

National Wildlife Federation Habitats Management Plan Jordan Oaks (Apex, NC) 02/27/2025



Prepared
by

hoams[®]
Community Association
Maintenance Manuals



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Please contact tmhabitats@nwf.org for questions on maintenance and management.

For more information on wildlife habitats and certification, visit nwf.org/garden and for more information on monarchs, visit <https://www.nwf.org/Monarch-Butterfly>.

INTRODUCTION

About the National Wildlife Federation and Taylor Morrison Partnership

The National Wildlife Federation and Taylor Morrison Home Corporation are teaming up to restore and protect wildlife habitat in the homebuilder's communities nationwide. Together we will engage staff, residents and the public in accessible and effective wildlife habitat stewardship and conservation.

The purpose of the National Wildlife Federation certification for Taylor Morrison communities is to improve and preserve these critical natural areas for the benefit of wildlife and to enhance the enjoyment of residents and the community's sense of pride and ownership. This plan is designed for Habitat Land Managers, Taylor Morrison staff, homeowners association staff and maintenance contractors.

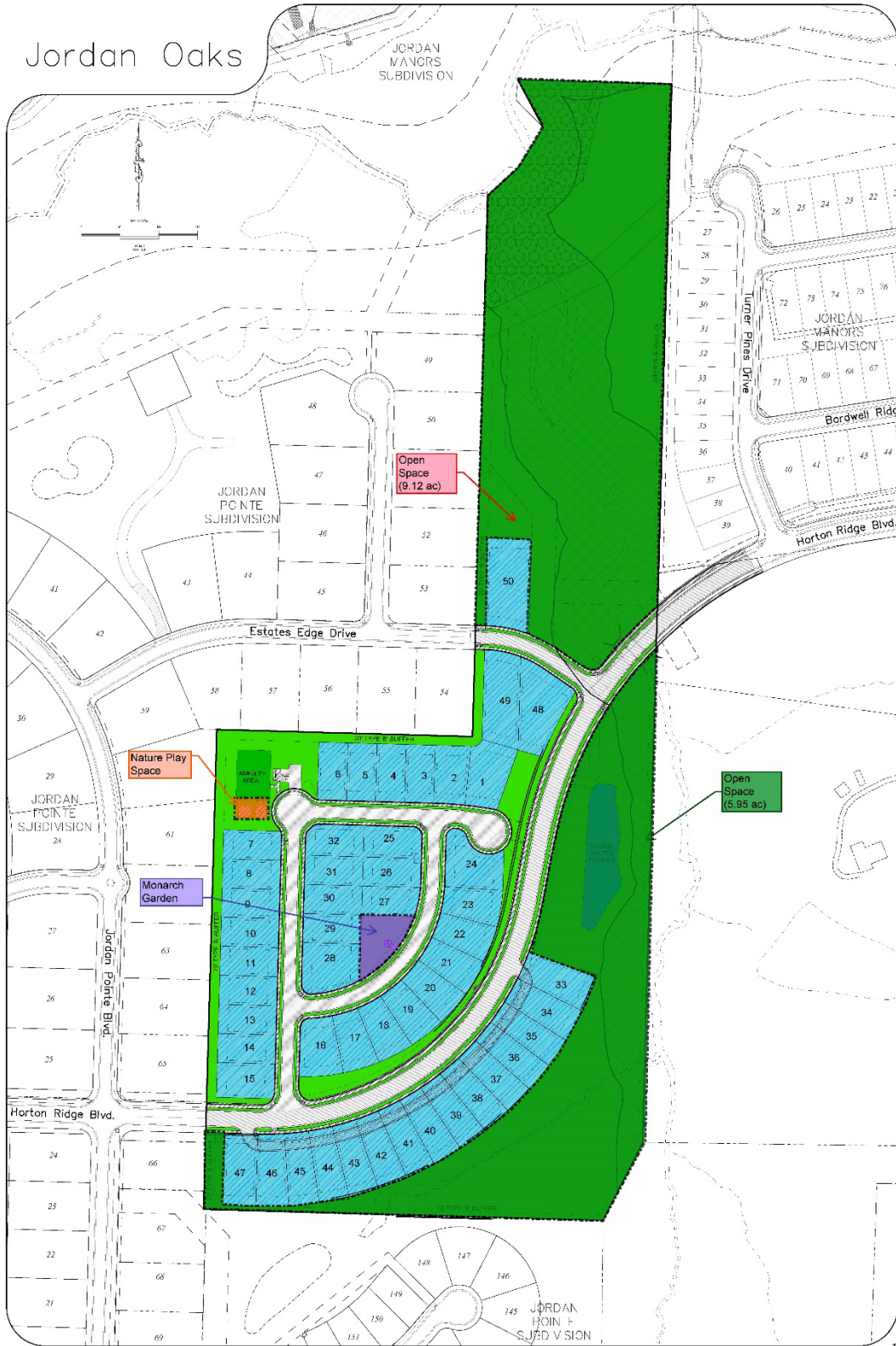
About Jordan Oaks

Jordan Oaks is a quaint, 50-lot single family home community nestled in the desirable suburban town of Apex, North Carolina. The community has direct access to NC 540 and US 1, to take you to the area's best shopping and dining establishments. Students living at Jordan Oaks will attend the highly rated Wake County Schools, which has earned "A" ratings in academics, teachers and college prep., including Scott's Ridge Elementary School, Apex Friendship Middle School, and Apex Friendship High School. Recreational opportunities include hiking and swimming at Jordan Lake, the Apex Farmers Market, and golf at Knights Play Golf Center, as well as playgrounds, hiking, walking trails, fishing, bicycling, mountain biking, boating, disc golf and volleyball at the 680-acre Harris Park.

Overview of Certified Areas

The Jordan Oaks community has three NWF certified areas, including a Certified Monarch Garden, a Certified Natural Open Space™, and a Certified Nature Play Space™.

Map of Community with Certified Areas Noted



MAINTENANCE STRATEGIES

General Maintenance Strategies

Taylor Morrison habitats provide wildlife with food, water, cover, and places to raise their young. Managing these habitats sustainably will ensure that it is attractive and healthy for wildlife, plants, and people.

Once established, new plantings are designed to be drought tolerant and low-maintenance. However, it's important to note that there's no such thing as a maintenance-free landscape and the habitats will require regular inspections and seasonal maintenance.

- Refer to your community's plant lists and weed identification guides to help you distinguish between intentional plants and invasive or unwanted plants (weeds). Do not plant invasive plant species. Group plants with similar needs (water, sun, etc.) for easier maintenance.
- Do not use weed barriers when installing native plants to ensure that plants can spread over time.
- Prevent erosion by maintaining vegetative cover and/or mulch, correcting drainage problems.
- Water plants regularly until fully established (2-3 seasons), especially during warm temperatures in the first season. Limit water use after plants are established.
- Manage the habitats using organic practices; always identify the pests before using any treatments. Chemical pesticides and non-organic fertilizers should never be used!
- Refer to your county or state's wetlands management regulations for specific guidelines to manage open water and wetlands habitats.

Please find maintenance strategies and a checklist for each certified habitat site below.

Natural Open Space™



Image 1: Certified Natural Open Space in Jordan Oaks (<https://tmhabitats.net/certified-open-spaces/entry/9920/>)

Habitat Types

Check all that apply:

- Woodlands
- Meadow/Grasslands
- Wetlands (Forested Wetland, Swamp, Marsh, Emergent/Seasonal Wetland)
- Open Water

Description

Bird species noted include cardinals, red-breasted robins, doves, and sparrows. Wildlife observed in the area consists of racoons and opossums. Maples trees, pine trees and gum










trees are present in the open space area. A formal environmental report was not made for this community.



Plant List

A plant list was not available for this open space.







Maintenance Checklist – Natural Open Space


Regularly/Monthly

	HABITAT TYPE	TASK	DESCRIPTION
<input type="checkbox"/>	All Habitats	 REMOVE	Remove litter from natural areas and pathways.
<input type="checkbox"/>	All Habitats	 INSPECT	Inspect plants for damage and dieback.
<input type="checkbox"/>	All Habitats	 REMOVE	Remove non-native plants from all habitats.
<input type="checkbox"/>	All Habitats	 CLEAN	Clean bird feeders regularly (approximately once every two weeks). Scrub off debris and use a diluted bleach solution to prevent the spread of disease.
<input type="checkbox"/>	 Grasses & Herbaceous Perennials/ Meadows	<u>MOW!</u>  DO NOT MOW	Mow an edge of no more than 2 feet along pathways. Inspect area before mowing to check for wildlife such as turtles or small mammals. <u>Do NOT mow</u> during periods when ground-nesting birds are breeding and building nests, no mowing before March - September 15 (check local guidelines)
<input type="checkbox"/>	 Trees & Shrubs/ Woodlands	PROTECT	Install fencing or cages around saplings or newly planted trees and shrubs to protect them from browsing by wildlife.
<input type="checkbox"/>	 Trees & Shrubs/ Woodlands	 LEAVE	Standing dead trees are known as “snags” and provide cover or serve as a nesting site for a variety of wildlife species. Leave snags standing in the habitat unless they pose a hazard to people. To reduce their danger to people, remove the upper limbs and leave the trunk.

	HABITAT TYPE	TASK	DESCRIPTION
<input type="checkbox"/>	 Trees & Shrubs/ Woodlands	 LEAVE	Leave rotting logs and woody debris in the habitat; they provide cover for many wildlife species, including insects, birds, turtles, and small mammals. Consider gathering fallen branches to create a brush pile.

Yearly/Seasonally

	TASK	DESCRIPTION
Spring		
<input type="checkbox"/>	 SEED/PLANT	Reseed or plant native grasses and herbaceous perennials in gaps in the habitat.
Summer		
<input type="checkbox"/>	 WATER	Check soil moisture and water plants during prolonged dry spells.
<input type="checkbox"/>	 INSPECT	Inspect bird baths and water dishes; refill with fresh water.
Fall		
<input type="checkbox"/>	 LEAVE	Leave the leaves: do not remove leaf litter from open space habitats. Fallen leaves add nutrients to the soil as they break down and provide sources of food and cover to wildlife. In addition, many animals overwinter in leaf litter, including lizards, box turtles, butterflies, and moths.
<input type="checkbox"/>	 LEAVE	Leave grasses, plant stems, leaves, and seed heads on plants, do not cut back or remove . These plant materials provide food, cover, and nesting sites for insects and other wildlife species during fall and winter.
<input type="checkbox"/>	 SEED/PLANT	Reseed or plant grasses and herbaceous perennials in gaps in the habitat.

