



LOTUS

ADHD Middle School & Center



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Project Introduction



The Problem



Invisible disabilities are disabilities that go unnoticed due to the lack of physical cues and individuals with these disabilities tend to keep their hardships to themselves. Attention Deficit/Hyperactivity Disorder is an example of an invisible disability. Individuals with ADHD often do not get the appropriate support, despite being protected under ADA. This is because, like many invisible disabilities, ADHD is misunderstood and overlooked.

What is ADHD?

Attention-Deficit/Hyperactivity Disorder is a neurological disorder that affects a person's executive function of their brain. The executive function of the brain is responsible for a person's mental skills such as memory, planning, or self-control. It has 3 main types: inattentive, hyperactive, and combined.

Hyperactive

Restless
Noisy
Talkative
Impulsive
Disruptive

Inattentive

Short-attention span
Disorganized
Forgetful
Distractability
Poor listening skills

Combined

To be considered the combined type, which is the most common, the person needs at least 6 characteristics of both types.



Project Statement

Lotus ADHD Middle School & Center is a school for students with ADHD along with an **informative center** for parents, educators, and professionals in the community. The design will use strategies to create a **calming environment** that helps ease ADHD symptoms.

Location

1812 Staring Lane, Baton Rouge, LA

- Located on a large, empty lot with plenty of space for bus and carpool lanes
- 2 minutes from the nearest neighborhood
- 30 minutes from downtown

Site Location

Medical Centers

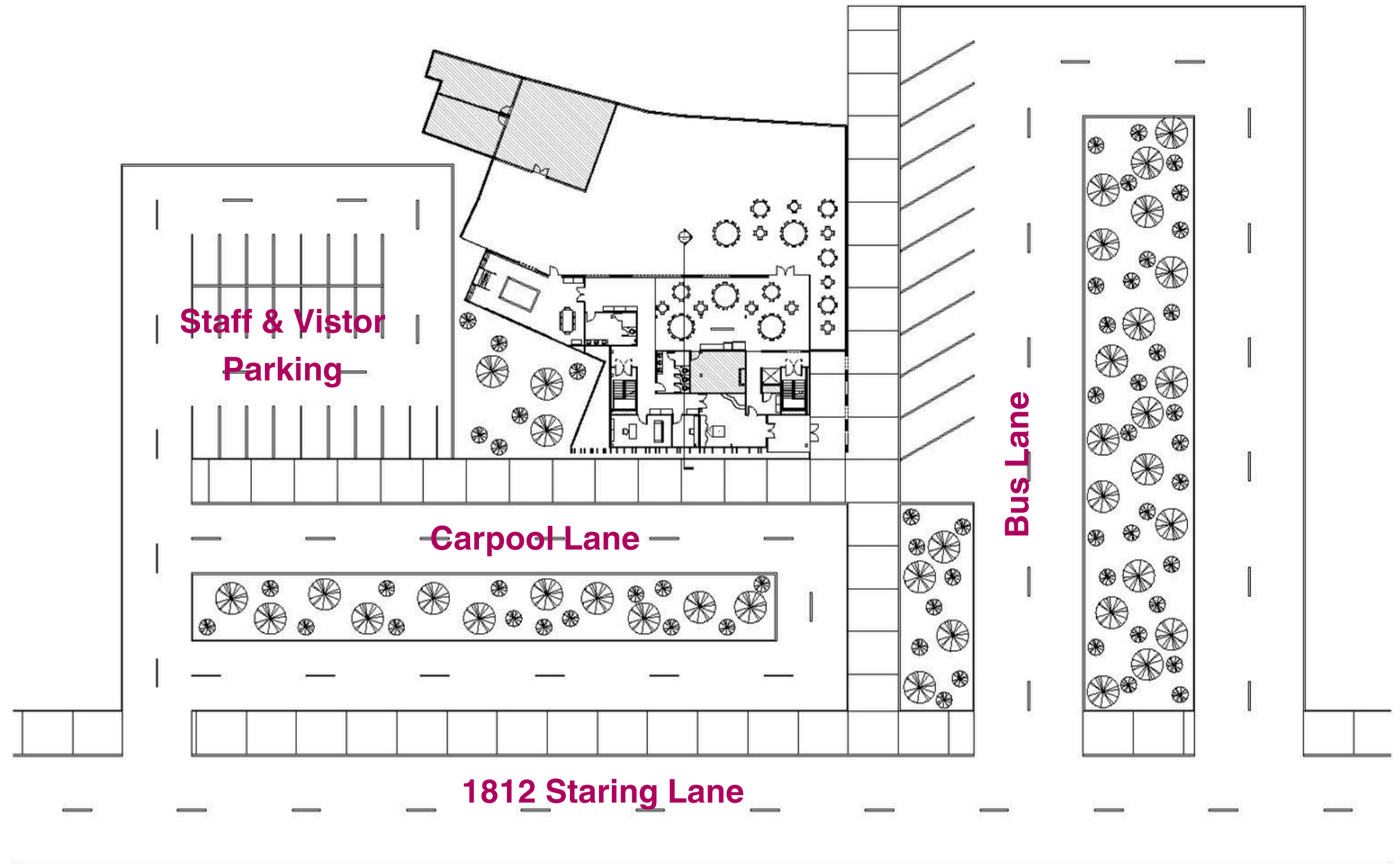
Parks

Restaurants



Site

- Green spaces surrounding the building create views from the interior
- Wide sidewalks for students coming to school by bus, car, or walking





Client & Users

The Users

The Lotus ADHD Middle School & Center will serve kids with ADHD from the ages of 12-14. The students and educators will be the primary users during the school week. However, the information center will also be open to parents of the students, as well as the general public.

Educators



Students



Community



Clients

**Children & Adults with Attention-
Deficit/Hyperactivity Disorder**



**East Baton Rouge Parish
School System**



**Former First-Lady
Michelle Obama**



CHADD

Background

The organization, Children and Adults with Attention-Deficit/Hyperactivity Disorder, was founded in 1987. It started as a parent support group in Florida and now stands as a national non-profit organization.

Representative

Margaret H. Sibley

CHADD Professional Advisory Board

Focuses on ADHD in adolescents and young adults

Location

Seattle, Washington

Budget

Using the funds from CHADD, Sibley will help with the development of the information center, programs, and curriculum. Since the organization works on several projects, financial assistance will be limited.

Previous Projects

She has written books on ADHD in adolescents. She also has worked with the Klingenstein Third Generation Foundation and the American Psychological Foundation.

Statement

“We believe in improving the lives of people affected by ADHD.”



EBR Schools

Background

East Baton Rouge Parish School System is the second-largest school district in Louisiana. Currently, this school district has 40,304 students and 5 magnet schools.

Representative

Dr. Sito Narcisse
Superintendent

Location

Baton Rouge, Louisiana

Budget

A large part of the funding for the school will come from the city government. It will lead the project and implement the school into the school system.

Statement

“Dedicated to every student, in every community, in every class, everyday.”



Michelle Obama

Background

During both of Obama's presidency terms, Michelle Obama worked on many projects related to education. She established the Obama Foundation's Girls' Opportunity Alliance. She and several other celebrities hosted a conference through her foundation on supporting girls with disabilities in STEM.

Location

Washington D.C.

Budget

Through her foundation, Michelle Obama would help sponsor the construction of the school in order to help the ADHD community in Baton Rouge.



A serene photograph of a pond filled with large, vibrant green lotus leaves and several blooming pink lotus flowers. The scene is shrouded in a soft, white mist, creating a dreamy and ethereal atmosphere. The text "Preliminary Research" is centered over the image in a dark green, serif font.

Preliminary Research

Designing for ADHD

Easing Symptoms



Emphasize diet & exercise



One-on-one tutoring



Mindfulness exercises



Quality sleep



Limit distractions

Design Strategies



Warm lighting



Soothing color scheme



Distraction-free zones



Clear signage



Ample storage

Applied Theories

WELL



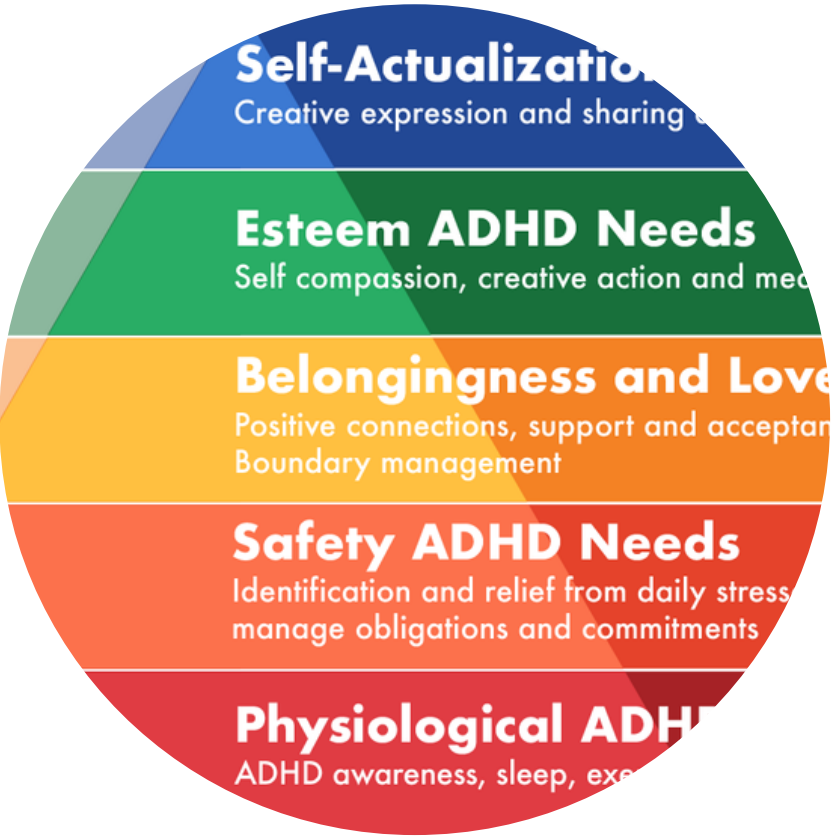
Create a distraction-free school. Support the student's mental health. Encourage healthy habits.

Attention Restoration Theory



Incorporate natural elements in classrooms, the library, and focus rooms to enhance productivity.

Gott's Hierarchy of ADHD Needs



Create spaces where students can reset and destress. Allow spaces where the students can express their creativity.

Precedent Study Findings

- Include specialty services for the students that cater to their well-being and mental health, such as a sensory room
- Many students feel more secure carrying their belongings with them rather than storing them in a locker
- Provide spaces that the students can hang out and socialize both indoors and outdoors
- Wide corridors are crucial to avoid becoming crowded as students switch classes
- Several teachers mentioned not having enough space to store supplies
- Flexible seating in the classrooms can make it easier to adjust according to the lesson plan or activity



Belmore School

Special Needs School
49 Stroud Street,
Balwyn VIC 3103 Australia



Milton High School

Public High School
13025 Birmingham Hwy,
Milton, GA 30004



Chandler Preparatory Academy

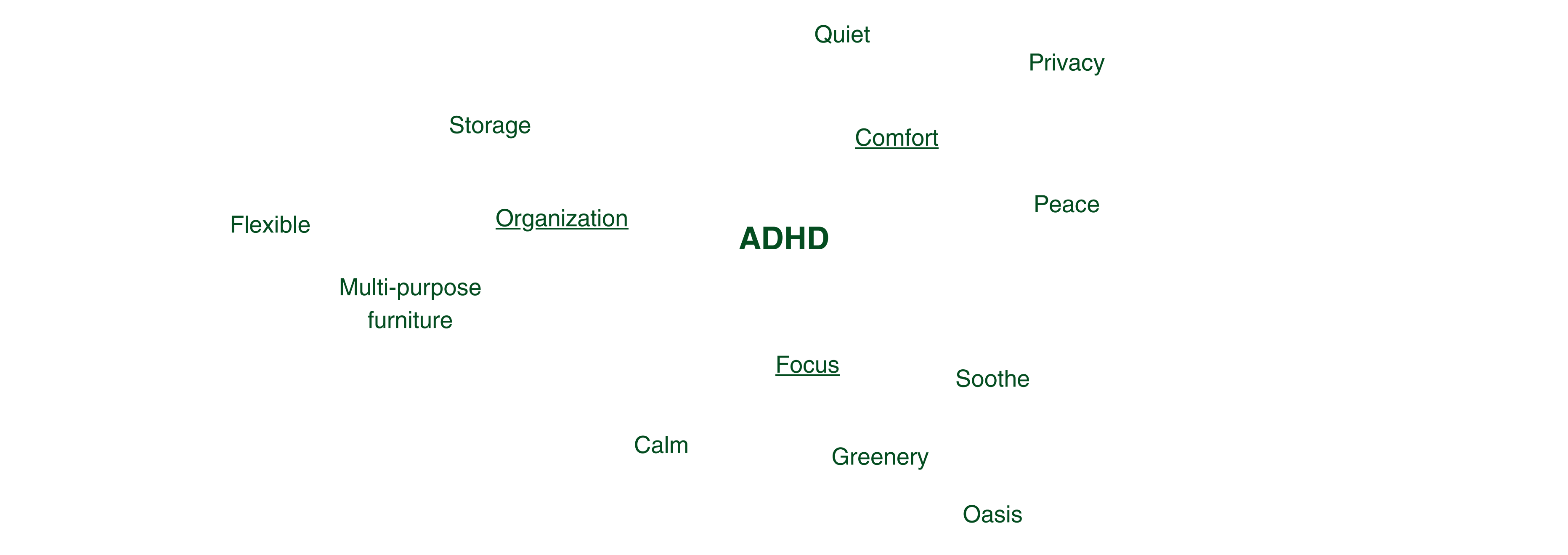
Charter School
1951 N Alma School Rd, Chandler,
AZ 85224

