Back from Away:

An Alternative Treatment Centre for Military Personnel Affected by Post Traumatic Stress Disorder

by
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Abstract

This practicum project examines the relationship between military cultural identity and stigma in its association with mental health within the military in regard to Post Traumatic Stress Disorder (PTSD). Utilizing social theory and psychological research, it proposes the redesign of the North Pavilion building on the Deer Lodge campus in Winnipeg. This project analyzes the potential of alternative healing environments centered around wellness to successfully challenge stigmas that deter those with PTSD from seeking treatment and promote reintegration. This process has resulted in an exploration of how interior design can reimagine mental healthcare environments in a more socially aware manner that addresses issues imbedded within military culture deterring individuals from seeking care. The underlying outcome is an interdisciplinary investigation that challenges stigma, promotes reintegration and aids in improving quality of life for individuals seeking treatment for PTSD and who may be undergoing a challenging transition from military to civilian life.

Acknowledgments

To my advisor, Dr. Susan Close, I simply can not thank you enough for all you have done for me. Thank you for your endless enthusiasm, patience, guidance, and motivation, for encouraging me to explore and take unique paths in making this project my own. You will never know just how much your support and always having you in my corner has truly meant to me.

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To my dad, I could have never made it this far without you. Thank you for always being there for me, for encouraging me to take risks and push myself just a little bit further. Thank you for lending me your strength and for always knowing the right things to say when I need to hear them the most.

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The North Pavilion

Chapter One: Introduction

"PTSD … destroyed the person I was. That carefree, vital man became two men in the wake of injury. One is the person you meet, still duty-bound, whose emotions are identifiable and whose reactions usually seem normal. The other is the man inside me, the one who never really came back, who still lives on the battlefield."

Romeo Dallaire

Project Description

This Master of Interior Design (MID) practicum utilizes an interdisciplinary approach drawing on adaptive reuse, social theory and psychological research to explore how interior design can reimagine alternative healthcare environments. The building selected for the proposed design is the North Pavilion building located on the Deer Lodge campus at 2109 Portage Avenue in Winnipeg, Manitoba within the Deer Lodge district. I am proposing the design of a centre that would act as a transitional healing space focussing on rehabilitation and reintegration of military personnel suffering from Post-Traumatic Stress Disorder (PTSD) and their family members. I intend to investigate questions posed by existing research regarding how socially constructed norms such as gender performance impact military culture in relation to seeking treatment for PTSD and what types of treatment centers would be most successful in this kind of social setting.

Introductory Background

PTSD is defined as a psychological response resulting from exposure to a traumatic event or extreme stressor where an individual has felt significant fear, hopelessness or horror. While a number of occasions can trigger PTSD, this practicum focuses on PTSD within the military community, primarily resulting from combat exposure. The four distinct categories of symptoms that correspond to PTSD are re-experiencing, avoidance, negative alterations in cognitions and mood, and hyper-arousal (U.S. Department of Veterans Affairs, 2017). These symptoms will be discussed in detail in the literature analysis (Chapter Four). PTSD is a common occurrence among active and retired military personnel. It is a potentially disabling condition that negatively impacts all areas of a person's daily interactions, significantly decreasing quality of life and life satisfaction (Rosen, et al., 2011). PTSD can be triggered by numerous environmental and social conditions that may seem unrelated and can be hard to predict. Combat veterans with PTSD are especially susceptible to experience significant difficulty reintegrating into society, maintaining interpersonal relationships and contributing to secondary trauma in family members and caregivers (Link & Palinkas, 2013, p. 384).

PTSD treatments are based on a diagnostic process model that utilizes quantitative and qualitative research methods to assess dependence on substance abuse, use of dysfunctional cognitive approaches to trauma and stress management, as well as perceived readiness for treatment to prescribe treatment plans for those with symptoms of PTSD (Triffleman, 2000, p. 114). It has been suggested that this model is limited however, as it does not account for psychosocial or physical stressors that can result from PTSD (Triffleman, 2000, p. 114). Current treatments for PTSD take place in controlled clinical environments that can often be sterile and cold (Polak, et al., 2012). An inherent quality in most clinical environments and healthcare facilities is that they tend to strictly focus on rehabilitation rather than reintegration. These types of settings do little to address the stigma around mental health that prevent a significant number of soldiers from seeking treatment.

In addition, the focus on rehabilitation further isolates individuals from the community rather than smoothing their transition back to civilian life. Social theory on military culture discussed in the literature analysis of this practicum suggests that individuals who are suffering from symptoms of PTSD within the military commonly internalize their experiences, which is understood as a part of avoidance.

This behaviour alienates them from potential support networks and can lead to a higher degree of isolation that has proven detrimental consequences (Wallace & Wolf, 2006, p. 255). This practicum aims to develop ways of creating an environment that addresses these issues to reduce situations that contribute to isolation and avoidance.

In his book *What have We Done: The Moral Injury of Our Longest Wars*, author David Wood recounts experiences that have stayed with veterans long after their return from deployment. In one instance a soldier is required to kill a child who was twelve to thirteen years old out of self-defense. Wood goes on to detail how the soldier's actions were justifiable by military law. However, upon returning home, this individual was faced with transitioning into civilian life where these same actions are now seen as violating societies moral code and the culturally accepted norms of what constitutes right and wrong. The memory that this soldier carries with him after his deployment is described as a bruise on the individual's soul (Wood, 2016, p. 73). The opening quotation by retired general, former senator, best seller and leading humanitarian Romeo Dallaire, begins to touch on the heart of this practicum project. Images and memories do not fade when a soldier returns from war. Rather, these imprints stay with them years after soldiers have returned to civilian life, complicating the transition process by creating conflicting identities within an individual, the person they were before they left for deployment, and in the case of people with PTSD, the person who was never fully able to return.

"The Army needs its soldiers to kill without thinking too much about the moral implications before or after pulling the trigger – Paul D. Fritts, Major and Chaplan, U.S Army" (p. 73).

As noted in the above quotation, soldiers are trained to prevail in battle; this means that they are prepared to do whatever is necessary for the good of the mission and the safety of their unit, even if this means they must take another life. The result of this can be conflicting emotions, which illustrates the paradox that can dominate the lives of soldiers returning from a war tour. These individuals are caught between pride in having performed their expected duties to the best of their abilities and in prevailing in a difficult and potentially life-threatening situation, and the dark shadow that accompanies a foreboding and sometimes disabling sense of wrongdoing (Wood, 2016, p. 88). In addition to this, they may be torn between feeling relief at having survived their tour, joy and happiness in returning home to their loved ones and feelings of survivor's remorse, or guilt. Combat-related guilt is strongly associated with re-experiencing, cognitions and avoidance symptoms that significantly contribute to increased severity of PTSD symptoms (Litz, et al., 2009, p. 697).

Societal Context

The majority of concern regarding the poor treatment of returning soldiers with PTSD during wartime and postwar centered around the belief that mentally wounded men were labeled as degenerates (Reid, 2014, p. 97). In more recent years, the media has drawn attention to the grave impacts that psychological damage can have, sometimes exceeding the extent of physical injury, and that it is the effects of emotional or mental trauma that can profoundly afflict those struggling during and after their service with inner turmoil.

The stigma surrounding mental health within military and civilian communities stands as a significant barrier for individuals coming forward and seeking treatment for their symptoms. While much of the stigma stemming from military communities is concerned with PTSD as a sign of weakness, or cowardice, the media portrays instances of veterans who have become a danger to others as a result of their symptoms. This contributes to an additional stigma of returning soldiers with PTSD as a menace or threat to the communities they are responding to. Wood addresses this misconception by stating: "While some veterans cannot find peace after a moral injury, most of those who have felt morally injured are not disabled, are not broken or dangerous, do not fit the insulting stereotype of combat vets as lunatic unemployed, homeless, drug-addicted criminals" (Wood, 2016, p. 106). This speaks to the heart of this practicum by noting the significance of reintegration as well as rehabilitation. These types of stigmas can only be overcome through considerate reintegration of service members into their surrounding communities in facilities that aim to address the stigma barriers surrounding mental health and easing the transition period for returning veterans. Rehabilitation can occur in conventional clinical settings. However, reintegration requires a facility that welcomes users, connecting with them on a culturally considerate level, promoting acceptance and encouraging those who need treatment to utilize the facility rather than hideout of a sense of shame and fear that these types of stereotypes perpetuate.

Typology and Purpose

This project focuses on alternative forms of healthcare facilities that foster a sense of community and work to alleviate stigmas currently preventing those in the military from utilizing mental health care treatment centers. As mentioned in the preceding section and further investigated through the literature analysis in chapter four, many current treatment options involve heavily stigmatized practices and procedures. More often than not, these methods take place in clinical or sterile environments that create conditions known to trigger symptoms of PTSD in an unwelcoming atmosphere that can deter users from using the facility.

Research suggests that a person's environment can have a more significant impact on their behaviour and emotional state. This is due in part because individuals often attribute spaces with conscious or subconscious meaning. Whether intentional or not, these symbolic meanings have the power to enrich human experiences of a space because the built environment provides a framework for the activities that take place within it and how people perceive the experiences this leads to (Tan, 2011). This project utilizes an interdisciplinary approach to analyze how healing environments can be enhanced through the inclusion of sociocultural norms. The proposed design acts as a transitional space focusing equally on the rehabilitation as well as reintegration of military personnel and their families. The Centre functions as a healing space for military personnel to connect with one another in a supportive environment designed to encourage positive behavior. The facility will also provide services to family members of military personnel who may be suffering effects from secondary trauma. The intention driving the design development is to aid the transition process by providing care and promoting a healthy reintegration into society.

Site Selection and Community Considerations

While a more in-depth analysis of the Deer Lodge campus and surrounding area are provided in the following chapter, it is worth noting that this site was selected due to its proximity to the intended user group as well as the site's historical association with Veteran's healthcare.

In addition to historical relevance, the site was chosen as it offered the most potential for enhancing a sense of community. Because it is located adjacent to Assiniboine Park and is surrounded by an abundance of nature, the area offers a unique opportunity to capitalize on nature. The site was also chosen for its convenience, ensuring the facility is readily accessed while avoiding congested urban neighbourhoods that would likely cause anxiety or trigger symptoms in users when traveling to the facility. The site is located relatively adjacent to communities that are densely populated by military personnel and their families in a residential neighbourhood. The selected community encourages integration within the surrounding neighbourhood and symbolizes cultural acceptance and encourages the development of social support networks which can be vital to the recovery process.

Research Questions

This practicum aims to reduce negative symptoms of PTSD by providing a welcoming environment that will encourage users to seek treatment for their symptoms. The goal of the proposed design is to create a functional, transitional space with the intention of fostering healthy social connections to promote a smooth integration into civilian life for those returning from deployment. This project draws on theoretical and literary research to inform the design of an environment that reduces stress and provides a calming space for both caregivers as well as those seeking treatment. Cultural theories on socially constructed norms are utilized to propose an atmosphere of psychological well-being that addresses negative stigmas around mental health while encouraging positive dialogue among users in order to create strong social networks. The following questions were used to guide the research and design process of this project towards the previously mentioned objectives:

1. How can interdisciplinary research related to PTSD inform a built environment that is more approachable by reducing stress, reducing stigma associated with mental health, and providing a space free from known triggers?

2. What sensory and aesthetic qualities would develop a favorable alternative healing environment that fosters healthy social connections and promotes strong support networks?

3. How can theory-based design inform an approach to a model of an alternative healing environment that cultivates a culture of acceptance over silence and perpetuates reintegration by challenging the oppressive stigmas that prevent many military personnel from seeking treatment?

Research Methods

The following research methods were used to answer the preceding research questions and guide the design process:

- **Visual Essay:** The visual essay presented in Chapter 2 offers a series of photographs made by the author that document several different walking paths various types of users could take around the site. These pathways document the neighbourhood and offer a human scale experience of how users may interact with the site and surrounding area.

- **Design Precedent Analysis:** The design precedent analysis in Chapter 3 analyzes three unique healthcare facilities that all incorporate elements of integration within the community. The intention of this chapter is to demonstrate how other designers have addressed some of the issues discussed in the literature analysis to create facilities that work to reduce stigma associated with mental health. The precedent studies in this chapter offer an opportunity to reflect on the possibility of what a considerate healthcare facility could be rather than what they are based on what they have always been.

- **Literary Analysis:** The literary analysis functions to identify historical, societal and cultural issues surrounding PTSD within the military community. Of particular interest are the works that examine factors that cultivate a culture of silence and perpetuate the oppressive stigma that prevents many military personnel from seeking treatment. The analysis presented in this Chapter served to provide a framework that informed the design precedent analysis and set the foundation for the programmatic elements and design process of this chapter.

Project Benefits

At its core, this project revolves around the concept of working with military cultural identity and societal beliefs to provide the maximum benefit for the intended users of a space. As is evident in the literary analysis, mental healthcare facilities often attempt to work against cultural values and embedded task orientated circumstances and training to challenge stigma. By building on the foundations examined in the preceding analysis, this practicum helps to illustrate the value of taking an interdisciplinary approach to interior design with the intention of creating more inclusive built environments. Healthcare as a typology is a significant percentage of the interior design field which often involves a heavily formatted process that replicates similar atmospheres across numerous facilities within this category. Hypothetical projects such as this one iterate the significance of including cultural and social theories within the design process while showcasing that practitioners in the field are thinking of alternative spaces to enhance the wellness as well as health of users.

Biases and Limitations

PTSD is a broad topic with many sub-categories that apply to multiple subject groups. In the interest of providing an in-depth exploration and literary analysis, this project focusses on military-specific PTSD rather than encompassing a brief summary of all aspects of this issue. The majority of the literature on this topic deals with gender in binary terms, especially when discussing topics of military culture and identity. In order to keep the scope within a reasonable realm of this project, sexual traumatization is not included within the literary analysis.

The design process of this project caters to a specific group of users. Research presented in the literature analysis highlights the need for healthcare environments that cater to military personnel. This is not to isolate and exclude the user group from the surrounding community, but rather to create an inclusive and considerate environment that will be more approachable for the intended user. The proposed design is based on the evidence presented in the literary analysis that suggests a cultural approach to addressing issues of stigma surrounding mental health. Therefore, this design is not a model for mass production and should be considered as a process rather than an outcome to be applied in other mental healthcare facilities.

From a design standpoint, one of the limiting factors in pursuing this project was the inability to document the existing interior and limited access to tour the building. Documentation would serve as a useful reference tool in the design process and would have identified any significant architectural features for preservation. Without these details, the proposed design is based on limited information gathered from skeletal architectural plans and a partial tour.

Finally, the North Pavilion at the Deer Lodge Centre is currently a multi-function building offering a variety of services. Although this is a hypothetical project, the proposed design could be interpreted as biased towards a military culture at the cost of displacing other civilian services. However, this displacement is necessary within the scope of this project to create a space capable of encouraging users to seek treatment and successfully overcoming the barriers presented by current stigmas discussed in the literary analysis (Chapter 4). In addition, the Deer Lodge Campus is large enough to accommodate these services elsewhere. Because of this, the research suggests that it would be more effective to utilize the building in its entirety for the specialized services catering to military personnel seeking treatment for PTSD and their families rather than continue the current function of offering a mixture of military and civilian services within the same facility.

Key Terms

• **Post-Traumatic Stress Disorder (PTSD):** A psychological response resulting from exposure to a traumatic event which can result in physical symptoms. The four defining categories of symptoms that correspond to PTSD include re-experiencing, avoidance, negative changes in cognitions and mood and hyperarousal (U.S. Department of Veterans Affairs, 2017). PTSD is defined as a life-altering condition that can cause significant occupational dysfunction and a decrease in quality of life. It was legitimized in 1980 after being included in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) (Borders, 2015, p. 74).

• **Moral Injury:** A psychological response that shares many similarities with PTSD occurring from soldiers breaking their personal moral code or being overcome by guilt. It is described as a jagged disconnect from a person's sense of self and how they fit into the world around them. This effect is furthered because norms of what constitutes right and wrong drastically differ between circumstances of military operations and civilian life. For example, lawful use of force during war including assault or murder (Wood, 2016, p. 88).

• **Avoidance:** One of the primary symptoms associated with PTSD. Avoidance includes the persistent avoidance of stimuli and reminders of the event such as; avoiding distressing memories, thoughts and feelings that are closely linked to the event. As well as avoidance of external reminders that may provoke these thoughts, memories, and feelings (American Psychiatric Association, 2013).

• **Changes to Mood and Cognitions:** A known category of symptoms for PTSD included in the DSM-5 diagnostic model. Symptoms are marked by negative alterations in mood and cognitions associated with the event. These symptoms begin or worsen after the event occurs and include two or more of the following categories; the inability to remember important aspects of the event due to sociative amnesia. Persistent and exaggerated negative beliefs about oneself and others. Distorted cognitions about the cause and consequences of the event. Persistent negative emotional state; notable diminished interest or participation in important activities. Feelings of detachment and estrangement. Persistent inability to experience positive emotions. Notable physiological reactions to internal and external cues that resemble or signify aspects of the traumatic event (American Psychiatric Association, 2013).

• **Intrusion Symptoms:** A primary category of symptoms corresponding with PTSD. Intrusion symptoms involve: Recurrent, involuntary, and intrusive distressing memories of the traumatic event. Recurrent distressing dreams related to the traumatic event. Dissociative reactions where the individual feels or acts as if the event were reoccurring. Intense or prolonged psychological distress when exposed to internal or external stimuli that resemble or signify aspects of the event (American Psychiatric Association, 2013).

• **Hyper-Arousal:** A core symptom of PTSD that includes marked alterations in arousal and reactivity associated with the traumatic event such as: Irritable behaviour and outbursts of anger; Reckless or self destructive behaviour; Hypervigilance; Exaggerated startle response; problems with concentration, and sleep disturbance (American Psychiatric Association, 2013).

• **Post Traumatic Growth (PTG):** a positive effect that occurs as a result of successfully overcoming traumatic experiences. This effect is measured through the demonstration of closer social relationships, optimism, discovery of personal strengths and a greater appreciation, and quality of life (Angel, 2016, p. 57). PTG correlates with a positive change in self-view, relationships, and philosophies. It signified that a person has successfully overcome their PTSD (Dekel, Mamon, Solomon, Lanman, & Dishy, 2016, p. 196)

• **Caregiver Burden:** Also known as burnout where those providing care for individuals with PTSD may also experience caregiver burden, their emotional and physical health along with their social life and financial status is compromised due to their having to care for an impaired relative (Dekel & Monson, 2010, p. 305). Burnout is characterized by emotional exhaustion and cynicism. Similarly to individuals suffering from PTSD, caregivers who use social support coping mechanisms tend to have fewer symptoms (Bride & Figley, 2009, p. 320).

• **Gender Performance:** Socially and culturally dictated norms that influence a common understanding of binary genders and socially acceptable behaviors and appearances based on sex.

• **Culture:** A construct that defines peoples' sense of self and identity. Culture is defined providing significance in an individual's life that instills shared socially accepted norms, values, traditions, believes, and concepts of self (Demers, 2011, p. 161).

• **Secondary Trauma:** The experiencing of PTSD symptoms in family or caregivers through projection, identification, or hearing vivid and disturbing details of a traumatic event someone in an intimate relationship with the person has endured (Link & Palinkas, 2013, p. 379).

Chapter Summaries

• **Chapter 1:** The Introduction outlines the intent, methods, goals and research questions that guide this project. The building, site considerations, benefits and limitations are identified. An introductory background along with context is provided to set the foundation for the document by introducing critical concepts that are explored through subsequent chapters.

• **Chapter 2:** The Building and Site Analysis identifies the proposed site of the project. Historical context and an architectural analysis is provided for the building. The site selection is justified through a discussion of historical relevance pertaining to the community. A visual essay is presented to document key aspects of the surrounding neighbourhood and represent different walking trails the users identified in Chapter 5 could potentially take to ease any anxiety while visiting the facility.

• **Chapter 3:** The Precedent Analysis is presented in detailed subcategories that outline the significance each section has in relating to the design process of this practicum. The five essential components of each precedent analysis are theoretical intent, programmatic features, design aesthetics, design elements, spatial attributes and critical observations. The three chosen precedents are Bridgepoint Active Healthcare Campus and The Centre for Addiction and Mental Health in Toronto, Ontario, as well as Johns Hopkins Medicine International in Baltimore Maryland. These have been selected primarily for the ways in which they challenge stigma of mental health and integrate the facilities within the community to promote acceptance.

• **Chapter 4:** The Literary Analysis is organized into four thematic sections. The first identified PTSD including symptoms and triggers as well as discusses current and potential treatments. The second explores concepts of military culture and identity while outlining a brief history of how PTSD has been historically regarded within this community. The third section builds on the second by analysing how the values inherent in these cultures contribute to the stigma that prevents many service members with PTSD from seeking treatment. Finally, the fourth section examines the effect of deployment and PTSD on military families and caregivers. This Chapter lays the theoretical groundwork for design process presented in subsequent chapters.

• **Chapter 5**: The programming Chapter sets the foundation for the following design presented in chapter 6. The user group is identified along with programmatic tables that detail the essential elements and attributes of each space. A representation of the user group is presented through numerous fictional characters based on qualitative case studies and memoirs.

•**Chapter 6:** The Design Application proposes a design that is informed by the research elements of this project. This Chapter presents visual representation of the space in the form of drawings, renderings and floor plans that illustrate how the completed design draws on the groundwork presented in preceding Chapters to address the key issues raised in the literary analysis.

• **Conclusion:** The Concluding section reflects on the ties between the research and design elements of this precedent. Lessons learned, and future directions for further development are identified.

Chapter Two: Site and Building Analysis

Site Analysis

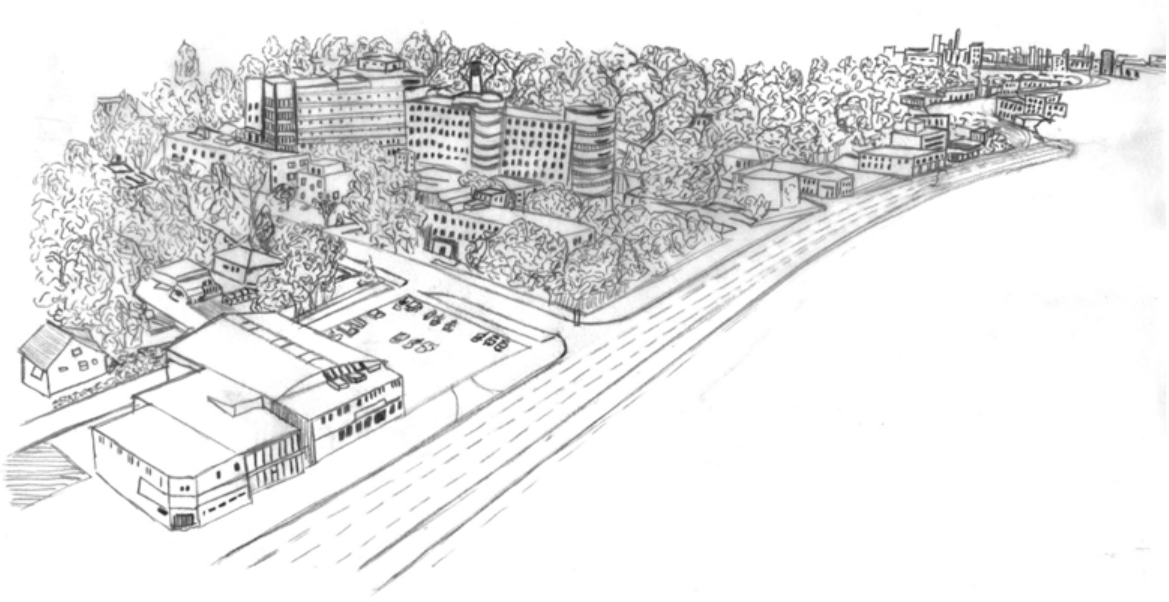


Figure 1: Sketch of the Deer Lodge Centre and vicinity. This image is intended to illustrate the context of the selected neighbourhood. The campus provides the only tall buildings in the immediate area, essentially located among the treetops of a residential community.

Introduction:

The Deer Lodge Centre located at 2109 Portage Ave. in Winnipeg Manitoba has been chosen as the site for this practicum. The site selection process was informed by the literature review and precedent analysis that resulted in a directive to select a site that would enhance sense of community and address the stigma associated with seeking treatment for mental illnesses such as PTSD while offering a safe, welcoming environment that contributes to users well being and dignity.

MMP architects designed the Deer Lodge Centre. The original building was constructed in 1873 with the latest renovation occuring in 2012. It is located at the St. James area of Winnipeg, adjacent to the Assiniboine River and public green spaces. The primarily residential area is an ideal site for the proposed location as it allows the facility to function as an extension of the community while also allowing for a connection to nature. The site lets users comfortably transition into the community in a safe environment where commercial amenities can be easily accessed without the overwhelming triggers often associated with densely populated urban settings.

The modern building style is typical of hospital and clinical facilities, this allows for an intervention that aims to soften the sterile exterior through design approaches that seek to conceptually heal the building and the community. The proposed design solutions work with the historical context of the site, and the building style to create a sense of familiarity, help users transition into the surrounding neighborhood while reintegrating back into society, and address the stigma surrounding mental illness, as well as the act of seeking help among this user group. This section presents critical components that guided the site selection process.

Proximity to User Group:

The research presented in the literature analysis suggests that individuals with PTSD often avoid seeking treatment due to the stigma attached to seeking help for mental illness, an issue that is exemplified within the context of military culture. Because of this, for a treatment center to be utilized as intended, the location of the site needed to be in an area that is easily accessible to a large percent of the user group. Asking users to travel to a more isolated area would only add to the stigma of seeking help as it sends the message that visiting treatment centers is something that should be kept secretive and separate from the military culture they know. Remote areas may offer less environmental triggers, however, if users are inconvenienced and required to travel long distances it may also become an excuse for people in need to continue avoiding treatment opportunities.

I feel that this site is an ideal location for this project due to its proximity to the St. James and Minto areas where multiple military facilities are located such as Minto Armories and the Air Force base. It is easily accessed by vehicle travel and is located on a major bus route. These conveniences facilitate users to seek treatment in an area that is integrated within a part of town they are likely to be familiar with. Accessibility was an essential part of the selection process as the user group will potentially include many individuals with varying levels of ability. This consideration also held implications for a site where ample parking space would be available for the incorporation of universal parking stalls and barrier free travel paths.

Juxtaposition to nature and open green space:

The Deer Lodge campus is located within a five-minute walk from Assiniboine park and other public green spaces. In addition, the campus has a significant amount of private green space that is accessible to users. The juxtaposition to lush landscapes with open fields is uniquely suited for providing the benefits of nature while also maintaining clear sight lines that aid in eliminating potential triggers of PTSD associated with densely populated locations with a lot of noise, motion, and traffic. These spaces provide an opportunity for outdoor physical recreation, which encourages users to participate in group activities such as recreational sports. These types of activities and access to nature hold numerous physiological health benefits and may help to relieve symptoms such as feelings of anxiety, depression, and alienation.

Incorporating Treatment Within the Community:

The chosen location aims to assist in strengthening the military community by integrating a treatment center within a community with a military association. The site is located in a residential neighbourhood and presents opportunity for integration strategies that aim to address some of the cultural norms currently promoting a culture of silence surrounding PTSD. By encouraging individuals and families who are seeking treatment to remain within a community with military ties, it signifies a shift in a culture of acceptance over silence which in turn will promote stronger social networks that can counteract feelings of isolation, and alienation among users. The neighborhood of the site is considerate to the sensitive user group that will be using the facility by offering a calm, quiet environment rather than a hectic industrial hub. To be accommodating to the unique security needs of a vulnerable group, visual and audio security was a primary concern when selecting a site. The site offers the opportunity to incorporate security measures in a relaxed, comfortable neighborhood that will not be overwhelming to users and where they can feel safe and welcomed.

Site Constraints:

There are a few constraints to the selected site that will need to be considered in the design solutions to create the intended environment. These considerations include:

- Proximity to a prominent commercial area, while the juxtaposition to amenities can be a positive feature of this location, the traffic, and specifically sirens on the main entry point may be intimidating during peak hours and contribute to noise pollution on the site grounds. To resolve this issue, the proposed design solution will include interventions that aim to reduce the noise caused by heavy traffic to create a peaceful outdoor environment conducive to wellbeing.
- The primary bus stop is also a potential constraint to the site. The current bus stop may be confusing to users as it is at a slight distance from the entry to the proposed building, users may be confused in which direction the building is located. Also, there are no bus shelters or covered pathways leading to the bus stops which may pose accessibility issues during unfavorable weather conditions.

- The proposed site is located on a healthcare campus, the association with an existing medical environment may lead to the stigma of seeking treatment for mental health issues. The proposed design solution aims to challenge this stigma through a design that functions to make the site an extension of the community rather than isolated from it.
- Proximity to the Winnipeg airport flightpath used by artillery planes with distinct noises. For example, fighter jets and Hercules transports.

Site Opportunities:

The Deer Lodge campus was selected as an ideal site as it affords some benefits that support the aim of this practicum. The site opportunities include:

- The location of the site within a residential neighborhood. While the central access point to the campus is located on the main road with the potential of heavy traffic, the selected building is located off of a residential street that is not as hectic and provides a more comfortable entry point into the building.
- The site is easily accessible by bus allowing users who may not drive to travel to the building conveniently.
- The residential neighborhood allows the opportunity for users to walk to the center. The large campus and nearby parks also provide users with the option to walk around and enjoy green spaces to help relax before and after appointments.
- There is ample parking available near the selected building allowing for easy access to commuters. The building is adjacent to parking, which can be found from residential roads, allowing for ease of entry. This lot is also within a close enough distance that covered pathways could be incorporated into the site design for accessibility during winter months.
- Ample sound reduction in the building construction that can be enhanced to aid in diminishing noise pollution caused by sirens and aircraft.

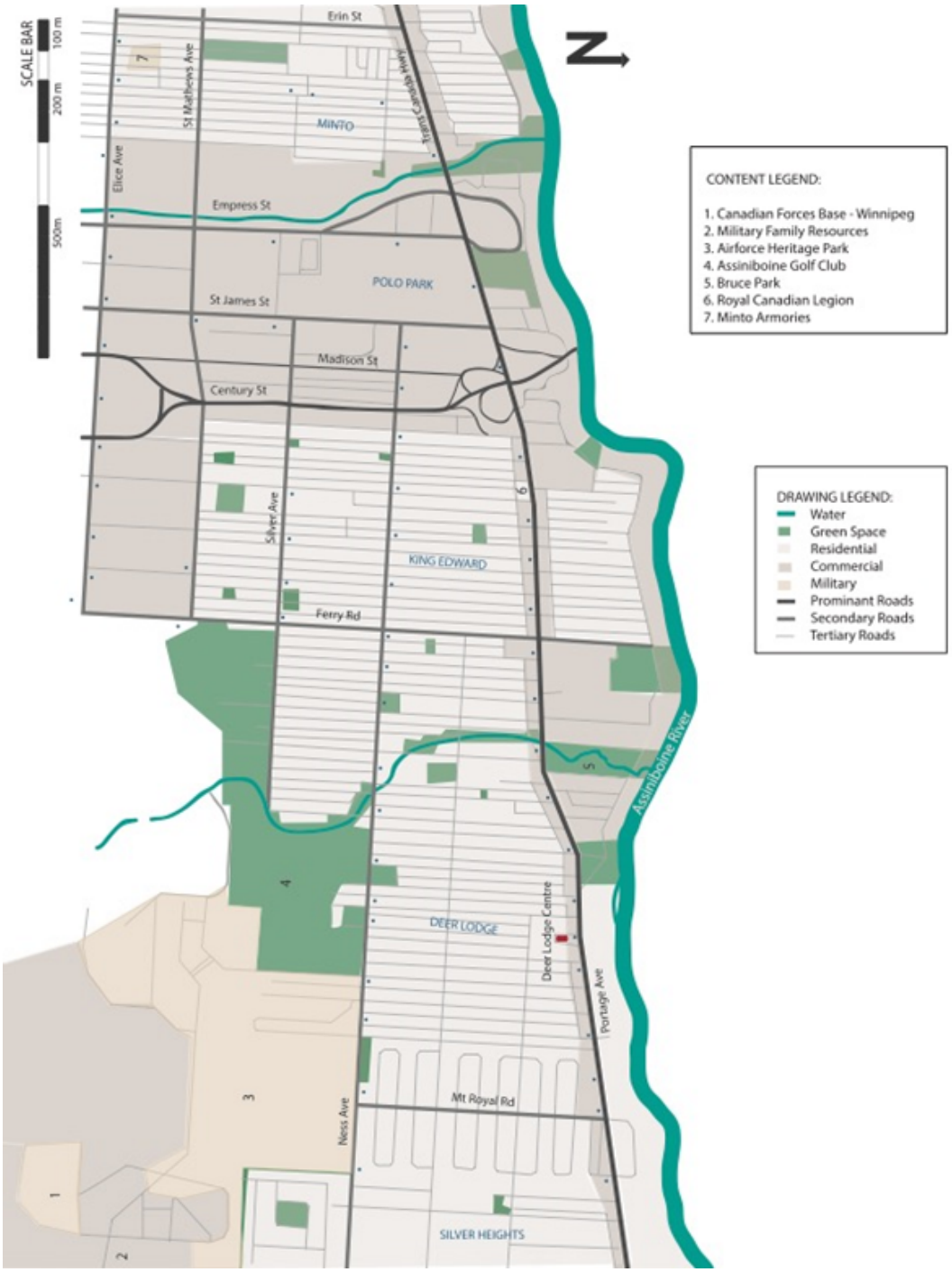


Figure 2: Area map of the Deer Lodge neighbourhood. (Adapted from google maps September 22, 2017.)

