Downfown LANDSCAPE

DESIGN GUIDE



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about the author

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about mississippi main street

The **Mississippi Main Street Association** is a statewide coordinating program of the National Main Street Center that serves as a catalyst for the preservation and economic revitalization of Mississippi's historic downtowns and districts. Since 1984, Mississippi Main Street has helped its local Main Street programs create more than 40,000 new jobs and 6,000 new businesses, complete more than 3,500 rehabilitation projects, and catalyze more than \$5.8 billion in community investment in Mississippi's downtowns.

introduction

Imagine a Mississippi community with no landscaping, no trees along the streetscapes, no blooms of azaleas in the spring. Not a pretty picture, is it? Landscaping is the icing on the cake of your community. It is the iconic images that are captured by visitors and tourists. Landscapes connect us to a place, just as our historic structures do too.

What makes an iconic landscape? As it turns out, good landscaping is not just about popping shrubs in the ground around the corner from the local bank. Quality landscaping is about *having a plan*. It is about understanding the plants that are suitable for your area, your budget, and your aesthetic goals. Successful landscaping ties together a plan with your region, your budget, and your community's landscape goals.

Landscaping can reiterate your community's brand by creating a cohesive plant palette, which supports the brand. A plant palette and landscape plan are only the beginning of a quality community landscape. Other considerations, such has maintenance and proper installation techniques need to also be understood.

If all of this sounds a bit complicated, don't despair. This guide was created especially for Main Street directors, local government officials, tree board members, and other community stakeholders who dream of having a beautiful downtown landscape. The following pages will walk you through all you need to know to implement a solid community landscape plan for your downtown.



benefits of street trees

Let's begin with the landscape element that literally has the largest impact on the landscape—street trees. Trees are a critical component of any community landscape. No other landscape feature provides more aesthetic and economic benefits than that of a mature tree.

Imagine how hot a downtown sidewalk is in Mississippi in June without any shade offered by a street tree! Trees can be icons and are often branding elements for communities. Communities, neighborhoods, parks, and streets are often named and influenced by trees and tree canopies.

No landscape plan is complete without trees. Whether you are planting Maples in North Mississippi or Palm Trees in Coastal Mississippi, trees are part of our community and our identity. Even so, trees bring more than just aesthetic value to your landscape. Trees provide the following benefits:



Chinese Elms along this downtown sidewalk provide shade for pedestrians along with many other street tree benefits.



This community has utilized its planting areas to implement a variety of street trees. Utilizing bulbouts and medians provides ample space for your street trees to grow and prosper.

1. Reduce Stormwater Runoff – Trees intercept large amounts of rainwater, which is either returned to the atmosphere through evaporation or allowed to infiltrate the soil surrounding the tree at a slower rate. Reduced stormwater runoff mitigates pollution levels and erosion of natural waterways.

2. Increase Air Quality – Street trees can remove pollutants from the urban environment such as carbon dioxide, ozone, nitrogen oxides, sulfur oxides, and carbon monoxide.

3. Store Carbon – Street trees remove carbon dioxide from the atmosphere and convert it to oxygen, alleviating the greenhouse effect.

4. Increase Biodiversity – Street trees provide important habitat for a wide range of wildlife, including insects, birds, reptiles, and mammals.

5. Decrease Air Temperature – The shade from street trees reduces the temperature of a tree's surroundings during the summer months. Trees can also work to block winter wind chills.

6. Decrease Noise – Street trees absorb the noise from traffic by creating a barrier through a tree's canopy and branch structure. Trees located between a roadway and a structure block some of the noise emitted from the roadway.

7. Increase Property Values – Properties with mature trees are proven to demand greater sales prices than similar properties with no trees.

8. Increase Mental Health – Studies have shown that people with a view of trees have increased mental acuity and an overall sense of well-being.

9. Community Engagement – Green space within a city can improve the urban environment by providing recreational opportunities and promoting interaction among community residents. This encourages physical activity, reduces stress, and stimulates social cohesion.

10. Public Safety – Communities with higher levels of vegetation can have approximately 50% lower crime levels than areas with low levels of vegetation. Street trees also act as a visual and physical barrier between motorists and pedestrians, keeping pedestrians safe.

Before you decide to plant some trees along your main boulevard, you will want to consider the following:

- Tree locations conform to safety standards
- Site views
- Street signs
- Utility lines: underground and overhead
- Mature size of tree

Recommended street trees for Mississippi landscapes are listed on the following page.

how to use this guide

Landscaping is not a one-size-fits-all solution, and it's a little more involved than just planting some trees along your main roadway. Each community's landscaping needs will be unique based on the community's individual circumstances. Whether you need to install some containers along Main Street or tackle some overdue landscape maintenance issues, this guide is here to help.

The purpose of landscaping within your community should go beyond the simple notion of beautification. Sure, we all want our downtowns to be stunning, but good landscape design starts by answering some pretty basic questions:

• **Who** are you designing for? Are your retailers asking for containers outside their stores? Determining who benefits from the landscape may help you in funding your landscape project.

• What issue are you trying to address? This can be as simple as needing more shade along Main Street or reducing stormwater runoff in a downtown parking lot.

• **How** is it going to be implemented? A great landscape plan cannot exist without the labor to install and maintain it. Landscapes are projects that grow and change over time and must have a long-term maintenance plan. You also have to know how you will pay for your landscape project.



A variety of textures enhances the front of this downtown retail location.



See how a downtown community used strategic design in their bulbout to address stormwater drainage.

• Where are you going to be landscaping? It may not be financially feasible to landscape your entire downtown in one year. Instead, focus on the areas that need the most attention or will create the greatest visual impact, and from there, phase your comprehensive implementation. These key landscape locations can include the town square, street trees along Main Street, or your entrance to downtown. Even planning for a few containers can make a large impact on your downtown aesthetic.

Sourcing the plants can provide an opportunity for community buy in. Work with your local nursery or landscape company to source quality plant material that grows well in your area. More to come on this!

