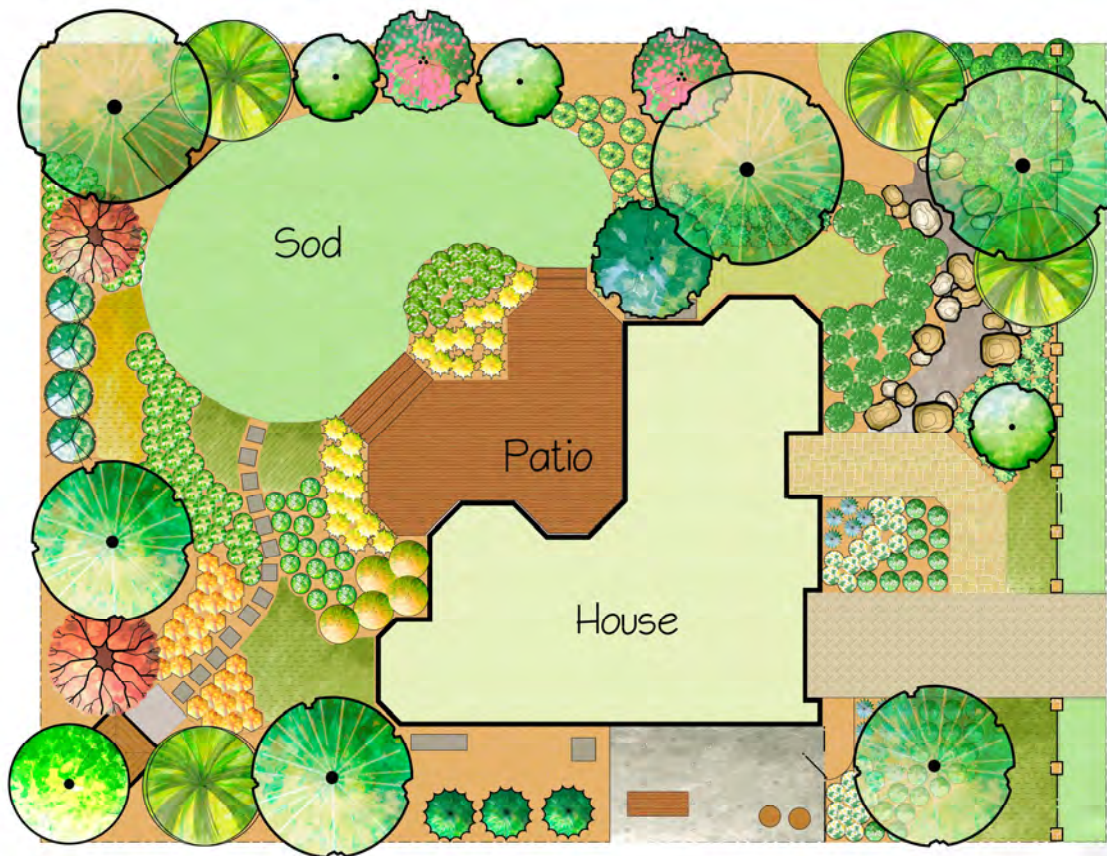


Neighborhood Stabilization Program

Florida-Friendly Landscape Design Guidelines



Housing Finance Authority
of Pinellas County
600 Cleveland Street, Suite 800
Clearwater, Florida 33755
www.pinellascounty.org



The University of Florida IFAS Extension
Center for Landscape Conservation and Ecology
Gail Hansen, PhD, Environmental Horticulture Dept.
Kelly Perez, Landscape Architecture Dept.

Purpose

Design and maintenance of landscapes in residential yards has a significant impact on water shortages and declining water quality in many counties in Florida. Maintenance of traditional landscape plantings often requires a large amount of water, fertilizer, and pesticides which can be a serious environmental threat to Florida's waterbodies.

As part of a broad effort to improve water quality, the following landscape guidelines were developed for the Pinellas County Neighborhood Stabilization Program (NSP) to guide the design and installation of Florida-Friendly Landscapes (FFL). By adopting Florida-Friendly principles for residential yards, the NSP will create environmentally sound landscapes that conserve and protect water and energy. Homeowners with FFL yards will enjoy attractive landscapes and wildlife, save time and money, and protect the quality of Florida's water by reducing pollution in our waterbodies.

Contents

- Florida-Friendly Landscaping™ Principles
- Design intent for activity zones
- Activity zones for a typical residential yard
- Inventory and Analysis of site conditions
- Plant groups for typical site conditions
- Example planting plans for typical site conditions
- Master Plan examples for 2 typical residences
- Plant Tables (lists) for each plant group
- Recommended irrigation schedule
- Recommendations for sustainable hardscape materials
- Example plan revisions for three budget levels
- References and EDIS publications

How to Use this Document

Step 1- Review the Florida-Friendly Landscaping™ principles and general design principles

Step 2- Note the activity zones and the design intent for each zone

Step 3- Analyze your site to determine site conditions in each activity zone

Step 4- Determine which plant groups are appropriate for your site conditions

Step 5- Refer to the example planting plans for each plant group for layout and organization suggestions

Step 6- Check the plant tables for each group-- choose a mix of plants with a variety of textures, colors, sizes and shapes

Step 7- Note the recommended irrigation schedule

Step 8- Refer to hardscape material recommendations if installing irrigation or hardscape

Florida-Friendly Landscaping™ Principles

The intent of Florida-Friendly (FFL) Landscaping™ is to use resource-efficient plants and sustainable maintenance practices and materials to conserve water and reduce negative impacts on waterbodies and wildlife habitats. The primary design concept is “**right plant, right place**” which means choosing resource-efficient plants (those that use less water, pesticides, and fertilizer), that grow and remain healthy with minimal care under the site conditions. Choosing the right plant requires an analysis of the site including soil, sun/shade patterns, moisture, and existing vegetation. Health of the existing vegetation provides clues to specific site conditions-- look for healthy plants and use plants with the same growing requirements.

Florida-Friendly Design Principles:

- **Plant trees** for shade on east, west, and south side of the house. **Shade the AC** unit with trees, not shrubs
- **Group plants** based on water and maintenance needs
- **Direct water flow** in the yard and use plants to catch and **filter rainwater**
- Use a **variety of plants** for sustainability
- Use **turf** where needed in **functional areas**
- Plant **low maintenance, drought tolerant** plants
- Use plants to **attract wildlife** throughout the yard
- **Specialty gardens**, such as butterfly gardens, can be created by grouping plants to provide food and shelter
- Incorporate **mulched areas**, gravel pathways, and patios in the yard to provide access and spatial organization
- See EDIS publication- A Guide to Florida-Friendly Landscaping™. <http://SolutionsForYourLife.com/fyn>

General Design Principles

- **Organization:** Create outdoor “rooms” by using pathways, hardscapes, and plants to divide and organize spaces.
- **Proportion:** Keep the size of the plants proportional to the house and yard.
- **Repetition:** Repeat plant materials for a unified and cohesive look, with just enough variety for interest.
- **Variety:** Provide interest with variation in plant sizes (especially heights), color, texture, and shape.
- **Composition:** Group and arrange plants in overlapping masses based on the size, form, color, and growing requirements.
- **Emphasis:** Use dramatically different plants as focal points to attract attention.

Design Intent for Activity Zones

Public Zone- Front Yard

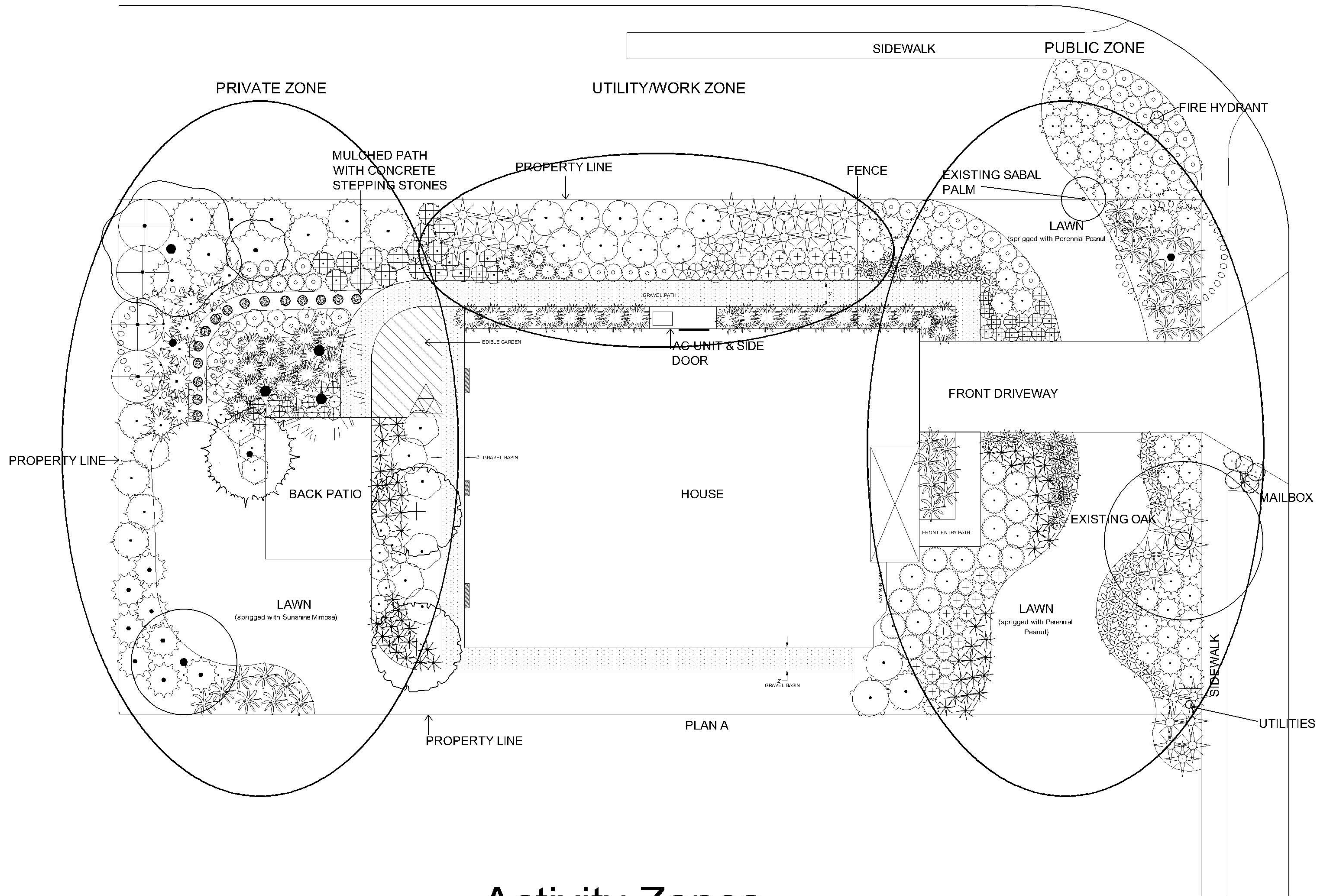
- Design for curb appeal and property value
- Design for high visibility-- use a variety of color, form, and texture in plants
- Highlight front yard with good quality specimen plants
- Direct view to front entry with focal plants
- Blend with neighborhood (don't overdesign for area)
- Consider safety for visitors and delivery people
- Choose plants with tidy growth habit

Private Zone- Back Yard

- Create comfortable microclimates for the user (sun/shade areas)
- Create activity areas for children's play and dogs
- Create entertainment and dining areas
- Include pathways for circulation
- Screen for privacy from exterior views
- Design for specialty gardens (butterfly, rain, vegetable)

Utility/Work Zone- Side Yards

- Screen utilities (AC unit, pool pumps, etc.)
- Screen for privacy from exterior views
- Provide a yard work area (compost bin, work bench)
- Include pathways for circulation
- Provide access to utility meters and vents
- Use more low maintenance, hardy plants



Activity Zones

Plant Groups and Example Plans

Plant choices are based on drought tolerance, regional suitability, low maintenance, native status, local availability, and cost. The specific plant groups match the physical characteristics and functional attributes of the plants to specific site conditions and user needs in each activity zone. Consideration is given to the typical type of activities (play, entertaining, walking), building and hardscape conditions (walkways, utilities, windows), and the type of user (family, delivery people) for each zone. Other considerations include maintenance practices, accessibility, privacy, and safety issues. Plants are chosen that facilitate use and maintenance, create habitats, and look attractive. Suggestions for edible plants and specialty gardens also are included. Plant tables with plant lists for each group offer a wide variety of recommended plants. The planting plan examples give suggested layouts and arrangements for plant materials and bed lines. The plant tables for each plant group include the plant name, sun and shade requirements, and native status. Native plants are indicated by an * by the plant name.

Plant Groups

Group A: Entry Areas and Patios

Group B: Along Walls

Group C: Along Sidewalks and Walkways

Group D: Under Windows

Group E: Along Property Lines (Buffers and Screens)

Group F: Under Trees

Group G: Around Mailboxes and Utilities

Group H: Along Fences

Group I: Edible Plants

Group J: Specialty Gardens

Plant Group Characteristics

Group A: Front Entry/Patio

- Low growing and compact plants typically retain their form without sprawling or growing over horizontal surfaces. The clean growth habit allows trimming to be kept at a minimum and walkways are safer for visitors and delivery persons
- Colorful plants are good choices for focal points because they capture the viewer's attention and draw the eye to the entry or patio
- Specimen plants with bold forms are also used at front entrances to create focal points from the street
- Medium to coarse texture and complex flowers and foliage patterns makes planted areas interesting for close-up viewing in the patio
- Medium to small trees around the patio provide an overhead plane that gives the feeling of enclosure and protects from the sun

Group B: Along Walls

- Medium shrubs cover the lower wall and reduce the visual mass of the wall
- Shrubs with soft/fine texture and flexible branches are easy to prune and reduce injury when accessing the wall for maintenance

Group C: Along Sidewalks and Walkways

- Low-growing, non-sprawling plants with clumping growth habits keep views open and pathways clean and clear of tripping hazards

- Arching, weeping, and mounding forms that brush the pathway soften the hard edge

Group D: Under Windows

- Plants with medium mature heights fill wall space beneath the window without covering the window
- Plants with soft texture and loose foliage (no thorns or stiff leaves), ensures easy pruning and access to windows for maintenance and storm shutters. Flexible branches also allow for emergency exit if needed.
- Small trees with low canopies screen and shade windows

Group E: Along Property Lines

- Fast growing, upright shrubs with dense foliage provide maximum screening and greater privacy
- Evergreen shrubs provide year-round buffers

Group F: Under Trees

- Small plants (with small root balls) minimize plant and tree root interference
- Groundcovers with vining and spreading habits are good choices to cover large areas under trees

Group G: Around Mailboxes and Utilities

- Low or medium shrubs around AC units prevent blockage of air flow to the unit; use tree canopies to shade unit instead

- Plants with clean growth habits tend to retain their original form and require less pruning to prevent interference to the AC unit
- Prevent insect bites and injury to mail carriers and meter readers by selecting plants that don't attract biting or stinging insects or have thorns or sharp points

Group H: Along Fences

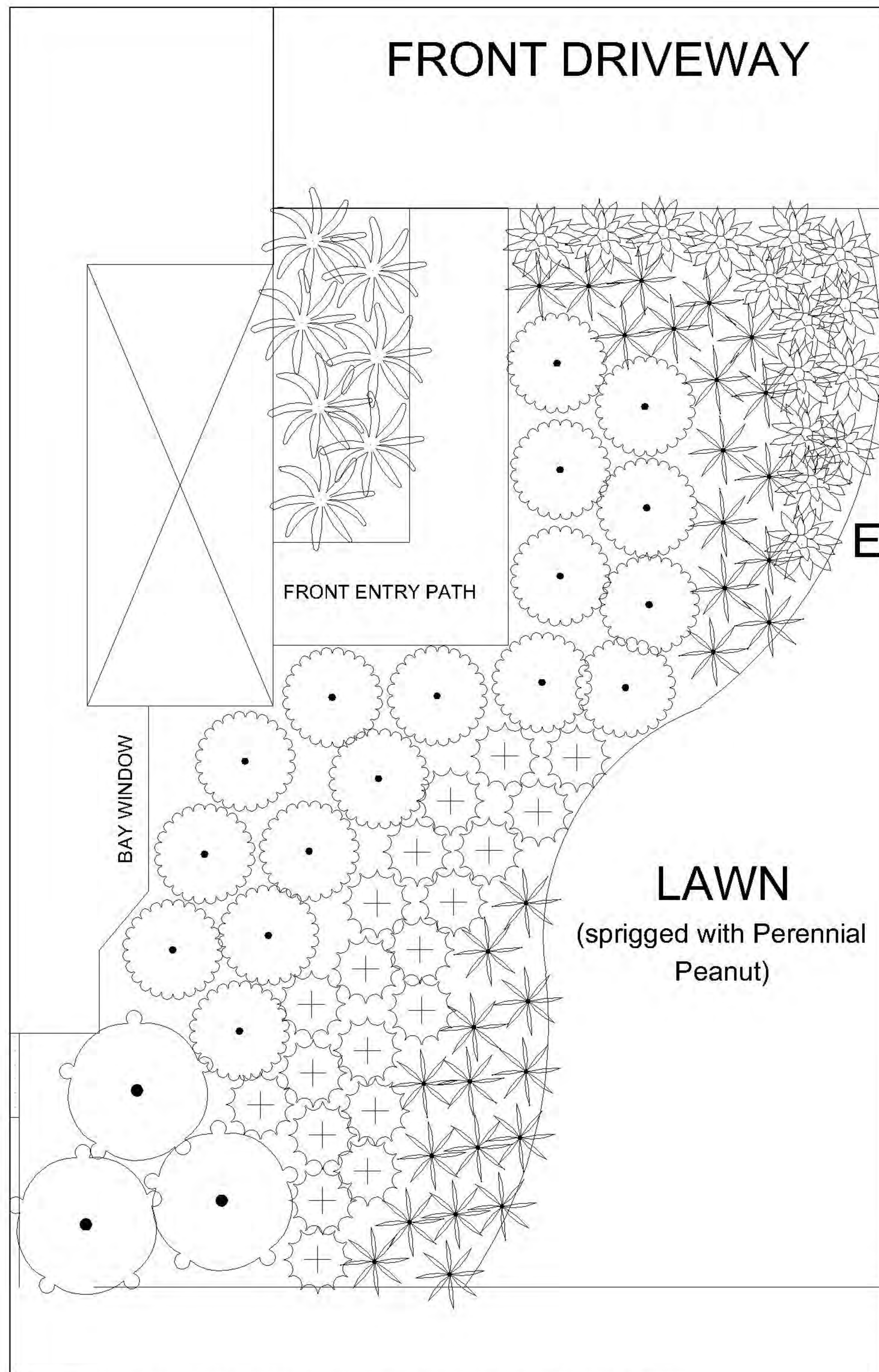
- Plants with dense foliage and clean growth habits hide fences and make maintenance easier
- Match the mature height of the plant to the height of the fence for complete coverage
- Attractive plants are used for front yard fences that require plants on both sides to hide the fence from the street and the house view

Group I: Edible Plants

- Edible plants have no common visual or growth characteristics-- there is a wide variety to suit many needs and locations
- Edible plant selection will depend on your family's food preferences-- choose trees, shrubs, vines or row crops
- Some edible plants have a short life span so choose the location based on your maintenance capabilities and visual appeal

Group J: Specialty Gardens

- Plants with touchable texture, pleasant scent and tall arching stems for hiding places are great for children's gardens
- Plants that tolerate wet and dry conditions are necessary for rain gardens
- Color, food and shelter are important for butterfly plants



Before

Existing plants are too large and must be frequently trimmed for the small planter area. Replace with the plants listed below for a better fit in the space.

Group A- Front Entry/Patio

Characteristics: Low growing, compact, clean growth habit, colorful, medium or coarse texture, bold forms, unique shape, size and or texture.

