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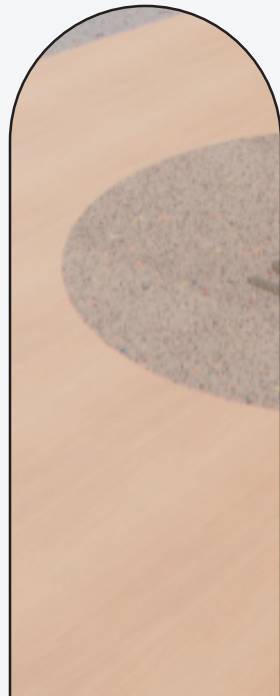
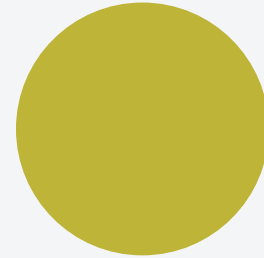
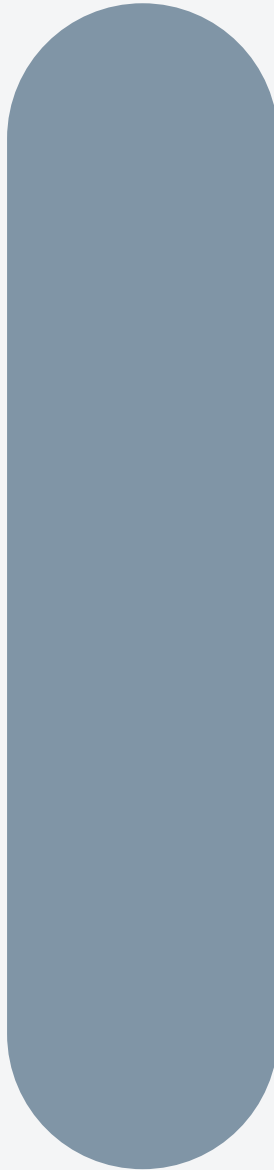
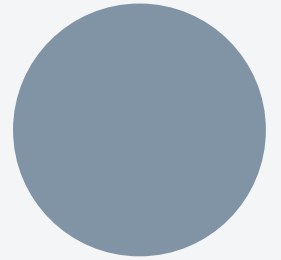
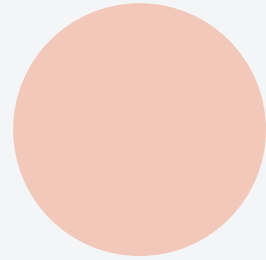
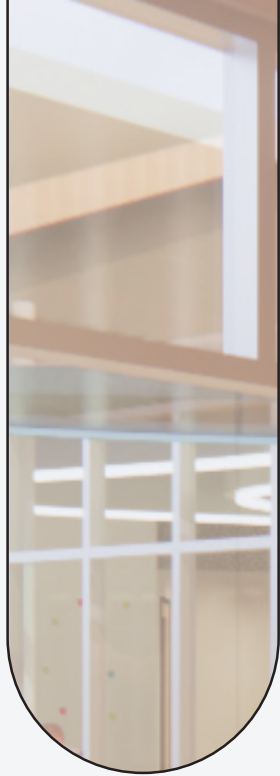
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LEARNING
CURVE

SARAH ALRUMAYH 2024



LEARNING CURVE:

Designing an Inclusive Early Childhood School

SARAH ALRUMAYH

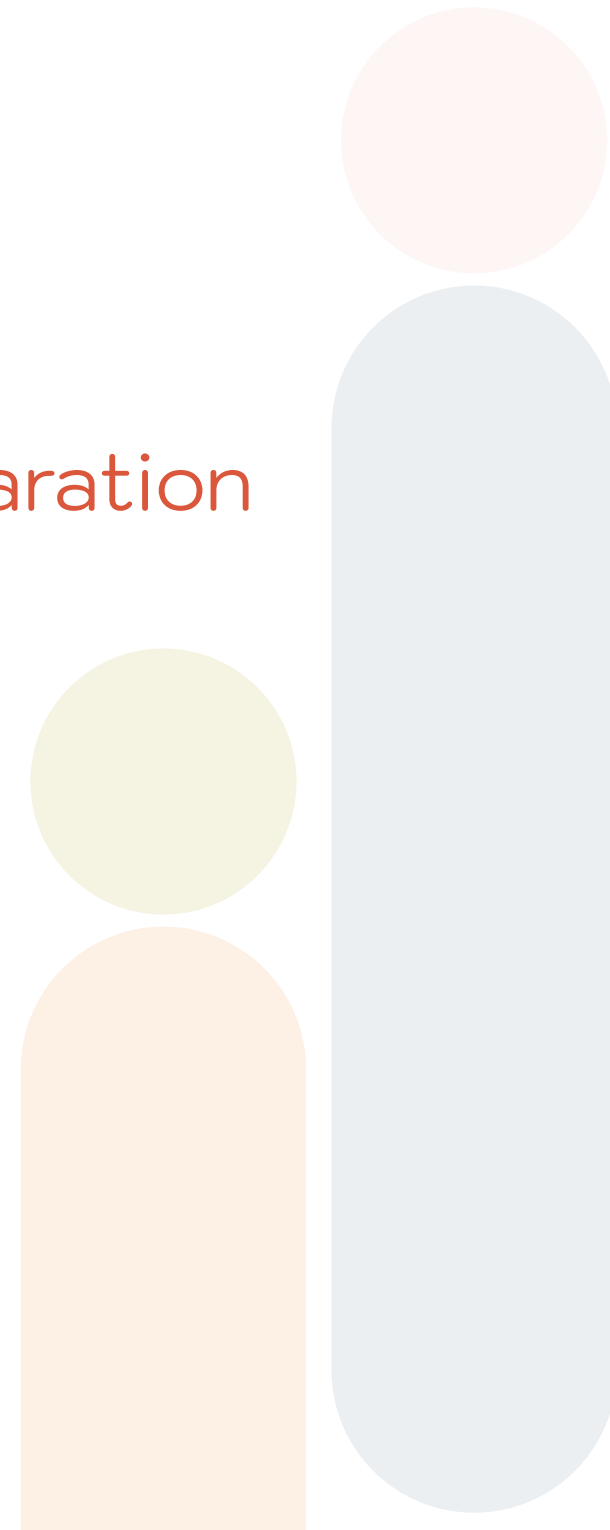
2024



Project Statement

How can a child's full potential be unlocked in early childhood? This project aims to design a rich learning environment where children can learn, play and explore with their senses to promote a holistic growth regardless of their limitations.

Declaration



Universal

As a designer It's important to make design accessible, usable and inclusive to anyone regardless of their abilities, age and background. Creating a universal environment will enhance the experience of anyone occupying the space.

Creative

Creativity is the driver for the design. The design should showcase creativity in how forms, functionality, and aesthetics seamlessly blend to introduce something innovative.

Sustainable

The design should be environmentally sustainable to minimize waste and conserve natural resources.

Transparent

Transparency in interior design helps create the emotional and environmental link between the users, owners and a place.

User centered

An ideal design should be crafted in alignment with user needs and behaviors to foster a safe and healthy environment for those who will inhabit it.

Table Of Contents

1	Research	8	Abstract
		12	Research Findings
		22	Design Ethos
		24	Precedent Studies
2	Site Context	32	Site
		36	Neighborhood History
		38	Existing Building
		42	Program
3	Design	46	Concept
		52	Schematic Design
		56	Design Development
		76	Design Details
4	Specifications	80	Sustainability
		82	Architectural finishes
		86	F F & E
5	Reflections	96	Final thoughts
		98	Sources
		100	Acknowledgments

1

Abstract

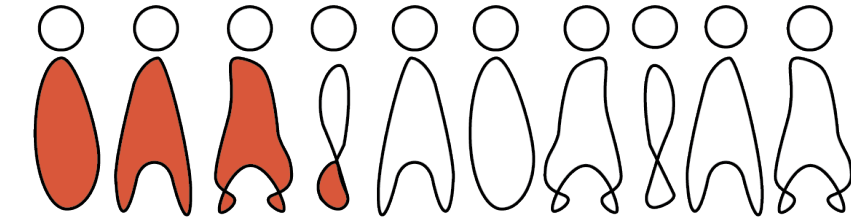
Research

"The senses, being explorers of the world, open the way to knowledge. Our apparatus for educating the senses offers the child a key to guide his explorations of the world..."

Montessori, M. (1988). The Absorbent Mind.

Motivation

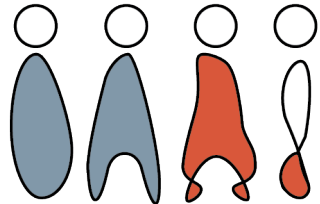
This research centers on the improvement of early childhood education environments in hopes to reduce the disparities in outcomes among children aged 2-6, widely known as "the achievement gap." It sheds light on designing an *inclusive, child-centered school* for students with *specific learning disabilities (SLD) and speech or language impairments (SLI)*. Drawing on the IDEA (Individuals with Disabilities Education Act), it underscores the benefits of integrating students with special education needs into mainstream education, thereby fostering inclusive learning environments. (IDEA, 1975).



32% of students who receive special education have SLD

Opportunity

The research question probes how to create a *nurturing and adaptable* school environment tailored to the diverse needs of *2-6-year-old students*, aiming to facilitate their learning, reduce the achievement gap, and boost self-esteem. This inquiry contributes to the ongoing discourse on designing optimal educational environments for early childhood education. The relevance of this research is driven by my background as a speech pathologist and mother, inspiring a passion for innovative educational practices. Locally, in the state of Virginia 14% of students receive special education; of total learning disabilities, 32% of the students have SLD which encompasses (Dyslexia, Dyscalculia, Dysgraphia...etc.) and 19% of them have SLI (NCES, 2023). Globally, the envisioned learning center incorporates sustainability principles and sensory experiences as a universal language, accommodating diverse learning needs and fostering environmental appreciation.



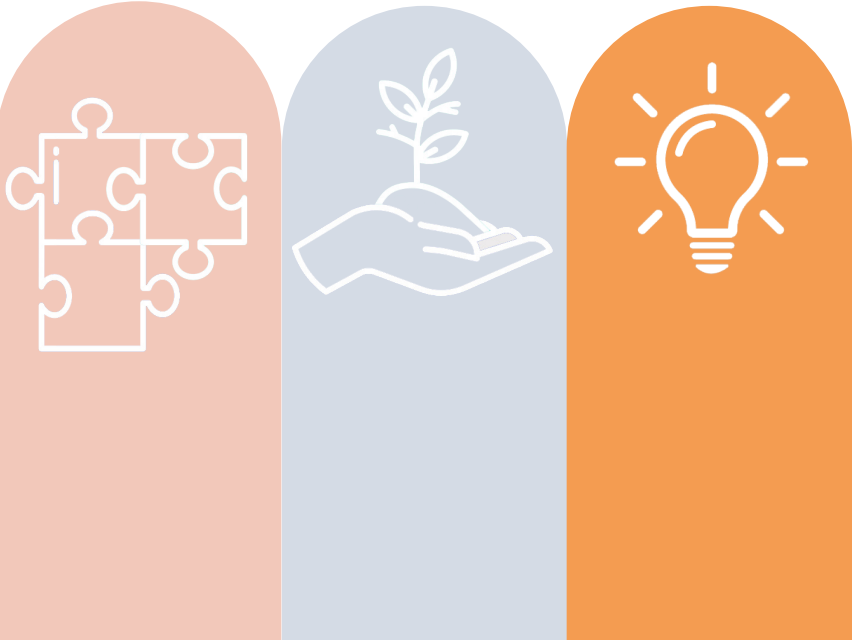
19% of SLD students have SLI

Methods

The study conducts an extensive literature review, focusing on the impact of classroom design on learning outcomes. This includes examining key articles on the influence of colors, classroom layout, and the role of interior architecture in rehabilitation spaces. The study uniquely incorporates a comparative analysis of child-centered educational philosophies such as Montessori, Reggio Emilia, and Bank Street, alongside direct observations in early childhood education settings and interviews with educators. These methods aim to understand young learners' behaviors and the practical challenges in these environments. Notable articles include 'The impact of colors on learning' (Chang et al., 2018), 'The impact of classroom design on learning outcomes' (Barrett et al., 2015), and 'The Future of School Design' (Lange, 2018). Additionally, 'The role of interior architecture in rehabilitation spaces, especially for children with a focus on evidence-based design' (Taheri et al., 2015), provides insights into interior architecture's role in rehabilitation spaces. In addition to seeking inspiration from precedent structures, this study examines notable examples like the Beijing Peninsula Montessori Kindergarten designed by ArkA, and the DS Nursery in Ibaraki Prefecture, a collaborative creation by Hibino Sekkei and Youji no Shiro. (Mairs, 2015) (Shuang, 2017). The study's methodology is further detailed to address the comments. It specifies the tools used for observations, such as structured observation checklists and student-teacher interactions.

Findings

Anticipated outcomes of this study include a comprehensive understanding of effective classroom designs that support diverse learning needs. It envisions a learning center designed with a holistic approach, integrating social and collaborative spaces, both indoors and outdoors, to facilitate exploration and semi-structured activities (Migliani, 2020). In summary, this research aims to bridge the achievement gap in early childhood education through an integrated, child-centered school design, rooted in both personal experience and a broader societal context. It aspires to enhance local educational quality and promote global values of sustainability and inclusivity.



1

Research

Research Findings

Research

In the evolving landscape of education, child-centered educational programs have emerged as beacons of innovation and effectiveness. Programs such as those offered in Montessori schools and those following the Bank Street method have gained increasing recognition for their immersive, hands-on, and sensory-rich learning experiences. These educational paradigms are grounded in the philosophy that children thrive best when actively engaged in their learning process, utilizing tangible materials to explore and comprehend the world around them. This approach, deeply rooted in the practices of Montessori and Bank Street schools, and hardly found in traditional teaching methods, where individual differences are often not practically accommodated. These methodologies underscore the importance of the environment in shaping a child's learning journey, emphasizing the role of self-directed learning, and recognizing each child as a unique learner with distinct needs and interests. This research introduces the concepts of design that will be the bases of our vision for our child-centered school for early childhood.

One of the main concepts is **Universal design** in education, which refers to *creating learning environments that are accessible and beneficial to all students, regardless of their abilities or disabilities*. It is about removing barriers to learning and ensuring that educational materials, methods, and spaces are designed to accommodate a wide range of learning styles and needs. In essence, universal design aims

to make education inherently inclusive from the outset, rather than making accommodations as an afterthought. Inclusive design in education takes the principles of universal design a step further. *It focuses on recognizing and valuing diversity within the classroom*. This approach entails designing educational programs that not only accommodate differences but also celebrate them. Inclusive design is about creating an environment where every student feels valued, respected, and supported, and where their unique perspectives and abilities contribute to the richness of the educational experience. Some possible design methods to help achieve this are *integrating creative walls where students can express themselves, and by giving students the option to personalize their own desk and storage*.

Another concept is the **accessibility** of the design. Accessibility ensures that all students, including those with disabilities, are able to access and participate in learning. This encompasses a range of considerations, from physical accessibility of school buildings to the accessibility of learning materials and technologies. *Accessibility is about providing equitable opportunities for all students to engage with and benefit from the educational content*. Montessori education provides an example of how universal and inclusive design principles can be implemented effectively. Montessori classrooms are carefully designed to cater to the needs of children at different developmental stages. *The use of tactile and manipulative material as design elements of the classroom* surroundings in Montessori schools is a testament to this. These materials allow children to explore concepts through **touch and movement**, making learning accessible and engaging for all, including those with different learning styles or special

needs. In Montessori classrooms, accessibility is a key consideration. The classrooms are typically arranged to be open and easily navigable, with materials placed at children's eye level, ensuring that all children, including those with physical disabilities, can access them.

Moreover, the Montessori method's emphasis on individualized learning allows educators to tailor their approach to each child's specific needs, thus embracing the essence of accessibility in design. As educational paradigms shift towards more inclusive and universally designed approaches, Montessori education remains at the forefront, exemplifying how these principles can be seamlessly integrated into educational practices. The Montessori method's focus on individualized, hands-on learning aligns perfectly with the goals of universal, inclusive, and accessible design, making it a model for other educational systems to follow.

The mounting body of research supporting these child-centered approaches illuminates their profound impact on academic achievement, social, and emotional skills, challenging the conventions of traditional educational settings. This thesis delves into the core principles of these transformative educational models, examining their methodologies, impact, and the pivotal role of classroom design in enhancing the overall educational experience.

Child-centered educational programs, such as those seen in Montessori schools and those following the Bank Street method, are increasingly recognized for

their effectiveness in fostering immersive learning experiences through hands-on, sensory activities. These programs are rooted in the philosophy that *children learn best when they are actively engaged in their learning process, using tangible materials to explore and understand the world around them.* In Montessori schools, this approach is evident in the way children are encouraged to use physical materials to learn mathematical concepts. This might involve using objects like beads or blocks to understand numbers and operations, or engaging with movable alphabet letters for language development. These materials are not just tools for teaching specific skills; they are gateways to deeper understanding and internalization of knowledge. *Through interacting with these materials, children develop a sense of spatial relationships, learn to categorize items, and engage in problem-solving activities that are both fun and educational (Lillard, 2013; Montessori, 1949).* This approach is consistent with Montessori's own writings, which emphasize the importance of self-directed learning and the role of the environment in shaping the child's development (Montessori, 1989).

Similarly, the Bank Street method, also known as the developmental-interaction approach, places a strong emphasis on active engagement with materials, ideas, and people. This approach is based on the principle that *learning is a social, emotional, and cognitive process that is best supported through diverse and supportive experiences.* In a Bank Street classroom, children might be found working on projects that require them to interact with a variety of materials, explore different ideas, and collaborate with their peers. This approach is designed to foster a sense of community and mutual respect among students, while also supporting their individual growth and development (Mayes, 2007).

Both Montessori and Bank Street methods share a common belief in the importance of respecting the child as an individual learner with unique needs and interests. This respect is reflected in the way these programs are designed to be adaptable and responsive to the individual child, rather than imposing a one-size-fits-all curriculum. In practice, this means that *children are given the freedom to explore topics that interest them, to work at their own pace, and to engage in learning activities that are meaningful and relevant to their lives (Lillard, 2013).*

The effectiveness of these child-centered approaches is supported by a growing body of research that highlights the benefits of hands-on, experiential learning. *Studies have shown that children who participate in these types of programs often demonstrate higher levels of academic achievement, as well as better social and emotional skills, compared to their peers in more traditional educational settings (Liew J et al, 2008).* This research suggests that by providing children with opportunities to engage

in sensory, hands-on activities, child-centered programs are not only helping them to acquire knowledge and skills but are also supporting their overall development as confident, capable learners.

Child-centered programs like those found in Montessori schools and Bank Street classrooms represent a powerful model for education that prioritizes the needs and interests of the child. *By engaging children in hands-on, sensory activities, these programs provide a rich and supportive environment for learning and development, laying the foundation for a lifetime of curiosity, creativity, and a love of learning.*

The design of classroom environments plays a crucial role in enhancing student learning and knowledge acquisition. Barrett et al. (2015) emphasize that factors related to naturalness, such as light, temperature, and air quality, combined with aspects of individualization, including ownership and flexibility,



D1 Kindergarten and Nursery



significantly impact student progress and engagement.

Natural light is essential in classroom settings. *Barrett et al. (2015) highlight that it not only helps in regulating sleep and wake patterns, crucial for student alertness and attention, but also influences mood and energy levels.* Designing classrooms with larger windows that allow for ample natural light without direct glare can create an optimal learning environment. *“Large windows were found to be associated with better learning results over a one-year period. Only when the orientation and risk of glare was taken into consideration, could the pupils benefit from the optimum glazing*

size.” (Barrett et al, 2015). The results showed a 20% increase in students reporting feeling more alert and energetic throughout the school day. Teachers also noted a positive shift in mood and atmosphere in the classrooms. These can be accomplished by installing larger windows and utilizing light-diffusing shades to prevent direct glare. According to Barrett et al. (2015), The quality of **electrical lighting** in classrooms is crucial, as subpar lighting can lead to headaches and negatively affect students’ ability to see clearly. *Studies have shown that students who study under full-spectrum fluorescent lamps with added ultraviolet light tend to have better attendance, achieve more, and show greater overall growth compared to students studying under various other electrical lighting conditions.* Furthermore, not just the quality, but also the number of lights used in a classroom is significantly linked to the progress students make in their learning such as a ratio of

4000 lumens per 100 sq ft. is considered a well lit room.

Classroom temperature and air quality directly affect student concentration and health. *Studies cited by Barrett et al. (2015) suggest that slightly cooler temperatures and good ventilation can enhance cognitive performance.* Therefore, classrooms should be designed with effective ventilation systems and the ability to control temperature, such as through thermostats and radiators. Barrett et al. (2015) reports the effectiveness of students on both numerical and language-based tests showed significant improvement when classroom temperatures were lowered from **25°C to 20°C. (77°F to 68°F)** This finding aligns with other studies indicating that factors influencing classroom temperature are closely tied to students’ learning progress. Particularly, excessive heat from the sun, in the absence of external shading, can be problematic. In terms of temperature control, it is observed that students are less likely to experience discomfort in environments where they have more options to adjust to the thermal conditions. Consequently, pupils tend to perform better in classrooms where temperature control is easily manageable.

Barrett et al. (2015) indicates *The quality of air, particularly CO2 levels, also plays a significant role in students’ cognitive functions. Higher levels of CO2 in classrooms are linked to a notable slowdown in mental attention among students, especially when air circulation is limited.* Classrooms that are well-ventilated, either mechanically or through large windows, positively impact learning progress.

Modern classroom designs emphasize **flexibility**, allowing students to modify their learning spaces

according to their needs, an aspect also supported by Barrett et al. (2015). *This can include movable furniture and adaptable learning areas, which support various learning styles and activities.* A sense of **ownership and personalization** in the learning environment can also foster a more engaging and productive atmosphere for students. *Good classroom acoustics are vital for effective communication and learning.* Ensuring that classrooms are designed to minimize external noise and enhance speech clarity, as Barrett et al. (2015) indicate, can significantly improve the learning experience.

Barrett et al. (2015) goes on to cite ownership and the physical environment of a school are closely linked, with an attractive setting associated with fewer behavioral problems. Architectural elements that make a classroom unique and child-centered significantly contribute to learning progress. For example, the presence of permanent student *artwork in classrooms enhances students’ sense of ownership over their learning process, positively impacting self-esteem and learning progress. Personal displays created by students foster a sense of ownership, which significantly correlated with their academic growth.* Also, specialized and ergonomic furniture in classrooms is essential for student well-being and achievement. Comfortable and child-friendly furniture arrangements are significantly correlated with improved learning outcomes.

Room layout flexibility, such as well-defined spatial settings, encourages exploratory behavior, social interaction, and cooperation as Barrett et al. (2015) reports. An example of flexibility features like breakout spaces, storage solutions, and various learning zones are linked to learning progress. Notably, different spatial arrangements are preferred for different age

groups, with larger and simpler room shapes benefiting older children in whole-class learning settings.

Conversely, *complex room shapes facilitate learning zones and flexibility for younger children*. To clarify this concept, consider that a conventional square-shaped classroom may be most suitable for older students. In contrast, younger children, who often exhibit a keen sense of curiosity and a strong desire for exploration, might benefit more from classrooms designed in unique shapes that feature multiple corners and distinct sections such as stars or L-shapes. These innovative spatial layouts provide opportunities for them to create distinct learning zones, thereby personalizing their educational experience.

Another aspect of flexibility, is **movement** and circulation within a school, including wider and more orienting corridors, have shown a positive correlation with learning progress. *Classroom complexity, such as the diversity in room design and displays, affects learning scores. Sparse classrooms often result in higher learning scores compared to heavily decorated ones, as reported by Barrett et al. (2015)*. In addition, spaces with varied ceiling heights and wall colors may be overly stimulating for children. Lower visual distraction conditions lead to less off-task behavior and higher learning scores. Optimal learning occurs in environments with an intermediate level of stimulation.

Modern educational design focuses on creating spaces

that encourage **collaboration and adaptability**. This includes *designing classrooms that can be easily reconfigured for different group sizes and activities, promoting collaborative learning and individualized experiences is a concept supported by Barrett et al. (2015)*.

Another aspect analyzed by Barrett et al. (2015), is the **visual complexity** of a classroom, including its color scheme, which can influence student attention and mood. Warm colors like red and orange can stimulate attention and participation, while cooler colors can create a calming atmosphere conducive to learning. The color scheme of a classroom, particularly wall colors, significantly impacts off-task behaviors. *Changing wall colors from off-white to saturated colors reduces off-task behaviors. While children prefer the color red, cool colors are favored for younger children*. Classrooms that balance light or white walls with bright feature walls or displays show the best correlation with learning progress. The addition of colorful elements like furniture and carpets is also positively correlated with learning progress.