• When are you going to do the work? Landscaping in the summer in Mississippi can be a death sentence for plants without proper irrigation. Make sure you take into consideration proper planting times, which is an issue that is addressed in this guide.

Remember, landscape projects are dynamic. You don't want to have a beautiful landscape for just one season out of the year. When making landscape plans, make sure you think through the seasonality of your landscape. You will want to plan for visual interest throughout the calendar year. Keep in mind that visual interest doesn't necessarily mean just blooms. Interest can come in the form of berries, leaf color, bark texture, and plant height, among other characteristics.



The cooler fall and winter months are best for installing your landscape.

Local nurseries or landscape companies are great resources for plants that grow in your area.

lefinition

Use the following basic landscape definitions to help you get started.

Annual a plant that only grows for one season (i.e., Pansy).

Perennial a plant that comes back season after season (i.e., Purple Cone Flower).

Evergreen Plant a plant that keeps its leaves year-round (i.e., Azalea).

Deciduous Plant a plant that drops its leaves in the wintertime (i.e., Hydrangea).

Hardiness Zone a geographic area defined to encompass a certain range of climatic conditions. relevant to plant growth and survival. Know your community's hardiness zone before purchasing any plants.

Sun Plant a plant that requires six or more hours of sunlight per day (i.e., Ornamental Grass).

Shade Plant a plant that requires little sunlight during the day (i.e., Fatsia).

Partial Sun Plant a plant that requires less than four hours of sunlight but more than two hours of sunlight per day. These plants need a break from hot afternoon sun.

Root Ball the compact mass of roots and soil formed by a plant, especially in a container.

Herbicide any agent (chemical or organic) used to prevent or inhibit the growth of unwanted plant material.

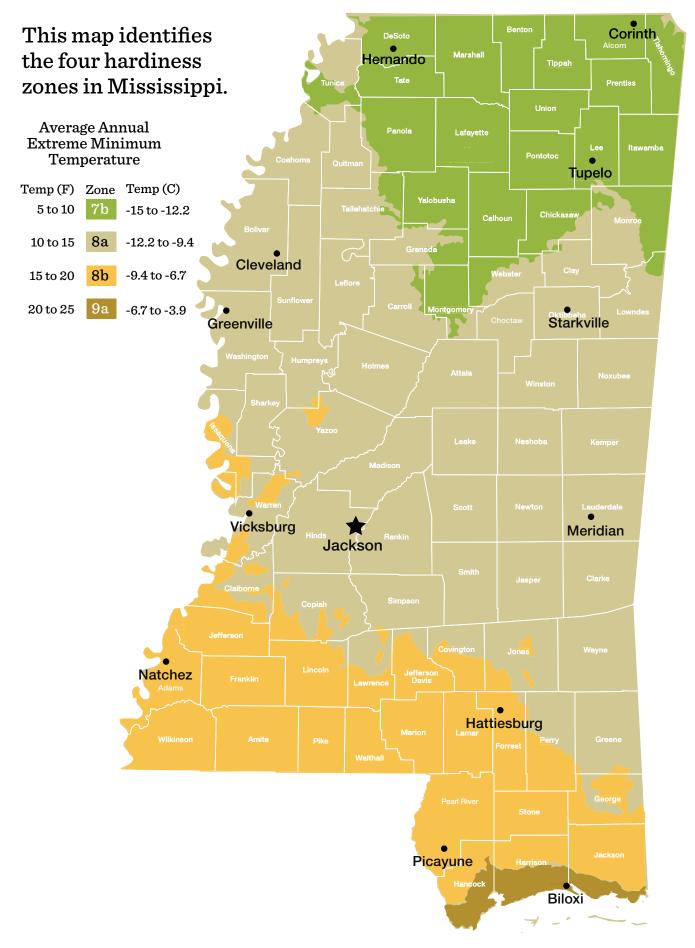
Fungicide any agent (chemical or organic) used to prevent or inhibit the spread of fungus on plant material.

Insecticide any agent (chemical or organic) used to keep insects off plant material.

Hardiness Zones

Have you ever noticed that palm trees don't grow in the mountains? That's because different plants are subject to different climatic conditions for their survival. How are you to know what conditions a plant requires? The USDA has divided the United States into different zones called hardiness zones, which help us determine which plants can grow where. On a plant's tag or description, you will see a number or range of numbers usually accompanied by a letter. This is your plant selection's hardiness zone. Mississippi has four hardiness zones. The most northern part of the state is zone 7b and the most southern part of the state, along the coast, is zone 9a. A plant's hardiness zone is the most important plant characteristic that you must follow when making a selection.





fundamentals of landscape design

While trees are highly influential in our landscapes, they are not the only component to a community landscape. The overall concept of landscaping is integral in the visual representation of your community. Architectural fabric, streetscapes, parking lots and roadways are not complete without a proper landscape. However, there is a process to landscaping these specific areas within your community. Let's begin with common areas that may need some landscaping.

Common Community Landscape Areas

An overall community landscape consists of smaller, landscaped areas throughout a community. Each of these areas work together to create a comprehensive landscape to reflect your community's aesthetic.

Sidewalk planter – a landscaped area that runs along a sidewalk. Sidewalk planters can be flush with the sidewalk or elevated.

Bulb out – a curb extension into a lane of traffic, used to calm and slow traffic. Bulb outs often double as a landscape planter.

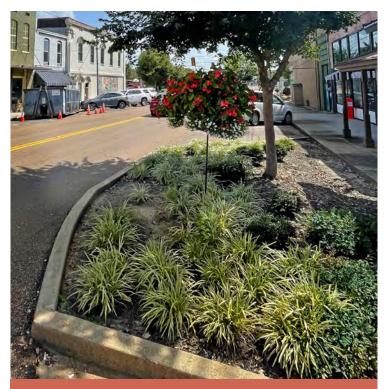
Boulevard median – a section of the roadway usually located between opposing directions of automobile traffic.

