



INTREGUE
LANDSCAPE ARCHITECTURE

HOLLY HILLS MASTER PLAN

SUMMER 2025



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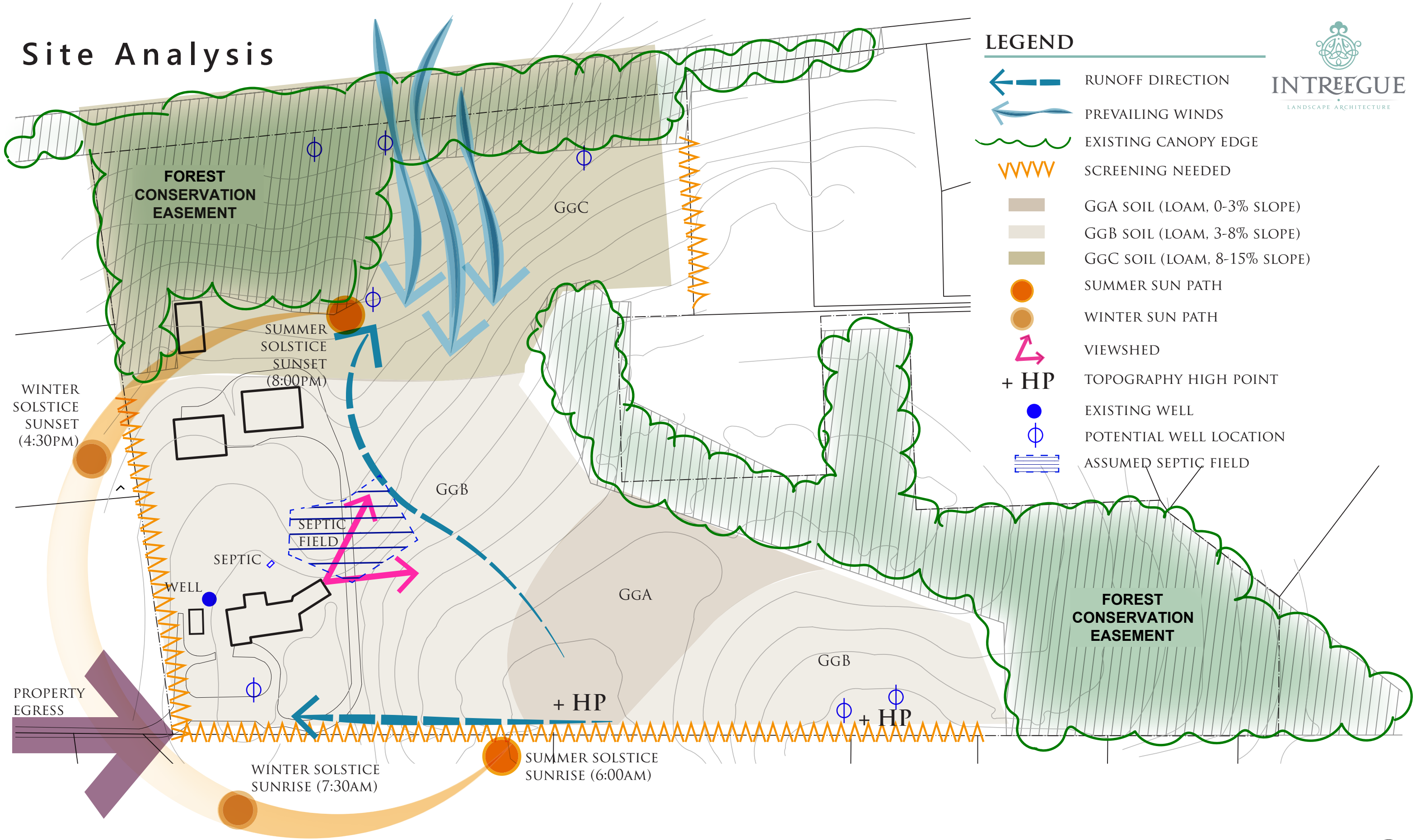
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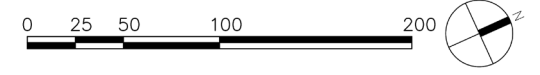
ROUGH COST ESTIMATE