Incorporating elements of **nature** into classroom design can have a positive impact on student well-being and learning. Research, as noted by Barrett et al. (2015), shows that *exposure to natural environments can enhance mental adaptability and provide significant cognitive and emotional benefits to children*. The connection with nature, such as the view from classroom windows that have natural scenes correlates with learning progress, especially when window sills are lower than children's eye level. Similarly, *access to natural environments appears to boost mental attention in children*.

Classrooms equipped with wooden furniture and those with access to outdoor play areas show a positive correlation with students' learning progress. The design of classroom environments, considering factors of naturalness and individualization, plays a pivotal role in enhancing student knowledge acquisition. Barrett et al. (2015) concur that by optimizing light, temperature, air quality, and acoustics, and creating flexible, adaptable, and visually stimulating learning spaces, educators can significantly improve the effectiveness of the educational experience. These design principles not only support academic achievement but also contribute to the overall well-being and development of students.

Enhancing **independence** in children, particularly in the context of early childhood school design, necessitates the integration of universal design principles and life skills activities. The concept of universal design, which entails creating environments accessible to all, regardless of ability or disability, is crucial in educational settings (Burgstahler et al, 2012). Applying these principles in schools can significantly aid in supporting the diverse needs of students, including those with disabilities, thus promoting a more inclusive and equitable learning environment.

Accessibility is a fundamental principle of universal design and can be enhanced through clear visual and tactile guidance. This includes using signs with large, readable fonts, Braille for visually impaired students, and tactile paths for navigating school spaces. These features aid students with diverse capabilities in becoming more independent by enabling them to navigate and use the school environment without excessive reliance on others.

Other key principles are inclusivity and usability. Designing school environments with these principles in mind involves strategic placement of interrelated areas in close proximity to each other. For instance, placing the library near classrooms reduces travel time for students, thus supporting independence and making the school more user-friendly (Burgstahler et. al, 2012).

Incorporating life skills activities in school curriculum is another way to foster independence. These activities, like teaching children to cut fruits, clean dishes, or tie their own shoes, help develop a sense of responsibility, enhance motor skills, and boost self-esteem (Bronson, 2000). Establishing a routine that includes these activities can also aid in the development of time management and organizational skills. Engaging in these activities and navigating an environment designed with universal design principles can empower children, fostering a sense of accomplishment and independence, which are critical for self-esteem and confidence (Burgstahler et al, 2012). The implementation of universal design in educational settings has shown positive outcomes on learning and independence. When students, especially those with disabilities, feel capable of navigating their learning environment and participating in everyday tasks, it positively impacts their academic engagement and success (Hitchcock et al., 2002).

Practices that promote independence also enhance community feelings and social skills. As children learn to perform tasks independently and assist others, they develop empathy and teamwork skills (Bronson, 2000).

The integration of universal design principles and life

skills activities in elementary school design is crucial in fostering independence and self-esteem in children. By creating accessible, inclusive, and practical learning environments, educators can significantly contribute to the holistic development of students. This approach not only supports academic achievement but also prepares children for future challenges and opportunities, with a strong foundation in life skills and self-reliance.

Conclusion:

The examination of child-centered educational programs, such as those found in Montessori and Bank Street schools, reveals a transformative shift in the way we approach teaching and learning. This shift goes beyond mere curriculum changes; it signifies a deeper, more profound movement towards placing the child at the very core of the educational experience. In these environments, education is not just about the transmission of knowledge but about nurturing the whole child - intellectually, emotionally, and socially.

Montessori and Bank Street schools stand as shining examples of how education can be more than a traditional, one-size-fits-all approach. They demonstrate the profound impact of engaging children in hands-on, sensory activities that are tailored to their individual learning styles and needs. This method of teaching does more than impart knowledge; it ignites a passion for learning, instills a sense of curiosity, and fosters creativity that extends beyond the classroom walls.

It prepares children not just for academic success, but for life. Furthermore, the integration of universal design principles in classroom environments marks a significant advancement in educational inclusivity and accessibility. These principles ensure that learning spaces are not only physically accessible but also pedagogically responsive to a diverse array of learning needs and preferences. By embracing these principles, educators can create environments where all students, including those with disabilities, can thrive and achieve their full potential. This approach is a move towards a more equitable and just educational system where every child's right to learn and grow is respected and upheld.

This holistic approach to education, which blends innovative teaching methodologies with student-centered classroom design, transcends traditional notions of academic success. It is a framework for nurturing confident, capable, and independent learners who are equipped to face the challenges and opportunities of the future. Through this approach, we are shaping not just learners but future innovators, leaders, and citizens who possess the skills, empathy, and resilience to contribute positively to our world.

Child-centered education, enriched by an environment that supports and stimulates holistic learning, stands as a beacon for 21st-century education. It exemplifies an educational model that prioritizes the needs, interests, and well-being of each child. As we move forward, this model provides a roadmap for how education can evolve to meet the demands of a rapidly changing world. It challenges us to rethink how we educate our children, urging us to envision a future where education is not only a pathway to knowledge but a journey of discovery, growth, and fulfillment for every child.



1

Research

Precedent Studies



Montessori Kindergarten | ArkA

The Montessori Kindergarten designed by ArkA represents a thoughtful integration of educational philosophy and architectural design, aiming to create a learning environment that is both conducive and safe for children.

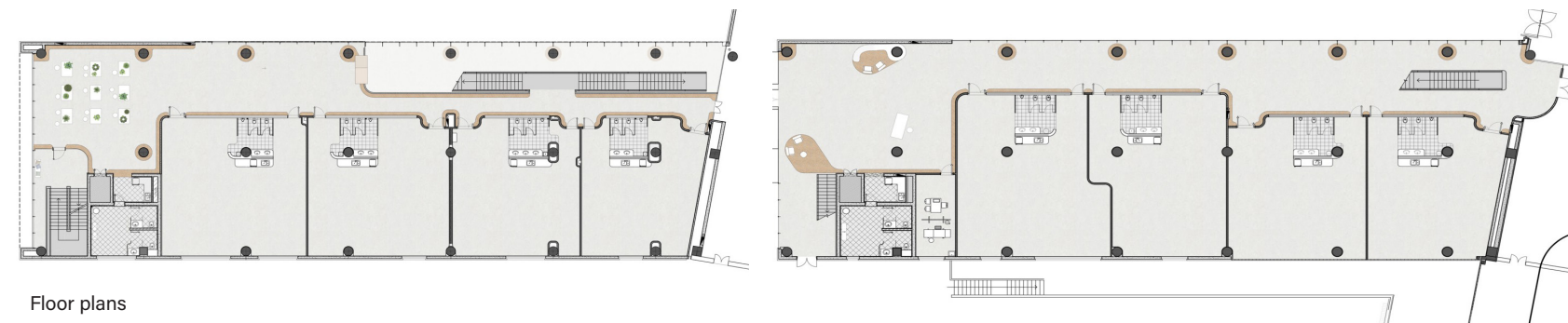
The most critical aspect of this project is the deliberate spatial arrangement and design choices that mirror Montessori principles.

The inclusion of nature oriented elements, child scaled spaces, and open, multi-functional areas directly supports the Montessori emphasis on independence, exploration, and learning through interaction with the environment.

The design elements of the Montessori Kindergarten by ArkA illustrate how space can be utilized to encourage learning, exploration, and growth in a manner that is deeply rooted in Montessori principles.

The architectural design of classrooms, resembling small interior houses, along with open-space corridors and an abundant use of windows, is strategically implemented to foster free movement, safety, and independence. Both public and private spaces are thoughtfully arranged to encourage community interaction and individual exploration. Integrating bathrooms within the classrooms, while preserving privacy through frosted windows and wooden doors, further promotes the children's independence.

The design's focus on child-friendly color schemes and material selections highlights the critical role of creating an environment that harmoniously blends the principles of safety and exploration.



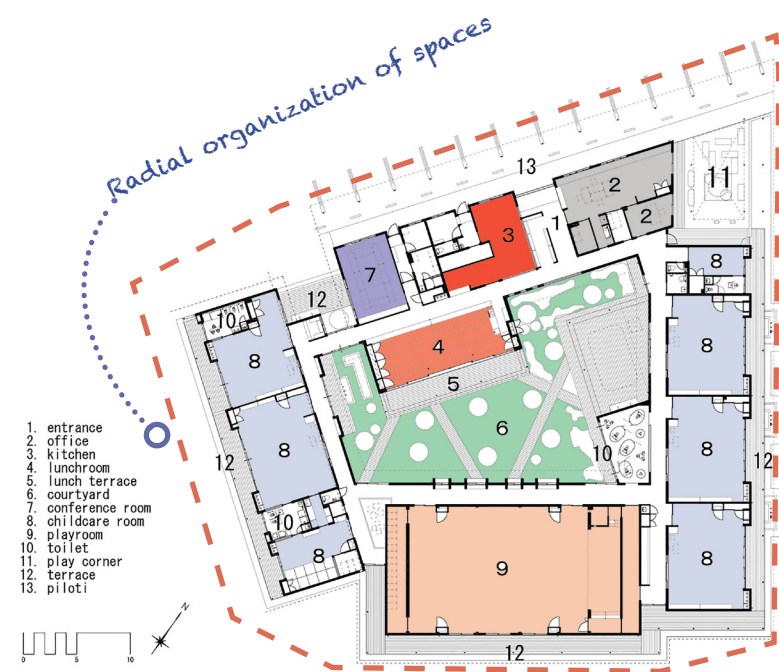
DS Nursery | Hibino Sekkei

The DS Nursery Kindergarten, located in Ibaraki Prefecture, Japan, is a collaborative project between architecture studios Hibino Sekkei and Youji no Shiro, specializing in design for children.

The project will serve as a precedent for my thesis to explore how the radial organization of spaces around a central courtyard can enhance the flow and connectivity between different areas of a building. Examine the design of the courtyard as a central feature, considering how it contributes to a sense of openness, nature integration, and serves as a focal point for the entire space. Also Look at how the project achieves a seamless connection between indoor and outdoor spaces. Considering elements such as floor-to-ceiling windows, terraces, and the strategic placement of classrooms to facilitate controlled outdoor access. Lastly, explore how the design caters to the needs of children, especially in terms of furniture, layout, and the overall scale of spaces. Considering safety features, age-appropriate amenities, and child-friendly design elements.



View of the courtyard

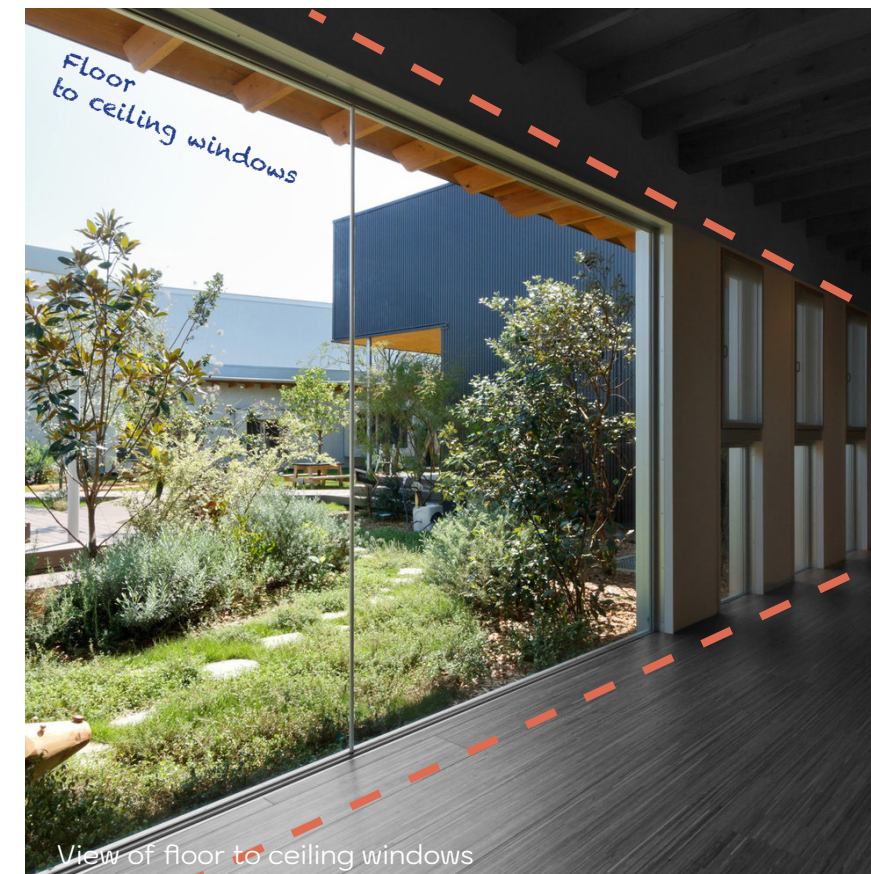


28 Floor Plan

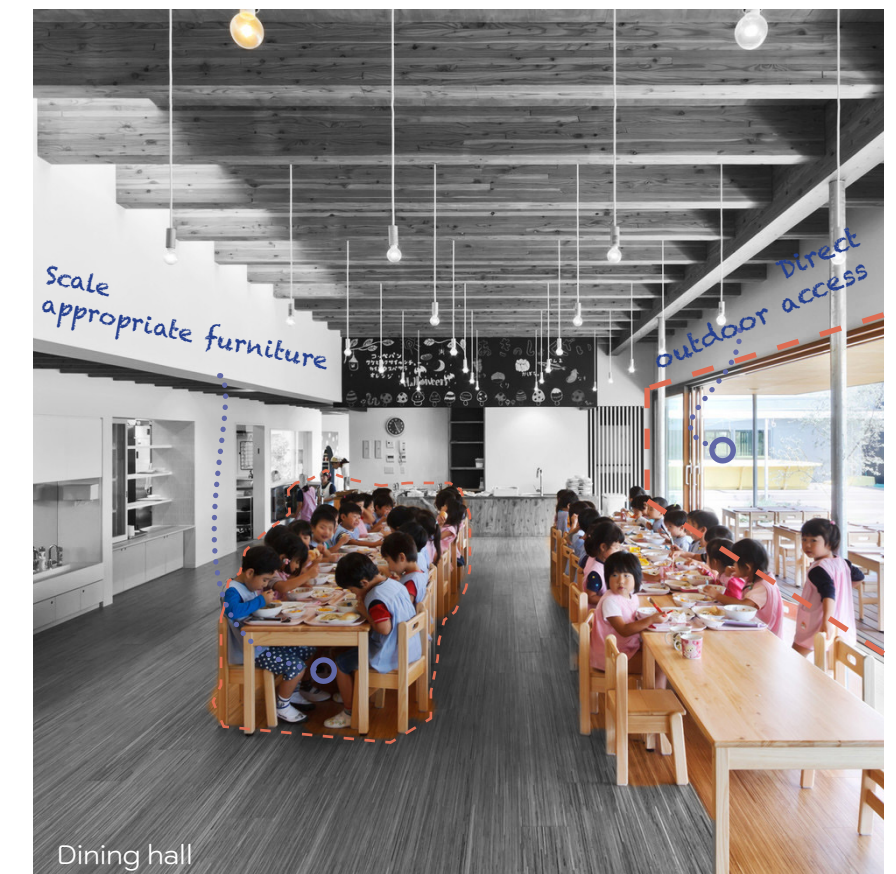


Creative walls

Blackboards walls



View of floor to ceiling windows

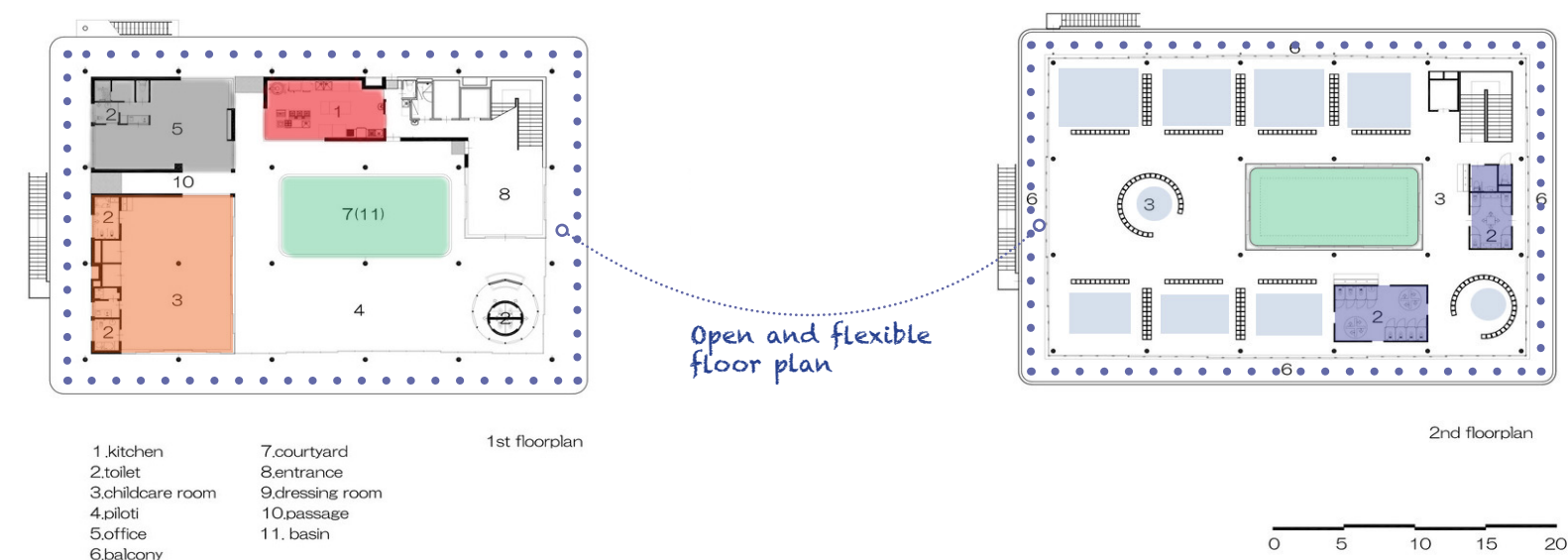
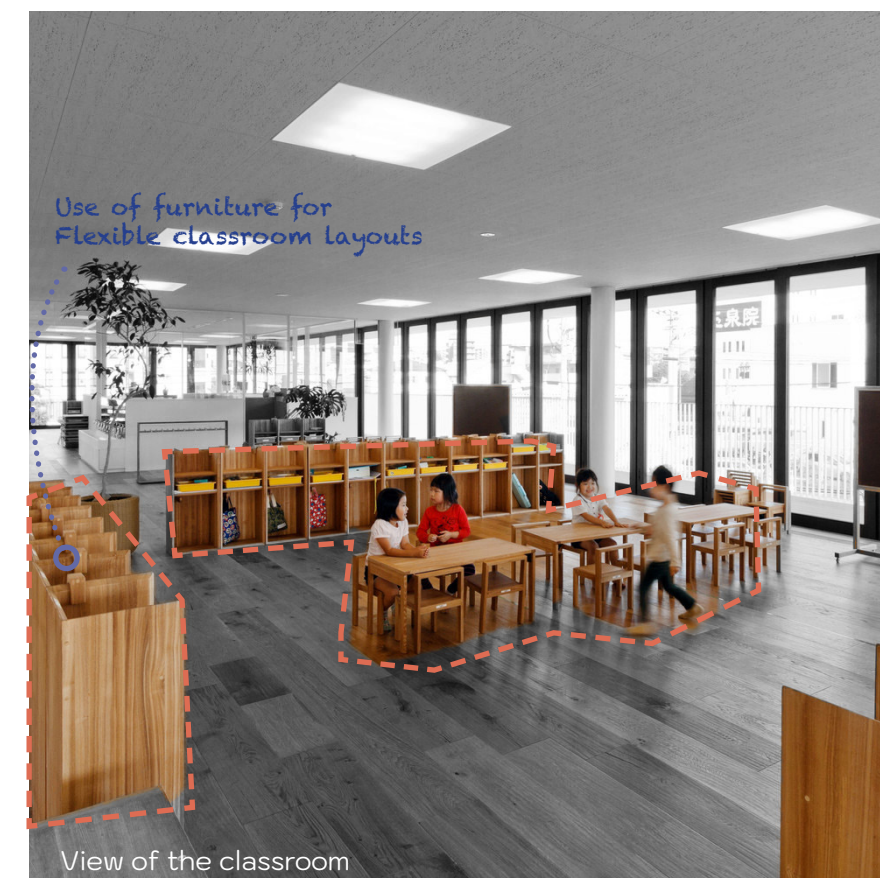


Dining hall

D1 Kindergarten and Nursery

The D1 Kindergarten and Nursery, designed by HIBINOSEKKEI and Youji no Shiro in 2015, is an innovative educational facility located in Japan. The project prioritizes flexibility and adaptability in response to the evolving needs of early childhood education. The building features variable classroom furniture, replacing traditional partitions, allowing spaces to easily transform in shape and area. The incorporation of an external screen, openable roofs, and an atrium with a frozen basin for winter activities enhances the facility's functionality and play options. The design promotes a high degree of freedom in space usage, fostering creativity and a dynamic learning environment. Overall, the project reimagines traditional educational spaces, offering a unique and responsive setting for young learners.

The project serves as a valuable reference for my thesis. The emphasis on flexibility, adaptability, and a high degree of freedom in spatial usage aligns with my goal of creating a positive holistic learning environment. The absence of fixed partitions in classrooms is replaced by movable furniture, empowering children to actively participate in shaping their learning environment. The atrium with a convertible roof adds to the playfulness of the design. It transforms into a playground, including a frozen basin for winter activities like skating.

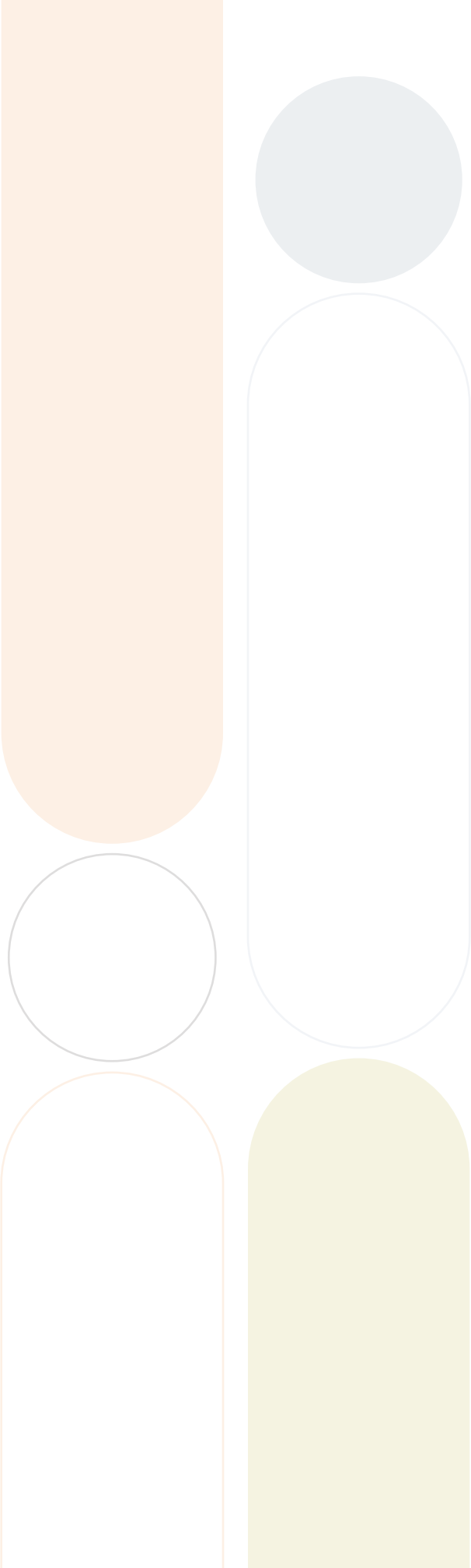


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Site Context



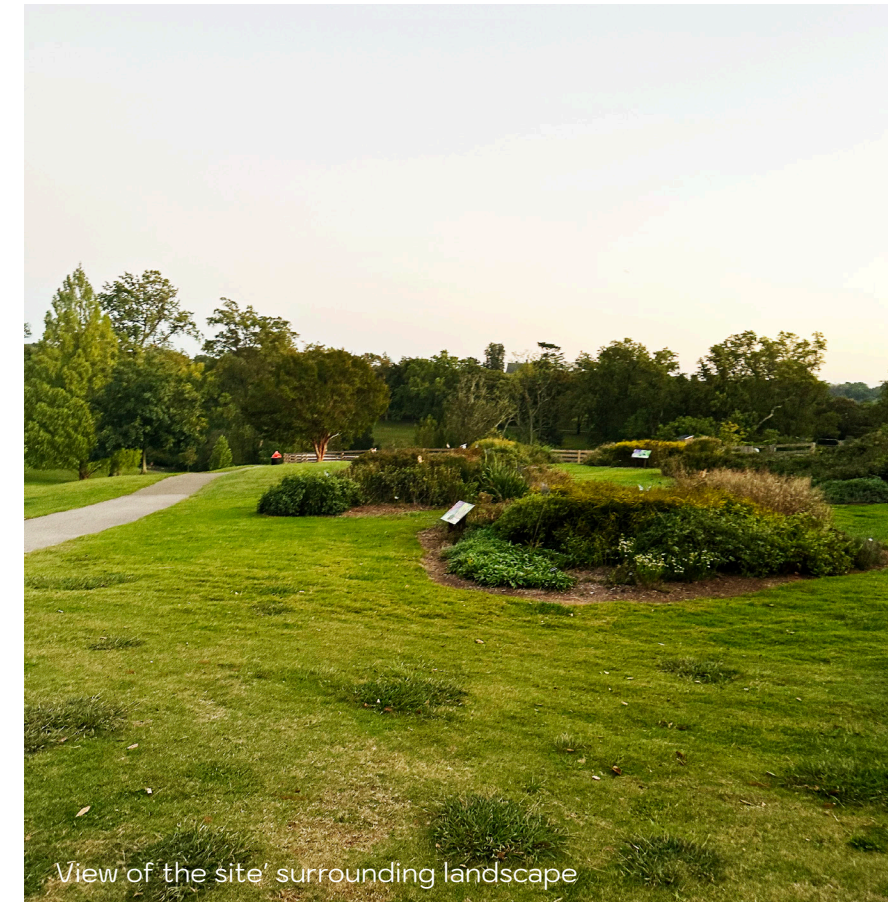
Site





1000 Westover Road modern building is 10,000 sqft located at the **Byrd park** neighborhood. The neighborhood has a rich history and a diverse demographics. The site is surrounded by parks and outdoor facilities and many historical landmarks. The modern building offers accessible floor plan with a courtyard which is potentially suitable for an inclusive environment.