Parking lot island – a designated, landscaped area within a parking lot. Zoning and land development codes often require a minimum number of landscaped parking lot islands in downtown and commercial parking lots.

Screen – an area with plant material used to block unsightly views.

Container – an individual contained planting area used in various locations.

When landscaping in areas of traffic, be sure to not obstruct views of the drivers. Special care should be taken around intersections, ensuring that plant material does not im-



Bulbouts are also an opportunity to introduce street trees into your downtown. Bulbouts provide ample space for your trees to grow and in return, the trees offer shade and cooling effects for your downtown.

pede the clear site zone, which is 3.5 feet above the pavement. Also, be sure to not block any traffic signs.

For more information on streetscape landscaping, refer to the **Mississippi Department of Transportation Engineering Design Standards.**

Cangcape design principles

So, you have your areas that need some landscaping, your hardiness zone, and plant list. What now? To come up with your plant layout, let's walk through some principals of landscape design. These principals will help guide your intentions for your landscape plan. Keep these concepts in mind as you begin your landscape planning:

Simplicity – Your community landscape plan should be simple. Start by establishing your plant palette. Your plant palette should include plants suited to your area and environmental conditions and should be used throughout your community. Don't overplant just to fill a space. Have a plan and stick to it.

Variety – Color is not the only plant characteristic that can be varied. Your plant palette should feature a variety of colors, textures, sizes, and forms. Variety can also carry over into your hardscapes and landscape containers.



This landscape planting demonstrates VARIETY through the combination and **REPETITION** of colors, textures, sizes and plant forms. The tallest layer is toward the back, created with ornamental grass and tapers down to the smallest annual planting along the front.

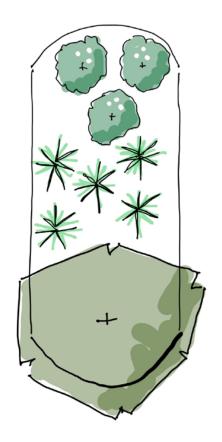
Repetition – Variety is important, but repeating certain colors, textures, sizes and forms throughout your community is equally as important. Do not implement a "one of each" approach to your landscape elements. Repetition visually unites the aesthetics of your community, which can help with branding and identity.

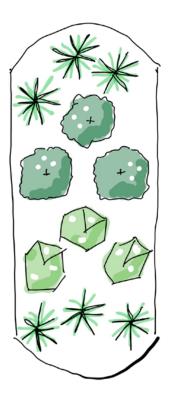
Sequence – Work in sequential layers when installing plants, both horizontal and vertical layers. Layers create a richness in your landscape and provides the opportunity to create gradual shifts in colors, textures, and forms.

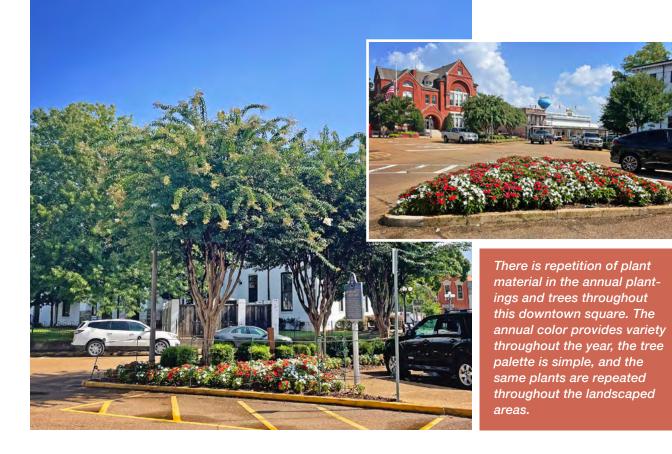
Odd Numbers – Plant in odd numbers. One plant is a focal point or specimen plant, groups of three to five plants are supporting, and groups of seven to nine plants provide for massing and impact.

While these two parking lot median planting diagrams are not identical in their planting arrangement, they follow the design principals creating a cohesive look for the landscape.

In both medians, plant material is repeated, odd numbers are utilized, color and texture create variety and the plant palette is simple.



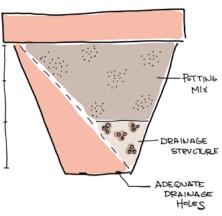




confainer design principles

Preparing your container with adequate drainage will ensure the vitality of the plants installed in it.

Consider your downtown paint palette when planning your container installation.





These bright red Begonias tie in beautifully with the red door of this boutique.



Does your community have a water truck? How will you water your containers during the heat of a Mississippi summer?

Your downtown containers don't always have to be on the ground plane. Consider hanging baskets for an elevated visual impact.





Containers are an easy landscaping component to implement within your community. They can be used to accent streetscapes or scoops; they can be used to screen; and they can even be used to direct or control traffic. As easy as they are to install, containers do have some parameters that must be considered before installing them.

• **Drainage** – First and foremost, proper containers must have good drainage. Make sure the bottom of the container has adequate drainage holes. Consider filling the bottom 1/3 of your container with gravel or mulch to ensure perviousness. The top 2/3 should be filled with a high quality potting soil.

• **Moisture** – Containers must be watered. With shallow depths, the soil has a tendency to dry out faster than plants in the ground. A watering plan should be well thought out before installing your planters. Is there a hose nearby? Do you have a water truck? Could downtown merchants help keep containers watered? Is your city's public works team able to take on another task?