Site Analysis



LEGEND

-  RUNOFF DIRECTION
-  PREVAILING WINDS
-  EXISTING CANOPY EDGE
-  SCREENING NEEDED
-  GGA SOIL (LOAM, 0-3% SLOPE)
-  GGB SOIL (LOAM, 3-8% SLOPE)
-  GGC SOIL (LOAM, 8-15% SLOPE)
-  SUMMER SUN PATH
-  WINTER SUN PATH
-  VIEWSHED
-  TOPOGRAPHY HIGH POINT
-  EXISTING WELL
-  POTENTIAL WELL LOCATION
-  ASSUMED SEPTIC FIELD



Master Plan



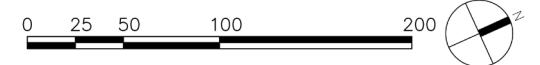
Introduction

This master plan envisions a dynamic, sustainable landscape that balances functionality with ecological resilience. Centered around the existing building and barns, the design prioritizes efficiency by placing daily tasks and frequently used spaces in a central hub. This layout streamlines access for both people and vehicles, ensuring smooth operations for work and utility purposes.

The plan embraces the site's natural potential. Habitat restoration areas and a future native plant nursery extend along the east and west edges, taking full advantage of the expansive footprint. These zones will foster biodiversity, enhance soil health, and contribute to long-term ecological stability.

A network of trails weaves throughout the site, offering visitors an immersive experience of Maryland's rich and varied ecology. The landscape serves as both a functional workspace and a living model for regenerative design. This project reflects a commitment to sustainability blending practicality with natural beauty.

The master plan is an extension of the Howard Ecoworks Mission. The plan centers human activity and programming opportunities while continuing the effort to restore the surrounding forest. The integration of habitat restoration areas, a future plant nursery, and an ecological trail system reflects a deep commitment to environmental stewardship. The goal of the Holly Hills Master Plan is to become a living demonstration of the organization's mission: to empower communities and

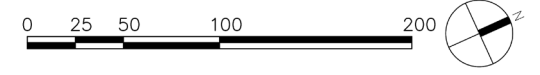


Master Plan Program



Legend

- 1 Main Patio and Gathering Area**
 - Significant reworking of grade for ingress/egress
 - Significant reworking of grade for patio connectivity
- 2 Parking**
 - Provide 12 - 16 spaces for visitors and employees
 - Provide parking spaces for 3 work trucks
 - Guest parking near main building to be GrassPave or similar
 - Overflow parking area to be grass pave or similar
- 3 Holly Hills Namesake**
 - Plant native Maryland hollies throughout property
- 4 Entry Enhancement**
 - New entry location aligned with parking
- 5 Core Nursery Area (see enlargement)**
 - Production breakdown: 80% perennials, 20% trees
 - (QTY 2) 40' x 20' high tunnels
 - 1,600 SF of high tunnel growing area
- 6 Rain Garden**
 - Demonstration of the Howard Ecoworks rain garden design and installation
 - Rain Garden sits at site low point
 - Water harvested from barn roof and drained into rain garden
- 7 Trail Systems and Maryland Ecosystems**
 - 7A - Shrubland Habitat
 - 7B - Meadow Habitat
 - 7C - Woodland Habitat
 - 7D - Grassland Habitat
- 8 Water Collection**
 - 8A - 1000 gal. cisterns attached to existing barn structures
 - 8B - Permaculture practices such as utilizing berms and swales to direct and collect water
- 9 Carbon Neutral Practices**
 - 9A - Biochar area on soil
 - 9B - Compost area
 - 9C - Agroforestry and Forest Mitigation
 - 9D - Compost Toilets
- 10 Future Nursery or Rented Space**
 - As the needs for plant material grows, the area to the north of the grass overflow area can become a nursery extension or rented space for another company to utilize



Core Nursery Area

Enlargement



Legend

- 1 Seating and Patio Area**
 - Re-working of grade for ingress/egress
 - Flattened patio to host gatherings and events
 - Space supports temporary tents, tables, etc
 - Benches to talk to small groups or
- 2 Test Plot- Deer Resistant**
 - Non-fenced test plot planting area to try new species and cultivars resistant to deer
- 3 Fenced in Test Plot**
 - Fenced in test plot planting area to test new species and cultivars
- 4 Fence**
 - 6' tall fence with two gates to access grow area
- 5 Grow Area**
 - Production breakdown: 80% perennials, 20% trees
 - (QTY 11) 4' x 20' plots
 - All tree production is staged on the other side of the existing asphalt drive
- 6 Harvest Tables**
 - Large tables for harvesting, potting, and managing hoop house and grow area plantings
- 7 High Tunnels**
 - (QTY 2) 40' x 20' high tunnels
 - 1,600 SF of high tunnel growing area



