

RASOI

Interior Design Approach to Cultural Revitalization Through Food Sovereignty

By

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Abstract

This document examines food sovereignty through an interior design lens in the province of Manitoba, Canada, by way of *RASOI*, a community food center located at 814 Main Street in Point Douglas, Winnipeg, Manitoba.

The design framework for the community center is based on contemporary design theories and concepts that address the issue of *food sovereignty*. These issues are informed by writers and theorists including Nettie Wiebe, Kevin Wipf, Pat Vanderkooy, Valerie Tarasuk, Carolyn Dimitri, Stephen Penner, and Dawn Morrison. Additionally, patterns of production and consumption of foodways are explored to further understanding of Point Douglas' journey towards food sovereignty. To guide the design of the community center, the focus is on Canadian Indigenous, contemporary Western, and Kashmiri foodways. Each contributes something different: traditional Indigenous culinary values informed by Jaime Cidro and Tabitha Martens; new urban farming technologies in the case of Western foodways from Sarvenaz Pakravan; and insertion of the author's Kashmiri culture for comparison.

RAOSI focuses on providing equitable opportunities to Point Douglas through production spaces centered around indoor urban agriculture. The design of spaces for food distribution furthers food sovereignty and community connection through activities that gather, teach, and strengthen traditional Canadian Indigenous food knowledge.

The convergence of traditional Canadian Indigenous, Western, and Kashmiri customs is fostered through the theories and concepts of third space by Homi K Bhabha, transculturation by Mary Louise Pratt, Two-eyed Seeing by Elder Albert Marshall, and lastly Nicole Bell and Robin Wall Kimmerer's analysis of *Bimaadiziwin*. Additionally, sustainable strategies from Janine Benyus's description of biomimicry and Graeme Brooker and Sally Stone's discussion of

adaptive reuse influence the sustainable design strategies within the building to blend Indigenous values and Western technologies.

These theories and concepts are implemented through spatial design implications with architectural elements including form, hydroponic farming systems, open circulation, natural lighting, local material specification, and narrative.

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Preface

As a first-generation immigrant from Kashmir, India, the home in which my family created was always a place of retreat from the Western world. Growing up, I had the privilege of having a stay-at-home mom who would always fill our home with the traditional scent of Indian spices. The energy she created in our kitchen always radiated out to the other parts of our rooms, with the smell of food pulling us closer or the high-pitched screams of the pressure cooker pushing us away. In my experience, the connection food plays with culture creates a relationship through teachings and allows us to foster different forms of connection through the preparation or service of food. For example, in Srinagar, my Nani's¹ kitchen is rectangular shaped with a raised platform and a low-to-ground table for others to sit in a circle and prepare vegetables while others can use the stove. The spatial layout creates cyclical movements that invite others to participate and, in a sense, move to make more connections like a turning wheel. The turning of the space transforms from an area of teaching to a space of respite with the addition of guests in our home. The kitchen is more than just a space to create food but also to release emotions, learn, fight, argue, share, steal, and most importantly, bond. The informal area of a kitchen is meant for meaningful connection and authenticity.

The research around food sovereignty encouraged me to explore my personal relationship with food and culture through conversations with the generations of women who fed me, my mother and Nani. Together we assigned the name *RASOI* to my Practicum. This is a Hindi word and depending on the context it is used it has different meanings. For the intention of my project I use it as the meaning for, Kitchen. *RASOI* encompasses a traditional understanding of a space where all are welcome and gather to create food that nurtures the ones they love.

¹ Hindi word for maternal grandmother. Sourced from: www.wisdomlib.org, "Nani, Nānī, Nāṇi, Naṇi, Naṇi: 10 Definitions," May 27, 2018, <https://www.wisdomlib.org/definition/nani>.

Chapter 1: Introduction

1.1 Introduction

This is a Masters of Interior Design Practicum for the University of Manitoba, Faculty of Architecture in the Department of Interior Design. This document will explore food sovereignty through the lens of interior design. By responding to the environmental, cultural, and financial climate of Winnipeg's north end the practicum will propose a community food center called *RASOI* in the Hindi language meaning Kitchen. The community food center is located in Point Douglas, Winnipeg, Manitoba and employs the adaptive reuse of a warehouse building at 814 Main Street. *RASOI* provides spaces for the production, consumption and distribution of food to local members living in Point Douglas within a post Covid-19 environment. The project's urban limitations provide opportunity to explore interior farming solutions through vertical farming for the production of food. The practicum integrates theories and concepts such as Biomimicry by Janine Benyus, adaptive reuse by Graeme Brooker and Sally Stone, Bimaadizizwin by Nicole Bell and Robin Wall Kimmerer, and Two-Eyed Seeing by Elder Albert Marshall. When combined, these theories and concepts provide valuable insights into foodways and sustainable designs that are culturally appropriate for Canadian Indigenous, Western and Kashmiri communities within Point Douglas. Specifically, they emphasize the importance of engaging older and younger generations in foodways initiatives.

Additionally, as a non-Indigenous person, my practicum is guided by my own personal experience as a first-generation immigrant. In this context, applying the theory of transculturation by Mary Louise Pratt allowed me to integrate myself within the project and establish a deeper connection to my research findings on food sovereignty. My exploration of food sovereignty was shaped by academic inquiry as well as conversations with Elders and members from Point Douglas. *RASOI* is intended to serve as a foundational step towards the

broader community's development, welcoming and supporting the transition of various cultural traditions through food production.

1.2 Project Rational

Food security within Manitoba is a major concern, especially in north Winnipeg.¹ The areas most affected by this issue are Point Douglas and the Downtown district.² The global pandemic, COVID-19, has affected all areas of our daily lives. It has made individuals more particular about the foods they eat and initiates questions about where food comes from, making everyone evaluate their relationship with food, and access to food. Although food insecurity has been a long-lasting issue for Manitoba, the pandemic has magnified the need for affordable and healthy locally-grown food. The food deserts in Winnipeg are already situated in areas struggling with low income, creating a succession of negative chain reactions that lead to financial stresses, food inaccessibility, and burdens of survival on the most vulnerable populations.

Members most affected by this issue are Indigenous communities as they suffer most from the lack of appropriate nutrition and food sources.³ Particularly in Canada, the Indigenous population seems to be rising rapidly.⁴ Referenced from 2016 Statistics Canada, the First Nation population in Canada has grown 39.9% since 2006 and the Métis population by 51.2%.⁵ These rising numbers call for more representation of Indigenous design within the urban community.

¹ Cidro, Adekunle. *Beyond Food Security: Understanding Access to Cultural Food for Urban Indigenous People in Winnipeg as Indigenous Food Sovereignty* (Canadian journal of urban research 24, 2015), 26.

² Joyce Slater et al., "Food Deserts in winnipeg, Canada: A Novel Method for Measuring a Complex and Contested Construct," October 2017, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5674766/>.

³ Cidro, Adekunle. *Beyond Food Security: Understanding Access to Cultural Food for Urban Indigenous People in Winnipeg as Indigenous Food Sovereignty* (Canadian journal of urban research 24, 2015), 28.

⁴ Berens, M. J. *Future Scan 2019* (Council for Interior Design Accreditation, 2019), 6.

⁵ Government of Canada. *Aboriginal peoples in Canada: Key results from the 2016 Census*. (2019).

Based on the topics discussed, the document explores the relationship between food deserts and culture, particularly from Indigenous communities and minority groups living in Point Douglas. As a way to give a well-rounded approach, the focus revolves around cross cultural experiences to incorporate the diversity of residents living in Point Douglas. The practicum proposes a community food center within Point Douglas on 814 Main Street. The design will occupy three floors, each representing around 6000 sq/ft +/- per floor. The critical concepts that would inform this project include, food sovereignty, foodways, and design theories ranging from, biomimicry⁶, adaptive reuse⁷, transculturation⁸, third space⁹, Bimaadiziwin¹⁰, and two eyed seeing¹¹. These theories and concepts work together to promote sustainable practices that best represent Indigenous land-based values and beliefs. Food being a large part of cultural identity is promoted within the project through spaces that encourage traditional Canadian Indigenous foodways.

⁶ Biomimicry: Design inspired by nature, using natural patterns, forms, and textures.

⁷ Adaptive Reuse: reusing an existing building for a purpose other than what it was originally built or designed for.

⁸ Transculturation: speaks about the merging and converging of cultures. It goes beyond a simple transition from one culture to another, instead emphasizing the creation of new cultural phenomena

⁹ Third space: Post-Colonial understanding of hybrid spaces.

¹⁰ Bimaadiziwin: Anishinaabe word for “a way of living a good life” informed by the cardinal points and the four directional gifts.

¹¹ Two-eyed Seeing: a concept which embodies an indigenous approach to harmonize strengths of traditional Indigenous and Western knowledge.

1.3 Project Objective

- Design interiors that support foodways specific to local community identity.
- Explore cultural foodways by investigating Canadian Indigenous, Western, and Kashmiri customs that govern food traditions to determine how they would impact the design of the space.
- Increase community connection through spaces which facilitate group-based activities such as, teaching kitchens, community gardens and grow rooms.
- Implement sustainable design strategies, such as adaptive reuse and biophilic design, that best connect to Indigenous land-based values and beliefs.
 - Biophilia: Using biomimicry – implementing green spaces, such as outdoor gardens, greenhouses and interior vertical gardens and exploring the boundary between exterior and interior related to sustainable design.
 - Adaptive reuse: implementing strategies of reprogramming, narrative, and insertion.
- Implement interior design strategies that promotes indoor agriculture with respect to the context and culture of Point Douglas.
- Investigate appropriate design for large spaces informed by COVID-19 safety protocol.

1.4 Research Questions

This practicum explores how interior design can be utilized to foster an environment conducive to empowering individuals in making food choices through alternative forms of food production in urban settings. The project concentrates on designing interior environment that facilitates the cultivation, preparation, and distribution of locally grown food. The following questions were developed to guide the research and design of the project to meet these objectives. The research questions help to focus the topics investigated in the subsequent chapters and direct the concepts informing the final design.

1. How can food sovereignty be addressed as an interior design problem?
2. What are some specific urban and Indigenous foodways that govern the interior design of a production, consumption and distribution space?
3. How can you appropriately incorporate conventional practices of farming, with respect to traditional Indigenous land-based values.
4. How can you unite the concept of adaptive reuse with traditional and sustainable Indigenous practices of design.

1.5 Research Methods

The project employs the following research methods to attain its goals, objectives, and answers to the questions outlined earlier

Site Analysis: Located within the second chapter of the document, the site analysis seeks to understand the physical space, culture and context of the site. As a result, the project is able to anticipate user needs through the analysis of the opportunities and constraints of the site. This information helps to envision the capabilities of the site.

Photographs: To aid in the understanding of chapter two, building and site analysis, photographs from the author are documented to help envision the quality of the site and its environment.

Literary Analysis: The third chapter within the document includes an in-depth Literature Analysis. The analysis is broken down into three sections. Section 3.1, "Food Sovereignty," establishes a theoretical framework for the concepts and challenges examined in relation to food sovereignty. Section 3.2, "Foodways," identifies urban and Indigenous practices concerning the production, processing, preparation, and distribution of foods, which serve to inform specific programmatic practices within RASOI. Lastly, section 3.3, "Design Theories and Concepts," explores various theories and concepts that strongly relate to Indigenous values and customs. This chapter lays the groundwork for the design decisions that will guide the program and design language of *RASOI* moving forward.

Design Precedent Analysis: Chapter four, explores three architectural precedents for community centers. The purpose of this chapter to is examine how designers illustrate concepts discussed in the previous chapter within their design.

1.6 Key Concepts and Terms

Adaptive Reuse: established by Graeme Brooker, it is “the renovation and reuse of pre-existing structures (such as warehouses) for new purposes”¹²

Biomimicry: “the design and production of materials, structures, and systems that are modeled on biological entities and processes.”¹³

Food Desert: residential geographic spaces, where low-income residents have limited or no access to grocery stores with an adequate variety of healthy food at an affordable cost.¹⁴

Food Security: Food security is the measure of an individual's ability to access food that is nutritious and sufficient in quantity.¹⁵

Food Sovereignty: the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.¹⁶

Food System: “is a complex web of activities involving the production, processing, transport, and consumption. Issues concerning the food systems include the governance and economics of

¹² Graeme Brooker, *Adaptation Strategies for Interior Architecture and Design* London: (Bloomsbury Visual Arts, 2017).

¹³ “Biomimicry Definition & Meaning - Merriam-Webster,” accessed November 19, 2023, <https://www.merriam-webster.com/dictionary/biomimicry>.

¹⁴ Slater Joyce et al., “Food Deserts in Winnipeg, Canada: A Novel Method for Measuring a Complex and Contested Construct,” *Health Promotion and Chronic Disease Prevention in Canada : Research, Policy and Practice* 37, no. 10 (October 2017): 350–56.

¹⁵ “Food Safety and Security,” accessed July 5, 2023, <https://education.nationalgeographic.org/resource/food-safety-and-security>.

¹⁶ “What Is Food Sovereignty? | SeedChange : SeedChange,” January 2021, <https://weseedchange.org/food-sovereignty/>.

food production, its sustainability, the degree to which we waste food, how food production affects the natural environment and the impact of food on individuals and population health”¹⁷

Foodways: Foodways include customs of food production, preservation, preparation, presentation, gathering, marketing (both buying and selling), uses of food products other than for eating and food folklore.¹⁸

Transculturation: Introduced by Cuban anthropologist Fernando Ortiz in 1940, the term "transculturation" speaks about the merging and converging of cultures. It goes beyond a simple transition from one culture to another, instead emphasizing the creation of new cultural phenomena.¹⁹

1.7 Chapter Summary and Conclusion

Chapter 1 – Introduction presents the goals and rationale of this practicum project, both in terms of research and design. It presents the foundation for the document by introducing key theoretical concepts to be explored in the following chapters. Alongside this information the site, primary users and hypothetical clients are also identified.

Chapter 2 – Site and Building Analysis offers a perspective on the chosen site through community wide maps informing the reading. Additionally contextual elements are noted through photographs that tell the story of the building. Together, the information gathers,

¹⁷ Kurt Benke and Bruce Tomkins, “Future Food-Production Systems: Vertical Farming and Controlled-Environment Agriculture,” *Sustainability: Science, Practice, and Policy* 13, no. 1 (2017): 13–26, <https://doi.org/10.1080/15487733.2017.1394054>.

¹⁸ “Foodways: When Food Meets Culture and History,” MSU Extension, December 12, 2012, https://www.canr.msu.edu/news/foodways_when_food_meets_culture_and_history.

¹⁹ Richard A. Rogers, “From Cultural Exchange to Transculturation: A Review and Reconceptualization of Cultural Appropriation,” *Communication Theory* 16, no. 4 (2006): 491, <https://doi.org/10.1111/j.1468-2885.2006.00277.x>.

delineates possible opportunities and constraints of the selected site and building that aid in the design of the community center.

Chapter 3 –Literary Analysis is divided into three primary sections. Section 3.1, "Food Sovereignty," the project's foundation is laid by examining challenges stemming from three levels of food insecurity: *household food insecurity*, as discussed by dietitian Pat Vanderkooy and professor of nutritional science Valerie Tarasuk; *community food insecurity*, as explored by social work professor Michelle L. Kaise and food waste expert Marie Mourad; and *Indigenous food insecurity*, as articulated by Jaime Cidro, Tabatha Martens, Stephen Penner, Kathleen Kevany, Sheri Longboat, and Dawn Morrison.

Section 3.2, "Foodways," identifies two distinct foodways that subsequently inform the user needs established in the preceding section: urban foodways, discussed by researchers Jaime Cidro and Tabatha Martens, and traditional Canadian Indigenous foodways, by Anishinaabe educator Nicole Bell and Indigenous plant ecologist Robin Wall Kimmerer.

Section 3.3, "Design Theories and Concepts," various design theories and concepts are examined through the lens of two-eyed seeing by Elder Albert Marshall, third space by Homi Bhabha, and transculturation by Mary Louise Pratt. Sustainable theories and concepts are outlined through adaptive reuse by Graeme Brooker and Sally Stone, and biomimicry by Janine Benyus.

Anishinaabe educator Nicole Bell's unpacking of the Indigenous concept of Bimaadiziwin aids in the document's research for culturally relevant spatial and design implications. Together, this chapter lays the groundwork for subsequent design decisions within the program and design language of *RASOI*.

Chapter 4 –Design Precedent Analysis demonstrates three projects that analyze how they relate to the theories and concepts discussed in the literary analysis. The precedents include a local, national and international project. The first precedent is a local grocery store and business hub formally known as Neechi Commons from Winnipeg, Manitoba. The second precedent is a community food center called Roots to Harvest in Thunder Bay, Ontario. The last precedent is an international corporate work office and urban farming space from Tokyo, Japan, titled Pasona Urban Farm.