Winter		
□	 CLEAN	<p>Nesting boxes can be cleaned out at the end of the season when there is no longer any breeding activity. Remove the nesting material and scrub the inside with a mild detergent and water.</p>

Monarch Habitat/Pollinator Garden



Image 2: Certified Monarch Habitat/Pollinator Garden in Jordan Oaks
(<https://tmhabitats.net/certified-monarch-gardens/entry/9616/>)

Description

This 0.15-acre Certified Monarch Habitat is located in the center of the community. Additional milkweed is planted adjacent to the Nature Play Space™.

Plant List






Find a full list of plant species below.

the growing season. Once established, the plantings are drought tolerant and low-maintenance. However, it's important to note that there's no such thing as a maintenance-free garden and the plantings will require regular inspections and seasonal maintenance.



- Refer to your community's plant lists and weed identification guides to help you distinguish between intentional plants and unwanted plants (weeds).
- Water plants regularly until fully established, especially during warm temperatures in the first season.
- The garden also includes **water sources**: puddling areas and puddling dishes for butterflies. These are easy to maintain. For the puddling areas, simply keep them moist and don't allow standing water to pool up, which will attract mosquitoes.
- **Eliminate the use of synthetic pesticides, herbicides, and fertilizers in the monarch habitat/pollinator garden.** Non-chemical, organic gardening practices ensure that the Monarch Habitat/Pollinator Garden is a healthy, safe place for wildlife, families, and pets.












Maintenance Checklist - Monarch Demonstration Garden

Regularly/Monthly

	TASK	DESCRIPTION
<input type="checkbox"/>	 REMOVE	Remove debris and litter from planting beds and pathways.
<input type="checkbox"/>	 INSPECT	Inspect plants and gardens for damage, dieback, and weeds.
<input type="checkbox"/>	 HAND REMOVE	Remove non-native and unwanted plants ("weeds") from the garden beds by hand.
<input type="checkbox"/>	 INSPECT	Inspect butterfly puddling areas; don't allow standing water to pool up.
<input type="checkbox"/>	 WATER	Check soil moisture and water plants during prolonged dry spells.

Yearly/Seasonally

	TASK	DESCRIPTION
Spring		
<input type="checkbox"/>	 PRUNE	Once the spring temperatures have consistently reached 50 degrees or above, cut back perennials and ornamental grasses to approximately 12 inches.
<input type="checkbox"/>	 INSPECT	Inspect and test the irrigation system, if applicable.

	TASK	DESCRIPTION
<input type="checkbox"/>	 DIVIDE	Divide perennials and native grasses; replant to fill in gaps throughout the garden.
<input type="checkbox"/>	 REMOVE	Remove non-native and unwanted plants (weeds) from the garden beds.
<input type="checkbox"/>	 PLANT	Replace any native plants or shrubs that do not emerge from winter freeze.
<input type="checkbox"/>	<input type="checkbox"/> PLANT	Add annual flowering plants to the garden for color, if desirable.
Summer		
<input type="checkbox"/>	 WATER	Water plants during prolonged dry periods.
<input type="checkbox"/>	 REMOVE	Remove non-native and unwanted plants. Plants grow vigorously during summer months, be sure to remove weeds by hand before they reproduce.
<input type="checkbox"/>	 INSPECT	Inspect butterfly puddling areas.
Fall		
<input type="checkbox"/>	 DIVIDE	Divide perennials and native grasses; replant to fill in gaps throughout the garden.
<input type="checkbox"/>	 REMOVE	Continue to remove non-native and unwanted plants from the garden by hand.
<input type="checkbox"/>	 LEAVE	Leave grasses, plant stems, leaves, and seed heads in the garden, do not cut back or remove . These plant materials provide food, cover, and nesting sites for insects and other wildlife species during fall and winter.
<input type="checkbox"/>	 SEED/PLANT	Reseed or plant grasses and herbaceous perennials in gaps in the habitat.
Winter		
<input type="checkbox"/>	 INSPECT	Inspect plantings during their dormant period. Allow grasses, perennials, and plant material to remain in the garden through winter.

	TASK	DESCRIPTION
<input type="checkbox"/>	 INSPECT	Inspect garden infrastructure and schedule any maintenance projects.

Nature Play Space™



Image 3: Certified Nature Play Space™ in Jordan Oaks (<https://tmhabitats.net/certified-nature-play-spaces/entry/9541/>)

Description

The Nature Play Space™ at Jordan Oaks offers exciting play opportunities to both children and adults. Lush beds of native plants greet families entering the space. A central, two-seat swing creates an opportunity for active, social play, as children challenge each other to see who can swing the highest. Meandering stepping stone pathways offer opportunities for further exploration, guiding young adventurers toward spaces to dig for treasure in the gravel play area, make discoveries in the sensory nook, and test balancing skills on logs and stumps. Those needing a break from the action can head to the nearby pavilion or open grassy area with a book from the lending library. With so much to do, Jordan Oaks has something for everyone to enjoy.

Design

Please refer to attachments: Nature Play Space™ Concept Design and Nature Play Space™ Construction Documents.

General Maintenance

Nature Play Space™ environments are living places, dynamic, and ever changing. They are subject to wear and tear and require consistent care, inspections, and maintenance to allow children to safely engage with them. Securing ongoing maintenance for the Nature Play Spaces should be included in the project overall planning. Items will need to be updated or replaced over time. Maintenance plans and schedules, risk-benefit assessments, inspection programs, maintenance records, and evaluation and reviews can support the maintenance of Nature Play Spaces. The following are typical materials found throughout Nature Play Spaces. Refer to the list below for considerations for what to expect and recommendations for care.

Disclaimer: Playground materials and equipment warranties and maintenance provided by the manufacturer to Taylor Morrison.

Certified Safety Playground Inspections

Play Equipment

Please refer to repair information and warranty from manufacturer:

Playgroundequipment.com

10859 East Washington Street, Suite 200

Indianapolis, IN 46229-2615

1-800-667-0097

<https://www.playgroundequipment.com/>







Materials Checklist



Check all that apply:

- Canvas
- Concrete
- Earth
- Fabric and Textile
- Crusher Fines
- Lumber
- Metal
- Mulch
- Natural Play Equipment
- Rock and Stone
- Rubber
- Sand
- Water Features
- Signage

Maintenance Checklist - Nature Play Space

Regularly/Monthly

	TASK	DESCRIPTION
<input type="checkbox"/>	 ROUTINE VISUAL INSPECTIONS	Identification of hazards from vandalism, use or weather conditions. Inspect surfaces, structures, and pathways for conditions that may harm children, including sharp edges, splinters, and trip hazards. Make sure poured in place (PIP) surfacing is intact. Look out for tripping hazards, like exposed concrete footings.
<input type="checkbox"/>	 OPERATIONAL INSPECTION	Inspect surfaces, structures, and pathways for damage or deterioration. Assess whether materials can be repaired or patched, or must be replaced. Check that protective surfacing extends at least 6 feet in all directions from play equipment as recommended by the landscape architects, suppliers, or installers.
<input type="checkbox"/>	 ANNUAL INSPECTION	Technical check of equipment or features for long-term wear. This can be carried out by an independent specialist (Certified Playground Safety Inspector - CPSI).
<input type="checkbox"/>	 PLANTS & VEGETATION	Tree maintenance requirements should be based on arborist advice. Inspection of plant material for pest and disease control. Annual pruning - timing and type dependent on variety for trees and shrubs. Ornamental grasses should only be trimmed in early spring. Leave the dried seed heads on plants during fall and winter. Leave the leaves!
<input type="checkbox"/>	 CLEAN	Periodically rinse off or clean surfaces, structures, and materials.
<input type="checkbox"/>	 REPLENISH	Make sure surfaces around playground equipment are maintained with required minimum of wood chips, mulch, sand, pea gravel or mats made of safety-tested rubber or rubber-like materials per playground manufacturer recommendations. Replenish or refill mulch, sand, soil, or compost if used in garden beds, pathways, or digging areas.

	TASK	DESCRIPTION
<input type="checkbox"/>	 REAPPLY	Reapply paint or sealant to surfaces and materials, as needed.
<input type="checkbox"/>	 PLANTS & GREEN SPACE	(See Open Space Habitat and Monarch Habitat/Pollinator Garden Maintenance above for maintenance.)

Nature Play Space: Maintenance Issues

Fine Crushed Stone

Where it may be found in the Nature Play Space: Paths, gathering areas, outdoor classrooms

Commonly used for ground surfacing in gathering areas and paths, fine crushed stone is an excellent material for durability, ease of maintenance, and permeability. Compacted properly, it is appropriate for ADA access, and in some cases larger perennials and trees can be planted in it directly.

- Overtime in less trafficked areas it will become necessary to hand-pull weeds.
- Fine crushed stone can be gently raked of debris.
- Replenish with a top-dressing as needed to maintain the ideal depth of 4".

Metals

Where it may be found in the Nature Play Space: *Shade structures, sheds, pergolas, wheeled toys, acoustic and music play, kitchen play elements, swings, fencing*

Similar to rock, stone, and concrete, metals in the Nature Play Space are durable and relatively maintenance free.

- Susceptible to rust, some metals may need to have a fresh coat of paint applied periodically.
- Make sure that fasteners don't have sharp snags, that they are inaccessible where possible, and not coming loose.
- Routinely check fencing and sheds for damage or safety hazards.

Mulch

Where it may be found in the Nature Play Space: *Fall and use zones, planting beds*

Mulch used for pathways can be similar to mulch used in garden beds, but for fall/use zones around climbing and play structures, licensing and play standards require at least 9" of playground mulch or engineered wood fiber. This can be found at a local landscape materials

distributor, and/or some school districts may provide this at no cost to a school. For ADA accessibility, engineered wood fiber is specifically designed to allow for wheelchair access. In both instances of mulch used for paths or in use zones, landscape fabric should be used to discourage weed growth.