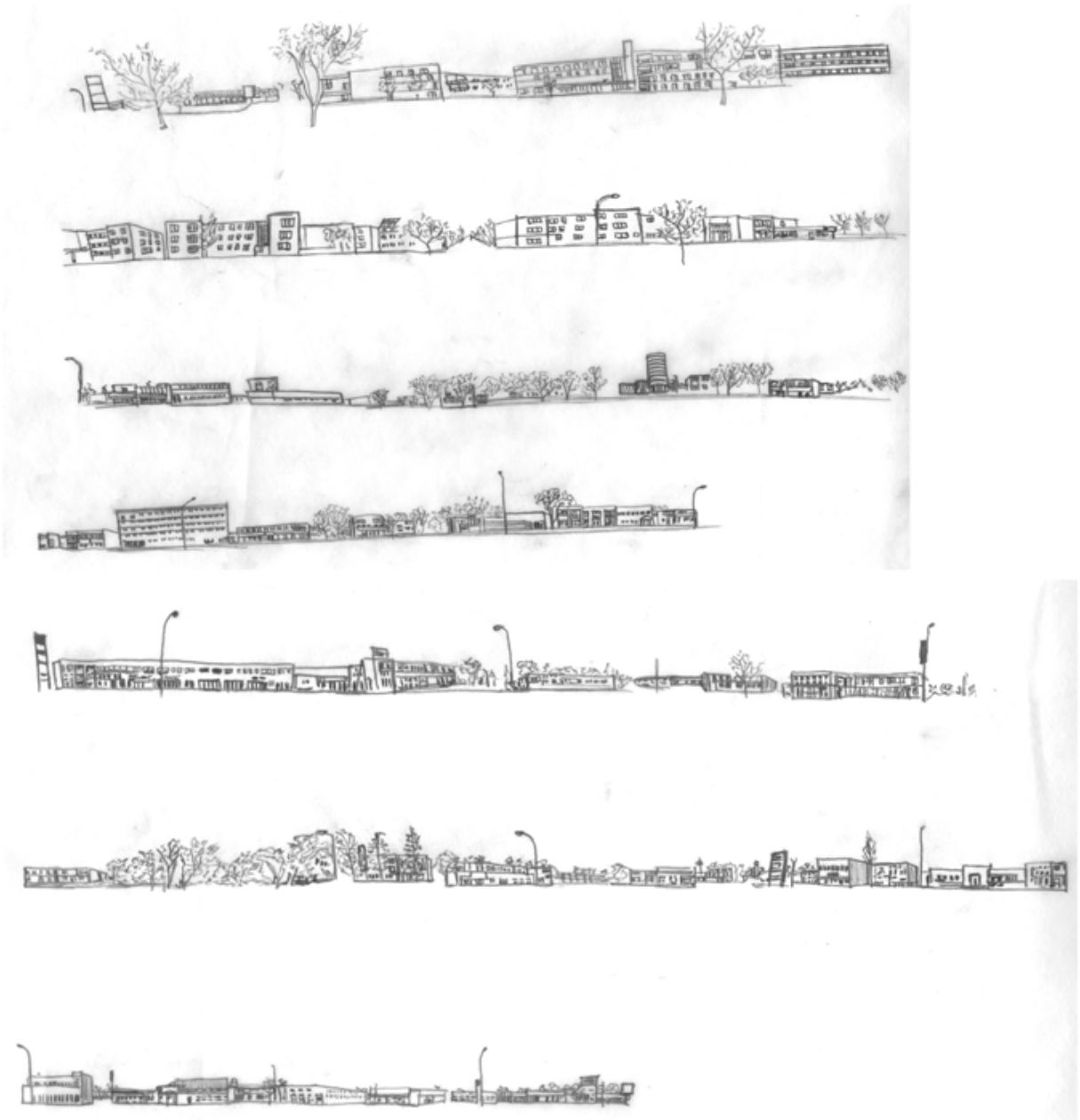


Figure 3: Sketched Elevation on Portage Ave. illustrating the city block Deer Lodge is located on. The left side if each sketch connects to the right side of the line above it. This sketch is included to offer a sense of human scale as one walks along the city block. This is the busiest condition the site has to contend with, and as the illustration shows, the least favorable condition includes relatively low building heights that are not overwhelming conditions for users.

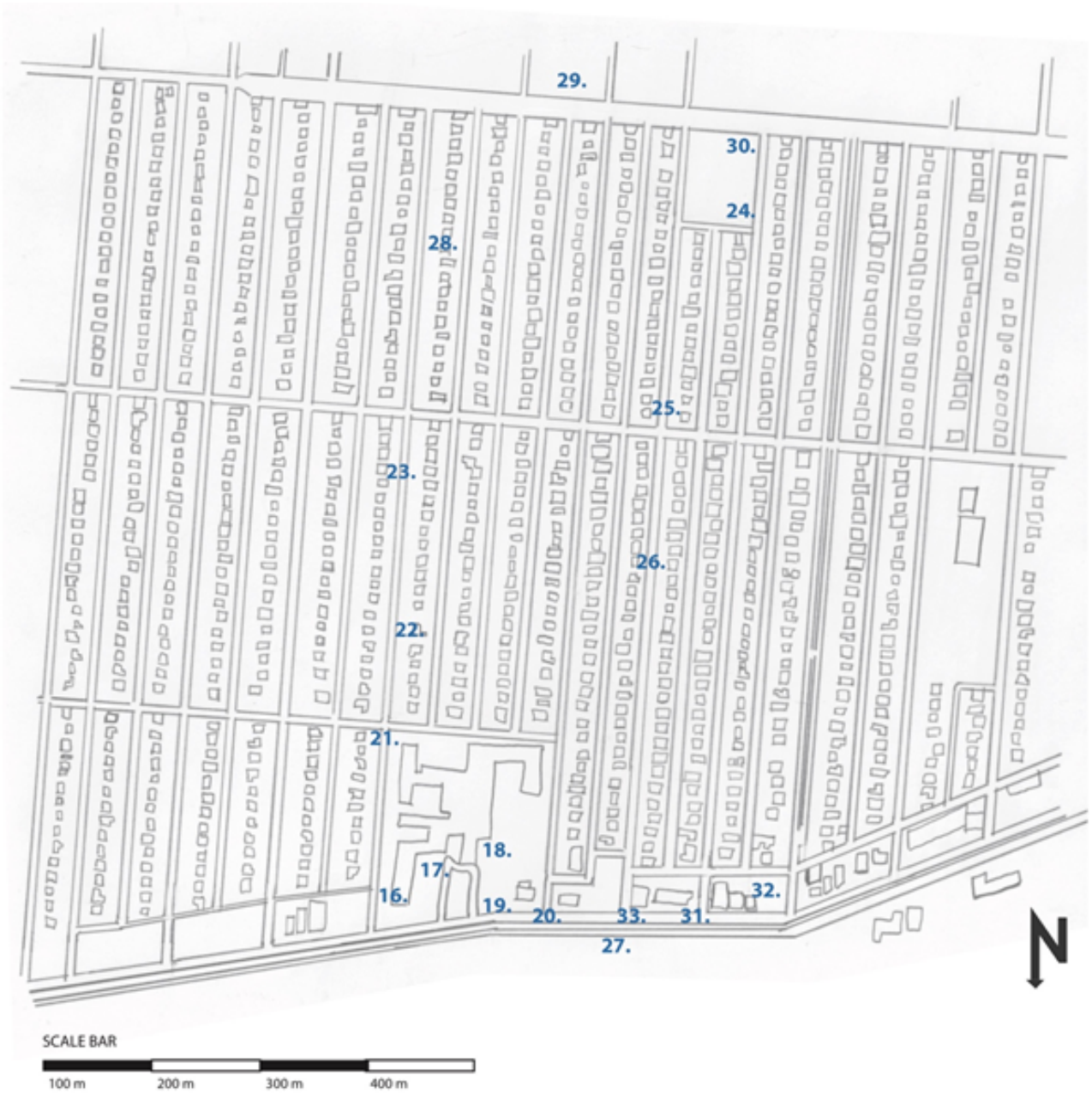


Figure 4: Sketch of a walking map, illustrating where images 16 to 33 are located in proximity to the site. Each of the corresponding images correlates to locations that can be found within a 15 minute walk of the selected building.

The Importance of Walking in Relation to the Site

"It starts with a step and then another step and then another that add up like taps on a drum to a rhythm, the rhythm of walking"
(Solnit, 2014, p. 174)

Based on my own experience with hospitals and from what I have observed at healthcare facilities, a common way that patients help calm their nerves before or after an appointment, or while waiting for a loved one, is to walk. It is because of these experiences and observations that I felt it was necessary to walk the site in order to gain a better understanding of the area and develop a more tangible relationship with the neighborhood. The sketches and photo essays presented in this chapter have resulted from this walk, and follow the concept of walking as a restorative and meditative process. The following Images illustrate the types of sights users would see if they choose to walk around the neighborhood where the site is located. Each photo essay corresponds to one of a variety of different pathways users could choose to wander. These themes are commercial, residential, the Deer Lodge Centre, and Assiniboine Park.

As writer, historian, and activist Rebecca Solnit alludes to in the opening quote of this section, from her book titled Wanderlust: A History of Walking; walking often generates a rhythm of thoughts in a way that allows us to process events, feelings, series of thoughts and personal narratives (Solnit 2014, 220). It can be a meditative practice that enables individuals to process and organize their thoughts through reflection and connecting individuals with the calming qualities associated with nature. Solnit speaks to the reflective qualities of walking when she states that "walking allows us to be in our bodies and the in works without being made busy by them. It leaves us free to think without being wholly lost in our thoughts" (Solnit 2014, 220). The sights around the Deer Lodge Centre allow for unique opportunities for users to be able to walk, clear their minds and connect with nature preceding, or following a visit. Having this opportunity may allow users to feel more at ease on appointment days, and may encourage them to interact with the neighborhood more. By selecting a site that allows for these types of connections, it provides for the possibility of enhancing the healing process through the use of nature, as well as with the reintegration process through familiarizing users with the surrounding area, where they can be a part of the community rather than a transient visitor.

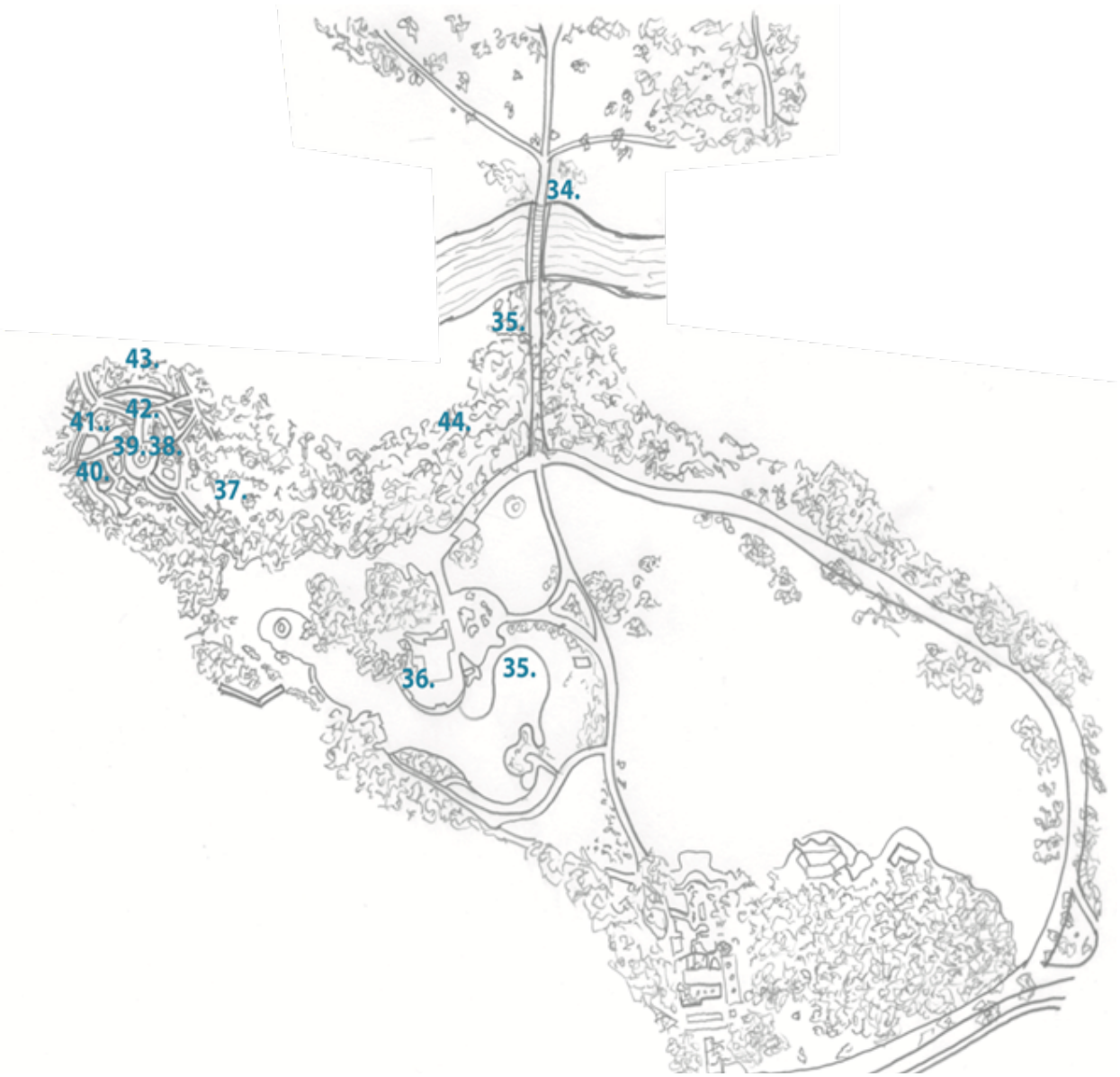


Figure 5: Sketch of a walking map, illustrating where images 34 to 44 are located in proximity to the site. Each of the corresponding images correlates to locations that can be found within Assiniboine park which is located within a 5 – 10 minute walk from the selected site.

Sights That Would Be Found While Walking Around the Deer Lodge Campus:
A Visual Essay

Figure 6: South Pavilion Located next to the North Pavilion building, the signage on this senior centre states “Among the Tree Tops”, describing the nature rich setting the campus is located in. Located near one of the two primary bus stops serving the site.

Figure 7: South Pavilion. This image is a view taken from the rear of the building, located adjacent to the selected site.

Figure 8: Deer Lodge Centre: Pathway leading into the center of the campus.

Figure 9: Deer Lodge Centre: Located on the edge of the campus adjacent to one of the central bus stops.

Figure 10: Deer Lodge Centre: A view of the campus, highlighting the central building that functions as a focal point and way-finding beacon for the site.

Sights That Would Be Found Walking Around the Residential Neighbourhood Around the Site: A Visual Essay

Figure 11: Residential walkway

Figure 12: Gratitude: Located on the same street that the site is on. Approximately 5 minutes walking distance from the site.

Figure 13: White house with black shutters. Located 10 minutes walking distance along the same street as the site.

Figure 14: Residential Park. Located a few blocks from the site with open access to users.

Figure 15: Residential street scape. Located 3 streets away from the Deer Lodge Campus. This sight would be typical of what one would see as they were returning to the site if they had walked around the neighbourhood.

Figure 16: Residential home. Located 3 blocks from the site. This image represents one of the various types of charming houses one would see on a walk around the residential neighbourhoods surrounding the site.

Figure 17: Small residential garden. Located along Portage Avenue. This image illustrates the small residential sights located along even the busy corridor used to access the site.

Figure 18: White picket fence. Located less than a block away from the entrance of the site. This image represents the small town feel of the neighbourhoods adjacent to the Deer Lodge Centre.

Sights One Would Encounter Walking Along the Commercial Paths Around the Site: A Visual Essay

Figure 19: St. James Community Centre. Located along Ness Ave. One of the two primary roads bracketing the site location.

Figure 20: St. James Tennis Club. Located adjacent to a small, residential park 10 minutes walking distance away from the site.

Figure 21: Portage Ave. Adjacent to Deer Lodge Centre.

Figure 22: Portage Ave. Adjacent to Sargent Sundae. An example of the small rest stops accessible to users along the commercial pathways available to them.

Figure 23: High Tea Bakery. A small rest stop accessible to users located adjacent to the campus.

Sights One Would Encounter On A Walk to and Around Assiniboine Park: A Visual Essay

Figure 24: Assiniboine Park: The pedestrian bridge leading into the park.

Figure 25: Assiniboine Park: Small garden located at the entrance of the park.

Figure 26: Assiniboine Park: Small pond that is located along the main pedestrian entry point into the park.

Figure 27: Assiniboine Park: Walking path along the pond located within the park.

Figure 28: Assiniboine Park: A serene retreat located off of one of the many walking paths available to users.

Figure 29: Assiniboine Park: Wooden pathway through one of the inner gardens of the park.

Figure 30: Assiniboine Park: Pathways leading towards one of the inner gardens where users could use as a potential reflection spot.

Figure 31: Assiniboine Park: A serene reflection spot located within the inner gardens of the park.

Figure 32: Assiniboine Park: Quiet reflection bench located within the inner gardens of the park.

Figure 33: Assiniboine Park: Pathway through the trees while exiting the park.

Figure 34.: Deer Lodge Centre: North Pavilion, 2109 Portage Ave. Winnipeg, Manitoba. Front Façade.

Historical Relevance:

The Deer Lodge site has a vibrant history dating back to the eighteen hundreds which make it a uniquely appropriate site for this practicum due to its roots connecting it with military veteran health. The original facility built in 1873 functioned as the Red River settlement before it was damaged in a fire and reconstructed as the Deer Lodge Hotel in 1892. By 1916, the Deer Lodge Hotel as repurposed as a military recovery hospital established for veterans returning from duty during World War One (Deerlodge, 2016). The site continued to be associated with military health over several renovations and expansions that transitioned the facility from a hospital to an acute-care facility for the department of soldier's civil re-establishment in 1919. By 1944 the Department of Veterans Affairs built a twin, three-story active treatment center and by 1958 it was further expanded to accommodate 640 beds as a health lodge (Deerlodge, 2016).

The facility continued to be used for military health purposes until 1983 when it was repurposed to a provincial facility due to decreased need for veterans health care. It was suggested that in place, the services provided should focus on geriatric services instead to adapt to the changing needs of aging veterans (Deerlodge, 2016). The campus underwent further expansions to include a personal care tower and a renewed focus on outreach programs for seniors with the aim of providing holistic health care for temporary and long term users. In 1990, these services expanded to include mental health services and the campus became an operating division of the Winnipeg Regional Health Authority (Deerlodge, 2016). In 2002, the Deer Lodge Centre was opened to include educational and spiritual centers in addition to healthcare to accommodate the demand for these additional services. Throughout its history, many significant milestones have taken place that has demonstrated innovative research, techniques, and programs. In addition, it also hosted to the first documented account of paraplegic sports within Canada (Deerlodge, 2016).

Figure 35: Historic Lodge view (DLS. Deer Lodge Centre Historic Lodge View. n.d.)

Figure 36: Ariel view of historic campus (DLS. Deer Lodge Centre Historic Ariel View. n.d.)

Program and Function:

Deer Lodge is the largest rehabilitation and long-term care facility in Manitoba. In addition to its association with the University of Manitoba through their research division, the programming and function of the campus, and the selected building reflect the overall aim of this practicum, providing a considerate platform for the proposed design intervention. Their mission is to serve adults requiring rehabilitative, and specialized treatment. Their motto is “Making Lives Better” (Deerlodge, 2016). They promote health and well being of a broad community through a variety of in and out patient programs. These programs currently serve adults and seniors with mental health needs, rehabilitating them through specialized care Services also include an adult day care for individuals who are cognitively impaired; an operational stress clinic; movement disorder clinic, and services catered to ALS patients (Deerlodge, 2016). While Deer Lodge has expanded to focus on providing services to a broader community, they are also continuing to provide veteran care, and have 140 of their long term care beds reserved for veterans.

Analysis of Form:

The building uses proportion and line in interlocking forms to create the illusion of a unified façade, with an organically curved tower that acts as a central focal point. Each wing of the building is made up of long rectilinear forms, the proposed structure for this practicum is the North Pavilion building which follows the order of classical revival. The interlocking forms that make up the campus utilize plane to push and pull the building visually. This provides a sense of volume that undulates in a manner that enhances the feeling of movement and rhythm the campus portrays.

Applied Design Principles:

The building includes the use of repetition to create a rhythm with the interlocking linear forms. The over all site is sectioned off in a grid like pattern that offers strong organization initially suited to the campus when it was divided into separate pavilions. However, after the numerous renovations outlined in this chapter, the building now appears to be super-imposed into the grid underlay, and the different forms are merged to create a unified architecture that plays with the use of geometry. The linear forms now function to push the building towards Portage Avenue to draw users into the site.

The transformations of the building stemmed from an original log house on a wooded lot when the building functioned as a lodge before its designation as a medical building in 1916 (Deerlodge, 2016). These transitions led to the progression of contemporary additions that contrast the historical construction materials in a complimentary manner. An example of this is illustrated in the use of new materials chosen to age elegantly in juxtaposition to the traditional masonry of the original classical buildings with a limited material palette.

Social and Cultural Analysis:

Deer Lodge prides itself on growing and changing to accommodate the ever changing needs and demands of the surrounding community, adapting to new requirements over time rather than becoming obsolete (Ahrens, 2016). The mandate driving the facility has changed over time, shifting from what originated as an ambulatory hospital for World War One veterans, to offer geriatric care to the larger community when they felt that the need for acute, specialized veteran care was diminishing during the 1980's.

The transfer of jurisdictions from Veterans Affairs Canada, to provincially run caused some turmoil among staff members, leading to strike negotiations taking place in the early two-thousands resulting in a take over by the Winnipeg Regional Health Authority. As a part of this change, an agreement was eventually reached that aimed to create a more constructive relationship between the administration and union that would benefit the members, patients, residences, and general community (Ahrens, 2016). It was during this time that the services and programs offered on the Deer Lodge campus began to emphasize rehabilitation and education.

Today, it is known as a geriatric care facility that focuses on the mental health needs of an aging population. In 2005, Veterans Affairs Canada began to establish a network of mental health clinics for veterans and approached the Deer Lodge Campus as a possible site, for many of the previously identified reasons. The Winnipeg Operational Stress Injury Clinic was housed in the North Pavilion building on the Deer Lodge campus and will be used as the proposed building for this project (Debbie Whitney, 2018).

Context and Site:

Located off Portage Avenue, the North Pavilion building is accessible by vehicular travel, as well as public transit. There is also adjacent parking available directly adjacent to the building. It is located in the Silver Heights area, near Minto where much military personnel is required to attend training and administrative functions. This location is preferable due to the accessibility of the site to a large military community, without the heavy traffic, and bleak landscaped that the commercialized areas of Minto and Polo Park offer. While there are no green spaces directly adjacent to the campus, there are exterior courtyards that are utilized in the design solutions presented in this practicum. Also, there are nearby public parks within walking distance of the site. Based on online reviews of the facility, there are mixed feelings regarding the center within the community. Some community members believe that the installation offers top of the line care with a supportive staff, while others are left disappointed with what the facility is currently offering to the neighborhood it is located in.

Building Constraints:

In its existing condition, the North Pavilion building on the Deer Lodge Campus poses a few limitations that will need to be taken into consideration. These challenges include:

- The original composition of the building with pale yellow brick as the dominant material and small windows arranged in a linear grid has been maintained; this presents a bleak façade that is often associated with clinical settings. Because of this, the current exterior style may contribute to the stigma of seeking help for mental issues, as well as potential triggers users may have experienced in other healthcare facilities.
- While the current windows offer a visual rhythm to the building, they do not provide significant views, or access to daylight to correlate with the design intent of this practicum. They will need to be expanded to maximize the health benefits associated with exposure to natural elements.
- The building is three stories high, all three floors will need to be utilized to accommodate the center's programming, and there is a single, historical elevator serving as the primary form of vertical circulation. The state of the elevator creates triggering conditions for the users will be accessing it. The passenger compartment of the elevator is small and dimly lit which may lead to feelings of claustrophobia. In addition, the mechanics of the elevator are loud and jarring while the motion is slow enough to give the illusion that the elevator is not moving at all, potentially leading to feelings of being trapped, which could contribute to anxiety among users.
- Users have noted that the mechanical noises associated with the heating system in the building can be unsettling and jarring.
- The current ramp stands out as a signal of disability and will need to be more considerately worked into the proposed design to reduce the stigma that is sometimes associated with signs of disability.

Building Opportunities:

The North Pavilion building was selected for this practicum due to the numerous opportunities it offers. The building in its current form is in need of a compassionate design intervention to better reflect the programming of the operational stress clinic, and what they are aiming to contribute to the community. This practicum seeks to maximize on these opportunities through an emphasis on universal design, which can help overcome the stigma associated with various forms of ability through integrating enabling aspects of the design naturally rather than added on in the form of a bandaid approach (Sanford, 2012, 64). Some of the key opportunities the building provides are:

- The placement of windows offers the possibility of expansion, without disrupting the visual rhythm of the exterior of the building.
- The exterior grounds provide significant room for the proposed addition, while also offering ample space for exterior courtyards and a front pergola. There is an existing courtyard present. However, while the landscaping and design of this courtyard does aim to connect the building with nature, it is more of a bandaid approach rather than an integration. This feature presents a good opportunity to utilize this space with a reimagined design that better meets the needs of its users in providing a private area of reprieve.
- The geometry of the building allows for easily integrated wayfinding methods as well as the seamless introduction of an addition.

Figure 37: Deer Lodge: North Pavilion entrance.

Figure 38: Deer Lodge Centre: Materiality of North Pavilion.

Figure 39: Deer Lodge Centre: North Pavilion connection to the adjacent campus. All of the buildings have been connected together with interior pathways that can be utilized in all weather conditions.

Figure 40: Courtyard off of the North Pavilion building. Although this is a sincere effort to incorporate nature with the design of the building and to provide green space for users, it provides the opportunity for further development to connect the building in a more integrated manner.

Summary and Conclusion:

The Deer Lodge Centre is located in a predominantly residential neighbourhood, accessed by Portage Ave. which acts as a central corridor to the city. Although Portage is a busy multi-lane roadway with a plethora of commuters at any given time, it is most often used as a transient pathway that people travel without giving it much notice. The buildings on the Deer Lodge campus are among the highest structures along the city block the site is located on. This allows for a central access point that would not be overwhelming for users while still offering the convenience of a primary city road.

Based on analysis of the site's history, the photo essays included in this chapter, and after a significant amount of time walking the area, the neighbourhood appears to offer an abundance of opportunities to connect users with nature. This is a definite asset of the location of the site as it allows the intended user group the chance to calm themselves before, or after their appointments at the center.

The North Pavilion building on the campus is a suitable size to accommodate the proposed programming of the building. It is also located off of a side street that connects to Portage Avenue allowing for a calm entry point still easily accessed by multiple forms of transportation. The area is also relatively adjacent to significant military regions, which will help the aim of this project in addressing the stigma surrounding military mental health. By selecting a site in a community with existing military ties, the message becomes one of the facility aiming to accommodate military culture, rather than attempting to pull individuals away from that culture. Healthcare facilities located away from military communities often aim to challenge the stigma around mental health by targeting the individual person. The message is one that tries to teach people it is ok to seek the help you need and take care of yourself, even if that means leaving your base, or community to do so. While it is a positive message that communicates acceptance of mental health through implying that there is no shame in seeking it out, this does not address the issue that military personnel with PTSD feel like they are abandoning their peers in order to go to an appointment (Nayback, 2008). Rather than pull users away from their communities, this site allows for the opportunity to renegotiate this message into one where the facility aims to address issues of stigma through considerate measures that have been adapted to work with military culture rather than against it.

Chapter Three: Precedent Analysis

Introduction

Three precedents have been analyzed to inform an outcome that is grounded in real world application and evidence based design. Each study evaluates the design of various health care facilities in North America in consideration of the specialized user group that this project addresses. This section is formatted to outline five critical components of each precedent to highlight the key elements that have been utilized to guide and shape the design of this practicum. Each section will include a brief description of the facility being analyzed. Theoretical intent and programming analysis were used to develop guiding principles that helped drive the design process. Critical design aesthetics and elements that contributed to each precedent's success influenced the design principles that were applied to this project. Spatial attributes of each precedent were examined to guide the preliminary design schematic, ultimately informing space planning and layout of the final approach. Each section concludes with a summary of critical observations outlining how each of these categories directly impacted the outcome of this practicum.

Figure 41: Exterior view of Bridgepoints wrap around porch illustrates an example of how the building acts as an extension of the street, drawing people in through a welcoming gesture. (Arban, Tom. Bridgepoint Active Healthcare. Toronto, Ontario. N.d. Tom Arban: Projects Archive. Accessed September 28, 2017. http://www.tomarban.com/projects/)

Description:

Bridgepoint Active Healthcare Campus is an urban complex that is in Toronto, Ontario and is affiliated with the University of Toronto (PBC, 2015). Completed in 2013, the 680, 000 Square foot campus was designed for Bridgepoint Sinai Health System by Stantec Architecture in association with KPMB Architects, HDR Architecture, and Diamond Schmitt Architects (Bridgepoint Active Healthcare, 2014). The facility is divided into four main zones that effectively merge public and semi public spaces that function to make the campus accessible while simultaneously maintaining the privacy and security required for sensitive users. The campus includes both new construction as well as adaptive reuse and it has been recognized as a leader for Canadian design as a complex care and rehabilitation center (IQ Business Media, 2016). This precedent was chosen to inform ways in which a healthcare facility could be reimagined with social spaces with the intention of creating a space that promotes positive social experiences that have the potential to start addressing the stigma of seeking treatment for mental health issues such as PTSD.

Theoretical Intent:

The question that this precedent helped resolve was one of how a healthcare facility and the surrounding site could be used to support patients with mental health diagnosis to live better lives while remaining integrated with the surrounding community. The four fundamental principles that resulted from the organizational objectives of this design and were used to guide the design considerations of this practicum are:

- To maximize access to natural light for all users.
- To incorporate social spaces that have been designed to encourage user interaction and promote self-efficacy.
- To incorporate green building methods and natural materials that will support individuals undergoing rehabilitation at the center.
- To cultivate documented therapeutic benefits of access to nature and views to the outdoors (Bridgepoint Active Healthcare, 2014).

Programmatic Features:

Each of the resident floors of the Bridgepoint Active Healthcare campus is equipped with shared social spaces that function to improve patient well being by encouraging socialization among users to break away from traditional institutional spaces that often alienate users in environments that can lead to feelings of isolation (Polak 2012, 4). Each aspect of Bridgepoint Active Healthcare was purposefully design to create what they have defined as a: “campus of wellness designed to inspire health and innovation, support healing, and act as a welcoming, accessible focal point for patients, staff and the community” (Bridgepoint Active Healthcare, 2014). The design includes access to green space, reflection and meditation rooms, and other social spaces and services such as internet cafes that allow for a broad range of activity that are designed to increase patient wellness by encouraging socialization and providing a calming environment that counteracts the institutional atmosphere often associated with rehabilitative facilities.

Design Aesthetics:

The design strategies of Bridgepoint Active Health Campus utilize scale, proportion, rhythm, harmony, and adaptive reuse to create a welcoming environment that is respectful to the site and surrounding community. The design features an entrance that acts as a focal point which utilizes the warmth of natural materials and transparency of glass to create a welcoming gesture that extends into the community, rather than a sterile entrance that would create an overwhelming sense of alienation or hostility typically associated with clinical spaces.

