

FAUM FUN BOX

**A student center that promotes collaboration and positivity
amongst the Canadian architecture, planning and design
students**

DEPARTMENT OF INTERIOR DESIGN
UNIVERSITY OF MANITOBA
WINNIPEG, MANITOBA
CANADA

MASTER OF INTERIOR DESIGN

FINAL DESIGN DOCUMENT

BILAL KHAN

Copyright © 2024 by Bilal Ahmed Khan

ACKNOWLEDGMENT

I would like to dedicate this book and my practicum to my loving parents, Siddique Khan and Sumera Begum. They have been my rock and the best supporting parents I could have ever asked for. They have sacrificed their whole life to give my brothers and I a better life. Without their unwavering supports, everything would have been impossible. I am grateful to be your son as you have taught us to be decent human being before anything else. Thank you for the opportunities you have given us, and my brother and I both appreciate all the sacrifices you have made for us. Also, Thank you for your unwavering contributions, sacrifices, love, and attention.

I would also like to thank my graduate committee members. To my graduate advisor, Dr. Cynthia Karpan, to my internal examiner Jason shields, for sharing your vast and valuable knowledge and insight. I would also like to sincerely thank Prof. Nicholas Evans, my external examiner, who shared his valuable input and guided my project from a psychological point of view. Through all of your experience, guidance, and support, I was able to take on this daunting task and make it to the finish line. I sincerely appreciate all your support and teaching.

I would also like to thank God for blessing me with the right people, support system, love, guidance and teachings, and the opportunities in life that has led me to this point. I am grateful for all that has come my way and await the next journey in my life.

ABSTRACT

The study of architecture and design is a task that requires students to step out of their comfort zones. While, in no way, shape or form, is architecture the toughest of subjects to study, however, to study design and architecture, or rather to be in any creative school, is a test of mental and physical resilience, requiring strong determination and willingness to do what is necessary. However, often, that constant pressure ends up taking its toll on the students in the shape of negative emotions, anxiety, depression, and the thought of suicide in extreme cases.

The intention behind this practicum is to identify issues such as mental, physical, and creative burnout amongst the FAUM students. The constant pressure, fatigue, creative need leads the students into negative spaces, creates issues of stress, depression, lacking energy, and productivity. While there’s ample research data that highlights these issues, I can attest to such negative emotions myself as a student in this field.

This practicum will primarily draw from my personal experiences as an actively engaged design and architecture student within the broader North American post-secondary education system. My overarching goal in embarking on this journey is to conceptualize and design a novel student center that serves as a complementary support hub for students within the Faculty of Architecture at the University of Manitoba in Winnipeg, Manitoba, Canada. The core intent behind this new student center is to provide architecture students with a distinct and tailor-made environment that caters to their unique needs as design-oriented individuals.

KEY TERMS

FAUM: FACULTY OF ARCHITECTURE AT THE UNIVERSITY OF MANITOBA

NEGATIVE STRESS-ORS: FEELINGS OF DEPRESSION, ANXIETY, BURNOUT, TIREDNESS, FATIGUE ETC.

STUDENT BODY: STUDENTS STUDYING AT THE FACULTY OF ARCHITECTURE AT THE UNIVERSITY OF MANITOBA

BURNOUT: THE FEELING OF BEING OVERWHELMED DUE TO OVER WORKING. (FREQUENT IN CREATIVE FIELDS)

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION _____ PAGE 10 - 19

- TOPIC 1.1:** RESEARCH CONTEXT
- TOPIC 1.2:** PROJECT PREFACE
- TOPIC 1.3:** PROJECT PURPOSE AND RATIONALE
- TOPIC 1.4:** PROJECT OBJECTIVE
- TOPIC 1.5:** SITE SELECTION AND CRITERIA
- TOPIC 1.6:** RESEARCH QUESTIONS
- TOPIC 1.7:** THEORETICAL FRAME WORK

CHAPTER 2: LITERATURE REVIEW _____ PAGE 20 - 37

- TOPIC 2.1:** RECAP
- TOPIC 2.2:** CHAPTER PREFACE
- TOPIC 2.3:** STUDENT CENTER - A SIGNIFICANCE ON CAMPUS
- TOPIC 2.4:** CORE ISSUES: UNDERSTANDING THE NEGATIVE ASPECTS
 - 2.4.1:**SUBJECT WELL BEING THEORY
 - 2.4.2:**IMPLICATIONS FOR DESIGN
- TOPIC 2.5:** INTRODUCTION: DESIGN THEORIES
- TOPIC 2.6:** SUPPORTIVE DESIGN THEORY
 - 2.6.1:** IMPLICATIONS FOR DESIGN
- TOPIC 2.7:** COLLABORATIVE WORKING ENVIRONMENT THEORY
 - 2.7.1:** IMPLICATIONS FOR DESIGN
- TOPIC 2.8:** ATMOSPHERIC ARCHITECTURE THEORY
 - 2.8.1:** IMPLICATIONS FOR DESIGN
- TOPIC 2.9:** CHAPTER CONCLUSION
- TOPIC 2.10:** CHAPTER SUMMARY

CHAPTER 3: PRECEDENT STUDIES _____ PAGE 38 - 55

- TOPIC 3.1:** INTRODUCTION
- TOPIC 3.2:** STUDENT-HUB NOTRE DAME UNIVERSITY OF AUSTRALIA
 - 3.2.1:**PROJECT DESCRIPTION
 - 3.2.2:**PROJECT CONTEXT
 - 3.2.3:**THEORETICAL RELEVANCE
 - 3.2.4:**DESIGN ANALYSIS AND IMPLICATIONS
- TOPIC 3.3:** CHAPMAN UNIVERSITY - SWENSON FAMILY HALL OF ENGINEERING
 - 3.3.1:**PROJECT DESCRIPTION
 - 3.3.2:**PROJECT CONTEXT
 - 3.3.3:**THEORETICAL RELEVANCE
 - 3.3.4:**DESIGN ANALYSIS AND IMPLICATIONS
- TOPIC 3.4:** BANGKOK UNIVERSITY – STUDENT IMAGINE LOUNGE
 - 3.4.1:**PROJECT DESCRIPTION
 - 3.4.2:**PROJECT CONTEXT
 - 3.4.3:**THEORETICAL RELEVANCE
 - 3.4.4:**DESIGN ANALYSIS AND IMPLICATIONS
- TOPIC 3.5:** CHAPTER SUMMARY

TABLE OF CONTENTS

CHAPTER 4: SITE AND BUILDING ANALYSIS _____ PAGE 56 - 67

- TOPIC 4.1:** INTRODUCTION
- TOPIC 4.2:** SITE ANALYSIS
- TOPIC 4.3:** SITE OPPORTUNITIES
- TOPIC 4.4:** SITE CONSTRAINTS
- TOPIC 4.5:** BUILDING ANALYSIS - ARCHITECTURE
 - 4.5.1:**MARCEL A DESAUTELS BUILDING
- TOPIC 4.6:** ARCHITECTURAL AND CONSTRUCTION DETAILS
 - 4.6.1:**EXTERIOR DETAILS
 - 4.6.2:**INTERIOR DETAILS
- TOPIC 4.7:** BUILDING ANALYSIS
 - 4.7.1:**BUILDING CONSTRAINTS
 - 4.7.2:**BUILDING OPPORTUNITIES
- TOPIC 4.8:** CHAPTER CONCLUSION

CHAPTER 5: DESIGN PROGRAMMING _____ PAGE 68 - 79

- TOPIC 5.1:** INTRODUCTION
- TOPIC 5.2:** CLIENT PROFILE
- TOPIC 5.3:** STUDENT CENTER OPERATION AND FUNCTION
- TOPIC 5.4:** USER PROFILES
 - 5.4.1:**PRIMARY USERS
 - 5.4.2:**SECONDARY USERS
 - 5.4.3:**TERTIARY USERS
- TOPIC 5.5:** DESIGN OBJECTIVES AND GOALS
 - 5.5.1:**DESIGN GOALS
 - 5.5.2:**FUNCTIONAL GOALS
 - 5.5.3:**SPATIAL GOALS
- TOPIC 5.6:** SPATIAL REQUIREMENTS
- TOPIC 5.7:** CHAPTER CONCLUSION

CHAPTER 6: DESIGN PROPOSAL _____ PAGE 80 - 93

- TOPIC 6.1:** INTRODUCTION
- TOPIC 6.2:** DESIGN CONCEPT
- TOPIC 6.3:** DESIGN PROPOSAL
 - 6.3.1:**SPATIAL PLANING AND ORGANIZATION
- TOPIC 6.4:** COLOR SCHEME, FURNITURE AND MATERIAL
 - 6.4.1:**COLOR PALLET
 - 6.4.2:**FURNITURE SELECTION
 - 6.4.3:**MATERIAL BOARD
- TOPIC 6.5:** CHAPTER CONCLUSION

CHAPTER 7: CONCLUSION _____ PAGE 94 - 96

- TOPIC 7.1:** PERSONAL REFLECTIONS
- TOPIC 7.2:** FUTURE DIRECTIONS AND PROPOSED CONCEPT

TABLE OF CONTENTS

APPENDIX A: TECHNICAL DRAWINGS (REFLECTED CEILING PLANS)
APPENDIX B: MILL WORK DETAILED DRAWING
APPENDIX C: BUILDING CODE ANALYSIS
APPENDIX D: POSTER

LIST OF FIGURES AND CHARTS

FIGURE 1: NEGATIVE STRESS-ORS CHART

FIGURE 2: SITE MAP - CAMPUS

FIGURE 3: THEORETICAL FRAMEWORK

FIGURE 4: STUDENT CENTER KEY FEATURES CHART

FIGURE 5: PERMA MODEL OF SELIGMAN (2011)

FIGURE 6: DESIGN THEORY CHART

FIGURE 7: COLLABORATIVE WORKING ADVANTAGE CHART

FIGURE 8: ATMOSPHERIC ARCHITECTURE CHART

LIST OF COPYRIGHT MATERIALS

FIGURE 9: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PICTURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-Notre-dame-university-Australia/>

FIGURE 10: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/Chapman-university-Swenson-family-hall-of-engineering/>.

FIGURE 11: STUDENT IMAGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 12: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PICTURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-Notre-dame-university-Australia/>

FIGURE 13: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PICTURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>

TABLE OF CONTENTS

FIGURE 14: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PICTURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-Notre-dame-university-Australia/>

FIGURE 15: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PICTURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>

FIGURE 17: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PCITURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>

FIGURE 18: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PCITURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>

FIGURE 19: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PCITURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>

FIGURE 20: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PCITURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>

FIGURE 21: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PCITURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>

FIGURE 22: STUDENT HUB NOTRE DAME - UNIVERSITY OF AUSTRALIA.
USED WITH PERMISSION. DIGITAL PCITURE - PHOTOGRAPHER: PETER BENNETS. SOURCE: “STUDENT HUB - NOTRE DAME” <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>

FIGURE 23: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

FIGURE 24: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

FIGURE 25: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

FIGURE 26: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

TABLE OF CONTENTS

FIGURE 27: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/chapman->

FIGURE 28: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

FIGURE 29: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

FIGURE 30: SWENSON FAMILY HALL - CHAPMAN UNIVERSITY.
PUBLIC DATABASE. DIGITAL PICTURE - LAWRENCE ANDERSON. SOURCE: “SWENSON FAMILY HALL OF ENGINEERING”. <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

FIGURE 31: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 32: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 33: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 34: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 35: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 36: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 37: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 38: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

TABLE OF CONTENTS

FIGURE 39: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 40: STUDENT IMGINE LOUNGE - BANGKOK UNIVERSITY.
CURATED BY ARCHDAILY. PUBLIC DATABASE, DIGITAL PICTURE - WINSON TUNGTHUNYA. SOURCE: “IMAGINE LOUNGE”. <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

FIGURE 41: UNIVESITY OF MANITOBA CAMPUS FROM 1925..
CURATED BY MANITOBA HISTORICAL SOCIETY ARCHIVES. PUBLIC DATABASE, DIGITAL PICTURE - GORDON GOLDSBOROUGH, M.F.F BURGESS COLLECTION. SOURCE: <https://www.mhs.mb.ca/docs/sites/universityofmanitoba.shtml>

FIGURE 42: UNIVESITY OF MANITOBA CAMPUS FROM 1952..
CURATED BY MANITOBA HISTORICAL SOCIETY ARCHIVES. PUBLIC DATABASE, DIGITAL PICTURE - GORDON GOLDSBOROUGH, M.F.F BURGESS COLLECTION. SOURCE: <https://www.mhs.mb.ca/docs/sites/universityofmanitoba.shtml>

FIGURE 43: UNIVERSITY OF MANITOBA ELIZABETH DAFOE LIBRARY 1952.
CURATED BY WINNIPEG BUILDING INDEX. PUCLIC DATA BASE. UNIVERSITY OF MANITOBA DIGITAL LIBRARIES. SOURCE: https://digitalcollections.lib.umanitoba.ca/islandora/object/uofm%3A2623635/manitoba_metadata

FIGURE 44: UNIVERSITY OF MANITOBA OLD MUSIC BUILDING.
CURATED BY WINNIPEG BUILDING INDEX. PUCLIC DATA BASE. UNIVERSITY OF MANITOBA DIGITAL LIBRARIES. SOURCE: https://digitalcollections.lib.umanitoba.ca/islandora/object/uofm%3A2623635/manitoba_metadata

FIGURE 45: UNIVERSITY OF MANITOBA OLD MUSIC BUILDING.
CURATED BY WINNIPEG BUILDING INDEX. PUCLIC DATA BASE. UNIVERSITY OF MANITOBA DIGITAL LIBRARIES. SOURCE: https://digitalcollections.lib.umanitoba.ca/islandora/object/uofm%3A2623635/manitoba_metadata

FIGURE 62: UNIVERSITY OF MANITOBA OLD MUSIC BUILDING. CADLAB BUILDING DRAWINGS.
CURATED BY FACULTY OF ARCHITECTURE CADLAB. STUDENT DATABASE - DIGITAL FILE.

FIGURE 63: UNIVERSITY OF MANITOBA OLD MUSIC BUILDING.
CURATED BY MANITOBA HISTORICAL SOCIETY ARCHIVES. PUBLIC DATABASE, DIGITAL PICTURE - GORDON GOLDSBOROUGH, M.F.F BURGESS COLLECTION. SOURCE: <https://www.mhs.mb.ca/docs/sites/universityofmanitoba.shtml>

FIGURE 64: UNIVERSITY OF MANITOBA STUDENT ENROLMENT REPORT “FACULTY OF ARCHITECTURE”. 2023. SOURCE: https://umanitoba.ca/institutional-analysis/sites/institutional-analysis/files/2023-07/enrol_UG_area_of_study_full_part_f22.pdf

CHAPTER

01

INTRODUCTION

- TOPIC 1.1: RESEARCH CONTEXT
- TOPIC 1.2: PROJECT PREFACE
- TOPIC 1.3: PROJECT PURPOSE AND RATIONALE
- TOPIC 1.4: PROJECT OBJECTIVE
- TOPIC 1.5: SITE SELECTION AND CRITERIA
- TOPIC 1.6: RESEARCH QUESTIONS
- TOPIC 1.7: THORETICAL FRAME WORK

INTRODUCTION

1.1: RESEARCH CONTEXT

This practicum draws from my personal experiences as an actively engaged design and architecture student within the broader North American post-secondary education system. My overarching goal in embarking on this journey is to conceptualize and design a novel student center that serves as a complementary support hub for students within the Faculty of Architecture at the University of Manitoba in Winnipeg, Manitoba, Canada. The core intent behind this new student center is to provide architecture students with a distinct and tailor-made environment that caters to their unique needs as design-oriented individuals.

I recognize the pressing need for the establishment of such a distinctive student center, drawing from my personal journey as a design student. Additionally, this need is underscored by various reports indicating that almost two-thirds of postgraduate students grapple with overwhelming anxiety.¹ This concern is even more pronounced within the field of architecture and design, where students contend with grueling hours, substantial workloads, intense peer pressure, and both physical and mental exhaustion. These factors can culminate in a state of 'burnout,' aptly described by Dr. Heidi as: "the physical or mental collapse resulting from excessive work or stress."²

The prevalence of burnout is notably higher among students pursuing fields such as Architecture and Engineering. Research states that "Engineering and Architecture students often grapple with extensive coursework encompassing a diverse range of topics, spanning both theoretical and practical methodologies."³ This is further attested based on the report in the journal American College of Health Association, "Students face a multitude of stressors within the post-secondary setting, placing them at increased risk for a range of mental health issues. Chronic stress is highly correlated with negative mental health outcomes and has been shown to have a substantial impact on students' academic performance."⁴

Given the circumstances, this practicum is grounded in research conducted within North American educational institutions, particularly focusing on students pursuing degrees in design, planning and architecture. To provide a bit of perspective and contrast, occasional references to educational practices in other regions and schools will also be incorporated throughout this paper.

1.2: PROJECT PREFACE

Post-Secondary education plays an indispensable role in people's lives, yet it often brings a certain degree of stress for students. While many students experience temporary stress that gradually diminishes as they advance in their studies and careers, there is a field where stress can become persistent, detrimental, and even life-threatening. Design and architecture students, in particular, are prone to enduring prolonged mental health challenges, sometimes leading to suicidal thoughts.⁵ The enduring stress, depression, and anxiety, often categorized as 'negative emotions,' can set these students on a path of profound hardship, resulting in symptoms such as dropping out, feelings of failure, loss of motivation, and a disinterest in education.⁶ Frequent habits like pulling all-nighters for extended periods to complete coursework, demanding workloads from professors within tight timeframes, and coping with the pressures of both school and personal life are some of the primary factors that contribute to the development of depression and anxiety among students. Additionally, a 2012 study by the Centers for Disease Control and Prevention, analyzing data from 17 American states, found that individuals in the architecture and engineering professions had the fifth-highest suicide rate compared to other occupations.⁷

High levels of stress, depression, and anxiety can significantly impact the students' academic success. These negative emotions are often triggered by various stressors in students' lives.⁸ While these issues can be observed in the lives of almost all students, they become particularly pronounced in students pursuing an education in the field of architecture. In an anonymous study conducted by researchers at a large metropolitan Australian University, using a large size student body, all above the age of 18, noted that, architecture students have recorded the highest scores on the University Student Depression Inventory (USDI), with female students generally experiencing higher levels of depression compared to their male counterparts.⁹

Despite the increasing efforts by most universities to promote a healthy student lifestyle, through introducing health programs, mentorship programs, providing gym facilities, these initiatives often fall short in effectively addressing the primary concern, which is the rising levels of depression and chronic negative emotions among students. This is due to concerns like the burnout, identified above. Consequently, student groups, especially those in the field of architecture, have become increasingly skeptical about the support structures provided by their universities and employers.¹⁰

As a student myself, who has spent multiple overnights in studio spaces, sometimes alone, or sometimes along with fellow classmates, I can attest that doing so causes an immense amount of mental pressure and body fatigue. The problem becomes particularly acute when students struggle to effectively manage these negative stressors, leading to physical and mental burnout. The absence of adequate management strategies and proper guidance to help students cope with these stressors highlights significant issues that require immediate attention from academic leaders and designers. To address the escalating challenges faced by design and architecture students, both academic leaders and designers must collaborate to propose a range of solutions.

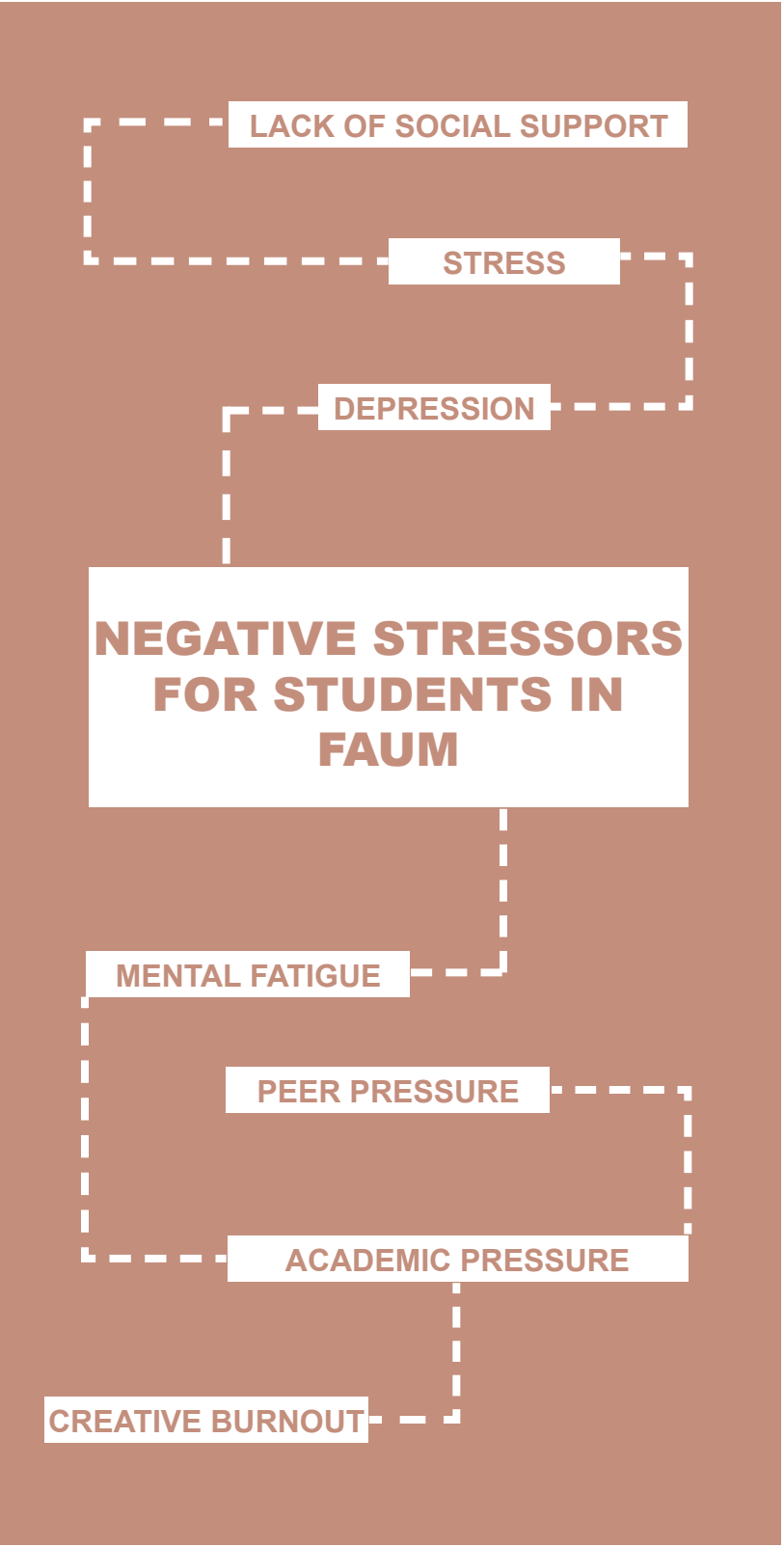
While the solution can range and vary in its implementation and style, from institution to institution, and faculty to faculty, they should all be student focused, with the aim at providing support to the students that is universally applicable and without any stigma. For instance, solutions such as therapy and counselling are impactful and help in tremendous ways, yet, due to the stigma attached to it cannot help everyone. As research into this suggest that "barriers to mental health services such as lack of perceived needs, perceived ineffectiveness of treatment, problems with access to care, an inconvenience."¹¹ The research further also points out the fact that, Stigma is recognized as a potential barrier to seeking help for mental health disorder.¹² Unfortunately, therapy is a solution only to those who seek it out themselves and are not controlled by the stigma of such treatments. As such, the solutions should be something that is universal and one that can be applied and re-applied, without concerning itself with the geography, economical, and or social conditions.

The latest research shows that a more holistic approach is required to tackle the issues of stress in educational institutes. A stress-free learning environment is vital for students dealing with pressure and stress both inside and outside of the classroom.¹³ It has been shown in multiple studies that when students are provided with secondary support spaces, such as student lounges, breakout rooms, external or internal green spaces, physical facilities, and similar spaces with engaging activities, the students tend to show improvement in their learning abilities.¹⁴

With that observation, this practicum is an attempt at providing solutions, in the form of positive and supportive spaces, such as social hubs and lounges, cafes, breakout and game rooms. Professor K. Sharma, who is a Ph.D in Student Welfare and conflict management suggests in his online article that University is not just about studying, rather it is also about forging long lasting connections. student clubs, and socialization can lead to lifelong networks with peers with similar interests.¹⁵ He further adds by suggesting, "University life can be stressful, and finding a sense of belonging is essential."¹⁶ As such, this practicum is an attempt at providing the students from the Faculty of Architecture a sense of belonging outside of the typical academic life. By providing the students with the proposed facility, the students from the design, planning and architecture streams will get access to spaces such as the uniquely tailored student centers, student lounges, and similar environments, which can serve as the physical and spatial support systems to complement students' mental and physical well-being.

The overarching objective of this design endeavor is to address challenges believed to be inherent within many North American post-secondary design institutions. The primary aim of this practicum is to conceptualize potential design solutions for secondary spaces such as social halls, food courts, game rooms, meeting spaces, collaborative working spaces, presentation rooms and others. These auxiliary areas will offer constructive alternatives to the conventional primary spaces, like classrooms and studios, where students often find themselves confined by rigid educational frameworks. By reimaging these secondary spaces as a student center customized for architecture and design students, we aim to provide an escape from these constraints and offer meticulously crafted positive environments where they can thrive.

FIGURE 1: NEGATGIVE STRESSORS CHART



1.3: PROJECT PURPOSE AND RATIONALE

It is widely acknowledged that buildings are planned to accommodate specific organizations, implying that individuals and groups with varying roles and statuses occupy designated spaces. The process of designing buildings is intricate and protracted, involving the translation of socio-cultural objectives into a tangible spatial (architectural) form while accounting for various constraints like time, costs, and legislation.¹⁷ Nevertheless, the majority of many campus buildings were built in the 1960s and 70s and fails to adequately cater to the requirements of today's occupants. The current higher education building stock is insufficient in effectively addressing the student's growing problems related to stress, negative emotions, and generally unhealthy lifestyles.

A report indicates that due to a lack of proper resources and services in many educational institutions, students with anxiety are at a heightened risk of later developing depression.¹⁸ One of the primary reasons for the inadequacies of current classrooms and facilities lies in the rapidly evolving socio-cultural expectations. To illustrate, many buildings on North American university campuses were constructed in the past few centuries. For instance, the University of Manitoba's main campus dates back to 1912, following the end of the Vietnam war. However, the early architectural designs and classrooms were not originally intended to provide the level of mental, social, or even physical support that appears to be increasingly necessary today.

Spatial planning and allocation in contemporary education buildings are typically designed with a primary focus on efficiently transmitting knowledge and enhancing the learning process. However, they frequently neglect to create a well-rounded environment that fosters learning while safeguarding students' mental health. Therefore, school design must be reimagined to align with changes in the societal context of education and to re-engage students in the learning process.¹⁹ Contemporary buildings and classrooms should be purposefully designed to cultivate healthier learning environments that transcend the traditional approach of sterile knowledge transmission. Empirical studies within the scope of educational research consistently demonstrate that the conditions of school buildings, including spatial layouts, acoustics, temperature, lighting, and air quality, profoundly impact learning outcomes by influencing the performance and attitudes of both students and teachers.²⁰

Given that school is at the center of a student's life, creating a positive learning environment is of utmost importance. This importance is magnified within the School of Architecture. As this idea is reinforced through a recent graduate from the Architecture school who aptly noted in his article regarding the rigor structure of most design schools, suggesting that architecture and design schools tend to have an additional layer of stress and rigor imposed on students. There are extended hours, even days sometimes spent in studios to meet project deadlines. This style impedes maintaining a healthy lifestyle or nurturing healthy relationships outside of school. Furthermore, leads to unhealthy habits, like pulling all-nighters, improper eating habits, and inadequate sleep patterns, which all ultimately trigger the symptoms associated with stress, and mental health issues.²¹ Therefore, it is

imperative for designers, educational institutions, and even students to collectively address and enhance this issue, transforming the learning experience into a positive and holistic endeavor.

As such, the envisioned student center should be conceived as a distinctive space, particularly tailored to students from the Faculty of Architecture, planning and design. Beyond the conventional classrooms, studios, and laboratories, students need secondary support spaces, such as student centers tailored to their specific needs. This opinion is echoed in the research conducted by Claudette Christison from the department of education at Brandon University that suggests, participation in extracurricular activities positively correlates with student's developments both academically and personally. Students who participate in those activities have a greater chance in academic success and develop greater confident and positive characters.²²

The critical challenge lies in approaching this issue from the perspective of an interior designer. To address the issues of negative stressors, workload, and burnouts, particularly within the Faculty of Architecture, my primary objective is to design and create an alternative to the typical and existing structured learning environment. This will be achieved through an understanding of various ideas and theories aimed at addressing these issues prevalent among students. The objective is to identify design strategies, and spatial theories that can inform the design of a unique student center. The new proposed space, particularly tailored to students would facilitate interaction with peers of varying age groups, encourage socialization, networking and promote collaborative activities, while learning in a positive environment, that is vital for students' social and mental development.²³

1.4: PROJECT OBJECTIVE

The objective of this practicum is to effectively address the pressing issues of mental health, physical well-being, lack of social interaction, and the overall sense of being overwhelmed among students in the Faculty of Architecture at the University of Manitoba. The goal is to contribute a design solution that promotes student wellbeing and a positive learning environment. The aim is to create a secondary space, an escape from the conventional academic environment, one that assists the students in managing negative emotions and stressors while promoting a healthy mental and physical lifestyle.

Factors such as course policies, academic expectations, student assessments, and the overall learning environment can either support or undermine the well-being of students. Therefore, it is crucial for designers to collaborate with educational institutions in creating buildings and spaces that align with the evolving socio-cultural landscape of these institutions. While attempting to redefine the culture of a design school may be a daunting task, this practicum seeks to introduce a student-oriented space within the architecture and design domain. However, of course, a single student-oriented space might not cause a cultural shift in and of itself, but it can contribute to an ever-evolving culture.

As such, the following practicum will propose a reimagined student center and collaborative workspace for students. This space will provide students with a supportive and stress-free environment, possibly incorporating features like green spaces, breakout areas, a gym, and private spaces, which has proven to suggest that by providing students with extracurricular spaces, and exposing students to more greenery can enhance their learning positively.²⁴ It will encompass various engaging activities, promote social interactions, facilitate peer-to-peer support, and offer essential services such as counseling and support. It would also include engaging activity-based spaces including recreational areas, gaming zones for relaxation, and lounge areas equipped with games like pool and table tennis. Consequently, the primary objective of this new student space is to prioritize students' academic experiences and their mental and physical well-being, ensuring a positive and enriching educational journey.

1.5: SITE SELECTION AND CRITERIA

The proposed site for the newly reimagined student center dedicated to FAUM will be located at the University of Manitoba. This choice of location aligns with the user group, which consists of students on the university campus. Several factors make the university campus the ideal location for this project:

- 1. **Yearlong Access:** Students will have continuous access to the facility throughout the academic year, ensuring that it remains available during their studies.
- 2. **Enhanced Security:** Campus facilities typically offer security measures that protect the space and its resources, contributing to a safe and secure environment for students.
- 3. **Cost Savings:** Establishing the studio and lounge on campus eliminates the need for students to incur external costs or membership fees, making it financially accessible to all eligible users.
- 4. **Access to Campus Facilities:** Students will have the added benefit of accessing other university facilities and resources conveniently, enhancing their overall university experience.

Given the focus of this practicum on postgraduate students, specifically those in architecture, ensuring easy accessibility and cost-effectiveness is a crucial aspect of the proposal.

Therefore, the proposed student studio lounge will be located in the former music building at 65 Dafoe Road, situated directly across from the Russell Building and Architecture 2 building on the university campus. The choice of the old music building as the site for the renovated studio space and lounge is well-suited for several reasons:

- 1. **Proximity to Relevant Faculties:** The building's location places it in close proximity to key faculties, including the Faculty of Architecture, Fine Arts, and Engineering, ensuring easy access for students from these departments.
- 2. **Accessibility:** The site offers convenient access options, including proximity to public transit routes and available parking lots for students with private vehicles.
- 3. **Security:** Campus buildings typically have security measures in place, contributing to a safe and secure environment for students.
- 4. **Campus Integration:** The location is well-connected to the rest of the university campus, facilitating seamless movement to and from the site for students at all times.

1.5.1: LOCATION

The paramount objective of this practicum is to establish a readily accessible and supportive space that empowers students to pursue their academic and personal goals without the burdens of negative stressors, such as compromised mental well-being, excessive pressure, and thoughts of quitting, as previously discussed. The selection of the old music building as the site for the new student center is driven by its strategic location on the campus, ensuring students have unfettered access to a comprehensive array of services, spaces, and support. It is imperative that this new center is situated within close proximity to the existing Faculty of Architecture, as these students will constitute the primary user groups of the space.

The proposed new studio and lounge will also extend its benefits to students from various other faculties, offering them access to the same amenities, including open study areas, design studios, relaxation spaces, and gaming areas. While the facility's design will cater to the needs of students primarily from the Faculty of Architecture, the core objective of this practicum is to acknowledge and address the challenges faced by all postgraduate students, particularly those dealing with mental health issues and negative emotions, using spatial design and functionality as a means of support. Therefore, the student center will serve as a resource for all postgraduate students experiencing similar levels of negative emotions and compromised mental well-being, providing them with opportunities for respite and relaxation during stressful periods, ultimately aiding their progress in higher education and career pursuits.

Current research conducted in some schools, advocates for the provisions of services that are for mental and physical support. For instance, a University of Waterloo student mentions in an online article, recommending engaging in activities that promote happiness, such as listening to music, exercising, baking, or playing games, as effective means of destressing and relaxation for students.²⁵ Similarly, Leon who runs an online Architecture blog, suggests that peer to peer connection is essential at staying positive.²⁶ Moreover, another study suggests that receiving emotional support, continuing enjoyable hobbies, maintaining a healthy diet, getting

adequate sleep, and seeking professional guidance can all contribute to cultivating positive thought processes and facilitate a successful academic journey for most students.²⁷ Amenities like a gym, student support services including collaborative study sessions, and access to food options beyond regular school hours prove to be positive and healthy distractions for the students. These services and spaces aim to control or, at the very least, minimize the negative impacts of high-stress situations on students.

By having all these features, the new student center will be able to provide the students with an escape from but on campus, where they can get their work done, relax, and simply hangout. It will serve as a pause between classes, a moment of recollection and gaining positive momentum while being on the campus. The student center will also serve as a secondary building where the students would be able to stay after regular school hours in order to work on projects, assignments, or simply to study late in an environment that is designed with the intention of putting the mental and physical health of all students as a top priority.

1.5.2: PROXIMITY ANALYSIS

As previously emphasized, one of the paramount objectives is to establish the new student center and a hub that offers easy accessibility to campus-based students, particularly those in the Faculty of Architecture. The rationale behind this choice lies in the recognition that if the space were situated off-campus or in a distant location, students might not be able to fully utilize it, and its primary purpose could be compromised. Therefore, the proximity of the building is of utmost importance for the successful implementation of this practicum.

The Marcel A. Desautels building is precisely the location where students can travel to and spend time without reluctance. Moreover, the building enjoys a central position between the two main structures of the Faculty of Architecture, facilitating seamless movement between all spaces within the faculty. Additionally, the building boasts excellent accessibility via the public transit system and offers

two spacious parking lots for private vehicles on both its east and west sides. Furthermore, the building is regarded as a secure and safe area, with access to campus security services, providing students and their families with peace of mind.

1.6: RESEARCH QUESTIONS

In this section, I will explore the culture of post-secondary education in North American Universities and Colleges. In particular I will examine the culture of design, planning and architecture faculties. In response to then, I will attempt to propose a design for a new student center. While my focus will be on the students from the faculty of architecture from the University of Manitoba, I will be using supporting studies and relevant data from North American Schools at large.

I will explore how intervention in the form of a new student center and a private student lounge could potentially provide the students with the help they need in order to work in a more relaxed and collaborative environment.

The questions are:

- Q1. What factors contribute to burnout and a negative and unhealthy environment for students from the Faculty of Architecture at the University of Manitoba, Winnipeg, Canada?
- Q2. Could a strategic and purposefully built secondary support space positively affect the psychological conditions of Faculty of Architecture students and help them reduce stress and maintain a healthy mental well-being?
- Q3. What kind of design features could have a positive impact in reducing stress for Faculty of Architecture students at the University of Manitoba?

FIGURE 2: SITE MAP

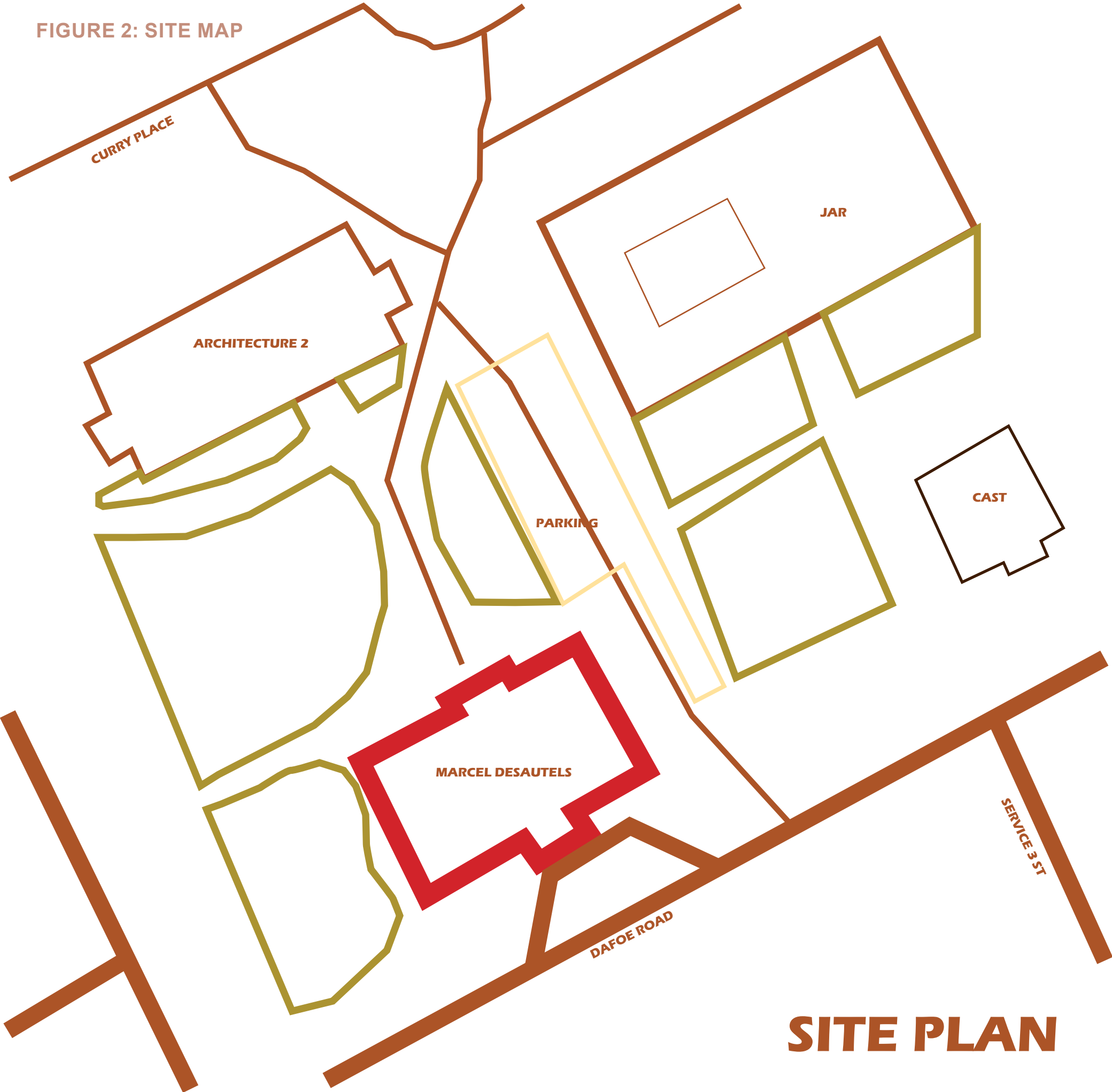


FIGURE 4: THEORETICAL FRAMEWORK



CHAPTER

02

LITERATURE REVIEW

TOPIC 2.1: RECAP
TOPIC 2.2: CHAPTER PREFACE
TOPIC 2.3: STUDENT CENTER - A SIGNIFICANCE ON CAMPUS
TOPIC 2.4: CORE ISSUES: UNDERSTANDING THE NEGATIVE ASPECTS
TOPIC 2.5: INTRODUCTION: DESIGN THEORIES
TOPIC 2.6: SUPPORTIVE DESIGN THEORY
TOPIC 2.7: COLLABORATIVE WORKING ENVIRONMENT THEORY
TOPIC 2.8: ATMOSPHERIC ARCHITECTURE THEORY
TOPIC 2.9: CHAPTER CONCLUSION
TOPIC 2.10: CHAPTER SUMMARY

LITERATURE REVIEW

2.1: RECAP

Chapter one of this document emphasized the necessity for the academic design environment to evolve in response to the changing landscape, shifting student needs, and transformations in classrooms. The absence of adaptation and the existence of rigid environments contribute to unhealthy habits among the student body, resulting in stress, mental health issues, and challenging social lifestyles. Oxford University researchers have identified poor diet, physical inactivity, tobacco and alcohol use, irregular sleep patterns, and isolation as root causes of chronic diseases and premature mortality.²⁸

Current research indicates that most post-secondary institutions are falling short in equipping the student body with effective tools to combat stress, negative emotions, and chronic mental health issues. An online research article underscores this problem, stating, “statistics published by the University of Michigan rank suicide as the second-leading cause of death for college students nationwide.”²⁹

This issue is particularly pronounced among students pursuing careers in the Science, Technology, Engineering and Mathematics (STEM) field. While the Students in the architecture, planning, and design also frequently grapple with chronic mental health issues. Anthony Seldon, Vice Chancellor at the University of Buckingham, and a mental health campaigner, expressed concern, stating, “Britain has a near epidemic of mental health problems among its students. Those studying architecture appear to be under added burdens, emanating perhaps from the very length of the course and time taken before earning a proper income.”³⁰ The escalating concerns about mental health, physical well-being, and diminishing social lives are contributing to students facing chronic diseases, and in severe cases, leading to suicides.

