

AUTOCAD FINAL	
ASSIGNMENT	SHEET
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CLEMSON UNIVERSITY
LARC 8970
SPRING 2024

Kal Koopman
GREENVILLE, SC

REVISION	DATE	BY

Date: 2/6/2024

Scale:

Drawn by: KDK

Sheet:



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GREENVILLE, SC

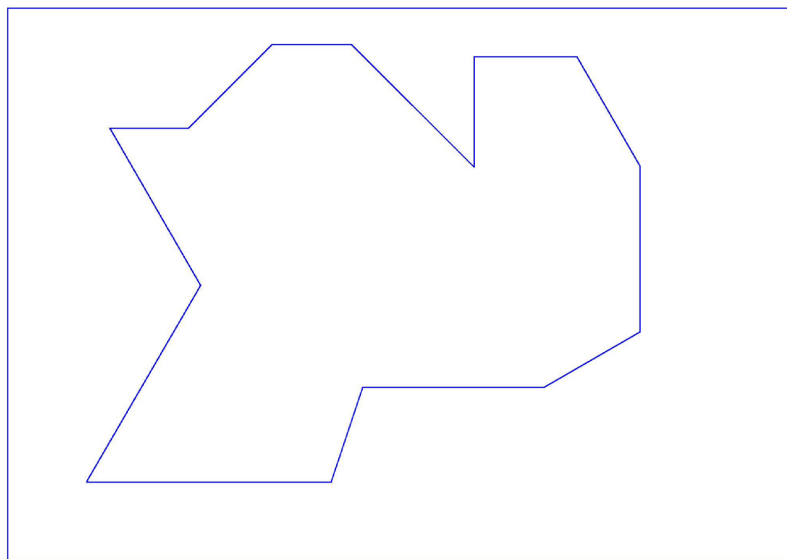
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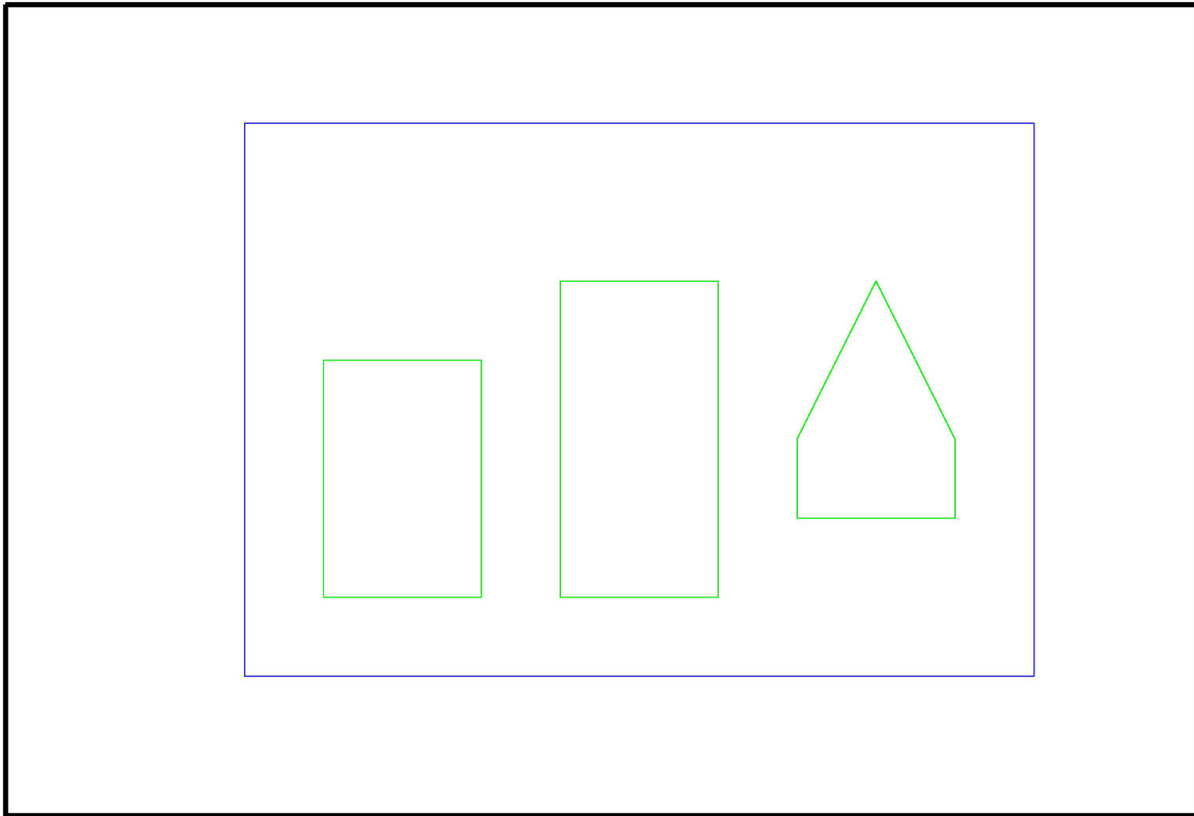
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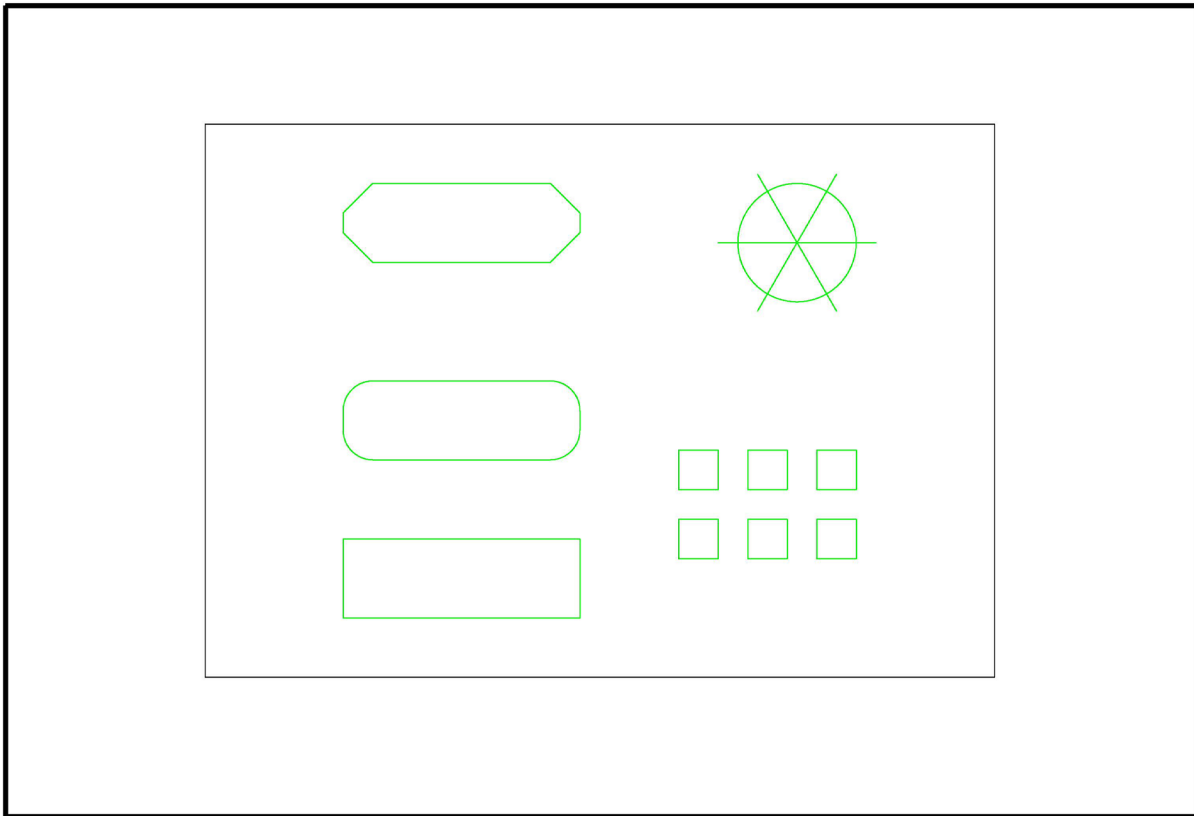


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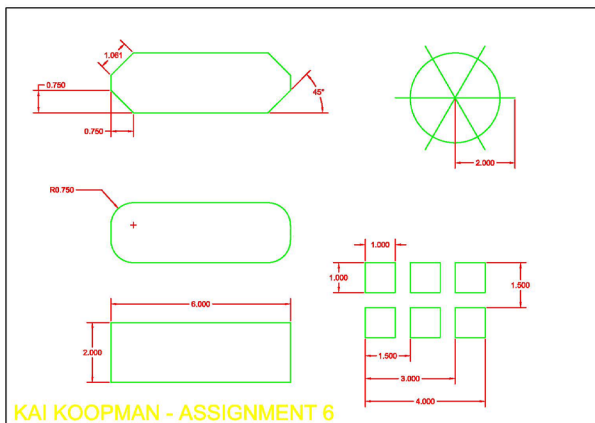
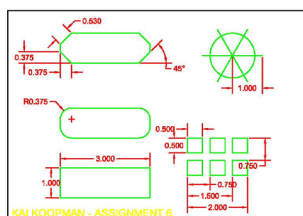


