



USER ID: ID_100606

CATEGORY: Learning

An Urban Children's Sanctuary

Location of Project: Bencoolen Street, Singapore

Project Stage: Completed (2018)

INTRODUCTION

"Interplay between the space and the child makes his total world of playscape. He manipulates the vitality of his environment and draws upon his imagination to create a world of his own."

The arts expand expressive opportunities for children, especially when they had just begun to speak and write. Children exposed to numerous art experiences not only develop their aesthetic abilities, but display higher academic achievements and social emotional skills. This is because the arts train individuals to be disciplined, meticulous and observant. The arts also cultivates self-awareness, eloquence in self-expression, and critical and divergent thinking. These help children better understand and use communication, mathematical, science, and literacy concepts and skills. The National Assembly of State Arts Agencies (2006) reported that it inevitably implies success in education, career and life. Singapore had also recognised this and increased its efforts in the awareness and support of arts and art education in the recent years.

The arts is not only about the end product but the process. Children engage in many dynamic processes in the creation of an artwork. For instance, children brainstorm, conduct trial and error, and make decisions to design a script for speech and drama or music ensemble performance. These processes build up children's autonomy and confidence in their abilities, fostering a positive self-image. As educators showcase their artworks in the school environment, children will feel a deep sense of satisfaction and achievement too. Knowing that they are capable individuals and their efforts are acknowledged, children are courageous to express themselves. This confident and positive outlook helps children thrive in the many years to come.

Located right in the heart of Singapore's Arts and Heritage district, NAFA Arts Preschool (formerly NAFA Arts Kindergarten) is the first arts-themed preschool in Singapore. Its unique curriculum inspires learning and growth through the arts. The fine arts programme is interwoven into academic learning, which propels them to mastery. The preschool build it's core curriculum around six domains, based on Ministry of Education's kindergarten curriculum framework, Nurturing Early Learners i.e. Language and Literacy, Numeracy, Social and Emotional Development, Motor Skills Development, Discovery of the World and the Arts.

The fine arts programme is designed and conducted by it's very own industry veterans. It covers the following art forms:

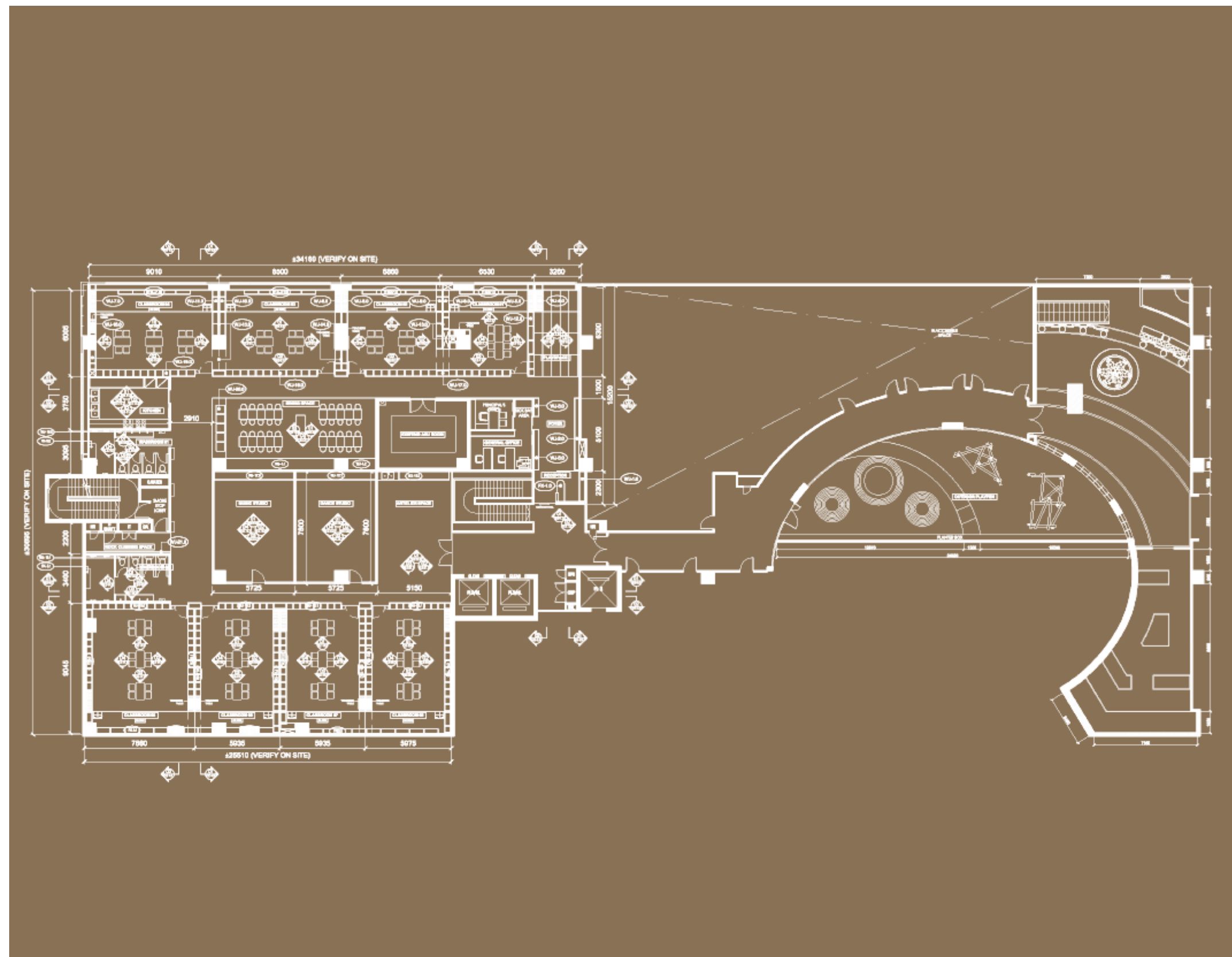
- Music (Keyboard and introduction to a variety of instruments)
- Visual Arts (2-Dimensional and 3-Dimensional art)
- Dance (Creative movement and ballet)
- Speech and Drama (Bilingual)