Precedent



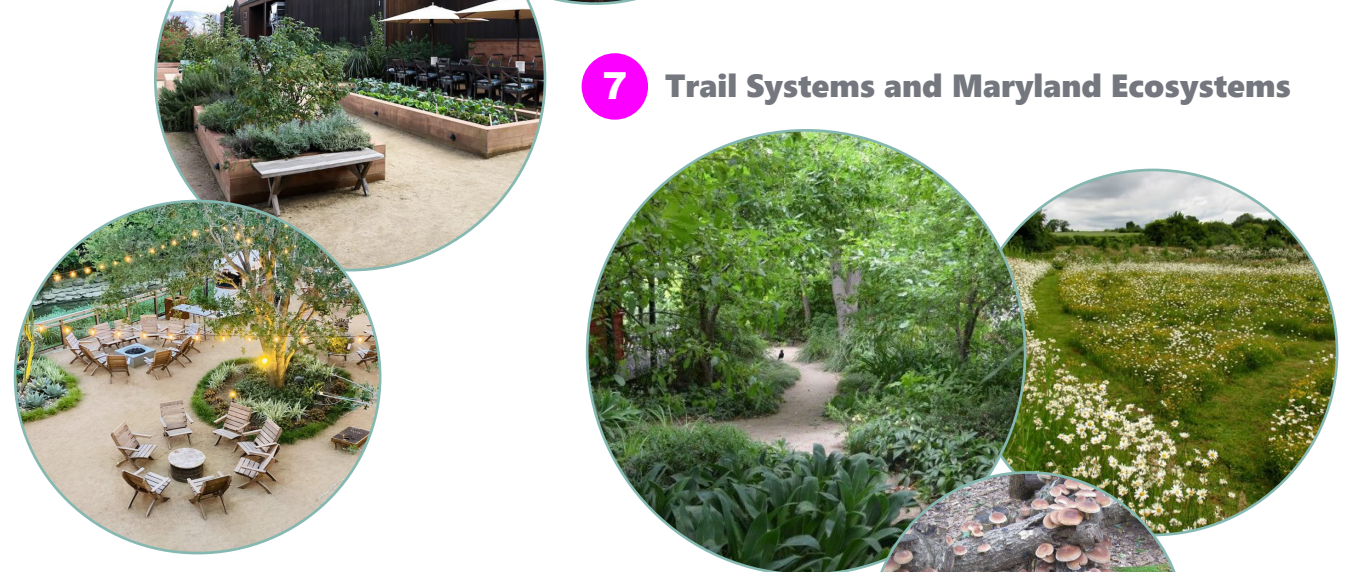
1 Main Patio and Gathering Area



6 Rain Garden



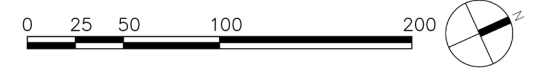
7 Trail Systems and Maryland Ecosystems



4 Entry Enhancement



8 Water Collection



Materials



The materials listed below are suggested options for the areas indicated on the plan dependant on cost, maintenance, and aesthetic.

1 Primary Pathways



Concrete
or



Flagstone

2 Tertiary Pathways



Gravel
or



Compacted Earth
or



Mowed Lawn

3 Vehicular Turf



Grasspave Grid

5 Gathering Areas



Organic-Lock
or

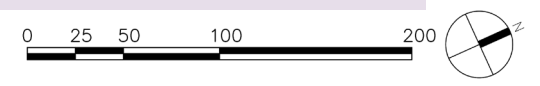


Pavers

4 Utility Areas



Gravel with Grid



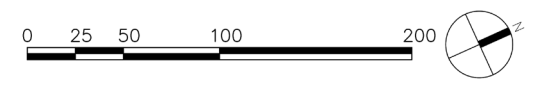
Phasing Plan



- 1 Phase 1**
- Building Remodel
 - Placement of high tunnels
 - Install walkway to new building entry
 - Patio area to be leveled and cleared
 - Establish outdoor staff vegetable garden
 - Clear, level, and seed lawn for overflow parking
 - Any declining trees to be removed
 - All scrub and dying material to be cleared and replanted as needed
 - Prepare and install grow area and fence