Design Elements:

Bridgepoint utilizes innovative design strategies such as: optimizing therapeutic benefits of natural light, access to nature through integrated green space, and views of the surrounding park and dynamic city skyline to create an interior environment that provides a connection between patients and staff with the outside world" (Archdaily, 2016). Bridgepoint deconstructs the institutional side of healthcare to facilitate patient wellness and healing. This is achieved through a design that emphasizes natural light, merging of interior and exterior spaces, calming colour schemes, interactive and cheerful murals, and the use of natural materials such as wood ceilings, and alternative healing spaces such as indoor and outdoor meditation spaces. The design intent was to deconstruct the institutional aesthetic associated with healthcare by creating a considerate environment that represents the spirit of the community as a connected, vital public realm that functions as a village of care (Bridgepoint Active Healthcare, 2014).

Spatial Attributes:

The base level of the building is designed as a public porch that merges the structure with the surrounding community. Semi-public space on the fifth and tenth floors implement sky gardens as therapy spaces where users can enjoy the health benefits of nature without the types of interruptions that they may encounter in the public areas (Bridgepoint Active Healthcare, 2014). Bridgepoint has received numerous recognition for purposeful design that has been orchestrated to create spaces that optimize healing and encourage social connections between users and the surrounding community (IQ Business Media, 2016).

Critical Observations:

This precedent has been used to inform design strategies in creating an alternative healing environment that promotes social interaction while deconstructing the institutional aesthetic of traditional clinic spaces to improve health and well-being of users. The theoretical intent was a driving factor for the spatial attributes of Bridgepoint and demonstrated successful strategies of how zoning and layout can ensure privacy while merging social spaces that help integrate the facility within the community and promoting wellbeing of users. Programming elements utilized in this precedent inspired solutions that contributed to the enhancement of considerate social spaced in an environment meant to cultivate support, innovation, and healing. Design elements such as rhythm, scale, and harmony have influenced the creation of fluid, welcoming gestures. The recognition of socialization as a vital part of recovery while simultaneously ensuring the privacy and security required for sensitive users are directly applicable to the design intent and learning objectives of the proposed healthcare center in this practicum.

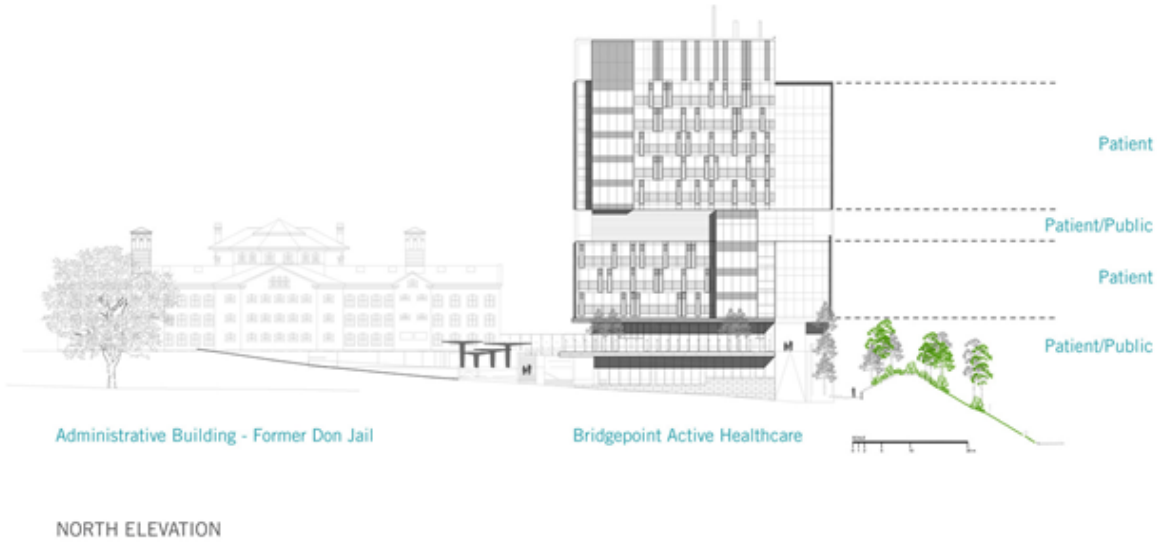
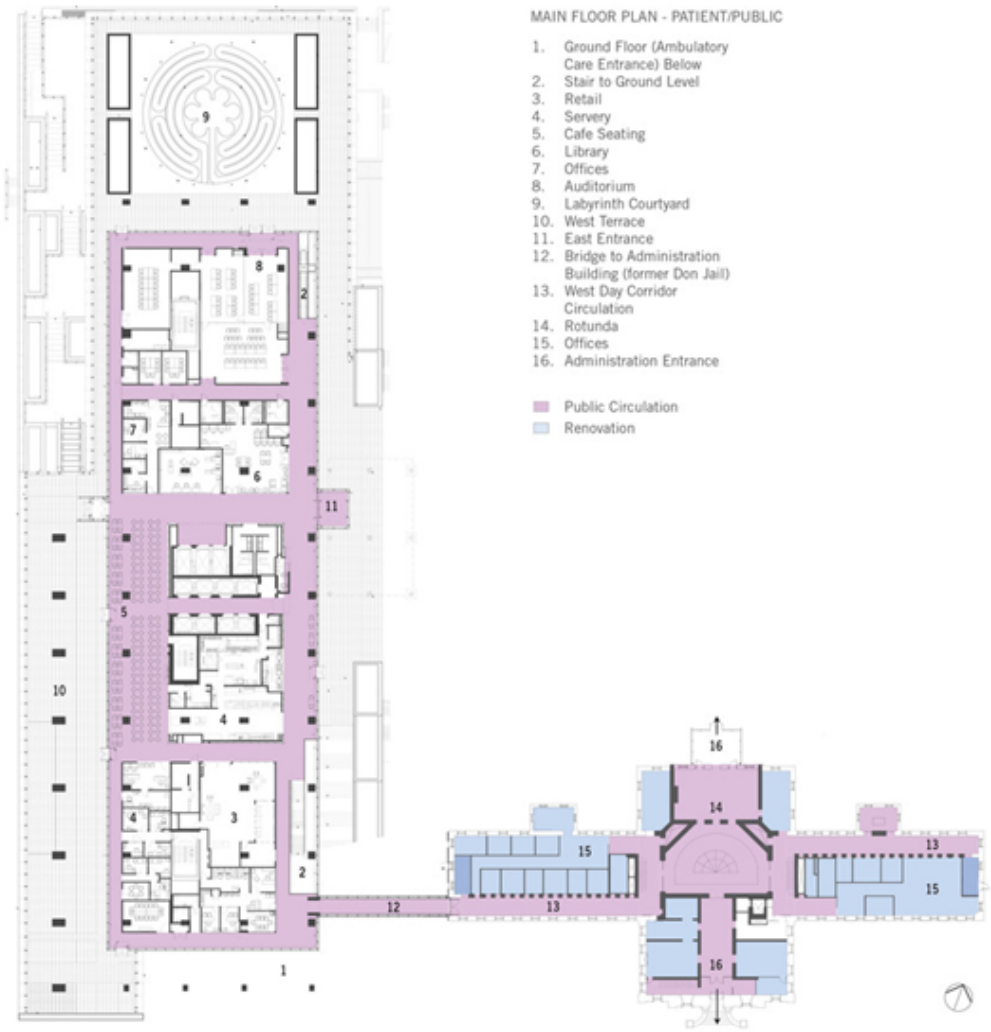


Figure 42: North Elevation illustrating the vertical integration of public and private space. (ArchDaily. Bridgepoint Active Healthcare. Toronto, Ontario. Published July 30, 2015. ArchDaily. Accessed September 28, 2017. http://www.archdaily.com/771080/bridgepoint-active-healthcare-stantec-architecture-plus-kpmb-architects-plus-hdr-architecture-plus-diamond-schmitt-architects-plus)



Scale: NTS

Figure 43: Ground Floor Plan. The areas highlighted in purple depict public circulation. This floor plan demonstrates effective ways of merging clinical and non clinical spaces in a healthcare facility. (ArchDaily. Bridgepoint Active Healthcare. Toronto, Ontario. Published July 30, 2015. ArchDaily. Accessed September 28, 2017. http://www.archdaily.com/771080/bridgepoint-active-healthcare-stantec-architecture-plus-kpmb-architects-plus-hdr-architecture-plus-diamond-schmitt-architects-plus)

Figure 44: John Hopkins Medicine International exterior featuring mosaic curtain wall. (John Hopkins Hospital. (John Hopkins Medicine International. Baltimore, Maryland. n.d. John Hopkins Medicine. Accessed September 28, 2017. http://www.hopkinsmedicine.org/ the_johns_ hopkins _hospital/ about /enhanced _facilities /video_tour.html)

Description:

Johns Hopkins Medicine International in Baltimore is a 450,000 Square foot health care facility designed by Gensler and Perkins + Will. Art and architecture are combined in the design with over 500 works of public art created specifically for the facility along with various healing gardens to promote a dignified, and nurturing environment that functions to uplift users (Perkins + Will, 2017). The design of the building has come to be distinguished by its organic, articulated forms, bold colours, inclusion of nature, and abundance of natural light. The design of the main entry ways have been designed to not only welcome users rather than intimidate them. This has been achieved through the incorporation of a large, curving canopy that covers all public entrances. The canopy provides sheltered pathways leading into the building through green space to towering lobbies infused with natural light (Perkins and Will 2017). This precedent was chosen to inform ways in which art, design, and nature can be combined with universal design to create a healthcare facility that can inspire positive reactions and meaningful moments that ultimately aid the healing process.

Theoretical Intent:

The John Hopkins Hospital is the result of reinventing the design approach of what healthcare facilities should be. The intent behind the design was to create a built environment that would uplift and relieve stress for all users of the space through offering a dignified experience (Kaiser 2012).
The question driving the design of Johns Hopkins was one of how thoughtful design and a nurturing environment could be used to support the healing process. The three core principles that resulted from the organizational objectives were used to guide the design considerations of this practicum are:

- Providing users with a sense of control over stressful situations to allow for a more comfortable, restful environment conducive to the aid of recovery.
- How to combining art, design, and nature to create meaningful moments of pause throughout the facility.
- Using thoughtful strategies to produce a positive environment that offers users a dignified experience through the humanization of the design (Perkins and Will, 2017).

Programmatic Features:

Johns Hopkins was developed with a focus to rethink hospital operations and layout in ways that would best benefit users through what planning principal Jean Mah describes as a new paradigm for healthcare. He explains that the design firm worked to reconfigure conventional layouts to provide more efficient spaces that center around collaboration in a compassionate environment (Perkins and Will 2017). The use of nature has been incorporated to complement programming needs through areas such as healing gardens located throughout the facility to offer tranquil spaces that allow users to connect with nature. These gardens are filled with plants that are associated with healing benefits like lavender, rosemary, roses, and magnolia (Johns Hopkins University, 2017). Examples of programmatic design features used in the unique design of Johns Hopkins include elegant interiors with natural materials; an abundance of natural light and peaceful nooks throughout the facility that function as respites for users who may need a break from the hospital environment to collect their thoughts. Additional examples include sound absorbing materials and layouts that reduce the travel of sound used in combination with a quiet nurse call system that illuminates noisy overhead paging that typically put users at unease. These features are further complimented by serene landscaping surrounding the facility that users can use for meditation and reflective purposes (Johns Hopkins University, 2017).

Design Aesthetics:

The aesthetics of the facility are enhanced by the seamless connection between art, architecture, and design. The defining feature of Johns Hopkins is a curtain wall along the façade that was created by artist Spencer Finch. The shades of blue, green and purple utilized in the wall that function to help identify building were inspired by the Impressionist paintings of Claude Monet. The wall includes embedded brush strokes in the treated glass that offer users a sense of privacy without impeding their view to the outdoors. The glass is treated with a coloured, reflective coating that blocks views into the building from the street while remaining fully transparent for users inside the building looking out. This effect moderates light during the day by reflecting and refracting light creating a shimmering, and sparkling appearance in the sun while always changing depending on the weather and angle of light hitting the building to create a façade reminiscent of water. At night, the curtain wall becomes a composition of light and colour creating an appealing aesthetic that is well received by the surrounding community while offering a sense of tranquility to users approaching the building (Johns Hopkins University, 2017). This element has influenced the design proposal presented in this practicum by informing inspiring ways to utilize art and functionality in maintaining privacy for users while expanding views to the outdoors from within the building.

Design Elements:

Art and colour are utilized in the design to assist with way finding through providing landmarks through the facility that also inspire users to explore the variety of public spaces Johns Hopkins offers. In the way the art is not merely hung on the walls but it is incorporated into the buildings function to enhance the users experience (Perkins and Will 2017). Sculptural furniture has been designed specifically for the facility to provide artwork that is functional and comfortable, meant to entertain and uplift users as they travel through the building rather than the traditional artwork found in healthcare environments that often irritate users such as campy motivational posters. To address the increasing issue of acoustical sensitivity and the negative impacts the sounds associated with hospital environments have on the healing process, Johns Hopkins as implemented strategies to improve acoustic quality providing a more restful environment that aids the healing process. Lighting has also been taken into consideration with dimmable options wherever possible to provide users a sense of control over their surroundings and produced spaces where users can be comfortable (Perkins and Will 2017).

Spatial Attributes:

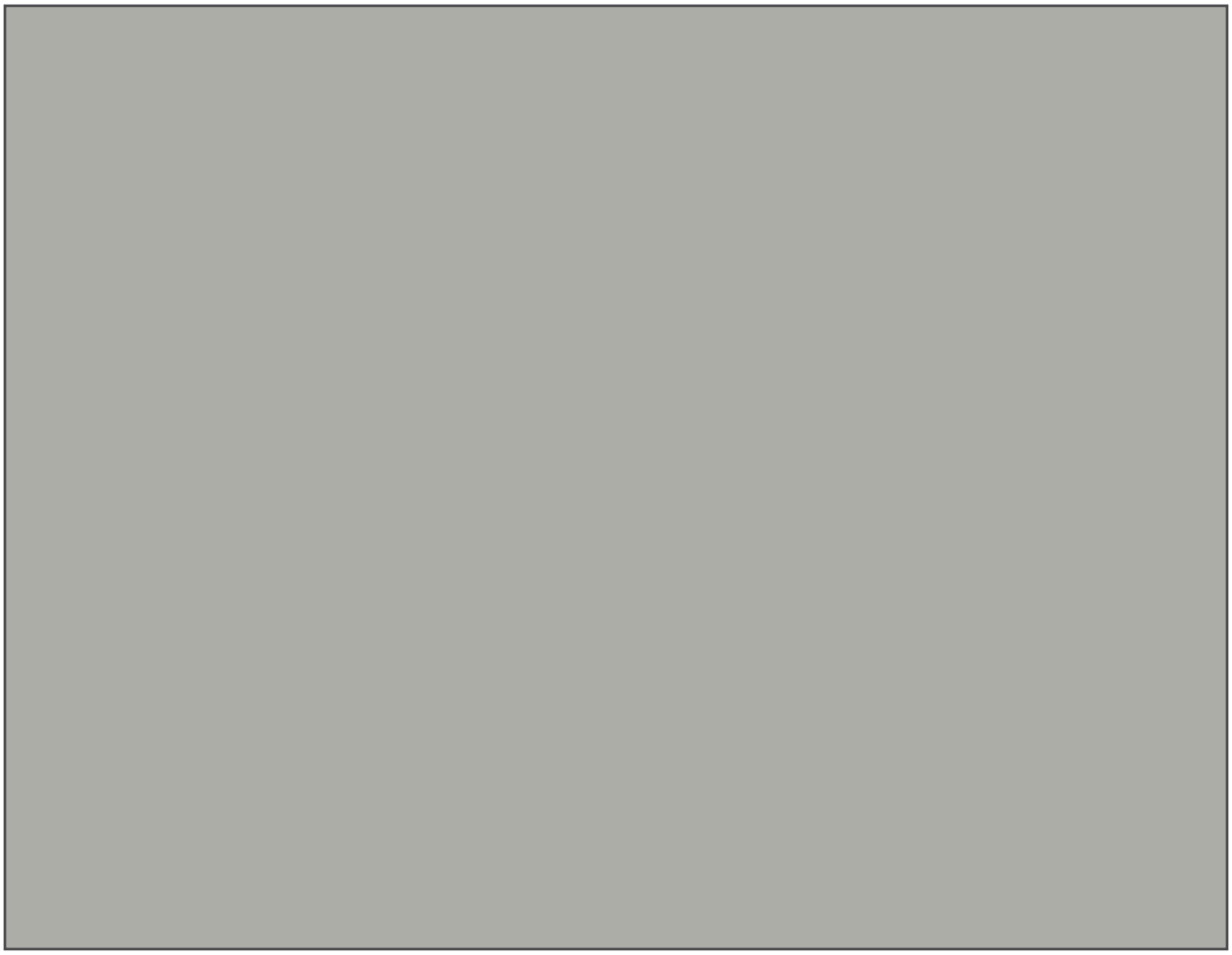
The space design and layout of the facility was reimagined to create more productive spaces that aim to enhance user experiences and treatment while offering collaborative areas that assist staff members in performing daily tasks with increased ease leading to better patient care. These features have led to a more patient-focused and staff-supported environment that enhances functionality. The layout of the facility in combination with artistic way finding devices allow for discrete transportation of vulnerable patients and enable users to navigate through the interior environment with ease regardless of their level of ability (Perkins and Will 2017).

Key Observations:

This precedent was selected to inform ways of creating a dignified and nurturing environment without compromising functionality or efficiency. Design principle for the project Ralph Johnson addressed the design process of Johns Hopkins revolved around rectifying traditional oversights in hospital design that often lead to hostile, sterile environments that put users in a state of unrest. He states; “Hospitals are often designed as containers for the essential functions within, giving little regard to how people will experience the space” (Perkins and Will 2017). The theoretical intent behind John Hopkins reinvention of hospital spaces inspired strategies in creating uplifting and nurturing environments that aim to relieve stress and support the healing function of the facility. Programming and spacial elements were used to develop effective spaces intended on enhancing user experiences. The design process was also influenced by ways to create tranquil spaces that nurture a sense of well being through encouraging users to connect with nature such as through the use of light and colour as a feature. The design of Johns Hopkins establishes a new identity for healthcare through interiors that create nurturing and uplifting environments that contribute to comfort and dignity for users of all levels of ability during stressful situations (Perkins and Will 2017).

Scale: NTS

Figure 45: Floor Plan illustrating the inclusion of collaborative spaces throughout the layout. (Adapted from: Ortiz, Henry Vega. John Hopkins Medicine International. Baltimore, Maryland. n.d. LinkedIn Slideshare. Henry Vega Ortiz Portfolio. Accessed September 28, 2017. https://www.slideshare.net/hgrimley/henry-vega-ortiz-portfolio)



Scale: NTS

Figure 46: Floor Plan illustrating key social spaced where the exterior and interior design are merged (highlighted in purple) (John Hopkins Medicine. John Hopkins New Medical Education Building. Baltimore, Maryland. n.d. Accessed September 28, 2017. http://www.hopkinsmedicine.org/som/alumni /news/new_medical _education_ building/ renderings/ground_floor.html)

Figure 47: Interior view of the Frit window treatment designed by Spencer Finch (John Hopkins Medicine International. Baltimore, Maryland. n.d. John Hopkins Medicine. Accessed September 28, 2017. http://www.hopkinsmedicine.org/the_johns_hopkins_hospital/about/enhanced_ facilities/art_architecture/magical_frit.html)

Figure 48: Centre for Addiction and Mental Health, Queen street rendering. (CAMH. Urban Design Rationale. Toronto, Ontario. Published Feburary, 2015. Urban Design strategies Inc. Accessed September 28, 2017. https://www.camh.ca/en/hospital/about_camh / CAMH_redevelopment/phase1C/Documents/UrbanDesignRationale.pd**f)**

Description:

The CAMH is located in Toronto Ontario; the 88,000 Square foot campus was designed by the C3 Consortium to address the stigma of mental health through integration of the facility with the surrounding community in the form of an urban village (CAMH, 2012). The primary intent of the new design was empowerment and recovery for users in a normalized environment. The interaction between the building and site design was deliberately integrated with the surrounding community, reflecting the feel and aesthetic of the neighborhood to provide a Deinstitutionalized atmosphere for users. The facility design also takes staff and care giver needs into consideration, providing a supportive workplace so that the best care can be provided. The guiding principle for the development of this healthcare campus was to provide a continuum of care that reinforced the vision of a holistic environment that helps to normalize the process of seeking treatment for mental disorders. Dr. Paul Garfinkel, the director and CEO of CAMH reasons that when people are treated in a respectful, dignified, and holistic manner, the better it is for a persons recovery and the more it can enhance an individuals reintegration within a society (Mays 2007).

Theoretical Intent:

This precedent helped inform methods of integration between healthcare facilities and the community. The intent of the CAMH was to introduce a sense of normalcy within a holistic environment that blended in with the neighborhood and helped reduce the stigma associated with mental health and those who seek assistance with it. The four guiding principles that were developed from this precedent to help address stigma, and provide a sense of healing to the community through the reintegration of a site that was a source of controversy within the neighborhood are:

- Integrating the site, and the building with the surrounding neighborhood so that it becomes an extension of the community rather than an isolated stand alone institution.
- Create a useful building that enriches peoples experience through implementing place making strategies in a restorative atmosphere.
- Empower users through a dignified, respectful, and therapeutic environment that is engaging and reintegration orientated.
- Developing a design strategy that encompasses hope, diversity, inclusion, and empowerment to aid recovery (Urban Strategies Inc, 2002).

Programmatic Features:

The CAMH was focused on a design strategy that linked empowerment with respect. The result was an environment that is welcoming, safe, and comfortable. The facility programming also enhanced users sense of independence and instilled confidence by reducing any unnecessary signs of surveillance (Urban Strategies Inc, 2002). In addition to promoting recovery and empowerment for users, the programming also recognized the importance of catering to all users, including staff and patients rather than favoring one over the other. The CAMH master plan included a staff oasis, where officials could retreat during the day. This area was not accessible to patients so that clinical staff can have a place where they can unwind and re-energize themselves without having to be on-duty at all times. These private staff retreat areas also promoted socialization and interaction between staff members that allowed for a stronger sense of teamwork and comradery (Urban Strategies Inc, 2002).

Design Aesthetics:

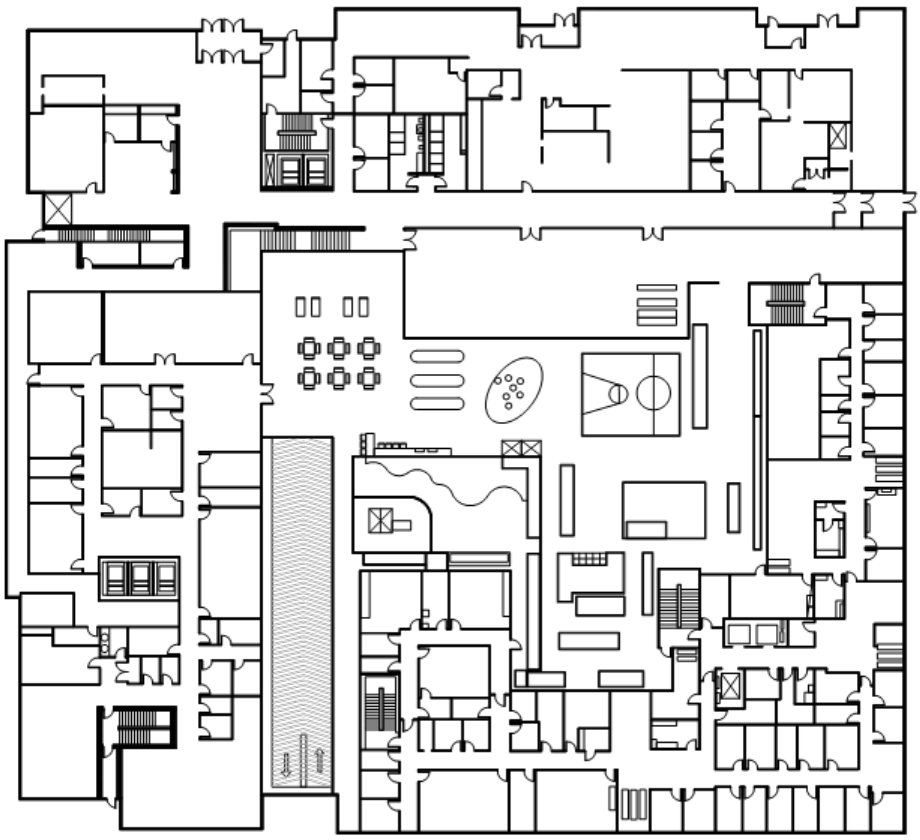
The CAMH embraces the history of mental illness treatment, documenting how public perception has influenced the progression of the facility over time through display boards that showcase the sites 160-year-old history. Art is also used throughout the site for wayfinding; this includes photography of the original site and the intuitions that were previously located there as well as sculptural art reflected in various mediums throughout the building (CAMH, 2012). A prominent tree sculpture is used to enhance the overall message of empowerment by representing growth and rebirth. The use of light and reflection are used in conjunction with the sculpture to give the impression of interacting with nature while inside the building. This aspect connects the art, as well as users to the surrounding environment, and ultimately it is a step in connecting users with the surrounding neighborhood as well (CAMH, 2012).

Design Elements:

The design utilizes an East to West orientation to maximize the benefits of Southern exposure such as passive heat gain, and access to natural light. The design elements of this campus work to enhance the overall vision of wellness and recovery by supporting a healthy environment comprised of three major areas of focus: natural light, fresh air, and access to outdoor views (Urban Strategies Inc, 2002). The visual cues of the design were chosen specifically to reduce stress in users by providing an uncluttered aesthetic. The interior of the space works to provide a calming, de-institutionalized space through a variety of lighting, acoustic control to minimize potentially aggravating sounds, comforting and warm materials, and a mix of cheerful artwork to act as wayfinding elements (Urban Strategies Inc, 2002). A serene atmosphere is used to minimize potential triggers which could result in aggressive behavior or high levels of stress among users. To further address these issues, the CAMH has focused on reducing as many triggers as possible. Measures used to achieve this are the use wide corridor widths to ease areas of public circulation and avoid any congestion, allowing open floor plans where possible for those who may be sensitive to spatial confinement, and providing a variety of seating in waiting areas (Urban Strategies Inc, 2002).

Spatial Attributes:

Creating a campus that serves as an urban village by mimicking the layout of the community surrounding the site was critical in building a facility that promoted a sense of normalcy that would address issues of stigma (Mays 2007). The feeling of an urban village was created by dividing the campus into nine city blocks that served as an extension of the existing streets surrounding the site. In addition to this, the campus has been organized to look like streetscapes rather than large, monotonous buildings typically associated with clinical institutions (Mays 2007). To further reduce an institutional setting, and to promote positive interaction among users, unstructured meeting areas have been utilized to facilitate spontaneous conversations, and social interactions (Urban Strategies Inc, 2002).



Scale: NTS

Figure 49: Centre for Addiction and Mental Health Floor Plan. Depiction of public social spaces and private patient spaces intermingling to promote socialization while maintaining privacy. (Adapted from: CAMH. Urban Design Rationale. Toronto, Ontario. Published February, 2015. Urban Design strategies Inc. Accessed September 28, 2017. https://www.camh.ca/en/hospital/about_camh/CAMH_redevelopment/phase1C/Documents/UrbanDesignRationale.pdf)

Key Observations:

This precedent informed the architectural elements of this project by suggesting ways to deinstitutionalize a facility with a long-standing clinical mental health history to create an atmosphere that promotes acceptance and normalcy. The CAMH highlights the importance that the physical environment has on an individuals well-being. The key takeaway lessons from this precedent were to provide clients with privacy, and control over their surroundings where possible. Ways in which the proposed design could be integrated as an extension of the community to reduce the stigma were taken from the theoretical and spatial analysis of the urban village approach CAMH has focused its planning strategies around. The program helped to determine ways of empowering users in a dignified environment through providing opportunities of independence. The programming also informed the development of staff oasis to provide healthy, supportive environments for all users. Using art as a wayfinding technique while embracing the history of the site to contribute to a serene atmosphere that begins to break away from an institutional environment were tactics directly influenced by the design elements demonstrated through this precedent. This precedent was examined to understand ways that would contribute to a fully integrated facility that can support and blend in with the surrounding environment to address stigma around mental health and help users feel more connected with the community.

Figure 50: Centre for Addiction and Mental Health Rendering depicting use of materiality and rhythm to integrate the building with the neighborhood. (CAMH. Urban Design Rationale. Toronto, Ontario. Published February, 2015. Urban Design strategies Inc. Accessed September 28, 2017. https://www.camh.ca/en/hospital/about_camh/CAMH_redevelopment/phase1C/ Documents/UrbanDesignRationale.pdf)

Chapter Summary and Conclusion

The precedents explored in this chapter were chosen for their significance in informing the design of the proposed center presented in this practicum. Bridgepoint Active Healthcare Campus was selected for their design intent in creating a wellness campus that functioned as a civic centre while supporting healing and inspiring innovation in healthcare. Johns Hopkins Medicine International has been chosen for its welcoming atmosphere for all levels of ability through the embodiment of accessibility and transparency in the design. The Centre for Addiction and Mental Health has been selected to inform methods of reducing the stigma often associated with mental health issues through the smooth integration of a healthcare facility within the surrounding community.

While each analysis explored distinct designs, separate from the outcome of this practicum, they provided examples of addressing the stigma surrounding mental health and integrating the site into the community. The analysis of each precedent was used to inform the proposed design of this project in regards to programming, aesthetic and design principles to help guide a successful, compassionate alternative healthcare facility.

Chapter Four: Literary Analysis

"We worked out that their 'retirement' from everything that gave them their sense of fraternity, of understanding, of purpose, of security, had totally destroyed them. They were dying of a broken heart."

(Dallaire 2016, 110)

Introduction

Historically, PTSD in regards to the military was a near-taboo subject. It was widely ignored or denied. The attention that it did receive blamed those experiencing symptoms rather than acknowledging the greater issue at hand. It was a common assumption that it was the individual's fault for being flawed. Those with PSTD were ostracized for being weak and predisposed to mental illness. 'Shell Shock', as it was commonly known, was heavily associated with cowardice and shame. This concept was rooted in the widely accepted belief that PTSD was a result of the individual acting immorally and without compassion. With few exceptions, individuals experiencing symptoms were labeled as inferior brutes, rather than heroic soldiers (Reid, 2014, p. 100). As the public perception shifted over time, common terms such as 'soldiers heart, 'shell shock' and 'battle fatigue' painted the illness as resulting from inadequate soldier's breaking down in combat over traumatic events. PTSD was portrayed as a direct result of weak-minded individuals unable to handle their duties rather than having anything to do with low morale or lack of support after traumatic experiences (p. 99).

In recent years, with the return of soldiers from Afghanistan and Iraq, issues regarding PTSD and the military have become more prevalent throughout mass media outlets. There has been a shift from news stories that glorify war, and paint the image of the courageous soldier as the picture of valor to stories that are beginning to address the horrors of war and the toll it takes on returning veterans. Unfortunately, with narratives framed around suicide and murder of fallen soldiers who slipped through the cracks of the system and did something terrible, the majority of attention PTSD is getting is negative.

The media typically highlights tragic stories such as the article in The Globe and Mail by Lindsay Jones, titled: "What happened to Lionel Desmond? An Afghanistan veteran whose war wouldn't end". This article outlines a veteran who was unable to get proper care for his PTSD, leading to symptoms worsening until they escalated so high that he killed his wife, daughter, and mother before taking his own life (Jones, 2017). Stories such as these are becoming far too common, with the majority of recent news stories regarding military and PTSD addressing the growing concern of soldier and veteran suicides. With headlines drawing attention to the Olympic style Invictus games designed for ill and injured military personnel to provide a sense of belonging and comradery, as well as the new steps policymakers in Ottawa are making towards preventing soldier suicide and providing support for families who have lost soldiers, one thing is abundantly clear. More needs to be done to help military personnel with PTSD. In order to do so, the stigma around the topic needs to be addressed so that those experiencing symptoms are not discouraged from coming forward, or seeking proper treatment.

As it has been established in previous chapters, one of the goals of this practicum is to explore how design can address issues of stigma to create more considerate healthcare environments capable of appealing to a broad user base. Through the examination of issues associated with PTSD, including symptoms, current treatments and alternative options, the first section of this chapter reviews literature that serves to provide a better understanding of how a built environment can enhance user experiences of the space, promoting a better quality of life and producing successful results that will encourage others needing treatment to utilize the proposed facility. The analysis focuses on triggers and treatments that have shaped the programing of this project.