- Weeds may need to be pulled by hand.
- Replenish as necessary to maintain depth.

Natural Play Elements

- Where it may be found in the Nature Play Space: *Natural loose parts, logs, log stumps, tree cookies*

Natural play elements are subject to organic processes of decay and breakdown. The typical life expectancy of wooden elements in the Nature Play Space is 10 years. Some natural loose parts are easiest to simply discard or compost where possible, switching them out for fresh, seasonal materials gathered from the nature play space. Logs and stumps can be set aside from tree work done on site or acquired from a local tree company. To extend the life of wooden components such as logs, stumps, and materials used for natural construction, a water-based sealant or beeswax product should be applied.

- For safety, be sure to sand or bevel sharp edges.
- Keep an eye out for splintering components.
- Reapply sealant every couple of years. Follow manufacturer directions for use.

Plastic, PVC, & Composite Materials

Where it may be found in the Nature Play Space: *Acoustic panels, artificial turf, music & art walls, manufactured tunnels, outdoor storage, tables, loose parts, raised water play tables, plastic edger*

- Plastics in the Nature Play Space™ will break down over time due to exposure to the sun. Care should be taken to see that plastic elements are not brittle or beginning to splinter and crack.
- They can be easily washed and sanitized if needed, or simply rinsed off.

Rock and Stone

Where it may be found in the Nature Play Space: *Dry creek beds, boulders, stepping stones, flagstone patios or steppers, rock mulch*

- Rock and stone are some of the longer lasting materials in the nat, and are critical in achieving site naturalization. For childcare centers, boulders with a finish height greater than 18" from grade require a fall zone.
- Ensure that stepping stones or boulders are solidly placed, and do not wiggle when stepped on posing a risk hazard.

- While they have been standing the geologic test of time for ages and do not require much maintenance, rock and stone may periodically need to have dust and debris rinsed or leaves removed.
- Use rock mulch sparingly, it's hard on tools, and difficult to work around when planting.
- For areas serving very young children, consider smooth varieties for boulders.

Inappropriate Safety Surfacing

- Concrete
- Carpet not tested to ASTM F1292
- Blacktop / Asphalt
- Packed Earth / Dirt
- Grass
- CCA treated wood mulch

APPENDIX A: Signage

The National Wildlife Federation Certified Wildlife Habitat sign indicates that a landscape or garden has been officially certified as a National Wildlife Federation Certified Wildlife Habitat® and that it provides the essential elements needed for healthy and sustainable wildlife habitats: food, water cover, and places for wildlife to raise their young.

Certified Wildlife Habitat signs can help create a sense of place and serve as a focal point in Taylor Morrison habitats. They can also foster a sense of pride and encourage community members to interact with the spaces and observe the relationships between people, plants, and wildlife.

Follow these guidelines to find the best placement of Certified Wildlife Habitat signs in Taylor Morrison landscapes.

DO

- Place signs near the front or edges of planting beds, visible to people passing by.
- Install signs in habitats where people can engage with the surroundings or gently interact with plants.
- Install signs in habitats that are visually appealing, near flowering perennials, low-growing grasses, or groundcovers.

DON'T

- Place signs near plants with foliage or flowers that will obscure the sign as the plant grows throughout the season.
- Install signs in the middle of a lawn or pathway.
- Place signs near equipment or large structures.
- Place signs in habitats with large gaps or unfinished sections.

Example of *effective* Certified Wildlife Habitat Sign Placement:



Example of *ineffective* Certified Wildlife Habitat Sign Placement:



APPENDIX B: Checklist for Hiring a Landscape Maintenance Contractor and Maintaining Certification

Taylor Morrison and National Wildlife Federation (NWF) have teamed up to restore and protect wildlife habitat in Taylor Morrison communities nationwide. Together we are engaging staff, residents and the public in accessible and effective wildlife habitat stewardship and conservation.

All National Wildlife Federation Certified Wildlife Habitats® provide food, water, cover, and places to raise their young. They must be sustainability maintained to enhance biodiversity, reduce their ecological footprint, and lower costs. Taylor Morrison communities will have at least one of the following certified spaces which will be outlined in their Homeowners Association (HOA) management and maintenance plan:

- Certified Monarch Habitat/Pollinator Garden
- Certified Natural Open Space™
- Certified Nature Play Space™
- Other natural areas and sustainability features to be maintained

The landscape management company plays a critical role in supporting the health and biodiversity of Taylor Morrison communities, especially these certified areas, and will be your partner in sustainability.

Before services are contracted:

Each HOA has created an actionable landscape management and maintenance plan based on the certified areas and other sustainability features of the community's landscapes. Please share HOA landscape management and maintenance plan with potential contractors.

In general, any landscape maintenance contractor should be well-versed in:

- Non-chemical (organic) management practices
- Maintenance of perennial native plants
- Water conservation methods
- Exotic and invasive species control

It's important that the landscape maintenance contractors are selected based on their:

- Understanding of the habitat features in your community
- General knowledge of native plants and ecology
- Alignment with the specific conservation practices and sustainable products

Use the following checklist to guide your interviews with prospective contractors.

1. Native Plants - Trees, Shrubs, Grasses, and Herbaceous Perennials

Because of their value to wildlife, native plants are the foundation of Taylor Morrison certified habitats. Native plants are required for the Taylor Morrison community to maintain certification as a habitat. The landscape contractors must incorporate organic maintenance practices and should have a general knowledge of native plants and weeds in your region. Refer to the HOA habitat management plan to find specific maintenance practices for each habitat type.

If new plants are installed, the landscape maintenance company must select native plants from the *Native Plant List* (attached) and avoid plants on the *Do Not Plant* list (attached) to select species.

Provide the landscaping company with guidelines for mowing, snow removal, pavement-to-soil ratios, weeding, watering, mulching, and use of native plant species.

Discuss the following considerations with the landscape contractors when discussing each habitat type:

Woodlands: Because of their size, long life, and positive impact on their environment, trees cannot be easily replaced. Therefore, they should be located where they will thrive for the long-term.

- The landscaping contractors must be able to assess tree health and must employ safety procedures when caring for trees. Do they understand proper planting and pruning techniques to ensure that trees stay healthy?**

Meadow/Grasslands: If certain plants dominate these habitats over time, they must be thinned to allow other species to spread and to ensure a diverse plant community. If gaps form in the landscape, these areas can be planted or re-seeded with plants listed in the Native Plant List (attached). Refer to the habitat management plan for specific mowing practices.

- The native grasses and herbaceous perennials that make up meadows and grassland sites should not be cut back or mowed after blooming and should be managed for wildlife. Do the landscaping contractors understand meadow and grassland mowing practices?**

Wetlands (Forested Wetland, Swamp, Marsh, Emergent/Seasonal Wetland): Refer to local regulations for specific wetland management practices.

- Are the landscaping contractors familiar with local wetland management regulations?**

Monarch Pledge and Gardens: The majority of the plants in the monarch gardens are herbaceous perennials, including native milkweed species, and should not be cut back or removed after blooming. Leave dried seed heads on the plants during fall and winter. These plants will attract butterflies and host plants will have caterpillars on them. If new plants are added to these habitats, the contractors should refer to the *Native Plant List* and the *Do Not Plant* list (attached) to select native species that will thrive in these sites. Knowledge of seasonal annuals that provide color and nectar.

- Are the landscaping contractors familiar with native milkweed species?**

2. Soil Health

SOIL STRUCTURE (soil amendments, compaction, compost, fertilizers, soil testing): Leave the Leaves! Soil structure and organic makeup impact the amount of water retention, permeability, water infiltration, drainage, and aeration needed to make plants grow. A soil test and amendments should be added to all new our revised planting area to improve the soil's physical properties.

- Are the landscaping contractors trained to understand comprehensive soil management services including fertilizer applications (when/if needed), amendments, composting, soil testing, and leaf management?**

3. Safety Requirements and Codes

Although your landscaper has probably worked in your region, no two properties are alike. Outline the specific organizational safety practices that must be maintained at your site. Include community-wide standards for your property in your plans.

- Are the landscaping contractors familiar with federal, regional, and community safety compliance mandates?**

4. Irrigation Systems

If your certified habitats have irrigation systems, be sure to communicate with the landscaping management company about how to maintain them efficiently. Describe the current irrigation methods and how you plan to conserve water and reduce waste; outline the methods used to monitor leaks and water flows. Which parts of your water system are managed remotely? What is your plan for irrigation system inspection and maintenance?

- Are the landscaping contractors familiar with the following water-saving practices and systems?**

- **Rain shut-off devices**
- **Flow sensors**
- **Automatic irrigation systems**
- **Low-flow emitters like drip and soaker systems**
- **Evapotranspiration-based controllers**
- **Low-water-use or drought-tolerant plants**
- **The management and re-use of stormwater**
- **Water loss and application times (city, county and town restrictions)**
- **Irrigation heads and pipes that maybe be leaking**

5. Recycling and Composting

It is important for the landscaping management practices to create as little impact as possible. Discuss or make plans for the landscaping contractors to recycle or dispose of waste and debris in an environmentally-friendly manner. If your property already has recycling policies, make sure the landscapers incorporate these practices into their plans.

- Are the landscaping contractors familiar with composting systems or reusing materials (mulch, rocks, logs, etc.), if applicable?**

6. Establishment Period Special Needs

Newly-installed plants require extra watering, weeding, and mulching in order to develop strong root systems and become established in landscapes. Weed barriers should never be used in these habitats to ensure that plants can spread out over time. This establishment period can take anywhere from two to five years, but if it's done well, the payoff will last for decades. Discuss the specific needs of plants, drainage, and community use with the landscaping company. Refer to the HOA habitat management plan to find specific maintenance practices for each habitat type.