The later sections of this chapter delve into a detailed examination of the root causes of the core issues. Recommended later are theories and strategies aimed at alleviating some of the burdens faced by the students in the Faculty of Architecture at University of Manitoba (FAUM). Theories concerning design strategies, encompassing architectural elements like light, materials, and color, along with theories on well-being, aim to investigate the potential of the built environment and design in addressing these challenges. Their exploration seeks to cultivate a more positive, supportive, and healthy learning atmosphere for the student community.

2.2: PREFACE

Chapter two elaborates on previously discussed issues and identifies possible design strategies for the proposed FAUM student center.

To establish the groundwork for this proposed project, I will commence by delving into the concept of a student center, tracing its significance as a support space in the context of post-secondary North American institutions. Through grasping the significance of student centers, this exploration will aim to elucidate how the design of a student-oriented and tailor-made space can have a profound and positive impact on students, both in terms of their mental and physical well-being. Prof Oliveria, Dr. Tahsiri and Dr. Everett suggest in their research by analyzing different student spaces on multiple campus throughout North America that, the research evidence suggests that the design and use of informal learning spaces can support student engagement positively. These spaces can facilitate unscripted possibilities within and outside the typical classrooms.³¹ By recognizing the crucial necessity of such student spaces, this project will ultimately present a uniquely designed student center equipped with facilities, activities, and supportive spaces intended to assist students from the Faculty of Architecture in addressing the issues, such as stress, overwhelming pressures, and mental and physical burnout.

Following that explanation, this chapter identifies some of the negative aspects of the current post-secondary learning environments in most North American institutions. Through that identification, the chapter will explore the significance of the relation between interior design and the theory of the Subject Well-being. Following that, the remainder of the chapter explores three fundamental theories, including: Supportive Design Theory, Collaborative Working Environment Theory, and the Atmosphere Architecture Theory. Each theory, supplemented by the research data and associated strategies, will serve as the fundamental framework for the design solution: a distinctive student center. The new FAUM student center will aim to serve as an alternative to the conventional academic environments. The center will foster a culture of well-being, social interaction, collaboration, and all within the confines of an aesthetically pleasing interior architectural space.

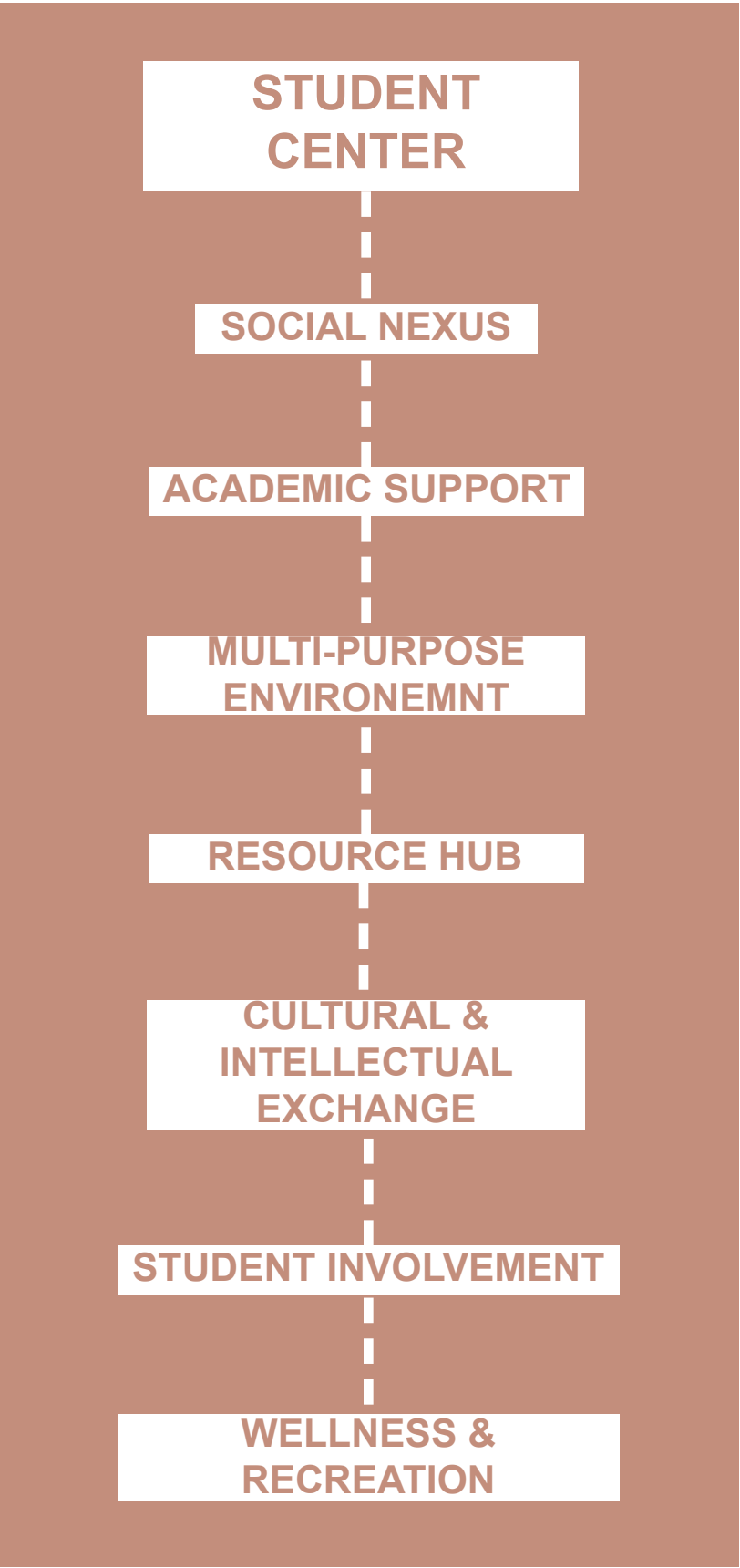
2.3: STUDENT CENTER - A SIGNIFICANCE OF CAMPUS

A student center or lounge can be described as a physical space within an educational institution, typically located on a university or college campus, designed and dedicated to serving the diverse needs and interests of students. It serves as a central hub where students congregate, interact, and engage in various activities beyond their academic pursuits. A student center or lounge can be depicted as an integral component of the university experience, embodying the institution’s commitment to holistic education, personal development, and the enrichment of students’ lives beyond the classroom. These spaces are often portrayed as vibrant and dynamic environments that contribute to the intellectual, social, and emotional growth of the student body, creating lasting memories and connections that endure throughout their educational journey.

Chen and Mynard emphasize this point in their article, stating, “Ideally, the space also provides opportunities for users to develop a sense of ownership and to feel part of a community. One of the most important attractions of a self-access facility is the opportunity to make friends.”³² In the case of FAUM, it allows an opportunity for reconnection between the students after they are separated and divided into their respective preferred departments of Architecture, Interior Design, and the Landscape students. Chen and Maynard further draw support from a study conducted in Saitama, Japan, by Hughes, Krug & Vye, which suggests that students at Kanda University visited the Self Learning Access Center (SALC) to meet their learning needs but returned to the center to fulfill their social needs.³³ This research, along with similar studies, underscores the significance of student-oriented spaces, as they offer students more than what conventional classrooms and labs can provide.

Many educational institutions worldwide are embracing these concepts by incorporating student-oriented spaces such as lounges and centers into their campuses. Unama’ki College at Cape Breton University provides a noteworthy example of such spaces. The Murdena Marshall Student Lounge is a prominent feature within Unama’ki College. It serves as a welcoming and positive environment for all members of the university community. This multifunctional space includes study pods, computers, printers, communal tables, sofas, comfortable chairs, and a well-equipped kitchenette stocked with food and snacks.³⁴ Student centers and lounges are designed to cater to students’ recreational and social needs while also benefiting faculty, staff, alumni, and visitors. These spaces enhance the overall quality of campus life, contributing to the academic and social well-being of the university community.

FIGURE 4: STUDENT CENTER KEY FEATURES CHART



It serves as a central hub where students congregate, interact, and engage in various activities beyond their academic pursuits. A student center or lounge is characterized by several key features:

- **Social Nexus:** It acts as a social nexus where students from diverse backgrounds come together to build connections, form friendships, and engage in social interactions, fostering a sense of community within the institution.

- **Academic Support:** Many student centers have study areas, computer labs, and tutoring services, which help students with their academic endeavors.

- **Multi-Purpose Environment:** These spaces are versatile and offer a range of facilities and amenities, including comfortable seating areas, recreational zones, study areas, dining options, and event venues, accommodating various aspects of student life.

- **Resource Hub:** Student centers often provide access to academic resources such as libraries, computer labs, tutoring services, and information desks, supporting students in their scholarly endeavors.

- **Cultural and Intellectual Exchange:** They facilitate cultural and intellectual exchange through the hosting of events, lectures, art exhibitions, and performances that promote diversity, creativity, and critical thinking.

- **Student Involvement:** Many student centers house student government offices, student organization meeting rooms, and activity spaces, enabling students to actively participate in clubs, organizations, and leadership opportunities.

- **Wellness and Recreation:** These spaces often incorporate wellness centers, fitness facilities, and recreational areas, promoting physical and mental well-being among students.

2.3.1: BENEFITS OF A STUDENT CENTER ON A CAMPUS

The Sothern Connecticut State University mentions in their mission statement for the new student center by stating the following, “As the “living room” or the “hearth” of the university, the Student Center provides for the services, conveniences, and amenities that full and part-time graduate and undergraduate students, faculty and staff need in their daily life on the campus and for getting to know and understand one another through informal association outside the classroom.”³⁵ The center serves as a unifying force in the life of the university, cultivating enduring regard for, and loyalty to, the university.

There are multiple benefits to having it on campuses, some of which are as follows:

- **Social Interaction:** These spaces encourage students to meet and connect with their peers, reducing isolation and fostering a supportive atmosphere.

- **Reduced Stress:** Relaxation areas, such as lounges, can help students unwind and alleviate stress between classes.

- **Enhanced Learning:** Access to academic resources and quiet study areas can improve students’ academic performance.

- **Personal Growth:** Involvement in student organizations and leadership opportunities within these centers can contribute to personal and leadership development.

- **Holistic Development:** Student centers often offer a range of services that cater to students’ physical, mental, and emotional well-being, promoting holistic development.

In summary, student centers and lounges have a deep-rooted history within university campuses, evolving to meet the changing needs of students.

2.4: CORE ISSUES: UNDERSTANDING THE NEGATIVE ASPECTS

As previously explained in chapter one, the concept of burnout is understood as a psychological syndrome involving prolonged responses to chronic interpersonal stressors. While the issue of burnout is not exclusive to students only, and can easily affect anyone in any working capacity, It seems to strongly prevail in people related to creative fields, such as, fine arts, film arts, design, planning, architecture among others. Kayla Roles explained in her research, that the condition of burnout has been observed among various creative fields and is proven to affect students as practicing professionals. It is known to have a greater impact on creatives due to their need to recharge their creativity. ³⁶

Various factors lead to burnout, stress, and the negative emotions, but studies in the matter suggest multitasking, unrealistic expectations, dysfunction, distracted environments, in addition to improper work life balance tend to be the leading contributors.³⁷ In the case of students, constant academic expectations, high distraction, lacking social life balance, and poor physical environment are the leading contributors to building stress and causing burnout. As a result, these factors lead the students to an early onset mental disorder, poor confidence, physical and mental exhaustion.³⁸

While stress and exhaustion are present in any field, be it student or professional, there are ways to limit the negative mindset and everything that comes with it. Through research, various methods have been identified to control those negative factors, such as, therapeutic approach in counselling and growing social life, physical health approach through gym and physical activity, and also the physical environment approach by providing positive and well design environments. Roles in her research echoes this by suggesting, strategies such as energy management, stress management, mental exercises, screening, and care reduce burnout.³⁹

In addition to strategies such as self-care, stress management and others, there’s research that promises that the built environment is also a critical factor that makes an impact on the subject’s wellbeing. Gary Evans in his research suggests that the built environment has direct and indirect effects on the mental health.⁴⁰ The physical environment plays a significant role in altering the psychological process, and the designers can use this knowledge to strategize models that can be applied to the built environments.

The next section explains a theory by Ruth Stevens that discusses and explores ways in which interior architecture can enhance individuals’ overall well-being within the physical environment. It delves into design strategies and design elements that contribute to the wellness and comfort of the students.

2.4.1: SUBJECT WELL BEING THEORY

According to Ruth Stevens, ‘the built environment that surrounds us is a factor we are constantly confronted with, and therefore, we interact with it, willingly or unwillingly.’⁴¹ Consequently, the built environment that surrounds us is bound to have an impact on our lives.⁴² This concept is also endorsed by the philosopher Alain de Botton (2006), who asserts that one of the great, yet often overlooked, factors influencing both happiness and misery is the quality of our built environment, or in other words, the architecture that surrounds us.⁴³ This notion implies that architecture, especially the interiors in which we immerse ourselves and spend the majority of our lives, becomes a significant force that shapes our well-being.

One way to attain a sense of well-being is through environmental and design factors. Orozco, in her chapter, asserts that ‘the house is like a living being, and if not done properly, it can lead to health issues.’⁴⁴ Similarly, the idea that the physical environment in which we invest our time and energy can either contribute to wellness or be a source of health problems. Achieving well-being is a major goal for most humans, and the decisions we make are often aimed at attaining and maintaining well-being. Peterman and Cain emphasize that ‘there is a growing societal need to prioritize the well-being of people.’ There is an increasing interest in dedicating time, effort, and attention to immaterial aspects of life, such as the re-evaluation of personal values, achieving a good work-life balance, maintaining a healthy lifestyle, and more.⁴⁵

As experts in physical environments, designers have the responsibility to create spaces that promote flourishing through the surrounding physical environment. Peterman and Cain mention, ‘it is intriguing to consider designed products, environments, and services not only as features of circumstances but also as platforms with which people can engage in intentional activities that contribute to their happiness.’⁴⁶ This concept of designing spaces and environments that directly contribute to people’s well-being and happiness presents an intriguing idea and opens up design and architecture to exciting and boundless opportunities.

The concept of flourishing is achieved for an individual when they are able to fulfill their psychological needs and are able to become their best version by applying and developing their talents.⁴⁷ Ruth in her theory also explains, “design for human flourishing (DFHF) means creating environments in which people can flourish – that is, supportive environments that stimulate, invite, and challenge people to interact with them by applying and developing their personal talents, thereby fulfilling their psychological needs”.⁴⁸ Based on that idea by Stevens, it could be argued that if the interior architect or the designer is able to provide the correct stimuli in the physical environment, then the act of flourishing and achieving wellbeing is possible.

Ruth Stevens suggests that ‘a possible key to achieving ‘Subject Well Being’ can be found in the quality of interior architectural design and, consequently, the skills of the interior architect.’⁴⁹ Ruth also highlights, ‘Studies specifically dedicated to Subject Well Being within spatial settings often focus on interior architectural elements at a micro level that contribute to a more enjoyable experience. These elements may include lighting fixtures, furniture arrangement, material choices, and more.’⁵⁰ Given that most post-secondary students typically spend their time indoors, in libraries, classrooms, study halls, studios, and student lounges, the Subject Well-Being theory seems to support the direct connection between interior architecture and the environment as sources of well-being for students.

Design for well-being, as it is currently explained, emphasizes the need for a deliberate focus on integrating considerations for well-being early in the design process.⁵¹ It can be argued that achieving subject well-being involves identifying and eliminating any negative aspects from the physical environment. However, doing so is not a simple task as multiple factors play a part in creating the overall environment, such as external stress, living conditions, personal habits and such.

The field of design is constantly evolving, shaped by new ideas, approaches, needs, desires, and perspectives. Positive design is a field that is still in development, and it is valuable to research how the positive built environment can influence the well-being of its occupants. As Ruth references Paul Hekkert’s work, ‘positive design is about the overarching question of the relationship people have with the designed world.’⁵² The journey towards well-being through a positive built environment is an ongoing effort, and current studies and research are proving to be significant. The progress and growth in this field offers designers opportunities to explore more practical ways and tools to apply these concepts in practice.

2.4.2: IMPLICATIONS FOR DESIGN

According to Loeckx, “we take Research by Design to mean; an exploration of the spatial possibilities and limitations of the site; ‘mapping’ the spatial sensibilities, interests, agendas, and skills of various urban stakeholders; [and] exploring the spatial convergences that could suggest new forms of collaboration and open up new trajectories of development”.⁵³ By following the data and the research, we as spatial experts should apply those models and practices into action in order to achieve the results we hope for. However, at this moment in time there is no set model for subject well-being that can be applied towards the flourishing of students, but we can follow models that have the potential to be so.

Ruth in her research model defines the PERMA model of Seligman (2011). The PERMA is defined as: “model rooted in positive psychology that contains the building blocks of human well-being”.⁵⁴ The five PERMA parameters are Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment (PEMRA).⁵⁵

- **Positive Emotion** is pleasure and enjoyment, fight negative bias, create upward spirals.

- **Engagement** becoming absorbed in an activity, achieving the state of being in the flow, a state of total engagement, losing sense of time.

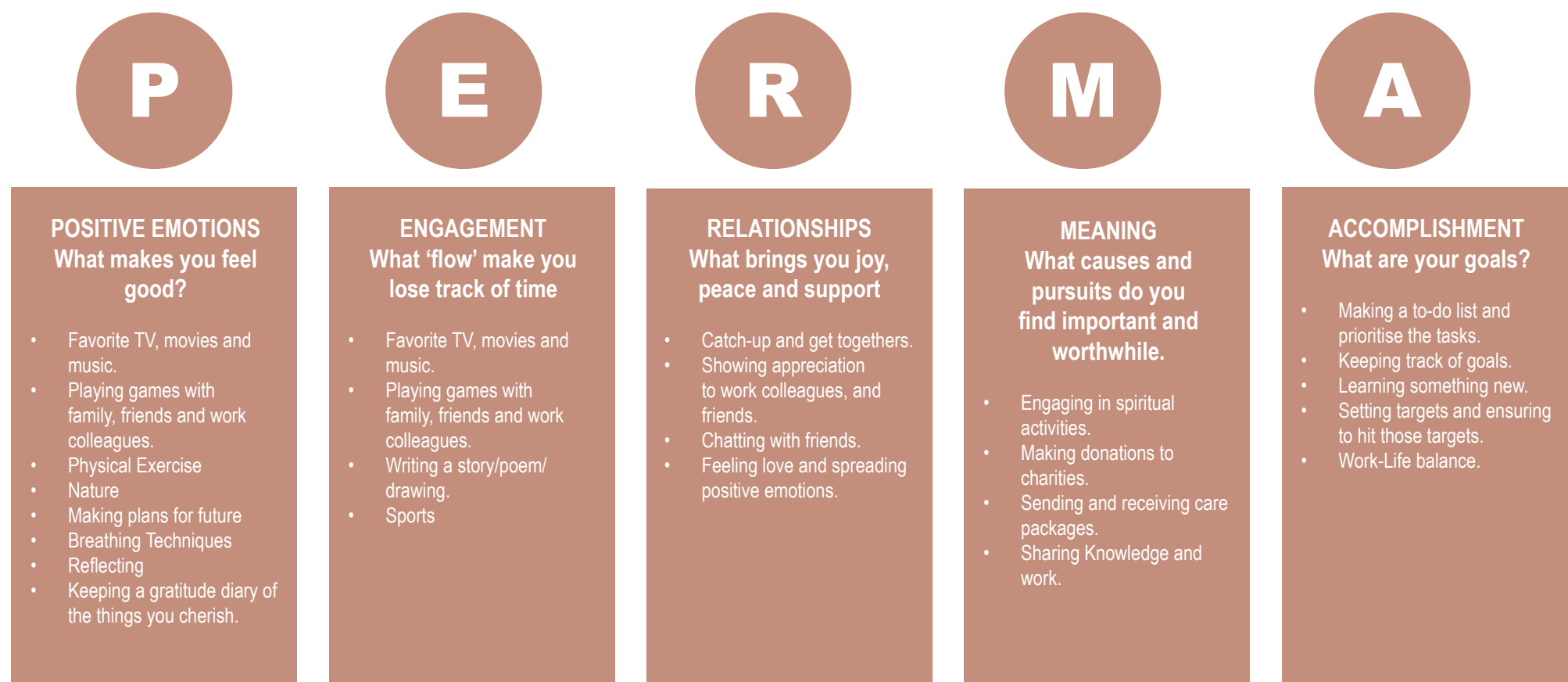
- **Relationships** having and maintaining a close and authentic connection to others, supporting a social network.

- **Meaning** having a purposeful existence, attaching oneself to something larger than life, spirituality, charity.

- **Accomplishment** gaining a feeling of success, having goals in life and committing to them which hopefully leads to achievements. This helps to build self-esteem.

The PERMA model is a general theoretical happiness model, not specifically applied to a particular target group. However, this is also why this model can be used in any given environment if applied strategically. As such, the PEMRA model provides opportunities for creating interior architecture that is targeted towards creating a positive and well-being environment for the students.

FIGURE 5: PERMA MODEL OF SELIGMAN (2011) - NEW MODEL FOR WELL BEING



The PERMA model can be integrated into a subject’s life with the purpose of augmenting the experience of well-being, possible actions and tools can be applied to each of the above mentioned five concepts.⁵⁶ As such, introducing students to a positive built environment like the proposed student lounge, could potentially promote positive emotions, engage students in positive stimuli and creates interpersonal relationships amongst their peers. This approach would allow the students to flourish, accomplish, and be able to grow while also being able to subdue negative stimuli.

2.5: INTRODUCTION - DESIGN THEORIES

Following are explanations of three key theories that provide the foundation for designing a supportive and conducive environment, particularly within the context of creating a secondary student center for architecture students. These theories offer valuable insights into various aspects of design and its impact on students’ well-being and academic success.

Although these theories provide theoretical data to suggest ideas and concepts that can be applied to achieve a certain desired outcome. However, the reality is that through this process, I can only speculate if these ideas and methodologies will provide the students with the help they need. Nonetheless, these theories will serve as the basis for the majority of the design decisions leading to the final proposed student center for the FAUM Students.

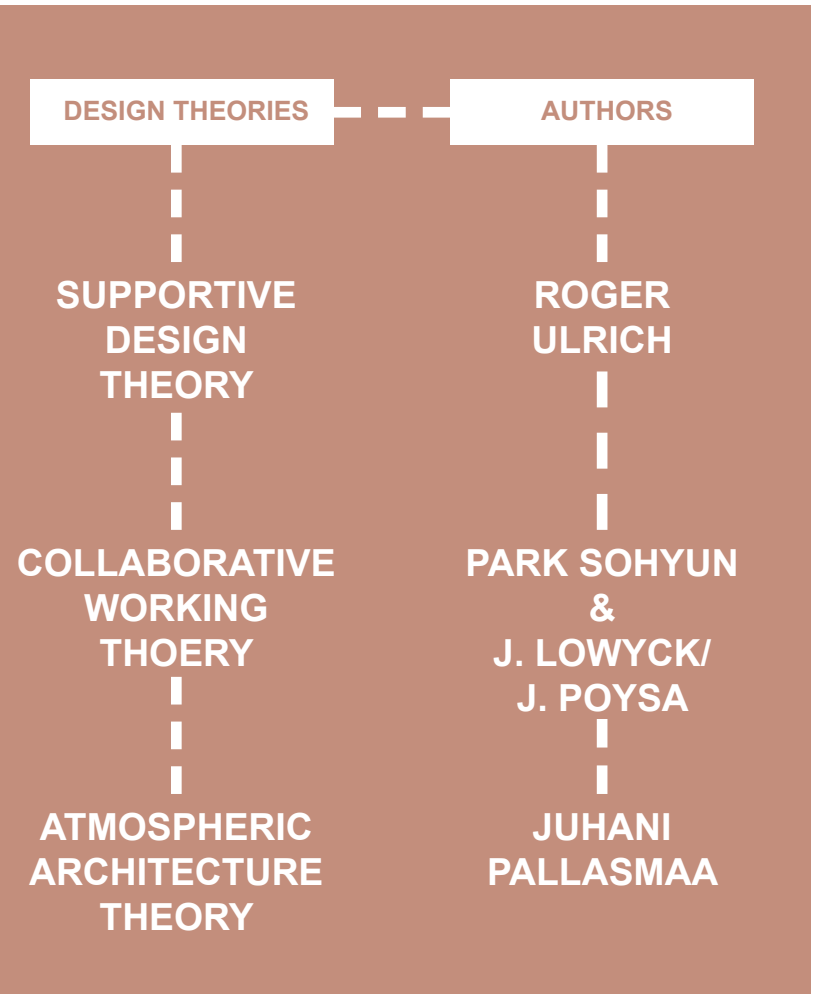
- Supportive Design Theory: Developed by Roger Ulrich, the Supportive Design Theory emphasizes the importance of fostering social interactions among individuals and between humans and their environment. It explores how design can encourage positive human-to-human connections and promote a sense of community.

- Collaborative Working Environment Theory: This theory, as articulated by Park Sohyun, J. Lowyck, and J. Poysa, underscores the importance of creating spaces that facilitate collaboration and peer interaction. It highlights the role of the physical environment in promoting teamwork, communication, and knowledge sharing among students.

- Atmospheric Architecture Theory: Juhani Pallasmaa’s Atmospheric Architecture Theory focuses on the creation of positive and emotionally resonant atmospheres through architectural design. This theory emphasizes the role of design in shaping the emotional and sensory experiences of individuals within space.

These theories collectively provide a comprehensive framework for understanding how design can influence the physical, social, and emotional aspects of the learning environment. They will serve as valuable guides in the development of the proposed secondary student center, with the aim of creating a space that nurtures well-being, collaboration, positive atmospheres, and supportive interactions among students.

FIGURE 6: DESIGN THEORIES



2.6: SUPPORTIVE DESIGN THEORY

The theory of Supportive Design was first introduced by Roger Ulrich in 1991. According to his research, the Supportive Design theory suggests that social interaction and social support can be instrumental in creating a positive and uplifting environment.⁵⁷ The theory takes a general stance that environments have the potential to foster improved outcomes and are linked to their effectiveness in promoting stress reduction, buffering, and coping.⁵⁸

While Ulrich’s primary focus during his research was on healthcare facilities and their patients, this theory can also be applied to support students in an academic setting. Similar to patients, students experience various types of stress. Ulrich suggests, ‘The term ‘supportive’ here refers to environmental characteristics that aid or facilitate coping and restoration with respect to stress.’⁵⁹

Ulrich’s idea suggests that by effectively integrating restorative and buffering effects on stress, and by implementing coping mechanisms and other helpful resources, supportive design can lead to improvements in various health outcomes for patients.⁶⁰

As a general rule, the process of supportive design begins by eliminating stressful and negative environmental characteristics that could have a direct adverse impact on outcomes.⁶¹ In the case of students in an academic setting, this may involve reducing academic pressure, managing stress levels, addressing negative peer pressure, and addressing stress related to heavy workloads or coursework.

Extensive studies in the educational environment conducted by Latane suggest that spatial closeness influences interactions between students.⁶² This idea aligns with the Collaborative Design Theory, which posits that positive social interaction and social support among student peers can result in positive influences, reduced stress, and improved moods.

As such, Ulrich’s theory proposes several design strategies that have the potential to reduce stress and improve outcomes. These design strategies include fostering control and maintaining privacy, promoting social support, and providing access to nature and other positive influences.⁶³ Ulrich also suggests additional design strategies to enhance social support, such as creating outdoor spaces for social interaction, incorporating movable furniture for group interactions, and creating a family-friendly environment, among others.⁶⁴

By implementing these guidelines and strategies, designers gain the ability to influence the built environment and, in turn, shape the mood and atmosphere of a given space, including academic settings for students.

Design Guidelines:

Foster Control and Privacy:

According to Ulrich, ‘control’ refers to an individual’s real or perceived influence on their circumstances and their ability to determine what others do to them. Extensive research has indicated that people who feel they have some control over their situations tend to cope better with stress and enjoy better overall health compared to those who lack a sense of control.⁶⁵

Ulrich’s research also highlights that the loss of control is a significant issue for patients, leading to stress and adverse outcomes.⁶⁶ Similarly, a considerable amount of stress and pressure experienced by students arises from a sense of losing control over their lives, social interactions, and experiencing isolation, which can contribute to stress and negative emotions. Ultimately, these emotions can lead to decreased performance, health problems, and various other issues among students.

In response, Ulrich suggests several design approaches to promote a sense of control, including the ability to control lighting in the space, having private areas, offering entertainment options such as television and music, and implementing effective architectural design in the space.⁶⁷

Foster Social Support:

According to Ulrich, ‘Social support’ refers to the emotional support and tangible assistance that individuals receive from others. Extensive research across a wide variety of situations has consistently shown that individuals who receive social support generally experience less stress and enjoy better health than those who are more socially isolated.⁶⁸

Building on this concept, implementing, and encouraging social and peer support among students in the new space can lead to reduced stress, decreased pressure, and overall academic performance improvement, fostering a positive and supportive environment. Ulrich suggests several design approaches to achieve this goal, including creating comfortable areas, providing movable seating, ensuring convenient access to food, facilitating easy access to communication devices, offering restrooms, designing attractive gardens, considering convenient overnight accommodations, and, most importantly, promoting the support of friends and family.⁶⁹

Foster Access to Nature and Other Positive Distractions:

According to Ulrich, ‘positive distractions’ refer to a subset of environmental-social conditions characterized by their capacity to improve mood and effectively promote restoration from stress. Ulrich further mentions, ‘Findings from several studies of non-patient groups, such as university students,

as well as patients, have consistently shown that simply viewing certain types of nature can significantly alleviate stress in as little as five minutes or less.’⁷⁰

Nature has always been one of the most widely used and accessible methods to address feelings of stress, pressure, or other negative emotions. Similarly, by incorporating biophilic elements into space, students may experience reduced stress and anxiety. According to Ulrich, the design approaches to achieve this could include providing nature window views, incorporating natural sounds in the space, introducing nature through installations like aquariums in common areas, fountains, and even displaying calming nature art on the walls.⁷¹

2.6.1: IMPLICATIONS FOR DESIGN

Ulrich suggests that when designers are able to implement evidence-based practices in the earlier stages of the project, not only is it cost-effective but can also lead to successful results.⁷² In a similar research space, Hilal Ozcan further strengthens the idea of creating a strong relation between physical space and social interactions.⁷³ By combining Ulrich’s research and guidelines with Ozcan’s research, there are three common elements that are identified, which are Spatial Arrangement; Ambience; and Symbolic Features. If these elements can be successfully implemented, especially in the early stages of the design phase of a given project, in this case the new student lounge and studio for the faculty of architecture students, the evidence suggest that desired outcomes can be achieved.

Ulrich suggests that when designers implement evidence-based practices in the early stages of a project, it not only proves cost-effective but can also lead to successful results. In a related research context, Hilal Ozcan strengthens the idea of establishing a strong connection between the physical space and social interactions.⁷⁴

Spatial Arrangement:

As the name suggests, spatial arrangement refers to the strategic design of floorplans and spatial layouts in the environment to encourage social interactions, enhance accessibility, facilitate wayfinding, increase opportunities, boost performance, and enable spontaneous activities such as group interactions, focus zones, social areas, and dining spaces, among others. According to Ozcan, ‘social interaction benefits from the location and proximity between spaces.’⁷⁵ This concept empowers designers to gain a deep understanding of the overall space, then segment it into various zones, divide spaces, and ultimately design it in a way that positively impacts the overall built environment.

Implementing this approach, it can lead to reduced distances between students and peers, easy access to the services the space offers, pocket spaces for private socialization, and spontaneous interactions.

Ambient:

Ambient simply refers to the concept of creating spaces that hold emotional and social value for the individuals within them. It often implies an environment that resembles the comfort of home, a place where most people feel safe, relaxed, and positive. In his research, Ozcan argues that ‘a sense of comfort and dwelling can enhance the full potential of interaction between occupants.’⁷⁶ This idea can be translated into creating spaces and environments that encourage friendliness, upliftment, and an overall welcoming atmosphere. It is widely understood that individuals absorb their surroundings, and as previously explained, these environmental surroundings can evoke specific emotions. Therefore, designing a space with a homelike ambiance can help students feel at ease, relaxed, open, and ultimately lead to reduced stress and an overall positive impact.

Symbolic Features:

This concept involves incorporating meaningful messages, ideas, or concept into interior spaces to convey positivity. According to Ozcan, this is achieved by ‘showing the choices of materials, color, textures, furniture, and finishes.’⁷⁷ By strategically integrating all these elements, students can establish a connection with the space and use these symbolic features as a means of support to foster a positive atmosphere.

2.7: COLLABORATIVE WORKING ENVIRONMENT THEORY

In various design disciplines, including architecture, interior design, fine arts, and entertainment fields such as television and music, studios play a vital role as a dedicated learning environment and a uniquely designated workspace. They serve as essential tools for learning and professional development, whether in academic or professional settings. An article highlights, ‘A design studio is a unique pedagogical format that has been widely adopted in the curricula of design fields.’⁷⁸

Especially in academic settings, the studio culture holds a crucial role in education, as it differs significantly from most other academic fields, which tend to be theory-based, such as Science, English, Math, or other similar subjects. For example, research articles suggest that in architecture schools, studios are integral to curriculum development. They facilitate the teaching and learning of skills and approaches necessary for success in fields like architecture.⁷⁹

A significant aspect of the studio environment, particularly in academic settings, revolves around collaborative work and group activities, such as group projects, idea sharing, and peer-to-peer critiques. Numerous studies have shown that collaboration can lead to both progress and setbacks, depending on the context and factors influencing the work.

Park, in his Collaborative Working Theory (CWT), discusses, ‘Discourse on the importance of collaboration has permeated the broader academic landscape across various disciplines. In the broader societal context, this phenomenon is intertwined with socioeconomic, environmental, and political issues that are becoming increasingly distinct and specialized.’⁸⁰ Park then suggests, ‘Design studios in fields like landscape architecture, architecture, and planning often engage in collective and comprehensive projects, emphasizing the creation of design objects (e.g., landscapes, buildings, public/private spaces) for the shared benefit of others.’⁸¹ This underscores the idea that the study of architecture is a collective endeavor, aimed at benefiting others and fostering a highly collaborative environment.

Park mentions, ‘It is widely recognized that design studios provide an ideal environment for teaching design as a creative and artistic act, as well as for exploring diverse design inquiries within studio projects.’⁸² He further notes that most current studios are influenced by traditions associated with the Ecole des Beaux-Arts, dating back to the seventeenth century, or the alternative approach associated with the Bauhaus Model in Germany, which emerged in the nineteenth century.⁸³ These two perspectives have significantly shaped the field of architecture and design, and the studio culture itself is deeply rooted in the methodologies propagated by these schools, particularly the Bauhaus model. ⁸⁴

However, with new research and studies, it’s becoming evident that certain design education approaches may require a significantly different setup to be effective. Park notes, ‘Studio education can serve as an ideal platform for fostering skills such as communication, decision-making, and collaborative performance among the various stakeholders engaged in design challenges...However, collaborative work is often not the prevailing norm in many studio classes’.⁸⁵

In their research, Lowyck and Poysa emphasize, ‘Learning is an active, goal-oriented, and self-regulated process during which the learner continuously constructs meaning from environmental stimuli.’⁸⁶ Therefore, the learning environment plays a crucial role in the entire learning process, and one of the most critical factors, particularly in design education, is collaborative work. According to Lowyck and Poysa, there has been a growing emphasis on collaborative learning theories, leading to the development of team-based learning designs.⁸⁷

Collaborative learning advocates for support environment that promotes and supports the co-construction of knowledge and the co-design of the learning environment. The research into collaborative learning highlights, ‘Instructional design is not limited to the mere delivery and pacing of information; instead, learners actively engage in a continuous flow of information and communication.’⁸⁸

A collective learning environment not only proves beneficial but also carries significant impact as it creates opportunities for co-learning and idea sharing. Bertram, in her study, suggests that a collaborative learning environment and learning culture exhibit several key characteristics, including engagement, participatory actions,

individualized support systems, collaboration, facilitation of others’ learning, a focus on community behaviors, and an improvement-oriented approach.⁸⁹

Thus, a collective and collaborative environment, particularly for students in architecture and design, serves as an excellent tool by providing them with the support of their peer community and, simultaneously, equips them with essential skills such as community learning and effective collaboration, engaging in various participatory activities.

Park discusses collaborative learning in the context of design studios, noting that ‘The need and demand for collaboration in a design studio are influenced by both internal and external factors.’ Internal factors encompass individual characteristics such as the inclination towards individuality, personality traits like introverted or extroverted tendencies, methods for conveying design intent, and the ability to maximize learning through synchronous collaboration. ⁹⁰

Furthermore, Park adds, ‘This shift also necessitates that studios provide a collaborative environment where individuals with diverse backgrounds can effectively communicate, thereby enhancing learning, improving design outcomes, and promoting career development’.⁹¹

Collaborative learning is not only beneficial for engagement and collective learning but also serves as an incredibly powerful tool for bridging gaps between various disciplines. Park emphasizes, ‘Since collaboration is the only means to comprehend incredibly complex and multifaceted projects that require diverse knowledge and training, exposing students to collaborative education can foster essential skills and the right attitudes for collaborative projects in their professional practice.’⁹²

In line with this perspective, the Planning Accreditation Board (PAB) recognizes collaboration as one of the core values of the profession, alongside stewardship, communication, and leadership.⁹³

Citing Wilson and Zamberlan in his research, Park underscores the significance of creativity development in student groups, noting that ‘The importance of creativity development in student groups has been emphasized by many scholars who see creativity as both a function of innate talent and collaborative exploration through the co-creation process.’⁹⁴ However, it’s important to understand that the relationship between creativity and collaboration is not strictly one of cause and effect.