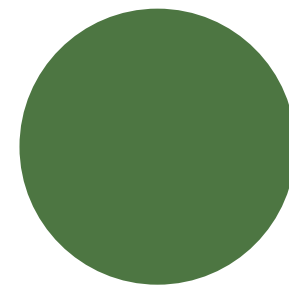
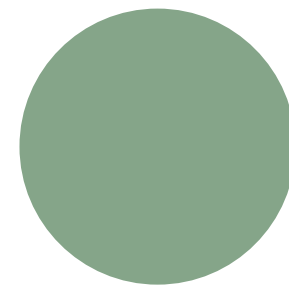
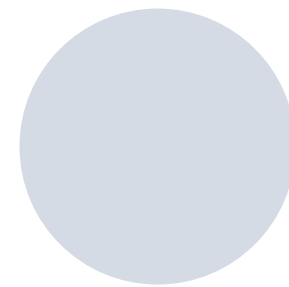
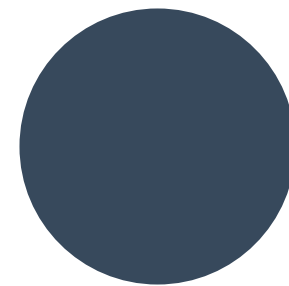
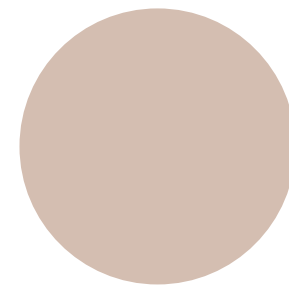
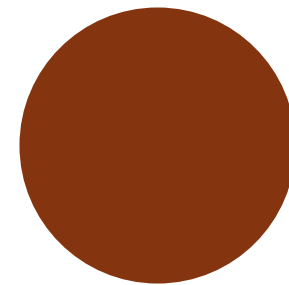
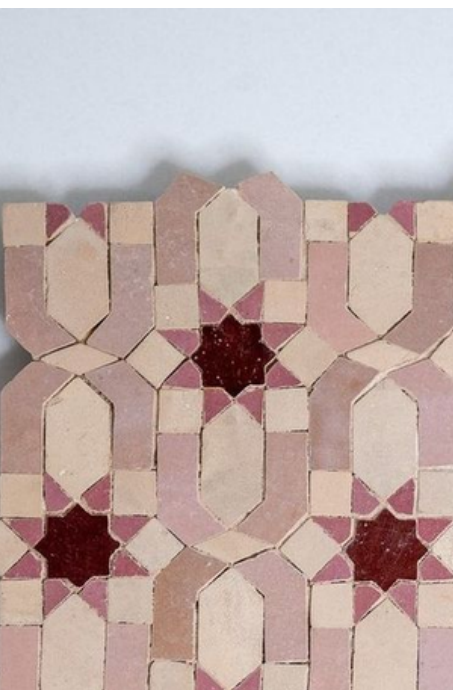
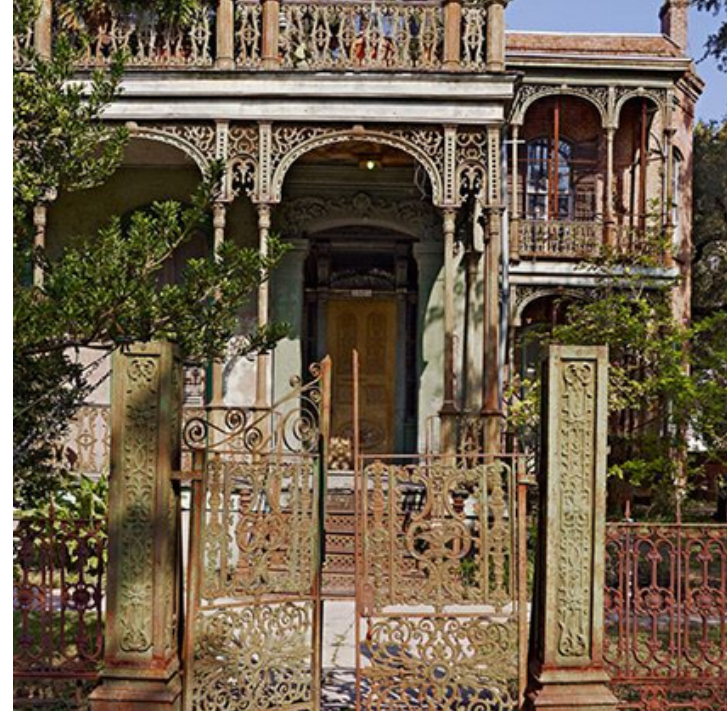


Concept

Mind Map

Oasis of Mind



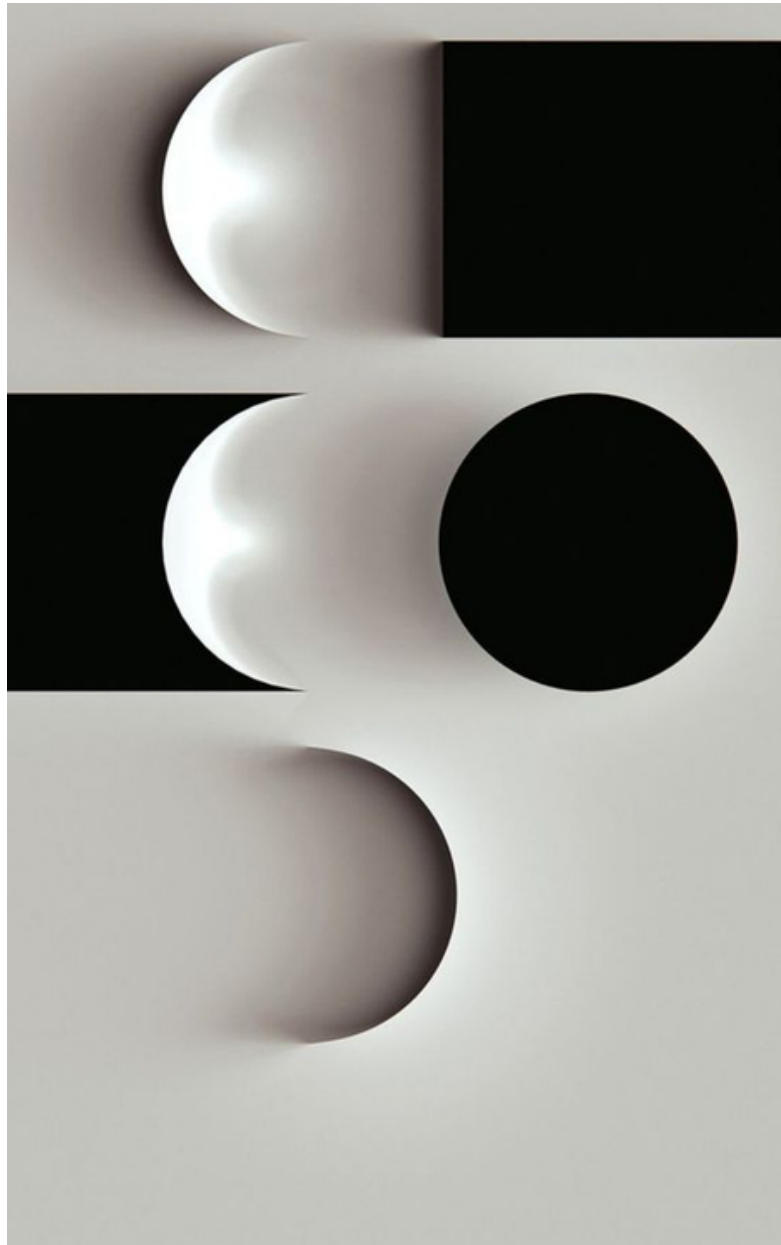


Oasis of Mind

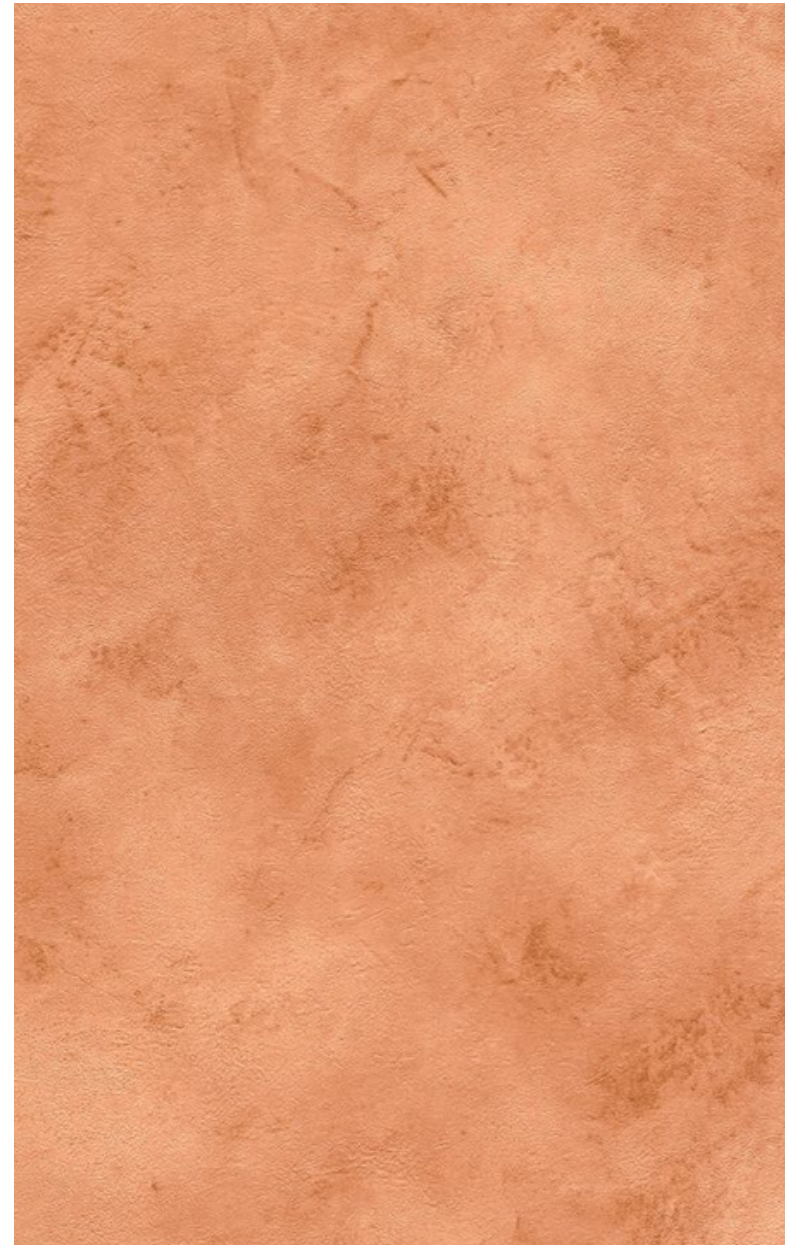
The middle school design will aim to create a **peaceful escape** for the students. It will incorporate ample greenery to support the focus of their studies. It will provide private spaces to soothe their nerves. It will serve as a **safe and supportive environment** to allow the students to feel free to be imperfect. To further support the concept, the design will incorporate the diverse, subtropical environment of Baton Rouge. It will reference the bald cypress trees, the Mississippi River, and bayous.

