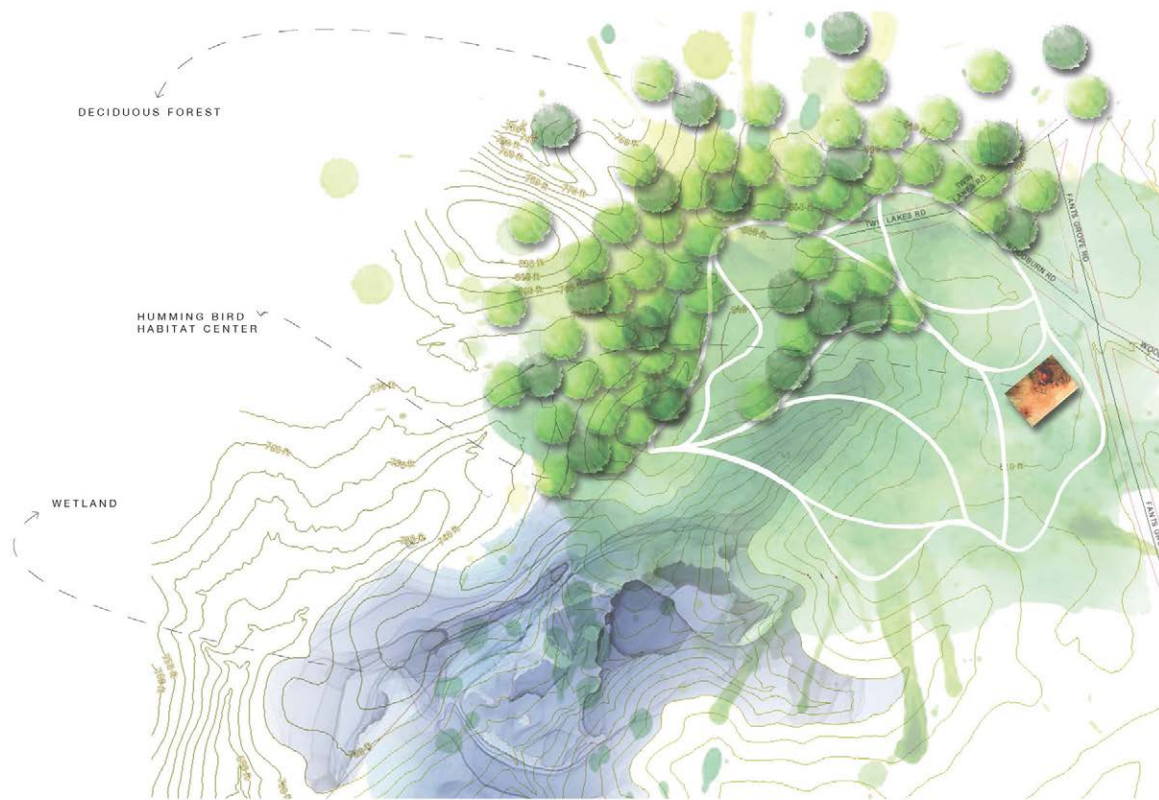


STUDENT NAME: HANNAH JOB
PROJECT TITLE: FLEETING COLOR
PROJECT LOCATION: ANDERSON COUNTY, SC

PROJECT STATEMENT: This site was chosen based on an extensive analysis carried out by arc GIS. By using GIS we examined the upstate of South Carolina to better familiarize ourselves with the natural resources and existing attractions. By knowing these locations we were able to find a small number of suitable sites based on a set of criteria that we determined on a scale of 1 – 3 (1 being the most important). Once a smaller study area and then specific site was selected the area was designed and a program was developed.

PROJECT NARRATIVE: The aim of this project is to create a variety of habitats for local hummingbird populations as well as provide a space for the surrounding communities to learn about the types of hummingbirds in the area, what types of habitats they're commonly found in, and what types of plants they are attracted to and why. Research was done on all types of habitats hummingbirds gravitate towards, the most common ones being deciduous / coniferous forest, traditional backyard, wetlands, grasslands / meadows, deserts / scrublands, and canyons. All of these habitats, with the exception of the canyon habitat, could be re-created on site. Further, nesting techniques were studied to see what type vegetation is ideal for hummingbirds to nest in. Hummingbirds are not like traditional birds in the sense that they are not "cavity nesters", hummingbirds can be described as "surface nesters" so dense vegetation is ideal for them. The analysis to find my ideal site was carried out by using GIS (geographic information systems) to take an inventory of the South Carolina upstate to see what resources were available using the guidelines of G.R.A.C.E. analysis, the G.R.A.C.E. analysis has five components: growth, recreation, agriculture, culture and environment. By generating maps of the upstate using these criteria a smaller study area was determined and suitability maps were created to further narrow down the area to find the most suitable site. The ending site was chosen on the border of Anderson and Pickens counties, the majority of the site was in the Anderson jurisdiction. The placement of wayfinding and the different habitats on the site were determined on the sites existing conditions. Path systems were placed with existing topography in mind and habitats were mapped out based on where they were most naturally occurring already on site. The only habitat that would need the most attention would be the desert / scrubland habitat, with this in mind it was placed the closest to the visitors center to allow for easy access and monitoring. My hope for this project is that all age groups will come use the site whether they are visiting with a school group (grade school to collegiate level) or as an afternoon or weekend activity.



BACKGROUND

[SITE INVENTORY AND ANALYSIS]

RATIONALE

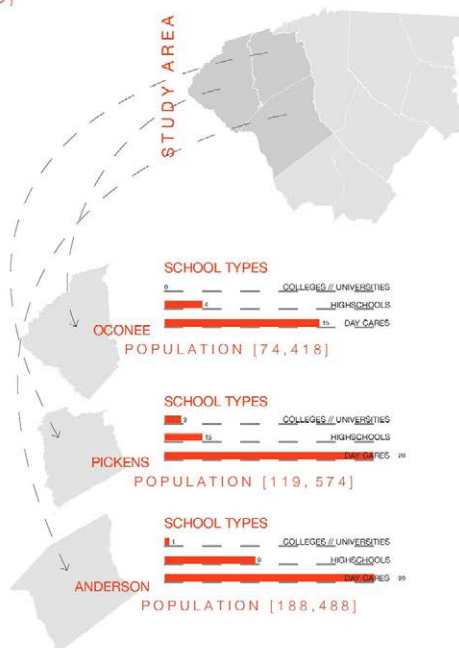
The reason I chose this area as my site is because of the diversity of the counties. With the wide range of school types (grade schools and a public university) it offers different levels of education as well as an opportunity to interact with a multitude of people.

REGIONAL HISTORY

Anderson, Pickens, and Oconee counties are all located in the Upstate of South Carolina, in the western most part of the state. The entire Upstate comprises of 10 counties along the I-85 corridor and is situated between Charlotte, NC and Atlanta, GA. The area has a total population of over 1,300,000. The Upstate is home to both the hilly Piedmont region and the Blue Ridge Mountains. This combination allows for the greatest elevations and slopes in the entire State. Between the numerous state parks, lakes, rivers, waterfalls, and forests, these counties are home to a diverse range of outdoor recreational activities like hiking, boating, and camping.

EDUCATION AND WILDLIFE

All three of these counties are rich in animal habitat and diversity as well as hosting a variety of education levels. Each county has a healthy population of mammals, birds, and reptiles as well as colleges and universities, grade schools, and daycare centers.



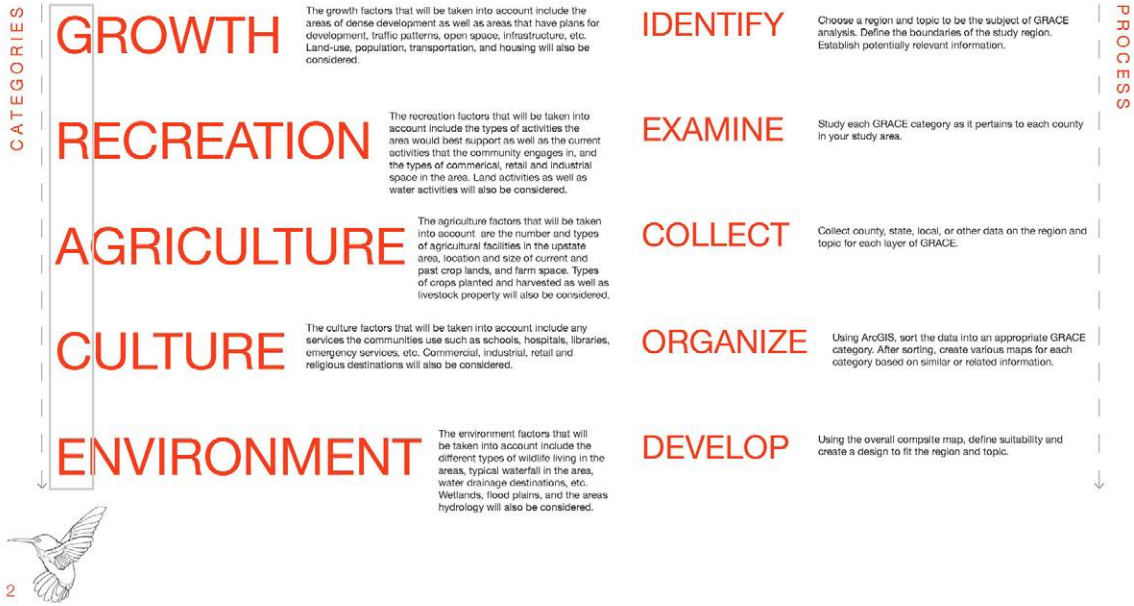
HUMMINGBIRD SPECIES OF SOUTH CAROLINA



THIS BOARD GIVES A BACKGROUND ON THE UPSTATE OF SOUTH CAROLINA AND BREAKS DOWN THE UPSTATE INTO THE COUNTIES INCLUDED IN MY STUDY AREA. FURTHER THE COUNTIES WERE ANALYZED TO SHOW WHICH TYPE AND HOW MANY OF EACH SCHOOL ARE IN EACH COUNTY. THE LOCAL HUMMINGBIRD SPECIES ARE ALSO INCLUDED.