Chapter 5 –Design Application Illustrates programming alongside user analysis and spatial programming, all guided by literary precedent, program, and design concepts. This chapter displays the floor plans, sections, perspective and explain the visual intent through digital collages and drawings.

Conclusion – This section offers reflection on the design of the space, guided by the research questions posed in Chapter One. It explores opportunities for enhancing or advancing cultural integration within design.

Chapter 2: Site and Building Analysis

2.0 Introduction

This project designs spaces that promote sustainable and healthy food practices through interior design strategies. This chapter explores the location for *RASOI: Community Center* and investigates the selection criteria for the site. Criteria discussed will influence the project's design considerations and features. The project site is Winnipeg's Point Douglas community, and within that site is 814 Main street. This building has been selected for the proposed community center. This project targets the site for its lack of affordable and healthy food options, characteristics that classify it as a food desert.²⁰ The site and building at 814 Main Street were selected for opportunities to provide economic and social programming to engage with the local community. The programming of spaces dedicated to food production, consumption, and distribution will empower community members to make informed choices about their food consumption, thereby fostering food sovereignty. This concept will be thoroughly explored in the following chapter. Community is defined as residents living in Point Douglas neighborhood and as a multicultural neighborhood, the project looks at the intersection of culture to identify residents needs. The project also considers food production within an urban context specific to the needs of the community members. This particular urban situation evokes a sense of environmental and spiritual connection between residents and the site. This will promote a healthy relationship to allow for sovereignty in food production.

To give context to the site selection, this document will also analyze the surrounding neighbourhood's demographics, services, agriculture and accessibility. This will highlight factors

²⁰ Joyce Slater et al., "Food Deserts in Winnipeg, Canada: A Novel Method for Measuring a Complex and Contested Construct," *Health Promotion and Chronic Disease Prevention in Canada* 37, no. 10 (October 2017): 350–56, <https://doi.org/10.24095/hpcdp.37.10.05>.

that create a food desert which requires the need for the community center focusing the promotion of Indigenous food sovereignty.

2.1 Site Description

The site selected for *RASOI* is located at 814 Main Street. The hard boundaries of the site include the Canadian Pacific Railway to the south, the Red River along the east and north, and lastly on the west, Main Street. As seen within figure 1, the site is located within the Point Douglas community area. The surrounding area includes the Exchange District, Civic Centre, and Centennial.



Figure 1: Point Douglas Community Area.

Adapted from <https://legacy.winnipeg.ca/census/2016/Community%20Area/>. Accessed on May 6, 2022.

Point Douglas is one of Winnipeg's oldest neighbourhoods and is located on the traditional territory of the Cree. The territory was originally populated by Indigenous communities displaced by the arrival of European settlers in 1812.²¹ Point Douglas was originally established as Fort Douglas in 1813, and was initially used for agricultural purposes.²² In the early 19th century, Point Douglas was an affluent residential area but soon evolved into a mixed-use industrial area. In an *Urban History Review*, Associate Professor of History Kurt Korneski examines Winnipeg's urban transformation from the 1870s to the 1910s. Korneski credits the construction of the Canadian Pacific Railway for the transformation of Point Douglas from a wealthy residential neighborhood into an industrial area. With eastern and western connections, Winnipeg became hub for transportation of agricultural, industrial and construction goods.²³ The connection also welcomed the arrival of eastern and central European immigrants to Point Douglas, turning it into an ideal area for immigrant housing. It provided low housing costs and easy access to local employment.²⁴ As an area that was once romanticized for its potential, it soon became an area that fueled a narrative of greed and discrimination. The consumer culture that pushed the district to evolve into an industrial area constrained the site priorities, which shifted to focus on production rather than the quality of living. These constraints within the site allowed its residents to be overlooked. The idea of consumption and mass production pushed the district's focus towards monetary profit, which created an environment in

²¹ "Manitoba | The Canadian Encyclopedia," accessed March 18, 2023, <https://www.thecanadianencyclopedia.ca/en/article/manitoba>.

²² "Historical Tours in Manitoba: Walking Tour of North Point Douglas," n.d., <http://www.mhs.mb.ca/docs/features/walkingtours/pointdouglas/index.shtml>.

²³ Korneski, K. (2008). Reform and Empire: The Case of Winnipeg, Manitoba, 1870s–1910s. *Urban History Review*, 37(1). <https://doi.org/10.7202/019345ar>. 50

²⁴ "Historical Tours in Manitoba: Walking Tour of North Point Douglas."

which vulnerable individuals such as newly arrived immigrants, or displaced Indigenous people were discriminated against.

Racism played a vital role in the area's decline by establishing boundaries for ethnic groups separation as well as inequitable opportunities. For example, the railways created a boundary that divided the rich from the poor. In the instance of Point Douglas, the railways contributed to the division of the city by creating a working environment with harsh conditions. Vulnerable individuals new to the city were taken advantage of by businessmen, receiving minimal opportunities. This limited their employment to physically taxing jobs, which provided minimum pay.²⁵ As a result, people were tethered to low-income housing within the industrial area where they worked.

In a recent analysis of Point Douglas demographic the ethnic population reveals an estimated one third of the population to be Indigenous, minority and non-minority.²⁶ Compared to the city of Winnipeg, Point Douglas census data displays a larger multicultural population.

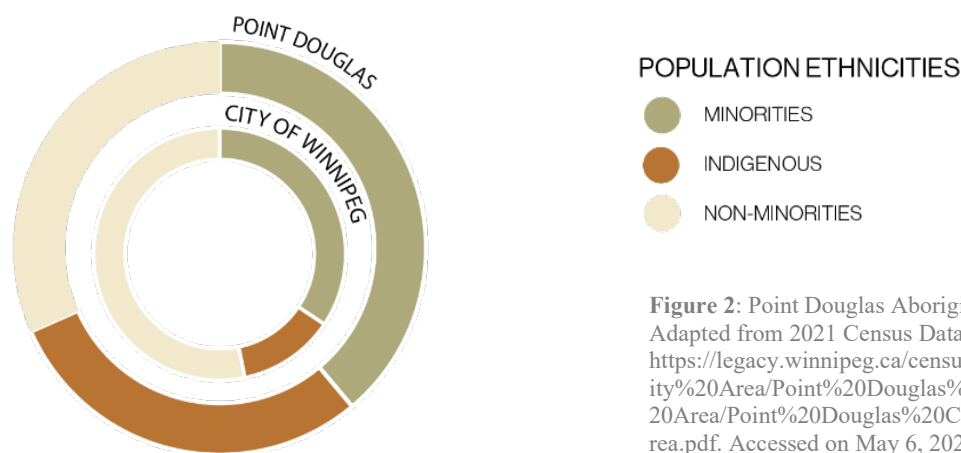


Figure 2: Point Douglas Aboriginal Population. Adapted from 2021 Census Data. 5. <https://legacy.winnipeg.ca/census/2021/Community%20Area/Point%20Douglas%20Community%20Area/Point%20Douglas%20Community%20Area.pdf>. Accessed on May 6, 2022.

²⁵ Korneski "Reform and Empire: The Case of Winnipeg, Manitoba, 1870s–1910s" (2008) 55.

²⁶ City of Winnipeg, "2021 Census Data. Point Douglas Community Area," 5, accessed March 16, 2023, <https://legacy.winnipeg.ca/census/2021/Community%20Area/Point%20Douglas%20Community%20Area/Point%20Douglas%20Community%20Area.pdf>.

In 2021, Winnipeg Census report, Point Douglas reveals to be home to a large Indigenous community and eastern European decedents. The report cites 29.5% of residents identify as First Nations, Metis or Aboriginal, compared to 12.4% of Winnipeg.

Currently, these statistics shown are rising due to urban Indigenous migration patterns. According to the government of Canada, in Manitoba, current migration patterns for Indigenous people show many youths migrating from various northern Indigenous communities.²⁷ It is imperative to note the challenges for migrating youths as most experience varying levels of culture shock once arriving in the city. Often experiencing challenges with educational standards and interpersonal struggles with maintaining their cultural identity within an urban context.²⁸ The challenges may influence individuals to

seek temporary forms of comfort, including drugs and alcohol, that can lead to homelessness which is prevalent within the district. As the Indigenous population in Winnipeg is home to members from various communities, it is critical not to generalize the Indigenous people living

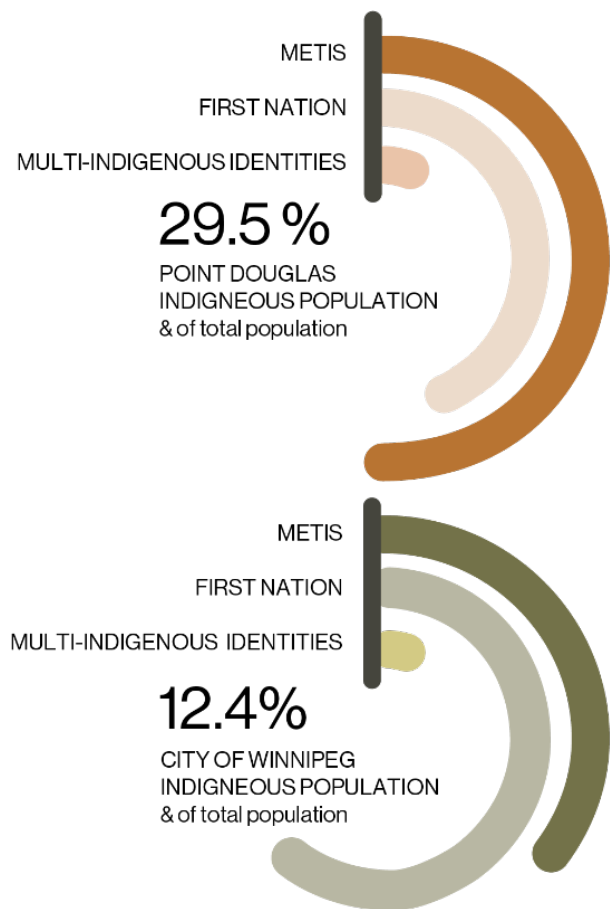


Figure 3: Point Douglas Aboriginal Population. Adapted from 2021 Census Data. 5. <https://legacy.winnipeg.ca/census/2021/Community%20Area/Point%20Douglas%20Community%20Area/Point%20Douglas%20Community%20Area.pdf>. Accessed on May 6, 2022.

²⁷ “Urban Indigenous Peoples and Migration: Challenges and Opportunities,” [www.un.org](https://www.un.org/esa/socdev/unpfii/documents/6_session_factsheet2.pdf), May 21, https://www.un.org/esa/socdev/unpfii/documents/6_session_factsheet2.pdf.

²⁸ “Urban Indigenous Peoples and Migration: Challenges and Opportunities.”

within the site. Acknowledging the different communities that practice their traditions and specific customs is essential.

Residents within the area have a larger youth population ranging from 0-19 years old than the city of Winnipeg.²⁹ Recent Indigenous migration patterns mentioned earlier may be a factor in the overall increase of the district's youth population. The employment rate within the district is lower than in the city, showing Point Douglas to have 55% versus 63% in Winnipeg.³⁰ In addition, household income is lower. It has decreased since 2011, showing \$72 600 in Point Douglas and \$98 700 in Winnipeg.³¹ The City of Winnipeg statistics continue to indicate Point Douglas as an area needing more support.

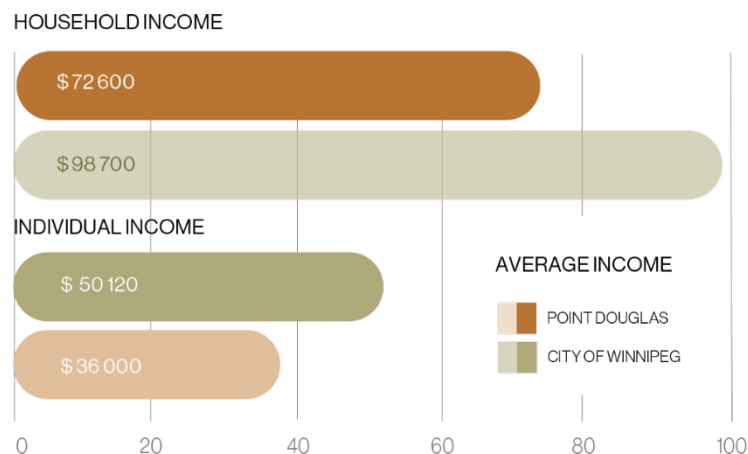


Figure 4: Point Douglas Income.

Adapted from 2021 Census Data. 12.

<https://legacy.winnipeg.ca/census/2021/Community%20Area/Point%20Douglas%20Community%20Area.pdf>.

Accessed on May 6, 2022.

²⁹ City of Winnipeg, “2016 Census Data. Point Douglas Community Area.”

³⁰ City of Winnipeg.

³¹ City of Winnipeg.

2.2 Site Analysis

2.2.1 Services

In the last 20 years, the term Food Deserts have come forth, describing areas typically in an urban context with low-income residents without access to a variety of healthy and affordable food.³² A study done in 2014 in Winnipeg by the government of Canada shows Winnipeg has the highest population of urban poor in Canada.³³ As seen in figure 5 the map represents food deserts



Figure 5: Winnipeg Food Desert Classification Map:

Adapted from: <https://mangomap.com/cgreenwpg/maps/a779131e-2d80-11ea-9e83-06765ea3034e/winnipegfood-atlas?preview=true#>. Accessed on March 12, 2021.

³² Slater et al., “Food Deserts in Winnipeg, Canada: A Novel Method for Measuring a Complex and Contested Construct.”

³³ Bamidele Adekunle et al., “Beyond Food Security: Understanding Access to Cultural Food for Urban Indigenous People in Winnipeg as Indigenous Food Sovereignty,” *Canadian Journal of Urban Research* 24, no. 1 (2015): 24–43.

classified in Winnipeg. According to the Winnipeg Health Region, the orange region displays a severe food desert directly located within Point Douglas community area. The service map, as seen in figure 6 highlights the lack of healthy food stores available to the surrounding residents which classifies the community area as a “severe food desert”. Amenities such as grocery stores, banks, and pawn shops help make the Point Douglas convenient. Grocers in the area are primarily small convenience stores that carry the residents' basic needs.

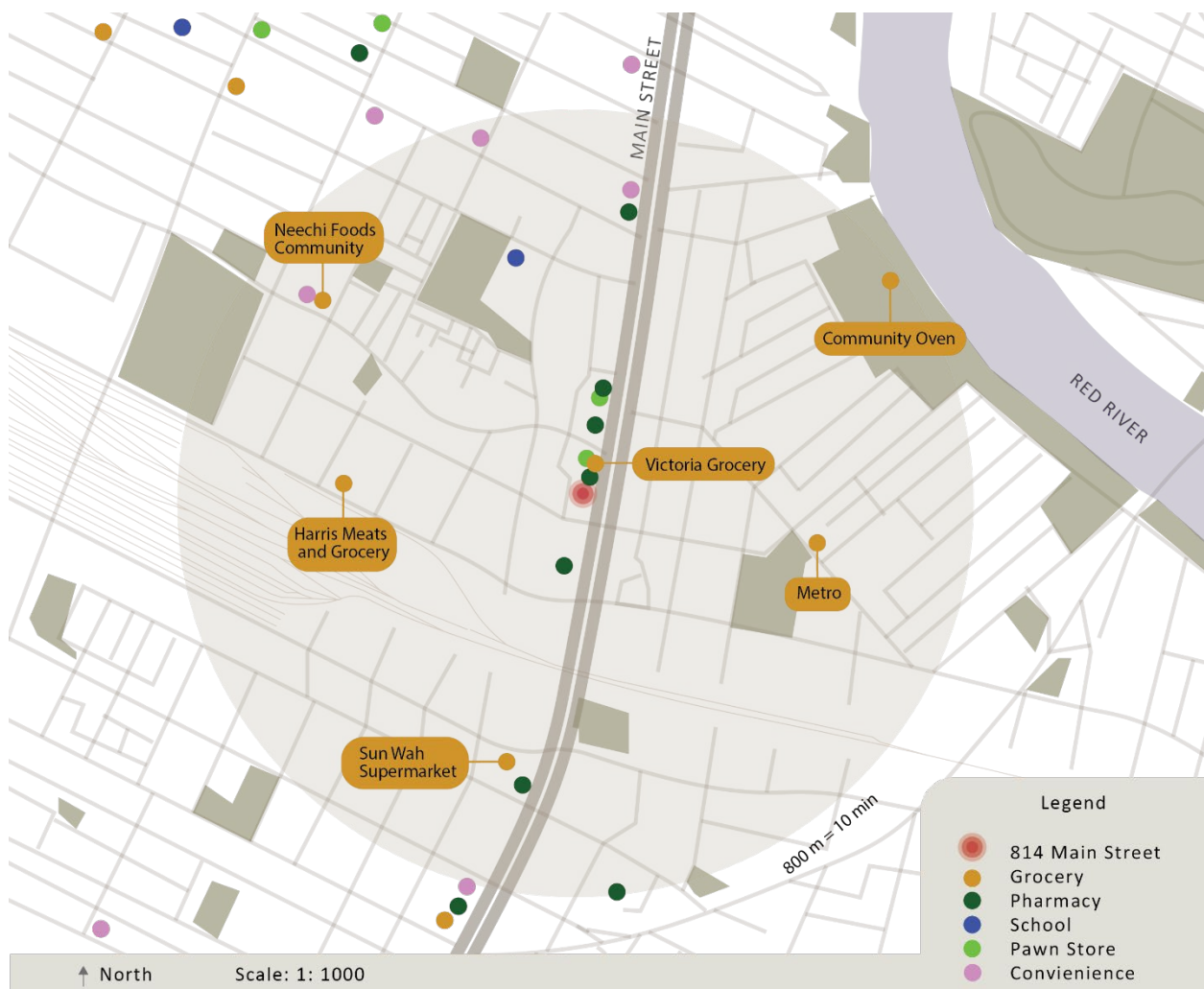


Figure 6: Site Service Map.
Adapted from <https://www.google.ca/maps/search/grocery/@49.904724,-97.13538,15z/data=!3m1!4b1?entry=ttu>. Accessed on May 6, 2022.

