

**CITY OF GLENDALE
LANDSCAPE GUIDELINES**

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INTRODUCTION

This booklet is intended to present a composite of general criteria, which are to be used as guidelines for the continued landscape planning and development in the City of Glendale. One of the most important elements concerning the future development in the city is the quality of the environment that will be created for the people who live and work in Glendale. A well designed landscape helps create a sense of cohesiveness and community identity. These guidelines are intended to promote the standard of visual quality and unity in the landscape, and to reinforce the high standards to which the City of Glendale has committed itself.

These guidelines will be most useful at the time a project is conceived and its preliminary plans are developed. These guidelines are, however, not limited to new development. The intent is that they also be used for projects involving the renovation of existing landscapes and as an educational tool for developers, architects, contractors, public committees, homeowners and other interested citizens.

It is not the intention of these guidelines to require the modification of existing landscapes or other physical conditions, nor are they meant to dictate project design. Rather, these guidelines should be used as a tool, allowing the landscape to serve as an integral function of the entire project, and not as an add-on treatment for purely cosmetic reasons.

The guidelines are not intended to inhibit developer as property owner in the exercise of this creativity and innovation.

I. LANDSCAPE PLAN GUIDELINES

The landscape plan is a most effective tool for communicating and evaluating ideas on paper. Because of the large amount of information shown, the plan should be well organized and easily interpreted. The following outline contains the necessary components of a normal landscape plan. It should be noted however, that this list may vary according to the size of the project and the scale of the drawing.

- o Scale of the Drawing (Normally 1" = 10' or 1" = 20' minimum)
- o North Arrow
- o Location and Identification of Existing Vegetation
- o Plants to be Removed or Relocated
- o Existing and Proposed Buildings, Parking, Roads and Other Physical Features
- o Topography and/or Existing Drainage (proposed grades at critical locations)
- o Title Block
 - a. Name of Project
 - b. Address of Project
 - c. Name of Landscape Architect or Designer
 - d. Date of Final Drawing Preparation
 - e. Page Number
 - f. Owner or Developer of Project
 - g. Space for Revision Dates
- o Plant List
 - a. Common Name of Plant
 - b. Latin Name of Plant (Genus, species and cultivar)
 - c. Quantity of Plant
 - d. Root Condition
 - e. Location Symbol
 - f. Special Remarks
 - g. Size of Plant (at the time of installation)
- o Areas of Sod and/or Seeding
- o Construction Details
- o Location of Utilities
- o Telephone Number of Diggers Hotline
- o Site Boundaries

- o All Easements, Building Setbacks, and Other Elements Covered by City of Glendale Regulations.

II. PLANT SELECTION AND INSTALLATION

Plants perform many functions in the landscape; their ability to perform these functions is dependent upon their health and vigor. Properly used plant material is one of the most important ingredients in creating pleasant appearing outdoor space. Selecting the proper plant for a particular landscape application is well beyond the scope of these guidelines. Included, however is a list of the most readily available plant material in the Milwaukee area (on page 6), and a list of the cultural conditions that should be taken into consideration when selecting and planting any plant material.

1. Plant Hardiness - Plants chosen for the Glendale area must have a proven climatic adaptability for Southeastern Wisconsin. Also, to be taken into consideration, is the exposure of a specific location on a planting site. Microclimate may be altered enough to place a section of the site in another climatic zone (i.e.: a north and east-facing slope will be much cooler, while a south and west-facing slope will be warmer). It should be understood that precautionary steps must be taken in order to maintain the health and appearance of certain plants, so they may continue to serve as a successful element in the landscape. (i.e.: some plants such as a Globe and Hickii Yew need winter protection - wrapping with burlap).

Soils - Plants depend on the soil for anchorage and most of their nutrition. Factors involved in soil suitability for successful establishment and growth include: moisture retention, pH, and fertility. Ideally, a soils analysis should be performed at the onset of a landscape project and plant material selected on the basis of compatibility with the soil test results. An alternative to matching plants with soil is to alter the soil to match the requirements of the plant. pH values can be lowered or raised. Organic materials such as peat moss, compost, sand and drain tiles can be added to increase soil adaptability. This alternative, however, will add to the only option available. Glendale is known for heavy clay soils with poor drainage. Careful analysis at the start of the project could mean the difference between a productive healthy landscape or an unsatisfactory end result.

Sun-Shade Requirements - Plants need varying combination of sun and shade each day. A plant placed in the wrong location may cause it injury or death. (i.e.: certain evergreen species placed on a slope with a winter burn - a browning of the needles as a result of loss moisture from the plant. Steps should be taken to wrap these plants in fall with burlap tarp or similar material, or to avoid planting in these areas. Thin barked deciduous trees often suffer from rapid temperature, changes, causing expansion and contraction within the bark. This results in a splitting of the bark, and internal damage to the plant.

While most plants species require at least six (6) hours a day of sunlight there are certain plants that will to different degrees tolerate shaded conditions. Plants are usually classified into three groups: those requiring full sunlight, those that will tolerate partial shade, and those that will tolerate a predominately shady site. Again, it is very important to match the plant to the type of environment in which it is to be planted.

Insect and Disease Susceptibility - Few plants are without insect and disease problems, but in many plants these problems are minor. Try to select plant material that will not present future problems and require extensive care and treatment.

Urban Tolerance - Smoke, fumes, and salt can restrict or even destroy plant material. Likewise, people by trespass or deliberate vandalism may also do considerable damage. Planting in raised beds prevents trespass and helps salt damage. Plants with built-in deterrents of thorns or pricklers are useful as means of protecting more vulnerable species from trespass (these plants should not be used where they may catch passers-by or in play areas for children). Careful evaluation of site conditions and uses, along with matched plant selection, will provide a lasting landscape.

Root Condition - The root condition of a plant refers to the manner in which it is transplanted from the nursery to its final location. The most common root conditions for plant handling are: bare root, balled and burlaped, potted, and winter planted. Bare root planting is generally limited to smaller deciduous trees and shrubs and its normally recommended for early spring only. Many nurseries, however, have cold storage which can extend the bare root planting season into June. Extreme care must be taken to keep the roots from drying out during installation.

A variation of the bare root plant is the potted plant. These plants are dug as bare root specimens and later potted in paper mache pots. Another type of potted plant is the field potted plant that is dug with the earth still around the roots and placed directly into the paper mache pot. Many people are of the mistaken impression that the plants in paper mache pots can be placed directly in the ground without removing the pot. Because the roots are inhibited from spreading beyond the pot, this practice should never be allowed.