GRACE

[SITE INVENTORY AND ANALYSIS]

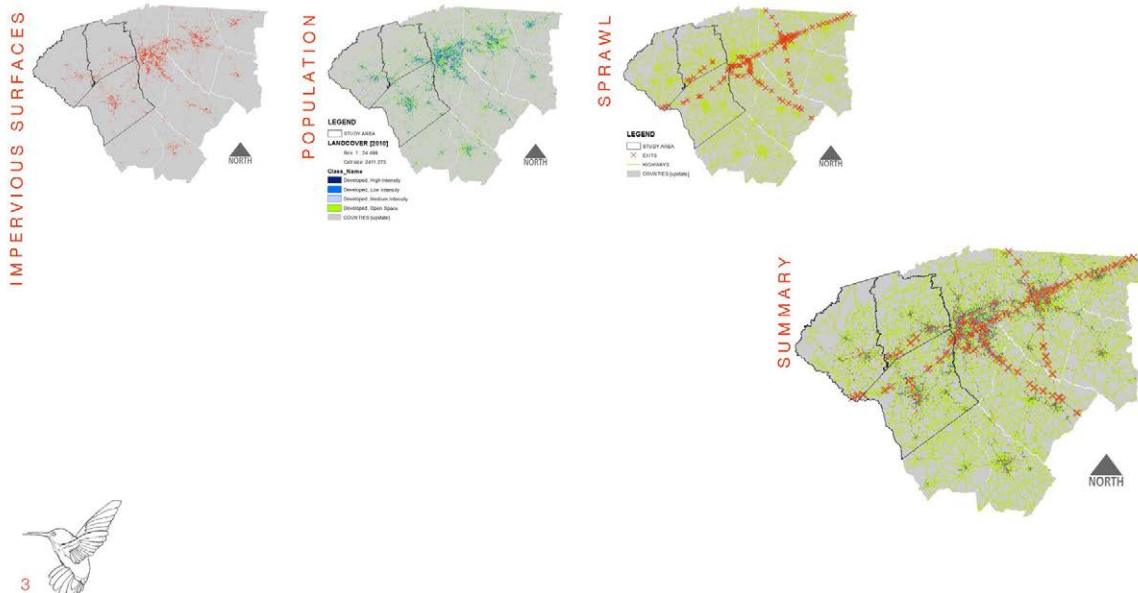


THIS BOARD GIVES A BACKGROUND ON WHAT THE GRACE ANALYSIS IS AND HOW IT WAS USED IN THE DEVELOPMENT OF THIS PROJECT.

GROWTH

[SITE INVENTORY AND ANALYSIS]

THESE MAPS ANALYZE THE URBAN GROWTH OF THE UPSTATE. I DETERMINED THAT IMPERVIOUS SURFACES, GENERAL POPULATION DISTRIBUTION AND SPRAWL OF HIGHWAY SYSTEMS WERE IMPORTANT FOR ME TO CONSIDER WHEN SELECTING MY SITE.



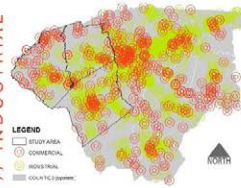
THIS BOARD SHOWS WHICH GROWTH COMPONENTS WERE EXAMINED TO HELP DETERMINE THE LOCATION OF THE FINAL SITE.

RECREATION

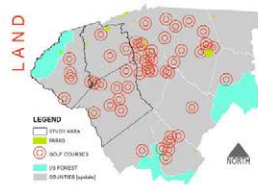
[SITE INVENTORY AND ANALYSIS]

THESE MAPS ANALYZE THE RECREATION OPPORTUNITIES OF THE UPSTATE. I DETERMINED THAT COMMERCIAL AND INDUSTRIAL AMENITIES, AND LAND AND WATER ACTIVITIES WERE IMPORTANT FOR ME TO CONSIDER WHEN SELECTING MY SITE.

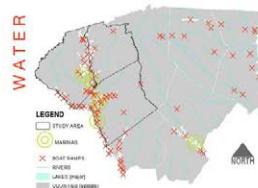
COMMERCIAL // INDUSTRIAL



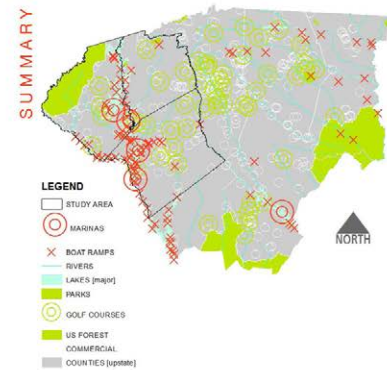
LAND



WATER



SUMMARY



4

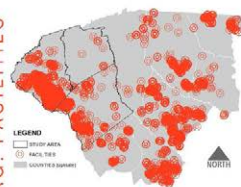
THIS BOARD SHOWS WHICH RECREATIONAL COMPONENTS WERE EXAMINED TO HELP DETERMINE THE LOCATION OF THE FINAL SITE.

AGRICULTURE

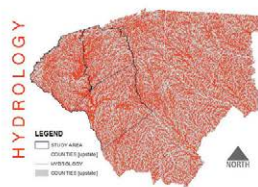
[SITE INVENTORY AND ANALYSIS]

THESE MAPS ANALYZE THE AGRICULTURE COMPONENTS OF THE UPSTATE. I DETERMINED THAT AGRICULTURE FACILITIES, HYDROLOGY, AND ANNUAL PRECIPITATION WAS IMPORTANT FOR ME TO CONSIDER WHEN SELECTING MY SITE.

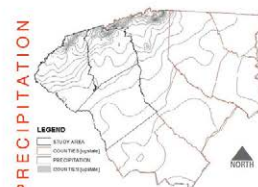
AG. FACILITIES



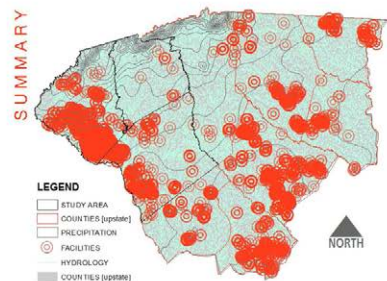
HYDROLOGY



PRECIPITATION



SUMMARY



5

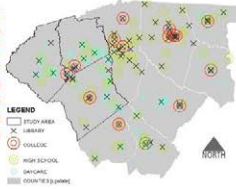
THIS BOARD SHOWS WHICH AGRICULTURAL COMPONENTS WERE EXAMINED TO HELP DETERMINE THE LOCATION OF THE FINAL SITE.

CULTURE

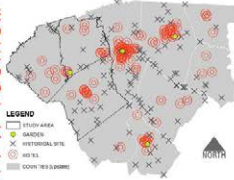
[SITE INVENTORY AND ANALYSIS]

THESE MAPS ANALYZE THE NEEDS AND WANTS OF THE UPGRADE. I DETERMINED THAT EDUCATION TYPES AND LOCATIONS, HOSPITALITY AND TOURISM, AND RELIGIOUS LOCATIONS WERE IMPORTANT FOR ME TO CONSIDER WHEN SELECTING MY SITE.

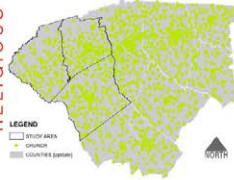
EDUCATION



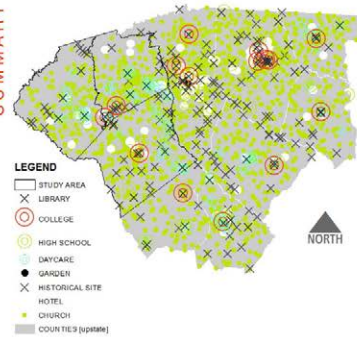
HOSPITALITY // TOURISM



RELIGIOUS



SUMMARY



6

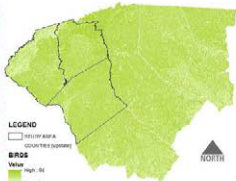
THIS BOARD SHOWS WHICH CULTURAL COMPONENTS WERE EXAMINED TO HELP DETERMINE THE LOCATION OF THE FINAL SITE.

ENVIRONMENT

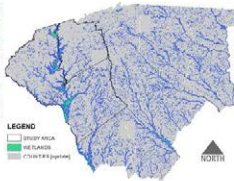
[SITE INVENTORY AND ANALYSIS]

THESE MAPS ANALYZE THE RELEVANT ENVIRONMENTAL ASPECTS OF THE UPGRADE. I DETERMINED THAT LOCAL BIRD POPULATIONS AND DENSITIES, WETLAND AREAS, AND MAJOR WATER BODIES WERE IMPORTANT FOR ME TO CONSIDER WHEN SELECTING MY SITE.

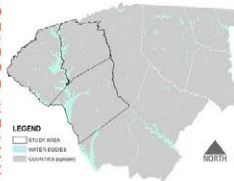
BIRD POPULATIONS



WETLANDS



WATER BODIES



SUMMARY



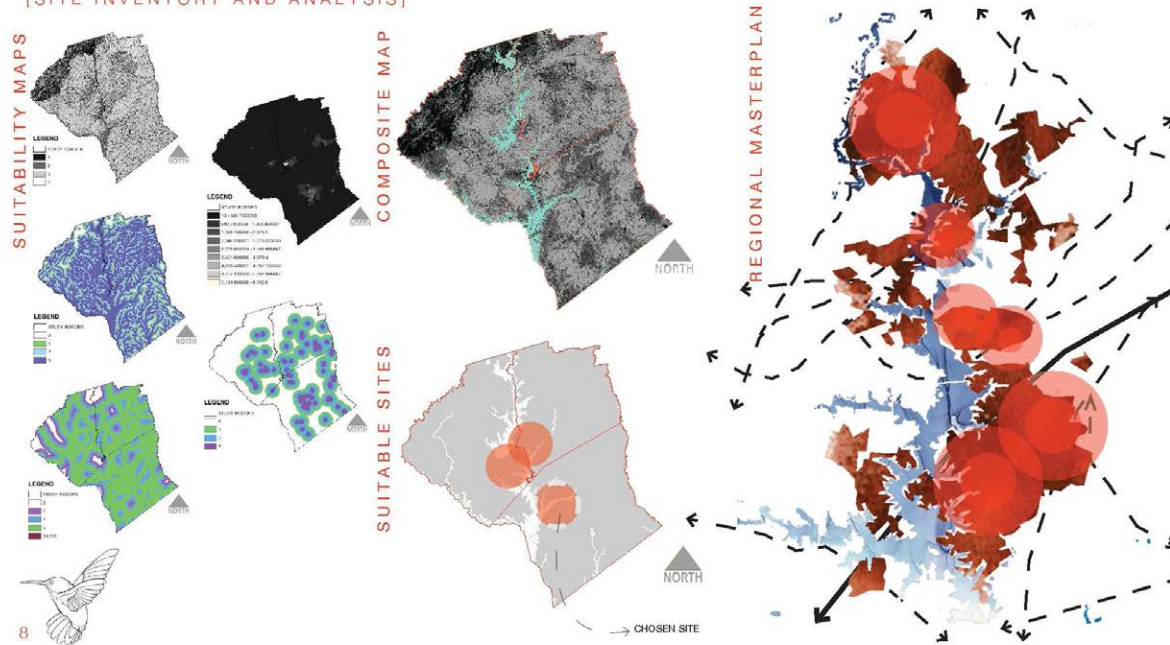
7

THIS BOARD SHOWS WHICH ENVIRONMENTAL COMPONENTS WERE EXAMINED TO HELP DETERMINE THE LOCATION OF THE FINAL SITE.