By reviewing military culture and identity the following two sections of this literary analysis will provide a theoretical basis that inform an integrated approach to the proposed design. The third section builds on the second by exploring how the military culture and perceptions of identity foster the current stigma around mental health. This section also highlights methods that are currently being used to help overcome this stigma.

Finally, a review of literature detailing the importance of family support and secondary trauma explores themes of promoting healthier relationships that aid in a successful transition from military to civilian life. This section also investigates ways of taking care of the caregiver and demonstrates the necessity of extending care services to families of those affected by PTSD as well as the individual experiencing primary symptoms. The two themes of particular interest are: how living with someone affected by PTSD affects the family unit, as well as Secondary Trauma and the impacts it can have.

Post Traumatic Stress Disorder

PTSD is defined as a life-altering condition that can cause significant occupational dysfunction and a decrease in quality of life. It was legitimized in 1980 after being included in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) (Borders, 2015, p. 74). An estimated 20 – 30% of service members experience moderate to severe symptoms of PTSD, less than half of these individuals seek any help or treatment that would potentially aid in the reduction of their symptoms (Gibbons, Migliore, Convoy, Greiner, & DeLeon, 2014, p. 366). It has been identified that the reason for this is due to the stigmatizing beliefs that negatively influence service member's willingness to seek treatment. (Gibbons, Migliore, Convoy, Greiner, & DeLeon, 2014, p. 366). 60% of veterans experiencing symptoms develop a substance abuse problem (Levine and Land 2014, 61). Due to the stigma surrounding both addiction and mental health, this often goes untreated which furthers negative coping strategies and patterns of behaviour (Levine & Land, 2014, p. 61). Social isolation is prominent among those with PTSD due to increased difficulty in maintaining meaningful relationships and difficulty fitting into the broader community. One of the reasons for this is a lack of understanding, misrepresentation in the media and social stigma surrounding mental illness which results in difficulty integrating into the broader community (Rivers & Saunders, 2016, p. 13). In response to some of these issues, the term 'disorder' as been largely contested by advocates such as General Peter Chiarelli, the former Vice Chief of Staff in the U.S Army. There has been a push to change the diagnosis to "Post Traumatic Stress Injury" as it is hypothesized that the change in terms could be a step towards reducing barriers to seeking care resulting from stigma and misunderstanding (Angel, 2016, p. 58).

Combat exposure, survivor's guilt and guilt over taking another life are all significant factors that contribute to PTSD symptoms such as substance abuse, anger, and relationship problems. Feelings of demoralization and guilt have been proven to be considerably stronger indicators of PTSD than combat exposure alone (Litz, et al., 2009, p. 697). In addition to being a significant determinant of developing symptoms, experts in clinical psychology state that: "veterans who reported killing in war had twice the odds of suicidal ideation, even after controlling for PTSD, depression, and substance use disorders" (Maguen, et al., 2015, p. 122). Primary symptoms include: nightmares and intrusive memories, along with sporadic episodes of heart palpitations and shortness of breath, anxiety in crowds, feeling distant from others and difficulty focusing on everyday tasks (Kip, Shuman, Hernandez, Diamond, & Laney, 2014, p. 32).

Overall symptoms are categorized into four groups. The first is persistent avoidance of stimuli associated with the traumatic event. This involves the avoidance of distressing memories, thoughts, or feelings about, or closely linked with the event, as well as the avoidance of external reminders that trigger these memories, thoughts, and feelings such as people, places, conversations, activities, objects, or situations (American Psychiatric Association, 2013). The second category is marked by changes in arousal and reactivity associated with the traumatic event that begin or worsen after the event occurs. These changes include two or more of the following symptoms; destructive behaviour, irritable behaviour and outbursts of anger with little or no provocation, typically expressed in the form of verbal or physical aggression; reckless or self destructive behaviour, hypervigilance, exaggerated startle response, problems with concentration, and sleep disturbance (American Psychiatric Association, 2013). The third category is Intrusive re-experiencing, which is considered to be a core symptom of PTSD. This involves the reoccurrence of involuntary and intrusive distressing memories of the traumatic event. The reoccurrence of distressing dreams related to the event. As well as, dissociative reactions, such as flashbacks, where the individual feels or acts as if the traumatic event is recurring (American Psychiatric Association, 2013). The fourth category added in 2013 is alterations in cognitions and mood. This includes the inability to remember an important aspect of the event due to sociative amnesia, a persistent negative emotional state, diminished interest in significant activities, feelings of detachment and estrangement, inability to experience positive emotions, distorted cognitions about the cause of the event, and negative thoughts that originated or worsened after exposure to trauma, and overly negative assumptions about oneself or the world (American Psychiatric Association, 2013). A combination of the above symptoms causes significant disruptions in a person's sense of meaning leading them to question their identity and worldview, hinders their ability to connect with others which amplifies feelings of isolation and affects interpersonal relationships. They also decrease tolerance to seemingly innocuous triggers, affect psychological needs and sensory memory, which make handling daily tasks increasingly difficult (Bride & Figley, 2009, p. 317). If symptoms are left untreated, veterans may worsen symptoms by resorting to negative coping strategies such as substance abuse, violence, homicide or suicide (Levine & Land, 2014, p. 59). According to Ehlers, Hackmann and Michael, the majority of people with undiagnosed PTSD are oblivious of what may be potential triggers and because of this, symptoms tend to appear as if they are occurring without provocation hindering social connectivity and reintegration (Ehlers, Hackmann, & Michael, 2004, p. 407).

A review of the literature discussed in this section suggests that alternative methods of treatment that focus on mindfulness such as the use of yoga and meditation as a form of therapy, have been proven to significantly reduce anxiety and depression in civilians who have been diagnosed with PTSD. Therapeutic activities that engage the body and mind have been highly effective in managing and relieving symptoms. (Johnston, et al., 2015, p. 556). As will be examined further in this chapter, current treatments typically involve group or solo counseling sessions, imagery rehearsal, anger management and interceptive exposure. However, new strategies are being developed that use trained service dogs to assist veterans with symptoms of combat PTSD that are proving to be successful (Lavin, 2012, p. 31).

One of the difficulties for veterans transitioning to civilian life is the loss of the tight bond they held with their unit. Trained dogs are vigilant and can mimic the buddy system soldiers would have been reliant on during their tours. Because they are always there, and always scanning the environment, barking or notifying the owner if something is unsafe, they can ease a person's mind

and provide a measure of comfort that things are normal in the veterans surrounding which has been shown to lower anxiety and levels of hyper-alertness. Along the same lines as this, dogs are protective and provide veterans with companionship. This companionship is unconditional and may be useful for those struggling to adapt and fit into a community where they feel that their skills are not transferable or respected. Due to their training, military personnel can adopt authoritative personality traits that can negatively affect their interpersonal relationships. Dogs do well in these types of relationship dynamics and can help reinforce positive feelings such as forgiveness and love as they will not scold their owner or criticize them for their symptoms; they will simply accept and forgive (Stecker, 2011). Dogs require constant care and attention. This can help shift focus away from traumatizing memories and invasive thoughts, to concentration on caring for the animal. They can also be trained to sense high levels of stress and anxiety, notifying the owner through methods such as a gentle nudge. Often having the calm animal near them, or being notified that symptoms may be occurring is enough to help alleviate fears and sooth anxiety in veteran pet owners (Elements Behavioral Health, 2011).

Current treatment methods involve the use of group therapy to help patients through promoting peer support and interaction with others who have shared similar experiences. In many cases, veterans feel increasingly isolated from their peers, group therapy helps them to connect with others who share the military experience and hold similar values which have the potential to encourage supportive networks and significantly aid the healing process by showing them that they are not alone in their struggle (Harrison, Albanese, & Berman, 2014, p. 95). Academic and psychologist Dr. Bret Moore along with health services researcher and consultant Dr. Walter Penk note that: "Greater social support has been identified as one of the strongest correlates of lower PTSD rates" (Moore & Penk, 2011, p. 146). This type of support can be cultivated through the use of group therapy approaches which benefit individuals by providing a group context that helps improve positive coping mechanisms for symptoms such as isolation, alienation and shame. This can be especially important in combat trauma groups where many members may feel ostracized from civilian societies, in these instances, support from peers provided in these group settings can offer validation for the issues veterans may be feeling otherwise judged for, this begins a process of normalization which ultimately helps relieve feelings of shame, secrecy and guilt, allowing service members to better overcome their symptoms through positive methods than if they were attempting to do so in isolation (Moore & Penk, 2011, p. 126).

In a study analyzing the effect of storytelling in the recovery process for veterans with PTSD, participants expressed a strong need to connect with others. Social support was identified as a lifelong coping strategy that enabled service members to create meaning within their new civilian lives; one of the ways this could be achieved was through the process of storytelling.

"We persevere in our resolve to ensure the story is never forgotten, and that those who died did not do so in vain." (Dallaire, 2016, p. XV)

Talking about one's experiences is identified as a way for service members to take control of their narratives, through this process they are able to connect with others and become reintegrated into society through having the opportunity to share their experience with others. This essentially opens a corridor of acceptance and understanding into their culture, and their experiences, thus beginning to narrow the gap between their two worlds and allowing them to forge critical support networks (Demers, 2011, pp. 174-75).

Having a platform of sharing what they have been going through, or may currently be going through enables veterans to humanize their experiences through sharing their personal narratives involving fear, horror, shame, guilt, and bonding. Retelling the events they have witnessed or writing it down, adding more descriptors, as they are able to and listening to the recollection of events and situations out loud lessons the effective significance the mind places on the traumatic experience itself (Wilson, Leary, Mitchell, & Ritchie, 2009, p. 409). Four Key therapeutic benefits were identified for speaking about their trauma in group settings. The first is that it offers an outlet for veterans to commutate their experiences; this leads to self-reflection and validation. The second benefit is vindication, which is achieved through social engagement and offers the opportunity for veterans to reconnect with a civilian community once they return from deployment. The third benefit is education and the development if self-awareness achieved through shared narratives that can help to promote a more positive perception of soldiers as people rather than war machines. Finally, connecting with others through the discussion of shared experiences can often result in growth and healing. This is fostered through the process of gaining control over their own narrative rather than remaining secretive and alienated from others (Wilson, Leary, Mitchell, & Ritchie, 2009, p. 420).

Operational Stress Injury social support programs have been successful treatment programs that address the issues discussed in this chapter. Their success has been largely attributed to providing gathering places for veterans as a cultural group that fosters social support networks. Operational therapists consider the person and the environment. Treatments offer client-centered interventions that are designed to help support service members with PTSD as well as their families (Rivers & Saunders, 2016, p. 13). These treatment strategies facilitate peer support while promoting a better sense of understanding which helps to ease the transition into civilian life. This is made possible by people being able to come together as peers with a shared understanding of their experiences and a sense of comradery that enhances the healing and transition processes (Ray & Heaslip, 2011, p. 201).

Post Traumatic Growth (PTG) is a positive effect that occurs as a result of successfully overcoming traumatic experiences. The term was first coined by Tedeschi and Calhoun and can be measured though the demonstration of closer social relationships, optimism, discovery of personal strengths and a greater appreciation, and quality of life (Angel, 2016, p. 57). PTG correlates with a positive change in self-view, relationships and philosophies. It signified that a person has successfully overcome their PTSD (Dekel, Mamon, Solomon, Lanman, & Dishy, 2016, p. 196). Social support and a sense of self-purpose in life have both been linked to PTG. This is because engaging in peer group therapy where individuals are encouraged to support one another has been proven to promote empathy and foster improved relationships through increased compassion towards others and a greater appreciation of life (Dekel, Mamon, Solomon, Lanman, & Dishy, 2016, p. 197). In addition, greater perceptions of personal strength in response to prior traumatic events have been shown to help protect against the development of PTSD upon re-exposure (Tsai, Mota, Southwick, & Pietrzak, 2016, p. 271). This suggests that PTG helps protect against re-traumatization.

Military Culture and Identity

Societies develop cultural constructs that typically dictate what is considered appropriate behaviour. Social constructions of gender are amplified within military culture, dictating rules that define discussing emotions as a sign of weakness and inferiority (Wallace & Wolf, 2006, p. 253). Because this section reviews literature based on the concept of culture and how that impacts identity, it is necessary to provide a definition of culture. Dr. Anne Demers is a professor at San Jose State University who specializes in areas of disenfranchisement from community and mental health. Demers defines culture as being: "A web of significance that humans create and it is within culture that we learn socially accepted norms, how selves are valued, and what constitutes a self" (Demers, 2011, p. 161).The military can be considered a culture because it is composed of a set of shared belief systems, values, language, rituals, customs and expected behaviours rooted in tradition that are clearly defined and enforced by regulations that ultimately influence a members lifestyle, defining their sense of self through shaping their identity (Gibbons, Migliore, Convoy, Greiner, & DeLeon, 2014, p. 368) (Meyer, Writer, & Brim, 2016, p. 28).

Military culture and task oriented training breeds an environment where anything that could be considered a weakness, such as mental health issues, is not to be acknowledged. "The military culture is one that emphasizes toughness, self-reliance, and the ability to master stress without difficulty" (Monson & Snyder, 2012, p. 294). The type of atmosphere within the military encourages a culture of silence around issues such as PTSD due to the values that are taught to its members. In general, military training enforces the idea that any situation can be resolved with enough time and effort, this belief is reflected in the common motto instilled into service members 'adapt and overcome.' This training results in active and retired service members feeling the need to overcome any obstacle, including personal mental health issues. Due to how regimented military training is, members struggling with PTSD may perceive an inability to find a solution as a sign of being lazy, unmotivated or weak, which can result in service personnel avoiding treatment options out of a fear of failure, should the treatment not produce successful results (Moore & Penk, 2011, p. 18).

The military can almost be described as a club where only those who can adapt to the culture are able to stay. Being a member of such a tight-knit organization promotes comradery, unity and a reliance on others, which produce a sense of connectedness between members. Moreover, for those who succeed in adapting to this environment, it often instills feelings of self-esteem and self-worth which can be hard to sustain once a member retires (Moore & Penk, 2011, p. 11). Because of the clearly defined nature of military culture and training, members who have become accustomed to the set values and beliefs of it often find it difficult to separate themselves from it. Upon returning from deployment, service members can often feel as if they are caught between two worlds. The one that they have assimilated into and understand, where rules, regulations and expected behaviours are clearly defined for them by military law, and the unknown or forgotten civilian world where nothing seems to make sense and trying to readjust can be frustrating due to feelings of not belonging (Demers, 2011, p. 169). For many active service members, returning home can be described as a type of dislocation involving a disruption to established order often leading veterans to find themselves in various states of displacement. Medical anthropologist and investigator at the Veterans Evidence-Based Research Dissemination Centre, Erin Finley, found that: "Veterans described dislocations from

a previous sense of self, from others in the world, and from feeling truly present in their lives back at home" (Finley, 2011, p. 59). Understanding military culture is important for understanding how to begin addressing stigma within this community, as individual identity and community are intrinsically linked with one another. It is within a community or culture that people develop their sense of self, born from acknowledgment from peers and a shared understanding of the word and how they fit into it. The community informs our identity, and our identity is what provides us with a sense of belonging among those who have similar beliefs and values. In this way, the community provides the basis for a sense of meaning. As Finley notes: "The lives and selves we construct are themselves an outcome of the meaning-making process" (Finley, 2011, p. 135).

This notion begins to explain why many soldiers may struggle with their transition from military to civilian life, and why they may be reluctant to seek treatment from a facility that attempts to break them apart from the military community.

Exposure to military culture can be such an immersive experience that veterans often identify with it more than any other culture that they were born into or are involved in after their retirement (Meyer, Writer, & Brim, 2016, p. 28). It is because this mindset is so inexplicitly tied to military members sense of self, that any successful treatment facilities must incorporate this culture into their methods and environment. Service members are often proud of their defined role as protectors and are deeply loyal to their country, and their unit. They are trained to deny or repress psychological and physical pain in the name of being and staying strong and able to defend others and fulfill their duties. It is an unwritten rule that military personnel are meant to have a 'stiff upper lip' when it comes to mental health. Due to values such as this, military culture is one that creates a disposition that includes qualities like stoicism and denial in the name of being mission ready (Gray, 2015, p. 115) (Foley, 2015, p. 129). Dr. Irene Martin at the Smith College School for Social Work states that both active and retired service members; "value being strong and proud, a dedication to duty and service to one's country, the sense of honor that comes with fighting a war, and the willingness to deny one's self for the greater good" (Martin, 2009, p. 467). Facing symptoms of PTSD can create a barrier to maintaining a continued sense of self because it disrupts the underlying values that their training has instilled in them. As summarized by a veteran in a qualitative study conducted by Dr. Patrick Foley:

"When you join the military, they are going to break you down and build you up into what they want you to be. And that's somebody who's going to push through the pain, suck it up, soldier on, and finish until the mission is complete ... the stigma [of admitting to weakness] that had been so cemented in our conscious was as hard as a wall, and we were brick by brick trying to break it down" (Foley, 2015, p. 139).

Because of this shared belief system, members of the military culture who face symptoms of PTSD may find it hard to seek treatment in a civilian community as admitting they are struggling with mental health issues challenges the core values and expected behaviours that they have come to define their identity through.

Transitioning from a primary identity of being a soldier to a new civilian position can be an especially challenging process as individuals can easily find themselves suddenly juggling multiple contradicting roles that they are expected to fill. This can lead to a difficult readjustment period due to culture shock, where two worlds collide and appear to be at odds with one another, in which is often hard on the person, as well as their loved ones (Ray & Heaslip, 2011, p. 199).

In addition to culture shock, the transition process can also be related to the concept of cross-cultural transition because it requires a person to shift from one set of skills, the juggling of opposing values and the adaptation of new ways of understanding the world in order to fit into a new environment (Ray & Heaslip, 2011, p. 199). As Finley notes: "Veterans re-entering the civilian world face the additional challenge of creating a new there as a student, employee, or citizen" (Finley, 2011, p. 65).

Veterans interviewed in a qualitative study regarding their experiences transitioning to civilian life after deployment identified three central challenges that complicated the transition process, lack of respect, holding themselves to a higher standard and not being able to fit in. Many veterans felt that lack of respect from civilians, especially compared to the level they received within their unit was a difficult barrier to overcome and prevented them from successfully fitting into the civilian community. Another significant issue was retired service members struggling with a lack of purpose, which lead to low self-esteem and self-worth within a civilian environment (Demers, 2011, p. 170). In the study conducted by Finley, soldiers shared similar views, commenting on how they were more afraid of returning home than when they had been deployed due to a loss of what normalcy was in a civilian setting. One veteran summarized the transition experience by relating it to a line in the movie Band of Brothers, where one character tells the other to realize that as soon as he is deployed he is already dead and might as well power through and get the job done. He follows by stating: "Once you grasp the fact that you're already dead, you might as well just do your job and drive on. It makes the job easier over there. It makes it a real bitch coming home. Because you're used to being dead and now you got to be alive again" (Finley, 2011, p. 52).

The challenges of transitioning to civilian status are amplified for veterans who have physical or emotional injuries resulting from deployment. This is because these men and women may feel more alienated from society and like they are unable to contribute any skills or abilities having lost they skill set they gained during training. The result can be significantly decreased sense of self-worth and a higher level of feelings of loss of purpose within either sector of their lives, past military and new civilian settings. These issues become further compounded if their injuries result in increased difficulty in returning to previous jobs, or make doing so impossible (Monson & Snyder, 2012, p. 26). Due to these increased difficulties, it is not uncommon for military personnel with PTSD to resort to coping mechanisms such as denial and emotional numbness and substance abuse. At the moment, these types of strategies appear to take the edge off and allow people to face the difficulties they are facing. However, they are a short-term solution and often lead to negative consequences that effectively decrease quality of life for these individuals during the transition process (Ray & Heaslip, 2011, p. 200).

Stigma of PTSD Within the Military

As discussed in the previous section, stoicism and strength are two key characteristics that are heavily valued within military culture. Because these traits are heavily associated with emotional control and the ability to perform well under pressure, these views promote the stigma of PTSD as a sign of weakness and lack of adaptability and dependability (Moore & Penk, 2011, p. 19). This trend was highlighted in a study examining barriers to veterans seeking treatment by Ann Nayback who is a nurse practitioner and Major in the U.S Army. Nayback found that: veterans from Iraq and Afghanistan tours listed fear of being perceived as weak and being treated differently or having members of their unit lose confidence in their abilities as a primary reason that was preventing them from seeking treatment for their symptoms (Nayback, 2008, p. 47). The stigma surrounding mental health treatment is rooted in traditional, militarized notions of masculinity resulting in stigma being identified as the primary barrier deterring active and retired military personnel from seeking treatment (Gray, 2015, p. 116). The social stigma created around mental health contributes to the disempowerment of groups facing these disorders as the more stigma spreads, the more discredited a group may become. This effect is exemplified within a military setting where the culture produces attitudes regarding mental health that are increasingly negative which will inevitably be internalized into negative and self-deprecating views members with PTSD may adopt about themselves (Gibbons, Migliore, Convoy, Greiner, & DeLeon, 2014, p. 366).

The study conducted by Foley showed that veterans had difficulty taking steps to seek treatment due to a fear of appearing weak, feeling ashamed and guilty (Foley, 2015, p. 130). These findings were also supported by the research conducted by Academic and MD Eric Meyer; psychiatrist Brian Writer, who specializes in veteran's health administration; and William Brim, with the Center for Deployment Psychology. Their studies concluded: "Many [service members] equate having a mental diagnosis with being broken or weak while seeking care is perceived as selfish and mission-compromising. Others fear it will damage their career" (Meyer, Writer, & Brim, 2016, p. 28). In addition to feelings of weakness and inadequacy, soldiers in the Nayback study also reported feelings of guilt, as if they were betraying their units and letting them down by turning their backs on them in order to treat their symptoms outside of the military setting (Nayback, 2008, p. 47). These individual's reluctance in leaving their unit for their own needs is reflected in the military culture where leaving the group can be viewed as seeking help from outsiders and therefore as an act to be regarded with suspicion and distrust. In some cases, this may even be extended to viewing an individual who is confiding in others as putting the group and their missions in jeopardy (Bryan & Morrow, 2011, p. 17).

Another common perception in military culture that negatively impacts a person's willingness to seek treatment is the notion that PTSD is overly exaggerated and that those who say that they are experiencing symptoms are simply trying to scam the system. The perception is that these individuals are essentially lying about having PTSD with the sole intention of getting compensation. Military members with PTSD are often ostracized by their peers and labeled as cowards or fakers (Harrison, Albanese, & Berman, 2014, p. 86). Because of the damaging effects that these views can have, it is imperative to develop treatment centers that allow those who have mental illness to maintain a sense of self-worth. This can be achieved by treatments centers that are grounded within the culture their identity is heavily rooted in rather than challenging it and contributing to negative feelings of shame (Wool, 2013, p. 144).

Anthropologist Zoe Wool notes that due to the stigma perpetuated by military culture and result orientated training, diagnosis can sometimes offer validation that individuals with symptoms are not weak. However, more often it is deemed a mark of humiliating failure that undermines a soldier's sense of self (Wool, 2013, p. 144). Research indicated that suppressing acknowledgment of symptoms due to fear of judgment could perpetuate feelings of shame and isolation, worsening symptoms as a result. Those diagnosed with PTSD often feel stigmatized by the assertion that a character flaw is to blame rather than the experience of a traumatic event itself (Espinoza, 2010, p. 9). Those who do avoid seeking treatments state that they do so due to the fear that seeking treatment would not be kept confidential and harm their careers as a result. One of the areas that could be improved on to remedy this fear is embedded within the screening process as it occurs before a soldier is scheduled to return home and may delay the return process while informing others in the unit that something is "wrong" (Borders, 2015, p. 97). Another stigma preventing military personnel from seeking treatment is becoming increasingly common with the influx of news articles highlighting acts of violence by a veteran diagnosed with PTSD such as the article mentioned in the introduction of this chapter. These articles concerned veterans who did not receive proper care cultivate the stigma that returning veterans are a danger to society. Finely quotes one veteran who comments on why he avoids telling people he has PTSD. He states "People will think I'm going to go crazy and shoot everything up" (Finley, 2011, p. 80). The literature analyzed in this section is comparable to research that has indicated four primary social barriers for military personnel seeking help. These barriers are identified as: fear of being viewed as weak or flawed; concerns regarding anonymity; worry that they will be unfit for duty; fear that seeking treatment will jeopardize their career (Gibbons, Migliore, Convoy, Greiner, & DeLeon, 2014, p. 367). A common theme within this chapter is the reluctance of active and retired service members to disclose to anyone that they are experiencing symptoms due to the judgment that they will face for coming forward. However, as will be discussed in the next section, research indicates that speaking with a trusted peer through sharing experiences, challenges, and triumphs in a group setting can aid the reduction of symptoms by helping to alleviate feelings of shame and isolation (Angel, 2016, p. 59).

In order to address the stigma of mental health and encourage more people to use treatment centers, healthcare facilities must work with the military culture rather than against it. Trying to reduce stigma by challenging the military culture cultivated in war circumstances that produce a mindset which enables task based objectives such as lawful force only fosters feelings of guilt and shame, and does more harm than good. Some strategies that have been suggested to truly challenge the current stigma around PTSD in a more successful way include incorporating strength-based, positive psychology in line with the warrior mindset that military culture promotes. This strategy involves presenting treatment as life skills that will aid in enhancing mental agility rather than as a cure to fix something that is broken. Presenting mental health concepts as a skill set that is akin to career training works within military culture as it ties it into pre-existing skills they have already acquired from their training, thus providing treatment options that are culturally relevant. In addition, it is significant to recognize the potential for personal growth associated with combat exposure, rather than presenting it as little more than a damaging life experience (Bryan & Morrow, 2011, pp. 21-22)

Secondary Trauma

Secondary Trauma occurs when caregivers or loved ones experience symptoms of PTSD through projection, identification, or hearing vivid and disturbing details of a traumatic event someone in an intimate relationship with the person has endured (Link & Palinkas, 2013, p. 379). The term was defined in 1995 by academic Dr. Charles Figley as: "the natural and consequent behaviours and emotions resulting from knowing about a traumatizing event experienced by a significant other – the stress resulting from helping or wanting to help a traumatized or suffering person" (Bride & Figley, 2009, p. 316). There are two primary aspects to Secondary Trauma. The first is characterized by symptoms of PTSD being transferred from one person to another. In this instance, the symptoms of secondary exposure are the same as primary traumatization described in the previous section. The second is distress that is caused within a relationship between someone with PTSD and their partner or significant other. This includes aspects of adjustment and ambiguity over new roles, which may lead to depression, anxiety, and nightmares (Dekel & Monson, 2010, p. 304).

In addition to the risk of Secondary Trauma, those providing care for individuals with PTSD may also experience caregiver burden, where their emotional and physical health along with their social life and financial status is compromised due to their having to care for an impaired relative (Dekel & Monson, 2010, p. 305). 'Burnout' is another common term used to describe the negative effects of providing care for traumatized individuals. Burnout is characterized by emotional exhaustion and cynicism. Similarly, to individuals suffering from PTSD, caregivers who use social support coping mechanisms tend to have fewer symptoms (Bride & Figley, 2009, p. 320). Because of this, it is important to provide small, private areas within a healthcare facility that act as an oasis for staff. These rooms should be inaccessible to patients and offer the opportunity for relaxation, connecting with peers and collaboration. As a result of Secondary Trauma, partners of service members with PTSD report instances of depression, anxiety, social difficulties, reduced quality of life, increased conflict within interpersonal relationships, demoralization and a lower quality of life (Link & Palinkas, 2013, p. 379). Children of veterans who have been diagnosed with PTSD are especially vulnerable to Secondary Trauma and will often exhibit symptoms such as avoidance. Youth and adolescents often find it overwhelming and increasingly difficult to cope with the changes in their family life, resorting to substance abuse and hyper-vigilance as a coping mechanism (King & Smith, 2016, p. 31).

Additionally, symptoms of emotional numbing and anger greatly impact familial relationships and because of this, numerous studies are finding a strong need for support programs catered to military families, including interpersonal skill training for veterans who are trying to reintegrate into a civilian workforce (Ray & Heaslip, 2011, p. 200). Families of military personnel with PTSD experience dysfunction within their relationships in part because they are forced to adapt to new roles while confronting mental health issues that they do not fully understand. The strain on these relationships often results from symptoms of anger, aggression, and avoidance combined with the impacts of poor conflict management or negative coping strategies (Rivers & Saunders, 2016, p. 13). Anger, depression and emotional withdrawal were the leading factors that made it difficult for veterans to be emotionally available for their families. Violent and aggressive outbursts were most frequently the source of decreased emotional availability and compassion. These symptoms result in children of military parents feeling as though they are unable to communicate with their parents that significantly harmed the cohesion of the family unit (Harrison, Albanese, & Berman, 2014, p. 100).

Moreover, the symptoms of hyper-arousal such as irritability, sleep disturbance and anger discussed above have been a significant predictor of family violence. For these reasons, many veterans seeking treatment for PTSD express a strong desire to involve their family members in treatment as well as they understand the corrosive effects their symptoms are having on these relationships (Monson & Snyder, 2012, p. 5).

In addition to secondary trauma, family, friends, and partners of military personnel suffering from PTSD are significantly and negatively affected by the absence of a loved one during periods of deployment. Frequent separation associated with multiple tours away, long work days when the family member is home and the demanding expectations military life places on service members causes significant distress within the family unit (Link & Palinkas, 2013, p. 379).

As discussed, PTSD is volatile to a family unit. This often results in negative strategies such as substance abuse to self-medicate and handle the stress of the disruption symptoms of PTSD and Secondary Trauma have on their daily lives. The logic is that they may be able to block feelings of distress and intrusive memories while numbing the feelings of estrangement and alienation from loved ones they may be experiencing by using drugs or alcohol (Kelley, et al., 2015, p. 202). In regards to impact symptoms and the stress of transitioning back to family life after deployment, research on military families indicate that female service members have increased feelings of inadequacy when it comes to parenting, they often feel that after returning home, they are unable to function in a parental role due to perceived issues that they see affecting their success as a parent. These issues include being over protective to the point of being overbearing, having significant mood fluctuations, and the inability to bond with children due to emotional numbness (Levine & Land, 2014, p. 61). Complicating the issue, many female veterans are single parents who struggle with finding and maintaining civilian jobs due to their responsibilities at home combined with a lack of support. This struggle results in an increase of financial stress which can further symptoms and suggests the need for child care support to be offered for women seeking treatment in order to provide them the opportunity to attend care or skill training sessions (Levine & Land, 2014, p. 61).

Children of military parents are highly susceptible to feelings of worthlessness stemming from symptoms of aggression and emotional distance, loneliness, depression, and anxiety. These feelings are significantly amplified if a parent's deployment tour is especially dangerous. During periods of absence, it is also highly likely for families to experience loss of their family member regardless if that family member can still communicate with them or not. In these cases, they may have an emotional presence within the family unit, but their lack of presence leaves a void and leads to ambiguity of family roles. In many cases, children are the ones left to try and fulfill aspects of parental duties or supporting the other parent during these periods (Monson & Snyder, 2012, p. 52).

Summary and Conclusion

As noted in the first few sections of this chapter, one of the biggest challenges with PTSD treatment is the severe stigma that is attached to reporting and seeking care for mental health issues. This stigma is fostered within a military culture that promotes the need for mental toughness paired with the expectation that members should be able to handle any stress as a result of training, which emphasizes inner strength and self-reliance (Bryan & Morrow, 2011, p. 17). This stigma is considerably magnified within military cultures, leaving active and retired service members with enhanced feelings of isolation that negatively impact them and their families (Harrison, Albanese, & Berman, 2014, p. 86). Studies indicate that forty-five percent of active service members refuse to seek any assistance despite suspecting, or knowing that they have PTSD. This is because they are fearful of being perceived as weak or other more tangible repercussions such as loss of security clearance or limiting their future career options (Espinoza, 2010, p. 19). Typically, mental health programs attempt to address this stigma by challenging the values and beliefs that are deeply rooted within the military culture and by telling those with PTSD that it is okay for them to leave their military family behind in order to seek the care they need to take care of themselves (Bryan & Morrow, 2011, p. 16). However, this only leads to further resistance and heightened feelings of guilt, secrecy, shame, and isolation which worsen symptoms. In order to successfully address issues of stigma, programs must shift focus from altering the mindset of the individual, and instead work on shifting treatment options to support and work within the military culture rather than against it.