Park further explains, ‘The relationship between the embodiment of creativity and the extent of collaboration may not be entirely linear. The creative process and outcomes that organically emerge through collaborative work have the potential to yield innovation and serendipitous learning outcomes.’⁹⁵ This suggests that, while collaboration may not guarantee specific designed outcomes, it plays a

vital role in the student learning process and in nurturing skills for future scenarios and situations.

Co-creation is essential to grasp the dynamics of collaboration and creativity in the ever-expanding field of design. To put this theory into practice, the most effective approach is to establish a collaborative student studio design facility. Park emphasizes, ‘The collaborative space provides an environment for creativity to flourish.’⁹⁶ In this context, the studio facility for architecture students serves as a collaborative hub for learning and generating a multitude of outcomes. This concept views collaboration as a form of ‘collective intelligence.’ ⁹⁷

The idea of collaboration encourages cross-communication across various fields, fosters idea generation, connects different facets of practices, and builds bridges that benefit not only students but also the broader field of design in its larger context.

2.7.1: IMPLICATIONS FOR DESIGN

The Collaborative Working Theory can be integrated into the proposed studio and student lounge as a source of learning, relationship building, and a peer support system. Lowyck and Poysa suggest, ‘The evolution in both the nature and function of instructional design challenges the search for adequate interventions to enhance efficient and effective learning.’⁹⁸ This necessitates an understanding of the learning conditions that instructional agents encounter in order to facilitate interactions between learners and their environments.’⁹⁹ Hence, it is imperative that the learning environment remains an integral part of the entire process, as it significantly influences the final outcome.

In his research, Park conducted case studies of experimental collaborative studios and their impact on the learning outcomes of a group of 90 design students. These students were enrolled in advanced urban design and regional planning studios during the fall semester of 2015-16 and the spring semester of 2016-17 in the Department of Landscape Architecture at Texas Tech University.¹⁰⁰ The primary aim of these specially designed studies was to foster both individual and collaborative thinking in students, ultimately leading to the creation of in-depth and collective design proposals for their projects.¹⁰¹

While a variety of methods and techniques were employed in this research, the primary focus was on understanding the underlying effects of collaboration among students. The conclusion drawn at the end of these special collaborative studios indicated that collaboration could result in both progress and setbacks in the learning process, depending on the approach adopted, whether active or passive.¹⁰² However, in most cases, the comprehensive data revealed that students’ collective learning was evident in diverse groups with mixed backgrounds, abilities, and personalities. Undergraduate students demonstrated significant growth in the learning process.¹⁰³

Park also found that extroverted students played a valuable role in helping introverted students expand their ideas through group efforts and collective learning.¹⁰⁴ Therefore, by advocating for a dedicated space that fosters a collaborative environment, students of diverse personalities, backgrounds, circumstances, and abilities can all contribute to each other’s growth. While collaboration isn’t a casual endeavor, an iterative collaborative process can lead to creative outcomes in the final product. Additionally, Park suggests that implementing project peer-to-peer evaluations could have tangible impacts on students’ behavior.¹⁰⁵

The integration of a collaborative working environment would not only positively impact the learning process but also provide students with a robust support system. This platform would allow students to assist each other, offer support, foster growth, and act as a buffer against negative stressors such as heavy course loads, academic pressure, external stress factors, and similar negative emotions. Moreover, depending on the methods employed within a collaborative setting, the students can yield a multitude of solutions to a specific problem, as each individual contributes their unique ideas to the table.

FIGURE 7: COLLABORATIVE WORKING ADVANTAGES



2.8: ATMOSPHERIC ARCHITECTURE THEORY

The Architecture’s Atmosphere:

Architecture and interior design play profound roles in our daily lives, shaping our experiences within the built environment. The words of renowned architect Frank Lloyd Wright emphasize how our well-being and experiences are intricately connected to the spaces we inhabit. Wright stated that whether we are consciously aware of it or not, the atmosphere and design of our surroundings have a substantial influence on our emotions, behaviors, and overall quality of life.¹⁰⁶

Juhani Pallasmaa’s insights delve into the subtle yet powerful impact of architectural atmosphere on our senses and emotions. He suggests that architectural atmospheres envelop us in a holistic manner, much like sensory experiences such as sound and smell. These atmospheres encompass the overall mood, feeling, and ambiance of a space, affecting us on a subconscious level before we consciously process the individual components of the environment.¹⁰⁷

Wright and Pallasmaa’s perspectives underscore the importance of creating intentional, supportive, and emotionally resonant architectural atmospheres within educational spaces like the proposed secondary student center and support space. By understanding how design influences our emotions and experiences, designers can work to create environments that promote well-being, comfort, and positive interactions, contributing to the overall success and happiness of students.

The interplay between architectural form, space, and our perception as individuals within those spaces has been a fundamental consideration throughout the history of architecture. Architects and designers have long recognized the expressive power of form and space in shaping the atmospheres of built environments. Juhani Pallasmaa’s insights emphasize the significance of our perception and interaction with architectural elements. He highlights that our experiences with architecture are multi-sensory, emotional, and embodied.¹⁰⁸ This perspective underscores that architectural design isn’t solely about creating visually appealing forms but also about crafting environments that engage our senses, emotions, and physical presence. In essence, architecture has the capacity to evoke particular moods, sensations, and emotions within us as inhabitants.

However, as participants what we are primarily concerned with is our perception of those forms and space. Pallasmaa wrote “It is this omnidirectional, multisensory, embodied and emotive counter with space and place that makes us insiders and participants.”¹⁰⁹ That is because form and space are primarily what dictates the architecture. It is through the manipulation of form and space that designers and architects can create different atmospheres as built environments. The analogy to atmospheric paintings by artists like William Turner, the Impressionists, and Abstract Expressionists is apt. Just as these artists use brushstrokes, colors,

and compositions to convey emotions and atmospheres in their paintings, architects use architectural elements to craft environments that communicate and influence our feelings and experiences. Therefore, in the context of the proposed student center, careful consideration of architectural atmosphere and interior design choices can contribute to creating an atmosphere that supports well-being, collaboration, and positive interactions among students.

Pallasmaa wrote, “Atmosphere is certainly closely related with the spirit of place, its genius loci, as well as our empathic and affective capacities.”¹¹⁰ It’s the invisible yet palpable quality of a space that can have a significant effect on our experiences within it. Pallasmaa’s reference to “genius loci,” or the spirit of a place, underscores the idea that each place has a unique character and atmosphere, and this can deeply affect our perceptions and emotional responses. Moreover, he highlights the idea that mood and emotions often operate on a subconscious level, influenced by the atmosphere of a space.¹¹¹ This resonates with the understanding that our feelings are not solely the result of rational thought but are also influenced by our surroundings.

The concept that there is no cognition without emotion, as proposed by Mark Johnson, underscores the interconnectedness of our cognitive processes and emotional experiences.¹¹² In architectural design, this means that creating spaces that evoke positive emotions and moods can enhance the overall quality of a building or environment. This is particularly relevant in the context of the proposed student center, where the aim is to create an environment that promotes well-being and positive interactions among students.

Pallasmaa further argues the notion of the atmospheric sense as a potential “sixth sense” is a compelling perspective on our perception of the built environment. It underscores the idea that our experience of a space goes beyond the traditional five senses and encompasses an overarching sense of atmosphere that influences our emotions and mood profoundly.¹¹³ This theory suggests that our initial impression of a space is not based solely on focused, deliberate observation but is, instead, a holistic integration of sensory inputs. This aligns with the idea that our emotional responses to spaces are often immediate and intuitive, driven by our overall sensory experience rather than rational analysis.¹¹⁴

Pallasmaa’s description of the interaction of senses and the atmosphere as a “moment of realization” beautifully captures the essence of how we perceive spaces. It highlights the dynamic exchange between the materiality of the built environment and the immateriality of human perception and imagination.¹¹⁵ In this exchange, spaces can evoke emotions, memories, and associations that enrich our experience and make architecture a deeply human and emotional art. In the context of designing the proposed student center, the aim is to craft a space that, through its atmosphere, fosters well-being, relaxation, and positive social interactions, enhancing the overall quality of the environment for its users.

The Built Environment and Atmosphere:

In both theory and practice, the built atmosphere is intricately woven into the physical materials, the use of colors, interplay of shade and shadows, manipulation of light, orchestration of sound, and even the subtle scents within a space. These elements converge to form a holistic perception of space, a fusion of its sensory qualities. Tim Ingold, in his work “Elements of Architecture,” presents a compelling argument, contending that architecture is primarily defined by its atmosphere, which is substantiated by the tangible forms but not confined to them. Affect, emotions, mood, rhythms, light, air, and weather are fundamentally integral to a building, often even more so than its structural walls and ceilings.¹¹⁶

The relationship between individuals and the architecture of a building encompasses not only physical interactions but also psychological connections. In her thesis, Ricci asserts that buildings have the capacity to evoke a sense of pleasure in people. This pleasurable response is triggered by specific architectural elements that our brains recognize as positive stimuli.¹¹⁷ Expanding on this idea, it can be argued that a positive atmosphere in architecture can elicit a range of positive emotions, ultimately fostering feelings of fulfillment and accomplishment.

Designers can adopt this pattern as a guiding principle to create buildings and spaces that serve as more than mere gathering places. By applying these patterns and integrating them into their designs, designers can craft-built atmospheres that evoke positivity and pleasure in those who inhabit them. Ricci further expounds that architectural patterns are often referred to as rhythm, as they guide the eye from one focal point to another. These patterns not only capture attention but also contribute to the overall beauty and aesthetic appeal of a structure or room.¹¹⁸

The built environment and the atmosphere created by architectural elements significantly influence the mood within a given space. Loris Malaguzzi, an Italian professor and psychologist, referred to the environment as a “third teacher” in the 1940s. He likened the role of the environment to that of parents for young children and teachers for students, emphasizing that the school building itself teaches.¹¹⁹

A practical example of this concept is evident in Marc Mimram’s extension for the Nantes Superior National School of Architecture. Mimram aimed to make students perceive the structure in a way that it didn’t feel constraining but rather liberating.¹²⁰ Therefore, it becomes evident that creating a positive built environment for students is crucial in addressing the issues of negative emotions and stressors discussed throughout this document. By designing spaces that encourage positivity and well-being, designers and educators can contribute significantly to students’ mental and emotional health.

2.8.1: IMPLICATIONS FOR DESIGN

Enhancing the stimulation and interest levels within architectural and interior spaces can be a highly effective way to support students from the Faculty of Architecture and Design. As mentioned by Pallasmaa, the experience of architecture involves multiple senses, creating a multi-sensorial space like rooms that contain controlled acoustics, special flooring and high sensorial equipment’s that can ignite the students’ imagination and evoke positive emotions.¹²¹ Creating such spaces not only appeals to students but also addresses the core issues, making it a critical requirement within educational institutions.

In line with this perspective, Heslinga emphasizes the immediate and emotional impact of good design. When design is intentional and tailored to the users’ needs, it has been shown to yield positive psychological benefits. It elevates the quality of life for individuals and society.¹²² Therefore, investing in intentional and user-centric design such as social hubs, artistic and creative spaces, cafes, wellness rooms, and flexible learning environments for educational spaces can potentially enhance the well-being and academic experience of students.

Pallasmaa’s work in ‘The Eyes of the Skin’ provides valuable insights into spatial qualities that, when incorporated into architectural atmospheres, can enhance the overall spatial experience. These qualities have the potential to empower designers to create buildings and interior spaces that evoke positive emotions, including pleasure, accomplishment, and a sense of flourishing.¹²³ These concepts align with the research conducted by Peter Lewinski, who explores the connection between classroom architecture and academic student performance. Additionally, Peter Zumthor’s works on *Atmosphere: Architectural Environments* further delves into these spatial qualities. The integration of these principles can significantly contribute to the creation of enriching and uplifting educational environments.

The following five spatial qualities by Peter Zumthor include:

Materiality:

Materiality is indeed a fundamental and influential spatial quality in architecture and design. It plays a central role in shaping the visual, tactile, and sensory experiences of a space. As highlighted by Zumthor, different materials can produce varying textures, colors, and effects within a space, influencing the overall atmosphere and emotional response of its occupants.¹²⁴

Zumthor’s insight that even materials of the same type and surface can evoke different sensations underscores the importance of material selection and treatment in architectural design. Each material has a unique story and history, and these narratives contribute to the overall character of a space.¹²⁵ Pallasmaa’s perspective on connecting with a space through its materials, including the memories and traditions associated with them, emphasizes the rich, multi-sensory dimension that materials bring to architectural atmospheres.¹²⁶

For designers, the intentional choice and application of materials can significantly impact the success of a design in creating a desired emotional and atmospheric quality within a space. It is through the careful consideration of materiality that architects and interior designers can craft environments that resonate with their users on multiple sensory levels, contributing to positive experiences and emotions.

Light and Shadow:

Lighting, both in terms of quantity and quality, is a powerful tool in architectural and interior design. As mentioned by Lewinski, the quality of light is an essential aspect that influences the perception of comfort and atmosphere in a space.¹²⁷ Designers recognize that lighting can be a transformative element, allowing them to craft specific moods, atmospheres, and spatial experiences.

The interplay of light and shadow is a dynamic aspect of lighting design that architects and interior designers leverage to create unique and engaging environments. Light can reveal architectural details, define spatial boundaries, and establish focal points, while shadows can soften edges, add depth, and promote a sense of intimacy.¹²⁸

What makes lighting particularly intriguing is its capacity to evoke different emotional responses and sensory experiences in individuals. Designers can harness this potential by strategically manipulating light and shadow levels to elicit specific emotions and create meaningful connections with space. As Pallasmaa notes, light and shadow can contribute to feelings of control, community, and solidarity, reinforcing the idea that lighting design extends beyond mere functionality to deeply influence the perception and emotional impact of a space.¹²⁹

Acoustics:

Acoustics plays a pivotal role in shaping the atmosphere and character of architectural and interior spaces. As highlighted by Pallasmaa, sound is a crucial medium through which architecture communicates with its occupants. It serves as a bridge, connecting people to the space they inhabit, and it contributes significantly to the overall experience of that space.¹³⁰

One of the unique qualities of acoustics is its omnidirectionality, which means that sound emanates from all directions within a space. This omnipresent aspect of sound enables it to define the spatial qualities and character of an interior. Sound, in essence, unveils the personality and atmosphere of a space, making it an indispensable element in the design of environments. Historically, architects and designers have harnessed the potential of acoustics to create captivating interior spaces. The way sound behaves within a space, including its reverberation, resonance, and diffusion, can be intentionally manipulated to evoke specific emotions, moods, and sensory experiences.

It's noteworthy that, traditionally, architectural representation has leaned heavily towards visual aspects, often neglecting the importance of the auditory and other sensory dimensions. However, as Souza points out, sound is a dynamic and ever-changing element that interacts with both the space and its occupants in unique ways, contributing to the rich tapestry of the architectural experience.¹³¹ In this context, the role of acoustics extends beyond functional considerations to become a powerful tool for designers in crafting immersive and emotionally resonant interior environments.

The concept of noise, as an undesirable element of sound, is indeed a significant consideration in architectural and interior design. Noise, in this context, refers to unwanted, disruptive, or intrusive sounds that can adversely affect the occupants of a space. While sound itself is a vital element of architectural experience, noise can have detrimental effects on both learning outcomes and the overall health and well-being of individuals within a space.

Research, as highlighted by Lewinski, has demonstrated that noise can have a profound impact on various aspects of human performance and academic achievement.¹³² Noise pollution can interfere with concentration, focus, and cognitive processes, making it challenging for individuals to engage in activities that require attention and concentration, such as reading, writing, or comprehension.¹³³Consequently, it can lead to reduced learning outcomes and academic performance.

For designers, understanding and managing acoustical properties within architectural atmospheres is not only important but also essential. It provides an opportunity to create environments that are conducive to learning, productivity, and overall well-being. By implementing effective soundproofing and acoustic design strategies, designers can mitigate the negative effects of noise and ensure that the auditory environment supports the intended functions and activities of the space.

Color:

The use of color in interior spaces is a powerful tool that can significantly influence the emotions, mood, and performance of individuals within those spaces. Color psychology is a well-established field of study that explores how different colors can evoke specific emotional and physiological responses in people. As the research highlights, color has the potential to impact various aspects of human experience, including stress levels, psychological functions, and academic performance. The example of “baker-miller pink” is a fascinating one, as it suggests that certain colors can have a calming and stress-reducing effect.¹³⁴

For interior designers, understanding the psychological effects of colors is crucial when planning and designing spaces, especially those intended for specific functions, such as classrooms, offices, or healthcare facilities. By selecting appropriate color palettes, designers can create environments that promote

well-being, focus, and productivity. Lewinski further adds based on the research done by Elliot et al, “exposed participants to the color red, green, or black before giving them a test; they found that exposure to red, even if participants were not consciously aware of the exposure, impaired their academic performance”.¹³⁵ As such, there is a relationship between the use of colors in interior spaces and the mood and performance of the people inhabiting it. The current research suggests that the exposure to color red, especially in students tend to have negative effects on their performances. Whereas the color green was found to have been associated with positive emotions and was determined best to apply in classrooms.¹³⁶

In summary, the choice of colors in interior design is not merely an aesthetic decision but a deliberate means to shape the emotional and cognitive experiences of those who occupy the space. Designers have the opportunity to use color as a tool for enhancing the overall quality and functionality of interior environments.

Temperature:

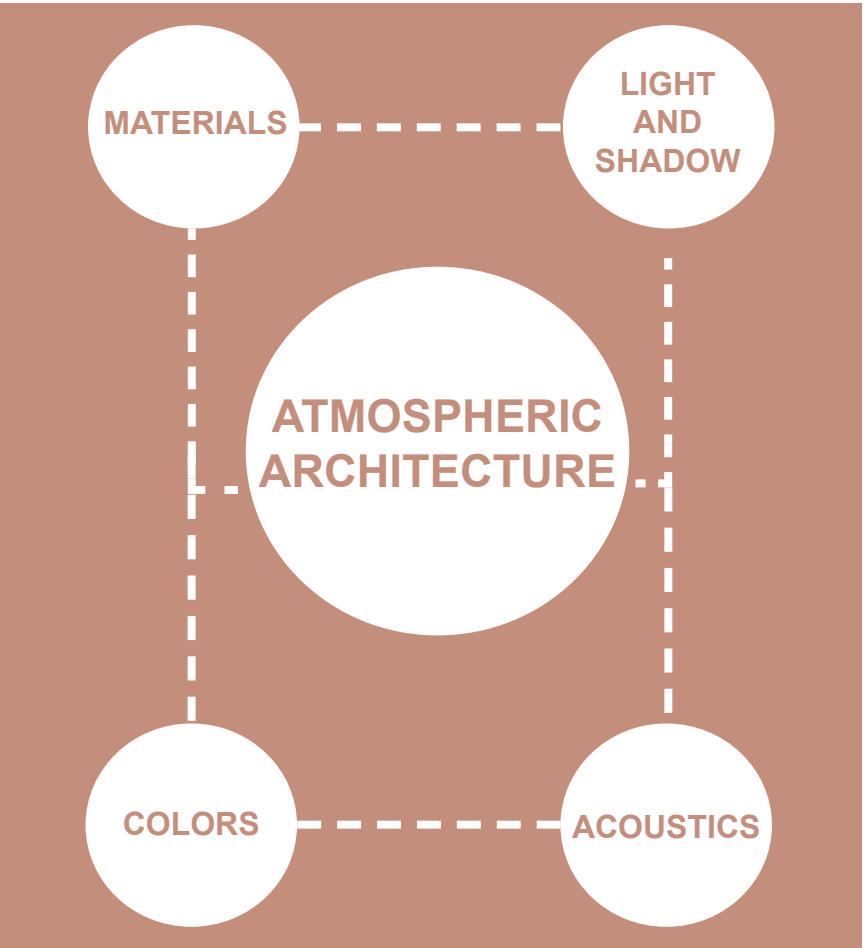
The role of temperature in shaping our perception of a space and influencing our comfort and emotions is indeed significant. Research underscores the importance of considering temperature control as a crucial element in architectural design, especially in settings like classrooms and educational spaces. The concept of home being associated with intimate warmth and comfort is a testament to the profound impact that temperature can have on our emotions and our sense of well-being. Marcel Porust suggests, it is like an immaterial alcove, a warm cave carve into the room itself, a zone of hot weather with floating boundaries”.¹³⁷ Maintaining an optimal temperature within a space is not only about physical comfort but also about creating an environment where people feel at ease and can focus on their tasks effectively.

Poorly maintained air conditioning systems can introduce discomfort due to noise, which can, in turn, affect concentration and learning in educational settings.¹³⁸ This reinforces the idea that architects and designers should take a holistic approach, considering how various elements of the environment interact with one another to create a cohesive and supportive atmosphere. The adaptability of temperature control in design is a valuable tool. Different educational activities may benefit from varying temperatures. For instance, a warmer and cozy atmosphere might be conducive to small group discussions, while a cooler temperature could be preferred in a lecture hall. Therefore, having the means to adjust temperature settings in different parts of an educational facility can enhance the overall learning experience.

2.9 CHAPTER CONCLUSION

This chapter examined the four theories: atmospheric architecture by Juhani Pallasmaa and Peter Zumthor. Supportive design by Roger Ulrich. Collaborative working environment by Sohyun Park and J. Poysa and J.Lowyck. Subject well-being by Ruth Stevens. All these authors essentially talk about the relationship between individuals and the built environment, through their own respective qualities and qualitative factors.

FIGURE 8: ARCHITECTURAL ELEMENTS



For instance, the first focuses on an all-encompassing theory that talks about the surrounding environment in its materiality, fixtures, and furniture. The second theory encourages designers to use the available tools in architecture to create positive environments that can encourage positivity in individuals, which then in turn, evoke moods that would lead to heightened levels in performance leading to less stress and less negative emotions in the individual students. The third and fourth focus on a collaborative environment and focuses on the design that surrounds the individuals and how the environment can either influence growth or hinder performance.

These theories will play a crucial role in creating and facilitating the design of an environment where student experiences and reactions can be anticipated and addressed positively. By implementing these theories in this practicum, the aim is to provide valuable and uniquely tailored support to students in the faculty of architecture at the University of Manitoba. The overarching goal is to assist them in making healthier choices, offering support, and fostering an environment that prioritizes wellness and positivity. Furthermore, these theories will serve as a catalyst for generating innovative ideas, best practices, and tangible outcomes, including recommendations for spaces, built environments, material selections, and more.

2.10: CHAPTER SUMMARY

THEORY	AUTHOR	DESCRIPTION	DESIGN IMPLICATION
SUBJECT WELL BEING THOERY	RUTH STEVENS	1. Design Environments beneficial to subjects using them. 2. Interior spaces can impact moods, performance levels and can encourage pleasurable experiences. 3. The appropriate spatial conditions can directly influence the subject's conditions. 4. Interior spaces can help flourish people and help them perform at their highest.	The PERMA Model of Seligman Positive Emotion: Pleasure and Enjoyment Engagement: Introducing absorbing and positive activities. Relationships: Social Connection. Team Building. Networking. Meaning: Having a purposeful and meaningful existence. Accomplishment: Feeling of success and accomplishment
SUPPORTIVE DESIGN THOERY	ROGER ULRICH	1. The Supportive Design theory suggests that social interaction is one of the leading ways to tackle stress. 2. Human-human interaction can result in uplifting and positive environments. 3. Human-environment interaction can influence the mood and can lead to a positive outcome. 4. By eliminating the negative aspects from the environment designers can potentially dictate the effect on the outcome.	Encouraging Design solutions that facilitate: Spatial Arrangements: Control and Privacy Ambient: Social Support and Home like Environment Symbolic Features: Nature and Meaningful Positive Distractions

2.10: CHAPTER SUMMARY

THEORY	AUTHOR	DESCRIPTION	DESIGN IMPLICATION
COLLABORATIVE WORKING ENVIRONMENT THEORY	SOHYUN PARK + J. POYSA AND J. LOWYCK	1. Theory encourages learning and teaching through social collaboration. 2. Encourages, promotes, social support. 3. Highlights the importance of learning in a group setting, that leads to improved learning. 4. Creates a system of support and relation building.	- Collaborative learning design studios. - Designated spaces for co-creation and collaboration for students in studios. - Promotion of collaborative work and exercises. - Team building and stronger interpersonal relationships.
ATMOSPHERIC ARCHITECTURE THOERY	JUHANI PALLASMAA + PETER ZUMTHOR	1. Interior or exterior spaces can influence the experience through its various physical elements. 2. Designers can use the atmosphere to influence the mood of the built environment. 3. Designers can control the atmosphere by influencing the occupant's senses through materiality, lights, sounds and more.	Providing a multi-sensorial and omnidirectional spatial and interior experience to ignite and encourage positive experience for the students. The Architectural Qualities include: -Materiality - Light and Shadow - Acoustical Properties - Color and Shade - Temperature

CHAPTER

03

PRECEDENT STUDIES

TOPIC 3.1: INTRODUCTION

TOPIC 3.2: STUDENT-HUB NOTRE DAME UNIVERSITY OF AUSTRALIA

TOPIC 3.3: CHAPMAN UNIVERSITY - SWENSON FAMILY HALL OF ENGINEERING

TOPIC 3.4: BANGKOK UNIVERISTY – STUDENT IMAGINE LOUNGE

TOPIC 3.5: CHAPTER SUMMARY

3.0: INTRODUCTION

ANALYTICAL FRAMEWORK:

This chapter is an analysis of three carefully selected projects that provides valuable insights and support for the design decisions, intentions, and approaches in this practicum. These precedent studies contribute to the research questions posed earlier. The selected projects have been assessed based on the subject matter discussed in Chapter 2, particularly focusing on the following theories: Atmospheric Architecture Theory, Supportive Design Theory, Collaborative Working Environment Theory, and Subject Well Being Theory.

The primary objective of this chapter is to demonstrate how the theoretical framework (figure 4) outlined earlier in chapter 1 can be expressed in interior space optimized for the student community. Consequently, each precedent study will consist of four distinct sections:

- 1. **Project Description:** This section provides essential details about the project, including its size, location, designer information, and the purpose behind its construction.
- 2. **Project Context:** This section identifies noteworthy design strategies employed in the project that could influence the design of the new student space. The section also identifies aspects that may need adjustments or improvements to better align with the goals of this practicum.
- 3. **Theoretical Relevance:** This section will reestablish the connection between the architectural and interior design theories from chapter 2, serving as the foundation for the design analysis of each project.
- 4. **Design Analysis and Implications:** Building on the theoretical context, this section will analyze the design to understand how specific elements will impact the practicum project and might drive many of the decisions regarding how the precedent study can shape and establish design standards for the practicum.

To substantiate these claims, I will explore similar spaces, interiors, and projects in other educational institutions that have pursued similar concepts. This research into existing projects will provide valuable insights into systems, designs, and styles that can be applied to the practicum project.

STUDENT HUB - NOTRE DAME. UNIVERSITY OF AUSTRALIA.



FIGURE 9 - STUDENT HUB NDU
IMAGE CREDITS: PETER BENNETTS

SWENSON FAMILY HALL FOR ENGINEERING STUDENTS - CHAMPAN UNIVERSITY



FIGURE 10 - SWENSON FAMILY HALL
IMAGE CREDITS: LAWRENCE ANDERSON

STUDENT IMAGINE LOUNGE - BANGKOK UNIVERSITY



FIGURE 11 - IMAGINE LOUNGE
IMAGE CREDITS: WINSON TUNGTHUNYA

3.1



FIGURE 12 - IMAGE CREDITS: PETER BENNETTS

PROJECT DESCRIPTION

NAME: STUDENT - HUB NOTRE DAME UNIVERSITY OF AUSTRALIA	LOCATION: FREMANTALE, AUSTRALIA
DESIGNERS: COX ARCHITECTURE	YEAR BUILT: 2017
TPOLOGY: STUDENT LOUNGE AND RECREATIONAL	AREA: 9,848

Key words: Social Spaces; Informal Learning; Student Clubs; Activities; Blend of Academia and Fun; Breakout Spaces

3.1.2: PROJECT CONTEXT

During the Fremantle's economic decline, where multiple buildings fell into disuse and disrepair, The University of Notre Dame Australia began to acquire and repurpose them, turning them into the campus it is today.¹³⁹ Similar of such acquisitions by the university, The Notre Dame campus opened its gates to the former rope making factory opposite to the campus's main library.¹⁴⁰ The campus turned the former factory into a student hub, allowing students a place of gathering on campus. The space continues to function as a multi-purpose space, open to student's need and interpretation. The students from all faculties can use the space as they see fit.

The University of Notre Dame tasked Cox Architecture with addressing the design and concerns of the existing space. The designers were able to strategically blend the various academic and public activities into one multipurpose space. It cleverly engages its students with the city whilst maintaining the heritage fabric of the building.¹⁴¹ Instead of applying the typical enclosed halls, the aim was to provide the students with a space where they were able to spend some quality time, and as well as, study anywhere, anytime.¹⁴²

The new Student Hub at Notre Dame explores the relation between open, voluminous spaces with student experiences. It allows for flexible spaces, club spaces, informal learning settings, and mixed social spaces. It welcomes the idea of an open campus design with a modern industrial design throughout its campus.¹⁴³

This design explores the boundaries of design by incorporating academic, recreational, and social activities in one zone. This relation between the multi-purpose spaces is what makes this project an excellent study for the purpose of this practicum, as it allows an analysis of design qualities from the perspectives of the theories.

3.1.3: THEORETICAL RELEVANCE

In the wake of the COVID-19 pandemic, the education landscape is evolving, embracing new methods of delivering knowledge that prioritize inclusivity, openness, flexibility, and transformation. One such innovative approach is the design of university hybrid classrooms, aimed at facilitating a smoother learning experience. Research findings suggest that students excel in environments that foster inclusivity, provide the necessary tools, embrace flexibility, and encourage collaboration.¹⁴⁴

An excellent example of this paradigm shift can be found in the Student Hub at Notre Dame University of Australia, where students have the freedom to collaborate, study, dine, and socialize as they please. The Student Hub's design embodies the ideals of accessibility and freedom, making it an ideal gathering



FIGURE 13 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETS



FIGURE 14 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETS

place for students to utilize as they see fit. The core design objective for this space was clear: 'to create an inviting and welcoming place for students to meet, relax, study, and socialize in a repurposed twine and rope factory at the heart of the Fremantle campus.'¹⁴⁵ This multipurpose space encourages collaboration, serves as a makerspace, fosters social interactions, provides dining options, and accommodates light studying, all contributing significantly to students' well-being and academic success.¹⁴⁶

It can be argued that students learn more through peer-to-peer connection. The freedom to learn and grow in an environment that is not structured in a rigid academic manner can be argued to have a stronger and a positive experience for the students. Research conducted by professors from the University of Minnesota on learning behaviors supports this approach, revealing that students in collaborative learning groups outperform those in traditional lecture-based settings, demonstrating increased retention of information and enhanced critical thinking skills. The Student Hub is aptly described by its designers as a 'Sticky Campus,' an environment that enhances overall participation and engagement.¹⁴⁷

Multiple studies show that a supportive relation between the environment's character and the user's perception thereof can help users achieve their psychological needs and other personal goals. This is achieved through means of creating a relation between the users of the environment and the architectural characters on the said environment, like the materials, use, intent, and the design of the space. An idea, which is also supported by Ruth Stevens in her subject wellbeing theory that



FIGURE 15 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETS

when the built environment and the subjects are connected, and work in cohesion, then that is described as 'Design for human Flourishing'.¹⁴⁸

The Student Hub at Notre Dame University exemplifies these principles in action, through a combination of open-concept design, well-chosen furniture, thoughtful material selection, incorporation of the space's history, inclusivity, and easy accessibility. The Student Hub succeeds in creating an environment conducive to human flourishing.

3.1.4: DESIGN ANALYSIS AND IMPLICATIONS

The Student Hub stands out as a distinctive addition to the campus, as it not only caters to students but also serves as an attraction for tourists and the general public. As noted by Rachael Bernstone in her research on the campus, 'Today, the space is a more welcoming environment for students, tourists, and the public, who can drop in and view paintings from the university's extensive collection of indigenous art. And if people are keen to see more of the campus, Notre Dame runs free tours every Friday, providing a glimpse into the buildings and courtyards that impart so much character to the city's West End.'¹⁴⁹

Cox Architecture, in collaboration with the Notre Dame campus, invested considerable effort in delivering a space that is truly unique for the students. The design team, led by Emma Williamson, undertook the challenge of transforming a former rope-making warehouse into a one-of-a-kind student space on campus. This adaptive reuse of the building aimed to enhance the university's appeal to its student body.



FIGURE 16 - FLOOR PLAN STUDENT HUB - COX ARCHITECTURE. ARCH DAILY

The achievement of this goal was made possible through various elements, including thoughtful spatial design, meticulous material selection, and a deep understanding of the students' needs.

The pivotal factor contributing to the success of the Notre Dame University Student Hub lies in its clever interior design elements. A prime example of this can be found in Bernstone's observations, where she highlights how 'the side entry on Croke Street has been pulled inward from the external skin to create an outdoor terrace with ample seating and large sliding windows that seamlessly connect the interior with the exterior.'¹⁵⁰

Architectural and Design examples include:

- The removal of partitioned office spaces to create a tranquil lounge area for students.
- Deliberate adjustments were made to the floor level to create organic and relaxed seating arrangements, strategically positioned near the windows, providing captivating street views.
- The design team placed a strong emphasis on ensuring accessibility between the various internal zones. To achieve this, they introduced a new elevator and a steel-framed bridge that connects the two mezzanine areas on the second level.
- Respecting the historical significance of the warehouse space was also a paramount consideration, as evident in the words of the design team: 'A large sculptural rope installation descends from the ceiling over the main lounge, creating an intimate atmosphere while paying homage to the building's industrial past.'

FURNITURE AND MATERIALS:

As the saying goes, 'Simpler is often better.' This principle is highly regarded in design, especially in modern design. Embracing simplicity and ease of navigation fosters usability, accessibility, and broad engagement. In the context of student hub, the examples of furniture and materiality includes the following:

- The design team introduced 'custom-designed tables with distinctive yellow frames serve as both desks for collaborative projects and serving surfaces during events, and lightweight stools offer flexibility for reconfiguration.'¹⁵¹
- The inclusion of lightweight, easily movable furniture, along with long tables, benches, and sofas ensures an exceptional space to study and socialize.
- As per the design lead, the bold choice of colors—turquoise and red, in this instance—was inspired by the interiors of architect Adolf Loos' home. ¹⁵²
- Infusion of vibrant colors brought forth a sense of playfulness, youthfulness, and energy right into the heart of the Notre Dame Campus, creating a dynamic and engaging environment.



FIGURE 17 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETTS



FIGURE 18 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETTS



FIGURE 19 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETTS

LOCATION:

The significance of location cannot be overstated when it comes to the success of spaces like the Student Hub at NDU.

- Situated within the confines of a repurposed old rope and twine factory, this heritage building has been ingeniously transformed into the vibrant heart of the campus—an exemplary Student Hub.
- The central positioning of the student hub sets it apart from the conventional, often rigid academic buildings scattered across the campus, housing typical lecture halls, library spaces, and classrooms.

FUNCTION AND INTENT:

Another pivotal element to consider is function and intent. In the case of the Student Hub at NDU, its primary function is to serve as a versatile space accessible to students at all hours of the day and for a multitude of purposes.

- The core objective was to empower students with the freedom and flexibility to utilize the Student Hub between classes, after classes, during late hours, and even on weekends.
- Accessibility and inclusivity were paramount.



FIGURE 20 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETTS



FIGURE 21 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETTS



FIGURE 22 - STUDENT HUB NDU - IMAGE CREDITS: PETER BENNETTS

3.2



FIGURE 23 - IMAGE CREDITS: LAWRENCE ANDERSON

PROJECT DESCRIPTION

NAME: SWENSON FAMILY HALL OF ENGINEERING - CHAPMAN UNIVERSITY

LOCATION: CALIFORNIA, USA

DESIGNERS: AC MARTIN

YEAR BUILT: 2022

TYPOLOGY: STUDENT LOUNGE AND RECREATIONAL

AREA: 31,000

Key words: Social Spaces; Informal Learning; Student Clubs; Collaboration, Open and Inviting, Meeting and Working spaces.

3.2.2: PROJECT CONTEXT

The Swenson Family Hall of Engineering stands as a modern and striking architectural marvel nestled within the Chapman University campus in Orange, California.¹⁵³ This state-of-the-art facility serves as a multifaceted haven for engineering students, boasting a comprehensive array of amenities, including classrooms, laboratories, research spaces, and various offices, along with areas dedicated to socializing and collaborative workspaces. Collaboratively crafted by the design firm AC Martin and Chapman University, this space was meticulously tailored to cater to the unique needs and aspirations of engineering students.

The driving concept behind the building's design can be summed up as 'engineering on display.'¹⁵⁴ It embodies not only the role of a central hub for innovative thought, learning, and creative exploration but also as an inclusive social nucleus where the cross-pollination of ideas thrives among faculty and students alike.¹⁵⁵ The hall serves as an exemplary model of a makerspace for students and a dynamic setting for both formal and informal learning for the engineering faculty.

At the heart of this project lies the vision of providing students with a space where they can design, create, and innovate freely. The open and collaborative environment fosters a plethora of opportunities, encompassing learning, social interaction, mutual support, presentations, talent showcases, and a host of diverse events. This remarkable space embodies the spirit of academic and creative exploration.

3.2.3: THEORETICAL RELEVANCE

The Swenson Family Hall of Engineering at Chapman University stands as a cutting-edge facility, purpose-built to serve the diverse needs of students. This multipurpose complex offers students a wide range of avenues for exploration and growth. Notably, the facility is meticulously designed to provide students with modern, innovative, and technologically advanced spaces. Among these are the state-of-the-art laboratories, collaborative zones, multipurpose rooms, and well-equipped computer facilities. These spaces serve as the tools and nurturing environment necessary for students to flourish, learn, and express their true selves.

As articulated in Ruth Stevens' theory regarding the design of environments for well-being, 'our environment influences our mood and sense of well-being, even when we may not consciously realize it.'¹⁵⁶ Ruth's theory underscores the notion that intentionally designing environments to maximize their utility for users can have a profound impact on mood, productivity, and the alleviation of negative stressors. The Swenson Family Hall of Engineering, with its thoughtfully planned spaces, embodies this concept, striving to enhance the overall well-being and experience of its students.



FIGURE 24 - SWENSON ENGINEERING HALL - IMAGE CREDITS: LAWRENCE ANDERSON



FIGURE 25 - SWENSON ENGINEERING HALL - IMAGE CREDITS: LAWRENCE ANDERSON



FIGURE 26 - SWENSON ENGINEERING HALL - IMAGE CREDITS: LAWRENCE ANDERSON

In addition to its innovative features, the Swenson Family Hall also boasts research spaces, collaboration and project areas, student support services, and study zones. The amalgamation of all these diverse spaces within a single facility elevates Swenson Hall as a shining exemplar in the realm of student-oriented campus design. One of the most crucial aspects of such spaces is the freedom they afford to students. Open collaboration, interdisciplinary interactions, socialization among peers, and the introduction of various activities all contribute to fostering a highly positive campus environment.

Roger Ulrich’s supportive design theory further underscores the significance of such spaces. Ulrich posits that when users within a designed environment have a sense of control, access to social support, exposure to positive distractions, and a dearth of negative distractions, they can reach their maximum potential.¹⁵⁷

The Dean of the Faculty at Chapman University aptly states, ‘This is an unprecedented opportunity. From the student perspective, we’re offering an amazing chance to engage in research and immersive learning right from the beginning of their academic journey. Consequently, we aim to provide students with a space where they can translate their potential into tangible achievements.’¹⁵⁸

The Swenson Hall stands as an environment where students can collaborate, socialize, study, and learn in a setting meticulously designed to enhance their academic experience in the most positive manner possible. It serves as a remarkable precedent, urging designers to create student spaces that align with the theoretical and environmental principles embodied by the Swenson Family Hall of Engineering.

3.2.4: DESIGN ANALYSIS AND IMPLICATIONS

The Swenson Family Hall of Engineering stands as a cutting-edge facility, offering students from the Faculty of Engineering at Chapman University a distinctive space for study, collaboration, socialization, and productive endeavors. This facility showcases contemporary architectural features, sustainable design principles, and an outstanding interior layout. The transformation of the Swenson Hall involved a 31,000 sqft interior build-out within the university’s preexisting Keck Centre for Science and Engineering.¹⁵⁹ The result is a dynamic three-story space, replete with features such as laboratories, makerspaces, robotics labs, social areas, and dedicated study zones.