SITE SELECTION

[SITE INVENTORY AND ANALYSIS]

SITE SELECTION WAS BASED ON CRITERIA THAT I FELT WAS THE MOST IMPORTANT TO CONSIDER WHEN SELECTING A SUITABLE SITE FOR HUMMINGBIRDS. THE COMPONENTS I PUT THE MOST EMPHASIS ON WERE BIRD POPULATIONS, WETLAND AREAS, MAJOR ROADS, HUMAN POPULATIONS, AND SCHOOLS.

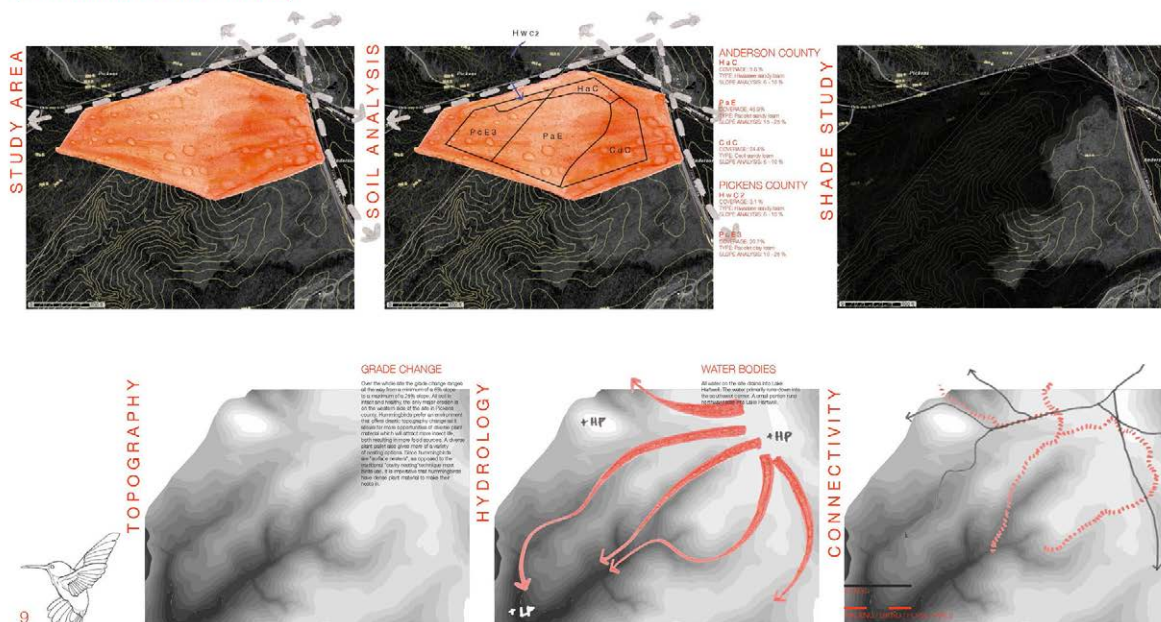


THIS BOARD SHOWS WHICH SETS OF SUITABILITY DATA WERE USED TO NARROW DOWN THE STUDY AREA TO A SPECIFIC SITE. THE IMAGE ON THE FAR RIGHT DISPLAYS THE REGIONAL MASTER PLAN AND HOW CORRIDOR COULD BE EASILY IMPLEMENTED IN THE REGION.

ANALYSIS

[EXISTING CONDITIONS]

THE SITE ANALYSIS AND EXISTING CONDITIONS WERE EXAMINED MULTIPLE DIFFERENT WAYS THROUGH AN EXTENSIVE SOIL ANALYSIS, SHADE STUDY, TOPOGRAPHY ANALYSIS, HYDROLOGY PATTERNS, AND EXISTING CONNECTIVITY. THE SOIL ANALYSIS WAS CONDUCTED TO SEE IF THERE WERE ANY SPECIFIC SOIL PROFILES THAT SHOULD BE CONSIDERED FOR MY PLANT PALLET. THE SHADE STUDY WAS USED TO SEE WHERE THE PLANTS SHOULD BE PLACED BASED ON THEIR SPECIFIC NEEDS. TOPOGRAPHY AND HYDROLOGY WERE EXAMINED TO BETTER UNDERSTAND HOW PATH SYSTEMS SHOULD BE LAID OUT AND TO HELP DETERMINE WHERE SPECIFIC HABITATS SHOULD BE LOCATED. EXISTING CONNECTIVITY WAS CONSIDERED TO SEE HOW THE POPULATION CURRENTLY USES THE SITE.



THIS BOARD SHOWS WHICH TYPES OF ANALYSIS WAS DONE ON THE EXISTING SITE TO HELP DETERMINE THE POSITION OF SPECIFIC ELEMENTS ON SITE SUCH AS PATH SYSTEMS, HABITAT LOCATIONS, AND PLANT SELECTION.

CASE STUDIES

[SITE DESIGN]

#1[GARDEN ON TURTLE CREEK]



The Garden on Turtle Creek, completed in May 2009, combines modern landscape design aesthetics with a celebration of environmental specificity. Weaving new landscape elements into the site's natural systems and existing native vegetation, the garden mediates two strong contextual forces: the sophisticated glass, limestone, and concrete houses, designed by Antoine Predock and completed in 1993, and the steep, richly vegetated slope that descends toward Turtle Creek.

To preserve the site's natural systems, interventions were engineered to be low-impact. The steps were hand-dug and placed in a unique shifting layout to avoid disturbing the thick tangle of root systems of existing large trees. Likewise, the stainless steel checkerplate pavers in the lawn hover slightly above the ground on sonotube foundations that were carefully laid out on site to avoid root damage. At the creek's edge, where flooding and runoff problems are most severe, the rectangular concrete "logs" used as stepping stones were strategically aligned so as not to interfere with existing runoff patterns.

#2[GEORGE W. BUSH PRESIDENTIAL CENTER]



The George W. Bush Presidential Center, home to the Bush Presidential Library and Museum and the Bush Institute, is located on the campus of Southern Methodist University in Dallas, Texas. The Bush Center has earned LEED Platinum certification, the highest level in the U.S. Green Building Council's Leadership in Energy and Environmental Design rating system. The building was designed by Robert A.M. Stern Architects and is set in a sustainable, native Texas landscape created by Michael Van Valkenburgh Associates.

Visitors to the George W. Bush Presidential Center will enjoy a native Texas landscape in a 15-acre urban park. The Bush Center grounds reflect President and Mrs. Bush's longstanding commitment to environmental conservation and restoration. The Native Texas Park features: Native Blackland Prairie grasses // Seasonal wetlands // Clearings that provide native habitats for butterflies, birds, and other species // Five stocked ponds // An amphitheater. A network of paths takes visitors through native Texas environments such as Blackland Prairie, Post Oak Savannah and Cross Timbers Forest.]

#3[BROOKLYN BOTANIC GARDENS VISITORS CENTER]



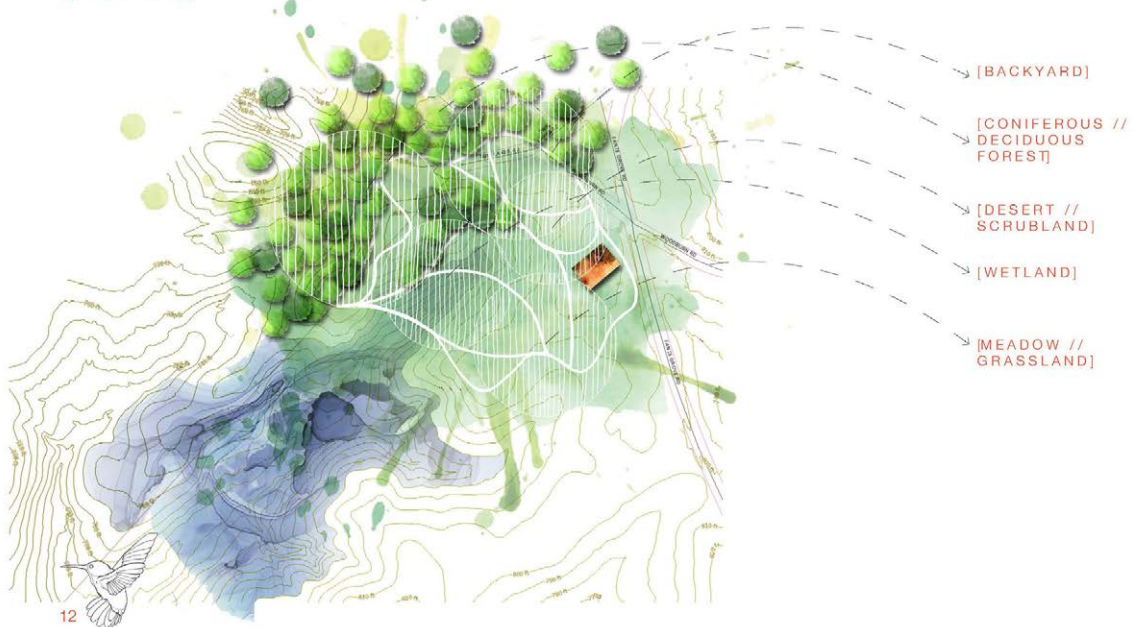
11 The Visitors Center, located at 990 Washington Avenue, offers an exciting and innovative gateway to the Garden. Seamlessly melding architecture and landscape, the new entrance is a model of energy-efficient design, including north-facing construction, a greened urban segment for heating and cooling, a living roof, and fitted glass walls. Surrounding the building is a new garden filled with native plantings and water-capturing beds. Minutously designed by the renowned architect Sir Norman Foster, the Visitor Center has earned LEED Gold certification for environmental sustainability.

