



# In Place: Between Levels

An exploration of human dwellings



## ***In Place: Between Levels***

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Thesis	
Abstract.....	5
Thesis Paper.....	6
Place Studies	
Temporary, Private Dwellings.....	22
Nomadic Dwellings.....	26
Collective Dwellings.....	30
Conceptual Precedents	
Adventure Playground.....	36
32m <sup>2</sup> Apartment.....	38
Program	
Research.....	41
Precedents	
SOS Children's Village.....	46
DA Blodgett-St. John's.....	54
Lutheran Child & Family Service.....	58
Defined Project Program.....	64
Site Analysis	
Existing Land Use.....	68
Commercial Context.....	70
Residential Context.....	72
Place Analysis	
Path.....	80
Center.....	82
Boundaries.....	83
Final Design.....	88
Conclusion.....	132
Bibliography.....	134

# 4 Thesis

## Abstract

"To be human is to live in a world that is filled with significant places: to be human is to have and to know your place." Edward Relph said this in his book *Place and Placelessness* to describe a very fundamental aspect of life, place and dwelling. For much of human's existence the true relationship that man and environment have had has been overlooked and misunderstood. There is a need to truly explore the depths of what makes a meaningful place that allows a human to truly dwell. Most just accept a place as a geographical location in which an event or a collection of events occurs, which may or may not have meaning to people, however, there is much more to places and the act of dwelling. There is a need to understand the relationship that exists between a person and their environment in order to design quality architecture that will allow a place to develop and in turn dwelling to occur. It is the ultimate job of the architect to design these meaningful places. For this reason, this thesis will investigate and attempt to understand what makes up a place that allows for the opportunity of dwelling by the user.

## Thesis Paper

Human beings, at their very core, are territorial creatures with a need to have meaningful relationships with their environment. It is fundamental to man's existence to dwell and be one with a place. In his writing, "Building, Dwelling, Thinking", Martin Heidegger describes his belief that dwelling is a basic act of life. He states, "To be a human being means to be on the earth as a mortal. It means to dwell." It is a fundamental aspect of human life very similar to the act of eating, sleeping, and breathing. It is a basic need for human existence. Because of the importance of place and dwelling for a person's well being, it is critical that architects and planners have a clear understanding of the principals behind what makes up a meaningful place. It is also of great importance that these understandings show through in the design and planning of our built environment.

A space becomes a place when a person belongs to an environment rather than just passes through it. Belonging exists when a meaningful and unique relationship is formed between a person and their surroundings. It is a two way process in which the human manipulates and adapts the concrete elements around him or her and in return intangible qualities, such as a sense of security and comfort can be experienced. Due to the constant shifts of needs and wants of the user, the physical place is not static but rather is constantly changing. It is molded over time to conform to the present conditions and situations. Unaware of the meaningful and personal relationship that is developing, the user is forming an unselfconscious pattern, order, and system to the atmosphere that only truly makes sense to them.

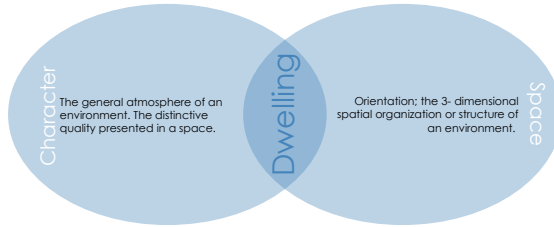
As important as the act of dwelling is for a person's existence it is quite often taken for granted and not truly regarded as something to give attention to. This importance is often overlooked by architects and planners in our built environment as well as users of the spaces. For dwellers, the importance is usually unrecognized until a dramatic change



occurs causing a disruption with their relationships to personal places. The lack of recognition of the importance is also often seen when mass production of architecture becomes prominent at both the private and public levels. It is often quite obvious when an architect has an impersonal connection with the design. It is critical that architects understand and design architecture based on understandings of human dwelling to create spaces that are meaningful for users to occupy. Once occupying a space the user becomes the primary designer, however, the architecture develops the initial structure for how the dweller can use and adapt the space. If the architecture lacks respect for the fundamental act, human's well being is in jeopardy. This thesis is therefore an exploration and an attempt to understand how human's dwell and the principals and concepts that need to be understood for meaningful architecture to be designed.

### **Structure of Places**

As individualized and unique as personal places become, a study of the phenomenology of space and place reveals that there is a common underlying structure to them. This structure influences the way in which humans perceive and experience their surroundings. In his book *Genius Loci: Towards a Phenomenology of Architecture*, Christian Norberg-Schulz defines places as being divided into two categories, space and character. The first is identified as the 3 dimensional spatial arrangement and organization of the concrete objects that make up a certain place. It allows for human orientation and legibility to occur based on the way the elements are ordered and arranged. Character, on the other hand, is a much more intangible quality. It could be understood as the unique aura that is sensed while in a particular atmosphere. Each category separately makes up a very critical part of the structure of a place, however, they are very much interdependent. They set limits and boundaries for each other that constantly distort their relationship.



## Space

The elements of space in a place provide a sense of orientation for a person. In his book *The Image of the City*, Kevin Lynch speaks of an “environmental image” or a mental picture that a person obtains from spatial arrangements of their surroundings. A clear and defined mental image eludes that a space is legible and understandable to someone. It can therefore create a sense of emotional security and comfort that allows for the development of a harmonious relationship between the person and the outside world. The person knows and understands their current setting. In order to have a meaningful relationship with a place a concise and understandable image must be obtained. Orientation is closely linked to balance and a sense of well being. A space that disorients a person can cause panic and anxiety because of the unfamiliarity with their surroundings.

Lynch describes a group of orientation techniques and cues that if used well in design, can create a more legible city and therefore aid in the maneuvering throughout it. Many of these visual mechanisms that he speaks of, such as color, light, materiality, and shape are understood at a personal level and can help in the orientation of a human at a much smaller scale than the city. These mechanisms work with the senses of smell, touch, visual, and audio to trigger basic instincts and learned customs. An example of color as a visual orientation technique might be the use of the color red to indicate doors that lead to the outside. An architect can use these same techniques to do more than just orientate though. They can use these details to try and evoke a certain experience that they want someone to have in a space. The use of warm colors and soft materials to obtain a

comforting and soothing atmosphere is an example of this. A good architect can use these techniques to orientate people while at the same time setting a certain desired mood in an environment. Architecture that uses these cues well can also enhance a person's sense of belonging.

Subtle details such as color and texture are important to the design of a space for purposes of orientation and enhancement of an experience, however, larger and often more obvious 3-dimensional spatial aspects can be used to structure and ultimately orientate in an environment. Such elements as centers, paths, and domains can begin to organize a place in such a way that it is clear and decipherable for a user and helps them understand and move throughout. These elements define hierarchy and structure but also begin to give way for the character to come through. Intangible qualities such as comfort, security, and identification emerge out of good use of these components in a design. They also become present when a user manipulates and adjusts the existing 3-dimensional structure of a place to fulfill their individual needs and wants. The two-way give and take relationship that exists between a subject and their environment begins to truly present itself here.

A center is typically the focus of a space. In a symbolic sense it is the spot where objects or "actions of primary importance take place", according to Norberg-Schulz. It is representative of the known versus the unknown or unfamiliar 'outside'. A symbolic center is presented in a Mongolian yurt (portable dwelling shelter), where a small portion in the rear of the shelter, called the khoimer, is dedicated to the display of valuable objects as well as a shrine to Buddha. A center is used in this instance because of the desire to put extra emphasis on this culture's values and beliefs. Although cultures vary, the focus of traditional homes tends to be fireplaces, tables, and valuable objects. Centers are also used as points of reference to orientate a user in a space. They become organizational elements. There can

be one main center that is independent, which arranges all elements around this center and creates a hierarchy, or there could be multiple cores that work and support each other. Centers used in cities are typically landmarks or nodes that are "imageable figures" Norberg- Schulz explains.

Paths often complement centers because they direct towards them. They define the structured movement that occurs in a place. Paths are usually linear with a destination or goal at the end and origin points along the way, or they could simply be an implied direction for an extension. The character of the path comes out of the movement that happens along the way. Often continuity is created along a path by a developed rhythm that guides a user through it. They can be open and wide, allowing for free movement and exploration or they could be small and contained, only permitting for thoughtful, distinct movements. In intimate, private places such as homes, the user(s) frequently chooses and creates the paths, giving the space a more personal structure. Other than directing the movement throughout a space, paths could also and in a lot of situations do play as an organizational element in a space. Norberg- Schulz said in *Existence, Space, and Architecture*, "In certain cases the path has the function of being an organizing axis for the elements by which it is accompanied..." Paths can divide up a large area into defined smaller spaces, or what Norberg-Schulz refers to as domains.

Domains are spaces that are distinguished by uniformities or similar functions (Norberg-Schulz). They usually fill in the areas between paths. Adjacent domains can differ between two interior spaces such as rooms in a building, or they could be the transitional spaces from interior to exterior. Domains are defined or enclosed from their surroundings by boundaries. Boundaries can range from extremely strong and physical barriers such as walls, to implied (often non-existent) perimeters, or to vague, unclear edges that allow one area to blend in with another. Physical enclosures that are commonly used are

floors, walls, and roofs. Transparency of a physical divider is determined by the openings that exist, with the size, the number, and the positioning of these openings being the key factors. With a lot of openings it creates a feeling of directness and welcoming, but very closed off spaces without much opportunity to view in or out or be part of the opposite side creates a strong definition of privacy. Implied enclosures on the other hand, tend to be non-traditional. A cluster or layering of objects that allows for a view from one domain to another but creates difficulty in getting to the other, an abundance of trees that are penetrable but unwelcoming, and a sloping surface that makes accessibility difficult to another space would all exemplify implied boundaries. Both implied and physical boundaries are usually created because of the need for a certain level of privacy, as well as to create a sense of security that is needed for comfort.

### Character

The other category contributing to place that Norberg-Schulz speaks of is character. Character is made up of both the concrete elements of the space as well as the intangible qualities of the general atmosphere. Norberg-Schulz explains "... different actions demand places with a different character." Spaces are designed and developed based on what the users need and desire from the environment. Norberg-Schulz uses examples to explain this, "A dwelling has to be "protective", an office "practical", a ball-room "festive" and a church "solemn." The space is changed for a particular character to come through. It is not static, it changes with human appropriation of modification, alteration, and transformation. As these characters change with the adjustments by a person they also change naturally with the passing of time. The time of day, seasons, weather, and other elements affect the quality, such as light and climate, and therefore alters the character of that atmosphere.

The character of a place also depends on how it is constructed, which is the act of building. Norberg-

Schulz said, "Meaning and character cannot be interpreted in purely formal or aesthetic terms, but are... intimately connected with making." How a space is enclosed and the level of enclosure leads to a determination of the character of a particular environment. If the enclosure acts to close off the surroundings completely or allows for very little connection, it permits a sense of isolation and privacy. If, however, the enclosure is made to be very transparent and open it allows for a strong integration and interaction with the neighboring areas. The construction is also concerned with how the space interacts with the sky and the ground. It deals with basic questions such as, 'how does it rise into the sky and to what extent?' and 'what is its association with the ground?' Unification with the surroundings above and below allows for a strong character to present itself.

### **Levels of Place**

Places can be understood in a hierarchical leveling system. The most broad and universal is geography/nation and landscape/natural environments. These levels are typically understood as the most public. Below these levels falls the urban setting, the house, and then the most intimate and human scale, the thing (Norberg-Schulz-- *Genius Loci: Towards a Phenomenology of Architecture*). As the levels become more personal privacy becomes a rising factor. The levels are not precisely defined and separate, but rather interact and overlap. They build and grow into each other and are transformed and manipulated in order to fit man's environmental image. Human attachment and connection to the levels becomes more significant as they become more personal and private. At the national level attachment is usually weak. Relph states this is because it is "beyond our direct experience." The house, however, is the level in which humans most often have the strongest connection to because it is "the central reference point of human existence", Relph said.

## Landscape

At the landscape level, the natural environment becomes key. While a natural environment can be viewed simply by itself with no interruptions, it is most often collided with or intersected by the built environment when dealing with a place or dwelling. Man transforms the landscape in order to work with the built environment. This manipulation might be flattening hills in order to obtain a flat ground in which to work with or it may be forming hills to create the topography desired (Norberg-Schulz). It might also include clearing trees in order to make way for a building or structure or it may be planting additional trees to enhance a naturalistic quality. Even though there is an opportunity to reshape the landscape, it is often too extreme and therefore creates limits and constraints on design opportunities.

When interaction occurs between man and the natural environment there are two scales at which it occurs. A skyline of mountains or a view of the ocean can be overwhelming and therefore hard to relate to. At this degree the scale is dramatically large and creates a sense of separation between the viewer and the landscape. When a person is surrounded by nature or can actually interact with it, it usually becomes much more comforting and understandable. The ability to see the vibrant colors, feel the rough textures, smell the fresh air, and hear the wind blowing through the leaves allows a person to feel as though they are one with the atmosphere. At this more intimate level of landscape it is possible to begin to feel in place.

## The House, The Thing

The house is most often where a sense of place can develop and therefore private dwelling can happen. It is perhaps the most fundamental level (Relph). Norberg-Schulz explained, "The house, therefore, remains the central place of human existence, the place where the child learns to understand his being in the world, and the place from which man departs and to which he returns." A home brings a human inside, protects them from the outside, and gives them a safe and comfortable place to look out at

the world. A variety of basic human functions make up the interior, activating it, and giving it spirit. The level of things is what makes up the interior spaces of a house. Such things as a fireplace, a table, and a bed, which are used for the daily activities in the house, often serve as the foci of the home and begin to give it its character (Norberg-Schulz).

### **Dwelling in a Place**

Man dwells when he is in place. Norberg-Schulz says, "Man dwells when he can orientate himself within and identify himself with an environment, or, in short, when he experiences the environment as meaningful." This meaning does not exist within just any environment but rather needs the interaction of the human to manipulate and shape it in order for even the possibility to be present to have meaning in a space. Meaning is also developed when the main 'elements of place' exist within an environment allowing for identification with the place and clear orientation. When a human can identify with the character of a space, is orientated in a space (offered by the structure of a place), and has a meaningful relationship with their surroundings because of explorations and interactions, dwelling can occur. Heidegger speaks of the act of dwelling in his writing and explains that building and dwelling are related, building being the human interaction that shifts a space to a place. "For building is not merely a means and a way toward dwelling- to build is in itself already to dwell." Both the place-making actions as well as the environment itself create the opportunity for dwelling.

Perla Serfaty-Garzon also examines dwelling in her article *Dwelling, Place Making and the Experience of Transition and Relocation*. She expresses the idea that a dwelling is the creation of an inside-outside relationship that differentiates between form and formlessness. A remaking of the outside world to create an inside space is needed for dwelling according to Serfaty-Garzon. The inside atmosphere has a unique order developed by the dweller that is familiar and truly accepted only by them. They impose their own natural pattern throughout that



is perfect for them compared to the “chaotic, changeful and imperfect outside.” The outside “is made up of disturbances, risks, and hazards which may, at any time, disrupt the established order or challenge the privileges pertaining the status of nobleman”, Serfaty-Garzon said.

Most often a dwelling occurs in a private setting where a person can feel as though the space is their own. However, other types of dwellings do exist and are frequently encountered. In *The Concept of Dwelling: On the Way to Figurative Architecture*, Norberg-Schulz explains that there are four modes of dwelling, which include natural dwelling, collective dwelling, public dwelling, and private dwelling. Natural dwelling takes place in a settlement. A settlement or the act of settling implies such things a being introduced into a pre-existing place at birth where there is really no possible choice about that place, or introducing a new building into an “old context”. Collective dwelling typically occurs in urban spaces. The gathering of humans with or without commonalities that begin to interact among one another is where collective dwelling most often occurs. When the people have similarities (beliefs, professions, interests, etc.) and share the same purpose for occupying a certain place, public dwelling happens. These types of dwellings are generally considered institutions or public buildings according to Norberg-Schulz. A private dwelling, which is at the most intimate and personal level, allows for a reflection. This happens through the act of withdrawing oneself into a private space. Norberg-Schulz said that the act of withdrawing is an important step to “define and develop one’s own identity.” Each of these modes of dwelling plays an important role in society and even crucial in some cases, such as private dwelling, for a person’s well being.

### **Place Attachment**

At all levels of dwelling a certain degree of attachment is developed. At the natural, collective, and public levels the connection is usually much more formal because it is shared with others, and most of the time

they are complete strangers. Because of this only a certain degree of personalization can occur in these dwellings. It also only allows the user(s) limited control of the space. Not being able to have complete control of a space makes most humans feel insecure and somewhat uncomfortable. Personal, private dwellings, on the other hand offer stability and consistency that most other dwellings do not. They give humans a secure spot at which to look out and reflect on the rest of the world. This usually permits a much stronger bond to occur that strengthens with time. These dwellings are often shared with others, such as families or friends, but the dweller can still call it their own because of the intimate relationship and personalization that has happened.

Many times the bond or deep care that is developed with a dwelling is an unconscious act. Because humans are usually unaware of the attachment, it is often taken for granted and not understood as significant and fundamental to their existence. The affection and care composes deep roots to a place that are pivotal for a soul, according to Simone Weil, author of *The Needs for Roots*. "To be rooted is perhaps the most important and least recognized need of the human soul." The importance of personal attachments with a place is all too often taken for granted and not understood until there is some sort of disruption or separation.

### **Deterritorialization**

It is typical for humans to relocate multiple times in their life, uprooting themselves from one personal dwelling and then readapting to a new space. Even if this is by choice for a greater life or better opportunities the disruption of attachment from their previous dwelling can cause great tension. In their article, "Psychological Issues in Relocation: Response to Change", Hausman and Reed say that the level of stress varies from person to person, for some it can be a smooth transition that affects them very little, while for others and more commonly, it can cause great pressure. The variation in reactions depends on how a person perceives and handles stressful events, and how they usually cope with separation and

loss. The detachment often leads to frustration and anxiety, while the unfamiliarity of a new space can bring about confusion and disorientation. Feelings of danger, chaos, and exposure accompany the transition period frequently (Relph). This tends to disturb a human's sense of well being created by the security and sense of personal meaning offered by an individual dwelling.

As relocation by choice refers to a person having control over the situation (at least to some degree), an even more dramatic and traumatic event is deterritorialization by force. Individuals feel secure when they have some control over their lives and where they are living but when they are torn away from their home without a say it usually leads to insecurity and frustration. It also leads to a less noticeable element of fear caused by disorientation and unfamiliarity. Forced displacement can be brought about by variety of causes such as natural disasters, wars, economic disasters, and problematic homes. In problematic homes children are often the ones who are forcibly removed because of such issues as alcohol and/or drug abuse, domestic violence, child abuse, and neglect (Owusu- Bempah-- *The Wellbeing of Children in Care: A New Approach for Improving Developmental Outcomes*). In the United States foster care is a system that is set up to remove children from these dangerous living situations for their safety and well-being. Even though the child's best interest is at hand when removal takes place, it makes it extremely difficult, if not impossible, to have any stable relationships with other people or dwellings. Often the child does not even fully understand why they are being removed, making it even more discouraging and confusing for them.