The literature reviewed in the third and fourth sections highlight the debilitating symptoms that PTSD can have. These symptoms include nightmares, intrusive memories, sporadic physical reactions such as heart palpitations and shortness of breath, anxiety in crowds, feelings of emotional distance, and difficulty concentrating on daily tasks (Kip, Shuman, Hernandez, Diamond, & Laney, 2014, p. 32). Feelings of isolation and alienation are common among veterans suffering from PTSD because they often find it difficult to trust others and view every environment as a potential danger. As a result, their quality of life is greatly diminished as they view every situation as a threat and their need for safety and protection outweighs all considerations of socialization or nurturing of interpersonal relationships (Coll, Weiss, & Yarvis, 2011). Ultimately, the effects of PTSD severely damage close relationships and family units. Therefore, it has been indicated that it is essential in the successful treatment of PTSD that mental health care facilities offer a safe, neutral environment that encourages therapeutic activities in a comfortable setting where clients may feel more comfortable sharing their experiences and building crucial social support networks in the process (Coll, Weiss, & Yarvis, 2011, p. 497).

The opening quote to this chapter as well as the quotation used to reflect the significance of sharing traumatic experiences within a group setting was sourced from Retired Lieutenant General, former Canadian Senator, respected government advisor and celebrated advocate for human rights, Romeo Dallaire. The sentiment behind this quote contextualizes what the literature analyzed in this chapter indicates. That is, the more treatment programs can work to encourage social support networks while working with the military culture rather than against it, the more successful the outcomes of these programs will be. By working to help ease the transition of soldiers to civilian life through the incorporation of group therapy, alternative therapy methods and skill training of soldiers back into civilian life open a corridor of acceptance and understanding.

Successful treatment programs are ones that promote the reintegration of service members into their family units, as well as into surrounding communities rather than trying to get them to turn their back on a culture that defines their sense of self and asking them to challenge everything that they have come to know about their identity.

Chapter Five: Design Programme

Introduction

The North Pavilion building offers a variety of services that provide support to active and retired soldiers who have been identified as having PTSD. The aim is to help them transition to civilian life so that they may better integrate into their communities. The Pavilion is a haven where active service members and retired veterans can seek treatment for PTSD, as well as receive assistance with family counseling and training to assist with their reintegration into society. The spaces within the Pavilion are designed to enable service members to overcome the challenges and barriers outlined in the literary analysis associated with transitioning into civilian lives.

This chapter outlines the key considerations of the programme that informed the design process of this practicum. The first section provides a summary of the client as well as a description of the user profile. A selection of fictional character profiles based on qualitative research and memoirs has been included in this section to represent a cross-section of users. Such a use of composite, imagined personalities has been used due to difficulty in conducting interviews with sensitive groups. This section also includes a discussion of behavioural, psychological and spatial needs for those with PTSD. The second section of this chapter presents an inventory of space detailing the organization of the design as well as functional, aesthetic and spatial requirements that relate to the theory and research discussed in preceding chapters.

Client Description

The intended client for this project is the Canadian Armed Forces (CAF) and the Department of National Defense (DND). In Canada, the Armed Forces are organized into three divisions: The Royal Canadian Navy, The Canadian Army, and the Royal Canadian Air Force. The organization is dedicated to defending the country by protecting national interests and ensuring security while contributing to international peacekeeping missions (Government of Canada., 2015). The mandates of the CAF as outlined on the Canadian government website are:

- To protect Canada and defend sovereignty within the country and abroad.
- To Support freedom and democracy through defending North America in cooperation with the United States.
- To contribute to international peace and security through operations that support and defend the rule of law and human rights on a global scale (Government of Canada., 2015).

On behalf of the DND and CAF, the Military Family Services (MFS) is dedicated to providing families with information and resources through programs that aim to:

- Provide resources that contribute to the success and wellbeing of military families.
- Provide professional and technical guidance and support for military families (CFMWS, 2016).

The MFS organization also creates, implements, and promotes the Military Family Services Program (MFSP) policies and services. They oversee all resources and performances of the MFSP and would be responsible for the organization of family support services (CFMWS, 2016).

User Profiles

Primary: The primary users of this space are the staff providing services. This group includes Counsellors, Operational Stress Injury clinic workers, MFS representatives, and administration. Refer to Table One for further details regarding the activities and needs.

Secondary: The secondary users of this space are active military personnel and veterans with PTSD as well as their caregivers, family members, and significant others. Refer to Table One for further details regarding the activities and needs.

Tertiary: The tertiary users are maintenance workers, groundskeepers, delivery staff and visiting guest lectures and workshop leaders.

The intended users of this space will primarily be staff and those seeking treatments. Those utilizing the area most frequently will be a combination of military personnel and civilians. The proposed design focuses on addressing the social identity embedded within military culture described previously that often deters individuals from seeking treatment due to the associated stigma through a design that acts as a corridor of transition and reintegration into a civilian environment.

Behavioural Needs

The primary users provide services catered to the treatment of PTSD. This includes individual and group counseling, family support and alternative therapies and training such as yoga, government outreach programs, job training, addiction programs, seminars and specialized courses designed to aid transition into a civilian society. This group will typically spend up to five days a week at the facility for up to eight hours on a daily basis, most commonly during regular working hours. However, some workers will also be required to provide services during the evenings. Primary users will utilize a range of spaces to accommodate the multi-service function of the building. Users will need access to private office environments that are wellorganized, quiet and have the option of visual and audio privacy. Larger private spaces are also required for meetings, group counseling, and limited access staff retreat spaces for socialization and rejuvenation during break times. Multi-purpose rooms are needed to host activities such as lectures, career services and yoga.

The secondary user group consists of active and retired military personnel seeking treatments for PTSD as well as their families. This group would utilize the facility on a more irregular basis, likely spending a couple of hours once a week or on a bi-weekly basis for counseling and treatments. Those using the space for alternative methods of treatment, job training, addiction outreach programs and seminars would spend varying amounts of time at the centre which would range from sporadic bi-weekly visits for symposia, and career services reaching to a few hours spent over multiple days in a week. They would also use this space for socialization and connecting with others with the same cultural values they hold. Secondary users require space for treatments, counseling, and socialization. They would also use this space for socialization and connecting with others with the same cultural values they hold. Secondary users require space for treatments, counseling, and socialization.

These spaces must promote social interaction while enabling users to begin connecting with others and building support networks. Counselling and multifunctional areas that are best suited to this user group encourage collaboration rather than presenting clear hierarchal boundaries. These spaces should also allow for intimate group discussion while also providing enough space for activities while mitigating the anxiety often associated with tightly packed and confined spaces.

The tertiary users are those utilizing the facility the least. They will likely have infrequent visits to the centre for specific purposes such as maintenance or guest speakers and would be using the space for widely diverse time periods ranging from a few brief moments during deliveries to a few hours for guest lectures or special events. Although tertiary users will be using the space infrequently, they require access to service and maintenance areas without disrupting daily activities of the facility.

Types of Spaces Responding to Client and User Needs:

Administrative Activities: Administrative activities include the daily operations of the facility. These events are essential to ensure the centre runs smoothly and day-to-day business operations are managed efficiently.

Individual Counseling: A primary function of the centre is counseling and behavioural treatment for individuals with PTSD and Secondary Trauma. Individual counseling is required to assist people with PTSD or Secondary Trauma seeking treatment on an individual basis.

Group and Family Counseling: A primary function of the centre is counseling and behavioural treatment for individuals with PTSD and Secondary Trauma. Group counseling enables social support through meaningful dialogue. Group counseling is needed to promote healthy family relationships and successful reintegration within social settings.

Career Services: Resources for career services is provided to families who may have had to relocate due to a family member's military career. These activities will reduce the anxiety of families and veterans by providing the space and resources needed to seek employment and successfully reintegrate into society and the surrounding community.

Day Care Services: Temporary childcare is provided for families who may need assistance while searching for employment, seeking treatment or while their significant other is deployed. These services will ease the burden of finding child care for individuals receiving treatment and will reduce some of the added pressure a primary caregiver may face while their significant other is deployed.

Dog Training Services: A training facility for service companions is provided on the main level of the centre. This will be a small portion of the centre open to volunteers to support pet therapy discussed in the literary analysis.

Social Interactions: The centre provides opportunities for users to build networks of support. Spaces are provided where individuals can interact with one another in a relaxed and supportive environment that promotes a sense of community among users.

Spatial Requirements

All spaces within the North Pavilion are designed to be accessible. The proposed design incorporates elements of Universal Design to cater to a spectrum of mobility, cognitive and visual abilities. Universal Design is classified as the design of all products and environments to be usable by all people to the greatest extent possible regardless of their level of ability (Sanford, Universal Design as a Rehabilitation Strategy: Design for the Ages, 2012, p. 15). This includes human factors that seek to achieve comfort, safety, performance, and privacy based on rigorous measurements of physical, sensory and cognitive functions. This is accomplished by combining function and functionality of design by using physical space and form to minimize the demand on an individual with various levels of ability. The principles of Universal Design are equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance of error, low physical effort, size, space for approach and use, social integration and contextual integration. Successful Universal Design is considered to be invisible (Sanford, Universal Design as a Rehabilitation Strategy: Design for the Ages, 2012). The core concept is to increase usability, safety, health and social perception through design and services that respond to a diversity of people and needs in a way that looks, feels, smells and sounds like an integral part of the overall design so that it is aesthetically, culturally and socially appealing for all users.

Character Profiles

This section details five fictional character profiles that are representative of the intended user group. All five characters depict different issues and challenges that secondary users typically face. These characters were developed from a cross-section of information gathered from online articles, various written accounts of first-hand experiences, nonfiction books, and memoirs[1]. These profiles have been used throughout the design process to embed a human factor within the design.

1 The sources used to inform the fictional characters described in this chapter are: Waiting for First Light: My Ongoing Battle with PTSD by Romeo Dallaire; What have We Done: The Moral Injury of Our Longest Wars by David Wood; Soldiers Once: My Brother and the Lost Dreams of Americas Veterans by Catherine Whitney; Fire and Forget by Matt Gallagher and A soldiers story published on the Stateman.

Figure 51: Nick

Nick: As an idealistic gunner and officer who operated a light armored vehicle (LAV) during his tour in Afghanistan, Nick knew from a young age that he wanted to join the Army. He cruised through his physical training with ease. He did not experience fear when he was deployed. He felt honoured to defend his country. He was eager to put his training to use and fulfill the duty for which he had always felt a calling. Nick recalls a night when he was required to kill multiple people. On this night, the seeds contributing to his PTSD were planted. It is not the events of the traumatic evening that haunt him, but rather the aftermath of facing what he had done. During the night he carried out his orders, inflicting pain, terror, and death on fellow human beings. In the moment, Nick was doing what he had been trained to do. Afterwards, he was faced with the reality of his actions. He described feeling a piece of himself die when he collected the bodies, knowing that he was the one responsible for their pain and death. One lifeless body was kept for identification near to where he slept, ate and spent most of his days. The smell of death was impossible to ignore and served as a constant reminder of his actions. It was a week later, when a family came to identify the deceased body, that the gravity of war struck him. The man he had rationalized killing by recognizing him as an enemy combatant, suddenly became a person with a family who mourned for him. He heard the sobs of a mother weeping for the loss of her son. After his return home, Nick experienced debilitating depression, devastating guilt, and irrational anger. He avoided sleeping due to a fear of the images that frequently haunted dreams. Eventually, he began to detach himself from everyone in his life both socially and emotionally. He took comfort in his alienation from others. He developed a reliance on alcohol, rationalizing that his drinking was a tool to forget rather than to numb his senses. Months after his return, Nick's family pleaded with him to seek treatment after noticing the changes in him and the ever-present vacant look in his eyes.

Figure 52: William

William: A captain in the Army, he has survived countless missions. He defined himself as a strong and motivated individual. He joined the Army because he had a strong desire to protect his country. As defined by the military training brochures, William was an exemplary, model soldier. During his tours, he had experienced artillery fire. He was seemingly unmoved when he described the details of what it was like to be in an explosion. He was required to kill in the line of duty and could justify his actions for doing so. William has spoken about how he has developed a mental filing system, where he could place all of the horrors that he has seen in desk drawers of his mind, then clear the surface to focus on his duties, his job, or his daily life. William struggled more with transitioning back into civilian society than preparing for combat tours. He noted that when people discovered that he is in the Army, he feels that it is often met with hostility, judgment and misunderstanding that makes him feel out of place in a civilian environment. He has experienced symptoms of PTSD ever since he encountered the body of a child. He describes this event as the one instance he is unable to keep filed away. Always remembering the child's lifeless expression as he tried to help while those around him continued to scream for him to do something. William recognized that he had symptoms when the sight of his niece's plastic doll at a family gathering had him recalling vivid images and sounds of that event and put him in a near debilitating state of panic.

Figure 53: Sophia

Sophia: The military is all that she has known. She is third generation army and has followed in her father's and grandfather's footsteps. She joined the military and served alongside her husband. They both completed multiple tours and are now retired. Sophia was injured by an improvides explosive device (IED) while traveling along ambush alley in kandahar, which put her in a wheelchair. Despite having notable physical difficulties, she feels that she can cope with the loss of her ability to walk better than she can deal with the mental and emotional aftermath of her service. Sophia feels embarrassed to ask for help with an injury that cannot be physically identified. She feels the weight of the anguish each day. The support of her peers, friends and family help her to overcome the alienation she feels from the surrounding community. While talking with others who can relate to her experience has helped her, doing interviews and recounting details of her trauma in discussions with psychologists is exceedingly difficult. Now that she has returned to civilian life she has had difficulty finding a job. She experiences disproportionate emotional responses to minor adversity. She is haunted by the distressing recollection of the daily anticipation of death. She is now panic-stricken by the sight of garbage at the side of the road and becomes claustrophobic when shopping or in crowded public places. She has begun showing signs of fatigue, anorexia and alcohol abuse. Returning to civilian life is consistently challenged by the symptoms of hyperarousal, stemming form involuntary recall that often occurs at unpredictable times. Her husband feels powerless in the situation, stating that he feels trapped and does not know how to help his wife. He often wishes that the new Sophia would return to the war and bring back his old Sophia, one that he understood and knew how to comfort.

Figure 54: Jarod

Jarod: Jarod was a bright-eyed Newfoundland recruit eager to prove himself to his commanding officers. He took pride in his military identity and considered his unit to be his family. He often gave recruitment presentations at schools and promoted the Army at every turn. He has been taught that anyone who claims to have PTSD is trying to play the system and get money from the government. He believes that PTSD has been exaggerated and over-reported. He believes that he is stronger than those who claim to suffer from this 'affliction.' He has always taken a 'stiff upper lip approach' and believes that mental illness can be overcome with strength of will, persistence and time. He recalls that it was not events such as being required to engage in acts of war that affected him the most, he was able to justify his actions in the line of duty, it was simply circumstance based on the situation he was in and he did what he was required to. However, it is the loss of his friends and fellow soldiers that continue to haunt him once he returned home. After he returned from his first tour, his friends, colleagues and peers told him how lucky he was to return without a physical scratch on him. He quickly began to exhibit uncontrollable rage and anger. The diagnoses of PTSD is incredibly hard for him to accept. It makes him feel more of a victim than a soldier. He finds it challenging to seek treatments at clinics because he believes it means he has lost somehow or that others will think less of him. Individual therapy sessions identified potential stressors and positive coping strategies. However, he believes that a civilian psychologist cannot understand the loss of control and sudden outbursts of rage that he experiences. He identifies the diagnosis of PTSD as something that shook him to his core and made him question everything he thought he knew about himself; it made him begin doubting the sense of self he had developed within the context of military culture.

Figure 55: Victoria

Victoria: Victoria recognizes that a diagnosis of PTSD does not make her less of a person, or soldier. Seeking treatment has significantly helped her cope with symptoms in positive ways. However, she struggles with transitioning back into civilian life and redefining her roles and expectations in a civilian environment. Although her unit integrated themselves into the cities that they patrolled, there was the unsettling fear that anyone could be a potential threat and those that they would have amicable relations with during the day, where they same people who were laying down IED's at night. She adapted to the environment by sacrificing part of her humanity in order to survive. She denied her emotions and described operating at a near-feral, visceral level to do what was required to stay alive and carry out her mission. One of her coping strategies was to come to terms with the concept of death. Each morning when she awoke, she would recognize that today was a day she would likely die. She acknowledges that her life, mind and soul remain forever changed by the trauma she has witnessed. One of the hardest aspects of transitioning to civilian life is redefining her role within her family. She states that she had learned to live and thrive in an environment where death was a constant. She had learned to adapt and live without her family. Likewise, her family had learned to live without her presence. Once she returned, they found themselves suddenly having to readapt and learn to live with one another as a cohesive unit once again. Readjusting to her new life is not an easy task for Victoria. She continually views her surroundings and the people within it with varying degrees of suspicion. Friendly smiles and gestures frequently evoke an accelerated heart rate and fear of the inevitable evil lurking around the corner. She feels that her life has now lost the meaning it once held. What was once enjoyable for her, she now apathetically disregards. She has become increasingly disconnected in hopes of concealing the trauma she has witnessed. When she hugs her children, her greatest fear is that they will learn what she was required to do during her absence.

Physical, Behavioral and Sensory Requirements

Activity / Areas	Physical Needs / Atmosphere	Behavioral / Sensory	User group
Administrative: includes individual and collaborative work areas as well as the staff break room.	• Staff members require office space and a private break room with acoustic control and visual privacy. Lockable storage is a requirement for sensitive information and client files. • These areas will run the daily operations of the facility and will serve as a corporate office that will need to accommodate meetings, collaborative, and individual work requirements.	• Acoustic control. • Visual Privacy. • Ergonomic and environmental considerations to ensure employees are able to spend extended periods of time in each space. • Access to natural light, climate control, and good air quality. • Hours of operation will be Monday through Friday between 8:30 a.m. and 5:00 p.m.	Primary
Counselling: Includes offices with public access for individual counseling as well as group therapy and behaviour treatment services.	• Staff members will need access to personal office space and lockable storage with secured entry points. • Areas will need to accommodate both individual and group client needs.	• Acoustic and visual privacy are critical for these spaces. • Areas must be designed to ensure safety and anonymity (as needed) to a sensitive client base. • Rooms must provide a calming atmosphere to ease patients seeking treatment. • These spaces will be designed to avoid known triggers of PTSD to contribute to the healing environment of the centre. • Hours of operation will vary between 8:00 a.m. and 8:00 p.m.	Primary and secondary

Open Office Area: Includes career services and civilian skill-based training.	• Open office environment with resources for veterans seeking employment to reintegrate into society as well as family members looking for work. • This area will help provide smooth integrations of families who have been forced to relocate into the surrounding community. • The space will also be utilized by staff members who need a quick touch down workspace rather than a permanent office in the centre.	• Access to natural light. • Moderate acoustic and visual privacy. • Workspace with charging stations. • Office furniture with ergonomic considerations. • Hours of operation will range from 8:00 a.m. to 8:00 p.m. There will not be any assigned staff members for this space and users will be able to use this part of the facility freely as needed.	Primary and secondary
Daycare facilities: Includes child care areas.	• Secure child-friendly areas for military families to utilize as needed while at appointments within the facility or while searching for employment.	• Access to natural light. • Acoustic privacy from the rest of the facility. • Easily maintained and sanitary environment. • Use of bright colours and bold patterns to keep children visually stimulated.	Primary and Secondary (includes some restricted access for primary users only)
Service dog training facilities: Includes service dog training centre for programs that connect trained dogs with veterans.	• Secure pet friendly areas designed for service dog training to compliment pet therapy solutions for veterans and service personnel with PTSD.	• Access to natural light. • Acoustic privacy from the rest of the facility. • Easily maintained and sanitary environment. • Removable rubber flooring that snaps in and out of place to allow for easy removal and replacement.	Primary and Secondary

Recreation: Includes recreation, leisure and pool rooms (including adjacent locker rooms).	• Open recreation areas to promote socialization, exercise and alternative methods of treatment such as yoga. • Separate locker rooms will be located adjacent to the central recreation area; these spaces will focus on visual privacy.	• Access to natural light. • Use of green wall. • Easily maintained. • Sensory environment. • Use of natural colours with vibrant accents.	Primary and Secondary
Café / Lounge: Includes areas allocated to serving refreshments and promoting positive social interaction. These spaces will also be used to help ease clients' nerves between or before appointments	• Open environment where users can relax before or after appointments and connect with one another in a space that has been designed to avoid potential PTSD triggers.	• Open circulation paths to ease any possible congestion in a high traffic area. • Acoustic control so that the activities within this space to not disturb the other functions of the facility. • Calming colours and neutral tones will be used to avoid over stimulating users in an area designated for relaxation in preparation of or decompressing after potentially emotionally challenging appointments. • Hours of operation will be from 8:30 a.m. to 8:00 p.m.	Primary and Secondary
Storage / Maintenance: Includes supply rooms and janitorial closets.	• Closed environments with secure shelving and lockable storage for maintenance workers to store required items such as tools, seasonal equipment and cleaning products.	• Proper ventilation and lighting. • Slip-resistant flooring. • Visual privacy and secure access. • Hours of operation will vary based on maintenance schedule and requirements.	Tertiary

Washrooms	• For personal hygiene. • These facilities will adhere to universal accessibility standards.	• Visual and acoustic privacy will be a primary factor for these areas. • Easily maintained and slip-resistant materials will be used. • These areas will be accessible during all hours of operation (Approximately from 7:00 a.m. to 9:00 p.m.	Primary, secondary and tertiary
Reception/ Waiting: These areas provide secure environments for individuals waiting for appointments. The reception also functions as a primary wayfinding station and information desk. This will give users their first impressions of the facility.	• Secure entrance with visual control to ensure safety of all users. • This area will represent the centre's overall theme and image as it will provide the first impression of the facility to Secondary users. • Clear circulation paths will be maintained to ease any potential congestion in the high traffic area. • Clear sight lines will be maintained so that employees may efficiently direct users to the required areas.	• All waiting areas will be designed to create calming environments that relieve anxiety of Secondary users through a space that has been designed to empower users and allow them to feel in control in an area that does not include potential triggers of PTSD. • Hours of operation will be from 7:00 a.m. to 9:00 p.m.	Primary and secondary

Table One: Spatial User Requirements

Functional, Aesthetic and Spatial Requirements

Space	Function	Furniture & Fixtures	Colour & Materials	SQ Feet
Reception / Waiting areas	• This space provides users with their first impressions of the facility and is used as a central wayfinding station.	• Executive chair • Reception desk • Lockable storage • Closed and open storage • Soft Seating • Occasional tables	• Neutral colour palette with colour accents inspired by the surrounding nature. • Materiality will include wood, vinyl, glass and textiles.	1246
Administration	• Restricted access areas are not accessible to secondary users.	• Lockable lateral filing cabinets • Executive Desks • Work chairs • Task chairs • Meeting tables • Open shelving	• Lockable lateral filing cabinets • Executive Desks • Work chairs • Task chairs • Meeting tables • Open shelving	2515
Offices/ individual counselling	• Private offices to provide areas suited for individual counselling. • These areas will also be used by primary user group as their main office space.	• Soft Seating • Desk chair • Desk • Closed and open storage • Occasional table	• Neutral colour palette with colour accents inspired by the surrounding nature. • Materiality will include wood, carpet and textiles.	2115
Group and family counseling	• Intimate rooms capable of hosting group counseling for up to ten people.	• Soft Seating • Occasional tables • Multimedia screens.	• Neutral colour palette with colour accents inspired by the surrounding nature. • Materiality will include wood, wall tile, carpet, textiles, acoustic material paneling and glass.	2205

Multipurpose rooms	• These spaces will provide areas for large or small meetings to occur in a boardroom setting. • The room sizes will be adjustable and allow for the option of larger community information events or seminar spaces.	• Multi-purpose tables that can be rearranged as needed • Room dividers. • Whiteboards • Task chairs • Built-in counter space • Closed and open storage units	• Neutral colour palette with colour accents inspired by the surrounding nature. • Materiality will include wood, wall tile, vinyl, Textiles, acoustic material paneling and glass.	1499
Career Services	• Open office area with private touch down offices for career training in a civilian context.	• Open floor plan • Semi-private touchdown office space • Desks • Chairs • Computers • Print area • Tables • Modular workstations	• Natural colour palette with vivid colour accents throughout the design. • Materiality will include acoustic paneling, privacy installments, wood, drywall, glass and greenery.	2402
Recreational room	• Multiuse room for high levels of activity, recreation and yoga.	• Open floor space • Seating options • Green wall	• Neutral colour palette with natural accents such as live plants. • Materiality will be slip resistant, hold high acoustic control properties and be easily maintained.	3414
Pool and locker rooms	• Used for recreation, leisure and exercise.	• Indoor, in-ground pool • Guardrails • Seating area • Towel storage • Individual lockers • Benches • Showers	• Neutral colour palette with natural accents such as live plants. • Materiality will be slip resistant, water resistant and easily maintained.	2151

Daycare	• For child care while military parents are at work or in treatment sessions.	• Nap area • Open plan play area • soft seating • tables • Play equipment • Adjacent outdoor play area • Snack area • Storage area	• Colour palette is inspired by nature with bold pops of colour throughout the design. • Materiality will be durable and easily maintained with slip-resistant flooring, carpeted areas and acoustic paneling for noise control.	1583
Service dog training centre	• Used for veteran pet programs, volunteer opportunities and dog training.	• Kennel rooms • Observation deck • Visiting nooks equipped with chairs and ample floor space. • Training area	• Colour palette is inspired by nature with bold pops of colour throughout the design. • Materiality will be durable with removable floor tile designed to be easily pulled up, washed and snapped back into place. Acoustic paneling for noise control.	1415
Coffee lounge	• This space will provide environments for users to socialize with one another in an informal setting.	• Chairs • Tables • Lounge chairs • Sectionals • End tables • Open storage • Closed storage • Small Café equipped with drink machines, counter space cold storage and cash reception area	• Neutral colour palette with colour accents inspired by the surrounding nature. • Materiality will include wood, Porcelain tile, textiles, carpeting, acoustic material paneling and glass.	487
Café and Kitchen	• These spaces will be used for light food preparation and offering café services such as beverage sales.	• Drink machines • Cash register • Counter space • Food storage • Cooking Equipment	• Materiality will be durable and easily maintained with resilient, non-slip flooring.	906

Reading Lounge	• This space will be accessible to the public and located on the second floor near family counselling. This area will house reading materials and individual work stations.	• Work stations • Shelving	• The use of soft materials will be used to provide a comforting environment with special attention to acoustic control.	354
Staff break room	• For employee use only. These areas will provide space for employees to socialize and recharge during breaks.	• Tables • Chairs • Built-in counter space with storage • Lavatory • Fridge • Microwave • Coffee station	• Neutral colours with colour palette obtained from surrounding nature with cool colour accents. • Materiality will include wood, drywall, and glass.	1349
Media Room	• This space will be located adjacent to family counselling and will be utilized for video calling with family members.	• Soft seating • Media screen • Acoustic privacy • Telephone conference equipment • Data connection	• Soft materiality with a neutral colour palette accented with cool tones. • Moderate visual privacy. • Acoustic control.	123
File, Print and Briefing Rooms	• Theses spaces will be accessible to primary users only and will be used for morning briefings, meetings, client file storage and printing services.	• Seating • Tables • Counter space • Sorting space • Print machines • Computer	• Materiality will promote acoustic privacy. • Use of soft and hard materials with neutral colour palette accented with colours inspired by the surrounding nature.	675
Maintenance/ Storage	• Storage and janitorial space.	• Wash sinks • Fixed and open storage units • Lockable storage	• Neutral colour palette. • Proper ventilation • Durable and slip-resistant materials that can be easily maintained.	357

Washrooms	• Personal hygiene.	• Counter space • Lavatories • Water closets • Private stalls • Urinals • Mirrors • Hand drying stations • Soap dispensers • Grab bars	• Neutral colour palette with cool colour accents. • Closed circulation paths with clearly defined borders. • Materiality will include drywall, laminates and porcelain tile.	894 total
Circulation	• Space allotted for users to comfortably move around the facility.	• Accessible walkways with ample lighting and wayfinding where appropriate.	• Neutral colour palette with bold colour accents for wayfinding. • Open circulation paths with clearly defined borders. • Materiality will include drywall, acoustic accents and porcelain tile.	5611
				Total Square Footage: 31,371

Table Two: Inventory of Space

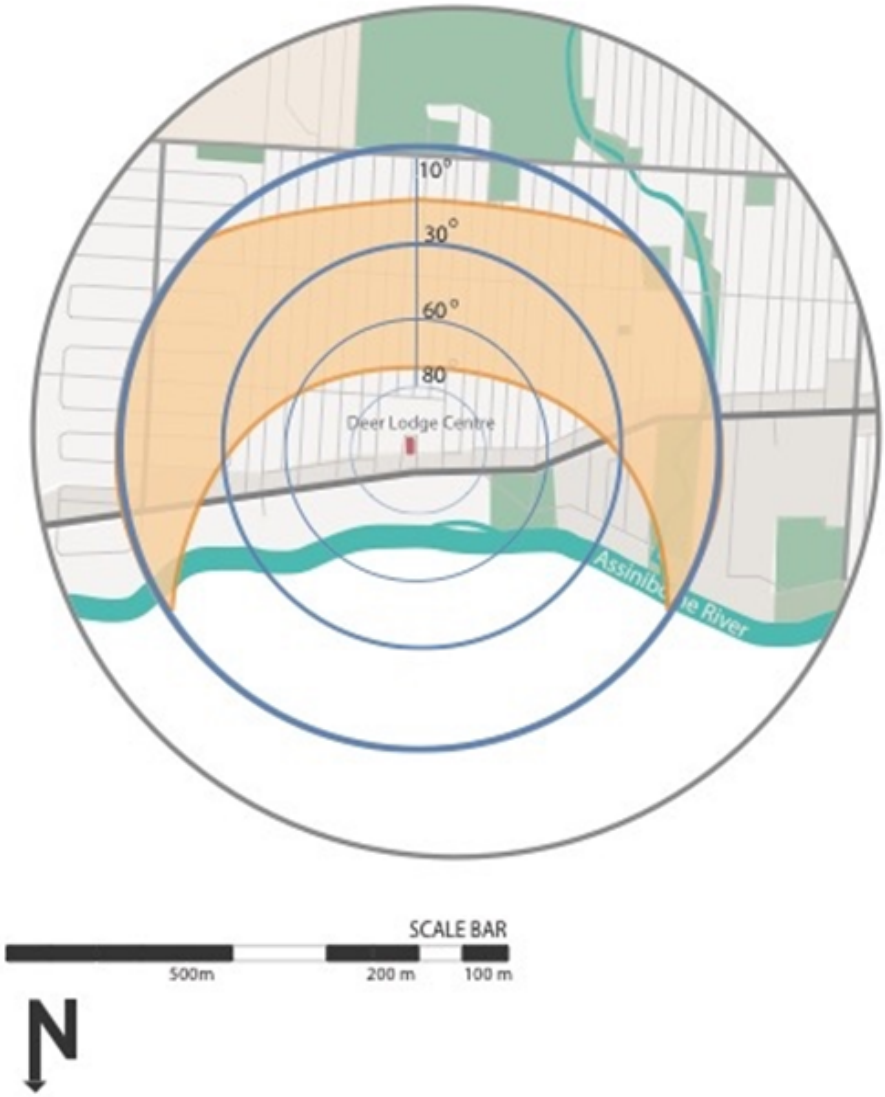


Figure 56: Sun Path Diagram: Adapted from gaisma.com/en/location/Winnipeg.html

Winnipeg is known for distinct seasons with temperatures and weather conditions that dramatically fluctuate. During the summer, temperatures range from between 19o C o 220 C. During the winter, temperatures range from -15oC and -20oC, these lows can be reduced further by -5oC to -15oC due to arctic winds. Predominant winds originate from the South and North west. These conditions have informed the design of covered exterior spaces that are protected from the elements rather than fully exposed elements which would only be practical for 4-5 months out of the year. As illustrated in Figure 50, the South, East and West sides of the building receive sun exposure with no tall adjacent buildings casting any shadows. This allows for the potential to maximize natural light within the design while also creating opportunity for passive heating strategies during winter months.