Elements

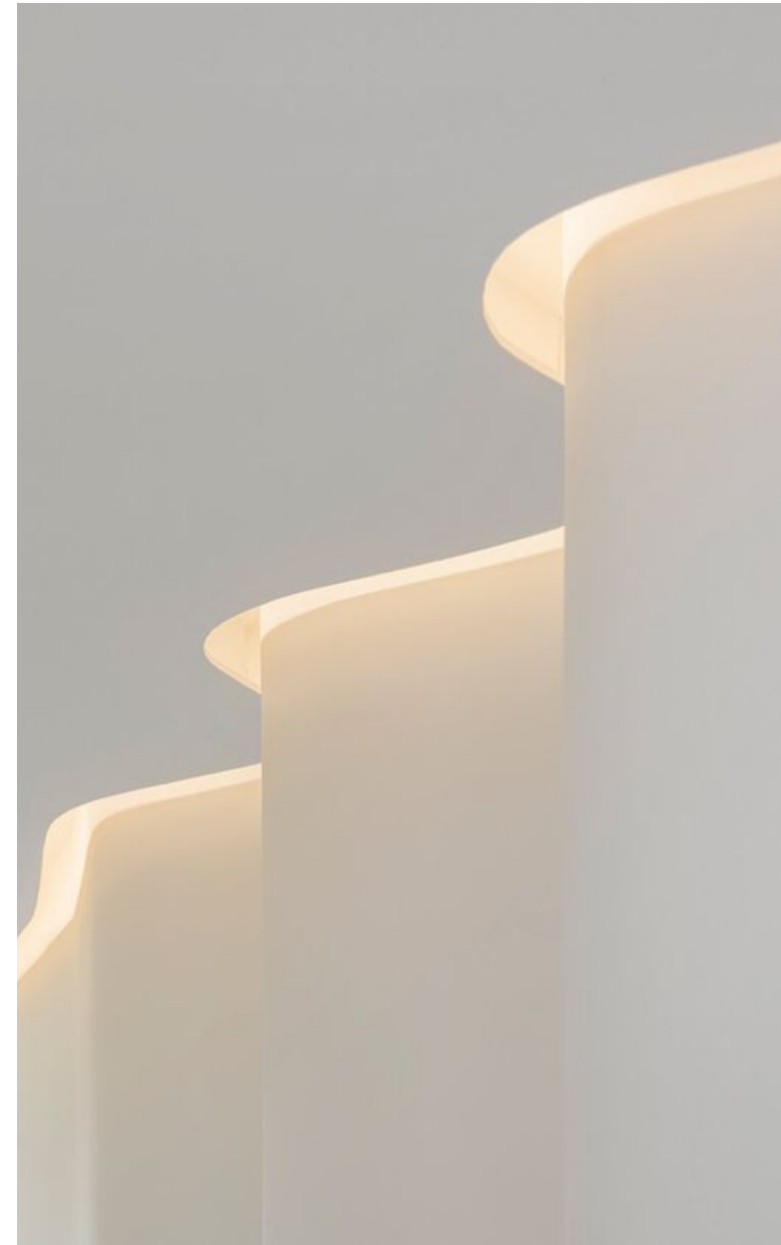
Oasis of Mind



Shape



Texture



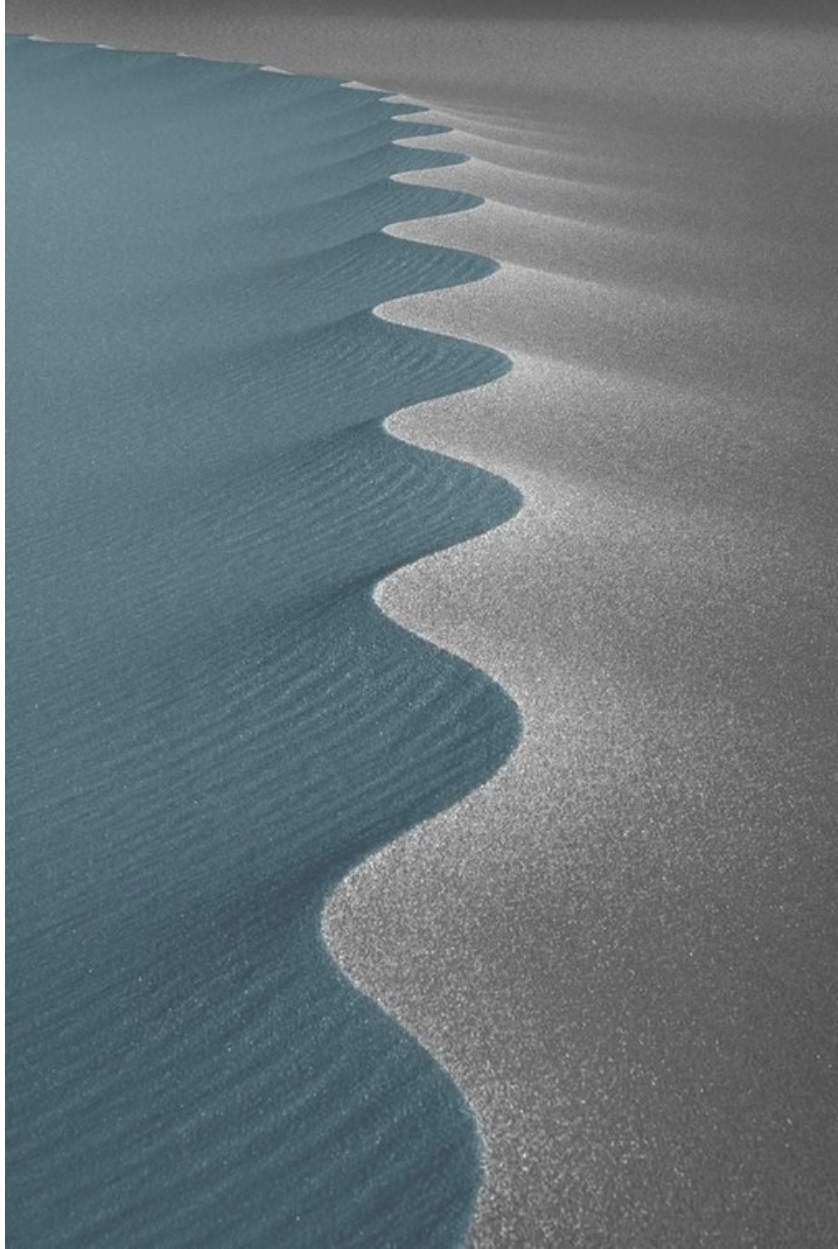
Light



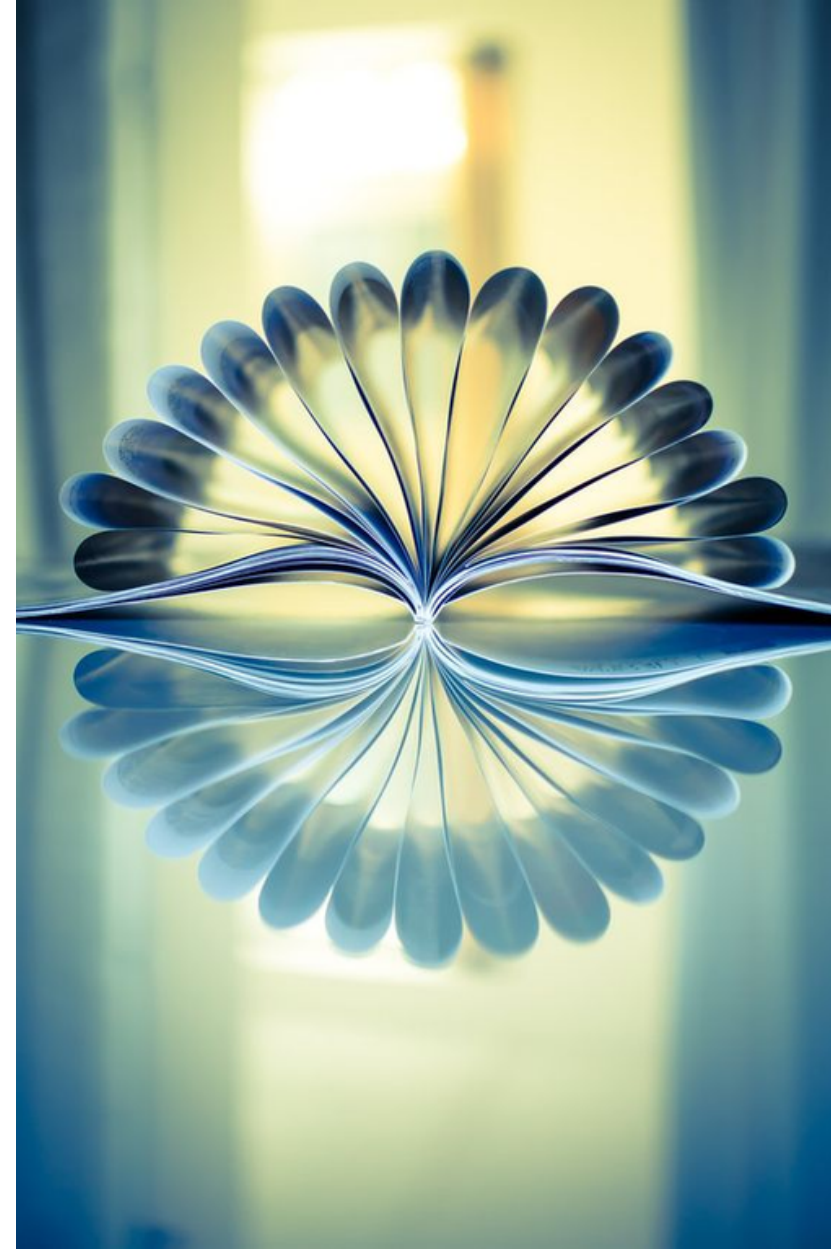
Color

Principles

Oasis of Mind



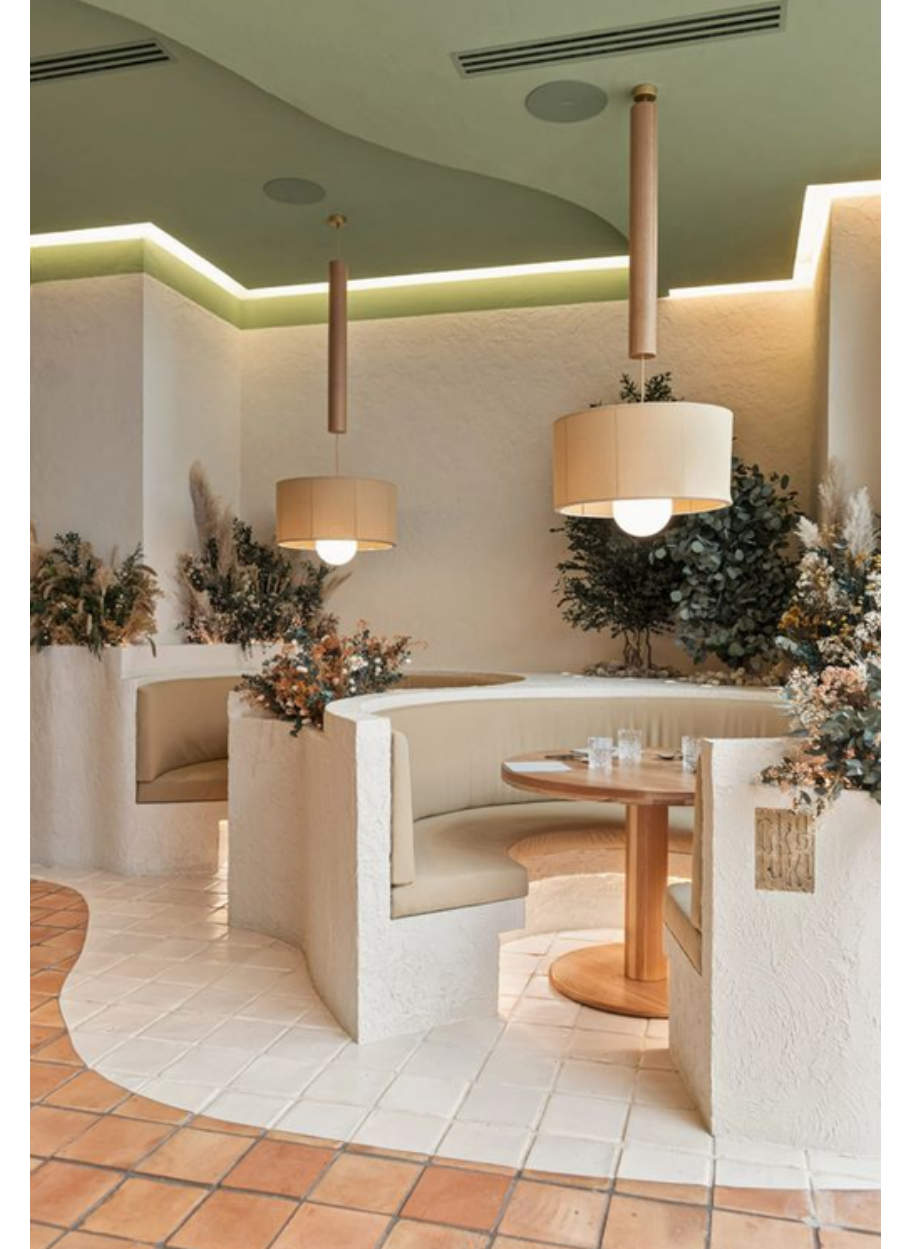
Rhythm



Harmony



Emphasis



Unity

Schematic Design



Drivers



Help build and maintain the students’ mental and physical health. Especially helping improve the self-esteem and mood of the students.



Create a distraction-free environment for the students, including private areas for the students to decompress and study independently.



Include opportunities for the students to socialize in-between classes and spaces for extra-curricular activities.



Inform the students, parents, faculty, and other community members about ADHD.

Goals



There will be a sensory room to allow students to regulate their behavior. There will be a nutritionist and a gym to improve the students’ physical health.



Classrooms and similar spaces will have soothing colors and lighting. Acoustic strategies will also be implemented to minimize excess noise.



Students will be able to socialize in the courtyard or the seating areas in the hallway. The fourth floor will have spaces for clubs and extra-curricular activities.



There will an ADHD center on the first floor that is open to the public.