Foster care is intended to be a temporary situation while the issues in the home are being addressed. Sadly the issues tend to take much longer to resolve than anticipated, leaving children transitioning from house to house while waiting. Multiple changes make it even more difficult to find a stable and consistent place to express their identity. The overwhelming

isolation and abandonment accompanying continuous moving causes a lack of motivation to settle. It becomes almost impossible for a child to orientate himself or herself in an environment and to develop a meaningful relationship with a place when they are moving several times a year, which happens frequently in foster care. Multiple transitions discourage children from exploring their environment because they have no faith in the stability and consistency of a place. Unfortunately this leads to children losing any sense of trust in a place or the act of dwelling or in some cases they may not even know how to dwell at all.

### **Thesis**

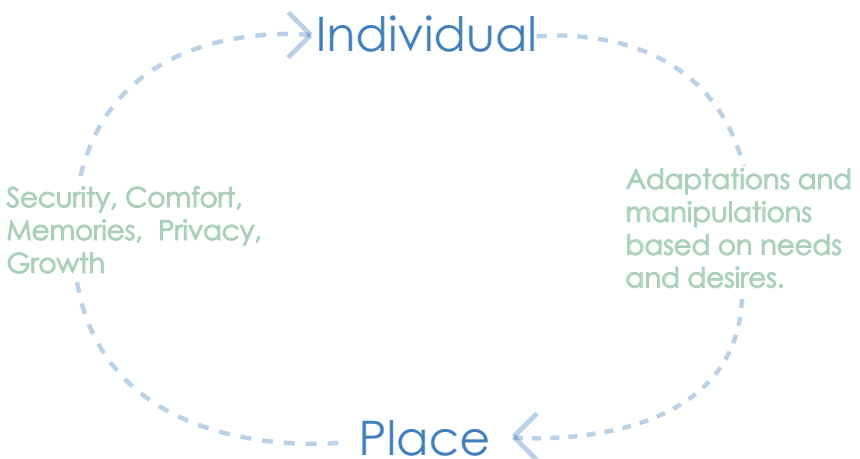
Dwelling is a basic need for the well-being of humans, therefore all people deserve to have the opportunity to dwell. Although it is kinetic because of its potential for change and manipulation by the user, architecture becomes extremely important in the dwelling process. It sets up the stage for the possibility and eventually determines the type and degree of dwelling that may exist. Therefore, it is crucial for architects who are planning and designing this architecture to be aware of the principals and aspects of place. It is only with an understanding and a clear, diligent application of the principals of place that architecture can be designed with an opportunity for dwelling. Norberg Schulz states, "the task of the architect is to create meaningful places, whereby he helps man to dwell". If all people need to dwell and have the right to dwell, how can architecture regain a person's trust that has lost their faith in dwelling, such as a child in foster care? Can architecture that is flexible and encourages exploration of the environment while creating a stable and structured surrounding for orientation and identification teach one to dwell, even if only temporarily?





## An analysis of dwellings

The following studies examined a variety of dwellings including collective and private. Collective dwellings include spaces that are shared by a group of individuals with similar ideas and/or values. Private dwellings are defined as personal, intimate spaces in which an individual maintains full control of their physical surroundings. An analysis was conducted on each dwelling's spatial arrangements and geographical locations. The physical elements pulled out led to a hypothesis of the structure and order created by the user and the character formed by the person's interaction with the space. A hypothesis was also developed on the individual dwellers motivations of the transformation of the physical dwelling. The intentions behind these studies was to understand the commonalities and threads of the structure and character that are weaved by the dwellers throughout.



*Above* The diagram shows the continuous flow of interaction that occurs between an individual and a space. As the user adapts and manipulates their surroundings to suit their needs and wants, the place returns certain qualities such as comfort and security based on the user's initial input. The person then typically reacts to these qualities with another transformation of the space.

## Temporary, Private Dwellings

This particular study examined and analyzed temporary, non-traditional, private dwellings. These dwellings seem to be very makeshift and in most cases would be considered “homeless shelters.” Even though these spaces are created out of the need for shelter and protection from the elements, there is strong personalization to them, adding a quality of “hominess” to them. They are relatively unrestricted and uncontrolled allowing for a great amount of freedom for personal design and customization. In these dwellings the importance of the analysis did not just include understanding the spatial arrangements, but also the decision of location by the user.

**Dwelling 1** The dwelling to the right is tightly tucked under a bridge and bound by two metal structural elements. The enclosure created by the beams running above, the back wall, and the underside of the bridge creates a layer of privacy that is obviously desired by the user. A steep slope leading up to the dwelling also develops an additional boundary that is not as obvious as a physical barrier such as a wall or ceiling, however, develops another layer of seclusion and protection by the difficulty it creates in accessibility. The user has tightly interlocked their sleeping/sitting position between the parallel beams creating a level of security from the outside world that may be needed for the dwellers comfort. The tightness allows for an intimacy with the surrounding surface textures and materials.





Image from [www.flickr.com/photos/78428166@N00/4358138190/](https://www.flickr.com/photos/78428166@N00/4358138190/). Altered by author.

## Dwelling 1

**Dwelling 2** Placed below the city of Las Vegas is 200 miles of flood tunnels where 1,000 people have created homes including this dweller. The tunnel's hard surface walls form an impenetrable boundary to the outside world. Other than the path leading to the sun lit area beyond there is no direct connection to the outside making it very secluded. No clear order is visible in this dwelling, however, a user defined order most likely exists. The user sprawled their personal possessions on the ground in front of them as a way of staking a claim and announcing ownership of that particular part of the tunnel. These objects seem to possess memories and a sense of identity of the user.

**Dwelling 3** The dwelling to the right, which is part of a tent city, is placed strategically in a wooded natural environment. The choice to place a dwelling in this type of environment expresses the desire for isolation and privacy. Even though the trees and brush surrounding are still very much penetrable they create an implied boundary line that produces an unwelcome quality. Towels and rags that are sprawled in front of the tent present an exact boundary of their territory. The flag hovering over the dwelling could express an identity and possible memories.

**Dwelling 4** The user of this particular dwelling conformed an existing shell of three walls, a floor, and a roof into their personal place. The three concrete walls allow for protection from the outside with the open side allowing for a large entrance. The unprotected side enables greenery to invade the space. Layers of personal objects that probably evoke memories and an identity of the user fill the interior space. The users sleeping area is positioned near the rear of the dwelling using the layers of material possessions in front as a protection system.



Image from [www.dailymail.co.uk/](http://www.dailymail.co.uk/). Altered by author.

Dwelling 2



Image from [speaktopower.org](http://speaktopower.org). Altered by author.

Dwelling 3



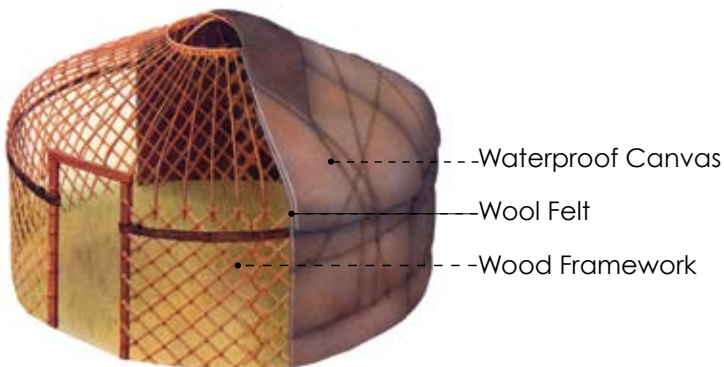
Image from [www.habitables.co.uk/](http://www.habitables.co.uk/). Altered by author.

Dwelling 4

## Nomadic Dwellings

A dwelling is commonly thought to be stable and permanent in one location. It is frequently believed that the longer it remains in one location the stronger the attachment grows to be, however, this is not always true. One exception to this preconceived idea was examined in the first study of "homeless shelters" where semi-temporary dwellings were created for short durations. Another exception to this theory would be nomadic cultures, where the temporariness of their dwellings is by choice. The following study examines the dwellings of a nomadic tribe in Mongolia called yurts or gers.

A ger is a portable wooden structure that is easily collapsible and transportable from one location to another <sup>1</sup>. It is just as easy and quick to assemble again. The shell of the ger itself is made up of layers of varying structures and materials. The wooden structure gives it its strength and sturdiness against the harsh winds that are common among the Mongolian terrain. Multiple layers of wool felt and an exterior layer of waterproof canvas rest on top of the wooden framework to maintain a dry and comfortable atmosphere on the interior. The multiple layers allow it to be versatile to the different climates and seasons <sup>1</sup>. The layers of felt can be stripped as needed with the warmer climates or added with cooler weather. The Mongolian tribes sense of protection both mentally and physically comes strongly from the concept of layering membranes.



1. [www.discovermongolia.mn](http://www.discovermongolia.mn)



Image from [www.allbestpictures.blogspot.com](http://www.allbestpictures.blogspot.com). Altered by author.

Gers are frequently placed in large open fields with the only protection from the wind coming from the hills that may be in the distance. A round shape to the design of the ger allows for the strong winds to flow around the dwelling rather than slamming harshly into it. The orientation of these portable shelters is also significant. They are assembled so that the door is facing the south so as to take advantage of the warm southern sun. Because the ger is windowless the southern orientation of the door is one of the few ways that natural light can enter the space<sup>1</sup>.



Image from [www.adventuresincapitalism.com](http://www.adventuresincapitalism.com). Altered by author.



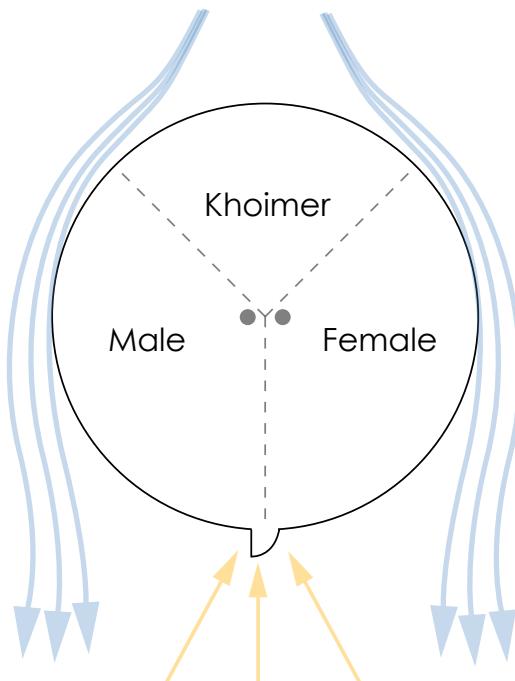
Image from [chinatravel.net](http://chinatravel.net). Altered by author.

1. [www.discovermongolia.mn](http://www.discovermongolia.mn)

Right Other than the door opening on the south side the only other way natural light enters the ger is from the smoke hole in the center of the roof. The opening is a tension ring decorated with cultural paintings.

Right At the rear center of the ger is the Khoimer decorated with valuable possessions.

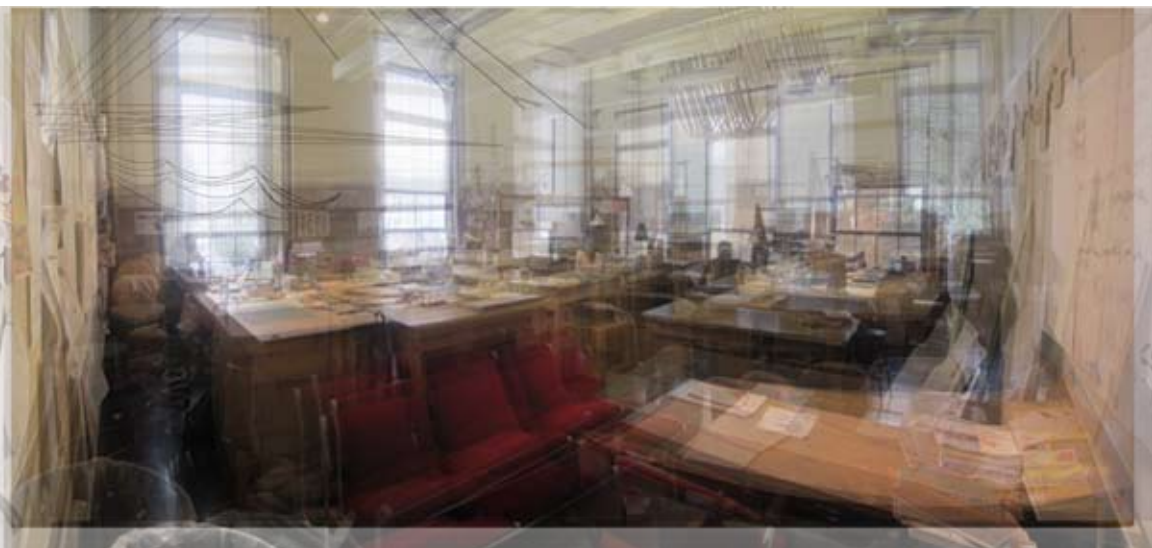
The interior of the ger is strategically laid out and decorated. The space is divided into three separate domains, male area on the left, female area on the right, and khoimer area placed in the rear<sup>1</sup>. The two poles in the center holding up the wooden framework of the ger creates the distinction between the separate areas. The khoimer area is placed in the center and is the visual focal point of the interior because it is said to be the most important part of the ger. This area includes a Buddhist shrine as well as a display of small personal objects such as photographs<sup>1</sup>. The location of the furnishings around the space are also symbolic to the Mongolian nomadic culture, such as the stove being placed in the center. "The stove in the center represented the five elements of nature; earth, fire, wood, metal and water."<sup>2</sup> It represents a basic and pivotal part of human life and is therefore positioned in a critical area of the ger. The furniture arranged around the space is painted with traditional Mongolian decorations. They become an expression of their cultural identity and heritage.



1. [www.discovermongolia.mn](http://www.discovermongolia.mn)  
2. [yurthomes.org](http://yurthomes.org)

## Collective Dwellings

As dwellings are usually observed and understood at a single moment in time, there is much to be examined and learned from a space as it evolves. Dwellings change with the users adaptations and manipulations of a space over time. This study examined the evolution of an architectural studio space over the course of a two-month period, pulling out the changes that had taken place, and separating them into temporary changes and permanent changes. It also studied how multiple individual dwellings arose in a shared semi- public space to create a collective dwelling. The overall intention of this study was to understand how humans become natural designers of their personal environments.

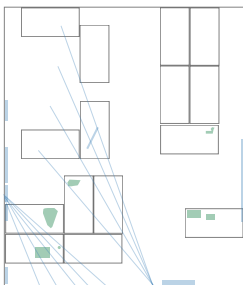
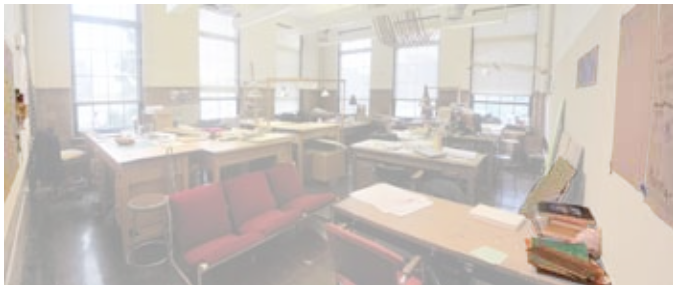
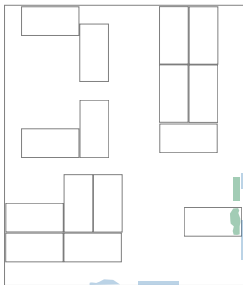
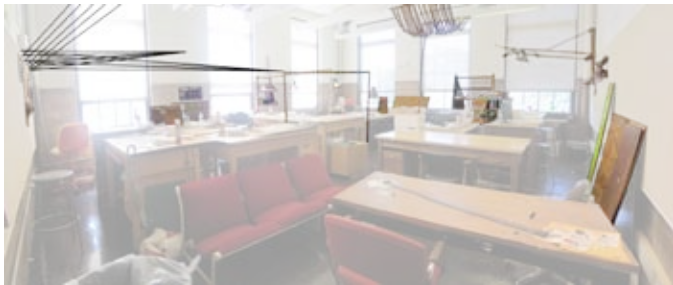
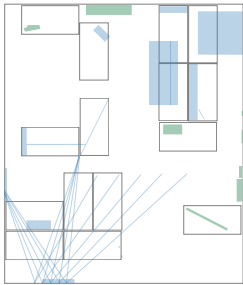
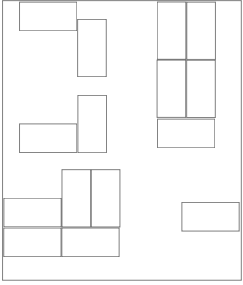


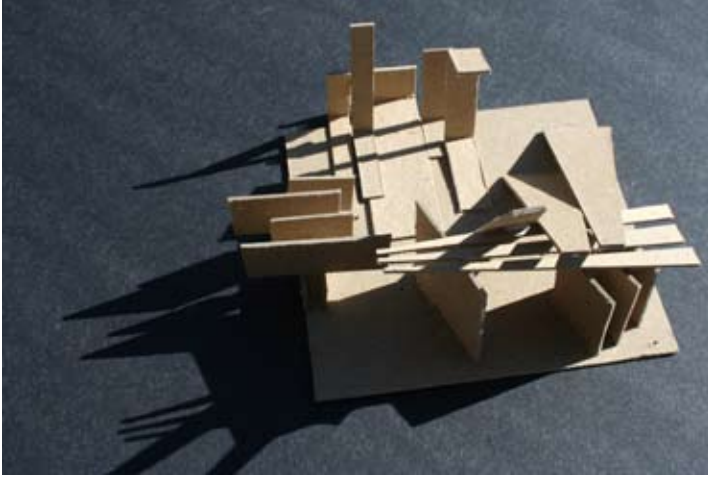
*Above* A layering of images of the studio overtime begins to portray the individual spaces bleeding into one another. It also illustrates the abundant interactions the users had with this environment.



The individual dwellings became more and more apparent through time as each person defined a space for himself or herself within the larger environment. In one instance a student enclosed her area with desks. The enclosure made her space more intimate but also somewhat withdrew her from the rest of the studio. Subtle acts such as creating a sub-ceiling over an area or decorating the walls with unique and personal pieces of art began to divide up the larger space. Other manipulations on the studio, such as weaving string from one part of the room to another connected multiple individual designed spaces. Horizontal planes parallel to the floor were created by the rhythmic strings. The planes broke up the overall studio into multiple levels allowing a human to relate to the height and scale of the room. As time passed and people became more comfortable smaller items began to decorate the overall space. This act gave the room an expression of collective identity. Many of the permanent adjustments to the space were done almost immediately and were mostly larger interventions, while the temporary manipulations stayed relatively consistent throughout the time. The smaller gestures made up most of the temporary changes.

Temporary  
Permanent





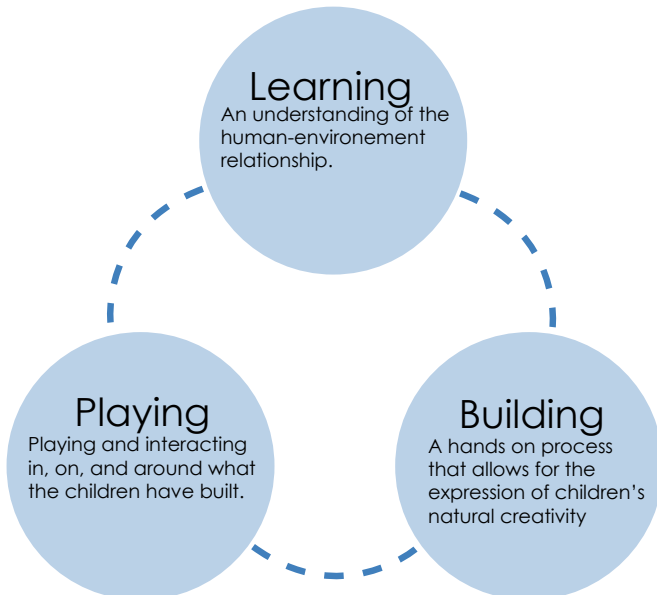
Left These models were 3 dimensional analysis of the transformations of the studio space. Each model studied one of the momentary snap shots captured of the studio.