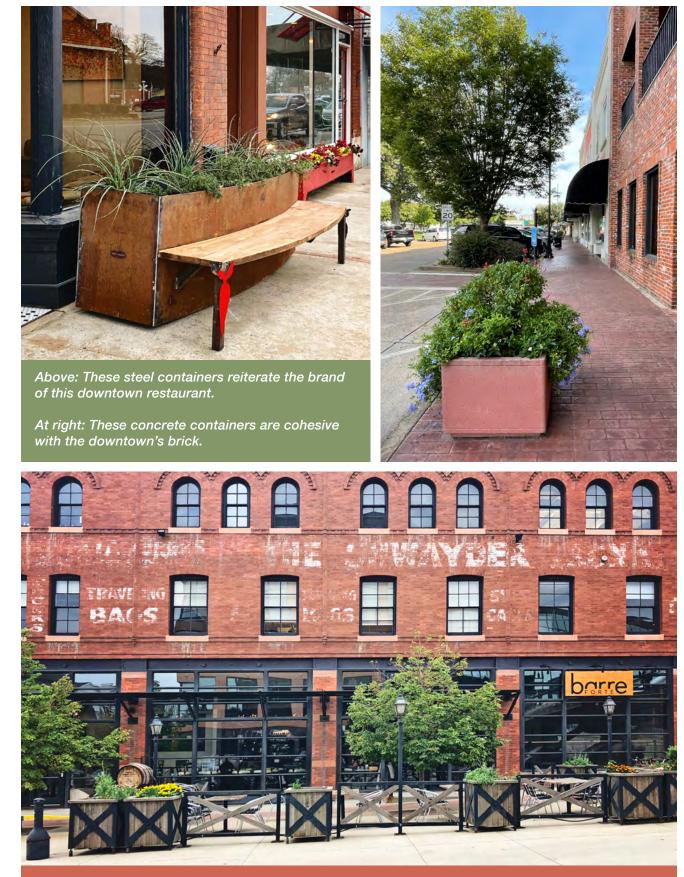


• **Construction** – Downtown planters should be constructed of a durable material, such as pressure treated wood, metal, or concrete—materials that can stand up to wear and tear, UV light, and freezing and thawing temperatures without cracking.

• **Budget** – A container budget should include a line item for replacing plants that die each year.

• **Maintenance** – Instead of planting annuals each season, consider using evergreens, perennials, and bulbs. These plants come back year after year, without the added maintenance of planting and removing annual plant material.





These wood and steel containers define the outdoor space for this downtown establishment.

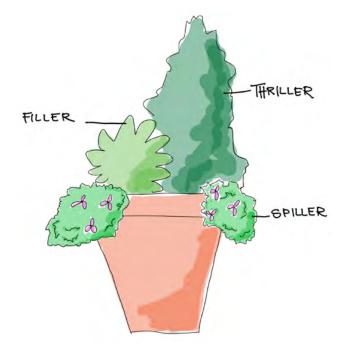
Consider the following three elements when designing your container:

Thrillers provide height in the container. Consider an evergreen shrub that will remain green throughout the year.

Fillers are the middle layer in the container, filling in the space between the thriller and spiller.

Spillers are the lowest layer, which spill out over the sides of the container.

This diagram illustrates the three key components for successful container design. However, you can achieve just as much impact with a single plant in your container.





These Kimberly Queen ferns soften the hardscape, while drawing your attention to this local business.



What better way to draw attention to your business than with a unique plant, such as this pineapple.

ight plan, right place

Before continuing with plant selection, let's talk about where your plant is going. Just because a plant will grow in your hardiness zone and matches your design criteria, does not automatically make it the perfect fit.

There are other environmental conditions to consider before selecting your plant, such as:

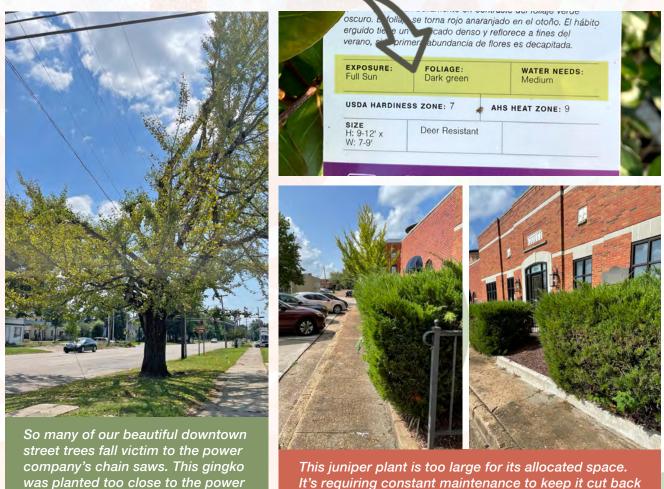
• Does the location have sun or shade?

line and as a result was improperly

pruned, ruining its aesthetic.

- Is the ground wet or dry?
- If selecting a tree, are there power lines or other overhead obstructions?
- If located in a tight space, is it a compact growing plant?
- Are you prepared to handle the maintenance requirements of the plant?

Be sure to conduct a full site analysis before selecting a plant. Check the surroundings (around and above) for spacing requirements; check the amount of sunlight received per day; and, check if it is a dry location or holds some water when it rains. Once you have an inventory of site conditions, you can match your requirements with the tag found on the plant and put the right plant in the right place.



15

This juniper plant is too large for its allocated space. It's requiring constant maintenance to keep it cut back off the sidewalk. As a result, there are bare spots in the hedge and weeds are starting to grow through it.





Always consider the mature size of plants before using them in your landscape. These plants (holly and boxwood) probably started at the perfect size, but over time, they have reached their mature size. The boxwood is impeding pedestrian traffic and the holly now overwhelms this entire building. Having the wrong plant in the wrong place causes additional maintenance effort just to keep it out of the way of your downtown landscape features.



Plants with stickers or thorns should not be used adjacent to pedestrian walkways for obvious reasons.

hee trees

There are more options for street trees, but these are the ones most suitable for our communities, based on growth habits and maintenance requirements. Please note the hardiness zones, light requirements, and size before making your final selection. Always note the utility lines and lines of site when locating street trees. See page 2 for more information about the benefits of street trees.