The collaborative effort of AC Martin, C.W Driver Companies, and Chapman University brought this visionary space to life. According to the designers’ vision, ‘the first level was meticulously crafted to serve as a collaborative student hub, intersected by a gallery or ‘ideation’ path that connects to the existing building. The second-floor houses laboratories, study alcoves, and research pods, while the third floor is dedicated to faculty workspaces and meeting rooms.’¹⁶⁰

This addition to the campus represents a unique and invaluable resource, particularly for the student body. It was conceived to function as a nucleus of innovative thinking and an all-encompassing social hub, actively promoting the cross-pollination of ideas among students.

ARCHITECTURAL ELEMENTS AND INTERIOR DESIGN:

The design team’s primary objective was to fashion a space that marries innovation, modernity, and adaptability, catering to the diverse and evolving needs presented by the student body. As articulated by the design team, ‘at the core of the school lies the Design/Create/Innovate (DCI Lab), a makerspace intended for experimentation and collaboration, serving as an incubator for ideas. This central space incorporates a series of operable partitions and modular design elements, enabling a flexible and adaptable environment that supports collaboration, presentations, and showcase events.’¹⁶¹

A pivotal facet of the design strategy revolved around the division of the facility into distinct zones across its three floors. Each floor was meticulously planned and designated for specific purposes, with the floor space tailored accordingly. Aimee Siemianowski, representing C.W Driver Companies, sheds light on the multifaceted zones, noting that ‘the first level of the new wing functions as a collaborative student space, featuring a spacious gallery that seamlessly connects to the rest of the Keck Center. The second floor encompasses research pods, teaching labs, and study alcoves, while the third floor houses a faculty suite complete with workspaces, meeting areas, and collaborative zones.’¹⁶² Each floor within the facility serves as a designated zone, effectively accommodating students according to their requirements. The fluid, open, and multipurpose nature of these spaces provides students with an inviting environment for both study and social interaction.



FIGURE 27 - SWENSON ENGINEERING HALL -
IMAGE CREDITS: LAWRENCE ANDERSON

THE SWISS KNIFE ELEMENT:

The Swiss Knife Element, conceived by the creative minds at A.C. Martin, stands as a versatile and multifunctional innovation, making it an ideal tool for spatial transformations. This ingenious device offers a remarkable degree of flexibility in both use and function. In the words of the designers themselves, ‘This element serves as a multi-functional pod, cleverly concealing folding doors and sliding doors. Its primary purpose is to deliver all the necessary functionalities for maintaining an open space or partitioning it into two distinct rooms, separate from the hallway.’¹⁶³

THE STAIR:

Among the notable features thoughtfully integrated by the designers is the staircase—an element that transcends mere functionality to become a pivotal visual design element within the space. Described by the designers themselves, ‘The interconnecting staircase, while undoubtedly a functional element, also serves as a captivating focal point for social interaction. Its lower section is artfully shaped to invite students and faculty to engage in conversations at the convergence of a primary circulation pathway, strategically positioned just around the corner from the dean’s suite.’¹⁶⁴

STUDY ALCOVES:

The ‘Study Alcoves,’ as described by the designers themselves, ‘have been ingeniously incorporated throughout the project, seamlessly nestled within previously underutilized spaces—along corridors, adjacent to window walls, and within small nooks near the elevator. These study alcoves take the form of open booths, thoughtfully designed to offer acoustic dampening and ample illumination.’¹⁶⁵ These alcoves are thoughtfully dispersed across the space, making clever use of every available area. They embody flexibility of use and intention, catering to a multitude of functions in a functional and imaginative manner.

FURNITURE AND MATERIALS:

The interior design of this space embodies several key elements, such as:

- Including modular furniture, contemporary materials, and color schemes that prioritize natural light to enhance functionality. Noteworthy selections from Tangram encompassed items like Steelcase media scape tables paired with short cut chairs, collaborative screen displays, and modular huddle space furniture.
- The color palette exudes the essence of a cutting-edge campus facility designed with students in mind.
- Durable flooring options included polished concrete, tiling, hardwood, and resilient carpeting. Each space within the facility received specific flooring treatments based on its intended function and needs.



FIGURE 28 - SWENSON ENGINEERING HALL - IMAGE CREDITS: LAWRENCE ANDERSON



FIGURE 29 - SWENSON ENGINEERING HALL - IMAGE CREDITS: LAWRENCE ANDERSON



FIGURE 30 - SWENSON ENGINEERING HALL - IMAGE CREDITS: LAWRENCE ANDERSON

3.3



FIGURE 31 - IMAGE CREDITS: WINSON TUNGTHUNYA

PROJECT DESCRIPTION

NAME: THE IMAGINE LOUNGE

DESIGNERS: SUPER MACHINE STUDIO

TYPOLOGY: STUDENT LOUNGE AND RECREATIONAL

Key words: Social Spaces; Informal Learning; Student Clubs; Collaboration, Open and Inviting, Meeting and Working spaces.

LOCATION: BANGKOK, THAILAND

YEAR BUILT: 2012

AREA: 10,736

3.3.2: PROJECT CONTEXT

In collaboration with Bangkok University, Super-Machine Studios embarked on a pioneering pilot project geared towards adapting to the evolving landscape of education. The result of this partnership was the introduction of the 'Imagine Lounge' on the university campus, a thoughtfully designed space crafted with the invaluable input of Super-Machine Studios. This cutting-edge 'Imagine Lounge' stands as a testament to student-centric optimization, tailored to cater to their diverse needs.

The versatility of the 'Imagine Lounge' knows no bounds, accommodating an array of functions, from fostering learning to facilitating social interaction. Each facet within the lounge has been meticulously planned and customized to address students' specific requirements, aimed at enriching their educational journey and personal growth.

The 'Imagine Lounge' empowers students to seamlessly transition between work and leisure, offering distinct zones across its multiple floors, each serving a unique purpose. Its cafe-like ambiance fosters an environment conducive to studying beyond the confines of traditional classrooms, promoting not only enhanced mental well-being but also heightened productivity.¹⁶⁶ Furthermore, the lounge serves as a hub for recreational activities, affording students a respite from their academic demands, all within a productive and conducive setting.

It's worth noting that the 'Imagine Lounge' represents a paradigm shift in the approach to university lounges, departing from the conventional spare rooms equipped with basic amenities. "The typical university student lounge of yore was often a spare room with tables, chairs, and vending machines. But in the last decade, schools have been stepping up the design quotient to create a more fun and appealing interior".¹⁶⁷ Over the past decade, educational institutions have recognized the importance of elevating the design ethos to create inviting and engaging interiors. The 'Imagine Lounge,' at its core, symbolizes this departure from convention. Bangkok University, in collaboration with the design team, aspired to provide students with more than just a space to pass the time. Instead, the driving intention behind the 'Imagine Lounge' was to craft an environment meticulously tailored to meet students' diverse needs.¹⁶⁸ Their shared goal was to fashion a space that students would actively choose to spend their leisure time in, where they could fulfill their requirements for learning, personal development, support, and social interaction.

3.3.3: THEORETICAL RELEVANCE

Bangkok University's motto, 'Creativity Everywhere,' finds tangible expression in the Imagine Lounge. In partnership with Supermachine Studios, Bangkok University has bestowed upon its students a distinctive haven, a space they can truly call their own—a place that beckons them to invest their leisure time wisely.

The Imagine Lounge stands out as an exceptional addition to the landscape of student spaces. It deviates from the conventional mold often found in many North

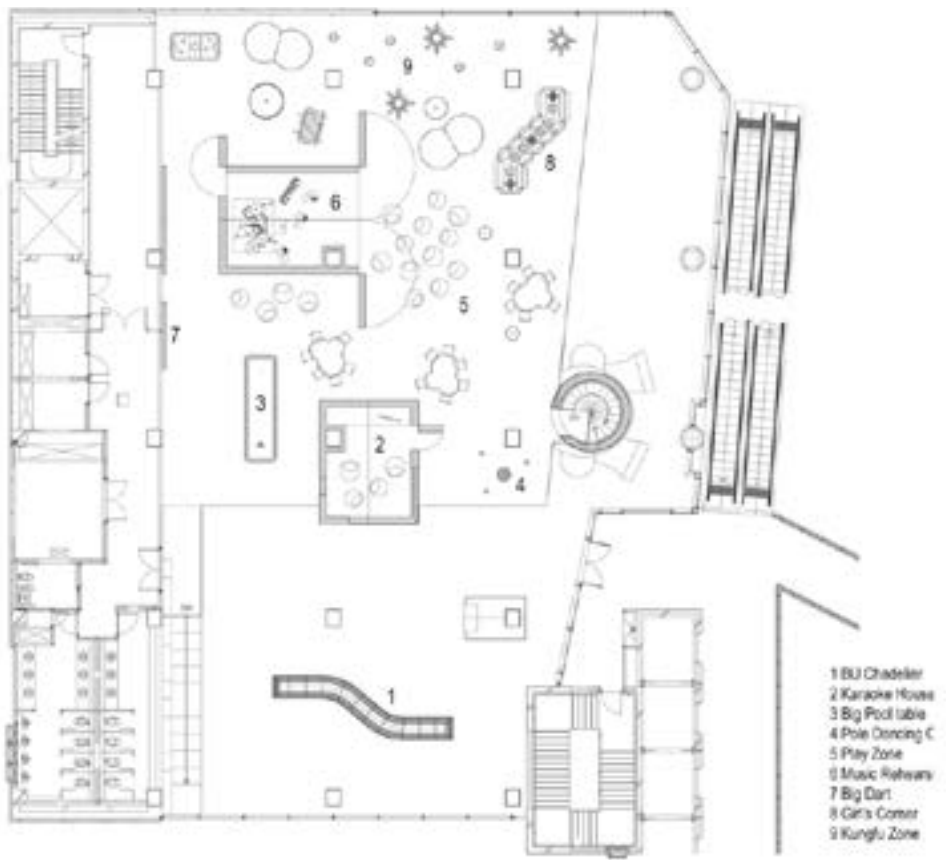


FIGURE 32 - SUPER MACHINE STUDIO - IMAGINE LOUNGE FLOOR PLAN



FIGURE 33 - IMAGINE LOUNGE (BU LOUNGE) - IMAGE CREDITS: WINSON TUNGTHUNYA

American educational institutions, addressing a diverse array of student needs that extend far beyond the ordinary. This multifaceted space caters to a wide spectrum of activities, encompassing reading, studying, socializing, dining, and even providing a haven for relaxation through games—a comprehensive approach to nurturing student well-being.

Pitupong Chaowakul, the lead designer, encapsulates the essence of the Lounge as, “It’s a young person’s habitat. Virtually all elements have been meticulously designed to offer maximum flexibility, inviting creative exploration.”¹⁶⁹

Bangkok University embarked on a mission to grant students the precious gift of freedom and autonomy over their time spent on campus. This approach was not just about providing convenience but also fostering a profound sense of control. Research reinforces the notion that students thrive when they perceive themselves as being in control and valued, especially within the peer community.¹⁷⁰

To bring this vision to life, the university transformed the once-sparse professors’ offices into a versatile space capable of accommodating a rich tapestry of student activities. From focused studying to convivial socializing, from peaceful relaxation to exhilarating gaming, the Imagine Lounge stands as a comprehensive platform for the university’s student body. The designers elaborated, “A significant portion of the lower lounge is aptly named the ‘Reading Cave,’ featuring thousands of OSB ribs that shape porous rooms tailored for diverse uses, ranging from solitary reading to small group tutoring and expansive group discussions.”¹⁷¹

Extensive research underscores the fact that education transcends the confines of traditional classrooms. In fact, a study on conventional schooling highlights that students who engage in learning experiences beyond the classroom boundaries benefit from enhanced self-esteem and a deeper sense of engagement in their educational journey.¹⁷² Roger Ulrich’s Supportive Design theory further emphasizes the importance of crafting-controlled environments and nurturing social support systems that imbue an atmosphere with warmth and familiarity. This involves introducing symbolic features that serve as meaningful positive distractions, such as incorporating images of family and friends and including physical elements that promote a positive ambiance.

The Imagine Lounge stands as a shining example of how these theoretical concepts, including Ulrich’s principles and the idea of “education beyond the classroom,” have been skillfully put into practice. This innovative space not only fosters social support systems but also provides an array of positive distractions in the form of cafes, game rooms, and social hubs where students can spend their leisure time as they see fit, surrounded by friends and colleagues, nurturing a holistic and enriching university experience.

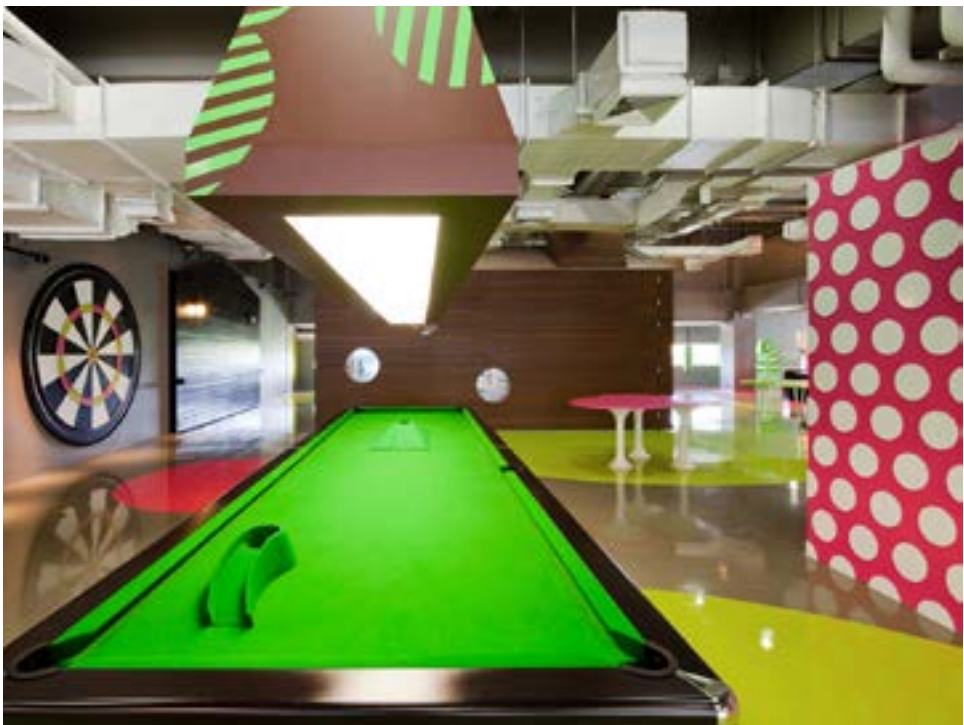


FIGURE 34 - GAME LOUNGE - IMAGE CREDITS: WINSON TUNGTHUNYA

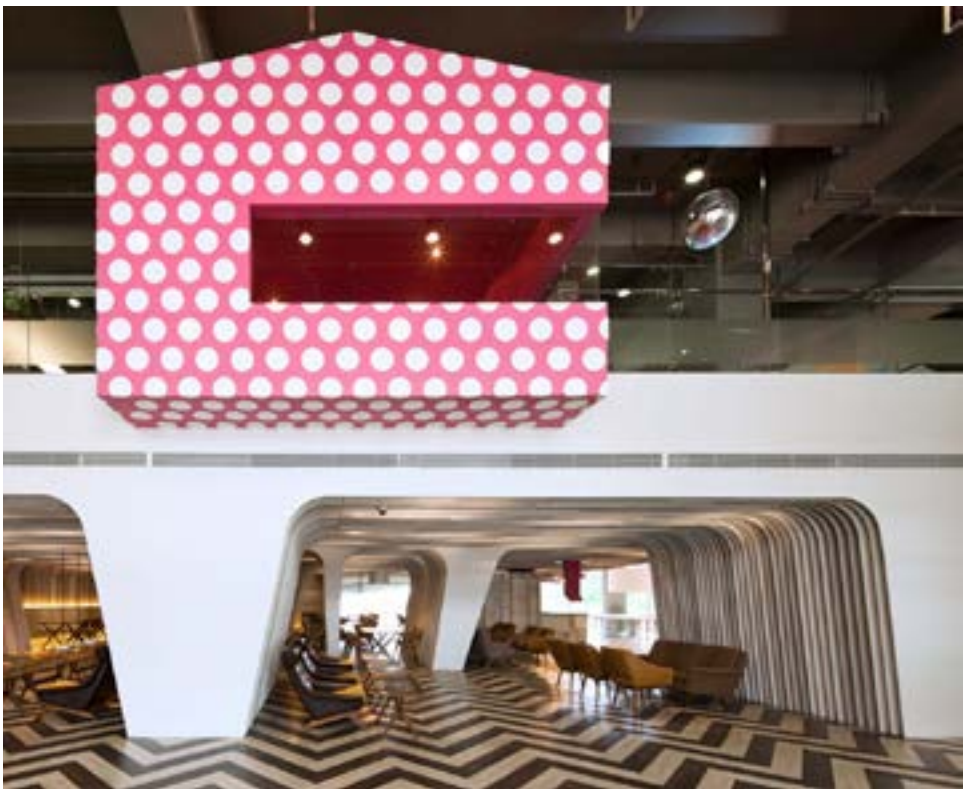


FIGURE 35 - IMAGINE LOUNGE (BU LOUNGE) - IMAGE CREDITS: WINSON TUNGTHUNYA

3.3.4: DESIGN ANALYSIS AND IMPLICATIONS

As previously highlighted, the Imagine Lounge represents an exceptionally unique student space, with design concepts that diverge from the conventional norms prevalent in North American educational institutions. However, it’s vital to emphasize that this distinctiveness doesn’t imply incompatibility with North American educational settings. In fact, many of the ideas and elements incorporated into the Imagine Lounge can be seamlessly integrated into North American student spaces, infusing them with a more student-centric ambiance characterized by adaptability, flexibility, and engagement.

The design team underscores this adaptability, noting, “Almost all items in the lounge are designed to be highly flexible, inviting creative manipulation.”¹⁷³ This adaptability, with its inherent potential for creative reconfiguration, makes it a versatile model that can inspire improvements and enhancements in various North American educational environments, thereby enriching the student experience.

The Imagine Lounge occupies a strategic location directly beneath the multistory lecture hall and adjacent to the auditoriums within the recently developed Bangkok University Landmark compound. Aptly dubbed the ‘youngsters’ ecology,’ this lounge has been meticulously planned with students as its core users. Comprising a diverse array of zones, each with a distinct purpose and program, the lounge is designed to cater to various student needs.

One notable zone within this multifaceted space is the ‘Reading Cave,’ where students are encouraged to immerse themselves in reading. Additionally, situated in front of Reading Cave is the ‘Big Sofa’ zone. Here, the design team has ingeniously employed pixel units that can be configured into several arrangements, accommodating both large and small gatherings for both formal and informal purposes.¹⁷⁴ The design team’s overarching objective was to create spaces characterized by flexibility, thereby fostering an environment that actively encourages creative and productive manipulations by the students.

ARCHITECTURAL ELEMENTS AND INTERIOR DESIGN:

The Imagine Lounge at Bangkok University breaks away from the conventional concept of a typical student lounge commonly found in North American universities. Instead, it is described as “a village for a break from study.”¹⁷⁵ This innovative lounge spans two floors, with each floor offering distinct activities and programming.

The design elements include the following features:

- The upper level of the lounge is designed for more dynamic activities. It is a space filled with fun, excitement, and relaxation that students can enjoy between classes



FIGURE 36 - IMAGINE LOUNGE (BU LOUNGE) - IMAGE CREDITS: WINSON TUNGTHUNYA



FIGURE 37 - RECORDING STUDIO- IMAGE CREDITS: WINSON TUNGTHUNYA



FIGURE 38 - READING ZONE - IMAGE CREDITS: WINSON TUNGTHUNYA

or whenever they need a break from their academic responsibilities.

- Both floors of the lounge are interconnected through a network of holes, each serving a unique purpose. Some holes have glass for visual connections, some are openable for ordering drinks and beverages, one features a fireman's pole for fun circulation.

- The Imagine lounge includes, but is not limited to, games (both video and physical), cafes, music, dance, and various fun activities. While such features may not align with the traditional expectations of a study space, they have the potential to boost productivity by fostering positive, energetic, and engaging attitudes among students.

FURNITURE AND MATERIALS:

The choice of furniture and materials in a space is indeed crucial to achieving the desired design outcome and functionality. Super Machine Studio put a significant amount of thought and research into selecting the right materials, colors, and furniture to ensure that the Imagine Lounge meets its intended purpose effectively.

- One of the standout features of the Imagine Lounge's interior design is the use of sharp and engaging colors. The vibrant red, yellow, orange, blue, and white, along with contrasting primary earth colors, create a lively and energetic atmosphere within space.

- The furniture is designed to be highly flexible, allowing students to rearrange and manipulate it as needed for different activities.

- The use of flexible, multipurpose furniture is another key element in the Lounge's design. It allows students to reimagine and repurpose the space according to their needs and preferences.

DESIGN APPROCH:

The design approach taken by Super Machine Studio for the BU Imagine Lounge is truly innovative and aligned with modern pedagogical thinking. By focusing on flexibility, creativity, and an open approach to design, they have created a space that goes beyond the conventional boundaries of student lounges. The use of vibrant colors, playful elements like the spiral bear staircases, and the inclusion of diverse zones cater to various aspects of students' academic and personal lives.

One of the key aspects of this design is its adaptability to the ever-changing needs of students and the evolving landscape of education. The designers' intention to create a space that encourages creativity, collaboration, and positive engagement is evident in every detail. The BU Imagine Lounge is not just a static environment; it's a dynamic platform for students to shape and reshape according to their unique requirements.

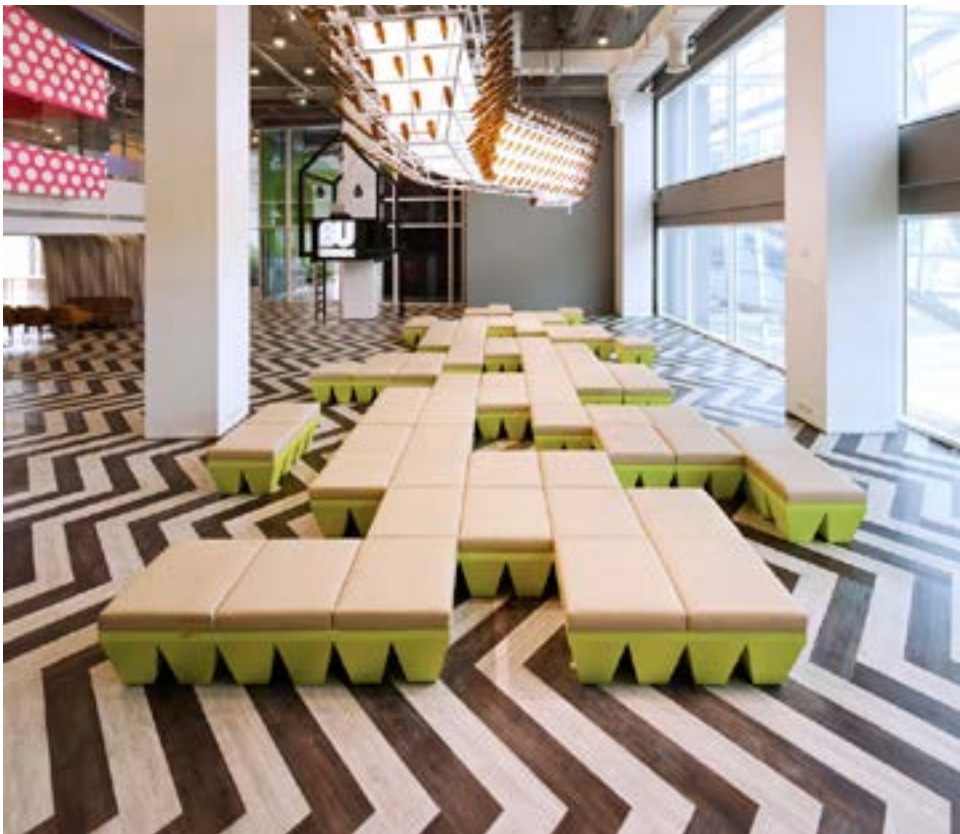


FIGURE 39 - IMAGINE LOUNGE (BU LOUNGE) - IMAGE CREDITS: WINSON TUNGTHUNYA



FIGURE 40 - IMAGINE LOUNGE (BU LOUNGE) - IMAGE CREDITS: WINSON TUNGTHUNYA

In sum, the BU Imagine Lounge's design philosophy embodies adaptability, creativity, and openness, which are essential qualities in creating a student space that truly supports holistic development and well-being. It is an inspiring example of how innovative design can transform the traditional concept of a student lounge into a dynamic and vibrant environment.

3.4: CHAPTER SUMMARY

The case studies of the Student Hub at Notre Dame University, the Swenson Hall at Chapman University, and the Imagine Lounge at Bangkok University provided valuable insights into the design and creation of student-oriented spaces. These case studies have illuminated various aspects such as architectural relationships, function and intent, design approaches, materials, and furniture choices. They serve as important references for your final design project, helping to shape the master plan, structural considerations, orientation, material selection, color palettes, and overall design style.

Additionally, the deliberate choice of case studies from different parts of the world brought diversity and a broader perspective to my understanding of student

needs and design solutions. This diversity will enabled me to create a design that is not only flexible and imaginative but also culturally sensitive and relevant to the FAUM context.

PRECEDENT SUMMARY TABLE

P ROJECT	T HEORY	D ESIGN IMPLICATION
STUDENT HUB - NOTRE DAME UNIVERSITY	SUPPORTIVE DESIGN THEORY	- Social Zones - Personal Private zones - Adaptable and flexible design - Functional Material and Furniture. - Promotes Collaboration and social growth.
THE SWENSON FAMILY HALL OF ENGINEERING - CHAPMAN UNIVERSITY	SUBJECT WELL BIENG THOERY / ATMOSPHERIC ARCHITEC- TURE THEORY	- Dedicated work and social zones - Promotes Student support and wellbeing. - Flexible - Supportive
THE IMAGINE LOUNGE - BANGKOK UNIVERSITY	SUPPORTIVE DESIGN THOERY / COLLABORATIVE WORKING ENVIROMENT THEORY	- Peer Support - Flexible and adaptable - Social growth - Extracurricular activities - Social Zones - Collaborative and supportive

CHAPTER

O4

SITE ANALYSIS

TOPIC 4.1: INTRODUCTION
TOPIC 4.2: SITE ANALYSIS
TOPIC 4.3: SITE OPPORTUNITIES
TOPIC 4.4: SITE CONSTRAINTS
TOPIC 4.5: BUILDING ANALYSIS
TOPIC 4.6: EXTERIOR DETAILS
TOPIC 4.7: INTERIOR DETAILS



FIGURE 41: UNIVERSITY OF MANITOBA CAMPUS FROM 1925 - MANITOBA HISTORICAL ARCHIVES

4.1: INTRODUCTION

The University of Manitoba has more than a hundred-year-old history. The development at the Fort Garry campus began in the year 1913 and has continued its development throughout the years, until the present.¹⁷⁶ The first buildings that were built as part of the original campus were constructed on the rural site in 1912, which included, the Administration Building, Home Economics Building, Tache Hall, and the Agricultural Engineering Building.¹⁷⁷ Much of these buildings were part of the Grand Master plan for the campus, which have grown into what it is today, with amazing architecture, heritage and a tremendous amount of history surrounding the site.

Many of the original buildings were all designed and constructed by architects Samuel Hooper and V.W Horwood, under the direction from the School of Architecture Head Arthur A. Stoughton.¹⁷⁸ Most of these buildings followed a strict architectural style, and a specific material palette that can be seen on most of the buildings today. Upon observation, it can be clearly seen that most of the original buildings used salmon-red bricks and Manitoba Limestone, in a very Neoclassical and Georgian combination.¹⁷⁹ This architectural style and material palette also allows for an easy recognition for all the original buildings on the campus.

Even the building that were built after the original construction period tried to follow the same style set by Hooper and Horwood, however, most buildings that were built post 1950s have been individual architectural statements, mostly inspired by at the time School of Architecture director John A. Russel.¹⁸⁰ As such, a series of major projects in the 1950s and later on took more of a freedom in its architectural style and materials. For instance, the Elizabeth Dafoe Library, the chapels of St. Paul's and St. John's Colleges, and the early curtain wall of the John A. Russel Building.¹⁸¹



FIGURE 42: UNIVERSITY OF MANITOBA CAMPUS 1942 - MANITOBA HISTORICAL ARCHIVES



FIGURE 43: ELIZABETH DAFOE LIBRARY 1952 - MANITOBA HISTORICAL ARCHIVES

4.2: SITE ANALYSIS

The practicum project's site is located on the University of Manitoba Campus. I will be re-purposing the Marcel A. Desautels building, which was originally constructed for the school of music, designed by Libling Michener and Associates. The building now functions as an administration and has multiple staff offices. While the building was originally designed with an intention to allow a moderate enrollment of only sixty students in the faculty of music, in the 1960s. However, with the student body expansion to over 250 students, the music school required new facilities.¹⁸²

The Marcel A. Desautels building currently occupies a strategic position on campus, nestled between the Faculty of Architecture, with proximity to the John A. Russell and Architecture 2 Building, and sits across from the CAST Building. This significant positioning of the building creates exciting opportunities for the faculty of Architecture and the proposed function of a student center. The proximity to all 3 of the faculty's primary facilities, this building's location is of utmost significance for the practicum project. Since the aim is to provide the students from the Faculty of Architecture with a student focused space, factors such as proximity, easy accessibility to campus, and security all further help the selected building site.

As the primary users of the building will be from the Faculty of Architecture. The building serve as an extension of the existing Faculty of Architecture and provides essential support to both the faculty and its students. As further illustrated

in the Proximity Map (figure 45), the building is centrally located on campus and enjoys several advantages. It is near the Faculty of Architecture and is flanked by student parking lots on both its East and West sides, with convenient access to the nearby bus stop for transit services. This ensures that students can easily reach the building from all directions and navigate between various campus buildings and facilities.

Furthermore, the building's central location makes it highly accessible to all other students on campus. Its historical significance and recognizable structure make it easy for newcomers and anyone on campus to locate. Additionally, it is situated near other vital campus buildings, including the University Center, the Arts Building, and the Active Living Center, providing students with direct and convenient access to essential parts of the campus.

Notably, the proximity between the Desautels Building and the Active Living Center fosters student health and wellness. This relationship aligns with the proposed function of the building, emphasizing its role in promoting well-being and supporting students in their pursuit of a healthy lifestyle, consistent with the objectives of this practicum.



4.3: SITE OPPORTUNITIES

The existing site presents several valuable opportunities for the project, including:

- **Proximity to Campus:** The site is centrally located within the campus, ensuring that it is easily accessible to students and faculty members from all parts of the campus.
- **Adjacent to Parking Lots:** It is situated adjacent to two parking lots, offering convenient parking options for students and staff. Additionally, it is just a short distance away from the main student parking lot on campus.
- **Near the School of Architecture:** Being adjacent to the existing School of Architecture, the site facilitates seamless circulation for students between all the buildings within the Faculty of Architecture, promoting a sense of unity and collaboration.
- **Ease of Identification:** The site's historical significance and recognizable architecture make it a prominent and easily identifiable location on campus, simplifying navigation for both current and new students.
- **Multiple Transportation Options:** The site is accessible through various means of transportation, including private vehicles due to its proximity to parking lots and the public transit system, making it easily reachable for all members of the university community.
- **Outdoor Learning Areas:** If there are outdoor spaces adjacent to the building, they can be transformed into outdoor classrooms or learning environments, providing students with opportunities to study and engage with nature.

• **Green Building Features:** The renovation project could incorporate sustainable and green building features, such as energy-efficient lighting, heating, and cooling systems, as well as renewable energy sources like solar panels. These features can contribute to environmental sustainability and reduce long-term operating costs.

4.4: SITE CONSTRAINTS

However, despite the numerous opportunities offered by the proposed site, there are also several constraints that need to be taken into consideration:

- **Campus Noise:** Given its central location on campus, the building may be subjected to a high level of activity and foot traffic, potentially resulting in noise pollution that could disrupt the intended wellness-focused environment.
- **Historical Preservation:** Desautels Building has historical or architectural significance, there may be constraints related to preserving its historical features or complying with heritage preservation regulations during any renovation or redesign.
- **Limited Expansion Potential:** The site is already fully developed, which means there may be limited opportunities for significant expansion or adding new structures to the existing building. This constraint needs to be considered in any renovation or redesign efforts.
- **Accessibility:** Ensuring that the building is accessible to individuals with disabilities is a constraint that needs to be addressed to meet accessibility standards and regulations.
- **Community and Stakeholder Input:** Gathering input and feedback from students, faculty, and other stakeholders is essential but can also be a constraint if there are conflicting opinions or preferences regarding the building's design and purpose.



FIGURE 44: 65 DESAUTELS OLD MUSIC BUILDING - UNIVERSITY DIGITAL LIBRARY

4.6: BUILDING ANALYSIS - ARCHITECTURE

Building Name: Marcel A. Desautels
Location: 65 Dafoe Road (University of Manitoba Campus)
Architects: Smith Carter Searle Associates
Construction Years: 1964-1965
Building type: Multi Story
Purpose: Old Faculty of Music Building –
Current Administration Building



FIGURE 45: 65 DESAUTELS OLD MUSIC BUILDING - UNIVERSITY DIGITAL LIBRARY



FIGURE 46: OLD MUSIC BUILDING EXTERIOR ENVIRONMENT - DIGITAL PICTURE: BILAL KHAN

The Marcel A. Desautels building started its official construction at the beginning of the year 1964, in the month of February.¹⁸³ The Building, emerged during the post-1950s era, with construction taking place between 1964 and 1965 under the guidance of Smith, Carter, Searle Associates.¹⁸⁴ This building exhibits a modernist architectural style and, relative to many other campus structures, is of a moderate size. Originally, the Desautels Building was designed to accommodate a modest enrollment of only sixty students within the Faculty of Music.¹⁸⁵ However, as the university expanded and student numbers swelled, the Faculty of Music relocated to a new space, and the Desautels Building underwent a transformation into an administrative facility, which it remains today.

The Desautels building remains as one of the few original additions to the University campus, when it was still undergoing its expansion and adding new programs to its list of faculties, such as the Music school. Now, with the expansion of the student body and the significant growth in student enrollment since it was originally built, the Desautels building has seen some functional changes to its premises. As part of Project Domino, Tache Hall, previously a residence, will be converted into the new home for the center for Music, Art, and Design.¹⁸⁶ This opens the original Music building with numerous opportunities to repurpose, and propose new functional facilities

As such, for the purposes of this practicum, I will propose a new design and function to accommodate a new student center for the faculty of Architecture located inside the Marcel A. Desautels Building, located at 65 Dafoe Road. Now, in another transformative phase, the building is set to become a student center space and lounge dedicated to the students of the Faculty of Architecture. This redesign prioritizes student wellness, offering them a campus space tailored to their specific needs and well-being.

4.7: EXTERIOR DETAILS

The building is a two-story structure, with an exterior sheathed in polished grey Tyndall stone and black exposed aggregate concrete window spandrels.¹⁸⁷ Looking at the construction of the structure, two dominant piers create a strong vertical emphasis on the exterior of the building and rise to meet a projecting roof cornice.¹⁸⁸ This building was one of the first few building that brough the modern construction style on campus. John A Russel, director of the School of Architecture at the time, marked the beginning of the modern movement at the Fort Gary Campus.¹⁸⁹ A series of major projects in the late 1950s for the next decade redefined the original campus plan, as architects took more freedom in the definition of the campus buildings.¹⁹⁰

The Marcel A. Desautels building, constructed during that era, exemplifies a redefined and modernist approach, particularly evident in its exterior facade. The building features the use of Tyndall stones, concrete, glazing, large windows, and compact planning. It stands as a prime example of early modernist architecture, characterized by rectilinear construction, symmetry, the interplay of materials, and thoughtful use of space.



FIGURE 47: EXTERIOR FACADE - DIGITAL PICTURE - BILAL KHAN



FIGURE 48: EXTERIOR FACADE - DIGITAL PICTURE - BILAL KHAN

The building's facade showcases solid Tyndall stones paired with exposed black concrete. The dynamic interaction between these two materials creates a visually striking fusion that embodies historical significance, originality, modern construction techniques, and deliberate design.

The building's exterior boasts a design that is characterized by simplicity, elegance, and functionality. It maintains a modest height, not exceeding 25 feet above ground level. A significant portion of the building's windows is situated on the North and South faces, with a few on the West side, while the East side remains windowless. This strategic window placement maximizes the use of natural light, ensuring efficient heating during winter and ample sunlight during the summer.

There are three entrances into the building, with the main entrance located on the northern end. The southern entrance directly accesses the existing Eva Clair Music Hall, while the western entrance serves as an emergency exit. The Desautels building features an exposed roof with a parapet encompassing the structure's perimeter.

Furthermore, the exterior façade is complemented by both natural and man-made elements, including trees, vegetation, and other nearby structures. While the original façade of the building has experienced minor alterations, the fundamental design and appearance of the building have remained unchanged over the past few decades.

4.7.2: INTERIOR DETAILS

The interior of the building is divided into three stories: the basement, the main floor, and the second floor. Currently, these floors consist of offices, storage spaces, small rooms, breakout rooms, miscellaneous spaces, and a few areas designated for the School of Music, such as the Eva Clair Hall of Music, an auditorium, a recording room, and a few other spaces. However, the majority of the building is currently used by the administrative staff for their daily operations



FIGURE 49: EVA CLAIR MUSIC HALL - DIGITAL PICTURE - BILAL KHAN



FIGURE 50: ENTRY VESTIBULE - DIGITAL PICTURE - BILAL KHAN

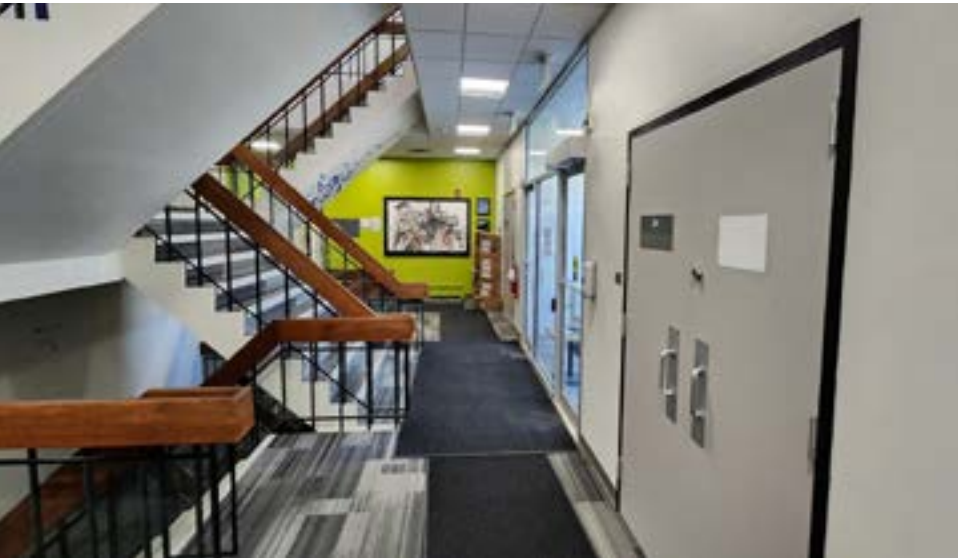


FIGURE 51: MAIN FLOOR - DIGITAL PICTURE - BILAL KHAN



FIGURE 52: EVA CLAIR MUSIC HALL - DIGITAL PICTURE - BILAL KHAN

Access to the building is through a vestibule, leading to the main floor, which is divided into its east and west wings. A large central staircase is the primary method for vertical circulation, with emergency stairs on either side of the building. The east side of the main floor currently houses administrative offices, storage spaces, and other official rooms with limited access for students. The west wing provides access to the Eva Clair Hall, although it is only accessible to the Faculty of Music. The main floor has a ceiling height of just over 9 feet, with only a few areas having a dropped ceiling height of just over 7 feet. Most of the spaces inside the building have carpeted flooring.