The following precedents examine programs and architecture that have been developed to encourage human exploration of their surrounding environments. This becomes an important aspect in dwelling for a user to create meaningful relationships with an environment. Having the opportunity to change your surroundings allows for personal identification and stability.

## Adventure Playground

Adventure Playground is a concept and program where children design and build their own play equipment. The idea was developed after World War II when a playground designer “realized that children had the most fun designing and building their own equipment and manipulating their environment”<sup>1</sup>. With supervision children are allowed to use a variety of materials such as wood, tires, rope, cloth, and tools such as hammers and saws to explore their environments and ultimately design and build a space to call their own. The child’s creativity inspires the type of place they develop and the activities to follow within the space. Through their interaction with materials and other people the children are encouraged to explore the limits of play and then expand upon these limits by using their imagination to investigate other ways of playing such as designing. Adventure Playground gives children the opportunity to express their creativity with relatively low limitations and gives children a voice of their in their environment. Currently about 1,000 adventure playgrounds exist across Europe; unfortunately there are only 2 in the United States.



<sup>1</sup> City of Berkley Website



Image from <http://www.flickr.com/photos/shacker/2730253606/>. Altered by author.



Image from [adventureplaygrounds.hampshire.edu](http://adventureplaygrounds.hampshire.edu). Altered by author.

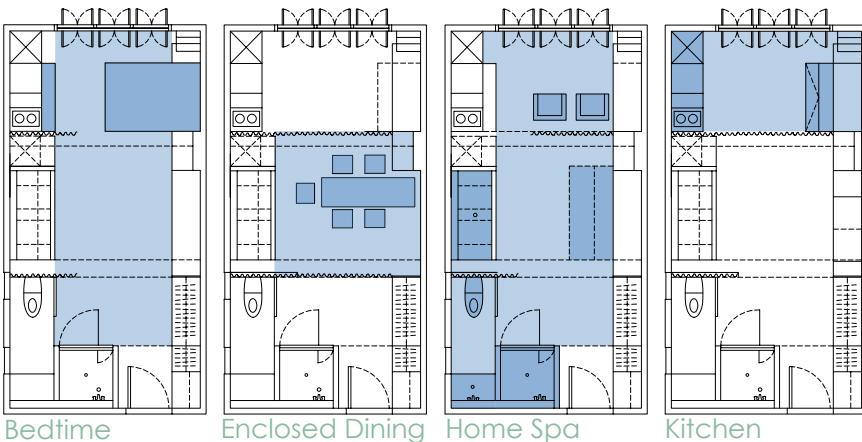


Image from <http://www.pgpedia.com/>. Altered by author.

**Right** An analysis was conducted to explore how children adapted spaces for themselves. What was concluded was that children create boundaries and enclosures around their spaces as well as use the small scale and difficulty in accessibility for larger humans to deter adults from entering. Many of the spaces use a variety of materials as an expression of their identities

## 32m<sup>2</sup> Apartment

32 m<sup>2</sup> Apartment designed by Japanese architect Gary Chang was an exercise of extreme conditions of tight spaces<sup>1</sup>. The apartment located in Hong Kong (one of the densest cities in the world) is only 344 square feet but can be transformed into 24 different daily living spaces. The dramatic flexibility of the apartment allows the user to manipulate their surroundings based on their current wants or needs. The flexibility also allows for exploration of the possibilities of the apartment. Chang has set up the structure of the architecture but ultimately it is up to the user to design and transform the space. The transformation is made possible by accordion partition walls that are used to separate activities. Furniture that folds up into the outside walls create fluctuating programs depending on what is folded out. The large window making up the back wall can be opened to let in natural light and air or can remain shut on cloudy days and take advantage of the yellow tinted glass that produces a warm hue that resembles sunlight<sup>1</sup>.



Above The apartment layout is transformed into 24 different designs. The above shows four of the transformed spaces of basic daily activities.







## Program Research

Place attachment is an important aspect to the act of dwelling. As humans manipulate and adjust to a space to make it more comfortable and secure for themselves a strong bond is developed that usually strengthens over time. What happens when this bond is broken? How do people react when they are forcefully taken from their homes?

To investigate the concepts and principals behind dwelling I chose to explore through the design of a residential facility to house foster children intertwined with a creative youth center. This is a program that's primary function attempts to instill a sense of stability to children who have been removed from their homes and shuffled from house to house. This would be an alternative to traditional private home settings that are commonly used for housing foster children. This program choice allowed me to explore how the principals and understandings of dwelling can apply to a design geared towards those who have been displaced and have lost trust in their ability to dwell. It also gave me the opportunity to investigate how architecture can encourage someone to explore their environment in order to discover new or existing meaning that may help them reconnect with a place.

Foster care is sometimes defined as a safety net for kids who by no fault of their own are removed from their homes for their safety and well being. The reasons for removal vary from situation to situation. Such reasons may include "alcohol and/or substance abuse, domestic violence; child abuse (physical and/or sexual) and/or neglect; parental mental illness<sup>1</sup> and homelessness<sup>1</sup>", Kwame Owusu- Bempah said. When the state becomes aware of issues in a home such as the ones mentioned above, the state, through either family court or a child protection agency, removes the child from the home and steps in as temporary guardian. The child's best interest is at hand when removal takes place because the state is removing the child from harm while the issues in the home are

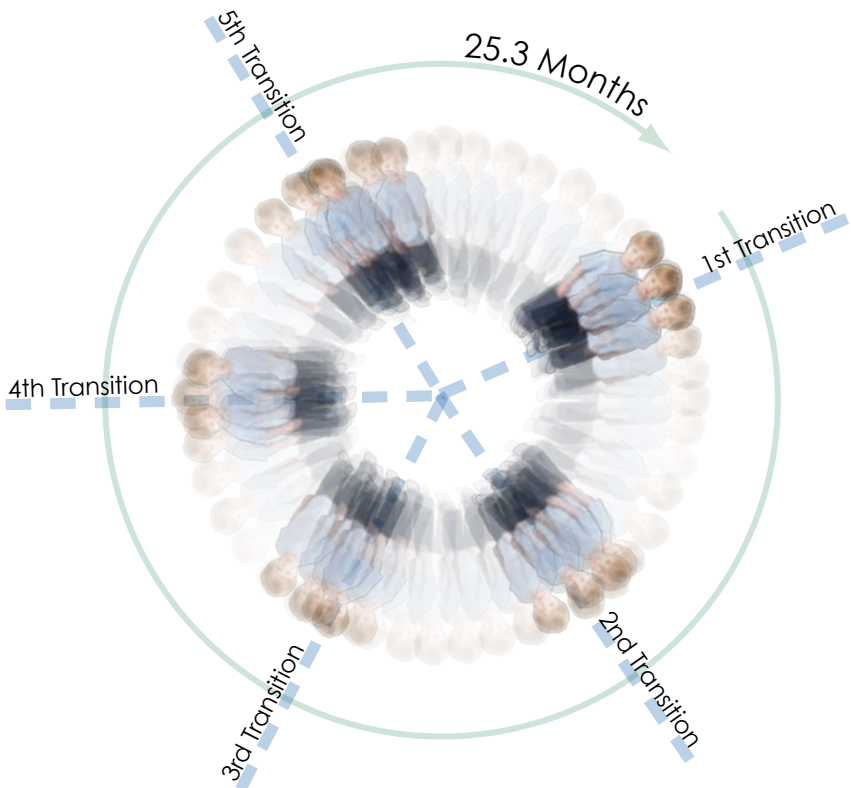
<sup>1</sup> Owusu- Bempah, Kwame. The Wellbeing of Children in Care

being addressed. But any attachment that the child developed with their biological family as well as their family dwelling is disrupted. Foster care is intended to be a short-term situation until hopefully the child can be reunited with their biological parent(s). While waiting for reunification the child remains the responsibility of the state. During this in-between time living situations for the children could include a pre-adoptive home, foster family home with a relative or non-relative, a group home, an institution, or a trial home visit. Unfortunately reunification with the parent(s) is not always possible and therefore other arrangements must be made. Permanent arrangements include adoption by preferably a family member, a family friend, or their current foster care parent. If this is not possible adoption from an outside source is sought. Other permanent options include long term foster care, or emancipation for youth close to 18 years old<sup>1</sup>. While waiting for reunification or other permanent arrangements to take place the child remains the responsibility of the state. During this in-between time living situations for the children could include a pre-adoptive home, a foster family home with a relatives or non-relatives, a group home, an institution, or a trial home visits.

Human beings are naturally very mobile, relocating their dwellings multiple times throughout their lives. Unfortunately foster care is often times much more dramatic, causing children to relocate multiple times in just one year. As of September 30, 2010 408,425 children were in foster care and have been in the system anywhere from less than a month to more than 5 years with the average lengths being 25.3 months<sup>1</sup>. The average number of moves in these 25.3 months is 5. Often times pulling up roots and moving is quite stressful for an adult who only moves on rare occasions, so the stress for a child who is forcefully removed from their home and then relocated a number of times in a very short amount of time would be even more extreme. Having to move from home to home, without the ability to put down any roots or create an attachment to a place becomes very stressful. It can lead to a child losing any sense of trust

<sup>1</sup> U.S. Department of Health and Human Services. The AFCARS Report

in a stable place or dwelling and can create even higher stress levels on a child. The level of stress varies by the individual and depends on such factors as the way a kid perceives and handles stressful events, and how they cope with separation and loss.<sup>1</sup> The stress of being separated from their biological parent(s) and then relocated multiple times can often times lead to emotional and behavior problems.<sup>2</sup>



**Above** The average length of stay in the foster care system is 25.3 months and the average number of transitions during this time is 5. Multiple relocations can be extremely stressful, especially for children.

1 Hausman, Marcia S. "Psychological Issues in Relocation: Response to Change."

2 Van Ryzin, Mark J. "Using the bridges transition framework for youth in foster care: development and preliminary outcomes."



## Program Precedents

The precedents examined in this section were specifically chosen because of their parallel relationship to my program of a residential foster care center. Each precedent relates because of its aspect of private dwelling. All of the cases also contain aspects of collective dwelling as well. Analysis done on each differed based on the unique programs offered. Examinations included human interaction with the interior spaces, surrounding contexts, spatial layouts of sites, programatic systems, etc. The overall analysis was geared towards the type of function and spaces each possessed.

## SOS Children's Villages

SOS Children's Village in Chicago is a residential foster care facility that "provides a viable alternative to traditional foster care"<sup>1</sup>. As foster children come to SOS they have the opportunity to live in a private home with their biological brothers and sisters. While living in the private homes a professionally trained foster parent stays with them. In some instances the biological parent(s) can live in an adjacent apartment while they get the help and training they need to create a suitable life for their children. They are not allowed to live directly with their children but can visit to continue to be part of their life. The 'Sibling Reunification' program and the 'Fostering Families' program offered by SOS allows a family the opportunity to stay together through their hard times.

SOS is located in a dense suburban area on the southside of Chicago. Unlike most other residential foster care facilities that are isolated away from any sort of community, SOS is tucked in an area with a lot of activity. Being that the area is mostly residential, the street traffic is relatively low and slow making it safer for children to travel. SOS allows children to leave the campus and interact with the surrounding communities as opposed to being isolated and segregated from the community. Within a five-minute walking distance from the facility there are a few parks, a lot of commercial business that would be of interest to youths, and some churches, schools, and community centers.



**Right** Unlike most other residential foster care facilities, SOS children come from close distances, mostly coming from around Cook County. The short distance relocation makes it an easier transition.



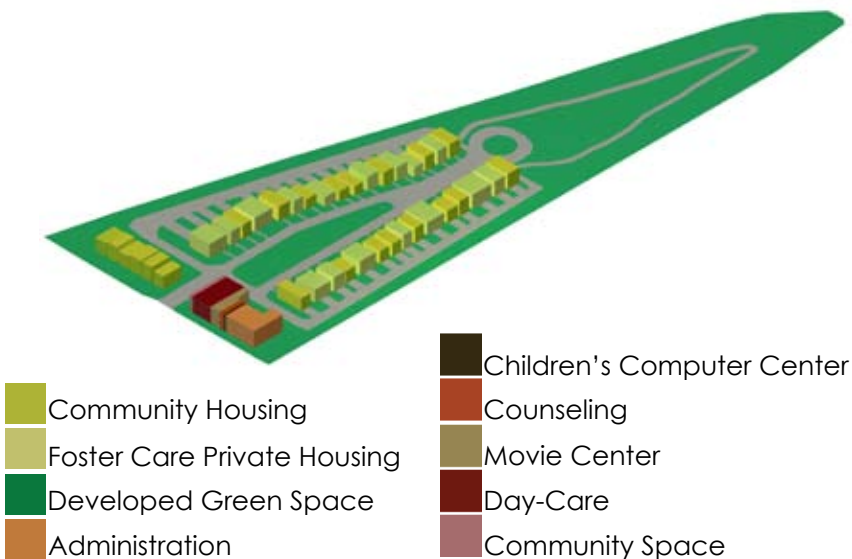
Mission Statement: “At SOS Children’s Villages Illinois, we build families. We provide a stable home in a supportive, **community environment** designed to help children in need grow into caring, productive, self-reliant adults. <sup>1</sup>”



- Developed Green Space
- Commercial
- Community Centers, Churches, Schools

<sup>1</sup> SOS Children’s Villages Website

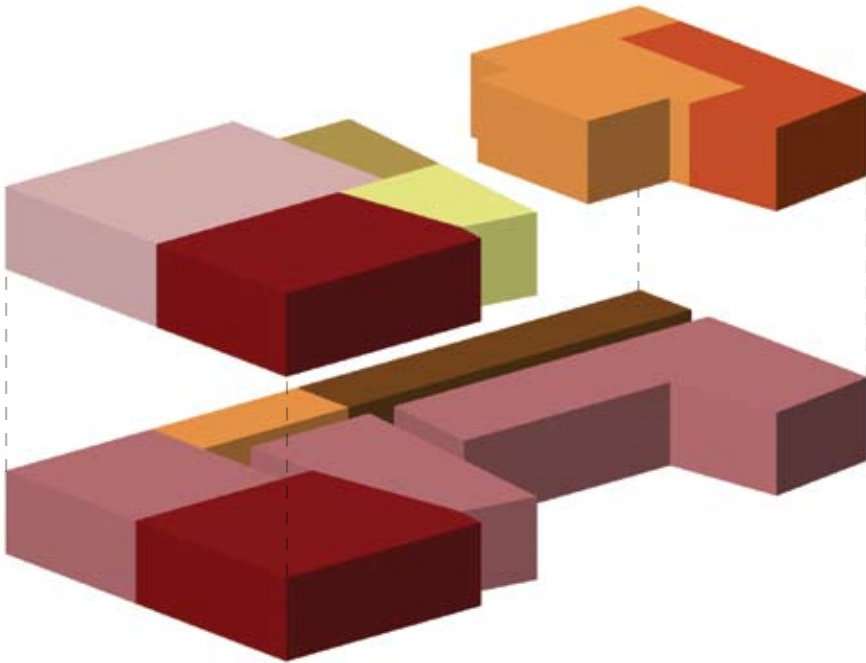
The village contains 34 single and duplex houses, 16 of which are designated to foster care children. The remainder of the homes are occupied by ordinary citizens who have no direct ties to the foster care program. The foster care housing is intertwined with the community housing adding an additional layer of social interaction for the kids. The homes where the foster children stay are not distinct from the other houses for confidentiality sake. This allows the kids to feel as though they belong to the community rather than stand out from it. The houses are very close together creating a dense community feeling. The housing is laid out around a center green space that begins to unite the whole village. Only one entrance and exit exists for the campus, which also develops another link to the unity already created. The back portion of the village consists of a large open green space with a walking path intermingled through it. This space is used by both the community as well SOS children's village for group and special events. The Lavezzorio Community Center designed by Studio Gang is positioned adjacent to the entrance. It "combines services for foster care and neighborhood families under one roof"<sup>1</sup>, Studio Gang's website said.



Each foster care home has space for 3-4 kids from 0-18 years old. As often as possible siblings are placed together in the houses so that ages and genders are often mixed within each residence. The homes are run like a traditional household with a full time, live in, professional foster care parent filling the role of head of the household.



The Lavezzorio Community Center situated at the entrance of the village houses a variety of programs that are geared towards both the youth of the foster care facility and the surrounding community. It offers rooms for counseling and group events such as movie time, classrooms, and a computer center. The intention of the community center for the youth of the foster care program is to improve their social and life skills, and to create learning opportunities. Programs geared towards the community include a day-care center and community meeting rooms. Many of the spaces encourage social interaction by creating interior public spaces.



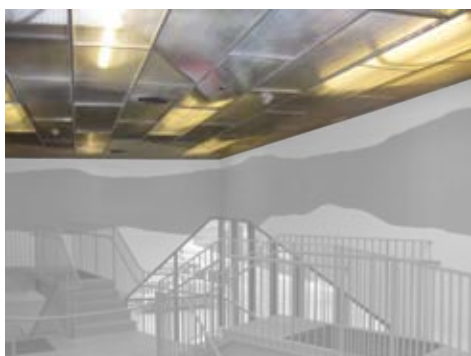
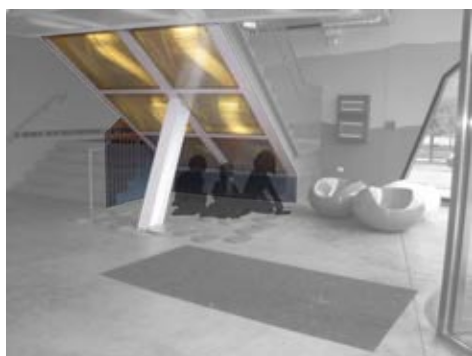
<span style="display: inline-block; width: 15px; height: 15px; background-color: #800000; margin-right: 5px;"></span> Lobby	<span style="display: inline-block; width: 15px; height: 15px; background-color: #90EE90; margin-right: 5px;"></span> Computer Center
<span style="display: inline-block; width: 15px; height: 15px; background-color: #C08080; margin-right: 5px;"></span> Day-Care Classrooms	<span style="display: inline-block; width: 15px; height: 15px; background-color: #E0B0E0; margin-right: 5px;"></span> Community Room
<span style="display: inline-block; width: 15px; height: 15px; background-color: #FF8C00; margin-right: 5px;"></span> Administration	<span style="display: inline-block; width: 15px; height: 15px; background-color: #FF4500; margin-right: 5px;"></span> Counseling
<span style="display: inline-block; width: 15px; height: 15px; background-color: #808000; margin-right: 5px;"></span> Game Room	<span style="display: inline-block; width: 15px; height: 15px; background-color: #654321; margin-right: 5px;"></span> Utilities

The design of the community center was done by Studio Gang. Due to the strict budget of this project, the designers were forced to be creative with materiality. The exterior of the building is covered in what Studio Gang calls a “strata-wall”. It is “made of varying mixes of concrete cast into wavy horizontal layers<sup>1</sup>”, said Studio Gang. These waves of concrete break the building down into many horizontal levels, which allows a visitor to use their body as a scale reference to relate to the building. A large curtain wall wraps the southeast corner of the building letting an abundant amount of natural light into a large portion of the interior space.



