch caliper at installation. Shrubs shall be planted on appropriate centers based on the width of shrubs to be planted. Shrubs shall be 24-30 inches tall at installation for evergreen material and 30-36 inches tall at installation for deciduous material.



Row of evergreen trees.

Row of mixed evergreen and deciduous Shrubs.

A mix of evergreen and deciduous trees and evergreen and deciduous shrubs.



## **G. Mineral Mining**

### **1. Screening**

- a. A minimum 70-foot planted vegetated buffer shall be required along all mineral resource recovery operation property lines.
- b. Existing forested areas shall be retained wherever possible.
- c. The planting width may be enlarged by the Planning and Zoning Commission where the extractive or processing operations are in proximity to the property line or where, due to specific site conditions, it is necessary to assure the plantings serve as a screen to vehicular and residential views, and to reduce dust and noise.
- d. Plantings shall consist primarily of mixed native plant materials, or a size to provide the type of screen needed as the project is phased. Intermix trees with shrubs in order to achieve a rapid, high quality covering. Whips shall be used. Larger caliper trees shall be required in the area of active mining.
- e. The planting plan shall consider seasonal screening and providing a naturalized wildlife habitat.

### **2. Berms**

- a. Berms may be required to break the line of site between the mineral resource recovery operation and adjacent roadways and improved residential areas. The berm may be constructed within the 70-foot vegetated buffer area required in G.1.a. above.
- b. Berms shall be stabilized. Topsoil shall be a sufficient depth (3 inches) to support vegetation. Where whips or woody shrubs are to be planted, 18 inches of friable soil is required.
- c. The height of berms shall be variable to accommodate the existing topography of adjoining land uses and mineral resource recovery operations on site, as well as to provide diversity similar to the natural rolling countryside.
- d. All berms shall be planted on the exterior, or face side, with at least one PU per 200 square feet of surface. 100% of the PU's shall be evergreen and deciduous trees. Evergreen trees shall be a minimum of 6 feet in height and deciduous trees shall be a minimum of 1.5 inches in caliper at installation.

- e. To develop a biologically productive soil, slopes shall be planted with a grass-type cover (oats and rye) in strips between rows of woody plants (trees and shrubs). Grass-cover mix shall not exceed 50% fescue. Soil stabilization shall be implemented immediately after the grading and land forming.
  - f. Soil testing shall be performed to determine the selection of trees and shrubs and if any soil amending will be required.
3. Security to prevent access to excavation areas is required.
- a. A living barrier consisting of densely planted thorned trees and shrubs is an acceptable method to provide security around excavation areas. Acceptable plant types include, but are not limited to Hardy Orange (*Poncirus Trifoliata*), Hawthorn (*Cratageus*), and Osage-Orange (*Maclura Pomifera*).
  - b. Any proposed fencing shall be a minimum of 70 feet inside the property line, at least 8 feet in height and of a type to discourage entry.

## **PART THREE**

# **GENERAL STANDARDS**

## General Standards

### I SCREENING

#### A. General Requirements

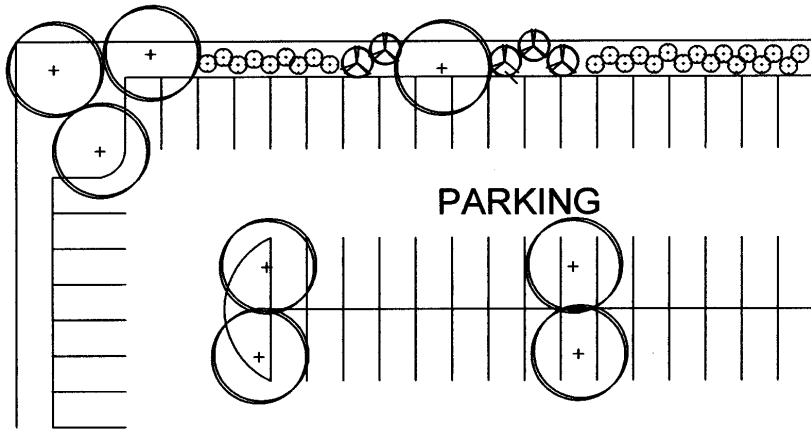
1. Screening is required to diminish the impact of undesirable views and mitigate the visual conflict and other effects (noise, fumes, and light spillover) of adjacent dissimilar land uses. Screening shall consist of trees and shrubs, fences, berms in conjunction with planting materials, solid brick or architectural block walls. The degree of intensity of adjacent land uses and width of landscape strip available as a buffer will dictate the height, density, opacity and landscape elements required.
2. Screening is required for non-residential uses adjacent to residential zones or uses, dumpsters, storage and loading areas, service lanes, parking lots, and other conditions as stated.
3. A minimum 10-foot wide landscape strip is required to accommodate screen planting unless otherwise stated in this part of the Manual.

