



Anchored Leaf

Taking a New Approach Towards Veterans Mental Health

David A Pringle – North Dakota State University – ALA Masters Program





Anchored Leaf
Taking a New Approach Towards Veterans Mental Health

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture of North
Dakota State University

By
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In Partial Fulfillment of the Requirements
For the Degree of
Masters of Architecture

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Thesis Abstract

Anchored Leaf is a mental health rehabilitation center that is designed around the condition of veterans struggling with mental health. The design is projected to emphasize the connection between the 'human' element and architecture. Elements of the design that will take place will incorporate and hopefully seek to the visualizer of the message and story it is trying to project. Using elements such as spatial planning and adding in the 5 human senses to help bring back or stabilize the mental fortitude of the center's residents. Anchored Leaf is a new and creative way to express design through architecture as well as the emotion and noise it can make without speaking.

The site located in Virginia. The site was chosen specifically for the fact that the state of Virginia has born the some of the most Medal of Honor recipients than any state. The history and emotion that this site invokes staples in the true meaning behind Anchored Leaf. Being surrounded by the mountainous regions and beautiful scenery will help bring back that nature feeling towards its residents.

The focus of this thesis is to help the veterans that have given the most sacrifice to this country the help they need and deserve. It is design centered around having a center that is looked at as a place of healing, communication, and understanding. The common misconception is that veterans who have mental disorders have been exposed to trauma over various deployments. Trauma can happen anywhere at any time in any situation. The mind is fragile and should be treated as such but treated with respect and care.

Thesis Narrative

Mental health has always been a topic that is brought up constantly in the world we live in today. Steps that are being taken towards it have proved successful, but only in the eyes of civilians. Veterans that have served in the armed forces have been exposed to stress and experiences that only a small percentage can relate to. Yes, there is the VA that is designed to approach and tackle the needs of veterans, but I want to go further. The disconnect that veterans have is that to society or normal living. In a sense I want to bring elements that I believe crucial in rehabilitation of veterans into society and getting the help they need. Possibly adding more of a man-to-nature element and even help reestablish the connection to society by providing a community where the person feels comfortable enough to go back into the world. At first, I was thinking of having a simple building that is designed around this topic, but now I am thinking yes, a simple building, but a little more of building a small community around it.

In the state of Virginia, it presents scenery and the landscape that is naturally relaxing and soothing to the human mind. Piney Mountain, Virginia is the location. With vegetation and wildlife, this state has many opportunities and locations for there to be a community or even a simple structure that can vacate the proposed project.

Project Typology

Project Typology Community and Healing Center

Typology Precedent The main purpose of this project is to bring awareness of the struggles of mental health that veterans of our armed forces deal with daily. Adding into retrospect, mental health is a topic that is brushed to the side and talked about later, sometimes not at all. Introducing some architectural elements into the mix like spatial organization, the use of warm/earthy tone colors, as well as a design that really captures the emotion and healing in which the thesis is projecting. Having a respectable amount of space is a key element in terms of healing and overcoming any type of difficulty that life may through at the individual. Everyone deserves to have a safe space or bubble that they can feel comfortable in. Having warm/earthy tones of color will bring a sense of connection and familiarity with nature that will mix win with the design.

Claim The struggle that veterans are presented after their service or deployment is a disconnect between military life and that of normal civilian life. They feel misunderstood and lose the sense of belonging that they once had in the service. By using architectural elements, that sense can be brought back and help the veterans become readjusted and feel comfortable coming back into a society that is no longer foreign



Site



I decided to have my site located in Piney Mountain, Virginia. Being located just north of Charlottesville and only 2hrs away from Washington DC, where Arlington Cemetery is located. The reason I chose this location is because of the very high veteran populace of over 780,000. With most of the veterans being Gulf War Veterans or post 9/11. Another reason is because of the 3 VA Medical Centers already located within the state.