The Visitor Center's engaging exhibits, enhanced visitor amenities, and gracious event space welcome and orient visitors and underscore the Garden's commitment to education, science, horticulture, community, and conservation.

THIS BOARD SHOWS THE CASE STUDIES THAT HELPED INFLUENCE THE FINAL DESIGN.

MASTER PLAN

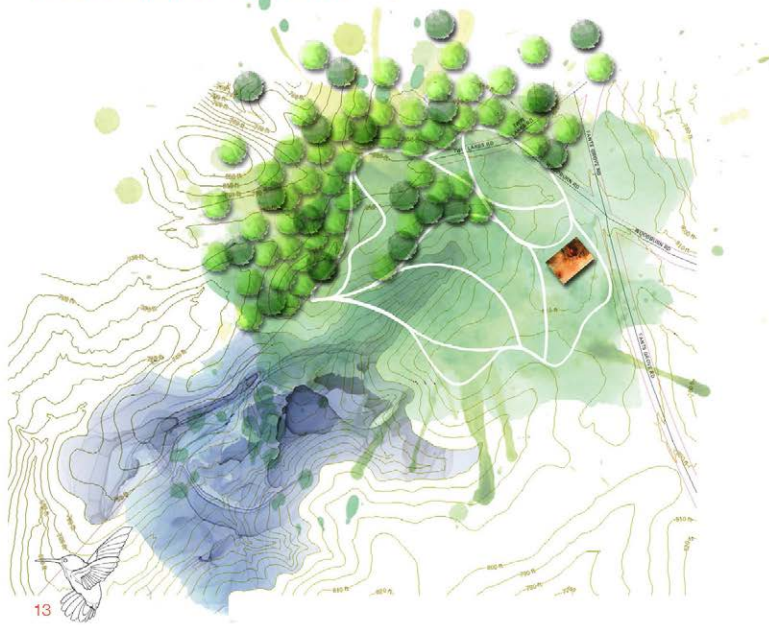
[HABITATS]



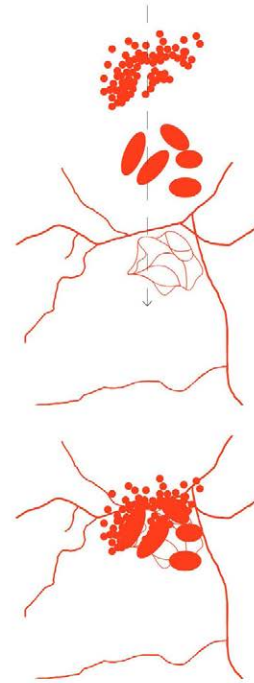
THIS BOARD SHOWS THE MASTER PLAN OF THE SITE AND THE SPECIFIC LOCATIONS OF ALL THE DIFFERENT TYPES OF HUMMINGBIRD HABITATS TO BE LOCATED ON SITE.

MASTER PLAN

[PERFORMANCE DRAWINGS]

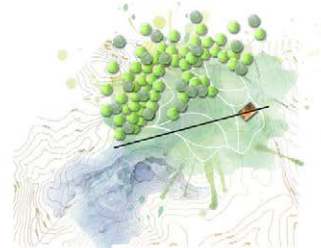
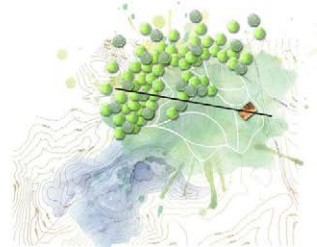
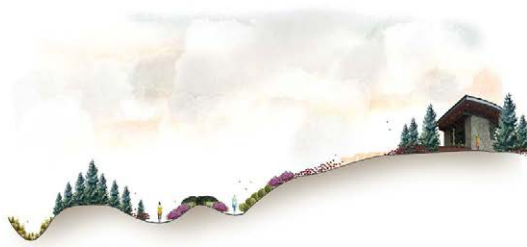


CIRCULATION HABITATS FOREST



THIS BOARD SHOWS THE BREAK DOWN OF ALL THE COMPONENTS ON THE SITE DISPLAYED AS PERFORMANCE DRAWINGS. THESE HELP VIEWERS BETTER UNDERSTAND THE LAYERS AND PROGRAMS OF THE SITE.

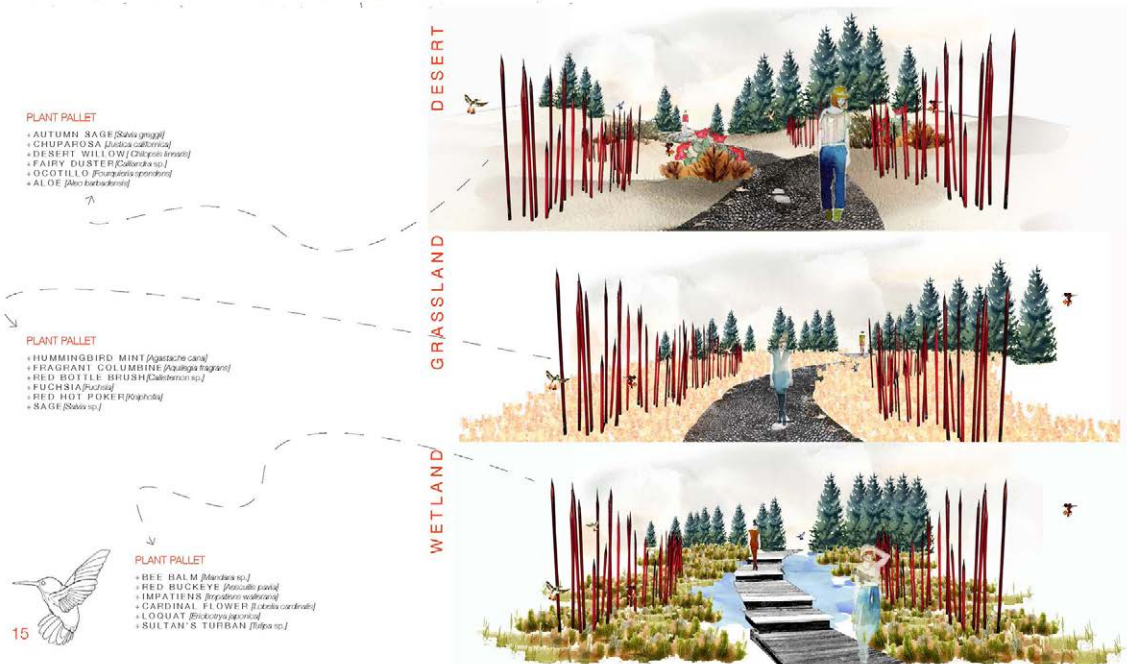
SECTIONS



14

THIS BOARD SHOWS SECTIONS OF THE SITE AND WHERE THEY WERE CUT ON THE MASTER PLAN. THIS HELP THE VIEWER UNDERSTAND HOW DRASTIC THE TOPOGRAPHY IS ON SITE.

PERSPECTIVES

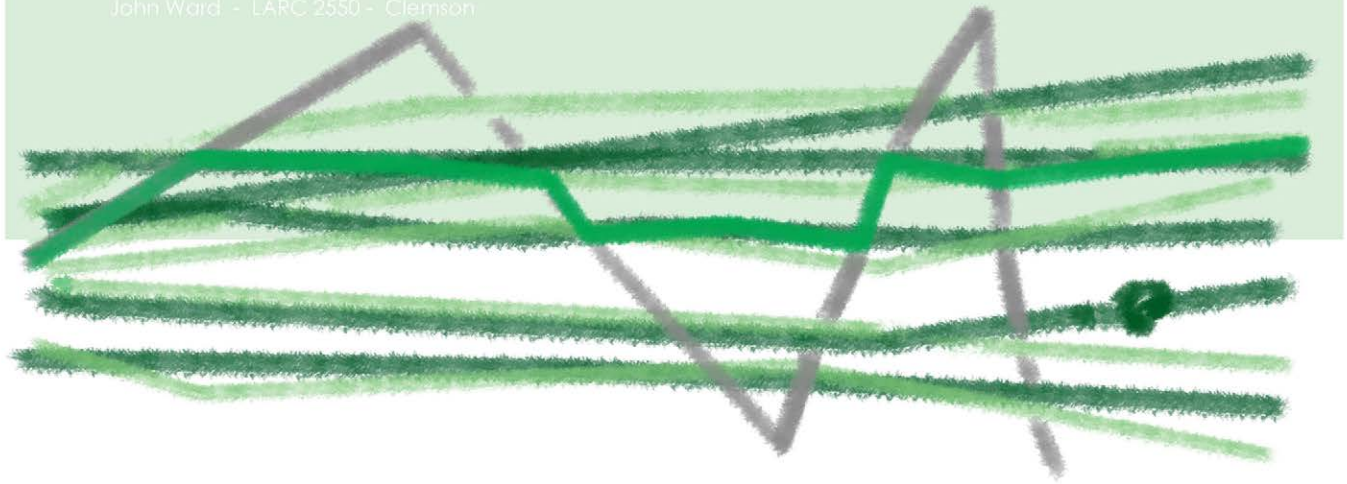


THIS BOARD SHOWS WHICH PERSPECTIVES ON SITE. THESE PERSPECTIVES WERE CHOSEN BASED ON THEIR TYPE OF HABITAT. EACH HABITAT IS CONNECTED TO A PLANT PALLET TO SHOW WHICH TYPES OF PLANT WOULD BE BEST SUITED FOR EACH AREA THAT WILL ATTRACT HUMMINGBIRDS.