- 2 Phase 2**
- Clear area
 - Prune all remaining plant material
 - Level and lay gravel near barns
 - Remove small shed between barns
 - Install compost area
 - Compost toilet installation
 - Install Biochar kiln
 - Install new cisterns
 - Establish rain garden and rooftop drainage to garden

- 3 Phase 3**
- Flexible porous paving or compacted gravel to be laid/installed along trails
 - Build raised flower beds and plant
 - Build long bench for guests and install any desired furniture
 - Install trail systems and habitat to be installed when possible
 - Install expanded nursery if needed



Phase 1 Plan



Legend

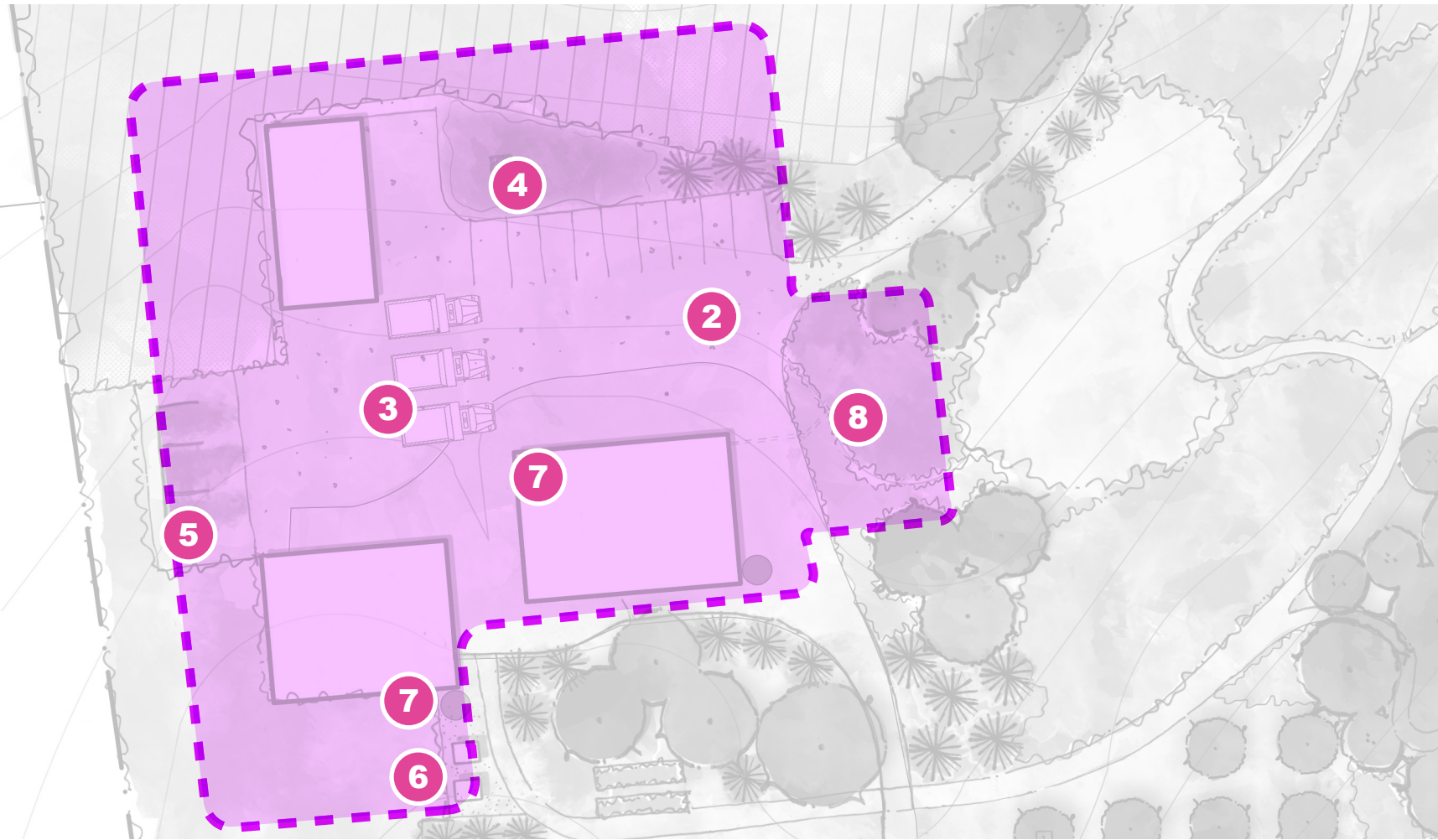
- 1 Building Remodel**
 - Including the greenhouse and farm stand
- 2 High Tunnel Install**
- 3 Staff Vegetable Garden**
- 4 Overflow Parking**
 - Clear, level, and seed lawn for overflow parking
- 5 Tree Nursery**
 - Clear, prep, and irrigate field
 - Grade field to maximize water retention
- 6 Plant Material Removal and Management**
 - Any declining trees to be removed
 - All scrub and dying material to be cleared and replanted as needed
- 7 Walkways to Remodeled Building**
 - Any declining trees to be removed
 - All scrub and dying material to be cleared and replanted as needed
- 8 Patio Area**
 - Area to be leveled and cleared
 - Area to be compacted and new paving material to be laid
- 9 Fence and Grow Area**
 - Install fence
 - Prepare plots and plant
 - Construct or purchase harvest tables
- 10 Plant Entry Garden**