The most common type of transplanting technique is the balled and burlaped plant. This is the generally preferred method by many because of the minimal transplanting shock to the plant. The drawback of this type of transplanting is that the balls of earth can become heavy and require special equipment for handling larger specimens.

The final method of transplanting is the winter planted specimen. This is one of the best methods for transplanting very large specimens. In this technique, the plant is dug when the weather is below freezing. The ball of earth is then allowed to freeze. The planting location must be determined sometime before the onset of cold weather so the area can be mulched with hay to prevent freezing. The type and size of tree generally transplanted in the winter is the deciduous tree that is six inches in diameter or larger. Equipment needed to transplant this size tree is large and heavy, therefore planting is best accomplished in the winter months when the ground is frozen, minimizing equipment damage to lawn and turf areas.

Replacement

Plants installed by any contractor should be guaranteed for a period of one year from date of installation, provided that reasonable care has been given to the plant after planting. An inspection of new plantings (where applicable) should be made by the owner of contractor to determine the condition of the plants after installation. A follow up inspection should take place one year after installation to determine any necessary replacements that might be required. If a contractor suspects that proper care is not being given, the plants after installation, the owner, (or City) should be contacted to rectify the situation.

The following is a list of recommended plant material for the Glendale area:

SHADED TREES

(2 - 2 1/2" minimum when Planted)

Thornless Honey Locust
(Varieties)
Hackberry
Horsechestnut
Willow Amur Maple
Redmond Linden
Little Leaf Linden
Red Maple
Sugar Maple
Red Oak
River Birch
White Ash
Black Walnut
Beech
~~Norway Maple (Varieties)~~
Ginkgo
Green Ash
Ironwood

Black Cherry
Pin Oak

FLOWERING TREES & ORNAMENTAL

(1 1/2 - 2" minimum when Planted)

Amur Cork Tree
Black Alder
European Bird Cherry
Flowering Crab (Varieties)
Hawthorne (Varieties)
Hornbeam
Mountain Ash
Newport Plum
Redbud
Saucer Magnolia
Serviceberry (Species)
Staghorn Sumac
Star Magnolia
Washington Hawthorne
White Birch

SHRUBS EVERGREEN TREES**(4-5' minimum when planted)**

Lilac (Varieties)
 Red-Twig Dogwood
 Cotoneaster (Species)
 Grey Dogwood
 Buckthorn
 Viburnum (Species)
 Weigelia (Varieties)

(2-3' minimum when planted)

Zabel Honeysuckle
 Clavey's Dwf. Honeysuckle
 Nankin Cherry
 Sumac (Species)

(18-24" potted minimum when planted)

Alpine Current
 Armur Privet
 Forsythia (Varieties)
 Mockorange (Species)
 Snowball Hydrangea
 Aronia
 Bayberry (Varieties)
 Flowering Quince
 Hazelnut
 Rugose Rose (Species)
 Burning Bush
 Witchhazel
 P.G. Hydrangea
 Winterberry Holly
 Buffalo Berry
 Spiraea (Species)
 Fragrant Sumac
 Potentilla

EVERGREEN SHRUBS**(5 1/2 - 6' minimum when planted)**

Arborvitae (Varieties)
 Blackhills Spruce
 Bristle Cone Pine
 Colorado Spruce
 Douglas Fir
 Eastern Red Cedar
 European Larch
 Hemlock
 Norway Spruce
 Red Pine
 Scotch Pine
 Serbian Spruce
 Swiss Stone Pine
 White Fir
 White Pine

GROUND COVERS

Agopodium
 Pachysandra
 Vinca or Myrtle
 Purpleleaf Wintercreeper
 Sedum (Varieties)

VINES

Bittersweet
 Clematis (Varieties)
 Hydranges Vine
 Boston Ivy
 Virginia Creeper
 Bigleaf Winter Creeper

(24-30" minimum when planted)

Pfitzer Juniper
 Sargent Juniper
 Blue Rug Juniper
 Spreading Yew (Varieties)
 Mugho Pine
 Tamarix Juniper
 Hetz Juniper
 Maney Juniper
 Andorra Juniper
 Bar Harbor Juniper

Plant Installation

Establishing healthy plant material depends largely on the care taken during installation. Protecting the plants before they are placed in the ground, proper spacing, and using established planting procedures will improve the plants' chances for survival.

* Prior to Planting

As stated early in the guidelines, all bare root material must have their roots appear dry, they should be soaked in water for a few hours before planting. Also remember that bare root material should be dormant at the time of purchase.

Special care should be exercised when transporting balled and burlapped or container-grown plants in open vehicles. In most cases the plant material will be in leaf, and that section of the plant becomes susceptible to wind damage. Always wrap or cover with a cloth or plastic tarp.