Figure 1

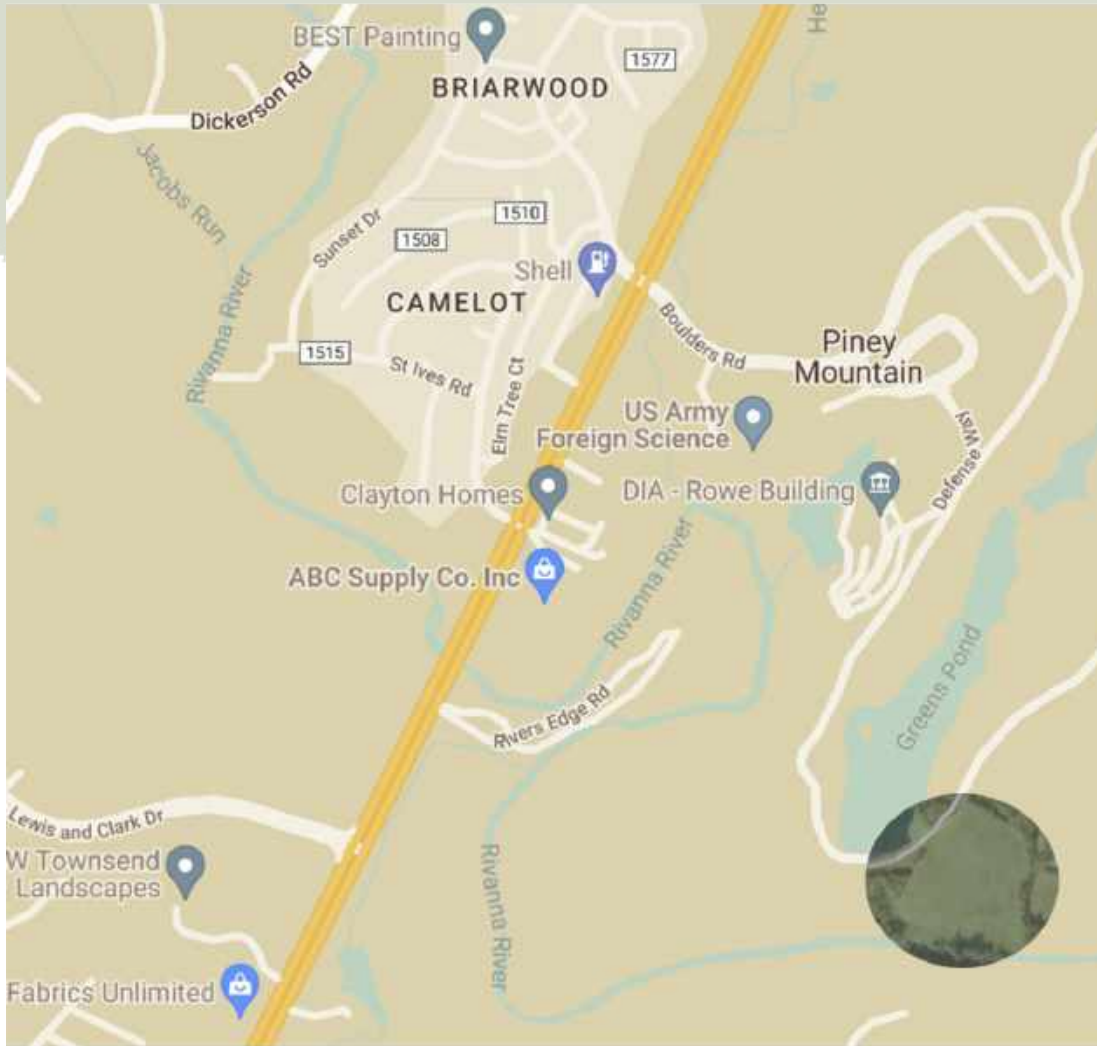


Figure 2

Near my site is a US Army Foreign Science building and I believe that having a Veterans Mental Health Center in close relations to that building will prove to be more than beneficial, which influenced my decision having Piney Mountain my site of choice.

In relation to my site the other centers are spread out across the state and provide the same standard institutional look that most VA hospitals provide. Providing another veteran mental health facility within the heavily veteran populate state, while providing a different design outlook could be the difference in saving even 1 veteran.

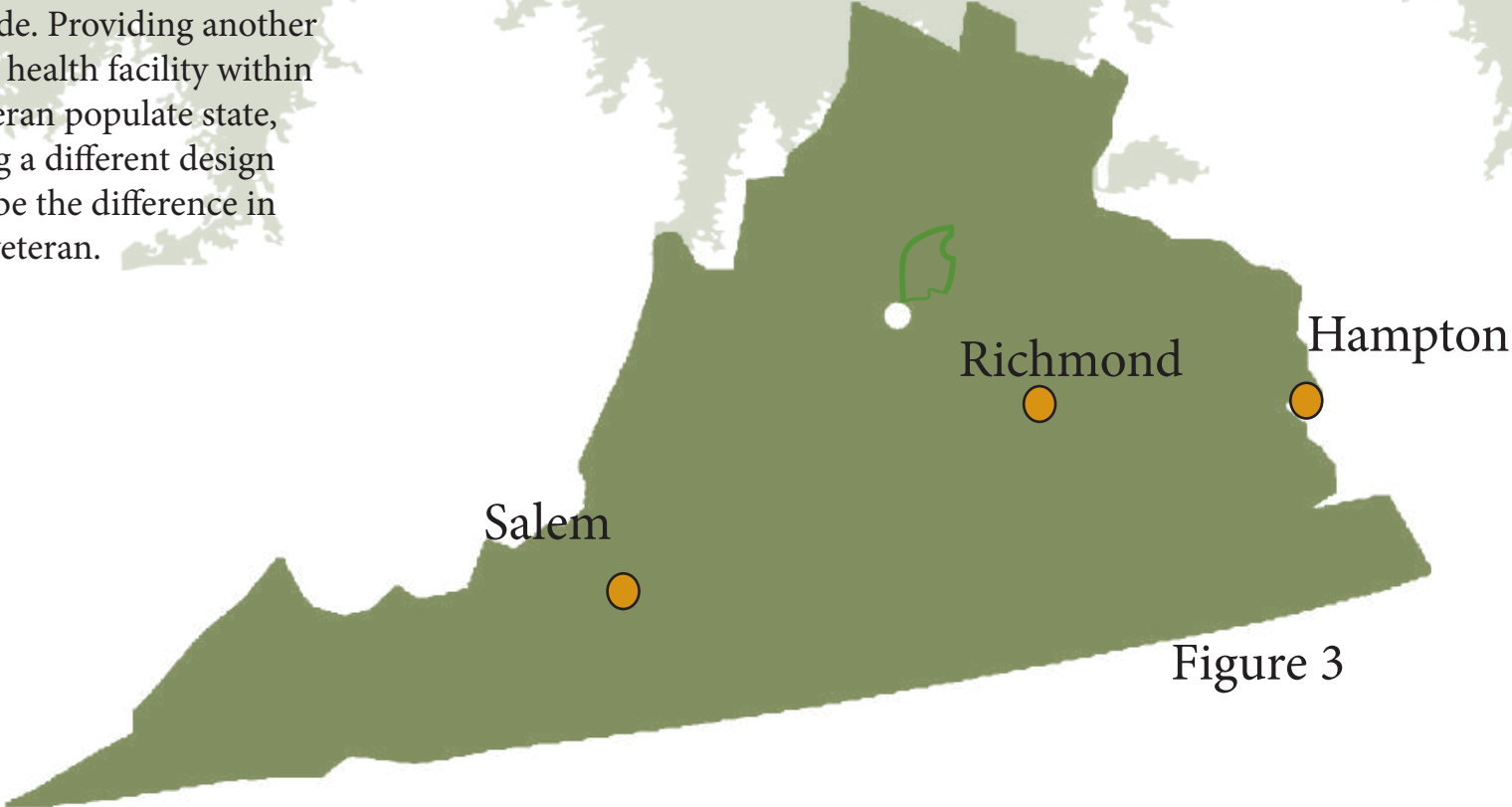


Figure 3

Hampton



Figure 4

Salem



Figure 5

Richmond



Figure 6



Typology Research

Case Studies



Veteran Suicide Rate

The suicide rate among veterans has been believed to be around 22 a day and thanks to an article published back in November 2022, the actual number is closer to being 17. In comparison to civilians or non-veterans, for every 100,000 persons, the ratio is doubled. Coming from an insider's perspective, it is hard to stomach that men and women who serve our country are losing their battles after they come home or even while they are away. Having a number as small as 1 is a number too big when losing anyone to suicide.