The food within the stores shows a lack of affordable and healthy options. Stores such as Neechi Foods community stores now have empty racks with limited options. As seen on page 23, figures 8, 9, and 10, many of the racks within the store carry processed food with high-calorie counts and high prices. The limited vegetable options are shown to be of poor quality and highly expensive. Residents looking to purchase a wide variety of fresh foods, such as fruits and vegetables, must travel further south to get to the closest major grocery store.³⁴

A few notable amenities popular in the area include pawn shops and pharmacies. The amenities within the site respond to the immediate needs of residents but do not work to solve long-term goals of healthy food access. Overall, Grocery and banking amenities may need to be improved to provide sustainable sources of food and banking services in comparison to pawn shops, which are more accessible. In addition to businesses such as grocers and banking amenities, the North End Community group focuses on revitalizing the North End and Point Douglas area. This group aims to strengthen the community through economic development as one of their four services to a sustainable and developed area. Through economic growth, the group hopes to “Strengthen existing business/local business retention, Attracting outside business, Creating new business opportunities (private and social enterprise) and creating a vibrant business environment.”³⁵ Findings from food insecurity policy research funded by the Canadian Institutes of Health Research revealed poor nutrition and health outcomes for communities affected by food deserts.³⁶ Combined with additional factors of low income and

³⁴ Major Grocery stores such as Superstore, Giant Tiger, and Walmart

³⁵ “Economic | The North End Community Renewal Corporation,” n.d., <http://necrc.org/index.php/services/economic/>.

³⁶ Valerie Tarasuk, Andrée-Anne Fafard St-Germain, and Tim Li, “Household Food Insecurity in Canada:,” *Toronto: Research to Identify Policy Options to Reduce Food Insecurity (PROOF)* 20, no. 4 (2022): 7, <https://doi.org/10.1097/00008486-200510000-00003>.

physical access, the food stores within Point Douglas are primarily convenience stores with immediate and fast-paced access to food.



Figure 7: Neechi Foods community food store exterior



Figure 8: Neechi Foods – Interior 1



Figure 9: Neechi Foods – Interior 2

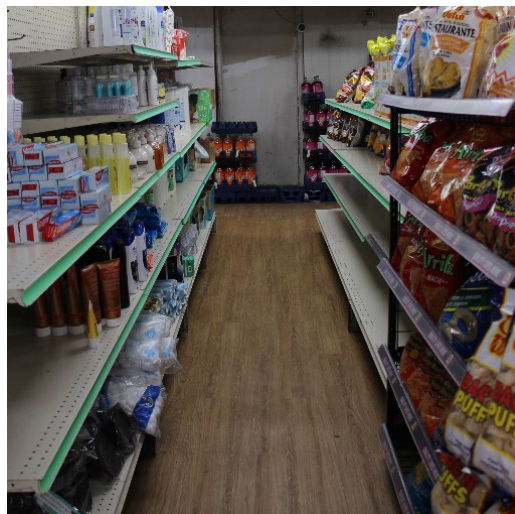


Figure 10: Neechi Foods – Interior 3

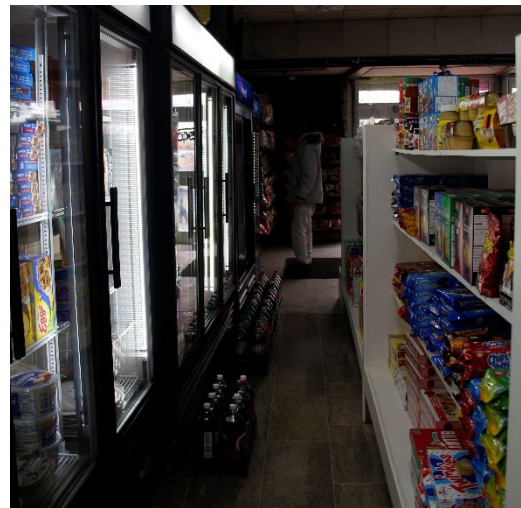


Figure 11: Victoria Grocery – Interior 1



Figure 12: Victoria Grocery – Interior 2

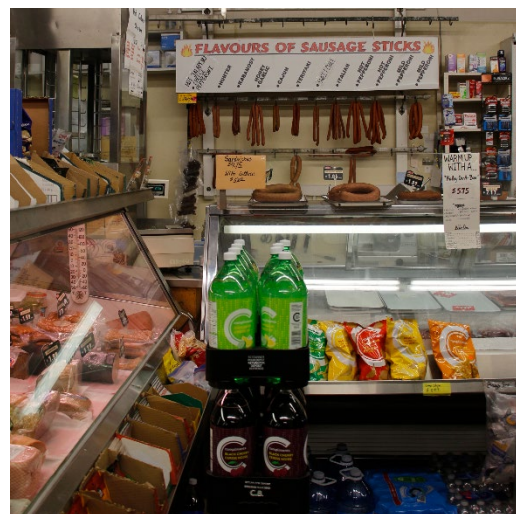


Figure 13: Metro Meat – Interior

2.2.2 Access Map

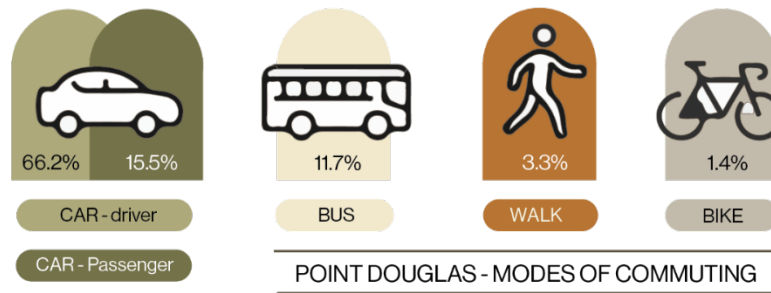


Figure 14: Point Douglas, Modes of Transportation.

Adapted from Adapted from 2021 Census Data. 14

<https://legacy.winnipeg.ca/census/2021/Community%20Area/Point%20Douglas%20Community%20Area/Point%20Douglas%20Community%20Area.pdf>. Accessed on May 6, 2022.

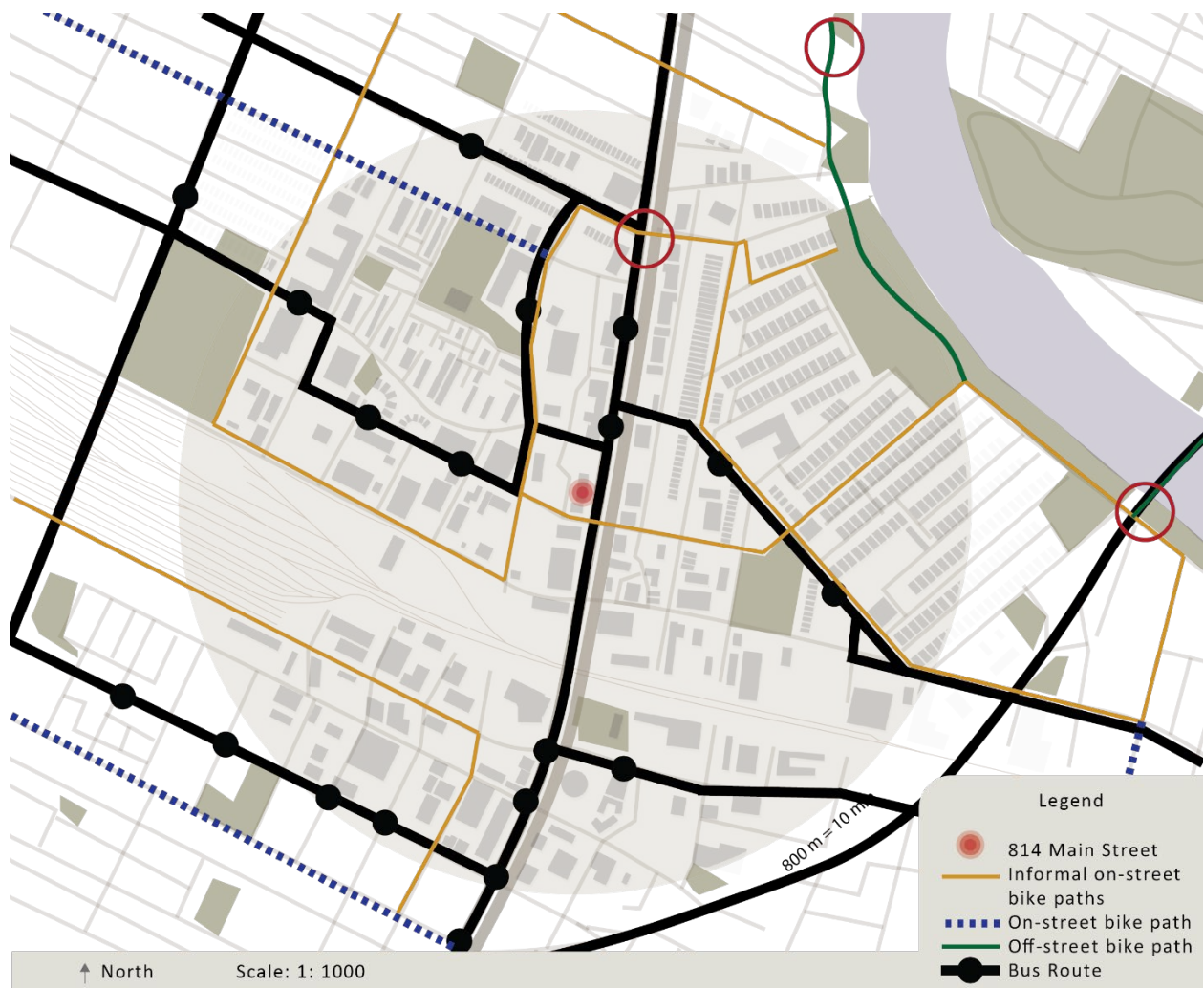


Figure 15: Site Access Map.

Adapted from, https://info.winnipegtransit.com/assets/2655/2020_Route_Map_4.pdf and

<https://legacy.winnipeg.ca/publicworks/pedestriansCycling/pdf/WinnipegCyclingMap.pdf>. Accessed on May 6, 2022.

A significant number of Point Douglas residents lack the financial means to own cars, relying instead on walking, public transit, or cycling as their main modes of transportation. Figure 14 displays the different routes accessible to these residents, The Winnipeg transit system's recent changes have left Point Douglas district unaffected as the rapid transit line's addition hits a couple of streets south of our location. Bus fair rates has increased to \$3.15 and \$2.65 for seniors and youths. The site's primary bus stop could be located on southbound Main at Jarvis. It is located in a heavy traffic zoned area and provides the most routes ranging from Sargent-mountain (16), North Main-Corydon (18), Wall academy (20), and Talbot (45).³⁷ Alternatively, the southern part of the city has adapted their bus routes to include rapid transit.

In recent years, Winnipeg's city has improved accessibility throughout Winnipeg by adding bike lanes. The city's bike networks range from different levels defined by multi-use pedestrian bikeways to on-street bikeways. (Informal) On-Street bikeways are for more experienced bikers where lanes are not protected. The bikeways (protected) on-Street display painted roadways that allocate bikers a lane.³⁸

Despite the high walkability score within the site, this is a lack of a variety and quality of services present. From 814 Main street, some residents must walk 31 min to get to the closest grocery store, No Frills located on Main Street. For other residents living in Point Douglas it is a 1 hr and 25 min walk to a large chain grocery store such as Superstore. The community's low incomes further hinder access to food. Alternatively, In wealthier neighborhoods such as South

³⁷ "Winnipeg Transit - Stop 30096," www.winnipegtransitstop.com, March 16, 2023, <https://winnipegtransit.com/stops/30096/?filterVariants=15-0-F,15-0-W,16-1-L,16-1-%23%23,16-1-P,16-1-K,16-1-V,18-1-A,18-1-E,18-1-C,20-1-T,20-1-%23,20-1-A,45-1-D>.

³⁸ City of Winnipeg, "Winnipeg Bike Map 6," www.cityofwinnipeg.com, accessed March 16, 2023, https://legacy.winnipeg.ca/publicworks/pedestriansCycling/pdf/CyclingMap/WinnipegBikeMap6_FULL.pdf.

Saint Vital, also includes food desert.³⁹ A review of the 2021 census data reveals that the concern for individuals living in South St. Vital is not as high as for individuals living in Point Douglas. This is contributed to the higher rates of income and vehicles owned, for residents living in St. Vital, together these factors create access to healthy food options.⁴⁰

2.2.3 Manitoba Agriculture

Located on the prairies, Manitoba is known for its agriculture. With favorable growing conditions, Manitoba produces large canola and wheat crops.⁴¹ Although Manitoba produces large amounts of crop production, regions across Manitoba show a disparity in equal growth opportunities. Conditions that determine suitable farming land can be determined by land, moisture and temperature. With less favorable growing conditions, members living in less advantageous regions are potentially limited by the nutrition they receive. In this section, the advantages and disadvantages of Manitoba's agriculture are explored.

Manitoba's agricultural regions show that rainfall is below average compared to other provinces, resulting in high moisture for productive plant growth.⁴² Although Manitoba is known for its cold temperatures, the growing season is long enough for the crop to reach maturity in 90 days. Challenges of growing in Manitoba can be highlighted primarily by the weather, growing seasons and temperature fluctuations. Conditions such as stormy weather,

³⁹ "Winnipeg Food Atlas," accessed January 31, 2024, https://mangomap.com/cgreenwpg/maps/a779131e-2d80-11ea-9e83-06765ea3034e/Winnipeg%20Food%20Atlas?map_id=32186.

⁴⁰ City of Winnipeg, "2021 Census Data. South St. Vital Community Area," accessed March 16, 2023, <https://legacy.winnipeg.ca/census/2021/Community%20Area/Point%20Douglas%20Community%20Area/Point%20Douglas%20Community%20https://legacy.winnipeg.ca/Census/2021/Clusters/St.%20Vital%20South%20Neighbourhood%20Cluster/St.%20Vital%20South%20Neighbourhood%20Cluster.pdf>

⁴¹ Manitoba Statistics Index, "Agriculture Statistics," 2016, <https://www.gov.mb.ca/agriculture/markets-and-statistics/statistics-tables/pubs/census-of-agriculture-mb-profile.pdf>.

⁴² Manitoba Statistics Index.

decreased rainfall, and snowstorms can negatively affect yields.⁴³ To protect plants in this harsh ecosystem, indoor cultivation techniques are highly recommended. It is anticipated that extreme weather events like spring floods, summer droughts, and droughts will happen more frequently. The short frost-free season severely limits development options in Manitoba.⁴⁴ Indoor growing is essential for extending the planting season and discovering new vegetable varieties. Lastly, the seasonal temperature changes in Manitoba can permanently harm the lawn because they cannot be controlled outside of the greenhouse where the crops are grown.

Referring back to the concept of Indigenous food sovereignty, the history of Canadian Indigenous people reflects nomadic lifestyle, relying on naturally grown food within their residence. In order for *RASOI* to incorporate food sovereignty and respect traditionally cultivated foods, the map below reveals ecozones in Manitoba. These ecozones play a crucial role in identifying the specific types of food naturally cultivated on the site. The types of food grown will be further discussed in chapter three, section two focusing on foodways. Ecosystems will help establish the relation to traditional foods eaten by Indigenous people and later inform the foods produced within the community centre.

⁴³ “Province of Manitoba | Agriculture - Agricultural Climate of Manitoba,” n.d., <https://www.gov.mb.ca/agriculture/weather/agricultural-climate-of-mb.html>.

⁴⁴ “Province of Manitoba | Agriculture - Agricultural Climate of Manitoba.”