Threadscapes

Williamston SC

John Ward - LARC 2550 - Clemson



History of Williamston, SC

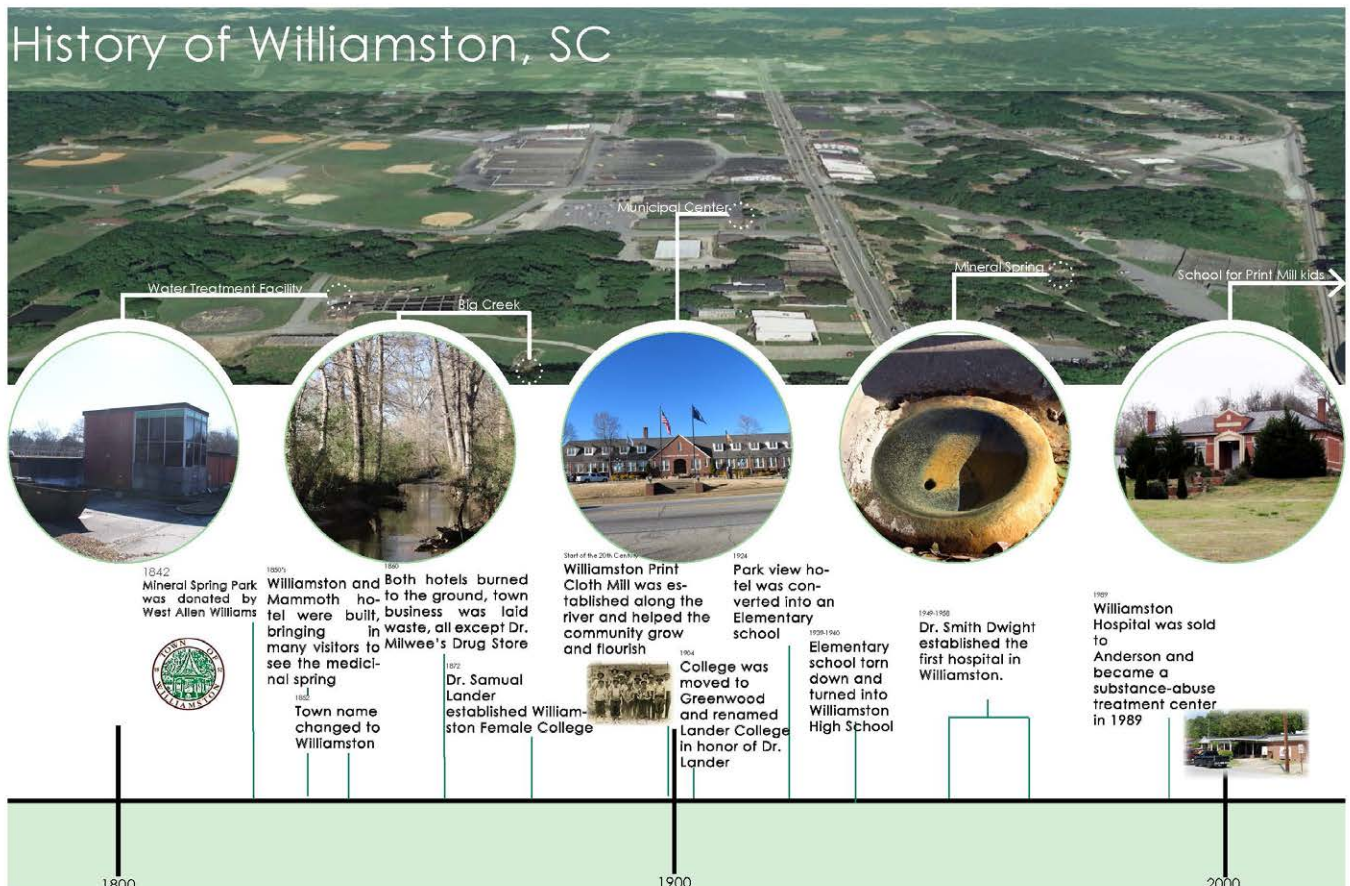
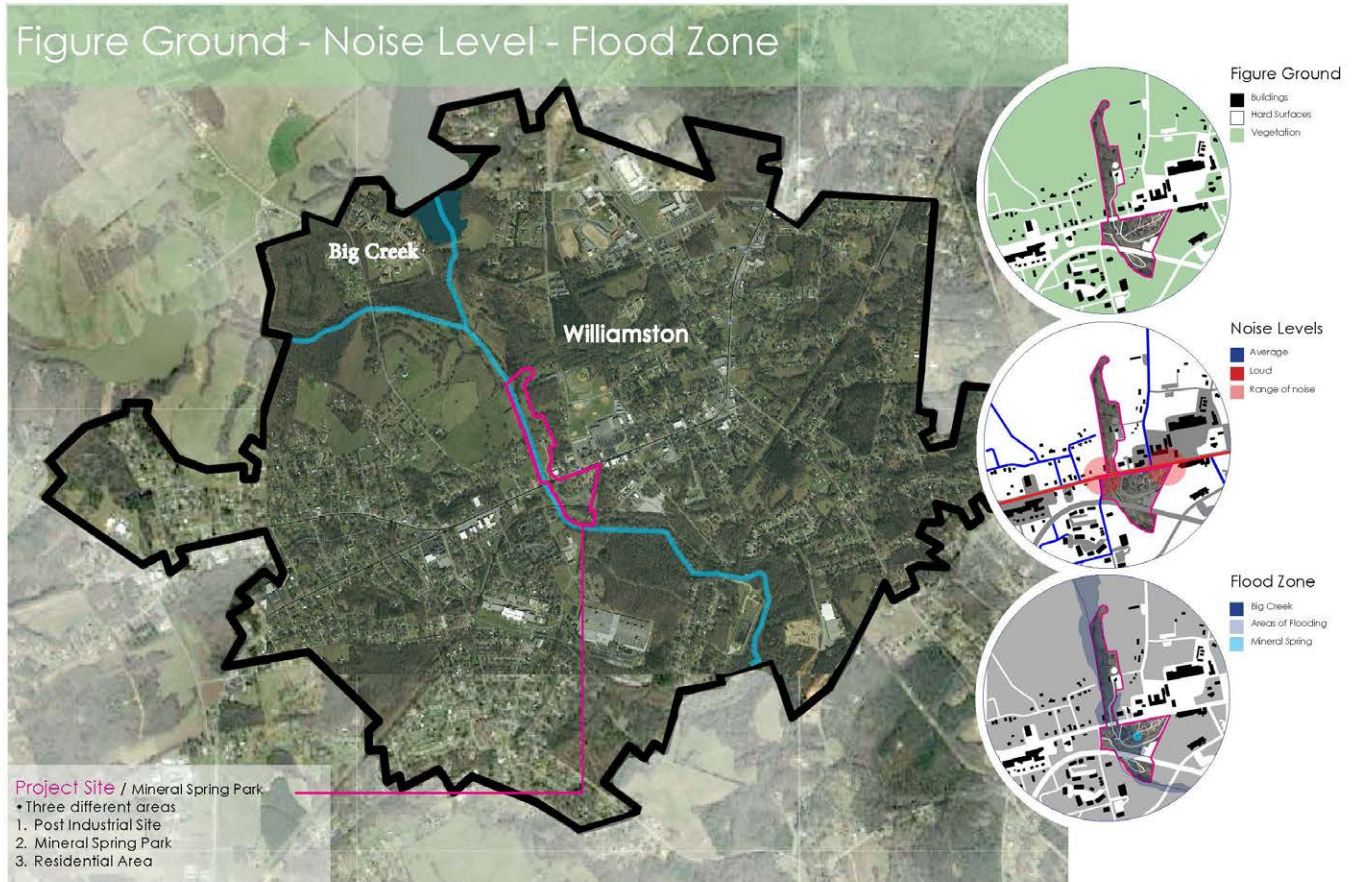
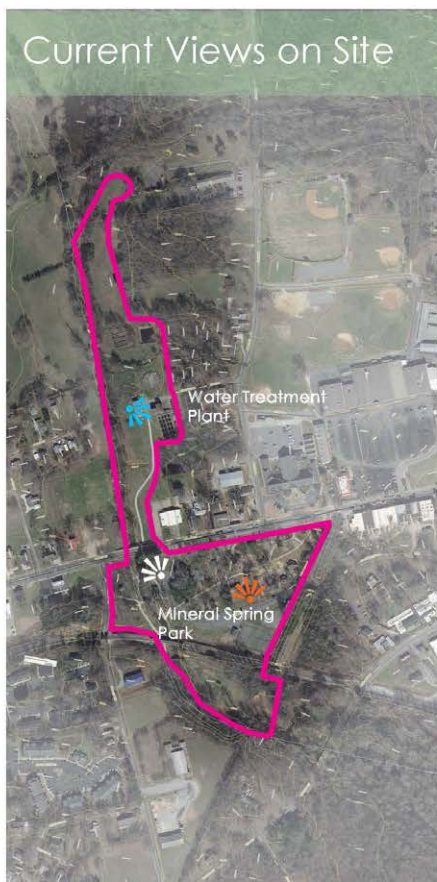


Figure Ground - Noise Level - Flood Zone



Current Views on Site



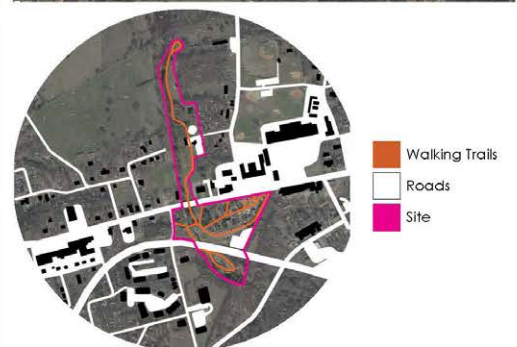
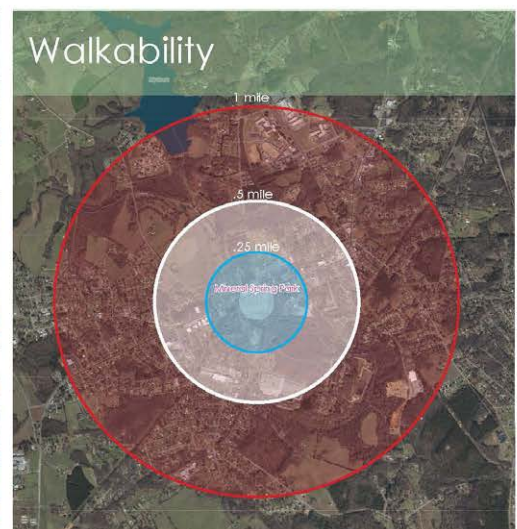
Walkable areas within .25 miles of Park

- Townhall
- Firestation
- McDonalds
- Goody's
- USPS
- Grace United Methodist Church

Walkable areas within .5 miles of Park

- Little Ceasars Pizza
- Residential Site
- Smokin' Pig
- Calvary Baptist Church

Walkability



Fabric

THREADING

A landscape or a site can have common threads, threads such as people and car circulation, threads of rivers running through a site, threads of roads connecting and branching off into more roads.



LAYERING

A site has layers, like a strip of fabric, it intertwines, becoming stronger. Layers create diversity as well; One layer can open up possibilities for another. A mountain has layers that fold naturally up and down its' face.