Program

Bubble Diagram

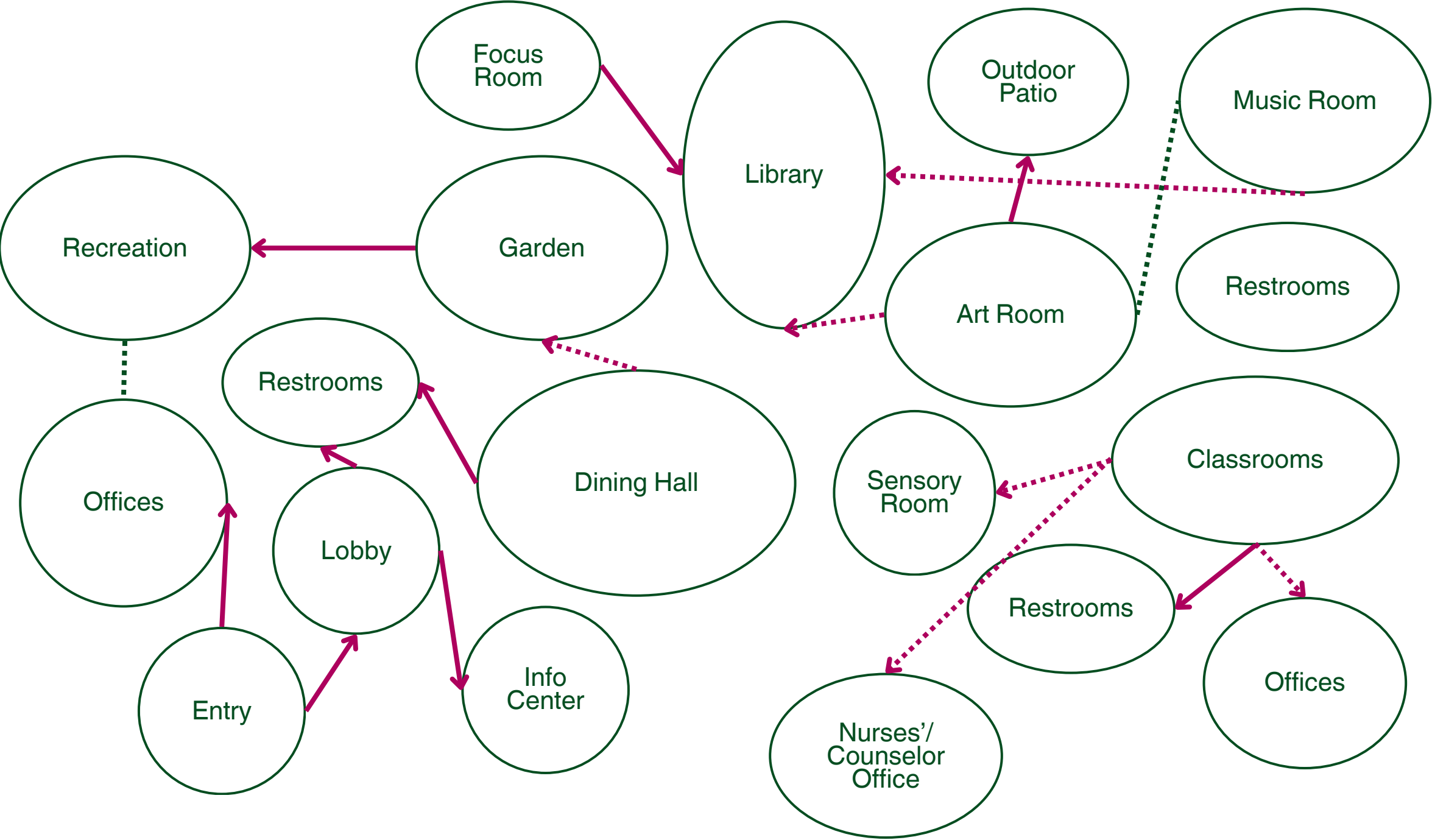
Primary Adjacency



Secondary Adjacency



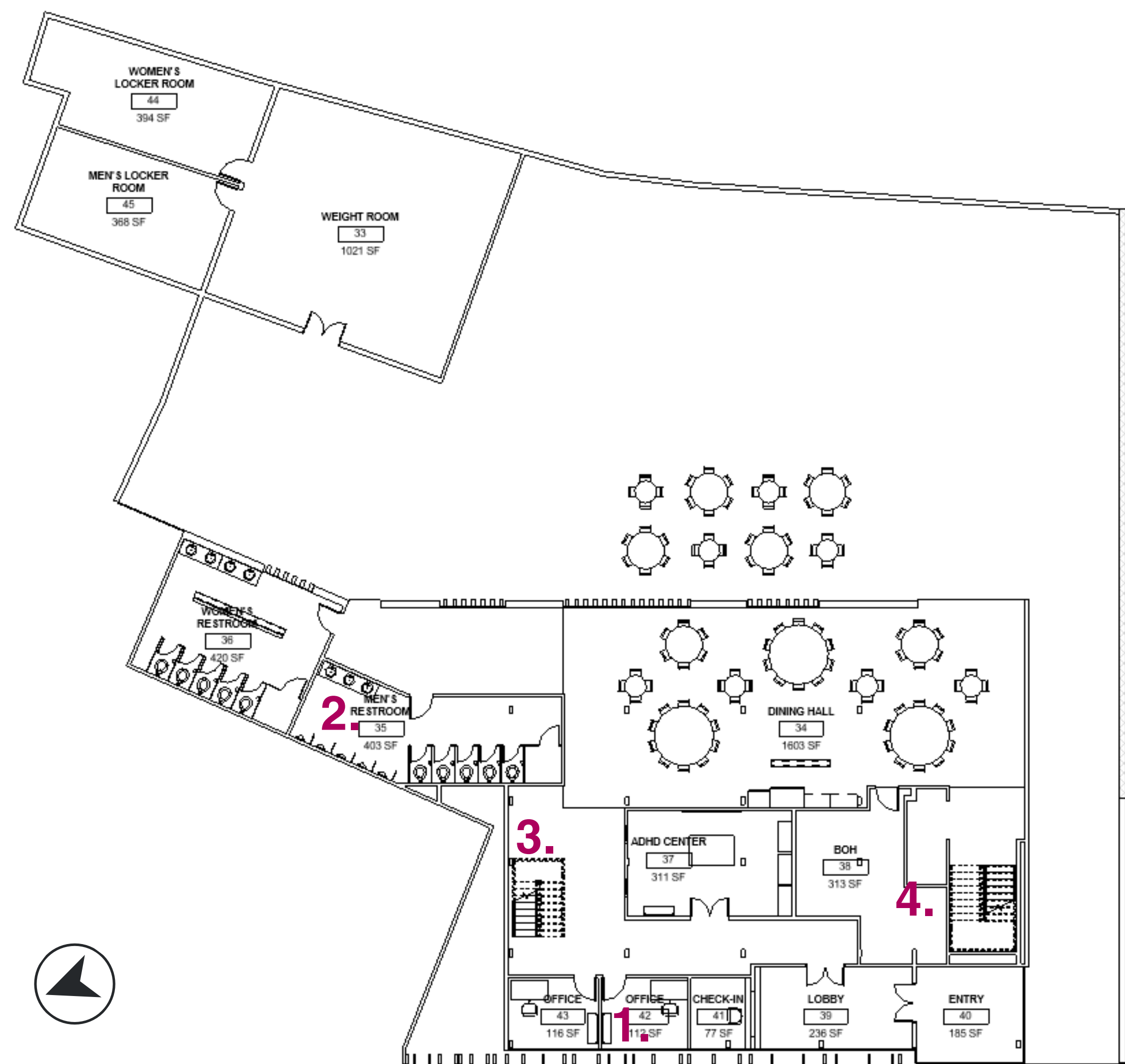
No Adjacency



Original Plan

Level One Changes

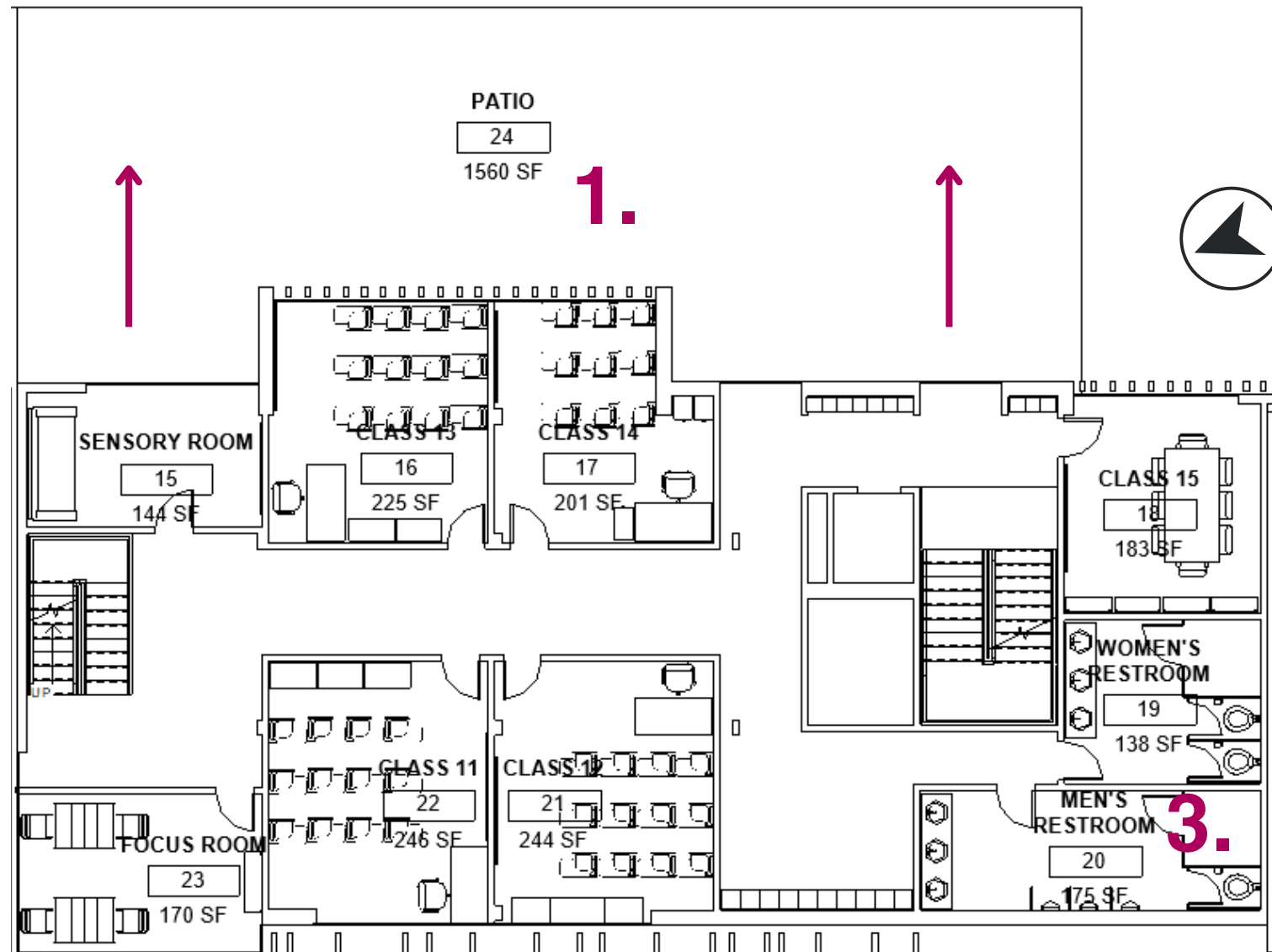
1. Relocate offices for the assistant principals
2. Smaller restrooms
3. Enclose staircases
4. The first staircase needs to be more accessible



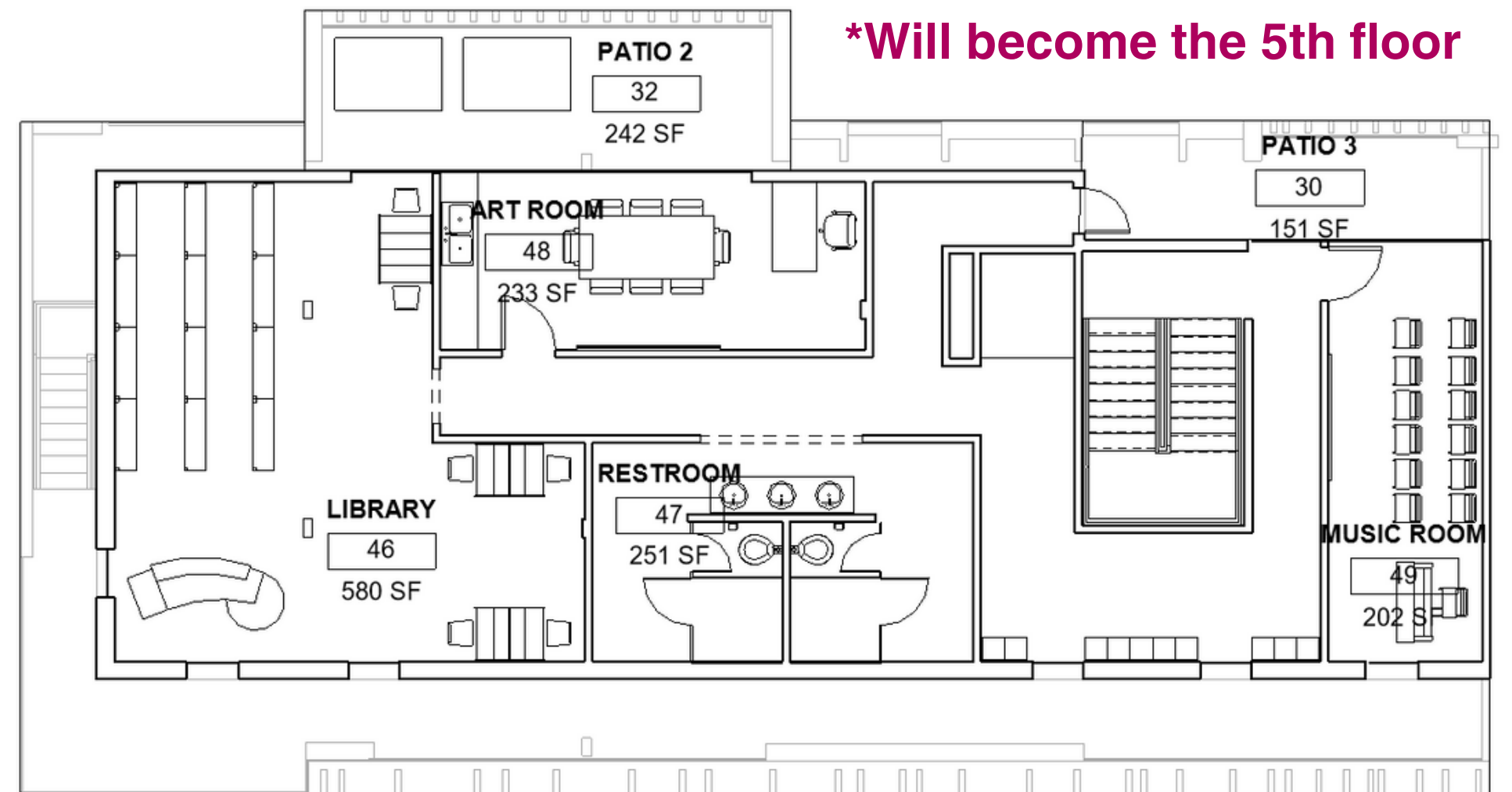
Original Plan

Level Two - Four Changes

1. Expand levels 2 and 3
2. Add another floor
3. Smaller restrooms



Level Two & Three



Level Four

Program

Final Design

Level One

- Entry
- Lobby
- Dining Hall
- Gym
- Principal’s Office
- ADHD Center
- Restrooms
- Garden

Levels Two & Three

- Classrooms
- Sensory Rooms
- Nurse’s Office or
- Counselor’s Office
- Assistant Principal’s
- Office
- Restrooms

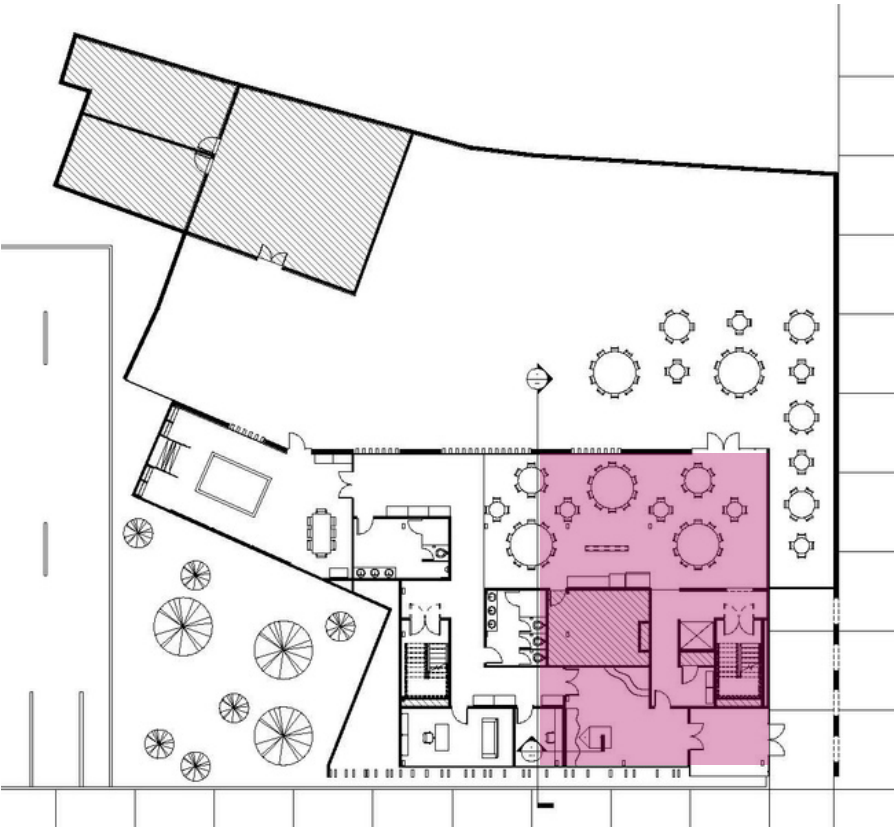
Levels Four

- Cooking Classroom
- Art Classroom
- Music Classroom
- Outdoor Patio
- Restrooms