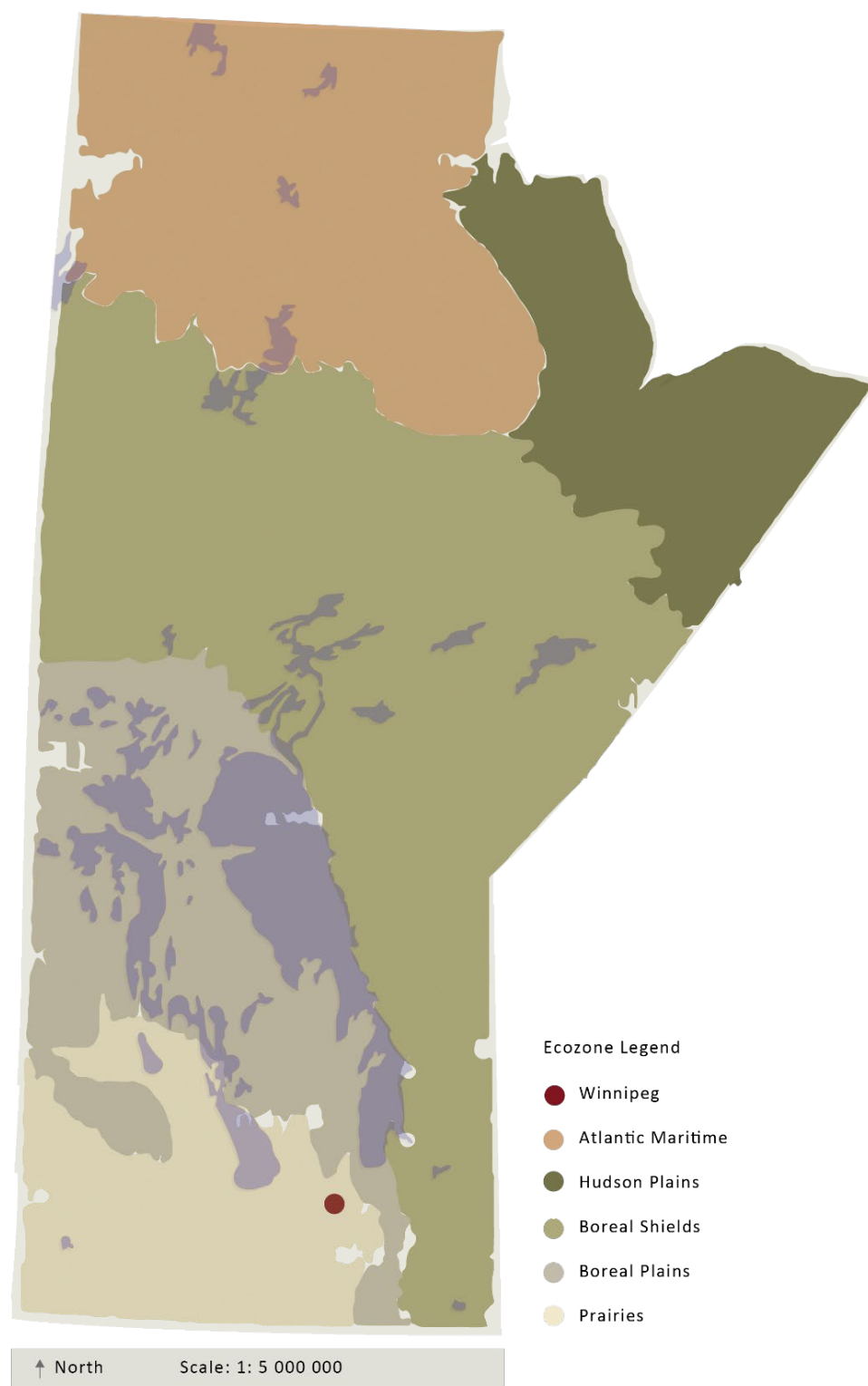


Figure 16: Manitoba Ecozone Map.
Adapted from https://www.gov.mb.ca/sd/pubs/protected_areas/ecoregion_map.pdf.
Accessed on May 6, 2022.

2.2.4 Visual Essay



Figure 17: Neighborhood street view 1



Figure 18: Neighborhood street view 2



Figure 19: Community Garden



Figure 20: Main Street – view from bridge



Figure 21: Main street view – fall

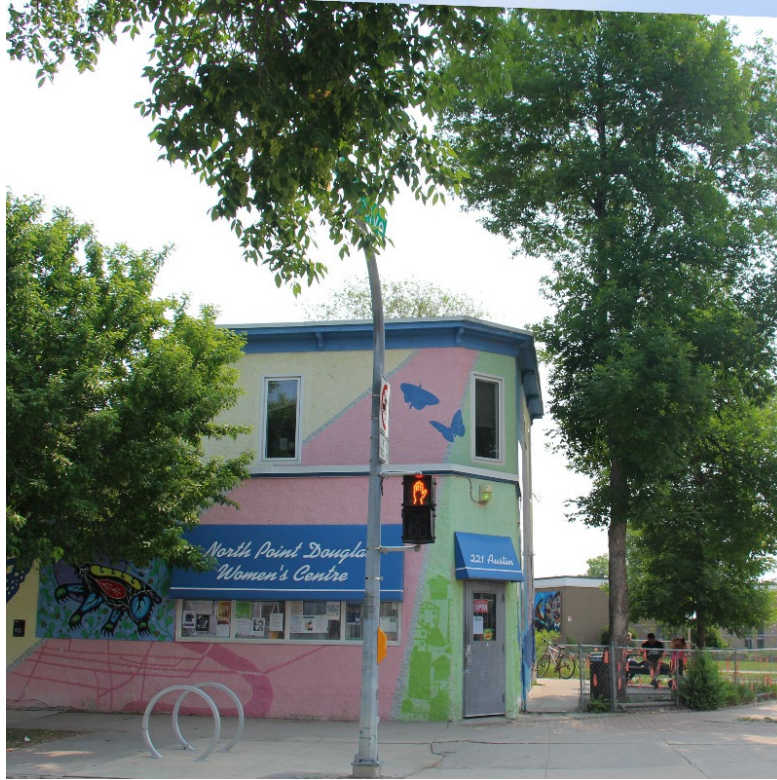


Figure 22: North Point Douglas Women's Center



Figure 23: Manitoba Indigenous Cultural Education Center



Figure 24: Main street view – spring



Figure 25: Sutherland Steet View

2.2.5 Site Opportunities And Constraints

Based on a 2019 community report by Bridgman Collaborative Architecture, local community needs members have been highlighted and summarised into a five-year action plan. The report drew residents' feedback using focus groups, interviews and community meetings. From these meetings, an overall theme of equity, nurture and sustainability emerged.⁴⁵

As mentioned earlier, within the site's history, the site constraints were established early on through the city's planning. Dividing the city via railway established Point Douglas as an area for manufacturing, which limited the site's function to production and business-related needs. The lack of concern for residents is shown through band-aid solutions. Quick access to food and money via pawn shops, convenience stores, bars and hotels does not provide a long-term solution to the community's well-being. As one of the few affordable neighborhoods within Winnipeg, the rise in housing and other prices has left residents concerned for their future. The area has been overlooked for so long, with growing concern for homelessness.⁴⁶ The site has shown to be littered with needles in back alleys and garbage scattered on the streets as seen within the images above. This shows a blatant disregard for the neighborhood and general concern for safety. and is viewed as a constraint for the site. Additionally, this site is located within an industrial which produces high levels of toxins.

The site's challenges are more severe than those in other areas, making it challenging to address immediate needs and diverting the project from an idealized vision of a greenhouse

⁴⁵ Bridgman et al., "Listening to the Community in North Point Douglas: A Five-Year Action Plan" 33.

⁴⁶ Amy-Ellen Prentice, "(1) North Point Douglas Residents Voice Concern over Growing Encampments - Winnipeg | Globalnews.ca," accessed November 20, 2023, <https://globalnews.ca/news/8874620/north-point-douglas-homelessness/>.

community center with overly optimistic aspirations. Conversations with a local Winnipeg interior designer, Destiny Seymour ⁴⁷ bring to light the concerns of the residents, emphasizing the distinct mindset of young adults living in the south end of the city. The focus shifts to addressing immediate needs and safety concerns, recognizing the pragmatic realities of the situation.

Like many neighborhoods, Point Douglas residents show pride in their history and heritage. The site is in a developing area of the city with many community-led initiatives seek to improve the site. Local organizations such as the Women’s Centre in figure 21 and Mama Bear Clan work towards improving their community. These organizations provide services such as safety patrols, food through community ovens, community gardens as seen in figure 19, and traditional Indigenous teaching programs for residents.⁴⁸ While this is an impressive start, there is still a call for more community engagement. In reference to the themes of the community report, there is an opportunity for nurturing environments to be created. As a primarily industrial site, it seeks to be softened and used more intentionally as a space for residents. The lack of affordable healthy food options presents an opportunity to implement spaces which provides basic needs such as affordable food. A nurturing environment can be achieved by providing equitable opportunities to the residents, such as through educational workshops or affordable housing.

⁴⁷ Destiny Seymour Destiny Seymour is an Anishinaabe interior designer with a Master of Interior Design degree from the University of Manitoba. She has over 15 years of experience in the field and is a member of the Peguis First Nation. She presently owns her own design studio named Indigo Arrows. Sourced from: “Indigo Arrows Design Studio,” Indigo Arrows, accessed February 26, 2024, <https://indigoarrows.ca/pages/woven-collaborative-design-studio>.

⁴⁸ “About,” NPDWC, accessed April 2, 2023, <https://www.npdwc.org/drop-in.html>.

Within the context of this project, a design solution will focus on establishing collaborative spaces for group activities that address the idea of creating nurturing and supportive environments. For example, community kitchens and gardens will allow residents to cultivate a strong relationship with one another through sharing knowledge and experiences with food. The idea of nurturing sets a supportive foundation for community members. Nurturing spaces aims to allow residents to be more autonomous in their efforts to overcome food insecurity. It is essential to acknowledge that food insecurity is a governmental problem created by the inequitable distribution of economic resources.⁴⁹ The project intends to view the problem through a design lens that seeks to implement solutions specific to the capabilities of which an interior designer may provide

Overall the opportunities of the building can be summarized through the proximity to bus stops, as well as being located in a developing area with a primary focus on healthy food options. Alternatively, the constraints of the site are identified through the dangerous area classified by vandalism and drug use. The industrial qualities of the site cause tension in how the toxins released affect natural food production. Lastly the high traffic on Main street may be difficult for loading and delivery.

⁴⁹ Zsafia Mendly-Zambo and Dennis Raphael, "Competing Discourses of Household Food Insecurity in Canada," *Social Policy and Society* 18, no. 4 (October 2019): 543, <https://doi.org/10.1017/S1474746418000428>.

2.3 Building Description

The Trader Building, also known as the Grand Opera House, is located at 814 Main Street. The four-story brick and stone building was built in 1913 by local architects Samuel Hooper and Victor Horwood.⁵⁰ The original function of the building was to show live plays and movies. As the district transformed into an industrial area, the building also functioned as a business hub for manufacturing.⁵¹ Currently, the Trader Building is vacant and on the market for sale with hopes for future developers to use the building to provide affordable housing.⁵² The graphic on the following page highlights the building's timeline.

⁵⁰ Gordon Goldsborough, Nathan Kramer, and Kerrin Asmundson, "Historic Sites of Manitoba: Grand Opera House / Traders Building (814 Main Street, Winnipeg)," *Manitoba Historical Society*, 2022, <http://www.mhs.mb.ca/docs/sites/grandoperahouse.shtml>.

⁵¹ Ben Waldman, "Warehouse a Housing Hope for Main Street – Winnipeg Free Press," July 2021, <https://www.winnipegfreepress.com/business/2021/07/05/warehouse-a-housing-hope-for-main>.

⁵² Waldman.

1908

The Grand Opera House was created by Architects, Samuel Hooper and Victor Horwood. The building was originally created as two story theatre for an occupancy load for 1200 people and opened on December 25th with the release of *Rose of the Rancho*.

1913

The Grand Opera House closed their doors, due to financial difficulty.

1918

The building endured major renovations in order to adapt to the changing district that helped it to become a business hub for locals. With the addition of another floor the first floor transformed to three store fronts and the upper floors were designated to manufacturer areas. The Building later changed its name to **The Trader Building**.

1920-40

During the 20's to the 40's the building was home to many businesses such as Kaplan Jewelry, Sectors Knitting Mill, J. Demkimsg Tailor Shop, Royal Shoe Store, and lastly Peoples Bookstore for the last fifty years.

2009

3 Murals added to the front of the building. Julia Wake mural that shows old main/Higgins underpass. Bobbi Sinclair. Don Ritson mural depicts a render of the Aboriginal Centre of Winnipeg which was formally the CN rail system.

2017

Building was bought with the initial idea of using the building as storage but due to expensive elevator upgrades the idea was scrapped. The building is currently on the market and hopes to serve the community with housing opportunities.

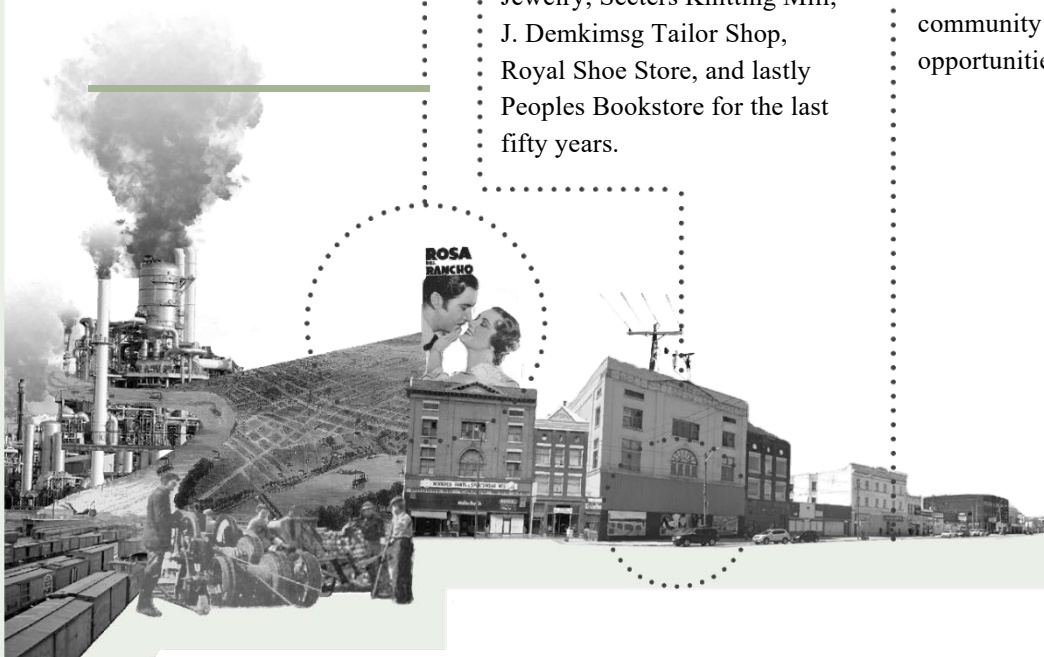


Figure 26: Building Timeline –Adapted from, Goldsborough, Kramer, and Asmundson, “Historic Sites of Manitoba: Grand Opera House / Traders Building (814 Main Street, Winnipeg).” Accessed on July 30, 2023.