Black Gum Nyssa sylvatica - 30-50' H x 20' W



Crape Myrtle Lagerstroemia indica - 15-25'H x 10-15' W



Japanese Zelkova Zelkova serrata - 50-80' H X 50-75' W



Redbud Cercis canadensis - 20-30' H X 25-35' W



Chinese Elm Ulmus parvifolia - 30-50' H x 50-60' W



European Hornbeam Carpinus betulus - 30-40' H X 20-30' W



Pin Oak Quercus palustris - 60-70' H X 24-40' W



Shumard Oak Qurecus shumardii - 40-60' H X 40-60' W



Chinese Pistache Pistacia chinensis - 25-35' H X 25-35' W



Ginkgo Gingko biloba - 25-50' H x 25-35' W



Red Maple Acer rubrum - 40-70' H X 30-50' W



Water Oak Quercus nigra - 50-80' H x 50-80' W

ornamental trees

Ornamental trees are often smaller than our street trees. They are used as focal points and specimen plants within the landscape due to their beautiful blooms and foliage.



Chaste Tree *Vitex agnus-castus* - Sun



Dogwood Cornus florida - Partial Shade/Sun



Crabapple Malua sylvestris - Sun



Grancy Graybeard Magnolia spp.



Crape Myrtle Lagerstroemia indica - Sun



Japanese Maple Acer palmatum - Sun



Little Gem Magnolia Magnolia grandiflora 'Little Gem' - Sun



Sweetbay Magnolia Magnolia virginiana - Partial Shade, Sun



Redbud Cercis candensis - Partial Shade, Sun



Tulip Magnolia Magnolia spp. - Sun



Star Magnolia Mangolia stellata - Sun



Windmill Palm Trachycarpus fortune - Sun (protect from North winds)

shrubs & grasses

These are used along our foundations, within our medians and islands, and any other space requiring a medium height. They work well in masses as well as for greater visual impact. There are thousands of varieties of shrubs and grasses. The following list includes species that make great landscape shrubs.



Abelia Abelia grandiflora Blooming, Evergreen - Sun/Part Shade



Boxwood Buxus spp. Evergreen - Sun/Shade



Drift Rose Rosa spp. Blooming, Evergreen - Sun



Fatsia *Fatsia japoinica* Evergreen - Shade Only



Aspidistra Aspidistra elatior Evergreen - Shade Only



Camellia *Camellia spp.* Blooming, Evergreen - Sun/Shade



Dwarf Palmetto Sabal minor Evergreen - Shade



Forsythia Forsythia x intermedia Blooming, Deciduous - Sun/Part Shade



Azalea Rhododendron spp. Blooming, Evergreen - Shade



Distylium Distylium spp. Evergreen - Sun/Shade



Dwarf Yaupon *Ilex vomitoria* Evergreen - Sun/Shade



Gardenia Gardenia jasminoides - Sun

shrubs & grasses

Within each species, there can be different varieties that offer different heights, bloom times, and growth habits. Remember, always check the tag and the description on your plant.



Hydrangea Hydrangea spp. Blooming, Deciduous - Sun/Shade



Loropetalum Loropetalum spp. Evergreen - Sun/Shade



Juniper Juniper spp. Evergreen - Sun/Part Shade



Mahonia Mahonia bealei Blooming, Evergreen - Shade



Liriope Liriope spp. Blooming, Evergreen - Sun/Shade



Miscanthus *Miscanthus spp.* Deciduous - Sun



Pittosporum Pittosporum spp. Evergreen - Sun/Shade



Spiraea Spiraea spp. Blooming, Deciduous - Sun



Muhly Grass Muhlenbergia spp. Deciduous - Sun



Quince Chaenomeles speciosa Blooming, Evergreen - Sun/Shade



Nandina Nandina spp. Evergreen - Sun/Shade



Rosemary *Rosemarinus officianalis* Evergreen - Sun

hedges & screens

Those unsightly dumpsters, stormwater ditches, and the abandoned lot with absent owners all will need some strategic screening to bolster your community's image. Hedges and screens are medium to tall (10 to 20 feet in height) evergreen options that can be used to block the unsightly views that we all encounter. Remember...always check the tag and the description on your plant.



Arborvitae Thuja spp. - Sun



Cleyera *Ternstroemia gymanthera* - Partial Shade/Sun



Blue Cypress Cupressus arizonica - Sun



Japanese Cedar Magnolia spp. Sun/Part Shade



Chindo Viburnum Viburnum awabuki 'Chindo' - Sun/ Partial Shade



Japanese Yew Osmanthus fragrans Sun/Part Shade



Ligustrum Abelia grandiflora - Sun/Part Shade



Oakleaf Holly Cercis canadensis - Sun/Part Shade



Magnolia Magnolia spp. - Sun/Part Shade



Savannah Holly Magnolia spp. - Sun/Part Shade



Nellie R Stevens Holly Osmanthus fragrans - Sun/Part Shade



Sweet Olive Osmanthus fragrans - Sun/Part Shade

confainer plants

These are plants that make great "thrillers" within your containers for height and/or structure. Remember, there are different varieties within these species, so check your plant's tag and environmental conditions. Because you will have three different types of plants within your container, be sure that all three of your plants carry the same light and moisture requirements. See page 14 for more information about container design.



Banana Musa spp. - Sun



Buxus spp. - Sun/Shade



Camellia Camellia spp. - Partial Sun/Shade



Dwarf Palmetto Sabal Minor - Sun/Shade



Fatsia Fatsia Japonica - Shade



Gardenia Gardenia jasminoides - Sun



Hibiscus Hibiscus spp. - Sun



Nandina $Nandina\ domestica\ -Sun/Shade$



Holly Ilex spp. - Sun/Shade



Yew Taxus spp. - Sun/Shade



Juniper Juniperus spp. - Sun



Yucca Yucca spp. - Sun

flowers

These are examples of perennial flowers and blooms that you can mix in with your landscape. Remember, flowers will be your shortest layer and should be planted towards the exterior of beds and planted areas. Annuals are options for your planted areas as well, but you will have to replant them each year.