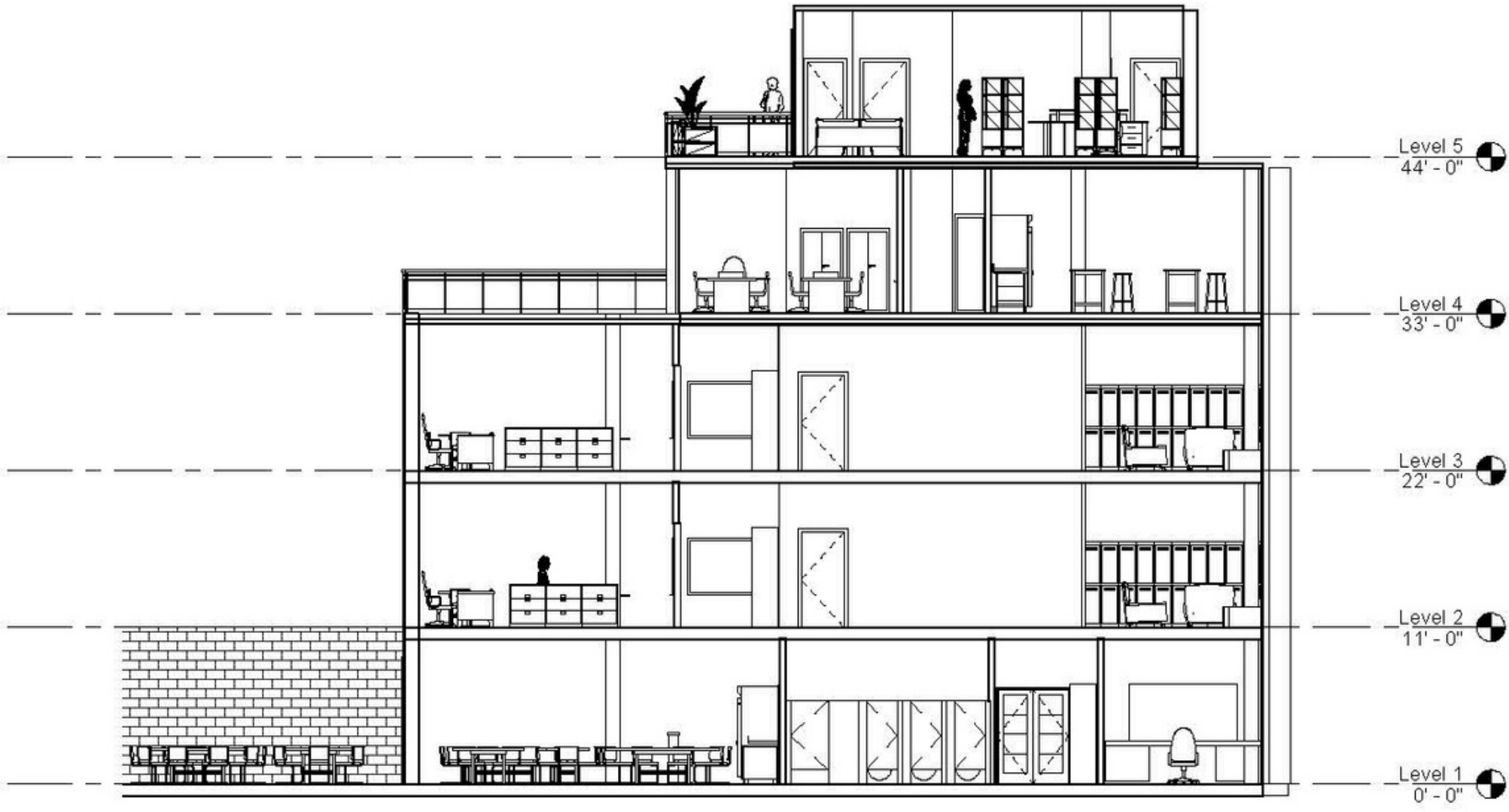
Levels Five

- Library
- Focus Room
- Outdoor Patio
- Restrooms

Building Section

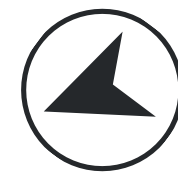


Key Plan



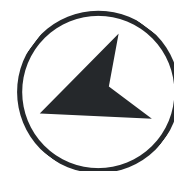
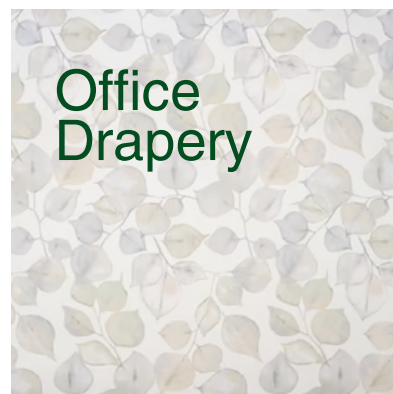
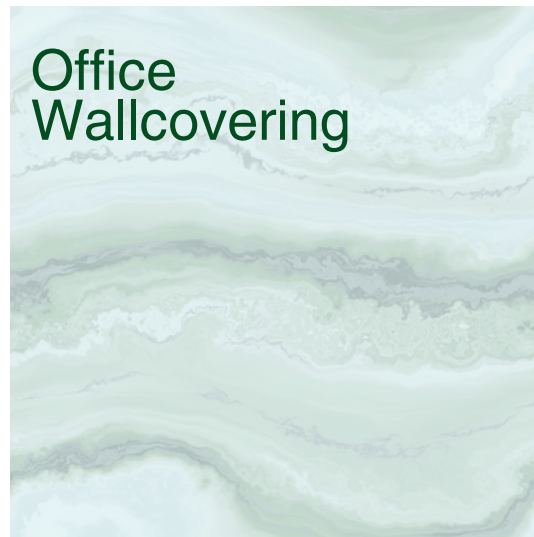
Level One

- | | |
|-----------------|-----------------------|
| 1. Entry | 5. Locker Rooms |
| 2. Lobby | 6. Principal's Office |
| 3. Dining Hall | 7. ADHD Center |
| 4. Gym | 8. Restrooms |
| 5. Locker Rooms | 9. Garden |



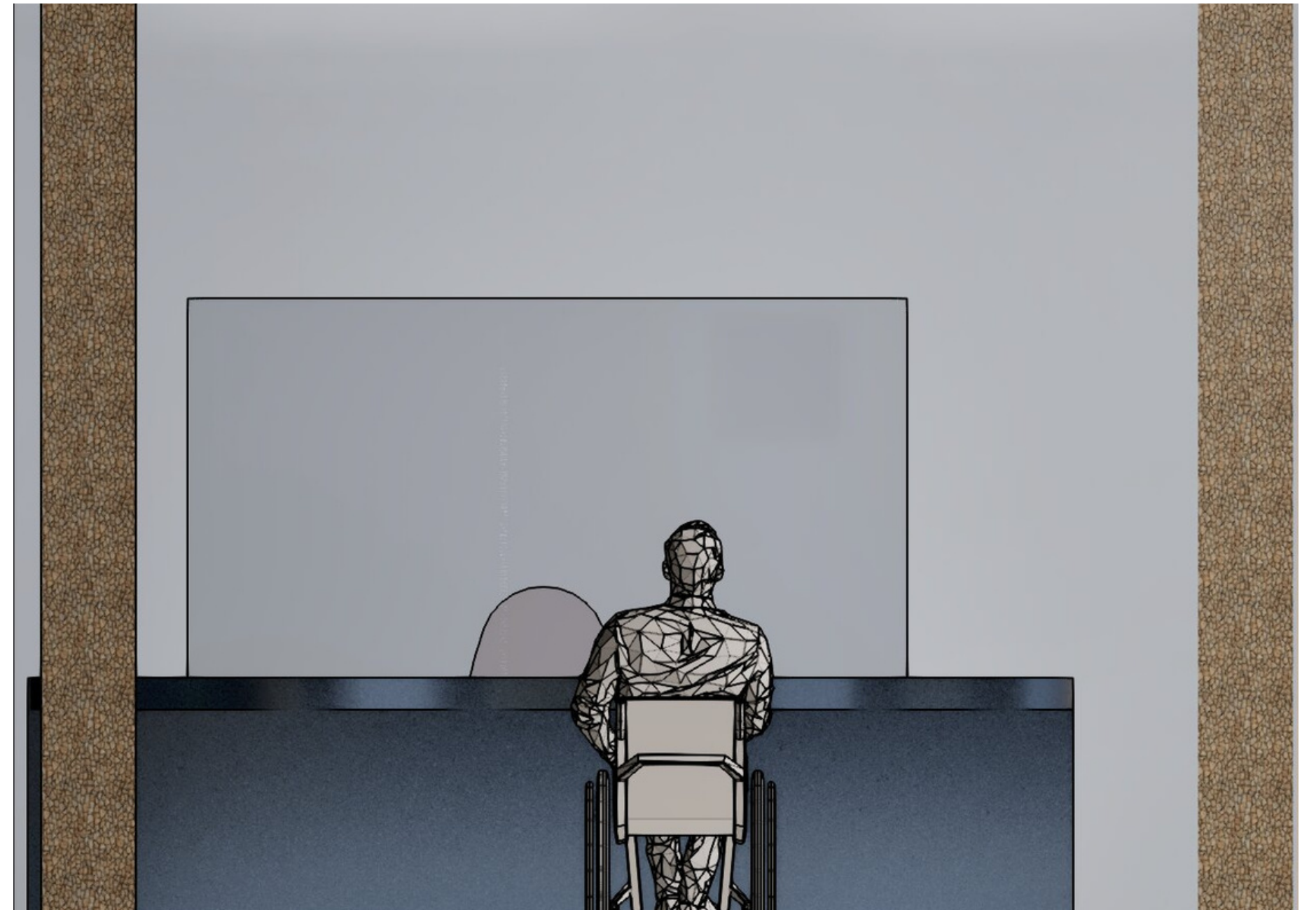
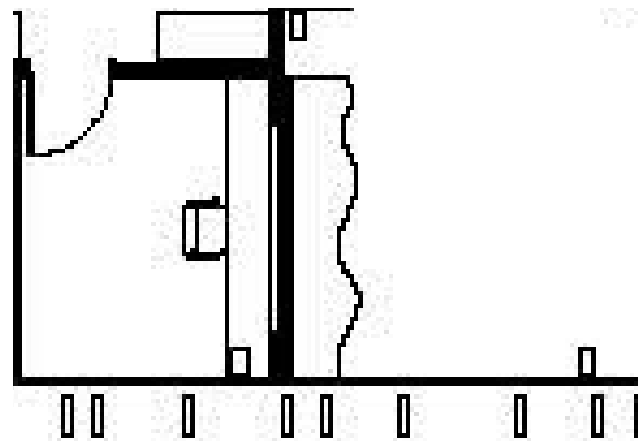
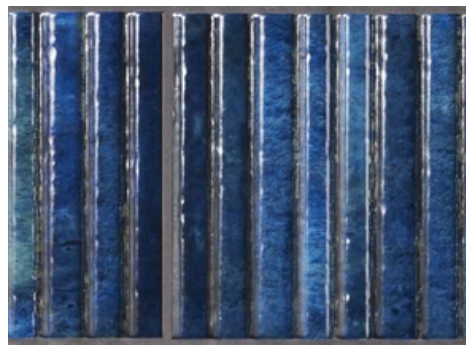
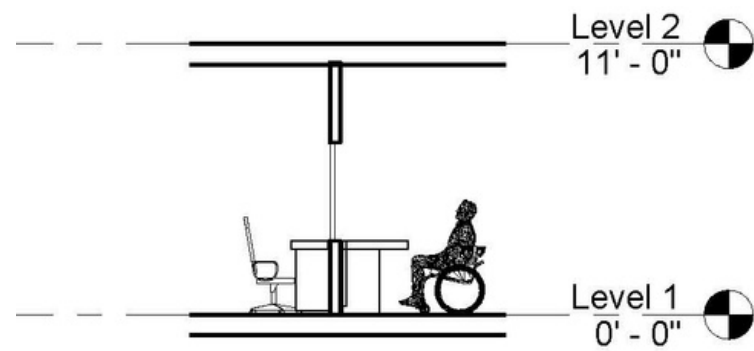
Level One

- 1. Entry
- 2. Lobby
- 3. Dining Hall
- 4. Gym
- 5. Locker Rooms
- 5. Locker Rooms
- 6. Principal's Office
- 7. ADHD Center
- 8. Restrooms
- 9. Garden

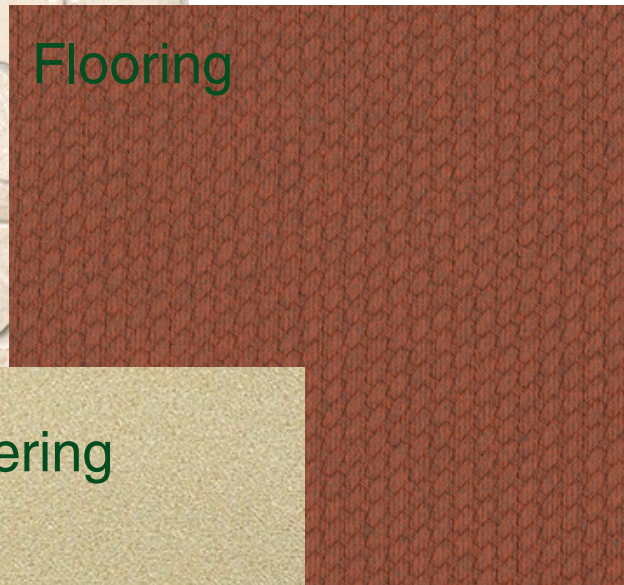
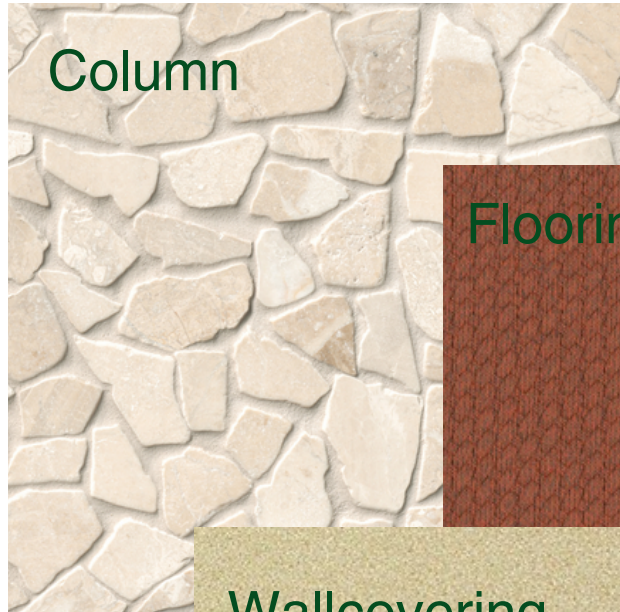


Millwork Detail

The check-in desk was designed with a curvilinear profile and a blue tile referencing the well-known Mississippi River that runs throughout the state.

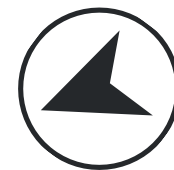
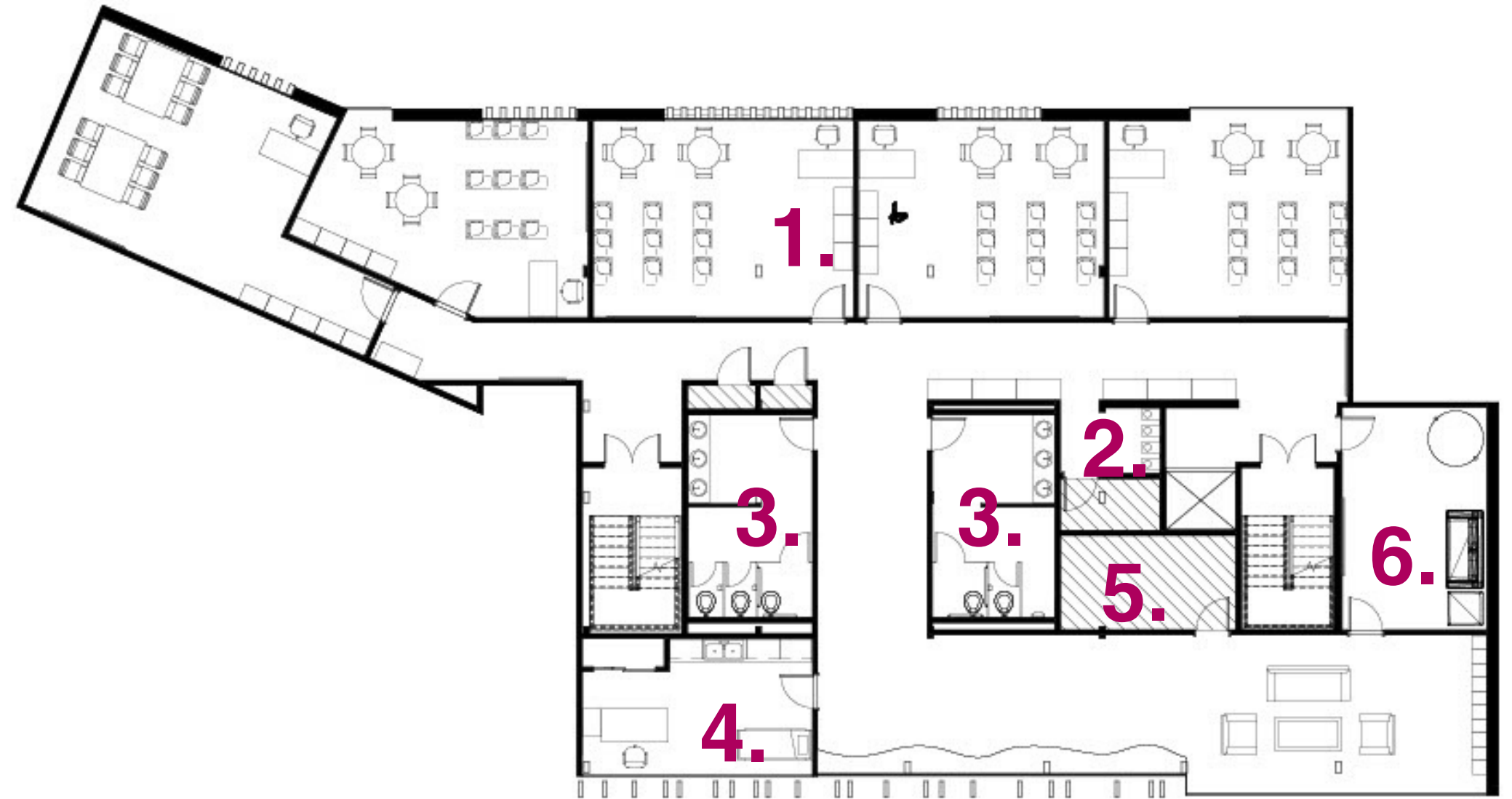