VA Medical Hospitals

In the past, the medical centers that the VA offers, tend to stick to a simple yet intimidating design that consists of brick and stone. This design impedes the initial perspective that veterans view and approach the center.



Figure 8

Cardinal Recovery

Location:

- .Franklin, Indiana
 - *Quiet Suburban Area
 - Tranquil, for those in recovery having a quiet surrounding is key

Facility:

- .Modern Style
- .Light Colors with Dark Accents
- .Spacious

Rooms:

- .Single Room
 - Full/Queen
- .Double
 - 2 Twin Beds
- .Lobby
- .Group Rooms
- .Kitchen
- .Visitation Area



Figure 9



First Impression

The main takeaway from this Cardinal Recovery was the understanding of what addiction was as well as mental health. Addiction is defined as a chronic, relapsing disorder characterized by compulsive drug seeking despite the harmful consequences and long lasting changes in the brain.

Causes of Addiction

According to the information provided, there is no concrete answer as to what causes addiction. There are however theories, for example, the theory of genetic predisposition which theorizes that it is embedded within our own genetic makeup. Another theory is due to a deficiency in the brain. Fewer receptor sites leads occasionally leads to the individual to “self-medicate” on negative substances like drugs, alcohol or unwanted behavior. This conquers up the question of “Why are the root causes of addiction discussed?” “Why is nothing being done?”. The answer to that is simple, it’s because society rarely talks about it.



ADINAL
OVERY

Is Addiction a Disease?

Stated by the AMA (American Medical Association) & ASAM (American Society of Addiction Medicine), addiction has been classified as a disease and mental disorder with the only solution has shown to be therapy of some type.

Treatment

Medication

Medications that add to them benefits of treatment consist of a variety of opioid, anti-depressants, and non-opioid.

Detox

A more crucial treatment is the detoxification phase. Offers a 24 Hr clinical care with therapy. In turn helps the patients body and mind adjust to the absence of negative substance.

Residential

Being placed within residence positively imposes the use of random drug and alcohol testing as well as the requirement of group therapy and group activities. This all can lead to the success in relapse prevention for the vacant of the facilities.

Outpatient Programs

Programs like these provide support while the patient is at his home residence. Includes up to 9 Hrs of treatment 3-5 days a week. This option is not mandatory and varies from person to person. This is more accustomed to lesser disorders like anxiety, depression, eating disorders, and process addiction.

Partial Hospitalization

This type of treatment helps remove any pressure that being home contributes. As well as separation from any family or friends that pose a negative influences. The patient is then able to focus on themselves without any temptations or distractions.

All Points North

Located in the mountains of Denver, CO, All Points North is a physical and mental health treatment center that gives the patient a surreal view that Colorado has to offer. APN offers medical treatments to help the individual heal and prepare to re-enter society.

Medical Detoxification

Medical detoxification is a form of treatment that assists with the patient's withdrawal management.

Health Assessments

The health assessments are classified as two-day behavioral tests that the medical profession has the patient complete to ensure that the best treatment is provided.

Deep Trans-cranial Magnetic Stimulation

This type of treatment is showcased as a non-invasive treatment for lesser disorders/addictions like depression, anxiety, OCD, and smoking.



Figure 10
27

Service Animals

Service animals are used to those who are in need of them physically and emotionally

Veterans show less PTSD related symptoms with a service animal

The table below have 4 groups: Individuals with PTSD and a service dog; Individuals with PTSD and a companion dog; Individuals with PTSD and no service animal; Individuals with no PTSD