- Do the landscaping contractors understand the different management practices of newly-established landscapes?**

7. Pest, Disease, and Weed Management

The certified habitats should be regularly monitored for pests, diseases and weeds. Many weeds or invasive species have few or no natural enemies to keep their populations in balance with the rest of the local ecosystem and will compete with native species for sunlight, water, and nutrients. The landscapers must first be able to correctly identify plants as weeds or invasives and then determine the best way to remove and dispose of them. They should keep a log of control methods and results. Pull weeds as soon as you recognize

them. It is best to remove weeds when they are small and before they flower or set seed. After weeds or invasives are removed, it is important to replant these areas with native species as soon as possible.

There will inevitably be some damage from pests and weeds in organically managed landscapes, so set your tolerance thresholds and plan your recourse once those thresholds are exceeded.

Herbicides and pesticides will not be used in certified monarch habitats, hand-weeding may be required until the garden is well-established.

- Are the landscaping contractors familiar with pests, diseases, and weeds and management strategies?**

ATTACHMENTS

Division Native Plant List

Division Do Not Plant List

Tropical Milkweed Fact Sheet

Nature Play Space™ Concept Design

Nature Play Space™ Construction Documents



























**Plant List Recommendations for Monarch Gardens
Communities near Raleigh, NC**

This area is located in the Piedmont within the Eastern Temperate Forests Ecoregion.

The following plant recommendations can be used to achieve the 80% native plant requirement to obtain Monarch Garden Certification.

Plant Category	Common Name Scientific Name	Bloom Time	Bloom Color	Height	Spread	Light Conditions	Cover	Host	Nectar/ Pollen	Wildlife Value
Milkweed *Required	<i>Asclepias incarnata</i> Swamp Milkweed	summer	pink	3-4'	2-3'			✓	✓	
	<i>Asclepias syriaca</i> Common Milkweed	summer	pink	4-8'	1'			✓	✓	
	<i>Asclepias tuberosa</i> Butterfly Milkweed	summer	orange/ yellow	1-3'	0.5- 1.5'			✓	✓	
	<i>Asclepias verticillata</i> Whorled Milkweed	summer	purple/ cream	1-2.5'	1-2'			✓	✓	
Flowering Perennials	<i>Amsonia tabernaemontana</i> Eastern Bluestar	spring	blue	2.5-3'	2-3'			✓	✓	
	<i>Aquilegia canadensis</i> Eastern Red Columbine	spring	red/ yellow	1-2.5'	1-1.5'			✓	✓	
	<i>Baptisia tinctoria</i> Horseflyweed	spring- summer	yellow	2-3'	2-3'			✓	✓	
	<i>Blephilia ciliata</i> ^ Downy Woodmint	spring- summer	purple/ blue	1-2.5'	0.75- 1.5'				✓	
	<i>Conoclinium coelestinum</i> Blue Mistflower	summer- fall	blue/ purple	2-3'	2-3'			✓	✓	

<i>Coreopsis sp. (lanceolata, auriculata, verticillata)</i> Tickseed – Lance-Leaved, Lobed, Whorled	spring-summer	yellow/orange	0.5-4'	0.5-1'				✓	
<i>Echinacea purpurea</i> Purple Coneflower	summer	rose/purple	2-4'	1.5-2'			✓	✓	
<i>Eupatorium perfoliatum</i> Boneset	summer-fall	white	3-5'	3-4'			✓	✓	
<i>Eurybia divaricata/Aster divaricatus</i> White Wood Aster	summer-fall	white/yellow	2-3.5'	3-4'				✓	
<i>Eutrochium fistulosum</i> Joe-pye weed	summer	pink/purple	4-7'	2-4'			✓	✓	
<i>Fragaria virginiana</i> Virginia Strawberry	spring	white	0.5-1'	1-2'			✓	✓	
<i>Geranium maculatum</i> Wild/Spotted Geranium	spring	pink	1-3'	1-1.5'			✓	✓	
<i>Helenium autumnale</i> Sneezeweed	summer-fall	yellow/brown	2-4'	1-2'			✓	✓	
<i>Helianthus sp. (angustifolius, divaricatus, microcephalus, decapetalus)</i> Sunflower – Narrow-leaved, Woodland, Small Woodland, Thinleaf	summer-fall	yellow	3-7'	1-3'			✓	✓	
<i>Heliopsis helianthoides</i> ^ Oxeye Sunflower	summer	yello	3-6'	2-4'			✓	✓	
<i>Hibiscus moscheutos</i> Marsh Hibiscus/ Rose Mallow	summer	pink/white/red	4-6'	2-4'			✓	✓	
<i>Liatris spicata</i> Blazing Star	summer-fall	purple/pink/rose	2-4'	1-1.5'			✓	✓	

<i>Lobelia cardinalis</i> ^ Cardinal Flower	spring-summer	red	3-5'	1'				✓	
<i>Monarda fistulosa</i> Wild Bergamot/ Horsemint	spring-summer	lavender	2-4'	2'			✓	✓	
<i>Monarda punctata</i> Spotted Bee Balm (often annual)	summer-fall	pink/ white/ yellow	1-2.5'	0.75-1'				✓	
<i>Oenothera fruticosa</i> Narrowleaf Evening Primrose	summer	yellow	1.5-3'	1-1.5'				✓	
<i>Penstemon australis</i> ^ Pink Beardtongue	spring-summer	pink/ white	1-3'	1'			✓	✓	
<i>Pityopsis graminifolia</i> Golden Aster/Silkgrass	summer-fall	yellow/ white	2-3'	1-5'			✓	✓	
<i>Pycnanthemum tenuifolium</i> Narrowleaf Mountain Mint	summer-fall	white	2-3'	2-3'				✓	
<i>Rudbeckia sp. (hirta, fulgida, laciniata)</i> Blackeyed Susan, Orange Coneflower, Cutleaf Coneflower	summer-fall	yellow	1.5-6'	1-2'			✓	✓	
<i>Salvia lyrata</i> ^ Lyreleaf sage	spring	blue/ purple	1-2'	0.5-1'				✓	
<i>Solidago sp. (odora, nemoralis, caesia, rugosa)</i> Goldenrod – Anise-scented, Gray, Wreath, Wrinkleleaf	summer-fall	yellow	1-5'	1.5-3'			✓	✓	
<i>Symphyotrichum sp. (laevis, cordifolius, patens, novibelgii)</i> Aster - Smooth Blue, Blue Wood, Late Purple, New York	summer-fall	blue/ purple	2-6'	1-2'			✓	✓	
<i>Symphyotrichum lateriflorum</i> ^ Calico Aster	summer-fall	white/ purple	2-3'	2-3'			✓	✓	

	<i>Verbesina alternifolia</i> Wingstem	summer-fall	yellow	4-6'	2-6'			✓	✓	
	<i>Vernonia noveboracensis</i> New York Ironweed	summer-fall	purple	4-7'	3-4'			✓	✓	
	<i>Viola pedata</i> Birdfoot Violet	spring	lavender /purple	0.25- 0.5'	0.25- 0.5'			✓	✓	
	<i>Zizia aurea</i> Golden Alexander	spring-summer	yellow	1-3'	1.5-2'			✓	✓	
Vines	<i>Gelsemium sempervirens</i> Carolina Jessamine	winter-spring	yellow	10-20'	20-30'		✓		✓	
	<i>Lonicera sempervirens</i> Trumpet Honeysuckle	summer	red	10-15'	3-9'		✓	✓	✓	
	<i>Passiflora incarnata</i> Purple Passionflower	spring-summer	lavender	5-20'	3'			✓	✓	
	<i>Vitis rotundifolia</i> Muscadine Grape	spring	white	30'	3'			✓		
Shrubs	<i>Alnus serrulata</i> Smooth Alder	spring	yellow/ brown	5-30'	5-10'			✓	✓	
	<i>Callicarpa americana</i> Beautyberry	spring-summer	pink/ white/ lavender	4-8'	3-6'			✓	✓	
	<i>Ceanothus americanus</i> New Jersey Tea	spring-summer	white	3-4'	3-5'			✓	✓	
	<i>Cephalanthus occidentalis</i> Buttonbush	summer-fall	white/ cream	6-20'	3-15'			✓	✓	
	<i>Cornus amomum</i> Silky Dogwood	spring	white	6-12'	6-12'			✓	✓	
	<i>Corylus americana</i> American Hazelnut	spring	white	10-16'	8-13'			✓		

<i>Hypericum prolificum</i> Shrubby St. John's Wort	spring	yellow	1-5'	1-4'			✓	✓	
<i>Ilex glabra</i> Inkberry	spring	white	4-12'	2-3'		✓	✓	✓	
<i>Ilex verticillata</i> Winterberry	spring	white	3-12'	3-12'			✓	✓	
<i>Kalmia latifolia</i> Mountain Laurel	spring	pink	6-20'	5-15'		✓	✓	✓	
<i>Lindera benzoin</i> Northern Spicebush	spring	yellow	6-12'	6-12'			✓	✓	
<i>Lyonia lucida</i> Fetterbush Lyonia	spring	red/ pink	3-6'	3-6'		✓	✓	✓	
<i>Myrica/Morella cerifera</i> Wax Myrtle	spring	white	10-20'	8'		✓	✓	✓	
<i>Rhus aromatica</i> Fragrant Sumac	spring	green/ yellow	2-6'	6-10'			✓	✓	
<i>Rhododendron arborescens</i> ^ Sweet Azalea	spring- summer	white/ pale pink	8-12'	8-20'			✓	✓	
<i>Rhododendron atlanticum</i> ^ Coast Azalea	spring	white/ pale pink	2-6'	2-5'			✓	✓	
<i>Rhododendron periclymenoides</i> Pinxterbloom Azalea	spring	pink/ white	3-6'	4-7'			✓	✓	
<i>Rhododendron viscosum</i> ^ Swamp Azalea	spring- summer	white/ pale pink	3-5'	3-5'			✓	✓	
<i>Rosa carolina</i> Pasture Rose	spring- summer	pink	3-6'	5-10'			✓	✓	