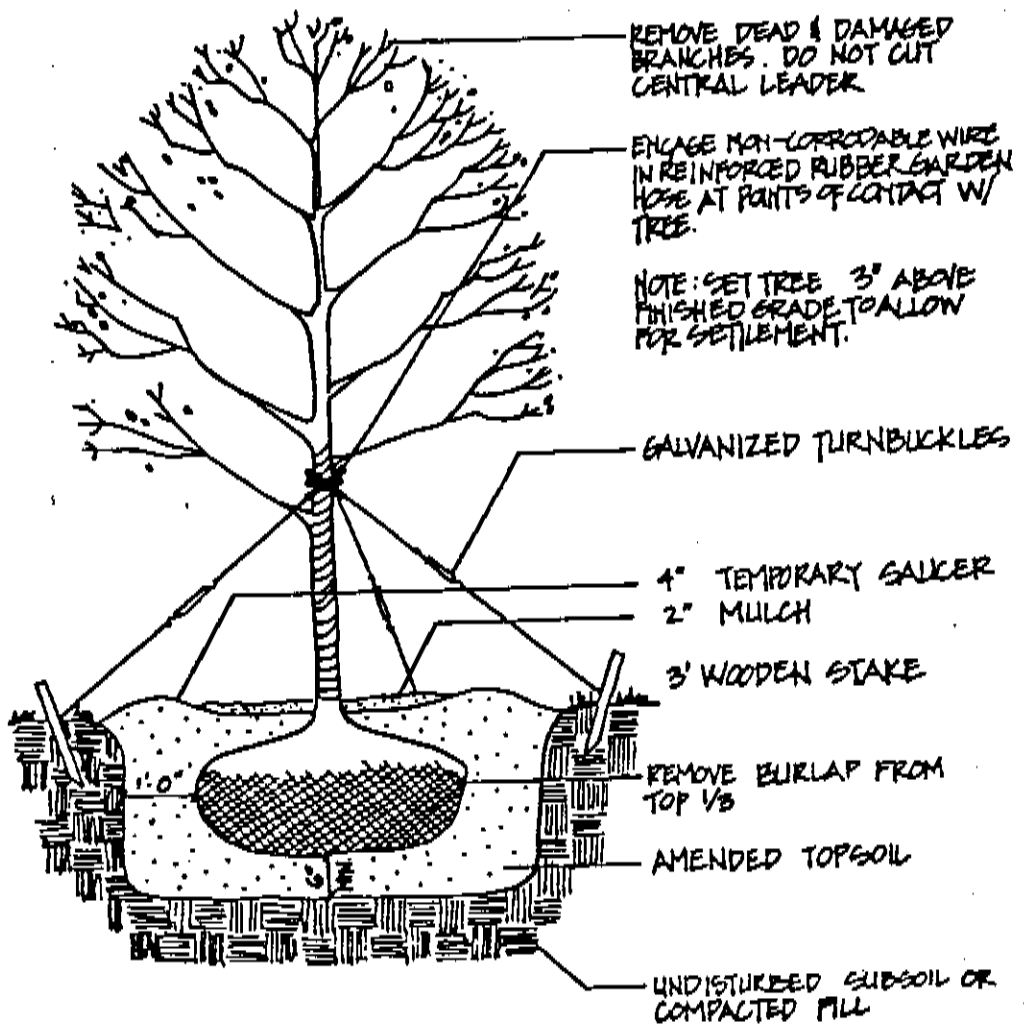
* Spacing

When spacing trees and shrubs, always consider their ultimate size and form. Overcrowding plants for quick effect results in the loss of their natural beauty and may cause health-related problems. Shade tree spacing varies by the design effect desired. Normally they should not be planted less than 15' apart. Evergreen trees generally don't have large crowns as do deciduous trees, and can be spaced 10' - 15' apart for a grouping effect. Large shrubs are usually spaced 6' - 9' apart, medium shrubs 4' - 6' apart, and small shrubs 2' - 4' apart.

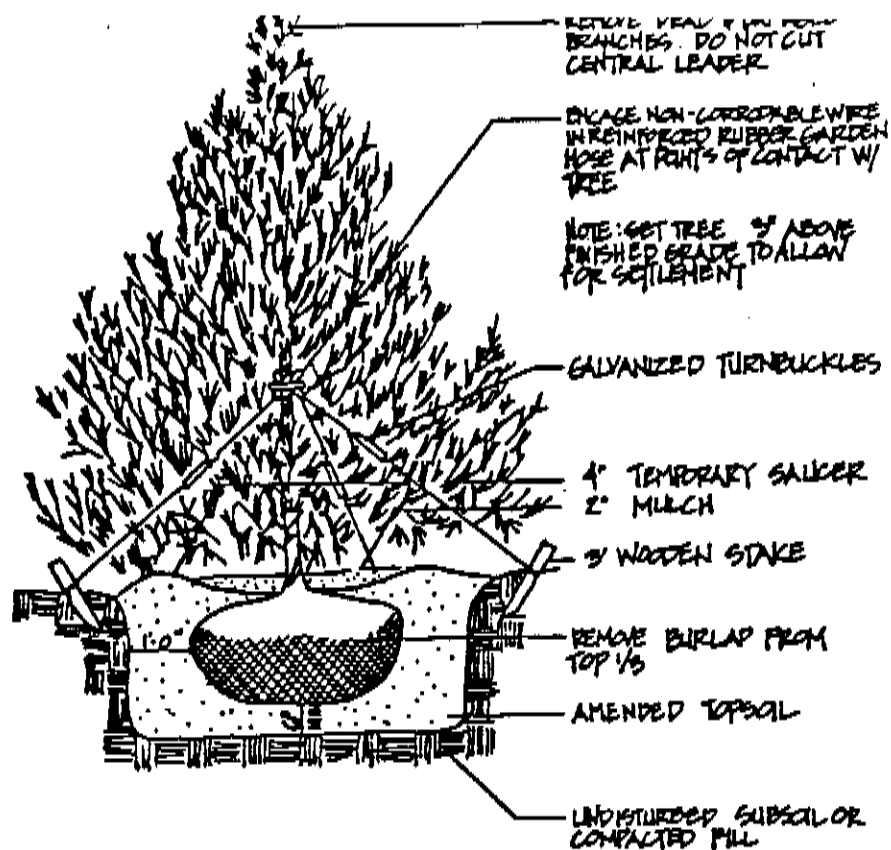
* The Planting Pit

The planting hole should be dug large enough to accommodate the roots without crowding. For deciduous and evergreen trees, (See Exhibit 1 & 2) the hole should be 2' - 0" larger in diameter than the root ball, and 6" deeper than the total depth of the ball. In poor soils, topsoil supplemented with Peat Moss should be used to fill in around the root ball. Trees and shrubs should be planted at the same depth as they were grown in the nursery. Always allow for settlement of the plant when it is set, generally 2 to 3 inches is a good rule of thumb. Stamp the soil while filling in the hole to eliminate air pockets.

When planting balled and burlapped stock, loosen the twine and burlap around the top of the ball and fold it back to prevent girdling of the plant later in its growth.



TEMPORARY TREE PLANTING DETAIL



EVERGREEN TREE PLANTING DETAIL (.exhibit 2)

o Watering

New plants require regular watering until their roots have had time to develop. The amount of water required varies with the season and the amount of rainfall. Care should be taken not to over-water, especially on heavy clay soils. This situation will exclude air from the soil and kill developing roots.

o Mulching

Young plants grow better if they do not have to compete with grass and weeds. This can be avoided by cultivating around the plant or by mulching. Wood chips are the most common material used, and should be applied to a depth of 2-3 inches. If a weed barrier is used under the mulch, it should allow for the exchange of air and moisture through the material.

o Time to Plant

The age, condition, and location of the plant, the weather at the time of transplanting, and whether the plant is deciduous or evergreen, all influence the success of a transplanting operation.