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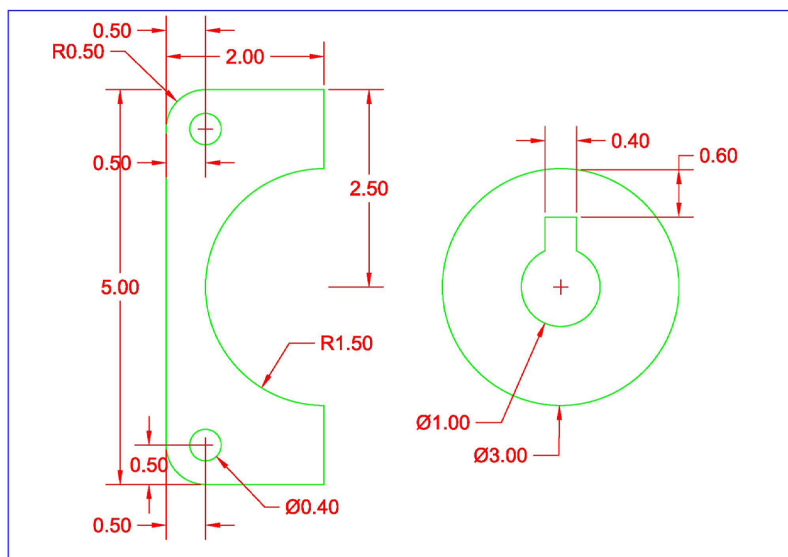
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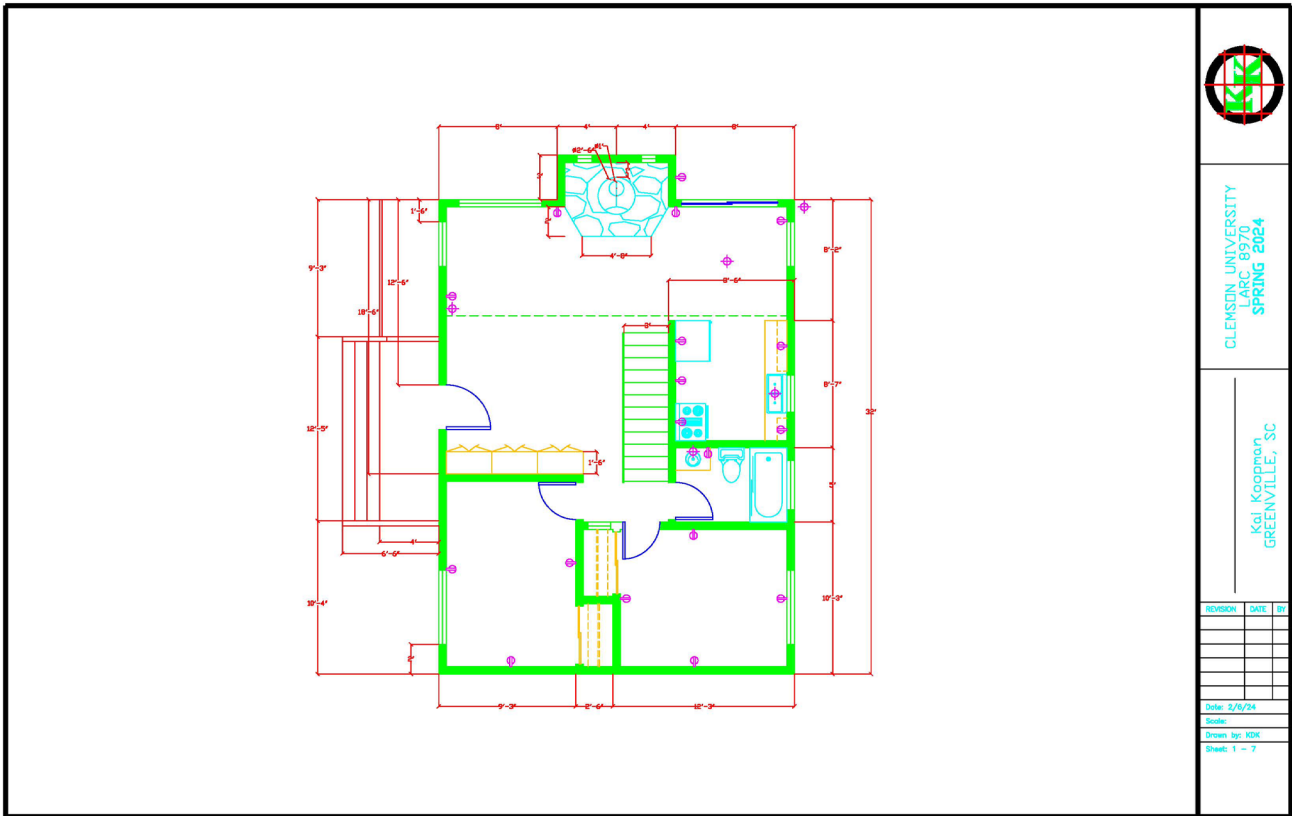
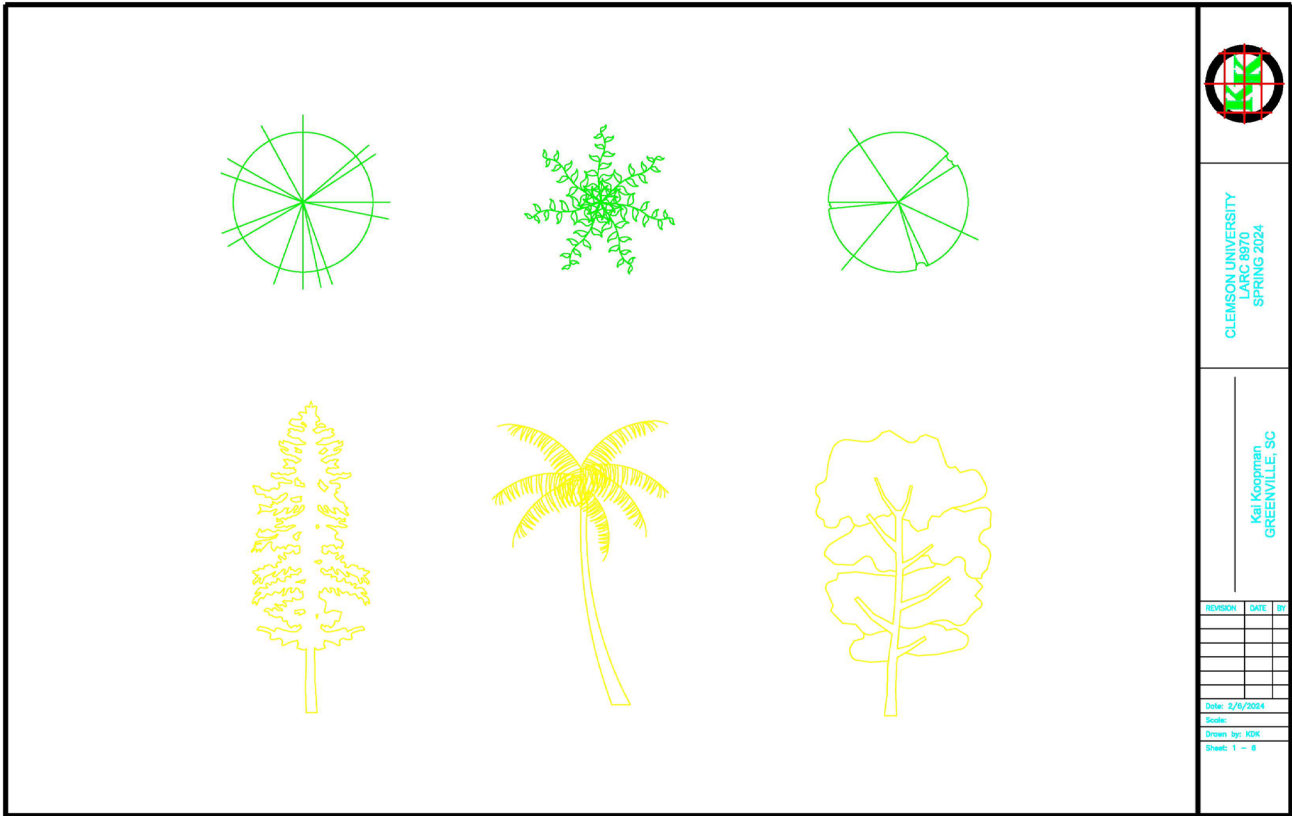
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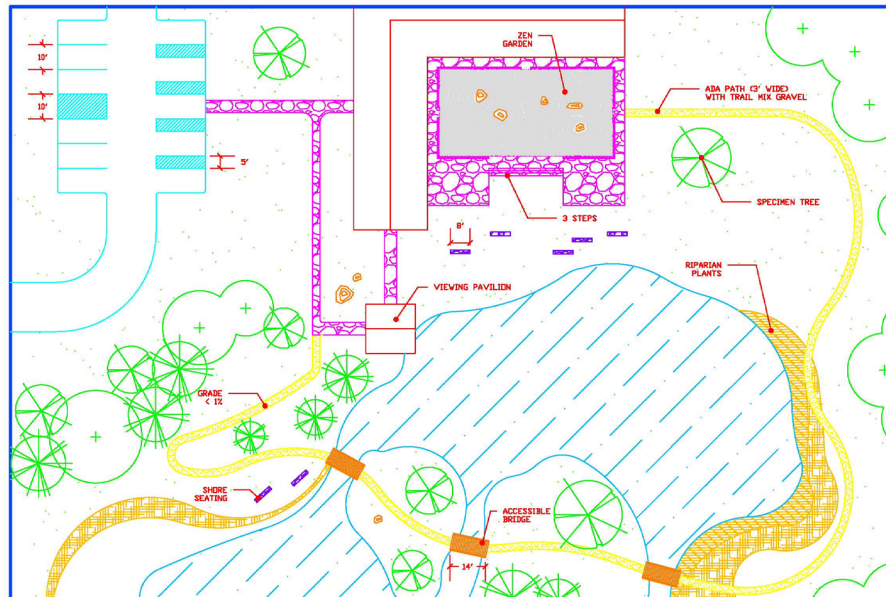
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Sheet: 1 - 5



ACCESSIBLE ZEN GARDEN



SCALE: 1/8" = 1'