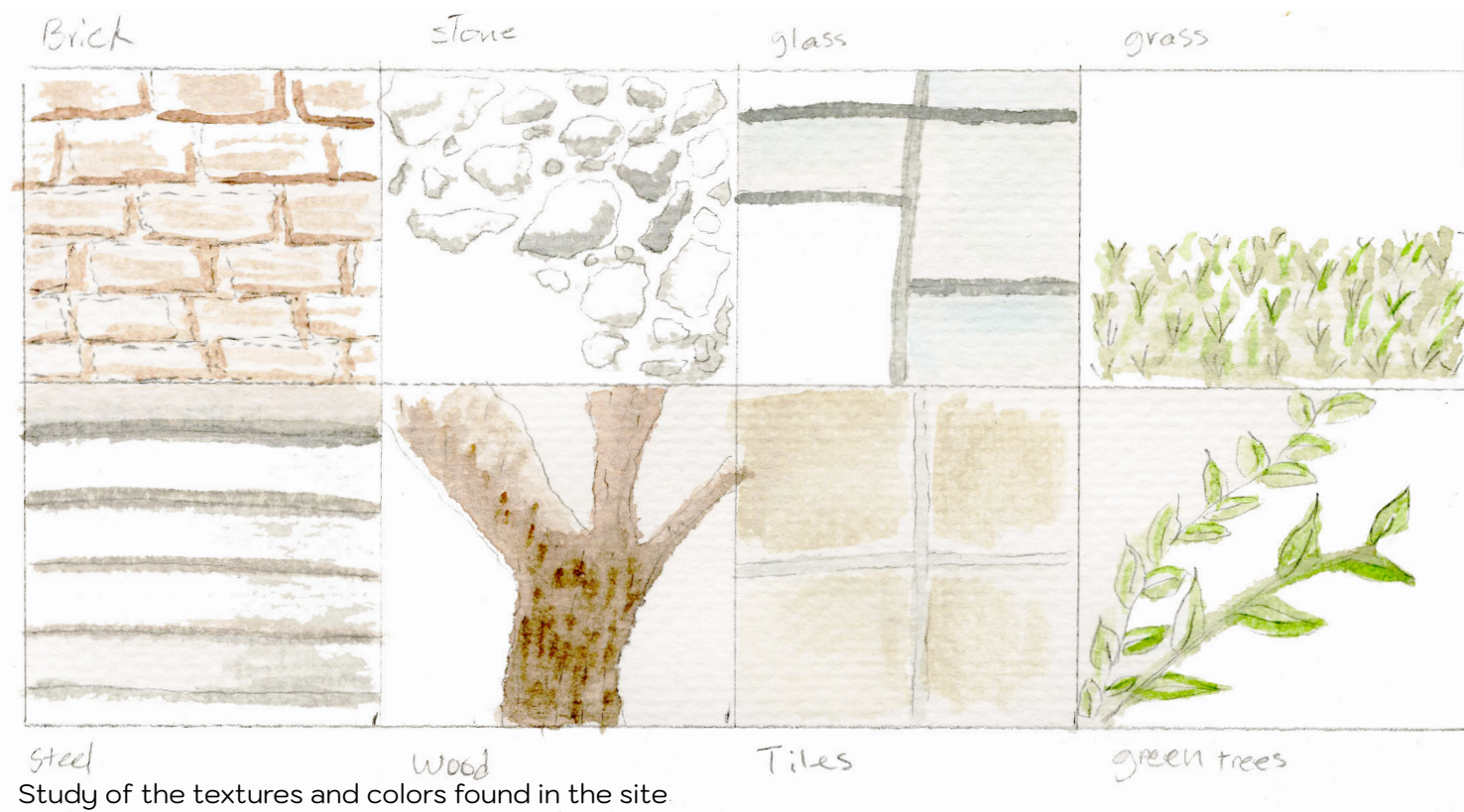
- The Building
- Adjacent parking lot
- Paths surrounding the site



View of the site's surrounding landscape



Floras found around the Site



Study of the textures and colors found in the site



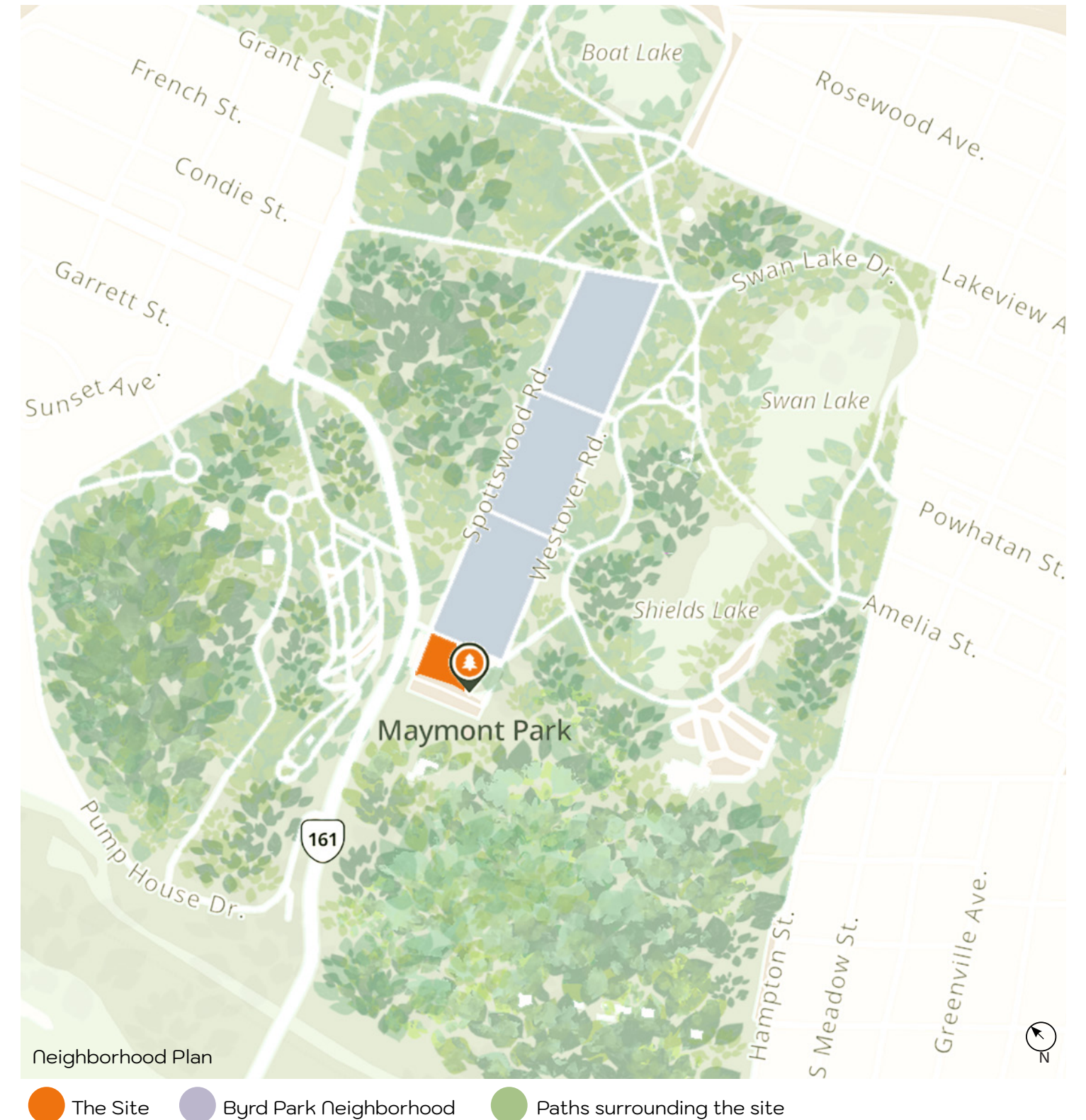
Exterior View of the west facade



Surrounding site materials

Neighborhood History

Byrd Park neighborhood in Richmond, VA, was established in the late 19th century during waterworks system development. Originally known as the New Reservoir Park, it was later renamed in 1906 to honor Richmond's founder, William Byrd II. What was once a predominantly rural area transformed into a suburban neighborhood in the 20th century, largely influenced by the development of the park. The neighborhood boasts a diverse array of historic homes, featuring architectural styles such as Colonial Revival, Mediterranean Revival, Craftsman, Tudor Revival, and Beaux-Arts Classical. Byrd Park itself is a sprawling green space replete with walking paths, public gathering spots, a playground, tennis courts, and three man-made lakes. Its boundaries are delineated by 195 to the North, Meadow Street to the East, the Maymont Estate to the South, and Boulevard/Park Drive to the West. The neighborhood is interconnected by various streets and pathways, making it a vibrant and accessible community with the iconic Carillon Bell Tower as one of its prominent landmarks.



2

Site Context

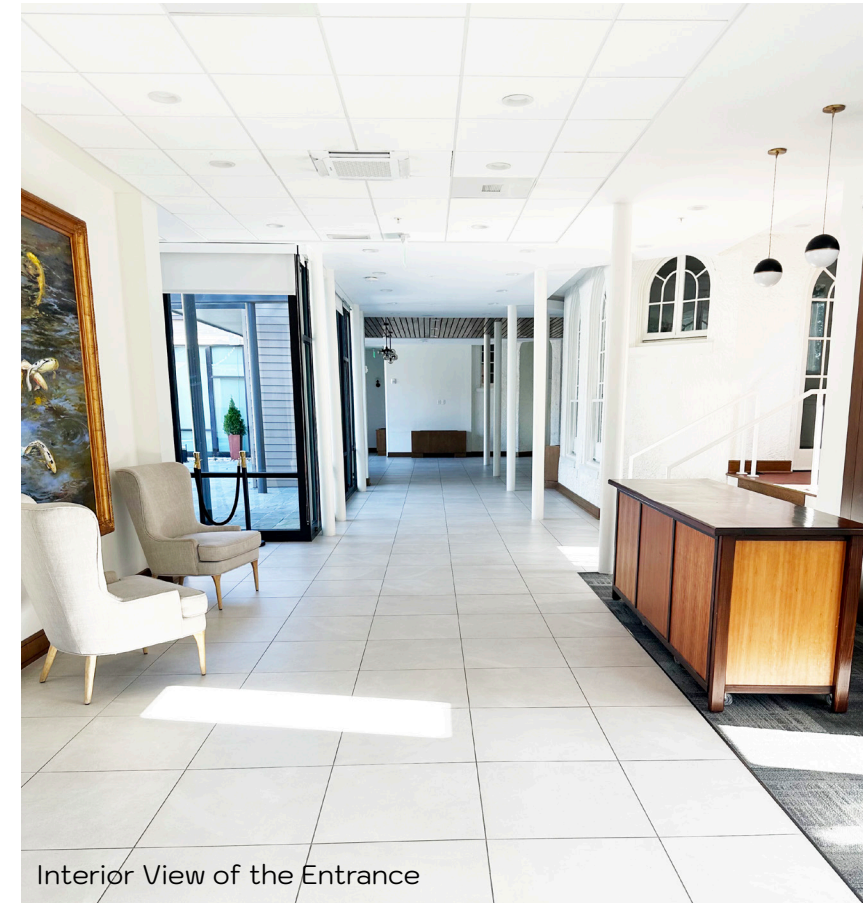
Existing Building

The 1000 Westover modern addition, constructed by BCWH architects in 2020, stands adjacent to the historic estate originally built by Otis Asbury in 1918. The historical building was initially a single-family house, while the new edition serves as offices and an event space for the Maymont Foundation. The modern building combines brick, stucco, glass, steel mullions, and a flat roof in its construction. Its primary functions encompass administrative office space and hosting events. In contrast, the neighboring historic building has a diverse history of uses, transitioning from a single-family residence to a mixed-use space.

Key architectural elements include extensive glass sections connecting various masses, large windows, curtain walls, a flattened roof, and clean architectural lines. The modern Westover building reflects 21st-century design, characterized by minimalist ornaments and an open, accessible floor plan. Its design harmonizes functionality and purpose while drawing inspiration from the adjacent historical building's Spanish-revival design.



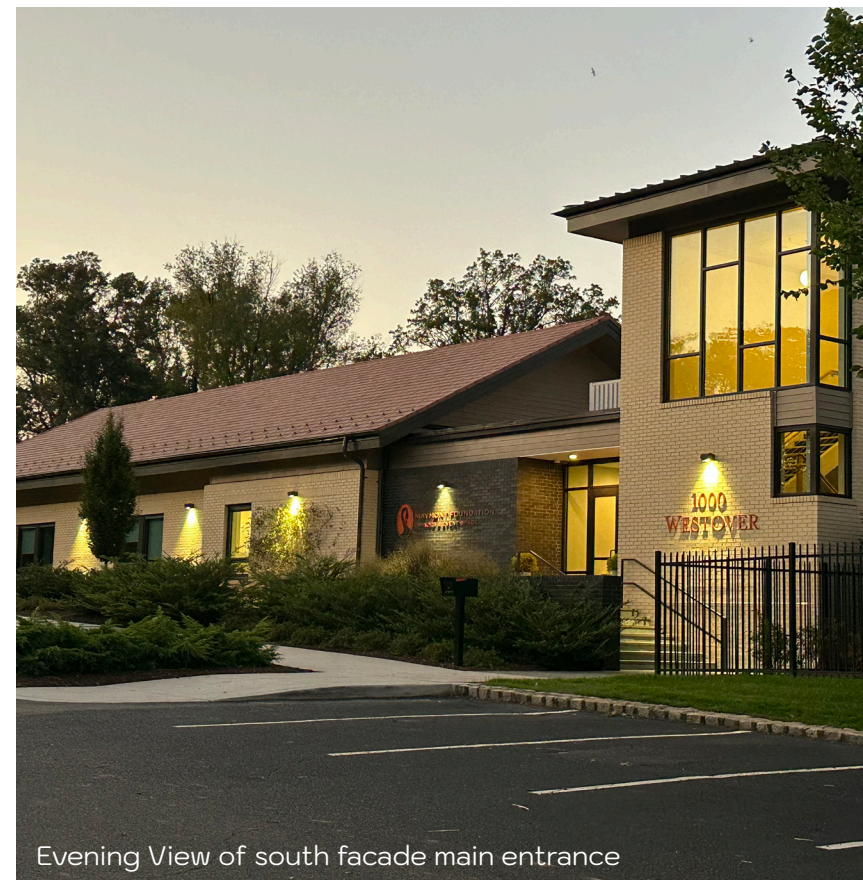
Ballroom



Interior View of the Entrance



Interior View of curtain walls



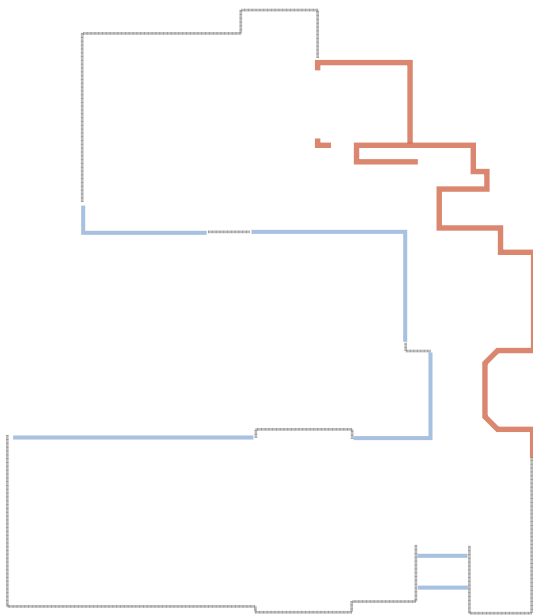
Evening View of south facade main entrance



View of courtyard

Building Diagrams

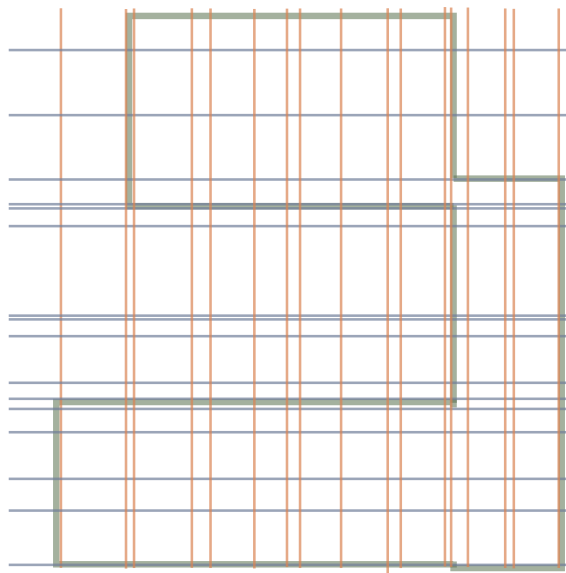
- Glass Storefront Walls
- Modern Addition Walls
- Old Masonry Structure



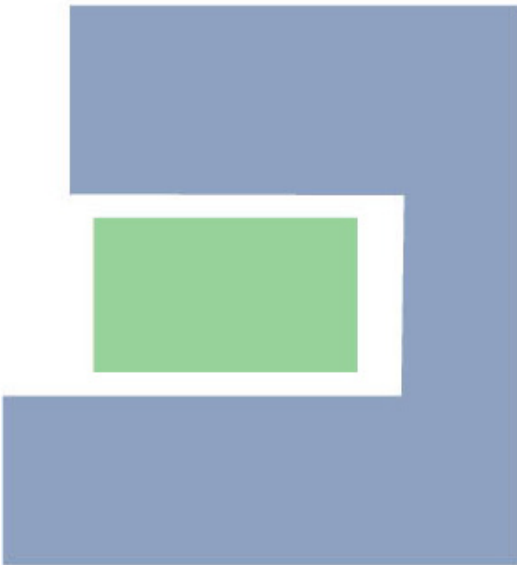
Walls Diagram



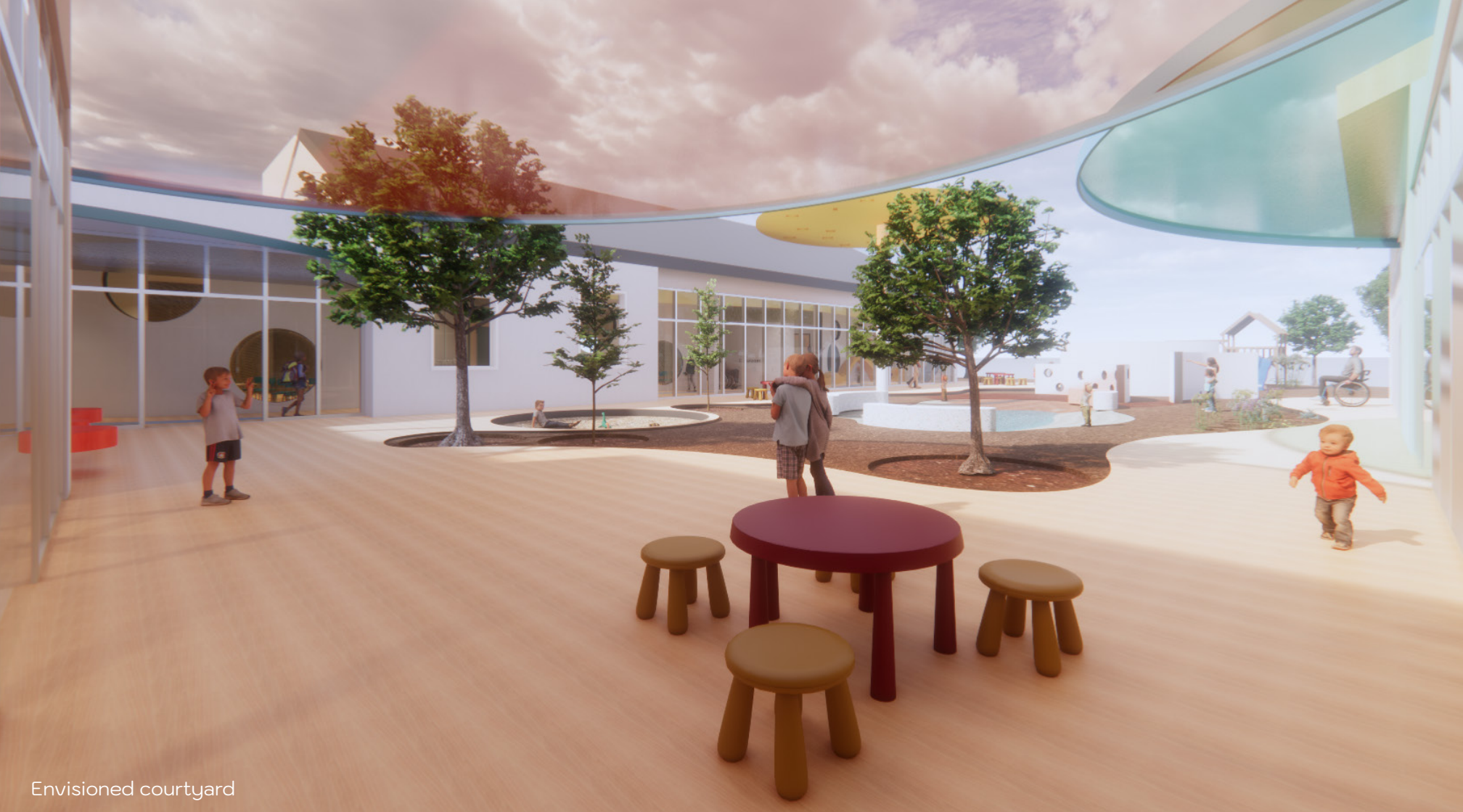
Proportion Diagram



Structural Alignment Diagram



Radial Organization Diagram



Envisioned courtyard

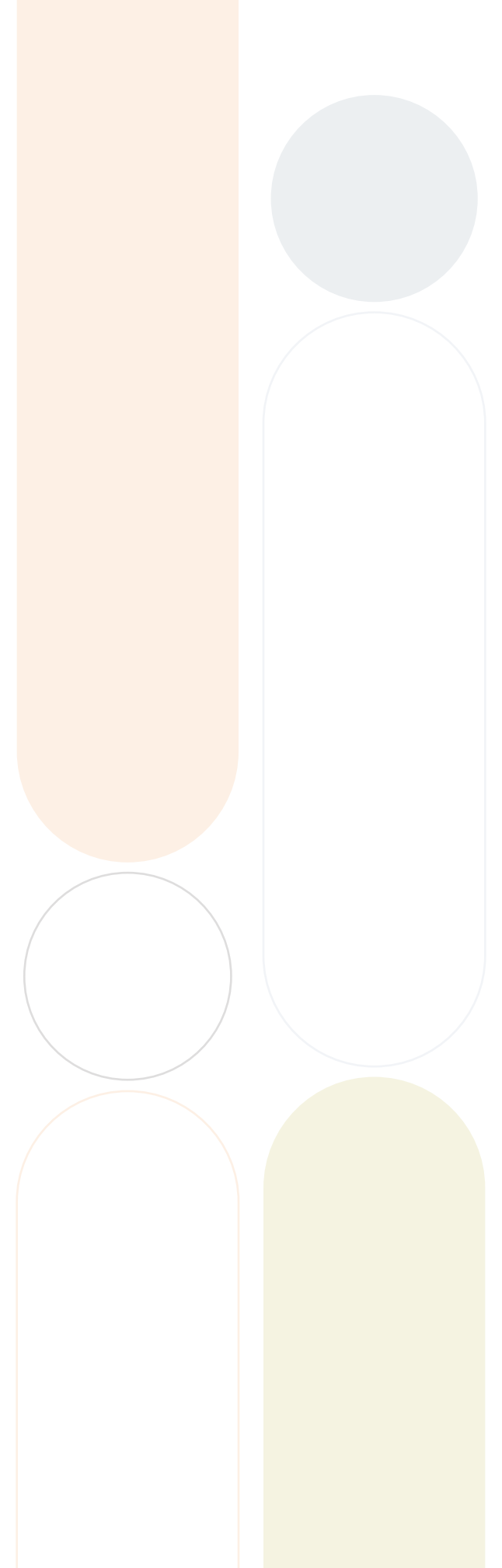
Open Safe Connected

At the heart of the building lies a courtyard, a key factor in selecting this site. Incorporating a courtyard offers numerous advantages. It acts as an organizational hub, guiding the flow within the building. It blurs the distinction between indoor and outdoor spaces, which is particularly advantageous for nurturing children’s overall development. This seamless integration with the outdoors opens doors to a wealth of learning experiences, allowing children to actively explore and engage with their surroundings.