Design Tips

- *Place low/small plants next to the walkway to reduce trimming.*
- *Place interesting plants at natural view points.*
- *Locate plants with a coarse texture closest to the patio to make the space feel smaller or use fine texture to make the space feel larger.*

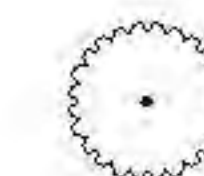
Suggested Plants

SHRUBS



BOTANICAL/COMMON

Myrica cerifera `Tom`s Dwarf` / Tom`s Dwarf Wax Myrtle



Podocarpus macrophyllus `Dwarf Pringles` / Dwarf Podocarpus

ANNUALS/PERENNIALS



BOTANICAL/COMMON

Dietes vegeta / African Iris



Evolvulus / Blue Daze

NATIVE GRASSES



BOTANICAL/COMMON

Tripsacum dactyloides nana / Dwarf Fakahatchee Grass

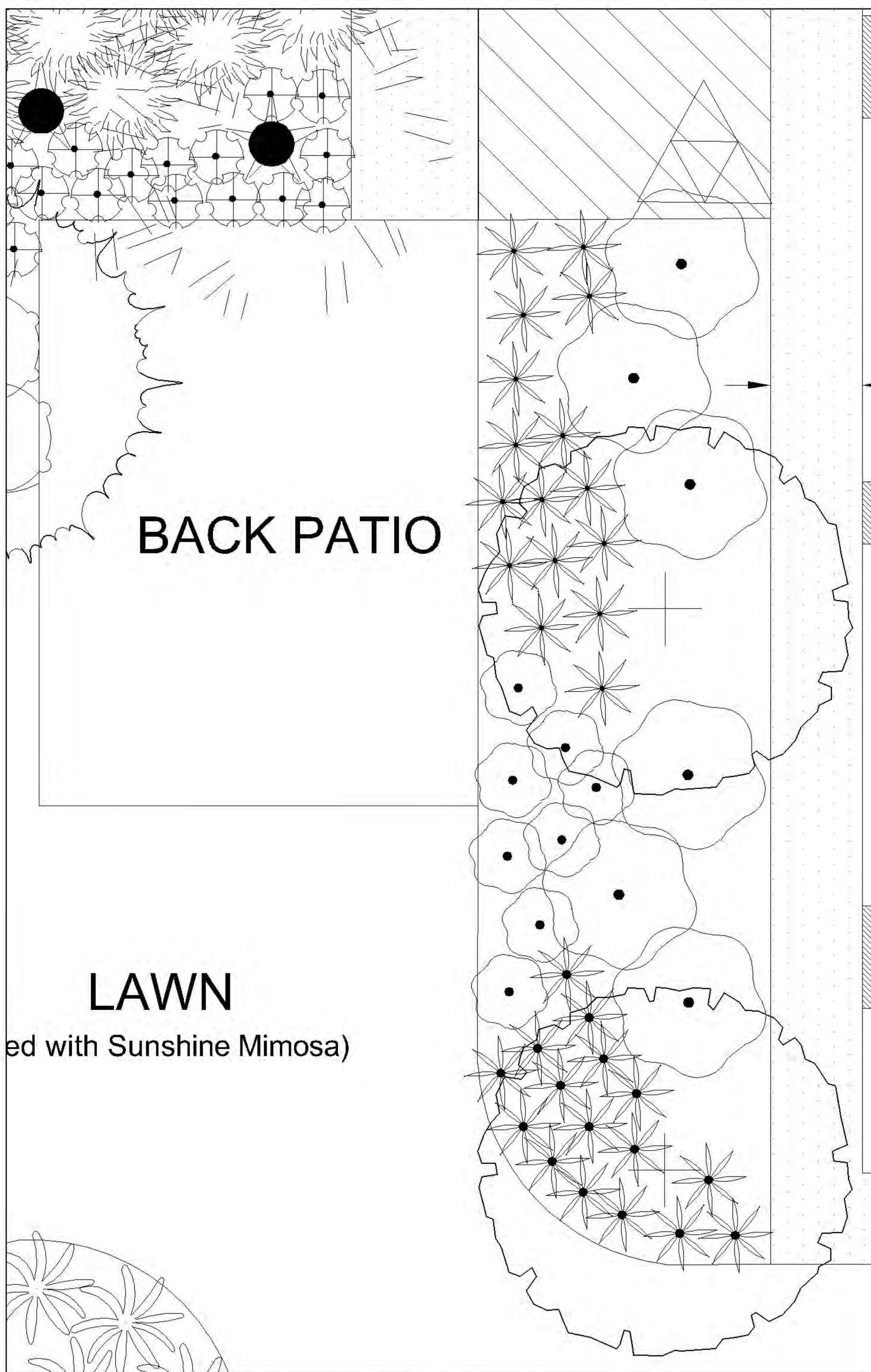
NATIVE WILDFLOWERS



BOTANICAL/COMMON

Salvia misella / Creeping Sage

(see plant tables for more recommendations)



Before
Hedge is too close to the wall for access and requires frequent trimming. Replace with softer plants suggested below that require less trimming.

Group B- Along Walls

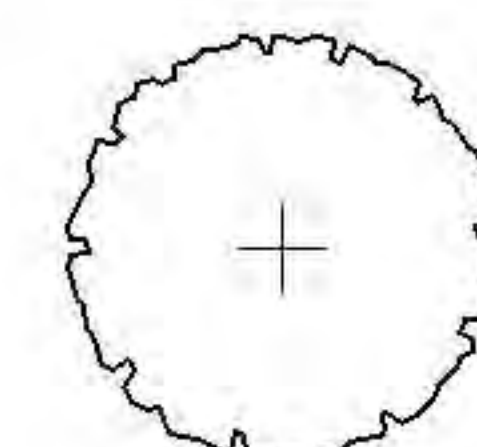
Characteristics: medium/tall shrubs, soft/fine texture, loose foliage, flexible branches.

Design tips

- Leave a 2' wide strip (gravel) between the wall and plant material for maintenance access and air circulation (reduces mold and mildew growth).
- Choose shrubs with a tidy growth habit to reduce trimming.
- Choose plants that are color compatible with the wall color.

Suggested Plants

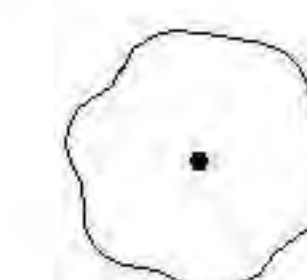
TREES



BOTANICAL/COMMON

Myrica cerifera / Wax Myrtle

SHRUBS

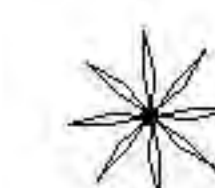


BOTANICAL/COMMON

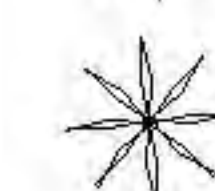
Myrcianthes fragrans / Twinberry

ANNUALS/PERENNIALS

BOTANICAL/COMMON



Agapanthus praecox orientalis / Lily of the Nile

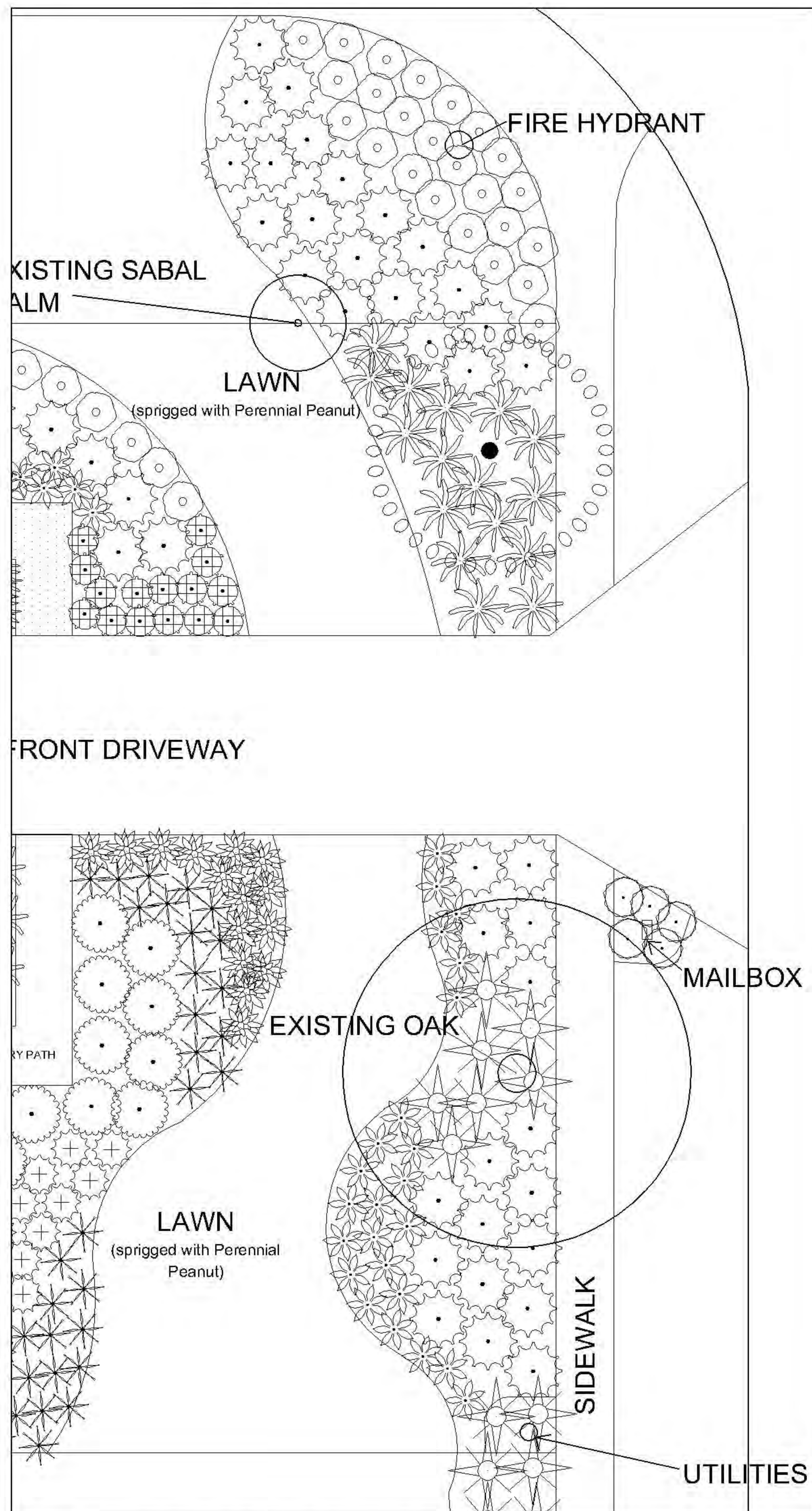


Diets vegeta / African Iris



Pentas lanceolata / Pink Pentas

(see plant tables for more recommendations)



Before

Sod is in poor condition and public utilities are very visible. Replace with drought tolerant plants suggested below that will hide the utilities and add more curb appeal.

Group C- Along Sidewalks and Walkways

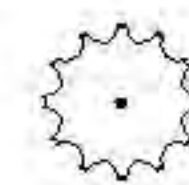
Characteristics: low-growing, non-sprawling, clumping, mowable.

Design Tips

- Reduce trimming and edging by placing plants with clean, compact growth habits closest to walkways.
- Avoid plants that attract biting or stinging insects.
- Use plants with interesting textures and colors for close viewing.

Suggested Plants

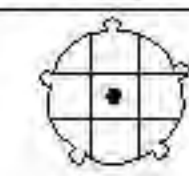
SHRUBS



BOTANICAL/COMMON

Ficus microcarpa `Green Island` / Green Island Ficus

ANNUALS/PERENNIALS



BOTANICAL/COMMON

Aptenia cordifolia / Hearts And Flowers

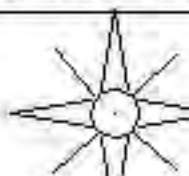


Evolvulus / Blue Daze



Hemerocallis fulva `Aztec Gold` / Aztec Gold Daylily

NATIVE GRASSES



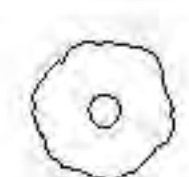
BOTANICAL/COMMON

Muhlenbergia capillaris / Pink Muhly



Tripsacum dactyloides nana / Dwarf Fakahatchee Grass

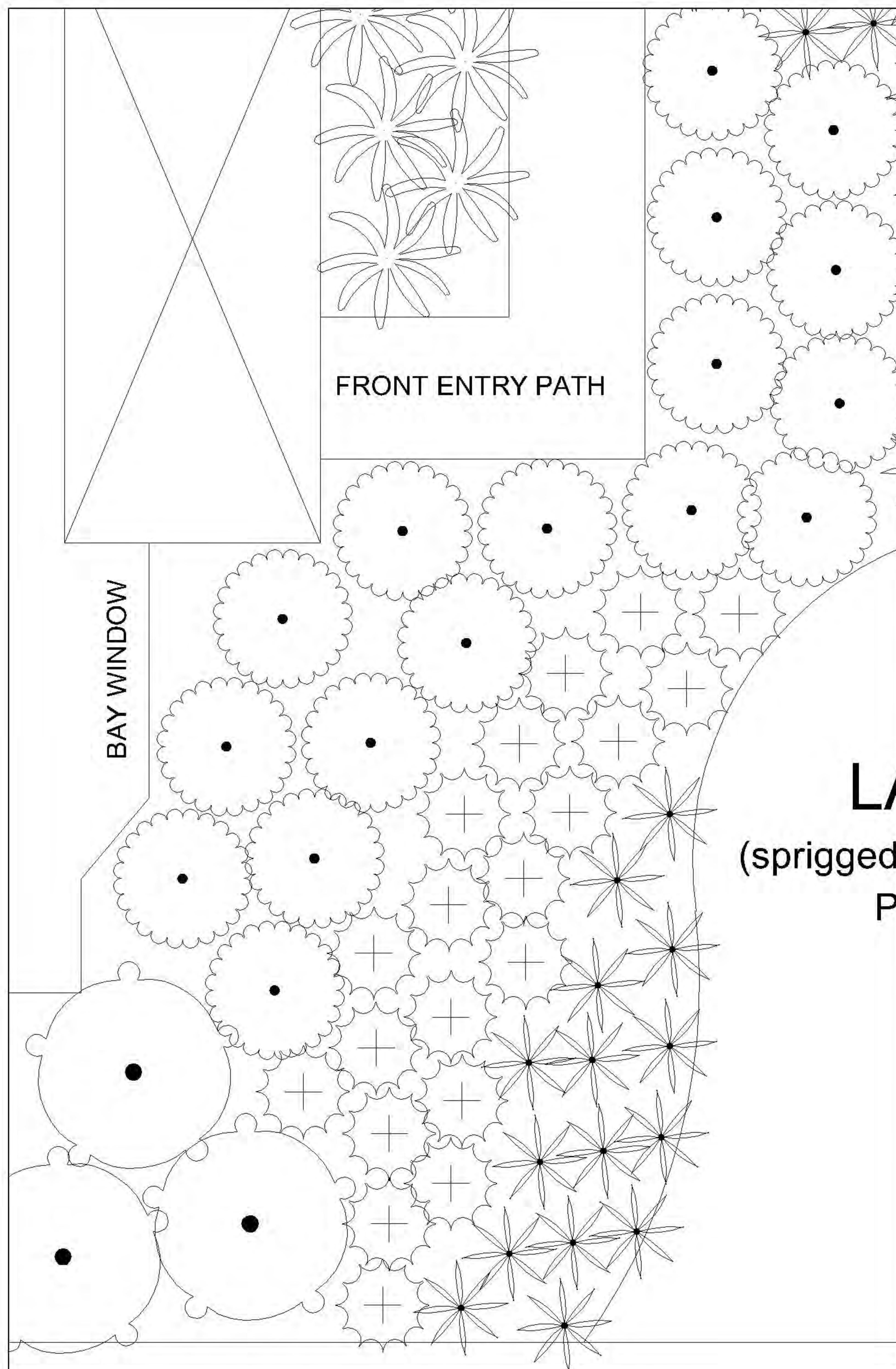
NATIVE WILDFLOWERS



BOTANICAL/COMMON

Helianthus debilis / Cucumberleaf Sunflower

(see plant tables for more recommendations)



Before

The plant material is too tall for the window and poorly arranged. Layer with medium shrubs and groundcover suggested below to add visual interest and curb appeal.

Group D- Under Windows

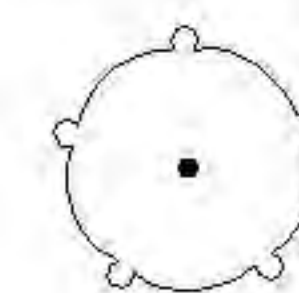
Characteristics: medium/tall height, no thorns or stiff leaves, soft/fine texture, loose foliage, easy to trim, flexible branches.

Design Tips

- *Avoid blocking views by choosing plants with medium, compact growth habits.*
- *Choose shrubs with a tidy growth habit and plant for easy access to cleaning and hanging storm shutters.*
- *Avoid stiff, thorny plants that would prevent exiting from windows.*

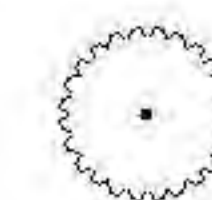
Suggested Plants

SHRUBS



BOTANICAL/COMMON

Myrica cerifera 'Tom's Dwarf' / Tom's Dwarf Wax Myrtle



Podocarpus macrophyllus 'Dwarf Pringles' / Dwarf Podocarpus

ANNUALS/PERENNIALS

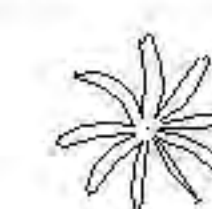
BOTANICAL/COMMON



Diets vegeta / African Iris

NATIVE GRASSES

BOTANICAL/COMMON



Tripsacum dactyloides nana / Dwarf Fakahatchee Grass

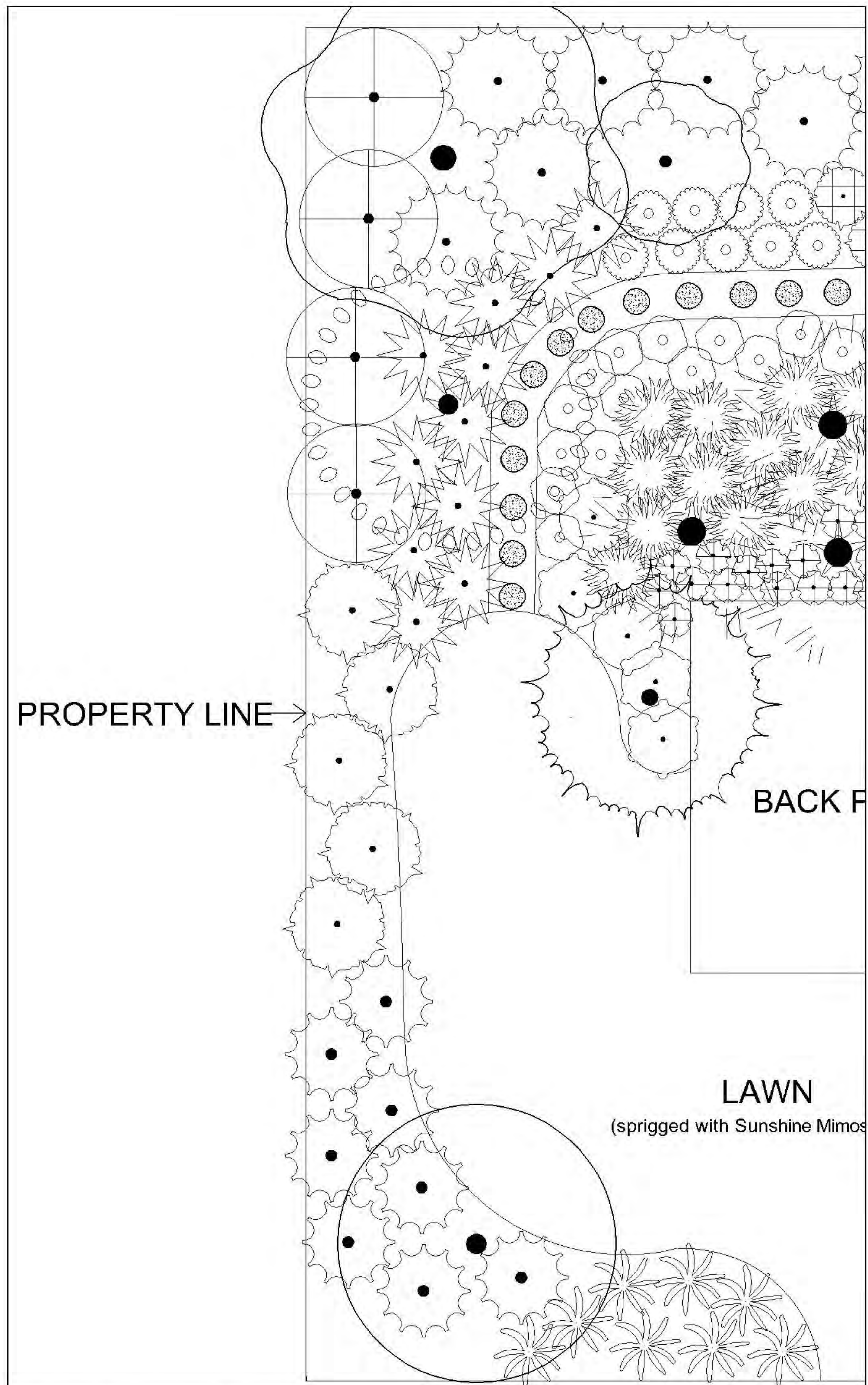
NATIVE WILDFLOWERS

BOTANICAL/COMMON



Salvia misella / Creeping Sage

(see plant tables for more recommendations)



Before

The low shrubs and gaps in the planting leave the view to neighbors exposed and lack screening for privacy--replace with suggested trees and shrubs to create a buffer.