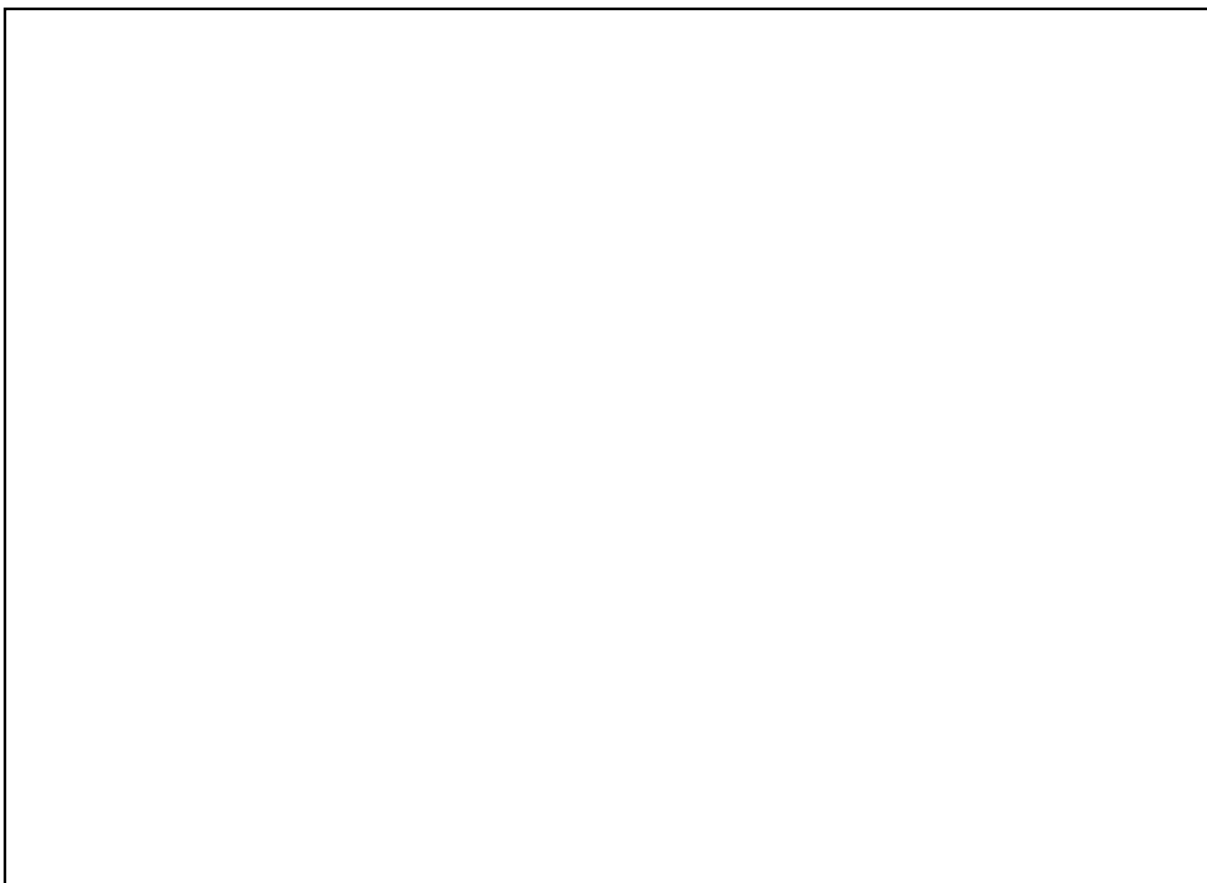


Figure 27: The Former Grand Opera House (1970) Source: City of Winnipeg (via *Winnipeg Free Press*)

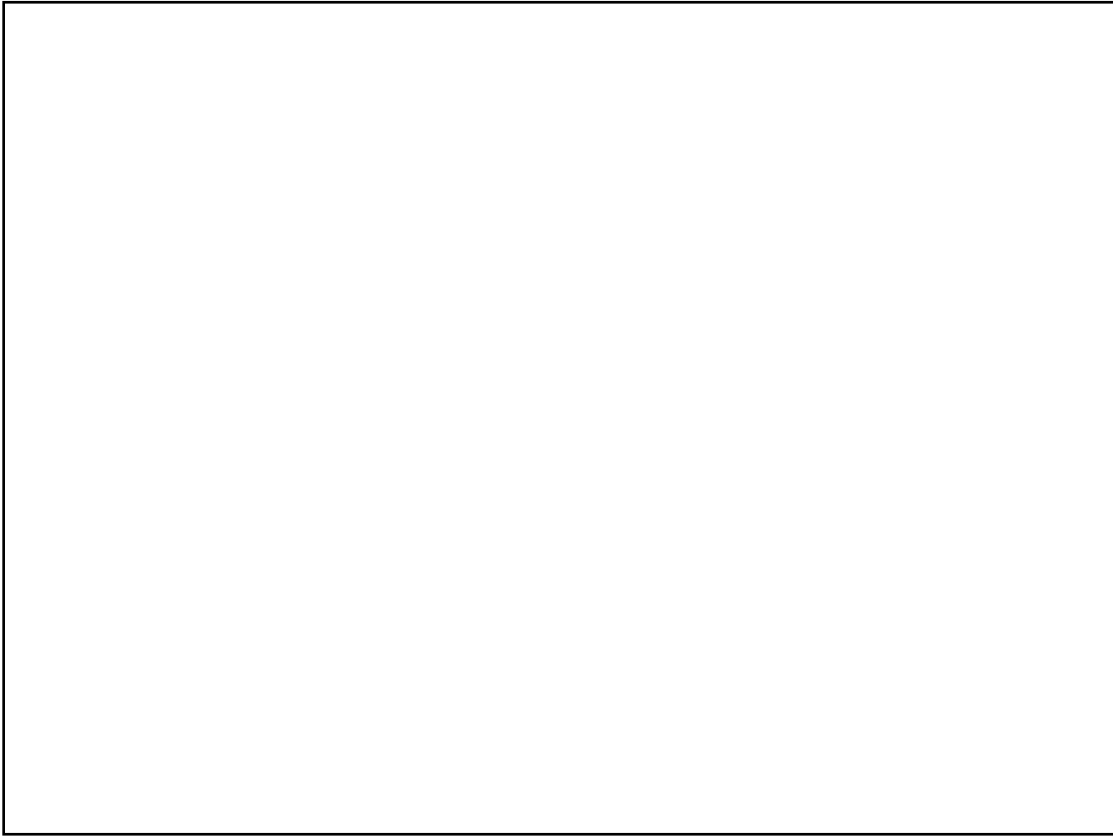


Figure 28: The Trader Building (2022)

2.4 Building Analysis

The building is selected for its cultural significance to the community and physical condition, making it suitable for adaptive reuse. The constraints of the building provide

opportunity and relevance for the insertions of interior agricultural strategies, which are assessed in chapter three, section two on foodways. The following sub-sections will assess the building's physical qualities, including access to natural light and wind, entry points, and interior attributes of the space.

2.4.1 Light & wind

Natural light is essential in designing a community center as it influences user behaviours, agricultural growth and sustainable design. The sun path diagram indicates the sun's path and direction. According to the diagram below, 814 Main Street receives natural light through south-facing windows. Since no tall buildings surround it, natural light can easily enter the building. The diagram further indicates that the sun is at its highest in the summer and spring months, providing natural light for longer. A building that receives more natural light can result in a more efficient design by reducing energy costs through artificial lighting and heating. Natural lighting can also positively affect the indoor environmental quality of everyday users. Additionally, blue arrows indicate the prevailing wind direction from the northwest and south direction. Summer months tend to have wind direction to be more present from the south, while winter is from the northwest.

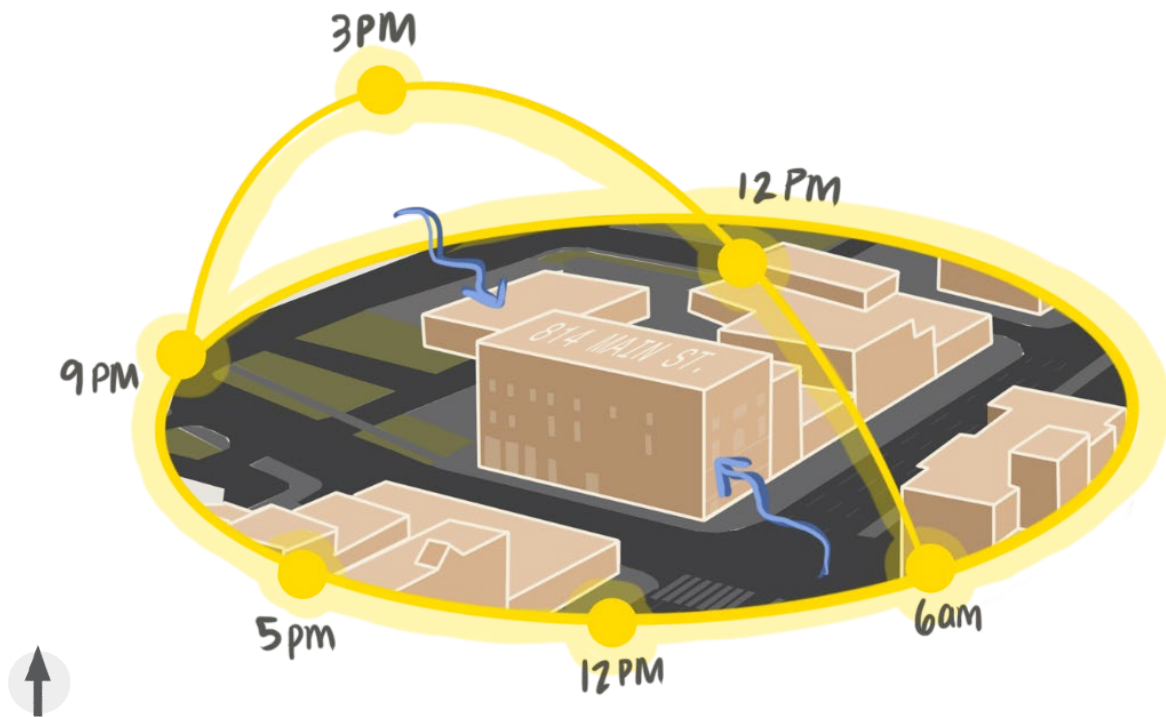
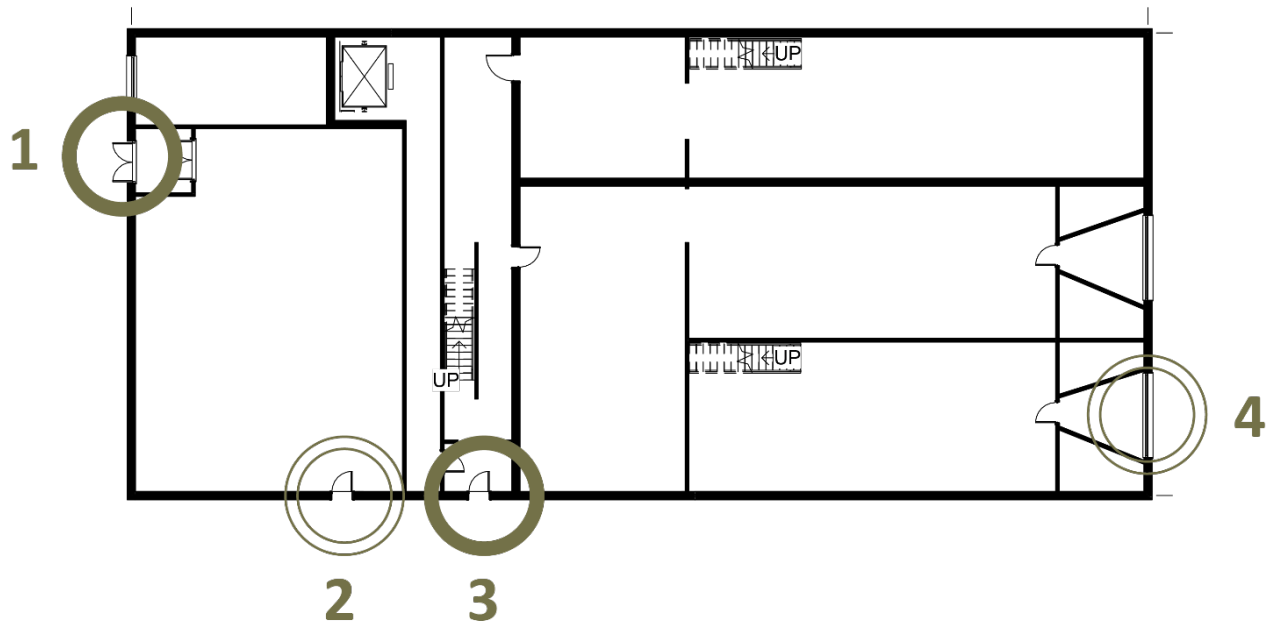


Figure 29: Sun path and wind direction.

Adapted from <https://www.suncalc.org/#/49.9079,-97.134,18/2023.11.30/20:12/1/0>. Accessed on July 30, 2023.

2.4.2 Entry

Figure 30 highlights the building's primary entry points within the first floor plan. With recent renovations, the entry points to the building have changed. The original layout for 814 Main building shows the east-facing walls of the building to have held three storefront windows, as identified by number three on the floor plan. As seen in the 1970s photos of the Trader building, the original façade displayed three large storefront windows (figure 28). Since then, they have been boarded up and used to display murals capturing the heart of the area as seen in Figure 33. Along the south side of the building appear to have two entrances. The number three in Figure 32 functions as the primary entrance. Most recently, the second entrance along the south side, identified by number two has been boarded up for reasons unknown. Lastly, the west side of the building provides loading access.