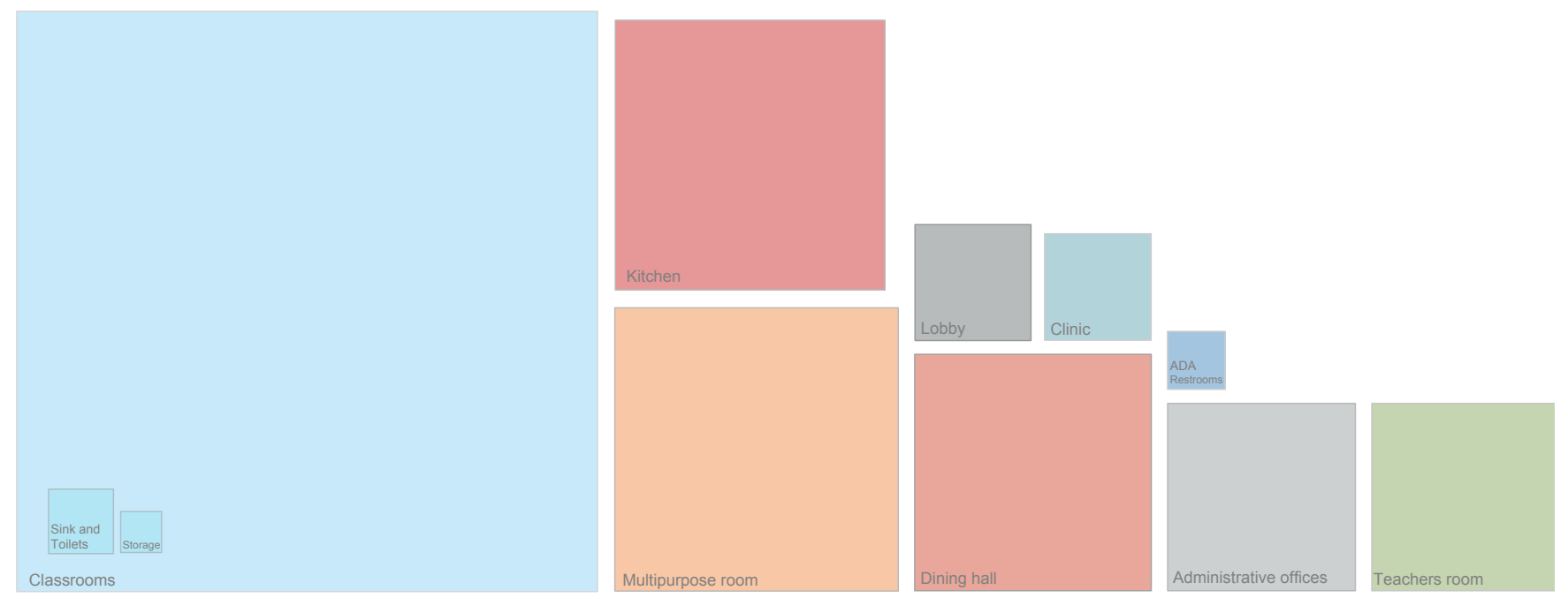
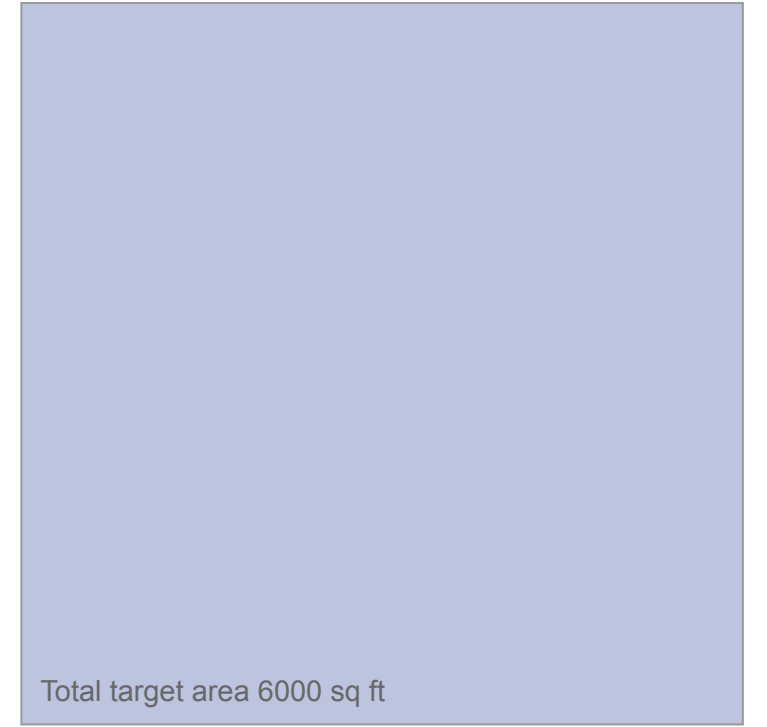
2

Site Context

Program

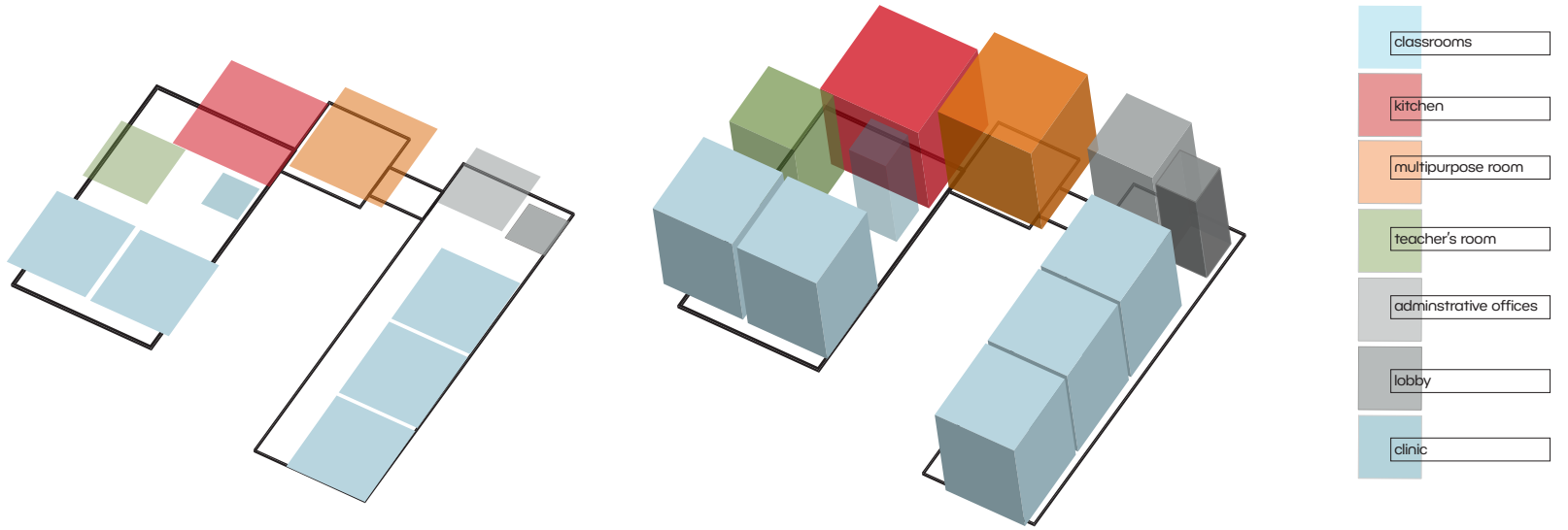


Programming Visualization

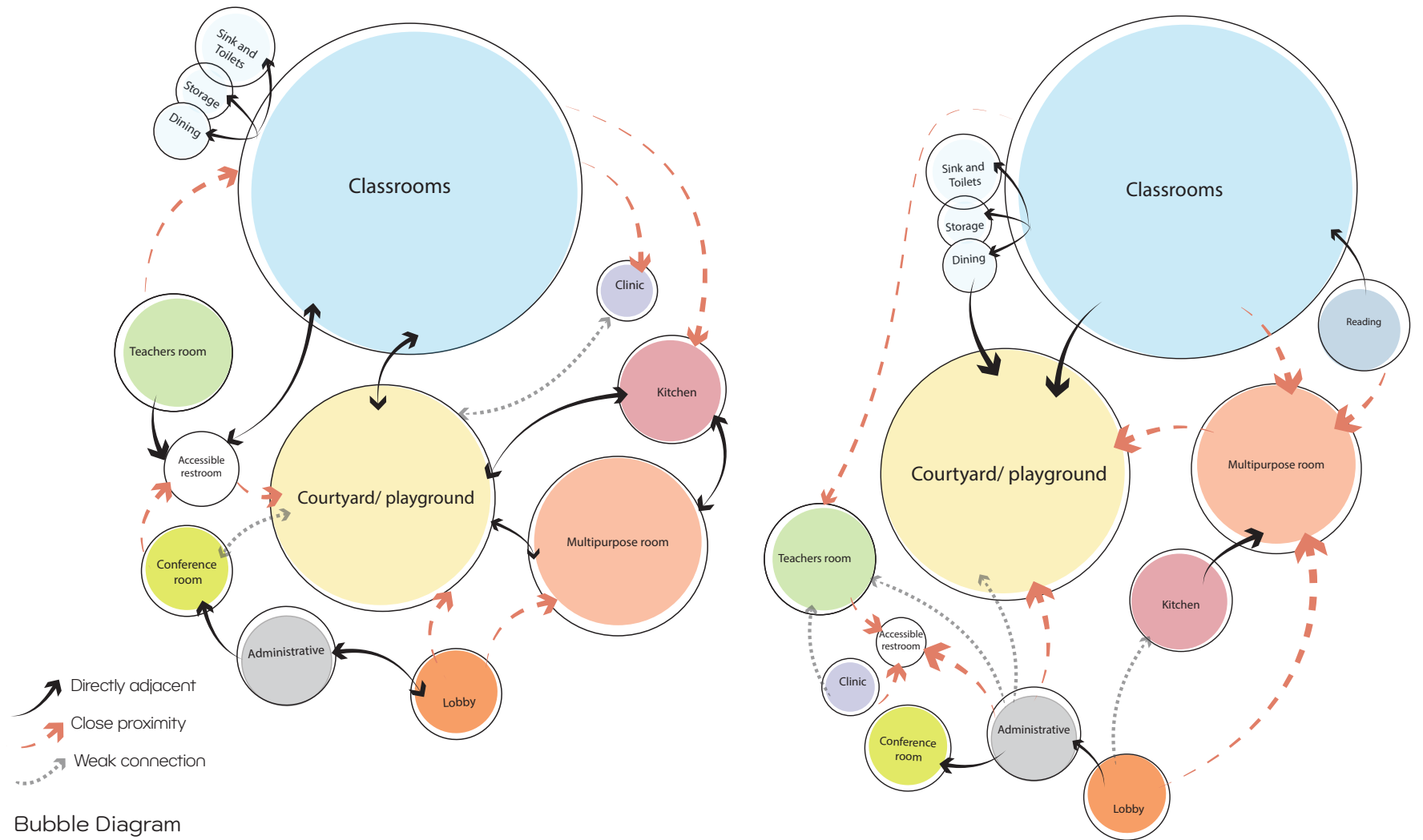


Organization Diagrams

Radial organization promotes accessibility and supervision, allowing teachers to easily observe and interact with children from a central point. This layout encourages exploration and independence among children as they can move freely and safely within sightlines. Additionally, the circular design facilitates social interaction and a community feeling, making it ideal for fostering young children's social skills and collaborative play.



Proximity Diagram



Bubble Diagram

ADJACENCY MATRIX	Area (square feet)	Acoustic privacy	Visual privacy	Accessibility	Plumbing	Natural lighting	FF&E + notes
Classrooms	5040	High	Medium	Y	Y	Y	scale appropriate furniture, soft floors with rugs, smart boards,
Storage	150	Low	High	Y	N	N	shelves, bins, lockers/ storage cabinets.
Restrooms	63	Low	High	Y	Y	Y	Cleanable surfaces, accessible counters and toilets.
Multipurpose room	1200	Medium	Low	Y	N	Y	Gym tools, youga rugs, projector and sound system, clear way-finding
Kitchen	1084	Low	Low	Y	Y	Y	Commercial grade appliances, cleanable surfaces
Administrative offices	525	High	Medium	Y	N	Y	Ergonomic desks and office chairs, desktop monitors Conference room, lounge furniture
Lobby	200	Low	Low	Y	N	Y	security system , accessible lounge furniture
Clinic	175	Medium	Medium	Y	Y	Y	Bed and sink ergonomic desk and chair options.
Teachers room	525	Medium	Medium	Y	N	Y	Commercial grade appliances, cleanable surfaces
Dining hall	840	Low	Low	Y	N	Y	scale appropriate tables and chairs cleanable surfaces hand wash stations

LEGEND

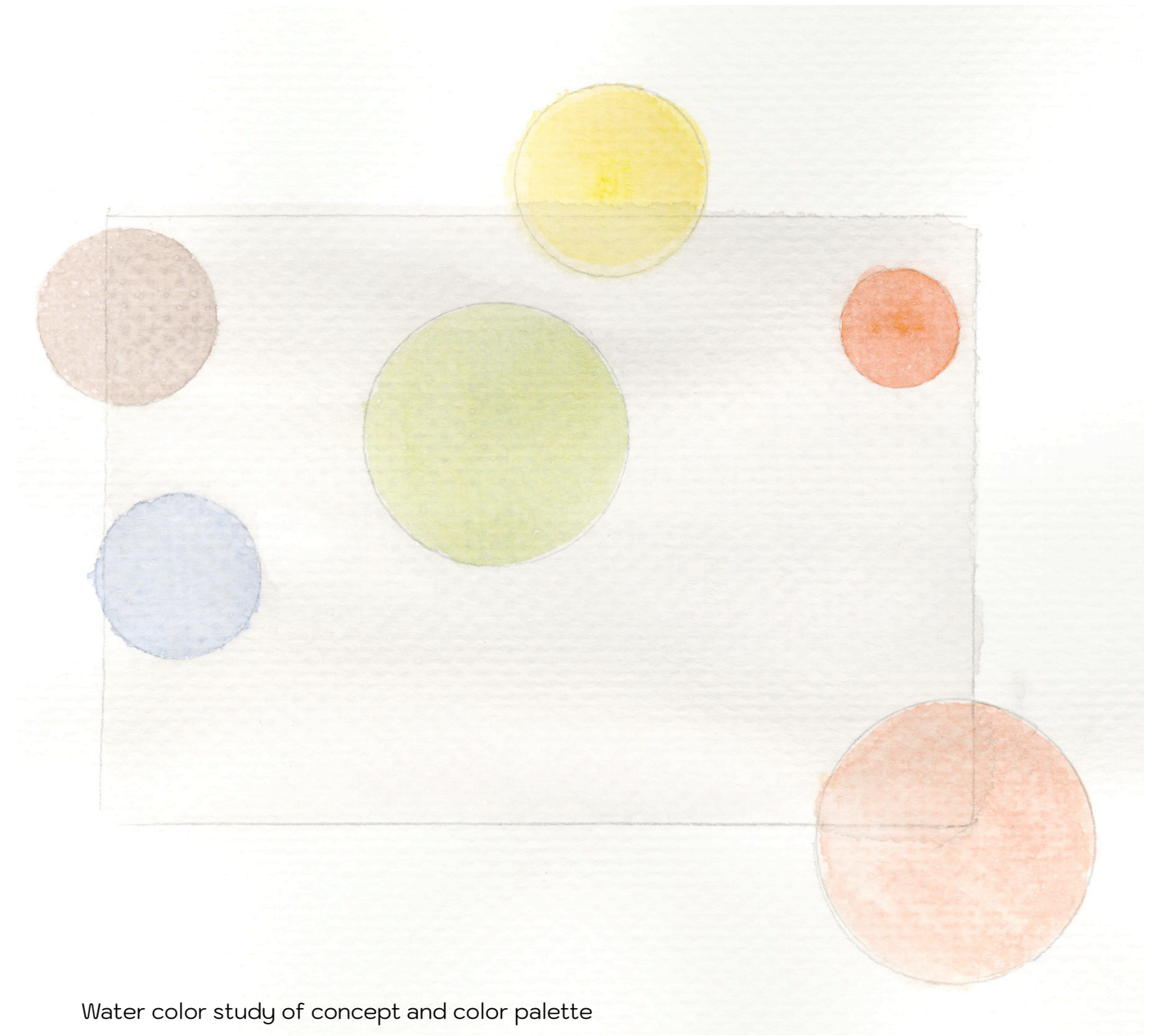
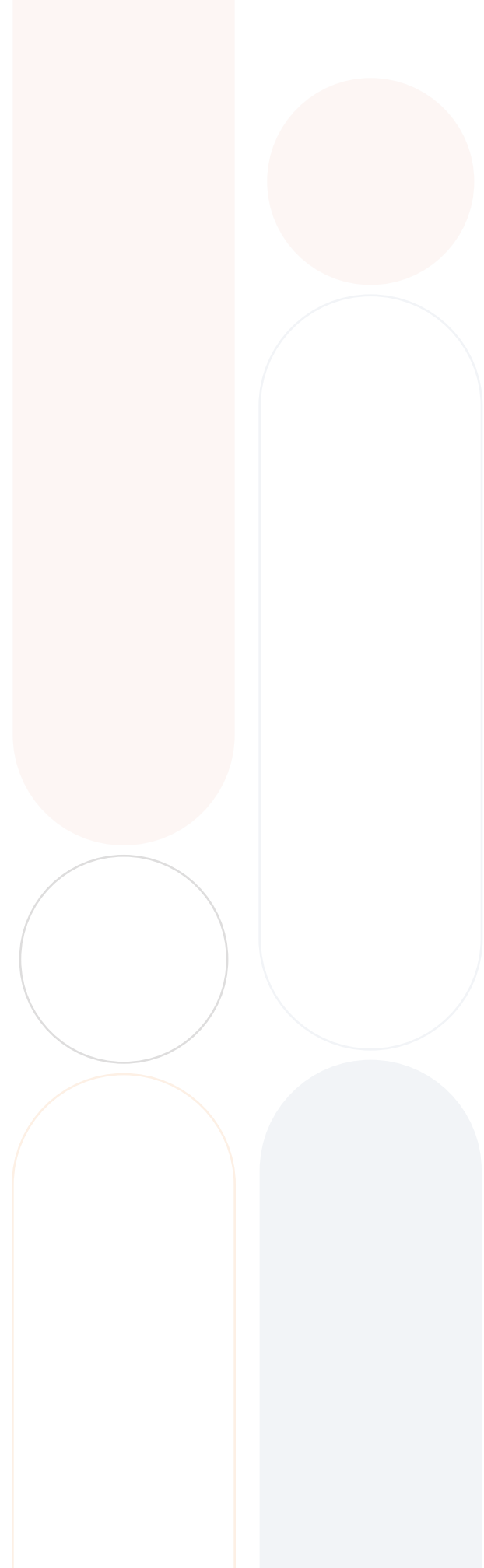
- High
- Medium
- Low
- Y Yes
- N No

Adjacency Matrix

3

Design

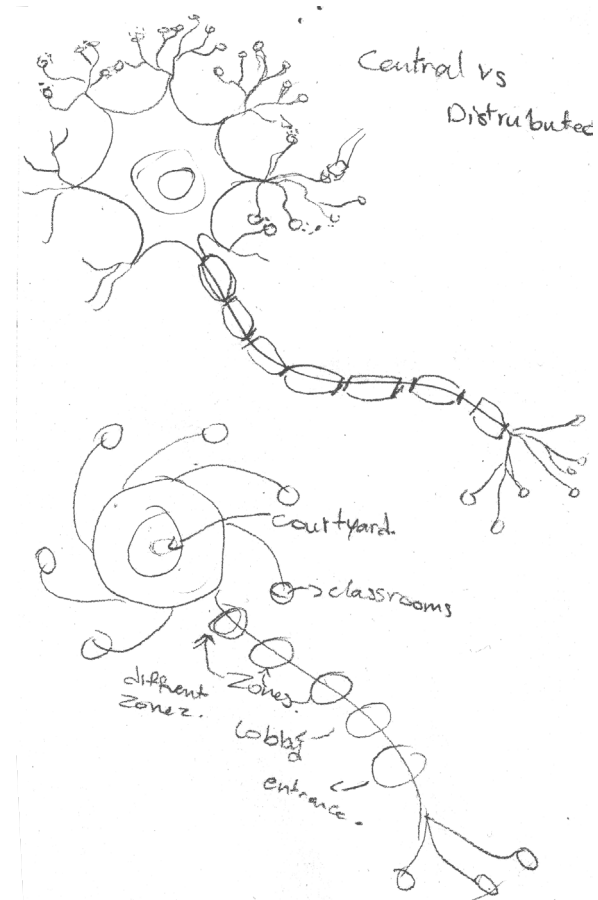
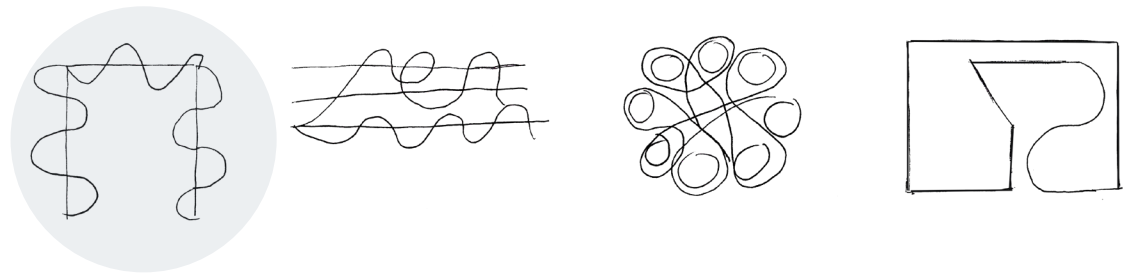
Concept



Water color study of concept and color palette

Concept Statement

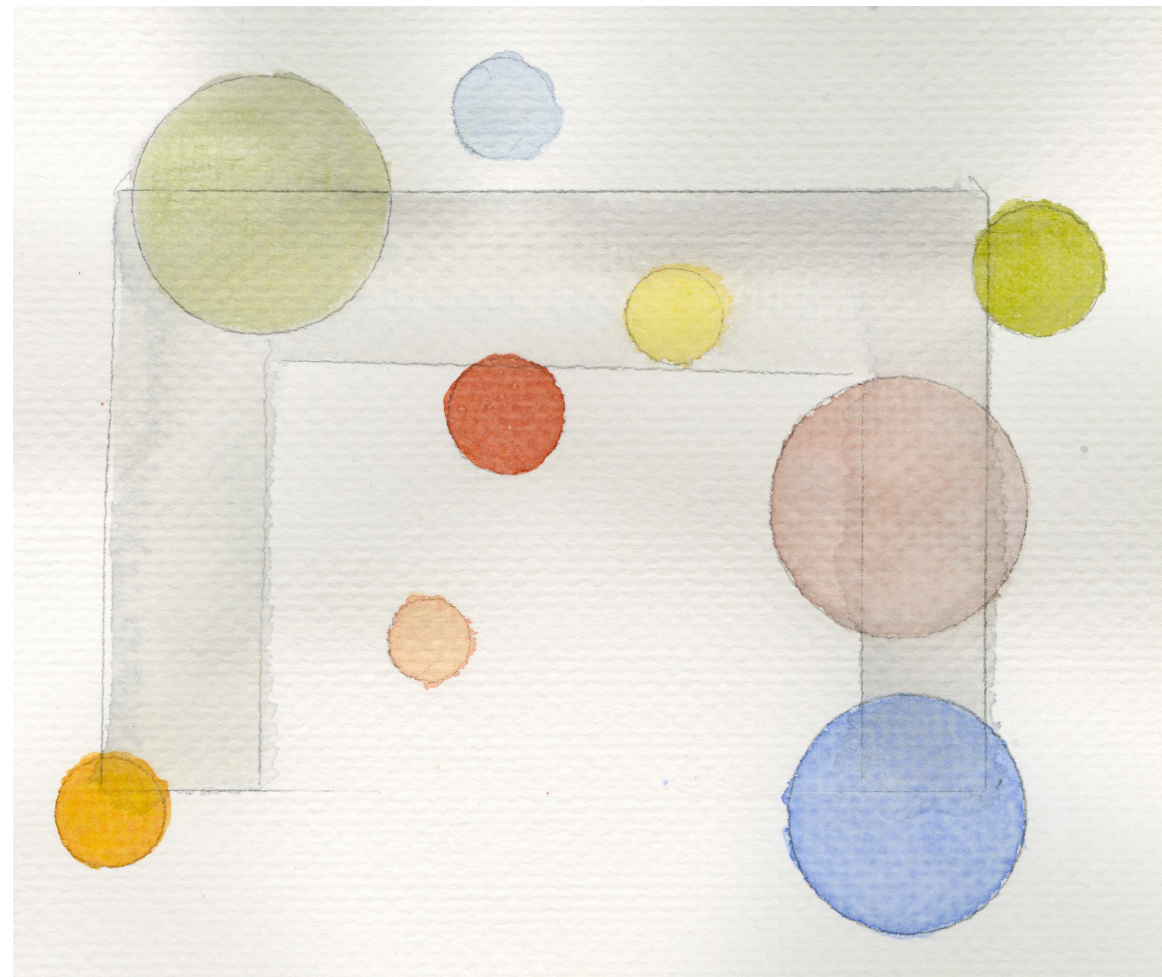
In the early years of childhood, the **Curvature of learning** experiences is influenced by the rapid brain **connections** known as neuroplasticity. These connections, formed through **spontaneous interaction**, sculpt and mold our minds over time. Each encounter adds to our knowledge, gradually shaping the **flow** of our mental journey. This **fluid** process mirrors the intentional design of this environment, aimed at facilitating natural interactions and fostering holistic growth.