	<i>Rosa palustris</i> Swamp Rose	spring	pink/ white	5-7'	3-6'			✓	✓	
	<i>Rubus sp.</i> Blackberry	spring	white	3-6'	3-12'			✓	✓	
	<i>Vaccinium corymbosum</i> Highbush Blueberry	summer	white/ pink	6-12'	8-12'			✓	✓	
	<i>Viburnum dentatum</i> Arrowwood Viburnum	spring	white	8-12'	6-10'			✓	✓	
	<i>Viburnum prunifolium</i> black haw	spring	white	5-12'	6-12'			✓	✓	
Trees	<i>Acer rubrum</i> Red Maple	spring	red	40-60'	35-50'			✓	✓	
	<i>Aesculus pavia</i> Red Buckeye	spring	red/ pink	6-40'	12-15'			✓	✓	
	<i>Amelanchier arborea</i> Serviceberry	spring	white	15-25'	15-25'			✓	✓	
	<i>Betula nigra</i> River Birch	spring	tan/ green	50-75'	40-60'			✓		
	<i>Carpinus caroliniana</i> Musclewood	spring	orange	20-35'	20-35'			✓		
	<i>Carya glabra</i> pignut hickory	spring	yellow/ green	50-80'	25-40'			✓		
	<i>Chionanthus virginicus</i> Fringetree	spring	white	12-35'	12-20'			✓	✓	

<i>Cornus florida</i> Flowering Dogwood	spring	white	15-40'	15-30'			✓	✓	
<i>Fagus grandifolia</i> American Beech	spring	yellow	50-80'	40-80'			✓		
<i>Ilex opaca</i> American Holly	spring	white	20-50'	10-20'			✓	✓	
<i>Juniperus virginiana</i> Eastern Red Cedar	spring	green	50'	8-25'		✓	✓		
<i>Magnolia virginiana</i> Sweet Bay Magnolia	spring- summer	white	6-60'	10-35'		✓	✓	✓	
<i>Malus angustifolia</i> Southern Crab Apple	spring	pink	20-30'	20'			✓	✓	
<i>Pinus taeda</i> Loblolly Pine	spring	yellow	75-100'	30-50'		✓	✓		
<i>Populus deltoides</i> Eastern Cottonwood	spring	yellow/ green	50-80 (190)'	35-60'			✓	✓	
<i>Prunus americana</i> American Plum	spring	white	25-35'	15-25'			✓	✓	
<i>Prunus angustifolia</i> Chickasaw plum	winter- spring	white	5-30'	4-20'			✓	✓	
<i>Quercus sp.</i> Oak (several)	spring	yellow	varies by species	varies by species			✓		
<i>Robinia pseudoacacia</i> Black Locust	spring	white	30-50'	20-35'			✓	✓	











	<i>Salix nigra</i> Black Willow	spring	yellow/ green	30-60'	30-60'			✓	✓	
	<i>Taxodium distichum</i> Bald Cypress	spring	green/ brown	50-80'	20-45'			✓		
	<i>Tilia americana</i> American Basswood	spring	white/ yellow/ green	60-80'	40-60'			✓	✓	
	<i>Ulmus sp. (alata, americana, rubra)</i> Elm – Winged, American, Slippery	winter- spring	yellow/ green	65-120'	25-35'			✓	✓	
Grasses/ Grass-like	<i>Carex grayii</i> Gray's Sedge <i>C. rosea</i> Rosy Sedge <i>C. blanda</i> Eastern Woodland Sedge <i>C. radiata</i> Eastern Star Sedge	spring	green	1-4'	2'		✓	✓		
	<i>Eragrostis spectabilis</i> ^ Purple Lovegrass	summer- fall	purple	1-2'	1-2'			✓		
	<i>Panicum virgatum</i> Switchgrass	summer	green	3-6'	2-3'			✓	✓	
	<i>Schizachyrium scoparium</i> Little Bluestem	summer- fall	yellow/ green	2-4'	1.5-2'			✓	✓	
Ferns and Fern-Allies	<i>Onoclea sensibilis</i> Sensitive Fern	n/a	n/a	3-4'	3-4'			✓		
	<i>Osmunda regalis/regalis</i> var. <i>spectabilis</i> Royal Fern	n/a	n/a	6'	2-3'			✓		
	<i>Osmundastrum cinnamomea</i> Cinnamon Fern	n/a	n/a	5'	2-3'			✓		
	<i>Polystichum acrostichoides</i> Christmas Fern	n/a	n/a	1-2'	1-2'		✓	✓		

Additional Resources:

NWF Native Plant Finder Host Plants for Butterfly and Moth Caterpillars:
[Eastern Temperate Forests](#)
[Monarch Nectar Plants Guide: Mid-Atlantic](#)
[The Biota of North America Taxonomic Data Center Query Page](#)
[North Carolina Extension Gardener Plant Toolbox](#)

North Carolina Native Plant Society [Recommended Native Species](#)
[Ecoregional Revegetation Application \(ERA\)](#)
 Lady Bird Johnson Wildflower Center Special Collections: [North Carolina Recommended](#)
 Missouri Botanical Garden Plant Finder

Key to Wildlife Details:

	Plant provides place for wildlife to rest or nest, often evergreen leaves or needles		Keystone species supporting butterflies, moths, and/or pollinator specialist bees critical to maintaining a healthy ecosystem
	Host plant to butterfly and/or moth species supporting their caterpillars		Foliage eaten by butterfly and/or moth caterpillars as food source necessary for survival
	Plant provides nectar and/or pollen as a food source		Nectar used by adult butterflies and/or moths
	Tolerates full sun 6+ hours of sun		Pollen used by bees
	Tolerates part shade 2-6 hours of sun		Nectar used by hummingbirds
	Tolerates full shade <2 hours of sun		Seeds or fruits used by birds and/or plant provides nesting or cover to birds
	^ newly added species Species sold by Garden for Wildlife		Seeds or fruits used by small mammals

NWF North Carolina Do-not-Buy/ Do-not-Plant List

North Carolina Non-Native Plant to Avoid		Notes	Plant Instead	
Common Name	Latin Name		Common Name	Latin Name
Grasses				
Chinese Silver Grass	<i>Miscanthus sinensis</i>	escapes from ornamental plantings, displaces native plants in areas of disturbance such as fields, edge of woodlands, and roadsides, also highly flammable increasing fire risk where it invades	Switchgrass Indian Grass	<i>Panicum virgatum</i> <i>Sorghastrum nutans</i>
Golden Bamboo	<i>Phyllostachys aurea</i> <i>Bambusa sp.</i>	available for sale online and in garden centers, quickly spreads by underground rhizomes and escapes cultivation	Switchgrass Eastern Gamagrass	<i>Panicum virgatum</i> <i>Tripsacum dactyloides</i>
Herbaceous Perennials				
Lesser celandine	<i>Ficaria verna</i> <i>(Ranunculus ficaria)</i>	has naturalized throughout many states, forms dense mats that prevent native vegetation from surviving, spreads from underground tubers as well as bulblets that drop from the stems and spread by water	Golden Alexander Lobed Tickseed	<i>Zizia aurea</i> <i>Coreopsis auriculata</i>
Tropical Milkweed	<i>Asclepias curassavica</i>	When planted in areas where it does not die back in the winter, this plant helps to sustain high levels of parasites called OE that are highly detrimental to the health and migration success of Monarch butterflies.	Butterfly Milkweed Whorled Milkweed	<i>Asclepias tuberosa</i> <i>Asclepias verticillata</i>
Vines				
Chinese Wisteria	<i>Wisteria sinensis</i>	available at garden centers, highly aggressive habit of this vine girdles and shades out native vegetation, stems can become like tree trunks	Passion Vine	<i>Passiflora incarnata</i>
English Ivy	<i>Hedera helix</i>	This vine can kill trees that it climbs and smother vegetation along the ground. It also hosts Bacterial Leaf Scorch, a disease problematic to some native trees and shrubs.	Carolina Jessamine	<i>Gelsemium sempervirens</i>

NWF North Carolina Do-not-Buy/ Do-not-Plant List

North Carolina Non-Native Plant to Avoid		Notes	Plant Instead	
Common Name	Latin Name		Common Name	Latin Name
Honeysuckle – Japanese and Fragrant	<i>Lonicera japonica</i> <i>Lonicera fragrantissima</i>	quickly outcompetes native trees and shrubs by pulling them down, makes it easier for other invasives to invade	Coral Honeysuckle	<i>Lonicera sempervirens</i>
Shrubs				
Bush Honeysuckle – Amur, Morrow’s, Standish’s, hybrids	<i>Lonicera maackii</i> <i>Lonicera morrowii</i> <i>Lonicera standishii</i> <i>Lonicera x bella</i>	can become too tall to control as landscape shrub, seeds profusely which is then spread by birds and mammals, forms dense thickets	Blackberry Arrowwood Viburnum	<i>Rubus sp.</i> <i>Viburnum dentatum</i>
Butterfly Bush	<i>Buddleja davidii</i>	This deciduous shrub easily invades riparian areas and areas that have been disturbed. Although it provides nectar, it is not a source of food for butterflies and moths, so wildlife is impacted when it is planted instead of or when it displaces native host plants.	False Indigo-Bush Pinxterbloom Azalea	<i>Amorpha fruticosa</i> <i>Rhododendron periclymenoides</i>
Euonymous – Burning Bush, Winter Creeper	<i>Euonymous alata</i> <i>Euonymous fortunei</i>	found to be invasive and spreading into natural areas, the latter species can spread as a woody vine and put down new roots, escapes into native forests	Highbush Blueberry	<i>Vaccinium corymbosum</i>
Heavenly Bamboo	<i>Nandina domestica</i>	widely available in garden centers and nurseries, grows quickly from seed and root parts, forms dense thickets	Inkberry	<i>Ilex glabra</i>
Japanese Barberry	<i>Berberis thunbergii</i>	considered a noxious weed in some states, seeds spread readily by birds, can outcompete native plants	Black Haw	<i>Viburnum prunifolium</i>
Japanese Spiraea	<i>Spiraea japonica</i>	can spread by suckering, also self-seeds aggressively, escapes gardens and spreads into natural areas	Pinxterbloom Azalea	<i>Rhododendron periclymenoides</i>
Lantana	<i>Lantana camara</i> (<i>Lantana strigocamara</i>)	This popular garden plant has escaped freely and become a noxious weed in areas without frost. It has invaded a variety of habitats and	Shrubby St. John's Wort Beautyberry	<i>Hypericum prolificum</i> <i>Callicarpa americana</i>