814 MAIN
FIRST FLOOR PLAN
NTS

Figure 30: First floor – points of entry



Figure 31: West loading Entrance



Figure 32: South Entrance

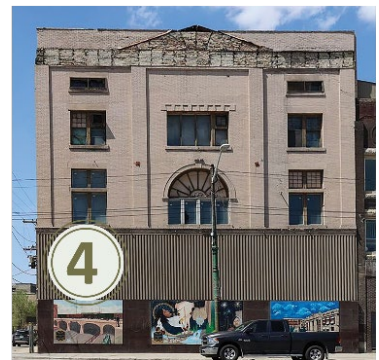


Figure 33: East facade

2.4.3 Interior

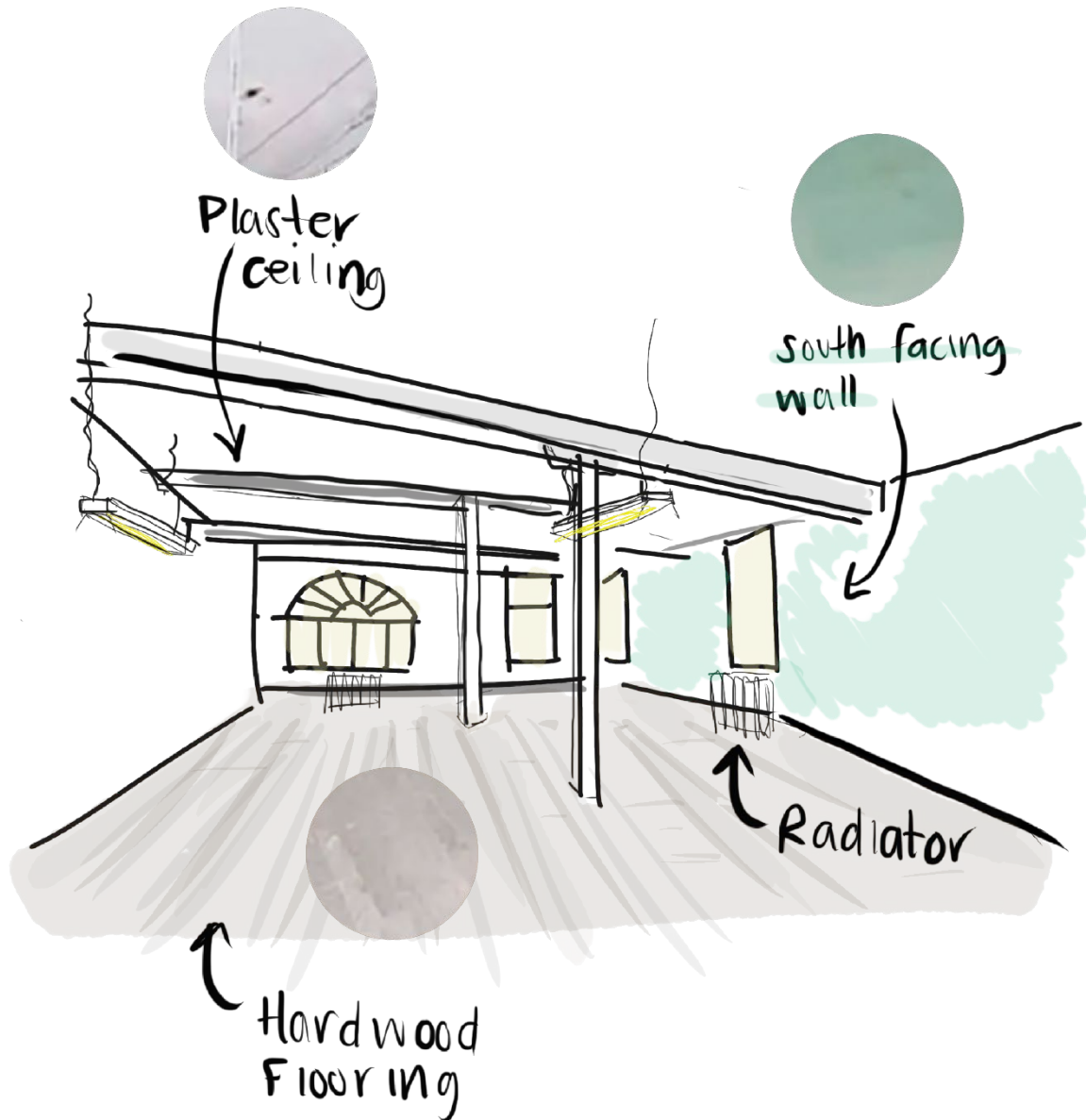


Figure 34: Second floor building interior

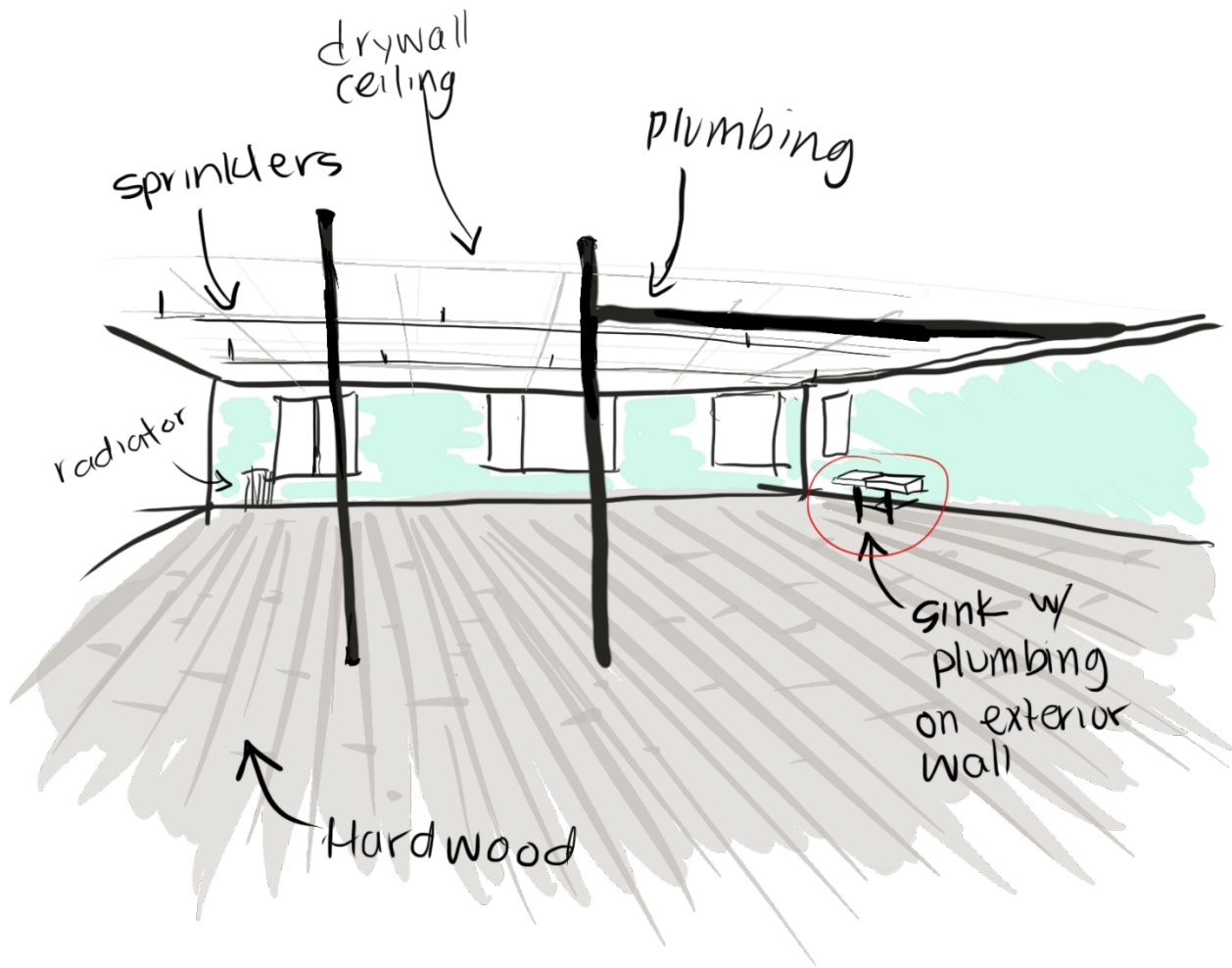


Figure 35: Third floor building interior

2.4.4 Building Opportunities And Constraints

The Trader Building is a rectangular-shaped building with a brick façade. Since the opening of the building, the structure has been through a lot of alterations. These include the addition of a third floor, renovations to entry points and cosmetic changes to the buildings color. A notable change to the exterior is the removal of the original cornice that once ran along the top of the building, leaving behind an impression. These changes signal an alteration to the building's function, giving it a diverse history that includes spaces for entertainment, business and, most recently, warehouse storage.⁵³

The benefit of the building's exterior are identified by features such as the existing loading along the rear of the building on the west side. With the existing loading, users can load various supplies and equipment. As seen on in Figure 30: first floor plan, an located elevator near the loading area is ideal for vertical accessibility. It is noted from the previous building owner that the elevators would need to be upgraded to comply with the most recent building codes.⁵⁴ Within the interior, key features such as tall ceilings and quality of light throughout the building work together to create an ideal space for programming various indoor farming systems. For example, the tall ceiling on the first floor provides ample space for designing vertical growing systems. The quality of light created by the orientation of the building allows for a copious natural light from the south side of the building. Natural lighting is ideal for spring and summer months and as a result, promotes a more organic indoor farming style. In contrast, the north face of the building, which is attached to an adjacent building, receives no light or viewpoints. The

⁵³ Goldsborough, Kramer, and Asmundson, "Historic Sites of Manitoba: Grand Opera House / Traders Building (814 Main Street, Winnipeg)."

⁵⁴ Waldman, "Warehouse a Housing Hope for Main Street – Winnipeg Free Press."

isolated area is a perfect space for an alternative form of programming indoor farming systems, including growth chambers.

Constraints within the building are primarily addressed through accessibility. The limited entrances through the space is a concern, as the only active entrances are located close together along the west and south sides of the building. The proximity of the only functioning doors may prove to be dangerous in emergency situations. The current location of egress is a concern because it needs to fit current building code standards that state there should be at least two exits on opposite sides of the building.⁵⁵ In addition, each of the existing entrances shows heightened steps, which should require a ramp for accessibility. Alterations to the washrooms would also need to be made. By changing the function of the building to a more recreational facility, the increase in occupancy load requires additional washrooms. Ideally, we would have enjoyed more exterior space to connect with the land. Exterior constraints include a lack of parking or open green space. The limited exterior space and cold weather only motivated the need for designing indoor agricultural spaces.

2.5 Summary and Conclusions

Point Douglas community is a historic site with a rich past filled with perseverance, growth and endurance. Contrary to the current narrative that has been assigned to the site, the community members share great pride in improving the neighbourhood through various community members efforts. While the area continues to grow, the site lacks basic amenities that

⁵⁵ Government of Canada National Research Council Canada, “National Building Code of Canada: 2020 - NRC Publications Archive,” November 20, 2023, <https://nrc-publications.canada.ca/eng/view/object/?id=515340b5-f4e0-4798-be69-692e4ec423e8>.

define it as a food desert. The site's limitations set the foundation for the document and highlight a new function for urban spaces that can be utilized for the neighbourhood. Based on the information provided within the chapter, *RASOI* incorporates areas that promote sustainability through maker-spaces such as community gardens and kitchens.

The building located at 814 Main Street is suitable for the project because of the opportunity it provides to incorporate various indoor farming systems. The challenge will be blending traditional Indigenous land-based customs with a scientific approach to indoor farming. The building is an excellent example of incorporating agriculture into the urban environment.

Chapter 3: Literary Analysis

3.0 Introduction

A relationship exists between culture and food and this relationship is a unique connection for ethnic groups around the world. In a Canadian urban research study, participants from Yukon First Nations said that “Eating cultural food supported [their] basic cultural values including keeping people in tune with nature, facilitating sharing, [and] was a way for adults to display responsibility for their children and to practice spirituality”.⁵⁶ Using food as a way to transfer cultural knowledge allows individuals to express their history and their understanding of the world as seen through food values. For example, in some Indigenous Canadian cultures, there is an understanding of an “honourable harvest.” Gathering food is considered sacred and elders teach young people to do it respectfully, teaching people never to take over half of what is present.⁵⁷ The guidelines presented by an honourable harvest reinforce the philosophy of the Anishinaabe of central Canada and its four directions; responsibility, respect, relationship, and reciprocity.⁵⁸ Following these guidelines provide an opportunity for designing a culturally responsive space in Point Douglas where Indigenous philosophy can be put into practice.

Chapter three examines theoretical positions of *RASOI* by way of design and program for use. The chapter is divided into three primary sections. To give context to *RASOI*, section 3.1 identifies food sovereignty, through the understanding of food insecurity within Winnipeg and

⁵⁶ Bamidele Adekunle et al., “Beyond Food Security: Understanding Access to Cultural Food for Urban Indigenous People in Winnipeg as Indigenous Food Sovereignty,” *Canadian Journal of Urban Research* 24, no. 1 (2015): 27.

⁵⁷ Robin Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (Minneapolis, United States: Milkweed Editions, 2013), 183, <http://ebookcentral.proquest.com/lib/umanitoba/detail.action?docID=1212658>.

⁵⁸ Robin Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (Minneapolis, United States: Milkweed Editions, 2013), 183, <http://ebookcentral.proquest.com/lib/umanitoba/detail.action?docID=1212658>.

the three different levels to it. The levels include, household, community, and Indigenous food insecurity, which will be explored in the following sub-sections. Figure 36 provides a visual breakdown to section 3.1. The challenges which RASOI identifies are outlined within the concepts in food insecurity and are addressed through “solutions” noted by the principles of food sovereignty. Section 3.2, highlight possible solutions and design considerations that are informed by concepts of urban and Indigenous Foodways. Lastly, Section 3.3 examines design theories and concepts that help to establish a design language for the space. This section is further informed by the theories of *third space* by Homi Bhabha, *biomimicry* by Janine Benyus, *adaptive reuse* by Graeme Brooker, Anishinaabe traditional teaching of *Bimaadiziwin* from Nicole Bell and Robin Wall Kimmerer, and lastly Transculturation by Richard Rogers and Mary Louise Pratt. Figure 36 provides a visual breakdown for how section 3.2 and 3.3 develop spatial and design considerations.

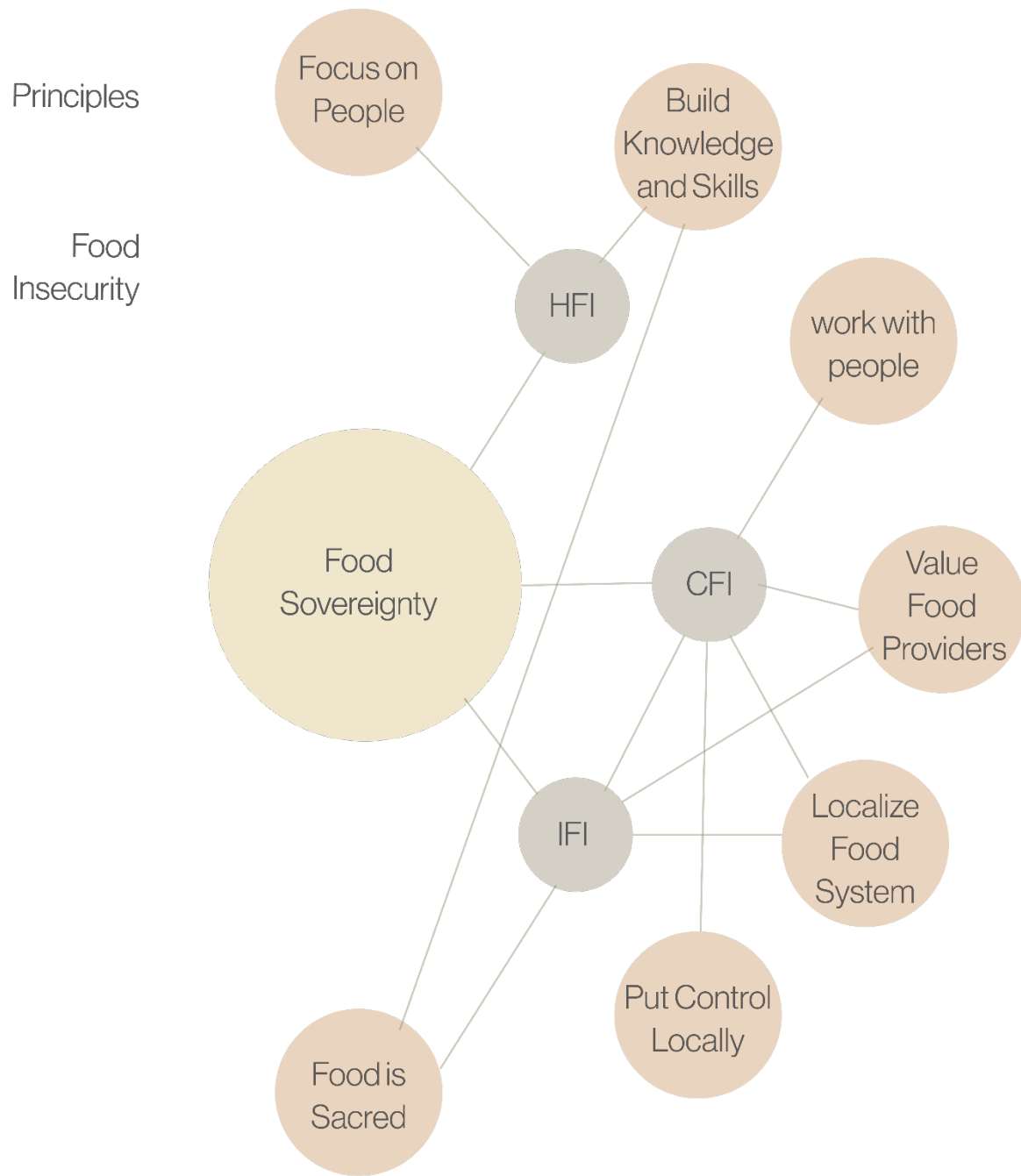


Figure 36: Food Sovereignty Chart

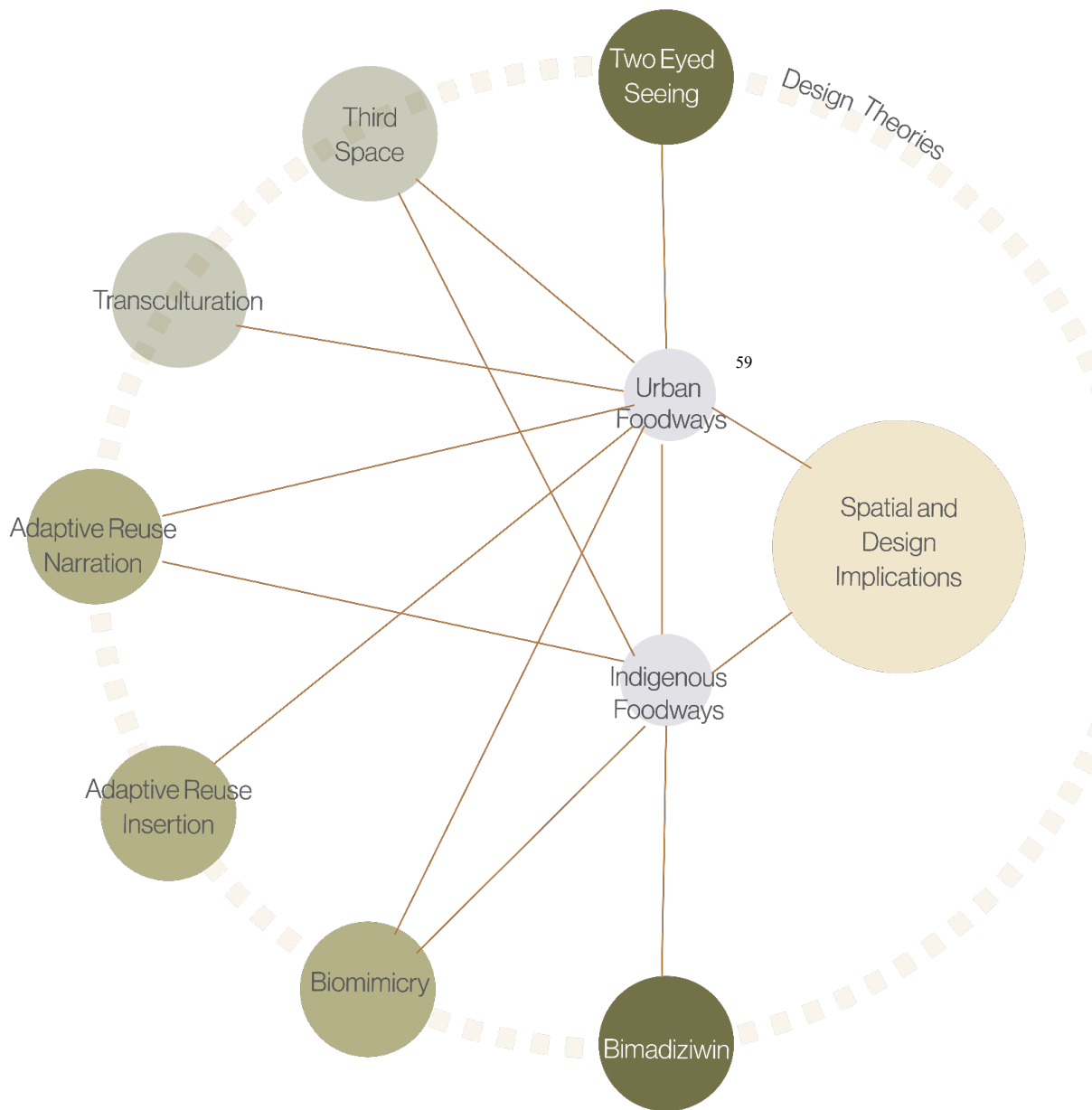


Figure 37: Foodways and Design Theories and Concepts

⁵⁹ Urban Foodways inform Western practices of food production, preservation, preparation, presentation, and communal gatherings. For example, they explore design-based strategies for indoor urban agriculture

3.1 Food Sovereignty

In Nurturing Food Sovereignty in Canada, Nettie Wiebe, an ethics professor, and Kevin Wipf, the National Farmers Union Executive Director, notes a critical perspective. They argue that the existing understanding of food security focuses on the sufficient quantities of food available, increasing food production and food import.⁶⁰ This approach is rooted in the global nature of the Canadian food systems and ignores the relationship food has with culture and the impact on the average household. Established as a reaction to the perceived shortcomings of the understanding of food security, the term food sovereignty was introduced at the La Via Campesina, a global peasant movement.⁶¹ The essence of food sovereignty seeks to acknowledge the strong relationship between food and culture, shifting the focus from food as a commodity to recognizing food as a public good. Food sovereignty offers more of an individual approach to control the production, consumption and distribution of food, which, as a result, seeks to empower farmers and local community organizations in decision-making power in their food systems.⁶²

In "Resetting the Table," the People's Food Policy dissects the concept of food sovereignty, unveiling seven primary principles which help to achieve food sovereignty and are viewed as solutions: 1. focuses on food for people, 2. builds knowledge and skills, 3. works with nature, 4. values food providers, 5. localizes food systems, 6. puts control locally, and 7. food is

⁶⁰ Nettie Wiebe and Kevin Wipf, "1. Nurturing Food Sovereignty in Canada," n.d., 4.