Group E- Along Property Lines

Characteristics: dense foliage, upright form, evergreen, sturdy, fast-growing.

Design Tips

- Choose fast-growing plants with dense growth habits for screening and privacy.
- Select evergreen plants for year-round privacy.
- Use plants with appropriate height to block unwanted views.
- Use trees to block views of overhead utilities.

Suggested Plants

TREES



BOTANICAL/COMMON

Chionanthus virginicus / White Fringetree

Magnolia grandiflora "Little Gem" / Dwarf Southern Magnolia

Quercus geminata / Sand Live Oak

SHRUBS



BOTANICAL/COMMON

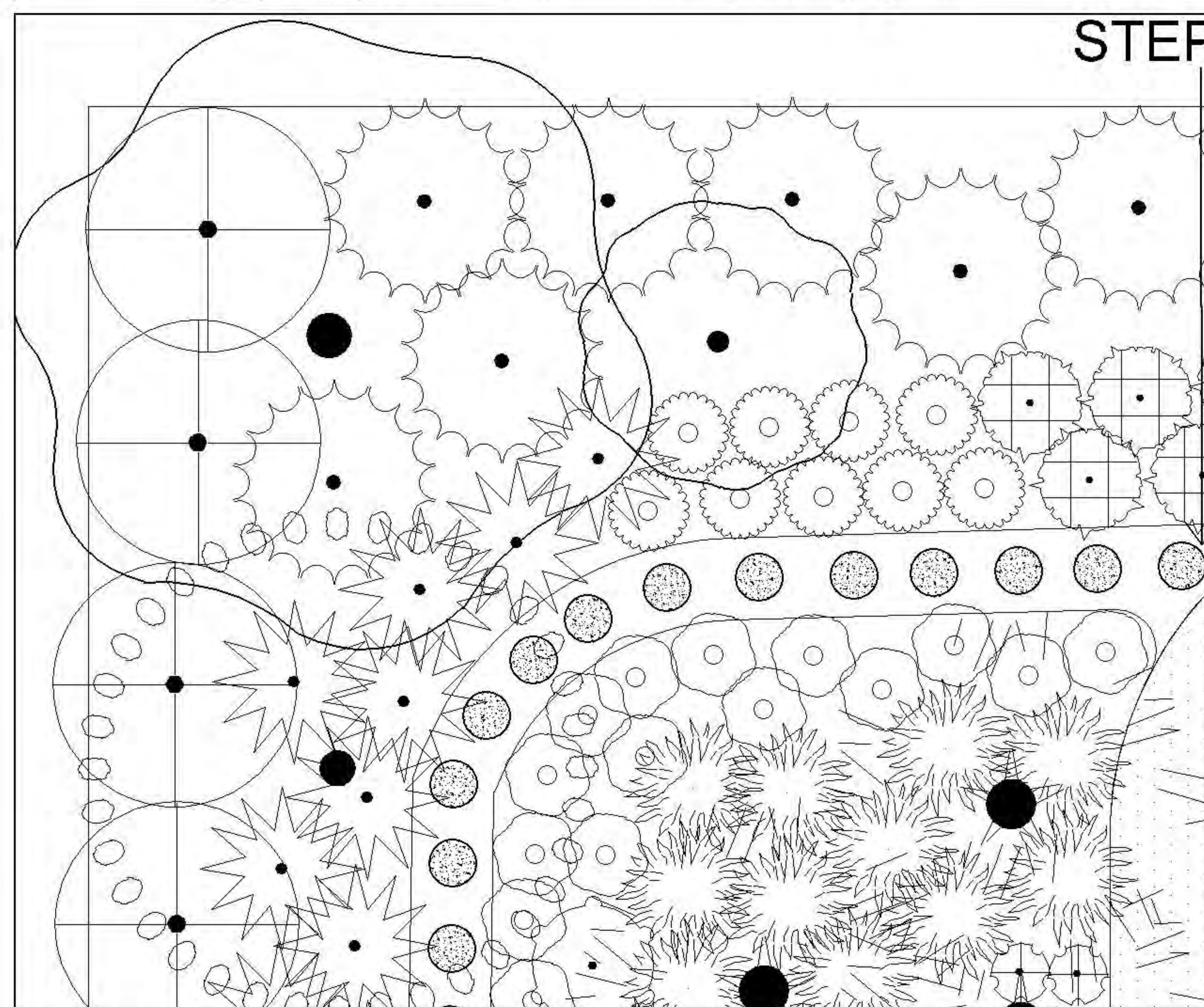
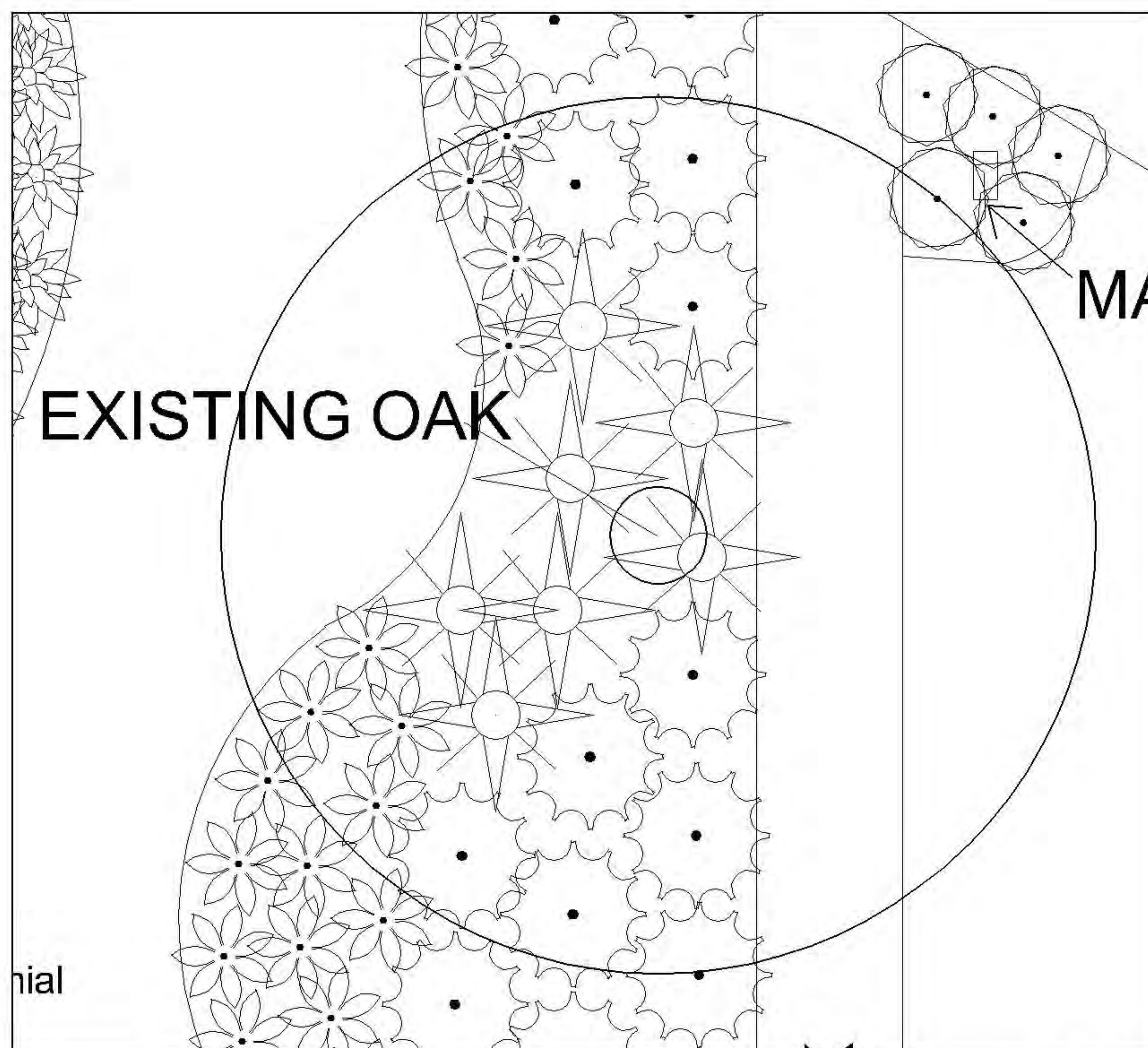
Chrysobalanus icaco / Coco Plum

Hamelia patens "Compacta" / Dwarf Scarlet Bush

Senna mexicana "Chapmanii" / Bahama Cassia

Sophora tomentosa / Yellow Necklacepod

(see plant tables for more recommendations)



Before

The sod is in poor condition and plants are too close to the tree trunk. Remove concrete ring and incorporate the tree in a planted area that includes suggested annuals, grasses, and wildflowers.

Group F- Under Trees

Characteristics: shallow roots, clumpers, vines with spreading growth habit.

Design Tips

- Use plants that look good with fallen leaves.
- Install small plants (small root balls) to avoid root damage to both plant and tree.
- Consider density of shade from tree canopy (evergreen, filtered or deep shade).

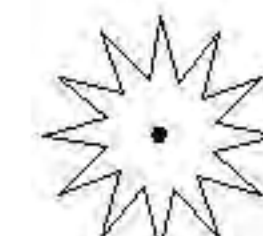
Suggested Plants

ANNUALS/PERENNIALS BOTANICAL/COMMON

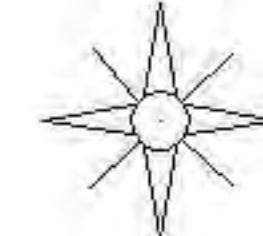


Hemerocallis fulva `Aztec Gold` / Aztec Gold Daylily

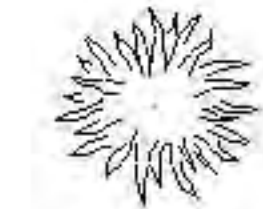
NATIVE GRASSES BOTANICAL/COMMON



Eragrostis spectabilis / Purple Love Grass



Muhlenbergia capillaris / Pink Muhly

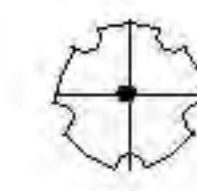


Spartina bakeri / Sand Cord Grass

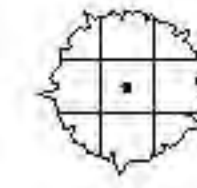
NATIVE WILDFLOWERS BOTANICAL/COMMON



Helianthus debilis / Cucumberleaf Sunflower



Salvia coccinea / Scarlet Sage

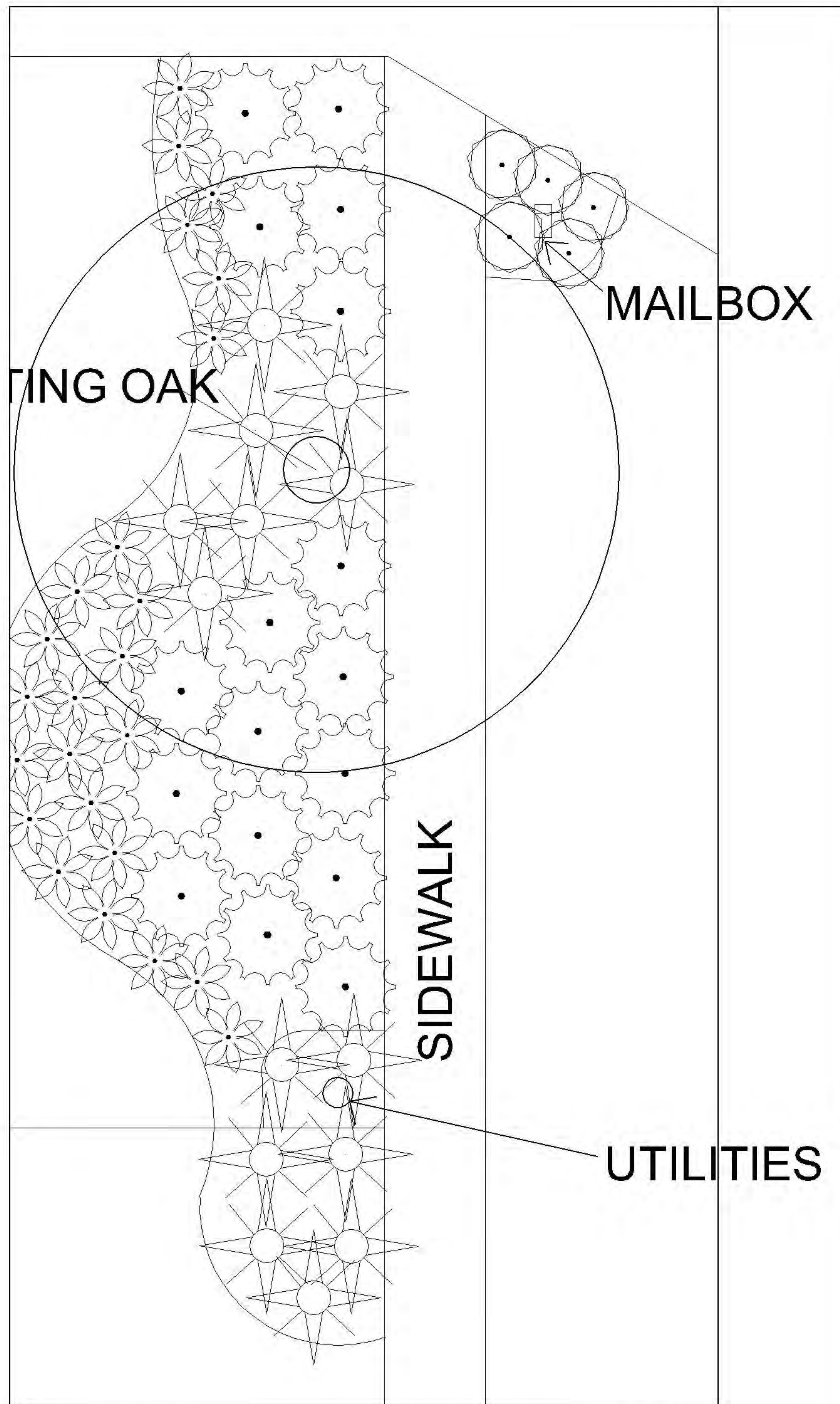


Silphium integrifolium / Rosinweed



Stachytarpheta jamaicensis / Native Porterweed

(see plant tables for more recommendations)



Before

The sod is in poor condition--the narrow strip makes it difficult to maintain and irrigate. Improve curb appeal by hiding the post and other vertical utilities with plants suggested below.

Group G- Mailboxes/Utilities

Characteristics: low/medium shrubs, clean growth habit, soft foliage, no flowers/bees, no thorns.

Design Tips

- *Keep flowering plants that attract stinging or biting insects at least 2' below the mailbox.*
- *Consult with your local utility company for planting regulations around above-ground and below-ground utilities.*
- *Consider the height of the utility when choosing plants.*

Suggested Plants

SHRUBS



BOTANICAL/COMMON

Euryops pectinatus / Euryops

Ficus microcarpa `Green Island` / Green Island Ficus

ANNUALS/PERENNIALS

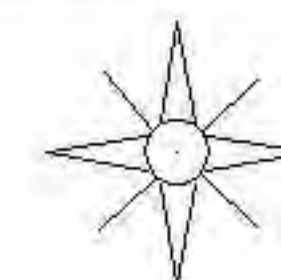
BOTANICAL/COMMON



Hemerocallis fulva `Aztec Gold` / Aztec Gold Daylily

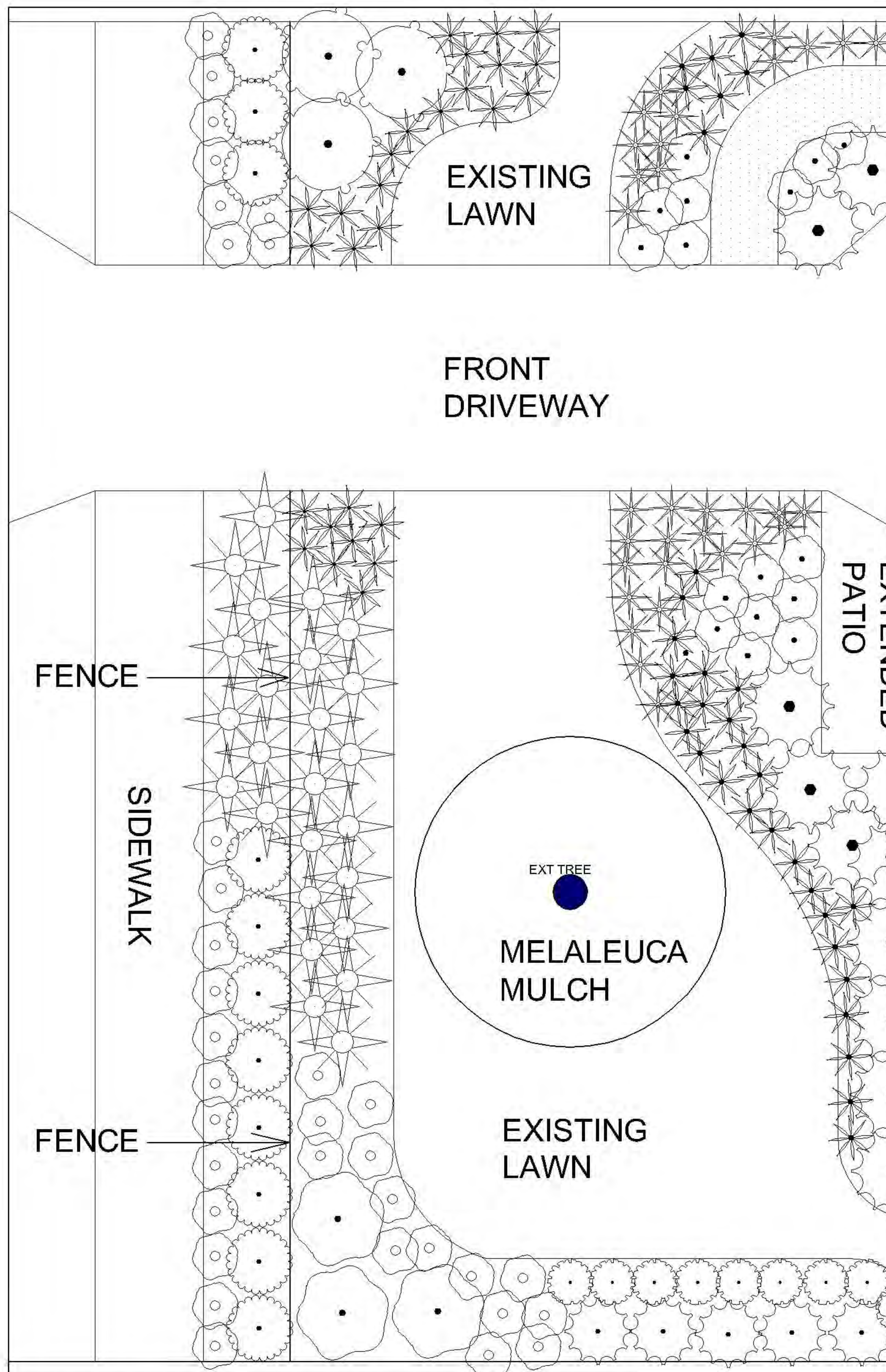
NATIVE GRASSES

BOTANICAL/COMMON



Muhlenbergia capillaris / Pink Muhly

(see plant tables for more recommendations)



Before

The security fence has an unfriendly, industrial feel. Maintain the functional use of the fence and improve appearance by planting on both sides with suggested plants.