ADHD Center



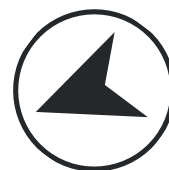
Levels Two & Three

- 1. Classrooms
- 2. Water Station
- 3. Restrooms
- 4. Nurse's or
Counselor's Office
- 5. Assistant
Principal's Office
- 6. Sensory Room

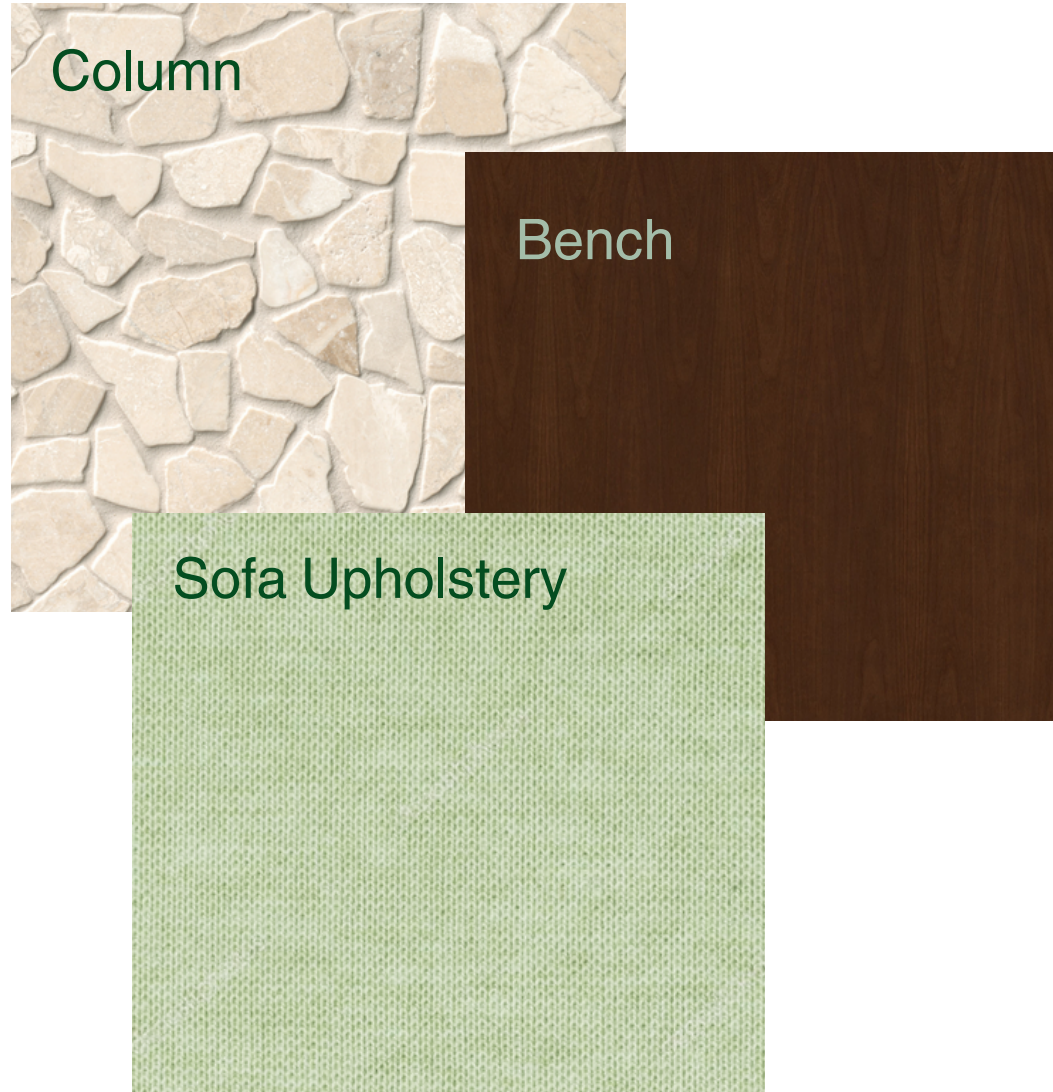


Levels Two & Three

1. Classrooms
2. Water Station
3. Restrooms
4. Nurse's or
Counselor's Office
5. Assistant
Principal's Office
6. Sensory Room



Corridor



Classroom



Level Four

1. Music Classroom

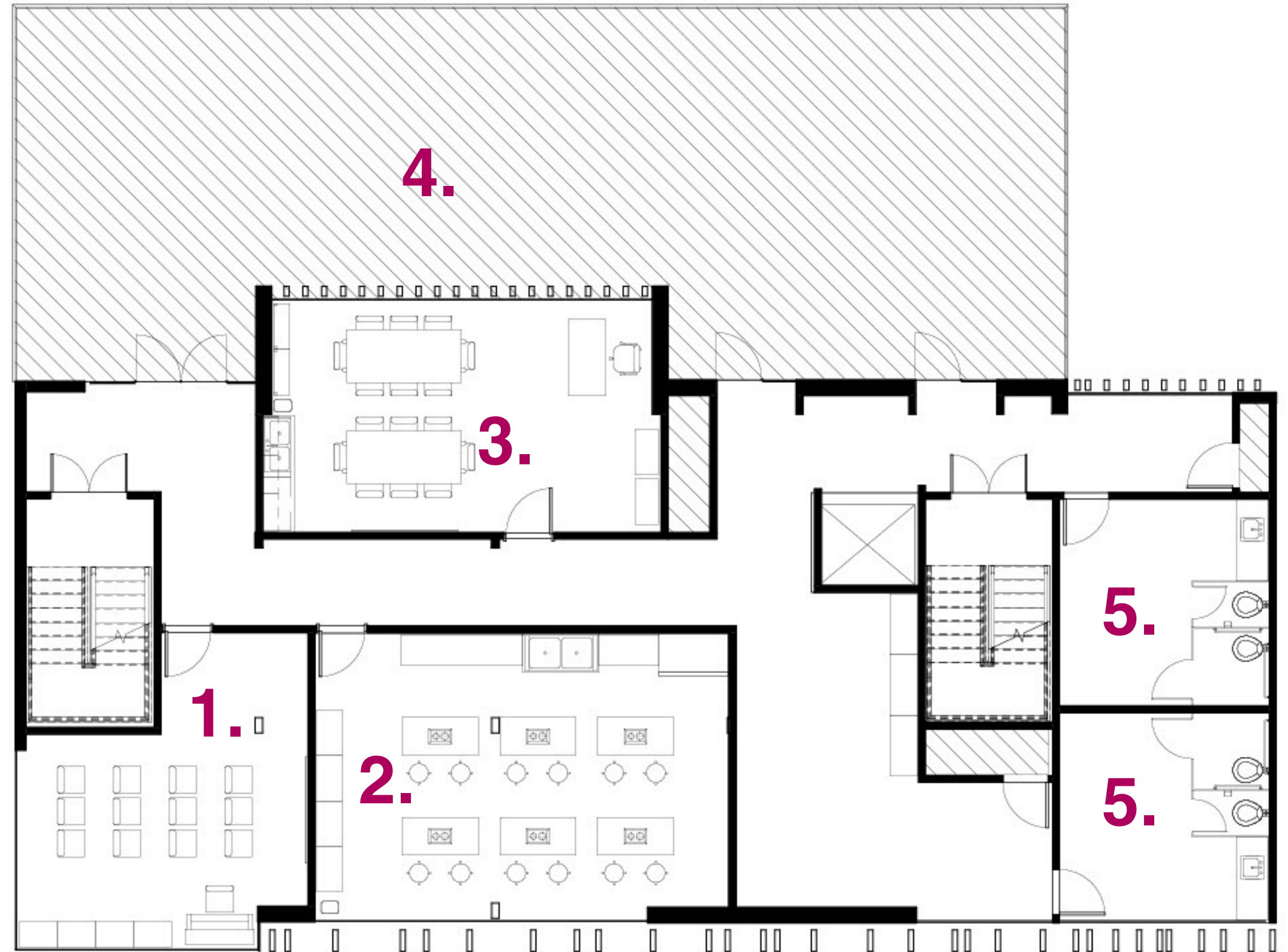
2. Cooking

Classroom

3. Art Classroom

4. Patio

5. Restrooms



Level Four

1. Music Classroom

2. Cooking

Classroom

3. Art Classroom

4. Patio

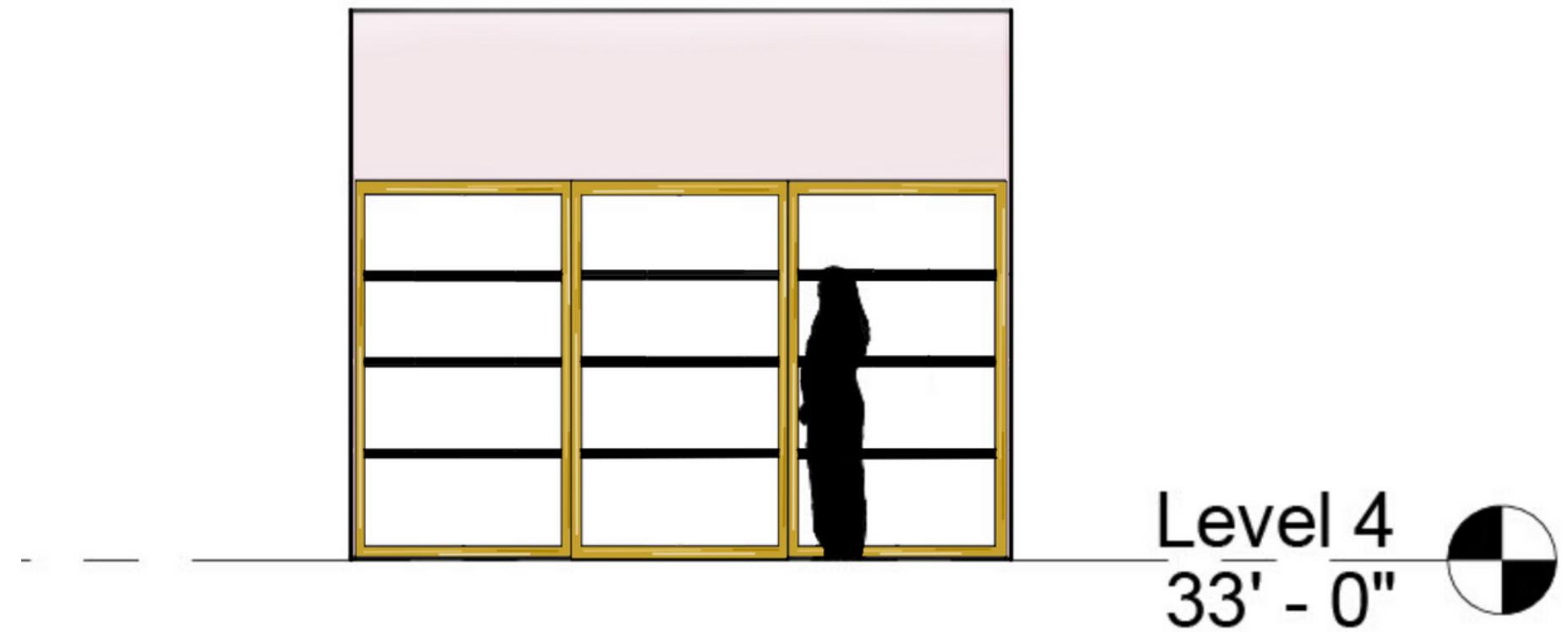
5. Restrooms



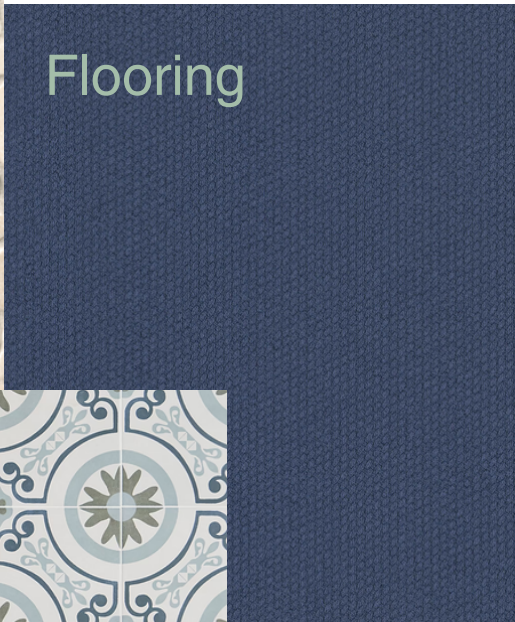
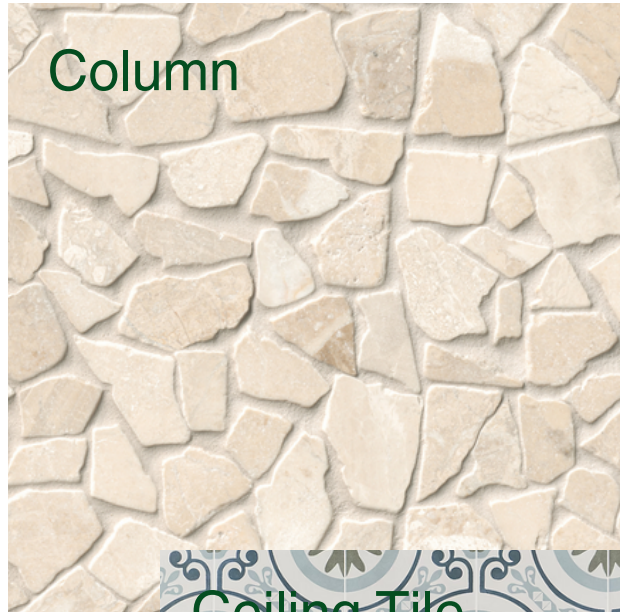
Display Case

Since students are using less and less lockers over time, display cases for the students' work or trophies fill the hallways instead of lockers.