Astilbe Saxifragaceae spp. - Sun





Black-eyed Susan Rudbekia hirta - Sun



Daisy Leucanthemum x superbum - Sun



Coneflower Echinacea spp. - Sun



Daffodil Narcissus spp. - Partial Shade/Sun



Iris Iris spp. - Sun/Partial Shade



Yarrow Achillea millefolium - Sun



Daylily Hermercallis spp. - Sun



Phlox Phlox spp. - Sun



Hellebores Hellebores spp. - Partial Shade



Sedum Sedum spp. - Sun

no-nog

Theses plants should not be utilized in your landscape for various reasons, but the greatest reason is that most of them are highly invasive and will commandeer an entire landscape area in the blink of an eye. This hostile takeover threatens native species that our local wildlife depends on. Not only that, but the invasive characteristic will add to the maintenance needs and put a strain on your community landscape budget.



Asiatic Jasmine



Bamboo



Bradford Pear



Chinese Privet



Chinese Tallow



English Ivy



Horsetail Cane



Sweetgum



Japanese Honeysuckle



Tree of Heaven



Kudzu



Wisteria

abou crape myrtles

The runner up to the state tree of Mississippi must be the Crape Myrtle. You cannot travel through the state in the summer months without experiencing the dainty pink, white, red and purple blooms that adorn our landscapes. Crape Myrtles are beautiful. As a result, they are planted everywhere in Mississippi. Everywhere.

Because of the ubiquitous nature of Crape Myrtles in Mississippi, this section highlights some of the most common issues associated with Crape Myrtles, along with potential solutions.

The most important thing you should know is that Crape Myrtles are trees, not shrubs. Therefore, they should not be renewal pruned each and every year (a practice commonly referred to as "Crape



murder"). Proper pruning of a Crape Myrtle involves opening up the canopy to allow more sunlight and air to access the tree. It involves regularly removing all suckers at the base of the tree, as well as any branch in the canopy that is smaller in diameter than a quarter.

Incidentally, if you find yourself having to cut your Crape Myrtle back each year due to close proximity to a structure, then it is located too close to the structure and should be removed completely (see Right Plant, Right Place on page 15).

Crape Myrtles are not maintenance free trees, even if you don't murder them each year. They are often messy. They drop blooms, pods, bark, and limbs. Planting them around a patio or along a sidewalk will create some cleanup and maintenance issues for your community. Crape Myrtles can also harbor roosting birds in large numbers, which also drop a different kind of mess.

In addition, Crape Myrtles are subject to sooty mold and sap that falls on surrounding hardscape elements, including outdoor furniture and other architectural elements. This is a result of aphids that live in the trees, which must be controlled with an insecticide.

Powdery Mildew (white/grayish powder found on leaves, stems, and buds) is another problem that erupts in Crape Myrtles due to poor drainage and/or poor air circulation. This is caused by overplanting, improper pruning, or planting trees too close together. If you spot Powdery Mildew, remove the affected parts of the plant immediately and try to improve environmental conditions through pruning, transplanting, and drainage adjustments.



Crape Myrtle bark scale is becoming more and more widespread. Tiny white specks along the trunk/ branches and dark, mildew covered leaves are indicators of the disease.



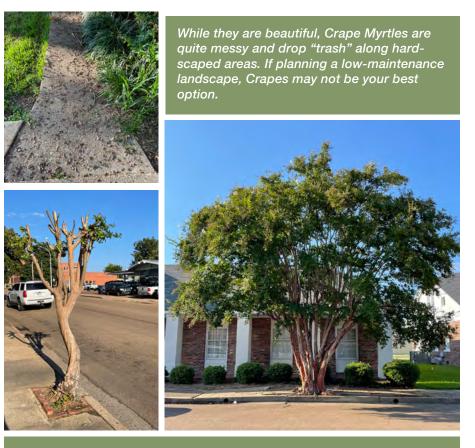


Crape Myrtles should be pruned to remove any crisscrossing and overlapping branches. When left unattended and unpruned, damage occurs to the tissue of the tree leading to disease and possible death.

Crape Myrtle Bark Scale appears as tiny, fluffy crustaceans along the trunk and stems of the tree. Crape Myrtle Bark Scale is a new pest, recently introduced to the Southeast. The damage is majority aesthetic, but can reduce overall plant vigor, growth, and blooms. Scale is a result of improper location for planting the Crape Myrtle. Applying a systemic insecticide in the late winter or early spring can help stop the spread of scale. Existing scale and sooty mold will need to be removed from the branches with soap and water.

Despite their popularity, Crape Myrtles aren't free of problems. Proper pruning and proper location are all ways to ensure you get the most from your Crape Myrtle. Remember, Crapes require full sun, plenty of air, good drainage, and proper mulching to live their best life. They make an excellent ornamental or street tree and provide exquisite color throughout the summer months.

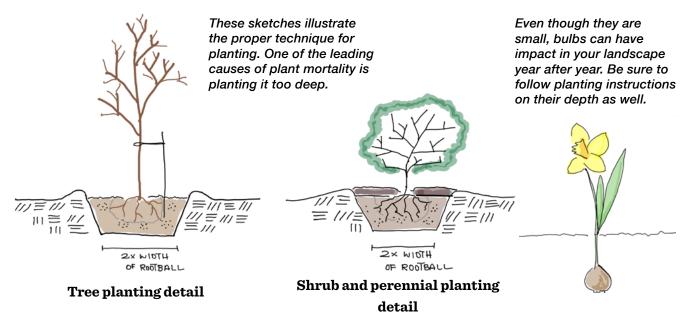
Natchez White is one of the tallest and hardiest of Crape Myrtle varieties and provides exfoliating bark, which adds visual interest in the winter months. There are many other colors of Crape Myrtle, ranging from hot pink to deep purple. Before you select your Crape Myrtle, be sure the color supports your overall plant palette and design aesthetic.