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Take the lesson quiz

You Scored: 38 / 45



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KAI KOOPMAN

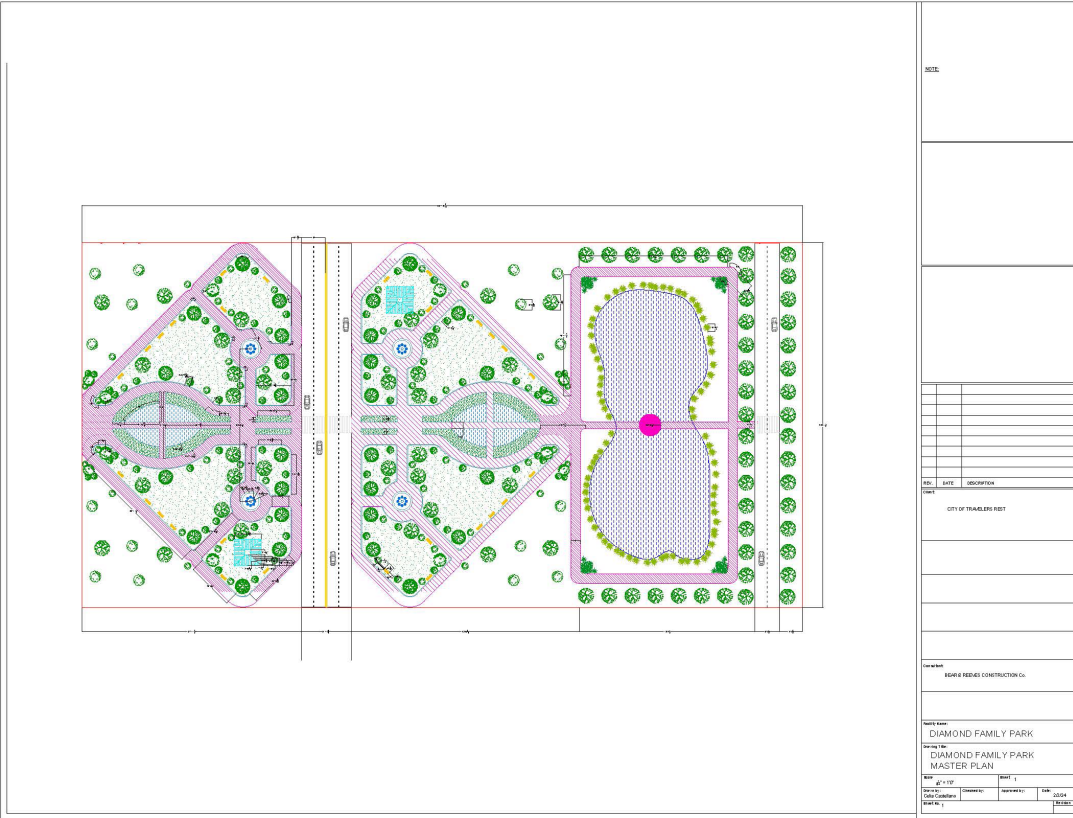
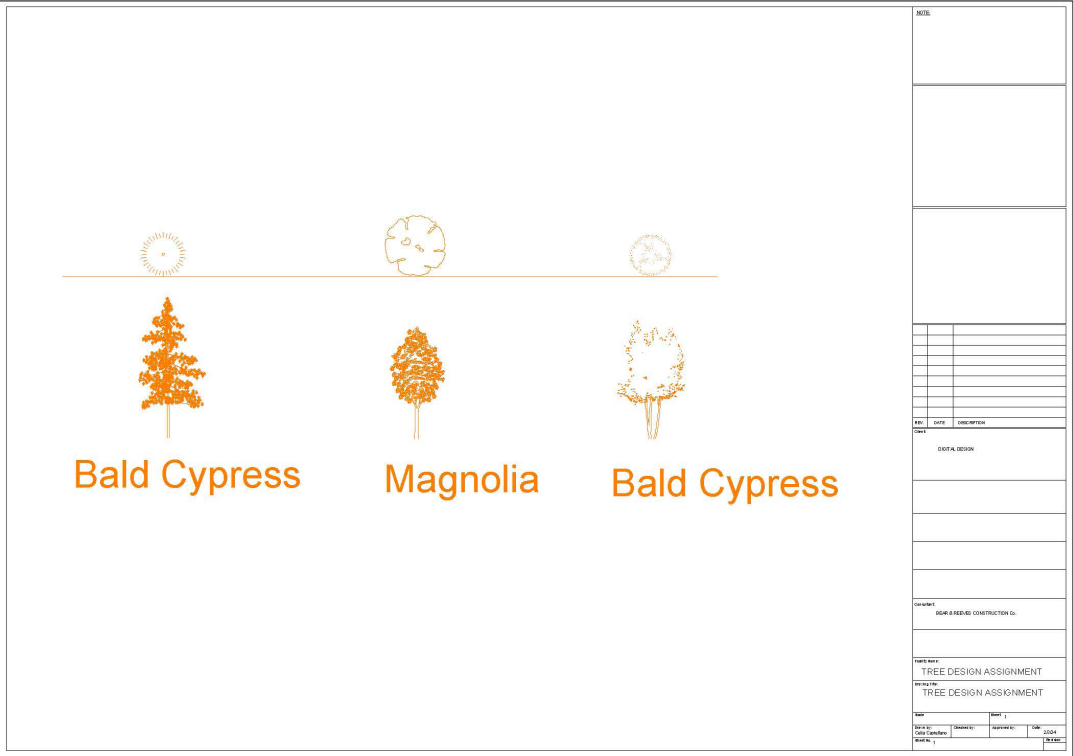
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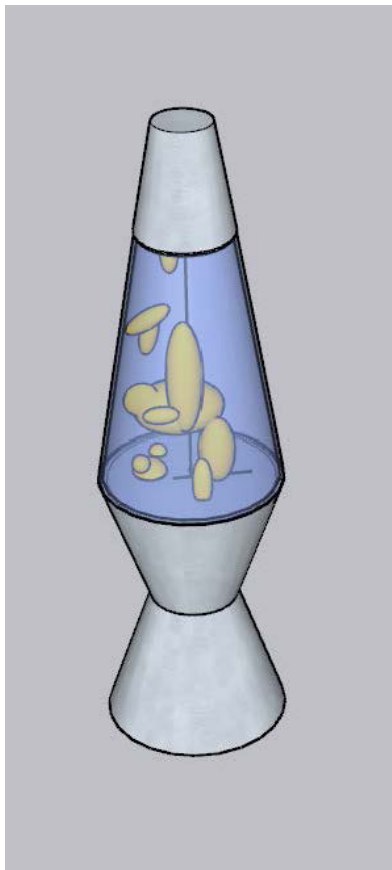
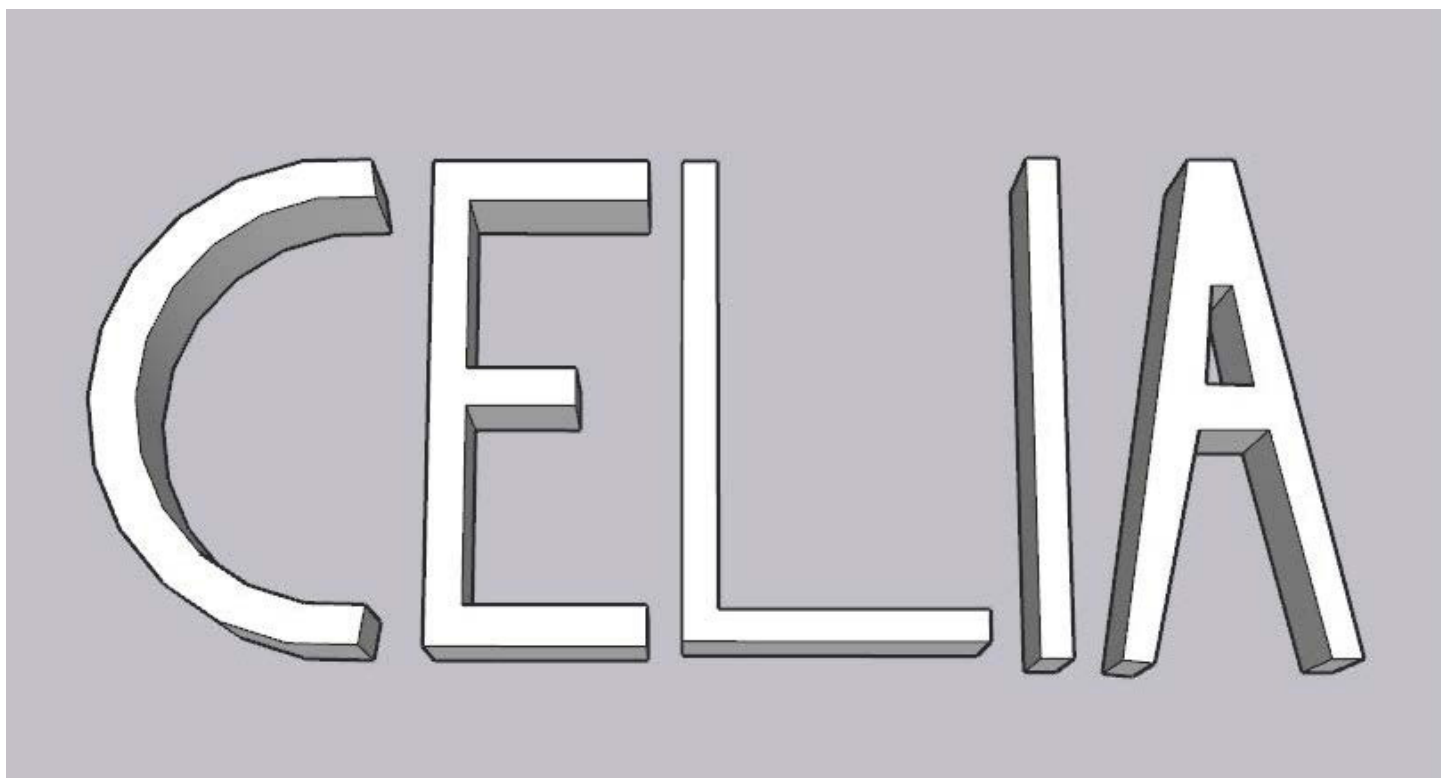