The central staircase in the existing building provides access to both the second floor and the basement. The second floor, much like the main floor, is divided into two nearly identical sections in terms of design and functionality. This floor contains additional staff offices, breakout rooms, lunchrooms, meeting spaces, computer labs, and staff washrooms. Like the main floor, most of the second floor is carpeted, contributing to a formal and professional atmosphere. The ceiling height on the second floor is also just above 9 feet at the underside of the T-bar ceiling.

The building's basement primarily contains storage spaces, mechanical and electrical rooms, a recording studio, and a technical room. The flooring in the basement is also carpeted, but the ceiling here is exposed to the concrete structure and is just above 13 feet in height. Similar to the other two floors, the basement is divided into two wings. However, on this floor, both sides of the building are connected through a continuous run of corridors, allowing access to all four sides of the building.

All three floors share a similar design and function, with the majority of the building currently serving as an administrative space, offering limited access to students. The interior of the building features painted gypsum walls, T-bar ceilings,

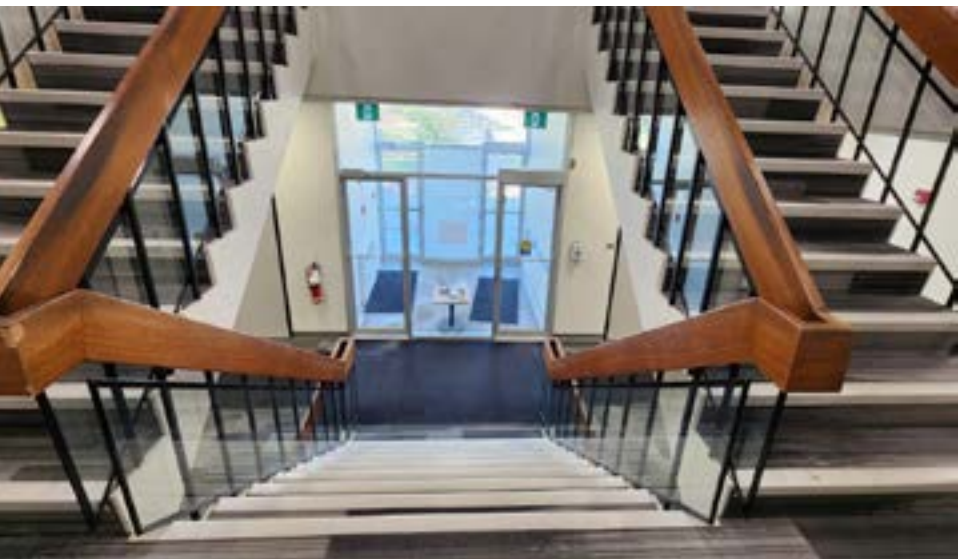


FIGURE 53: CENTRAL STAIRCASE - DIGITAL PICTURE - BILAL KHAN



FIGURE 54: SECOND FLOOR - DIGITAL PICTURE - BILAL KHAN



FIGURE 55: SECOND FLOOR - DIGITAL PICTURE - BILAL KHAN

and carpeted flooring. In contrast, the basement has exposed painted masonry stones, an exposed structural ceiling, and carpeted flooring.

Following its repurposing as an administrative building, the structure underwent renovations, which included the introduction of new paint colors, carpeting, and some millwork. The materials and layout inside the building exhibit a symmetrical, linear, and modern design, albeit currently lacking any significant ambition or creative use of the space.

Finally, the use of windows on the exterior brings within the building enormous amount of natural light and creates an ongoing conversation between the interior and exterior. Furthermore, to the natural light, the window also allows for beautiful vistas from almost all sides of the building, letting the inhabitants enjoy all seasons, nature, and the everyday traffic.

4.8: BUILDING ANALYSIS

In this section, a thorough analysis will take place, that will explore the current conditions of the Marcel A. Desautels building. The building has a lot to offer, however, has a lot of constraints as well, which may need to be resolved and altered to get the most out of for the purposes of this practicum project of creating a student center.

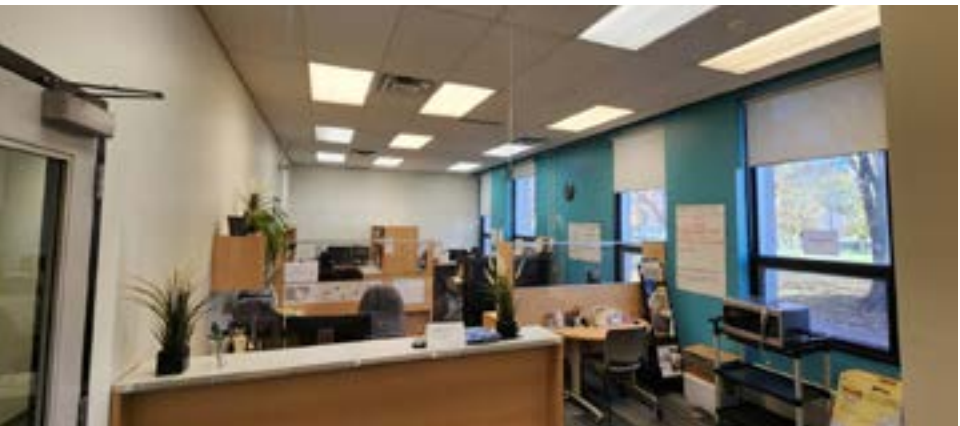


FIGURE 56: MAIN FLOOR ADMIN OFFICE - DIGITAL PICTURE - BILAL KHAN

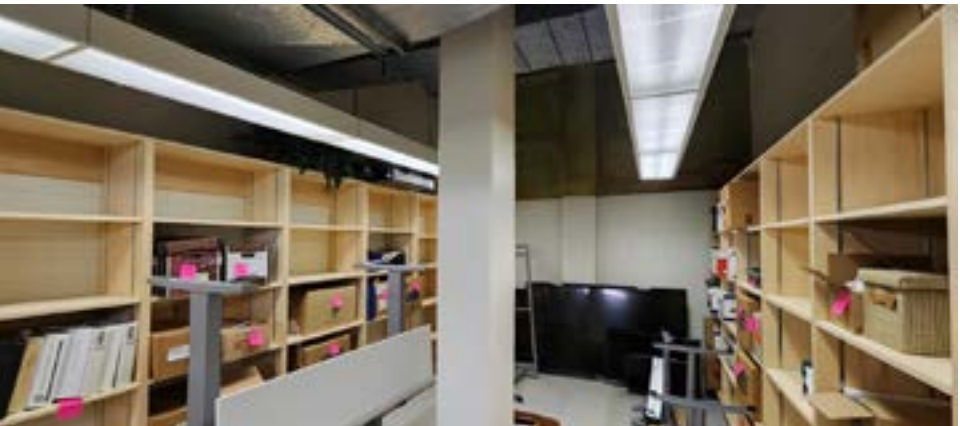


FIGURE 58: BASEMENT STORAGE - DIGITAL PICTURE - BILAL KHAN

4.8.1: BUILDING CONSTRAINTS

• **Limited Area** – The footprint of the building is less, and it will be challenging to fit all the desired spaces in the given space. It will also create a challenge in fulfilling the maximum the user capacity at a given time. Hence, careful programming is required to achieve the full potential of the building and the student center.

• **Structural Changes** – The building is part of university history, which restricts and controls the changes to the building’s structure and the building’s façade. Hence, it is going to be critical to use the existing structural conditions to find the best solution that allows for maximum changes without compromising the original construction.

• **Small Windows** – The Current windows in the building are linear, long and small. They do not allow for maximum use of natural light and rely heavily on the artificial light inside space.

4.8.2: BUILDING OPPORTUNITIES

• **Multiple Entrances** – The building has a total of 3 entrances, allowing for multiple entry points. These multiple access points provide an opportunity for strategic planning of spaces inside the building and according to their needs.



FIGURE 57: BASEMENT RECORDING STUDIO - DIGITAL PICTURE - BILAL KHAN



FIGURE 59: BASEMENT RECORDING STUDIO - DIGITAL PICTURE - BILAL KHAN

• **Structural opportunities** – The buildings structure may allow for vertical addition to accommodate for more space and to allow for more opportunities inside the building.

• **Existing Architectural Details** – The building’s interior architecture details carry a part of history within it, which can be used as an inspiration from some of the interior elements during the design process for the student center.

4.9: CHAPTER SUMMARY AND CONCLUSION

As detailed in this chapter, the old music building has a rich history on the University of Manitoba campus. Its strategic location, nestled between the main buildings of the Faculty of Architecture, makes it an ideal site for establishing a student center that caters to the unique needs of architecture students. Given its rich history, strong presence, and location, this building presents an excellent opportunity to create a space where students can not only study but also enjoy their academic pursuits in a more positive environment.

The new student center within the Marcel A. Desautels building will indeed serve as an ideal location for such a facility. It represents a significant step in ensuring that students have access to a positive environment in which to study. This building will act as a physical barrier to academic stress, negative emotions, and the feelings of academic overwhelm. Instead, it will foster an atmosphere of growth, personal development, and student community.



FIGURE 60: OLD MUSIC BUILDING FOOTPRINT - UNIVERSITY OF MANITOBA ARCHIVES



FIGURE 61: 65 DESAUTELS OLD MUSIC BUILDING - MANITOBA HISTORICAL ARCHIVES

CHAPTER

05

PROGRAMMING

TOPIC 5.1: INTORDUCTION
TOPIC 5.2: CLIENT PROFILE
TOPIC 5.3: STUDENT CENTER OPERATION AND FUNCTION
TOPIC 5.4: USER PROFILES
TOPIC 5.5: DESIGN OBJECTIVE AND GOALS
TOPIC 5.6: SPATIAL REQUIREMENTS
TOPIC 5.7: DESIGN GUIDELINES
TOPIC 5.8: CHAPTER SUMMARY AND CONCLUSION

5.1: INTRODUCTION

The proposed student center at the University of Manitoba will serve as a central hub catering to the students’ needs, addressing areas that may currently be lacking or absent in the existing conditions from FAUM. The primary goal of this center is to create an active, energetic, positive, inclusive, and collaborative environment where students can meet, study, socialize, and work in a supportive atmosphere. The key focus of this initiative is to enhance students’ moods, reduce stress, and provide them with opportunities to thrive both academically and personally.

This student center will offer the student body a new perspective on faculty life and campus life, transcending the traditional notion of a mere study space and evolving into a holistic living experience. The objective is to create an environment that caters to social, academic, and individual needs, allowing students to explore various interests such as casual gaming, art, reading, and other enjoyable activities. These activities will serve as stress buffers and alleviate the pressure associated with academic life.

The specific spaces designed to meet the unique needs and desires of students have either been practically utilized by various faculties or organizations at the University of Manitoba, or by similar institutions. As we delve into these spaces in this chapter, it’s important to understand that the inspirations and ideas behind the proposed spatial programming are not unique to this project alone. Instead, they have proven to be successful in various contexts discussed throughout this document. For example, the science faculty at the University of Manitoba has a game room for their students, while the university center features cafes, restaurants, and gaming areas. Similarly, other facilities offer some level of secondary support spaces, albeit these spaces are often scattered, with limited access and restricted to their respective student bodies.

5.2: CLIENT PROFILE

The Client profile is a hypothetical one developed for the purposes of this practicum.

Hypothetically, the Faculty of Architecture is actively collaborating with students to address their concerns and is committed to providing them with the new student center they need. The university has granted permission for the Faculty of Architecture to acquire and renovate the old Music Building to align with the faculty’s current and future batch of students’ requirements. The chosen location for the old music building, near existing faculty buildings, is ideal for ensuring that students remain closely connected to the academic facilities.

The student center aims to become an integral part of the faculty by offering students a dedicated space that caters to all their academic, social, and individual needs. The faculty’s goal is to foster a sense of community among students, emphasizing collaboration and well-being within an enriching academic environment. Potentially, this hypothetical project could serve as a prototype for other faculties such as Fine Arts, Science, and Engineering across the campus to enhance the learning experience for all University of Manitoba students.

5.3: STUDENT CENTER OPERATION AND FUNCTION

The student center will be accessible to students throughout the academic calendar year and will also serve as a gathering place during holidays, especially for international students seeking spaces to socialize and connect with their peers. The center will welcome students 365 days a year, with access controlled by the same security system as the rest of the campus, allowing entry and exit by swiping their student card.

With the aim of providing students with additional facilities, the student center will always be accessible, supported by campus security and reasonable precautions. The center’s program includes serving as a secondary support space with lounge, dining and socializing space, gaming area, and a venue for student events such as faculty mixers, exhibitions, and presentations.

The operating schedule for the student center is as follows:

- Monday – Sunday: 24-hour access

The center will offer the following amenities:

- Access to open lounges: All days – 24 hours
- Access to Food Bar / Café: All days – 24 hours
- Access to Studio/ Working Conditions: All days – 24 hours.
- Access to Meeting Rooms: All days – 24 hours
- Access to Multipurpose Hall: All days – 24 hours
- Access to Computer lab/Tech/VR Space: 8 am to 6 pm Monday to Friday
- Access to gym (ALC): Available during ALC hours
- Access to swimming pool: Available during ALC hours

The center will adhere to this schedule, but there may be certain limitations, and students may need to request access from the faculty for specific amenities that require supervision or expertise, such as the tech space.

ARCHITECTURE							
UNDERGRADUATE							
B.E.D.	260	13	273	268	2	270	
B.E.D. (Master's Prep. Program)	3	0	3	3	0	3	
Special or Visiting	2	0	2	3	0	3	
SUBTOTAL	265	13	278	274	2	276	0.7%
GRADUATE							
Pre-Masters	0	0	0	1	0	1	
Masters	205	2	207	174	4	178	
Ph.D.	6	1	7	4	2	6	
Occasional or Visiting Student	1	0	1	0	0	0	
SUBTOTAL	212	3	215	179	6	185	16.2%
TOTAL FACULTY/COLLEGE/SCHOOL	477	16	493	453	8	461	6.9%

FIGURE 62: 65 UNIVERSITY OF MANOToba - STUDENT ENROLMENT REPORT 2023

5.4: USER PROFILES

The following section is comprised of the data collected through the University of Manitoba’s yearly enrolment report. In the image below, the report highlights the total number of students enrolled on a yearly basis for the Faculty of Architecture.

Based on that information, the chart below shows the maximum occupancy divided into the primary, secondary, and tertiary users’ group. Subsequently, each user group profile is further broken down with detailed explanation as to who each user group consists of.

5.4.1: PRIMARY USERS

The primary user group is the people spending the most time in the center. As the center is catered for the students, the students from the three individual streams in the faculty of Architecture will be considered as the primary user group.

USER GROUPS	OCCUPANTS (MAX)
PRIMARY USERS	415
SECONDARY USERS	45
TERTIARTY USERS	3
MAXIMUM USERS (TOTAL)	463

FIGURE 63: USER GROUP TABLE

PRIMARY USERS

USERS	OCCUPANTS	BEHAVIORAL NEEDS	PSYCHOLOGICAL NEEDS	SPATIAL NEEDS
TITLE	NUMBERS	ACTIVITIES/ FREQUENCIES	VALUES	AESTHETICS/FUNCTION
Architecture Students (ED3 + ED4)	66	Activities: Studio use, Loung- ing, Eating, Socializing, playing games, studying, reading, researching, and spending quality time. Frequency: 5 – 7 days a week at irregular time intervals.	Communication Cleanliness Organization Working Environment Physical and Metal support Social Support Spiritual Support Security and Safety	Private Spaces Storage Active Learning Environment Positive Environment Strong and pleasing Interior spatial conditions. Open Spaces Social Spaces
Interior Students (ED3 + ED4)	66	Activities: Studio use, Loung- ing, Eating, Socializing, playing games, studying, reading, researching, and spending quality time. Frequency: 5 – 7 days a week at irregular time intervals.	Communication Cleanliness Organization Working Environment Physical and Metal support Social Support Spiritual Support Security and Safety	Private Spaces Storage Active learning environment Positive environment Pleasing interior spatial con- ditions. Open spaces Social spaces
Landscape Students (ED3 + ED4)	66	Activities: Studio use, Loung- ing, Eating, Socializing, playing games, studying, reading, researching, and spending quality time. Frequency: 5 – 7 days a week at irregular time intervals.	Communication Cleanliness Organization Working Environment Physical and Metal support Social Support Spiritual Support Security and Safety	Private Spaces Storage Active Learning Environment Positive Environment Strong and pleasing Interior spatial conditions. Open Spaces Social Spaces
Master's Student (Architecture)	34	Activities: Studio use, Loung- ing, Eating, Socializing, playing games, studying, reading, researching, and spending quality time. Frequency: 5 – 7 days a week at irregular time intervals.	Communication Cleanliness Organization Working Environment Physical and Metal support Social Support Spiritual Support Security and Safety	Private Spaces Storage Active Learning Environment Positive Environment Strong and pleasing Interior spatial conditions. Open Spaces Social Spaces
Master's Student (Interior Design)	33	Activities: Studio use, Loung- ing, Eating, Socializing, playing games, studying, reading, researching, and spending quality time. Frequency: 5 – 7 days a week at irregular time intervals.	Communication Cleanliness Organization Working Environment Physical and Metal support Social Support Spiritual Support Security and Safety	Private Spaces Storage Active Learning Environment Positive Environment Strong and pleasing Interior spatial conditions. Open Spaces Social Spaces

PRIMARY USERS

USERS	OCCUPANTS	BEHAVIORAL NEEDS	PSYCHOLOGICAL NEEDS	SPATIAL NEEDS
TITLE	NUMBERS	ACTIVITIES/ FREQUENCIES	VALUES	AESTHETICS/FUNCTION
Master's Student (Landscape)	33	Activities: Studio use, Loung- ing, Eating, Socializing, playing games, studying, reading, researching, and spending quality time. Frequency: 5 – 7 days a week at irregular time intervals.	Communication Cleanliness Organization Working Environment Physical and Metal support Social Support Spiritual Support Security and Safety	Private Spaces Storage Active Learning Environment Positive Environment Strong and pleasing Interior spatial conditions. Open Spaces Social Spaces
PHD Students (ID + LA + Architecture)	15	Activities: Studio use, Loung- ing, Eating, Socializing, playing games, studying, reading, researching, and spending quality time. Frequency: 5 – 7 days a week at irregular time intervals.	Communication Cleanliness Organization Working Environment Physical and Metal support Social Support Spiritual Support Security and Safety	Private Spaces Storage Active Learning Environment Positive Environment Strong and pleasing Interior spatial conditions. Open Spaces Social Spaces
ED2 Students	100	Activities: Studio use, Lounging, Eating, Socializing, playing games, studying, reading, researching, and spending quality time. Frequency: 5 – 7 days a week at irregular time intervals.	Communication Cleanliness Organization Working Environment Physical and Metal support Social Support Spiritual Support Security and Safety	Private Spaces Storage Active Learning Environment Positive Environment Strong and pleasing Interior spatial conditions. Open Spaces Social Spaces
Nurse/ Counsellor	2	Activities: Ability to provide students with proper physical and mental assistance in providing better health. Frequency: 5 days a week during regular 8 hours a day.	Communication Organization Faculty Support Working Environment	Private Spaces Dedicated working areas. Proper Furniture and Equipment

5.4.2: SECONDARY USERS

The secondary user group is made up of users who will use the center but not daily or will need access to the center frequently. The secondary user group will be present at the facility at least 8 hours a day, three to five times a week. This group mainly consists of people that play a support role to the primary group.

Other Faculties / Students:

Among the secondary user groups of the student center, a crucial segment includes students from other faculties at the University of Manitoba. Although the center is primarily designed by and for the Faculty of Architecture and Urbanism (FAUM), its main goal is to foster social inclusivity,

USERS	OCCUPANTS	BEHAVIORAL NEEDS	PSYCHOLOGICAL NEEDS	SPATIAL NEEDS
TITLE	NUMBERS	ACTIVITIES/ FREQUENCIES	VALUES	AESTHETICS/FUNCTION
University Students (Other faculties)	25	Activities: Lounging, Eating, Socializing, playing games, and spending quality time. Frequency: 4 – 5 days a week at irregular time intervals.	Communication Organization Working Environment Social Environment Informal Setting	Social Spaces Eating Spaces Working Spaces Strong and pleasing Interior spatial conditions. Open Spaces
Guests (Friends and Family)	10	Activities: Lounging, Eating, Socializing, playing games, and spending quality time. Frequency: 1 – 3 days a week at irregular time intervals.	Communication Organization Working Environment Social Environment Informal Setting	Social Spaces Eating Spaces Working Spaces Storage Strong and pleasing Interior spatial conditions. Open Spaces
Instructors/ Professors	5	Activities: Meeting with the students. Support activities. Informal teaching and learning Frequency: 2 – 4 days a week during school hours.	Communication Organization Working Environment Informal Setting	Dedicated working spaces. Private Spaces Open Spaces
Operations Manager	1	Activities: Day-to-day Building Operations. Maintaining all building operations for smooth use. Frequency: 1-3 days a week during	Organization Maintenance Clean and Safe Environment	Dedicated working spaces. Storage and filing systems
Guest Speakers	1	Activities: Speak at events, presentations. Frequency: No specific days, depending on the event schedule.	Communication Organization Working Environment Social Environment Informal Setting Protocol Setting	Private Spaces Open Social Spaces
Faculty Staff – Admin/ Management/ Janitorial	3	Activities: Day to day activities, relating to students, faculty, and everyday functions. Frequency: 1-3 days a week during regular business hours.	Communication Organization Working Environment	Dedicated working spaces. Storage and filing systems.

collaboration, and a positive, supportive environment. Therefore, it is essential to ensure that the center is welcoming to all students across the university.

The student center offers a space where FAUM students can connect and interact with friends and peers from outside their daily classrooms, serving as a communal ground for diverse interactions. This inclusive approach transforms the center into a central hub prioritizing socialization among the broader student body. While the center encourages usage by students from other faculties who find it beneficial to their academic life, it remains under the control of FAUM. Consequently, FAUM students receive priority access, including exclusive after-hours use.

USERS	OCCUPANTS	BEHAVIORAL NEEDS	PSYCHOLOGICAL NEEDS	SPATIAL NEEDS
TITLE	NUMBERS	ACTIVITIES/ FREQUENCIES	VALUES	AESTHETICS/FUNCTION
Security Officer	1	Activities: Provide Security and safety to the premises. Frequency: Need per basis.	Accessibility Communication Organization	Access to all areas, rooms, and doors. Access to building security storage.
Repair and Service People	1	Activities: Make sure that the building is in good working condition Frequency: Need per basis.	Accessibility Communication Organization	Access to entire premises.
Supply and Delivery Drivers	1	Activities: Bring supplies of food etc Frequency: Need per basis.	Accessibility Communication Organization	Direct access to delivery and loading areas. Access to storage

5.4.3: TERTIARY USERS

The tertiary user group uses the center in the least and their need for the center is infrequent and only on a need for basis. Their visits are based upon special tasks, such as security, repairs, and maintenance. While their access is not on a daily basis, they still access inside the center and sometimes may need designated spaces or working areas.

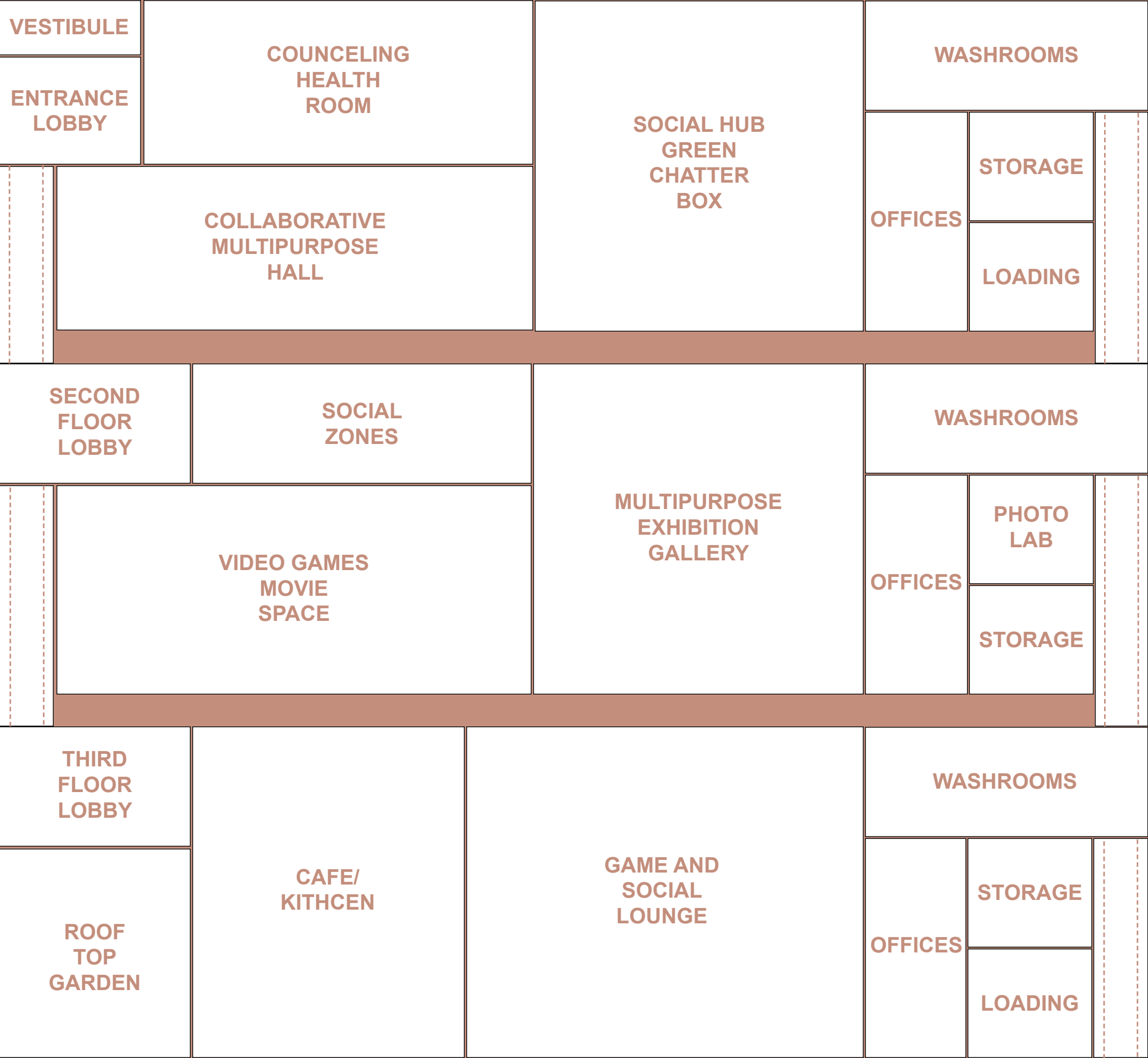
5.5: DESIGN OBJECTIVES AND GOALS

The overall objective of the new student center in the Faculty of Architecture is to facilitate the students in a way that is functional, practical, positive, and encourages a stronger sense of growth, support, and community. The goal is to create a unique environment with all the facilities, spaces and needs that will work in advancing the students achieve their utmost potential and at the same time, would work as a deterrent to the negative stressors, such as depression, workload pressure, academic pressure, lack of social life and other forms of negativity.

Following is some of the goals that reflect the literature review done in chapter 2 of this practicum document:

- Design Goals / Functional Goals / Community and Environmental Goals / Organizational Goals / Spatial Support Goals.

SPATIAL REQUIREMENTS - BUBBLE DIAGRAM



5.5.1: DESIGN GOALS

Following the four mentioned theories in chapter 2, the design goals for the student center are as follows:

- Create a space that reflects the design needs of the student body. For instance, the look and feel of the interior space would flexibly working spaces, private working stations, a social lounge, dining and food spaces, gaming areas, multipurpose halls and other spaces catered towards the needs of the student body specifically.
- A space that encourages social interaction, thorough cafes, social hubs, and multipurpose halls.
- The exterior of the building will be altered to create an environment that encourages a conversation between the external features and internal environment. Both human to human and human to nature interactions would be encouraged.

5.6: DESIGN GUIDELINES

Based on space programming, this section will analyze the collected data and present some of the design guidelines in the form of design issues, objectives, and concepts.

According to Kumlin (1995) in the book Programming Interior Environments by Cynthia Karpan, the following three terms are explained as follows:¹⁹¹

- Issue: to describe the generic concerns that clients provide to architectural programmers.
- Objective: to explain potential ways that each issue could be addressed.
- Concept: to describe the potential solutions or ways that each objective could be addressed.

As such, based on this idea of design guideline, I will present some examples from the proposed project for each:

ISSUE: ACCESSIBILITY AND INCLUSIVITY

- Objective:** The student center should be accessible to all the students in the faculty of architecture, regardless of any apparent or non-apparent disability, religion, or race.
- Concept:** Ensure that the building is up to code and is equipped with proper vertical circulation in the form of an accessible elevator. Also, ensuring that the center is a safe space for all the students free from any form of discrimination and bias.

ISSUE: RELOCATION OF EXISTING MUSIC SCHOOL SPACES

- Objective:** The new spaces should not compromise the functionality of the faculty of Music.
- Concept:** Work in cohesion with the faculty of Music to ensure that spaces from the old music building are properly relocated or already exist in the new music facility.
- ISSUE: DURABILITY**
- Objective:** The student center should be durable and consist of furnishings, furniture and equipment that can withstand the multiple activities and the student traffic.
- Concept:** Ensure all the specified furniture and equipment is functional, space appropriate and does not require delicate handling.

5.7: DESIGN GUIDELINES

ISSUE: SECURITY

- Objective:** The student center should be a secure facility on campus.
- Concept:** Ensure that the building is equipped with secure key entrance and is connected to campus security in cases of emergency.

ISSUE: APPROPRIATE USE OF FACILITY AND ITS AMENITIES

- Objective:** The center should be used for the intended purpose with appropriate use and function by the FAUM students, and no outsiders may be allowed without permission.
- Concept:** Ensure that the center is only used by the students in the Faculty of Architecture through a key card identification and does not provide spaces for anything but for the intended purposes of socializing, periodic dis-engaging from academic stress and etc.

5.9: CHAPTER SUMMARY AND CONCLUSION

In this chapter, the overall programming for the new student center is discussed. It begins by explaining the client profile and their vision for the old Music Building. The operations demonstrate how the center will operate for the user group, under what conditions, and during what times. Then the final section deeply investigates the user group, their needs, spatial requirements, functional requirements, and other elements in order to make this center a successful pilot project for the FAUM.

CHAPTER

06

DESIGN PROPOSAL

TOPIC 6.1: INTORDUCTION
TOPIC 6.2: DESIGN CONCEPT
TOPIC 6.3: DESIGN PROPOSAL
TOPIC 6.4: COLOR SCHEME, MATERIALS AND FURNITURE
TOPIC 6.5: CHAPTER CONCLUSION

6.1: INTRODUCTION

The design proposal for the FAUM Fun Box student center at University of Manitoba (see figure 64) is driven by the vision of creating a collaborative and supportive environment that fosters positivity and engagement among students. This chapter explains the design concept and proposal, drawing insights from the theories of well-being, collaboration, and supportive architecture discussed earlier. Here, I outline how these theories, along with relevant strategies and case studies, informed the design decisions for the proposed student center.

6.2: DESIGN CONCEPT

The proposed design concept for the student center is grounded in critical insights gathered from the literature review, observations from the three precedent studies from chapter 3 of this document, and an understanding of the unique needs of FAUM students. In addition to, the desing is also guided through the personal informal observations as a student within the FAUM. At its core, the concept emphasizes the interaction between students and their physical environment, aiming to address the issues identified in earlier chapters of this document.

In essence, the design concept seeks to cultivate a positive academic environment within FAUM by promoting social interaction, mental and physical well-being, and overall collaboration. The feeling of 'The Fun Box' is within it's name, where the intention is to give the student's their own arc. A story of the students, by the students, for the students. A comprehensive and a unique environment that exists for the students from the FAUM, where it will serve as a platform for providing support through comfort, flexibility, and a variety of productive and positive spaces.



FIGURE 64: FAUM FUN BOX - EXTERIOR DIGITAL RENDER

There are three core factors for the 'Fun Box's" design concept, which are as follows:

Literature Review: The Literature review supported by all the theories is one of the leading factors in the final design concept. For instance, the use of materials and colors are understood and led by Pallasmaa's Atmospheric Architecture theory. Similarly, the Ulrich's Supportive Design Theory, helped in programming of the space and other spatial requirements, by identifying the needs and desires of a space that is designed to encourage positivity, collaboration and a sense of community.

Precedent Studies: Similarly, the three precedent studies discussed ealrier also provided critical notes that tunred into spatial or design ideas, such as the inclusion of collaborative halls for social interaction, game rooms, social hubs, and as well as private spaces. Each precedent study provided context for one or more than one space in the center's design concept. For instance, the imagine lounge in Bangkok's university is an amazing example of juxtaposition between an enjoyable atmosphere and an academic setting.

Informal Observations: Lastly, my personal informal observations as a student at FAUM also provided for critical design reflections. I was able to use my own personal experience to guide some of the design concept, such as, ensuring social interaction, communal and collaboration is encouraged in the new center. A sense of community and relativity amongst the students encourages peer support, that can be extermely beneficial in moments of high stress.

As such, the design concept for the student center relies on aforementioned 3 critical factors, with each one supporting the design concept through the built environment, social environment, design, and also the spatial programming.

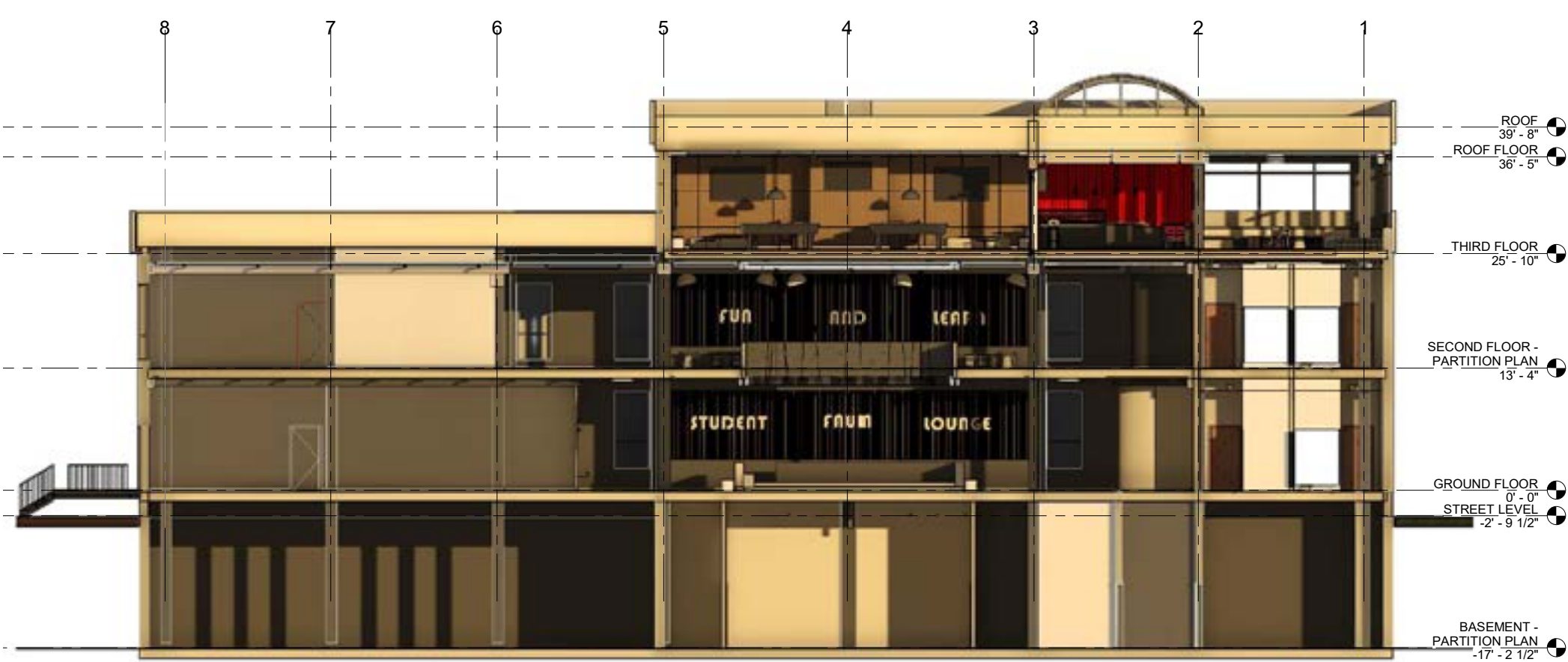


FIGURE 65: FAUM FUN BOX - BUILDING CROSS SECTION CUT N.T.S

6.3: DESIGN PROPOSAL

Since the design concept centers on creating environments that nurture growth, promote mental and physical well-being, and facilitate uplifting social interaction, it directly addresses the negative stressors and pressures of academic life. It is imperative to identify and ensure the implementation of these character-defining elements in the student center, as the absence of spaces that foster social and individual positivity would undermine the overall design concept.

The proposed design for the student center, as detailed in the following sections, offers a strategic solution for interior spaces. It emphasizes careful spatial planning, the creation of conducive spatial atmospheres, the selection of appropriate materials and colors, and the inclusion of furniture. Most importantly, it aims to define spaces that provide students with the secondary support they need to navigate their academic journey at FAUM successfully.

In the next few sections, I explain the strategy and reasoning behind the following topics: Spatial planning and Organization, Color Scheme, and other related topics

6.3.1: SPATIAL PLANNING AND ORGANIZATION

The student center comprises a total of four floors, including a basement. Each floor is designed with a specific purpose in mind. The basement serves as a private floor, housing amenities such as storage rooms, mechanical/electrical rooms, and a boiler room. Similarly, the other three floors are strategically organized to align with key theoretical elements discussed earlier.

For example, the main floor features spaces such as a counseling room, a collaborative open studio hall, and a social pit. These areas promote theoretical concepts relate to student well-being and collaborative working. The second floor includes spaces like a video/movie room, an exhibition space, and several private offices, all aimed at fostering support, collaboration, and well-being among students.

Lastly, the third floor of the student center serves as a completely public space designed to encourage positive social interactions. Here, students can disconnect and unwind in the café and the games room, creating an environment conducive to relaxation and socialization.

In the following section, I explain in detail the special spatial features mentioned above. I also justify the inclusion of the spaces that define the student center.

A. BASEMENT - SPATIAL SIGNIFICANCE

The Basement floor plan, (see figure 65), provides the students with spaces to rejuvenate themselves through their spirituality and faith. It serves as the portion of the building where students who are looking for moments of pause, and just want to recollect themselves from the daily busy of academia. The rest of the basement floor functions as large storage space, and also houses the necessary spaces like the mechanical and electrical rooms for the building's daily safe use.

PRAYER/SPIRITUAL ROOM

In addition to the existing spatial planning, the basement includes private support spaces for students, including a spiritual/prayer room, (see figure 66). This dedicated space offers students a quiet environment where they can practice their spirituality or engage in prayer as needed. A similar initiative was undertaken by the Penn State-Harrisburg library in 2014 in response to growing student demand for a designated prayer space.¹⁹²

Mross and Murphy highlighted Penn State-Harrisburg's library's transformation into a prayer room as an example, stating, "In summer 2016, a new student center opened that includes an interfaith spiritual center providing adaptable spaces for congregational prayer, as well individual prayer spaces with privacy curtains and washing stations... Students are still occasionally found praying in the space, and the prayer rug remains in the room."¹⁹³

Students who wish to pray or engage in other spiritual activities, the designated space provides them with a space that is private and allows for diverse individual faiths to be observed and practiced. Students would feel safe and comfortable within that space and could use it to decompress, while practicing their spirituality in their own private space.