WEAVING

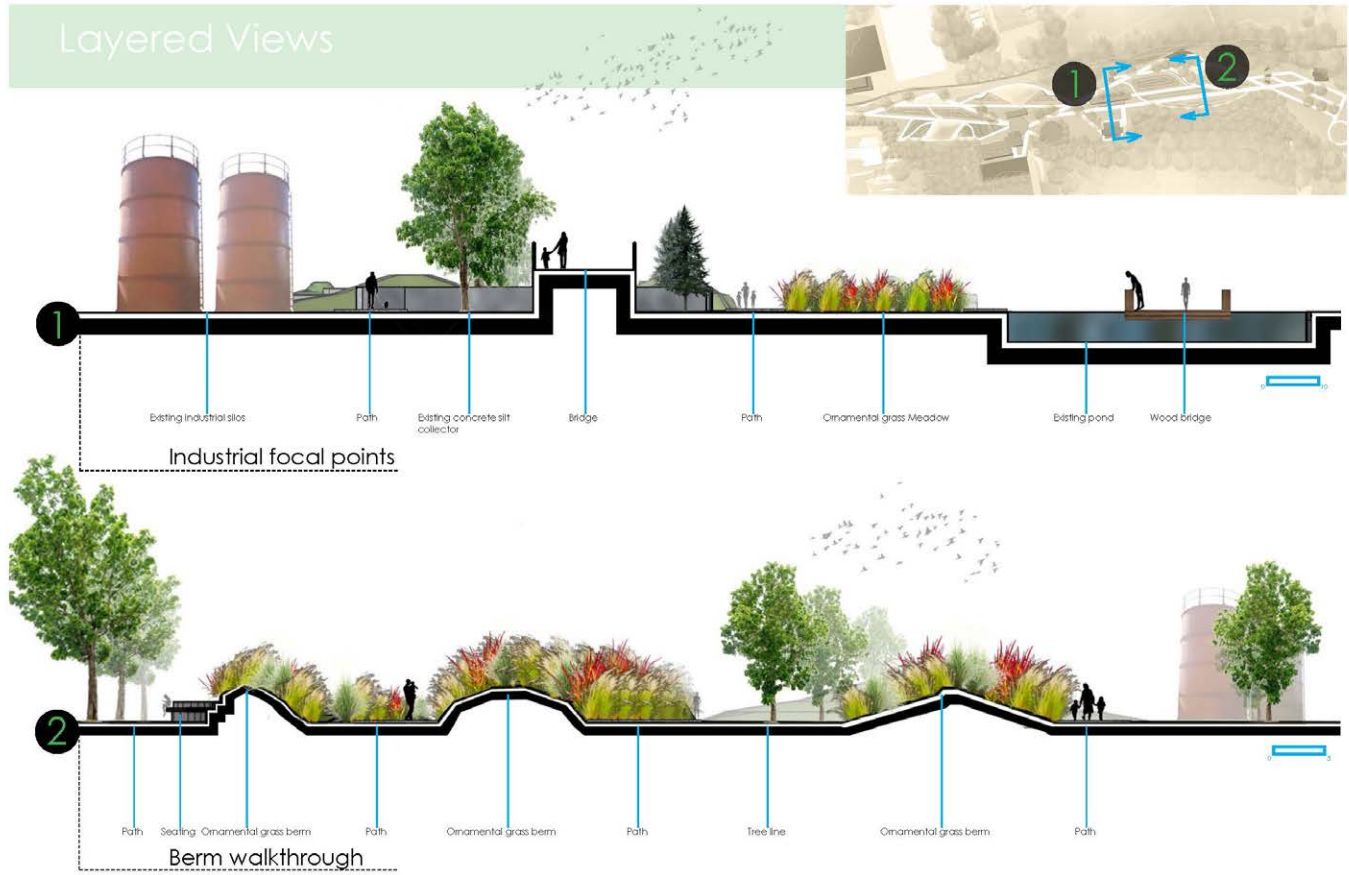
Paths are created to explore the landscape through weaving, looping, gapping, bridging, braiding, etc. Fabric is used in the same way to create direction, and patterns that only the maker can decide what is right.



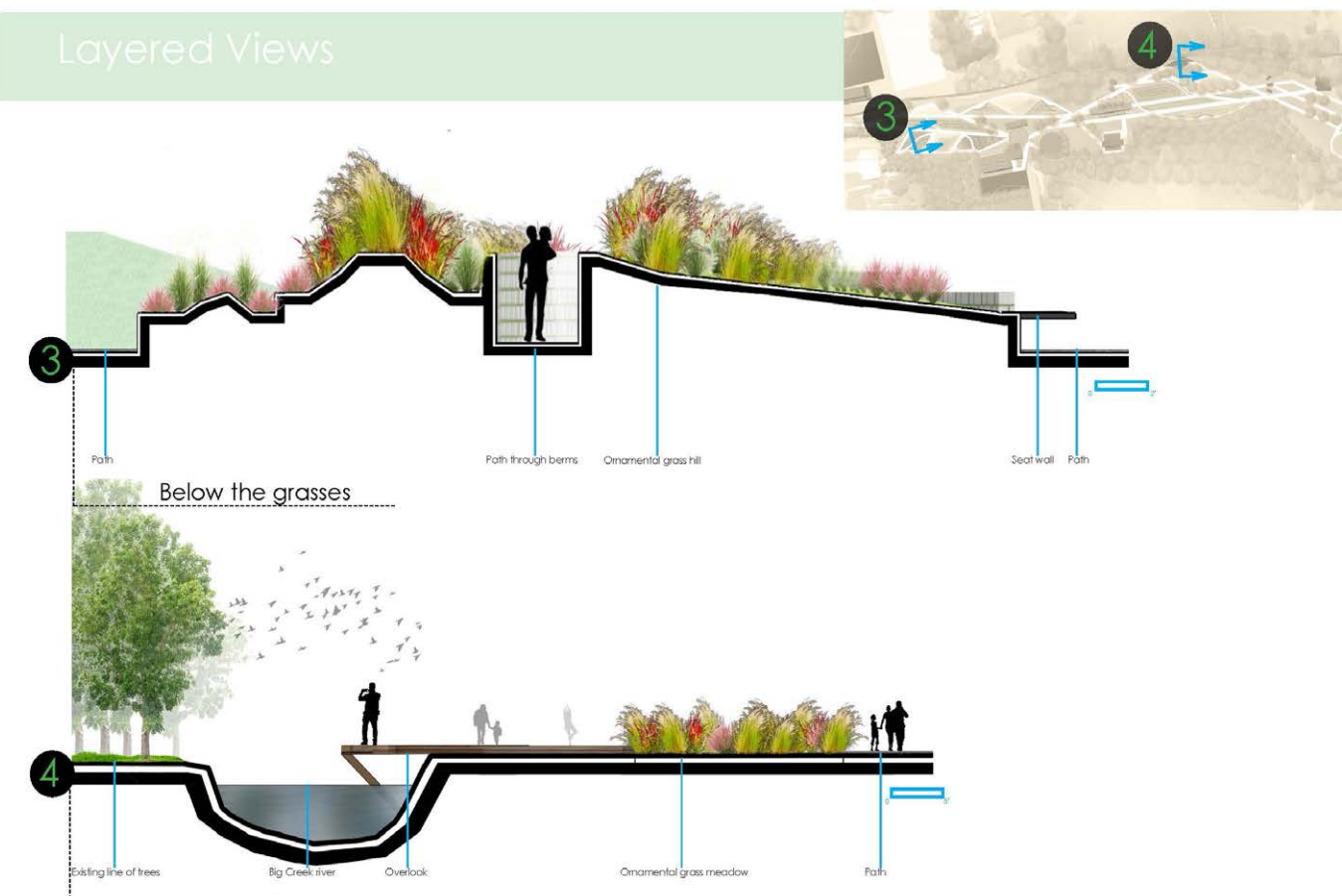
Site Master Plan

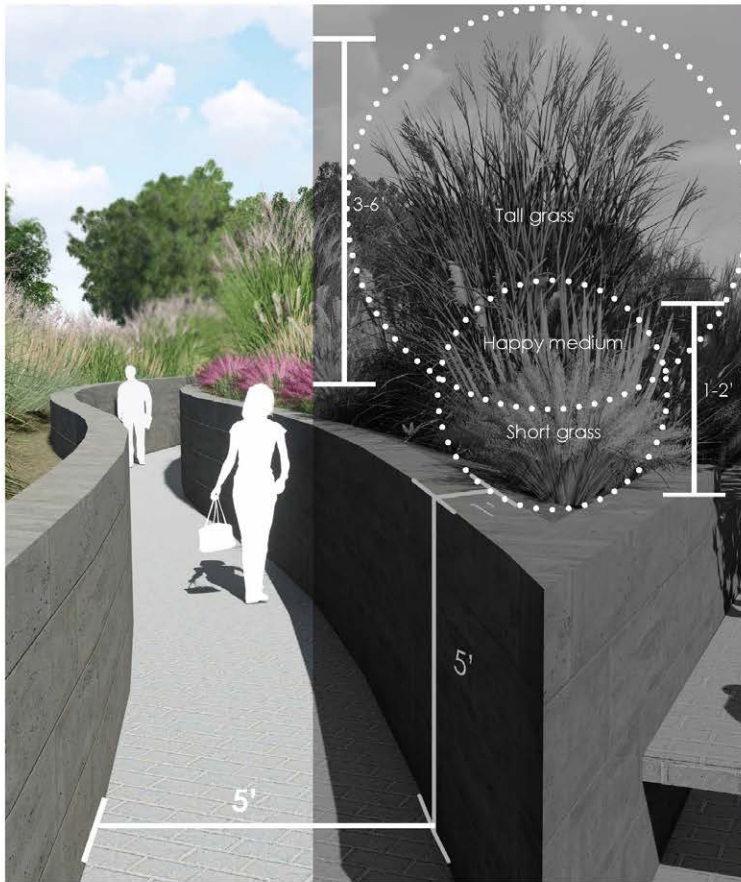


Layered Views



Layered Views





Atmosphere

The selection of ornamental grasses was specific to not only species but also size:

Tall grass

- Creates a feeling of dominance
- Allows visitors to drown out their surroundings
- Relates with the magnitude of a post industrial place

Short grass

- Follows the topography of the berms
- Creates a colorful texture more viewable for visitors
- Allows for senses such as touch and smell