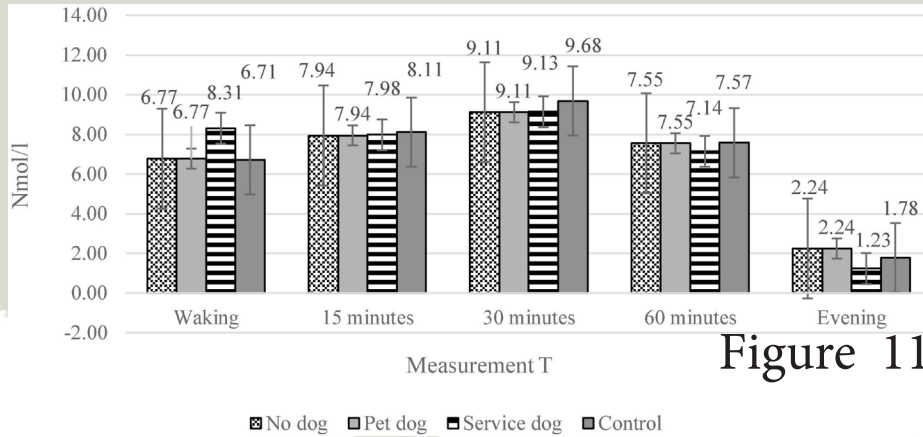


Figure 11

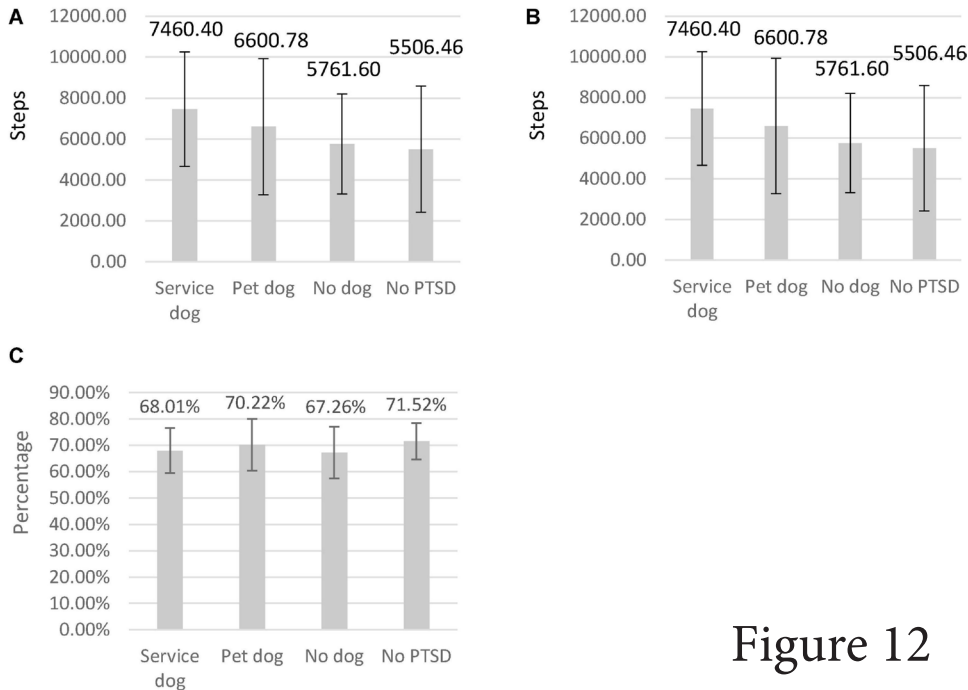


Figure 12

. Figure 1 shows the salivary cortisol levels, indicator of stress
 . Figure 2 shows the activity levels

West Maui Hospital

In terms of the layout of Anchored Leaf I relied on my study of how the West Maui Hospital was laid out to get a better sense of how close in relation each building should be. What I found resourceful was how the main building is the first building you see, welcoming you and providing a feeling of direction, while the sibling buildings are able to project the same feeling but in a more subtle tone.



Figure 13
29

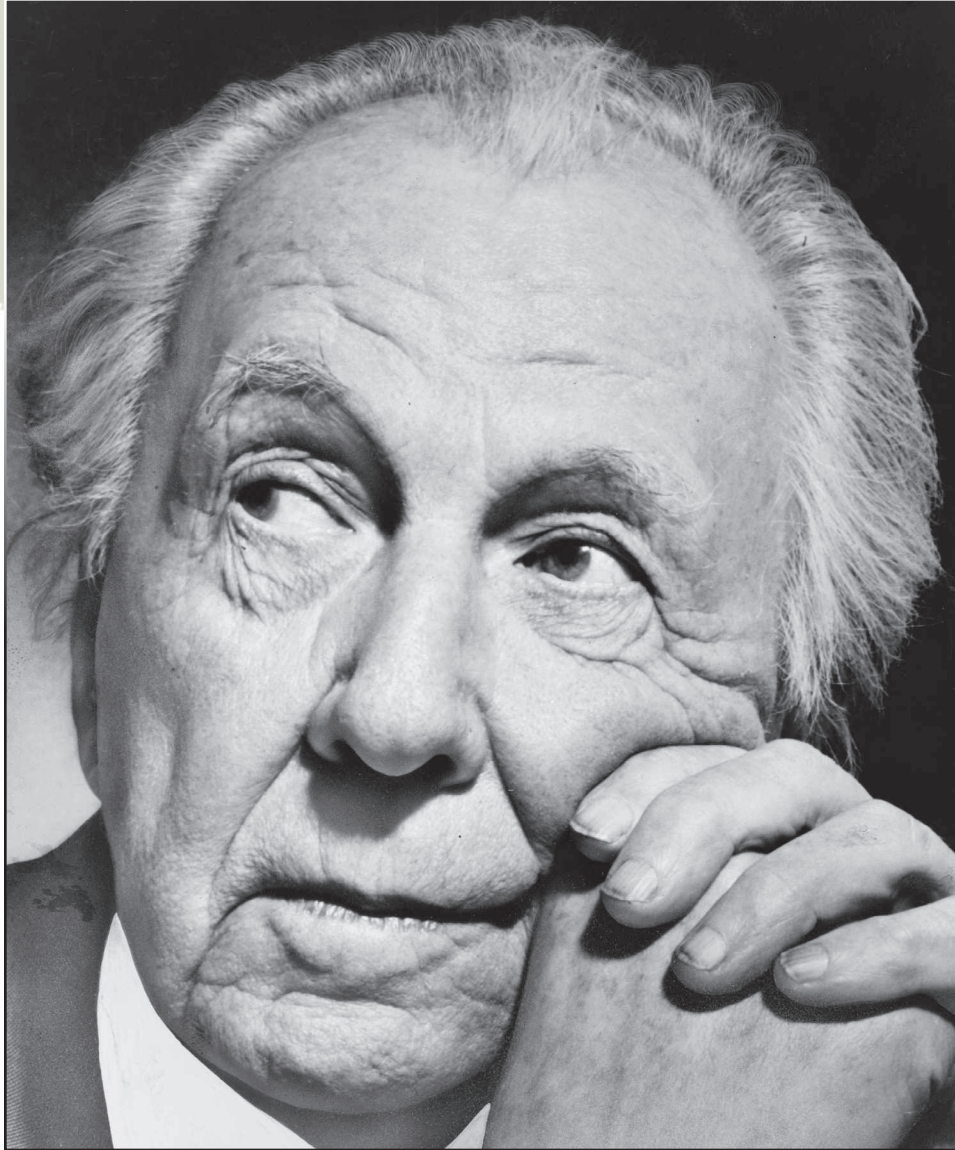


Figure 14

Usonian Design

As I was in the later process of my design, with the help of my professor Ron Ramsey, we realized that the design I was going for was a more abstract usonian design, like that of the style of the late Frank Lloyd Wright. Some characteristics of an usonian design is that it is a small building with typically 1 floor, providing the use of natural light, heating and cooling. The design is also famous for having flat roofs and natural ornamentation.



Figure 15
31



Figure 16



Design



Living Center
Community Center
Medical Center



Figure 17

The Master Plan that I designed has the Living Center and Medical Center placed strictly as context to the main focus of the Community Center. The layout was designed to have the Community Center be the first building you see as you make that turn into the facility.





Figure 18

The main design focus was chosen to be the community center because the sense of community in the minds of veterans and service members is huge. In comparison to the relationship between civilians and veterans, the comradery that people in the military is unmatched. Having to rely on your brother or sister to have your back in a fight, mentally or physically. For most service members, being in the military brings that sense of community and for some they lose that when they get out a never recover.

The overall goal was to not make this facility feel like the common institutional style that most VA centers project. From a service member's perspective, going to medical or feeling like you are in a hospital is unsettling and almost suffocating.