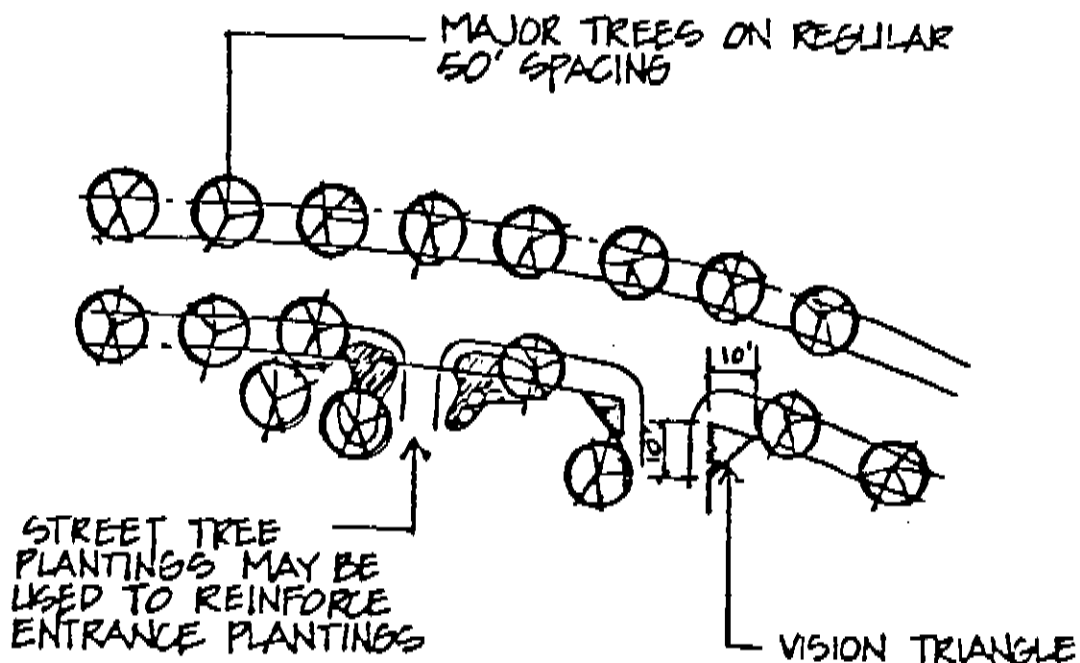
Deciduous material is best dug and handled when it is fully dormant. There is no new growth to damage and their immediate demand for water is lessened. Evergreen materials can be transplanted at the end of summer or after their new growth has hardened. Broadleaf evergreens are best planted in the spring, an allowed to establish themselves before winter.

III. STREET TREE PLANTING

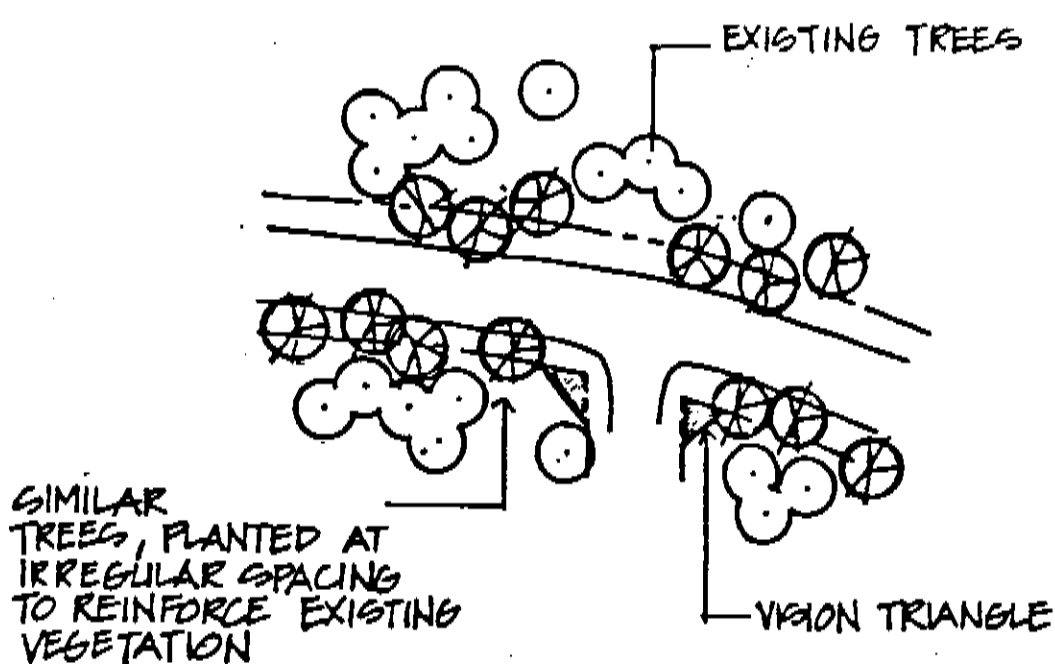
Street tree plantings provide a major unifying influence along the street scape that softens the harshness of buildings, paving and the automobile. Street trees are usually planted within, but not confined to, the limits of the street right-of-way (right-of-way dimensions vary in the City of Glendale, City maps should be consulted for specific locations). Generally, street planting can be divided into the following two groups:

Formal Planting

- * Street trees in this arrangement are typically spaced at a distance of 40' to 60' apart, (See City of Glendale, Department of Forestry Code, Section 34.03). This type of planting would occur in a definite, well defined sequence along the roadway in a non-wooded area. A vision triangle extending from the point on intersection of public right-of-way and along the lot line for a distance of ten (10) feet shall be used as a minimum setback for street tree planting. (See Exhibit 3)



FORMAL STREET TREE PLANTING (exhibit 3)



INFORMAL STREET TREE PLANTING (exhibit 4)

INFORMAL STREET TREE PLANTING

Informal Planting

- * A formal naturalistic approach to street plantings should be used adjacent to existing wooded (natural) areas, and should attempt to reinforce and extend these natural areas. The same vision triangle setback of 10' is recommended for this type of arrangement, however the spacing between plantings will vary.

Minimum Space Requirements

- * Regardless of whether the street planting is formal or informal, and depending on the appropriateness of the planting, trees planted on streets right-of-way within the City of Glendale's Jurisdiction should maintain a 4' distance from the back of road curb to planting, a 4' minimum from driveways and sidewalks, and a 10' minimum from buildings.

Note: If the distance between sidewalks and curb is less than 8', tree should be spaced equal between the two.

Minimum Tree Size

- * At planting, street trees planted in the City of Glendale, by private property owners or developers, should be of no less than 2 1/2" caliper (trunk diameter measured 12" above ground level), and no less than 15 feet in height.

Note: A source which should be utilized to establish standards of plant size and quality is:

The American Standard for Nursery Stock
by the American Association of Nurserymen, Inc.
230 Southern Building
Washington, D.C. 20005

For trees planted in the roads right-of-way within Milwaukee County/State of Wisconsin Jurisdictions consult with the appropriate agency for their minimum setbacks and other requirements.