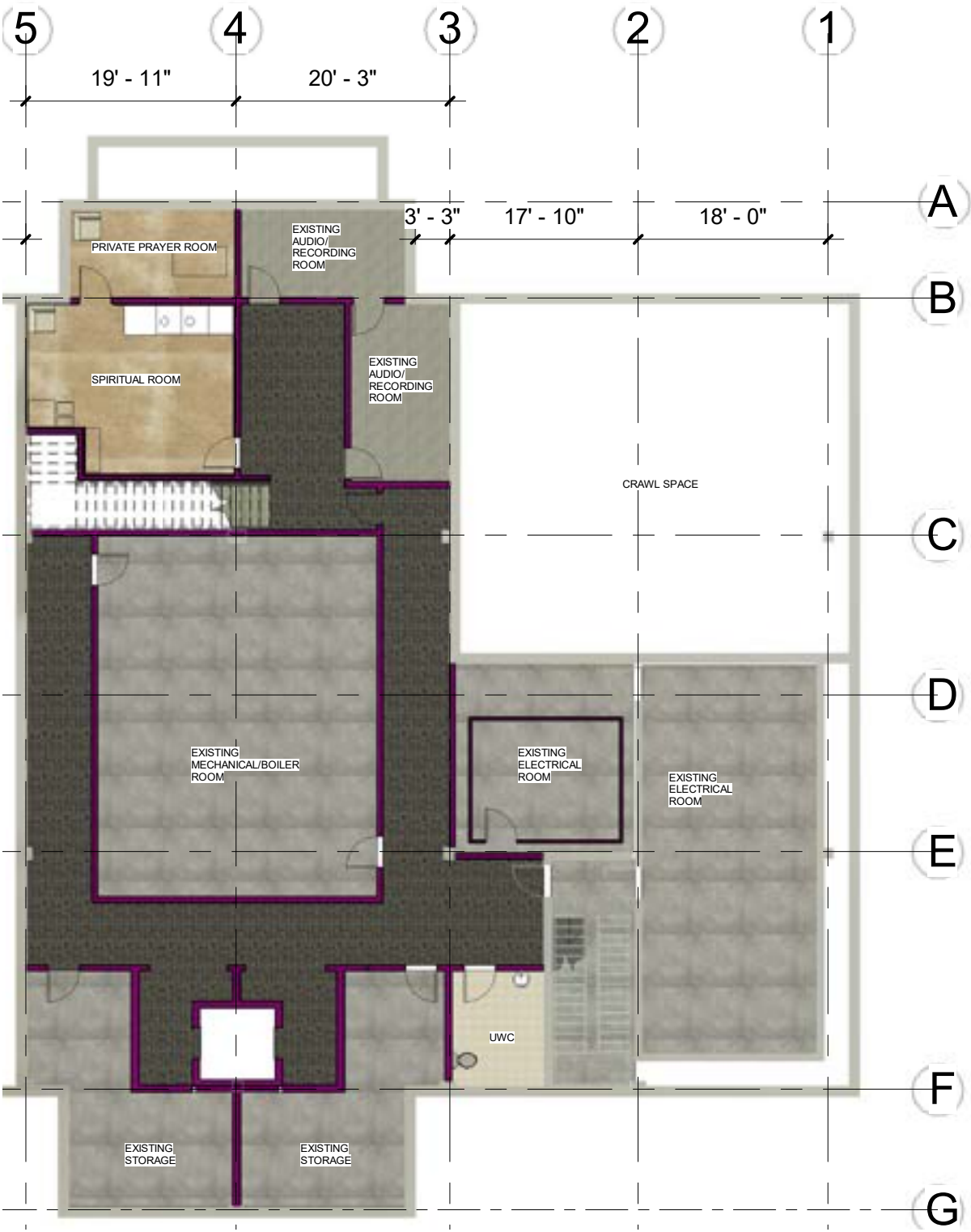


FIGURE 66: PARTIAL BASEMENT FLOOR PLAN - NTS



FIGURE 67: SPIRITUAL/PRAYER ROOM BASEMENT

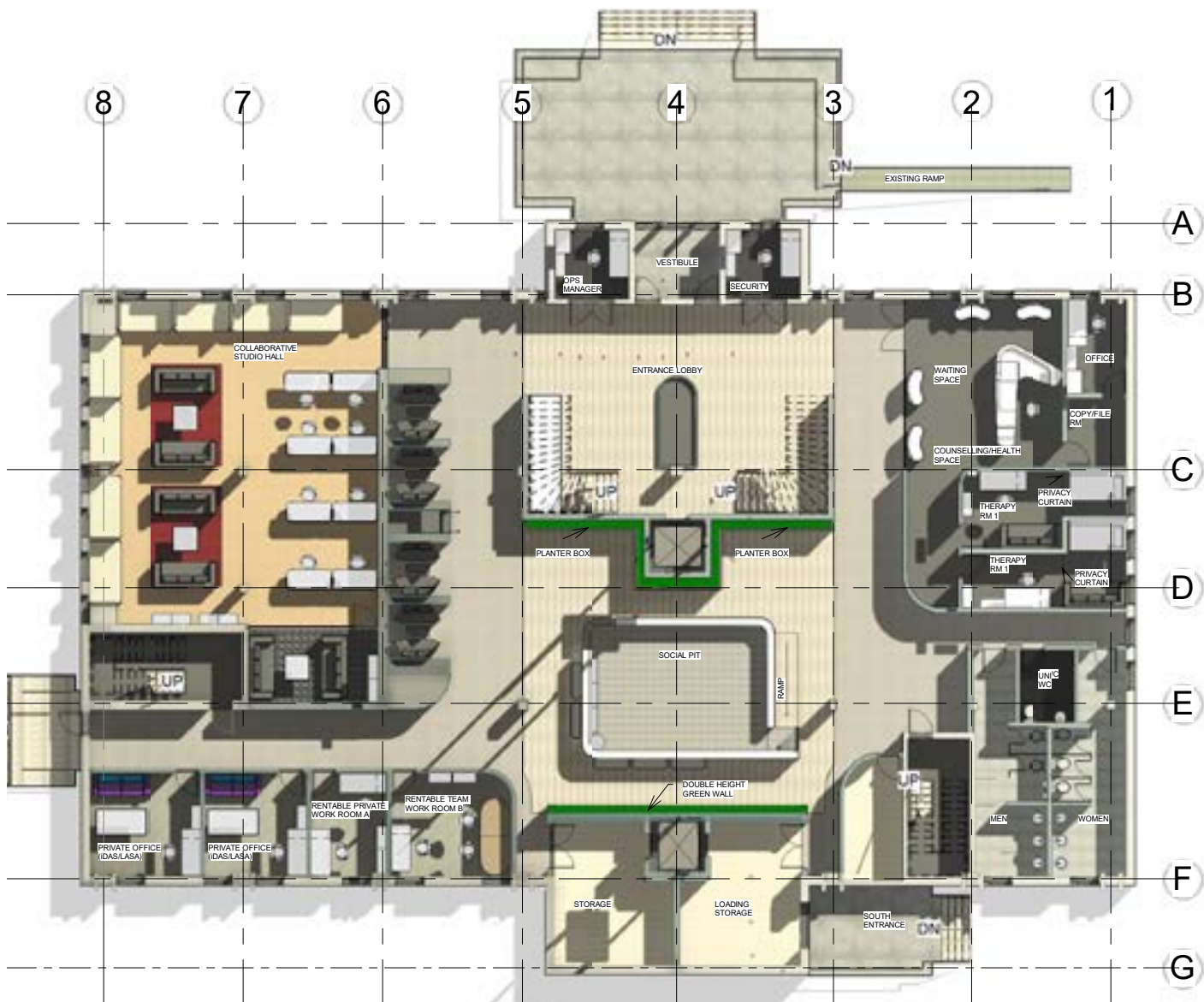


FIGURE 68: GROUND FLOOR PLAN - NTS



FIGURE 69: GROUND FLOOR - SOCIAL CUBBIES WALL ELEVATION - N.T.S

B. MAIN FLOOR - SPATIAL SIGNIFICANCE

The main floor of the student center (see figure 67) serves as the gateway to the facility, with two entrances available for access, the main one located on the southern end of the building. The main floor offers areas conducive to social interaction, collaboration, and support services. Additionally, the main floor houses storage facilities and amenities such as washrooms. The main floor is structured around three key spaces:

COUNCELLING/HEALTH SPACE (HEALTH BOX)

A crucial aspect of fostering and supporting mental well-being is to establish a dedicated space tailored for this purpose. A counseling area, where students can seek support and speak with professionals about their concerns in a non-judgmental environment, is essential for addressing the core issue of a mentally fatigued student body. As highlighted by Abrams in the American Psychological Association journal, “Students grappling with academic pressures, for instance, may find value in workshops focusing on stress management, sleep improvement, time management, and goal setting.”¹⁹⁴

The incorporation of a counseling space in the student center not only meets the functional requirement but also adds aesthetic appeal. It is a space that is welcoming, comfortable, and private, offering the mental solace that students seek. The design and architectural elements of the space are carefully considered with these factors in mind, ensuring that it is conducive to its intended purpose. It is essential to provide students with a personal and confidential environment where they can seek assistance from professionals while feeling secure and, most importantly, mentally, and physically comfortable.

COLLABORATIVE/MULTIPURPOSE STUDIO HALL (CREATIVE BOX)

The collaborative studio hall, also known as “Creative Box” (see figure 68) earns its name from its versatile functionality. The intention behind this studio is to offer the FAUM student body a space outside of their typical studio environment, allowing them to utilize it according to their needs. Dubbed “The Student’s Studio,” this space is open and adaptable, catering to various student requirements. Unlike traditional lecture halls, classrooms, or even the standard studio environments found in other buildings on campus, this studio is designed with modularity and flexibility in mind.

The key architectural feature of the studio is its modular furniture, emphasizing comfort, versatility, and adaptability. Additionally, the inclusion of a private secluded office for confidential student meetings enhances the concept of multipurpose functionality. Inspired by Scandinavian interiors, the aesthetic of the space prioritizes simplicity and coziness. Warm wooden textures and abundant natural light contribute to a sense of comfort and tranquility. By incorporating wood and light colors, the space feels spacious, inviting, and fosters a feeling of solace.



FIGURE 70: GROUND FLOOR - COLLABORATIVE STUDIO (CREATIVE BOX)

SOCIAL PIT (CHAT BOX)

The social pit on the main floor, also known as “Chat Box,” derives its name from both its design aesthetic and functionality. Inspired by Scandinavian concepts of coziness and comfort, the Green Chatter Box incorporates elements of biophilia to create a tranquil environment. Featuring a lush green wall, planter boxes, and an abundance of natural elements, the space evokes a sense of comfort and well-being. Research indicates that exposure to greenery and nature can reduce stress levels, making the indoor green walls effective in fostering a calming and relaxing atmosphere.

The primary purpose of the social pit is to serve as a gathering place for students, promoting a sense of community and inclusivity. It offers an open, inviting, and visually appealing space where students can reconnect with their peers. The Green Chatter Box in the student center functions as a hub for community building, facilitating interactions between students from different academic streams, and providing a platform for positive social support within the FAUM.



FIGURE 71: GROUND FLOOR SOCIAL PIT - (CHAT BOX)

C. SECOND FLOOR - SPATIAL SIGNIFICANCE

The second floor of the student center serves as a hub for recreational activities, featuring spaces dedicated to student presentations, gaming, and movie screenings. Designed to offer students a break from their academic routine, the second floor provides a variety of secondary spaces where they can unwind and socialize with friends. These spaces promote student well-being by fostering inclusion, collaboration, and support. The primary areas on the second floor include:

EXHIBITION GALLERY (LOOK BOX)

The Exhibition Gallery, or presentation room, on the second floor serves as an extension of the student body, providing a platform for showcasing their creative work. It functions as a space for celebration, promotion, and support, allowing students to display their projects, models, and other forms of creative expression. The design of the space prioritizes its function, providing students with a flexible environment that can be adapted to their needs. With its open layout and versatile design, the exhibition space encourages students to use it in ways that best suit their projects and aspirations.

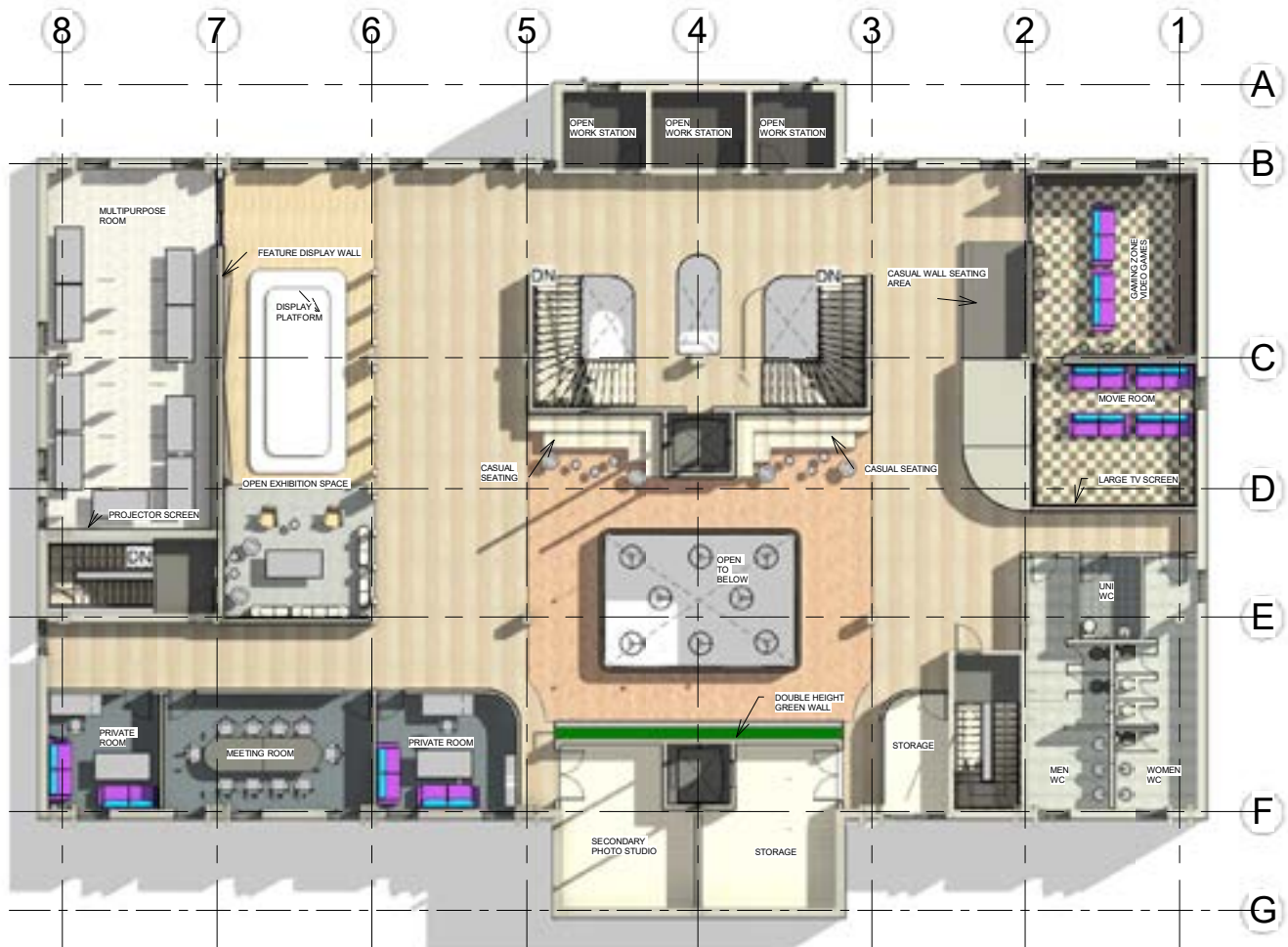


FIGURE 72: SECOND FLOOR PLAN - NTS

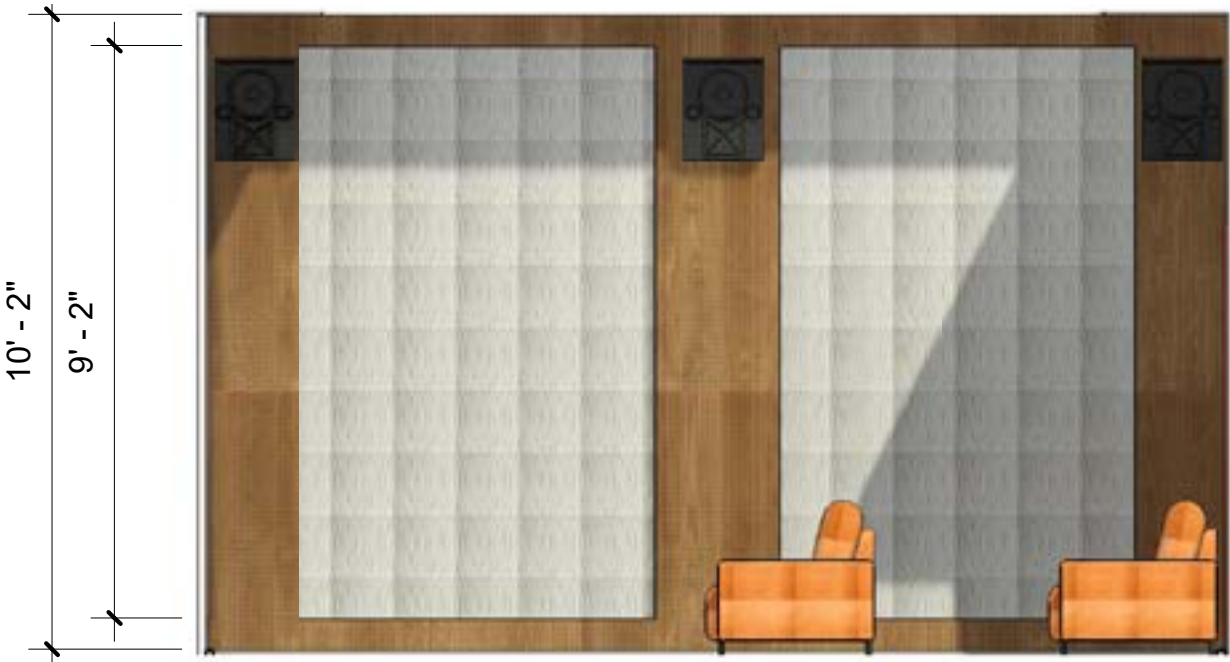


FIGURE 73: SECOND FLOOR - MOVIE ROOM ACOUSTICAL WALL ELEVATION NTS

The flexibility of space can play a crucial role in addressing the rigidity often found in academic settings. As Ralph suggests in his article, students benefit from opportunities to feel a sense of belonging, which includes opportunities to connect with groups, access different areas of the school, and engage at various times throughout the day. The exhibition space serves as a physical manifestation of this sense of belonging within the FAUM, providing a common platform for students to express themselves through art, design, and architecture.

VIDEO GAME AND MOVIE ROOM (WATCH BOX)

The second floor also features an exciting space designed to foster a sense of belonging and relaxation among students: the video game and movie room, affectionately dubbed "Watch Box." True to its name, this room provides students with a complete break from academia, immersing them in the world of gaming, fun, and movies. Not only does the room serve as a place to unwind and destress, but it also offers inspiration through the medium of entertainment. The design of the space reflects its intended purpose, offering a stark contrast to the typical academic environment and inviting students to reconnect with enjoyment and camaraderie.

The experience of being in this space is sure to be memorable and impactful. The Digital Dungeon provides the perfect retreat for students who enjoy gaming and movies, offering them a chance to recharge and refresh themselves before returning to their academic pursuits. Research shows that a balanced amount of leisure activities like movies and games can contribute to happiness, fostering a sense of connection and positive social engagement that is both healthy and beneficial.



FIGURE 74: SECOND FLOOR - VIDEO GAME ROOM - (WATCH BOX)



FIGURE 75: EXHIBITION GALLERY (LOOK BOX) - STUDENT PRESENTATION

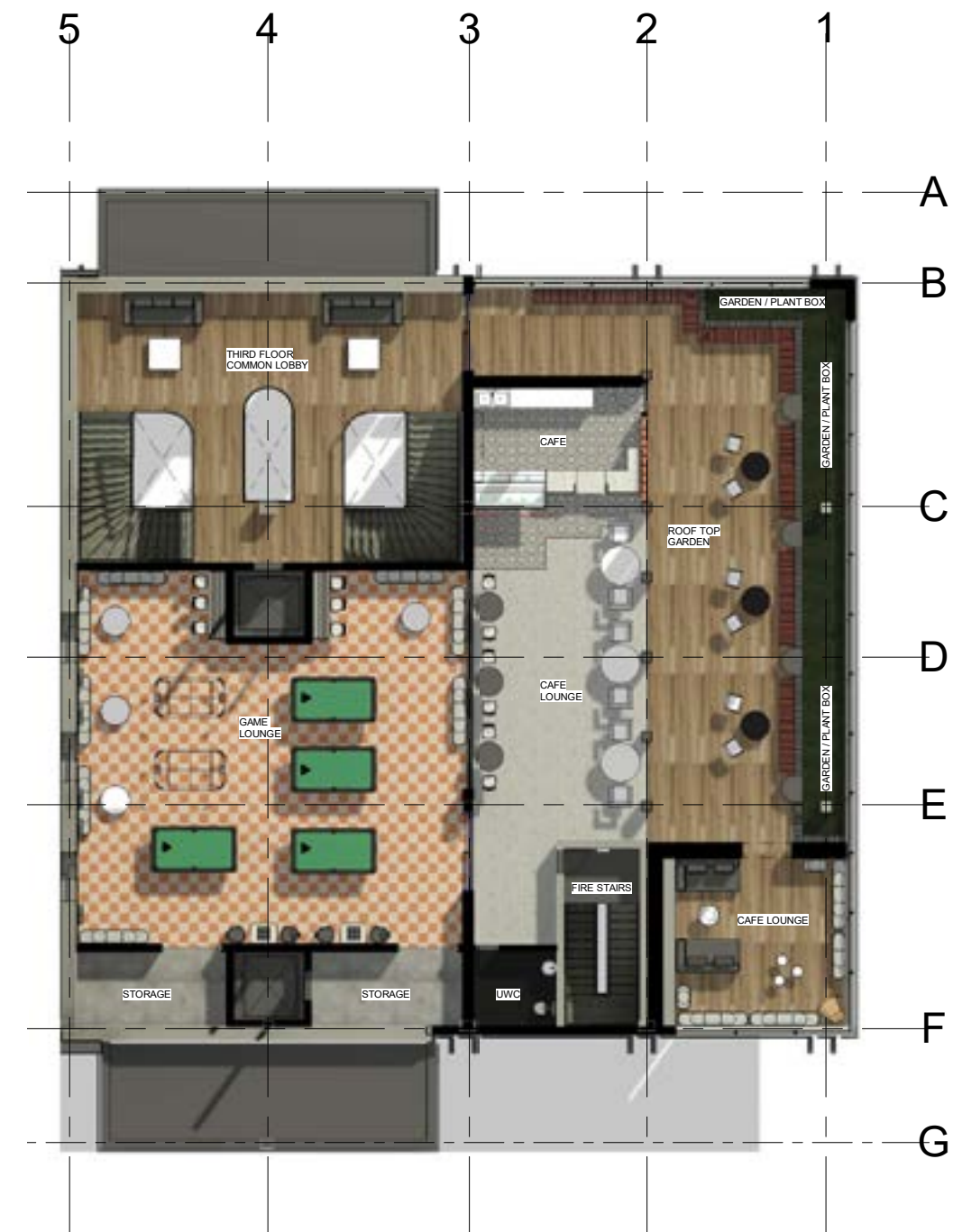


FIGURE 76: THIRD FLOOR PLAN - NTS



FIGURE 77: THIR FLOOR PLAN -GAME ROOM FEATURE WALL ELEVATION NTS

D. THIRD FLOOR - SPATIAL SIGNIFICANCE

The third and topmost floor of the student center (see figure 70) is important because it serves as a sanctuary from the typical studio and academic environment. The primary objective of this floor is to promote both physical and mental well-being, offering a respite from stress and rigidity. Here, students are transported into a realm of fun, relaxation, food, and games—a vibrant hub for forging connections, socializing, collaborating, and enjoying an exhilarating experience. The key space on the third floor is as follows:

CAFE AND GAME HUB (PLAY BOX)

The rooftop café and game hub, fondly dubbed the “Play Box,” pays homage to the Faculty of Architecture and its vibrant student community. Drawing inspiration from both the students and the space’s intended function, the café boasts design elements that evoke excitement and engagement. With an open roof allowing ample natural light, lush greenery, and modular, colorful furniture, the café exudes an atmosphere of energy and creativity.

For students, the experience of gathering in the rooftop café, sharing meals, playing games, and appreciating artwork amid a backdrop of nature fosters feelings of tranquility, camaraderie, and positivity. Research has shown that engaging in social activities, enjoying good food, and being surrounded by uplifting elements can serve as powerful antidotes to depression, stress, and anxiety. As such, the FAUM Roof Café offers not just a place to unwind, but a sanctuary where students can rejuvenate their spirits and forge lasting connections.

6.4. COLOR SCHEME, MATERIALS AND FURNITURE

The color palette, materials, and furniture choices throughout the student center are carefully curated to align with principles outlined in Pallasmaa’s atmospheric architecture theory, as well as insights gleaned from the three precedent studies. According to this theory, these design elements should not only serve the intended function of the space but also reflect the characteristics of the individuals who will inhabit it.



FIGURE 78: THIRD FLOOR CAFE (FAUM CAFE) - STUDENTS ENJOYING SOCIAL TIME WITH FRIENDS

In the context of the student center, the color scheme is chosen to mirror the energetic, uplifting, and positive attitude of the student body. By incorporating vibrant hues and dynamic patterns, the environment resonates with the lively spirit of the students, fostering a sense of vitality and engagement. Additionally, the selection of materials and furniture is informed by the need for durability, comfort, and versatility, ensuring that the space can accommodate various activities and preferences while maintaining its inviting atmosphere.

Color, materials, and furniture selection play pivotal roles in the narrative of design, each architectural element contributing to the overall story of the space or environment. Take the student center, for example, where casual modular seating is strategically positioned throughout, inviting students to sit, chat, and relax at their leisure. This abundance of seating facilitates spontaneous conversations and fosters positive socialization—a key objective of the space.

6.4.1. COLOR PALLETTE

The propsoed center aims to cultivate positivity, energy, and relaxation, providing students with a reprieve from the rigors of academic life. Central to this concept is the strategic use of color in the design of the space to evoke a soothing and calming ambiance. Drawing inspiration from Scandinavian design principles, the student center will incorporate light, warm colors known for their ability to promote feelings of comfort and tranquility. By leveraging the psychological impact of color, the center seeks to create an environment that fosters a sense of well-being and relaxation for students.

Moreover, the color palette, inclusion of natural light, and incorporation of biophilic elements are seamlessly integrated throughout the building, creating tranquil and invigorating spaces. Complemented by vibrant colors, captivating

artwork, and student-produced creations, the student center exudes familiarity, intrigue, and a distinct personality that distinguishes it within the FAUM community, establishing a unique identity and sense of belonging for its occupants.

For a student center aimed at promoting positivity, energy, and relaxation, it's essential to choose colors that evoke these feelings effectively:

- **Warm Neutrals:** Warm neutral tones such as beige, taupe, and soft gray can provide a sense of comfort and stability. These colors serve as a versatile backdrop for other design elements while creating a cozy and inviting atmosphere.
- **Soft Yellows:** Light, subtle shades of yellow can evoke feelings of optimism, happiness, and warmth. These colors can add a cheerful touch to the space, promoting a positive and uplifting environment for students.
- **Warm Greens:** Soft greens reminiscent of nature can evoke a sense of balance and harmony. These colors can help create a refreshing and rejuvenating environment, promoting feelings of vitality and well-being.

In essence, your idea underscores the importance of considering the emotional and psychological effects of design elements, particularly color, in shaping the atmosphere of communal spaces like the student center. By harnessing the principles of color psychology, the aim is to craft a welcoming and rejuvenating environment where students can unwind, recharge, and thrive amidst their academic pursuits.

6.4.2. FURNITURE SELECTION

Like color, the selection of furniture is also another critical part of the design, as also explained by Pallasma in his Atmospheric Architecture Theory. As such, for a positive and supportive student center, it's important to choose furniture that prioritizes functionality, comfort, and aesthetics.

- **Flexible Seating:** Modular seating options that can be easily rearranged to accommodate different group sizes and activities. This allows students to create their own comfortable seating arrangements based on their needs.
- **Soft Seating Areas:** Cozy seating areas with upholstered chairs, sofas, and ottomans where students can relax and socialize. Incorporate soft fabrics and cushions for added comfort.
- **Versatile Furniture:** Multipurpose furniture pieces that serve dual functions, such as storage ottomans or nesting tables. This maximizes space efficiency and enhances flexibility in the student center layout.
- **Collaborative Tables:** Tables that are large enough to accommodate group work and collaborative projects. Consider adjustable-height tables that can cater to different preferences and activities.

6.4.3. MATERIAL SELECTION

Similar to the careful selection of colors and furniture, the choice of materials for the entire design is inspired by the intended use of the space, its purpose, and the desired aesthetic value. The overall goal is to create an environment that exudes a sense of calm and positivity. However, each space within the student center requires a unique selection of materials to achieve its specific qualities.

As such, most material choices are based on the following factors:

Durability and Maintenance:

Carpet Tiles: Provide noise reduction and comfort. They are easy to replace in high-traffic areas. (Example: Private Offices, Spiritual/ Prayer Room / Meeting Room).

LVT/VCT/Linoleum: Durable, easy to maintain, and available in various colors and patterns. (Example: Common Space, Creative Hub, Game Room Etc).

Polished Concrete: Extremely durable and low maintenance, though it can be hard underfoot. (Example: Loading, Storage).

Comfort:

Acoustic Panels: To reduce noise and improve sound quality in classrooms and common areas, use acoustic ceiling tiles, wall panels, or carpeting. (Example: Audio Room, Prayer Room, Game Room).

Ergonomic Furniture: Select adjustable chairs and desks to support proper posture and accommodate different body types and heights. (Example: Cafe, Game Room, Studio etc)

Aesthetics and Environment

Natural Materials: Incorporate wood, cork, and bamboo to create a warm and inviting atmosphere. These materials can also be sustainable options.

Color Schemes: Choose colors that promote focus and calmness, such as blues and greens for study areas, and more vibrant colors for collaborative spaces to encourage creativity and interaction.

These thoughtful material choices ensure that each area within the student center not only serves its functional purpose but also contributes to the overall aesthetic and emotional well-being of the students. By carefully balancing bold and subtle elements, the design aims to create a harmonious space that supports relaxation, creativity, and social interaction.

DIGITAL MATERIAL BOARD

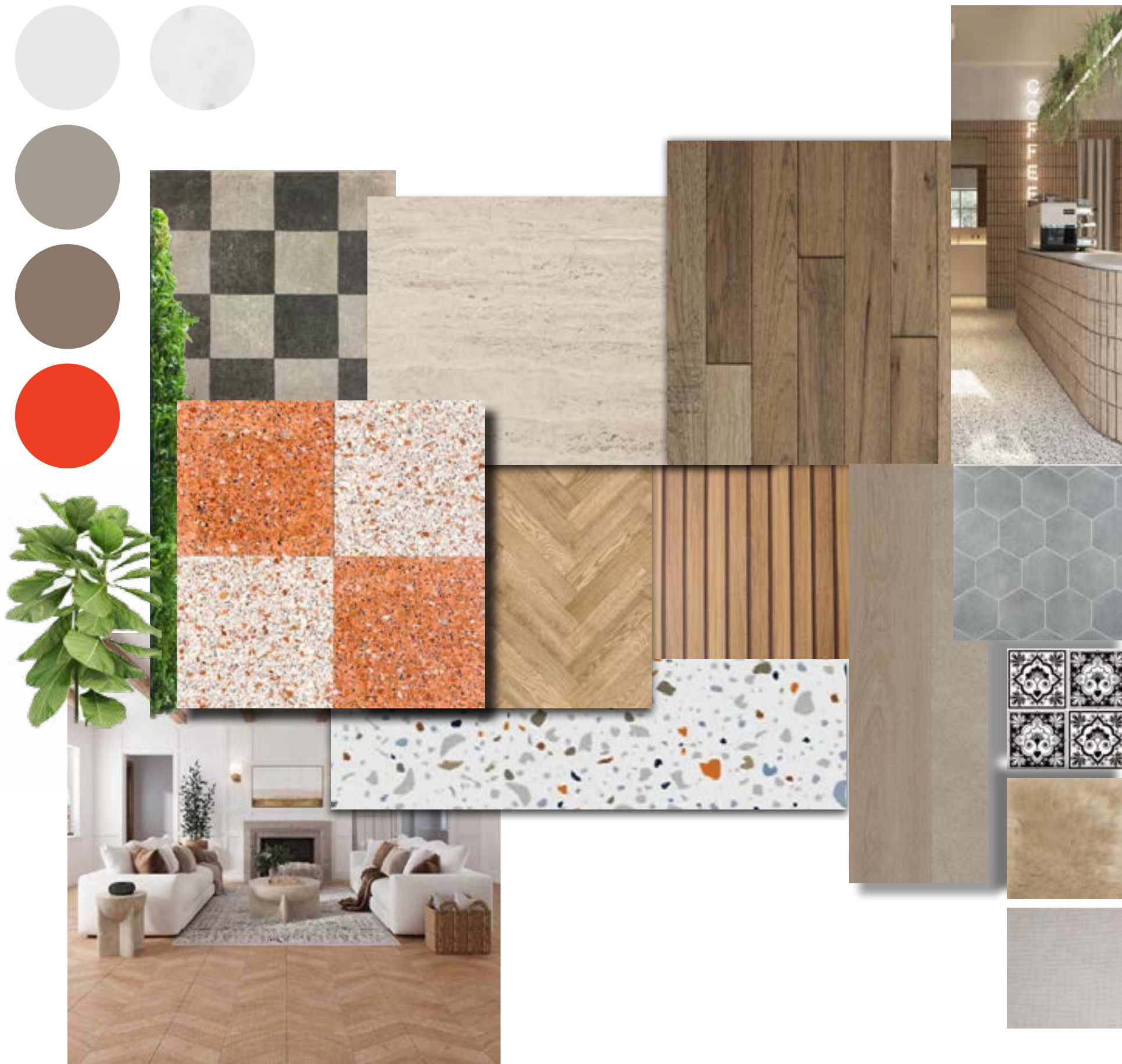


FIGURE 79: GAME ROOM (PLAY BOX) - STUDENTS ENJOYING SOCIAL TIME WITH FRIENDS

6.5. CHAPTER SUMMARY AND CONCLUSION

In conclusion, the Fun Box design is a multifaceted space created to offer students comprehensive secondary support, whether through counseling rooms, social lounges, halls for work and exhibitions, game rooms, or simply spaces to enjoy some alone time with food and drink. The primary objective of this student center is not to disrupt academic life but to enhance it in a constructive, collaborative, and positively enriched environment. Fun Box aims to promote social positivity, a sense of community, and, most importantly, act as a physical space where student well-being is the top priority.

Each section of the student center provides students with a unique experiential journey. For instance, the basement floor is dedicated to spiritual and mental well-being, offering spaces for reflection and counseling. The ground floor fosters community and collaboration, providing areas for socialization and group activities. The second floor encourages students to stay active, creative, and inspired by featuring exhibition spaces where the work of fellow students can serve as a source of motivation. Additional spaces, like the game and movie rooms, offer daily distractions and bring friends together, helping to mitigate burnout.

The third floor is designed to provide a sense of disconnect from the rigors of academic life, offering a much-needed pause through amenities such as cafes, lounges, and game rooms. These areas provide students with an essential break from academic stress and pressure, allowing them to recharge and return to their studies with renewed energy.

Fun Box is not a space that causes students to lose their identity to depression, stress, or other negative feelings. Instead, it offers multiple positive reasons for students to feel supported, encouraged, and connected to a community of peers who share the same experiences. Fun Box is the physical manifestation of a positive, strong, and collaborative student community, ensuring that every student feels like an integral part of a supportive and thriving environment.

CHAPTER

07

CONCLUSION

TOPIC 7.1: PERSONAL REFLECTIONS
TOPIC 7.2: FUTURE DIRECTIONS FOR PROPOSED CONCEPT

7.1: PERSONAL REFLECTIONS

The journey of conceptualizing and designing a student center for the Faculty of Architecture at the University of Manitoba (FAUM) has been a deeply personal and enlightening experience for me. From the moment I became a student in the faculty, I observed patterns and identified issues that I felt compelled to address – such as unhealthy study habits, prolonged studio hours, limited social engagement outside of school, and the relentless demands of academia.

While I am grateful for the invaluable skills and knowledge I have gained as a member of this esteemed faculty, I also recognized areas where the rigid learning environment posed challenges for students. This project presented an opportunity for me to delve deeper into these issues, seeking to understand them from an interior designer's perspective and, ultimately, propose potential solutions.

Projects of this nature offer immense learning opportunities, allowing us to explore challenges and devise spatial and design solutions that address them effectively. In the case of this project, I identified the concerns and struggles faced by students in the FAUM, ranging from negative emotions to stress and depression. By combining personal insights with research and data analysis, I formulated the main objective for the student center – a space designed to support and enhance the student experience.

Throughout this endeavor, I encountered two significant challenges that demanded careful consideration. The first challenge was navigating the potential bias inherent in proposing a design solution based on personal experiences within the FAUM. While my insider perspective provided valuable insights, I endeavored to maintain objectivity by grounding my solutions in theoretical research, case studies, and ongoing exploration of the topic.

The second challenge was ensuring that the design proposal effectively addressed, if not all, at least the majority of the issues identified at the outset of the project. It was essential for me to remain mindful of the decisions made throughout the process, ensuring that each contributed to potential solutions for core issues such as social isolation, academic rigidity, and mental health challenges.

In conclusion, this project has been a journey of self-discovery, exploration, and creative problem-solving. While there are undoubtedly areas for further refinement and improvement, I am proud of the design concept we have developed and optimistic about its potential to positively impact the student community within the FAUM.

7.2: FUTURE DIRECTIONS FOR PROPOSED CONCEPT

This project emerged as a direct response to my experiences as a student within FAUM. Balancing the perspectives of an insider and the need for neutrality posed the greatest challenge, compelling me to scrutinize proposed solutions and their alignment with broader issues. Despite this challenge, I'm pleased with the final proposal, as each space is meticulously crafted to address specific concerns – from the social support offered by the café to the professional assistance provided by the counseling area.

Throughout this journey, it became evident that student concerns are dynamic, necessitating adaptive solutions informed by current data and research. Just as design styles evolve over time, so too must our approach to addressing student needs. While the proposed student center addresses current issues, it remains open to evolution and refinement in response to future challenges.

I acknowledge that certain design elements and considerations may be absent from the current proposal, such as direct student involvement in the design process and greater integration of the student body. I encourage future researchers and designers to explore these avenues further, recognizing the vital role interior design can play in enhancing student well-being and functionality.

If someone were to takeover this project and expanded upon the ideas and themes, there is a lot more to explore and delve deeper into. For instance, instead of constricting yourself with selected spaces, rooms or pre-imagined environments, the design should be a lot more organic, with the student body's opinion as the leading force. I think including direct opinions through proper surveying is something that is missing from this current version that can take this to the next step and really bring in that missing link to call this a completely successfull solution to the issues identified.

In conclusion, this project underscores the importance of creating spaces that are not only practical and unique but also deeply resonant with the student experience. By continuing to innovate and collaborate, we can ensure that our design solutions remain relevant and impactful for generations to come.

PAGE INTENTIONALLY LEFT BLANK

ENDNOTES

1. Mike, Le Couteur. "Post-Secondary schools focus on mental health as students feel the stress". Global News. Oct 25, 2019. Retrieved from, (1) post-secondary schools focus on mental health as students feel the stress | Globalnews.ca. Accessed February 11, 2023.

2. Michael, Lavelley. "Understanding Burnout in Architecture School and the Profession". Architizer. 2022. Retrieved from, Understanding Burnout in Architecture School and the Profession - Architizer Journal. Accessed February 11, 2023.

3. Jason, Hagenauer. "Stress, Depression, and Anxiety in Undergraduate Engineering and Architecture Students". Conference: American Society for Engineering Education Northeast Section Conference. (2018). Retrieved from, (2) (PDF) Stress, Depression, and Anxiety in Undergraduate Engineering and Architecture Students (researchgate.net). Accessed February 11, 2023.