Group H- Along Fences

Characteristics: dense foliage, upright form, evergreen, fast-growing, full arching grasses.

Design Tips

- If your fence is ornamental, chose low-growing plants that accentuate decorative elements, such as caps. For utilitarian fences (chain link), chose taller plants that will cover the fence.
- Place plants with coarse textures against fences to make the space appear smaller or use fine texture to make the space appear larger.

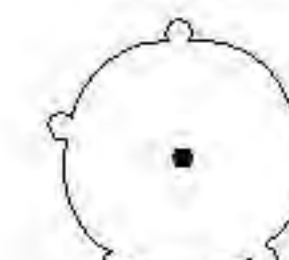
Suggested Plants

SHRUBS

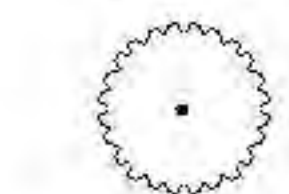


BOTANICAL/COMMON

Myrcianthes fragrans / Twinberry



Myrica cerifera `Tom`s Dwarf` / Tom`s Dwarf Wax Myrtle



Podocarpus macrophyllus `Dwarf Pringles` / Dwarf Podocarpus

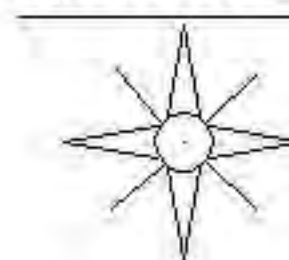
ANNUALS/PERENNIALS



BOTANICAL/COMMON

Diets vegeta / African Iris

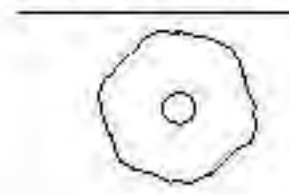
NATIVE GRASSES



BOTANICAL/COMMON

Muhlenbergia capillaris / Pink Muhly

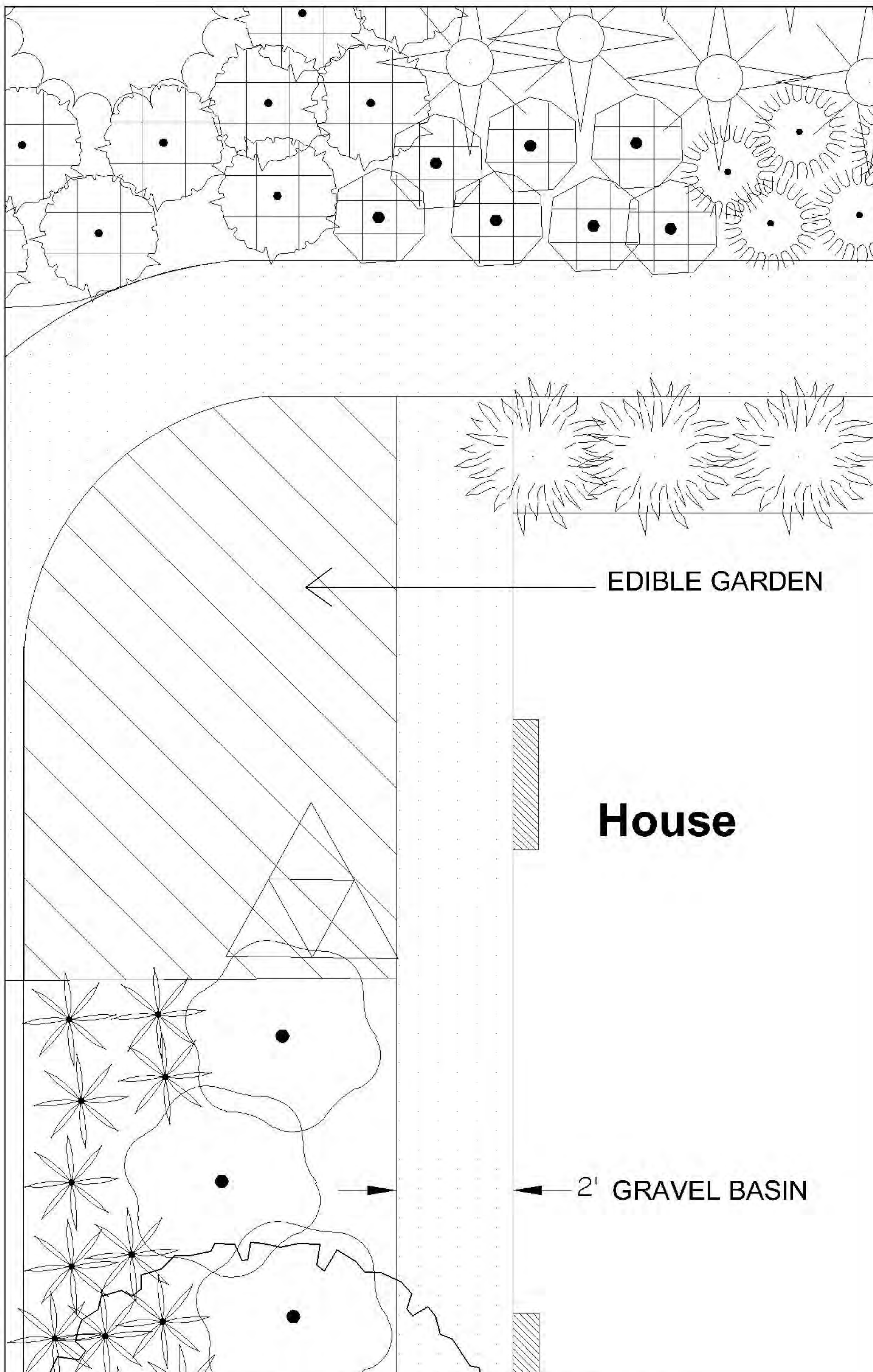
NATIVE WILDFLOWERS



BOTANICAL/COMMON

Helianthus debilis / Cucumberleaf Sunflower

(see plant tables for more recommendations)



Before

The corner of this house is an unused space. The full sun and easy access make it an ideal location for edible plants. The garden is screened from view by a wall and fence.

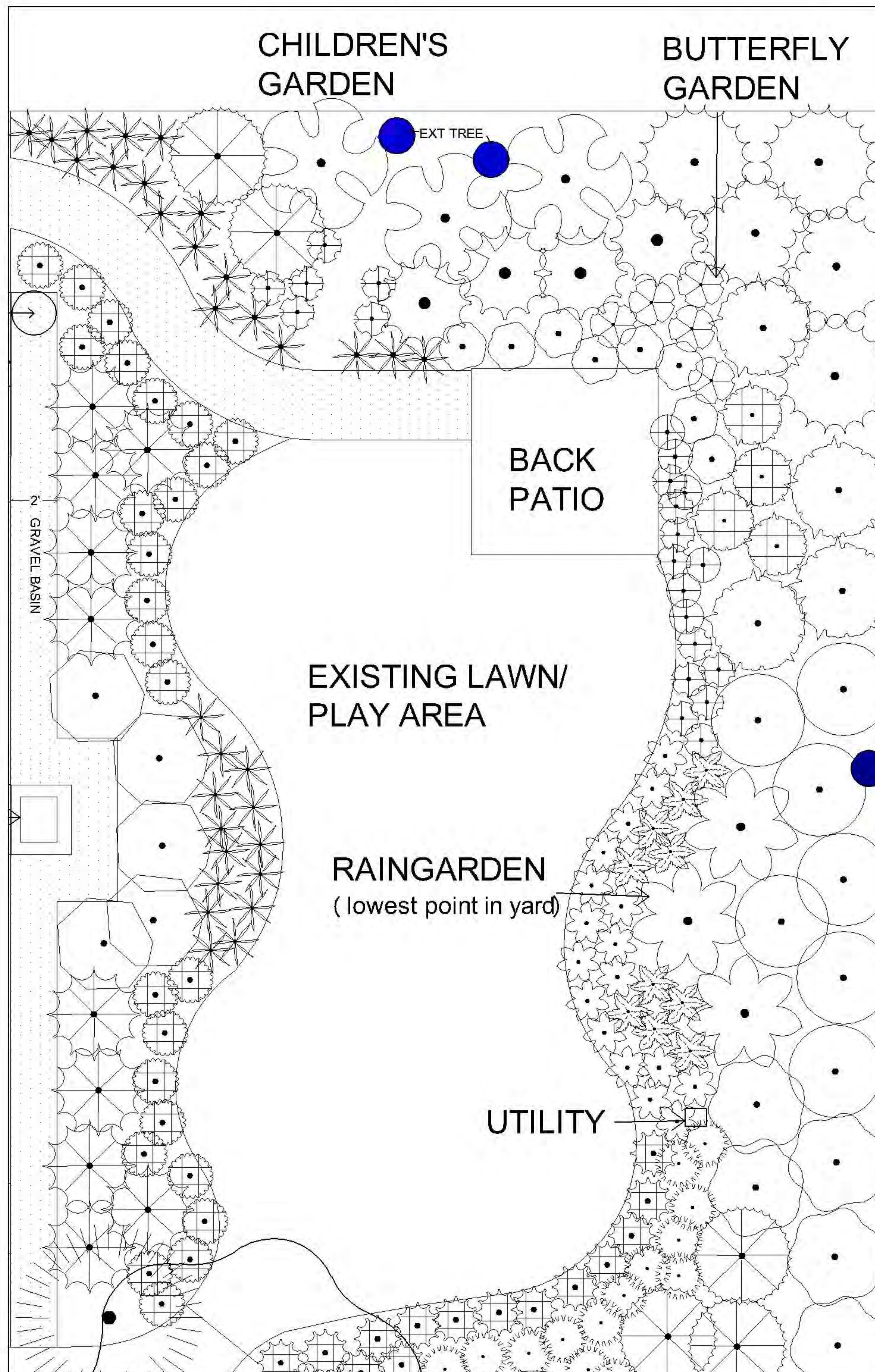
Group I- Edible Plants

Characteristics: Choose plants with a variety of edible fruits, leaves, vegetables and tubers. Consider edible plants for wildlife and those that attract pollinators.

Design and Care Tips

- Use a trellis or stake system for vines and sprawling plants.
- Layer plants for maximum yield in a small space.
- Rotate planting times for staggered harvest.
- Use a raised plant bed.
- Use an efficient irrigation source such as drip, bubbler, or soaker hose.
- Birds can be controlled with netting or reflective tape.
- Do not use rain barrel water collected from the roof to water edible plants--potentially contains chemicals and other toxins (bird droppings). Use rain barrel water on landscape plants only.
- Avoid herbicide application by hand weeding.
- Edible gardens for wildlife only--create habitat gardens for birds or butterflies with berry-producing plants for birds and host and nectar plants for butterflies. See EDIS (SP191).
- Refer to EDIS(VHO21) publications listed on the last page for information on growing edibles.
- See EDIS (VHO21) publications for recommended edibles for Florida.
- See EDIS (PP-193, IN120) publications for Integrated Pest Management (IPM).

(see plant tables for more recommendations)



Before

Property corners are often unused spaces. Make them more functional and appealing with a specialty garden that incorporates the plants listed below.

Group J- Specialty Gardens

Characteristics:

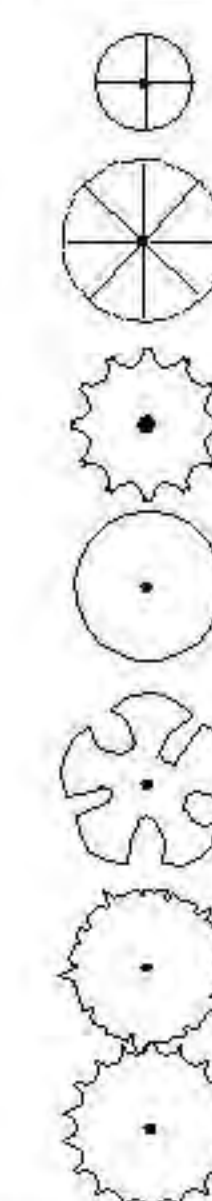
Children's Gardens--Colorful, large plants to provide structure for play, sensory (scent, touch, sound) plants.

Butterfly Gardens--Provide host and nectar plants for caterpillars and butterflies. Best colors are reds and yellows.

Rain Gardens--Choose plants that will survive wet and dry conditions.

Suggested Plants

SHRUBS



BOTANICAL/COMMON

- ASCLEPIAS TUBEROSA / BUTTERFLY MILKWEED
- CALLICARPA AMERICANA / AMERICAN BEAUTYBERRY
- HAMELIA PATENS 'COMPACTA' / DWARF SCARLET BUSH
- ILICUM PARVIFLORUM / ANISE TREE
- PHILODENDRON BIPINNATIFIDUM / CUT LEAF PHILODENDRON
- SENNA MEXICANA 'CHAPMANII' / BAHAMA CASSIA
- SOPHORA TOMENTOSA / YELLOW NECKLACEPOD

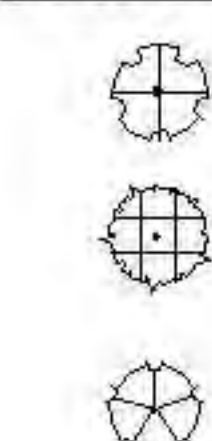
ANNUALS/PERENNIALS



BOTANICAL/COMMON

- AGAPANTHUS PRAECOX ORIENTALIS / LILY OF THE NILE
- HIBISCUS COCCINEUS / SCARLET ROSEMALLOW
- HYMENOCALLIS LITTORALIS / SPIDER LILY
- PENTAS LANCEOLATA / PINK PENTAS
- TULBAGHIA VIOLACEA / SOCIETY GARLIC

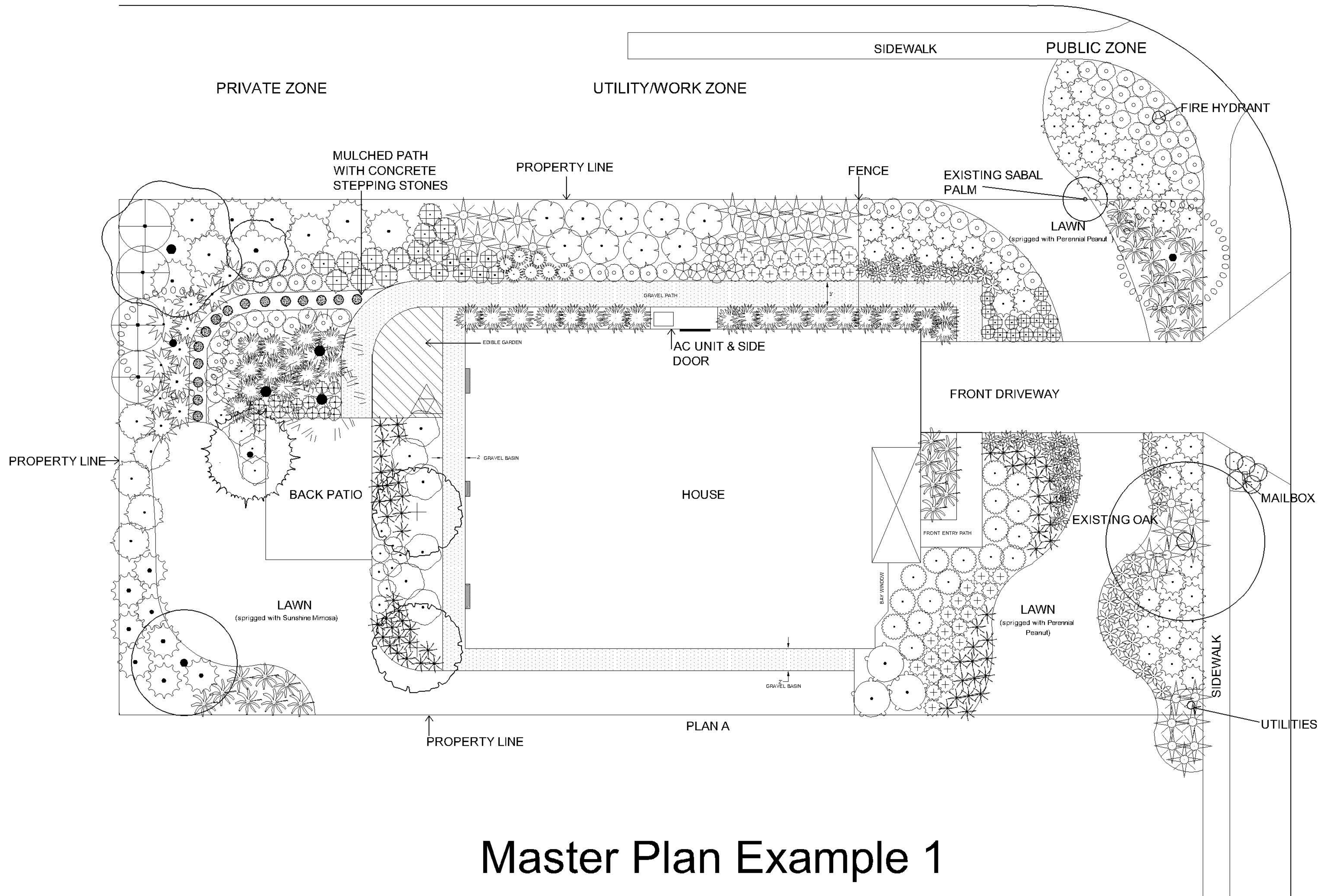
NATIVE WILDFLOWERS



BOTANICAL/COMMON

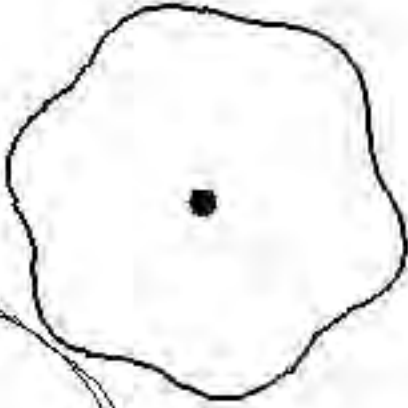

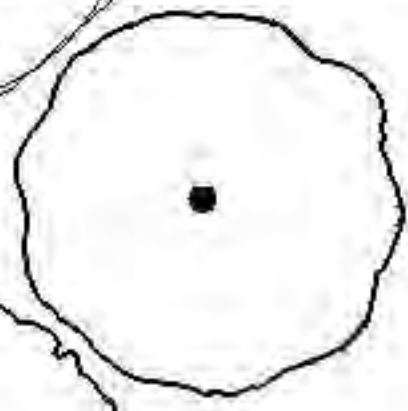
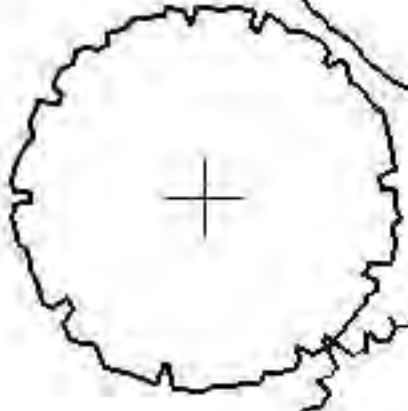
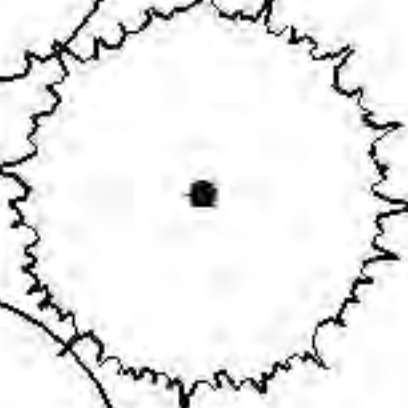
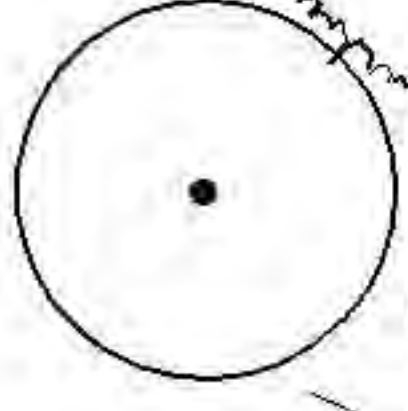
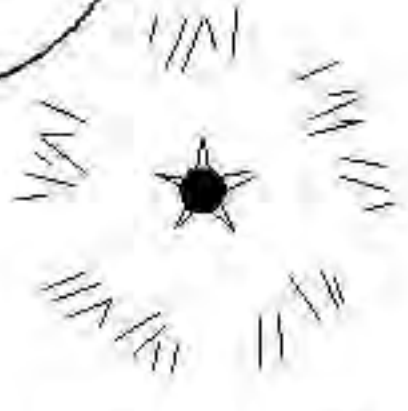
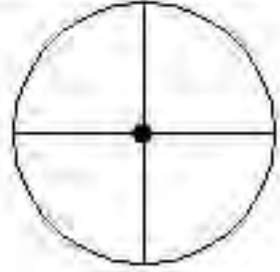
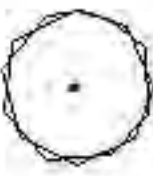
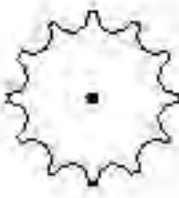
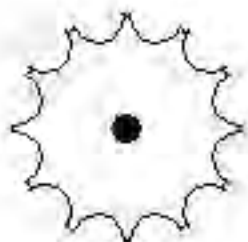