#### B. Screen Types





1. Class A
  - a. The function of Class A is to provide a visual screen that will give the required level of height, density, and opacity depending on site conditions. The screen may range from a solid linear screen of evergreen trees where maximum opacity is needed to a loosely staggered screen where a filtered view is appropriate, based on site conditions. A combination of major deciduous trees, minor deciduous trees, evergreen trees, and shrubs may be used.
  - b. Minimum size at installation shall be 18 inches for shrubs and 5 feet for evergreen trees.
  - c. A 6-foot high opaque fence or wall may be required in conjunction with a planting screen.
  - d. PUs shall be generated at one PU per 20 linear feet of the area to be screen.

# CLASS A

RESIDENTIAL USE



### PLANTING LEGEND

-  MAJOR DECIDUOUS TREE
-  MINOR DECIDUOUS TREE
-  EVERGREEN TREE
-  SHRUBS

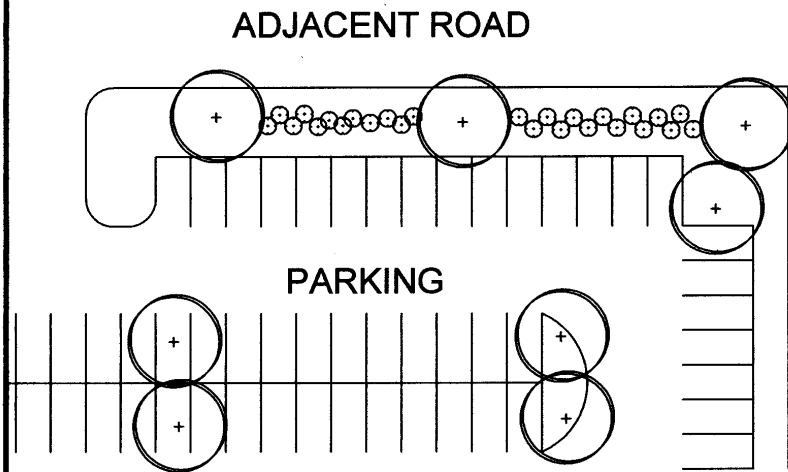
# CLASS A ELEVATION



## 2. Class B

- a. The function of Class B is to screen parking lots and service lanes while maintaining views into the site.
- b. Minimum height of shrubs at installation shall be 18 inches. Shrubs must provide a minimum 3-foot high year-round visual screen at maturity.
- c. A 3-foot high solid fence or wall may be required in conjunction with a planting screen.
- d. PUs shall be generated at one PU per 25 linear feet of the area to be screened.

# CLASS B



### PLANTING LEGEND

- ⊕ MAJOR DECIDUOUS TREE
- ⊙ MINOR DECIDUOUS TREE
- ⊗ EVERGREEN TREE
- ⊙ SHRUBS

# CLASS B ELEVATION

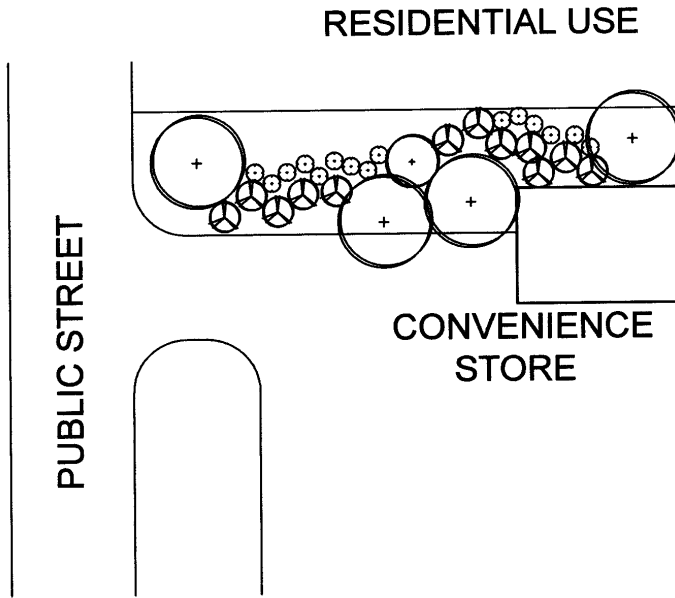








### 3. Class C

- a. The function of Class C screening is to provide a spatial and vegetative buffer between single family residences and other uses.
- b. Where screening is required, a minimum 15-foot buffer shall be established. A minimum of 30 percent of the required PUs shall be evergreen trees and a minimum of 50 percent shall be major deciduous trees.
- c. PUs shall be generated at one PU per 15 linear feet of the area to be screened.
- d. The use of a planting scheme reflective of the natural Maryland landscape is required for proposed plantings.
- e. Existing tree canopy coverage may be approved as credit toward this requirement based on the size and condition of the existing tree canopy.