4. Brooke, Linden et al., "Post-Secondary Stress and Mental Well Being: A Scoping Review of the Academic Literature". Queen's University. Canadian Journal of Community Mental Health. Vol, 39, NO. 1. 2020. Retrieved from, Post-Secondary Stress and Mental Well-Being: A Scoping Review of the Academic Literature (cjmh.com). Accessed February 11, 2023.

5. Jason, Hagenauer,. "Stress, Depression and Anxiety in Engineering and Architecture Students". Research Gate, 2018.

6. Jason, Hagenauer,. "Stress, Depression and Anxiety in Engineering and Architecture Students". Research Gate, 2018.

7. Kristin, Hohenadel. "How architecture builds a profession of stress." Welcome Collection. (2018). Retrieved from, How architecture builds a profession of stress | Welcome Collection. Accessed February 16, 2023.

8. Jason, Hagenauer,. "Stress, Depression and Anxiety in Engineering and Architecture Students". Research Gate, 2018.

9. Martin, Loosemore et al., "Depression in Australian Undergraduate construction Management, Civil Engineering, and Architecture Students: Prevalence, Symptoms, and Support." Journal of Civil Engineering Education. Vol 146. Published July 2020. Technical Papers. Retrieved from (ascelibrary.org). Accessed February 16, 2023.

10. Martin, Loosemore et al., Journal of Civil Engineering Education, V. 146, 2020.

11. Rebecca A Vidourek et al. "Students' benefits and barriers to mental health help-seeking." Health psychology and behavioral medicine vol. 2,1 (2014): 1009-1022. doi:10.1080/21642850.2014.963586. Accessed February 16, 2023.

12. Rebecca A Vidourek et al. "Students' benefits and barriers to mental health help-seeking." 1009-1022, 2014.

13. Street Space. "How to Create Stress Free Environment Schools." Street Space Group. Sep 27, 2018. Retrieved from, 3 Key Elements of a Stress-Free School Environment (streetspacegroup.co.uk). Accessed February 16, 2023

14. Street Space., " How to Create Stress Free Environment Schools." 2018.

15. Prof. Kamal K Sharma (Ph.D). "Unlocking the power of student clubs and societies: Your key to university success". Linkedin, Oct 14, 2023. Retrieved from, Unlocking the Power of Student Clubs and Societies: Your Key to University Success (linkedin.com). Accessed February 16, 2023

16. Teresa, Heitor, "Potential Problems and Challenges in Defining International Design Principles for Schools". Evaluating Quality in Educational Facilities. Published 2005. Retrieved from, Microsoft Word - EvaluatingQualityPublication.doc (oecd.org). Accessed February 16, 2023

17. Teresa Heitor. "Potential Problems and Challenges in Defining International Design Principles for Schools".2005.

ENDNOTES

18. Amanda, Menas. "The Widening Mental Health Treatment Gap in Schools". National Education System. NEA News. May 5, 2019. Retrieved from, The Widening Mental Health Treatment Gap in Schools | NEA. Accessed February 22, 2023

19. Teresa Heitor. "Potential Problems and Challenges in Defining International Design Principles for Schools".2005

20. Teresa Heitor. "Potential Problems and Challenges in Defining International Design Principles for Schools".2005

21. Ulysses, Valiente. "Mental Health Awareness for the Architecture Student". Life of an Architect. 2012. Retrieved from, Mental Health Awareness for the Architecture Student | Life of an Architect. Accessed, Feb 22, 2023.

22. Claudette, Christison. "The Benefits of Participating in Extracurricular activities". Brandon's Universiy, Dept of Education. BU Journal of Graduate Studies in Education, Vol 5, Issue 2, 2013. Retrieved from, EJ1230758.pdf (ed.gov). Accessed, Feb 24, 2023.

23. Teresa Heitor. "Potential Problems and Challenges in Defining International Design Principles for Schools".2005

24. Street Space., " How to Create Stress Free Environment Schools." 2018.

25. Eric. "How to Deal with stress in healthy ways". Undergraduate Programs. University of Waterloo. Retrieved from, How to deal with stress in healthy ways | Undergraduate Programs | University of Waterloo (uwaterloo.ca). Accessed, Feb 24, 2023.

26. Leon, "HOW TO HAVE A HEALTHY LIFESTYLE AT ARCHITECTURE SCHOOL AND THE BENEFITS." The Orangery Blog. 2022. Retrieved from, How to have a Healthy Lifestyle at Architecture School and the Benefits. — theorangeryblog.com. Accessed, Feb 24, 2023.

27. Imad, Bouchrika, Phd. "12 ways to reduce stress for college students". Education. Research. October 4, 2022. Retrieved from, 12 Ways to Reduce Stress For College Students | Research.com. Accessed, Feb 24, 2023.

28. Christine Deasy et al., "Psychological distress and lifestyle of students: implications for health promotion". Health Promotion International, Volume 30, Issue 1, March 2015, Pages 77–87, Retrieved from, https://doi.org/10.1093/heapro/dau086. Accessed, December 01, 2023.

29. Lyndon, Haviland. "America's Universities are failing students facing mental health crises". The Hill, Education. 2022. Retrieved from, America's universities are failing students facing mental health crises | The Hill. Accessed, December 01, 2023.

30. The Guardian. "Survey: 25% of UK architecture students treated for mental health problems". The Guardian. 2017. Retrieved from, Survey: 25% of UK architecture students treated for mental health problems | Higher education | The Guardian. Accessed, December 01, 2023.

31. Prof, Sonja, Oliveira et al., "Campus Spaces and places: Impact on Student Outcomes". AUDE, Association of University Director of Estates. 2022. Retrieved from, Campus-Places-and-Spaces-Feb-2022.pdf (universitydesignforum.org). Accessed, December 01, 2023.

32. Chen, A. & Mynard, J. "Student Perspective of the English lounge after a layout change". Relay Journal. (2018). Retrieved from, (1) (PDF) Student Perceptions of the English Lounge after a Layout Change (researchgate.net). Accessed, December 01, 2023.

33. Chen, A et al., "Student Perspective of the English lounge after a layout change". Relay Journal. 2018.

34. Unama'ki College. "Unama'ki College View Vook: Cape Brenton University". Retrieved from, Unamaki-Viewbook-2023-Digital.pdf (SECURED) (cbu.ca). Accessed, December 01, 2023.

ENDNOTES

35. Southern Connecticut State University. “Missions and Goals of the Student Center”. Student Center. 2020. Retrieved from, Mission and Goals of the Student Center | Southern Connecticut State University (southernct.edu) Accessed January 5, 2024.

36. Kayla ,Roles. “Creative Burnout: Suffocating the future of Design”. IDSA. Kansas State University. Page 1. Retrieved from, Creative Burnout - Suffocating The Future Of Design.pdf (idsa.org). Accessed, December 12, 2023.

37. Roles. Creative Burnout: Suffocating the future of Design”. IDSA, Page 1.

38. Roles. Creative Burnout: Suffocating the future of Design”. IDSA, Page 1.

39. Roles. Creative Burnout: Suffocating the future of Design”. IDSA, Page 1.

40. Gary, W, Evans. “The built environment and mental health.” Journal of Urban Health. 2003. Page 536-555. Doi: 10.1093/jurban/jtg063. Retrieved from, The built environment and mental health - PMC (nih.gov). Accessed, December 12, 2023.

41. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. Architectural Research Symposium in Finland. 2014. Retrieved from, DESIGN FOR HUMAN FLOURISHING IN ARCHITECTURE on JSTOR. Accessed December 18, 2023.

42. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

43. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

44. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

45. Orozco Molar Maria, “The role of Architecture to Achieve wellbeing”. Faculty of Architecture. University of Coahuila. 2023 Apple Academic press Inc. Accessed December 18, 2023.

46. Ann, Petermans et al., “Setting the scene for design for subjective wellbeing.” Design For Wellbeing. 1st Edition. 2019. London. Retrieved from, https://doi.org/10.4324/9781315121383. Accessed December 18, 2023.

47. Ann, Petermans et al., “Setting the scene for design for subjective wellbeing.” 2019.

48. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

49. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

50. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

51. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

52. Ann, Petermans et al., “Setting the scene for design for subjective wellbeing.” 2019.

53. Loeckx, A.. Project and design, amending the project mode. (2009). In A. Loeckx (Ed.), Framing Urban Renewal in Flanders (p. 25). Amsterdam: SUN Architecture Publishers.

54. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

55. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

ENDNOTES

56. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

57. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. Journal of Health Care Interior Design. 1991. Retrieved from, Effects of interior design on wellness: theory and recent scientific research. - Accessed, January 12, 2024.

58. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

59. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

60. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

61. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

62. Bibb Latane, et al., “Distance Matters: Physical Space and Social Impact,”Personality and Social Psychology Bulletin, Vol. 21, no. 8 (1995): 795 – 805. Accessed, January 12, 2024.

63. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

64. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

65. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

66. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

67. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

68. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

69. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

70. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

71. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

72. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

73. Hilal Ozcan, “Healing Design: A Holistic Approach to Social Interaction in Pediatric Intensive Care Units in The United States and Turkey,”1st Internation CIB Endorsed METU Postgraduate Conference: Built Environment and Information Technologies (Ankara, 2006), 248 - 258. Accessed, January 12, 2024.

74. Hilal Ozcan, “Healing Design: A Holistic Approach to Social Interaction in Pediatric Intensive Care Units in The United States and Turkey,” (Ankara, 2006), 248 - 258.

75. Hilal Ozcan, “Healing Design: A Holistic Approach to Social Interaction in Pediatric Intensive Care Units in The United States and Turkey,” (Ankara, 2006), 248 - 258.

76. Hilal Ozcan, “Healing Design: A Holistic Approach to Social Interaction in Pediatric Intensive Care Units in The United States and Turkey,” (Ankara, 2006), 248 - 258.

ENDNOTES

77. Hilal Ozcan, “Healing Design: A Holistic Approach to Social Interaction in Pediatric Intensive Care Units in The United States and Turkey,” (Ankara, 2006), 248 - 258.

78. Forsyth, A ET AL., “Inside the Service Learning Studio in Urban Design.” 1999. Landscape Journal 18 (2).: 166–178. doi:10.3368/lj.18.2.166. Accessed, January 12, 2024.

79. Taylor, S. S et al., “Leading as Craft-work: The Role of Studio Practices in Developing Artful Leaders.” 2014. Scandinavian Journal of Management 30 (1): 95–103. doi:10.1016/j.scaman.2013.11.002. Accessed, January 12, 2024.

80. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.” Journal of Urban Design (2020). 25:4, 523-550, DOI: 10.1080/13574809.2020.1734449. Accessed, January 18, 2024.

81. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

82. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

83. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

84. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

85. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

86. J Lowyck, J Pöysä. “Design of collaborative learning environments”. Science Direct, Vol 17, 5-6. (2001). [https://doi.org/10.1016/S0747-5632\(01\)00017-6](https://doi.org/10.1016/S0747-5632(01)00017-6). Accessed, January 18, 2024.

87. Lowyck, J Pöysä. “Design of collaborative learning environments”. Vol 17, 5-6. (2001).

88. Lowyck, J Pöysä. “Design of collaborative learning environments”. Vol 17, 5-6. (2001).

89. Lowyck, J Pöysä. “Design of collaborative learning environments”. Vol 17, 5-6. (2001).

90. Bertram, Kate. “The Cultural Architecture of Schools”. The Translation Design of Schools. 105-123. (2016). Accessed, January 18, 2024.

91. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

92. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

93. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

94. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

95. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

96. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

97. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

ENDNOTES

98. Lowyck, J Pöysä. “Design of collaborative learning environments”. Vol 17, 5-6. (2001).

99. Grosse-Hering ET AL., “Slow Design for Meaningful Interactions.” 2013. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 3431–3440. Paris, France: ACM. Accessed, January 18, 2024.

100. Lowyck, J Pöysä. “Design of collaborative learning environments”. Vol 17, 5-6. (2001).

101. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

102. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

103. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

104. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

105. Sohyun Park. “Rethinking design studios as an integrative multi-layered collaboration environment.”2020, 523-550.

106. Frank Lloyd Wright – 1954.

107. Juhani, Pallasmaa. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Architectural Design. Vol 86 – Issue 6 (2016). Pg 5. Retrieved from, The Sixth Sense: The Meaning of Atmosphere and Mood (oclc.org). Accessed 2/20/2023.

108. Juhani, Pallasmaa. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Vol 86 – Issue 6 (2016). Pg 5.

109. Juhani, Pallasmaa. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Vol 86 – Issue 6 (2016). Pg 5.

110. Juhani, Pallasmaa. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Vol 86 – Issue 6 (2016). Pg 5.

111. Juhani, Pallasmaa. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Vol 86 – Issue 6 (2016). Pg 5.

112. Juhani, Pallasmaa. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Vol 86 – Issue 6 (2016). Pg 5.

113. Juhani, Pallasmaa. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Vol 86 – Issue 6 (2016). Pg 5.

114. Juhani, Pallasmaa. “Space, Place, and Atmosphere”. University of Helniski. 2017. Pg 243-44. Retrieved from, 4202-14995-1-PB.pdf (au.dk). Accessed 2/20/2023.

115. Bille, Mikkel et al., “A sense of PLAce”. Elements of Architecture. 1 Edition. 2016. London. Retrieved from, <https://doi-org.uml.idm.oclc.org/10.4324/9781315641171>. Accessed 2/20/2023.

116. Natalie, Ricci. “The Psychological Impact of Architectural Design”. Claremont McKenna College. Senior Thesis, 2018. Retrieved from, The Psychological Impact of Architectural Design (claremont.edu). Accessed 2/20/2023.

117. Natalie, Ricci. “The Psychological Impact of Architectural Design”. 2018.

118. Natalie, Ricci. “The Psychological Impact of Architectural Design”. 2018.

ENDNOTES

119. Noemie, Llaurency. “Architecture’s Impact on Learning and Achievement”. White Papers. 2022. Retrieved from, 2022-07-27-Architectures-Impact-on-Learning-and-Achievement.pdf (berryarchitecture.ca). Accessed 2/20/2023.

120. Noemie, Llaurency. “Architecture’s Impact on Learning and Achievement”. White Papers. 2022.

121. Juhani, Pallasmaa. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Vol 86 – Issue 6 (2016). Pg 5.

122. Oliva, Heslinga. “How architecture affects human behavior”. Imotions. 2022. Retrieved from, How architecture affects human behavior - iMotions . Accessed 2/20/2023.

123. Juhani, Pallasmaa. “The Eyes of the Skin: Architecture and the Senses”. First Edition, 2012. John Wiley Publications, UK. Retrieved from, The Eyes of the Skin : Architecture and the Senses (oclc.org). Accessed 2/20/2023.

124. Peter Zumthor. “Atmosphere: Architectural Environments” – Surrounding Objects (Berlin: Birkhauser, 2003).

125. Peter Zumthor. “Atmosphere: Architectural Environments”. Berlin: Birkhauser, 2003).

126. Peter Zumthor. “Atmosphere: Architectural Environments”. Berlin: Birkhauser, 2003).

127. Juhani, Pallasmaa. “The Eyes of the Skin: Architecture and the Senses”. First Edition, 2012.

128. Peter, Lewinski. “Effects of classroom’s architecture on academic performances in view of telic versus paratelic motivation: a review”. National Library of Medicine. Front Psychol. 2015; 6: 746.Published online 2015 Jun 3. doi: 10.3389/fpsyg.2015.00746. Accessed 2/20/2023.

129. Juhani, Pallasmaa. “The Eyes of the Skin: Architecture and the Senses”. First Edition, 2012.

130. Juhani, Pallasmaa. “The Eyes of the Skin: Architecture and the Senses”. First Edition, 2012.

131. Juhani, Pallasmaa. “The Eyes of the Skin: Architecture and the Senses”. First Edition, 2012.

132. Souza, Eduardo. “What is Soundspace and What deos it have to do with Architecture”. ArchDaily. 2021. Retrieved from, What Is Soundscape and What Does It Have to Do with Architecture? | ArchDaily. Accessed 2/20/2023.

133. Peter, Lewinski. “Effects of classroom’s architecture on academic performances”. 2015; 6: 746

134. Peter, Lewinski. “Effects of classroom’s architecture on academic performances”. 2015; 6: 746

135. Peter, Lewinski. “Effects of classroom’s architecture on academic performances”. 2015; 6: 746

136. Peter, Lewinski. “Effects of classroom’s architecture on academic performances”. 2015; 6: 746

137. Porust, Marcel. “Kadanutta Aikaa Etsimassa Combray [Remembrance of Things Past, Combray]”. Juhaani Pallasmaa, The Eyes of the skin. 1968. Retrieved from, The Eyes of the Skin : Architecture and the Senses (oclc.org). Accessed 2/20/2023.

138. Peter, Lewinski. “Effects of classroom’s architecture on academic performances”. 2015; 6: 746

ENDNOTES

139. Rachael, Bernstone. “Show the rope: Notre Dame University Student hub”. Projects. ArchitectureAu. Retrieved from, Show the ropes: Notre Dame University Student Hub | ArchitectureAU. Accessed, 5/21/2023.

140. Rachael, Bernstone. “Show the rope: Notre Dame University Student hub”. Projects. ArchitectureAu. 2017.

141. Cox Architects. “Notre Dame university Student hub”. Education Snapshots. Retrieved from, Student Hub - Notre Dame University Australia - Education Snapshots. Accessed, 5/21/2023.

142. Cox Architects. “Notre Dame university Student hub”. Education Snapshots.

143. Rececca, Wilkinson. “Notre Dame university Student hub by Cox Architects”. The Local Project. Retrieved from, Gallery of Notre Dame University Student Hub / The Local Project. Accessed, 5/21/2023.

144. Red Thread. “Collaborative Learning Space Design For Higher Education”. University Hybrid Classroom Guide. Retrieved from, Collaborative Learning Spaces | Education | Red Thread (red-thread.com). Accessed, 5/21/2023.

145. Notre Dame Australia. “Student hub revamp gets ‘thumbs up’ at top architecture awards”. The University of Notre Dame Australia. Retrieved from, Student hub revamp gets ‘thumbs up’ at top architecture awards | Notre Dame. Accessed, 5/21/2023.

146. Roger T. Johnson et al., “Active Learning: Cooperation in the Classroom”. The Annual Report of Educational Psychology in Japan. Retrieved from, https://doi.org/10.5926/arepj1962.47.0_29. Accessed, 5/21/23.

147. The Fulcrum Agency. “NDU Student Hub”. The Fulcrum Agency. Case Study. Education. Retrieved from, NDU Student Hub - The Fulcrum Agency. Accessed, 5/21/23.

148. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

149. Rachael, Bernstone. “Show the rope: Notre Dame University Student hub”. Projects. ArchitectureAu. 2017.

150. Rachael, Bernstone. “Show the rope: Notre Dame University Student hub”. Projects. ArchitectureAu. 2017.

151. Rachael, Bernstone. “Show the rope: Notre Dame University Student hub”. Projects. ArchitectureAu. 2017.

152. Rachael, Bernstone. “Show the rope: Notre Dame University Student hub”. Projects. ArchitectureAu. 2017.

153. Education Snapshots. “Chapman University – Swenson Family Hall of Engineering”. Snapshots. Retrieved from, Chapman University - Swenson Family Hall of Engineering - Education Snapshots.

154. Education Snapshots. “Chapman University – Swenson Family Hall of Engineering”. Snapshots.

155. Education Snapshots. “Chapman University – Swenson Family Hall of Engineering”. Snapshots.

156. Ruth, Stevens et al., “Converting Happiness theory into (interior) architectural design missions”. JSTOR, 2014.

157. Roger, Ulrich. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. 1991.

158. Chapman University. “Dedication of Swenson Family Hall of Engineering”. Chapman Education. Retrieved from, Dedication of the Swenson Family Hall of Engineering - Homecoming | Chapman University. Accessed, 05/27/2023.

ENDNOTES

159. Tangram. “Chapman Swenson Family Hall of Engineering”. Tangram Interiors. 2021. Retrieved from, Tangram Project: Chapman Swenson Family Hall of Engineering (tangraminteriors.com). Accessed, 05.27/2023.

160. AC Martin. “Swenson Family Hall of Engineering Fowler School of Engineering Chapman University”. Portfolio, AC Martin. 2021. Retrieved from, | SWENSON FAMILY HALL OF ENGINEERING | AC Martin. Accessed, 05/27/2023.

161. AC Martin. “Swenson Family Hall of Engineering Fowler School of Engineering Chapman University”. Portfolio, 2021.

162. Jones, Matt. “Chapman University Debuts New Hall of Engineering”. Space4learning. 2022. Retrieved from, Chapman University Debuts New Hall of Engineering -- Spaces4Learning. Accessed, 05/27/2023.

163. AC Martin. “Swenson Family Hall of Engineering Fowler School of Engineering Chapman University”. Portfolio, 2021.

164. AC Martin. “Swenson Family Hall of Engineering Fowler School of Engineering Chapman University”. Portfolio, 2021.

165. AC Martin. “Swenson Family Hall of Engineering Fowler School of Engineering Chapman University”. Portfolio, 2021.

166. Pitupong. “BU Lounge has finally been Completed”. Super-Machine Studios. Official Blog. Retrieved from, BU Lounge has finally been completed | Supermachine Studio. Accessed, 11/12/2022

167. Bernard, Murrye. “Imagine Lounge”. Contract Design Network. Education. Imagine Lounge, 2013. Retrieved from, Imagine Lounge | Contract Design. Accessed, 11/12/2022.

168. Pitupong. “BU Lounge has finally been Completed”. Official Blog. 2012.

169. Lydia, PARAFIANOWICZ. “Bangkok University BU Lounge by Supermachine Studio”. Frame. 2012. Retrieved from, FRAME | Bangkok University BU Lounge by Supermachine Studio (frameweb.com) Accessed, 6/10/2023.

170. Brading, Morgane. “Are you striving or suffering in the pursuit of Academic Validation”. Peer Wellness Educator. Laurier, 2023. Retrieved from, Are You Striving or Suffering in the Pursuit of Academic Validation? | Students - Wilfrid Laurier University (wlu.ca) Accessed, 6/10/2023.

171. Pitupong. “BU Lounge has finally been Completed”. Official Blog. 2012.

172. Stuart, Hannah. “The benefits of Learning outside the Classrooms”. Education Adventures. Retrieved from, The benefits of learning outside the classroom (easchooltours.com). Accessed, 6/10/2023.

173. Pitupong. “BU Lounge has finally been Completed”. Official Blog. 2012.

174. Archdaily. “BU Lounge/ Supermachine Studio”. Arch Daily. Retrieved from, BU Lounge / Supermachine Studio | ArchDaily. Accessed, 09/03/2023

175. Archdaily. “BU Lounge/ Supermachine Studio”. Arch Daily. 2013.

176. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. Manitoba Modern, 2012-2022. Retrieved from, Winnipeg Architecture: University of Manitoba Modern – Digital Tours – Winnipeg Architecture Foundation. Accessed, 11/13/2022.

177. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

ENDNOTES

178. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

179. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

180. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

181. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

182. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

183. University of Manitoba capital projects: a file on building development and capital expenditure 1877-1970. Winnipeg: University of Manitoba, 1970. Arch/FA Ref LE 3 M382292 A3 Dafoe Library. Retrieved from, Winnipeg Architecture: University of Manitoba Modern – Digital Tours – Winnipeg Architecture Foundation. Accessed, 11/13/2022.

184. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

185. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

186. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

187. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

188. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

189. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

190. Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. 2012-22.

191 Karpan, Cynthia. “Programming Interior Environments: A Practical Guide for Students”. Taylor and Fransic publications. 2020.

192. Mross, Emily et al., “A place to study, place to pray”. College and Research Libraries. Association of College and Research Libraries. Vol 79, No.6 (2018). Retrieved from, A place to study, a place to pray: Supporting student spiritual needs in academic libraries | Mross | College & Research Libraries News (acrl.org). Accessed, 24/04/2024

193. Mross, Emily et al., “A place to study, place to pray”. Vol 79, No.6 (2018).

194. Abrams, Zara, “Student mental health is in crisis. Campuses are rethinking their approach”. American Psychological Association. Vol 53, No. 7, Pg 60. (2022). Retrieved from, Student mental health is in crisis. Campuses are rethinking their approach (apa.org). Accessed, 24/04/2024

195. National Building Code of Canada. 2020. retireved from, https://nrc-publications.canada.ca/eng/view/object/?id=515340b5-f4e0-4798-be69-692e4ec423e8

196 Winnipeg Building Code

IMAGE CITATION

Figure 10: Bennets, Peter. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 11: Anderson, Lawrence. “Chapman University - Swenson Hall for Engineering Stundets”. Digital Image. Education Snapshots. Source: educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/

Figure 12: Tungthunya, Winson. “Student Imagine Lounge”. Digital Image. Archdaily. Source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 13: Bennets, Peter.. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 14:Bennets, Peter. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 15: Bennets, Peter.. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 16: Bennets, Peter.. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 17: Education Snapshots. “Cox Architecture. Student Hub Notre Dame - University of Australia”. Digital Image. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 18: Bennets, Peter. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 19: Bennets, Peter. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 20: Bennets, Peter. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 21: Bennets, Peter.. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 22: Bennets, Peter. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 23: Bennets, Peter.. “Student Hub Notre Dame - University of Australia”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/2625/student-hub-notre-dame-university-australia/>.

Figure 24: Anderson, Lawrence. ““SWENSON FAMILY HALL OF ENGINEERING”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

Figure 25: Anderson, Lawrence. ““SWENSON FAMILY HALL OF ENGINEERING”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

Figure 26: Anderson, Lawrence ““SWENSON FAMILY HALL OF ENGINEERING”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

Figure 27: Anderson, Lawrence. ““SWENSON FAMILY HALL OF ENGINEERING”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

Figure 28:Anderson, Lawrence. ““SWENSON FAMILY HALL OF ENGINEERING”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

Figure 29: Anderson, Lawrence. ““SWENSON FAMILY HALL OF ENGINEERING”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

Figure 30: Anderson, Lawrence. ““SWENSON FAMILY HALL OF ENGINEERING”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

Figure 31: Anderson, Lawrence. ““SWENSON FAMILY HALL OF ENGINEERING”. Digital Image. Education Snapshots. Source: <https://educationsnapshots.com/projects/26215/chapman-university-swenson-family-hall-of-engineering/>.

Figure 32:Tungthunya, Winson. “The imgaine Lounge. Super machine Studios”. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 33: Super Machine Studio. “The imgaine Lounge. Super machine Studios”. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 34: Tungthunya, Winson. “The imgaine Lounge. Super machine Studios. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 35: Tungthunya, Winson. “The imgaine Lounge. Super machine Studios. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 36: Tungthunya, Winson. “The imgaine Lounge. Super machine Studios. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 37: Tungthunya, Winson. “The imgaine Lounge. Super machine Studios. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 38: Tungthunya, Winson. “The imgaine Lounge. Super machine Studios. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 39:Tungthunya, Winson “The imgaine Lounge. Super machine Studios. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 40: Tungthunya, Winson. “The imgaine Lounge. Super machine Studios. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 41: Tungthunya, Winson. “The imgaine Lounge. Super machine Studios. 2012. Digital Image. Arch Daily. source: <https://www.archdaily.com/254392/bu-lounge-supermachine-studio>.

Figure 42: Goldsborough, Gordon. M.F.F Burgess Collection. “Univeristy of Manitoba Campus from 1925”. Manitoba historical Society Archives. Digital Picture. Sorce: <https://www.mhs.mb.ca/docs/sites/universityofmanitoba.shtml>

Figure 43: Goldsborough, Gordon. , M.F.F Burgess Collection. “Univeristy of Manitoba Campus from 1942”. Manitoba historical Society Archives.
Digital Picture. Sorce: <https://www.mhs.mb.ca/docs/sites/universityofmanitoba.shtml>

Figure 44: Winnipeg Building Index. “Univeristy of Manitoba. Elizabeth Dafoe Library 1952.” Manitoba historical Society Archives.
Digital Picture. Sorce: <https://www.mhs.mb.ca/docs/sites/universityofmanitoba.shtml>

Figure 45: Bilal, Khan. Site Plan. Digitally Created.

Figure 46: Winnipeg Building Index. “Univeristy of Manitoba. Old Music Building” University of Manitoba, Digital Libraries.
Source: https://digitalcollections.lib.umanitoba.ca/islandora/object/uofm%3A2623635/manitoba_metadata

Figure 47: Winnipeg Building Index. “Univeristy of Manitoba. Old Music Building” University of Manitoba, Digital Libraries.
Source: https://digitalcollections.lib.umanitoba.ca/islandora/object/uofm%3A2623635/manitoba_metadata

Figure 48: Bilal Khan. “Old Music Building Exterior Environment”. Digital Picture Captured. 2023.

Figure 49: Bilal Khan. “Old Music Building Exterior Environment”. Digital Picture Captured. 2023.

Figure 50: Bilal Khan. “Old Music Building Exterior Environment”. Digital Picture Captured. 2023.

Figure 51: Bilal Khan. “Entry Vestibule”. Digital Picture Captured. 2023.

Figure 52: Bilal Khan. “Main Floor”. Digital Picture Captured. 2023.

Figure 53: Bilal Khan. “Eva Clair Music Hall”. Digital Picture Captured. 2023.

Figure 54: Bilal Khan. “Eva Clair Music Hall”. Digital Picture Captured. 2023.

Figure 55: Bilal Khan. “Central Staircase”. Digital Picture Captured. 2023.

Figure 56: Bilal Khan. “Second Floor”. Digital Picture Captured. 2023.

Figure 57: Bilal Khan. “Second Floor”. Digital Picture Captured. 2023.

Figure 58: Bilal Khan. “Main Floor Admin Office”. Digital Picture Captured. 2023.

Figure 59: Bilal Khan. “Basement Rcoding Studio”. Digital Picture Captured. 2023.

Figure 60: Bilal Khan. “Basement Storage”. Digital Picture Captured. 2023.

Figure 61: Bilal Khan. “Basement Rcoding Studio”. Digital Picture Captured. 2023.

Figure 62: University of Manitoba Cadlab DataBase. “65 Desautels Drawings.” CADlab. Student Digital Database.

Figure 63: Winnipeg Building Index. “65 Desautels Old Music Building.” Manitoba historical Society Archives.
Digital Picture. Source: <https://www.mhs.mb.ca/docs/sites/universityofmanitoba.shtml>

Figure 64: University of Manitoba Student Enrolment Report. Faculty of Architecture 2023. Source: https://umanitoba.ca/institutional-analysis/sites/institutional-analysis/files/2023-07/enrol_UG_area_of_study_full_part_f22.pdf

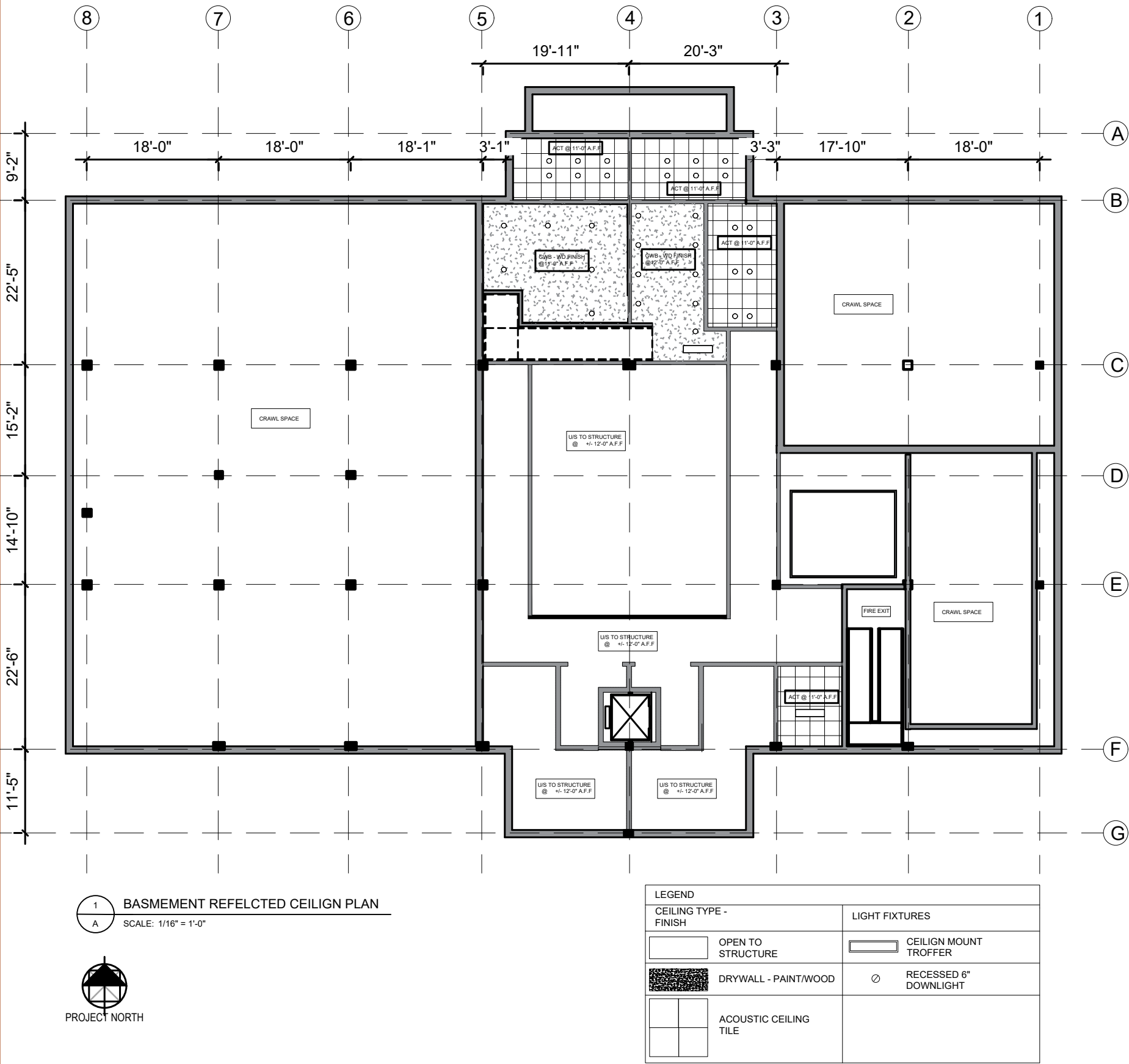
PAGE INTENTIONALLY LEFT BLANK

APPENDIX

APPENDIX

- APPENDIX A: TECHNICAL DRAWINGS (REFLECTED CEILING PLANS)
- APPENDIX B: MILLWORK DETAILED DRAWING
- APPENDIX C: BUILDING CODE ANALYSIS
- APPENDIX D: POSTER

APPENDIX A
REFLECTED CEILING PLANS





UNIVERSITY OF MANITOBA

The design and drawings herein are and will remain the sole property, in whole and property of University of Manitoba.

No substitutions to or deviations from the design or specifications as set forth herein will be accepted without prior knowledge and approval from the designer:

NO:	REVISIONS	DATE

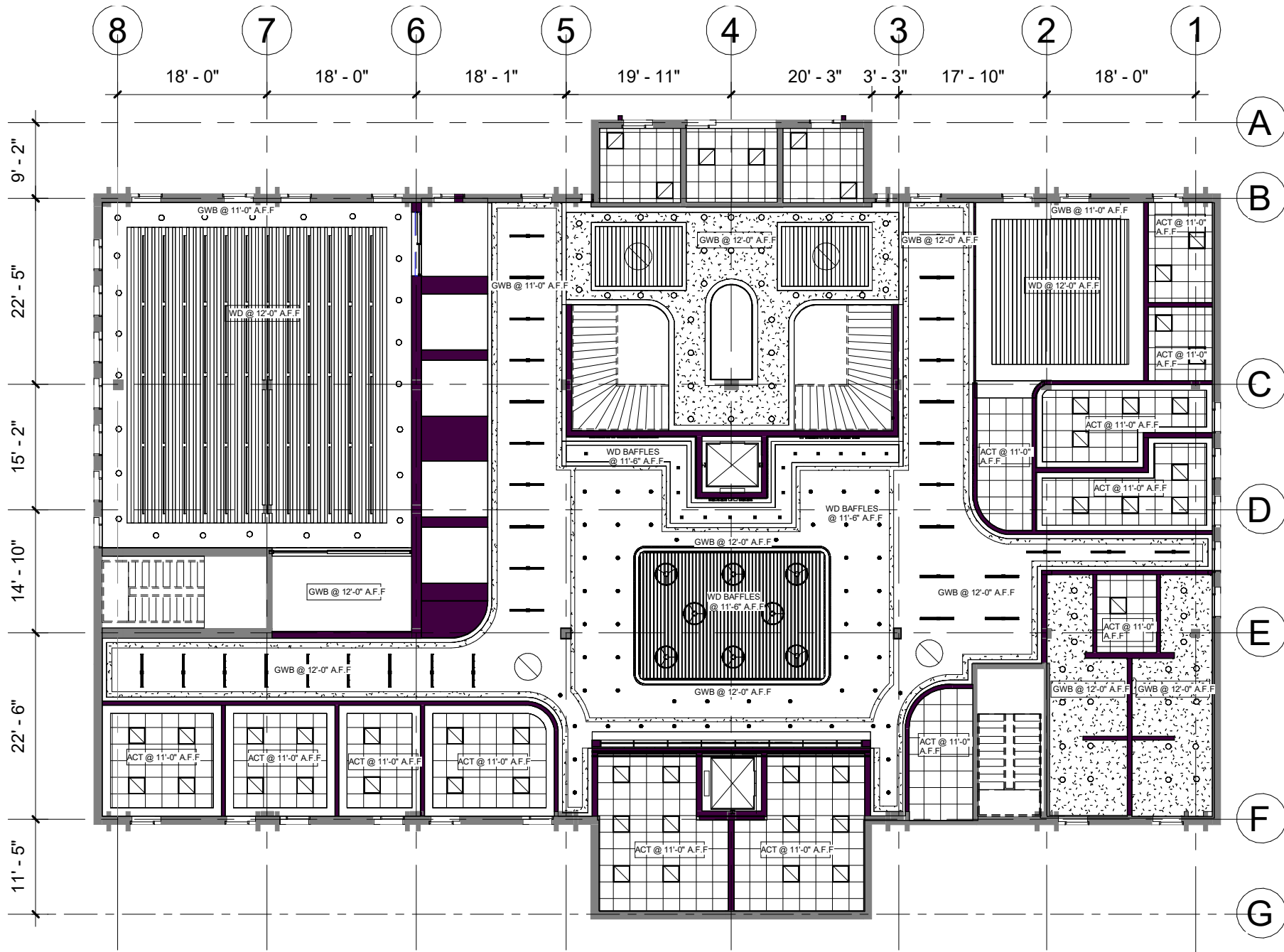


BASEMENT REFLECTED CEILING PLAN

DRAWN BY: BK

SCALE: AS SHOWN

DATE: 28, MAY. 24



1 Main Floor - RCP
1/16" = 1'-0"

LEGEND	
CEILING TYPE - FINISH	LIGHT FIXTURES
WOOD BAFFLES	CEILIGN MOUNT 2X2 TROFFER
DRYWALL - PAINT/WOOD	RECESSED 6" DOWNLIGHT
ACOUSTIC CEILING TILE	EUREKA 3" DOWN LIGHT
	RECESSED 4' RECESSED LINEAR LED
	VIBIA - DUO LIGHT BOWL - CEILING MOUNT
	VIBIA - DUO LIGHT BOWL - CEILING MOUNT

UNIVERSITY OF MANITOBA

The design and drawings herein are and will remain the sole property, in whole and property of University of Manitoba.

No substitutions to or deviations from the design or specifications as set forth herein will be accepted without prior knowledge and approval from the designer.