The preschool offers the opportunity to introduce four art forms under one roof. Children will enjoy at least an hour of specialised art lesson daily. This allows parents to spend more quality family time together. As the arts are created to be shared and enjoyed by many, parents will be invited to their children's recitals, performances, project exhibitions and more.

Other featured spaces includes an atelier space for Arts, dance studio, music studio, an outdoor playscape including a space for urban farming. All of which are unveiled to allow seamless visual connections throughout the spatial arrangement.



Main Entrance



EVALUATION CRITERIA #1: SPATIAL DESIGN

NAFA Arts Preschool is inspired to be an Urban Children's Sanctuary which is conceived as a cottage in the urban setting. The built environment is designed to invoke the sense of inquisitiveness by dissolving the typical classroom walls into porous boundaries, therefore it naturally creates opportunities of interplay and interactions amongst preschoolers. Other featured spaces includes an atelier space for Arts, dance studio, music studio, an outdoor playscape including a space for urban farming, all of which are unveiled to allow seamless visual connections throughout the spatial arrangement.

The form of a pitched roof is largely used in the aesthetics as a symbolic translation of a Sanctuary and implemented at the main entrance connecting to the reception and foyer spaces. This is to achieve a deep impression of a safe house environment which is crucial for preschoolers to feel secured. The pitched roof effect is echoed into the dining hall as well, to emphasize the space as a gathering point for the children. Muted cherry timber laminate is used greatly as finishing to walls and ceiling in order to amplify the sense of nature as our inspiration and eludes the sense of warmth to the users.

Instead of constructing full height partition walls, cabinets were built to demarcate the classrooms and serve as storage spaces for both preschoolers and teachers as well. Every wall in-between classrooms are further segmented with see-through openings in glass panels, thus achieving the typology of a "porous wall". It naturally induce a sense of exploration and curiosity into the children, in turn encourages them to interact and interplay.