Image from SOS Children's Villages website.

<sup>1</sup> Studio Gang Website



The interior space of the community center was designed primarily as a child environment. Studio Gang used subtle techniques throughout to make a child feel as though they can relate to the space and that they belong, which becomes an important aspect for foster children who often times feel isolated and abandoned. The waves of concrete that wrap around the exterior of the building invade the interior space and become painted gray waves on the interior walls. Similar to breaking up the exterior façade the waves break up the interior into smaller horizontal segments, allowing a child to relate to the scale of the room. The waves turn a large 2 story lobby into a scale a child can relate to. Another technique implemented on the interior by the designers was the creation of small, intimate spaces. Spaces such as under the stairs become only accessible and comfortable for children. It creates a personal child space within a much larger collective space. Bright colors flood the inside adding a layer of fun to the environment. Large windows that naturally light the interior run all the way to the floor so as to let views out by humans of all scale. Gray railings running along the stairs and upper balconies fill the space, resembling a busy jungle gym. An extra wide set of stairs covered in carpet sits in the lobby and acts as a lounge area to watch movies as well as another classroom. The stairs are proportionally scaled to children.

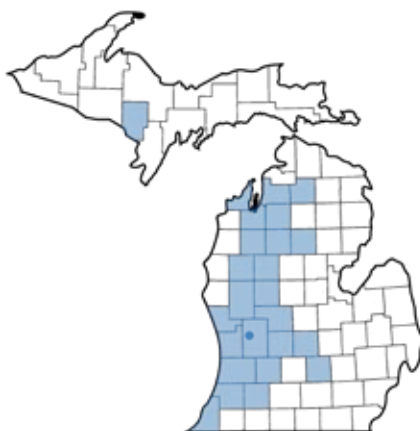


Image from SOS Children's Villages Website.

## D.A. Blodgett- St. John's

D.A. Blodgett- St. John's is a non-profit agency that works for the good of children. They provide services to children and families to help improve the quality of lives for all. On the St. John's campus they provide a foster care residential treatment center and emergency shelter. The residential program focuses on the treatment of children 6-18 years old. Treatment includes intensive individual therapy, group therapy, pre-placement family therapy, and play and art therapy. They also assist 13-17 year old youth in developing "independent living skills, and preparing for permanent placements."<sup>1</sup> Children come from all over lower Michigan and a small group from upper Michigan.

The St. John's campus is located on the east side of Grand Rapids in a rural area. The campus is set among a heavily wooded site that has very little connection to the surrounding communities and has no local business within walking distance for children. Unfortunately that means that any community interaction comes from field trips or traveling by car to local community centers. The children do attend the local public schools, which does allow for some integration into the community.

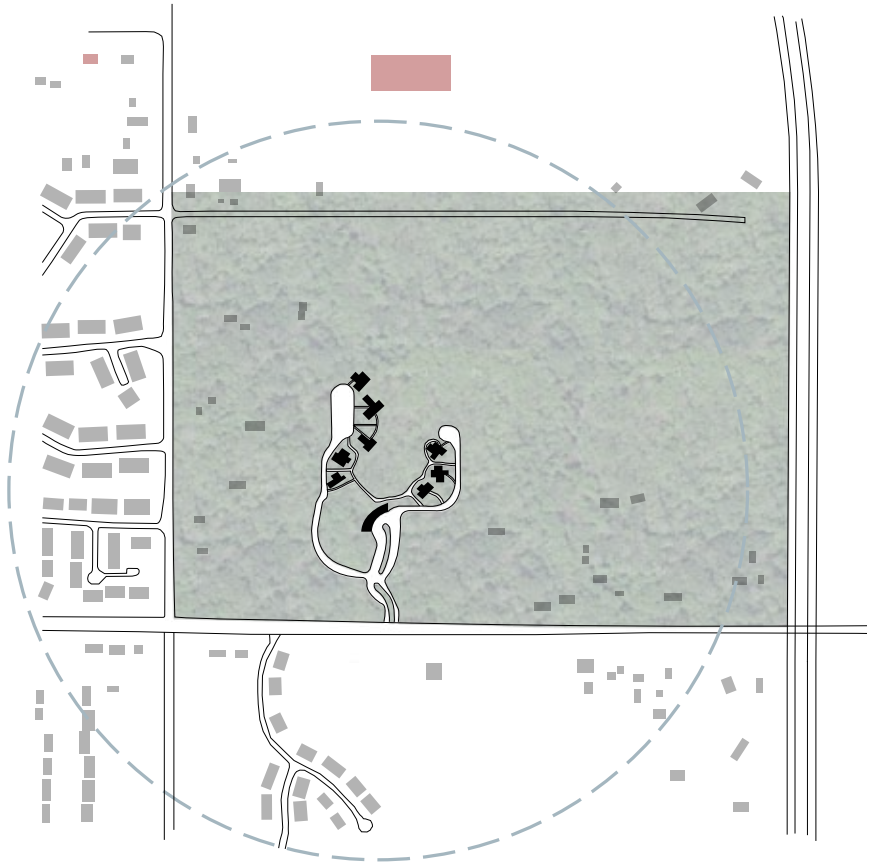


<sup>1</sup> Right Children living at DA Blodgett- St. John's come from counties all over western Michigan.

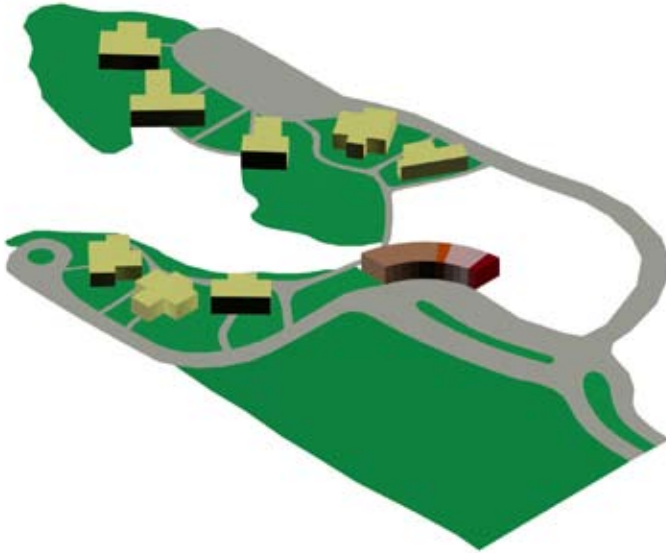
<sup>1</sup> D.A. Blodgett-St. John's website









Mission Statement: "To enhance the well being of children and their families by providing **traditional and innovative programs** that will assure them the best opportunity to realize their potential as human beings. <sup>1</sup>"



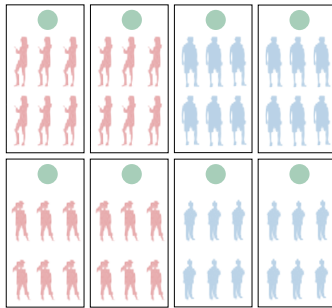
The campus includes 8 homes housing 6 kids each. The houses are spaced apart and are connected with a road that wraps around the back of the campus. A walking path also connects each home and then connects all of them to a main center where counseling, daily activities, and administration take place. The housing complex is cleared of most trees with some open green space surrounding allowing for some breathing space, but the wooded areas creep into the complex occasionally which allows for a calming and natural environment for the children.



 Foster Care Private Housing  
 Developed Green Space  
 Administration

 Counseling  
 Community Space  
 Movie Center

At DA Blodgett- St. John's boys and girls live separately and are divided into different age groups. The Children's Home program houses kids from 6-12 years old and the Adolescent program is occupied by 13-17 year olds. Each house has rotating full time foster parents staying with them. Every child gets their own bedroom that they are allowed to personalize to express their individual tastes and personalities. The homes have kitchens where the children help their foster parent make meals. Interaction among the children in each home is obviously abundant, however, interaction between the different houses is limited, only mixing during planned daily activities such as movies or games.

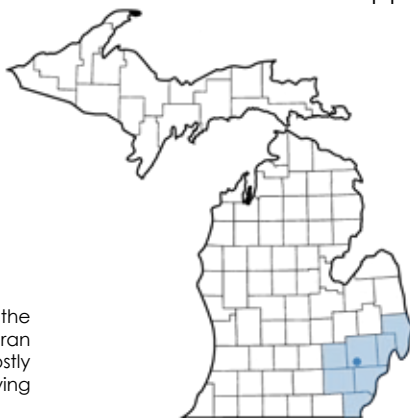


D.A. Blodgett- St. John's Website

## Lutheran Child & Family Services

Lutheran Child and Family Service of Michigan is a non-profit organization that provides services to children and families who's hopelessness has "lead to despair, abuse, violence and broken relationships"<sup>1</sup>, the Lutheran Child and Family Service's website states. One service they offer is a residential care program for foster children. Their focus is on youth from the ages of 12-18 with cognitive impairments and emotional disorders. Through individual and group therapy they work to improve the lives of these adolescents. They also work to prepare and train them for their transition into an adult independent life.

LCFS's New Direction Residential care campus is located in Farmington Hills, Michigan. Although it is sited in a densely suburban setting, the campus itself is tucked away on a large wooded lot. The interaction that the children get with the surrounding communities is extremely limited due to the restrictions the program puts on children's movement. These restrictions are due partially to the isolation of the campus; however, the restrictions are mostly because of the mental and social conditions of many of these children. The children attend the Farmington Hills public school daily and some outings into the community are planned for some social interaction but these are limited and restricted opportunities.



**Right** Children who reside at the New Directions Campus of Lutheran Child and Family Services are mostly from southeast Michigan allowing for close distance relocations.

Mission Statement: "Lutheran Child and Family Service of Michigan (LCFS), as an expression of God's love, provides hope through **quality human services**.<sup>1</sup>"



1 Lutheran Child and Family Services Website

The New Direction's campus is placed on a heavily wooded piece of property. The immediate areas surrounding the buildings of the facility are mostly cleared but woods divide these open areas and even butt up to the buildings at times. There are nine buildings on the site all varying in programs. The buildings are split up into 3 clusters with a walking path that connects each. Because the campus is quite old and was built in an institutionalized manner the buildings are quite uncomfortable for living conditions.





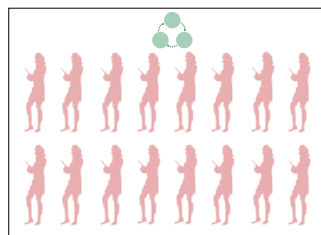
**Above** A long bridge stretches through the woods to connect the administration buildings and the child housing.

**Top Left** An old school on the LCFS campus is filled with a variety of programs including art therapy and group meeting rooms.

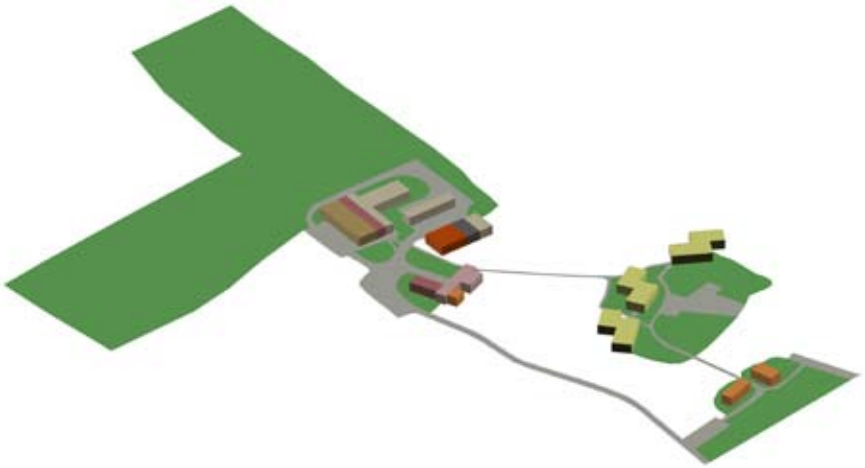
**Bottom Left** A winding road runs through a wooded part of the campus and arrives in the rear cluster of buildings.

The front two buildings of the cluster house the administration. The middle cluster consists of a campus garden and three buildings for the children's living quarters. Only two of the three buildings are currently in use, one for males and one for females. Because the quarters were originally built as institutional housing they feel cold and uncomfortable. They are two levels with one main corridor on each floor. Off of these hallways are individual, small bedrooms with white CMU block walls and florescent lighting. In an attempt to make the spaces more comfortable the children are allowed to somewhat personalize their rooms by such things as pinning up pictures, and picking out a lamp and bed spread. Personalization is expanded a bit more in the community rooms on each floor where the kids are encouraged to paint large murals on the walls. The rear cluster of buildings on the site consists of 4 buildings of mixed use. Programs include a gym and a fitness center, individual and group counseling rooms (art therapy), a library, community rooms, an auditorium, and a food preparation and dining area. Food is prepared in large, commercialized kitchens by hired cooks. The children have to travel to the dining room from their living quarters where they eat with the other children they live with. The two houses eat at separate times limiting interaction among them. Behind the back cluster of buildings are large playing fields for such sports as soccer and football.

Lutheran Child and Family Service houses 16 youth in each of their occupied homes (2 total occupied houses). Each house is lead by a supervisor who oversees the kids. Ages range from 12-18 years old. The homes are gender specific.







- |   |  |
|---|--|
|  Foster Care Private Housing |  Counseling         |
|  Developed Green Space       |  Gym/Fitness Center |
|  Administration              |  Library            |
|  Food Preparation/Dining     |  Community Space    |
|  Vacant                     |  |

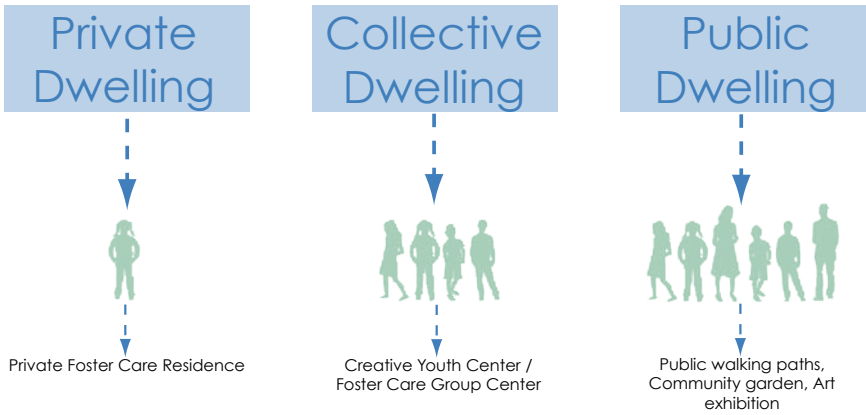


## Defined Project Program

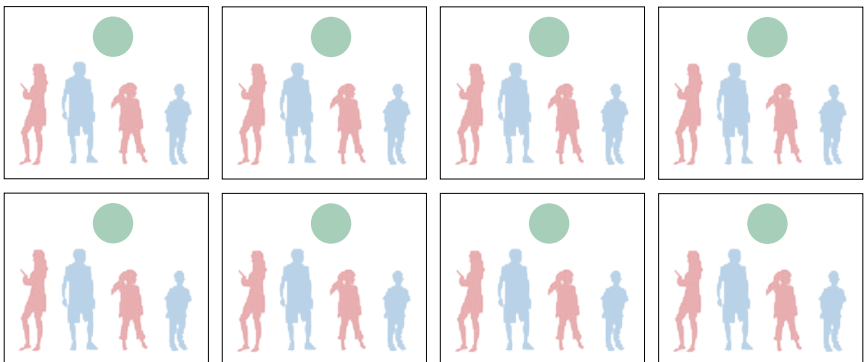
Three main modes of dwelling exist including private, collective, and public dwelling. Each mode varies in the interaction that the human has with the space as well as their interaction with others in that space. Private dwelling is the most intimate and personal interaction a human has with a space. It is the place where self reflection can occur. It most often involves the act of withdrawing in order to define one's individual identity. The space is typically shared with very few. Collective dwelling is "a more structured kind of togetherness than the mere meeting."<sup>1</sup> It is a space shared by those with common beliefs, values, and/or interests. The third mode of dwelling defined is public. It is the gathering of diverse humans with or without commonalities. Public dwelling is a place where man comes together to discover the world of others. It becomes an opportunity to gain an individual identity within a complex and often contradictory fellowship.

The programs for this project were chosen in order to explore and investigate these three modes of dwelling. The modes however, were only used as a structural element in which to begin to establish the program in more depth. The design intentions, however, were to explore how the programs could blur the division and separation that exists with the modes. The first and primary program chosen was a residential foster care facility which would involve the act of primarily private dwelling and some collective dwelling. The program chosen to explore collective and some public dwelling included a foster care group center and a creative youth center. The creative youth center allows for an interaction between the foster care children and community youth. To allow for public dwelling the program includes public walking paths, a community garden, and art exhibitions from the creative youth center.

<sup>1</sup> Norberg-Schulz, Christian. *The Concept of Dwelling: On the Way to Figurative Architecture*.

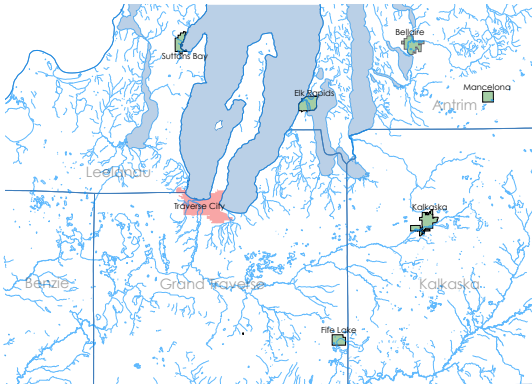


The foster care private housing is structured similar to a traditional household. There would be 8 homes that house 4 kids in each. Each home would be led by a full time, live-in, professional foster care parent that would live in the house at all times. The program would include sibling unification (similar to SOS Children's Village), which is an attempt to keep brothers and sisters together while living here. In order to keep the siblings together the houses would be a mix of genders as well as a mix of ages. Ages would range from 0-18 years old.

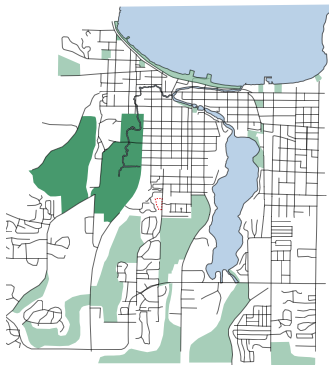




The criteria for choosing a site for this thesis exploration was determined from the analysis done on residential foster care facility precedents. After the analysis was completed I came to the conclusion that a good site for the program chosen would be an area that has a good balance of natural environment for a calming and soothing effect and an active community for the opportunity of social interaction. The area chosen based on this conclusion was **Traverse City, Michigan**, which is located on the south end of the Grand Traverse Bay.