These two Crape Myrtles are next to each other along the sidewalk. You can see how beautiful a properly pruned Crape Myrtle is versus one that has been "murdered" season after season.

planting guide

Here's the good news: you don't have to dig to China to plant a tree or shrub. In fact, holes that are too deep are a huge problem when it comes to planting trees and shrubs. The root system of plants requires access to oxygen. By piling a lot of dirt on top of the root ball of the plant, you can suffocate the plant. If you plant too deep and don't pile a lot of soil on the root ball, you can drown the plant because you have created a basin in which water sits, quickly killing the plant.



Proper planting techniques translate across plant varieties. The top of the root ball should sit at the surface of the hole. If you're planting in new dirt, the root ball should sit about 1 inch above the surface level of your hole. The hole should be twice as wide as the root ball. Backfill your hole with the native soil you removed mixed with a little soil conditioner or amendment. Remember, air is important, even to the buried root systems. Soil conditioner helps aerate the soil around the roots.

Once your plant is installed, add a two to three-inch layer of mulch on top. Do not come in direct contact with the plant's trunk with your mulch. You will want to leave a collar around the base of the plant. Remember, plants need to have plenty of air. Plant in the fall (mid-September to mid-December). Plants are dormant

during the winter months, so by planting them in the fall, they are allowed plenty of time to adjust before trying to grow and bloom. This reduces the amount of stress put on them.

Note: If you hire a contractor to install your landscape for you, make sure they are a licensed landscape horticulturalist. The Mississippi Bureau of Plant Industry requires any contractor that is "engaged in landscaping services and the setting or replacement of any plants" to be properly licensed.

If your newly installed trees are staked and guyed, be sure to remove this apparatus at the end of one growing season. If not, the tree will grow into the wires, causing damage to its vascular system and possibly death.



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Pruning:

"Proper pruning isn't pretty." If you can remember this little saying, you will always prune correctly. Well, hopefully you will after following this guide!

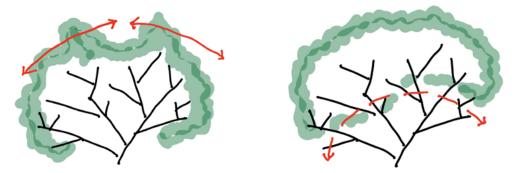
Before you pull out your loppers or pruning shears, ask yourself the question, "What am I trying to achieve by pruning?" Your main goal when it comes to pruning isn't just to reduce the size of the plant, but to allow more sunlight to reach the inside canopy of the plant. If you are having to prune a plant more than one time per year, you need to remove the plant because it is not the right plant for the space.

When should I prune? Deciduous plant material should be pruned in the winter months when there are no leaves and the plant structure is very visible. Evergreen plant material should be pruned in the early spring just before a flush of new growth. However, azaleas and hydrangeas should be pruned immediately after they finish blooming. Pruning them at the wrong time can hinder next year's blooms.

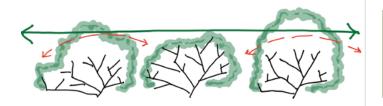
• **Light Pruning** – Think of light pruning as a haircut for your plant. It helps to reshape and redefine your shrubs. If you're pruning more than one shrub in a mass, look at the entire mass as one "shrub" to prune.

• **Renewal Pruning** – Often our shrubs have been so misshaped by improper pruning, we must cut them way back. This is called renewal pruning. This more extreme form of pruning requires cutting back the stems and trunks of the shrub, not just the outer branches. Renewal pruning comes in handy when your shrubs have become "leggy," with too much greenery at the top and bare stems at the base. Renewal pruning involves removing the top 1/3 of the plant to allow light into the inner canopy to encourage leaf growth.

Prune your shrubs the way you see it done in the reference illustrations, not just the way it has always been pruned. Once you establish a proper pruning routine for your landscape, you will begin to reap rewards.



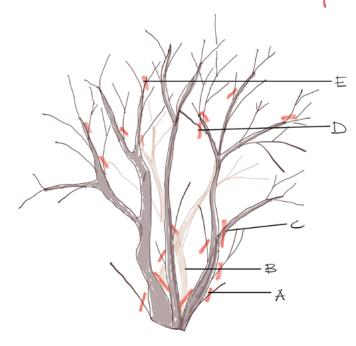
Light pruning is demonstrated on the left shrub where just a little excess growth is taken of the top. Renewal pruning is demonstrated on the right shrub, where an extensive amount of pruning has taken place, opening up the entire canopy to sunlight and future growth.



Shrubs planted in a row, as shown on left, should be pruned across one plane, not individually. This will ensure cohesive growth along the row of shrubs.

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Small trees and shrubs should be pruned with the following in mind:

- $\alpha_{:}$ Remove all suckers.
 - Maintain three main trunks/leaders, removing all overlapping large trunks.
 - Remove all lower limbs and branches.
 - Open the canopy to allow plenty of airflow.
 - Remove limbs and branches smaller than your arm and those that will eventually criss-cross another main branch.



Oftentimes, renewal pruning is not pretty. However, these boxwoods that were renewal pruned in the early spring, were flush with new growth and a consistent growing pattern later in the summer.



This Vitex Tree was renewal pruned in the later winter months when the limb structure was clearly visible. The result is a beautifully blooming small tree with green growth and blooms throughout the canopy.



These azaleas were not pruned at the correct time resulting in sparse blooms on the shrubs.

Weed Control:

Weeds are a common problem in the landscape and are often a result of environmental conditions. For instance, if an area is staying too wet, certain weeds can move in quite easily. Weed control involves working to ensure the proper environmental conditions (drainage, light, etc.) to prevent their growth. It also means adding layers of protection, such as mulch and a pre-emerge herbicide. Pre-emerge is an herbicide that is applied to certain areas to prevent weeds from sprouting.

Fertilizing:

While not always necessary, fertilization is never a bad idea. A granular, slow-release fertilizer applied with your mulch, fertilizer can ensure your plants are receiving proper nutrition throughout the year. In addition, fertilizer stakes individually applied to trees and shrubs can provide sustenance for your trees and shrubs. If your plant is not growing well, be sure to check its environmental conditions as well. Applying fertilizer to plants in less-than-ideal growing conditions will not always be able to improve your landscape.