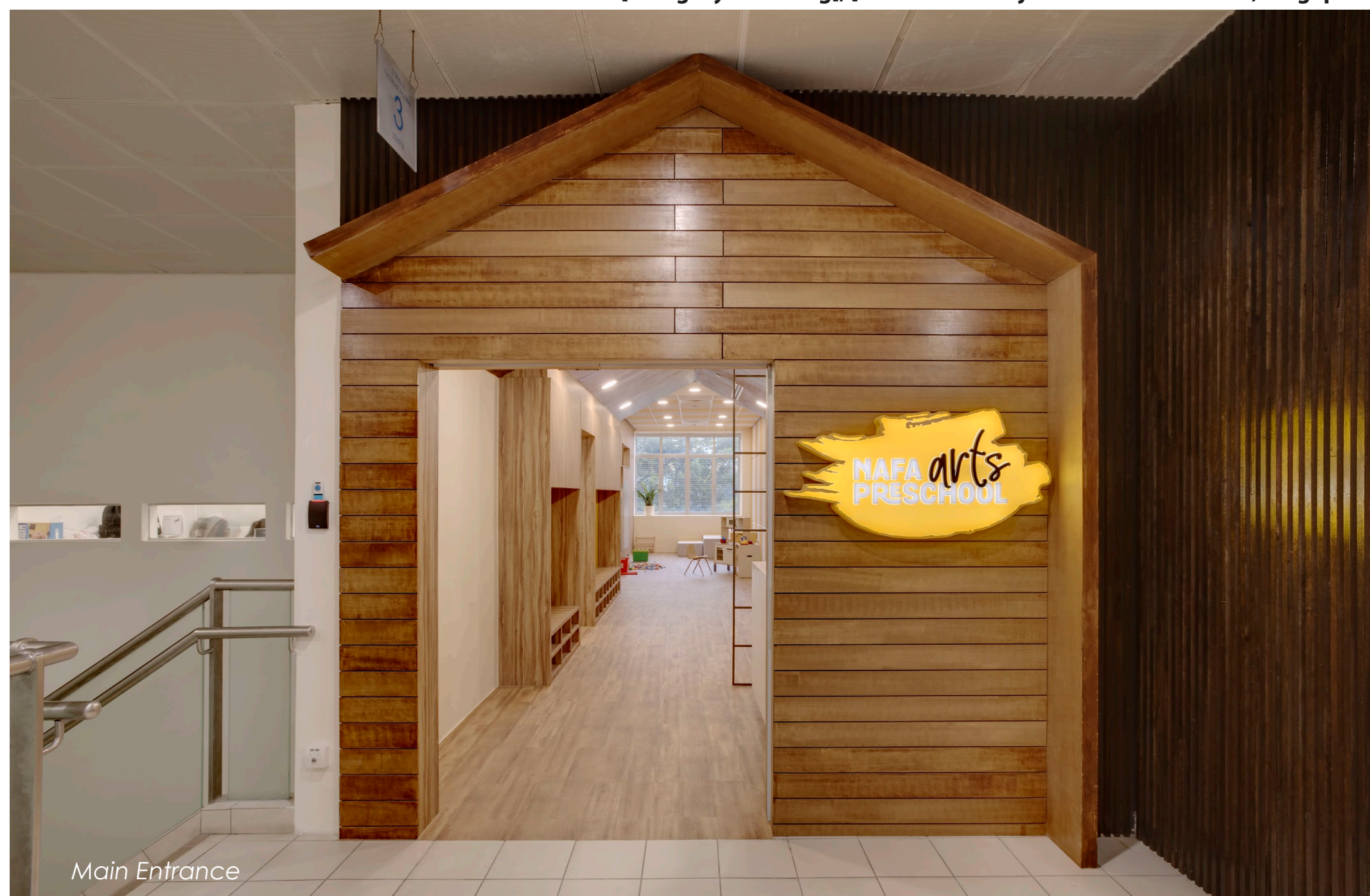
Harvesting natural lighting is one of the key considerations during the spatial design process. The spatial arrangements is planned to ensure that natural lighting can be provided for every classroom. This helps to enliven the classroom environment and eludes better sense of positive emotions to the users.



Entrance + Reception Space



Indoor Playspace



Main Entrance



Foyer + Shoe Storage Space

EVALUATION CRITERIA #2: COMFORT

Often in a multifaceted real-world, we constantly acquire new knowledge and skills. It involves open-ended questions and tasks for children to inquire by exploration and experimenting on their own. A space which allows them to discover and uncover aims to build up a stronger foundation for children to be independent and have a better understanding of themselves.

The design takes into considerations of the various traits of personalities in children and therefore curate spaces with different comfort levels. For children who feels introvert at certain moments, there are semi-enclosed nook spaces where they could take a few moments to regress or to do some reading on their own. As for the extroverts, there are plentiful of spaces to maneuver in the classrooms and abundant play materials stored within the wall spaces. Huge glass panels allow them to clearly see on-going activities in other classrooms to encourage better observations and for teachers to have better views on all children.