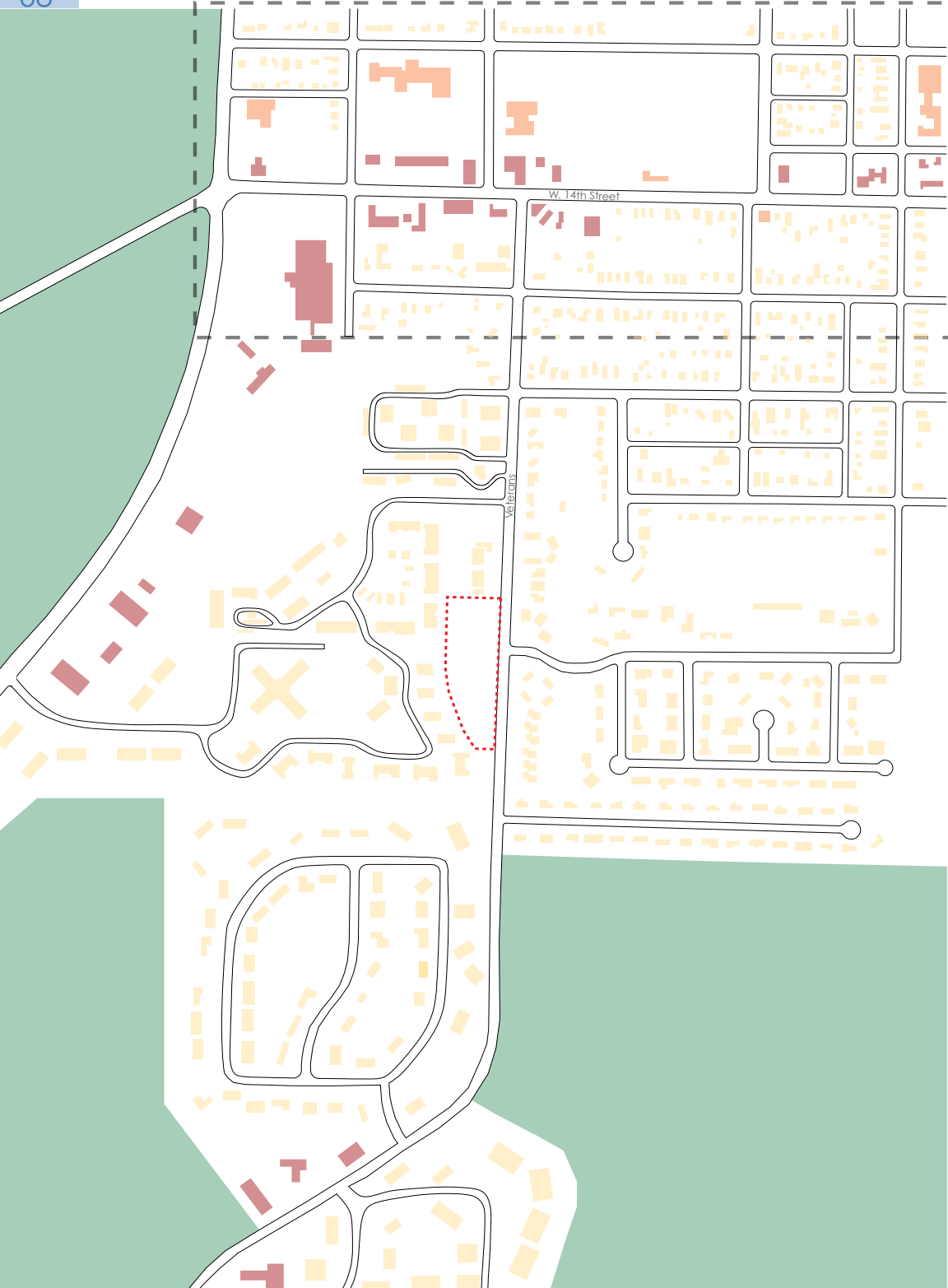
Traverse City is the largest urban density city in Northern Michigan. Even though it is a dense city with a lot of activity a rural setting borders it on almost all sides. The natural environment weaves into the active city at times giving it a good balance between a busy city life and green space for a chance to breath. Its hilly topography makes it a challenging but unique area to work in.



Developed and  
Undeveloped Greenery



Topography



## Existing Land Use

The site chosen was a wooded lot on the south side of Traverse City in a primarily residential area. Located about ¼ Mile north of the site is an active commercial development which contains a mix of small local businesses and some franchise businesses. Because the area is primarily homes it has mostly low-density traffic streets making it a relatively pedestrian friendly area and an easy walk from the site to the commercial district down the street. Large developed and undeveloped green spaces are fairly close to the site.



## Commercial Context

North of the site in close proximity (within a five minute walking distance) is a commercial district that is made up of mostly small local businesses and a number of franchises. Many of these would be valuable assets to a residential foster care facility. The main street (W. 14th Street) is fairly busy but is still pedestrian friendly. A lot of the businesses along this stripe would be of interest to youth and give opportunities for the foster children to interact with community to improve their social and life skills. Businesses of interest to youth include convenient stores, grocery stores, a local ice cream shop, and food venues such as Subway and a pizza restaurant. Also situated near this commercial district are 2 elementary schools with playgrounds geared toward elementary and middle school children. Recreational spaces such as a large football stadium and a few baseball diamonds sit adjacent to the commercial development.







**Above** The intersection at Veterans and W. 14th Street (located about 1/4 mile down Veterans from the project site) is a busy center to many local businesses. It has mid-density traffic but is friendly to pedestrians by incorporating cross walks and sidewalks.



**Above** Local attractions and unique spots in the area include Art Framing Gallery and Leone's Frost Treat along with many others.



**Above** Small local businesses are ideal for youth to interact with the community and improve the life and social skills.

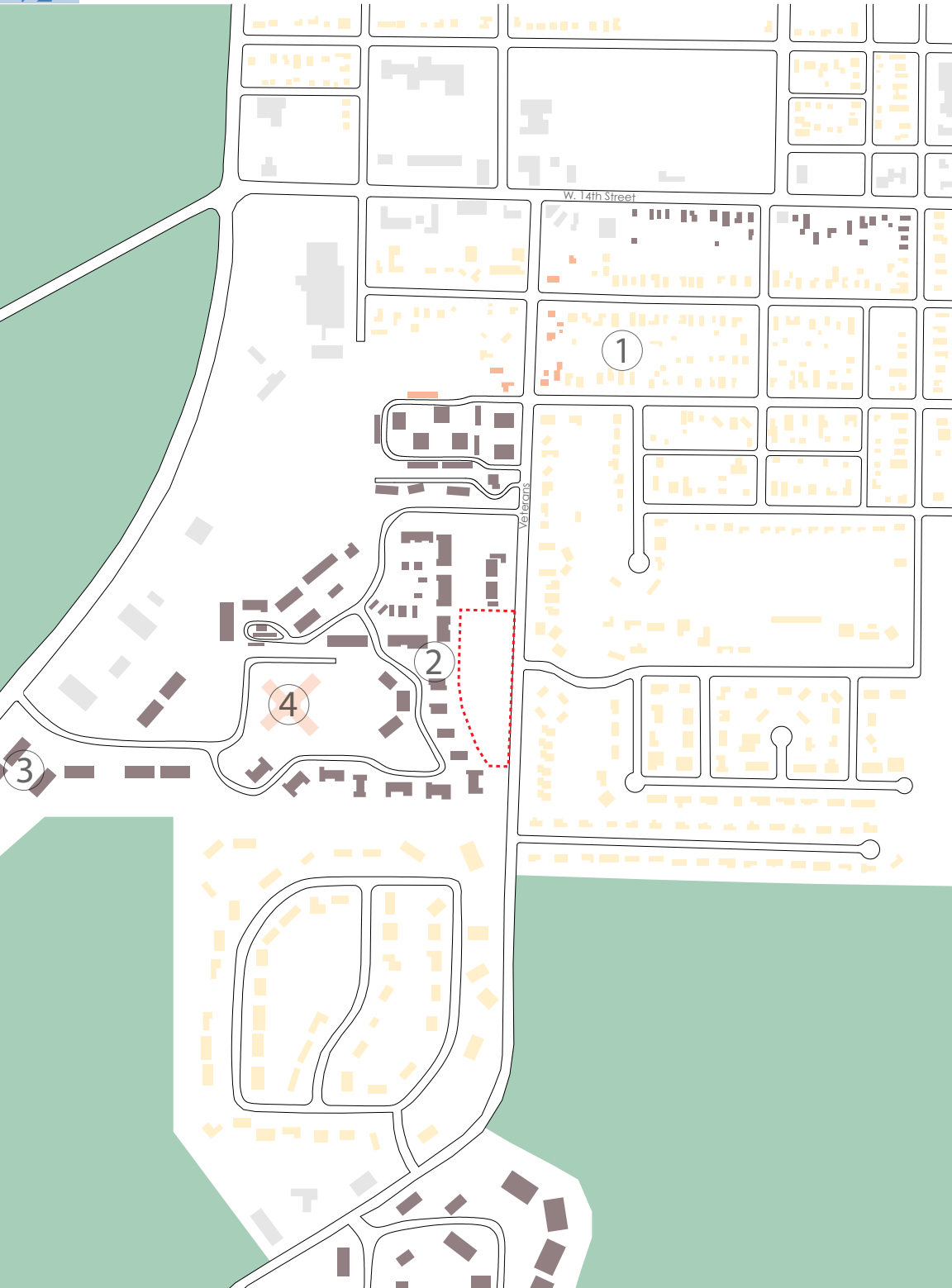


**Above** Recreation places in the area include a football field (used by the Traverse City School District) as well as a baseball field adjacent to the football field.



**Above** Two elementary schools exist within the immediate surrounding area of the Veterans and 14th Street intersection. Each school includes a playground geared towards young to middle age children.





## Residential Context

The site is surrounded by a variety residential types and styles. Homes in the area range from ranch, two-story, and multilevel houses with mostly middle class residences. Due to the unique nature and function of a residential foster care facility this is an ideal situation so as to fit in. Directly adjacent to the site (to the west) is a large community of multi- family housing. They vary in style and price level, with some lower income housing and some pricier complexes. Situated in the center of this complex is a large nursing home.



**1**  
Above Single family residential homes are the dominant housing type in the area. The styles include basic brick ranch tri- level, and colonial housing.



**2**  
Above In the center of the multi-family housing community that lies to the west of the project site is a nursing home.

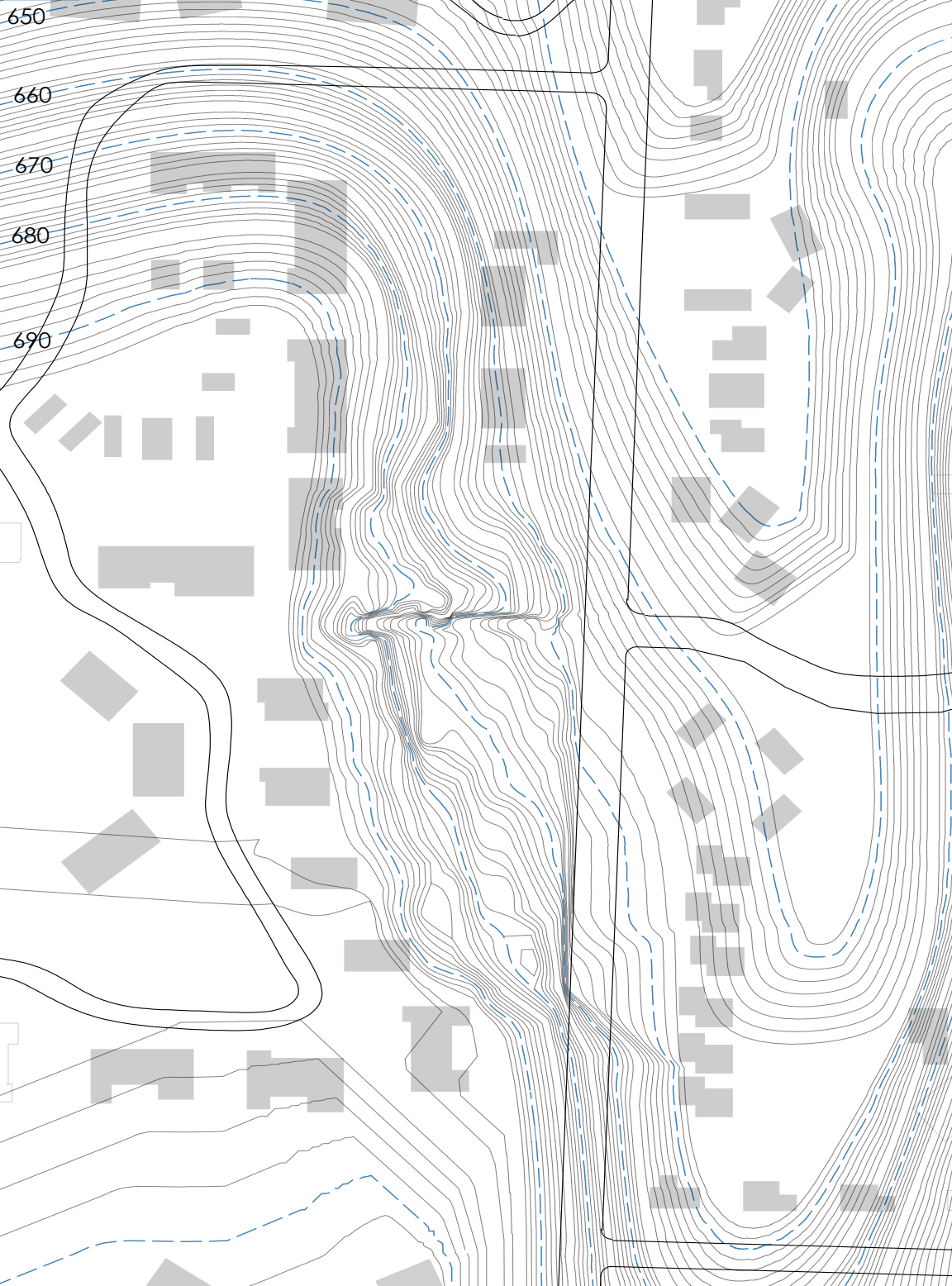


**3**  
Above Also somewhat prominent around the site (especially on the adjacent western side) is double-family and multi-family housing.

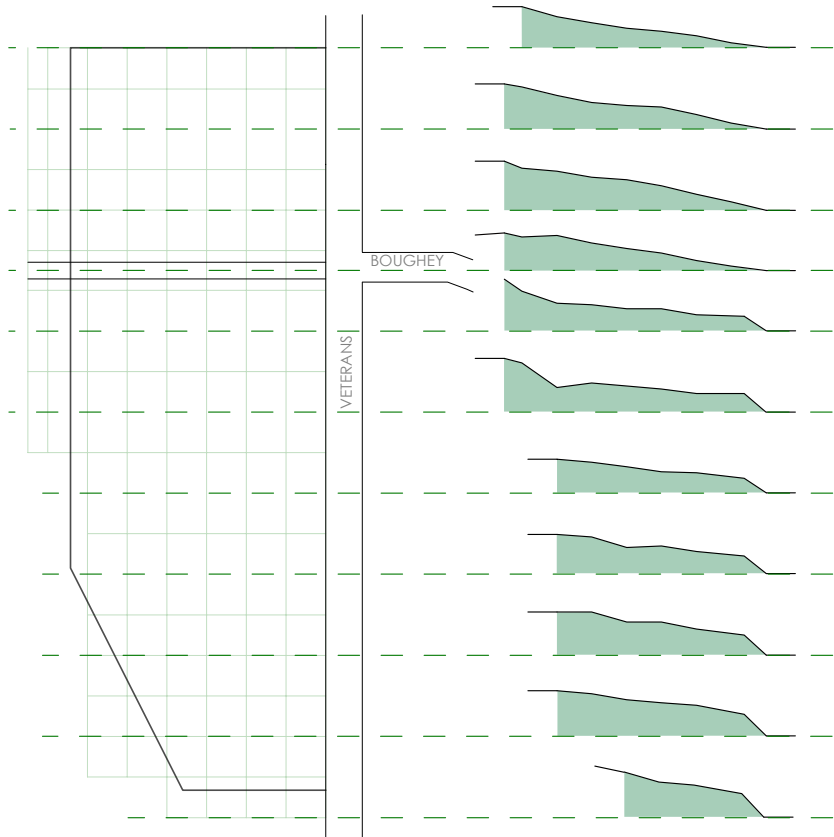


- Single Family Residential
- Double-Family Residential
- Multi-Family Residential
- Institution- Residential

Project Site



The Traverse City area is quite hilly and becomes even more revealing on the edges of the city, such as where the project site is located. The immediate area surrounding the site possesses a lot of topography but is very gradual because the slopes rise over great lengths. As Veterans Street rises up a hill the site sits along its side following not only the same slope of the street but also has its own slope perpendicular to the road. In attempt to better understand the topography of the site a survey was taken gridding out the site into 30 foot increments and then determining the height at each grid intersection. Varying directions and degrees of topography makes for a challenging but interesting place to work with.



Above The grid system that was established overlaying the site plan (left). Section cuts taken through even 60 foot intervals throughout the site (right).

**Below** Model showing existing topography of the site. The view is looking south on the site.

**Right** Plan view of topographical model.









As a way to further and more fully understand the project site a 'place analysis' was conducting. In this analysis many of Norberg- Schulz's concepts of his 'structure of a place' were explored, such as paths, centers, and boundaries. These elements not only begin to create the structure of the site but they also present the character that is naturally existing. Other features of the site such as materials, textures, and lighting conditions were also studied. My interpretations of the elements of structure that exists within and around the project site were extracted and expressed as the relevant elements of the site in which to base my design off of.

As the site is almost completely natural, with very little human interaction, the textures and materials present are very organic. Below is a materials matrix displaying overall compositions of site details, as well as up close details showing the intricate, specific features.



## Paths

Paths define the structured movement that occurs in a place. They are typically linear with destinations at each end and origin points along the way. Paths can be an implied direction of movement such as a worn path in the grass or it can be a distinct element of the site. Often continuity is created along a path by a developed rhythm that guides the user through. They can also create axis that structure or organize a place.

On the project site one main existing path cuts through the site directing pedestrian movement (shown at right). The path connects the mixed multi-family residential complex on the sites western side and the single family neighborhood on the east. Other less prominent paths were created by site visitors such as markings in the grass and dirt. The densely wooded area lining the road that runs on the east side of the site creates a rhythm that directs the pedestrian and vehicle traffic.



Above Secondary paths exist throughout the site by visitors markings, such as trails in the grass.



Above A dense tree line along Veterans Road (boarding the eastern side of the site) creates a rhythm of continuity.



Above The main path running east and west on the site directs the existing flow and movement.



## Centers

A center or node is typically the focus of a space. It is the spot where the surroundings come together and support a main element of a structured plan. Centers are also used as points of reference to orientate a user in a space. In this case a center is a landmark that is either distinct or familiar to the visitors. Norberg-Schulz called these landmarks “imageable figures”<sup>1</sup>.

The existing conditions of the project site and its surrounding context present centers throughout. When visiting the site distant views of adjacent areas present images such as houses, that can orientate a visitor by giving them reference points for their current position. Elements on the site itself, such as memorable trees (similar to the one shown at the bottom of this page), are much more unique because of its natural quality and therefore create distinct centers for orientation.



Right Surrounding views from the site present orientation reference points such as the house situated across the street.