NO:	REVISIONS	DATE

FAUM FUN BOX
PRACTICUM PROJECT

FACULTY OF ARCHITECTURE
DEPARTMENT: INTERIOR DESIGN

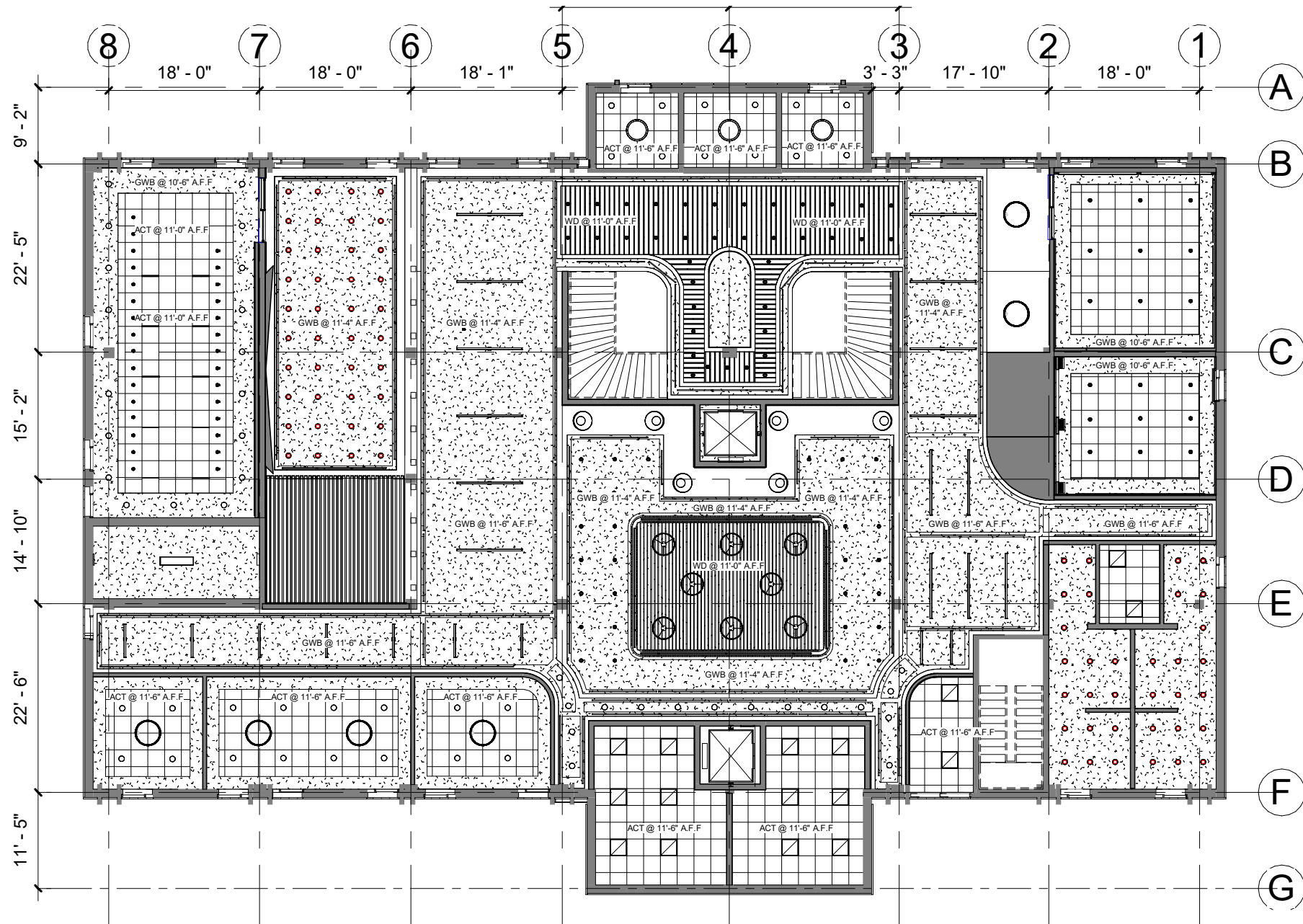
UNIVERSITY OF MANITOBA

**MAIN FLOOR
REFLECTED CEILING
PLAN**

DRAWN BY: BK

SCALE: AS SHOWN

DATE: 28, MAY. 24



1 SECOND FLOOR - PARTITION PLAN
1/16" = 1'-0"

LEGEND	
CEILING TYPE - FINISH	LIGHT FIXTURES
WOOD BAFFLES	CEILIGN MOUNT 2X2 TROFFER
DRYWALL - PAINT/WOOD	RECESSED 6" DOWNLIGHT
ACOUSTIC CEILING TILE	EUREKA 3" DOWN LIGHT
	RECESSED 4' RECESSED LINEAR LED
	VIBIA - DUO LIGHT BOWL - CEILING MOUNT
	VIBIA - DUO LIGHT BOWL - CEILING MOUNT

UNIVERSITY OF MANITOBA

The design and drawings herein are and will remain the sole property, in whole and property of University of Manitoba.

No substitutions to or deviations from the design or specifications as set forth herein will be accepted without prior knowledge and approval from the designer.

NO:	REVISIONS	DATE

FAUM FUN BOX
PRACTICUM PROJECT

FACULTY OF ARCHITECTURE
DEPARTMENT: INTERIOR DESIGN

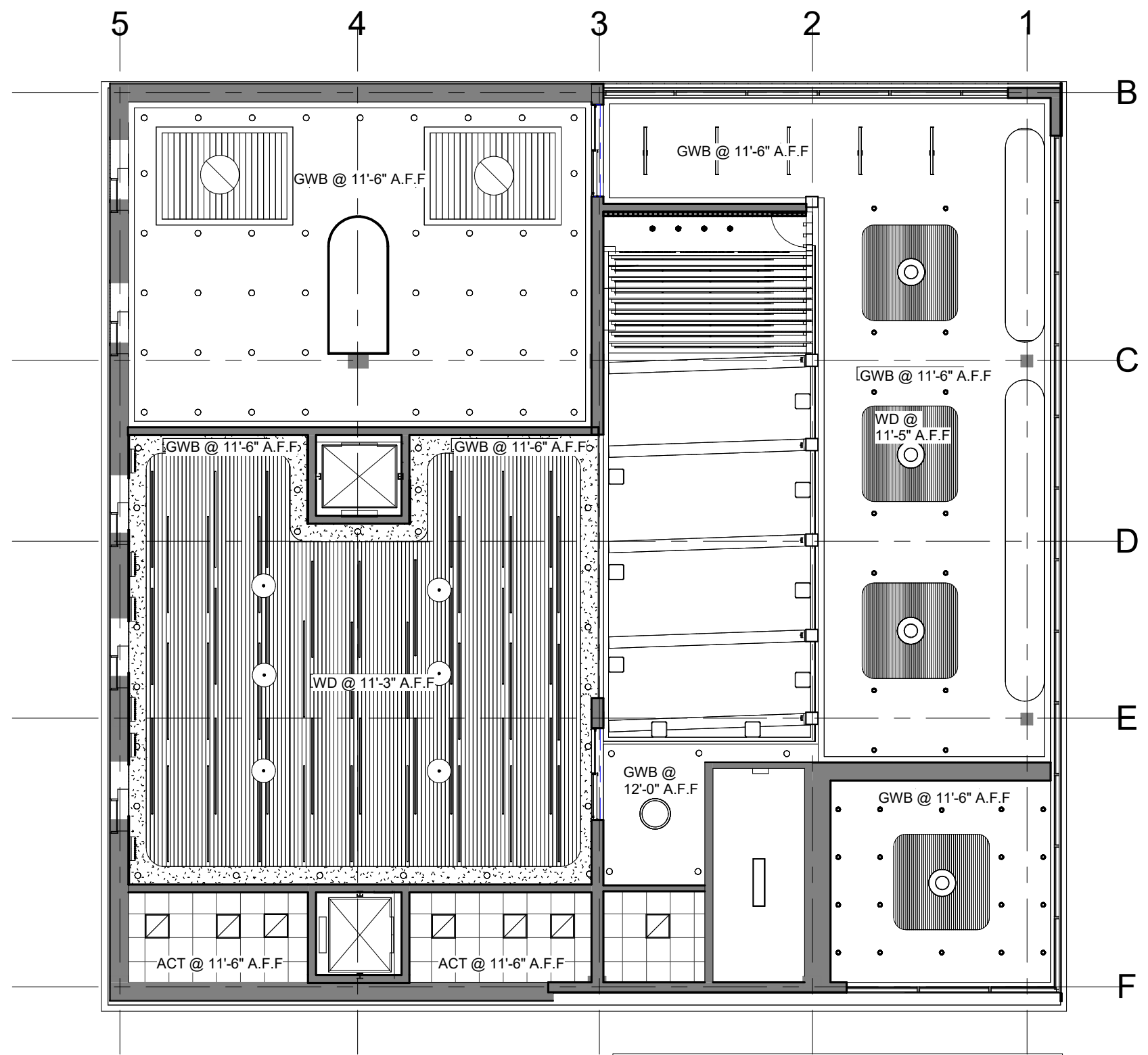
UNIVERSITY OF MANITOBA

**SECOND FLOOR
REFLECTED CEILING
PLAN**

DRAWN BY: BK

SCALE: AS SHOWN

DATE: 28, MAY. 24



1 THIRD FLOOR
3/32" = 1'-0"

LEGEND	
CEILING TYPE - FINISH	LIGHT FIXTURES
WOOD BAFFLES	CEILING MOUNT 2X2 TROFFER
DRYWALL - PAINT/WOOD	RECESSED 6" DOWNLIGHT
ACOUSTIC CEILING TILE	EUREKA 3" DOWN LIGHT
	RECESSED 4' RECESSED LINEAR LED
	VIBIA - DUO LIGHT BOWL - CEILING MOUNT
	VIBIA - DUO LIGHT BOWL - CEILING MOUNT



UNIVERSITY OF MANITOBA
The design and drawings herein are and will remain the sole property, in whole and property of University of Manitoba.

No substitutions to or deviations from the design or specifications as set forth herein will be accepted without prior knowledge and approval from the designer:

NO:	REVISIONS	DATE

FAUM FUN BOX
PRACTICUM PROJECT

FACULTY OF ARCHITECTURE
DEPARTMENT: INTERIOR DESIGN

UNIVERSITY OF MANITOBA



**THIRD FLOOR
REFLECTED CEILING
PLAN**

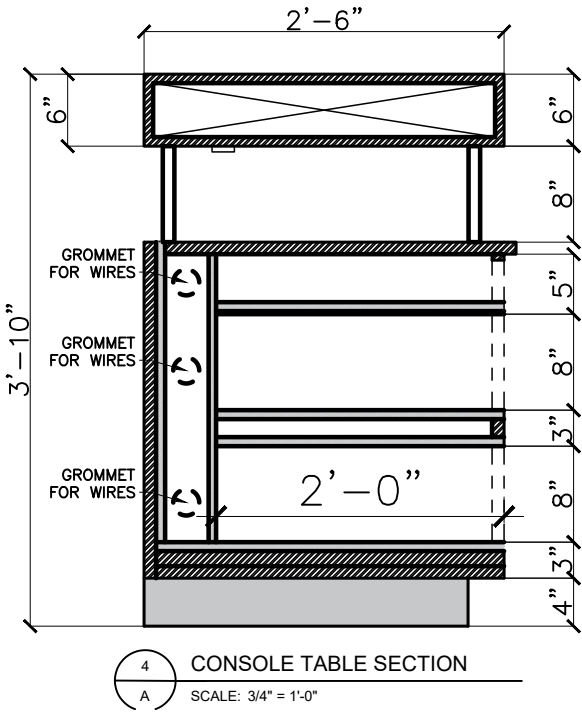
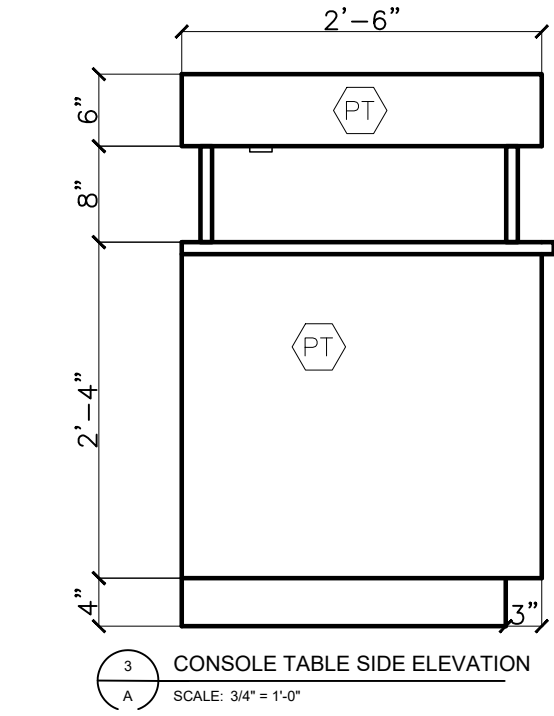
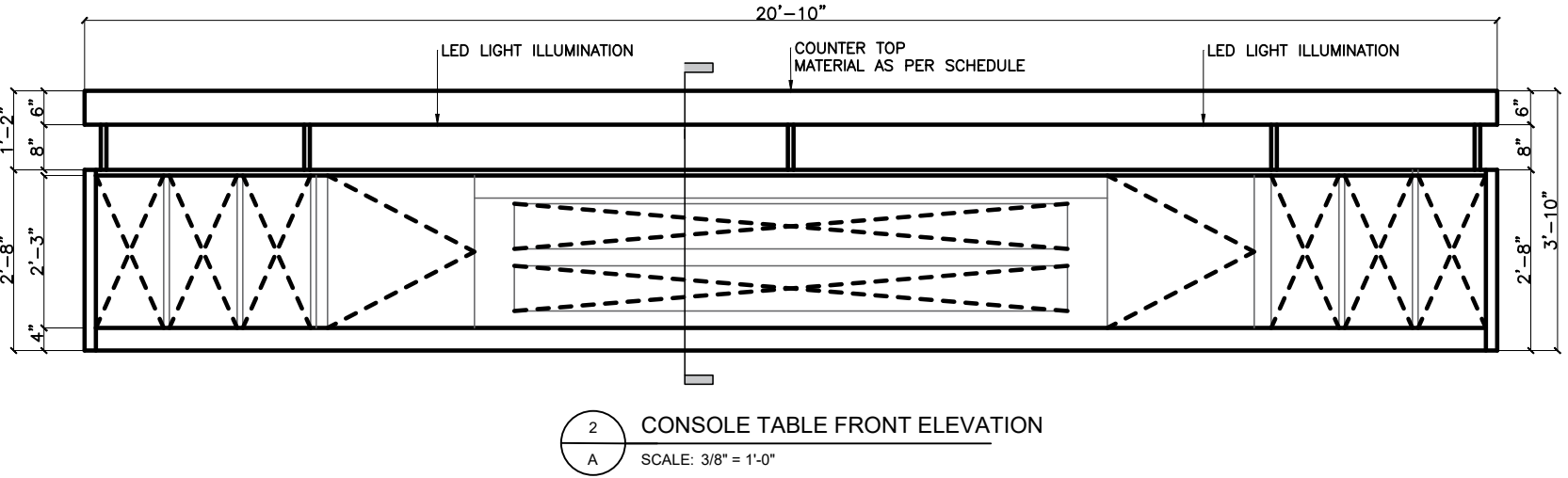
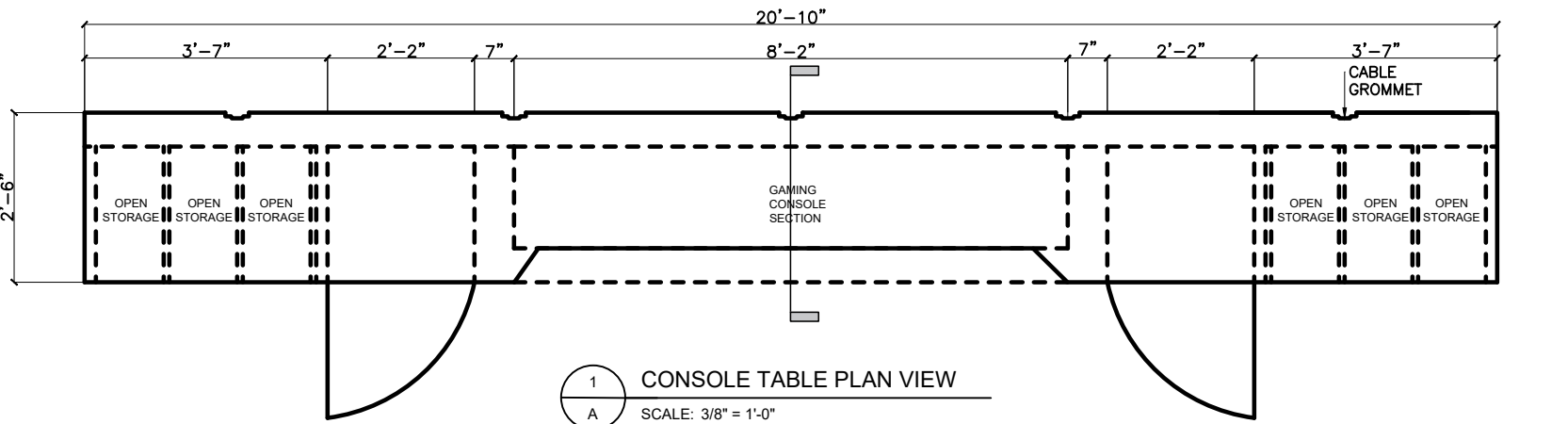
DRAWN BY: BK

SCALE: AS SHOWN

DATE: 28, MAY. 24

APPENDIX B

MILLWORK DETAILED DRAWING



UNIVERSITY OF MANITOBA

The design and drawings herein are and will remain the sole property, in whole and property of University of Manitoba.

No substitutions to or deviations from the design or specifications as set forth herein will be accepted without prior knowledge and approval from the designer:

NO:	REVISIONS	DATE

FAUM FUN BOX
PRACTICUM PROJECT

FACULTY OF ARCHITECTURE
DEPARTMENT: INTERIOR DESIGN

UNIVERSITY OF MANITOBA



GAME ROOM -
CONSOLE TABLE
MILLWORK DETAIL

DRAWN BY: BK

SCALE: AS SHOWN

DATE: 28, MAY. 24

APPENDIX C
BUILDING CODE ANALYSIS

BUILDING CLASSIFICATION - OCCUPANCY

As per Winnipeg Building Code, “Mixed occupancy refers to a building with multiple major occupancy classifications, enabling flexible use of the building as a single or multiple-tenant building for different uses.”¹⁹⁶

Section 3.1.2.1 - Major Occupancy Classification

Group D - Business and Personal Service Occupancies.

Section 3.1.17 - Occupant Load

Section 3.1.17.1 - Occupant Load Determination

1 - The occupant load of a floor area or part of a floor area shall be based on:

- a) the number of seats in an assembly occupancy having fixed seats,
- b) 2 persons per sleeping room in a dwelling unit, or
- c) the number of persons for which the area is designed, but not less than that determined from Table 3.1.17.1. for occupancies other than those described in Clauses (a) and (b), unless it can be shown that the area will be occupied by fewer persons.

2 - If a floor area or part thereof has been designed for an occupant load other than that determined from Table 3.1.17.1., a permanent sign indicating that occupant load shall be posted in a conspicuous location.

3 - For the purposes of this Article, mezzanines, tiers and balconies shall be regarded as part of the floor area.

4 - If a room or group of rooms is intended for different occupancies at different times, the value to be used from Table 3.1.17.1. shall be the value which gives the greatest number of persons for the occupancies concerned.

TYPE OF USE OF FLOOR AREA OR PART THEREOF	AREA PER PERSON, m2
Business and Personal Services	4.60 m2
School Shops and Vocational Rooms	9.30 m2
Reading Writing Rooms	1.85 m2
Dining Beverage and Cafe	1.20 m2
Care Treatment and Sleeping Rooms	10.00 m2
Public Corridors	3.70 m2
storage	46.00 m2

Section 3.2.2.13 - Occupancy on Roof

1) A portion of a roof that supports an occupancy shall be constructed in conformance with the fire separation requirements of Articles 3.2.2.20. to 3.2.2.92. for floor assemblies, and not the fire-resistance rating for roof assemblies.

Section 3.3.1.3 - Means of Egress

1) Access to exit within floor areas shall conform to Subsections 3.3.2. to 3.3.5., in addition to the requirements of this Subsection.

2) If a podium, terrace, platform or contained open space is provided, egress requirements shall conform to the appropriate requirements of Sentence 3.3.1.5.(1) for rooms and suites.

3) Means of egress shall be provided from every roof which is intended for occupancy, and from every podium, terrace, platform or contained open space.

4) At least two separate means of egress shall be provided from a roof, used or intended for an occupant load more than 60, to stairs designed in conformance with the requirements regarding exit stairs stated in Section 3.4.

5) A rooftop enclosure shall be provided with an access to exit that leads to an exit
a) at the roof level, or
b) on the storey immediately below the roof.

6) A rooftop enclosure which is more than 200 m2 in area shall be provided with at least 2 means of egress.

7) Two points of egress shall be provided for a service space referred to in Sentence 3.2.1.1.(8) if
a) the area is more than 200m2, or
b) the travel distance measured from any point in the service space to a point of egress is more than 25 m.

8) Except as permitted by Sentences 3.3.4.4.(5) and (6), each suite in a floor area that contains more than one suite shall have
a) an exterior exit doorway, or
b) a doorway
i) into a public corridor, or
ii) to an exterior passageway.

9) Except as permitted by this Section and by Sentence 3.4.2.1.(2), at the point where a doorway referred to in Sentence (8) opens onto a public corridor or exterior passageway, it shall be possible to go in opposite directions to each of 2 separate exits.

Section 3.3.1.5 - Egress Doorways

1) Except for dwelling units, a minimum of 2 egress doorways located so that one doorway could provide egress from the room or suite as required by Article 3.3.1.3. if the other doorway becomes inaccessible to the occupants due to a fire which originates in the room or suite, shall be provided for every room and every suite.

- a) that is used for a high-hazard industrial occupancy and whose area is more than 15 m2,
- b) intended for an occupant load more than 60,
- c) in a floor area that is not sprinklered throughout, and
- i) the area of a room or suite is more than the value in Table 3.3.1.5.-A, or
- ii) the travel distance within the room or suite to the nearest egress doorway is more than the value in Table 3.3.1.5.-A, or
- d) in a floor area that is sprinklered throughout and does not contain a high-hazard industrial occupancy and
- i) the travel distance to an egress doorway is more than 25 m, or
- ii) the area of the room or suite is more than the value in Table 3.3.1.5.-B.

2) Where 2 egress doorways are required by Sentence (1), they shall be placed at a distance from one another equal to or greater than one third of the maximum overall diagonal dimension of the area to be served, measured as the shortest distance that smoke would have to travel between the nearest required egress doors.

Section 3.3.1.6 - Travel Distance

1) If more than one egress doorway is required from a room or suite referred to in Article 3.3.1.5., the travel distance within the room or suite to the nearest egress doorway shall not exceed the maximum travel distances specified in Clauses 3.4.2.5.(1)(a), (b), (c) and (f) for exits.

Section 3.3.1.9 - Corridors

- 1. The minimumwidth of a public corridor shall be 1 100 mm.
- 2) Except as required by Sentence 3.3.3.3.(3), the minimum unobstructed width of a corridor used by the public or a corridor serving classrooms or patients’ sleeping rooms shall be 1 100 mm.
- 3) If a corridor contains an occupancy, the occupancy shall not reduce the unobstructed width of the corridor to less than its required width.

4) If a public corridor conforming to Clause 3.4.2.5.(1)(d) contains an occupancy,

- a) the occupancy shall be located so that for pedestrian travel there is an unobstructed width not less than 3 m at all times adjacent and parallel to all rooms and suites that front onto the public corridor, and
- b) the combined area of all occupancies in the public corridor shall be not more than 15% of the area of the public corridor.
- 5) Except for a dead-end corridor that is entirely within a suite or as permitted by Sentences 3.3.3.3.(1) and 3.3.4.4.(6), a dead-end corridor is permitted provided it is not more than 6 m long.

Section 3.4.2.1 - Minimum number of Exits

1) Except as permitted by Sentences (2) to (4), every floor area intended for occupancy shall be served by at least 2 exits.

- 2) A floor area in a building not more than 2 storeys in building height, is permitted to be served by one exit provided the total occupant load served by the exit is not more than 60, and
- a) in a floor area that is not sprinklered throughout, the floor area and the travel distance are not more than the values in Table 3.4.2.1.-A, or
- b) in a floor area that is sprinklered throughout
- i) the travel distance is not more than 25 m, and
- ii) the floor area is not more than the value in Table 3.4.2.1.-B.

Section 3.4.2.3 - Distance Between Exits

- 1) Except as provided in Sentence (2), the least distance between 2 exits from a floor area shall be
- a) one half the maximum diagonal dimension of the floor area, but need not be more than 9 m for a floor area having a public corridor, or
- b) one half the maximum diagonal dimension of the floor area, but not less than 9 m for all other floor areas.

2) Exits need not comply with Sentence (1) where
a) the floor area is divided so that not less than one third of the floor area is on each side of a fire separation, and
b) it is necessary to pass through the fire separation to travel from one exit to another exit.

3) The minimum distance between exits referred to in Sentence (1) shall be the shortest distance that smoke would have to travel between the exits, assuming that the smoke will not penetrate an intervening fire separation.

- 4) The distance between 2 exterior discharges of exit stairs serving the same floor area shall be
- a) not less than 9 m, or
 - b) not less than 6 m, where
- i) the building is sprinklered throughout, and
- ii) the 2 exterior discharges are located within 15 m of a street.

Section 3.4.2.4 - Travel Distance

1) Except as permitted by Sentence (2), for the purposes of this Subsection, travel distance means the distance from any point in the floor area to an exit measured along the path of travel to the exit.

- 2) The travel distance from a suite or a room not within a suite is permitted to be measured from an egress door of the suite or room to the nearest exit, provided
- a) the suite or room is separated from the remainder of the floor area by a fire separation
 - i) having a fire-resistance rating not less than 45 min in a floor area that is not sprinklered throughout, or
 - ii) which is not required to have a fire-resistance rating, in a floor area that is sprinklered throughout, and
 - b) the egress door opens onto
 - i) an exterior passageway,
 - ii) a corridor used by the public that is separated from the remainder of the floor area in conformance with the requirements in Article 3.3.1.4. for the separation of public corridors, or
 - iii) a public corridor that is separated from the remainder of the floor area in conformance with Article 3.3.1.4. (see Note A-3.1.8.1.(1)(b)).

3) Travel distance to an exit shall be not more than 50 m from any point in a service space referred to in Sentence 3.2.1.1.(8).

Section 3.4.2.6 - Principle Entrances

1) For the purposes of this Section, at least one door at every principal entrance to a building providing access from the exterior at ground level shall be designed in accordance with the requirements for exits.

2) In a building that is not sprinklered throughout in accordance with Sentence 3.2.5.12.(1), the principal entrance serving a dance hall or a licensed beverage establishment with an occupant load more than 250 shall provide at least one half of the required exit width.

Section 3.7.2.2 - Water Closets

1) Except as permitted by Sentence (2), water closets shall be provided for each sex assuming that the occupant load is equally divided between males and females, unless the proportion of each sex expected in the building can be determined with reasonable accuracy. (See Note A-3.7.2.2.(1).)

2) Both sexes are permitted to be served by a single water closet if the occupant load in an occupancy referred to in Sentence (4), (8), (10), (11), (12) or (14) is not more than 10.

3) Urinals are permitted to be substituted for two thirds of the number of water closets required by this Article for males, except that if only 2 water closets are required for males, one urinal is permitted to be substituted for one of the water closets.

4) Except as permitted by Sentences (2), (5) and (6), the number of water closets required for assembly occupancies shall conform to Table 3.7.2.2.-A.

5) The number of water closets required for primary schools and daycare centres shall be at least one for each 30 males and one for each 25 females.

6) The number of water closets required for places of worship and undertaking premises shall be at least one for each 150 persons of each sex.

7) The number of water closets required for a treatment or detention occupancy shall be determined on the basis of the special needs of the occupancy.

8) Except as permitted by Sentences (2) and (5), the number of water closets required for a care or residential occupancy shall be at least one for each 10 persons of each sex.

9) At least one water closet shall be provided for each dwelling unit.

10) Except as permitted by Sentence (2), the number of water closets required for a business and personal services occupancy shall conform to Table 3.7.2.2.-B.

Section 3.7.2.2-B - Water Closets for Business and Personal Use

Number of persons Each Sex	Min Water Closet for Each Sex
1-25	1
26-50	2
50 +	3 - +1 for each additional increment of 50 person

Section 3.8.3.12 - Universal Water Closets

1) A universal washroom shall

- a) be served by a barrier-free path of travel,
- b) have a door complying with Article 3.8.3.6. that
- i) has a latch-operating mechanism located 900 mm to 1 100 mm above the floor that complies with Clause 3.8.3.8.(1)(b) and is capable of being locked from the inside, and released from the outside in case of emergency, and
- ii) if it is an outward swinging door that is not self-closing, has a door pull not less than 140 mm long located on the inside so that its midpoint is not less than 200 mm and not more than 300 mm from the hinged side of the door and not less than 900 mm and not more than 1 100 mm above the floor (see Note A-3.8.3.12.(1)(d)(vi)),
- c) have one lavatory conforming to Article 3.8.3.16.,
- d) have one water closet conforming to Article 3.8.3.14. and Clause 3.8.3.12.(1)(e),
- e) have a clear lateral transfer space adjacent to the water closet that conforms to Clause 3.8.3.12.(1)(b),
- f) have grab bars conforming to Clauses 3.8.3.12.(1)(f) and (g),
- g) have a coat hook conforming to Clause 3.8.3.12.(1)(h),
- h) have a toilet paper dispenser conforming to Clause 3.8.3.12.(1)(i),
- i) unless a counter is provided, have a shelf located not more than 1 200 mm above the floor, and
- j) be designed to permit a wheelchair to turn in an open space not less than 1 700 mm in diameter.

- 2) A universal washroom required to have an accessible change space as stipulated in Sentence 3.8.2.8.(15) shall
- a) be equipped with an adult-sized change table,
 - b) have a clear floor space to accommodate the adult-sized change table that is 810 mm wide by 1 830 mm long and does not overlap with the clear spaces required by Clauses (1)(e), (1)(j) and (c), and
 - c) have a clear transfer space of 900 mm by 1 350 mm adjacent to the long side of the clear floor space for the adult-sized change table.

APPENDIX D

POSTER

PAGE INTENTIONALLY LEFT BLANK

BIBLIOGRAPHY

Archdaily. “BU Lounge/ Supermachine Studio”. Arch Daily. Retrieved from, BU Lounge / Supermachine Studio | ArchDaily.

A, Chen. & Mynard, J. “Student Perspective of the English lounge after a layout change”. Relay Journal. (2018). Retrieved from, (1) (PDF) Student Perceptions of the English Lounge after a Layout Change (researchgate.net).

AC Martin. “Swenson Family Hall of Engineering Fowler School of Engineering Chapman University”. Portfolio, AC Martin. 2021.

A Forsyth, et al., “Inside the Service Learning Studio in Urban Design.” 1999. Landscape Journal 18 (2): 166–178. doi:10.3368/lj.18.2.166.

A, Loeckx. Project and design, amending the project mode. (2009) In A. Loeckx (Ed.), Framing Urban Renewal in Flanders (p. 25). Amsterdam: SUN Architecture Publishers.

A Vidourek, Rebecca et al. “Students’ benefits and barriers to mental health help-seeking.” Health psychology and behavioral medicine vol. 2,1 (2014): 1009-1022. doi:10.1080/21642850.2014.963586.

Abrams, Zara. “Student mental health is in crisis. Campuses are rethinking their approach”. American Psychological Association. Vol 53, No. 7, Pg 60. (2022).

Bernstone, Rachael. “Show the rope: Notre Dame University Student hub”. Projects. Retrieved from, Show the ropes: Notre Dame University Student Hub | ArchitectureAU.

Bouchrika, Imad Phd. “12 ways to reduce stress for college students”. Education. Research. October 4, 2022. Research.com.

Cox Architects. “Notre Dame university Student hub”. Education Snapshots. Retrieved from, Student Hub - Notre Dame University Australia - Education Snapshots.

Chapman University. “Dedication of Swenson Family Hall of Engineering”. Chapman Education. Retrieved from, Dedication of the Swenson Family Hall of Engineering - Homecoming |

Christison, Claudette. “The Benefits of Participating in Extracurricular activities”. Brandon’s University, Dept of Education. BU Journal of Graduate Studies in Education, Vol 5, Issue 2, 2013.

Deasy, Christine et al., “Psychological distress and lifestyle of students: implications for health promotion”. Health Promotion International, Volume 30, Issue 1, March 2015.

Education Snapshots. “Chapman University – Swenson Family Hall of Engineering”. Snapshots. Retrieved from, Chapman University.

Evans, W, Gary, . “The built environment and mental health.” Journal of Urban Health. 2003. Doi: 10.1093/jurban/jtg063.

Eric. “How to Deal with stress in healthy ways”. Undergraduate Programs. University of Waterloo. Retrieved from, How to deal with stress in healthy ways | Undergraduate Programs | University of Waterloo (uwaterloo.ca).

Eduardo, Souza. “What is Soundspace and What does it have to do with Architecture”. ArchDaily. 2021. Retrieved from, What Is Soundscape and What Does It Have to Do with Architecture? | ArchDaily.

Hering, Grosse, et al., “Slow Design for Meaningful Interactions.” 2013. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems,. Paris, France: ACM.

Heslinga, Olivia. “How architecture affects human behavior”. iMotions. 2022. Retrieved from, How architecture affects human behavior - iMotions.

Hannah, Stuart. “The benefits of Learning outside the Classrooms”. Education Adventures. Retrieved from, The benefits of learning outside the classroom (easchooltours.com).

Hutton, Monica. “Modern Architecture of the University of Manitoba Fort Gary Campus”. Winnipeg Architecture Foundation. Manitoba Modern, 2012-2022.

Hagenauer, Jason. “Stress, Depression, and Anxiety in Undergraduate Engineering and Architecture Students”. Conference: American Society for Engineering Education Northeast Section Conference. (2018).

Hohenadel, Kristin. “How architecture builds a profession of stress.” Welcome Collection. (2018). Retrieved from, How architecture builds a profession of stress | Welcome Collection.

Heitor, Teresa. “Potential Problems and Challenges in Defining International Design Principles for Schools”. Evaluating Quality in Educational Facilities. Published 2005.

Haviland, Lyndon. “America’s Universities are failing students facing mental health crises”. The Hill, Education. 2022.

Johnson. T, Roger et al., “Active Learning: Cooperation in the Classroom”. The Annual Report of Educational Psychology in Japan.

Dr. Karpan, Cynthia (Phd). “Programming Interior Environments: A Practical Guide for Students”. Taylor and Francis publications. 2020.

Linden, Brooke et al., “Post-Secondary Stress and Mental Well Being: A Scoping Review of the Academic Literature”. Queen’s University. Canadian Journal of Community Mental Health. Vol, 39, NO. 1. 2020.

Leon, “HOW TO HAVE A HEALTHY LIFESTYLE AT ARCHITECTURE SCHOOL AND THE BENEFITS.” The Orangery Blog. 2022.

Le Couteur, Mike. “Post-Secondary schools focus on mental health as students feel the stress”. Global News. Oct 25, 2019.

Lavelley, Michael. “Understanding Burnout in Architecture School and the Profession”. Architizer. 2022.

Loosemore, Martin et al., “Depression in Australian Undergraduate construction Management, Civil Engineering, and Architecture Students: Prevalence, Symptoms, and Support.” Journal of Civil Engineering Education. Vol 146. Published July 2020. Technical Papers.

Llaurency, Noemie. “Architecture’s Impact on Learning and Achievement”. White Papers. 2022.

Lewinski, Peter. “Effects of classroom’s architecture on academic performances in view of telic versus paratelic motivation: a review”. National Library of Medicine. Front Psychol. 2015; 6: 746. Published online 2015 Jun 3.

Menas, Amanda. “The Widening Mental Health Treatment Gap in Schools”. National Education System. NEA News. May 5, 2019. Retrieved from, The Widening Mental Health Treatment Gap in Schools | NEA.

Mikkel, Bille et al., “A sense of PLace”. Elements of Architecture. 1 Edition. 2016. London.

Murrye, Bernard. “Imagine Lounge”. Contract Design Network. Education. Imagine Lounge, 2013.

Morgane, Brading. “Are you striving or suffering in the pursuit of Academic Validation”. Peer Wellness Educator. Laurier, 2023.

Mross, Emily et al., “A place to study, place to pray”. College and Research Libraries. Association of College and Research Libraries. Vol 79, No.6 (2018).

Molar, Maria, Orozco, “The role of Architecture to Achieve wellbeing”. Faculty of Architecture. University of Coahuila. 2023 Apple Academic press Inc. Matt, Jones. “Chapman University Debuts New Hall of Engineering”. Space4learning. 2022.

Notre Dame Australia. “Student hub revamp gets ‘thumbs up’ at top architecture awards”. The University of Notre Dame Australia.

National Building Code of Canada. 2020.

Ozcan, Hilal. “Healing Design: A Holistic Approach to Social Interaction in Pediatric Intensive Care Units in The United States and Turkey,”1st Internation CIB Endorsed METU Postgraduate Conference: Built Environment and Information Technologies (Ankara, 2006), 248 - 258.

Petermans, Ann et al., “Setting the scene for design for subjective wellbeing.” Design For Wellbeing. 1st Edition. 2019. London.

Pallasmaa, Juhani. “The Sixth Sense: The Meaning of Atmosphere and Mood”. Architectural Design. Vol 86 – Issue 6 (2016). Pg 5.
The Sixth Sense: The Meaning of Atmosphere and Mood (oclc.org).

Prof. Sharma, K, Kamal (Ph.D). “Unlocking the power of student clubs and societies: Your key to university success”. Linkedin, Oct 14, 2023.

Prof, Oliveria, Sonja, et al., “Campus Spaces and places: Impact on Student Outcomes”. AUDE, Association of University Director of Estates. 2022.

Pitupong. “BU Lounge has finally been Completed”. Super-Machine Studios. Official Blog. Retrieved from, BU Lounge has finally been completed | Supermachine Studio.

PARAFIANOWICZ, Lydia. “Bangkok University BU Lounge by Supermachine Studio”. Frame. 2012.

Roles, Kayla. “Creative Burnout: Suffocating the future of Design”. IDSA. Kansas State University. Page 1.

Ricci, Natalie. “The Psychological Impact of Architectural Design”. Claremont McKenna College. Senior Thesis, 2018. The Psychological Impact of Architectural Design (claremont.edu).

Red Thread. “Collaborative Learning Space Design For Higher Education”. University Hybrid Classroom Guide.

Southern Connecticut State University. “Missions and Goals of the Student Center”. Student Center. 2020.

Street Space. “How to Create Stress Free Environment Schools.” Street Space Group. Sep 27, 2018.

Stevens, Ruth et al., “Converting Happiness theory into (interior) architectural design missions”. Architectural Research Symposium in Finland. JSTOR 2014.

S. Taylor S et al., “Leading as Craft-work: The Role of Studio Practices in Developing Artful Leaders.” 2014. Scandinavian Journal of Management 30 (1): 95–103.

The Guardian. “Survey: 25% of UK architecture students treated for mental health problems”. The Guardian. 2017.

The Fulcrum Agency. “NDU Student Hub”. The Fulcrum Agency. Case Study. Education. Retrieved from, NDU Student Hub - The Fulcrum Agency.

Tangram. “Chapman Swenson Family Hall of Engineering”. Tangram Interiors. 2021.

Unama'ki College. “Unama'ki College View Vook: Cape Brenton University”. Retrieved from, Unamaki-Viewbook-2023-Digital.pdf (SECURED) (cbu.ca).

Ulrich, Roger. “Effects of Interior Design on Wellness: Theory and Recent Scientific Research”. Journal of Health Care Interior Design. 1991.

Valiente, Ulysses. “Mental Health Awareness for the Architecture Student”. Life of an Architect. 2012.

University of Manitoba capital projects: a file on building development and capital expenditure 1877-1970. Winnipeg: University of Manitoba, 1970.

Wright Lloyd, Frank– 1954.

Wilkinson, Rebecca. “Notre Dame university Student hub by Cox Architects”. The Local Project. Retrieved from, Gallery of Notre Dame University Student Hub / The Local Project.

Zumthor, Peter. “Atmosphere: Architectural Environments” – Surrounding Objects (Berlin: Birkhauser, 2003).