Phase 2 Plan

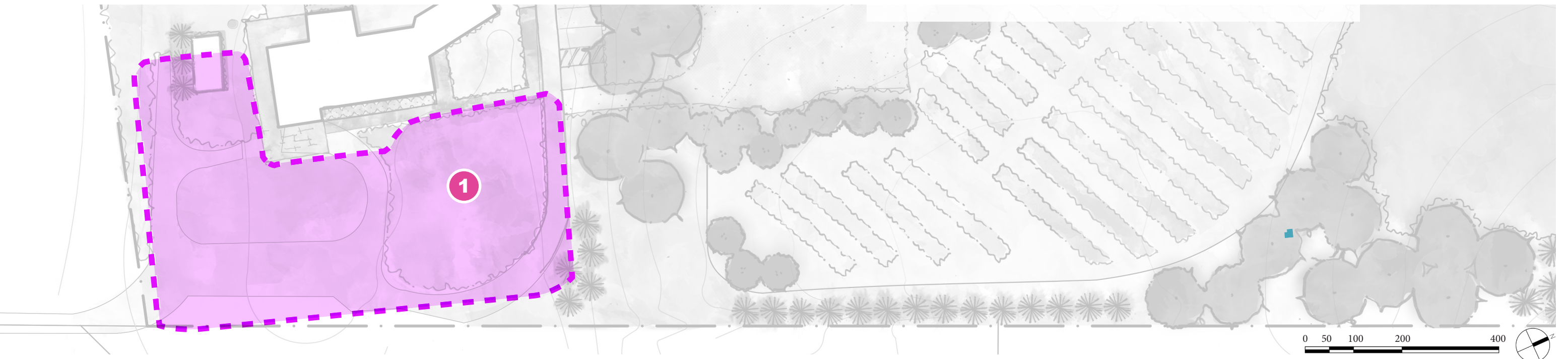


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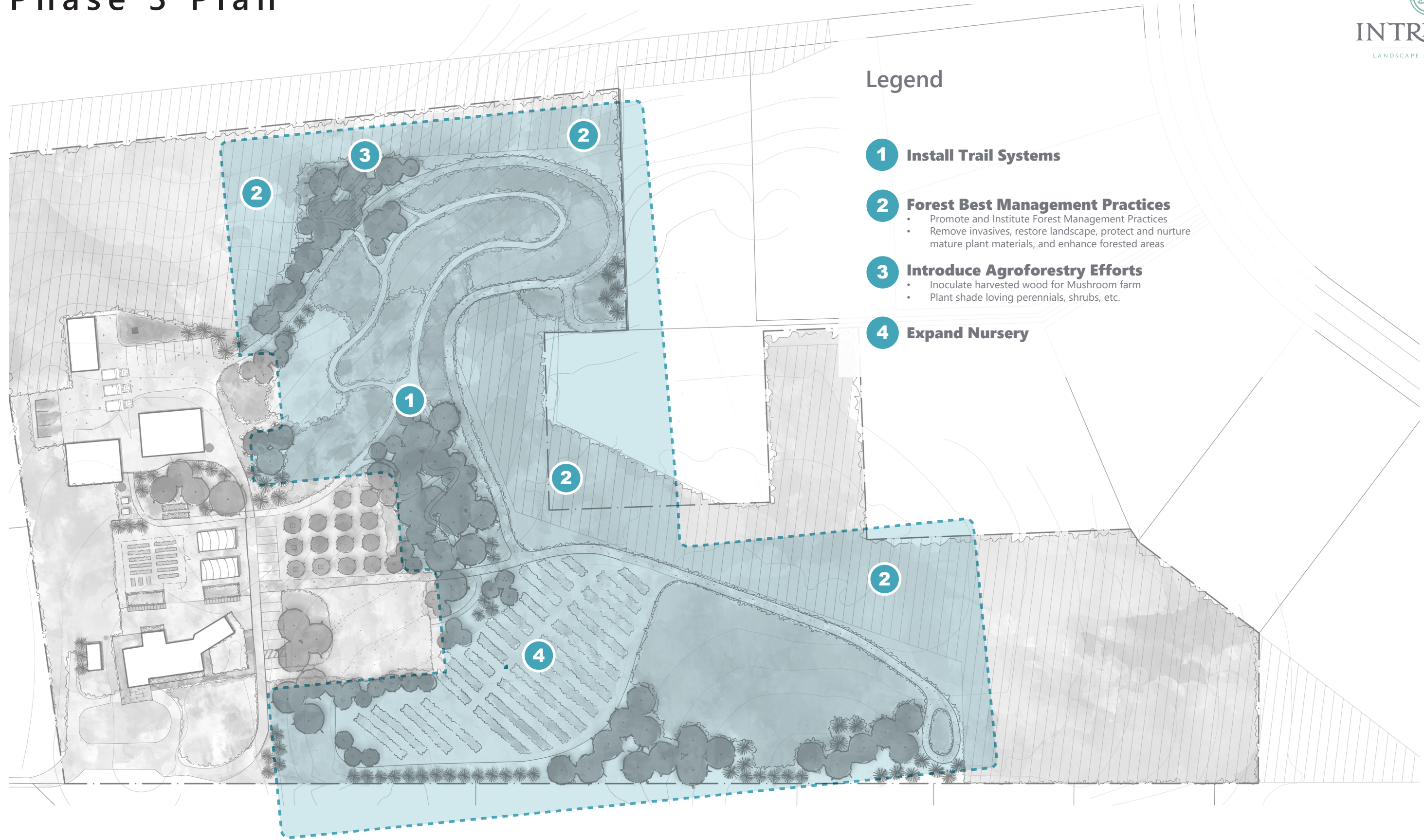


Legend

- 1 Shade Garden**
 - Rehab existing trees and groundcover
 - Plant new shade garden material
- 2 Improved Utility Area**
 - Level and lay gravel near barns
 - Outline parking area for employees
- 3 Remove Small Shed Between Barns**
- 4 Install Compost Area**
- 5 Install Biochar Kiln**
- 6 Compost Toilet Installation**
- 7 Cistern Installation**
 - Install first cistern near compost toilets
 - Install second cistern near larger barn
- 8 Establish Rain Garden**
 - Establish rain garden and rooftop drainage to garden

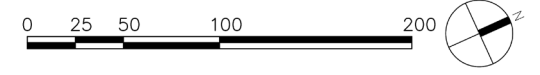


Phase 3 Plan



Legend

- 1 Install Trail Systems**
- 2 Forest Best Management Practices**
 - Promote and Institute Forest Management Practices
 - Remove invasives, restore landscape, protect and nurture mature plant materials, and enhance forested areas
- 3 Introduce Agroforestry Efforts**
 - Inoculate harvested wood for Mushroom farm
 - Plant shade loving perennials, shrubs, etc.
- 4 Expand Nursery**

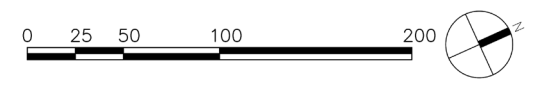


Phase 1 Plan

Quick Visit Destinations

Legend

- 1 Park**
 - Visitor parking across the road from the main building
 - Overflow parking is in the field beyond the parking stalls
- 2 Explore**
 - Spend some time walking around the garden beds or sit in a chair on the main patio area
- 3 Pick Up**
 - Visit the farm stand and the greenhouse
 - Maybe pick up some vegetables and locally sourced items to take home



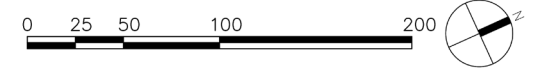
Take a Tour!