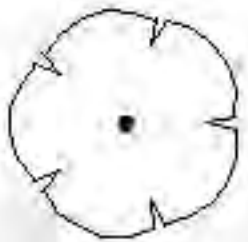

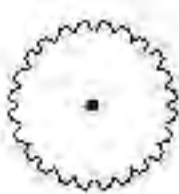
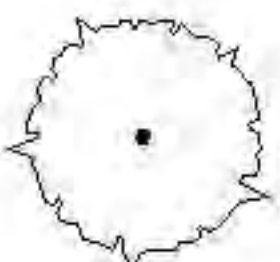
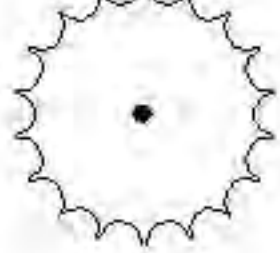
- SALVIA COCCINEA / SCARLET SAGE
- SILPHIUM INTEGRIFOLIUM / ROSINWEED
- VERNONIA ANGUSTIFOLIA / IRONWEED

(see plant tables for more recommendations)

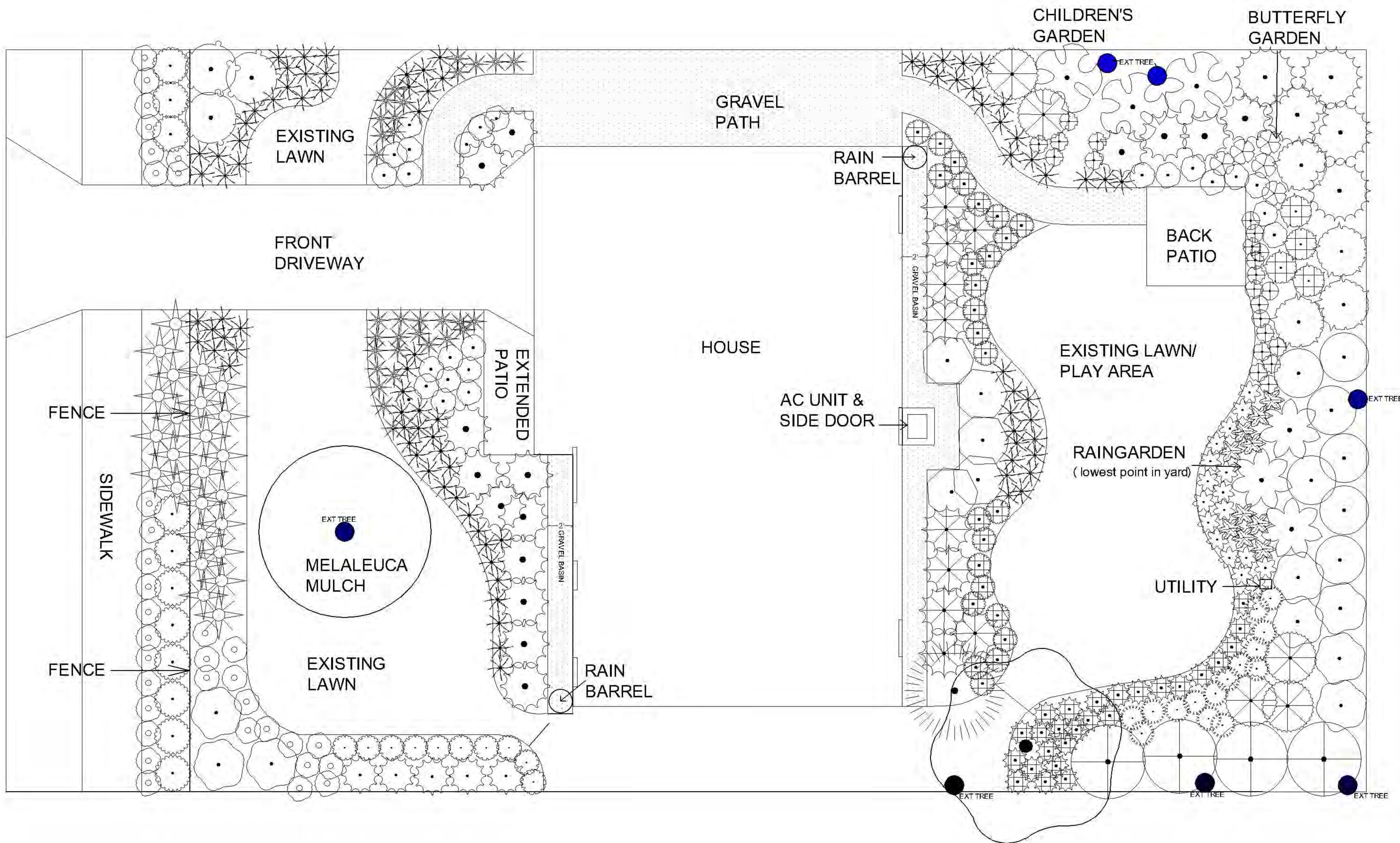


Master Plan Example 1

PLANT SCHEDULE

| TREES | BOTANICAL/COMMON |
|---|--|
|  | <i>Chionanthus virginicus</i> / White Fringetree |
|  | <i>Ilex x attenuata</i> `East Palatka` / East Palatka Holly |
|  | <i>Magnolia grandiflora</i> `Little Gem` / Dwarf Southern Magnolia |
|  | <i>Myrica cerifera</i> / Wax Myrtle |
|  | <i>Prunus umbellata</i> / Flatwoods Plum |
|  | <i>Quercus geminata</i> / Sand Live Oak |
|  | <i>Sabal palmetto</i> / Cabbage Palmetto |
| SHRUBS | BOTANICAL/COMMON |
|  | <i>Chrysobalanus icaco</i> / Coco Plum |
|  | <i>Euryops pectinatus</i> / Euryops |
|  | <i>Ficus microcarpa</i> `Green Island` / Green Island Ficus |
|  | <i>Hamelia patens</i> `Compacta` / Dwarf Scarlet Bush |
|  | <i>Myrcianthes fragrans</i> / Twinberry |
|  | <i>Myrica cerifera</i> / Wax Myrtle |
|  | <i>Myrica cerifera</i> `Tom`s Dwarf` / Tom`s DwarfF Waxmyrtle |
|  | <i>Podocarpus macrophyllus</i> `Dwarf Pringles` / Dwarf Podocarpus |
|  | <i>Senna mexicana</i> `Chapmanii` / Bahama Cassia |
|  | <i>Sophora tomentosa</i> / Yellow Necklacepod |

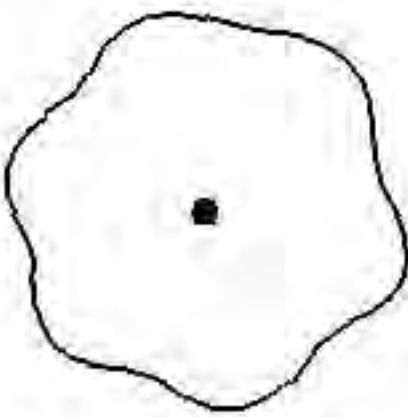
| ANNUALS/PERENNIALS | BOTANICAL/COMMON |
|---|---|
|  | <i>Agapanthus praecox orientalis</i> / Lily of the Nile |
|  | <i>Aptenia cordifolia</i> / Hearts And Flowers |
|  | <i>Diets vegeta</i> / African Iris |
|  | <i>Evolvulus</i> / Blue Daze |
|  | <i>Hemerocallis fulva</i> `Aztec Gold` / Aztec Gold Daylily |
|  | <i>Pentas lanceolata</i> / Pink Pentas |
| NATIVE GRASSES | BOTANICAL/COMMON |
|  | <i>Eragrostis spectabilis</i> / Purple Love Grass |
|  | <i>Muhlenbergia capillaris</i> / Pink Muhly |
|  | <i>Spartina bakeri</i> / Sand Cord Grass |
|  | <i>Tripsacum dactyloides nana</i> / Dwarf Fakahatchee Grass |
| NATIVE WILDFLOWERS | BOTANICAL/COMMON |
|  | <i>Gaillardia pulchella</i> / Firewheel |
|  | <i>Helianthus debilis</i> / Cucumberleaf Sunflower |
|  | <i>Liatris spp.</i> / Blazing Star |
|  | <i>Rudbeckia hirta</i> / Gloriosa Daisy |



Master Plan Example 2

PLANT_SCHEDULE

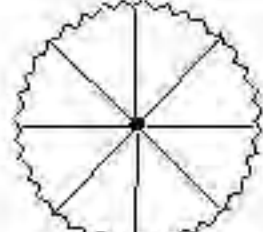
TREES



BOTANICAL/COMMON

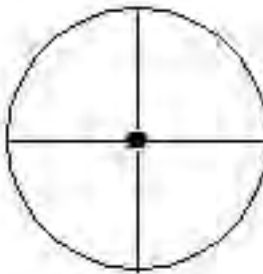
Chionanthus virginicus / White Fringetree

SHRUBS

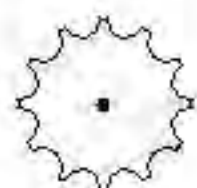


BOTANICAL/COMMON

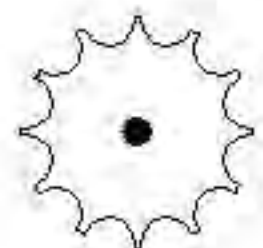
Callicarpa americana / American Beautyberry



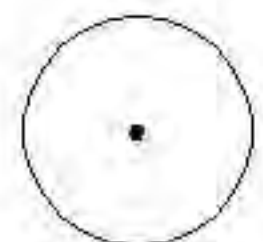
Chrysobalanus icaco / Coco Plum



Ficus microcarpa `Green Island` / Green Island Ficus



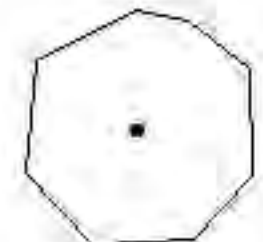
Hamelia patens `Compacta` / Dwarf Scarlet Bush



Illicium parviflorum / Anise Tree



Myrcianthes fragrans / Twinberry



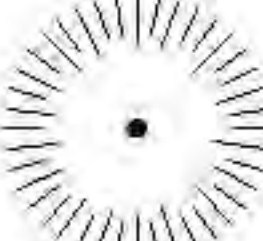
Myrcianthes fragrans `compacta` / Compact Simpson`s Stopper



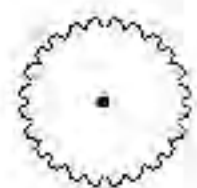
Myrica cerifera `Tom`s Dwarf` / Tom`s Dwarf Waxmyrtle



Philodendron bipinnatifidum / Cut Leaf Philodendron



Podocarpus gracilior / Fern Pine



Podocarpus macrophyllus `Dwarf Pringles` / Dwarf Podocarpus

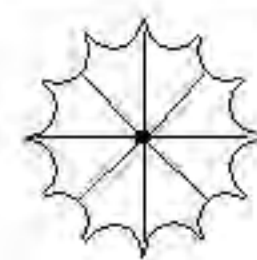


Senna mexicana `Chapmanii` / Bahama Cassia



Sophora tomentosa / Yellow Necklacepod

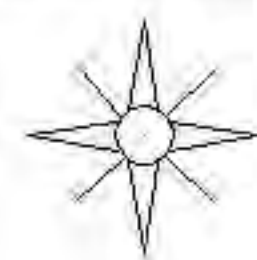
CYCADS/PALMS



BOTANICAL/COMMON

Zamia floridana / Coontie Palm

NATIVE GRASSES



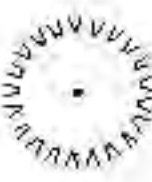
BOTANICAL/COMMON

Muhlenbergia capillaris / Pink Muhly

ANNUALS/PERENNIALS



Agapanthus praecox orientalis / Lily of the Nile



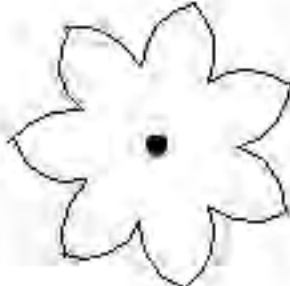
Cyrtomium falcatum / Holly Fern



Dianella tasmanica / Flax Lily



Dietes vegeta / African Iris



Hibiscus coccineus / Scarlet Rosemallow



Hymenocallis littoralis / Spider Lily



Pentas lanceolata / Pink Pentas



Tulbaghia violacea / Society Garlic

NATIVE WILDFLOWERS

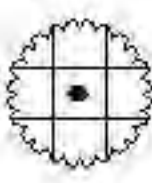
BOTANICAL/COMMON



Asclepias tuberosa / Butterfly Milkweed



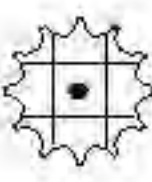
Helianthus debilis / Cucumberleaf Sunflower



Heliotropium angiospermum / Scorpion Tail



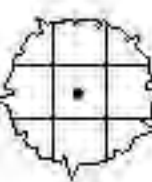
Lantana depressa / Depressed Shrubverbena



Mitchella repens / Partridge Berry



Salvia coccinea / Scarlet Sage



Silphium integrifolium / Rosinweed



Vernonia angustifolia / Ironweed

Group A- Front Entry/ Patio

Characteristics: Low growing and compact, colorful, medium/ coarse texture, bold forms, clean growth habit, unique form, size, and or texture, overhead branching

| | SUN | SHADE |
|--------------|--|---|
| SHRUBS | | |
| Small | <ul style="list-style-type: none"> <i>Allamanda nerifolia</i> (Bush Allamanda) <i>Euryops</i> (Bush Daisy) <i>Ficus microcarpa</i> 'Green Island' (Green Island Ficus) <i>Hamelia patens</i> 'Nana' (Dwarf Firebush) <i>Ilex vomitoria</i> 'Nana' (Dwarf Yaupon Holly) * <i>Pittosporum tobira</i> 'Wheeler's Dwarf' (Dwarf Pittosporum) <i>Podocarpus</i> 'Pringles' (Dwarf Podocarpus) <i>Rhaphiolepis indica</i> (Dwarf Indian Hawthorne) <i>Rosa</i> spp. (Knock Out Rose) <i>Vaccinium darrowii</i> (Darwin's Blueberry) * <i>Viburnum obovatum</i> 'Densa' (Dwarf Walter's Viburnum) * | <ul style="list-style-type: none"> <i>Ficus microcarpa</i> 'Green Island' (Green Island Ficus) <i>Ilex vomitoria</i> (Dwarf Yaupon Holly) * <i>Philodendron</i> 'Xanadu' (Xanadu Philodendron) <i>Pittosporum tobira</i> 'Wheeler's Dwarf' (Dwarf Pittosporum) <i>Podocarpus</i> 'Pringles' (Dwarf Podocarpus) <i>Psychotria nervosa</i> 'Nana' (Dwarf Coffee) * <i>Rhaphiolepis indica</i> (Dwarf Indian Hawthorne) <i>Sabal minor</i> * |
| Medium | <ul style="list-style-type: none"> <i>Argusia gnaphalodes</i> (Sea Lavender) * <i>Capparis cynophallophora</i> (Jamaican Capper) * <i>Lyonia ferruginea</i> (Rusty Lyonia) * <i>Myrica cerifera</i> 'Pumila' (Dwarf Wax Myrtle) * <i>Myrcianthes fragrans</i> 'Compacta' (Dwarf Simpson's Stopper) * <i>Senna mexicana</i> 'Chapmanii' (Bahama Cassia) * <i>Sophora tomentosa</i> (Necklacepod) * | <ul style="list-style-type: none"> <i>Ilex opaca</i> 'Burfordii compacta' (Dwarf Burford Holly) <i>Myrcianthes fragrans</i> 'Compacta' (Dwarf Simpson's Stopper) * <i>Philodendron</i> 'Selloum' (Split-leaf Philodendron) <i>Philodendron</i> 'Xanadu' (Xanadu) <i>Pittosporum tobira</i>, (Pittosporum) <i>Podocarpus macrophyllus</i> (Podocarpus) |
| GROUNDCOVERS | | |
| | <ul style="list-style-type: none"> <i>Agapanthus</i> spp. (Lily of the Nile) <i>Aptenia cordifolia</i> (Baby Sun Rose) <i>Bulbine</i> spp. <i>Dietes vegeta</i> (African Iris) <i>Ernodea littoralis</i> (Beach Creeper) * <i>Evolvulus</i> (Blue Daze) <i>Gaillardia pulchella</i> (Blanket Flower) * <i>Helianthus debilis</i> (Beach Sunflower) * <i>Hemerocallis</i> spp. (Daylily) <i>Iva imbricate</i> (Beach Elder) * <i>Licania michauxii</i> (Gopher Apple) * <i>Liriope muscari</i> (Monkey Grass) <i>Phyla nodiflora</i> (Matchweed) * <i>Salvia misella</i> (Creeping Sage) * <i>Sesuvium portulacastrum</i> (Seaside Purslane) * <i>Tulbaghia violacea</i> (Society Garlic) | <ul style="list-style-type: none"> <i>Ajuga reptans</i> (Ajuga) <i>Crytomium falcatum</i> (Holly Fern) * <i>Dianella tasmanica</i> (Flax Lily) <i>Dietes vegeta</i> (African Iris) <i>Liriope muscari</i> (Monkey Grass) <i>Mitchella repens</i> (Partridge Berry)* <i>Ophioipogon japonica</i> (Mondo Grass) <i>Osmunda cinnamomea</i> (Cinnamon Fern)* <i>Woodwardia areolata</i> (Netted Chain Fern) * <i>Zamia floridana</i> (Coontie) * <p>* Native plants Also see table of Wildflowers and Grasses</p> |