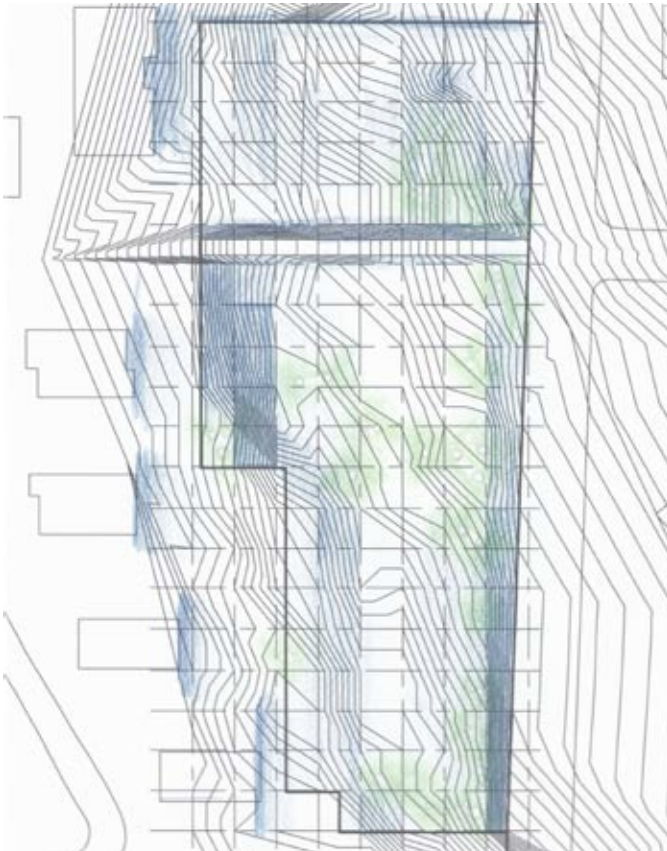
Right The natural and distinctive qualities of this tree creates a memorable image as a point of reference for site visitors.

<sup>1</sup>Norberg-Schulz, Christian. *Genius Loci: Towards a Phenomenon-  
log of Architecture*.

## Boundaries

Boundaries often distinguish one space or environment from another. They can range from extremely distinct, physical barriers (such as built walls), to implied (often non-existent) perimeters. Implied borders tend to be non-traditional. Examples of implied boundaries include a cluster or layering of objects (such as trees) that are penetrable but unwelcoming, or a sloping surface that makes accessibility from one area to another difficult.

The natural elements of the project site such as the topography and wooded patches create implied boundaries. The steep slopes make certain parts of the site difficult to access and the clusters of trees throughout create darkened spaces in certain areas.



Left The steep slopes on the site are indicated in blue while dense clusters of trees are indicated in green.

Exploring the site through a photo collage section cut along the main path running east and west (looking south) on the site shows the light qualities around the site. The higher ground (western end of path) is cleared of most trees and allows light to flood the site. Mid way down the slope of the path is densely filled with trees creating a darkened area with deep shadows. At the bottom of the slope, where the path intersects with Veterans Road, the trees clear some, allowing some light to sneak onto the site.









Because of the topography that exists both on the site and in the surrounding areas, distant views are created that gives the site a distinctive character. From the western side of the site where the path ascends the slope and leads into the multi-family complex views to distant areas are possible. At these higher levels of the site there is clear visibility to far, middle, and near views that allows for a reference of positioning within the area as well as on the site. Distant views often brings a visitor back to their placement on the site and allows for a reflection of details of the immediate surroundings, such as natural elements, textures, and materials.

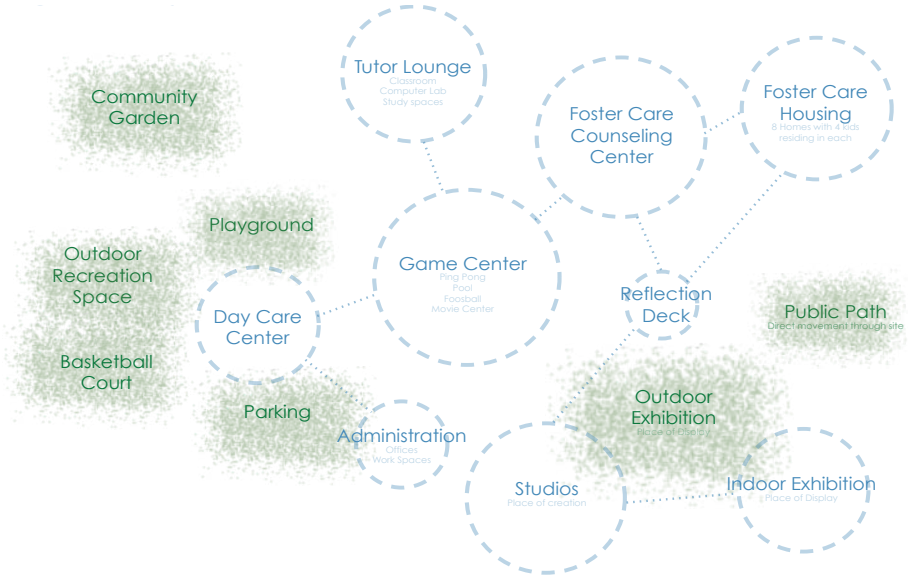
**Left** A site collage representing the overlapping reflection that occurs between the reference of the views of the distant hills and the close, detailed understanding of the site.

**Below** The site presents opportunities of far views, middle ground views and close, personal views.



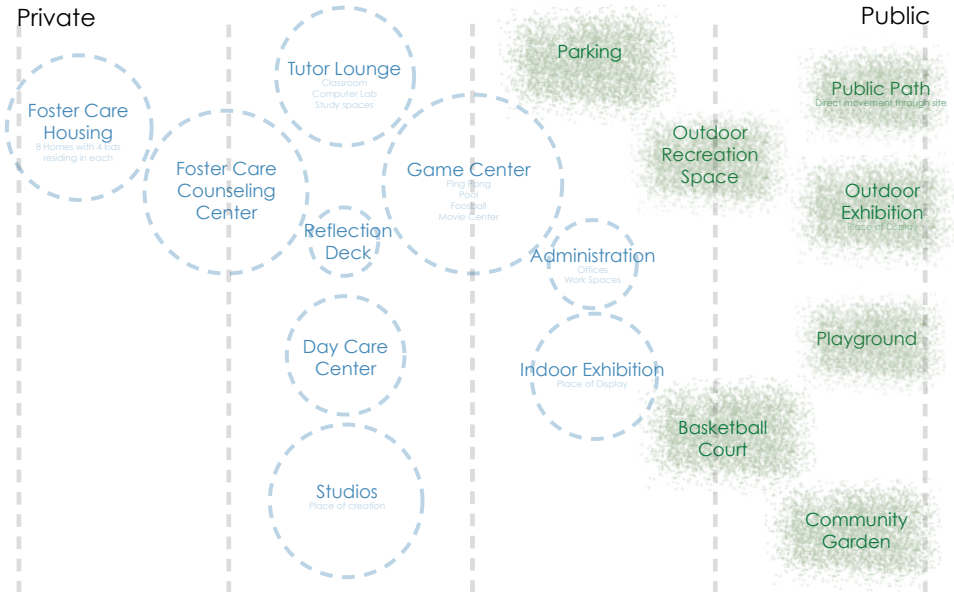


The final design was a chance to explore programs of public, collective, and private dwelling. The design intention was not to explore these modes purely as individual elements but also investigate how they can overlap and integrate into each other to create more dynamic places for the users of the space to dwell. The design intention was to develop a site that was well balanced between structure and legibility and the opportunity for flexibility and manipulation for identification with the site. The public buildings on the site (mostly the creative youth center buildings) were developed with primarily spatial organization of the programs as the focus. The design of the private residence was focused on the small intimate spaces that could be flexible to most children who live there. This part of the design also centered around the transitional spaces from public to private, trying to address the semi-public and semi-private instances.



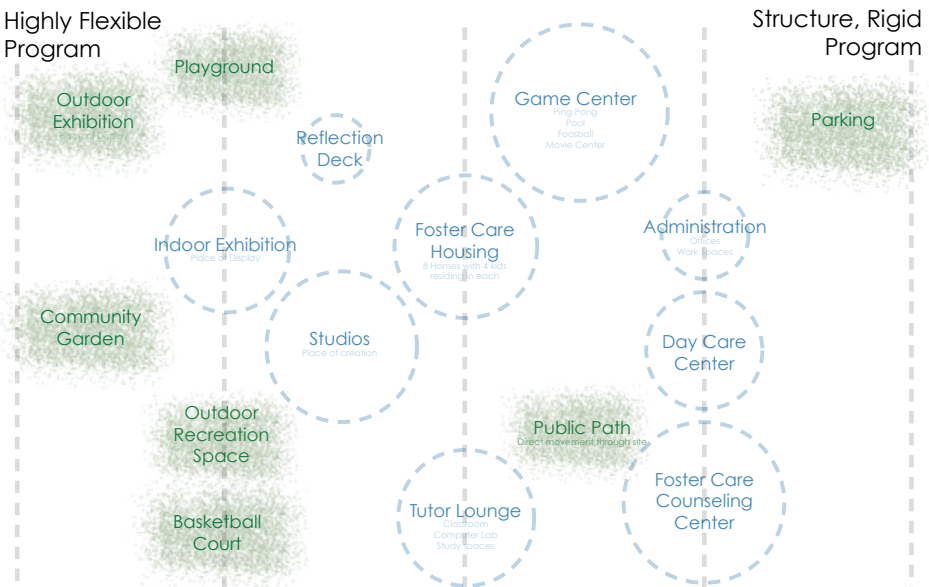
**Above** As the overall program was developed, individual program adjacencies became important in developing the site. Above is a mapping of connections and interactions of the specific programs.

**Below** Understanding the level of privacy for each program became important in the organization of them on the site. The diagram shows the varying degrees of privacy that each program adheres to.



Understanding the overall program of foster care residential facility and creative youth center was important, however, breaking the individual programs down based on such aspects as program adjacencies, privacy levels, and flexibility opportunities became crucial in the organization and spatial arrangement of the site.

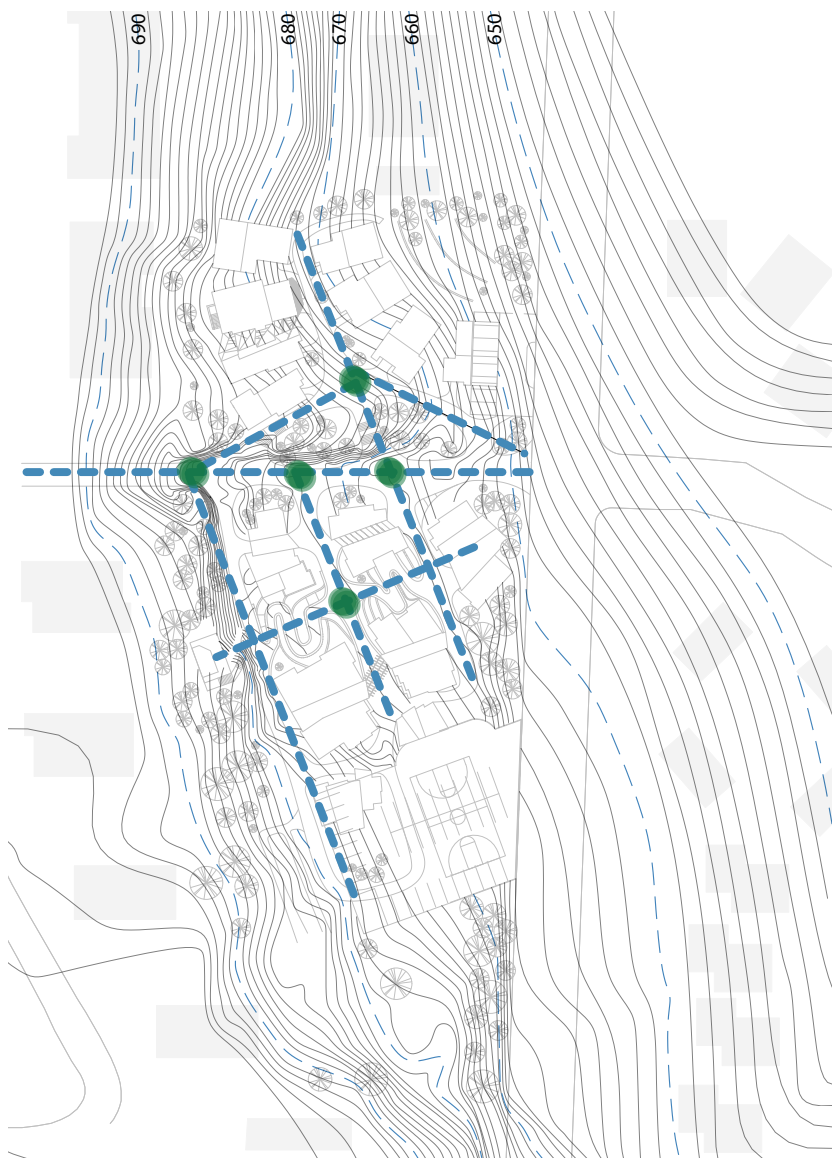
Below The diagram below breaks down the programs into varying levels of structure and/or flexibility that they allow.



Below The structure and legibility of the site is developed by axis created off of strong topography lines that reveal themselves on a topographic map like the one shown below. Nodes are developed at the intersection of these axis.

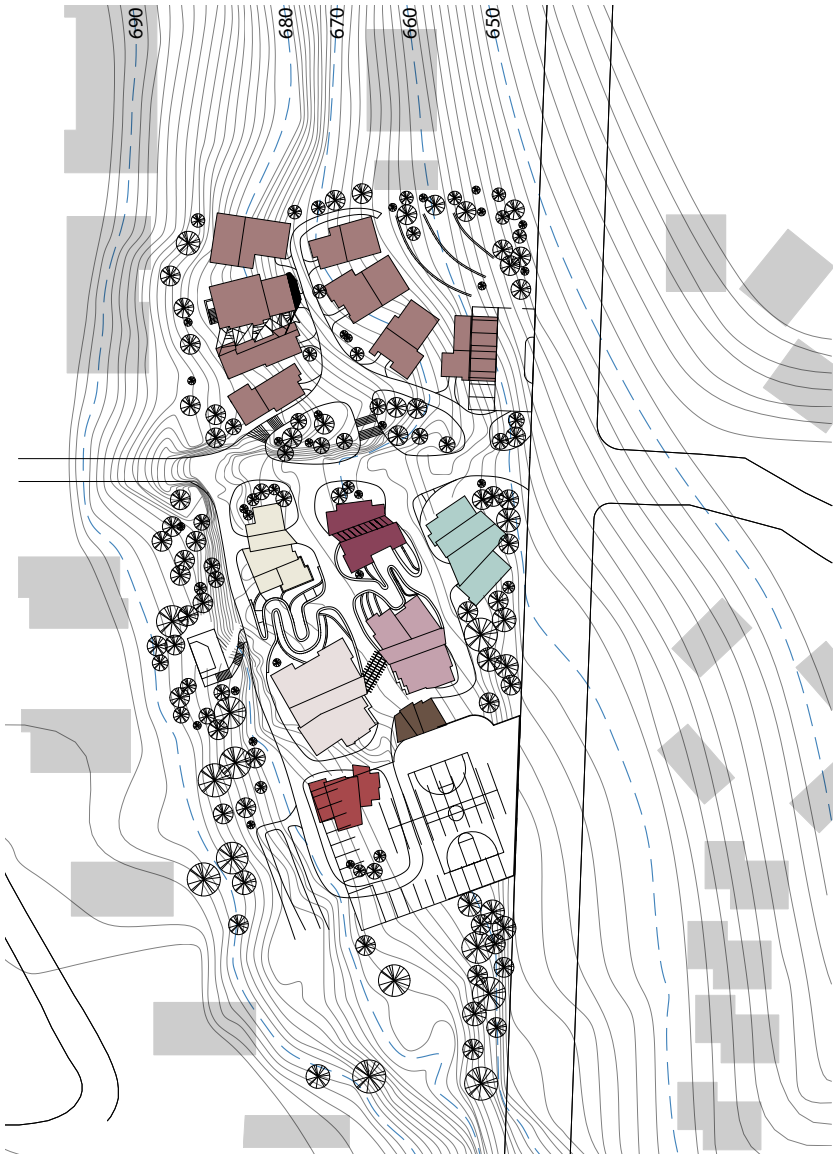
— — — — Main Axis following the strongly defined topography lines.

● Nodes developed through the intersection of site axis.



- Foster Care Housing
- Foster Care Counseling
- Indoor Exhibition
- Studios
- Reflection Clubhouse
- Game Center
- Tutor Lounge
- Administration
- Day Care Center

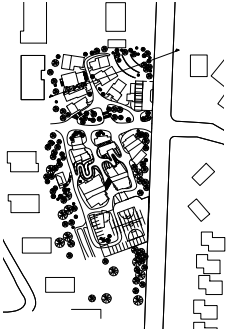
Below The site plan below indicates the layout of the individual programs on the site.





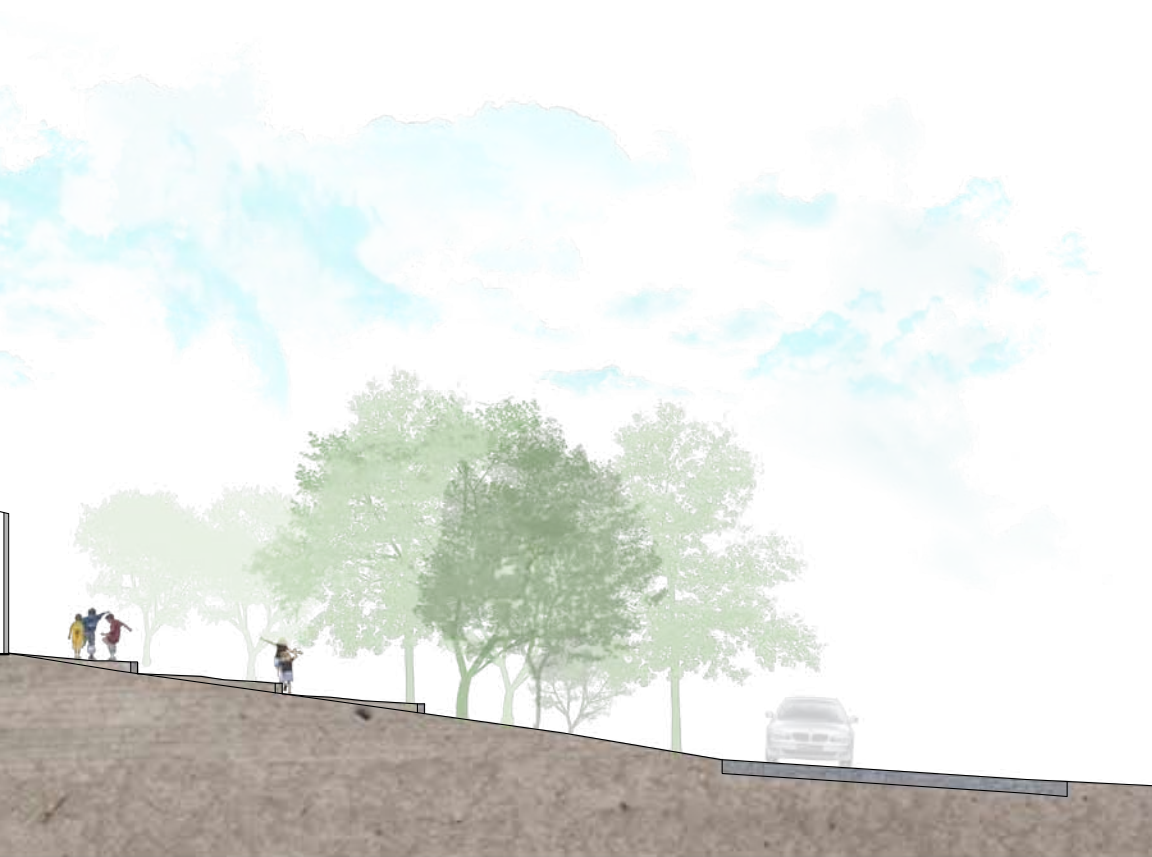


The site is designed as a campus with multiple buildings working together to create a desirable experience throughout. The main existing public path (running through the middle of the site from Veterans on the east side to the multi-family housing complex boarding the western side) remains the spine of the site for the paths running throughout the site. The northern side of the main path is open to the public, however, becomes private as the foster care residential housing exists here. The south side of the main path houses most of the creative youth center activity. The outdoor exhibition, which allows for display of the art produced by the creative youth center students, becomes a primary focal point for this side of the site. This open space develops another axis on the site. At one end of this axis are the studios where much of the art production for the exhibition spaces occurs, and at the other end is the reflection deck which sits higher than most of the surrounding buildings and takes advantage of the distant views that can be had. With parking and vehicular traffic being contained to underground parking on the southern end of the site the remainder of the site is completely pedestrian friendly and allows for an enjoyable experience while visiting the site. Also on the southern end of the site is a community garden, a playground, a basketball court, and open green space.