# CLASS C



### PLANTING LEGEND

-  MAJOR DECIDUOUS TREE
-  MINOR DECIDUOUS TREE
-  EVERGREEN TREE
-  SHRUBS

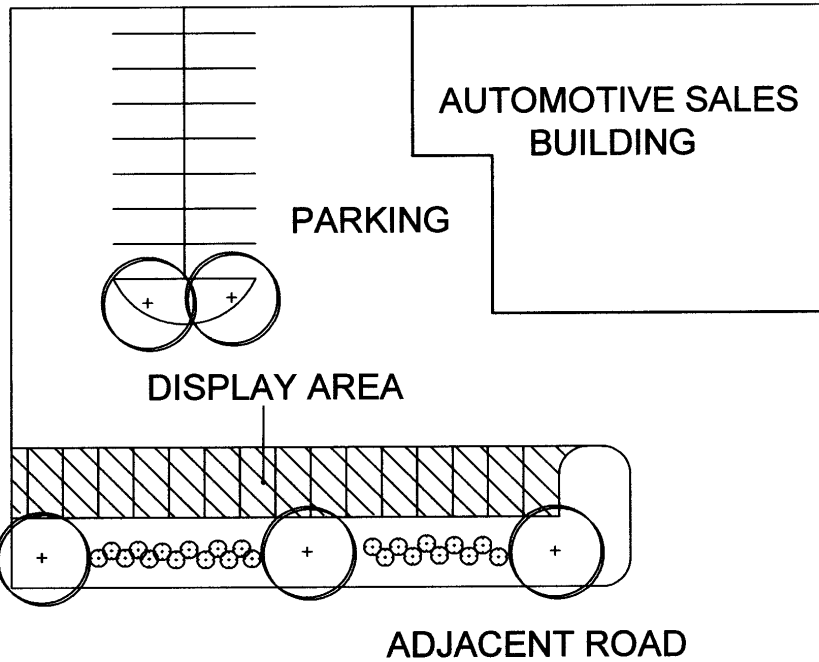
# CLASS C ELEVATION







#### 4. Class D

- a) The function of Class D is to provide low level planting to give visual relief from paved areas while maintaining the view of outside display areas. Street trees combined with a Class D screen provide continuity of streetscape. Mature planting shall be a minimum of 24 inches in height, measured from the top of curb of the adjacent road. A combination of mature (two years after planting) plant height and berm height may be used to achieve the minimum height. Herbaceous plants may be used at recommended ANLA standards.
- b) Class D screen may also be satisfied by increasing the landscape setback to 15 feet and providing a 24-inch minimum height grassed berm along the length of the display area.
- c) PUs shall be generated at one PU per 25 linear feet of display area adjacent to the public right-of-way.

# CLASS D



### PLANTING LEGEND

-  MAJOR DECIDUOUS TREE
-  MINOR DECIDUOUS TREE
-  EVERGREEN TREE
-  SHRUBS

# CLASS D ELEVATION



CLASS D – SAMPLE DIAGRAM -

## **II. SPECIAL DESIGN STANDARDS**

### **A. Historic Structures and Areas**

When historic sites listed in the Historic Site Inventory or listed on the National Register of Historic Places, or sites determined to be eligible for listing on the National Register of Historic Places, are located on a property to be developed:

1. Supplemental landscaping requirements may be required.
2. Protection of the surrounding existing landscaping shall be required.

### **B. Safety Devices for Steep-Grade Requirements**

In conjunction with Chapter 152, Grading and Sediment Control, Grading Plan, 152.066.E, when a 2:1 slope exceeds 5 feet in height on a proposed property and landscaping is proposed as the safety device, the following landscape specifications shall apply:

1. If safety device is located 100 feet or greater from residential structure:

Evergreen trees and major sized deciduous trees may be planted. Major-sized deciduous trees shall be planted on 30-40 foot centers. Evergreen trees shall be planted on 15-20 foot centers. When using major-sized trees, shrubs at least 5 foot in height shall be planted in between the trees to help form the safety device.

2. If safety device is less than 100 feet from residential structure:
  - a. A shrub hedgerow - a minimum of 3 feet in height is required.
  - b. A mix of minor-sized trees placed on 15-20 foot center with shrubs planted between the trees may be used when the safety device is proposed 50 feet or greater from the residential structure.