Recommended Plant Lists

- o In order to assist in the proper selection of trees suitable for street plantings, the following list has been prepared. These plants have been selected on the basis of general hardiness, lack of insect and disease problems, and resistance to urban pollution.

MAJOR TREES

<u>COMMON NAME</u>	<u>LATIN NAME</u>
1. Norway Maple	Acre Platanoides and Cultivars
2. White Ash	Fraxnus Americana and Cultivars
3. Green Ash	Fraxnus Pennsylvanica and Cultivars
4. Ginkgo Tree	Ginkgo Biloba
5. Thornless Honey Locust	Glenditsia Triacanthos Infermis and Cultivars
6. American Linden	Tilia Americana
7. Littleleaf Linden	Tilia Cordata
8. Iron Wood	Ostrya Virginiana
9. Common Hackberry	Celtis Occidentalis
10. Kentucky Coffee Tree	Cymnogladius Diocus

- o Utilities

Overhead utilities can present a major problem for tree planting. Therefore, when overhead utility lines will interfere with the future canopy growth, thereby causing severe disfigurement as a result of the pruning necessary for utility maintenance, the use of major trees is not recommended. However, if there exists a green space, with a minimum distance of 20' between the road right-of-way and the road curb, smaller, intermediate size trees may be used for planting along the roadway. The following is a list of intermediate trees that are suitable for this situation. These trees should be spaced no closer than 10' apart.

INTERMEDIATE TREES

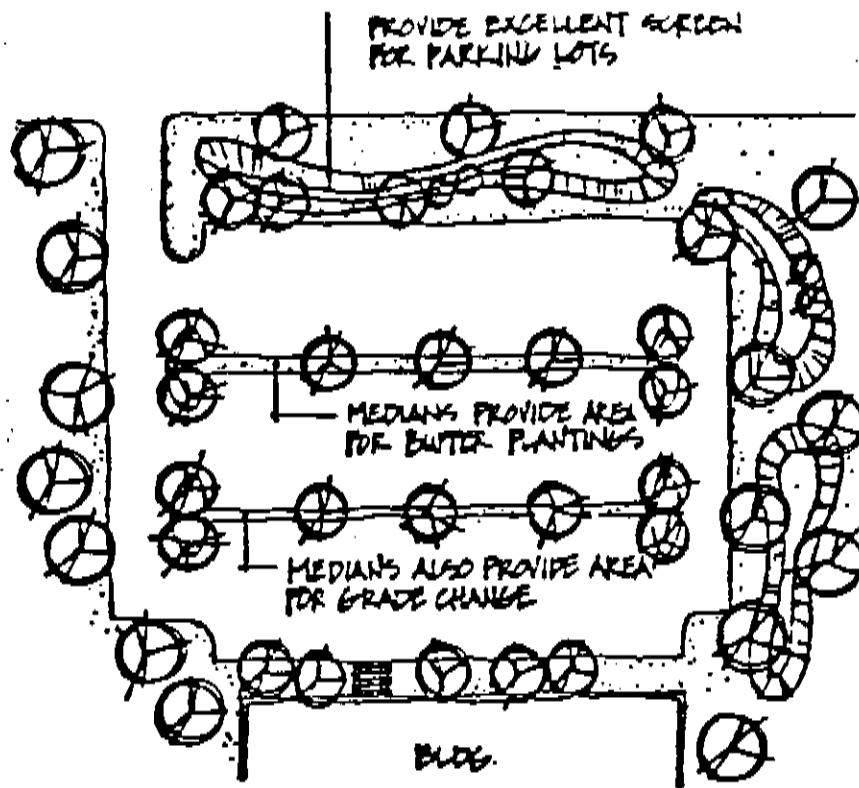
<u>COMMON NAME</u>	<u>LATIN NAME</u>
1. Amur Maple (tree form)	Acre Ginnala and Cultivar
2. Washington Hawthorn	Crataegus Cordata
3. Flowering Crab Trees	Malus (selected species only)
4. Blackhawk Viburnum (tree form)	Viburnum Prunifolia
5. Nannyberry (tree form)	Viburnum Lentago
6. Wayfaring Tree (tree form)	Viburnum Lantana
7. American Hornbeam	Carpinus Caroliniana
8. Japanese Tree Lilac	Syringa Amurenses Japonica

IV. SCREENING

The built environment will unfortunately produce elements within the landscape that are objectionable and inharmonious with their natural surroundings. Screening is the visual elimination of that which is unsightly, with something more harmonious, by providing visual control and selectively blocking out undesirable views. Evergreens are recommended to shield for winter seasons. Typical areas that normally employ some form of screening are:

o Parking Lots

Parking lots should be softened by the use of interior plantings. The perimeter edges should be screened with a combination of plant material and earth berming whenever possible. The screen should however, be limited in height to allow a clear line of sight to the building, allowing for visual identification of the building and parking area. When plant material and berming are not possible, low, masonry walls, or wood fencing should be utilized. Entries into parking lots should be clearly apparent to the driver and should provide for a smooth movement into and out of the lot with ample provision for the visibility of oncoming traffic. (See EXHIBIT 5)



PARKING AREA BUFFER
(exhibit 5)

o **Trash and Refuse Areas**

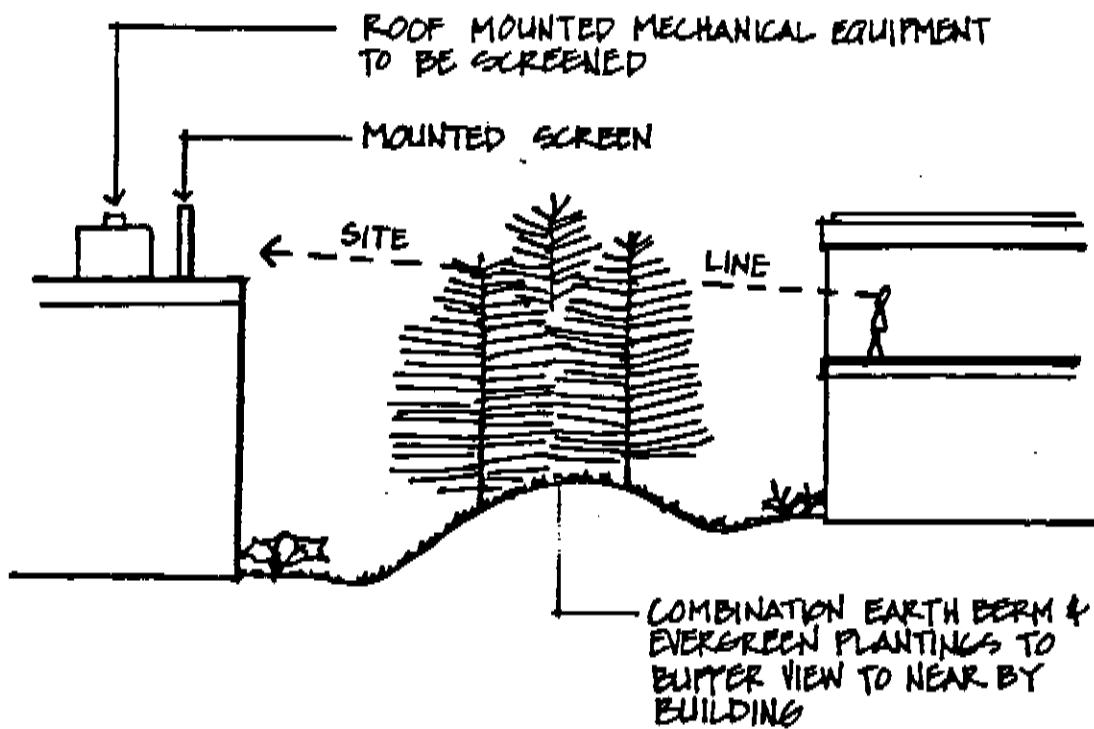
All outside storage of trash or refuse containers should be screened from public view. Whenever possible, these storage areas should be limited to the rear two-thirds of the property away from high traffic areas.