NWF North Carolina Do-not-Buy/ Do-not-Plant List

North Carolina Non-Native Plant to Avoid		Notes	Plant Instead	
Common Name	Latin Name		Common Name	Latin Name
		can form dense thickets that outcompete native vegetation. It can tolerate all sorts of conditions and is spread by birds who have eaten the seeds. Its hybridization with native lantana species has reduced their natural populations. This plant is also problematic due to its toxic properties affecting children, livestock, and domestic animals. All parts of the plant are poisonous if ingested. Handling the plant may cause skin irritation or allergic reaction.	Butterfly Milkweed Blackeyed Susan	<i>Asclepias tuberosa</i> <i>Rudbeckia hirta</i>
Oleander	<i>Nerium oleander</i>	Although attractive, all parts of this plant are highly toxic and can be fatal to humans, pets, and birds if ingested. Contact with the skin causes dermatitis. Oleander attracts pollinators with its flowers and scent, however offers no nectar reward, which wastes the pollinators' energy. Seeds of this plant are spread by wind, making it easy to spread to natural areas.	Pinxterbloom Azalea Pasture Rose	<i>Rhododendron periclymenoides</i> <i>Rosa carolina</i>
Olive- Autumn and Russian Silverthorn	<i>Elaeagnus umbellata</i> <i>Elaeagnus angustifolia</i> <i>Elaeagnus pungens</i>	hybridizes with native <i>Elaeagnus sp.</i> , displaces native species, tolerant of a wide range of stressors including salt, drought, and shade, seeds are widely dispersed by wildlife	Smooth Alder American Hazelnut	<i>Alnus serrulata</i> <i>Corylus americana</i>
Privet – Chinese, Japanese, Common	<i>Ligustrum sinense</i> <i>Ligustrum japonicum</i> <i>Ligustrum vulgare</i>	grows into dense thickets due to extensive root suckers, large quantities of fruit are produced and dispersed by birds and deer, tolerates heavy shade and poor soil, fruits and leaves poisonous to livestock and people	Wax Myrtle Black Haw	<i>Morella cerifera</i> <i>Viburnum prunifolium</i>
Trees				

NWF North Carolina Do-not-Buy/ Do-not-Plant List

North Carolina Non-Native Plant to Avoid		Notes	Plant Instead	
Common Name	Latin Name		Common Name	Latin Name
Bradford/Callery Pear	<i>Pyrus calleryana</i>	used frequently due to tolerance of tough urban conditions, flowers have objectionable odor, weak branches frequently lead to limb breakage, naturalizes in native ecosystems	Serviceberry Chickasaw plum	<i>Amelanchier arborea</i> <i>Prunus angustifolia</i>
Tree of Heaven	<i>Ailanthus altissima</i>	can resprout and quickly form a thicket taking over an area, produces large numbers of seeds as well, produces toxins that make it hard for other plants to survive, roots can damage building and water infrastructure	Pignut Hickory American Basswood	<i>Carya glabra</i> <i>Tilia americana</i>

denotes plants that have been specified on landscape plans for Taylor Morrison in NC

References:

North Carolina Department of Agriculture and Consumer Services [NC Noxious Weed List](#)

NC Invasive Plant Council [NC Invasive Plants](#)

NC State Extension [Invasive Plants](#)

North Carolina Native Plant Society [Invasive Exotic Species List](#)

[Federal Noxious Weed List](#)

(In addition to the plants listed above, species listed as noxious weeds may not be planted in North Carolina under any circumstances.)

University of Florida UF/IFAS Center for Aquatic and Invasive Plants [Plant Directory](#)



Native Vs. Tropical Milkweed

Native plants thrive in their local climate and ecoregions, including rainfall patterns, temperature extremes, soils, topography, and geology. Native plants also do not require additional watering, pesticides, or fertilizers. Most importantly, wildlife rely on native plants. Monarchs, pollinators, and other native wildlife co-evolved with native plants – they need each other to survive and thrive!

When it comes to milkweed, planting native species is always encouraged by the National Wildlife Federation!

- ❖ Monarch caterpillars feed exclusively on milkweed leaves, the only host plant species for this iconic butterfly. As such, native milkweed is critical for the survival of monarchs.
- ❖ Native milkweed also provides a valuable nectar food source for many other native pollinators including bees, moths, beetles, skippers, flies, and other butterfly species!
- ❖ There are more than 70 native milkweed species in the U.S., of which, about 40 are commercially available in the nursery trade. There are many native choices for every region!



Monarch butterfly Feeding on (native) common milkweed (*Asclepias syriaca*)

Did You Know?

Native wildlife co-evolved over thousands of years with the plants that originated within their ecosystem. Native plants provide food, cover, and places to raise young. In turn, wildlife benefits plants through pollination and spreading seeds!



Above right: Monarch butterfly feeding on (native) butterfly weed (*Asclepias tuberosa*)

Above left: Monarch butterfly feeding on tropical milkweed (*Asclepias curassavica*)

Tropical Milkweed: A NO GROW!

Tropical milkweed (*Asclepias curassavica*) is a non-native, introduced species that remains active in winter when planted in temperate North American regions. Its lack of dormancy allows for the proliferation and spread of a parasitic organism, *Ophryocystis elektroscirrha* (OE for short) which causes deformed wings, disorientation, and, in severe cases, death in monarchs. Monarchs infested with OE easily pass the parasite to other monarchs.

Additionally, Monarchs rely on environmental signals to determine when to migrate, like the seasonal die-back of nectar-producing plants. In northern regions, tropical milkweed continues growing later into the cool season compared to native milkweed species, which can disrupt the monarch's migratory behavior by causing butterflies to breed and delay or prevent migration. If a cold snap occurs when lingering monarchs should be migrating, it can kill eggs, caterpillars, and adult butterflies.

Did You Know?

Tropical milkweed comes by several other common names. Look out for blood flower, scarlet milkweed, and Mexican butterfly weed at your local nursery, and always check the scientific name (*Asclepias curassavica*) to be certain.

You can easily identify tropical milkweed when it's in bloom. Look for bright red petals with orange hoods. No other milkweed has these colors and remember: tropical milkweed is a No Grow!



Bottom Right: Tropical milkweed (*Asclepias curassavica*)

Sourcing Native Milkweed and Other Native Plants

Support the monarch and its marvelous migration by creating native gardens at home, planting native milkweed, and restoring native habitats. Check out the following links and find reliable sources that provide lists of native plants by zip code, state, and ecoregions.



Learn more about native species to your area:

- ❖ [NWF Native Plant Finder](#): Discover native species of plants that support native pollinators based on your zip code (limited list).
- ❖ [NWF Keystone Plants by Ecoregion](#): Learn more about native keystone plants by the 15 broad North American ecoregions. Select native plants, in addition to native milkweed, that are vital in supporting local ecosystems and wildlife.
- ❖ [Xerces Society Pollinator Conservation Resource Center](#): Click here for a hub of information, tools, and resources to support pollinator conservation.
- ❖ [USDA Plants Database](#): This resource provides a comprehensive list of native plant species in the US, offering information on their taxonomy, native distribution, and ecological attributes.

Above right: Common milkweed (*Asclepias syriaca*)
Bottom: Monarch caterpillar feeding on native milkweed (*Asclepias* spp.)

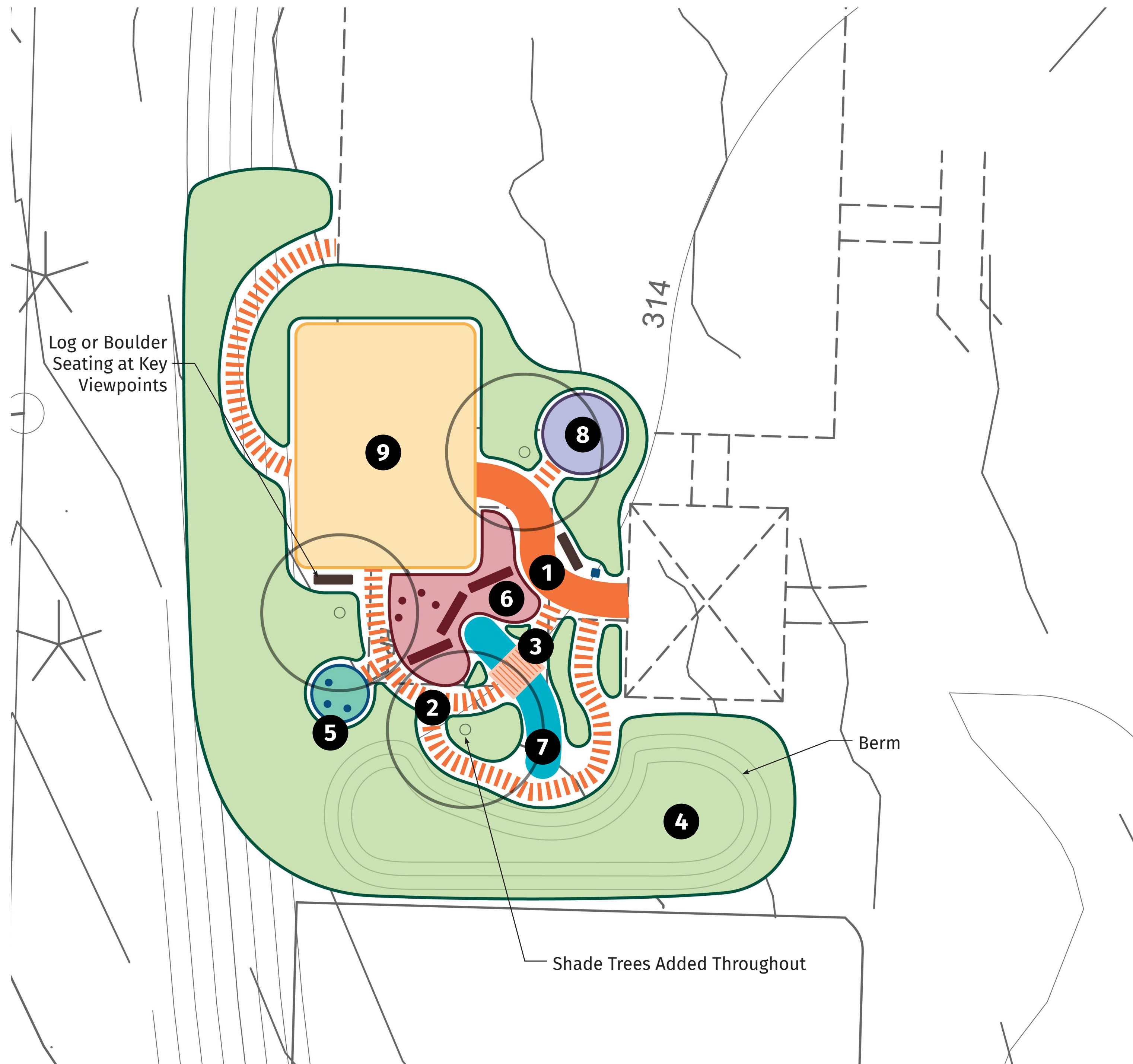


Find and Purchase Native Milkweed!