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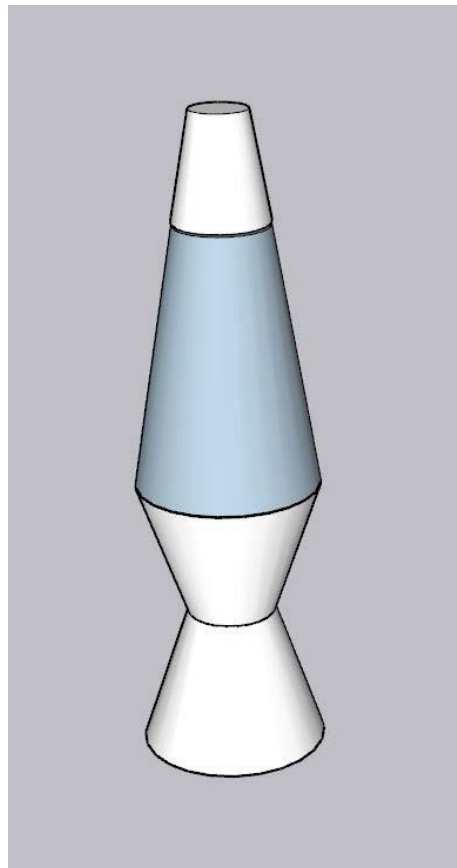
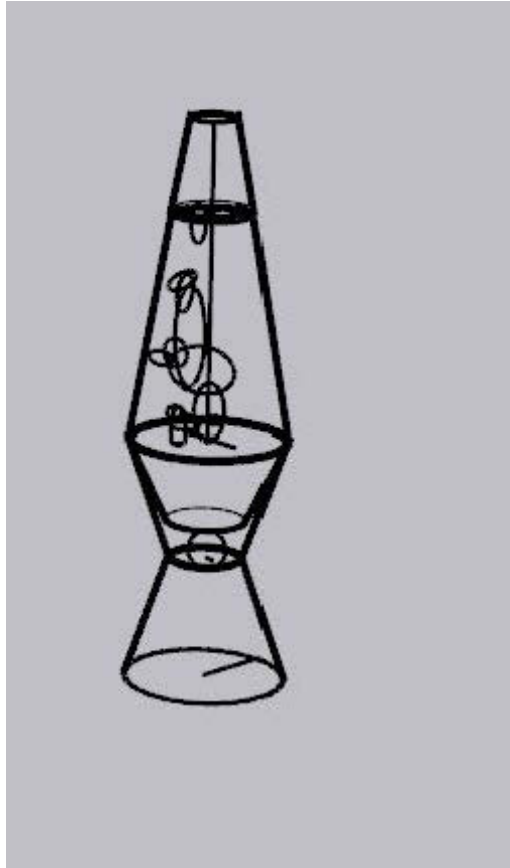
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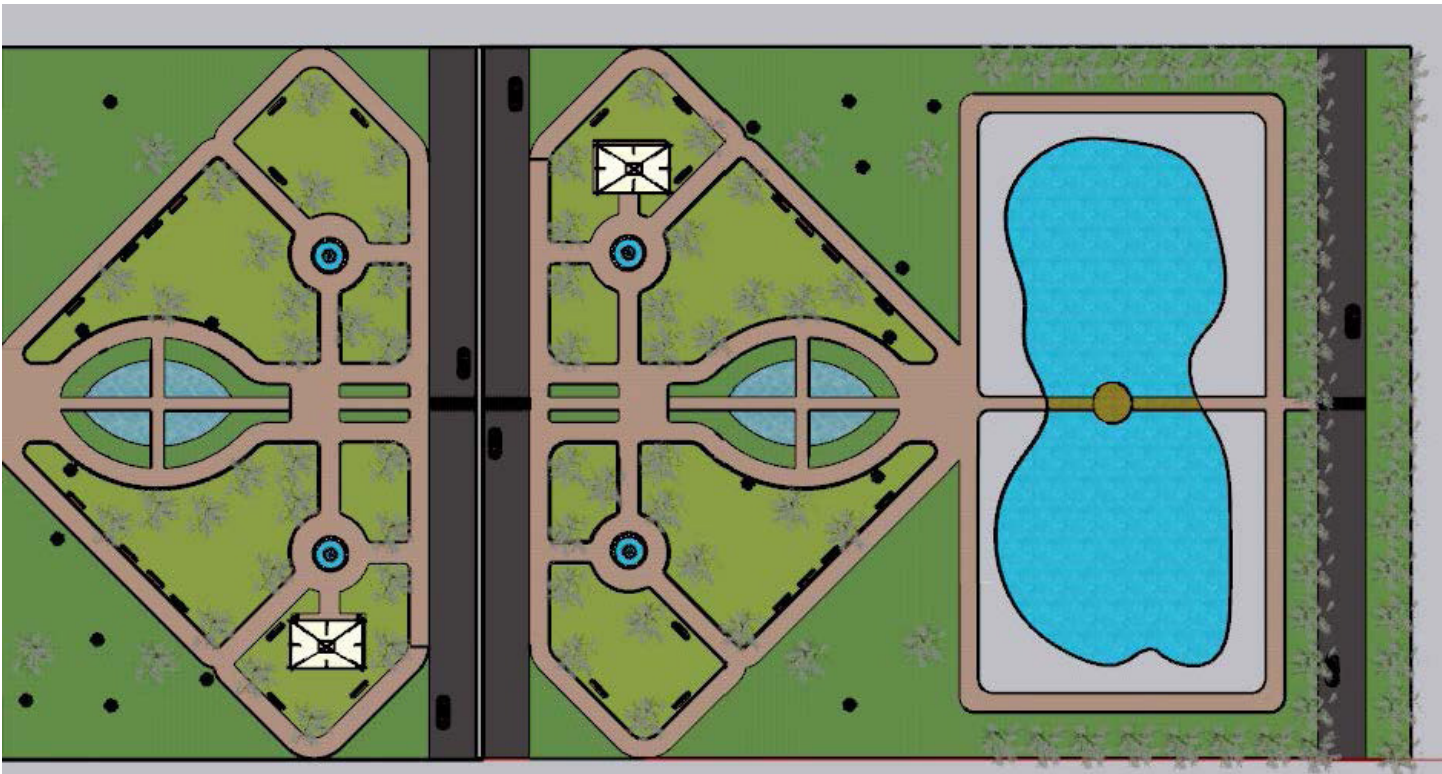
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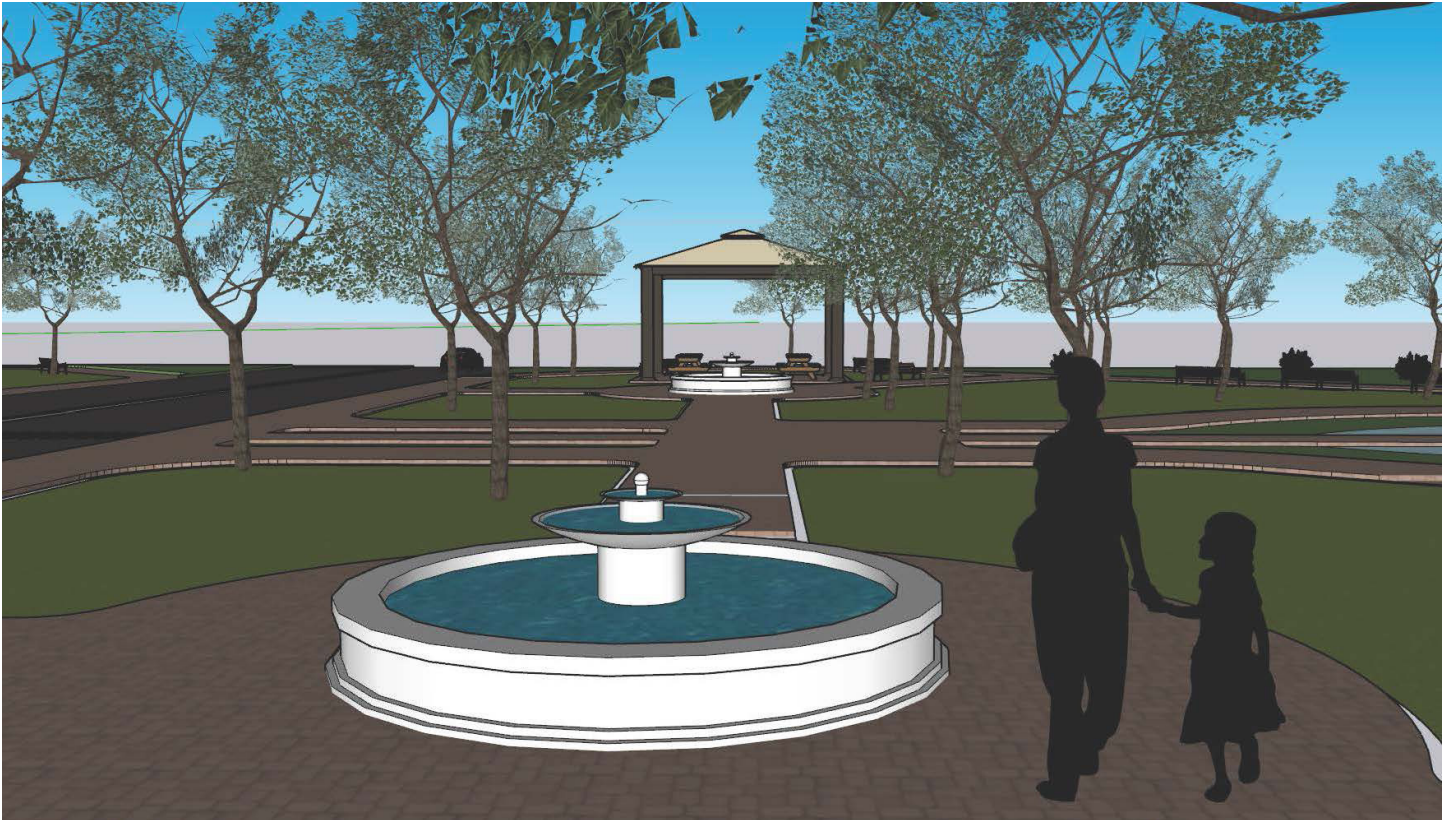
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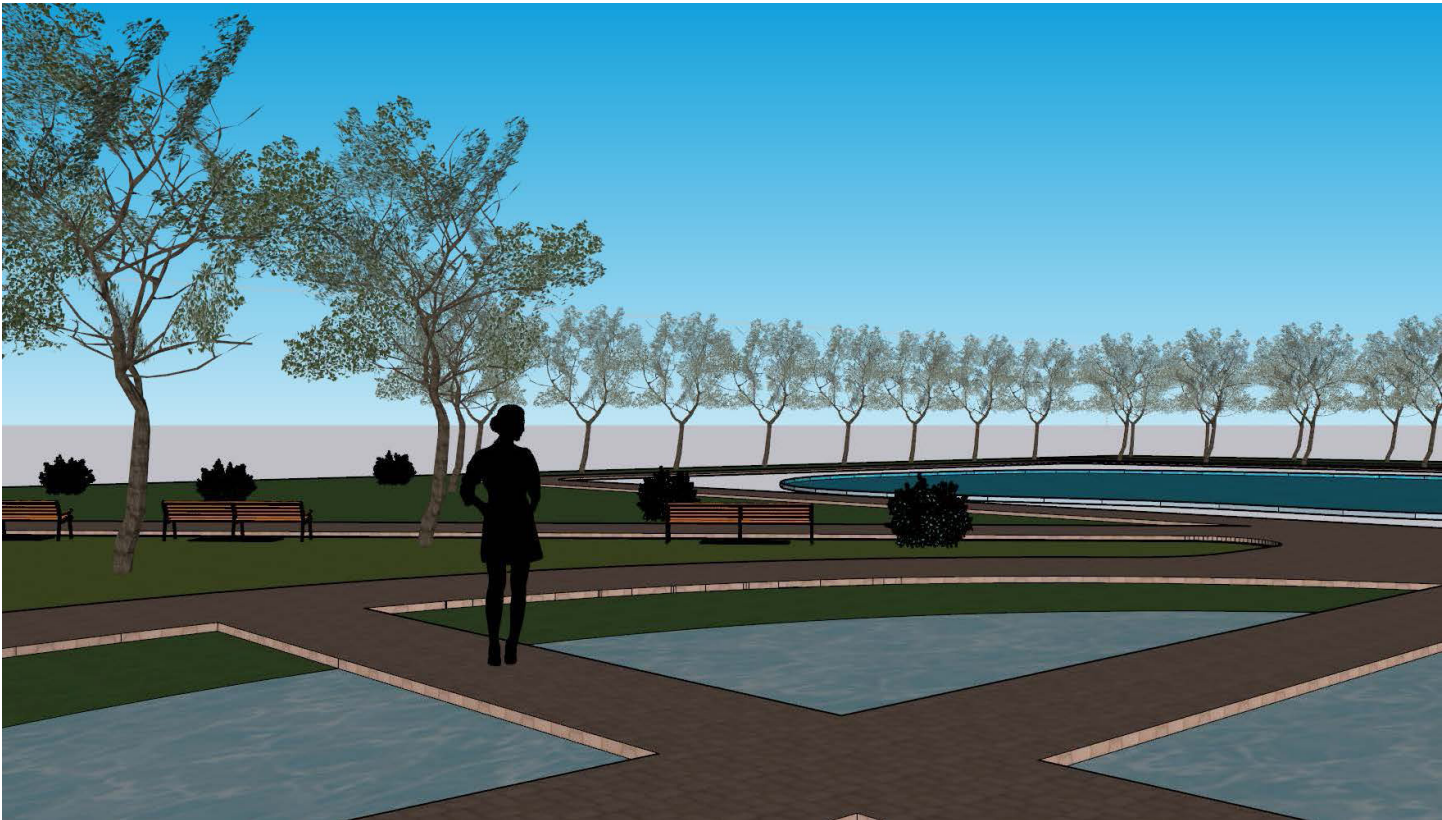
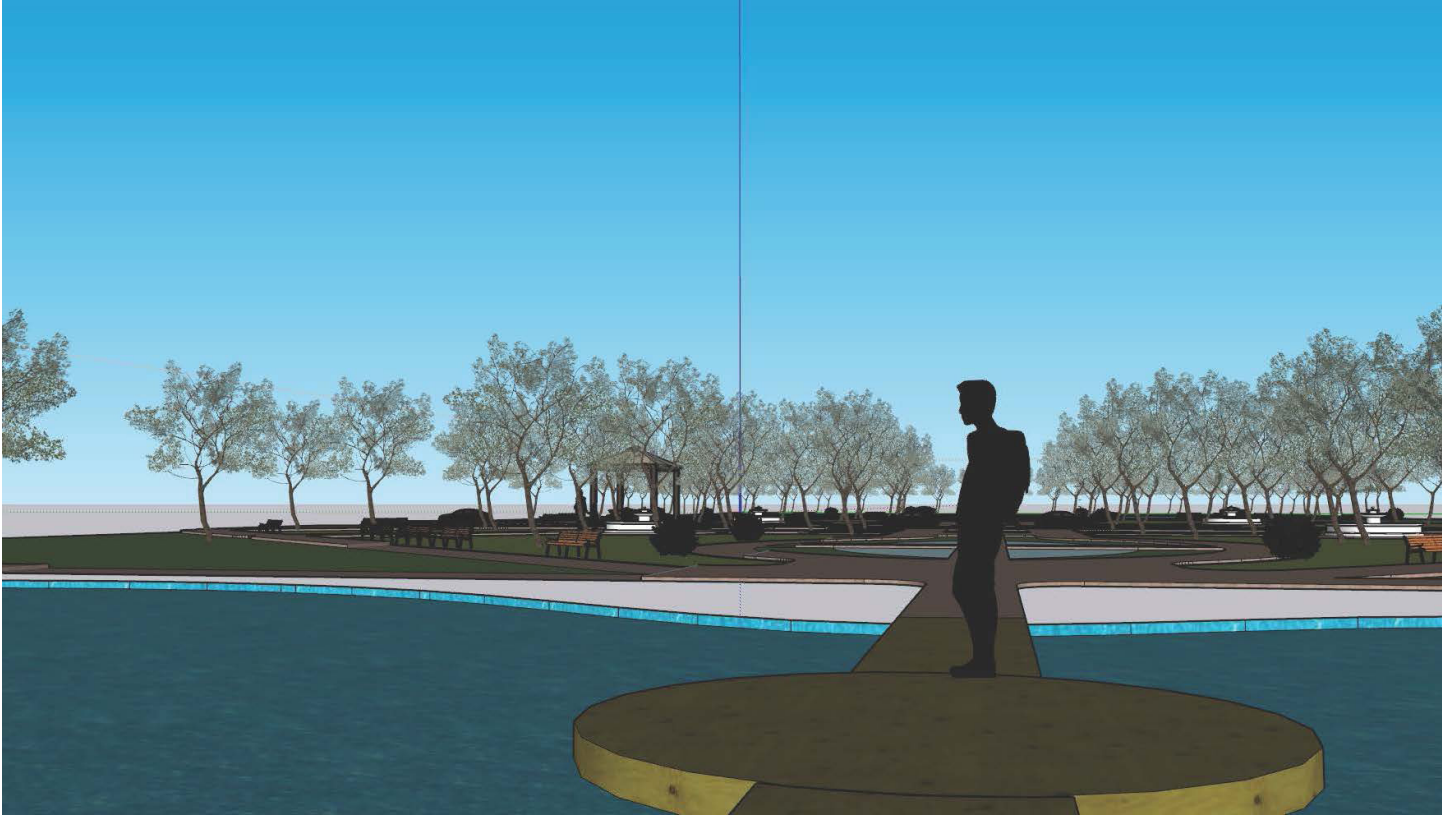