Design Matrix

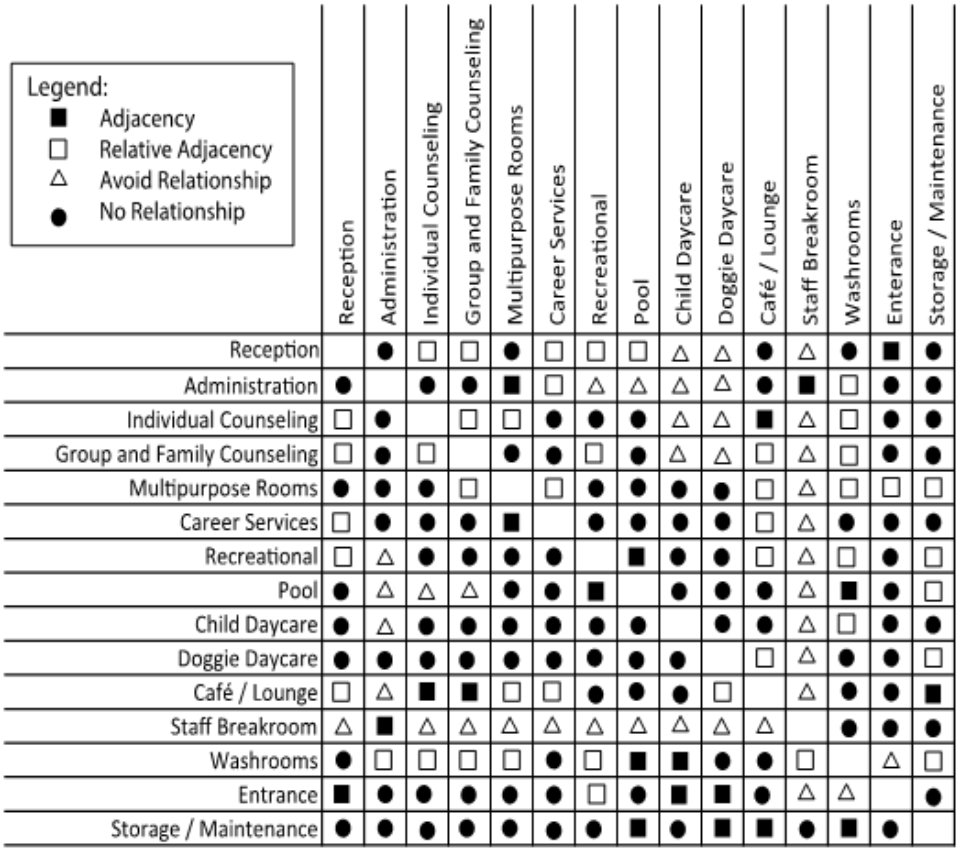
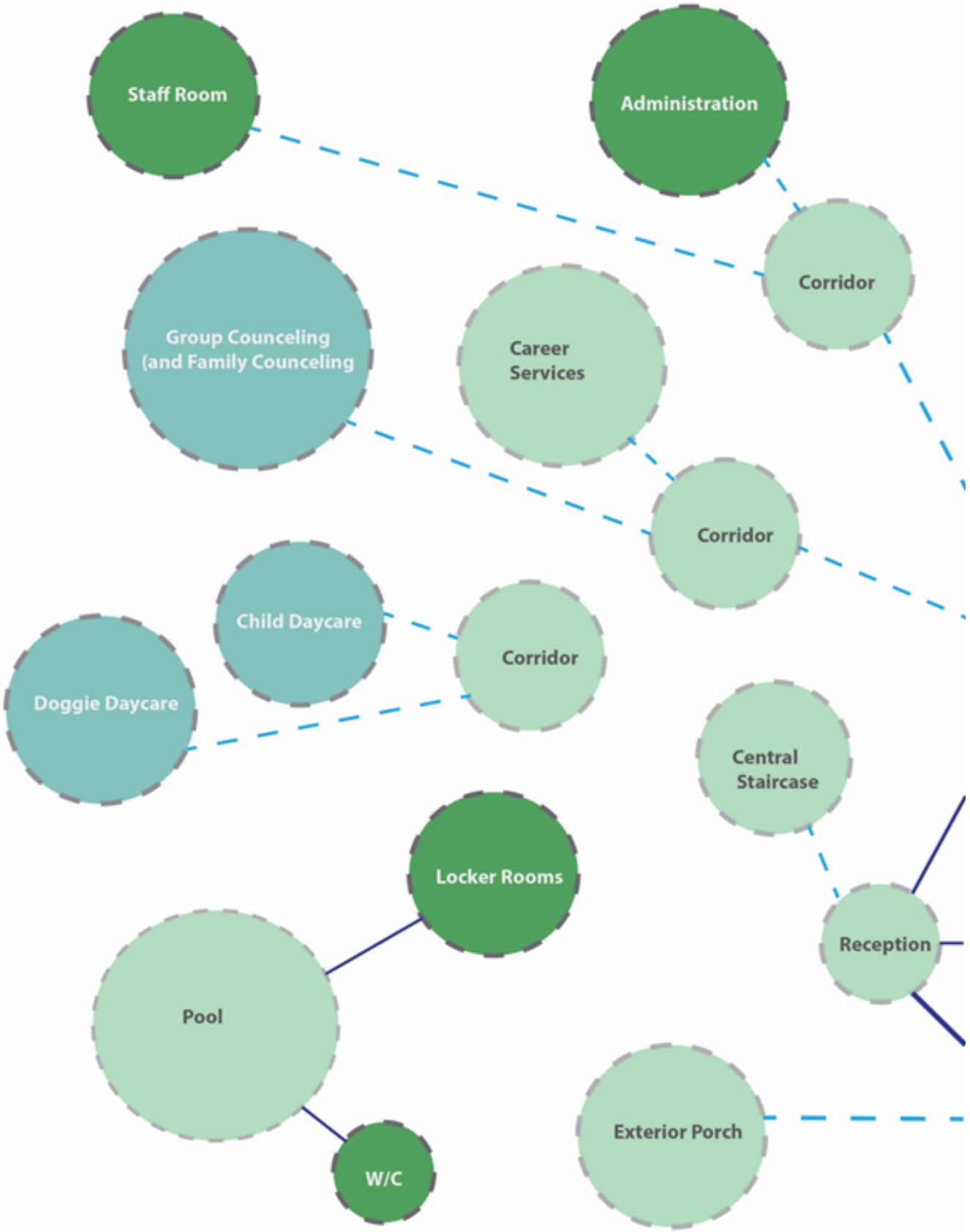


Figure 57: Design Matrix indicating adjacency relationships

Bubble Diagram



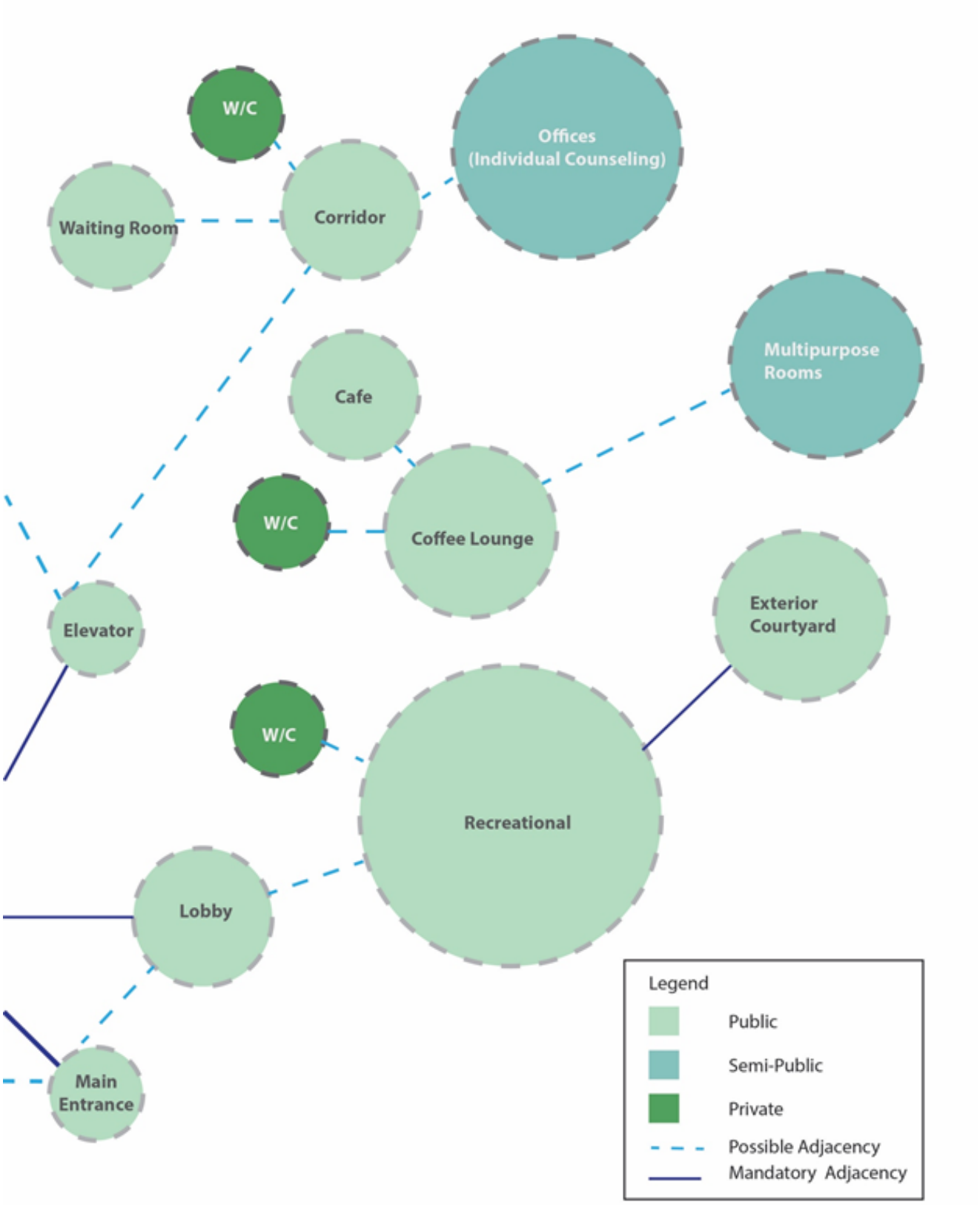


Figure 58: Bubble Diagram depicting spatial relationships

Zoning Schematic Diagram

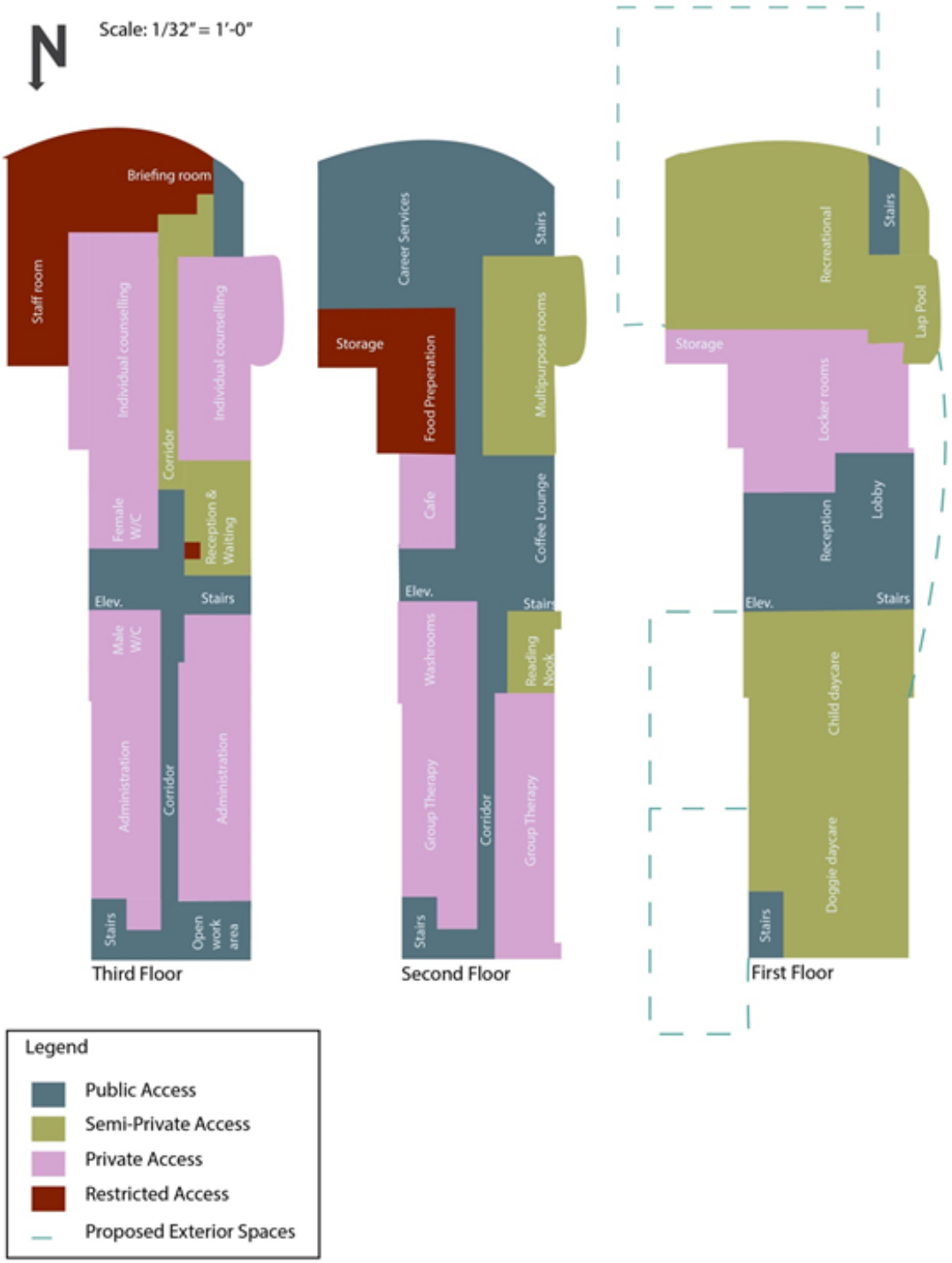


Figure 59: Zoning Schematic depicting relationship between public, semi-private and private access

Chapter Six: Design Proposal

Introduction

A fundamental challenge for those suffering with a mental health disorder is the inherent stigma that has been socially constructed around seeking treatment. This stigma is magnified within a military environment and can leave individuals with negative feelings commonly expressed by those re-experiencing symptoms associated with PTSD. The built environment has the potential to dramatically shape our experiences through profoundly impacting people's everyday lives and routines, one of the ways in which it can achieve this is through the facilitation of positive social interactions. Since the stigma challenging mental health is intertwined with traditional clinical environments that can have adverse effects on visitors, it calls for an informed and compassionate approach to interior design that goes beyond aesthetics to ensure the psychological health and well-being of users.

Based on the need for facilities that challenge social stigma surrounding mental health, this chapter presents the proposed design for the North Pavilion. The design process began with an investigation of ways in which design can facilitate positive experiences that enable improved quality of life through meaningful social connections and community building that foster a corridor of reintegration rather than focusing on rehabilitation.

To satisfy this objective, the proposed design is grounded in the literary analysis, which provided vital considerations that ultimately informed how this adaptive reuse project could flourish. It explored concepts related to PTSD symptoms and triggers with a focus on military culture and identity to analyze ways in which the values inherent in these cultures contribute to stigma and inform strategies on how they can be used to challenge it. From the literary analysis, it was also concluded that the most considerate design solution for this project was one that specialized in military clientele. The research presented suggests that an environment catering specifically to veterans, retired and active service members has a higher probability of being well received by the intended user group. This is not meant to create instances of othering that isolate users from society, but rather to cultivate an inclusive and considerate environment that is more approachable. This strategy aims to help alleviate barriers such as guilt and a sense of betrayal resulting from feeling as if individuals with PTSD are turning their back on their units and the culture that has had the most significant influence in shaping their identity.

In conjunction with the literary analysis, the design precedent analysis outlined key approaches to the organization of public and private spaces within healthcare environments and informed ways of connecting with the surrounding community through welcoming gestures. The Bridgepoint Active Healthcare and Johns Hopkins Medicine International examples in particular grappled with the realities concerning mental health stigma and concepts of successful reintegration through healing environments. The design plans, renderings, and accompanying text presented in this chapter amalgamate the information gathered in the preceding sections to offer a considerate design solution for mental health facilities that challenge stigmas currently surrounding the issue and is also well suited to the selected site and surrounding neighbourhood.

As it has been established in the introduction of this document, the North Pavilion is proposed as an alternative healthcare facility comprised of healing spaces ranging from social to private. The North Pavilion's primary social spaces are located predominantly on the main floor of the building with a few select areas also situated on the second floor. The private and more sensitive areas occupy the top floor with a natural progression from public, semi-public and private zones as users graduate from the street level to the upper levels of the building. This organization of spaces is informed by the conclusions drawn in the precedents and literary analysis to create an inviting environment that promotes integration and community building.

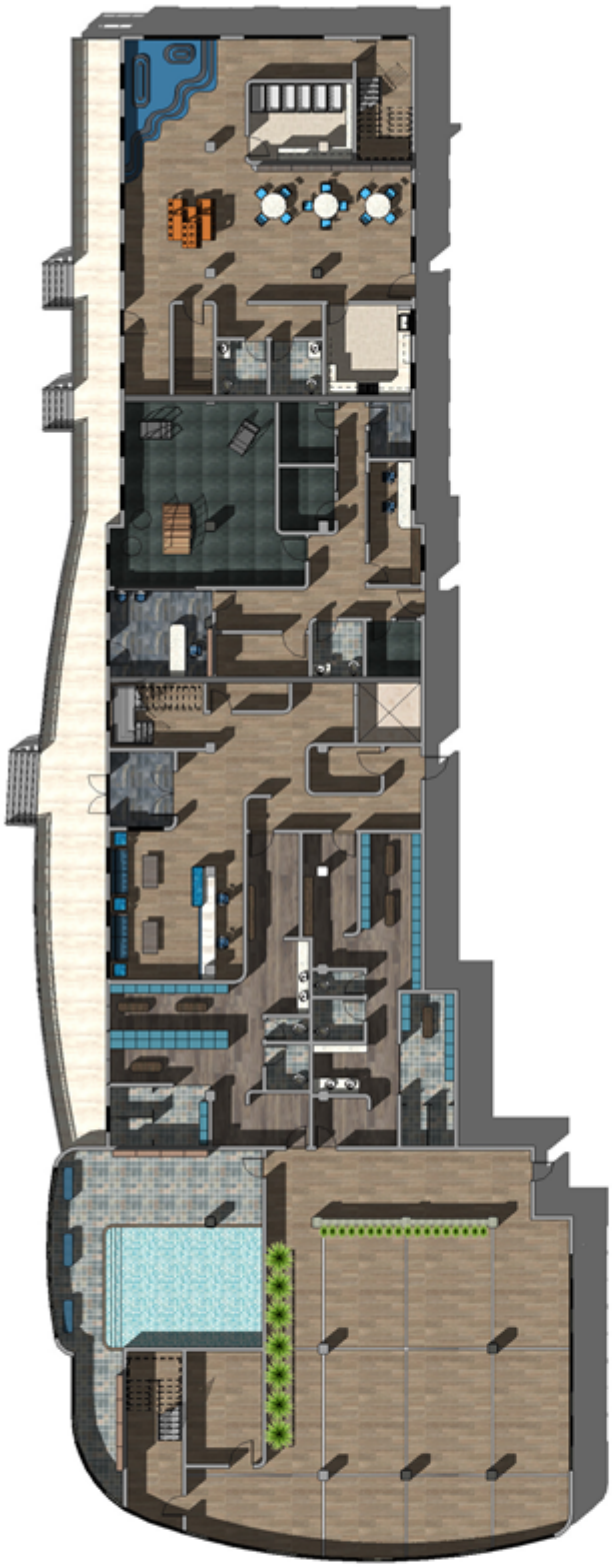


Figure 60: Level 1 – The main level of the North pavilion is divided into 3 distinct sections accessed from separate entrances. This level functions to soften the approach and supports the programmatic objective of challenging the stigma surrounding mental healthcare facilities.

Scale: NTS

Figure 61: Level 2 – Group and family counselling as well as an area dedicated to career services are located on the second floor. This area supports social interactions and is focused on skill building to enable a successful reintegration into society.
Scale: NTS

Figure 62: Level 2 – Individual counselling and administrative offices are located on the third level to provide an enhanced measure of privacy and confidentiality. Each floor has a different colour and botanical theme to assist with intuitive wayfinding.
Scale: NTS

Design Proposal

Due to the current condition of the building and in order to successfully implement a design that is considerate to the concerns addressed throughout the literary analysis, the design proposed on the following pages necessitates considerable renovation to the building. Modifications to the exterior of the building have been kept to a minimal out of respect to the heritage of the building by emphasizing the existing rhythm and materiality. This is a choice made by the designer to offer a solution that blends with the buildings surroundings, paying homage to the military healthcare history and respecting the social value of the site. This approach aims to offer a healing solution to the clinical environment that works with the site history rather than concealing or disregarding the lineage of the building altogether.

Recognizing the importance of universal design for a user group who will have a range of ability, the proposed strategy utilizes a social construction model which shifts the focus of disability from an individual to a societal level. In this context, disability is defined as an outcome resulting from an combination of impairment and environmental factors (Sanford, Design for the Ages: Universal Design as a Rehabilitation Strategy, 2012, p. 9). This understanding builds on the Enabling-Disabling Process Model, which is a psychological model that relies on the notion that users behaviors and interactions develop out of a transactional relationship between individual's and their environment. (Sanford, Design for the Ages: Universal Design as a Rehabilitation Strategy, 2012, p. 10). The emerging framework attributes the difference between a person's capabilities and their actions to the influence of personal, social, and environmental factors. In this context, the built environment is described as either a social barrier or facilitator (Sanford, Design for the Ages: Universal Design as a Rehabilitation Strategy, 2012, p. 16).

With this in mind, the renovation presents the opportunity to implement design strategies that utilize the built environment to enable users. This has been accomplished through the use of universal design strategies such as the use of lighting as wayfinding to provide an instinctual navigation sense throughout the building (Fig. 69). In addition, elements such as predictability, open sight lines, acoustical considerations, and a streamlined design have been integrated throughout the proposal to minimize environmental triggers for those with PTSD.

Social Space

The North Pavilion's primary social spaces are predominantly located on the main floor (Fig. 60). In the interest of community building and reintegration, the street level has been designed as an extension of the surrounding neighbourhood with welcoming gestures that draw users into the building. This is partly achieved with the addition of a covered porch that extends the boundaries of the building, breaks with traditional healthcare aesthetics and considerately intertwines with the residential style of the neighbourhood explored in the visual essay presented in the site analysis.

Historically, soldiers who were described as being "shell-shocked" after combat tours were labeled as cowards, whereas those who recovered quickly or did not display symptoms of mental or emotional trauma were treated with compassion and care (Reid, 2014, p. 97). Despite significant paradigm shifts towards acceptance of mental health disorders, PTSD is still a condition that is ladden with controversy. This is in part due to the commonly held assumption, especially within military settings, that strong moral, discipline and training minimizes and prevents and negative psychological effects combat exposure may cause (Reid, 2014, p. 99). The issue with this mindset is that it leaves behind the rather uncomfortable and discriminatory question of what about those who succumb anyway? As Reid states: "Can war make any man a coward in time" (Reid, 2014, p. 99)?

Statistics suggest that PTSD is an escalating problem facing military communities. Studies reveal of military personnel who have tested positive for PTSD; a resounding 75% expressed feelings of hopelessness and suicidal thoughts (Maguen, et al., 2015, p. 122). This study concluded that veterans experiencing symptoms of PTSD were reluctant to seek care, yet it was probable that delaying care was a contributing factor which caused symptoms and psychosocial functions to worsen, ultimately leading to an increase in suicidal thoughts (Maguen, et al., 2015, p. 122). As it has been established in previous chapters, stigma is one of the most prominent barrier preventing those in need from seeking treatment that can significantly enhance their quality of life. As Nayback articulates: "Within both the military and Western cultures as a whole, stigma and the associated discrimination toward individuals with mental illness is well established as a barrier to treatment-seeking behaviors" (Nayback, 2008, p. 46). In her research, psychologist Dr. Jessica Espinoza posits that those who are in the most need of treatment, are also the most likely to be sensitive to this social stigma and therefore the least likely to seek the treatment that they need (Espinoza, 2010, p. 8).

While the social spaces that have been proposed may be unconventional to typical mental health care and clinical environments, they have been included with the intention of creating a facility that acts as a corridor of reintegration. By locating these spaces at the street level, the services provided in the programming function as an extension of the community. These spaces transform the clinical setting into a multipurpose building with several activity spaces free from any socially or culturally constructed stigma. The first impressions users will have upon entering the building are entirely devoid of typical healthcare signifiers; these spaces allow individuals to socialize with one another and take the burden of stigma out of entering a building that ostentatiously signals 'mental disability'.

It is the core belief of the designer that without these social spaces, the proposed design would not be successful in challenging the culturally constructed stigma proven to prevent many individuals from utilizing treatment centers. Based on the precedent analysis, healthcare facilities that have successfully integrated within the neighborhoods they are located in have all included social functions that are able to alleviate some of the anxiety often experienced by users visiting healthcare settings through associating healthcare environments with positive experiences fostered in these unique spaces. Furthermore, the inclusion of these spaces also helps to positively influence community perception of the building by becoming an extension of it, rather than isolated from it.

The included social spaces support the overall mental health programming of the building by allowing alternative forms of therapeutic activities. The open plan conservatorium allocates space for alternative treatments such as yoga, while also providing a venue that can be utilized for community building events dedicated to integrate active and retired military personnel with the community (Fig. 64). The lap pools offer another outlet for physical activity, allowing clients and caregivers the opportunity to unwind and relax through physical movement, relieving stress and promoting wellness and mindfulness. The short-term child care component will enable clients to seek treatment without worrying about childcare during their absence (Fig. 65). This space is separated from the primary entrance of the building to avoid potential triggers associated with the sounds of children. However, it is still easily accessible for users and has been included in the programming as an outlet for military families to build social support with others who are in similar situations. Research presented in the literary analysis suggested a strong desire of active and retired military personnel with PTSD for family-centered services, the inclusion of this space re-enforces the message that families are welcome at the facility. Finally, a section of the building has been dedicated to service dog training services. This programming is supported previously in this document and caters to a need for a more convenient training center in Winnipeg as the current training facility is difficult to get to for many users.

Figure 63: The main reception of the building welcomes users into the building, this space features a green wall and backlit signage.

Figure 64: Located on the main level of the building, the yoga studio features green walls and floor to ceiling windows for a calming aesthetic while providing space for alternative therapeutic activities requiring physical movement.

Figure 65: Located on the main level of the building, facing the front façade, the short-term child care services area supports the message that families are welcome. This area is accessed by a separate entrance to avoid any potential triggers associated with the sound of children.

Semipublic Space

The second floor of the proposed design is dedicated to semipublic spaces such as career building, group therapy, and family services (Fig. 61). As discussed previously in this document, support networks and participating in group therapy sessions with individuals who have undergone similar experiences have been proven to have significant positive effects on military personnel and veterans with PTSD. As noted by Demers, one of the issues returning soldiers face is: “the lack of validation of soldiers’ efforts, and the general lack of acknowledgment of soldiers who return from war” (Demers, 2011, p. 162). By facilitating group therapy sessions with like-minded individuals who have similar experiences, these spaces allow for social support networks to develop and flourish, enhancing the treatment process.

It has been said that perhaps the most significant contrast between Western civilian cultures and military cultures is the importance placed on collectivism and group cohesion over individualism (Moore & Penk, 2011, p. 13). Finley notes that military socialization continues with the development and continuation of peer relationships and reemerges in the social interactions between service members, veterans and those that they love and respect (Finley, 2011, p. 108). Offering spaces for sharing narratives in a group setting forges lasting social support networks where individuals seeking treatment can connect with one another and help each other heal by validating experiences that they may feel civilians would not understand or would judge them for.

The career services centre and multipurpose rooms touch on research that supports the concept of framing mental health treatment as skill building activates that enhance users’ skillsets and abilities rather than viewing it as an act of fixing something that is broken (Fig. 66). The career centre also allows access to resources often taken for granted such as internet access, computers, and printers. These resources not only offer skill building and enhancement opportunities, but they also provide the necessary tools to help returning service members successfully integrate into civilian life, especially those who are looking to re-enter a civilian workforce (Fig. 67).

Figure 66: The career services area includes individual work pods and other resources available for users who are reintegrating into a civilian work force.

Figure 67: The use of bulkheads and lighting have been used to assist users with intuitive wayfinding throughout the building.

Figure 6: Interior gardens and green walls have been used to incorporate nature with the interior design of the building. Each floor has a distinct colour and botanical theme to assist with wayfinding.

Figure 69: The café and fire lounge are separated by a custom fireplace designed to incorporate a warm gesture that welcomes users into the space.

Figure 70: Family Counselling rooms are equipped with soft seating in a spatial arrangement that facilitates group discussion in a casual environment.

Figure 71: Group counselling area with soft seating in a casual arrangement. These areas also include lockable storage options.

Figure 72: Group counselling areas with a more traditional furniture arrangement have also been included for round table style discussions. These rooms are also flexible and can accommodate multiple functions such as staff meetings as required.

Figure 73: A reading room offers a quiet space on the second floor, this area acts as a buffer zone between the more active areas such as the coffee lounge and the group counselling areas.

Figure 74: A multipurpose room facing the front façade of the building functions as an extension of the career services supporting skill building programing.

Private Space

The design of the private counselling and administrative offices are primarily located on the top floor (Fig. 62). This zoning decision was influenced by the programming of the Bridgepoint Active Healthcare and Johns Hopkins precedents where there was a natural progression from public to private spaces. The intention behind this spatial organization is to provide users with a sense of confidentiality as they engaged in sensitive interactions such as individual therapy sessions. Each office is equipped to reduce anxiety for both clients and caregivers through space planning that protects caregivers in instances of aggravated clients who are seated closest to the door, allowing them to leave rather than confront their counsellor (Fig. 76). These spaces are equipped with acoustic and visual privacy, as well as lockable storage to provide confidential working environments.

In addition to administrative offices and individual counselling offices, a staff retreat is also located on this floor (Fig. 81). This space is zoned as restricted access for staff members only with a focus on acoustic privacy. The importance of this space was determined in the literary analysis and is intended to provide staff with a place where they can socialize and relax in an effort to combat fatigue, prevent and alleviate burnout and caregiver burden commonly associated with emotionally charged occupations. An emphasis on natural light and views to the outdoors has been incorporated into this space to infuse the interior and exterior, maximizing on the restorative and relaxing benefits of exposure to sunlight and nature.

Figure 75: The third floor includes a private reception area as well as extended gestures with the use of green walls at key vista points to enhance a serene atmosphere while improving air quality.

Figure 76: Private office facing the front of the building includes individual work space with lockable storage as well as a counselling area.

Figure 77: Private office facing the front façade of the building provides individual work space with lockable storage as well as a counselling area.

Figure 78: Private office facing the back of the building with a gallery style spatial arrangement supporting confidential work and therapy functions.

Figure 79: Administrative office equipped with lockable storage. These areas are located on the third floor, separate from the counselling office to support the need for confidential work spaces.

Figure 80: Open office featuring four work stations used as touch down offices for students or part time employees.

Figure 81: A staff oasis has been included on the third floor. This area is for staff use only and encourages socialization in a relaxing environment infused with natural light.

Design Elements

The design presented in this chapter applies a minimalist, Scandinavian modernist approach. The development of an aesthetic strategy was determined by crucial considerations outlined in the literary analysis as well as concepts explored through the visual essay presented in the site analysis. Of the utmost importance was the consideration of an environment that would be as virtually free from triggers of PTSD as possible. This objective was also guided by strategies investigated in the precedent analysis where factors such as acoustics including mechanical noise, lighting and user autonomy were taken into careful consideration. The decision for the minimalist design was ultimately supported by the need for predictability within the design with few blind spots where users would feel as if there were a possibility of an ambush. In tandem with this, a streamlined approach was used to discourage clutter, which is a prominent trigger for many returning services members with PTSD.

Extended gestures have been implemented throughout the design to highlight vistas that focus on nature, either through direct views to the outdoors, or greenery located at central points in the layout of the building. As illustrated in the site analysis, the North Pavilion is located adjacent to a plethora of green space. The design incorporates elements of the surrounding nature through ample glazing that infuses these elements into the interior built environment. Green walls or interior gardens are located on every level of the building with different botanical themes for each floor to assist with wayfinding. With respect to avoiding potential triggers, none of the interior gardens are deep enough to conceal a person. To help guide users through the space, several wayfinding strategies have been applied to the overall design of the building. Located in the same general vicinity on each level is a receptionist or staff member who is able to assist with any questions users navigating through the space may have. Each floor is colour coded with a pallet that has been derived from the surrounding neighbourhood to signify which of the different zones users are traveling through. In addition to this, accent lighting is used to guide users through the space, utilizing the building to minimize any potential confusion users may have with regards to which direction they should travel in. This approach is most evident on the third floor where the ceiling design guides users from the central elevator or stairs to the receptionist area. All of these strategies take an integrated approach to wayfinding that enhances users sense of autonomy through instinctive wayfinding techniques rather than relying on excessive signage that may be demeaning.