Frame



Art Classroom



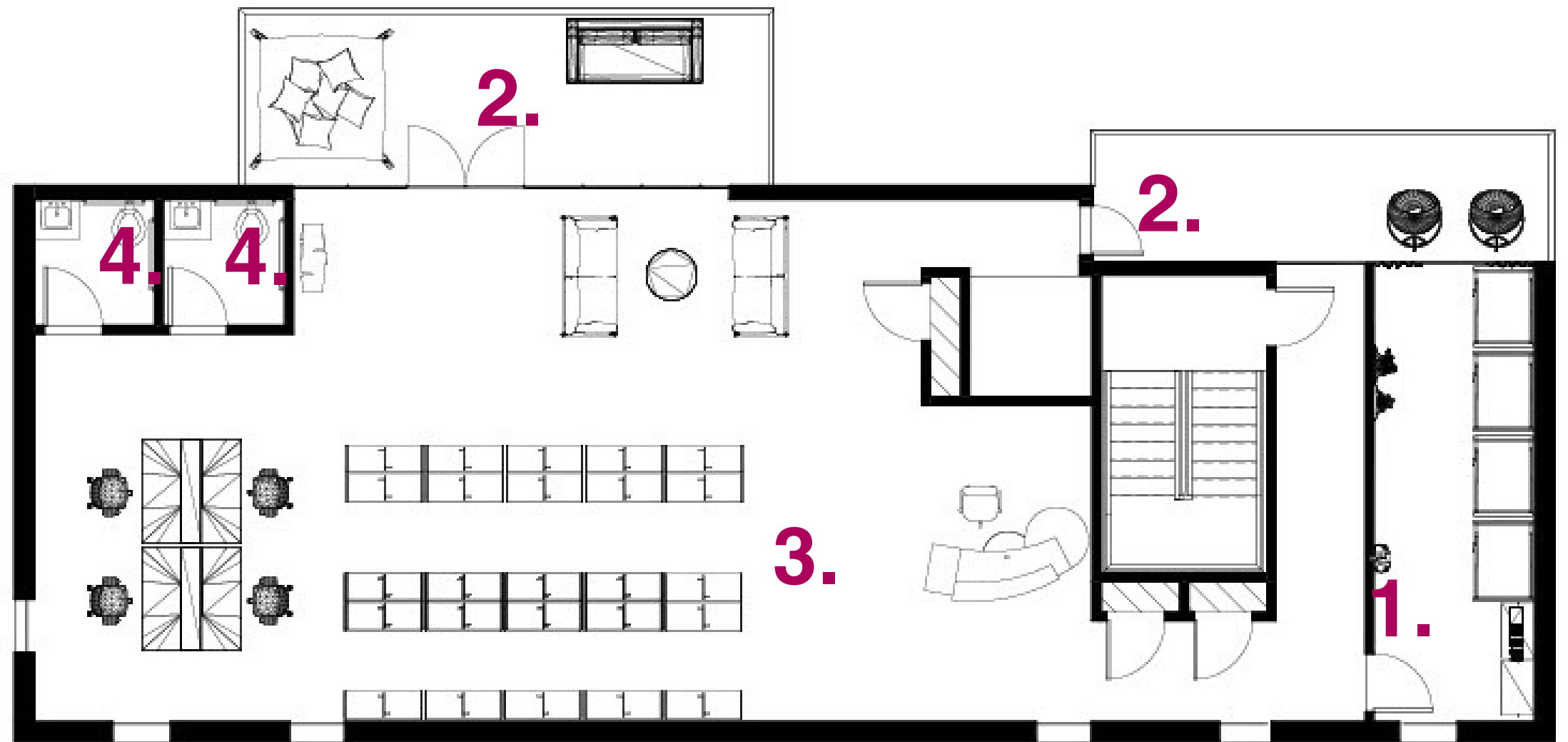
Level Five

1. Focus Room

2. Patio

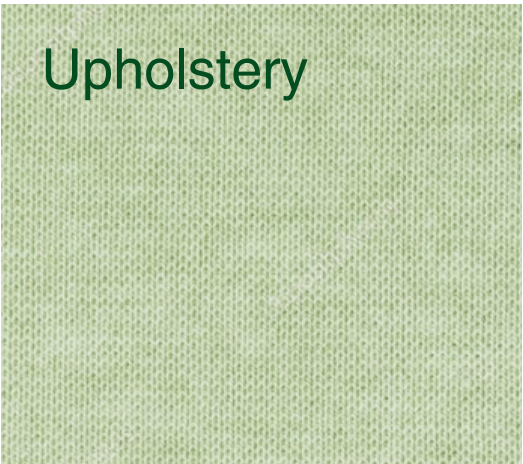
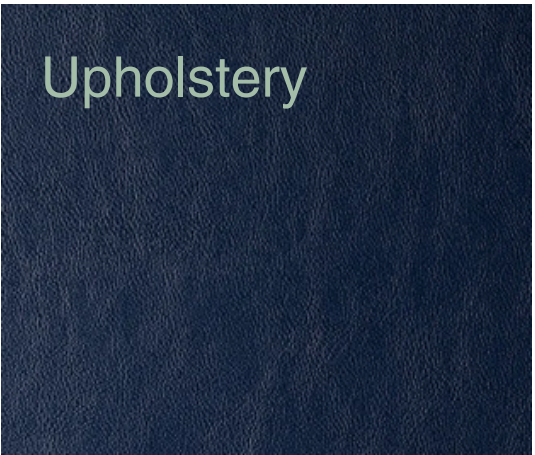
3. Library

4. Restrooms

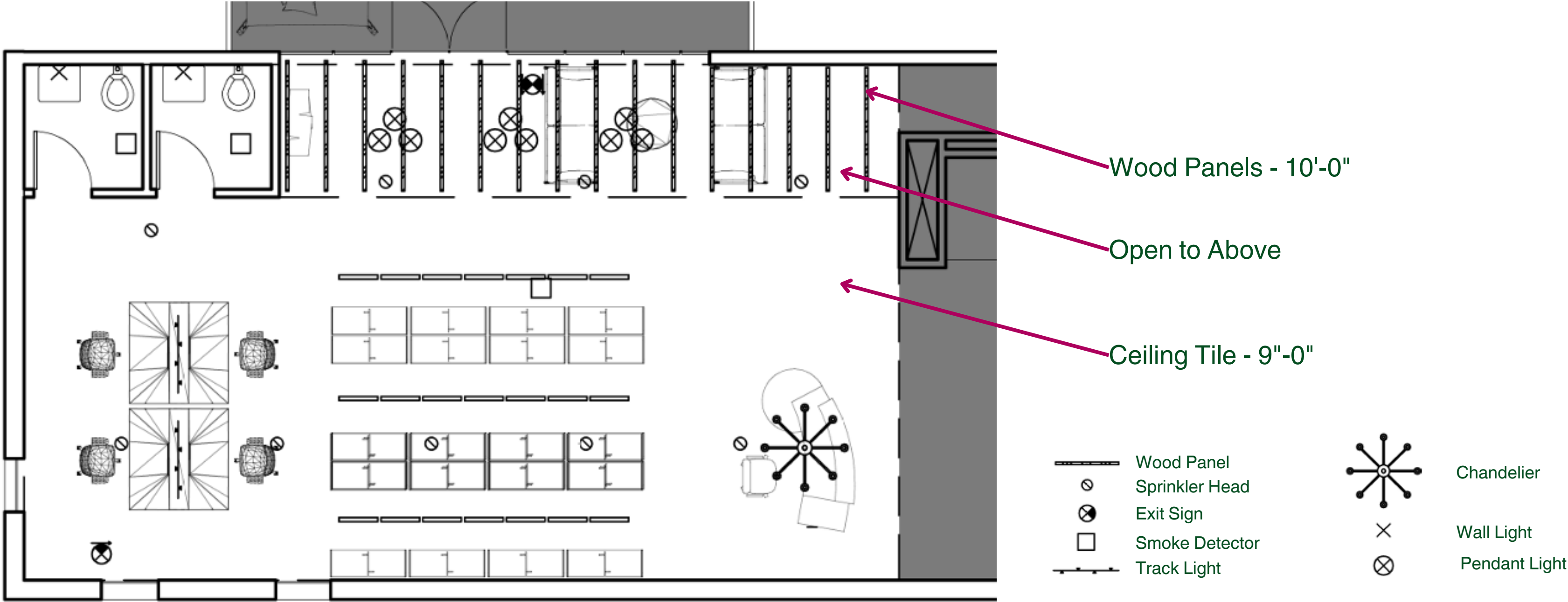


Level Five

- 1.Focus Room
- 2.Patio
- 3.Library
- 4.Restrooms



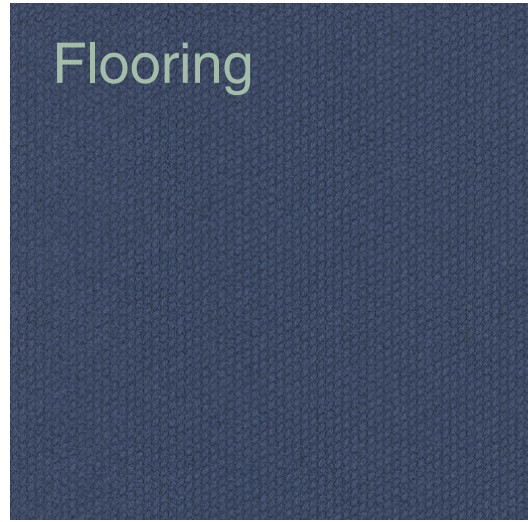
Reflected Ceiling Plan



Level Five

Library

Flooring



Ceiling Tile



Desk Chair Upholstery



Pendant Light



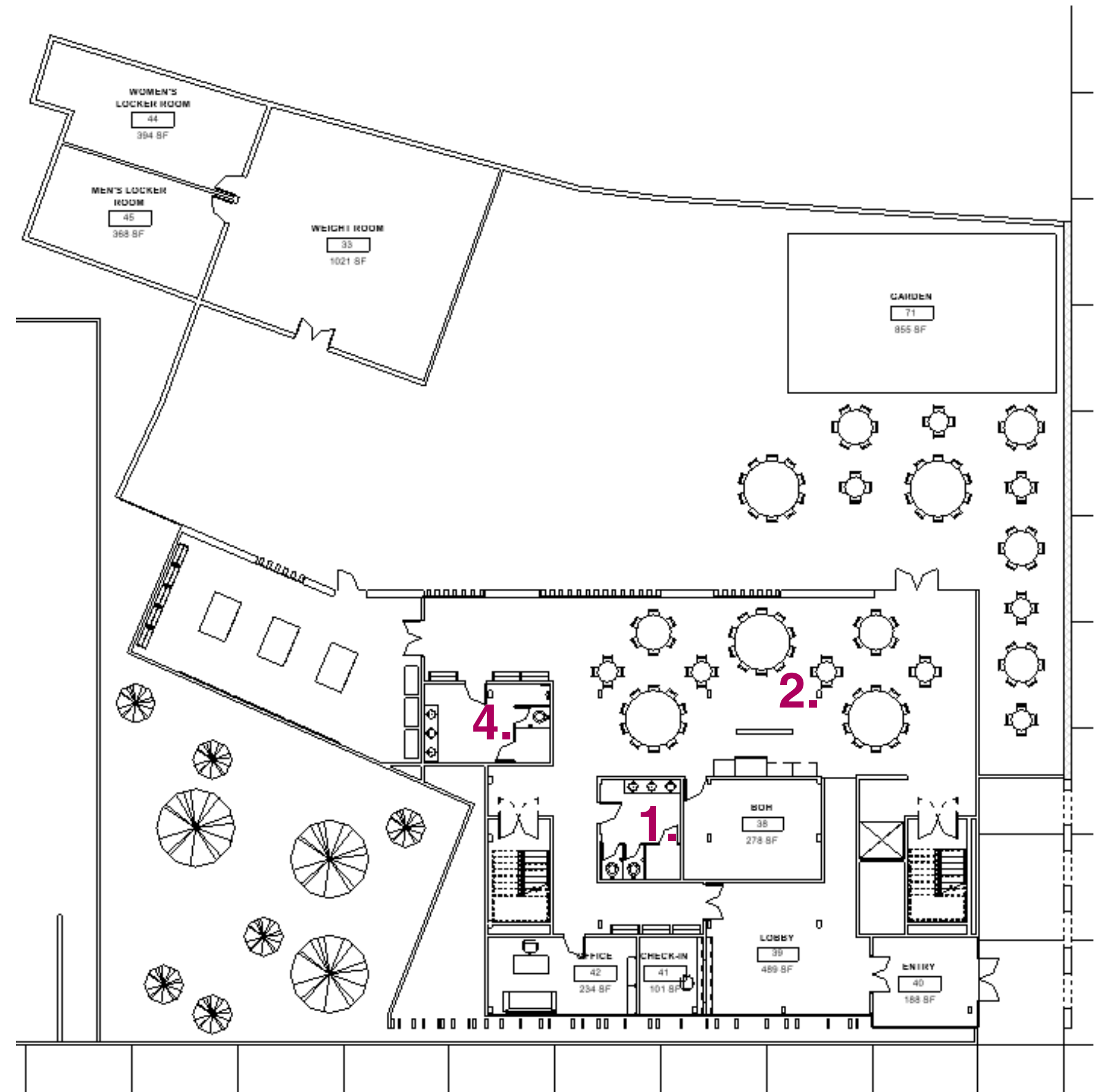
A soft-focus photograph of a pink lotus flower in full bloom, positioned on the left side of the frame. The flower's petals are a delicate pink, with some showing a slight yellow at the base. It is surrounded by large, green lily pads that fill the background and foreground. The overall tone is calm and serene, with a slight vignette effect.