o **Loading Docks**

Service areas should be easily accessible for pick-up and delivery activities, but should be understated in the context of the building they serve. Wing walls similar in design to the architectural character of the building, and the use of plant material are excellent ways to block undesirable views to these areas.

o **Mechanical Equipment**

Materials such as heating and air conditioning units, storage tanks, electrical transformers or like equipment should be kept out of view or screened from exposure to the public. Mechanical equipment on roofs should be set back and screened by parapets to block their view not only from pedestrian levels, but from upper stories of near-by buildings.



MECHANICAL EQUIPMENT SCREENING (exhibit 6)

(EXHIBIT 6)

Materials for Screening

There are many materials used throughout the landscape in creating elements for screening. Some of the elements are architecture, topography, fences, water and plant material. Many combination of these elements may be used to produce a desirable buffer from an objectionable view. In the following discussion, particular attention is given to four of these elements that relate directly to the landscape.

o Plant Material

Plants are excellent as a screening material because of their natural appearance and diversity of form, texture and color. When using plant material as a screen, consider the following:

1. Large, distant objects require relatively larger plants for screening.
2. Close objects require denser plantings and/or closer spacing.

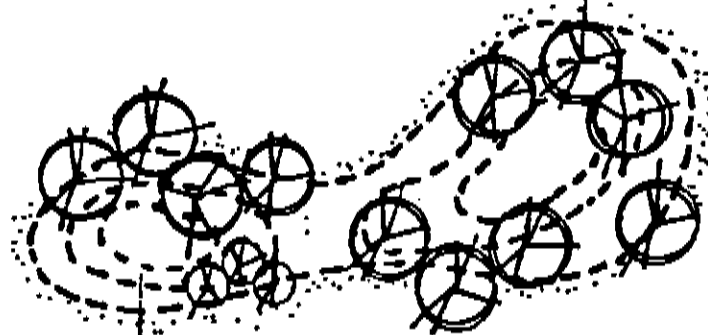
3. Speed of movement is directly related to width of perceptibility.
An opaque planting screen may be needed to block stationary views, while a more transparent planting may be satisfactory for a rapidly moving viewer.
4. From what angle of approach is the view unpleasant?
5. At what season of the year is the screen needed?
6. What environmental adversities will the plant be subjected to (i.e. parking lot salt, sun reflection off of hard surface material, etc.)?

o **Berming**

Berms are mounds of soil, used to provide interesting land forms that offer immediate size, shape and density. Berms can generate a lot of attention. They should not be placed where attention is unwarranted. When using berms as a screen element in the landscape, the following items should be considered:

1. Earth berm side slopes should not exceed 3:1.
2. Trees and shrubs should not be planted primarily on the top of berms, but rather, in a natural flowing planting arrangement surrounding and crossing the high points of the berm. (See EXHIBIT 7)
3. Berms should be designed carefully to blend with the surrounding environment, so as not to take on an artificial look. The gradient on a berm should fluctuate in order to repeat characteristic forms found in nature.
4. Improperly placed berms may restrict surface water drainage. Water must always be allowed to flow out of an area to its point of collection.
5. Berms alter the microclimate. Plant material selected for a berm must be tolerant of those climatic changes and not be misplaced.

TREES AND SHRUBS SHOULD BE PLANTED IN A NATURAL FLOWING ARRANGEMENT, SURROUNDING THE SLOPES OF THE BERM



FOR MOWED BERMS, SIDE SLOPE SHOULD NOT EXCEED A 3:1 RATIO

EARTH BERMS (exhibit 7)

(EXHIBIT 7)

o Fencing

In an area where functional space is limited, decorative fencing may be appropriate. Construction materials vary from wood to masonry, with design opportunities almost unlimited. Fences may be used independently or in association with trees, shrubs, ground covers and vines; they may stand by themselves or be part of another architectural form. Fences differ from other types of screening in that the fence serves not only as a visual screen but also as a physical barrier. Always consult City of Glendale zoning and building codes before erecting a fence.

V. LIGHTING

Lighting selections should be made carefully, ensuring that the lighting fixture chosen and the amount of light it produces blend in harmoniously with the landscape. Some of the major uses of lighting in the landscape are to:

- o Allow people to use circulation routes safely
- o Provide security

- o Allow for night time use of special areas
- o Create focal points in the landscape
- o Create night time views

When considering the use of lighting, the following suggestions should be taken into consideration:

- o Overpowering light levels should not be used.
- o The use of appropriately scaled lighting standards and "cut-off" light fixtures is encouraged for overall site and parking lot lighting.
- o Pedestrian scaled fixtures along pedestrian corridors are encouraged.
- o Light sources should not be seen by the viewer and glare conditions should be avoided.
- o Integration of similar lighting fixtures is encouraged.
- o Mixing of lighting types should be avoided (i.e. sodium vapor, incandescent, mercury vapor, metal halide).

VI. SIGNAGE

Signs are display boards or surfaces used for directions, identification, instructions or advertising. They may contribute to, or detract from the overall visual character and quality of a site. There are many types of signs and uses for them. It is beyond the scope of this document to explain the physiological and psychological functions of a sign. However, the following comments may be helpful when considering signage and its application.