While every effort has been made to avoid potential environmental triggers commonly associated with clinical environments, there are elements of the design that do provide users with the opportunity to push their boundaries and step out of comfort zones. The reasoning behind this decision is based on underlying concepts of exposure therapy, where individuals with PTSD are asked to perform everyday tasks they may be uncomfortable with, yet, that will help them more smoothly integrate into a civilian society (Personal communication with Dr. Debbie Whitney, 2018) One example of this is sitting with one's back to the room rather than against a wall. Counsellors may suggest restaurants that their clients can perform this task, however, regardless of the reputation any outside establishment may have, there can be no guarantee of absolute safety and predictability in these places. The North Pavilion is one such guaranteed safe place. Users are aware that there are no weapons permitted on the premises, and staff members are able to confidently assure their clients of the predictability of any space within the building. This allows users to get comfortable with daily tasks that will aid the reintegration process in a safe environment that is conducive to their well being. In this way, the building takes on therapeutic qualities on its own, becoming an extension of therapy in itself while enhancing the healing process provided through treatments and programming offered at the facility.

Summary and Conclusion

The proposed design is a composition that has been influenced by the theories, design precedents and concepts explored throughout the preceding chapters. This chapter introduced the concepts of asceticism in the built environment as it relates to the core objective of the North Pavilion as a trigger-free space that challenges the culturally cultivated stigma currently surrounding mental health. The presentation of the design was organized from social to private space to reflect the programming of the building, guiding readers through a similar progression of the space that users will encounter upon visiting the facility. The considerations outlined in the preceding pages echo the focus of reintegration highlighted throughout this document and express the programmatic goals of the North Pavilion to provide an alternative healing environment conducive to helping active and retired military personnel with PTSD successfully integrate into a civilian society.

As an extension of the use of photography used as a tool of exploration and means of understanding in the Site Analysis (Chapter 2), the design in this chapter has been presented through perspectives that make extensive use of the camera tool in Building Information Modeling (BMI) software, specifically Revit. The design process was also driven in large part by the ability to visually explore the building in 3D to establish views and vistas within the building as well as the gestures embedded within the design language. This feature allowed for continuity in the overall composition of design elements and enabled a visual representation of the atmosphere of the proposed interior environment and how it relates to the core concepts examined in the Literary Analysis (Chapter 4).

Conclusion

"It is time to stop fighting and to start living. Times keep changing, but the challenges are the same. Returning home is a time to find peace."

Bret Moore and Walter Penk

The perception of PTSD within a military context has a sordid past where those who came forward with symptoms were often met with ridicule and portrayed in a negative light. For example, as discussed in the Literary Analysis (Chapter 2) veterans and soldiers who sought treatment for PTSD were labeled as unjust, weak-minded or cowardice. While there has been a paradigm shift with regards to the portrayal of mental health in the media and how mental disorders are being perceived by the general public, PTSD remains a heavily stigmatized topic shrouded in controversy. Media portrayals of soldiers with PTSD are still primarily negative and often depict individuals with symptoms as being a danger to society. In conjunction with this, military culture is one that values toughness and the ability to overcome any obstacle with ease. The resulting stigma surrounding mental health remains the most significant barrier for those seeking help. Public and military perception of PTSD often encourages many active and retired service members to take a stiff upper lip approach, dissuading them from coming forward and seeking treatment that has been proven to improve quality of life for these individuals.

At the conclusion of this practicum project it is necessary to revisit the opening quote by Romeo Dallaire to synthesize the goals that have been the guiding force behind the work presented in this document.

PTSD… destroyed the person I was. That carefree, vital man became two men in the wake of injury. One is the person you meet, still duty-bound, whose emotions are identifiable and whose reactions usually seem normal. The other is the man inside me, the one who never really came back, who still lives on the battlefield.

At the heart of this practicum is the concept of reintegration rooted in the desire to bring soldiers home. Welcoming them back with acceptance and providing them with the resources they need to heal, and to successfully rejoin civilian society without the burden of the stigma they currently face. One of the over arching aims of this project is to demonstrate how the built environment can be used as a tool to challenge socially constructed and culturally fortified stigma surrounding mental health, which prevents many from seeking treatment.

The proposed design for the North Pavilion is the result of an interdisciplinary approach to interior design. At this time, it is worth re-examining the questions laid out in the Introduction (Chapter 1) to reflect on the research and design process. They are:

> *1. How can interdisciplinary research related to PTSD inform a built environment that is more approachable by reducing stress, reducing stigma associated with mental health, and providing a space free from known triggers?*

Cultural theory and psychology related to military identity, social stigma, and PTSD have been reviewed in the literary analysis. The concepts explored under these subjects illustrate potential ways the built environment may trigger individuals with PTSD and what types of factors should be avoided to promote a stress-free environment conducive to the healing process.

As this question implies, the design and programme of the North Pavilion are grounded in an understanding of how social factors and environmental triggers can be used to create a safe space for a vulnerable demographic. Literary and scholarly work in these fields indicate that personal identity is strongly influenced by cultural norms and values. The issues explored in these studies suggest approaches for how designers can operate within cultural parameters to shape social experiences of space. These works also draw attention to the need for closer consideration of the relationship between social norms, culturally constructed values and the impact that an experience of a space can have on social interactions and public perception.

Throughout the research and design process, it was necessary to determine aesthetic and sensory qualities that would contribute to positive experiences conducive to the healing process of a specific user group. It became clear that these factors were secondary to conditions that would promote positive social interactions and enable support networks.

2. What sensory and aesthetic qualities would develop a favourable alternative healing environment that fosters healthy social connections and promotes strong support networks?

Research related to this question centered around the benefits of socialization with individuals who have been exposed to similar situations. The works analyzed in the literary analysis demonstrated the importance of the validation that individuals with PTSD gained by sharing their experiences with others who had been in similar circumstances. These works indicated that many soldiers who return from tour feel disrespected by civilian society. Group therapy sessions helped forge social support networks that dramatically impacted quality of life and enhanced the heeling process. This research was applied to the design process by defining ways in which the built environment could create an atmosphere that would help cultivate social connections.

The design process of the North Pavilion is rooted in a theoretical understanding of space. The built environment fosters a multitude of daily interactions, shaping the perceptive people have of places such as healthcare facilities through the types of experiences they create. It has been well established in this document that stigma is one of the leading causes preventing military personnel from seeking treatment for PTSD. A simple aesthetic with clean lines, broad gestures, open sight lines and minimized opportunities for clutter or potential threats such as hidden items or people contribute to a relaxing environment that is not likely to trigger users. Positive experiences are produced through sensory control such as user autonomy, access to daylight and nature, acoustic control and noise reduction within a clean environment free from offensive sensory distractions associated with unpleasant odors or sounds.

3. How can theory-based design inform an approach to a model of an alternative healing environment that cultivates a culture of acceptance over silence and perpetuates reintegration by challenging the oppressive stigmas that prevent many military personnel from seeking treatment?

The stigma surrounding PTSD has fostered a culture of silence that has resulted in individuals with symptoms feeling ashamed and further isolating themselves from their loved ones, and from the society, they are attempting to reintegrate back into after deployment. This behavior leads to re-experiencing or worsening symptoms, which is counterproductive to the healing process. By applying a theory-based approach to design, the built environment can foster positive social interactions, working with cultural values to challenge stigma and change public perception.

Paramount to this question is the need to explore alternative healthcare spaces that take into account socially and culturally constructed values that prevent people from utilizing the services provided at these types of facilities. Social stigma can be perpetuated by traditional clinical environments that do nothing to challenge the culture of silence and denial that these stigmas create. Alternative models that cultivate a culture of acceptance have the power to contribute to a positive paradigm shift that abolished such stigma and promotes health, recovery, and reintegration.

The outcome of this practicum project raises several new questions regarding future research in relation to healthcare environments. One such possible direction would be to apply a similar approach to a more general user group. As discussed in the Biases and Limitations (Chapter 1), this project specifically looked at PTSD in a military context. In the interest of broadening the scope of research within interior design, it would be worth applying the concepts explored in this practicum as the groundwork for future interdisciplinary research on alternative healthcare environments.

Appendix A: Design

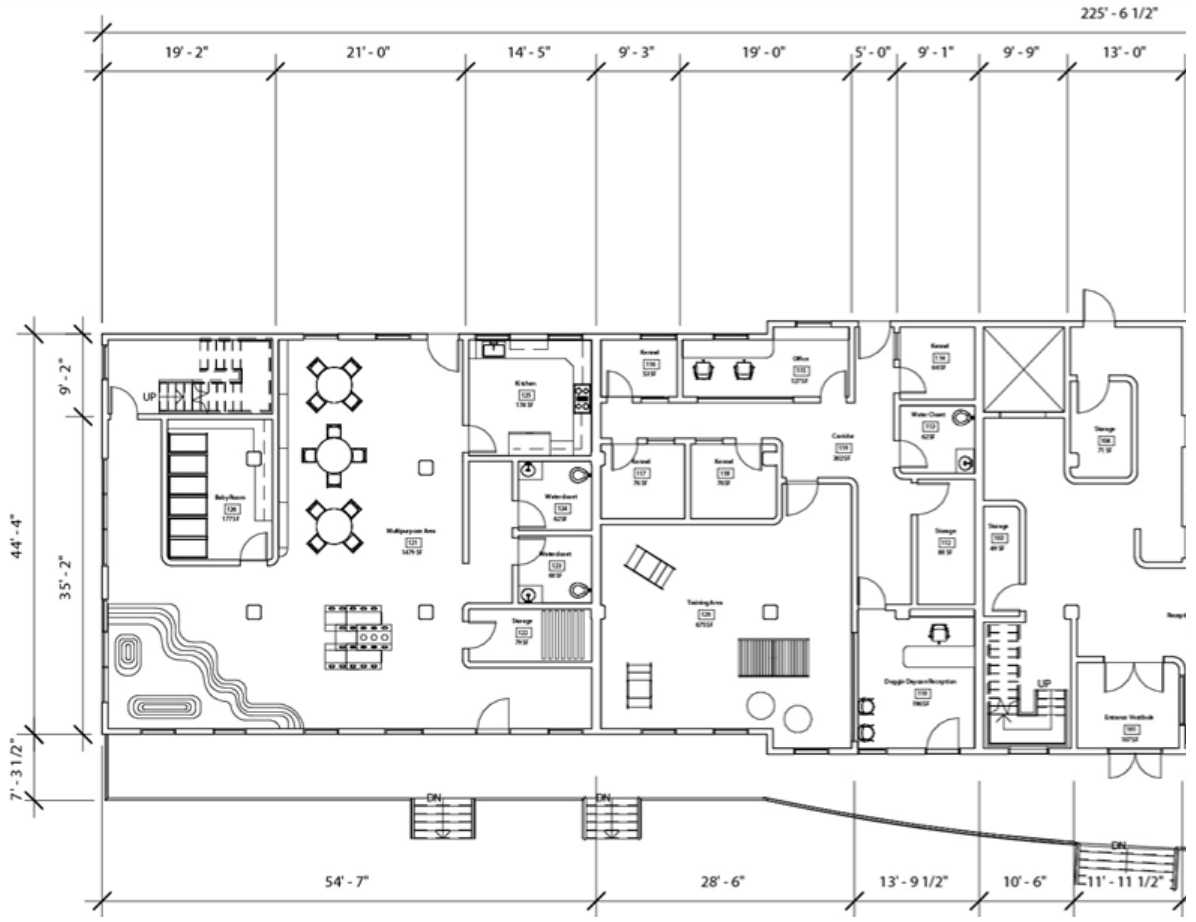
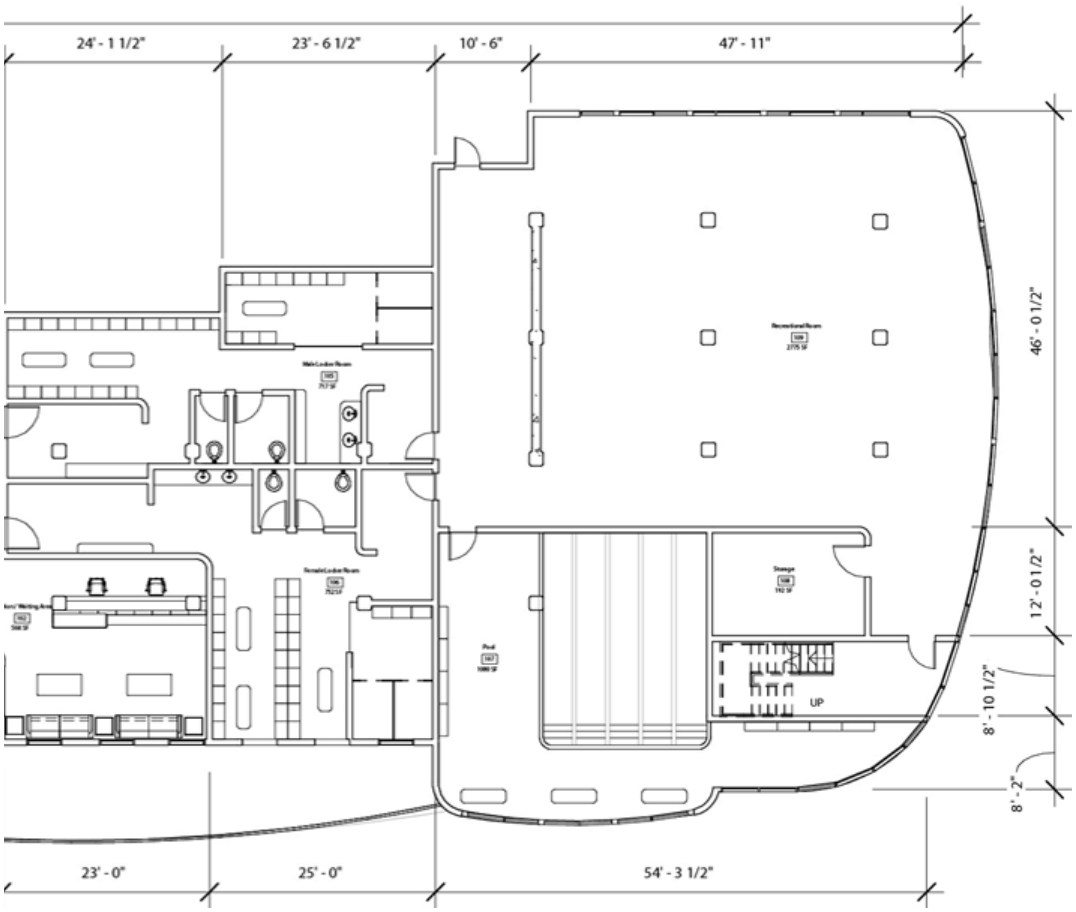


Figure 82: Level 1 Floor Plan
Scale: 1/16” = 1’-0”


24' - 1 1/2"
23' - 6 1/2"
10' - 6"
47' - 11"
46' - 0 1/2"
12' - 0 1/2"
8' - 10 1/2"
8' - 2"
UP
23' - 0"
25' - 0"
54' - 3 1/2"

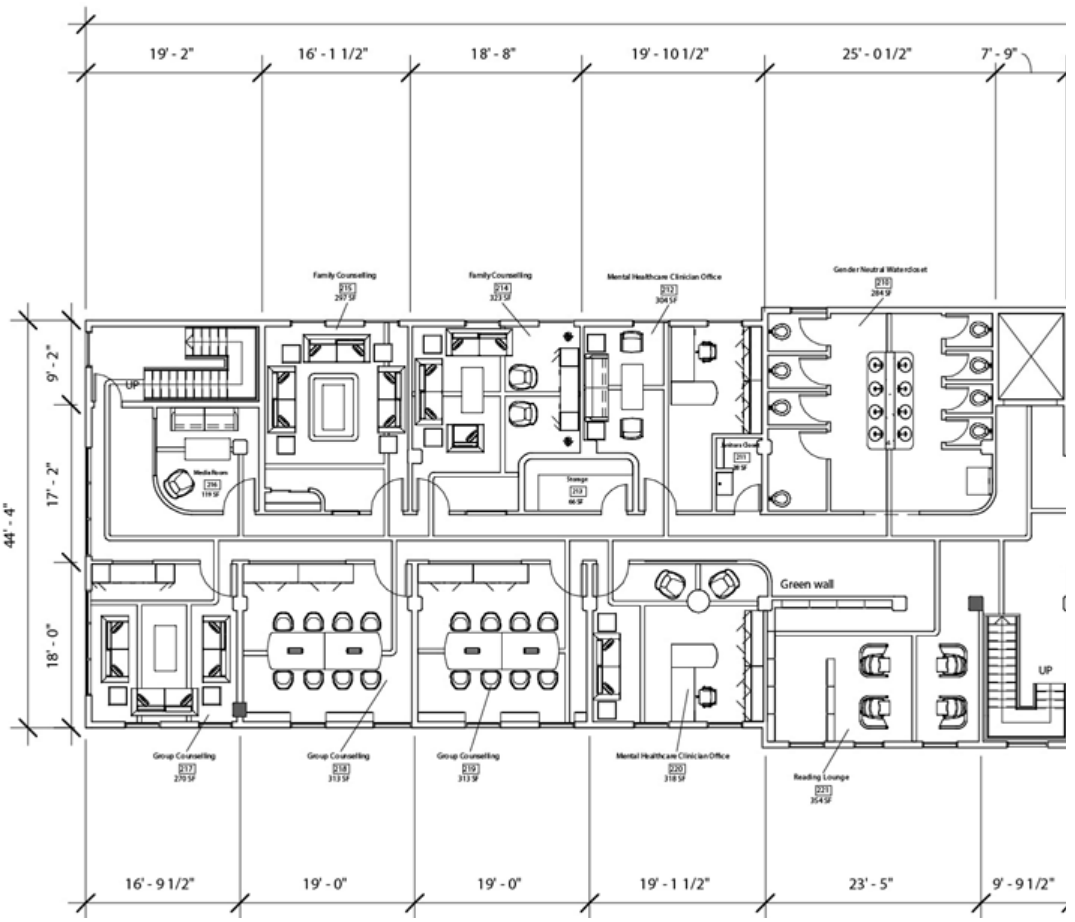
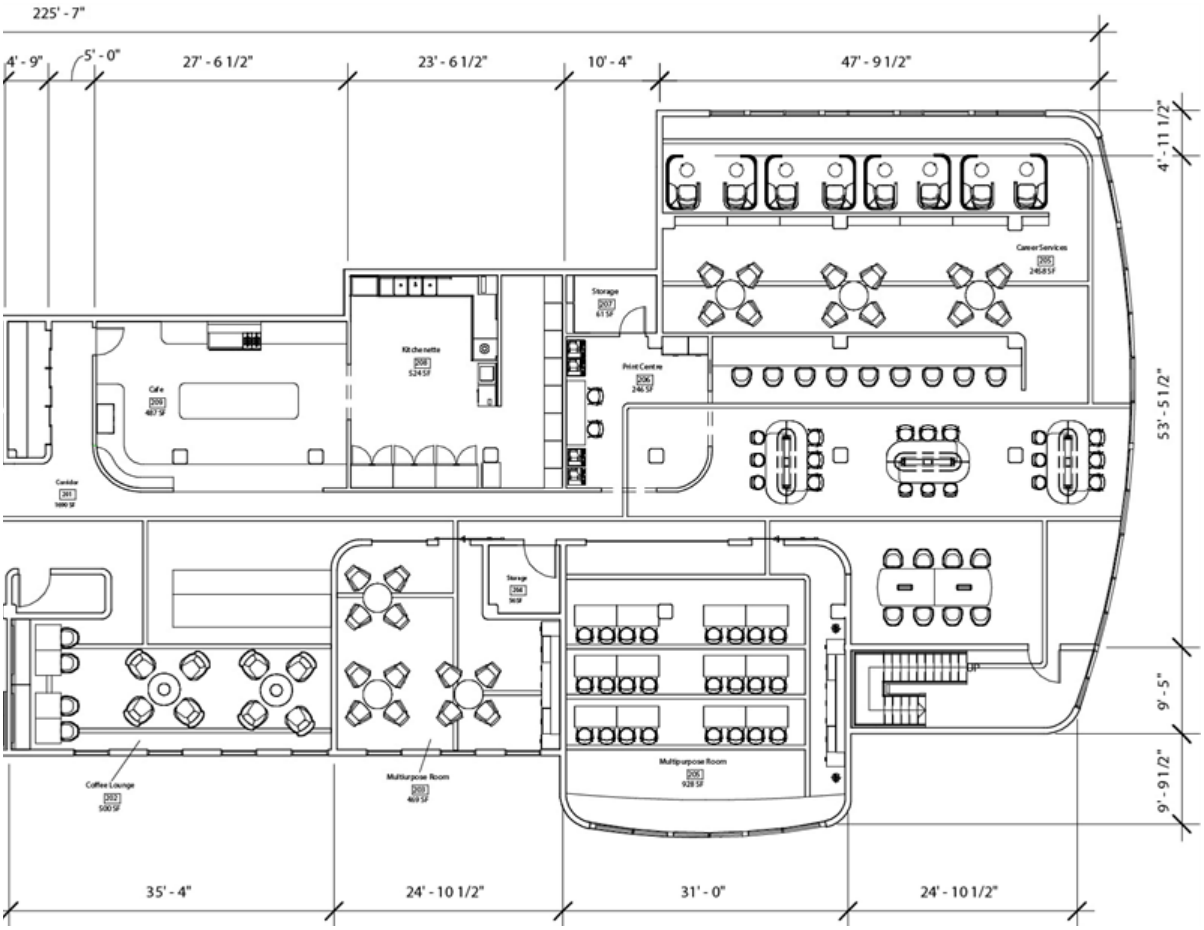


Figure 83: Level 2 Floor Plan
Scale: 1/16" = 1'-0"


225' - 7"
4' - 9"
5' - 0"
27' - 6 1/2"
23' - 6 1/2"
10' - 4"
47' - 9 1/2"
4' - 11 1/2"
53' - 5 1/2"
9' - 5"
9' - 9 1/2"
Career Services
205
246 SF
Storage
207
61 SF
Kitchenette
204
524 SF
Print Centre
206
246 SF
Cafe
203
407 SF
Corridor
201
1690 SF
Storage
208
Multipurpose Room
206
928 SF
Coffee Lounge
202
500 SF
Multipurpose Room
209
469 SF
35' - 4"
24' - 10 1/2"
31' - 0"
24' - 10 1/2"

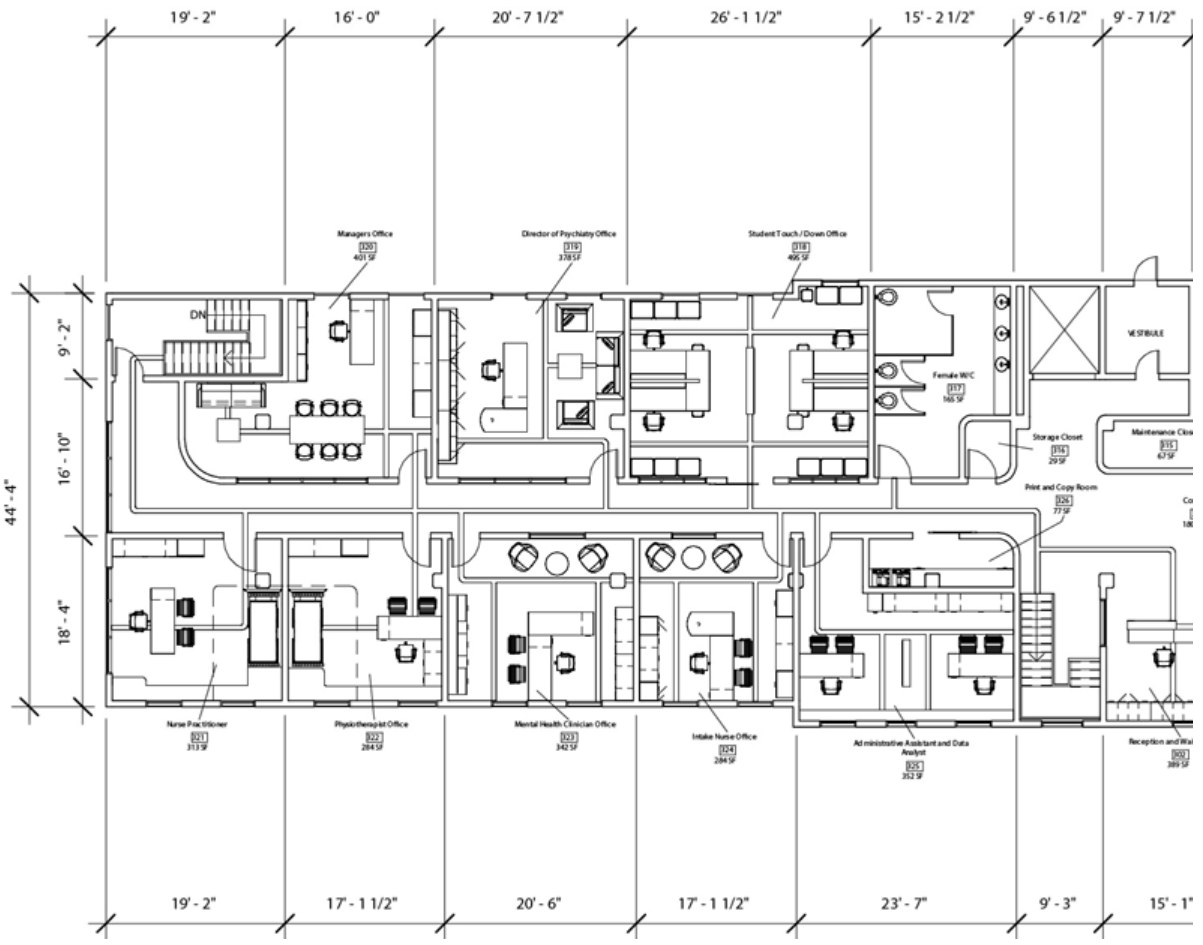
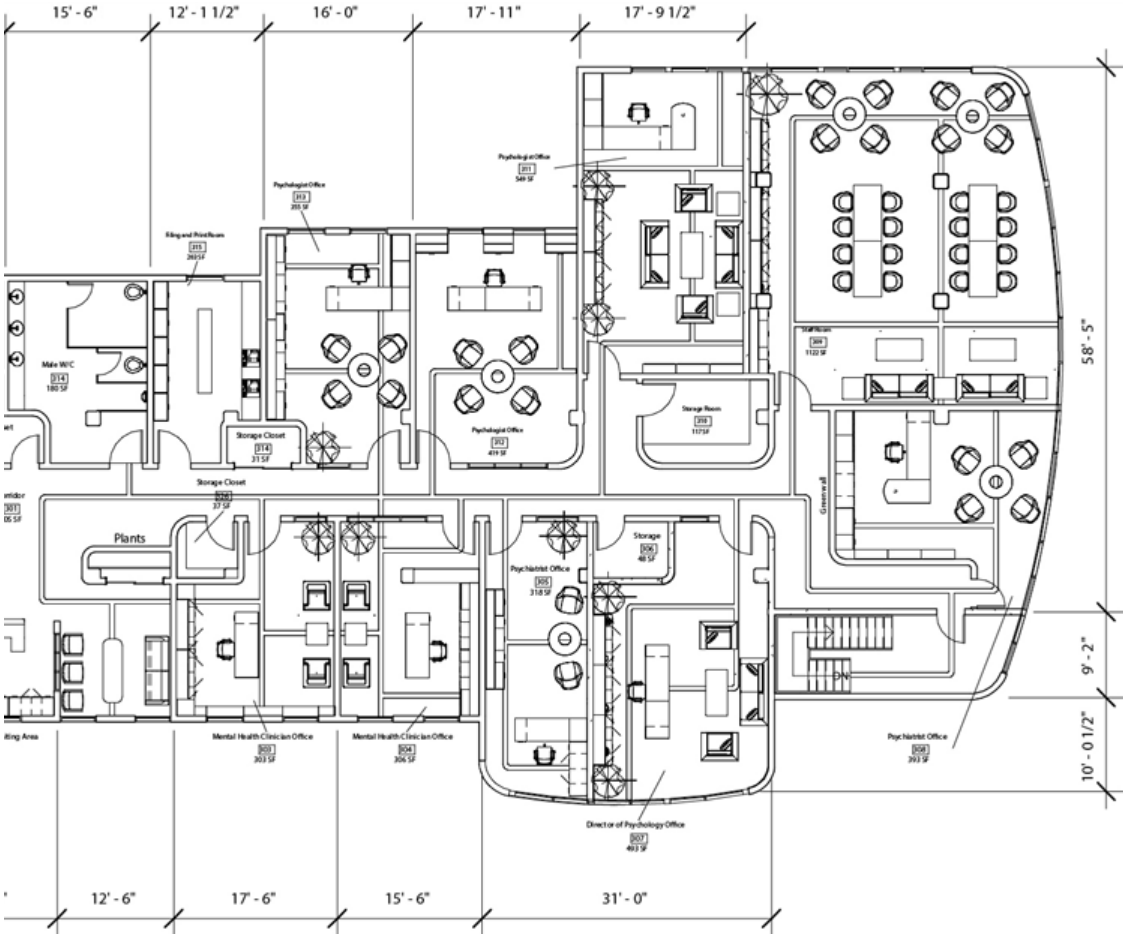


Figure 84: Level 3 Floor Plan
Scale: 1/6” = 1’-0”


15' - 6"
12' - 1 1/2"
16' - 0"
17' - 11"
17' - 9 1/2"
58' - 5"
9' - 2"
10' - 0 1/2"
Psychologist Office
311
549 SF
Psychologist Office
313
355 SF
Filing and Print Rooms
315
265 SF
Male W/C
314
180 SF
Storage Closet
314
31 SF
Psychologist Office
312
419 SF
Storage Room
316
117 SF
Staff Room
310
1122 SF
Greenwall
Storage Closet
317
37 SF
Plants
Psychiatrist Office
305
318 SF
Storage
306
48 SF
Psychiatrist Office
308
393 SF
Mental Health Clinician Office
303
303 SF
Mental Health Clinician Office
304
306 SF
Director of Psychology Office
307
493 SF
12' - 6"
17' - 6"
15' - 6"
31' - 0"

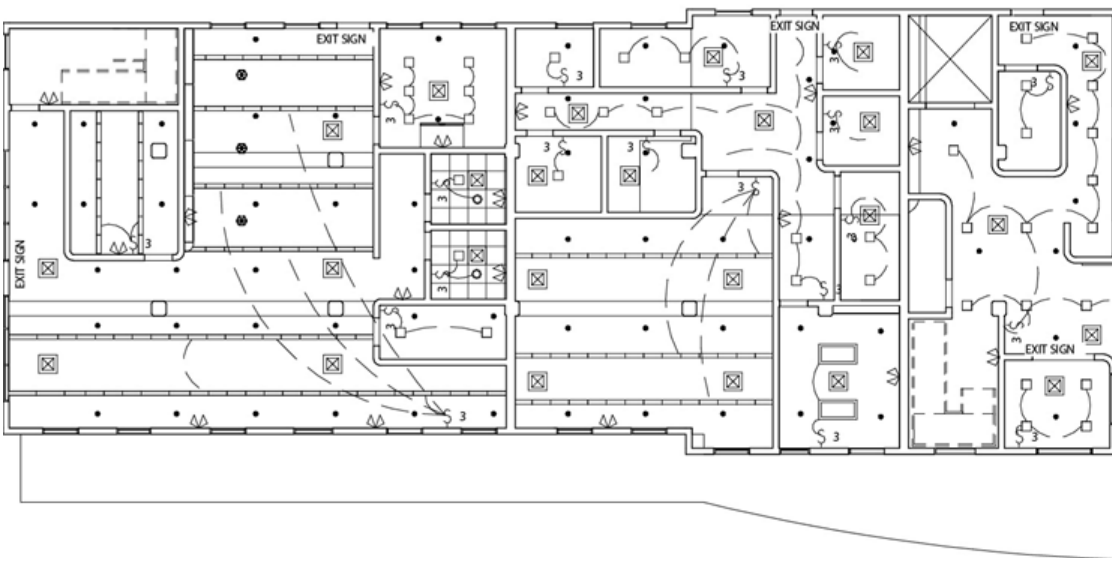
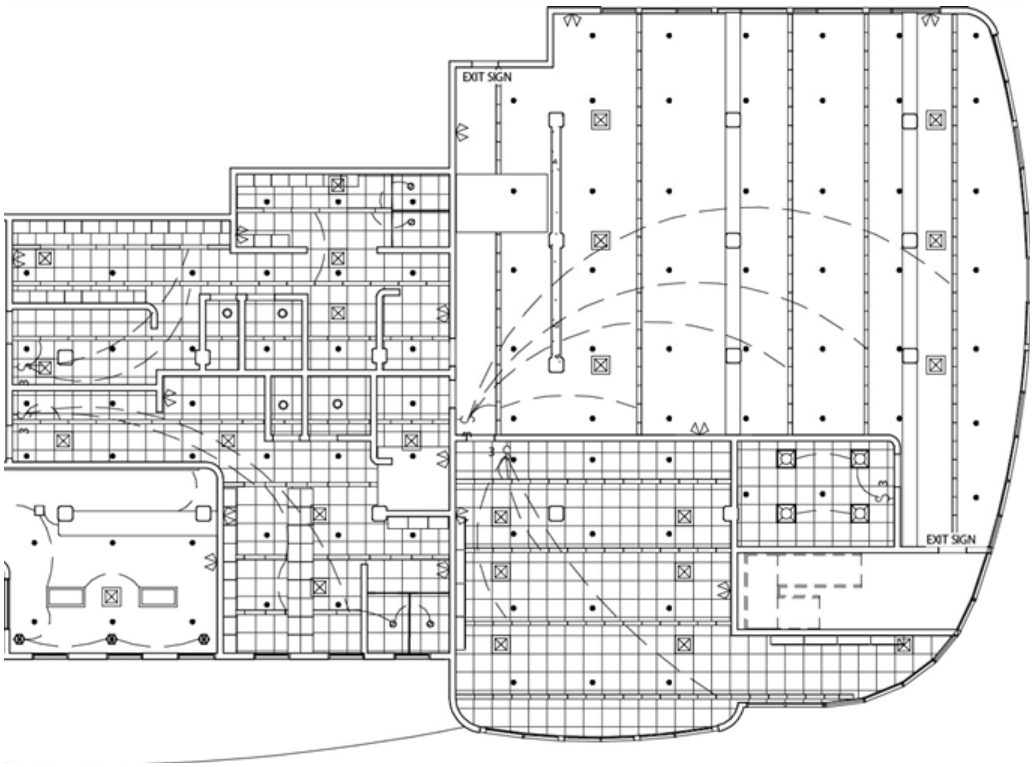