Celia Castellano
Digital Representation
Park Site Design Project - Sketchup

Your process

- First I uploaded the CAD file of my park into sketchup
- Next I worked on making all the lines register as solid planes so that I could eventually extrude them.
- I then deleted all the flat plants I drew in CAD, which I would later replace with 3D models
- After completing this, I gave each surface a fill, ie. water, brick, wood.
- Then I grabbed some 3D Modeled objects to import into the sketchup model
 - This included trees, bushes, cars, benches, gazebo, and silhouette people.
- Finally, I extruded the different surfaces to match the elevation I intended for.
- Throughout this, I wanted to make the process more efficient where I could, so I noticed that part of my design is a mirror image of another part, so I completed the details for one portion and then mirrored it and connected it to the rest of the drawing. I also made sure to import the CAD lines into sketchup so I didn't have to redraw everything
- I also realized from previous times using Sketchup that I should leave extrusions until after I have created all of my lines on flat surfaces. This helps reduce the complexity of drawing and allowing surfaces to form more easily

Any roadblocks you had

- I struggle to get sketchup to register my CAD lines as flat surfaces. I end up having to redraw a lot of my CAD lines in sketchup
- I also struggle to work with organic forms in sketchup, I'd love tips on this!

Which parts/objects you modeled yourself

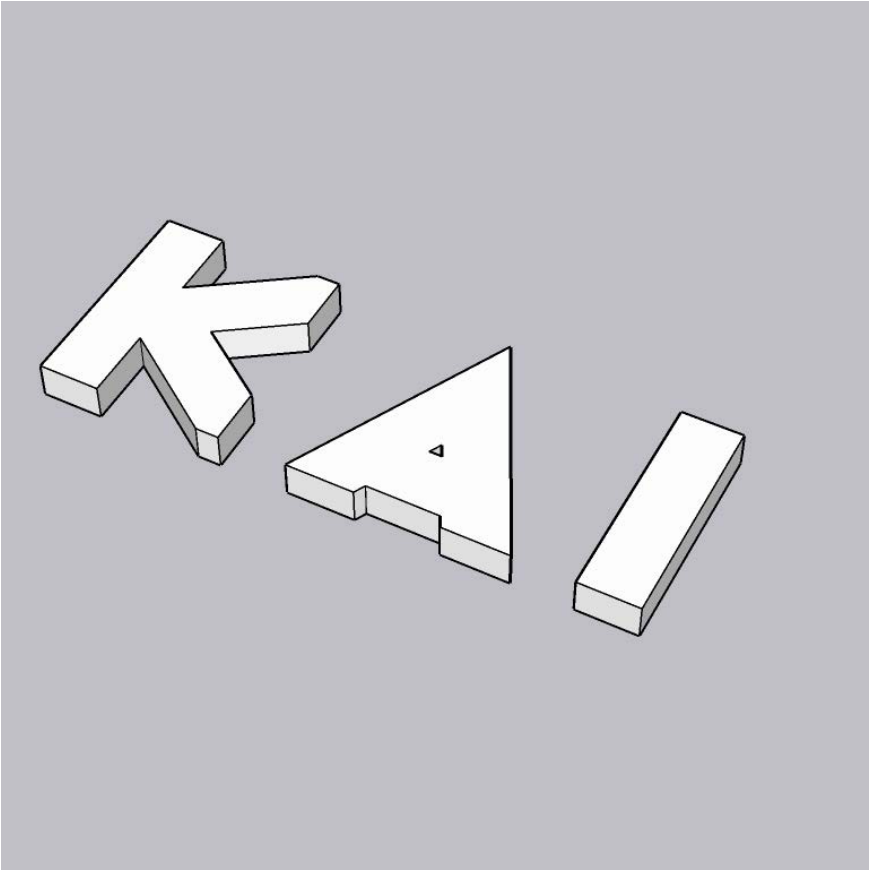
- I modeled the picnic tables under the gazebo

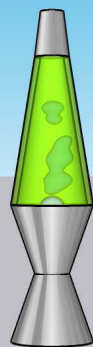
If you edited the warehouse objects at all and if so, how you changed them

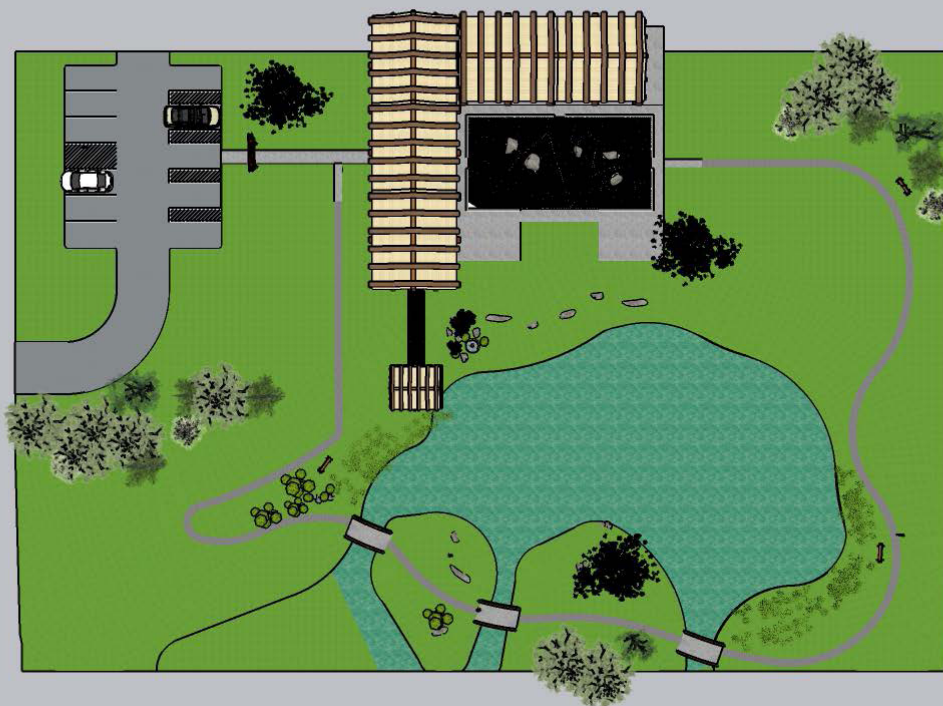
- I changed the shape, size and orientation of the benches, people, trees, and gazebo to better fit my scale and space

SketchUp Turn-In
Contents

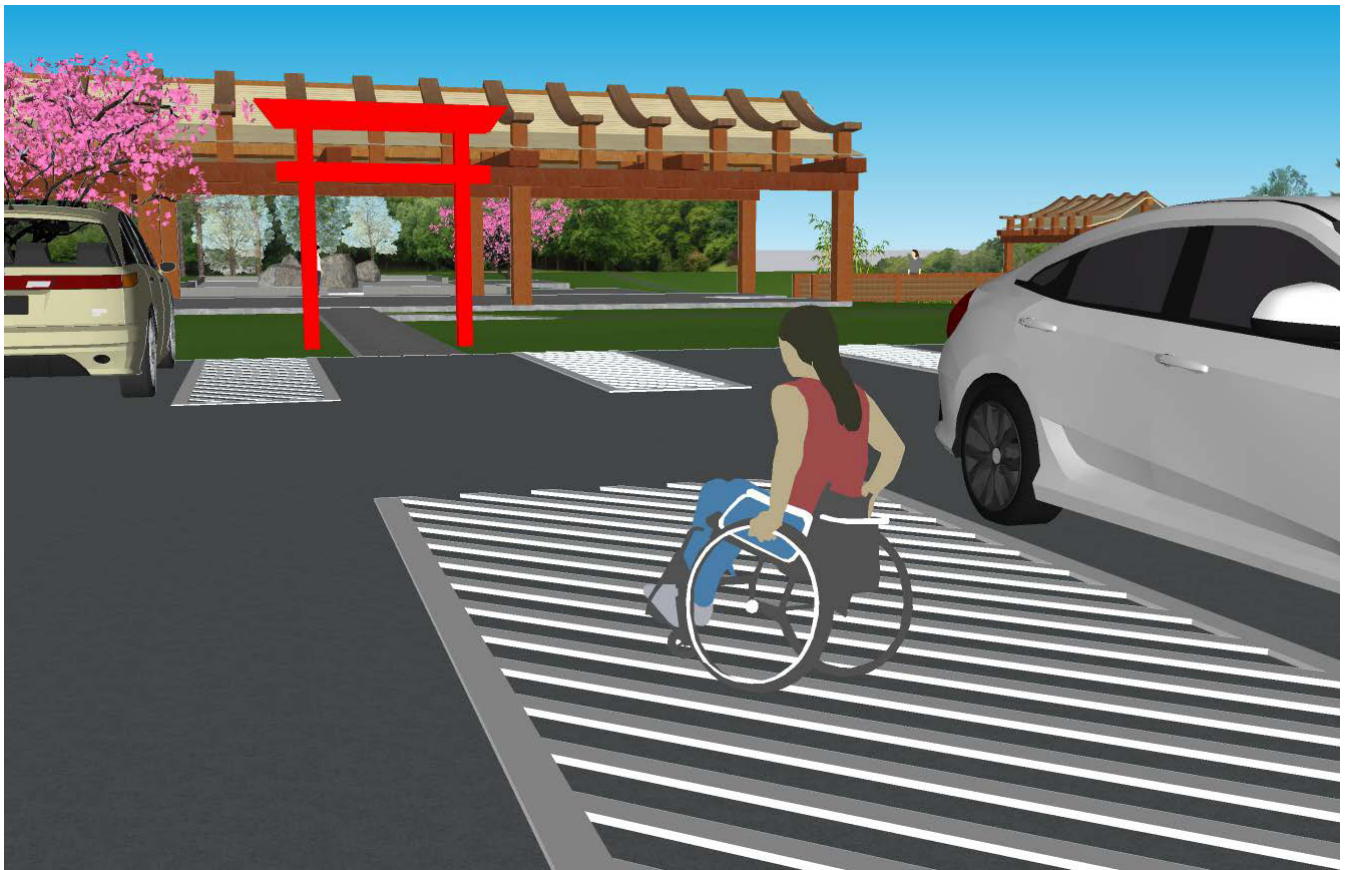
Page	Item
1	Name Model
2	Lava Lamp View 1
3	Lava Lamp View 2
4	Lava Lamp View 3
5	Park Plan View
6	Park Elevation View - Right
7	Park Elevation View - Front
8	Park Elevation View - Left
9	Park Perspective - Entry
10	Park Perspective - Auditory Fountain
11	Park Perspective - Accessible Gazebo
12	Park Perspective - Zen Garden
13	Park Perspective - Tree Grove Seating
14	Park Perspective - ADA Accessible Trail Mix Gravel Trail
15	Park Perspective - Bridge
16	Park Perspective - Return to Pavillion
17	Park CAD Plan
18	Park Project Questions
19	Park Animation Link: https://clmson.box.com/s/mvrt2x1487tdobpsl0kvc4whvx8wsxx7