- o A business owner can design his own sign, but the use of professional designers and craftsmen is more likely to lead to success.
- o Signs should be as few in number as necessary and not add to visual clutter. Frequently, too many signs compete for attention and confuse the public seeking information.
- o Signs should be sited so they are not obscured by structures or plant material.
- o Sign lettering should be spaced and sized to make its message clear from the distance from which it is intended to be read.
- o Sign locations, shapes, sizes, materials and graphics should be coordinated in a manner consistent with the overall project.
- o A sign's light source should be inconspicuous. Glare conditions

should be avoided as should excessive illumination.

- o Care should be taken in sign height. The eye level of a motorist is below that of a pedestrian. Consistency of mounting height is important since it will avoid unnecessary searching for information.
- o Signs shall be in accordance with existing regulations established by the City of Glendale.

VII. MAINTENANCE DESIGN CONSIDERATIONS

All landscapes should be designed with future maintenance taken into consideration from the earliest planning stages. Conceptual landscape design should reflect the practical applications and appropriateness of future maintenance as well as who will maintain it. During the design process, the following points should be strongly considered:

- o Give plant material enough room to grow. Crowding plants can cause excessive competition for survival, contributing to future disfigurement, and generally unhealthy plants.
- o Do not plant trees or large shrubs under overhead utilities.
- o Do not plant weak, fast growing trees less than 30 feet from structures. These trees are easily damaged by wind and ice storms, possibly causing structure damage.
- o Allow a minimum of a four foot clear-zone between trees and curbs and structures, to allow for easy moving patterns.
- o Design planting beds with manageable curves and shapes to suit moving patterns.
- o Avoid, when possible, excessive proportions of lawn edge to be trimmed. Avoid too many narrow strips or inaccessible grass areas that require mowing. Mowing strips (brick or concrete strips that allow the mower wheel to ride upon) are encouraged.
- o Consider interlocking grass block pavers in areas where excessive wear is likely (i.e. fire lanes).
- o Use a geotextile fabric to control weed and potential erosion problems in planting beds and other applicable landscape situations. Avoid using plastic weed barriers.
- o The use of steel or plastic landscape bed edging is encouraged where manual bed edging is not feasible or part of the maintenance budget.
- o Improved varieties of turf grass that are disease resistant should be used whenever available.

- o Any landscape should be kept in a well planned, safe, clean and attractive condition.

VII. PRESERVATION OF EXISTING VEGETATION AND NATURAL PLANTING

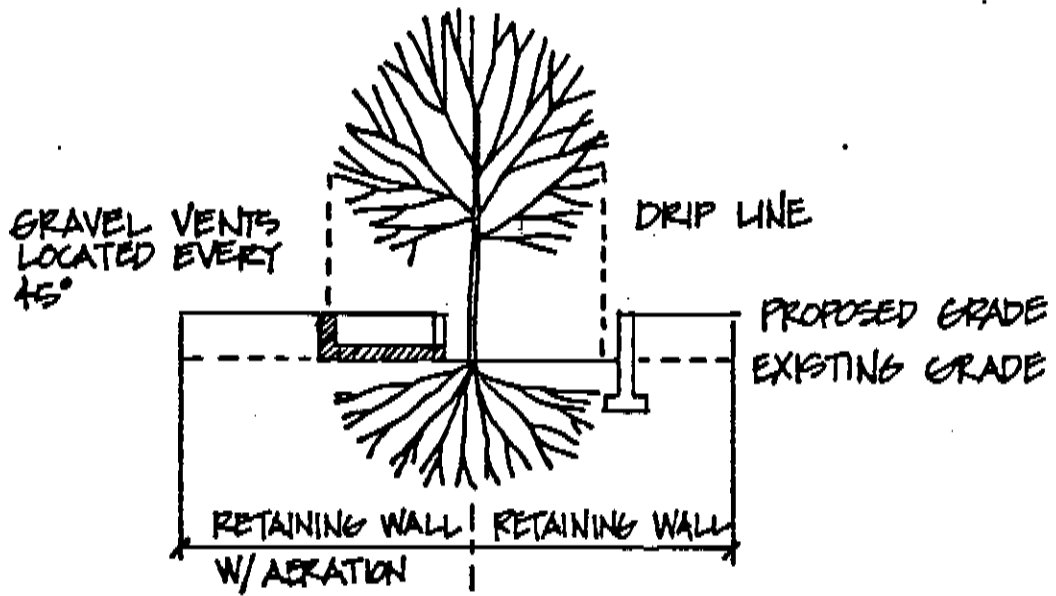
Existing Vegetation

The preservation of existing vegetation (trees and shrubs) should be encouraged whenever possible. Large mature plant specimens that have been preserved on a newly developed site can add a character that nursery plantings can only hope to achieve in 25 to 30 years at a minimum. Careful planning is needed to coordinate a site's physical features with grades and existing vegetation.

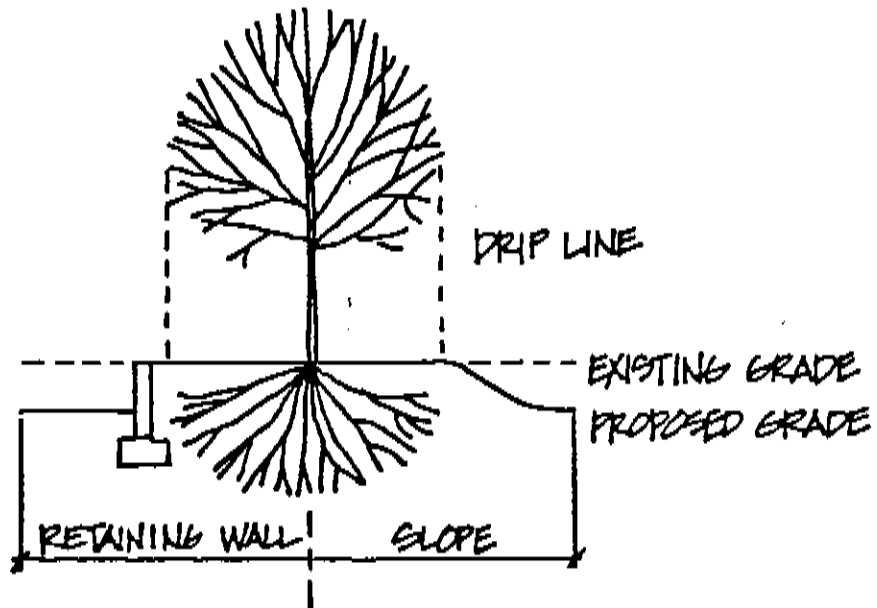
Not every tree and shrub on a site can, or should, be saved, but care must be taken in evaluating which trees and shrubs are likely candidates to be retained on the site. Growth rate, disease resistance, insect resistance, general health and overall growth habit of any particular plant should be evaluated before the decision is made to remove or preserve any particular tree or shrub. For instance a 24" diameter American Elm is not a likely candidate for preservation while a 24' diameter Pin Oak is a prime candidate for preservation.