Figure 85: Level 1 Reflected Ceiling Plan
Scale: 1/16” = 1’-0”


EXIT SIGN
EXIT SIGN

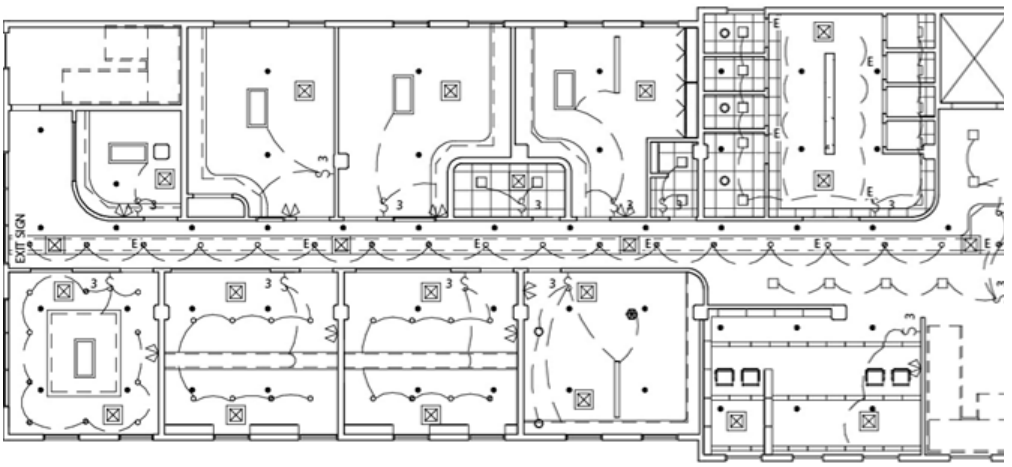
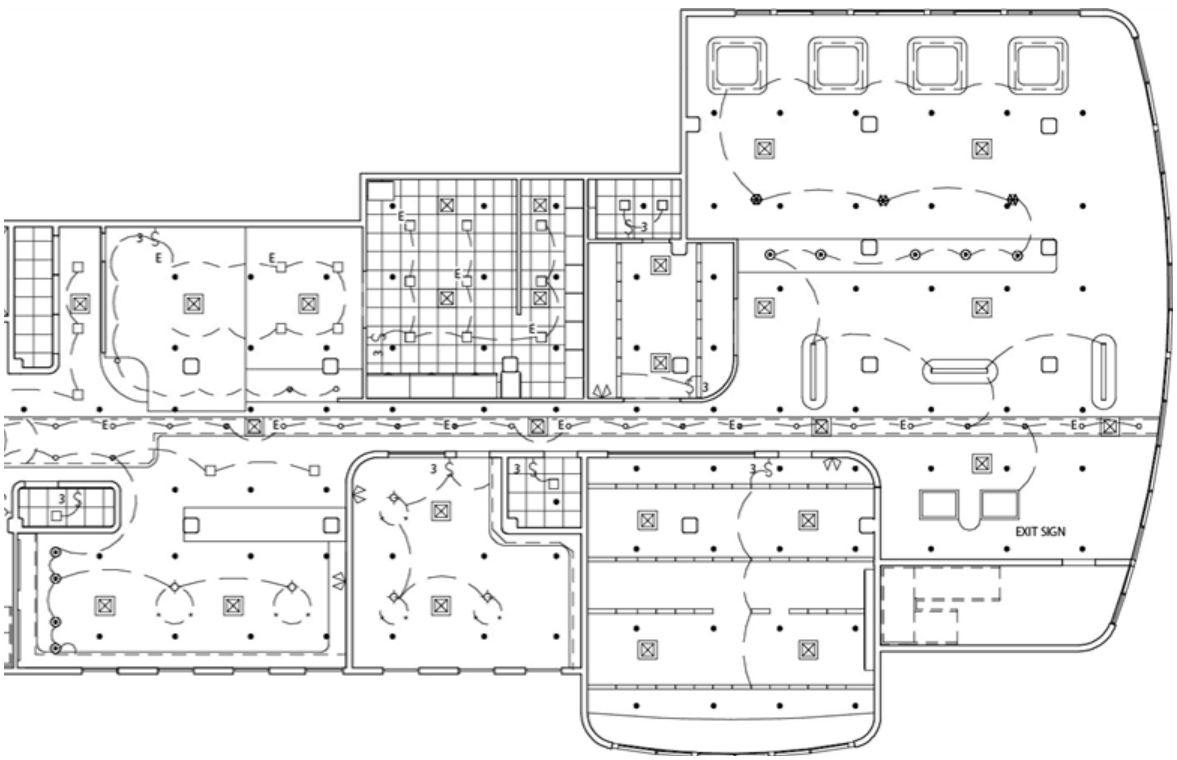


Figure 86: Level 2 Reflected Ceiling Plan
Scale: 1/16” = 1’-0”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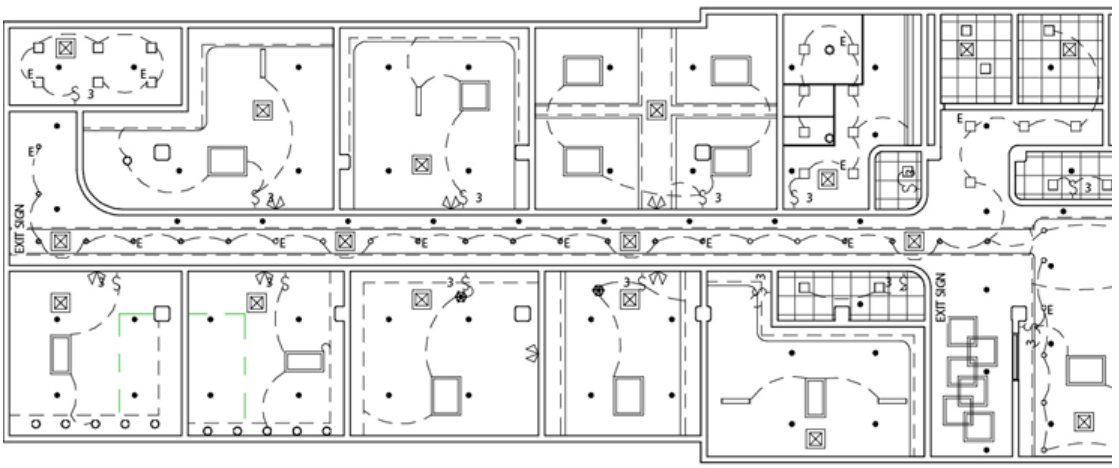
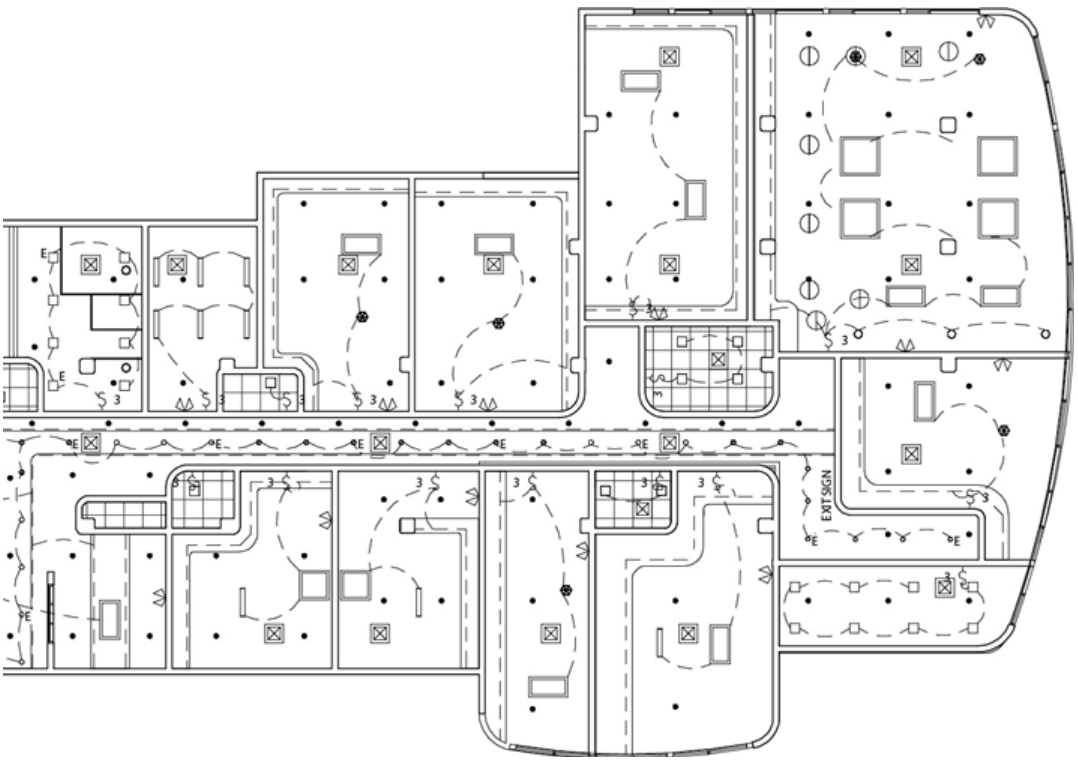


Figure 87: Level 3 Reflected Ceiling Plan
Scale: 1/16” = 1’-0”


EXIT SIGN

Lighting Legend

Symbol	Type	Description
-------	Cove	Danalight, DL106-3-F. Frosted 1/2” x 1w” x 11 1/2”. LED, 3000K, 85 CRI, 8W, 85 Lumens
	Indirect/ Direct	Litonia, 2AV2X2, GF50, WH. Indirect/ Direct light with diffuser 23 1/2” x 23 1/2”. LED, 12W, WH
	Strip Light	Focal Point, FSM4FL 1C XF WH LED 7W. Lengths 2’-0”, 6’ -0” by 3” - 7” W Trimless model mounted in ceiling
	Recessed	Juno, 1CPL41E, new construction housing, compatible with insulation surrounding housing unit. Energy efficient sealed housing 7 3/4” x 13 1/2”. 4 1/2” ceiling cutout with 17 CHZ-WH cone - Haze white trim and frosted cover
EXIT SIGN	Exit and Emergency	Navilight, NXPCA3GWHSD, Greenlight with emergency light attachments, white finish 22”W, 22” D. LED 9.1 W and Thermoplastic combination
	Emergency	Navilight, 120/ 277VAC. Emergency light in white finish 15” W x 4” H. LED 9.1 W
	Exhaust Fan	CFM, Continental fan, CEF300, White, 12.2” W x 11.8 L”. 309CFW

●	Sprinkler Head	Viking, VK468, 175 psi, 1/2” Thread size, 4.9 K factor, 2 1/4” L. White polyester finish.
s	Switch	Multi light switch panel, 3 denotes 3 way, all lights are equipped with motion sensors and dimming capabilities.
	HVAC	Titus, TMS, High performance uniform 360 degree discharge pattern. Designed to protect ceiling from streaking and smudging, aluminum.
	Pendant	Prulight, PRU15, Dual circuiting, LED, Silver, 10W, up and down light
	Pendant	Prulight, Zenith Up, Sky Blue, Forest Green, Rain grey, LED, 10W, up light.
	Pendant	Prulight, Zenith Up, O, LED, 10W, 3’ Sunset Red.
	Pendant	Robinson Lighting, 3022HSW, 11.40 X 7.40, Concrete and Pine, Pendant light, LED, 7 W.
	Pendant	Estar-System, Powder coated metal and glass, geometric pendant light, LED, 7W.
	Pendant	Eureka Lighting, 4211-LED-S-C-WH3, Narrow pendant light, glass shade, LED, 7W.

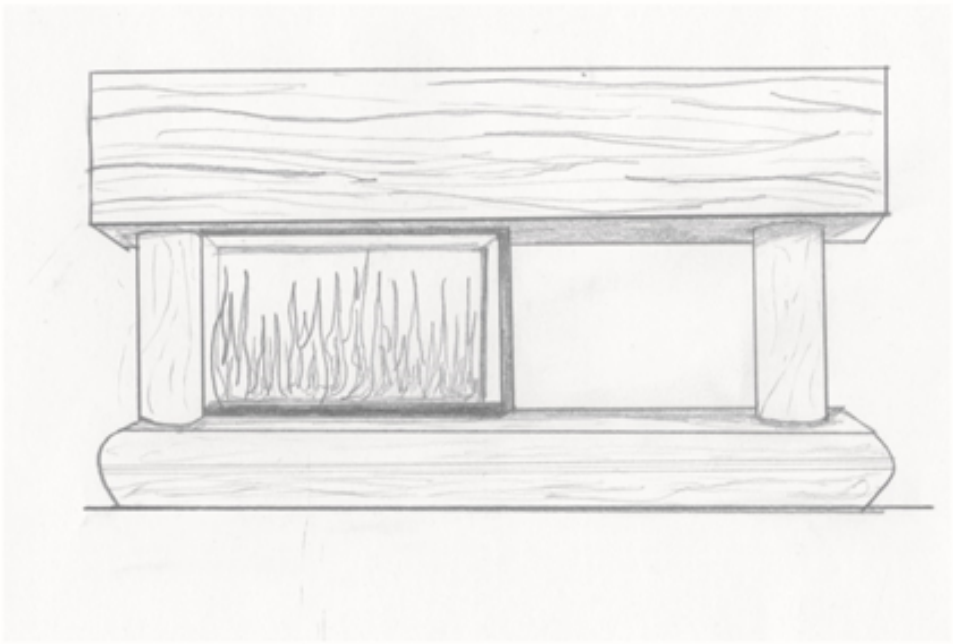


Figure 88: Electric Fireplace

Fireplace Detail

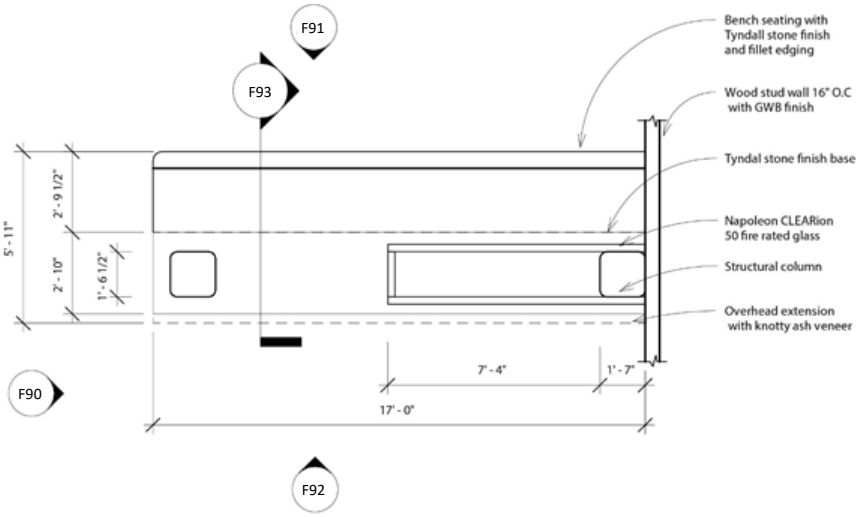


Figure 89: Planview
Scale: 1/4” = 1’-0”

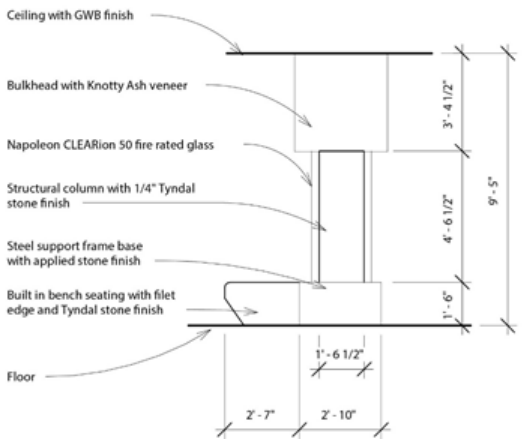


Figure 90: Side Elevation
Scale: 1/4” = 1’-0”

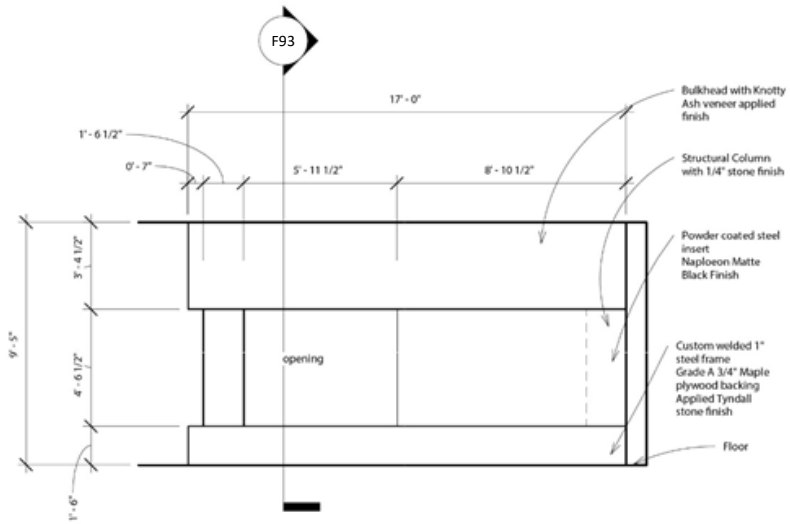


Figure 91: Front Elevation
Scale: 1/4" = 1'-0"

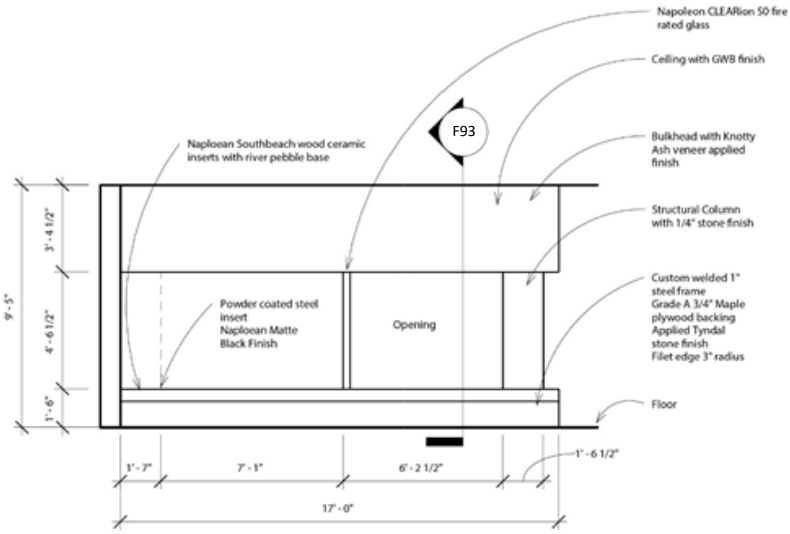


Figure 92: Back Elevation
Scale: 1/4" = 1'-0"

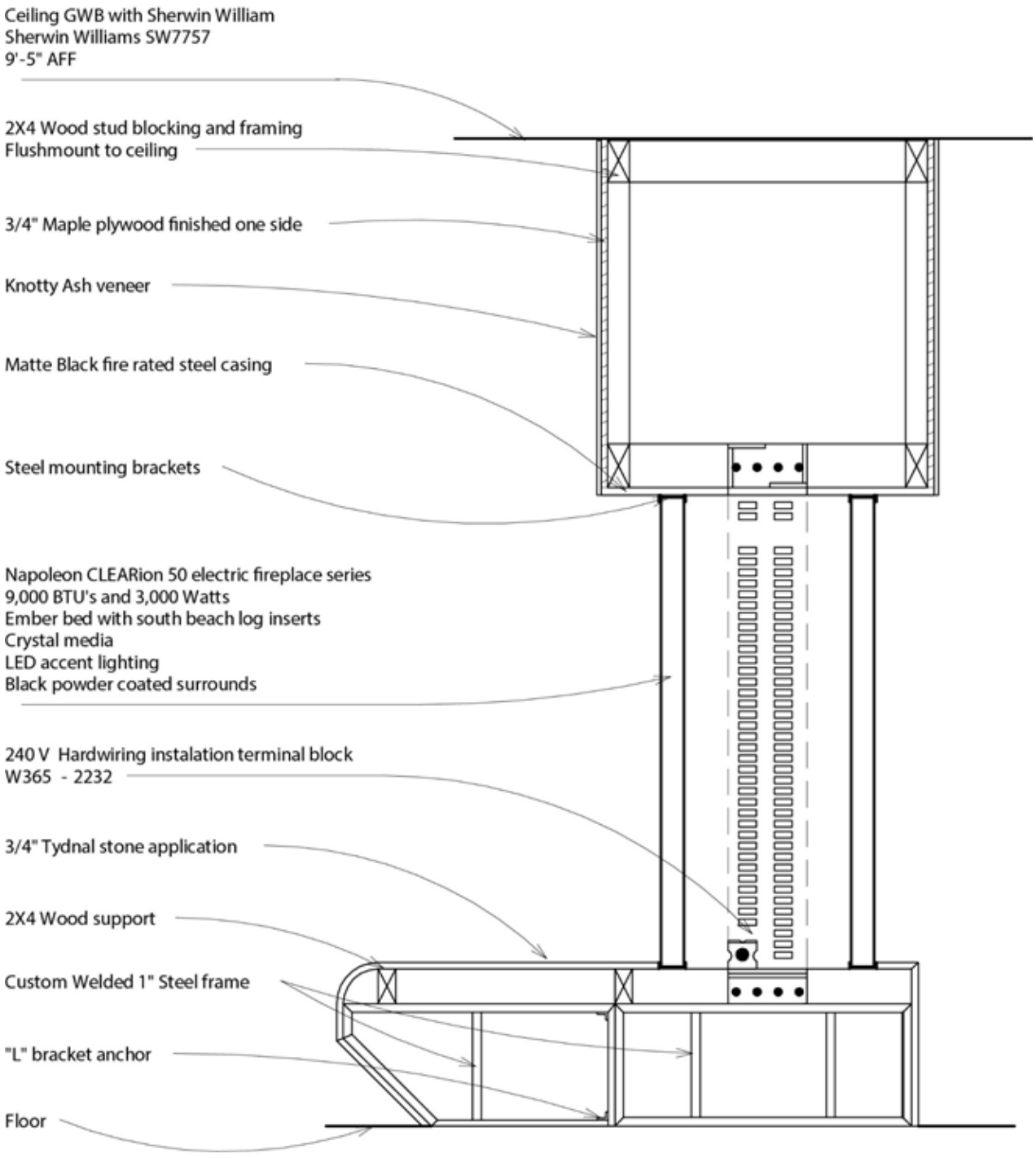


Figure 93: Section
Scale: 3/8” = 1’-0”

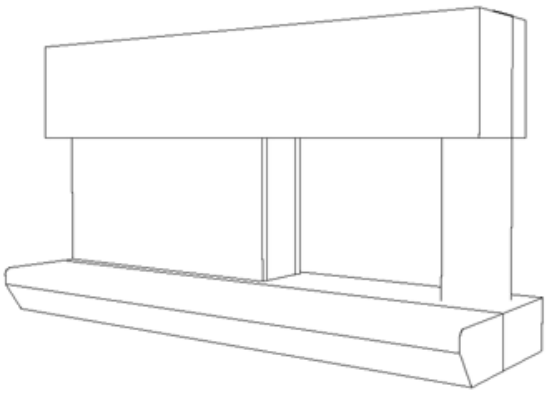


Figure 94: Isometric View

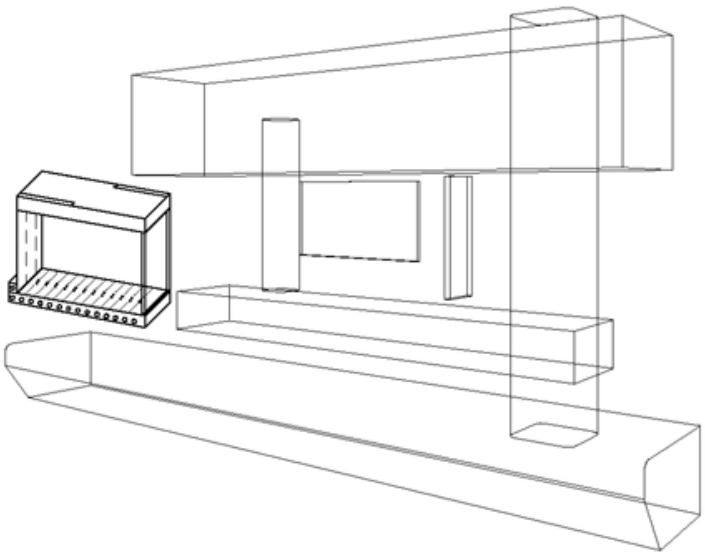


Figure 95: Exploded Isometric View

Material Selection

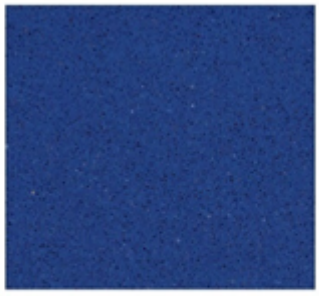
Cambria - Montgomery - Waterstone

Cambria - Skye - Waterstone

Sherwin Williams - SW 6508 - Secure Blue

Sherwin Williams - SW 6498 - Byte Blue

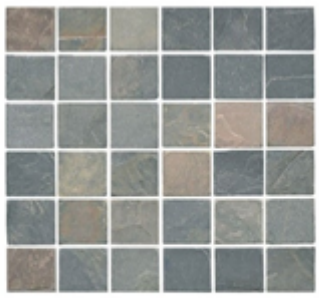
Maharam - Across - 009 - Urge



Maharam - Compound - 014 Marine

Johnsonite - 270260000 - Sanded Natural

Daltile - P434 - Porada

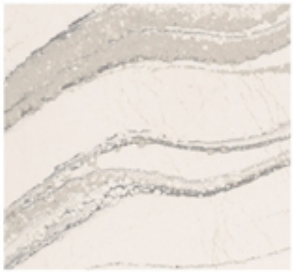


Daltile - Continental - CS56 Tuscan Blue

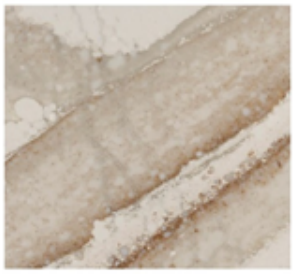
Johnsonite - 207 - Connection

Sherwin Williams - SW 6780 - Nautilus

Sherwin Williams - SW 9176 - Dress Blue



Cambria - Brittanica - Warm



Cambria - Brittanica - Gold

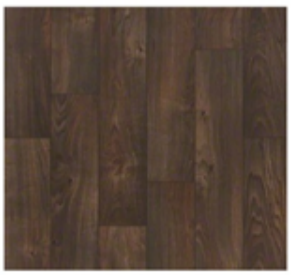
Sherwin Williams - SW 2202 - Outrigger

Maharam - Array - 003 - Sandalwood

Maharam - Crew - 011 - Impulse

Maharam - Across - 009 - Urge

Copper Metallic Epoxy Overlay



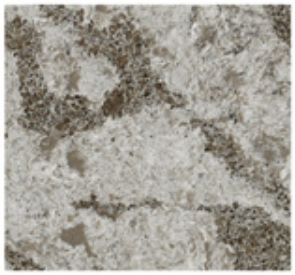
Johnsonite - 24205010- Wenge Natural

Maharam - Dapper - 021 - Very

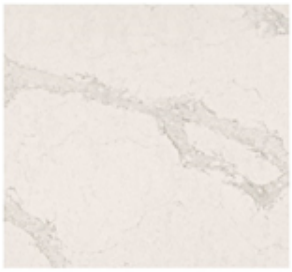
Maharam - Kvadrat - 644 - Canvas

Sherwin Williams - SW 6321 - Red Bay

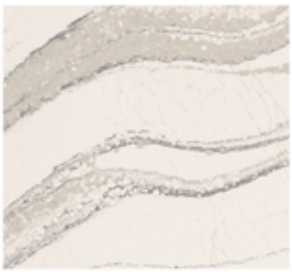
Sherwin Williams - SW 6147 - Panda White



Cambria, Galloway



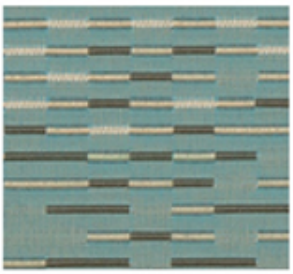
Ceasarstone - Calcatta Nuvo



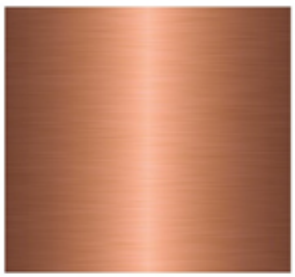
Cambria, Brittanica, Warm

Maharam - Aria - 100 Austral

Maharam - Across - 006 Cloudburst



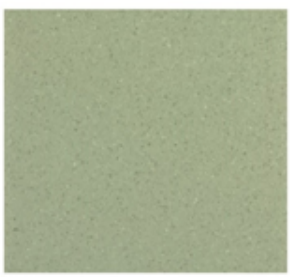
Maharam - Brio - 004 Dive



Copper Metallic Epoxy Overlay

Johnsonite - 24205010- Wenge Natural

Sherwin Williams - SW 7519 - Mexican Sand



Sherwin Williams - SW 6430 - Great Green

Sherwin Williams - SW 6725 - Pickle

Sherwin Williams - SW 6460 - Kale Green

Appendix B: Building Code Analysis: Occupancy and Water Closet Allowances

Major Occupancy:

The following major occupancy classifications apply to the North Pavilion:

A2 – Assembly occupancy

D – Business and personal services occupancy

Major Occupancy Fire Separation:

- The minimum Fire-Resistance Rating of Fire Separation are:
- No required separation between A2 classifications
- 1 Hr fire separation between B and A2

Occupancy Load:

Type of Use	Area per Person SQFT	Occupant Load
Assembly with non-fixed seating and tables	10.2	45
Assembly with fixed seating	* Based on seating	38
Activity Room	100.1	27
Reading Lounge	100.0	4
Dining, beverage and cafeteria space	12.9	38
Offices	100.0	56
Kitchens	100.0	11
Short term child care	107.0	15
Classroom / multipurpose training room	19.9	46
		Total Maximum Occupant Load: 280

Water Closets:

- 1 male and 1 female water closet is required in the daycare area.
- A minimum of 3 male washrooms and 6 female water closets are required for the assembly occupancy. A minimum of 2 lavatories are required in the male washrooms and 3 for the female washrooms. 1 male and 1 female barrier free or 1 universal washroom is required per floor.

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