Figure 19



The entry into the community center with its pillars representing the number of veterans that commit suicide a day. The entry reaches out short of the parking lot, warmly inviting the veteran in and almost telling a story as they take their first steps towards recovery.

Figure 20

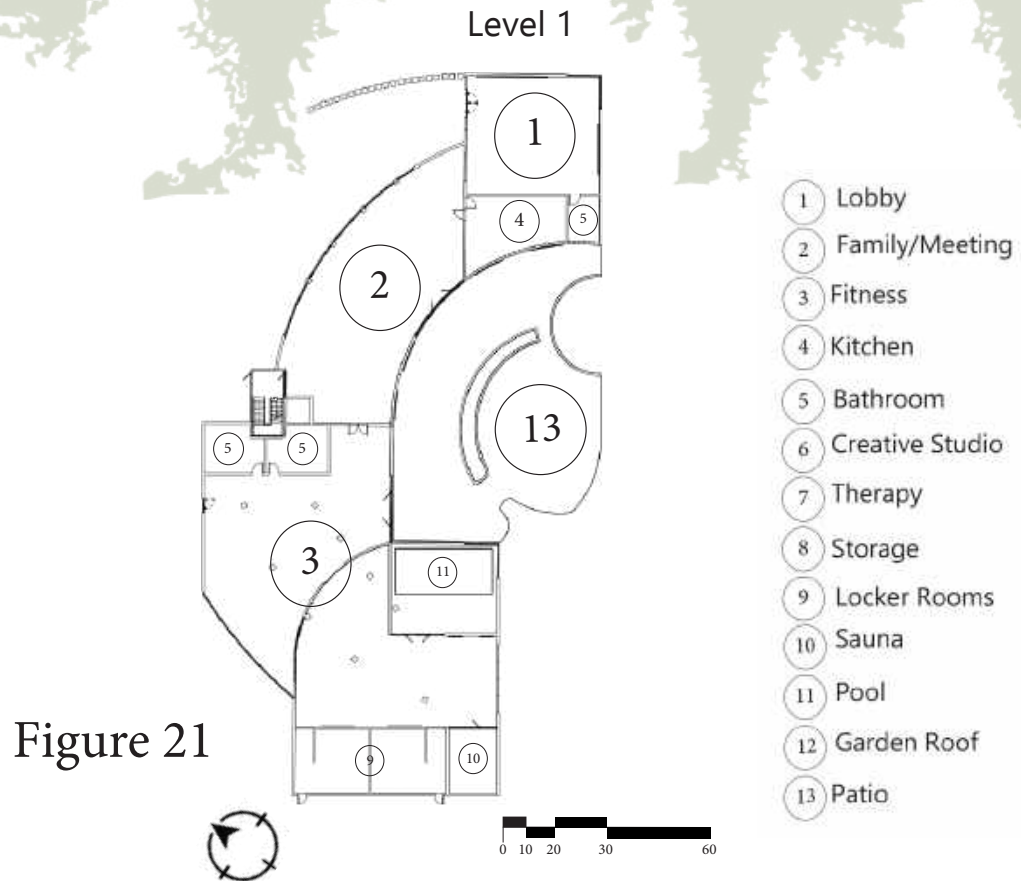




Figure 22

What motivated the overall shape of the Community Center was the need to have a building that had a natural flow-like image that was not forced. The roof design is meant to grab the attention of the viewer and bring a sense of peace as well as healing.

This is an aerial view of my building; I wanted it to feel warm and appealing to their eye even from a bird's eye view. The patio is in the shape of a leaf, symbolizing the connection to nature that the center is projecting with the landscape as well as its namesake.