Colored pencil concept sketch showing envisioned color scheme and structural curvature

Color Palette

Soft and muted color palette inspired by materials and textures found at the site, to help create colorful yet less distracting learning environment.



Color palette study



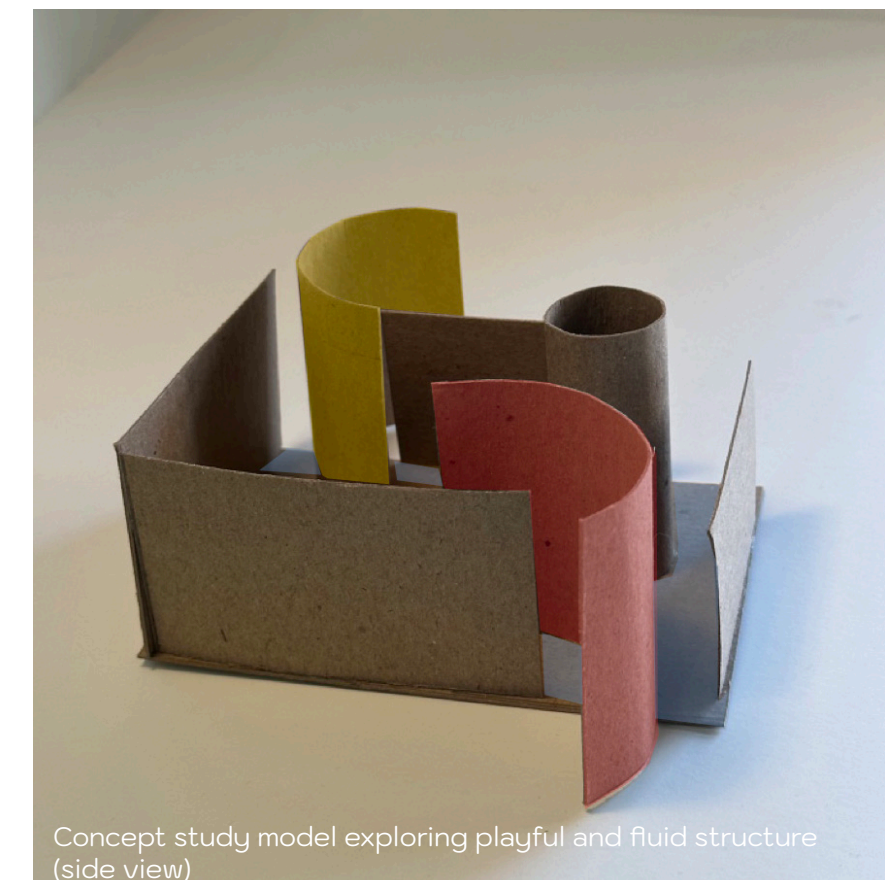
Concept study model exploring zoning



Concept study model exploring playful and fluid structure



Concept study model exploring hidden site views

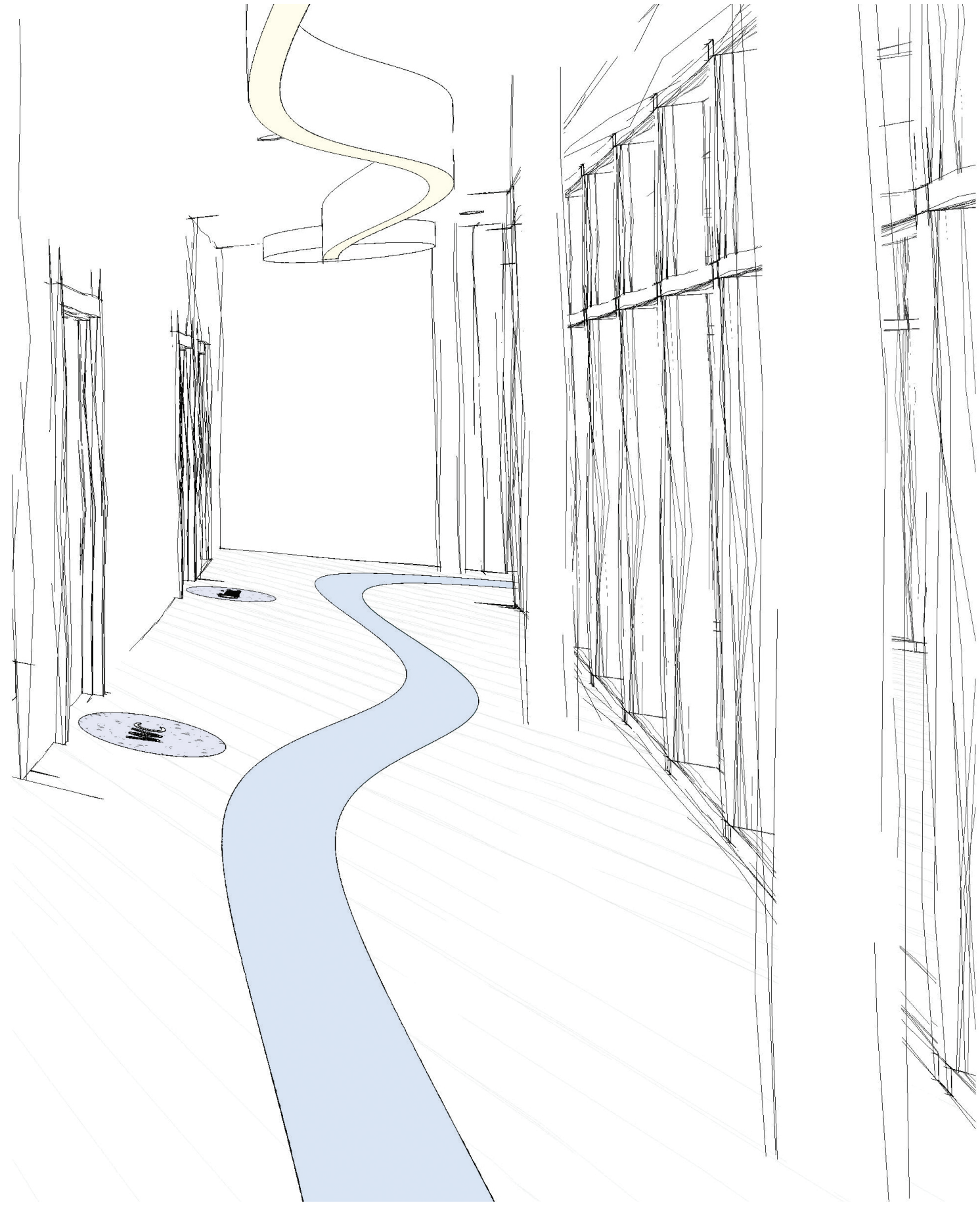
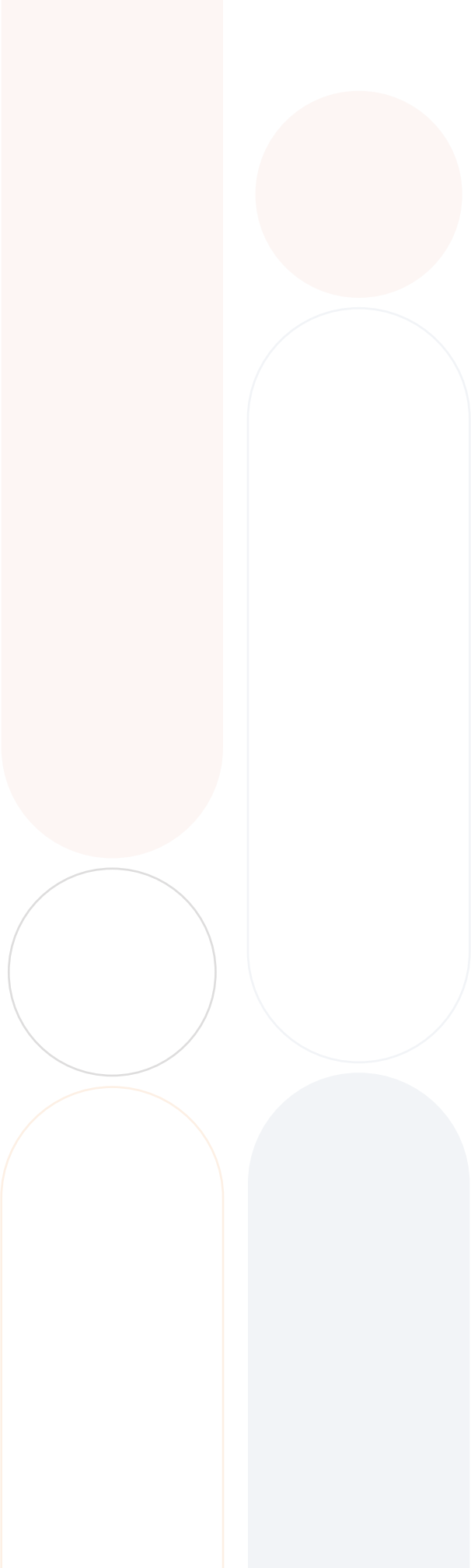


Concept study model exploring playful and fluid structure (side view)

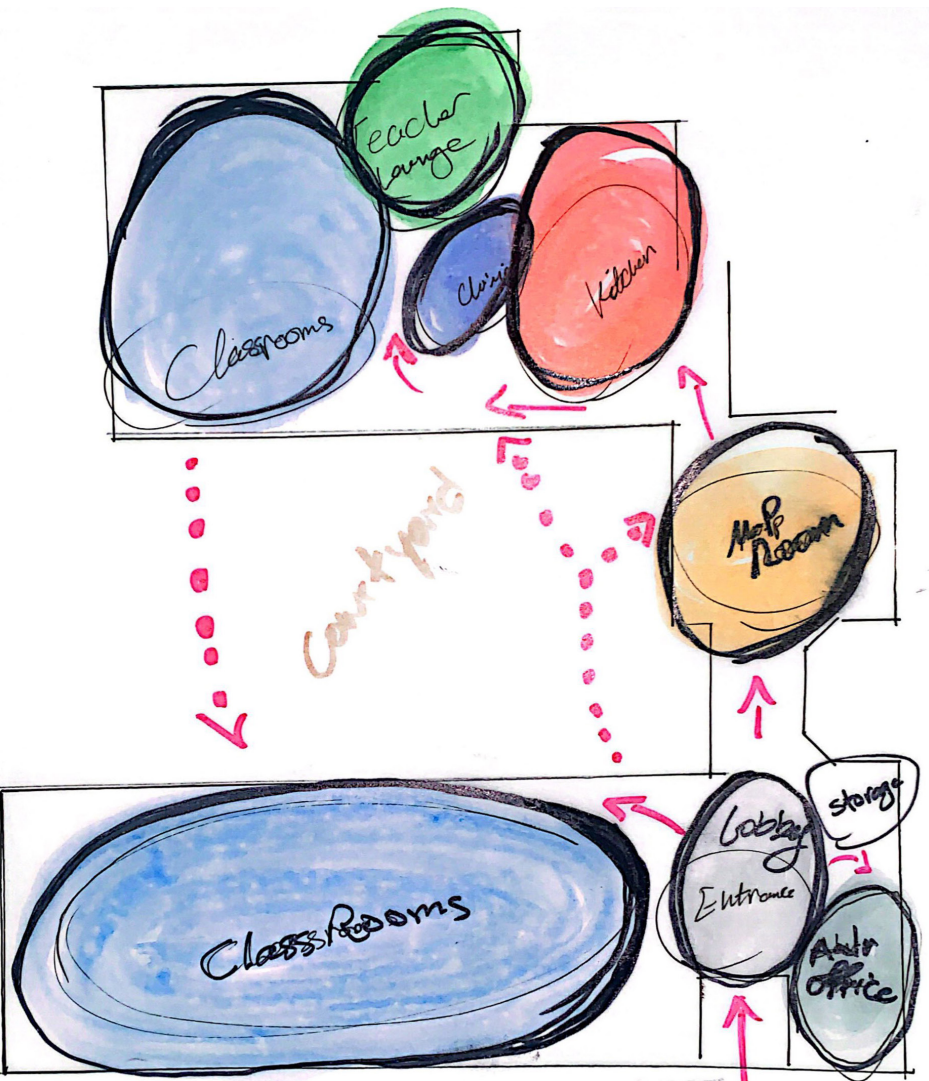
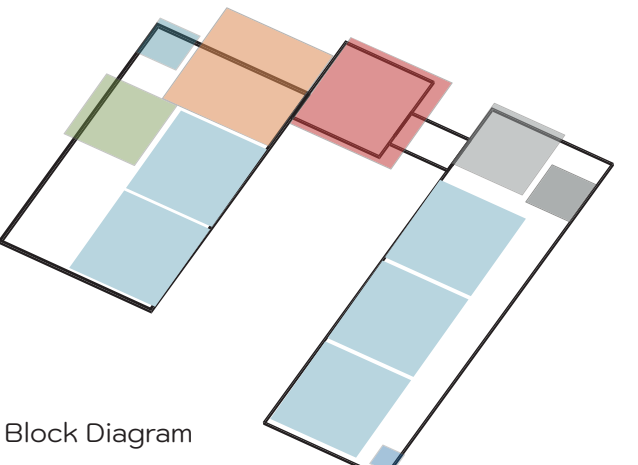
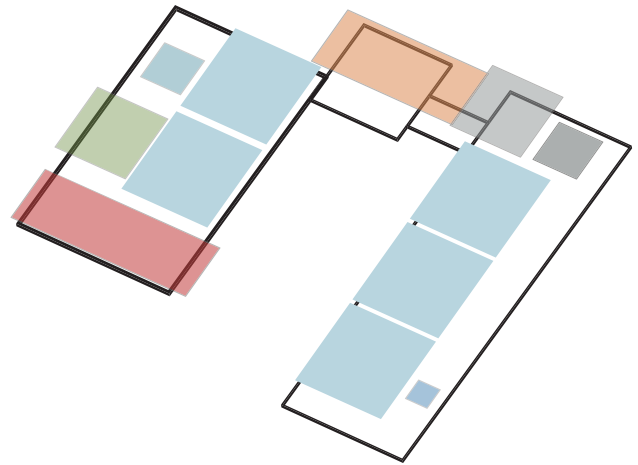
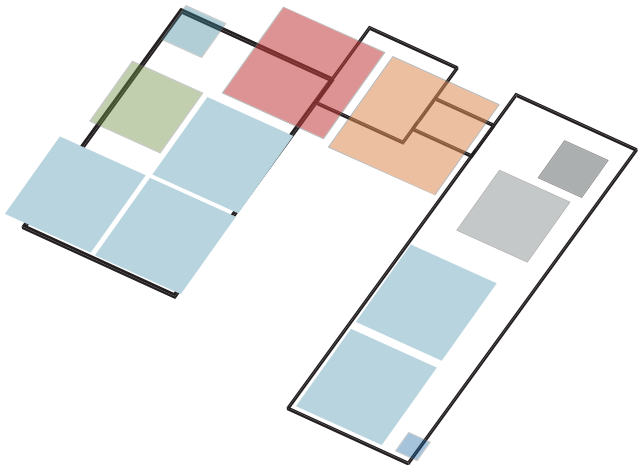
3

Design

Schematic Design

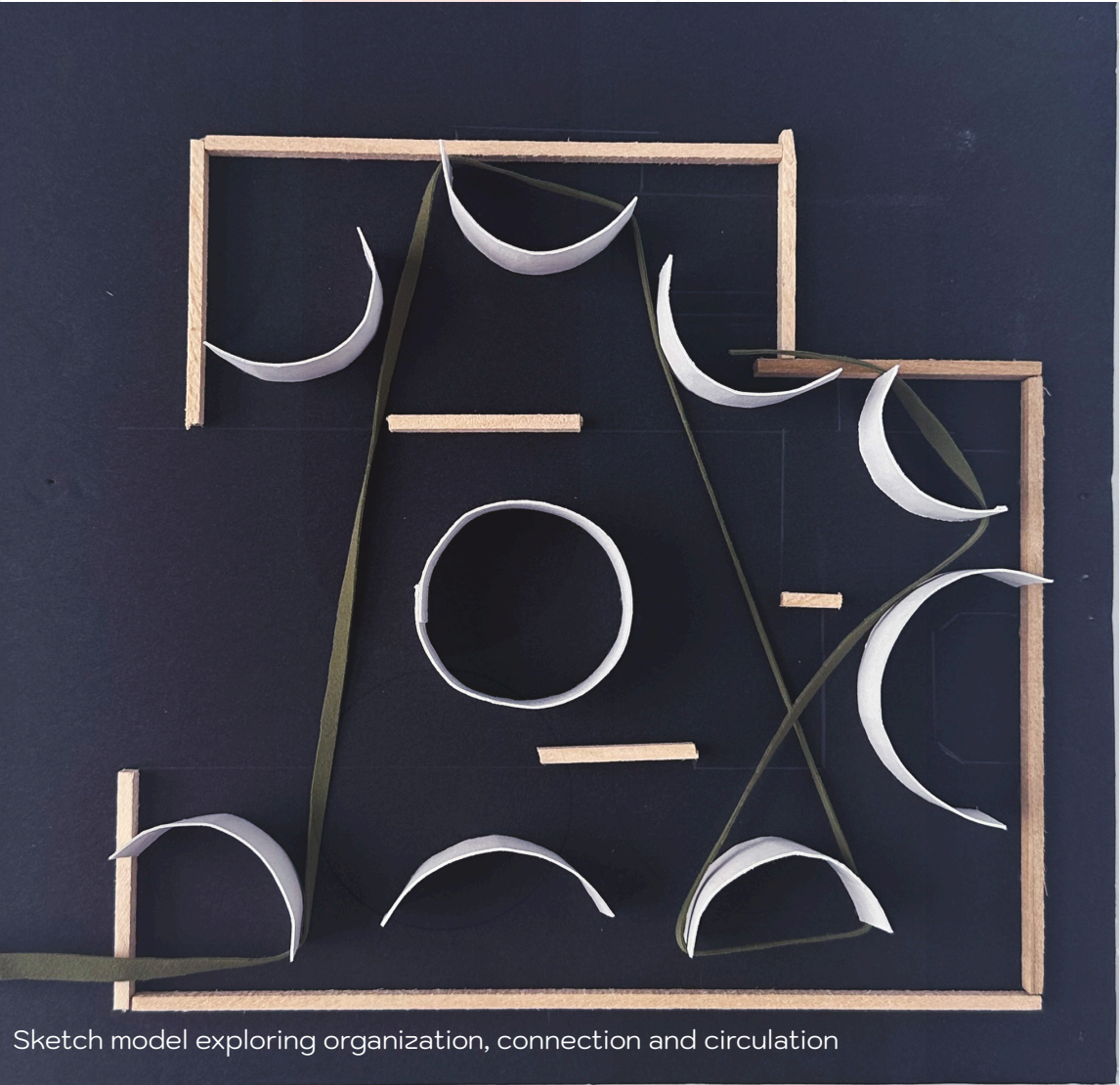


Space Planing



- classrooms
- kitchen
- multipurpose room
- teacher's room
- administrative offices
- lobby
- clinic