| | | |
|-----------------------|--|---|
| | <ul style="list-style-type: none"> • <i>Zamia floridana</i> (Coontie) * | |
| SPECIMEN TREES | | |
| Small | <ul style="list-style-type: none"> • <i>Chionanthus virginicus</i> (Fringe Tree) * • <i>Ilex x attenuata</i> (Savannah Holly) • <i>Ilex</i> 'Nelly Stevens' (Nelly Stevens Holly) • <i>Ilex opaca</i> 'Arenicola' (Scrub Holly) * • <i>Ilex vomitoria</i> 'Pendula' (Weeping Yaupon Holly) * • <i>Ilex vomitoria</i> (Yaupon Holly) * • <i>Jatropha integrima</i> (Jatropha) • <i>Ligustrum japonicum</i> (Privet) • <i>Magnolia grandiflora</i> 'Little Gem' (Little Gem Magnolia) • <i>Myrica cerifera</i> (Wax Myrtle) * • <i>Myricanthes fragrans</i> (Simpson's Stopper) * • <i>Prunus umbellata</i> (Flatwoods Plum) * • <i>Pseudophoenix sargentii</i> (Buccaneer Palm) * • <i>Raphiolepis</i> 'Majestic Beauty' (Majestic Beauty Indian Hawthorne) • <i>Viburnum obovatum</i> (Walter's Viburnum) * | <ul style="list-style-type: none"> • <i>Carya floridana</i> (Scrub Hickory) * • <i>Halesia diptera</i> (Silverbell) * • <i>Ilex cassine</i> (Dahoon Holly) * • <i>Ilex</i> 'Nelly Stevens' (Nelly Stevens Holly) • <i>Ilex opaca</i> 'Arenicola' (Scrub Holly) * • <i>Ilex Savannah</i> (Savannah Holly) * • <i>Ilex vomitoria</i> 'Pendula' (Weeping Yaupon Holly) * • <i>Ilex vomitoria</i> (Yaupon Holly) * • <i>Ligustrum japonicum</i> (Privet) • <i>Myricanthes fragrans</i> (Simpson's Stopper) * • <i>Raphiolepis</i> 'Majestic Beauty' (Majestic Beauty Indian Hawthorne) |
| Medium | <ul style="list-style-type: none"> • <i>Chionanthus virginicus</i> (Fringe Tree) * • <i>Conocarpus erectus</i> 'Sericeus' (Silver Buttonwood) * • <i>Gordonia lasianthus</i> (Loblolly Bay) * • <i>Ilex cassine</i> (Dahoon Holly) * • <i>Juniperus virginiana</i> (Red Cedar) * • <i>Morus rubra</i> (Mulberry) * • <i>Parkinsonia aculeata</i> (Jerusalem Thorn) • <i>Pinus elliottii</i> 'Densa' (South Florida Slash Pine) * • <i>Quercus geminata</i> (Sand Live Oak) * • <i>Tabebuia argentea</i> (Yellow Trumpet Tree) • <i>Ulmus alata</i> (Winged Elm) * • <i>Ulmus americana</i> 'Floridana' (Florida Elm) * | <ul style="list-style-type: none"> • <i>Chionanthus virginicus</i> (Fringe Tree) * • <i>Gordonia lasianthus</i> (Loblolly Bay) * • <i>Ilex cassine</i> (Dahoon Holly) • <i>Magnolia virginiana</i> 'Silver Mist' (Sweet Bay) * <p>* Native plants</p> |
| Large | <ul style="list-style-type: none"> • <i>Acer rubrum</i> (Red Maple) * • <i>Carya floridana</i> (Scrub Hickory) * • <i>Magnolia grandiflora</i> (Southern Magnolia) * • <i>Pinus elliottii</i> (South Florida Slash Pine). * • <i>Quercus shumardii</i> (Shumard Oak) * • <i>Quercus virginiana</i> (Live Oak) * • <i>Ulmus alata</i> (Winged Elm) * • <i>Ulmus americana</i> (American Elm) * | |

Group B – Along Walls

Characteristics: medium/ tall shrubs, soft/ fine texture, loose foliage, flexible branches

| | SUN | SHADE |
|--------|---|--|
| | SHRUBS | |
| Medium | <ul style="list-style-type: none"> • <i>Ardisia escallonioides</i> (Marlberry) * • <i>Argusia gnaphalodes</i> (Sea Lavender) * • <i>Erythrina herbacea</i> (Coral Bean) * • <i>Eugenia foetida</i> (Stopper) * • <i>Euryops</i> (Bush Daisy) • <i>Forestiera segregata</i> (Florida Privet) * • <i>Hamelia patens</i> 'Compacta' (Dwarf Firebush) • <i>Ilex vomitoria</i> 'Nana' (Dwarf Holly) * • <i>Lycium carolinianum</i> (Christmasberry) * • <i>Lyonia ferruginea</i> (Rusty Lyonia) * • <i>Myrica cerifera</i> 'Pumila' (Dwarf Wax Myrtle) * • <i>Myrica cerifera</i> 'Pumila' (Dwarf Wax Myrtle) * • <i>Myrcianthes fragrans</i> 'Compacta' (Dwarf Simpson's Stopper) * • <i>Podocarpus</i> 'Pringles' (Pringles Podocarpus) • <i>Rapanea punctata</i> (Myrsine) * • <i>Raphiolepis indica</i> (Indian Hawthorn) • <i>Rosa</i> spp. 'Knock Out' (Knock out Rose) • <i>Senna mexicana</i> 'Chapmanii' (Bahama Cassia) * • <i>Sophora tomentosa</i> (Necklace Pod) * • <i>Suriana maritima</i> (Bay Cedar) * • <i>Vaccinium darrowii</i> (Darwin's Blueberry) * • <i>Viburnum obovatum</i> 'Densa' (Dwarf Walters Viburnum) * | <ul style="list-style-type: none"> • <i>Ardisia escallonioides</i> (Marlberry) * • <i>Callicarpa americana</i> (Beautyberry) * • <i>Cephalanthus occidentalis</i> (Buttonbush) * • <i>Erythrina herbacea</i> (Coral Bean) * • <i>Hamelia patens</i> 'Nana' (Dwarf Firebush) • <i>Illicium parviflorum</i> (Anise) * • <i>Itea virginica</i> (Sweet Spire) * • <i>Myrcianthes fragrans</i> 'Compacta' (Dwarf Simpson's Stopper) * • <i>Podocarpus</i> 'Pringles' (Pringles Podocarpus) • <i>Rapanea punctata</i> (Myrsine) * • <i>Raphiolepis indica</i> (Indian Hawthorn) |
| Tall | <ul style="list-style-type: none"> • <i>Capparis cynophallophora</i> (Jamaican Caper) * • <i>Cephalanthus occidentalis</i> (Buttonbush) * • <i>Coccoloba uvifera</i> (Seagrape) * • <i>Hamelia patens</i> (Firebush) * • <i>Illicium parviflorum</i> (Anise) * • <i>Ligustrum japonicum</i> (Privet) • <i>Myrica cerifera</i> (Wax Myrtle) * • <i>Myrcianthes fragrans</i> (Simpson's Stopper) * • <i>Podocarpus macrophyllus</i> (Podocarpus Maki) • <i>Vaccinium arboreum</i> (Sparkleberry) * • <i>Viburnum suspensum</i> (Sandankwa Viburnum) • <i>Viburnum odoratissimum</i> (Sweet Viburnum) | <ul style="list-style-type: none"> • <i>Ardisia escallonioides</i> (Marlberry) * • <i>Cephalanthus occidentalis</i> (Buttonbush) * • <i>Hamelia patens</i> (Firebush) * • <i>Illicium parviflorum</i> (Anise) * • <i>Ligustrum japonicum</i> (Privet) • <i>Myrcianthes fragrans</i> (Simpson's Stopper) * • <i>Podocarpus macrophyllus</i> (Podocarpus Maki) • <i>Psychotria bahamensis</i> (Bahama Coffee) * • <i>Viburnum suspensum</i> (Sandankwa Viburnum) • <i>Viburnum odoratissimum</i> (Sweet Viburnum) <p>* Native Plants</p> |

Group C- Along Sidewalks and Walkways

Characteristics: low-growing, non-sprawling, clumping, mounding forms

| | SUN | SHADE |
|--|--|---|
| | GROUNDCOVERS | |
| | <ul style="list-style-type: none"> <i>Bulbine spp.</i> <i>Dietes vegeta</i> (African Iris) <i>Evolvulus</i> (Blue Daze) <i>Gaillardia pulchella</i> (Blanket Flower)* <i>Tulbaghia violacea</i> (Society Garlic) <p>(Also see table of Wildflowers and Grasses)</p> | <ul style="list-style-type: none"> <i>Ajuga reptans</i> (Ajuga) <i>Crytomium falcatum</i> (Holly Fern)* <i>Dianella tasmanica</i> (Flax Lily) <i>Dietes vegeta</i> (African Iris) <i>Liriope spp.</i> (Monkey Grass) <i>Ophioipogon japonica</i> (Mondo Grass) <p>* Native Plants</p> |

Group D - Under Windows

Characteristics: medium/tall height, no thorns or stiff leaves, soft/ fine texture, loose foliage, easy to trim, flexible branches

| | SUN | SHADE |
|--------|---|--|
| | SHRUBS | |
| Medium | <ul style="list-style-type: none"> <i>Allamanda nerifolia</i> (Bush Allamanda)* <i>Callicarpa Americana</i> (Beautyberry)* <i>Capparis cynophallophora</i> (Jamaican Caper) * <i>Chrysobalanus icaco</i> (Cocoplum)* <i>Eugenia axillaris</i> (Stopper)* <i>Forestiera segregate</i> (Florida Privet)* <i>Galphimia gracilis</i> (Thryallis) <i>Gossypium hirsutum</i> (Cotton)* <i>Hamelia patens</i> 'Nana' (Dwarf Firebush) <i>Lycium carolinianum</i> (Christmas berry)* <i>Myrica cerifera</i> 'Pumila' (Dwarf Wax Myrtle) <i>Myrica cerifera</i> 'Nana' (Dwarf Wax Myrtle)* <i>Psychotria sulzneri</i> (Shiny Coffee)* <i>Senna mexicana</i> 'Chapmanii' (Bahama Cassia)* <i>Sophora tomentosa</i>, 'Fragrans' (Necklacepod) * <i>Vaccinium stamineum</i> (Wild Blueberry)* <i>Viburnum obovatum</i> "Densa" (Dwarf Walter's Viburnum)* <i>Viburnum obovatum</i> 'Mrs Shiller's Delight' (Mrs Shiller's Viburnum)* | <ul style="list-style-type: none"> <i>Hamelia patens</i> 'Compacta' (Dwarf Firebush) <i>Myrcianthes fragrans</i> 'Compacta' (Dwarf Simpson's Stopper)* <i>Psychotria sulzneri</i> (Wild Coffee)* <i>Psychotria nervosa</i> 'Nana' (Dwarf Coffee)* <p>* Native Plants</p> |

Group E- Along Property Lines

Characteristics: dense foliage, upright form, evergreen, sturdy, fast-growing

| | SUN | SHADE |
|---------------|---|---|
| | SHRUBS | |
| Medium | <ul style="list-style-type: none"> • <i>Allamanda nerifolia</i> (Bush Allamanda) * • <i>Eugenia foetida</i> (Stopper) * • <i>Ilex burfordii</i> (Buford's Holly) • <i>Podocarpus</i> 'Pringles' (Pringles Podocarpus) | <ul style="list-style-type: none"> • <i>Callicarpa americana</i> (Beautyberry) * • <i>Podocarpus</i> 'Pringles' (Pringles Podocarpus) • <i>Psychotria nervosa</i> (Wild Coffee) * • <i>Ranapea punctata</i> (Myrsine) * |
| Tall | <ul style="list-style-type: none"> • <i>Chrysobalanus icaco</i> (Cocoplum) * • <i>Coccoloba uvifera</i> (Seagrape) * • <i>Forestiera segregata</i> (Florida Privet) * • <i>Ilex vomitoria</i> (Yaupon Holly) * • <i>Illicium parviflorum</i> (Anise) * • <i>Ligustrum japonicum</i> (Privet) • <i>Myrica cerifera</i> (Wax Myrtle) * • <i>Myrcianthes fragrans</i> (Simpson's Stopper) * • <i>Podocarpus gracillior</i> (Fern leaf Podocarpus) • <i>Podocarpus microphyllus</i> (Podocarpus Maki) • <i>Viburnum obovatum</i> (Walter's Viburnum) * • <i>Viburnum odoratissimum</i> (Sweet Viburnum) • <i>Viburnum suspensum</i> (Sandankwa Viburnum) | <ul style="list-style-type: none"> • <i>Agarista populifolia</i> (Pipestem) * • <i>Ardisia escallonioides</i> (Marlberry) * • <i>Illicium parviflorum</i> (Anise) * • <i>Ligustrum japonicum</i> (Privet) • <i>Myrcianthes fragrans</i> (Simpson's Stopper) * • <i>Podocarpus gracillior</i> (Fern Leaf Podocarpus) • <i>Podocarpus microphyllus</i> (Maki Podocarpus) • <i>Viburnum odoratissimum</i> (Sweet Viburnum) • <i>Viburnum suspensum</i> (Sandankwa Viburnum) |
| | VINES | |
| | <ul style="list-style-type: none"> • <i>Bignonia capreolata</i> (Cross Vine) * • <i>Campsis radicans</i> (Red Trumpet Vine) * • <i>Lonicera sempervirens</i> (Coral Honeysuckle) * • <i>Pentalinon luteum</i> (Native Allamanda Vine) * • <i>Pandorea jasminoides</i> (Pandorea Vine) | <ul style="list-style-type: none"> • <i>Bignonia capreolata</i> (Cross Vine) * • <i>Campsis radicans</i> (Red Trumpet Vine) * • <i>Lonicera sempervirens</i> (Coral Honeysuckle) * <p>* Native Plants</p> |

| Group F- Under Trees | | |
|--|--|--|
| Characteristics: shallow roots, vines/spreading, low growing groundcover | | |
| | SUN | SHADE |
| GROUNDCOVER | | |
| | <ul style="list-style-type: none"> • <i>Agapanthus spp.</i> (Lily of the Nile) • <i>Aptenia cordifolia</i> (Baby Sun Rose) • <i>Arachis glabrata</i> (Perennial Peanut) • <i>Bulbine spp.</i> • <i>Dietes iriodes</i> (African Iris) • <i>Ernodea littoralis</i> (Beach Creeper) * • <i>Evolvulus</i> (Blue Daze) • <i>Gaillardia pulchella</i> (Blanket Flower) * • <i>Helianthus debilis</i> (Dune Sunflower) * • <i>Hemerocallis spp.</i> (Daylily) • <i>Ipomoea imperati</i> (Beach Morning Glory) * • <i>Ipomoea pes-caprae</i> (Railroad Vine) * • <i>Iva imbricate</i> (Beach Elder) * • <i>Licania michauxii</i> (Gopher Apple) * • <i>Mimosa strigillosa</i> (Sunshine Mimosa) * • <i>Phyla nodiflora</i> (Matchweed) * • <i>Salvia misella</i> (Creeping Sage) * • <i>Sesuvium portulacastrum</i> (Seaside Purslane) * • <i>Tulbaghia violacea</i> (Society Garlic) | <ul style="list-style-type: none"> • <i>Ajuga reptans</i> (Ajuga) • <i>Blechnum serrulatum</i> (Swamp Fern) * • <i>Crytomium falcatum</i> (Holly Fern) * • <i>Dianella tasmanica</i> (Flax Lily) • <i>Liriope muscari</i> (Monkey Grass) • <i>Mitchella repens</i> (Partridgeberry) * • <i>Ophiopogon japonica</i> (Mondo grass) • <i>Osmunda cinnamomea</i> (Cinnamon Fern) * • <i>Trachelospermum asiaticum</i> (Asiatic Jasmine) • <i>Woodwardia areolata</i> (Netted Chain fern) * |
| VINES | | |
| | <ul style="list-style-type: none"> • <i>Bignonia capreolata</i> (Cross Vine) * • <i>Campsis radicans</i> (Trumpet Vine) * • <i>Lonicera sempervirens</i> (Coral Honeysuckle) * • <i>Passiflora incarnata</i> (Passion Flower) * • <i>Pentalinon luteum</i> (Yellow Mandevilla) * • <i>Symphyotrichum carolinianum</i> (Climbing Aster) * | <ul style="list-style-type: none"> • <i>Bignonia capreolata</i> (Trumpet Vine) * • <i>Campsis radicans</i> (Cross Vine) * • <i>Lonicera sempervirens</i> (Coral honeysuckle) * • <i>Passiflora incarnata</i> (Passion Flower) * <p>* Native Plants</p> |

Group G- Around Mailboxes and Utilities

Characteristics: low/medium shrubs, clean growth habit, soft foliage, no flowers/ bees, no thorns

| | SUN | SHADE |
|--|---|--|
| | SHRUBS | |
| | <ul style="list-style-type: none"> • <i>Euryops</i> (Bush Daisy) • <i>Hamelia patens</i> 'Nana' (Dwarf Firebush) • <i>Ilex vomitoria</i> 'Nana' (Dwarf Yaupon Holly) * • <i>Senna mexicana</i> 'Chapmanii' (Bahama Cassia) * • <i>Suriana maritima</i> (Bay Cedar) * • <i>Viburnum obovatum</i> 'Densa' (Dwarf Walter's Viburnum) * | <ul style="list-style-type: none"> • <i>Hamelia patens</i> 'Nana' (Dwarf Firebush) • <i>Philodendron</i> 'Xanadu' (Xanadu) • <i>Psychotria nervosa</i> 'Nana' (Shiny Coffee) * |
| | GROUNDCOVER | |
| | <ul style="list-style-type: none"> • <i>Agapanthus</i> spp. (Lily of the Nile) • <i>Aptenia cordifolia</i> (Baby Sun Rose) • <i>Bulbine</i> spp. • <i>Dietes iriodes</i> (African Iris) • <i>Ernodea littoralis</i> (Beach Creeper) * • <i>Evolvulus</i> (Blue Daze) • <i>Gaillardia pulchella</i> (Blanket Flower) * • <i>Helianthus debilis</i> (Dune Sunflower)* • <i>Hemerocallis</i> spp. (Daylily) • <i>Ipomoea imperati</i> (Beach Morning Glory) * • <i>Iva imbricate</i> (Beach Elder) * • <i>Licania michauxii</i> (Gopher Apple) * • <i>Phyla nodiflora</i> (Matchweed) * • <i>Salvia misella</i> (Creeping Sage) * • <i>Sesuvium portulacastrum</i> (Seaside Purslane) * • <i>Tulbaghia violacea</i> (Society Garlic) | <ul style="list-style-type: none"> • <i>Ajuga reptans</i> (Ajuga) • <i>Crytomium falcatum</i> (Holly Fern) * • <i>Dianella tasmanica</i> (Flax Lily) • <i>Liriope muscari</i> (Monkey grass) • <i>Mitchella repens</i> (Partridgeberry) * • <i>Ophiopogon japonica</i> (Mondo Grass) • <i>Osmunda cinnamomea</i> (Cinnamon Fern) * • <i>Trachelospermum asiaticum</i> (Asiatic Jasmine) • <i>Woodwardia areolata</i> (Netted Chain Fern) * <p>* Native Plants Also see table of Wildflowers and Grasses</p> |

| Group H- Along Fences | | |
|---|---|---|
| Characteristics: low/medium shrubs, clean growth habit, dense foliage | | |
| | SUN | SHADE |
| SHRUBS | | |
| Medium | <ul style="list-style-type: none"> • <i>Allamanda nerifolia</i> (Bush Allamanda) • <i>Eugenia foetida</i> (Stopper) * • <i>Ilex burfordii</i> (Buford's Holly) • <i>Podocarpus</i> 'Pringles' (Pringles Podocarpus) | <ul style="list-style-type: none"> • <i>Callicarpa americana</i> (Beautyberry) * • <i>Podocarpus</i> 'Pringles' (Pringles Podocarpus) • <i>Psychotria nervosa</i> (Wild Coffee) * • <i>Ranapea punctata</i> (Myrsine) * |
| Tall | <ul style="list-style-type: none"> • <i>Chrysobalanus icaco</i> (Cocoplum) * • <i>Coccoloba uvifera</i> (Seagrape) * • <i>Forestiera segregata</i> (Florida Privet) * • <i>Ilex vomitoria</i> (Yaupon Holly) * • <i>Illicium parviflorum</i> (Anise) * • <i>Ligustrum japonicum</i> (Privet) • <i>Myrica cerifera</i> (Wax Myrtle) * • <i>Myrcianthes fragrans</i> (Simpson's Stopper) * • <i>Podocarpus gracillior</i> (Fern leaf Podocarpus) • <i>Podocarpus microphyllus</i> (Podocarpus Maki) • <i>Viburnum odoratissimum</i> (Sweet Viburnum) • <i>Viburnum obovatum</i> (Walter's Viburnum) * • <i>Viburnum suspensum</i> (Sandankwa Viburnum) | <ul style="list-style-type: none"> • <i>Agarista populifolia</i> (Pipestem) * • <i>Ardisia escallonioides</i> (Marlberry) * • <i>Illicium parviflorum</i> (Anise) * • <i>Ligustrum japonicum</i> (Privet) • <i>Myrcianthes fragrans</i> (Simpson's Stopper) * • <i>Podocarpus gracillior</i> (Fern Leaf Podocarpus) • <i>Podocarpus microphyllus</i> (Maki Podocarpus) • <i>Viburnum odoratissimum</i> (Sweet Viburnum) • <i>Viburnum suspensum</i> (Sandankwa Viburnum) |
| VINES | | |
| | <ul style="list-style-type: none"> • <i>Bignonia capreolata</i> (Cross Vine) * • <i>Campsis radicans</i> (Red Trumpet Vine) * • <i>Lonicera sempervirens</i> (Coral Honeysuckle) * • <i>Pandorea jasminoides</i> (Pandorea Vine) • <i>Pentalinon luteum</i> (Native Allamanda Vine) * | <ul style="list-style-type: none"> • <i>Bignonia capreolata</i> (Cross Vine) * • <i>Campsis radicans</i> (Red Trumpet Vine) * • <i>Lonicera sempervirens</i> (Coral Honeysuckle) * <p>* Native Plants</p> |

| Group I- Edible Plants | |
|--|---|
| Characteristics: Seasonal crops, fruit and vegetables | |
| | SUN |
| SHRUBS | |
| Summer | Blueberry |
| VEGETABLES | |
| Summer/ Fall | Tomatoes, Eggplant, Yellow Squash, Zucchini, Okra, Cucumber, Green Beans, Peppers, Green Onion, Carrots, Melon |
| Winter/ Spring | Broccoli, Mustard and Collard Greens, Kale, Lettuce, Peas, Cabbage, Pumpkin, Acorn, Squash, Potatoes, Spinach, Strawberries |
| TREES | |
| Summer/ Fall | Fig, Loquat, Persimmon, Peach (Florida varieties), Plum (Florida varieties) |
| Winter/ Spring | Citrus |