During in-between breaks of lessons, they are allowed to interact with children from other classrooms either by going through doors or by accessing through a “nook crawlspace” which can be found in every classroom. These nooks are defined as connecting points for children to meet new friends and to serve as a transitional space specially curated for the children’s use only.

The dining space is featured as a gathering point of the Sanctuary, hence enlivening the Spirit of Togetherness during meal times. At the far end of the dining space is a Utensils Return Station to induce good hygiene and gracious nature at a very young age. On the other far end is a screening wall for projection of children’s programmes or animation movies during mealtimes and movie watching for the preschool’s monthly gathering programme.



Quiet Corner



Porous Walls



Nook Crawlspace



Dining Hall



Typical Classroom

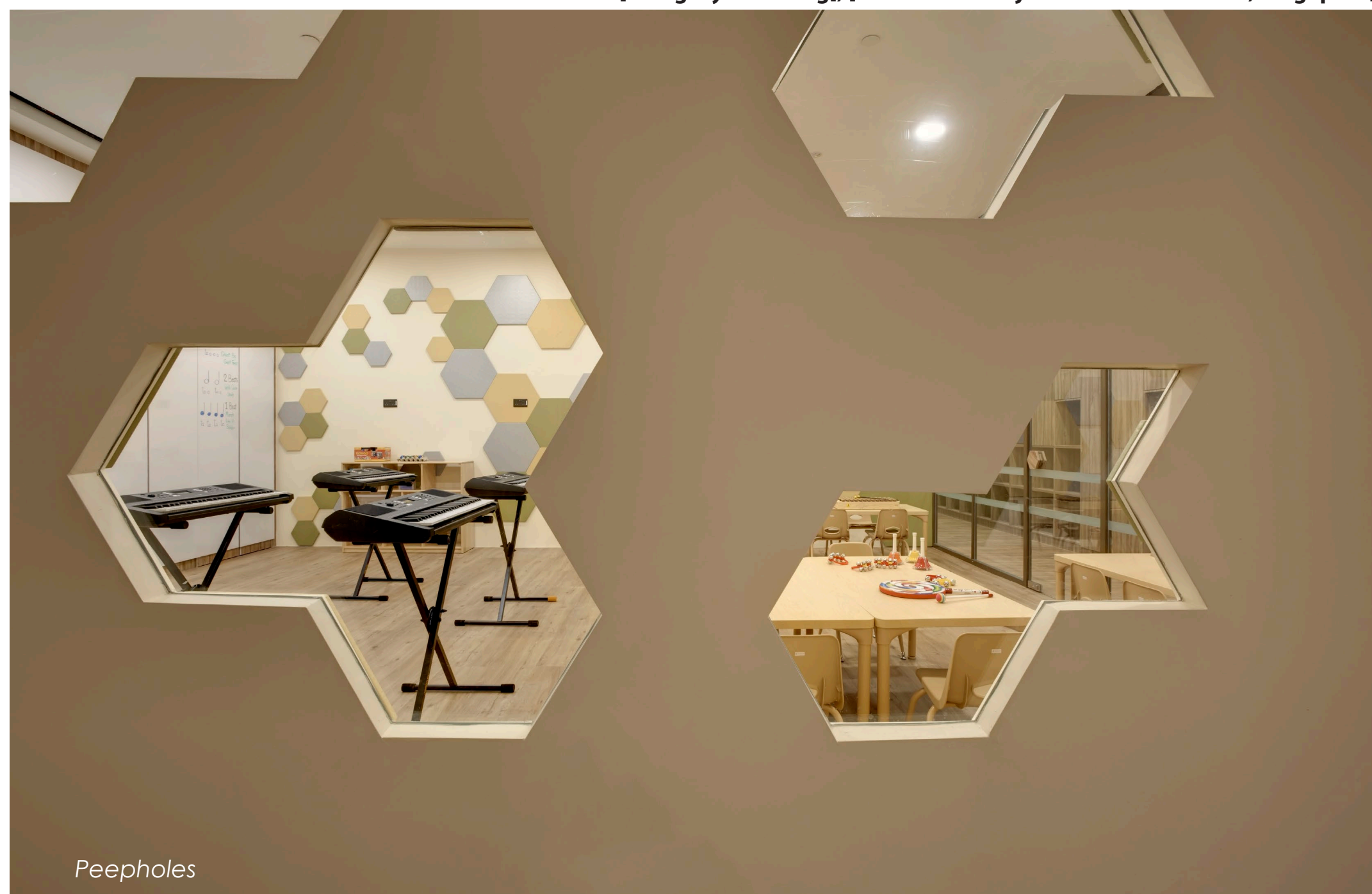
EVALUATION CRITERIA #3: AESTHETICS

The built environment is designed to invoke the sense of inquisitiveness by dissolving the typical classroom walls into porous boundaries, therefore it naturally creates opportunities of interplay and interactions amongst preschoolers. "Peepholes" are purposefully incorporated as part of the wall design to further implore the sense of curiosity in the children. In turn, this may encourage them to explore and uncover new interests.

The hexagon is the most efficient, least wasteful shape found in nature. The compressive characteristics of the shape allow it to be one of the strongest structures in the world. Previous studies on the geometry of the beehive have indicated that no other shape can create more space with less material. The intention of unveiling the music and dance studios reduces the sound insulation of the walls, therefore acoustic panels, in the same hexagonal form, are used to compensate for some of the sound absorbent properties.

Structural columns of the site are concealed within the "porous wall" and clad with thick whiteboard laminate material to allow doodling on the wall. The children are free to doodle and scribble on the whiteboard wall to express their thoughts and emotions, at the same time the same wall can be used by the teachers during lessons and discussions to pen down notes. Teachers' workdesks are designed to be mobile and are also concealed within the "porous walls" when not in use. The workdesks can be shifted around to suit different needs of the users and class curriculum.