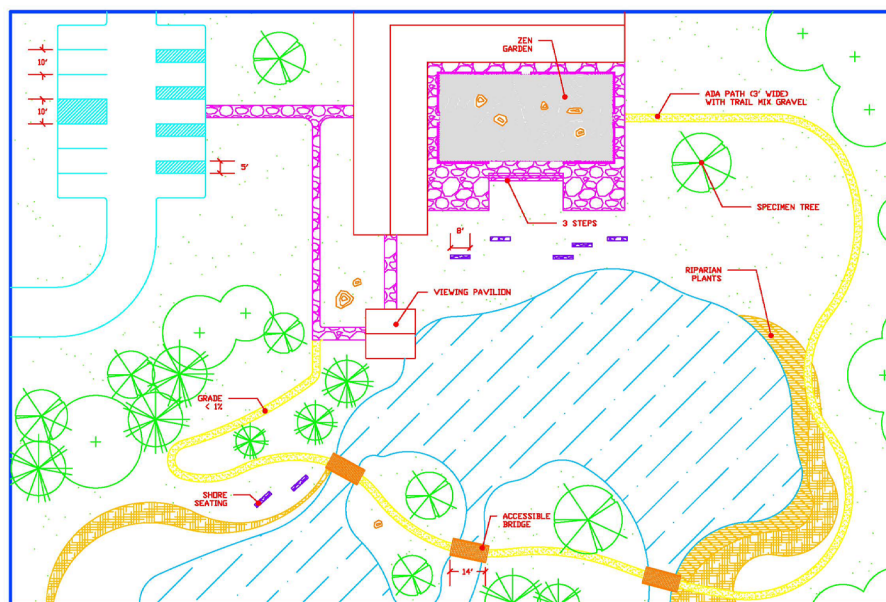








ACCESSIBLE ZEN GARDEN



SCALE: 1/8" = 1'

0' 32' 64' 128'



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GREENVILLE, SC

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Kai Koopman

Prof. Spencer

LARC 8970

February 19, 2024

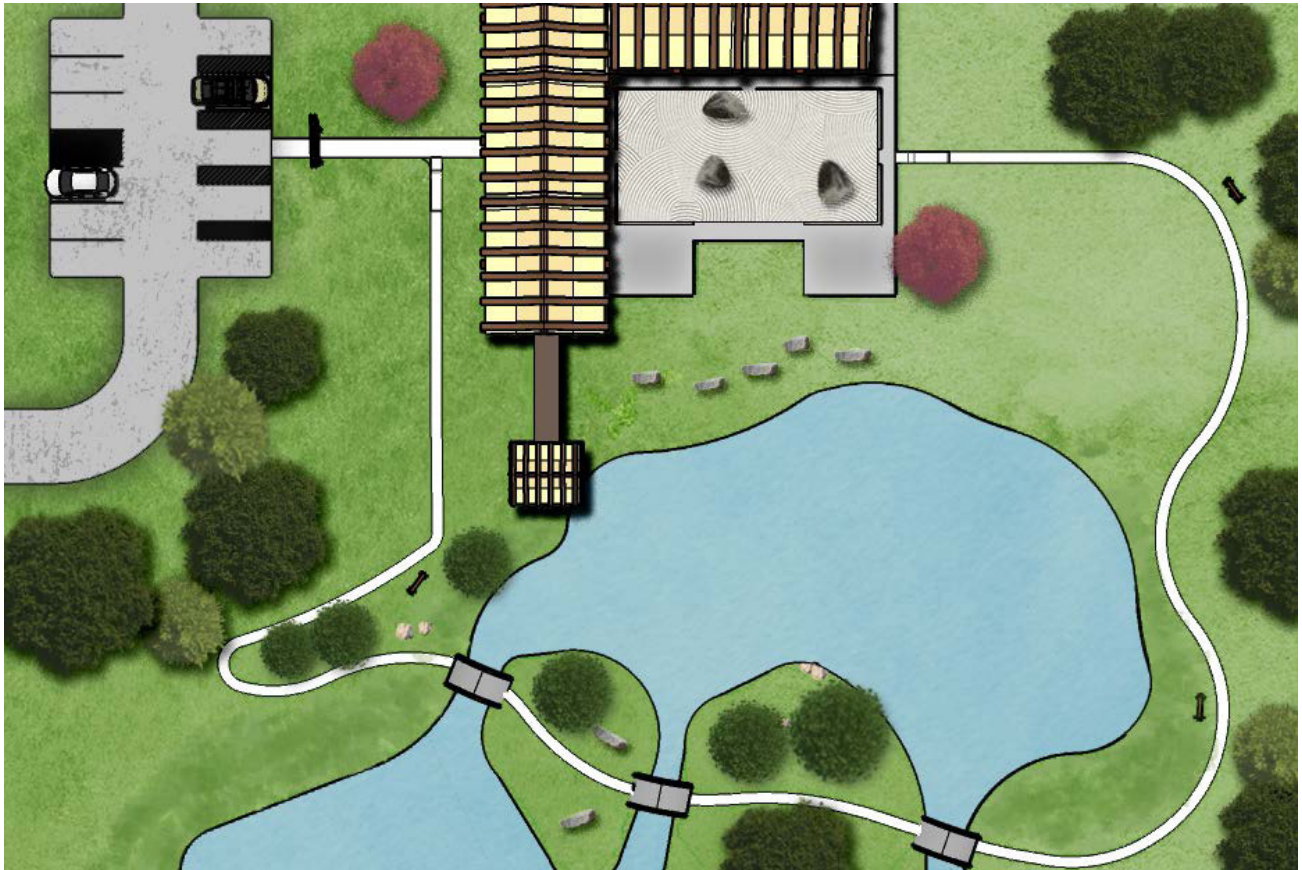
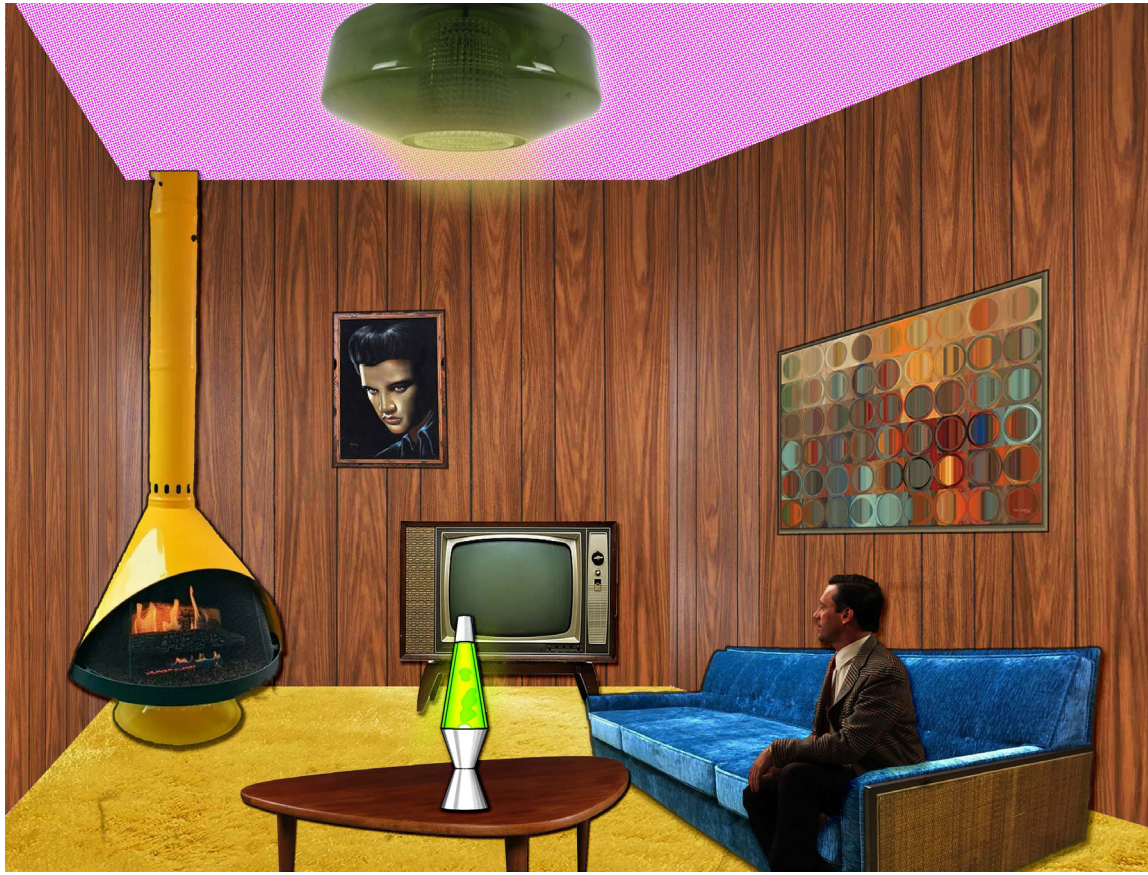
Park Plan Questions