The Full Tour



Legend

- 1 Park**
 - Visitor parking across the road from the main building
 - Overflow parking is in the field beyond the parking stalls
- 2 Nursery Peak**
 - Take a look at the nursery production plot on your way to the first habitat area
- 3 Arboretum Walk**
 - Read tree labels and admire the different species
 - Try to catch native species enjoying the reforested and native habitat
- 4 Trail Walk**
 - Take a walk through the varying habitats found throughout Maryland
- 5 Agroforestry Stop**
 - Learn about agroforestry and forest mitigation practices
 - Walk through inoculated mushroom logs on your way back through the meadow habitat
- 6 Carbon Footprint Best Practices**
 - Wander through the working utility area and watch the biochar kiln in action
 - While on your way to the employee garden and the compost restrooms, stop and appreciate the water catchment cisterns at the base of the barns
- 7 Hoop Houses and Seedlings**
 - Peer into the working hoop houses filled with plant material getting a little extra care or a head start before being potted or planted
- 8 Rainwater Garden**
 - Appreciate the demonstration of what Howard Ecoworks has to offer in terms of design and planting skills for water management
- 9 Pick Up**
 - Visit the farm stand and the greenhouse
 - Maybe pick up some vegetables and locally sourced items to take home



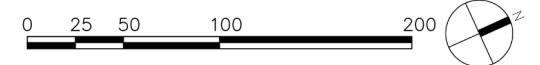
Septic and Easements

Constraints



Legend

- 1 Septic Field**
 - Existing asphalt drive dissects septic field
 - All paving material is existing or pervious
 - All woody plant material on septic field is container grown and does not permeate topsoil
 - All other plant material on septic field to be perennial plant material
 - High Tunnels placed on septic field are considered temporary structures and comply with septic field requirements
- 2 100'-0" Offset from Property Line**
 - All outdoor areas to be used for parking, loading, and storage of vehicles, equipment, tools, and supplies shall be 100' from property lines
 - Existing structures are not to be used for the purposes listed above



Rough Cost Estimate



Entry Area

Qty	Design Space	Material	Budget
2,350 SF	Front Walk	Stone	\$71,250-\$99,750
4,000 SF	Rear Gathering Space	Granite Chip	\$24,000-\$32,000
4 EA	Haven High Tunnel 16'x72'		\$26,232
	Double Zipper End Wall		\$2,792
	Shipping		\$1,000-\$2,000
	Labor		\$6,240
	Will need clearing/grubbing and irrigation		
	Parking Spaces (6 Stone chip, 2 Asphalt)	Stone chip, Asphalt	\$8,000-\$15,000

Planting, mixed trees/shrubs/perennials (6,950 SF)

6 EA	Trees		\$3,000-\$4,800
Varies	Shrubs		\$25,000-\$36,150
2,000	Perennials		\$48,000

Nursery Area

	Lower Nursery Area (Later Phase)		\$6,000-\$30,000
	Will need clearing/grubbing and irrigation		
	If doing trees, can most likely fit 400 – 600 trees starting at whips		
	Upper Nursery Area - Trees		\$3,000-\$15,000
	Irrigation		\$30,000-\$60,000
	Should have water flow of 200/300 gpm		

Barn and Work Area

Qty	Design Space	Material	Budget
	Added Parking Area	Stone Chip	\$67,000-\$10,000
	approx. \$35/ton, 3" compacted, approx. 200 tons 9 spots and 3 truck/trailer areas		
	Base Stone	Stone	\$30,000-\$60,000
	Labor		\$12,000
	2 workers & Machine		
2	Compost Toilets		\$17,600-\$46,000 (commercial)
	Should have water flow of 200/300 gpm		
	Labor		\$2,000-\$3,500

Meadow and Trails

51,900 SF	Upper Meadow		\$155,700-\$259,500
	8' Wide Mulch Trail		\$3,750-\$5,000
	Recommend 3-6" depth to prevent weeds		
	Labor		\$10,000-\$12,000
	4' Wide mowed Trail		normal/maintenance
37,000 SF	Lower Meadow		\$111,000-\$185,000
	Lower Meadow Access Trail		normal/maintenance