Big Creek Overlook



Knotted Circle

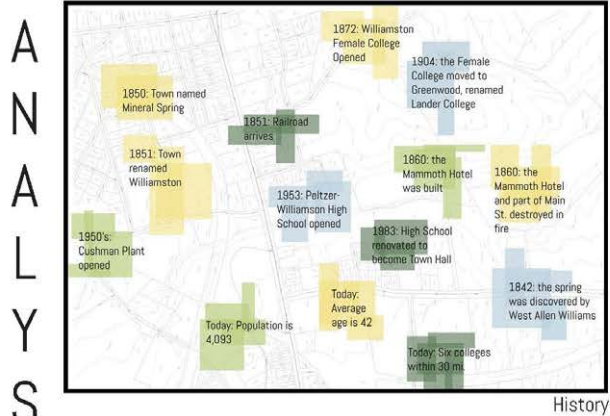


Pond Access



Added Vegetation





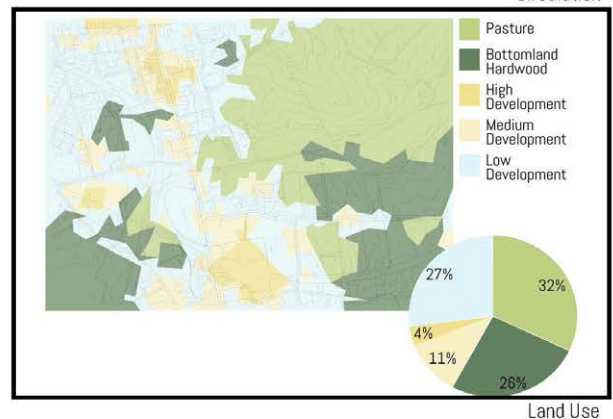
"Tell me, is the rose naked
or is that her only dress?"

Why do trees conceal
The splendor of their roots?

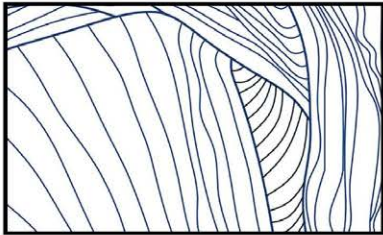
Who hears the regrets
of the thieving automobile?

Is there anything in the world sadder
than a train standing in the rain?"

-Pablo Neruda



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Sinterbeckenplatz, Esch Belval, Luxembourg



Parco Dora, Turin, Italy

Latz and Partner
Landscape Architecture and
Urban Planning Firm
Kranzberg, Germany



Duisburg-Nord - Sinter Park, Germany



The Hiriya Landfill, Tel Aviv, Israel



Peter Latz Master garden, Beijing, China



Duisburg-Nord - Blast Furnace Park, Germany

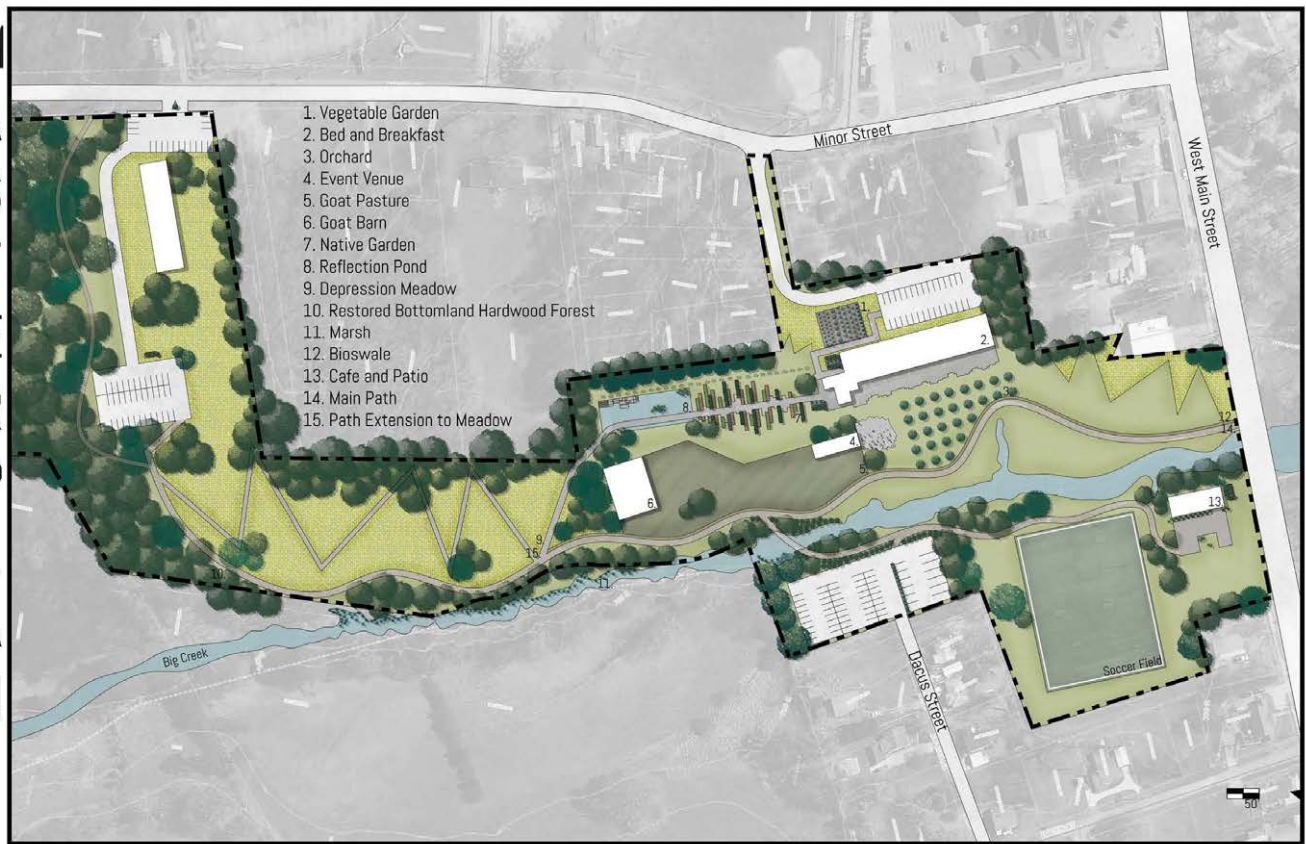


Duisburg Nord - Water Park, Germany



Private Garden, Ampertshausen, Germany

M A S T E R P L A N



P R O G R A M



1. Marsh
- High priority
 - Creek access
 - Reduction of fecal coliform levels
 - Wetland
 - Native plants

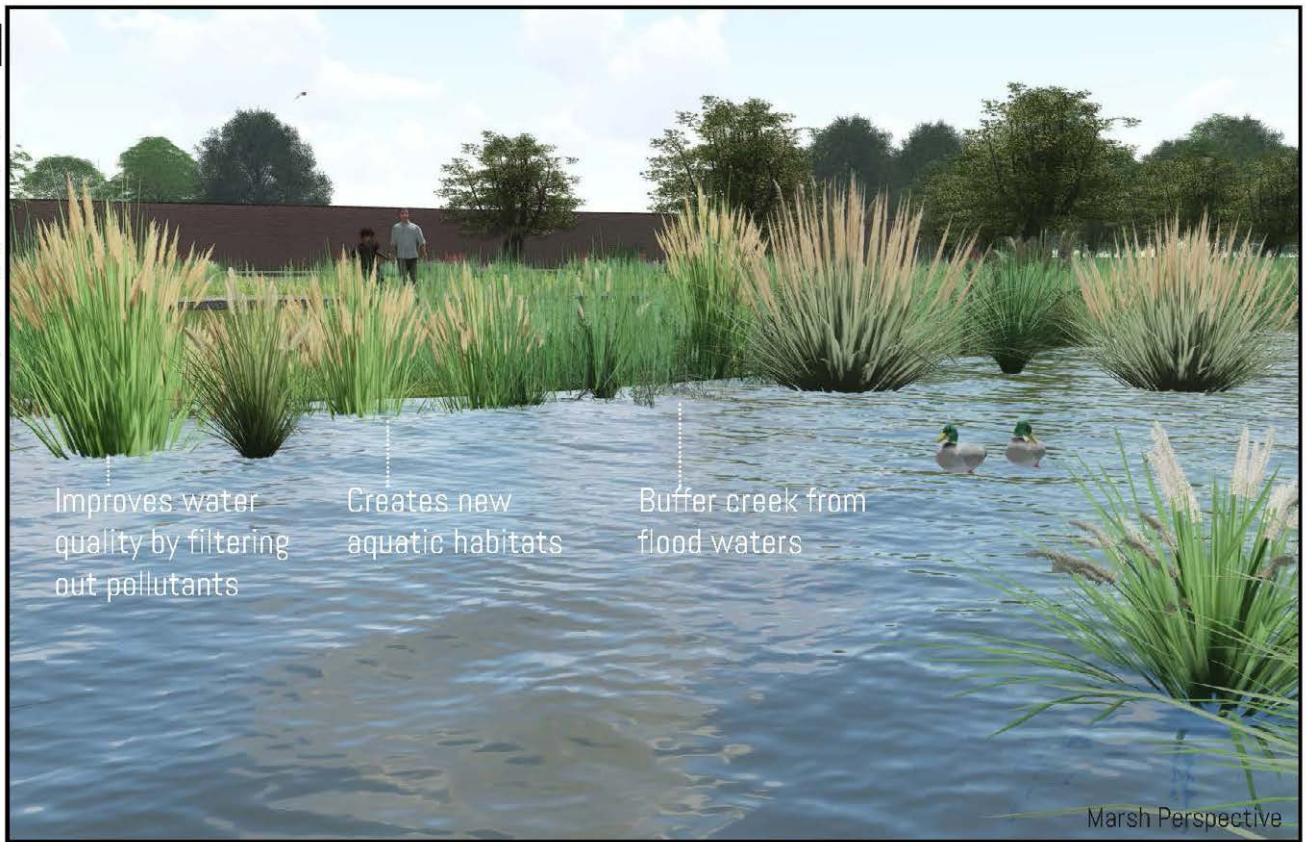
2. Medium Development
- High priority
 - Pedestrian and vehicular traffic
 - Bed and breakfast
 - Farm to table cafe
 - Pond
 - Bioswale

3. Goat Pasture
- High priority
 - Pedestrian only
 - Goat farm
 - Wedding venue
 - Yoga

4. Depression Meadow
- Medium priority
 - Pedestrian only
 - Native plantings
 - Trails
 - Picnic spots

5. Restored Bottomland Hardwood
- Low priority
 - Pedestrian only
 - Mitigate environmental impact
 - Native plants
 - Independent exploration