All trees throughout this downtown greenspace are properly mulched. This technique is not only beneficial for the tree, but aesthetically pleasing.

Mulching:

If your landscape is the icing on your cake, then your mulch is the sprinkles. There are numerous benefits to applying mulch within your landscape areas. Mulch not only helps prevent weed growth but helps to visually tidy up installed beds.

Types of mulch include pine straw and hardwood bark mulch. It often comes down to personal preference, but a longleaf pine straw mulch has much better weed prevention than hardwood bark mulch does. Slash and Loblolly pine straw will work, but the best weed prevention is from the longleaf variety of pine.

Mulch should be applied at a depth of two to three inches. Do not allow mulch to come in direct contact with the plant's trunk. You will want to leave a little collar around the base of the plant. Remember, plants need to have plenty of air. One of the greatest no-nos in commercial landscaping is the over application of mulch.

mainfenance calendar

january february

It may seem like there is not much to do in terms of landscaping in January and February, but that is just not the case. These can be your most productive landscape months because they are excellent for planning. Think about areas you would like to address, your budget, and the work will get carried out. Other critical tasks that can take place during these months include:

• Pruning deciduous plant material. During the winter months, you can really see the plant's structure and prune more accurately.

• Treat your turf areas with a pre-emerge herbicide. Consult a local specialist for this. Mississippi requires pesticide applicators to be licensed, so check for that.

• Mississippi is rather damp in the winter, so locating drainage problems is easier during this time. While repair cannot occur until dry weather, now is the time to locate problem areas and address them.

• Plant your fall-blooming bulbs.

• Cut your Liriope (monkey grass) back on President's Day.



march april

Spring barrels around the corner in these months, and it can be easy to get too excited to start planting. Remember, Mississippi usually receives an Easter freeze, whenever Easter arrives, so it is always best to wait and plant spring annuals, perennials, and vegetables after Easter.

Other landscape tasks to tackle during these months include:

• Prune your evergreen plant material. However, with azaleas, you should wait until right after they bloom in April to prune them. Boxwoods can be significantly cut back in March, right before spring growth.

- Clean out beds of winter weeds; apply a pre-emerge herbicide; and apply mulch.
- Fall is the absolute best time to install shrubs and trees, but early spring works as well.
- Check irrigation systems and make sure they are ready for the summer months that are coming up.





Late spring and early summer is when we start to really enjoy our landscapes and the work of spring planting! During these months, landscaping is about maintaining all you have created. This is a good time to

dead-head or remove old blooms from blooming shrubs and cut back your azaleas and hydrangeas.

You can also fertilize your turfgrass during May and June. It is best to consult a professional on fertilization and pesticide treatments.

july august

These are Mississippi's hottest and driest months when we do a lot of watering and mowing, so make sure you're doing both correctly for the best results. Your turf needs one inch of ir-

rigation per week in the hottest summer months. Irrigation should only be run during the early morning or late evening or even middle of the night hours to keep from wasting water. It is best to consult an irrigation professional to adjust your system to ensure you are getting your money's worth. All varieties of Southern turfgrass should be mowed to a height no less than 2 - 2 1/2 inches, which varies based on turf type.

Be sure that you have a plan in place to water your beautiful down-town containers.



september october

Fall is the best time to install your landscape materials. Planting can usually begin in late September and carry through to the end of December in Mississippi. September begins fall maintenance season as well, when light pruning can be done and mulch can be applied. Don't fall for pansies at the

garden market just yet! Mississippi isn't quite cold enough for cold annuals in September and October.

Go ahead and fall for mums, crotons, and pumpkins of all shapes, sizes, and colors to brighten your community!



november december We begin the winter wind-down now as attention shifts to the holiday season. Before you get too into Christ-

mas decorating, consider planting winter annuals (pansies, snapdragons, cabbages and kales) as well as spring bulbs. Go ahead and winterize your irrigation system, which requires draining the water, turning it (and the timer) off, and insulating all above-ground components.



Plant your landscape during the fall/winter months to ensure survivability of your plant materials.

f.a.g./common problems

Why doesn't my flowering shrub have any blooms?

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What is causing this giant bald spot in my turfgrass?

Turf needs sunlight and proper drainage. Is the spot holding water for an extended amount of time after it rains? Is the spot receiving enough sunlight? Sometimes foot traffic can cause bald spots in our turfgrass. Can you re-route foot traffic or setup a barrier to keep pedestrians off the grass?

Why are my plant's leaves wilted when I am watering it every day?

This is a trick of the landscape. Leaves wilt if the plant is receiving too much water or staying too wet! Make sure the plant has proper drainage around it and is planted at the right height—not too deep. If your plant is not getting enough water, the leaves will turn brown and crispy.

Are these tiny insects supposed to be all over my plant?

Insects are the result of an environmental issue. Insects only take up residence on a plant if it is struggling. Check the drainage, the planting depth and the sunlight requirements. Insects can usually be controlled by adjusting these environmental factors. If that still doesn't work, consult a pest control specialist.

7 How do I tell if my plant is alive if there are no leaves on it?

Take your thumbnail to the stem of the plant and do a simple scratch test, taking the upper surface of the bark off. If the underlayer is green, your plant is alive and well. If it's brown, it's time to consider replacing the plant.

I followed all the requirements on the tag, so why is my plant not thriving?

Sometimes, a plant just will not work in a spot, regardless of how well it fits. Replace it one time, but consider a different plant variety if the second planting doesn't work.

I paid a professional to install my landscape, but everything is so tiny. Did I get ripped off?

There is usually some disconnect between a landscape plan and the initially installed plants. This is because plants are drawn full size on landscape plans, and they are usually planted at about 1/3 the fully-grown size. Plants need room to grow and become established in their new landscape. Give your plants some time and they will eventually align with your plan. Remember, the first year the plant dives (roots become established); the second year it comes alive; and the third season it thrives. Over-planting just to fill space can become a maintenance nightmare.



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