## **III. LANDSCAPE SPECIFICATIONS**

**Specifications shall be prepared using the following references:**

- A. All plants shall be identified in accordance with the latest Edition of Hortus Third, by "The Staff of the Hortorium".
- B. All nursery stock shall conform to American Association of Nurserymen, Inc., standards as described in American Standard for Nursery Stock, current ANSI Z-60.1 specifications.

- C. Landscape specifications shall conform to Landscape Guidelines for Maryland, Washington, D.C., and Virginia, latest edition. All nursery stock shall be planted in accordance with the procedures outlined in the guidelines.
- D. Three (3) inches topsoil on all disturbed areas to be landscaped, seeded or sodded is required.
- E. A separate plan labeled “Landscape Plan” (may be combined with Forest Conservation Plan) is required. Landscape requirements may not be combined with the Forest Conservation Plan.

**IV. STANDARDS FOR TREES PLANTED ADJACENT TO ELECTRIC UTILITY RIGHTS-OF-WAY<sup>1</sup>**

- A. Any trees planted within 15 feet from the center of the distribution pole line (<69 kilo volts) shall conform to the recommended tree list for trees that grow less than 25 feet at maturity (Green Zone)<sup>2</sup>.
- B. Any trees planted in the area beginning at the 15-foot line, up to 40 feet from the center of the distribution pole line should not have a mature height exceeding 40 feet (Yellow Zone)<sup>2</sup>.
- C. Utilities have the right to mitigate hazard trees that may be situated at any distance from the overhead lines that may have the potential to damage said lines. This mitigation may be performed either by trimming or through complete removal of the tree. Hazard tree determination and mitigation technique selection will be at the sole discretion of the Utility Company.
- D. Any trees that are allowed to regenerate to satisfy Forest Conservation Act or other vegetation enhancement requirements, shall conform to the requirements noted in III, Items A through C above. This document shall be appended to the County-approved Forest Management Plan, Declaration of Covenants, Conditions and Restrictions and within any duly recorded easements that may encumber the property through which the utility easement(s) or pole lines are situated.

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<sup>1</sup> Note that these recommendations are applicable to screen buffers and landscape plantings as well as forest conservation areas.

<sup>2</sup> Street Trees Fact Sheet/Penn State University/Planting Zones BGE Tree Planting Guide.

V. **LIST OF UNACCEPTABLE SPECIES**

AMUR HONEYSUCKLE (*Lonicera maackii*)  
BAMBOO – *all species and genero except Nandina domestic*  
BELLE HONEYSUCKLE (*Lonicera x bella*)  
BRADFORD PEAR –(*Pyrus calleryana ‘Bradford’*)  
BUSH HONEYSUCKLES (*Lonicera spp.*)  
CANADA THISTLE (*Cirsium arvense*)  
CINNAMON VINE (*Dioscorea oppositifolia (D. batatas)*)  
COMMON REED (*Phragmites australis (P. communis)*)  
CROWN VETCH (*Coronilla varia*)  
DAYLILY(*Hemerocallis fulva*)  
EMPRESS TREE, PRINCESS TREE (*Paulownia tomentosa*)  
ENGLISH IVY (*Hedera helix*)  
GARLIC MUSTARD (*Alliaria petiolata, A. officinalis*)  
GROUND IVY, GILL-OVER-THE-GROUND, CREEPING CHARLIE  
(*Glechoma hederacea*)  
HENBIT (*Lamium amplexicaule*)  
HYBRID POPULAR – *Populus’ Hybrid’*  
HYDRILLA (*Hydrilla verticillata*)  
INDIAN STRAWBERRY (*Duchesnea indica*)  
JAPANESE BARBERRY (*Berberis thunbergii*)  
JAPANESE HONEYSUCKLE (*Lonicera japonica*)  
JAPANESE KNOTWEED (*Polygonum cuspidatum*)  
JAPANESE SPIRAEA (*Spiraea japonica*)  
JAPANESE STITGRASS (*Microstegium vimineum (Eulalia viminea)*)  
JOHNSON GRASS – *Invasive ornamental grass*  
KUDZU (*Pueraria lobata*)  
LESSER CELANDINE (*Ranunculus ficaria*)  
LONG-BRACTED BEGGAR-TICKS (*Bidens polylepis*)  
LOMBORDY POPLAR –(*Populus nigra’ Itilica’*)  
MILE-A-MINUTE (*Pologonum perfoliatum*)