Block Diagram

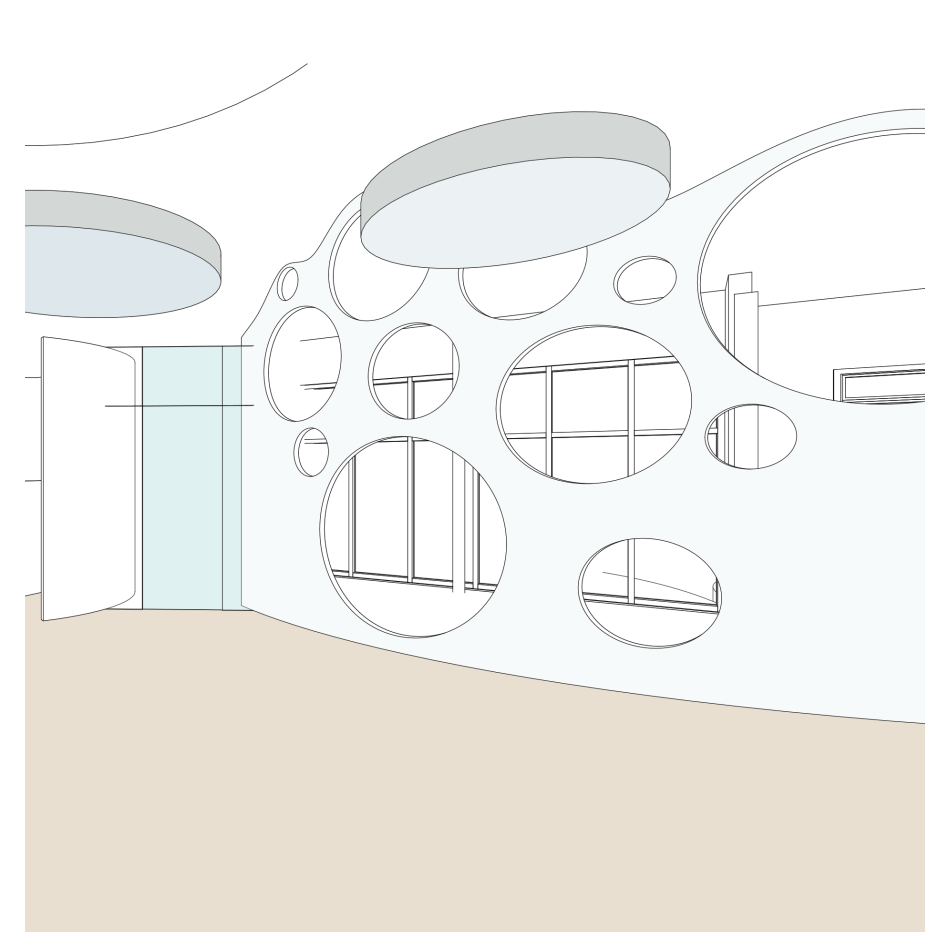
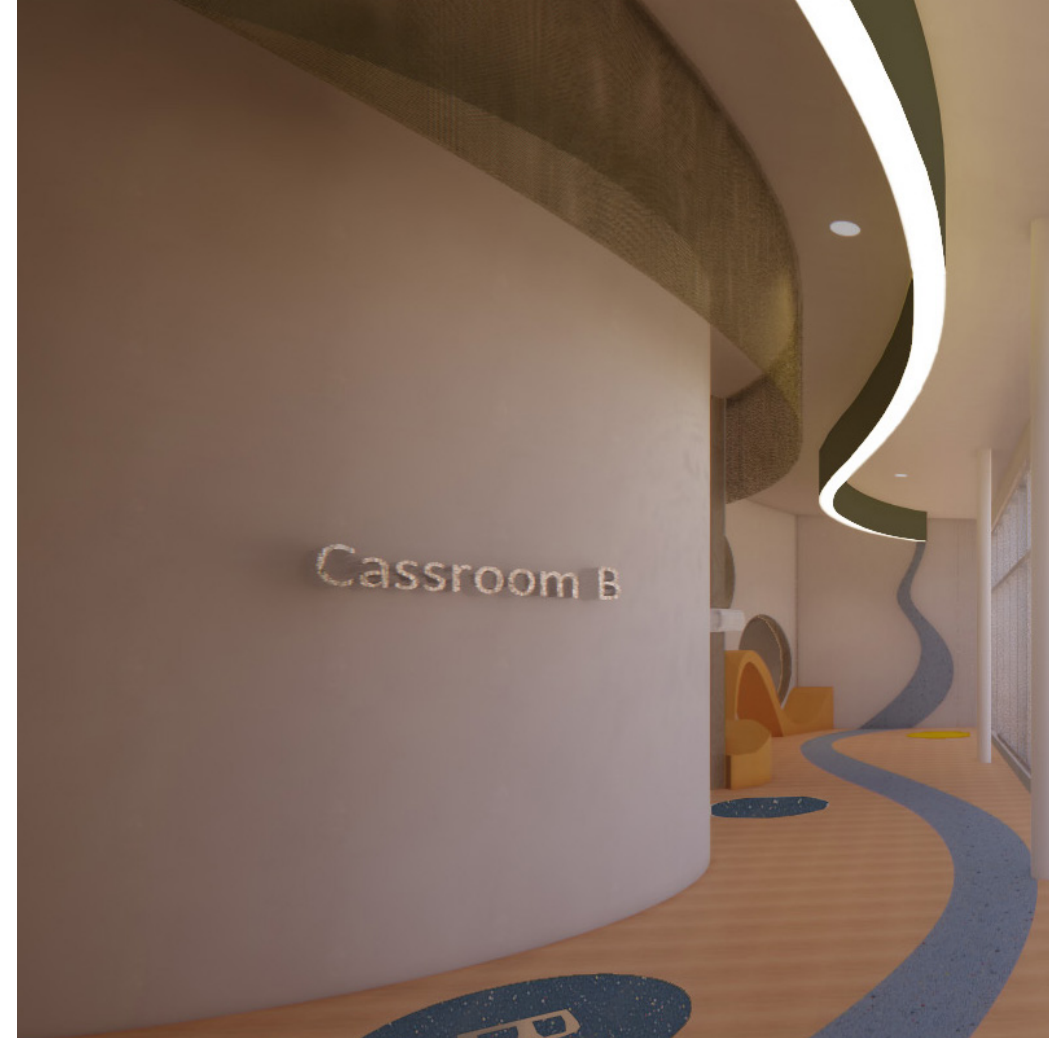
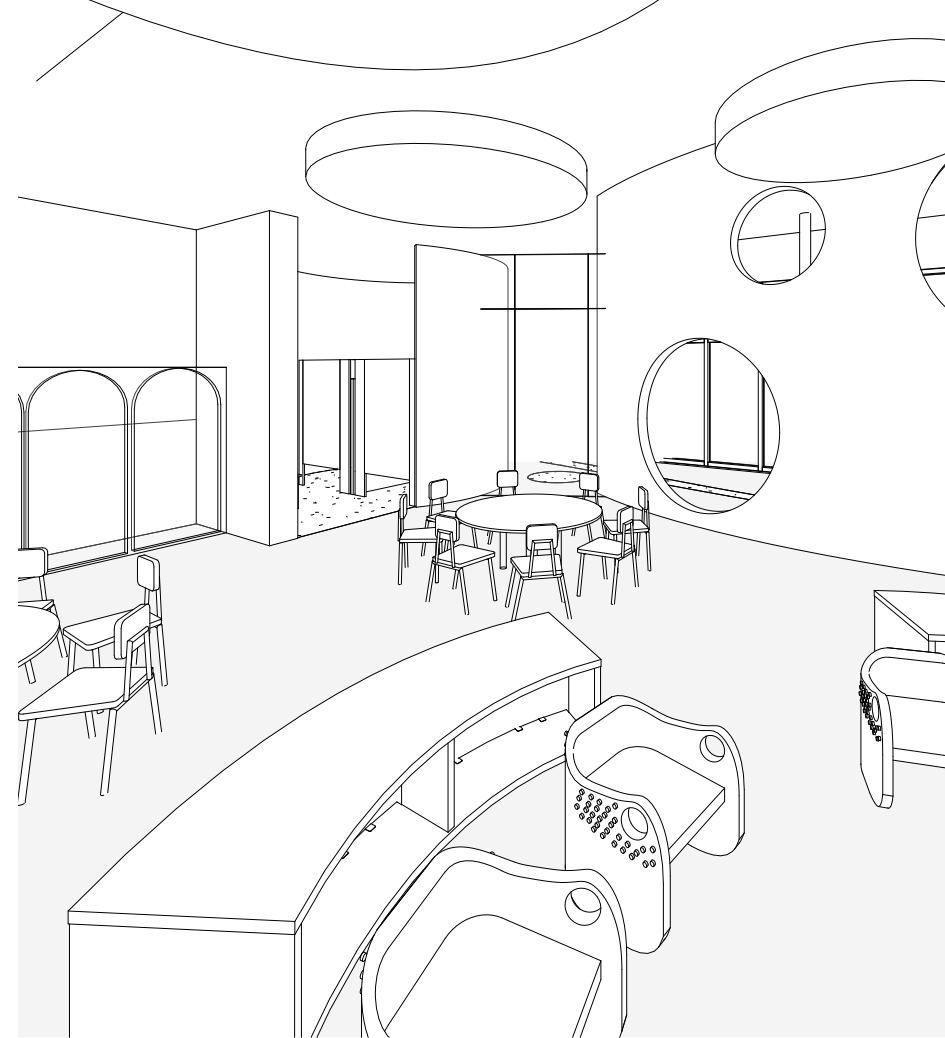
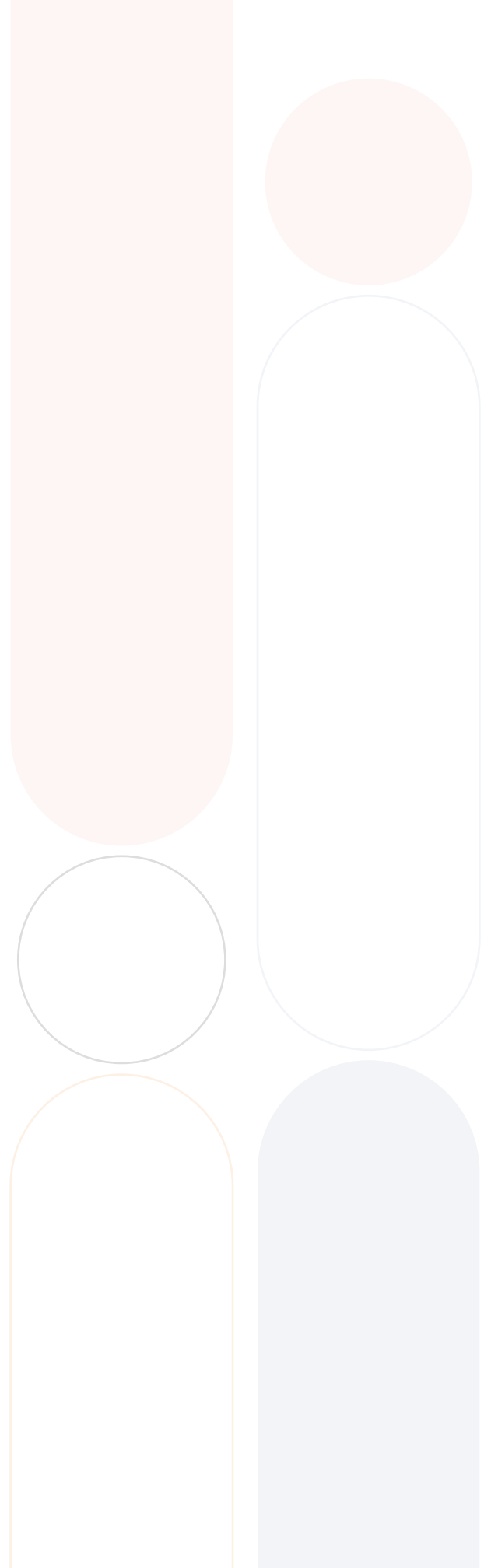


Sketch model exploring organization, connection and circulation

3

Design

Design
Development



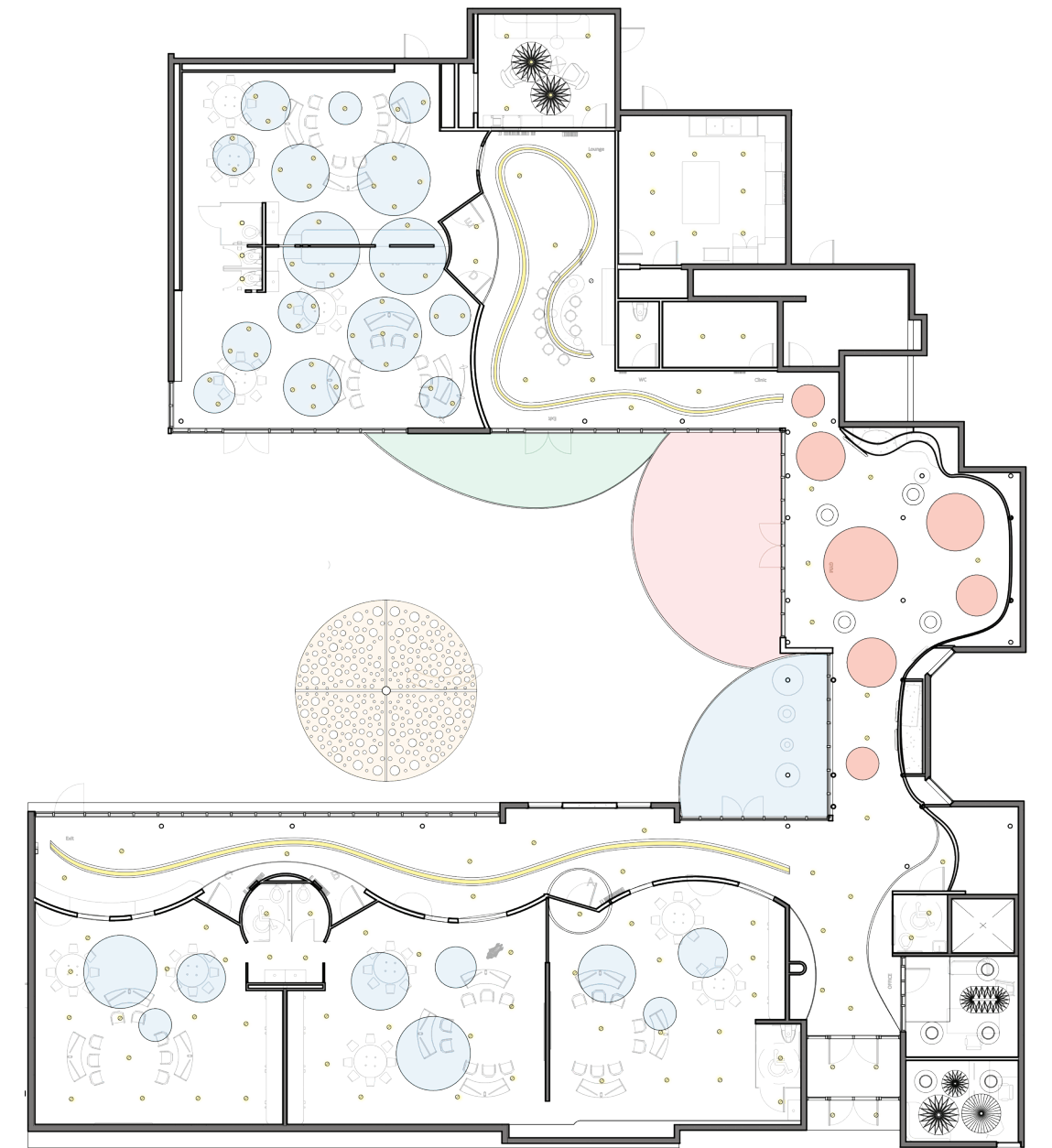


Floor Plan



Circulation Diagram

- Main circulation
- Secondary circulation



Reflected Ceiling Plan

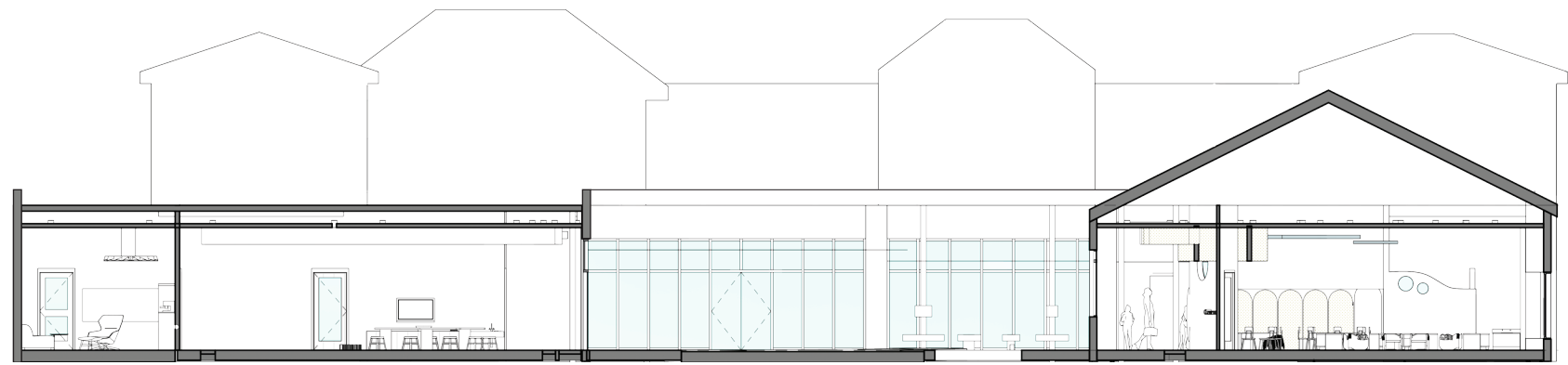




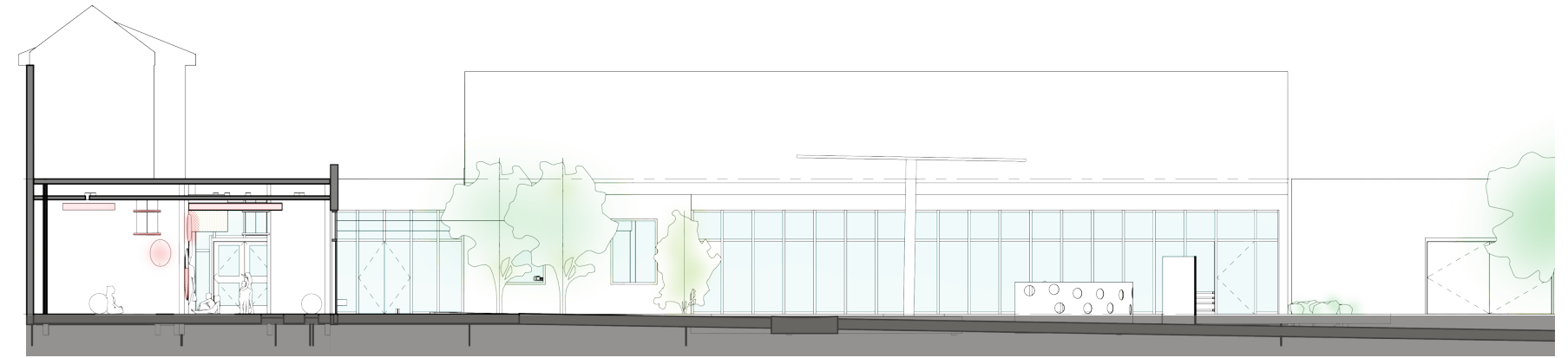
Byrd's eye view of the courtyard



South side view of the courtyard



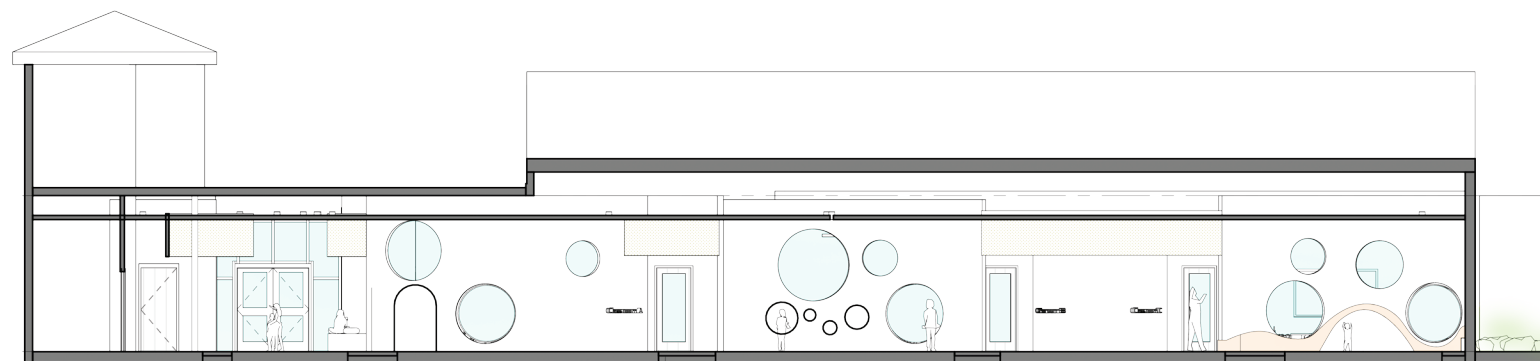
Section A



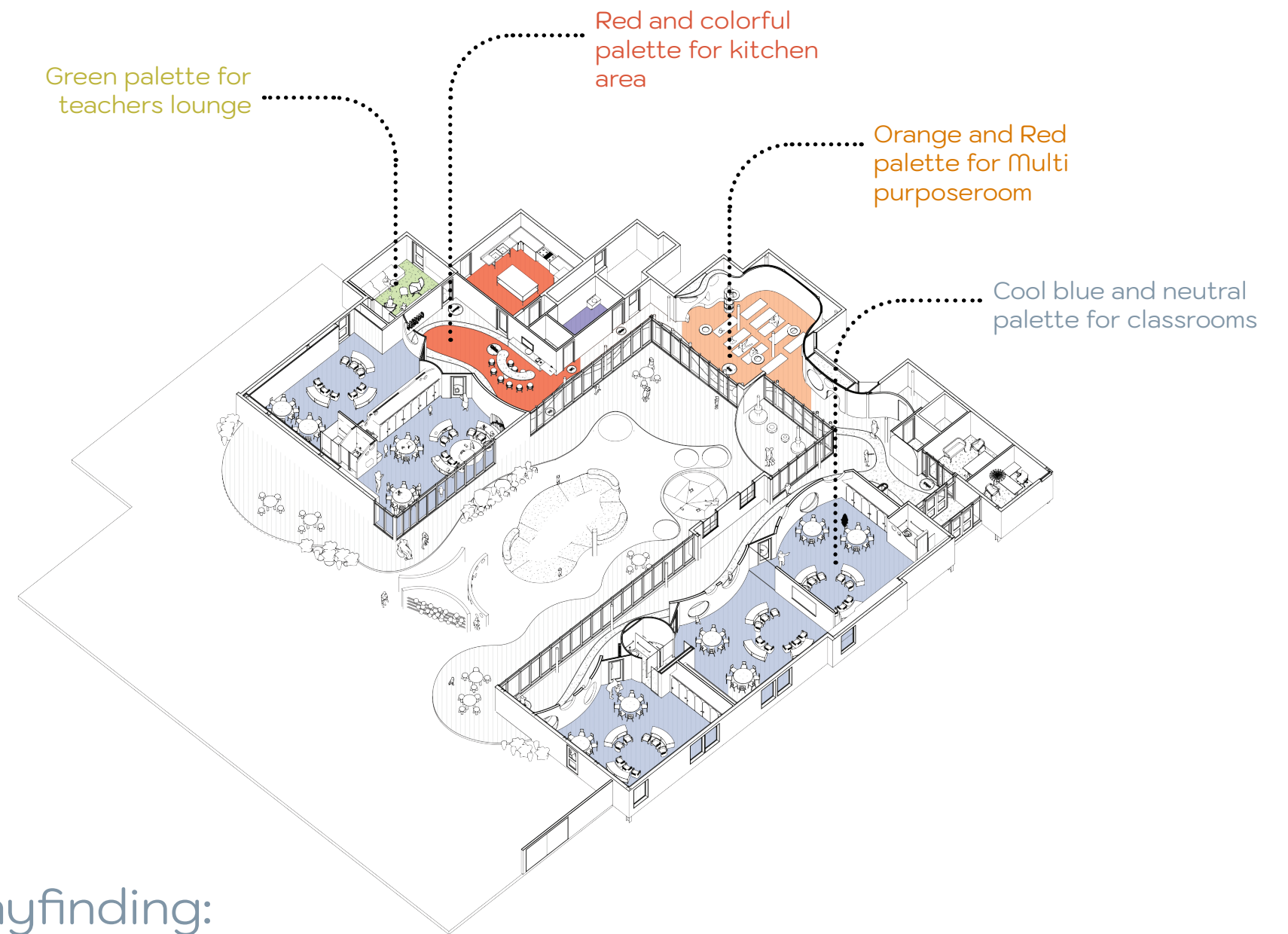
Section B



Classrooms Hallway

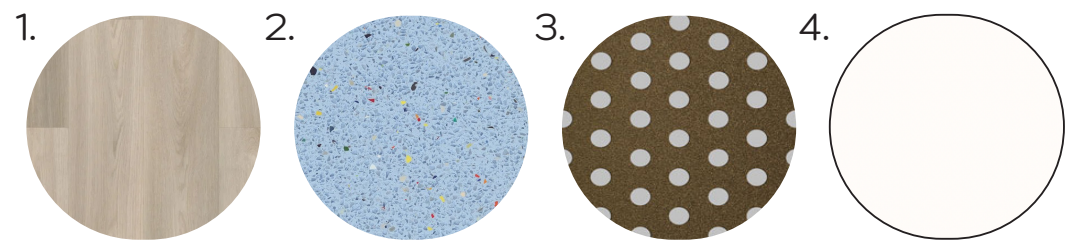


Section C

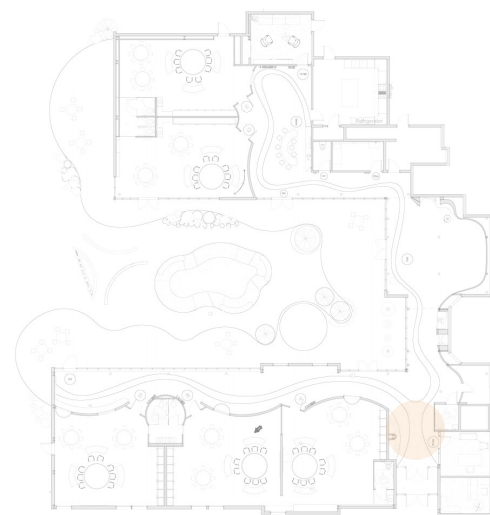


Wayfinding:

Color-coding each space was one of the key wayfinding strategies explored in this design. Additionally, changes in floor materials, aligned with suspended linear lighting, were implemented to suggest a clear path, enhancing navigability and simplifying wayfinding throughout the space. This approach is complemented by strategically placed signage on walls and doorsteps, reinforcing the guidance system. These design elements combine to create an intuitive and visually engaging environment.