⁶¹ Wiebe and Wipf, 4.

⁶² The Peoples Food Policy, "Resetting the Table a Peoples Food Policy in Canada" (Food Secure Canada, 2011), 9, <https://foodsecurecanada.org/wordpress/wp-content/uploads/2023/06/2015-FSC-22Resetting-the-Table-A-peoples-food-policy22.pdf>.

sacred. These principles outline a triad of guiding values that revolve around people-centricity, sustainable and reciprocal practices, and localized control. Together, they offer a framework for achieving an equitable and resilient food system.

In conclusion, the subsection on food sovereignty reveals an analysis of how *RASOI*, within the limits of interior design, create "solutions" as identified through the principles of food sovereignty. The solutions will correspond to the challenges identified within the concepts of food insecurity, from which the term derives.

3.1.2 Food Insecurity

As previously mentioned in Chapter Two, Section 2.3, food insecurity refers to the measure of an individual's ability to access nutritious and sufficient food within their neighborhood.⁶³ Without the ability to do so, one exists in a *food desert*, noted for its lack of affordable and healthy food options. According to a 2021 report on household food insecurity from the University of Toronto, the province of Manitoba is one of five provinces experiencing food insecurity in Canada.⁶⁴ To establish food sovereignty in Point Douglas, *RASOI* improves food security in an area officially classified as a food desert. In order to achieve food sovereignty the document first presents an understanding of food insecurity from which the term derived. Food sovereignty is a response to the three levels of food insecurity identified as household, community, and Indigenous food insecurity.⁶⁵ Household food insecurity (HFI) is the "inability

⁶³ "Food Safety and Security."

⁶⁴ Valerie Tarasuk, "Household Food Insecurity in Canada:," *Topics in Clinical Nutrition* 20, no. 4 (October 2005): 4, <https://doi.org/10.1097/00008486-200510000-00003>.

⁶⁵ Wiebe and Wipf, "1. Nurturing Food Sovereignty in Canada."

to obtain nutritious, personally acceptable food through normal food channels."⁶⁶ The focus is on the individual; this issue of HFI identifies the individual's financial ability to obtain food, while community food insecurity (CFI) refers to a larger context of food systems that include policies and agri-food industries.⁶⁷ The term *Indigenous food insecurity* (IFI) was coined to express the need of Indigenous Canadians to find culturally appropriate food.

Figure 38 displays a condensed view of what the following concepts of food insecurity discuss in accordance to their respective theorist. The sub-sections that follow, create a clear understanding of the overarching problem of food insecurity by highlighting three different forms of food insecurity: 1) household, 2) community, and 3) Indigenous food insecurity

Food Insecurity	Theorist	Concept
<u>Household Food Insecurity</u> Is the inability to obtain nutritious, personally acceptable food through normal food channels	Pat Vanderkooy Valerie Tarasuk	Individual needs such as employment for financial gain – to create economic access to food
<u>Community Food Insecurity</u> refers to a larger context of food systems that include policies and agri-food industries	Michelle L Kaise Marie Mourad	- Production of food - Sustainable repurposing of food waste
<u>Indigenous Food Insecurity</u> Expresses the need of Indigenous Canadians to find culturally appropriate food	Jaime Cidro Tabatha Martens Stephen Penner, Kathleen Kevany Sheri Longboat Dawn Morrison	- Growing harvesting preparing and eating cultural food as ceremony (food as a teacher/ medicine) - Cultural food as part of connection to land through reciprocity (food as a relative) - Re learning IFS to address food insecurity in the city

Figure 38: Food insecurity outline

⁶⁶ Mendly-Zambo and Raphael, "Competing Discourses of Household Food Insecurity in Canada," 536.

⁶⁷ Mendly-Zambo and Raphael, 536.

3.1.3. Household Food Insecurity

Household food insecurity (HFI) is the “inability to obtain nutritious, personally acceptable food through normal food channels.”⁶⁸ The personal, day-to-day burden highlights the struggles that individuals who face HFI deal with a more personal perspective towards food insecurity. Varying levels of financial burdens can lead to marginal food insecurity, described as altering meal plans or severe food insecurity that leads to changing eating patterns, often missing meals.⁶⁹ Figure 39, shows that many households experience HFI.

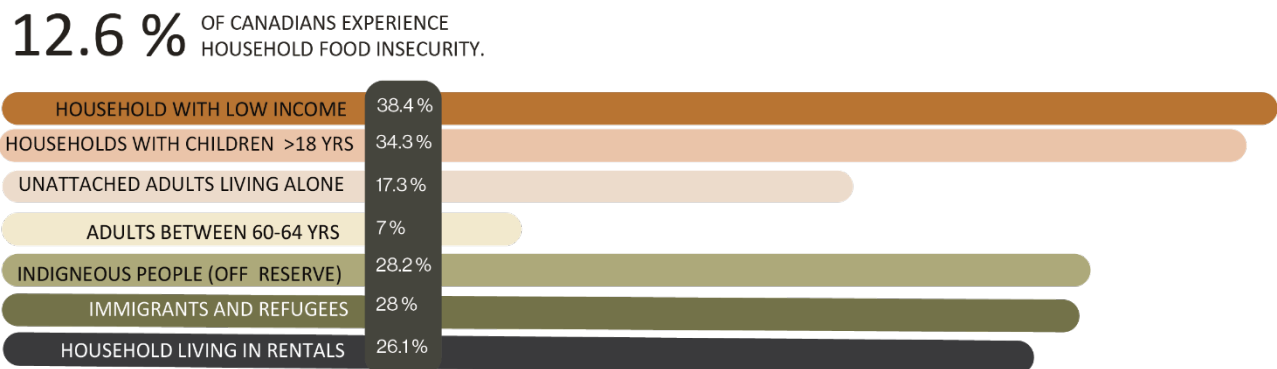


Figure 39: Individuals experiencing household food insecurity.

Graphic adapted from information provided from Dietitians of Canada, 4.

According to Dietitians of Canada, a 2016 summary report of HFI reports that one in eight Canadians (12.6%) experience HFI.⁷⁰ However, individuals at greater risk are notable post-secondary students, women, families with children, Indigenous households, and visible

⁶⁸ Zsafia Mendly-Zambo and Dennis Raphael, “Competing Discourses of Household Food Insecurity in Canada,” *Social Policy and Society* 18, no. 4 (October 2019): 536, <https://doi.org/10.1017/S1474746418000428>.

⁶⁹ Pat Vanderkooy, “Dietitians of Canada,” 2016. 2

⁷⁰ Vanderkooy. 2

minorities. In addition to this a report by Tarasuk cited that the Canadian income survey found the issue of food insecurity to be a racialized issue, noting minority groups experience food insecurity at higher rates than non-minorities.⁷¹ From the information provided above, Indigenous people were found to be one of the top cultural groups to experience food insecurity. While this information may not seem alarming to some, urban Indigenous populations are at risk of losing their cultural traditions. The data suggest that the most vulnerable individuals in society are affected by HFI. Individuals who experience financial struggles from additional student debt, child care costs, and disability cannot afford to focus on obtaining nutrition as a primary focus; their efforts focus on getting a good quantity of food to obtain energy rather than quality.

Point Douglas is known to exhibit a large quantity of these risk factors. As mentioned earlier in Chapter 2, site analysis Point Douglas' population is known to experience low income, below the range of the overall city of Winnipeg. The population is home to a more extensive range of immigrants as housing costs are low, and the population within the community is home to Winnipeg's largest Indigenous population. Inhabitants that experience food insecurity do not receive equitable opportunities to obtain food as the barriers to food are identified through their financial struggles resulting from prioritizing things such as tuition, health care, child care and more. Acknowledging these struggles is essential in approaching a solution that understands how to create equitable opportunity.

Proposed solutions from dietitian Pat Vanderkooy suggest that HFI focuses on employment opportunities that grant individuals equitable opportunities to gain healthy food. Vanderkooy's suggestions focus on creating economic access to food security. The community

⁷¹ Tarasuk, "Household Food Insecurity in Canada." 28

food center is not a charitable response to food insecurity, but rather provides equitable opportunities to create food sovereignty for community members so they do not need to rely on government programs. In a way, the project creates charities that give out free food, but the concept of sharing and charity is different because the intention for sharing is to promote the idea of reciprocity. Designing a space that promotes reciprocity in various ways allows for more equitable ways to share with one another. For example, someone may need more time to participate in growing and taking care of the food produced. However, the other programs in *RASOI* allow individuals varying opportunities that accommodate the individual's bandwidth. From Vanderkooy's analysis, the community food center programs spaces that created opportunities for financial independence. Implementing collaborative work spaces such as but not limited to teaching kitchens, markets and cafes allow residents to improve their HFI. The opportunity that these spaces create are valued through their employment and skill levels that teach others to be more independent. The value of sharing knowledge aligns with Indigenous teachings as it reacts to a reciprocal relationship between the community center and the people entering. The individuals can take knowledge and food and give back in time and experience. Together, these solutions address two principles of food sovereignty: the first principle emphasizes focusing on people, which involves identifying them through employment opportunities; the second principle involves building knowledge and skills through collaborative teaching workshops.

3.1.4 Community Food Insecurity

The lack of appropriate food selection within Point Douglas epitomizes the concept of community food insecurity (CFI). CFI is a community problem that focuses on urban food

systems. Food systems consider the production, distribution, and consumption of food.⁷² The primary concern is local food production as a way to help communities can become food-secure. Without food security, communities may suffer effects of malnutrition. This can be a series problem but is beyond the scope of this paper which focuses on the beneficial effects of interior design. Instead, this practicum proposes theoretical design solutions intended to foster a closed-loop system that enhances opportunities for food sovereignty. It does so in part by addressing primary concern of CFI in Point Douglas: localized food production.

Food production is probably the most crucial element in creating availability of food within Point Douglas. Food production includes preserving food for future use, which reinforces a closed-loop cycle that aims to use all parts of food while limiting waste. Not only does an understanding of preservation provide long-term resources, it reinforces traditional Indigenous practices of a good way of life involving food. For example, Indigenous practice uses all food parts, whether for eating or composting. When food is recycled, it helps develop a more sustainable food system. Michelle Kaiser suggests using self-reliant activities in the community to improve food production knowledge, encourage small-scale production, and support resource sharing as means of shaping community self-sufficiency.⁷³ The three-story building at 814 Main Street in Winnipeg provides an opportunity to implement Kaiser's suggestions. Although, the site conditions do not allow for any sort of agriculture on the exterior, the limitation can be seen as an opportunity that promote small scale indoor production of food. The interior of the space

⁷² Benke and Tomkins, "Future Food-Production Systems: Vertical Farming and Controlled-Environment Agriculture," 13.

⁷³ Michelle L. Kaiser, "Redefining Food Security in a Community Context: An Exploration of Community Food Security Indicators and Social Worker Roles in Community Food Strategies," *Journal of Community Practice* 25, no. 2 (April 3, 2017): 221, <https://doi.org/10.1080/10705422.2017.1308897>.

provides ample room with 600 sq ft for implementing vertical farming strategies⁷⁴ and is centrally located with a large loading doc for distribution, as well as a transit stop for commuting access. The assessment of economic benefits involves the support of local community through making healthy nutritious food more affordable to residents.⁷⁵ The social benefit is created through the relationship between consumer and producer as they are able to better understand where their food is coming from and create meaningful connections with the producers.

The concept of the production of food encourages community self-reliance. Ways in which the community can do this is through gardening and farming. Urban foodways will inform solutions for this community food insecurity. *RASOI* incorporated indoor urban agriculture design-based strategies, such as grow rooms to help produce food that will combat the year-round temperature limitations Winnipeg's weather inflicts on farming. The importance of this will help to merge Western and Traditional ways of thinking. As discussed in previous section, incorporating smart farms within the community center is a great way to inform and produce healthy food options. Indoor farming systems that will select a variety of crops to grow within the space. The availability from the production of a seasonal variety crops, such as berries and herbs creates a more food secure space. The community center allows sufficient food supply and production for community members year round.

⁷⁴ Vertical Farming Strategies: The practice of growing crops in vertically stacked layers, often incorporating controlled-environment agriculture to optimize plant growth, and soilless farming techniques such as hydroponics, aquaponics, and aeroponics, is cited in various agricultural and sustainability literature.

⁷⁵ Kristian Larsen and Jason Gilliland, "A Farmers' Market in a Food Desert: Evaluating Impacts on the Price and Availability of Healthy Food," *Health & Place* 15, no. 4 (December 2009): 1160, <https://doi.org/10.1016/j.healthplace.2009.06.007>.

The *sustainable repurposing of food waste* is a concept in CFI. Sustainable food systems aim to deliver food security and nutrition in economic, social and environmental means.⁷⁶ This project analyses sustainable food systems relation to food waste. Sociologist, Dr. Marie Mourad's article on sustainable food systems, analyses the most appropriate response to surplus food with a food recovery hierarchy: prevention, recovery, and recycling.⁷⁷ Along with different methods for decreasing food waste, Mourad discusses the importance of forming sustainable structures in a closed-loop formation that creates holistic systems for food production to function and thrive within the community.

Within the food recovery hierarchy, prevention seeks to reduce at the source with intentional practices in production of food. Mourad find a form of "weak" preventions to be most effective form by optimization of management and discounting of shelves.⁷⁸ These practices provide economic benefit in lower cost food and increase in sales.⁷⁹ Within the community center, an intentional farming practice will take place, by only producing what is needed for community members.

Mourad defines recycling as the focus on using scraps for industrial production, energy or compost.⁸⁰ Composting is a significant example because, it provides essential nutrients to plants, which helps to reduce the need for chemical fertilizers. Last year, Winnipeg launched a compost support program that allows payment and advertising credits to qualified residential food waste

⁷⁶ Hahn Nguyen, "Sustainable Food Systems: Concept and Framework," n.d.

⁷⁷ Marie Mourad, "Recycling, Recovering and Preventing 'Food Waste': Competing Solutions for Food Systems Sustainability in the United States and France," *Journal of Cleaner Production* 126 (July 10, 2016): 462, <https://doi.org/10.1016/j.jclepro.2016.03.084>.

⁷⁸ Mourad, 567.

⁷⁹ Mourad, 467.

⁸⁰ Mourad, 462.

collection service providers.⁸¹ Eligibility for this program looks for low-income residents and seeks to assist in developing programs for residents. The newly implemented program is excellent and is employed within the project. Looking at other local inspirations, Green Action Centre provides ON-SITE multi-family composting. Although this is not funded, it works with apartment and condo buildings that seek to compost by providing compost bins and workshops to further improve household knowledge of composting.⁸² Another effective composting program is the First Nations waste minimization program that enhances waste management to minimize waste and recycle more. Mourad highlights the large financial investment with implementing recycling methods such as composting but the long term benefits work to create a more stable food system. Sustainability enables residents to become more food secure by creating agency in the form of control and influence over ones food system. This allows people to understand the benefits and encourages them to make changes to the food system. The policies and processes that communities create enable the achievement of food. *RASOI* employs a similar structure that uses food waste and recycles it back into the food system. In addition to mimicking this structure, the community center works with existing programs, specifically Second Harvest, to secure food waste and provide alternative options for the community.