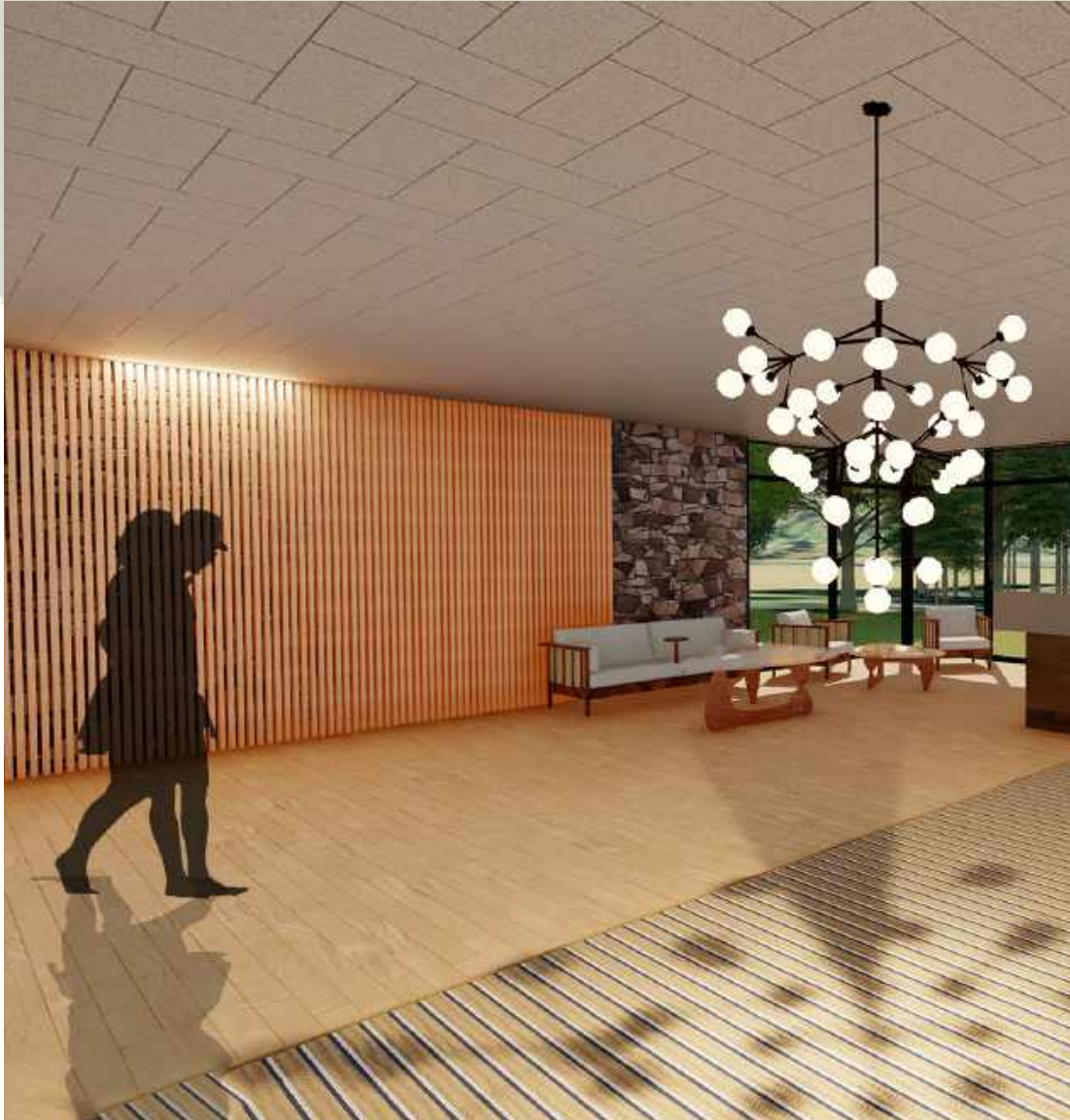


Figure 23

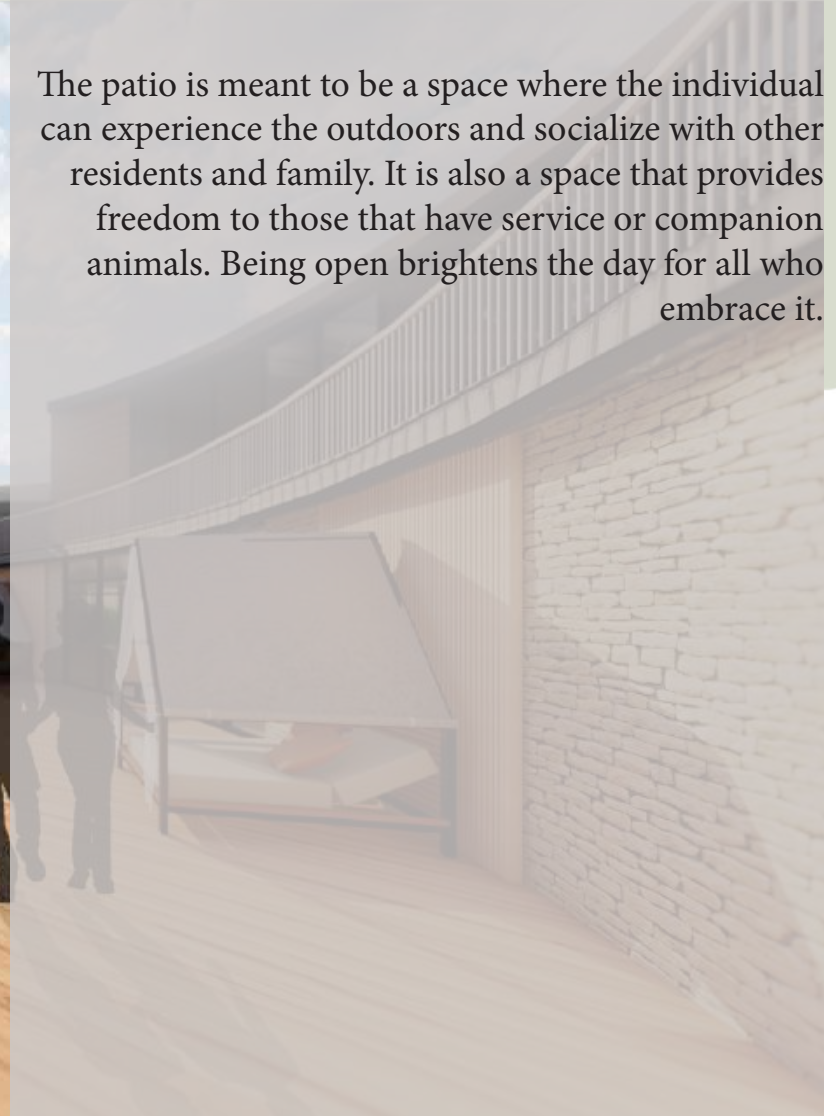
On the first floor, the lobby is the first point of entry leading into the family meeting room. From there you can access the stairs well and elevator to get to the second floor. The fitness center is separate from the other first floor areas so that privacy is provided.

With the warm atmospheric tone with wood slits and stone walls, it brings a calming a hearty embrace to the veteran in the entryway.



Figure 24

The patio is meant to be a space where the individual can experience the outdoors and socialize with other residents and family. It is also a space that provides freedom to those that have service or companion animals. Being open brightens the day for all who embrace it.





The fitness center is a big part of the facility, having a sauna and a pool where the veteran can relax and strengthen their body. Studies have shown that an individual who works on their own body physically can also in turn improve their own mental health.

Figure 25



Figure 26



Having a sauna helps lower cortisol levels and helps prevent cardiovascular disease. From experience the sauna also helps in the muscle recovery process after a workout.

Figure 27



The same goes for incorporating a pool. A pool provides great exercise as well as a relaxing form of therapy for the individual.