Special care must be taken during construction when trees are to be preserved, as soil compaction can cause severe decline or even death. A snow fence placed around the drip line of a tree will prevent heavy construction machinery from driving over the root zone of a tree and compacting the soil. Some trees are more susceptible to soil compaction than others.

Another factor to be taken into consideration when preserving plant material is the grade or soil elevation around the plant. In many cases retaining walls must be built to effect grade changes where a large specimen exists. As with soil compaction, certain trees species are most sensitive to grade changes than others. The opinion of a professional landscape architect and/or arborist should be sought as to whether or not a particular tree should be preserved, and how it should be done. (See EXHIBIT 8 & 9)



TREES IN FILL



TREES IN CUT

SAVING EXISTING TREES

Natural Plantings

While the recommendations for plantings in these guidelines focuses mainly on woody trees, shrubs, vines and ground covers, the guidelines are not intended to discourage natural plantings. Many of the plants recommended in the various lists are native to Wisconsin and adapt well to conditions found in Glendale. Natural plantings can take many forms. A woodland or a prairie are two examples of natural plantings that may lend themselves to an innovative landscape design. Because Glendale contains areas that are very urban in character and also areas that are very suburban and park-like in character, care must be used in blending the landscape with the man-made environment and it's surroundings. A naturalized planting concept may or may not be appropriate for a particular situation. Does the natural landscape fit into and enhance the surrounding land uses and developments? Careful evaluation must be given to the decision to create a naturalized landscape on a particular site.

IX. MAINTENANCE REQUIREMENTS

Property owners are required to maintain all landscaped and open areas, as follows:

1. Keep all turf and grass mowed to maintain a height not to exceed four (4) inches;
2. Keep all areas free and clear of trash, paper and other debris;
3. Keep all trees and shrubbery trimmed and maintained on a regular schedule to assure that they are kept in a neat, healthy and attractive condition;
4. Replace all diseased and dead trees and shrubbery with the same type size as originally planted and approved by the City; and
5. Maintain all paved private drives and parking areas in good repair, replacing such driveways with new asphalt whenever the driveways or parking areas may so require.

The final method of transplanting is the winter planted specimen. This is one of the best methods for transplanting very large specimens. In this technique, the plant is dug when the weather is below freezing. The ball of earth is then allowed to freeze. The planting location must be determined sometime before the onset of cold weather so the area can be mulched with hay to prevent freezing. The type and size of tree generally transplanted in the winter is the deciduous tree that is six inches in diameter or larger. Equipment needed to transplant this size tree is large and heavy, therefore planting is best accomplished in the winter months when the ground is frozen, minimizing equipment damage to lawn and turf areas.

Replacement

Plants installed by any contractor should be guaranteed for a period of one year from date of installation, provided that reasonable care has been given to the plant after planting. An inspection of new plantings (where applicable) should be made by the owner of contractor to determine the condition of the plants after installation. A follow up inspection should take place one year after installation to determine any necessary replacements that might be required. If a contractor suspects that proper care is not being given, the plants after installation, the owner, (or City) should be contacted to rectify the situation.

The following is a list of recommended plant material for the Glendale area:

SHADED TREES

(2 - 2 1/2" minimum when
Planted)

Thornless Honey Locust
(Varieties)
Hackberry
Horsechestnut
Willow Amur Maple
Redmond Linden
Little Leaf Linden
Red Maple
Sugar Maple
Red Oak
River Birch
White Ash
Black Walnut
Beech

Ginkgo
Green Ash
Ironwood

Black Cherry
Pin Oak

FLOWERING TREES & ORNAMENTAL

(1 1/2 - 2" minimum when
Planted)

Amur Cork Tree
Black Alder
European Bird Cherry
Flowering Crab (Varieties)
Hawthorne (Varieties)
Hornbeam
Mountain Ash
Newport Plum
Redbud
Saucer Magnolia
Serviceberry (Species)
Staghorn Sumac
Star Magnolia
Washington Hawthorne
White Birch

SHRUBS EVERGREEN TREES**EVERGREEN SHRUBS****(4-5' minimum when planted)**

Lilac (Varieties)
 Red-Twig Dogwood
 Cotoneaster (Species)
 Grey Dogwood
 Buckthorn
 Viburnum (Species)
 Weigelia (Varieties)

(2-3' minimum when planted)

Zabel Honeysuckle
 Clavey's Dwf. Honeysuckle
 Nankin Cherry
 Sumac (Species)

(18-24" potted minimum when planted)

Alpine Current
 Armur Privet
 Forsythia (Varieties)
 Mockorange (Species)
 Snowball Hydrangea
 Aronia
 Bayberry (Varieties)
 Flowering Quince
 Hazelnut
 Rugose Rose (Species)
 Burning Bush
 Witchhazel
 P.G. Hydrangea
 Winterberry Holly
 Buffalo Berry
 Spiraea (Species)
 Fragrant Sumac
 Potentilla

(5 1/2 - 6' minimum when planted)

Arborvitae (Varieties)
 Blackhills Spruce
 Bristle Cone Pine
 Colorado Spruce
 Douglas Fir
 Eastern Red Cedar
 European Larch
 Hemlock
 Norway Spruce
 Red Pine
 Scotch Pine
 Serbian Spruce
 Swiss Stone Pine
 White Fir
 White Pine

(24-30" minimum when planted)

Pfitzer Juniper
 Sargent Juniper
 Blue Rug Juniper
 Spreading Yew (Varieties)
 Mugho Pine
 Tamarix Juniper
 Hetz Juniper
 Maney Juniper
 Andorra Juniper
 Bar Harbor Juniper

GROUND COVERS

Agopodium
 Pachysandra
 Vinca or Myrtle
 Purpleleaf Wintercreeper
 Sedum (Varieties)

VINES

Bittersweet
 Clematis (Varieties)
 Hydranges Vine
 Boston Ivy
 Virginia Creeper
 Bigleaf Winter Creeper

Plant Installation

Establishing healthy plant material depends largely on the care taken during installation. Protecting the plants before they are placed in the ground, proper spacing, and using established planting procedures will improve the plants' chances for survival.