Sleeping cots are used during nap times and these fixtures are cumbersome to the aesthetics of the built environment. However timber constructed raised floor is designed to brilliantly concealed the sleeping cots in stacks of three. The raised floor is positioned at the far end of the classrooms so that it does not cause any obstructions to the users. Furthermore it creates an area for games and reading activities.



EVALUATION CRITERIA #4: INNOVATION

Unlike other preschools where the outdoor playspace are usually on the street level, this site consist of an open terrace space on Level 3, as such it gives an opportunity to utilise it for outdoor activities and manifest into an elevated Outdoor Playscape for the preschool. Children learn more efficiently and gain more knowledge through activities such as dramatic play, art and social games. This will allow them to develop cognitively and thus creating an environment where they can touch things as much as they want. It should create opportunities for more interaction and encourage children to collaborate with each other in order to complete certain tasks or games.

The innovation considerations in this project includes converting an under-utilised open terrace space into an outdoor playscape including a Mini Urban Farming Space for children to grow their own crops and observe the growth of their plants. This inclucates the idea of sustainable living at a young age too. The children will learn about waste management and recycling of unwanted plastic objects into useful farming equipment and they will be allowed to bring home these crops and equipment so that this knowledge will be continued at their own individual homes.

Due to the elevated nature of the terrace space on Level 3, taller barriers have to be erected along the parapet walls for safety precautions and fall preventions. The barriers are designed with invisible grilles in mind so that there are minimal blockage to the surrounding views. In addition, the base footing of these structures are designed for more planting of greens that will reduce the harshness of stone and concrete. The Outdoor Playscape allows children to socialise, engage and participate in games. This will allow them to learn about empathy and collaboration amongst each other which is crucial and relevant to the current urban mindset.



EVALUATION CRITERIA #5: REALISATION EFFICIENCY

In summary, the macro design intention is to achieved a safe and conducive learning environment for the preschoolers. There are many governing regulations by Early Childhood Development Agency (ECDA) to adhere to in order to get approval for the operation license for the preschool. One of the challenging criteria that affects the number of enrolments for the preschool is the ratio of specific usable floor area of the classrooms catered for per child.