Synthesis Sheets

WELL AP

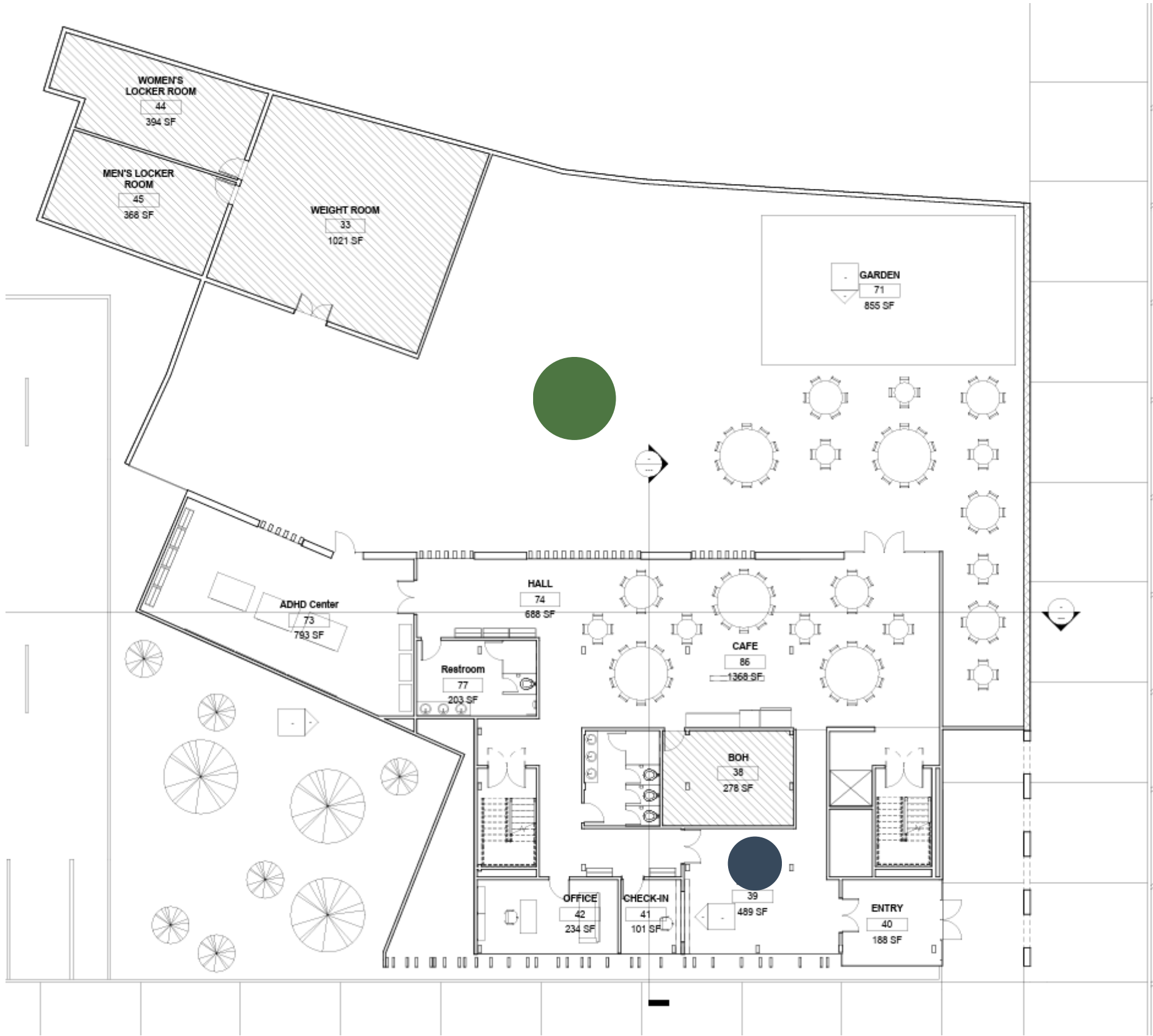
Synthesis Sheet One

1. **Equity** - make all spaces accessible
2. **Acoustic Performance** - minimize background noise
3. **Light** - ensure lighting does not disrupt users' circadian rhythm to improve focus
4. **Health** - encourage effective cleaning and sanitization
5. **Air Quality** - low VOC materials



Attention Restoration Theory

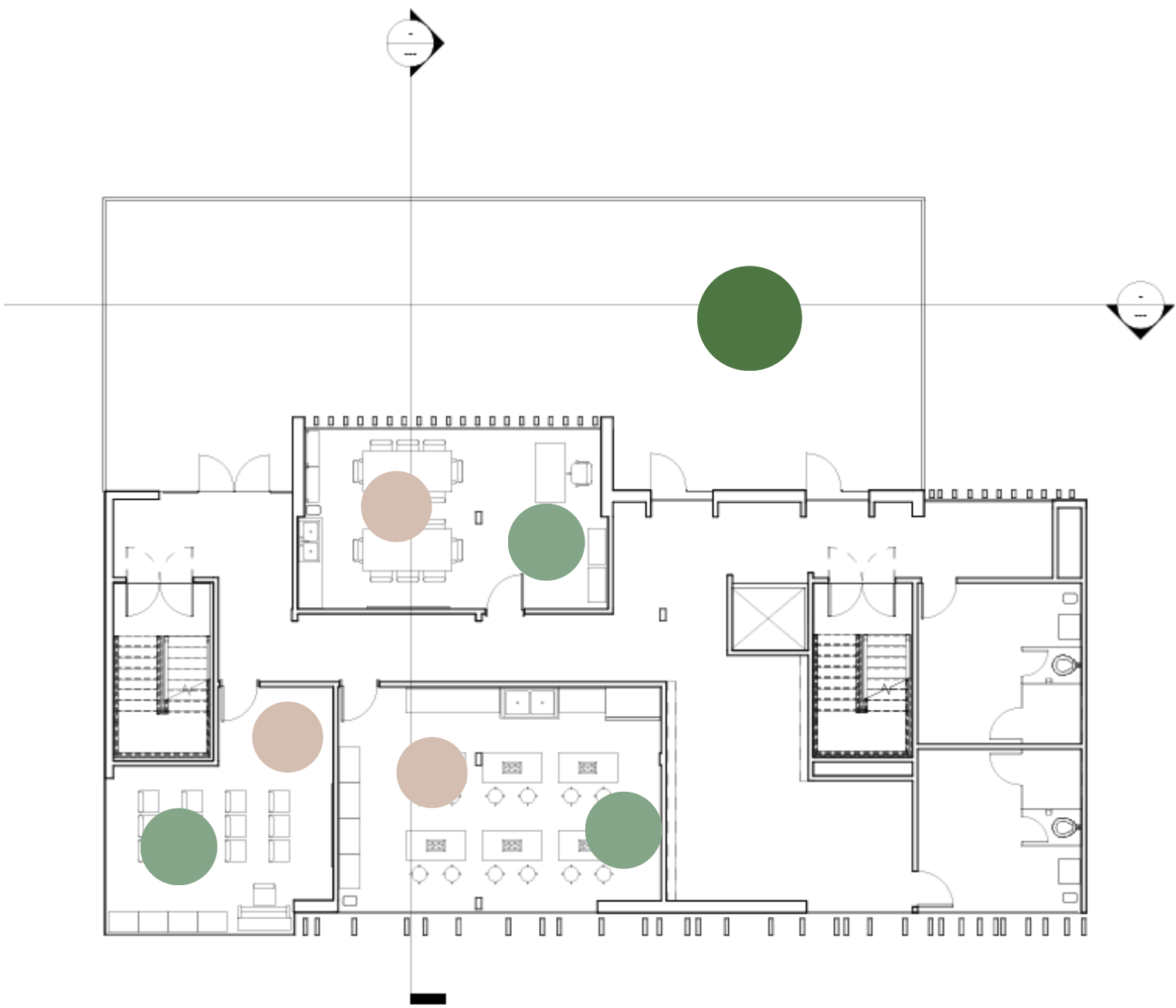
Synthesis Sheet Two

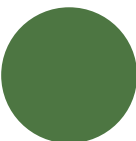
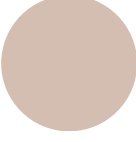


-  Courtyards & Patios
-  Water Feature
-  Indoor Greenery
-  Natural Materials

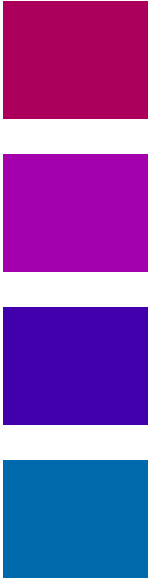
Attention Restoration Theory

Synthesis Sheet Two



-  Courtyards & Patios
-  Water Feature
-  Indoor Greenery
-  Natural Materials

Life Safety Application



Assembly

Business

Educational

Storage



Exits

*All walls are 3-hr fire rated

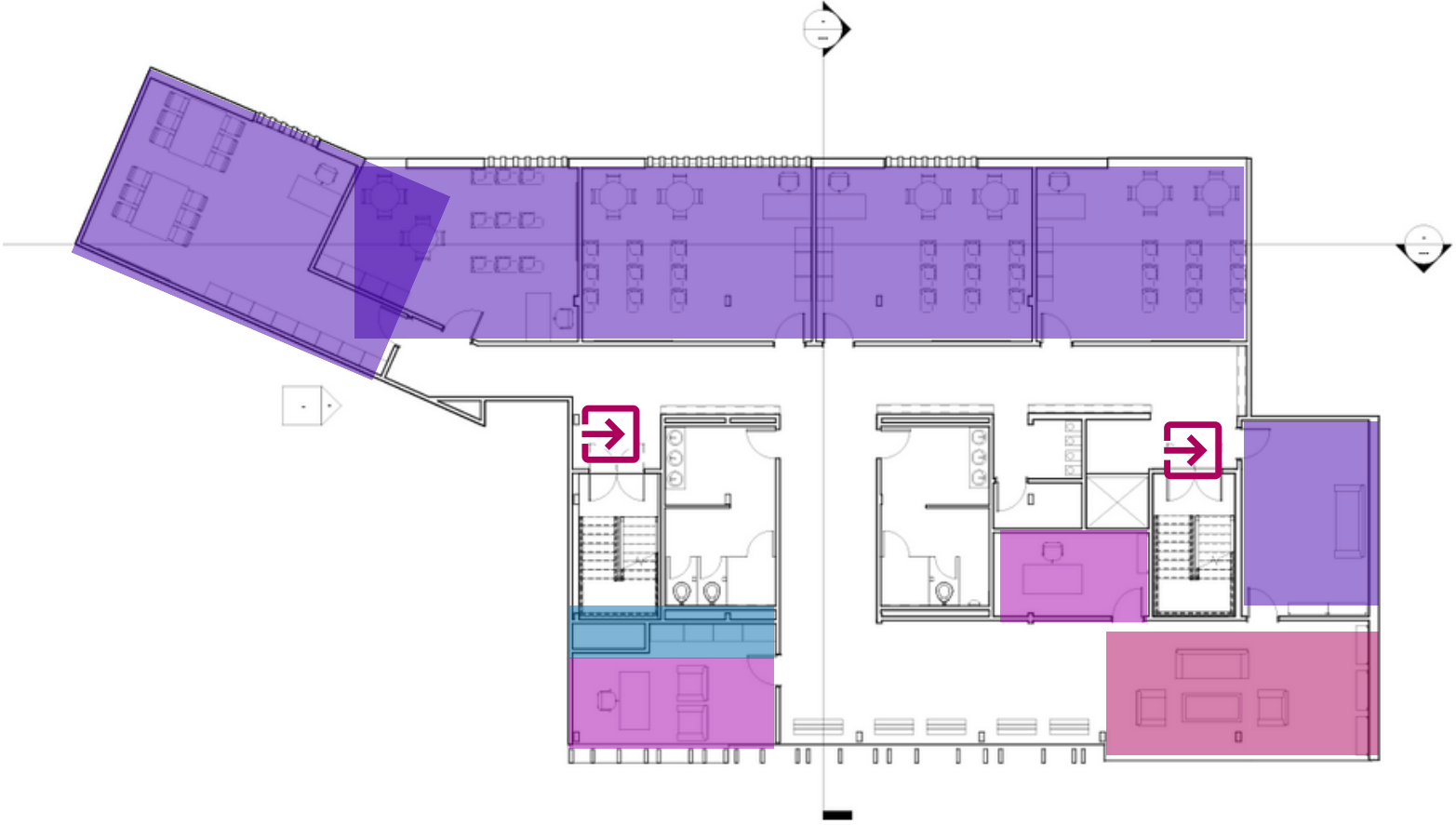
*All doors are 1-1/2-hr fire rated.



1/3 D: 30' 8"

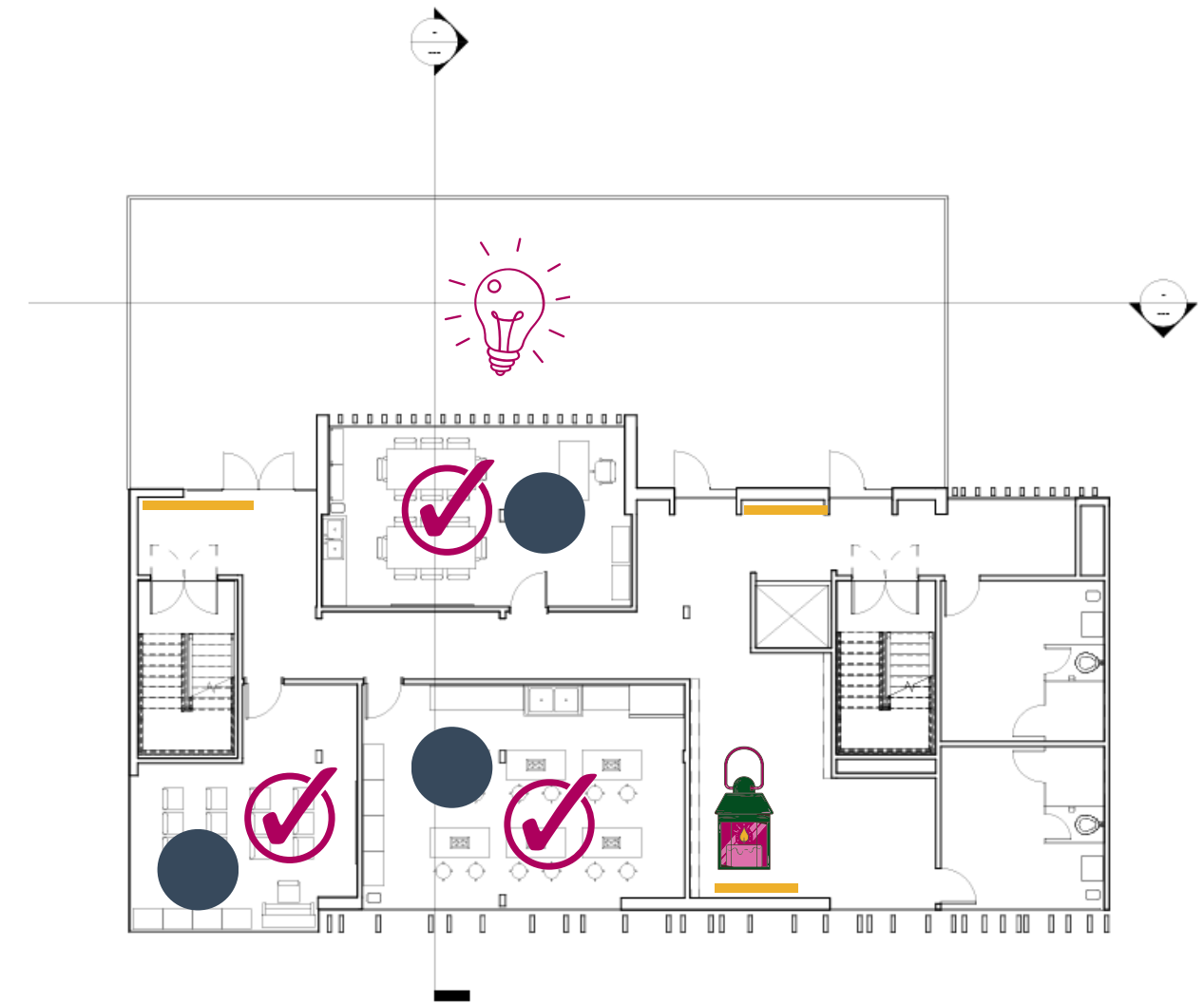


Diagonal Distance: 133'

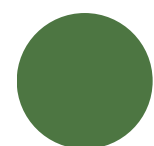


Color & Lighting

Synthesis Sheet Four



Gold - signage



Green - focus



Blue - relax



Task Lighting



Ambient Lighting



Accent Lighting

Thank You



Sources

Ackerman, C. (2019, July 10). What is Kaplan's Attention Restoration Theory (ART)? PositivePsychology.com. <https://positivepsychology.com/attention-restoration-theory/>

Architects, H. M. C. (2020, January 8). Safe School Design Guidelines in Architecture. HMC Architects. <https://hmcarchitects.com/news/safe-school-design-guidelines-in-architecture-2019-01-08/>

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Garden Inspiration. (n.d.). [Online Image]. In Tenniswood. Retrieved January 24, 2024, from <https://www.tenniswood.co.uk/post/682020992059637760>

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Hotel the Yard. (2018). [Online Image]. In The Telegraph. <https://www.telegraph.co.uk/travel/destinations/europe/germany/berlin/hotels/hotel-the-yard/>

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