Figure 28

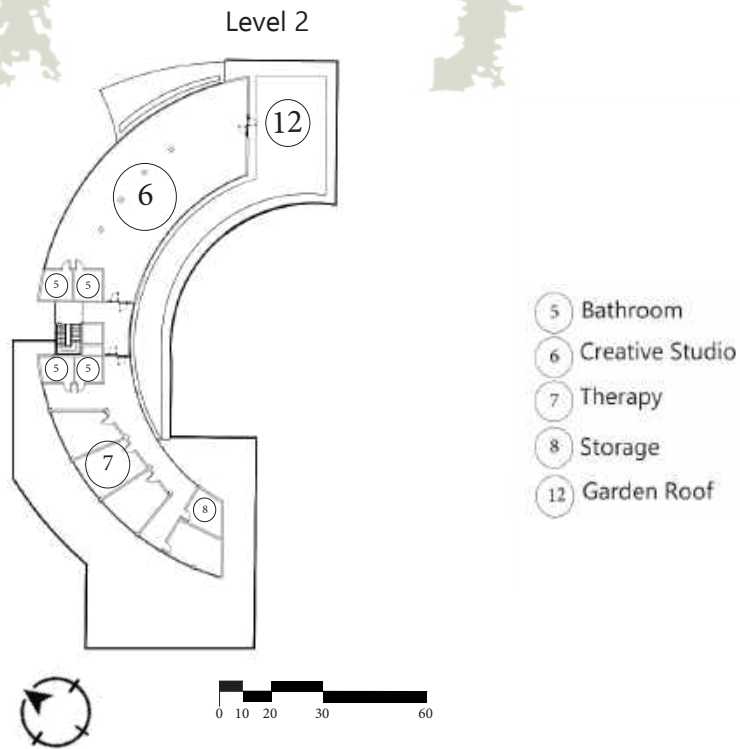


Figure 29



On the second floor the spaces are split up once again to provide privacy and security to the creative room as well as the therapy rooms. is where the art studio and roof garden are located. Being creative, whether that be in art or gardening, can bring a sense of control and expression to many who are having internal battles within themselves. This provides a healthy outlet.

Figure 30



Figure 31

The last space on the second floor is the most important, the therapy rooms. Anchored Leaf comes equipped with 4 therapy rooms each designed in relation to having a private talk with the certified therapist. Throughout most of the community center are curtain walls allowing natural light and natural heating/cooling. Being exposed to natural light in relation to artificial light can help the individual maintain natural levels of Vitamin D.

In relation to the curtain walls, shades are also being incorporated to help control the levels of sunlight into each room.

The section cuts shown help showcase how each floor compliments each space accordingly. This orthographic view helps showcase the creative studio as well as the family or group meeting area that leads onto the patio.



Figure 32

Shown are the entry way as well as the family meeting area along with the fitness center on the 1st floor. On the second floor, the creative studio as well as the therapy rooms are shown in relation to their sibling spaces.

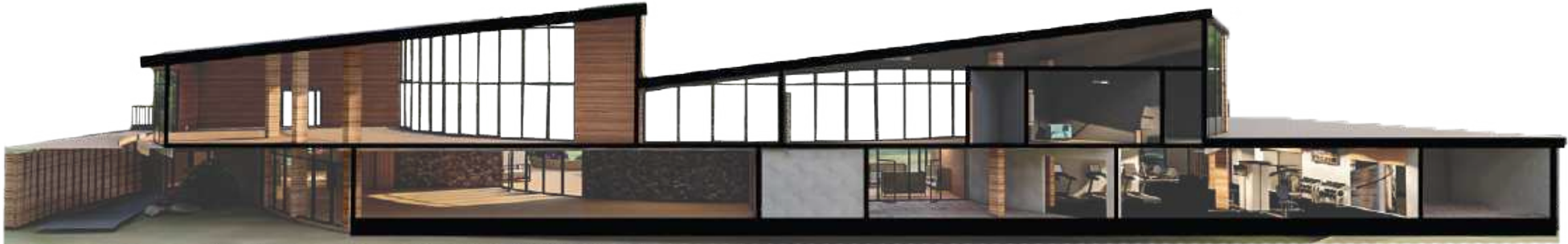


Figure 33



Project Justification

Why is this Important? During my time being alive, the military has been a part of my life constantly. Both my grandfathers served and did their time during the Vietnam War back in the 1970s. Having both being big influences on me, I enlisted in the USMC in 2015 and served until 2021, to which I switched to the North Dakota Air National Guard. While I was in, I have seen my fellow brothers and sisters struggle with their own personal battles, some of them being with their own mental health. I have struggled with mental health myself and would like to point out that the military may not always be in the main source or point. Sometimes it is past trauma and current family situations in which some veterans struggle with. Mainly though, from what I have personally seen, deployments and trying to make sense of the new society that they left behind is what is hard to come to terms with. Having a feeling of not belonging and embracing the feeling that no one truly understands what you are going through. This thesis is a very close topic and an important one at that.



Project Emphasis

The main emphasis that I want this thesis to present is helping veterans heal and deal with their mental health in a productive and healthy construct. The healing stages that must take place are crucial for these veterans to learn the emotions and thoughts that they are dealing with. By using warm colors in my design as well as drawing a focus to healing a incorporating the 5 senses will bring a sense of realism back to the veterans. Once the healing process has started or there is progress shown, then the phase of integrating back into society can be implemented. Overall, the focus is to get the veterans the help they deserve. The least that their country can do for them is to help them fight an enemy that no one can see.



Major Project Elements

Private Spaces One key element and one of the most crucial in understanding the veterans is allowing them the privacy that they deserve. Having private spaces where they can vocally and physically feel comfortable will play a huge role in bettering their health

- . Residential Rooms/Housing
- . Therapy Rooms
- . Creative Spaces
- . Outdoor Spaces

Public Spaces A main benefit of having public spaces is the simple fact that it gives the residents the ability and opportunity to interact with others. Improving the mental aspect as well as helping veterans reintegrate into society but starting with others like them.

- . Gym
- . Dining Area
- . Visiting Area
- . Lobby/ Reception



User/ Client Description

Owner Department of Veteran Affairs

Users

- . Residents/Veterans
- . Doctors/ Physicians
- . Nurses
- . Admin Staff
- . Cooks
- . Janitorial Staff
- . Security
- . Physical Trainers
- . Visitors

VA



**U.S. Department
of Veterans Affairs**

Figure 34

Goals of the Thesis Project

My overall goal for this thesis is to bring attention to a serious issue among our armed forces as well as a society. This thesis can prove to be a big first step in the world of architecture. Another goal is to be able to have the ability to speak the emotion and struggle as well as the healing through architecture design. If veterans can be helped properly and respectfully then so can anyone with mental health conditions.



Plans for Proceeding

The documentation of my thesis will be done by being compiled into archived files. My research supporting my thesis will be noted down in the Project Book along with the floor plans and renderings of the thesis structure.



Research Direction

To keep researching and finding a better understanding of veteran's mental health to help further accredit my thesis. In terms of mental health, it is never too much information to know.