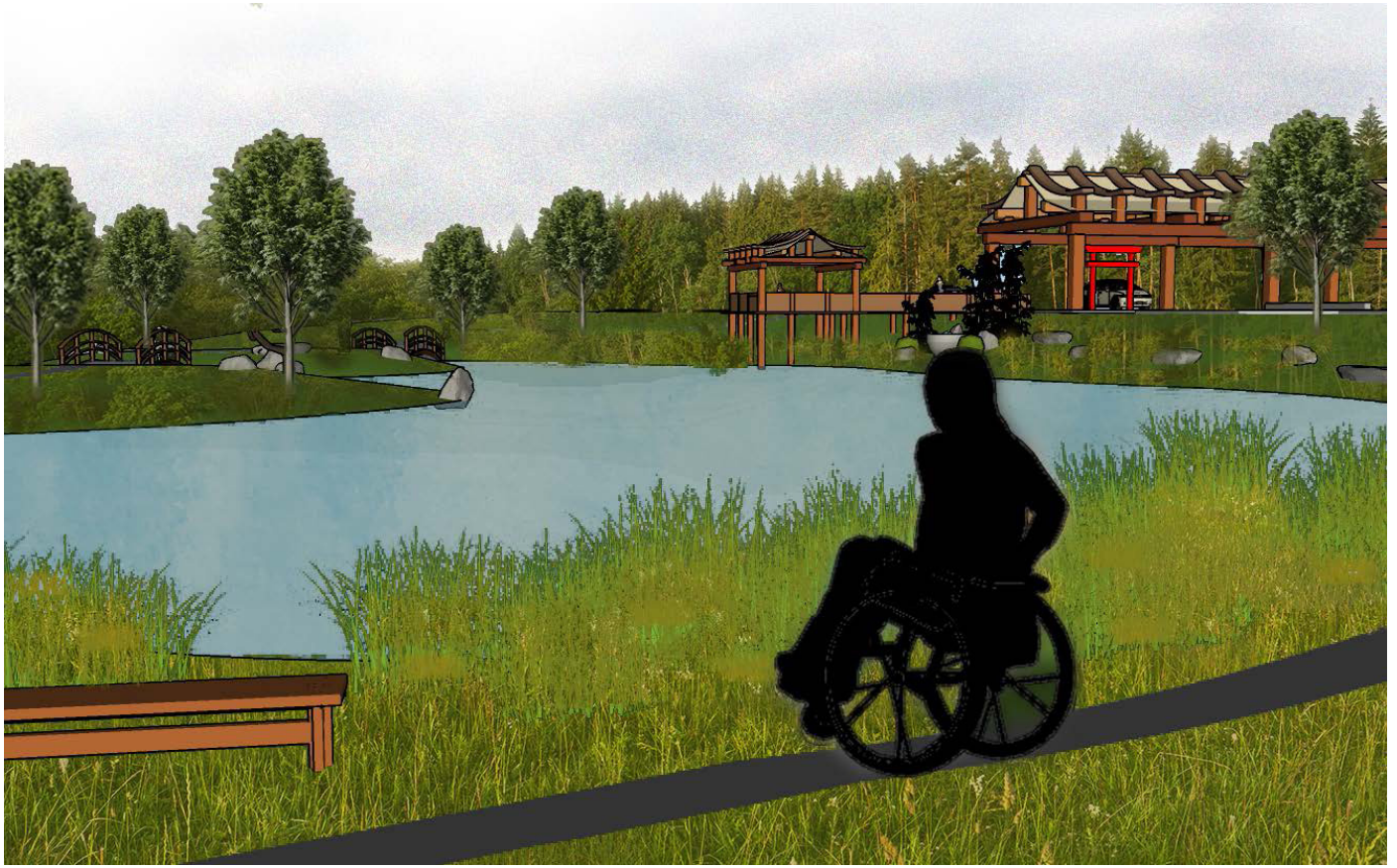
1. I learned a more efficient process for building a model in SketchUp through completing this park 3D model.
 - a. First, I imported base topography and used SketchUp's Sandbox tools to model my terrain.
 - b. Next, I placed the footprints of my buildings, parking lot and paths using a combination of the Drape tool, Stamp tool, and correct dimensioning.
 - c. Then, I built-out the structures in my plan including the gazebo, pavilion, Zen garden, walkways and railings and bridges.
 - d. Finally, I added rocks, trees, plants, water and materials to all surfaces before creating scenes to export.
2. Roadblocks
 - a. SketchUp's sandbox tools can be finicky and I had to revert to back-up files a few times to undo mistakes.
 - b. When importing from 3D Warehouse, tags get disorganized and the file gets heavy. I learned that I should be more diligent about organizing tags after each import.
 - c. I experimented a bit with edge and face styles for the image export, but had trouble translating these styles to the video animation.
3. I used a combination of 3D Warehouse and DIY objects to complete my model. I created the gate, railings, walkway and Zen garden myself, as well as all topography. I also created the floor and supports for the gazebo.
4. The bridges, trees, plants, rocks, benches, people and cars in my model are from 3D Warehouse.
5. I altered the pavilion structure to fit my plan. I also stretched and scaled rocks from 3D Warehouse to become rustic benches. I created bubbling water for the fountain near the gazebo by using components from my lava lamp.

Photoshop Turn-In
Contents

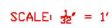
Page	Item
1	-
2	Fantasy Castle
3	Lava Lamp Room
4	PS Park Plan
5	PS Park Plan Perspective 1
6	PS Park Plan Perspective 2
7	Park CAD Plan
8	Park SketchUp Plan
9	SketchUp Perspective 1
10	SketchUp Perspective 2.1
11	SketchUp Perspective 2.2
12	PS Process Notes







Kai Koopman
GREENVILLE, SC



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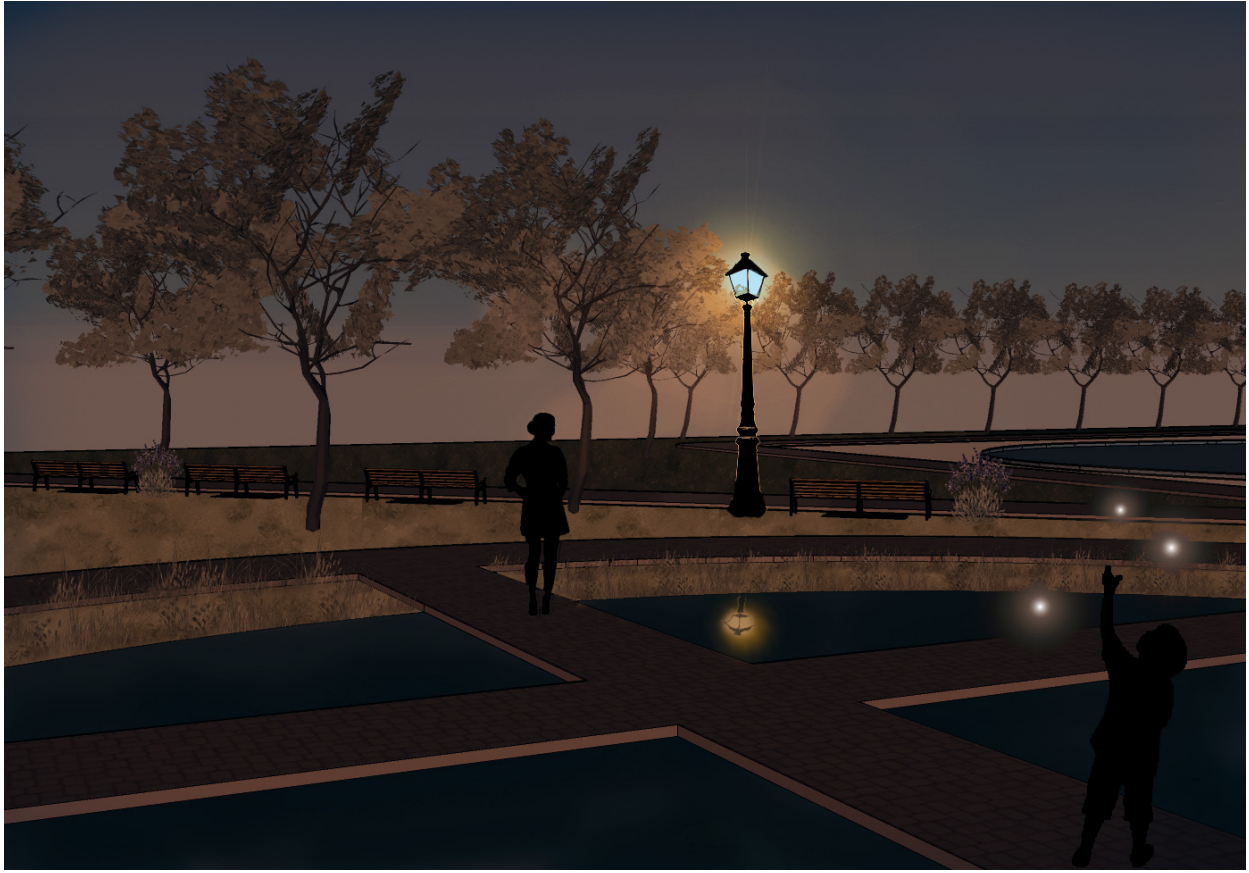




Kai Koopman
 Prof. Spencer
 LARC 8970
 February 29, 2024

Photoshop Questions

1. Trial and error helped me create my Photoshop plan and perspectives.
 - a. First, I exported simplified views of my SketchUp model without trees and some elements to make the rendering process in Photoshop smoother.
 - b. Working from background to foreground, I selected different elements of my plan and perspective views by color range and built-out layers in Photoshop.
 - c. I added effects and masks to achieve the textures I wanted, and used brushes to create additional interest. I learned how to add multiple layer masks and use brushes to erase in order to add texture to layers.
 - d. Finally, I added rocks, trees, people and other objects.
2. Roadblocks
 - a. Dealing with the transition from vector to raster graphics is the most challenging thing for me about Photoshop. It is frustrating when objects do not scale universally and when linework is not crisp.
 - b. I am still experimenting with effects, masks and brushes in Photoshop. Some parts of my images turned-out well, though other areas are works in progress.
 - c. As I build a library of my own brushes, textures and images, building complex scenes will get easier!



ME

• NC by TN by MI, now GVL

• FAMILY IS #1

• CLIMBER & GARDENER

from

West Michigan

favorites

I'm Kai

[*website](#)

fun

gardening

climbing



MINDFUL
MOVEMENT
ZEN
GARDEN



01



02



03

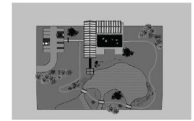


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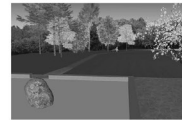
05

MOVEMENT



Varied pathways and gentle topography

Welcoming setting and abundant vistas



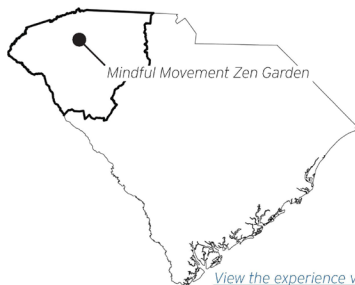
MINDFULNESS

01 CONCEPT & CONTEXT

The Mindful Movement Zen Garden offers a tranquil, nature-rich experience to visitors with varied abilities in the Upstate.

From a contemplative and static Zen garden to an active and accessible nature path, users can experience an environment that celebrates the beauty of nature through multiple senses and touchpoints.

On the property of a Private Foundation, the garden is a secluded getaway that instills peace and tranquility.