**MIMOSA** (*Albizia julibrissin*)  
**MORROW'S HONEYSUCKLE** (*Lonicera morrowi*)  
**MOUNTAIN ASH** *Sorbus* (*all related species*)  
**MULTIFLORA ROSE** (*Rosa multiflora*)  
**NORWAY MAPLE** (*Acer platanoides*)  
**ORIENTAL BITTERSWEET** (*Celastrus orbiculatus*)  
**PHRAGMITES** (*Phragmites australis*)  
**PORCELAIN BERRY** (*Ampelopsis brevipedunculata*)  
**PURPLE LOOSESTRIFE** (*Lythrum salicaria*)  
**REED CANARY GRASS** (*Phalaris arundinacea*)  
**RUSSIAN OLIVE, AUTUMN OLIVE** (*Eleagnus angustifolium, E. umbellata*)  
**SAWTOOTH OAK** (*Quercus acutissima*)  
**SERICEA LESPEDEZA** (*Lespedeza cuneata*)  
**SHATTERCANE** (*Sorghum bicolor*)  
**SIBERIAN ELM** (*Ulmus pumila*)  
**SILVER MAPLE** (*Acer saccharinum*)  
**TARTARIAN HONEYSUCKLE** (*Lonicera tatarica*)  
**TREE OF HEAVEN** (*Ailanthus altissima*)  
**TRUMPET VINE** (*Campsis radicans*)  
**WATER CHESTNUT** (*Trapa natans*)  
**WINTERCREEPER** (*Euonymus fortunei*)  
**WISTERIA, CHINESE AND JAPANESE** (*Wisteria sinensis, W. floribunda*)  
**YAM-LEAVED CLEMATIS** (*Clematis terniflora (C. dioscoreifolia)*)

In addition to the species listed above, the planting of any species listed by Maryland Department of Natural Resources, Maryland Department of Agriculture, the US Department of Agriculture, the US Fish and Wildlife Service, the Department of Interior or any other Federal or Maryland State Agency that is categorized as exotic and invasive or noxious to prohibited.



## **VI. CHECKLIST AND FORMS**

- A. Landscape Plan Checklist** - Must be completed and submitted with the Landscape Plan.
- B. Owner Certification Form** – Must be placed on the Landscape Plan and must be signed on the mylar.

## **VII. APPROVAL PROCESS**

- A. Concept Plan**                      A concept plan must show location of all screens and screen types, street frontage trees, and all trees to be used as credit. Plant species, quantities, and details are not required at this time.
- B. Preliminary Plan**                A preliminary plan must be complete and include all items listed on the Landscape Plan Checklist.
- C. Site Plan**                         A site plan must be complete and include all items listed on the Landscape Plan Checklist.
- D. Final Landscape Plan**            A final landscape plan must incorporate all changes or additions ordered by staff reviewer and the Planning and Zoning Commission.

## A. Landscape Plan Check List Preliminary, Site and Final Plans

Information to Agree with Grading & Sediment Control Plan			
	Finished Contours		<b>Provide:</b>
	Limit of Disturbance		Owner certification form (can be on plan)
	Tree protection notes for trees not covered by a Forest Conservation Plan and any trees being used as credit.		Signature/seal of licensed landscape architect or qualified landscape designer on plan.
	<b>Chart Listing Plant Materials:</b>		
	Plant symbol		
	Quantity		
	Botanical Name		
	Common Name		
	Installation size		
	Root Containment		
	Centers trees are to be planted.		
	<b>Show:</b>		
	Specifications (See Pg. 36 of the Manual)		
	Landscape construction details		
	Maintenance requirements and inspections		
	Provide adjacent zoning. If zoning is Ag, indicate if it is residential use.		
	Detailed specification of opaque screen.		
	Final design and layout for local open space improvements or amenities.		
	Detail for dumpster pad and board-on-board fence.		
	List each requirement that applies to the plan and the planting units required for each.		
	Planting detail for the stock being planted.		
	Detail for any fencing or retaining wall to be used as part of landscaping.		
	Detail of berms to be used for landscaping		

## B. Owner Certification Form

### Final Landscape Plan Owner Certification Form

I certify that I have reviewed this Final Landscape Plan; that I have read and understand the regulations presented in the Carroll County Landscape Manual; and I agree to comply with these regulations and all applicable policy, guidelines and ordinances. I agree to certify the implementation of this approved Final Landscape Plan no later than one (1) year from the date of approval of this plan to the Department of Planning, Bureau of Resource Management, Room 209, 225 N. Center Street, Westminster, MD 21157-5194.

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Applicant's Signature	Date	Print Name
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Address (Please Print)	Street
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City	State	Zip
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File #