1. Solid ash flooring by Vermont plank flooring
2. Terrazzo flooring by Durat, Ice blue
3. Perforated Metal by Arrowmetal
4. AmbientPro+ by Graphenstone, French Cream



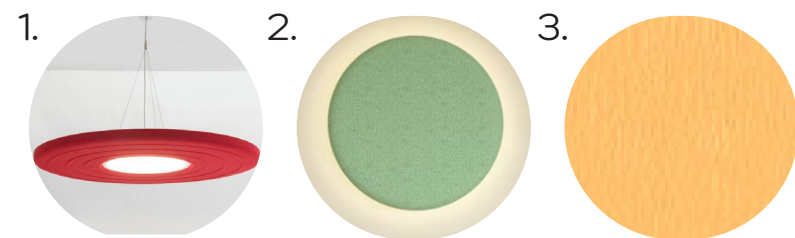
Lobby

The lobby is designed with a creative wall panel and a seating bench strategically placed across from the administrative office's transparent glass wall, creating an open and welcoming space. Curved, perforated metal accents echo the flowing floor patterns, enhancing the visual interest and cohesively connecting to the design elements. This inviting environment combines functionality with aesthetic appeal, making it a warm welcome point for families.

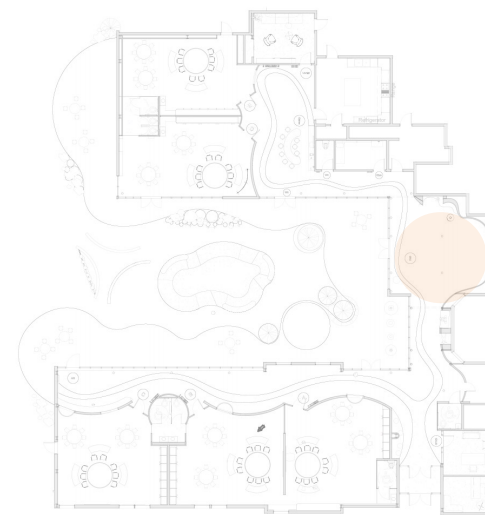


Multi-purpose room

The multi-purpose room is designed as an open and adaptable space for a diverse range of activities and functions. It features an interactive projector and columns that enhance engagement and learning opportunities, along with playful acoustical ceiling clouds and accessible nooks. It utilizes vibrant colors to encourage movement and interaction. These elements combine to create a dynamic and inviting environment that fosters creativity and collaboration.

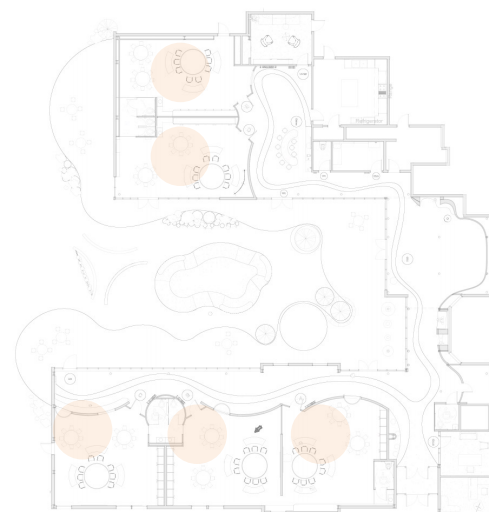


1. BuzziDonut acoustical panels by Buzzi space.
2. BuzziPebl Light acoustical panels by Buzzi space
3. Avant bench upholstery finish by cf Stinson





1. Round wooden table by TMC
2. Look-Me Kid's Chair by OFFI
3. Felix & Fay rug by HABA Pro
4. Flowform Learn Lounge Screen - Bubbles by *Smith system*
5. Flat Clouds acoustical panels by Kirei
curved nature shelves by Whitney Brothers



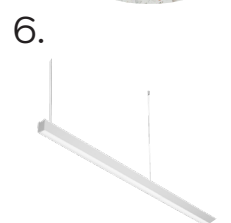
Classrooms

Classrooms are crafted to be both flexible and adaptable, featuring movable furniture and configurable layouts with interesting shapes. The design incorporates large windows to maximize access to natural lighting and is complemented with materials that are warm, soft, and conducive to health. These spaces use more controlled, designed forms to contrast with the fluidity of the public hallways, creating an atmosphere of focus and calm that enhances the learning environment.

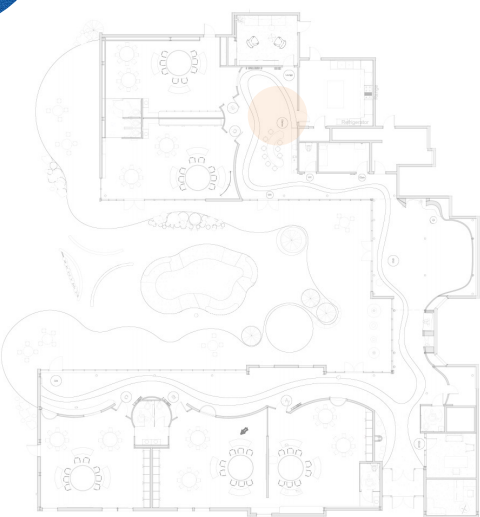


Kitchen Hall

The open kitchen is designed for food and practical activities where children can engage in a hands on experiences with food from planting then to washing, preparing and tasting. It's designed in a form that encourages collaboration and socialization. The materials were chosen to connect cohesively with the other spaces.



1. Terrazzo counter-top by Durat, white
2. AmbientPro+ paint by Graphenstone, Dusky Ocher
3. Interactive wall puzzle art commission by Byggstudio
4. Baar Mini Kids Bamboo Stool by forest homes-Panorama climbing wall by Eldorado Climbing
5. Linear suspended LED lighting by Lena lighting



Teachers Lounge

This space functions as an elegant break room where teachers can meet and collaborate. It is equipped with a printing station and shared materials storage for convenience. The green color scheme fosters relaxation and comfort, creating a serene atmosphere. The furniture selection features soft and dramatic curves, aligning with the overall design concept and enhancing the room's aesthetic coherence.



1.



2.



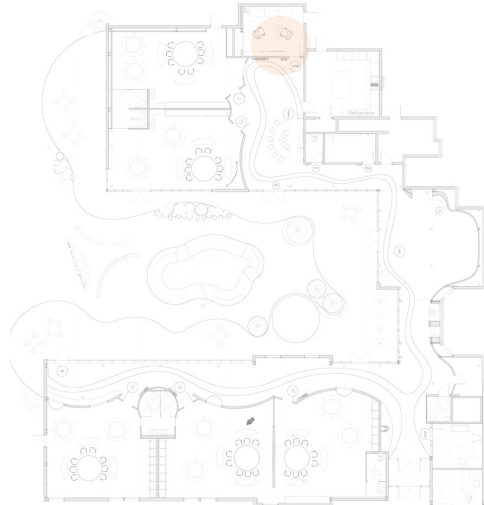
3.



4.



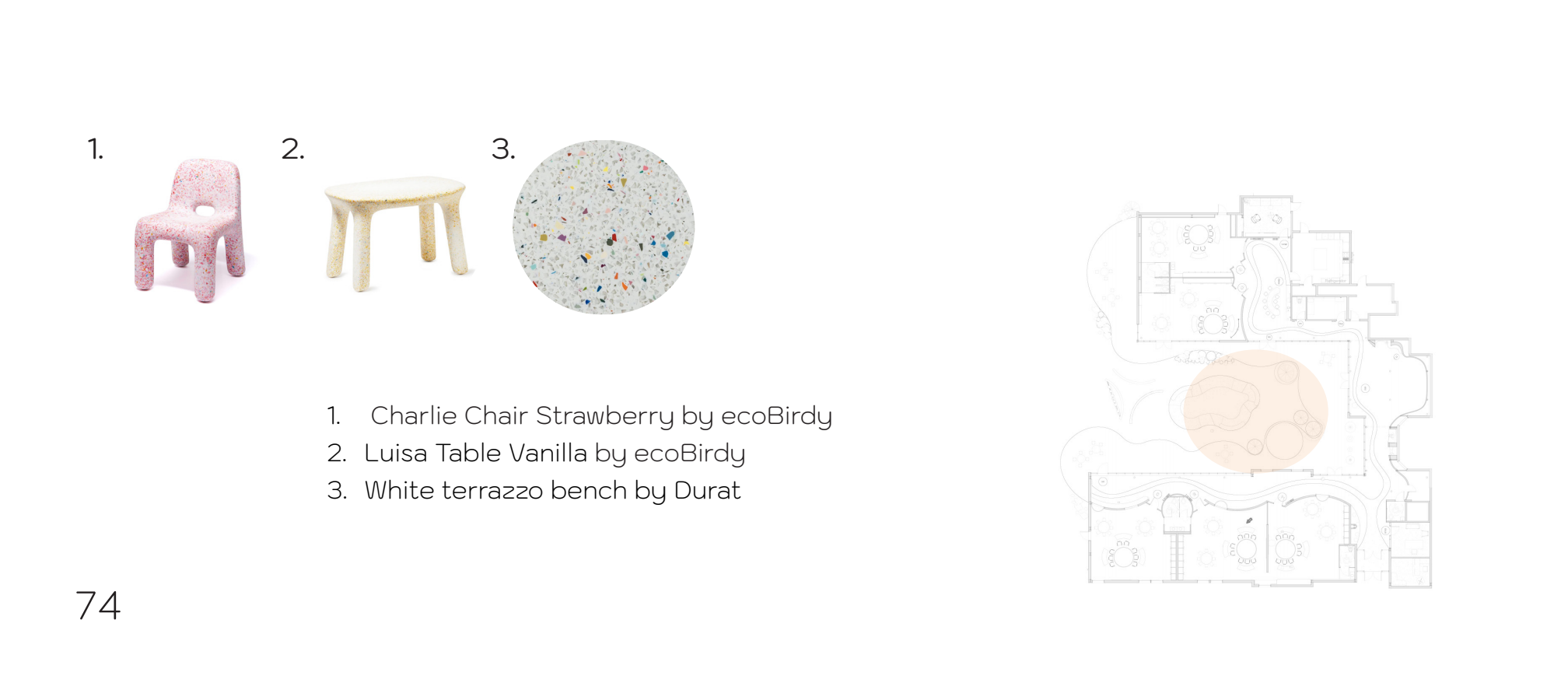
- 1. Ginkgo Lounge, Mid Back by Davis furniture
- 2. SoMod sofa by Davis furniture
- 3. Light ripple acoustical lighting by Buzzispace
- 4. Past Forward carpet Collection, Circa Then by Interface





Courtyard

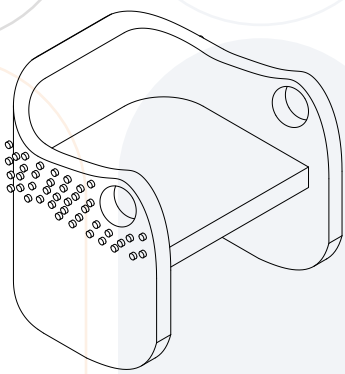
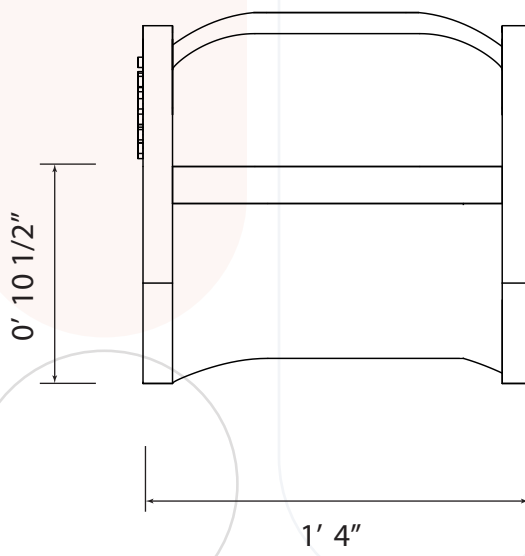
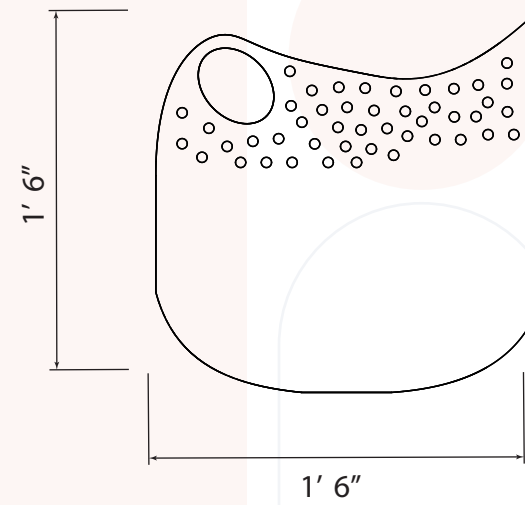
The Courtyard is an accessible, dynamic hub that offers views of nature, featuring a sensory playground, a water basin, and open skies under a colored glass canopy. An extended wooden terrace serves as a secondary circulation path, seamlessly linking both sides of the building. Users and visitors can stroll or bounce along the pathways or the rubber grounds as they cross the area. The courtyard is designed to provide numerous opportunities for enriching learning experiences, complemented by a variety of textures like water, grass, sand, and wood, to stimulate the senses.



3

Design

Design
Details



Custom chair

This playful chair is designed to promote sensory exploration with dotted peppy texture wrapped around the chair and it gives the children the opportunity to move while sitting and maintaining focus. It's made of plywood so it's soft to touch, warm and comfortable for children.



1/2" Plywood, Birch



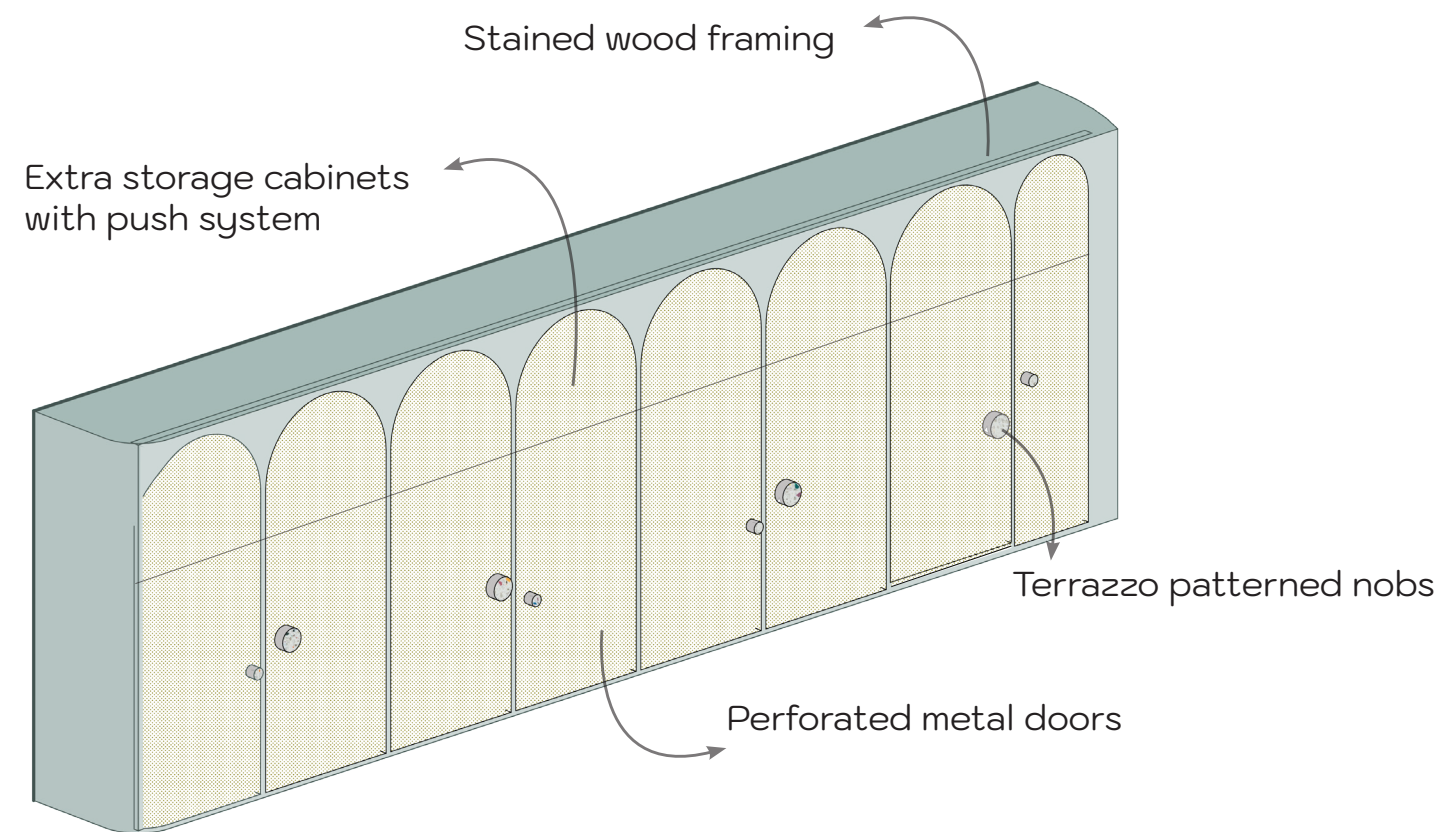
3/4" stained Plywood,
Birch



Perforated metal, light
champaign



White terrazzo patterned
nobs



Classroom custom storage

The materials used in this design is intended to enhance the sense of ownership and belonging in children while supporting the learning process by working on their motor skills. The perforated circles in metal doors give children the opportunity to customize their storage by threading their letters or names on the opening using yarn or sticking their art work on the doors with magnets. The stained wood provides warmth and connection to other design elements.

4

Specification

Sustainability

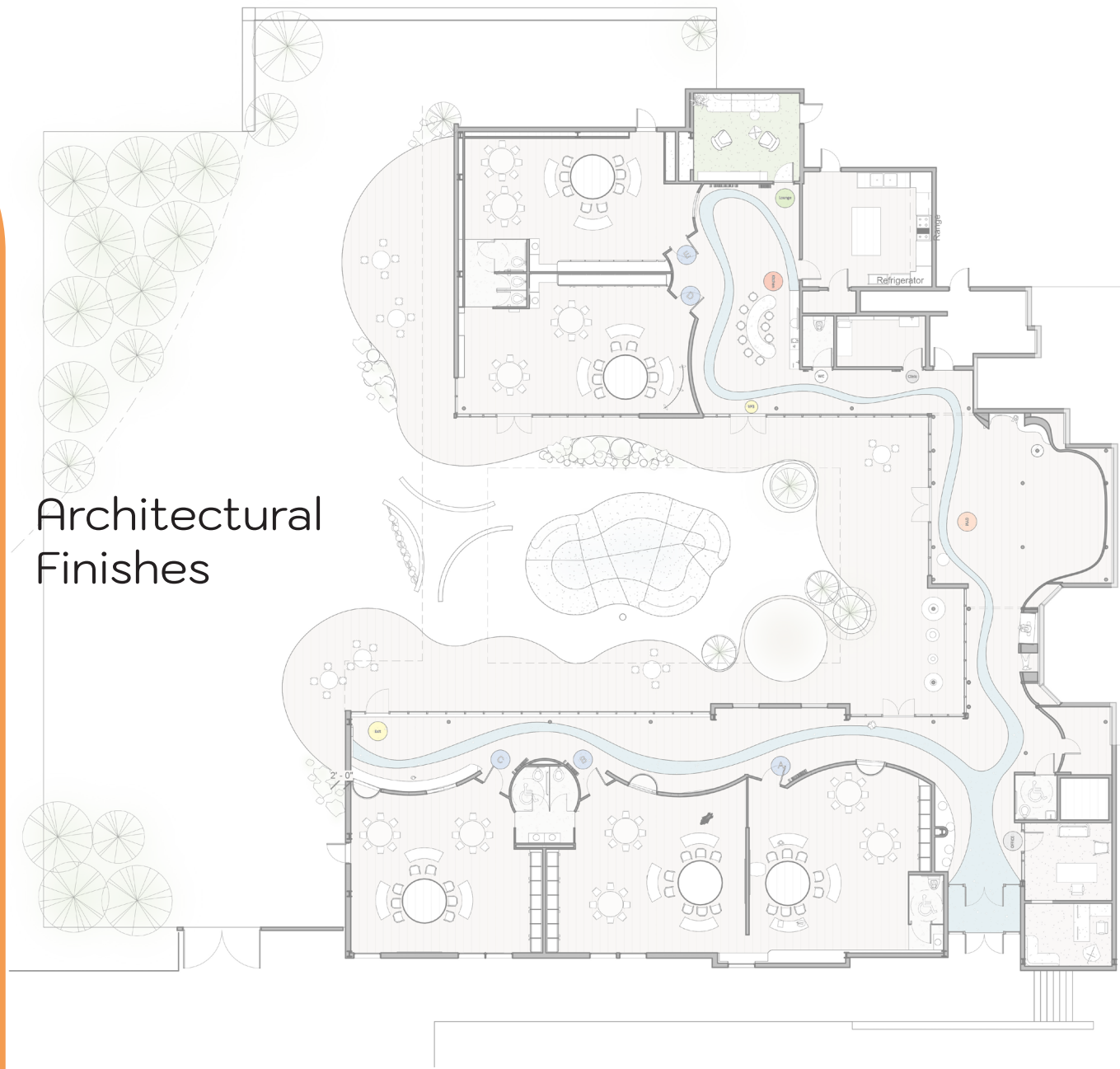
Sustainability

A Sustainable design can be achieved by making the most of a location, using less energy and creating less waste, choosing eco-friendly materials, saving water, improving air quality inside buildings, and bettering maintenance and operations. These efforts create healthier spaces for people and encourage looking at the big picture to make smart trade-offs. This way of designing affects a building throughout its entire life, promoting the health of those who use it and making sure the design is both effective and sustainable.

I plan on incorporating Sustainability in my project, by enhancing the building's insulation, which is crucial to maintain optimal temperatures, effectively reducing heating and cooling expenses. This is complemented by the adoption of smart lighting strategies, which prioritize natural light and supplement with energy-efficient LED lighting that dims automatically in response to the available sunlight. Water conservation is another key element, such as the installation of low-flow fixtures to minimize water usage. The choice of sustainable materials further underscores this commitment, with a preference for recycled and locally sourced materials to cut down on carbon emissions, alongside non-toxic paints and finishes that ensure better indoor air quality. Outdoor learning is fostered through designated green spaces and outdoor classrooms, encouraging direct engagement with nature. Incorporating these strategies will create a sustainable and practical environment.

4

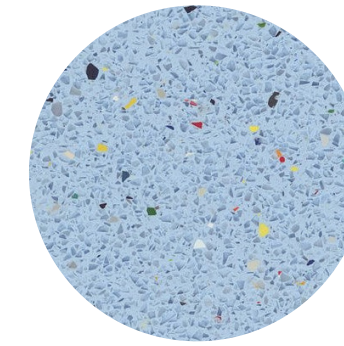
Specification



Floors



Product: Solid ash flooring
Source: Vermont plank flooring
Dimensions: 6" x48" planks
Finish/type: Tung oil finish
Location: Throughout the indoor and out door spaces
Sustainability: Vermont Plank is fully certified by the FSC® for both newly sawn and reclaimed millwork.



Product: Terrazzo flooring
Source: Durat
Dimensions: Varies
Finish/type: D0180-02 Ice blue and other types below
Location: Main hallways and door steps
Sustainability: 100 % recyclable and contain up to 30 % recycled materials.



Light Grey Office



White W.C



Bright blue Classrooms.



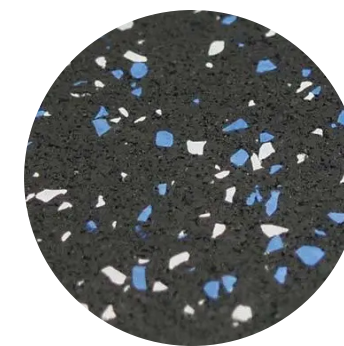
Green T.Lounge



Deep red Kitchen

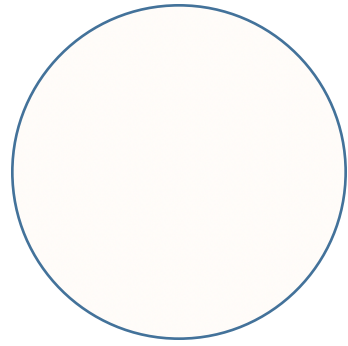


Light orange M.Proom



Product: Elephant Bark
Source: Floormatcompany
Dimensions: 1/4" thick X 48" wide X 600" length
Finish/type: Rubberized Flooring, Blue steel
Location: Courtyard
Sustainability: Made from eco-conscious 100% recycled rubber.