Group J- Specialty Gardens- Play Area

Characteristics: Colorful, medium/ coarse texture, bold forms, fragrant, unique structure for play, interesting to touch

| | SUN | SHADE |
|--------|--|--|
| | SHRUBS | |
| Small | <ul style="list-style-type: none"> • <i>Allamanda nerifolia</i> (Bush Allamanda) • <i>Euryops</i> (Bush Daisy) • <i>Ficus microcarpa</i> 'Green Island' (Green Island Ficus) • <i>Hamelia patens</i> 'Compacta' (Dwarf Firebush) • <i>Ilex vomitoria</i> 'Nana' (Dwarf Yaupon Holly) * • Rosemary • <i>Vaccinium darrowii</i> (Darwin's Blueberry) * | <ul style="list-style-type: none"> • <i>Ficus microcarpa</i> 'Green Island' (Green Island Ficus) • <i>Philodendron</i> 'Xanadu' (Xanadu) • <i>Sabal minor</i>* |
| Medium | <ul style="list-style-type: none"> • <i>Argusia gnaphalodes</i> (Sea Lavender) • <i>Capparis cynophallophora</i> (Jamaican Capper) • <i>Myrcianthes fragrans</i> 'Compacta' (Dwarf Simpson's Stopper) • <i>Philidendron</i> 'Selloum' • <i>Senna mexicana</i> 'Chapmanii' (Bahama Cassia) • <i>Sophora tomentosa</i> (Necklacepod) | <ul style="list-style-type: none"> • <i>Callicarpa americana</i> (Beautyberry) * • <i>Myrcianthes fragrans</i> 'Compacta' (Dwarf Simpson's Stopper) * • <i>Philodendron</i> 'Selloum' (Split-leaf Philodendron) |
| | GROUNDCOVERS | |
| | <ul style="list-style-type: none"> • <i>Agapanthus spp.</i> (Lily of the Nile) • <i>Aptenia cordifolia</i> (Baby Sun Rose) • <i>Arachis glabrata</i> (Perennial Peanut) • <i>Bulbine spp.</i> • <i>Dietes vegeta</i> (African Iris) • <i>Ernodea littoralis</i> (Beach Creeper) * • <i>Evolvulus</i> (Blue Daze) • <i>Gaillardia pulchella</i> (Blanket Flower) * • <i>Hemerocallis spp.</i> (Daylily) • <i>Iva imbricate</i> (Beach Elder) * • <i>Lavendar varieties</i> • <i>Licania michauxii</i> (Gopher Apple) * • <i>Menta spp.</i> (Mint varieties) • <i>Mimosa strigillosa</i> (Sunshine Mimosa) * • <i>Phyla nodiflora</i> (Matchweed) * • <i>Salvia misella</i> (Creeping Sage) * • <i>Sesuvium portulacastrum</i> (Seaside Purslane) * • <i>Thymus spp.</i> (Thyme varieties) • <i>Tulbaghia violacea</i> (Society Garlic) • <i>Zamia floridana</i> (Coontie) * | <ul style="list-style-type: none"> • <i>Crytomium falcatum</i> (Holly Fern) * • <i>Dianella tasmanica</i> (Flax Lily) • <i>Dietes vegeta</i> (African Iris) • <i>Liriope muscari</i> (Monkey Grass) • <i>Menta spp.</i> (Mint varieties) • <i>Mitchella repens</i> (Partridge berry) * • <i>Ophoipogon japonica</i> (Mondo Grass) • <i>Osmunda cinnamomea</i> (Cinnamon Fern) * • <i>Woodwardia areolata</i> (Netted Chain Fern) * • <i>Zamia floridana</i> (Coontie) * <p>* Native Plants Also see table of Wildflowers and Grasses</p> |

| Group J- Specialty Gardens- Play Area | | |
|---------------------------------------|---|--|
| SUN | | SHADE |
| SPECIMEN TREES | | |
| Small | <ul style="list-style-type: none"> • <i>Chionanthus virginicus</i> (Fringe Tree) * • <i>Ilex opaca</i> 'Arenicola' (Scrub Holly) * • <i>Ilex vomitoria</i> 'Pendula' (Weeping Yaupon Holly) * • <i>Jatropha integrima</i> (Jatropha) • <i>Magnolia grandiflora</i> 'Little Gem' (Little Gem Magnolia) • <i>Myricanthes fragrans</i> (Simpson's Stopper) * • <i>Prunus umbellata</i> (Flatwoods Plum) * • <i>Pseudophoenix sargentii</i> (Buccaneer Palm) • <i>Rhapiolepis</i> 'Majestic Beauty' (Majestic Beauty Indian Hawthorne) | <ul style="list-style-type: none"> • <i>Halesia diptera</i> (Silverbell)* • <i>Ilex vomitoria</i> 'Pendula' (Weeping Yaupon Holly)* • <i>Myricanthes fragrans</i> (Simpson's Stopper)* • <i>Rhapiolepis</i> 'Majestic Beauty' (Majestic Beauty Indian Hawthorne) |
| Medium | <ul style="list-style-type: none"> • <i>Chionanthus virginicus</i> (Fringe Tree) * • <i>Conocarpus erectus</i> 'Sericeus' (Silver Buttonwood) * • <i>Gordonia lasianthus</i> (Loblolly Bay) * • <i>Juniperus virginiana</i> (Red Cedar) * • <i>Morus rubra</i> (Mulberry) * • <i>Tabebuia argentea</i> (Yellow Trumpet Tree) • <i>Ulmus alata</i> (Winger Elm) * • <i>Ulmus americana</i> 'Floridana' (Florida Elm) * | <ul style="list-style-type: none"> • <i>Chionanthus virginicus</i> (Fringe Tree) * • <i>Gordonia lasianthus</i> (Loblolly Bay) * • <i>Magnolia virginiana</i> 'Silver Mist' (Sweet Bay) * |
| Large | <ul style="list-style-type: none"> • <i>Acer rubrum</i> (Red Maple) * • <i>Quercus shumardii</i> (Shumard Oak) * • <i>Quercus virginiana</i> (Live Oak) * • <i>Ulmus alata</i> (Winged Elm) * • <i>Ulmus americana</i> (American Elm) * | * Native Plants |

| Group J- Specialty Gardens- Rain Gardens/Downspouts | | |
|---|--|---|
| Characteristics: wet feet, small size, groundcover, clumping, allows water movement | | |
| SUN | | SHADE |
| GROUNDCOVERS | | |
| | <ul style="list-style-type: none"> • <i>Arachis glabrata</i> (Perennial Peanut) • <i>Hymenocallis</i> (Spider Lily) * • <i>Phyla nodiflora</i> (Matchweed) * • <i>Sisyrinchium angustifolium</i> (Blue Eyed Grass) * • <i>Spartina patens</i> (Salt Marsh Cordgrass) * • <i>Spartina bakeri</i> (Sand Cordgrass) * • <i>Tulbaghia violacea</i> (Society Garlic) | <ul style="list-style-type: none"> • <i>Hymenocallis</i> (Spider Lily)* <p>* Native Plants Also see table of Wildflowers and Grasses</p> |

Group J- Specialty Gardens- Butterfly

Characteristics: color (reds, orange, yellow) nectar and host plants

| | SUN | SHADE |
|-----------------------|--|--|
| SHRUBS | | |
| | <ul style="list-style-type: none"> • <i>Ardisia escallonioides</i> (Marlberry) * • <i>Capparis cynophallophora</i> (Jamaican Capper) * • <i>Chamaecrista fasciculata</i> (Partridge Pea) ^a • <i>Eugenia foetida</i> (Stopper) * • <i>Hamelia patens</i> 'Nana' (Dwarf Firebush) • <i>Psychotria nervosa</i> (Wild Coffee) • <i>Senna mexicana</i> 'Chapmanii' (Bahama Cassia) * ^a • <i>Serenoa repens</i> (Saw Palmetto) ^a • <i>Sophora tomentosa</i> (Necklace Pod) * • <i>Vaccinium arboreum</i> (Sparkleberry) * ^a ^o • <i>Vaccinium darrowii</i> (Darwin's Blueberry) * • <i>Zamia pumila</i> (Coontie) * ^a | <ul style="list-style-type: none"> • <i>Psychotria nervosa</i> (Wild Coffee) • <i>Vaccinium arboreum</i> (Sparkleberry) * ^a ^o • <i>Hamelia patens</i> 'Nana' (Dwarf Firebush) • <i>Zamia pumila</i> (Coontie) ^a • <i>Serenoa repens</i> (Saw Palmetto) ^a |
| HERBACEOUS PERENNIALS | | |
| | <ul style="list-style-type: none"> • <i>Ageratum littoralis</i> (Beach Mistflower) * • <i>Asclepias perennis</i> (Swamp Milkweed) * ^a • <i>Asclepias tuberosa</i> (Milkweed) * ^a • <i>Berlandiera subacaulis</i> (Green Eyes) * • <i>Carphephorus corymbosus</i> (Deer Tongue) • <i>Coreopsis leavenworthii</i> (Tickseed) * • <i>Flaveria linearis</i> (Yellow Top) * • <i>Helianthus debilis</i> (Dune Sunflower) * • <i>Liatris spp</i> (Blazing Star) * • <i>Monarda punctata</i> (Dotted Horsemint) * • <i>Pentas lanceolata</i> (Pentas) • <i>Rudbeckia hirta</i> (Black-Eyed Susan) * • <i>Salvia coccinea</i> (Red Sage) * • <i>Solidago stricta</i> (Wand Goldenrod) * • <i>Solidago sempervirens</i> (Seaside Goldenrod) * • <i>Stachytarpheta jamaicensis</i> (Porterweed) * • <i>Vernonia angustifolia</i> (Ironweed) * | <ul style="list-style-type: none"> • <i>Pentas lanceolata</i> (Pentas) • <i>Stokesia laevis</i> (Stoke's Aster) * ^a • <i>Symphyotrichum walteri</i> (Climbing aster) ^a • <i>Viola spp.</i> (Pineland Violet) * ^a <p>* Native Plants ^a Host Plants ^o Nectar Plants</p> |
| VINES | | |
| | <ul style="list-style-type: none"> • <i>Passiflora incarnata</i> (Passion flower) * ^a • <i>Passiflora suberosa</i> (Corky-stemmed Passion flower) * ^a • <i>Phyla nodiflora</i> (Fogfruit) * ^a | |

| Wildflowers and Grasses | | |
|--|--|---|
| | SUN | SHADE |
| GROUNDCOVERS / ORNAMENTAL GRASSES | | |
| | <ul style="list-style-type: none"> • <i>Arachis glabrata</i> (Perennial Peanut) • <i>Eragrostis elliottii</i> (Love grass) * • <i>Eragrostis spectabilis</i> (Purple Love Grass) * • <i>Mimosa strigillosa</i> (Sunshine Mimosa) * ^a • <i>Muhlenbergia capillaries</i> (Muhly Grass) * • <i>Sorghastrum secundum</i> (Lopsided Indian Grass) * ^a • <i>Spartina bakeri</i> (Sand Cordgrass) * • <i>Tripsacum floridanum</i> (Fakahatchee Grass) * ^a • <i>Tripsacum dactyloides</i> (Gamma Grass) * ^a • <i>Uniola paniculata</i> (Sea Oats) * | |
| GROUNDCOVERS / WILDFLOWERS AND HERBACEOUS PERENNIALS | | |
| | <ul style="list-style-type: none"> • <i>Ageratum littoralis</i> (Beach Mistflower) * • <i>Berlandiera subacaulis</i> (Green Eyes) * • <i>Carphephorus corymbosus</i> (Deer Tongue) • <i>Conradina</i> spp. (Scrub Mint) * • <i>Coreopsis leavenworthii</i> (Tickseed) * • <i>Dyschoriste oblongifolia</i> (Twin Flower) * ^a • <i>Flaveria linearis</i> (Yellow Top) * • <i>Helianthus debilis</i> (Dune Sunflower) * • <i>Lantana depressa</i> (Pineland Lantana) * • <i>Liatris</i> spp (Blazing Star) * • <i>Monarda punctata</i> (Dotted Horsemint) * • <i>Pentas lanceolata</i> (Pentas) • <i>Polymnia uvedalia</i> (Bear's Foot) * • <i>Rudbeckia hirta</i> (Black-Eyed Susan) * • <i>Ruellia caroliniensis</i> (Wild Petunia) * ^a • <i>Salvia coccinea</i> (Red Sage) * • <i>Solidago stricta</i> (Wand Goldenrod) * • <i>Stachytarpheta jamaicensis</i> (Porterweed) * • <i>Vernonia angustifolia</i> (Ironweed) * | <ul style="list-style-type: none"> • <i>Pentas lanceolata</i> (Pentas) • <i>Stokesia laevis</i> (Stoke's Aster) * • <i>Viola</i> spp. (Pineland Violet) * <p>* Native Plants ^a Butterfly Host Plants</p> |

Irrigation Schedule

Note: this information was adapted from EDIS publication ENH857, *Irrigating Landscape Plants during Establishment*, which can be found at <http://edis.ifas.ufl.edu/EP113>.

First Two Weeks

Saturate root balls and surrounding 1" of soil of each new plant. Saturation can be determined by digging a test hole (next to the planted area) that is the same depth and diameter as the plant's root ball. Note the amount of water required to saturate the test hole. This will provide an estimation of the amount of water needed per plant each day. Determine if the plants are overwatered by digging a hole next to the root ball about half of the rootball's depth, 2 to 3 hours after watering. If water flows between fingers when soil is squeezed, too much water was applied. If the soil is dry, more water is needed. If the soil holds together in clods, enough water has been applied.

Next 4-5 Months

For trees and shrubs with less than 2" diameter trunks/canes, continue the above routine daily for 2 more weeks, every other day for 2 months, then twice weekly. Trees and shrubs with 2" to 4" diameter trunks/canes will need water daily for a month, every other day for 3 months, then weekly. Trees and shrubs with trunks/canes over 4" in diameter need daily irrigation for 6 weeks, every other day for 5 months, and then weekly.

Temporary Irrigation

After 4 months, plants should be established. Temporary irrigation will be necessary only during periods of drought. Drip irrigation and soaker hoses can be installed by homeowners and used as irrigation sources during dry periods. Hand watering is also a simple irrigation method. During drought, water trees/shrubs 2-3 times per week.

Rain Barrels

Rain barrels are a simple and convenient method for collecting rain water from the roof to be used for irrigation. The amount of captured water will depend on the size of the roof, the size of the barrel and the amount of rainfall. A rain barrel can be used with a roof with or without a gutter. If you don't have a gutter system you may be able to collect water if most of it flows off the roof in one or two places. Remove the top of the barrel and used a screen cover to keep debris out of the barrel. If you have a gutter system it is best to put a downspout extender through the top of the barrel. To determine the size of the barrel use the general rule of thumb that 1" of rain on 1,000 sq. ft. of roof will yield approximately 600 gallons. If possible, elevate the rain barrel on a stand to improve water pressure for the outflow. Tanks should be cleaned out about once a year and the water should only be used for irrigation of landscape plants-- do not use to irrigate edible plants. See EDIS publication #AE64 for more information.

Hardscape Materials and Products

Reducing, Reusing, Reclaiming, Recycling, and Renewing

The primary criterion for selecting site materials is the reduction of resource use. Select materials that don't contribute to habitat destruction, use less energy in manufacture, production and transportation, don't contribute toxins to air and water pollution, and reduce the generation of waste. Several strategies can be used to reduce resource use and protect the environment:

- **Reduce (use less)** - Reduce material use by designing structures in modular material sizes to reduce cutting waste. Use durable materials with a long life and sound construction techniques.
- **Reuse (use for a different purpose)** - Adaptive reuse or repurpose is the use of existing materials or structures for a different purpose. Be creative-- can you use the material for something other than its intended purpose? Use materials that lend themselves to reuse and design for disassembly. Use fasteners and connection techniques that are easy to remove.
- **Reclaim (use again in the original or similar form)** - Reclaim existing materials by deconstructing rather than demolishing. The materials are sometimes reprocessed by reducing the size or changing the shape-- such as chipping tree branches to create mulch. Reclaimed materials can come from other sites or use reprocessed materials from a facility-- such as crushed concrete, tires, asphalt, glass or tiles

- **Recycle (create a new material)** - Use recycled-content materials and products. Products made from post-consumer recycled content (plastic bottles, etc.) are preferable to pre-consumer because it means it never went to the landfill. Composite materials made from recycled products include mixed plastic and composite (plastic and wood) lumber.
- **Renew-able (resources that grow quickly)** - Products made from renewable resources are those from plants, such as wood, that have a short harvesting cycle, such as ten years

Wood

Design and Construction Strategies

- Build small, simple, and durable structures. Size decks for typical use, use an open panel design for fences and reduce the height when possible. Keep designs simple with less decoration.
- Design wood structures with standard board dimensions to minimize cutting and wood waste. The span (lumber sizing) tables allow for a margin of error, it's not necessary to use a larger size.
- Keep preservative use to a minimum-- treat wood in contact with the ground with ACQ (ammoniacal copper quaternary) preservative, but use borates or sodium silicate for the decking. Use metal post bases to elevate the post above the ground.
- Use engineered wood when possible. Engineered wood can have less impact on the environment through the use of smaller diameter trees and lower-grade tree species. Wood waste is also reduced because a high percentage of wood fiber is used in the product.

Wood Preservatives

Construction Techniques

- Avoid the use of oilborne preservatives such as coal tar creosote or pentachlorophenol (PCP) as much as possible. Both have been classified as “restricted use pesticides” by the EPA because they continue to release toxins after application. Leaching can pollute groundwater, soil, and plant life.
- Avoid the use of wood that has been pressure treated with CCA, or any other PBTs (persistent bioaccumulative toxins), or any known carcinogens or priority toxins.
- The least toxic preservative treatments are water-borne zinc, fluoride, copper, and boron salts. The most common alternative to CCA is alkaline copper quat (ACQ). Use second-generation copper-based waterborne wood preservatives as an alternative to copper-based wood preservatives.
- Design details of wood members should deter moisture uptake. Most moisture is absorbed at the end of timber so angle cuts that allow drainage, end caps, and concrete footings with slopes for drainage are important.
- To prevent discoloration and mildew on preservative treated wood, use penetrating finishes that repel water and have a natural mildewcide. Pigmented finishes will protect from UV damage.