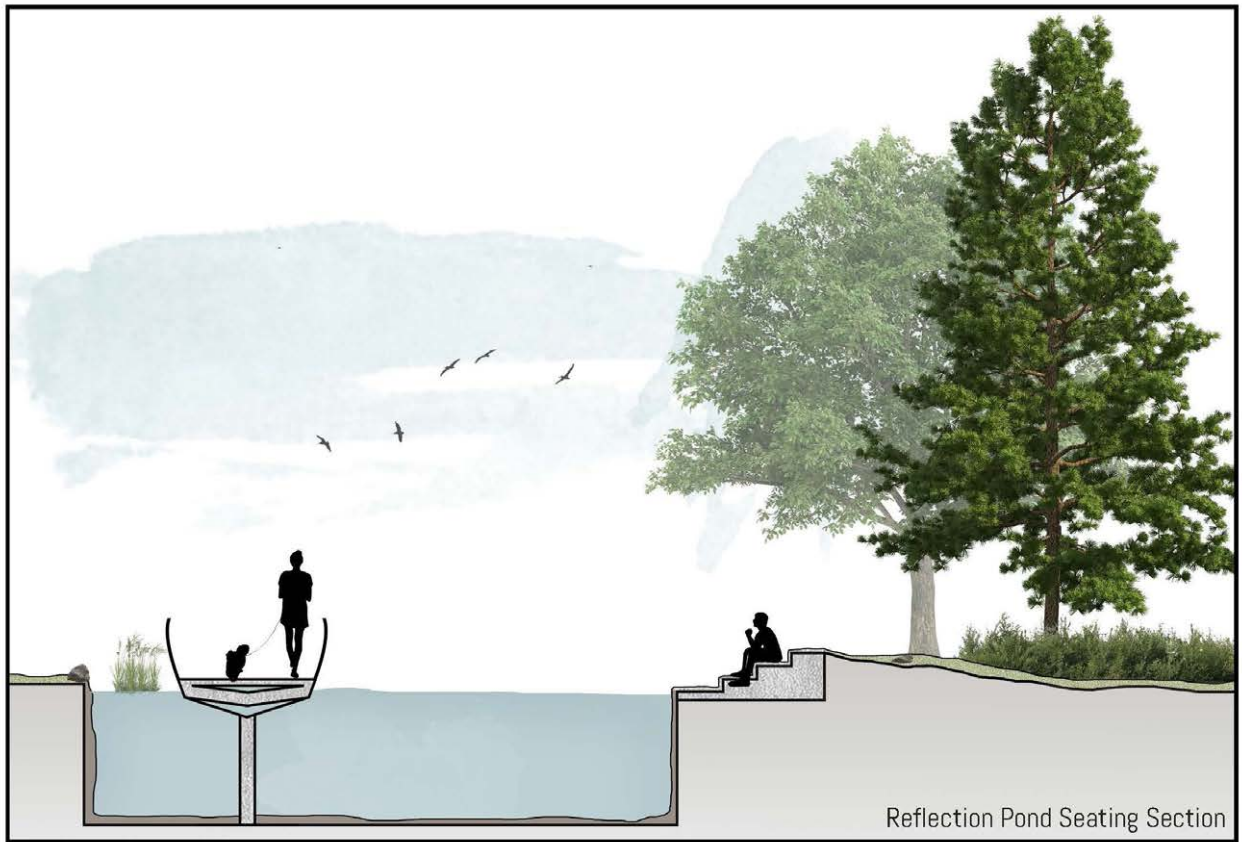
MARSH



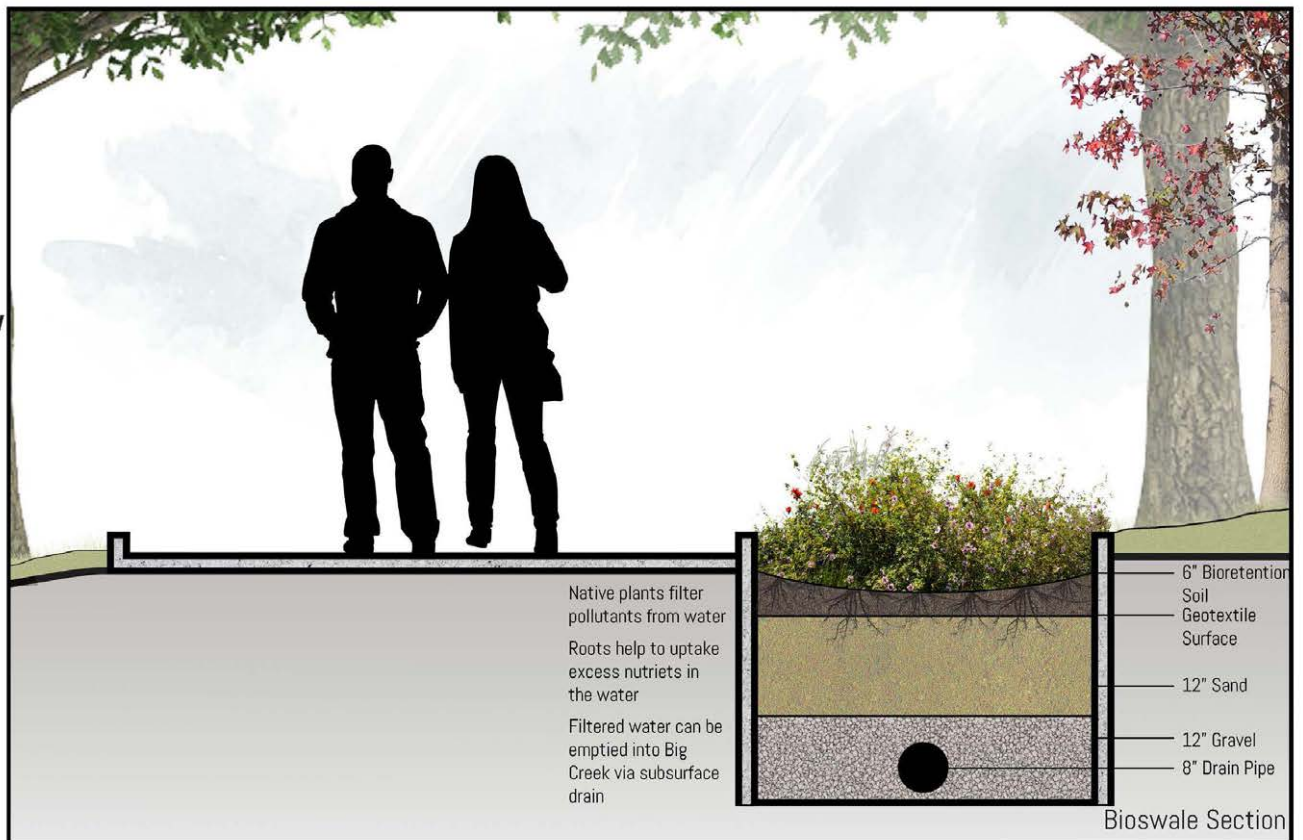
REFLECTION POND



REFLECTION POND



BIOSWALE



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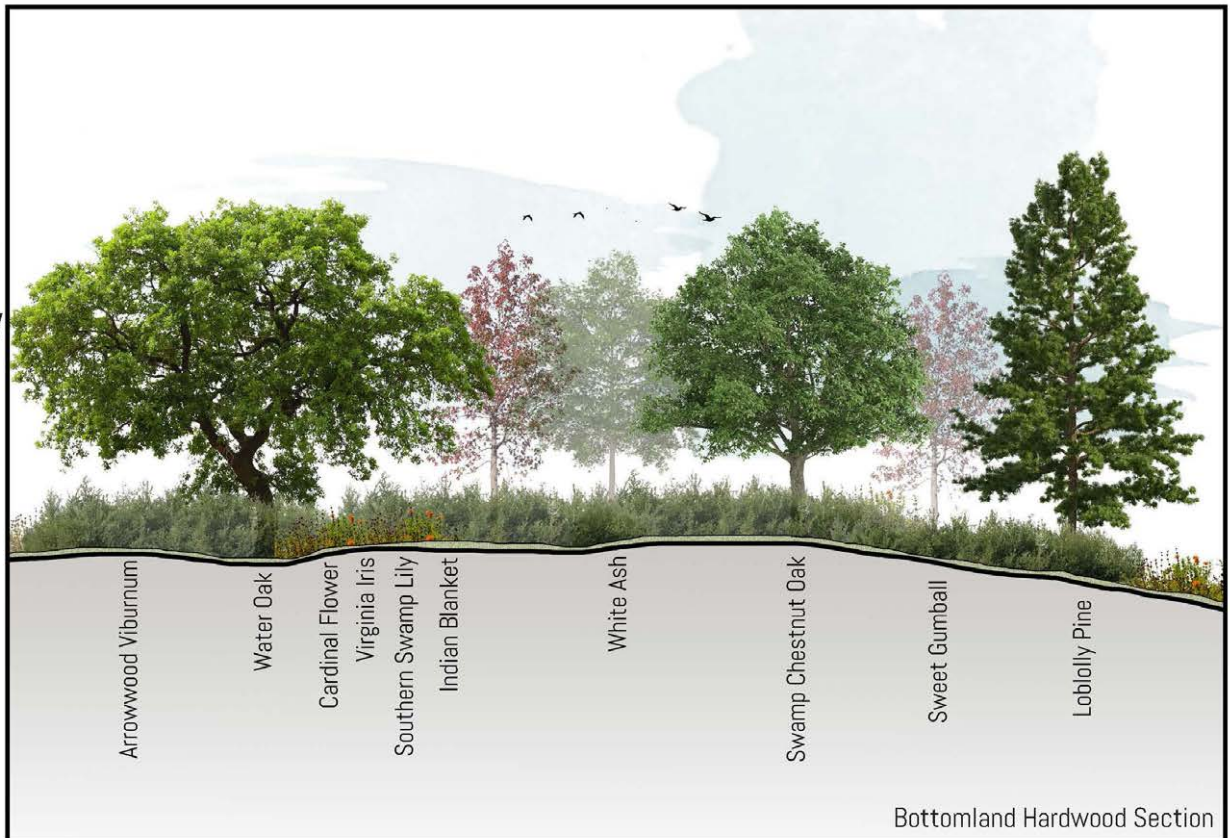
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B H O A T R T D O W M O L O A D N D



P A O N S A T L Y S I S