Section A Cuts through the private foster care residence and the semi-public open terraces green spaces along the backside of the homes.



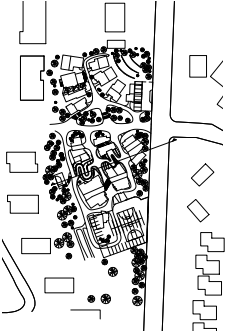




Section B Cuts through the public community space, showing the interior of the private foster care counseling center and the elevation of the indoor exhibition space.







Section C Cuts through the outdoor exhibition space, showing the interior of the reflection deck, and the elevation of the foster care counseling center and the indoor exhibition.



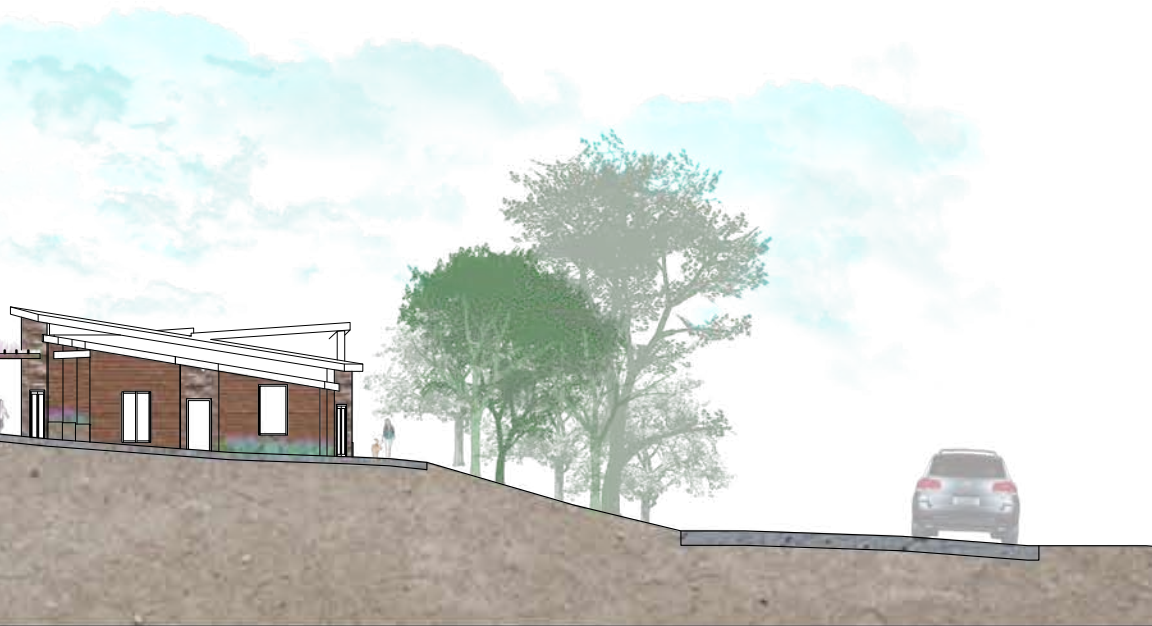




Section D Cuts through the interior of the game center and covered pavilion space. Showing the elevation of the tutor lounge.



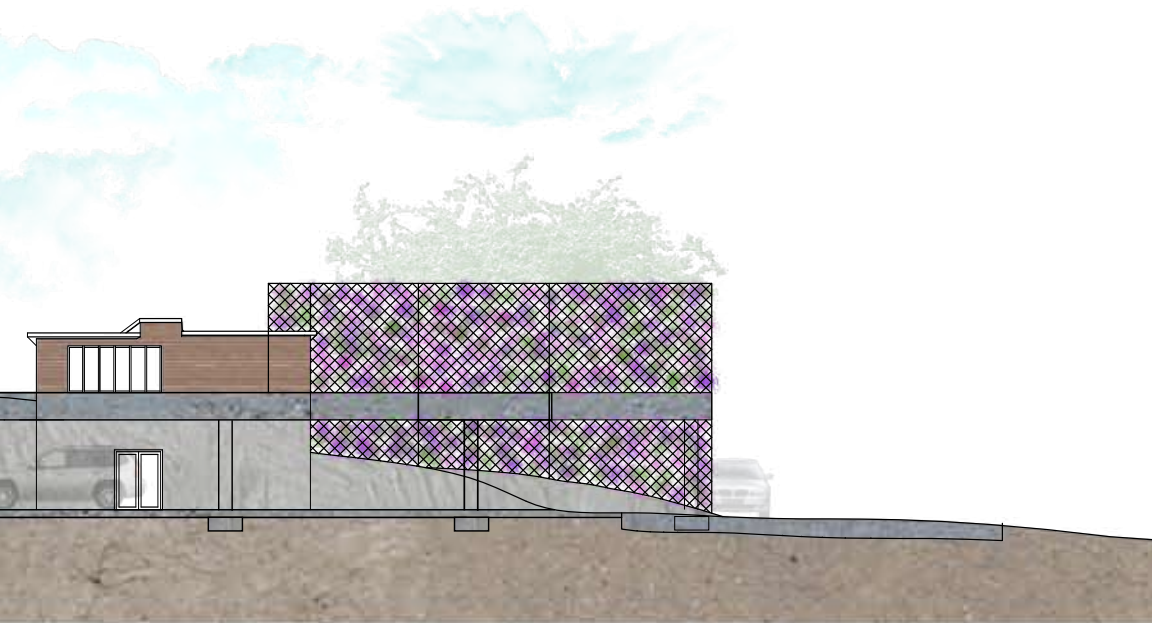


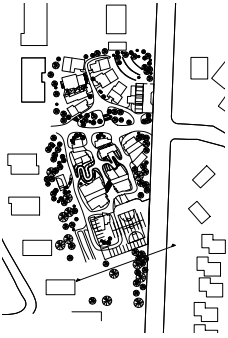




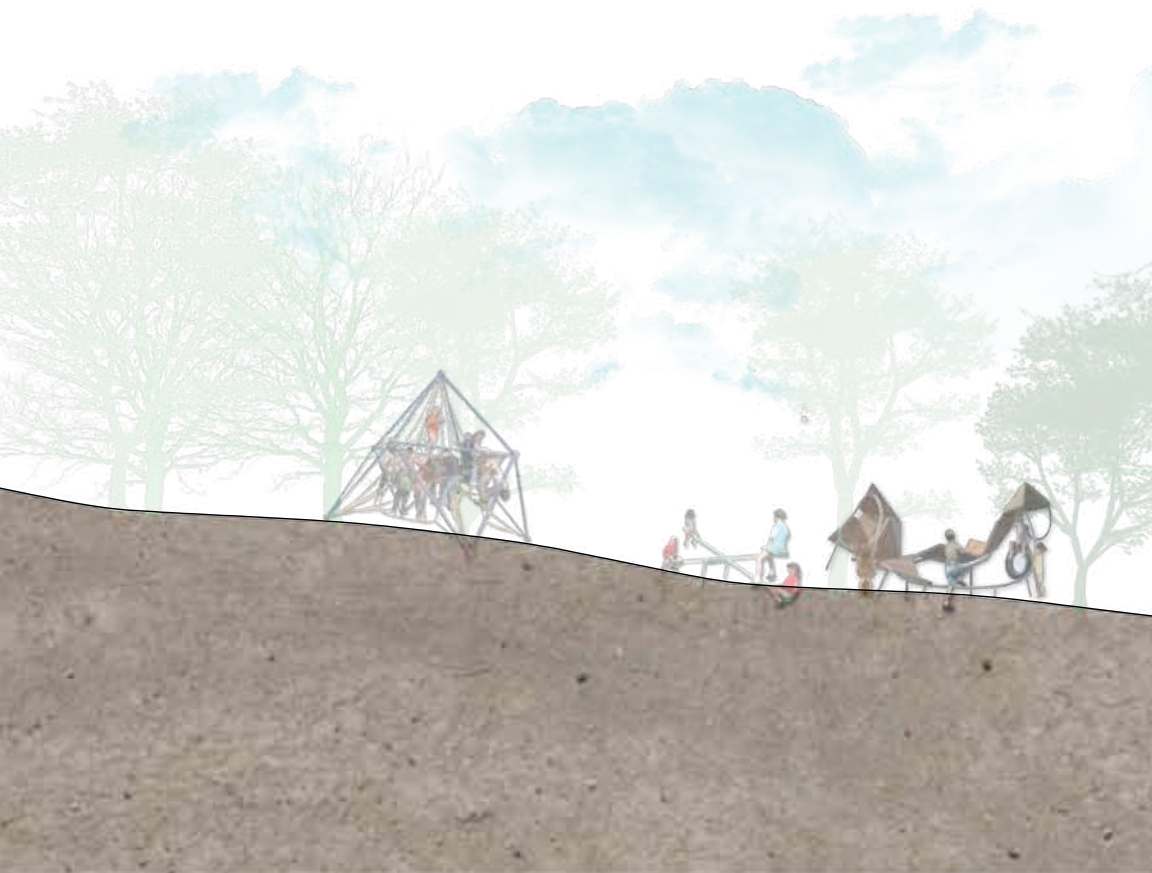
**Section E** Cuts through the community garden, underground parking, basketball court above the parking (enclosed by a fence with flower and vines growing on it). Shows the elevations of the day care center and the Administration.

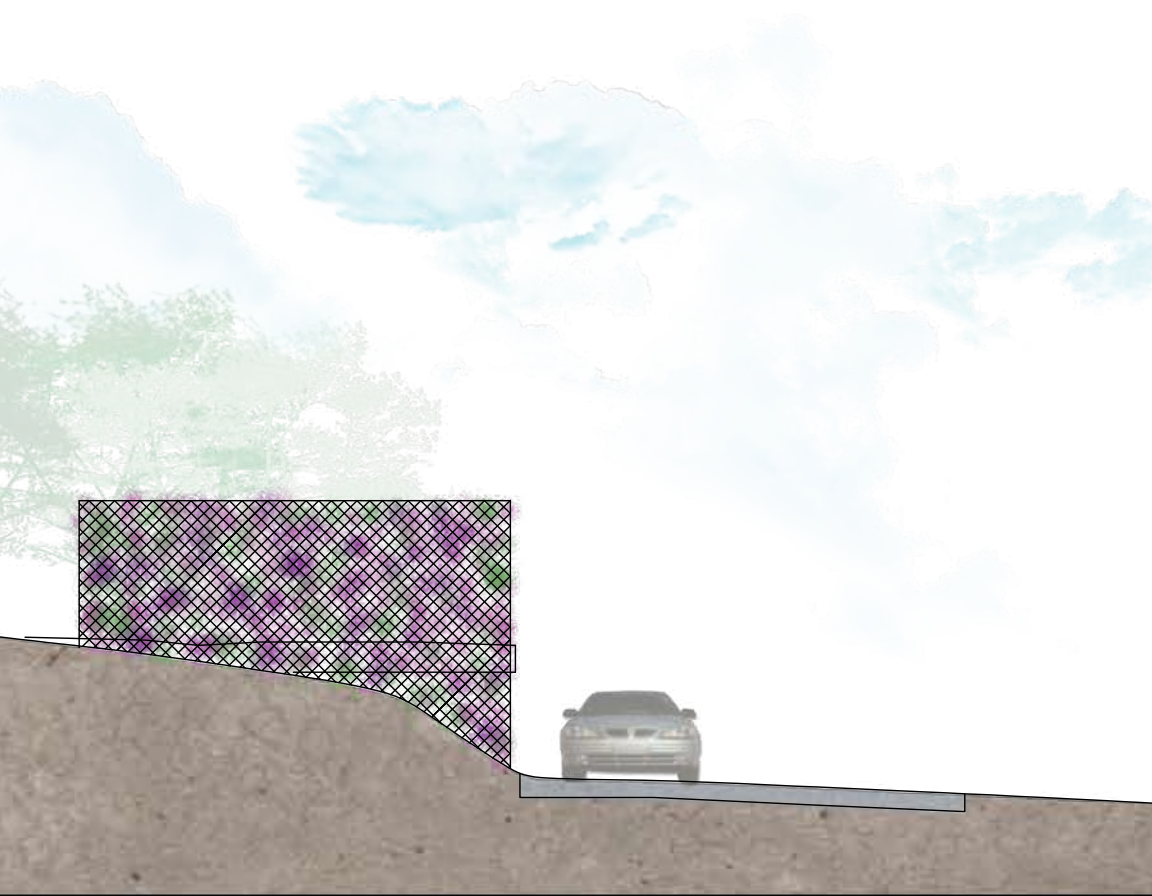


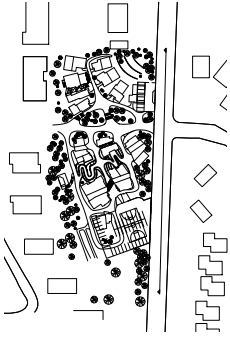




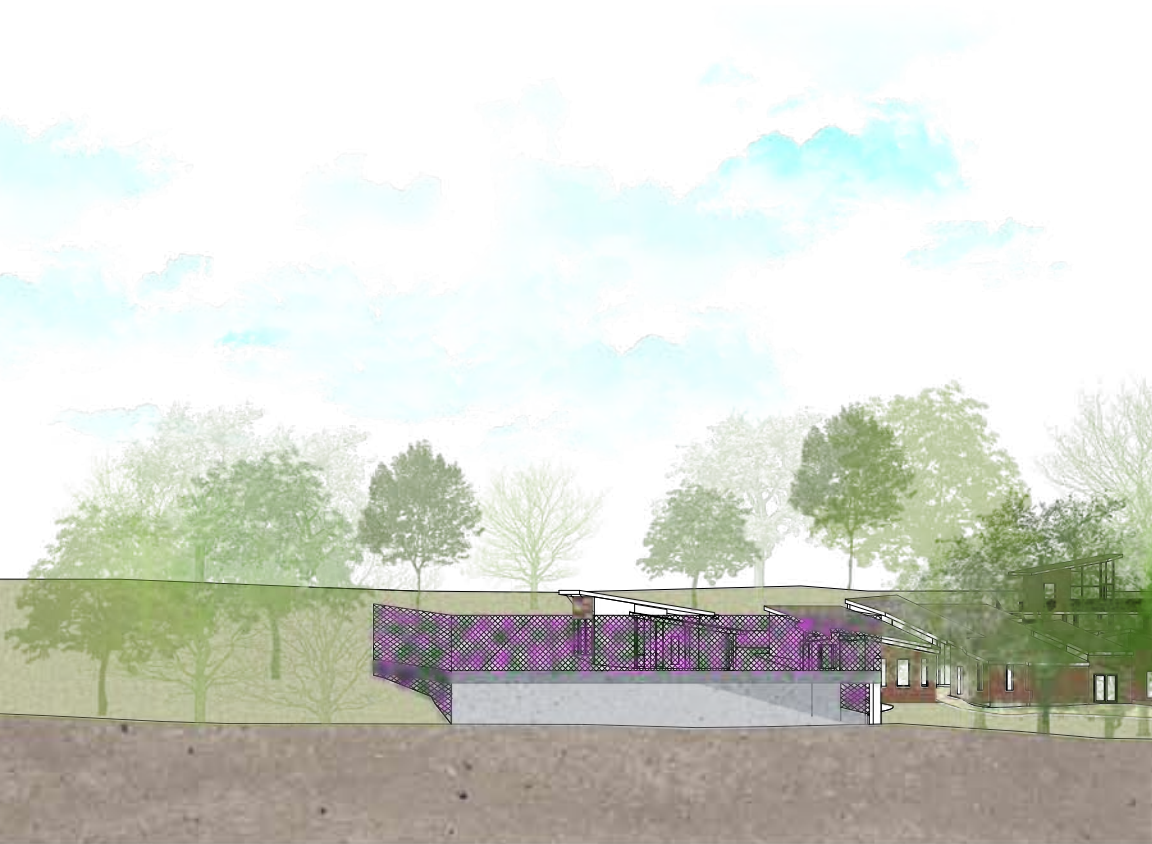
Section F Cuts through the playground. Shows the elevation of the fence enclosure around the basketball court.







Section G Cuts through Veterans street. Viewing the elevation of the overall site from the road.







Above View from the bottom of the outdoor exhibition space.







Above View from the top of the outdoor exhibition space.

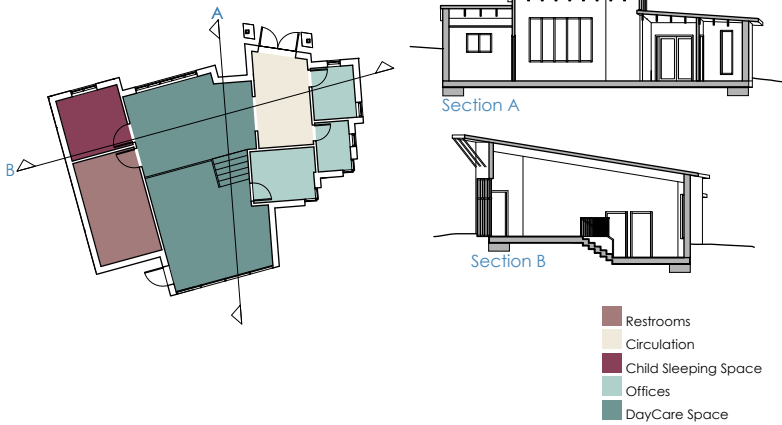




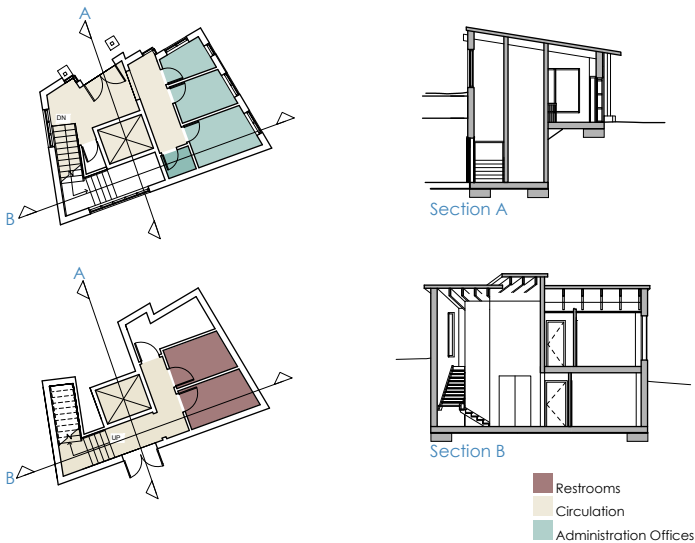


The design of the public buildings on the site mostly focused on the spatial organization of the spaces within each program. Adjacencies became very important in how the buildings worked as a cohesive unit. The exterior facades push and pull to allow for small, intimate spaces to develop in and around the buildings that could potentially be occupied by a user.