Paints and Stains

Use Strategies:

- Look for no-VOC or Low-VOC products and avoid paint with polyvinyl acetate (PVA).

- Avoid products that warn of neurotoxic effects. Look for labels that reference California's Proposition 65 warning of chemicals that may cause cancer, birth defects, or reproductive problems.
- Look for products listed in *Green Seal's Choose Green Report: Wood Finishes and Stains*.

Manufactured Lumber

Design Strategies and Construction Techniques:

- Use a high post-consumer recycled product, made from recyclable resins such as HDPE and LDPE (high-density and low-density polyethylene).
- Limit use of wood-plastic composites because they mix biological and synthetic materials and are not easily recycled. Also limit use of multiple commingled recycled consumer plastics because they have more contaminants and inconsistent properties.
- Manufactured lumber may require joist spacing to be closer together for several reasons: plastic lumber, and to a less extent composite lumber, tends to bend or sag more than wood under high temperatures. Plastic lumber is also not as structurally strong as composites and plastic and composite lumber are both heavier than wood which creates a heavier dead load.
- Screws and bolts are recommended for connections with plastic lumber which has a high rate of expansion and contraction so connections must be made to accommodate the movement.
- Both plastic and composite lumber have very low moisture absorption and resistance to decay which makes them good for ground contact.

Plastics and Rubber

Design Strategies and Construction Techniques:

- Use plastic products that number each component. PVC is number 3 and should be avoided. HDPE is number 2 and LDPE is number 4. ABS is listed as ABS.
- Avoid the use of composite materials such as fencing, decking, and artificial turf that contain PVC or vinyl. Look for alternatives to PVC, for example, HDPE is an alternative in irrigation pipes and drip lines, conduits, downspout extensions, root barriers, tree guards, lawn edging, fencing, gates, trellises, decking, railings, and outdoor furniture. LDPE is a good substitute in umbrella fabric, pool and grill covers, and geotextiles.
- Use products that have a minimum of 25% post-consumer recycled content or 40% total recycled content.
- Screws and bolts are recommended for connections with plastics which have a high rate of expansion and contraction so connections must be made to accommodate the movement.

Concrete

Design Strategies and Construction Techniques:

- Save resources by using coloring agents or surface finishes on old or new concrete. Surface treatments eliminate the need to cover old or new concrete with an additional layer of material such brick or stone. Use stains to lightly etch the surface, rather than coating it, and bond to the concrete, which works particularly well on old structures.
- Use porous concrete, which allows water to flow through the pavement to mitigate water runoff. Porous

concrete should be 6 inches thick with a minimum subbase of 4 inches of open graded aggregate. A thicker subbase will provide greater stormwater storage for slower percolating soils. Pre-cast porous concrete pavers are available in a wide range of colors and textures and can be recycled if used on dry-laid sand.

- Look for water-based sealers that contain less than 100 g/l VOCs and are free of hazardous chemicals. Bio-based, VOC free sealers made from soybean oil are available but need more frequent application.
- Choose water based and bio-based concrete cleaners. Citrus based are water-soluble and biodegradable.

Aggregates and Precast Pavers and Blocks

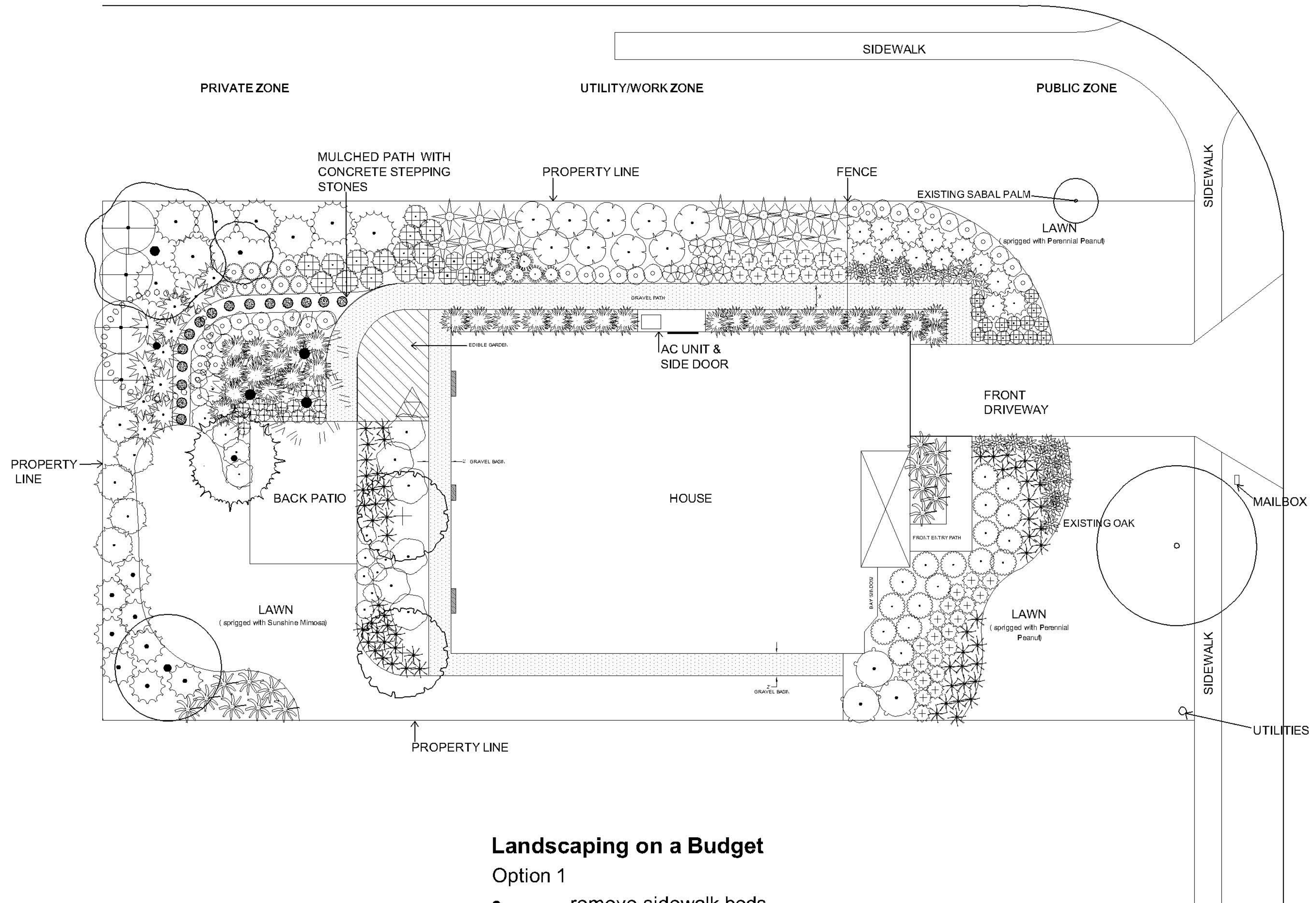
Design Strategies and Construction Techniques

- Two principles for surfaces should be followed: make no surface any harder, or any more impervious, than absolutely necessary. For example don't use paving if you can use crushed stone, and don't use crushed stone if bark or pine straw will do.
- For best drainage choose well-graded aggregates which has a specific size range resulting in a higher percentage of voids. Aggregate types also tend to vary by regions-- learn the local designations.
- Bank-run gravel is most appropriate for mulches, and crushed stone works best for walkways and drives. The angular facets of crushed stone tend to interlock more and provide more stability.
- Use small pavers to increase the total number of joints, and thus drainage opportunities, throughout the entire surface. Use thicker pavers for more strength and rigidity.

- Lay out the paver pattern to create voids between the pavers-- the size and configuration of the joints determine the capacity for stormwater drainage.
- Use coarse gravel grades for drainage areas and finer grades for pathways or driveways where people will walk. The finer grades are a more stable surface for foot traffic.
- Do not use bedding sand, which has a slow filtration rate, to fill in the voids in permeable paving systems. Crushed stone should be used in the voids and as the base course for rapid drainage.
- Use a filter fabric or geotextiles under stone to keep it from compacting with the soil base.

Sources:

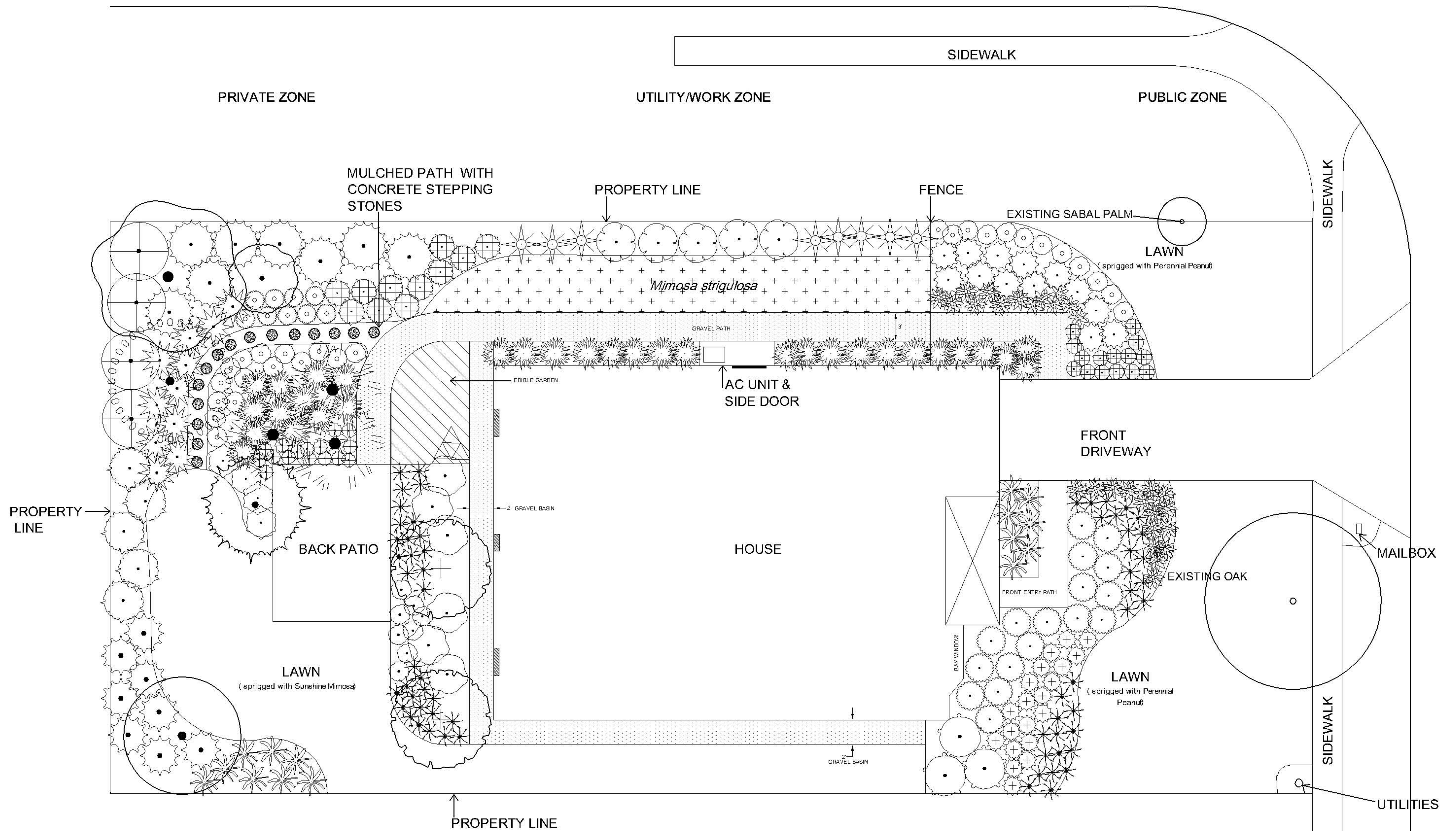
- Calkins, M. (2009). *Materials for sustainable sites: A complete guide to the evaluation, selection, and use of sustainable construction materials*. Hoboken, NJ: John Wiley & Sons, Inc.
- Smith, C., Clayden, A. & Dunnett, N. (2008). *Residential landscape sustainability: A checklist tool*. Oxford, UK: Blackwell Publishing Ltd.
- Sovinski, R. (2009). *Materials and their applications in landscape design*. Hoboken, NJ: John Wiley & Sons, Inc.
- Thompson, J.W. & Sorvig, K. (2008). *Sustainable landscape construction: a guide to green building outdoors*. Washington, DC: Island Press

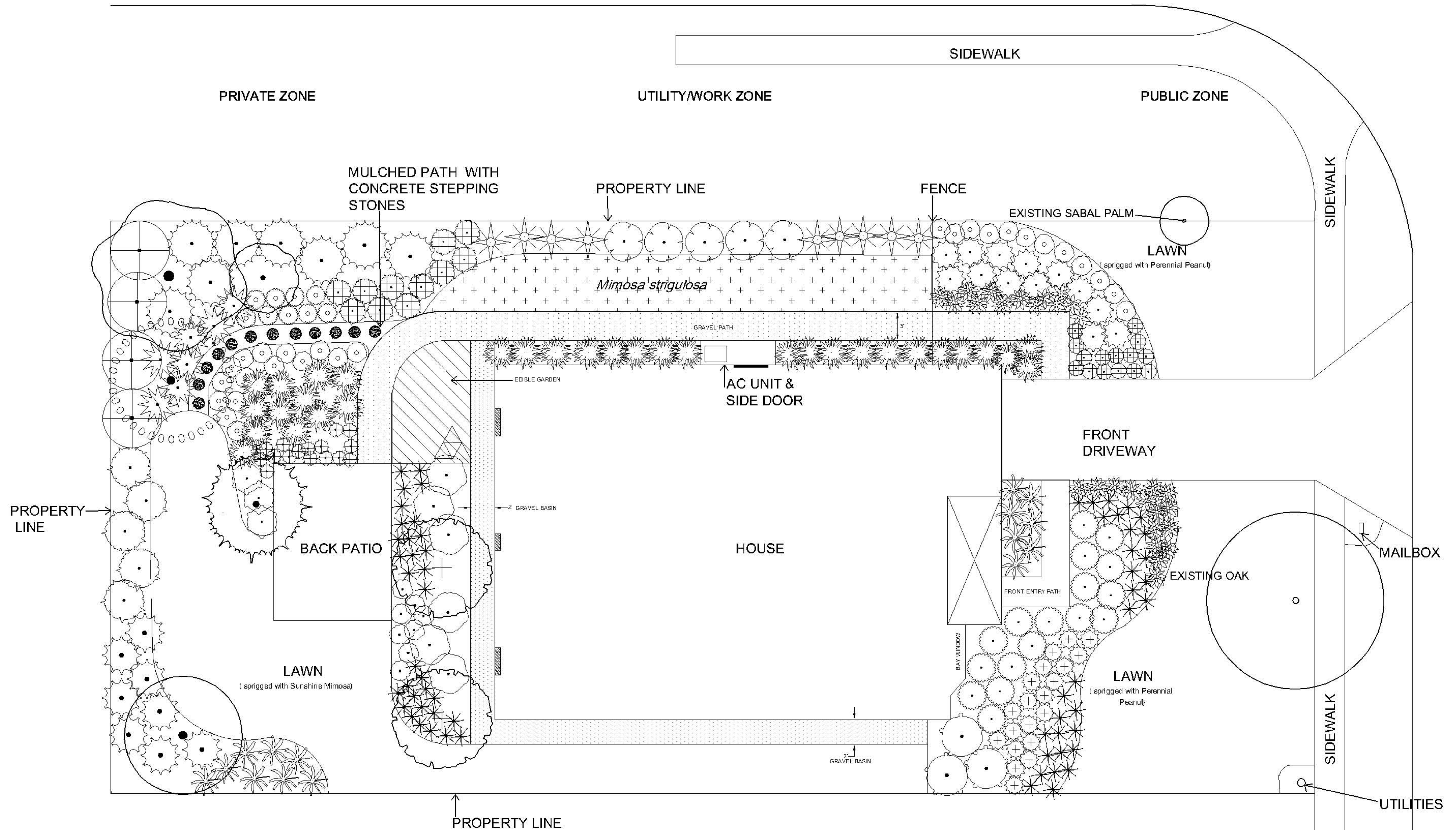


Landscaping on a Budget

Option 1

- remove sidewalk beds
- 1714 square feet of sod for entire yard
- 2488 square feet of planted bed for entire yard





Landscaping on a Budget

Option 3

- remove sidewalk beds
- replace plant material in side yard with *Mimosa strigulosa* (279 sq. ft.)
- edge Mimosa strigulosa (111.5 linear feet)
- remove Sabal Palms by the patio
- 2158 square feet of planted bed entire yard
- 1759 square feet of sod for entire yard

Sources

UF/IFAS (2007) A Guide to Florida-Friendly Landscaping: Florida Yards and Neighborhoods Handbook.
fyn.ifas.edu/materials/handbook.pdf

EDIS Publications

1. Black, R., Gilman, E., Knox, G. Ruppert, K. (1994). ENH103/MG251: Mulches for the landscape. edis.ifas.ufl.edu/MG251
2. Clark, M. & Acomb, G. (2008) Cisterns/Rain Barrels. <http://hillsborough.fyn.ifas.ufl.edu/RainBarrels>
3. Duryea, M. (2000). FOR80/FR079: Landscape Mulches; What are the choices in Florida. edis.ifas.ufl.edu/FR079
4. Garner, A., Stevely, J, Smith, H., Hoppe, M., Floyd, T. & Hinchcliff, P. (2001). SP191. A Guide to Environmentally Friendly Landscaping: Florida Yards and Neighborhoods Handbook. edis.ifas.ufl.edu/SP191
5. Gilman, E. & Partin, T. (2007) ENH1056/EP309: Chapter 6— Design Solutions for a More Wind-Resistant Urban Forest. edis.ifas.ufl.edu/ENH1056
6. Gilman, E. & Black, R. (2005). CIR853/MG087: Pruning landscape Trees and Shrubs. edis.ifas.ufl.edu/MG087
7. Gilman, E. & Sadowski, L. (1998). ENH1060/EP313: Selecting Quality Trees from the Nursery. edis.ifas.edu/EP313
8. Gilman, E. (2003). ENH856/EP112: Specifications for Planting Trees and Shrubs in the Southeastern US. edis.ifas.edu/EP112
9. Gilman, E. (1998). ENH857/EP113: Irrigating Landscape Plants During Establishment. edis.ifas.edu/EP113
10. Haley, M., Dukes, M, Miller, G., and Haman, D. (2005) Home Irrigation and Landscape Combinations for Water Conservation in Florida. edis.ifas.ufl.edu/AE287
11. Hansen, G. (2009). ENH1110/EP374: Design Strategies for a Sustainable Home landscape. [edis/ifas/edu/EP374](http://edis.ifas.edu/EP374)
12. Hansen, G. (2009). ENH1112/EP375: Landscape Design: Ten Important Things to Consider. edis/ifas/edu/EP375
13. Meerow, A., and Black, R. (2003). EES43/EH143: Envirosclaping to conserve energy. edis.ifas.ufl.edu/EH143
14. Momol, T., Marois, J., Pernezny, K., & Olson, S. (2004) PP-193. Integrated Disease Management for Vegetable Crops in Florida. edis.ifas.ufl.edu/PP193
15. Shober, A. & Mylavarapu, R. (2009). SL281/SS494: Soil Sampling and Testing for the Home landscape or Vegetable Garden. edis/ifas.edu/SS494
16. Smith, H & Capinera, J. (2005) ENY-822. Natural Enemies and Biological Control. edis.ifas.ufl.edu/ENY-822
17. Stephens, J.M., Park Brown, S., Treadwell, D., Webb, S., Gevens A., Dunn, R. A., Kidder, G., Short, D., Simone, G. W. (2004) SP 103/VH021. Florida Vegetable Gardening Guide. [Edis.ifas.ufl.edu/SP 103](http://Edis.ifas.ufl.edu/SP_103)