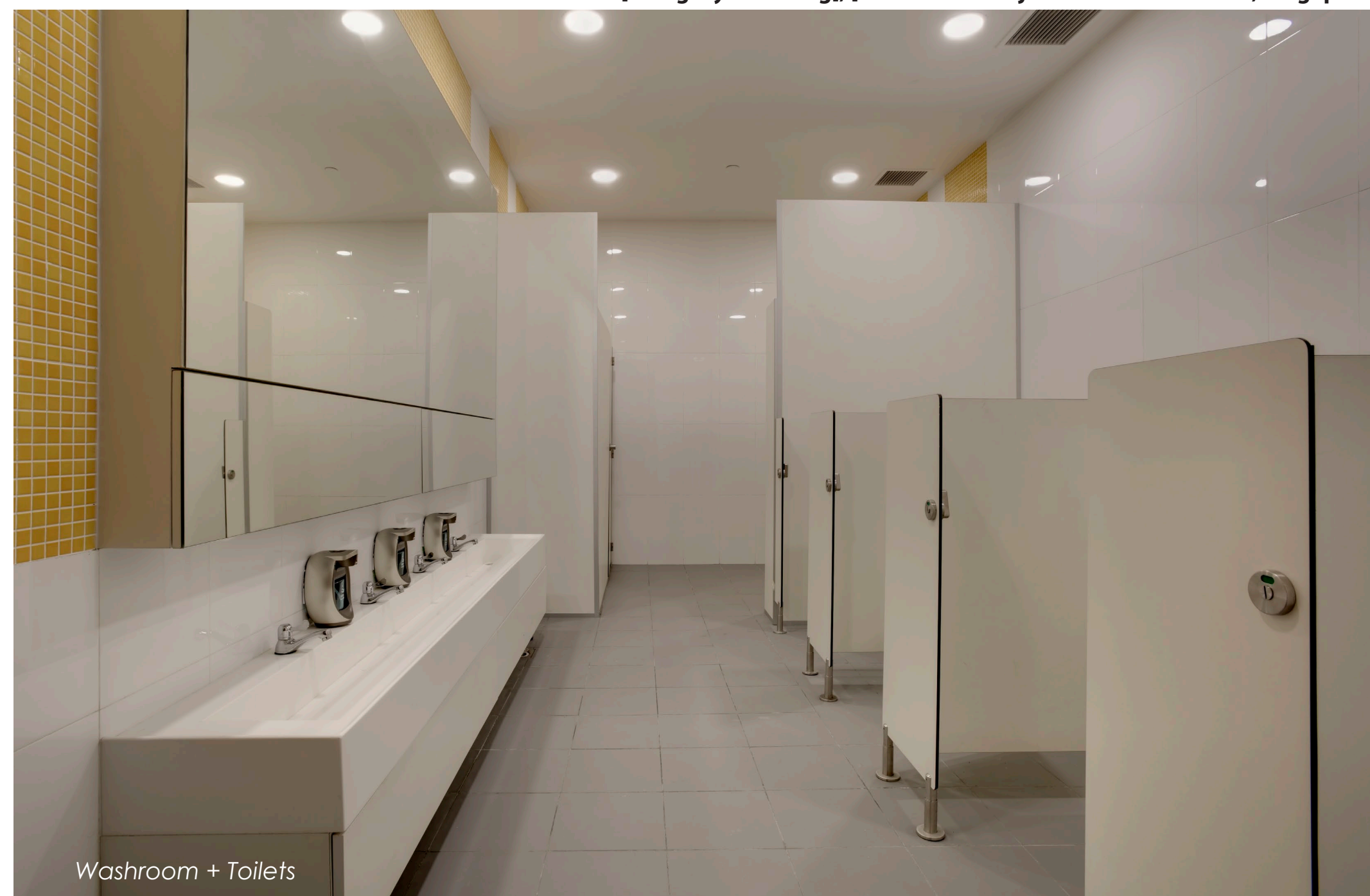
The preschool must have a designated space for activity areas, playing, toilet and bathing facilities, washing, eating, resting, an office, staff rest periods, isolation of sick children, storage of food, beds, bedding, toys, indoor and outdoor play materials and equipment and medical supplies. In addition, it should have a designated space for the preparation of food and snacks and this should be made inaccessible to children. Emergency evacuation route for children must ensure that the safety and well being of children are not compromised and measures are in place in the event of a fire. The design of toilet and bathing facilities must cater to the ergonomics of a child and allow for adult's supervision.

While adhering to the regulations of ECDA, the original design integrity of an Urban Children's Sanctuary is vigorously maintained. An example of realisation efficiency that fulfills authority's regulations but maintaining the design integrity is the use of high-impact absorbent vinyl floor material. It cushions the impact of children falling down and is selected to match the neutral colour tone and wood grains of the laminate finish on walls.

In order for the teachers to be able to watch over and supervise the children at all times, they would need to be visually connected to various spaces. This requirement is manifested as perforating the walls which resulted as a spatial typology of "porous walls".



Artelier Space



Washroom + Toilets



Typical Classroom