- ❖ [NWF's Milkweed for Monarchs](#): This resource offers a collection of additional resources and places to source native milkweed.
- ❖ [Xerces Society Milkweed Finder](#): The Milkweed Seed Finder helps locate suitable milkweed seeds for your region.



**NATIONAL
WILDLIFE
FEDERATION**



Nature Play Space Elements



1 Crusher Fines Primary Path



2 Mulch and Stepping Stone Secondary Path



3 Arched Bridge (Natural Playgrounds Store)



4 Pollinator Garden / Native Grasses



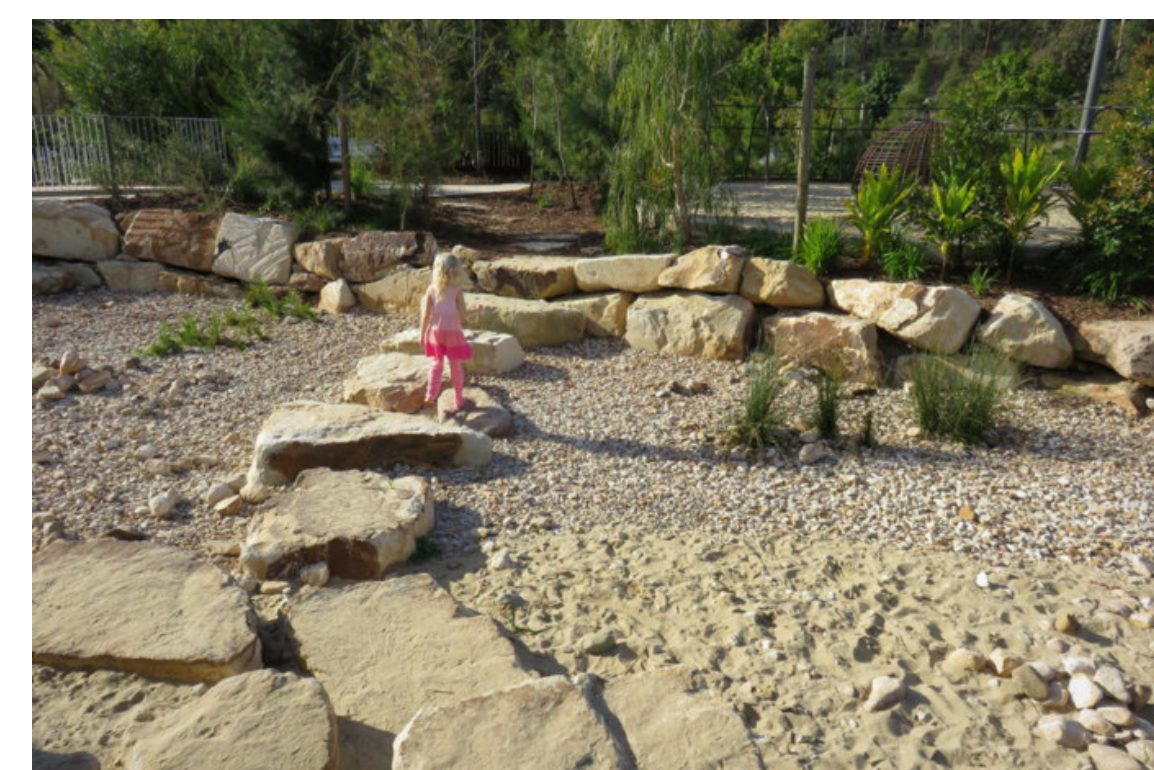
5 Quiet Nook with Stump Seating and Little Library (Natural Playgrounds Store)



6 Stump and Log Balance Area



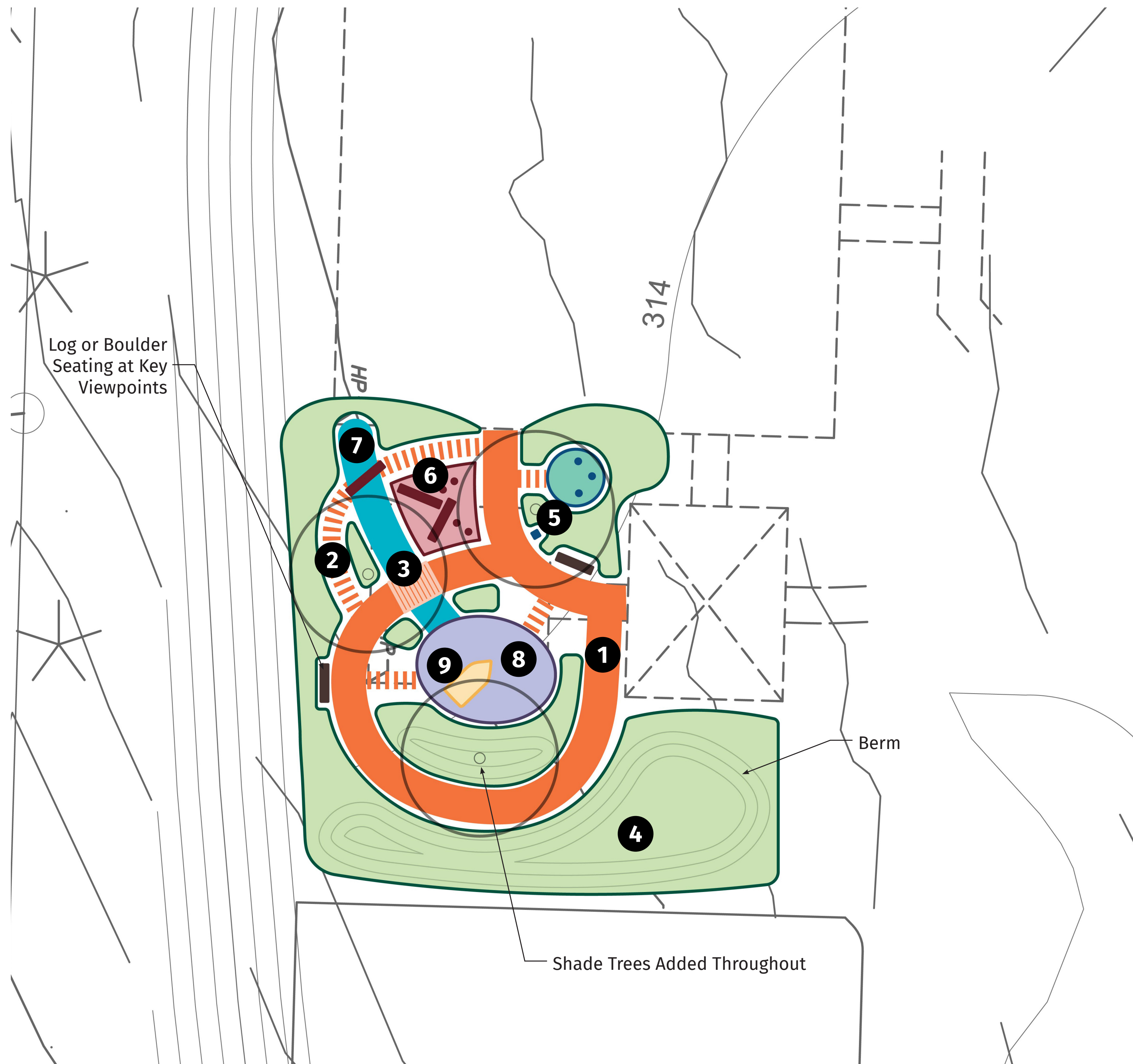
7 Dry Stream Bed



8 Gravel Play Area



9 2 Seat Swing (PlaygroundEquipment.com)