Walls



Product: AmbientPro+

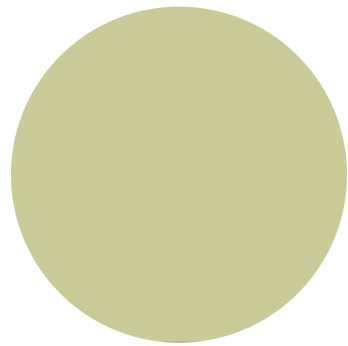
Source: Graphenstone

Dimensions: 6-8 m²/l (2 coats)

Finish/type: French Cream, paint

Location: Throughout the spaces

Sustainability: Lime photocatalytic paint, the product absorbs CO₂ and has excellent breathability, preventing condensation.



Product: AmbientPro+

Source: Graphenstone

Dimensions: 6-8 m²/l (2 coats)

Finish/type: Dusky Ocher, paint

Sustainability: Lime photocatalytic paint, the product absorbs CO₂ and has excellent breathability, preventing condensation.



Product: Glass

Source: Solarinnovations

Dimensions: Varies

Finish/type: Clear and colored

Location: Courtyard, and interior walls

Sustainability: Solarinnovation is a LEED Gold-certified facility and it's manufacturing building follows sustainable practices by utilizing renewable energy, to achieve net-zero energy consumption.



Product: Flek

Source: 3form

Dimensions: 48" x 120"

Finish/type: Chamomile

Location: Classroom interior walls

Sustainability: Flek is an award-winning, sustainable product, features a design made from recycled Varia samples.

Floors



Product: Past Forward Collection, Circa Then

Source: Interface

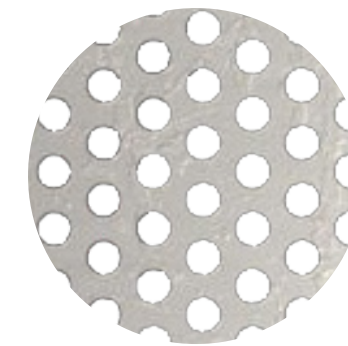
Dimensions: 50cm x 50cm

Finish/type: 108216 Fern

Location: Teachers Lounge

Sustainability: interface carpets follows a highly sustainable manufacturing process using renewable energy and recycled materials.

Ceiling



Product: Perforated Metal

Source: Arrowmetal

Dimensions: Hole Dimensions 8mm diameter, 19.2mm staggered pitch

Finish/type: Round hole profile, steel light champaign

Location: Main hallways

Sustainability: Arrow Metal is committed to the implementation and protection of the principles of care for the environment in the course of manufacturing and providing high quality perforated metal and mesh sheeting.

Rational

The main materials and finishes in this project were carefully selected to meet the goals of functionality safety and sustainability. Starting with wall finishes made from natural materials, the AmbientPro+ paint will enhance air quality by absorbing CO₂, thereby fostering a healthier environment. Solid Ash flooring not only adds warmth to the space but also serves as a shock-absorbent material, enhancing comfort and safety. The use of glass introduces transparency, improving visual accessibility and creating an open, airy feel. Lastly the perforated metal selection will solidify the space by connecting with other elements and providing visual interest.

4

Specification

Furniture Fixtures and Equipment

F F& E Rational

The furnishings selections for this project align with sustainability principles and the overall concept. Seating made from recycled materials combines environmental benefits with durability and ease of maintenance. Ergonomically designed chairs and tables promote comfort and safety. Modular and curved furniture enhances spatial flexibility, supporting a dynamic, inclusive environment.



Product: Flat Clouds acoustical panels

Source: Kirei

Dimensions: Circle Medium Cloud Diameter: 33 in

Finish/type: 551 Duck Egg and 633 Pacific, 295 Mandarin

Location: Classrooms and Multipurpose room

Sustainability: Kirei is Leed and Well certified, Ecospecifier GreenTag Compliant



Product: Baris 52 LED SINGLE Clue IoT

Source: Lena lighting

Dimensions: 4000K Color temperature

Finish/type: LED, suspended

Location: Main hallways

Sustainability: LED technology makes it possible to replace traditional lighting systems while at the same time saving on electricity consumption



Product: 4 Inch Regressed Plenum Gimbal Round LED Trim

Source: Lotus LED Lights

Dimensions: 4000K Color temperature

Finish/type: LED, canless recessed downlight light, white

Location: Throughout the interior spaces

Sustainability: LED technology makes it possible to replace traditional lighting systems while at the same time saving on electricity consumption



Product: World

Source: Humanscale

Dimensions: Seat Height Range: 14" – 27.75"

Finish/type: Textile: Mesh Pinstripe. Frame: White, Adjustable- arms

Location: Offices and Teachers lounge

Sustainability: AFRDI Green Tick Certificate, LEVEL 3 (SCS-SCF-05108)



Product: Migration SE, Height-Adjustable Desk

Source: Steelcase

Dimensions: 60"x30"

Finish/type: Walnut veneer edge profiles with modesty panel. Merle metal legs with casters

Location: Offices

Sustainability: SCS Indoor Advantage Gold - Furniture



Product: Ginkgo Lounge, Mid Back

Source: Davis Furniture

Dimensions: Seat Height Range: 16 1/2"

Finish/type: Textile: Carafe. Four Prong 21 Light Anthracite, swivel Base

Location: Teachers lounge

Sustainability: Davis Furniture is SCS GOLD Certificate, LEVEL 3 (SCS-SCF-03187)



Product: SoMod

Source: Davis Furniture

Dimensions: Seat Height Range: 15 1/4"

Finish/type: Textile: Doyenne - 4078. Platinum 902-58 Base

Location: Teachers lounge

Sustainability: Davis Furniture is SCS GOLD Certificate, LEVEL 3 (SCS-SCF-03187)



Product: BuzziBurner

Source: Buzzispace

Dimensions: 3000K Color temperature

Finish/type: Dimmable LED, suspended, UGR 22 Milky Diffuser

Location: Offices

Sustainability: BuzziSpace is UL GREENGUARD certified, LED technology reduce electricity consumption.



Product: BuzziPleat

Source: Buzzispace

Dimensions: 3000K Color temperature

Finish/type: Light ripple, dimmable LED, suspended,

Location: Offices and Teachers lounge

Sustainability: BuzziSpace is UL GREENGUARD certified, LED technology reduce electricity consumption.



Product: BuzziPleat

Source: Buzzispace

Dimensions: 3000K Color temperature

Finish/type: Edel long, dimmable LED, suspended

Location: Offices

Sustainability: BuzziSpace is UL GREENGUARD certified, LED technology reduce electricity consumption.



Product: BuzziDonut

Source: Buzzispace

Dimensions: 47.24" x 2.36"

Finish/type: Remix 3, dimmable LED, suspended, Drop

Location: Multi purpose room

Sustainability: BuzziSpace is UL GREENGUARD certified.



Product: BEAM Pro- Sensory projector

Source: Epson

Dimensions: 3,000 Lumen Projector

Finish/type: Ceiling mounted, Laser Epson projector

Location: Teachers lounge

Sustainability: Epson is committed to 100% renewable energy manufacturing with Environmental Vision 2050



Product: 6000K+ Interactive Displays

Source: ClearTouch

Dimensions: Screen size : 75"

Finish/type: Frame: Graphite

Location: Classrooms and Kitchen

Sustainability: using interactive screen reduce waste in the environment



Product: Round wooden table

Source: TMC

Dimensions: 49"L x 49"W x 20"H

Finish/type: Maple, milk

Location: Classrooms

Sustainability: TMC products are made of wood organic material that is renewable, recyclable and biodegradable



Product: OFFI, Look-Me Kid's Chair

Source: 2modern

Dimensions: Seat Height: 11.25"

Finish/type: Molded birch ply

Location: Classrooms

Sustainability: The chair is made from natural material that can be recycled and reused

Custom Furniture

Product: Custom sensory rocking chair

Millwork by: WorkbenchRVA

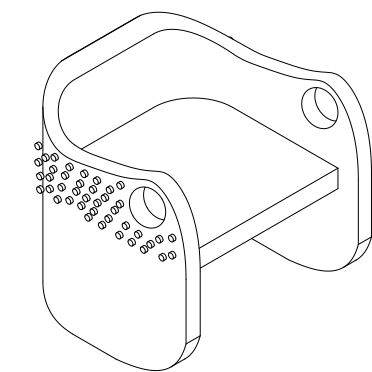
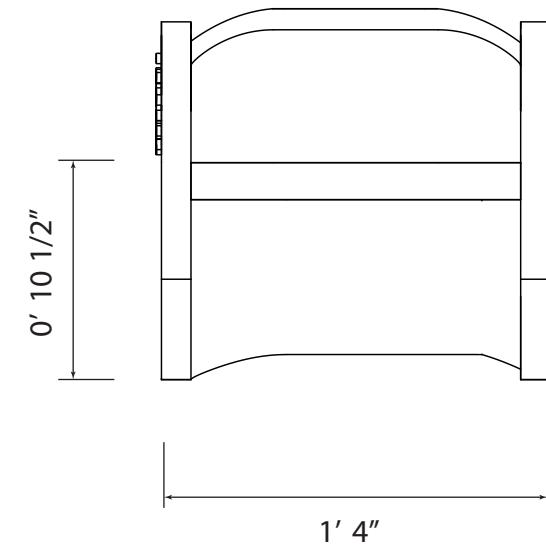
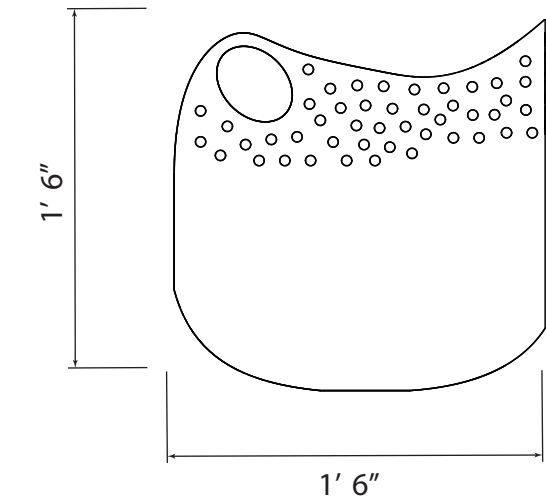
Dimensions: 1'6" Hx 1'4" W x1'6" D, seat

Height:10 1/2"

Materials: 1/2" Plywood, Birch

Location: Classrooms

Sustainability:The chair is made from natural recycled material



1/2" Plywood, Birch



Product: *Feelix & Fay rug*

Source: *Hapa pro*

Dimensions: *½”H x 98½”Dia*

Finish/type: *Rug, 1366435*

Location: *Classrooms*

Sustainability: *HABA Pro was the first toy and furniture manufacturer in Germany to undergo an environmental audit and have been committed to continuous environmental management*



Product: *Flowform Learn Lounge Screen - Bubbles*

Source: *Smith system*

Dimensions: *12” x 96” x 47.75”*

Finish/type: *55013, Blue Opal*

Location: *Classrooms*

Sustainability: *UL GREENGUARD Gold certified*



Product: *curved nature shelves*

Source: *Whitney Brothers*

Dimensions: *11,75”L x 41”W x 24”H*

Finish/type: *15mm birch plywood*

Location: *Classrooms*

Sustainability: *GreenGuard™ Gold certified*



Product: *Interactive wall puzzle art commission*

Source: *Byggstudio*

Dimensions: *6’ x4’*

Finish/type: *granite engraved and movable letters panel*

Location: *kitchen hallway*

Sustainability: *It’s made with durable and recyclable materials*

Custom Furniture

Product: *Custom millwork*

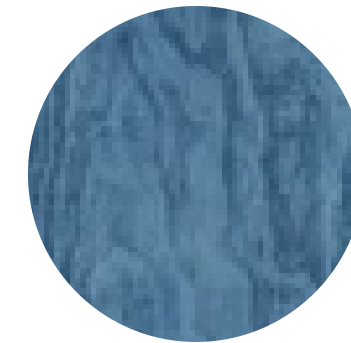
Millwork by: *WorkbenchRVA*

Dimensions: *2’ D, Door Height: overall 7’, lower part 4’, upper part 3’*

Materials: *3/4” Plywood, Birch, steel perforated metal doors, white terrazzo nobs*

Location: *Classrooms*

Sustainability: *All finishes are natural material that are recyclable.*



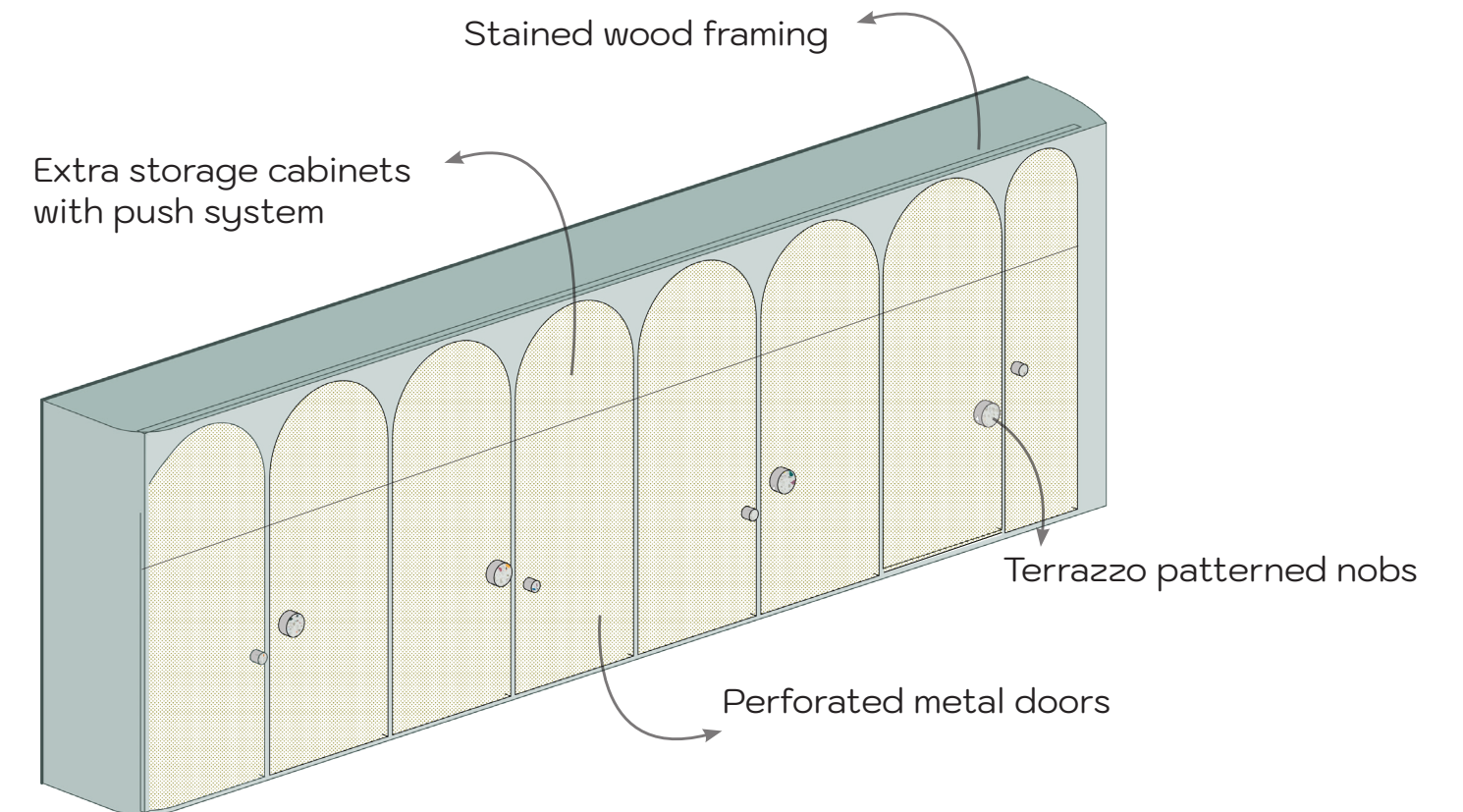
3/4” Stained plywood, Birch

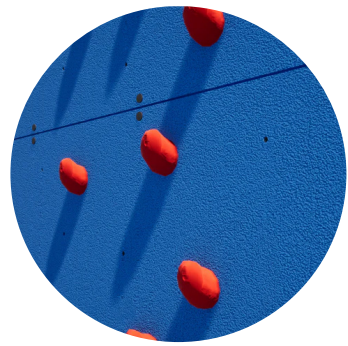


Perforated metal, light champaign



White terrazzo patterned nobs





Product: Panorama climbing wall
Source: Eldorado Climbing
Dimensions: 20' x 5'
Finish/type: Plywood with resin grip
Location: Kitchen hallway
Sustainability: This installation is durable and uses less CO2 footprint



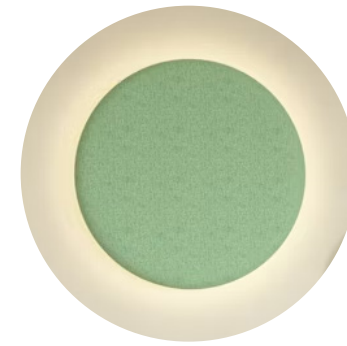
Product: Baar Mini Kids Bamboo Stool
Source: Forest homes
Dimensions: W 35cm, L30cm, H 30cm, seat pan 30cm in diameter.
Finish/type: Red
Location: kitchen hallway
Sustainability: This product has been created in ethical and environmentally friendly standards.



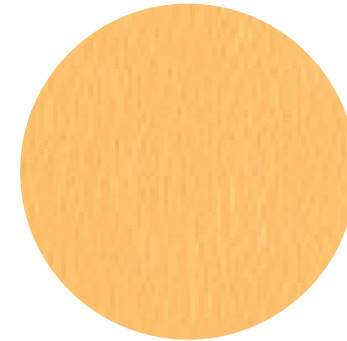
Product: Charlie Chair Strawberry
Source: ecoBirdy
Dimensions: seat H11-11.4 in, L15 x W14 x H19.7 in
Finish/type: Strawberry
Location: Courtyard indoor and outdoor furniture
Sustainability: ecoBirdy furniture is made with recycled toys



Product: Luisa Table
Source: ecoBirdy
Dimensions: L29.5 x W21.6 x H19.7 in, 15.4 lbs
Finish/type: Vanilla
Location: Courtyard indoor and outdoor furniture
Sustainability: ecoBirdy furniture is made with recycled toys.



Product: BuzziPebbl Light
Source: Buzzispace
Dimensions: 47.24" x 2.36"
Finish/type: Dimmable LED, Hazy orange, Berry and Mint
Location: Multi purpose room
Sustainability: BuzziSpace is UL GREENGUARD certified.



Product: Leather bench upholstery finish
Source: Cf Stinson
Dimensions: 54 inches W, Exceeds 1,500,000 double rubs
Finish/type: Avant
Location: Multi purpose room and Hallways
Sustainability: UL GREENGUARD Gold certified

5

Reflections

Final Thoughts

Final Thoughts

Through the past year, my deep dive into creating an accessible, inclusive, and sensory-rich learning environment brought me closer to each concept I explored. Seeing the project from a child's perspective was eye-opening—their view of the world is uniquely different, scaled in ways we as adults often overlook. My goal was ambitious but clear: to combine various effective educational methods to create a space that not only engages children but also encourages them to actively explore the world around them.

The feedback I received from the jurors was heartening; they affirmed that the design succeeded in creating a nurturing and enriching learning environment. They noted how well the design communicated its goals and commended the thoroughness with which each element was executed. They favored the custom sensory chair and encouraged starting fabrication. They offered constructive suggestions that sparked further contemplation. They pointed out the intensive labor that might be required with the terrazzo materials used and suggested considering more practical alternatives like linoleum or concrete. They also prompted a reevaluation of the curved walls in the courtyard playground, proposing the use of different structural materials that could introduce a playful dimension. Some of the suggestions involved the custom chair, specifically to incorporate softer materials on the bottom edges of the sensory chairs to reduce potential floor damage from movement.

These suggestions planted seeds of inspiration for future refinements. If time were boundless, I would eagerly delve deeper, refining and enhancing each aspect of this learning center. This project has been more than an academic endeavor; it has been a narrative of transformation and discovery, enriched by the guidance of my professors and the vibrant discussions with my peers. It has instilled in me a lifelong passion for designing spaces that not only meet educational needs but also help shape a better world.

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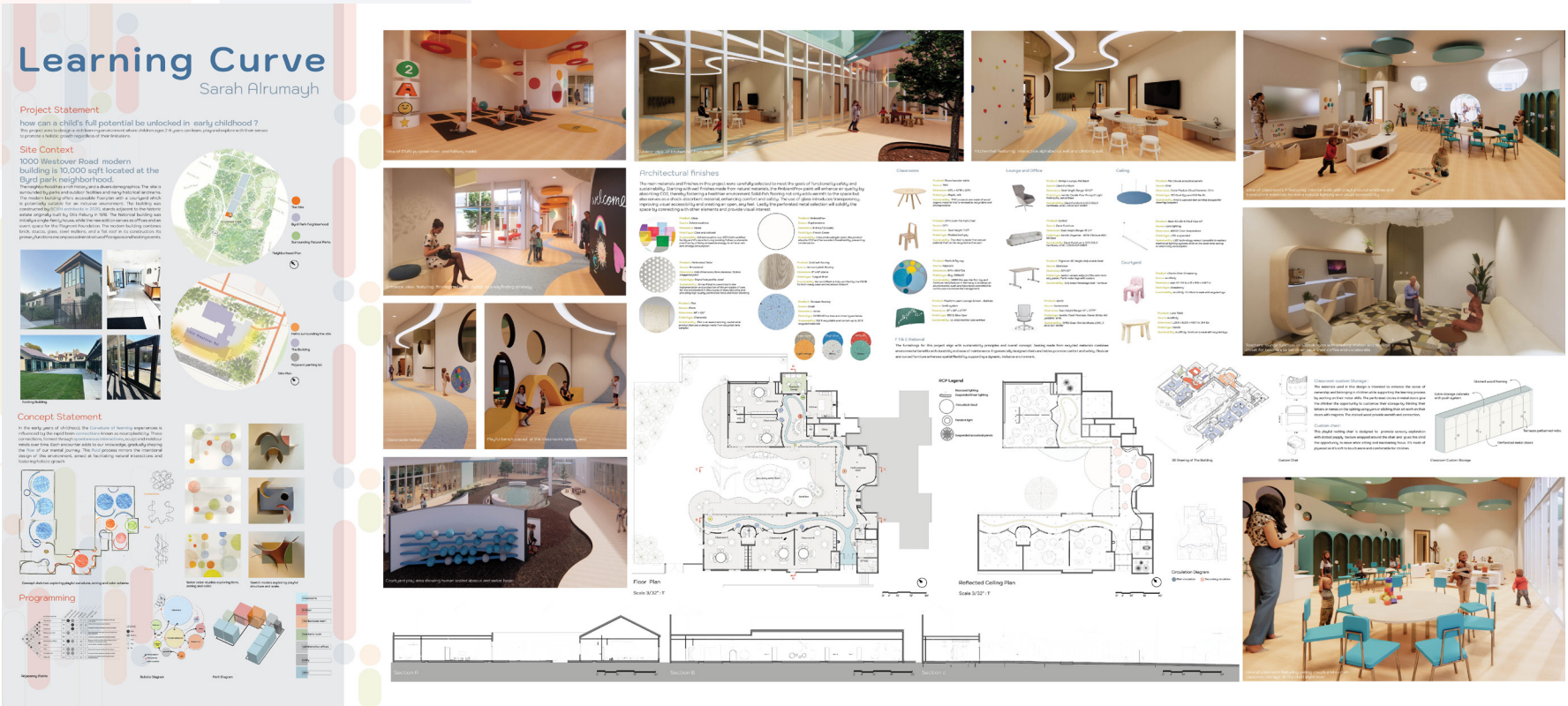
Acknowledgments

Acknowledgment

I would like to acknowledge and give my warmest thanks to my supervisors Roberto Ventura and Kristin Carleton who made this work possible. His/her guidance and advice carried me through all the stages of writing my project. I would also like to thank my committee members Sara Reed, Timothy Hamnett, and Ryan Mayton, for their brilliant comments and suggestions, thanks to you.

I would also like to give special thanks to my family, especially my parents, my Husband, and my children for their continuous support and understanding when undertaking my research and writing my project.

I am also grateful to my classmates and cohort members Chelcey Dunham, Aseel Alhaidari, Che Shannon, Camille Rovani, Sydney Rakes, Tommye Dean, Zixuan Guo, and Se Young Lee, Caroline Ciccone, Caitlin McLean for their moral support.



Thesis Presentation Board

Thank you!