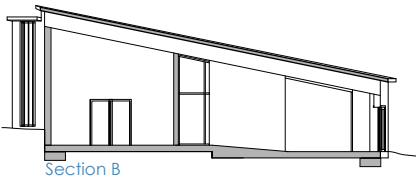
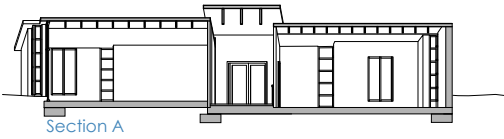
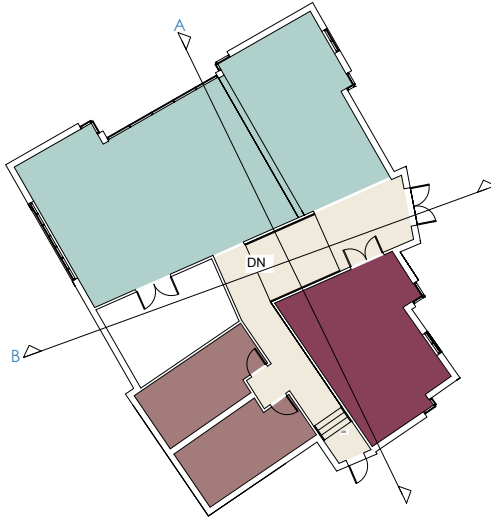
### Day Care Center



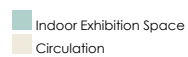
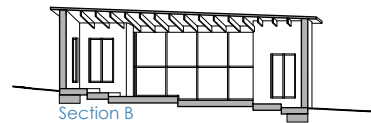
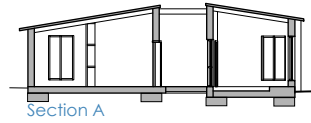
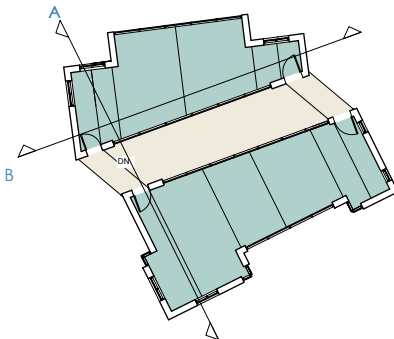
### Administration



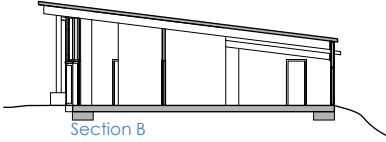
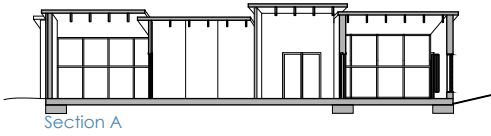
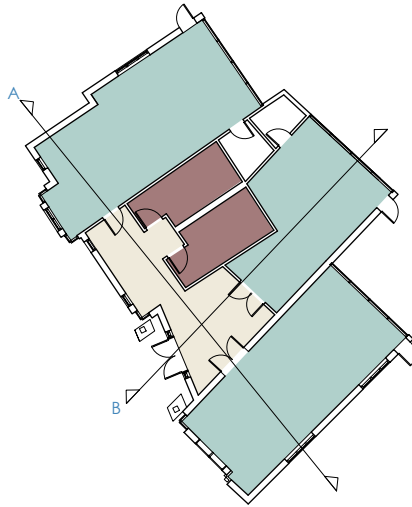
## Game Center



## Indoor Exhibition

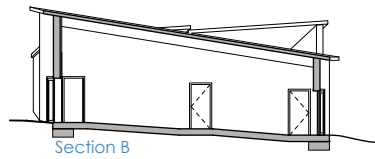
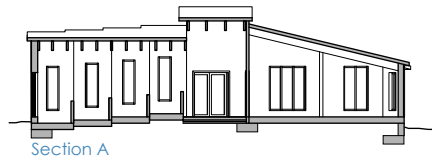


Studios



- Restrooms
- Circulation
- Studios

Tutor Lounge



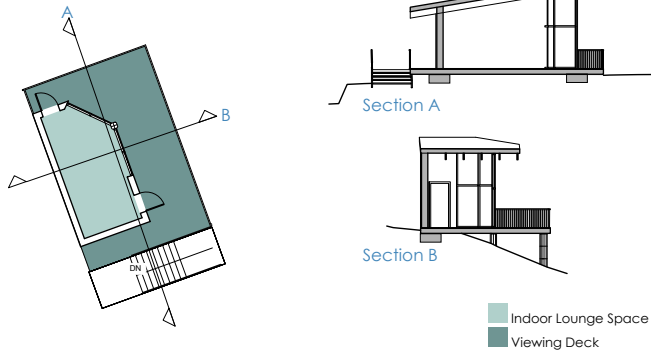
- Restrooms
- Circulation
- Classroom
- Tutor Lounges
- Computer Lab

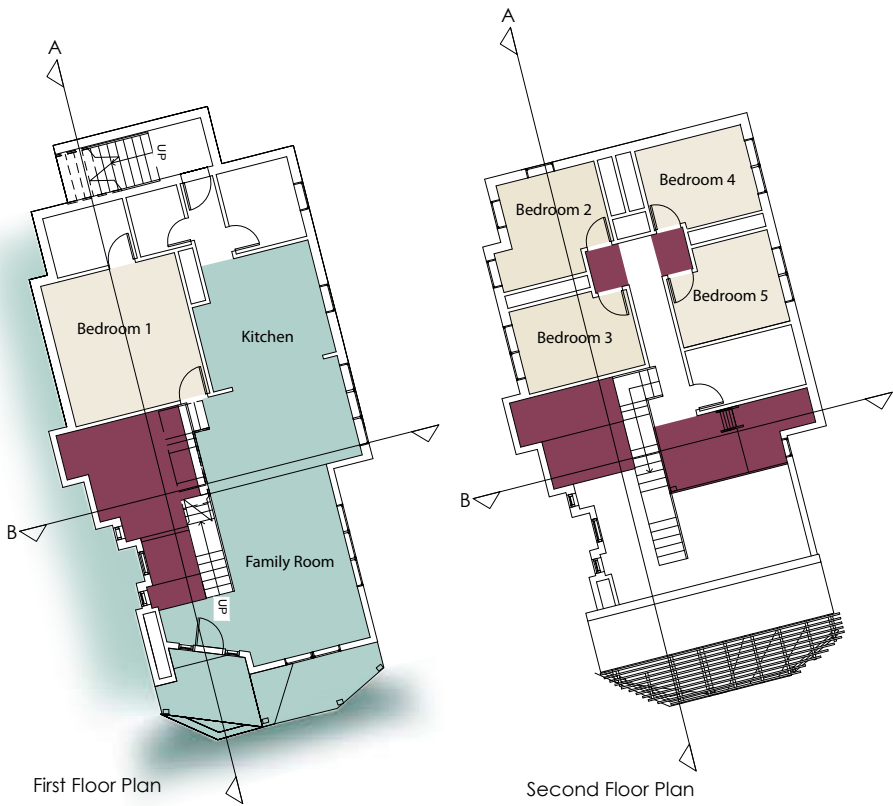


### Counseling Center



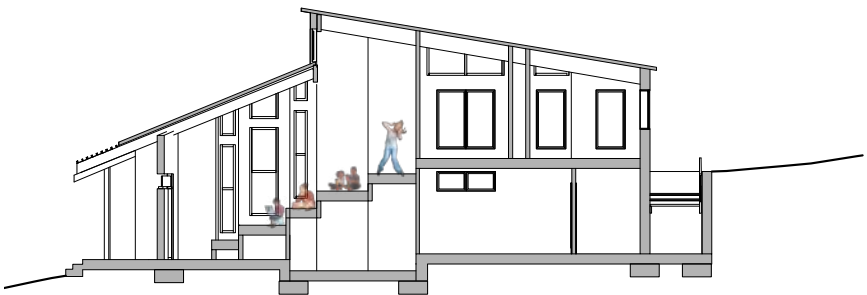
### Reflection Deck



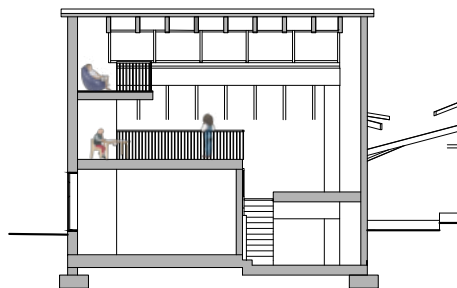


Above Floor plans of a foster care housing unit showing the individual spaces and their degree of privacy.

Private dwelling is the primary focus in the design of the foster care housing, however, the transitional spaces between public and private are also important. The housing design is traditional with functional spaces for daily activities to occur but also spaces of flexibility that are both shared as well as individual. A tiered stair system running alongside the stair case to the second floor creates individualized flexible spaces in which the children of the house can adapt to their personal needs and desires (shown in Section A). At the top of the stairs on the second floor is a shared loft space with a secondary loft space above that allows for views out the clearstory window (shown in Section B).



Section A



Section B

Above Housing sections showing flexible space activities.

**Right** The roof of the house extends out and become a trellis cover over the front porch to create a sense of exterior-interior space. This space becomes a significant transitional space from the public exterior to the private interior.



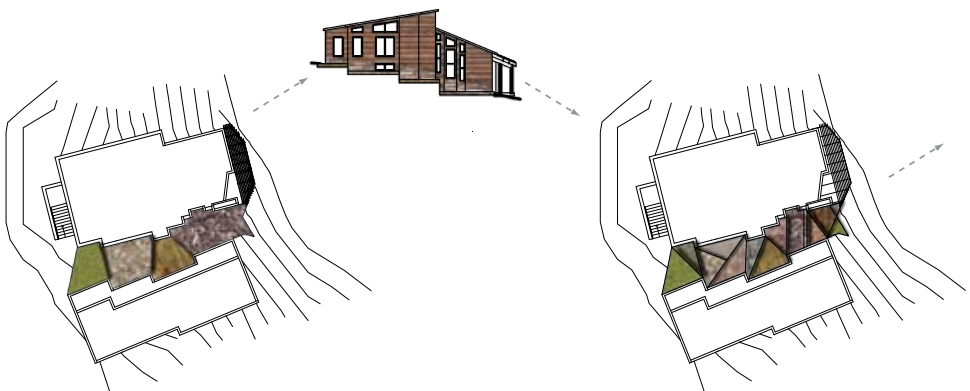
**Right** A series of terrace line the staircase to the second floor. These small spaces are flexible for a variety of activities to take place. Large windows allow an abundance of light into the interior and gives views to the exterior transitional space designed by the children between the houses.



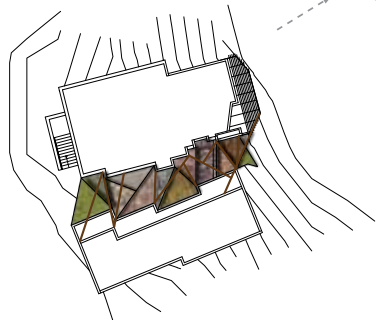
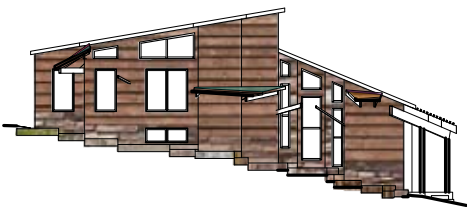
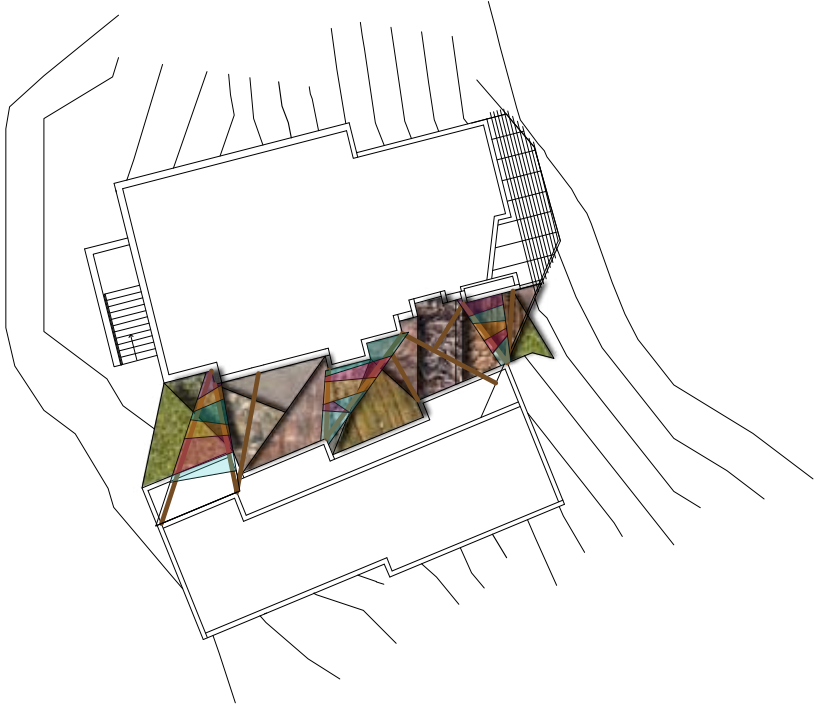
Having to layout eight homes in a relatively small area forced the housing close together creating tight, dynamic spaces between them. It was chosen to embrace these unique spaces by creating a semi-private, flexible space that is shared with the children living in the surrounding houses. These spaces have some structure in terms of an established order but is left very much open for the children to have the opportunity to design and build their own spaces within them. There is an encouragement of the children to interweave their personal desires and needs into the space to create a collaborative design that all of the children can identify with. The quality, materiality, and function of these areas are left up to the child designers. The use becomes a continuous process of action /reaction in which a child manipulates something in the space to fit them and then someone else will react to this action and adjust the space accordingly. Many of the interior spaces of the houses have windows that allow for views into this interesting space.

**Below** The design of this in between space was developed in much the same way as its action/reaction process of use. The diagrams below show the back and forth transition of action/ reaction design between the plan and the section of the space.

**Right** A final plan and section of a proposed design for the in between space.



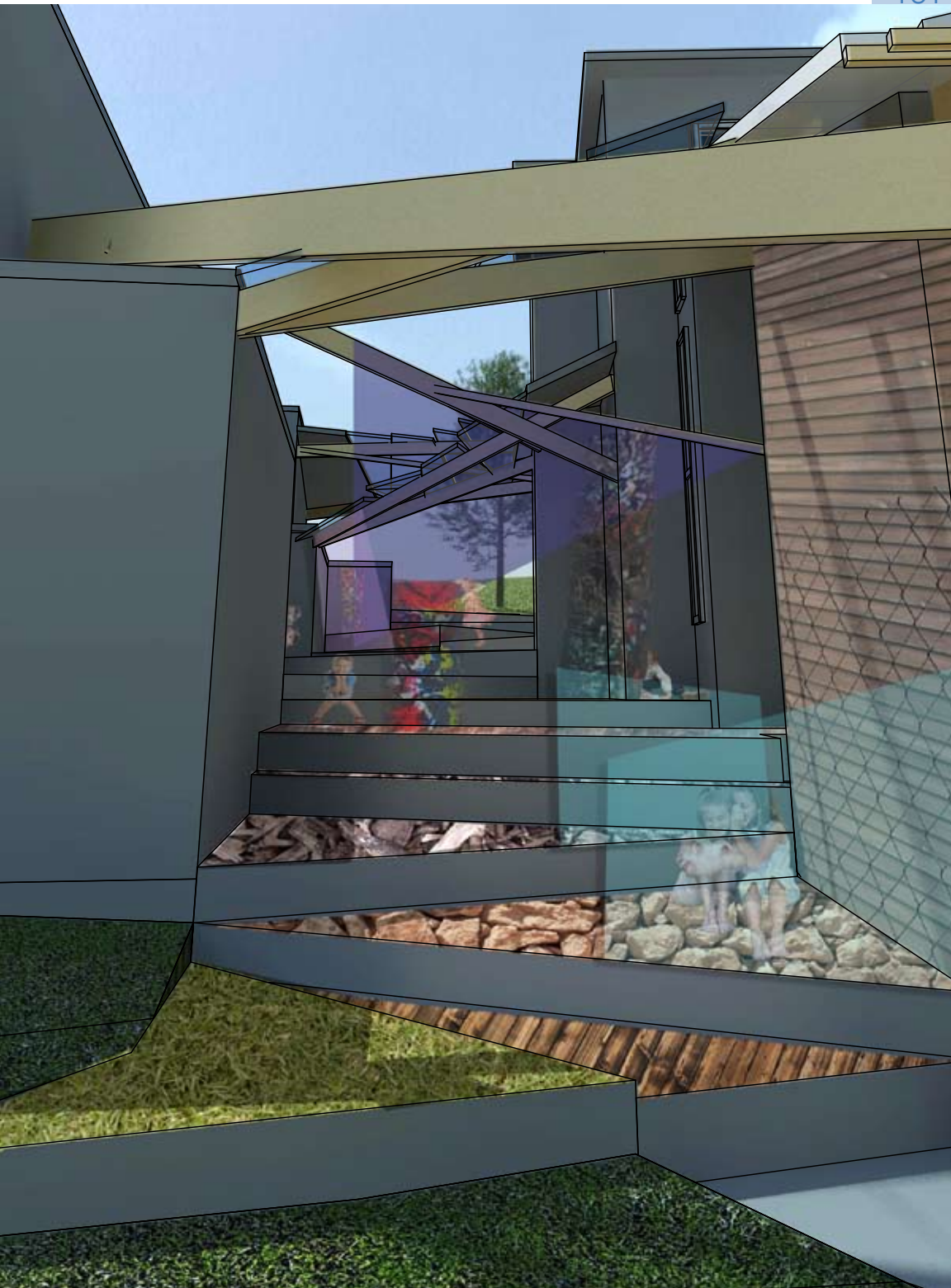




**Right** An interpretation of what the in between space may look like after children design it.



**Right** An interpretation of what the in between space may look like after children design it.





This thesis set out to explore an aspect of architecture that is often times overlooked, human experience within the architecture. The design profession seems to get very wrapped up in the functionality and aesthetic qualities of a space and forget or disregard the importance of each individual user of the space. Through my explorations and studies I have come to the conclusion that we as human beings are natural designers. We live and accept the built environment around us but ultimately adapt and manipulate it to fit our needs and desires as individuals. Architecture becomes a stage for which we conduct our lives. If this stage is meaningful and thoughtful it truly has the opportunity to enhance the quality of our lives as humans.





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