Nature Play Space Elements



1 Crusher Fines Primary Path



2 Mulch and Stepping Stone Secondary Path



3 Arched Bridge (Natural Playgrounds Store)



4 Pollinator Garden / Native Grasses



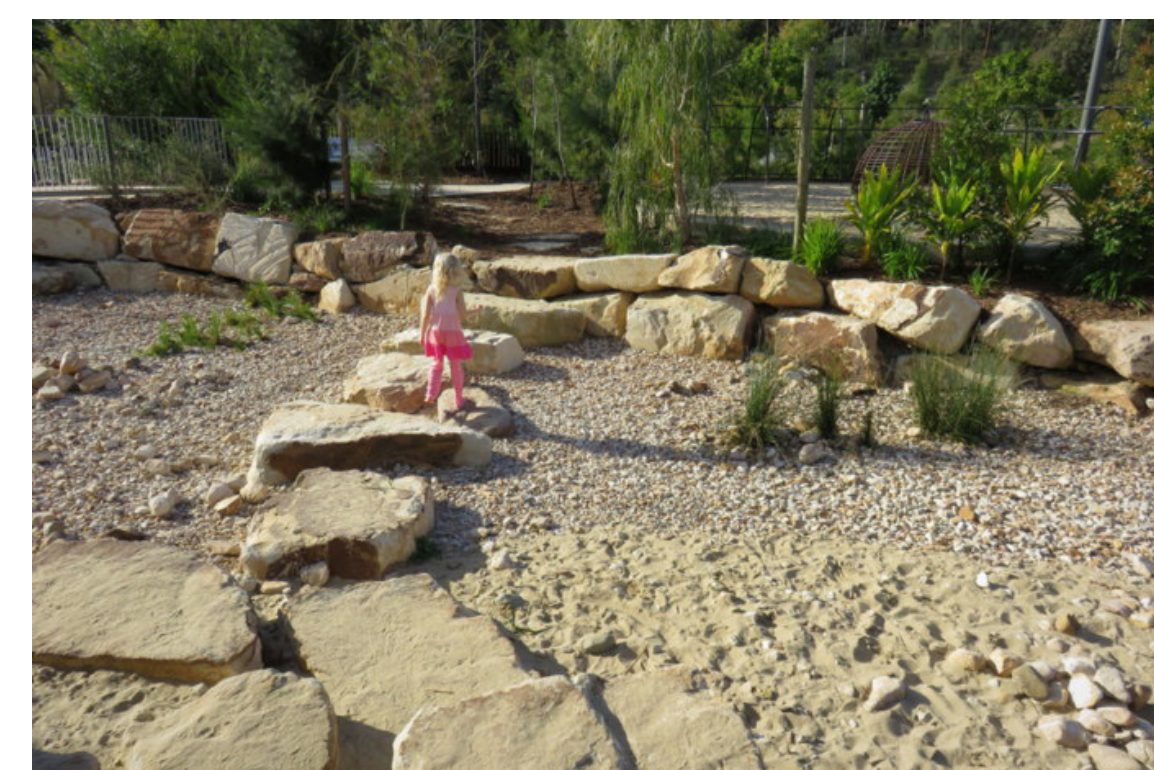
5 Quiet Nook with Stump Seating and Little Library (Natural Playgrounds Store)



6 Stump and Log Balance Area



7 Dry Stream Bed



8 Gravel Play Area



9 Play Boat (Natural Playgrounds Store)



JORDAN OAKS
NATURE PLAY SPACE

OWNER:
TAYLOR MORRISON OF XX



DATE:
10.11.22

SHEET TITLE:


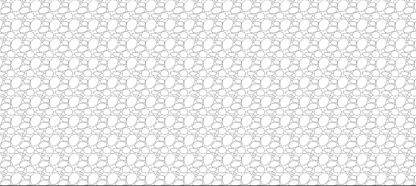

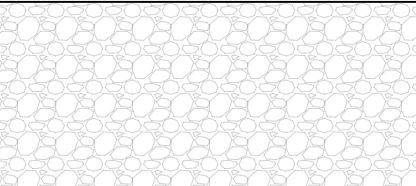
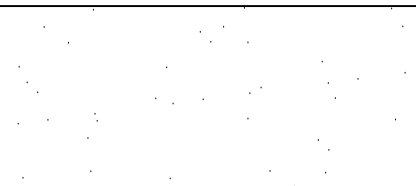
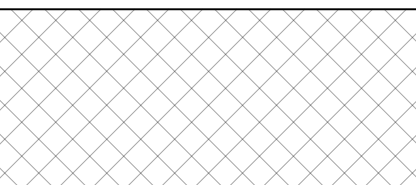
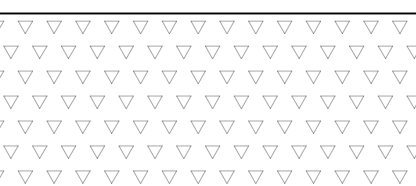
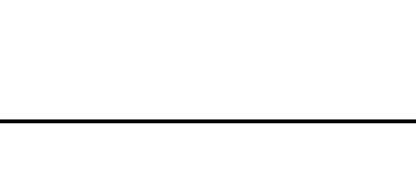
SITE LAYOUT

L1.0

KEY NOTES

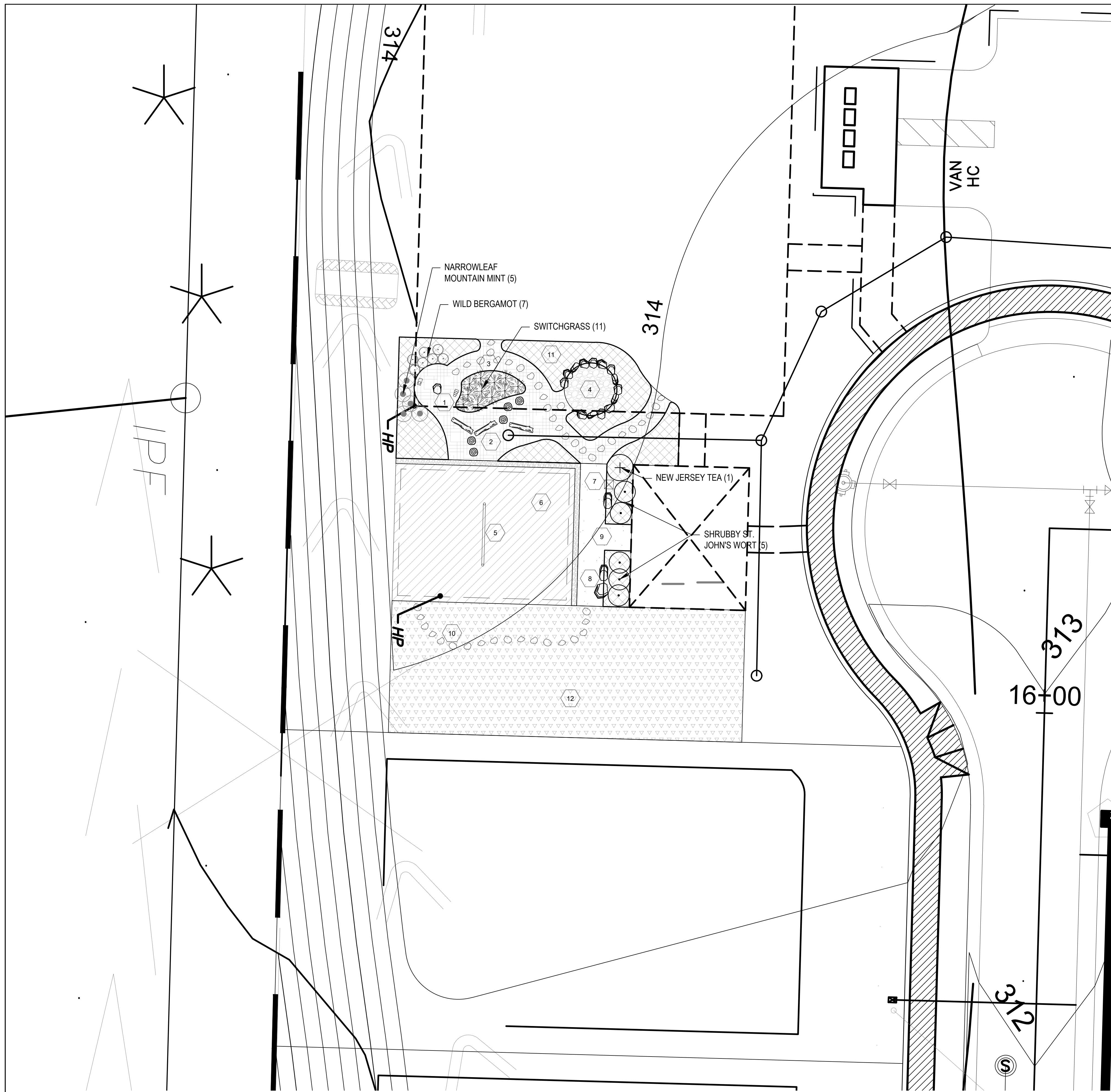
- 1 SENSORY NOOK WITH MAGNIFYING GLASS, LISTENING TUBES, AND SENSORY PLANTS
- 2 LOG AND STUMP BALANCE AREA
- 3 MULCH AND STEPPING STONE PATH
- 4 GRAVEL PLAY AREA WITH BOULDER BORDER
- 5 8 FEET HIGH ELITE SINGLE POST SWING - 1 BAY (PLAYGROUNDEQUIPMENT.COM)
- 6 ENGINEERED WOOD FIBER MULCH SAFETY SURFACE WITH COBBLE AND DEEP ROOT BARRIER ALONG BORDER
- 7 LITTLE LIBRARY
- 8 SITTING BOULDERS
- 9 CRUSHER FINES ENTRANCE AREA
- 10 STEPPING STONE POLLINATOR GARDEN PATH
- 11 NATIVE PLANT BEDS (THROUGHOUT PLAY AREA - PLANTING PLAN TBD)
- 12 POLLINATOR GARDEN

LEGEND

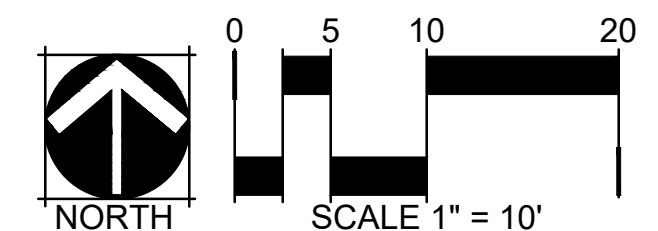
-  ENGINEERED WOOD FIBER MULCH
-  COBBLE EDGING
-  MULCH
-  GRAVEL PLAY
-  CRUSHER FINES
-  NATIVE PLANT BEDS
-  POLLINATOR GARDEN
-  14 GAUGE ROLL TOP STEEL EDGING AROUND NATIVE PLANT BEDS

NOTES:

- 1. ALL PLANTING SHOWN IS PROPOSED. PLANTING PLAN TO BE DETERMINED.
- 2. SEE ALL GRADING AND DRAINAGE PLANS FOR MORE INFORMATION. GRADING AND DRAINAGE ARE NOT DEFINED IN THIS SET.
- 3. LANDSCAPE AND BUILDING PRACTICES SHALL CONFORM TO ALL LANDSCAPE AND LAND DEVELOPMENT CODES OF APEX, NC.



APPROVED
By Jeri Pederson at 3:12 pm, Jun 20, 2023



CHECKED BY: SSB
DRAWN BY: EW