Design Methodology

How can we help the veterans? Bringing in licensed and certified doctors and physicians with non-military and military background. Having a mix of the two fields of thought will bring a solid understanding of what is going on.

Design Using warm colors or earthy tones will bring a sense of comfort and normality to the residents. Having a solid spatial organization will also provide any privacy required as well as the accepted public spaces. The goal is to try and design a facility that invokes and projects the emotion that veterans of the armed services have experienced and share. It is a brotherhood, a bond that only those who serve can feel.



Schedule/ Work Plan

Shown below projects the work plan that was taken to complete the thesis

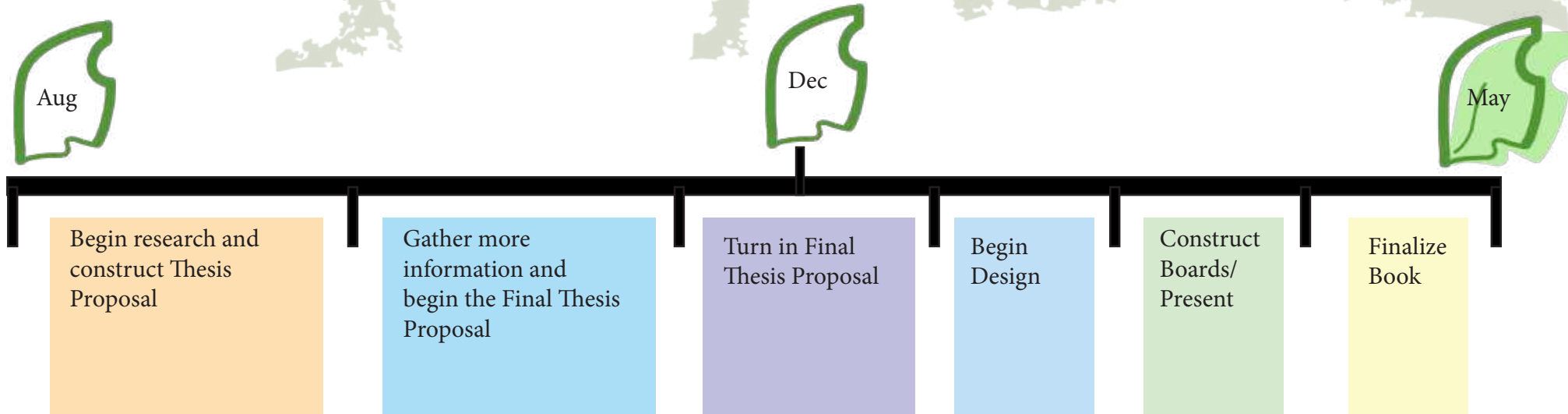


Figure 35



Appendix/References

. How nature benefits mental health. Mind. (n.d.).
<https://www.mind.org.uk/information-support/tips-for-everyday-living/nature-and-mental-health/how-nature-benefits-mental-health/>

. Ranch, A. (2021, June 28). Frank Lloyd Wright's Usonian Utopia. Home. <https://www.atomic-ranch.com/architecture-design/frank-lloyd-wright-sonian/>

. Reggev, K. (2021, February 17). What you need to know about Frank Lloyd Wright's Usonian Homes. Dwell. <https://www.dwell.com/article/sonian-homes-frank-lloyd-wright-e75b5b56>



Appendix/References

. U.S. Department of Health and Human Services. (n.d.). Psychotherapies. National Institute of Mental Health. <https://www.nimh.nih.gov/health/topics/psychotherapies#:~:text=The%20goal%20of%20therapy%20is,mental%20health%20professionals%20or%20approaches>.

. Va.gov home. Veterans Affairs. (n.d.). <https://www.va.gov/>

. van Houtert, E. A. E., Rodenburg, T. B., Vermetten, E., & Endenburg, N. (2022, April 12). The impact of service dogs on military veterans and (ex) first aid responders with post-traumatic stress disorder. *Frontiers*. <https://www.frontiersin.org/articles/10.3389/fpsy.2022.834291/full#:~:text=We%20found%20that%20veterans%20and,those%20with%20a%20companion%20dog>.

. Vincent-Roller, N. (2022, November 1). Misinformation: 22 veteran suicides a day. Policy Research Associates. <https://www.prainc.com/22-veteran-suicides-a-day/>



Appendix/References

. 7 ways creativity boosts your mental and Physical Health. MemorialCare. (n.d.). <https://www.memorialcare.org/blog/7-ways-creativity-boosts-your-mental-and-physical-health#:~:text=Creative%20ventures%20help%20to%20fight,a%20sense%20of%20emotional%20harmony>.

. All points north (APN): Mind-body treatment & integrative health. All Points North. (2023, March 27). <https://apn.com/>
.Drug and alcohol rehabilitation facility. West Maui Hospital and Medical Center. (n.d.). <http://www.wmhf.org/drug-rehab>



. Hamilton, A., Ashe, A., & Henry, P. (2023, March 7). 20 veteran quotes to Uplift Veterans - Heroes' Mile Veteran Rehab of Fl. Heroes' Mile Veterans Recovery Center. <https://www.heroesmile.com/20-veteran-quotes-to-uplift-veterans/>

Appendix/References

. In Drug & Alcohol Rehab treatment. Cardinal Recovery. (2023, February 1). <https://cardinalrecovery.com/>





Previous Studio Experience

. 2nd Year Studio Fall 2019

- 271 Milton Yergens
 - * Dwelling Moorhead, MN
 - * Boathouse Minneapolis, MN

. 2nd Year Studio Spring 2020

- 272 Cindy Urness
 - * Marfa, TX Project
 - * Mixed Used Project Fargo, ND

. 3rd Year Studio Fall 2020

- 371 Paul Gleye
 - * Cultural Center Fargo, ND
 - * Mixed Use Project Fargo, ND

. 3rd Year Studio Spring 2021

- 372 Emily Gou
 - * Google Grid Project
 - * Landscape Competition

. 4th Year Studio Fall 2021

- 471 Amar Hussien
 - * High Rise
Miami, FL

. 4th Year Studio Spring 2022

- 472 Paul Gleye
 - * Re-imagined Downtown
Moorhead, MN



About Author



About Author



David “Chips” Pringle





Thank you.