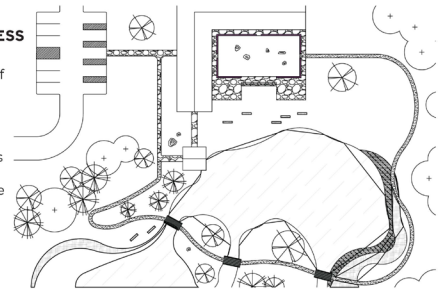


[View the experience video](#)

02 MATERIAL PROCESS

A diverse palette of materials creates a variety of environments for different users.

Places to sit and places to move were critical elements of the garden's design. Other nodes and views were constructed around these building blocks.



An ADA-compliant "trail mix" pathway

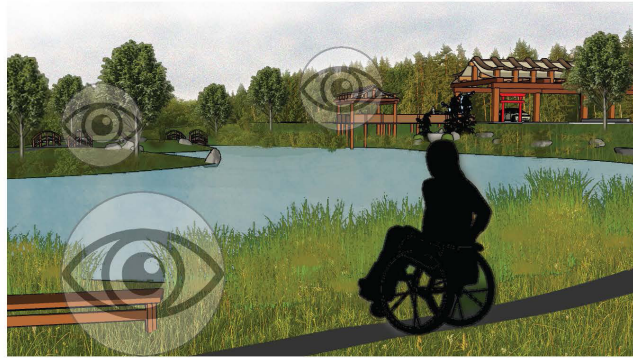
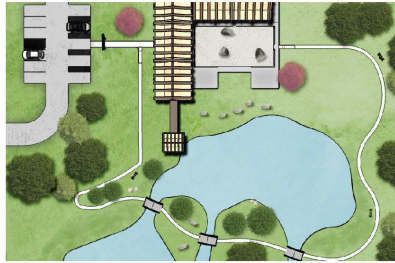


Plentiful seating options

03 NATURAL OASIS

The Mindful Pathway is modeled after a Japanese "stroll garden" and is organized around a central water feature.

Beautiful vistas abound at various points along the path. Users can access the park's viewing spaces at varying distances from the entrance.



6

H

H

SIGHTS, SOUNDS & SMELLS 04



A traditionally arranged Zen garden invites the eye to rest and wander, engaging **seeing**



Musical wildlife and gentle ripples in the central pond engage **hearing**



Fragrant riparian plantings such as Swamp Milkweed and Sweet Pepper Bush engage **smell**

A garden oasis activates the senses. Engaging each sense specifically is a way to creatively connect with users with impaired hearing, seeing or mobility.

7

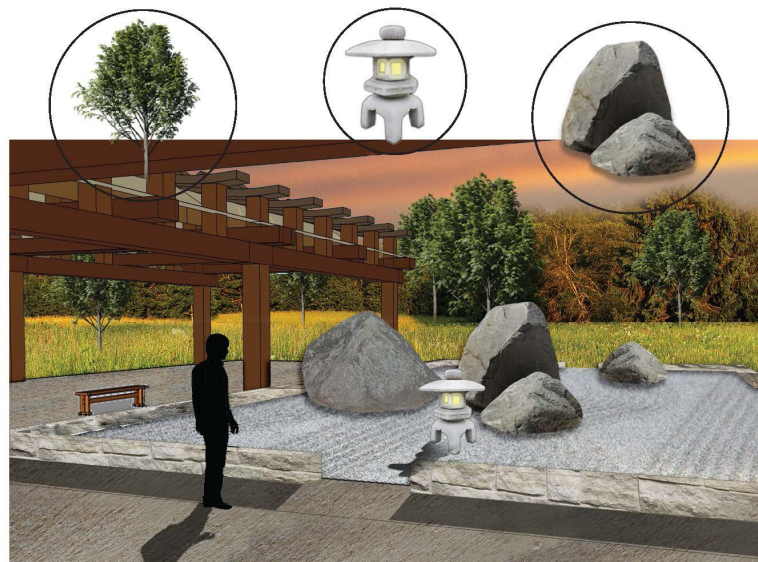
05 PEACE & QUIET

The Dry Garden is a tranquil setting for quiet contemplation, day or night. Rocks and gravel create a dry space that exhibits traditional qualities of austerity and simplicity.

Naturalistic plantings

Illuminated lantern

Traditional rock garden



8

H



T_01

Pinus taeda
LOBLOLLY PINE

T_02

Quercus alba
White Oak

T_03

Sabal palmetto
SABAL PALM



Pinus taeda
LOBLOLLY PINE

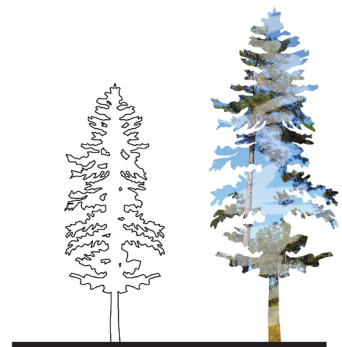
Loblolly Pine is an important American timber tree with attractive red bark and green needles. Its range is across the Southeastern United States.

ZONES
6 - 9

RANGE
SE US



T_01





Quercus alba
White Oak

White Oak is a tall, deciduous tree with a wide, rounded crown. It has drooping branches and produces distinctive acorns in the fall.

ZONES
3 - 8

RANGE
E US



T_02



Sabal palmetto
SABAL PALM

Native to the Southeastern United States, Sabal Palm grows up to 80 feet tall. In its mature growth, it develops a rounded fan of leaflets at the top. The Sabal Palm is native to Florida and the Caribbean and is widely cultivated across the southern half of the United States. It is the state tree of South Carolina.

ZONES
7 - 11

RANGE
S US



T_03



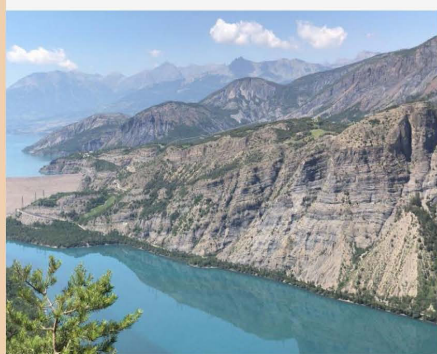


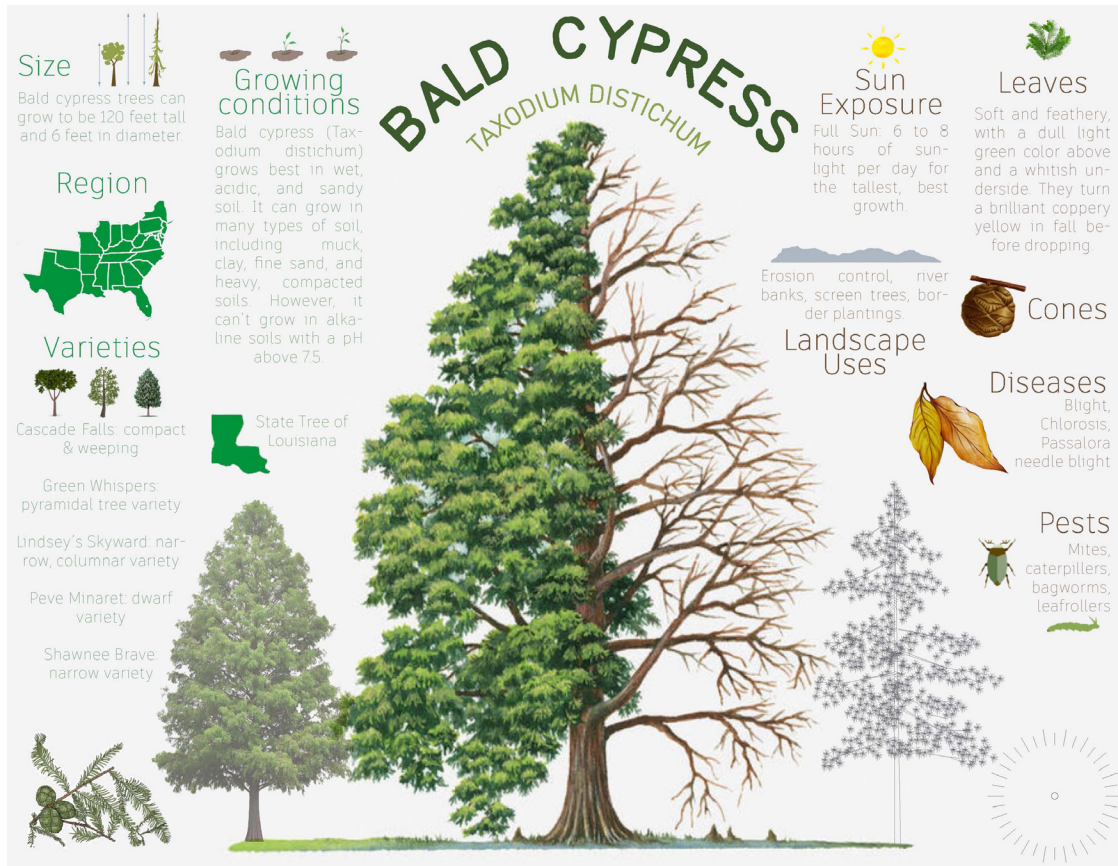
Celia Castellano

About me...

- I'm from NY originally, but have been in the upstate of SC for about 10 years. Over the years, I've come to love cycling, rock climbing, and my cat Pal. Probably my most unique interest is throwing murder mystery parties!

- I studied sustainability science in undergrad and have always had an inherent love for the earth. My personal and professional goal is to strengthen sustainable lifestyles for the mutual benefit of the earth and its inhabitants.





SOUTHERN MAGNOLIA

MAGNOLIA GRANDIFLORA

Landscape Uses

Accent tree: A striking garden specimen, especially in mesic landscapes

Shade tree: Can be used as a shade tree, flowering focal point, or privacy hedge

Windbreak: Can be used as a windbreak or street tree

Hedges: Can be used as a hedge or border accent

Growing Conditions

Grows best in warm temperate to semi-tropical climates. It prefers moist, well-drained, acidic soils with a pH of 5.0 to 6.0. Magnolias can tolerate high moisture levels and can be planted in areas prone to wet/dry fluctuations in soil moisture. However, they cannot withstand prolonged inundation and do not grow well in soils with poor drainage.

Main Details

Large, evergreen tree native to the southeastern United States.



Pests / Diseases

Insects

aphids, scales, thrips

Fungal infections

powdery mildew, botrytis (gray mold), verticillium wilt.

Algal leaf spot

parasitic alga causes leaf spots and twig cankers.

CRAPE MYRTLE

LAGERSTROEMIA INDICA

Landscape Uses

Specimen plants: standalone specimens in lawns, play areas, or gardens.

Shade: Crape myrtles can be used as narrow trees to provide fast shade.

Privacy screens: Crape myrtles can be used to create privacy screens, hedges, or street trees.

Allees: Crape myrtles can be used as allees along streets or driveways.

Perennial border: Crape myrtles can be used to create perennial borders.

Diseases

Powdery Mildew: A fungus that thrives in warm, moist conditions.

Cercospora leaf spot: A fungus that prefers sheltered areas where foliage stays wet for long periods.

Bacterial leaf spot: Crape myrtles can be used to create privacy screens, hedges, or street trees.

Pests

Aphids, Japanese beetles

Pollinators

Honey bees: These important pollinators selectively forage on crape myrtles in the summer.

Carpenter bees: These bees visit crape myrtles in early August, and small bees are the most numerous.

Butterflies: These are attracted to the nectar.

Hummingbirds: These are attracted to the nectar.