The concept highlighted in CFI; local food production, encourages independent food system to create community agency over food decisions. The opportunities provided through educational nutritional food workshops, teaching kitchens, indoor grow rooms, and redistribution programs work together to reinforce the communities access, availability and agency to food.

⁸¹ “Compost Support Program - Water and Waste - City of Winnipeg,” accessed August 28, 2023, <https://legacy.winnipeg.ca/waterandwaste/CompostSupport.stm>.

⁸² “ON SITE Multi-Family Composting | Green Action Centre,” accessed August 29, 2023, <https://greenactioncentre.ca/module/composting-2/on-site-multi-family-composting/>.

Additionally, these solutions also align with the guiding principles of food sovereignty. For example, the intention of creating interior grow rooms first, localizes food system and places control locally. This approach ensures that food knowledge is transparent, and decisions are made collectively by community members who have influence over their production.

Additionally, local farmers can actively participate in distribution markets or seed exchanges, acknowledging and valuing their role as food providers. Designing workshops for cooking and gardening often focuses on engaging people without commercializing food. These principles underscore a commitment to transparency in food creation, and the design of *RASOI* enables participants to engage visually or physically in cultivating their own food.

3.1.5 Indigenous Food Insecurity

Indigenous food insecurity (IFI) is the lack of culturally appropriate food for Canadian Indigenous people . Interior designers should acknowledge the influence of Western culture on the loss of traditional Indigenous knowledge. In a 2019 policy paper on Indigenous Food Sovereignty in Canada, the authors admit that there is a broken food distribution system caused by the multi-generational effects of Residential Schools, as a way to isolate and assimilate students from their traditional culture, the 60s scoop, which is characterized by the placement of Indigenous youth within non-Indigenous homes.⁸³ All of these factors led to the erosion of Indigenous food sovereignty. Historically, the colonisation of Indigenous people has created boundaries to accessing traditional food knowledge, because it led to the confiscation of traditional land and Indigenous way of life.

⁸³ Stephen Penner, Kathleen Kevany, and Sheri Longboat, “Indigenous Food Sovereignty in Canada: Policy Paper 2019.,” 2019, <https://rplcarchive.ca/wp-content/uploads/2019/03/Penner-Kevany-Longboat-2019-Indigenous-Food-Sovereignty-in-Canada-Policy-Brief.pdf>. pg 2

Within Canada, many studies such as The First Nations Food, Nutrition, and Environment Study (FNFNES), Journal of Agriculture, Food Systems, and Community Development, Food Matters Manitoba (JAFSCD), The Northern Manitoba Food, Culture and Community Collaborative (NMFCCC), and Rural Policy Learning Commons (RPLC), have published research on northern Indigenous communities and their lack of appropriate food selection. In recent studies on displaced Indigenous communities, the lack of traditional food knowledge can be accredited to an increase in imported goods, elder mortality, and land loss.⁸⁴ In addition to this, lack of access to roads further hinders the ability to receive nutritional food, thereby increasing the cost of food while limiting selection. Other factors that affect traditional food practices are overconsumption and degradation of traditional farm land, which has either been taken over for urban construction or ruined with over-harvesting. Within the urban context of Winnipeg, Indigenous people do not have access to traditional food because there is limited knowledge in the community. The effect of Indigenous food insecurity, or IFI, on individuals is similar to the effect in HFI and CFI, because it deals with personal and community levels. Where IFI differs is in its connection to the individual, which is on a higher spiritual level that focuses on values and beliefs.

In chapter three, Indigenous food security within the context of Food Sovereignty in Canada, Dawn Morrison, the Founder, Chair, and Coordinator of the B.C. Food Systems Networking Group on Indigenous Food Sovereignty, delves into the intricacies of indigenous food sovereignty. Morrison highlights the contrast between Western and traditional food systems, advocating for an ecological approach over an industrialized one. In her perspective,

⁸⁴ Stephen Penner, Kathleen Kevany, and Sheri. Longboat, "Indigenous Food Sovereignty in Canada: Policy Paper 2019.," 2019, 2, <https://rplcarchive.ca/wp-content/uploads/2019/03/Penner-Kevany-Longboat-2019-Indigenous-Food-Sovereignty-in-Canada-Policy-Brief.pdf>.

Indigenous food is one that is predominantly cultivated, cared for, harvested, prepared, preserved, shared, or traded within the confines of respective traditional territories, guided by values of interdependency, respect, reciprocity, and responsibility.⁸⁵ The Indigenous eco-philosophy underlines the belief that humans don't manage the land but rather can only manage their behaviors in relation to it, emphasizing the sacred relationship with food.

To encourage food sovereignty, Indigenous communities should promote an individual food system oriented along Indigenous values. Researcher Stephen Penner and his associates suggest looking at food through the lens of Indigenous laws and promoting the three pillars of Indigenous food: 1) *medicine* 2) *teacher*, and 3) *relative*. Food as medicine values food for the alternative benefits they offer, such as antibacterial berries, or wild rice that improves the reproductive system. Food as a teacher provides environmental knowledge and understanding of ways to treat the land and animals within it. Seeing food as a relative also enhances community relationships; it promotes a mindset of respect towards animals and the food eaten.⁸⁶ Penner et al., argue that in order to create Indigenous Food Sovereignty, Canadian policies should recognize Indigenous laws that decolonize the food system through the support of entirely Indigenous food distribution, conceptualization and consumption.⁸⁷ Indigenous laws, which are highlighted through the three pillars, work together to promote a holistic outlook on food systems that in return promotes more sustainable practices within the food systems.

Within the scope of an interior design practicum project, *RASOI* ensures that the three pillars of Indigenous food law are incorporated into the design by providing spaces that respectfully

⁸⁵ Dawn Morrison, *Indigenous Food Sovereignty A Model for Social Learning.*, ed. Nettie Wiebe, Annette Aurelie Desmarais, and Hannah Wittman (Halifax: Fernwood Pub, 2011), 99.

⁸⁶ Penner, Kevany, and Longboat, "Indigenous Food Sovereignty in Canada: Policy Paper 2019.," 2019, 2.

⁸⁷ Penner, Kevany, and Longboat, "Indigenous Food Sovereignty in Canada: Policy Paper 2019.," 2019, 5.

encourage Indigenous-led responses to food. For example, to establish food as a teacher, the community center has interactive learning spaces that promote youth participation. These spaces share high-tech solution, from touchscreen monitors to projection maps, to teaching youths about the history of Canadian Indigenous food systems. It is also important to acknowledge that Indigenous food insecurity often stems from a disconnect with land values and a lack of spiritual connection to food. To address this, spatial and design considerations are essential in fostering a stronger connection with nature, such as the addition of a medicinal garden to reflect teaching of plants and the knowledge they offer. Due to 814 mains lack of outer space *RASOI* programs a rooftop garden. The space will additional optimize the natural light it receives to encourage more natural methods of plant production, with urban foodways solutions implemented through interior methods further expanded on in section 3.2. The implementation of a medicinal garden also reflects the understanding of food as a medicine. Lastly, food as a relative is addressed through traditional practices, including processing foods or ceremonial rituals such as smudging, to be respectful and honour food. Additionally, the role of markets within *RASOI* allow for distribution of locally grown food to residents. These combined efforts directly address the guiding principles of food sovereignty, emphasizing that food is sacred, should work harmoniously with nature, and aims to build knowledge and skills within the community.

3.1.6 Conclusion

The root cause of food insecurity is a governmental problem created by inequitable distribution of economic resources.⁸⁸ The document simply views the concepts of food sovereignty through an interior design lens that seeks to implement solutions specific to the capabilities of which an interior designer may provide.

In addition to the seven primary principles, which help to achieve food sovereignty, the Centre for studies in Food Security (CSFS) has determined five key definitions that work together in establishing food security. 1) *Accessibility* through physical and economic access to food for all at all times, 2) *Adequacy* through access to food that is nutritious and safe, and produced in environmentally sustainable ways, 3) *Acceptability* through culturally acceptable food, which is produced and obtained in ways that do not compromise people's dignity, self respect or human rights. 4) *Agency* through the policies and processes that enable the achievement of food security, and 5) *Availability* of healthy and affordable food always.

The chart below summarizes the subsection of food sovereignty by highlighting the three levels of food insecurity. The different levels address concepts or challenges in creating food sovereignty. Solutions for these concepts are addressed through spatial and design implications for the interior design of *RASOI* as well as their ability to achieve the guiding principles of food sovereignty, layered with the five A's. Solutions presented range from programming solutions specific to client needs, interior design strategies for urban food production with respect to traditional Indigenous customs.

⁸⁸ Zsafia Mendly-Zambo and Dennis Raphael, "Competing Discourses of Household Food Insecurity in Canada," *Social Policy and Society* 18, no. 4 (October 2019): 543, <https://doi.org/10.1017/S1474746418000428>.

As mentioned earlier in the chapter, household food insecurity presents challenges stemming from individual needs such as financial independence, which in turn complicates access to healthy and affordable food. To address these challenges, spatial implications will include programming opportunities for learning new skills and providing sources for accessing food at lower prices. The program of such spaces require effort and involve employing local members in need of assistance. By doing so, *RASOI* builds skills, knowledge and access to food.

Community food insecurity emphasizes the lack of ownership in food production. The distance between community members and their autonomy over food choices underscores the need for localized control. According to theorist Michelle L Kaise, implementing vertical farming systems addresses this challenge. As part of an interior design project, further exploration of systems providing localized control is discussed in the chapter on foodways. Kaiser also suggests control through the programming of farmers' markets. In a broader design context, transparency in the knowledge of food production is essential. Therefore, the spaces implemented will be designed with transparency in mind to display and teach members of the space the cycle of food production, whether through traditional or contemporary forms of farming. Together, these implications address the guiding principle of placing control locally, allowing for agency and informed decision-making in food production.

Lastly, Indigenous food insecurity displays challenges in creating culturally appropriate food. Recognizing the need for food to serve as medicine, teacher and relative. These perspectives guide the spatial and design implication to implement culturally appropriate forms of food production which seek to emphasise land values and spiritual connection to food. This includes the incorporation of interactive displays for educational purposes, medicinal rooftop gardens, market spaces for food distribution, and multipurpose spaces for dehydration and

preservation of food to showcase traditional methods of handling and preparing food. To further connect with the land, sustainable forms of materiality are utilized, including local Winnipeg materials such as timber and Tyndall stone, along with optimization of natural lighting to inform traditional forms of growing spaces. Together, these implications reinforce the guiding principle of food sovereignty, emphasizing that food is sacred.

FOOD INSECURITY LEVELS	THEORIST	CONCEPT Problem	DESIGN/SPATIAL IMPLICATION Design solution	FOOD SOVEREIGNTY Guiding Principles
<u>Household Food Insecurity</u> Is the inability to obtain nutritious, personally acceptable food through normal food channels	Pat Vanderkooy Valerie Tarasuk	Individual needs such as employment for financial gain – to create economic access to food	- opportunities to run workshops and share knowledge and learn new skills. This can be done through gardening and cooking workshops (informed by urban foodways but also Indigenous foodways) - Focus on sharing as opposed to charities to promote the idea of reciprocity and rely less on governmental charities	- Access – economical and physical (should impact all 3 FS concepts) - Build skills and knowledge. - Focus on food for people
<u>Community Food Insecurity</u> refers to a larger context of food systems that include policies and agri-food industries	Michelle L Kaise Marie Mourad	- Lack of ownership in production of food within local communities - Sustainable repurposing of food waste	- Implement urban farming systems – interior vertical farming for growing Spaces for Cultivation – vertical farming - Roof top garden - Hydroponic farming - Nursery and germination stations - Cultivation stations - Harvesting station - Market spaces for distribution of food harvested - Visual transparency to how food is produced to highlight a connection between producers and consumers - Spaces for distribution of resource sharing such as seed exchanges - Farmers markets	- Agency – all people understand benefits from and can make changes to the food system - Puts food control locally - Adequate – to needs - Building food skills and knowledge - Value food Providers
<u>Indigenous Food Insecurity</u> Expresses the need of Indigenous Canadians to find culturally appropriate food	Jaime Cidro Tabatha Martens Stephen Penner, Kathleen Kevany Sheri Longboat Dawn Morrison	- Growing harvesting preparing and eating cultural food as ceremony (food as a teacher/ medicine) - Cultural food as part of connection to land through reciprocity (food as a relative) - Re learning IFS to address food insecurity in the city	- Spaces for the exchange of knowledge and good, which encourage sharing. - Incorporate natural elements into the interior, maybe by utilize natural lighting in the space to cultivate food - Medicinal rooftop garden for teaching and learning about important plants - Create ceremonial spaces (a form of reciprocity - informed by Indigenous foodways) – smudging ceremony - Growing/ harvest (practice) - Preservation rooms to practice dehydration and or pickling food	- Acceptable – in line with tradition and values - Food is sacred – food recognized as a gift and nurtured - Building traditional food skills and knowledge - Food works with nature

Figure 40: Food sovereignty summary chart

3.2 Foodways

3.2.1 Introduction

Foodways include customs of food production, preservation, preparation, presentation, gathering, marketing (both buying and selling), uses of food products other than for eating, and food folklore.⁸⁹ This section identifies food patterns in Winnipeg and how to merge Indigenous and urban foodways within a community center. The importance of understanding of traditional and Western foodways create a strong connection in anticipating the users' needs. This is done by providing insight into the space planning through understanding what equipment is needed for specific food production processes or ceremonies. The importance of foodways aids in the understand of how we, as designers, can interpret the information gathered from a design perspective and create more meaningful spaces that blend traditional and Western values of foodways.

3.2.2 Indigenous Foodways

814 Main Street is located on Treaty 1, the original lands of the Anishinaabeg, Cree, Oji-Cree, Dakota and Dene peoples, and the homeland of the Métis Nation. The site holds a wide range of cultural influences from various First Nation communities. The community center focus' on integrating food traditions from Anishinaabe First Nations, specifically Ojibwe nationalities, as it is Winnipeg's most populated first nation community. Indigenous foodways provide a key understanding to the spatial programming of the space through an in-depth understanding of cultural beliefs that dictate ceremonies and food patterns.

⁸⁹ "Foodways."

Members from the Anishinaabe First Nation include Ojibway communities that spread out in southern parts of Manitoba. The people within this community have a solid connection to their land and live by the seven sacred teachings of love, respect, courage, honesty, wisdom, humility, and truth. Members of this community were primarily hunters and gatherers, focusing their game on bison. Gathering is another essential part of Indigenous communities.

Traditional ecological knowledge from local plants provides a strong cultural connection to the land and information about various nutritional benefits and medicinal properties. As members from Indigenous communities were nomadic, focusing on defining ecozones helps access the dietary patterns of members traditionally living in the southern part of Manitoba within the site of *RASOI*. As mentioned in Chapter 2, the project is located in Point Douglas and agriculturally occupies the Plains ecozone. Due to the rise in Indigenous migration, ecozones extending to the boreal shield and boreal plains will be incorporated into the list of traditional foods. Typical plant foods from Anishinaabe First Nations are flowers, roots, greens, fleshy fruits, seeds, nuts, and grains.⁹⁰

Figure 41 shows a breakdown of traditional foods specific to the conventional communities living off these ecozones.⁹¹ Images in black identify traditional foods within the three ecozones of Manitoba, boreal shields, boreal plains and prairies. The colored images are suggestions for the contemporary selection of food as a way to incorporate a well-rounded diet. The decision to incorporate contemporary selection of food is informed by Food Matters

⁹⁰ Harriet V. Kuhnlein and Nancy J. Turner, *Traditional Plant Foods of Canadian Indigenous Peoples: Nutrition, Botany, and Use*, Food and Nutrition in History and Anthropology, v. 8 (Philadelphia: Gordon and Breach, 1991). 7

⁹¹ Laurie Chan et al., “First Nations Food Nutrition and Environmental Study - Summary of Findings and Recommendations for Eight Assembly of First Nations Regions 2008-2018” (Assembly of First Nations, University of Ottawa, Université de Montréal, October 20, 2021), 7, https://www.fnfnes.ca/docs/CRA/FNFNES_Report_Summary_Oct_20_2021_FINAL.pdf.

Manitoba. Their display of “eating a Healthy Anishinaabe Plate” provide contemporary alternatives for a well rounded diet. Among the items listed, meats constitute a significant component of the traditional diet, and the preparation of meat dishes imparts valuable lessons. Initially, the food center prioritized the cultivation of leafy greens and herbs due to the lack of roots and greens within the traditional diet. However, as a result of gaining deeper insights from publications from FNFNES (First Nations Food, Nutrition and Environmental Study) Summary of Findings and Recommendation revealed more information regarding traditional methods for food preparation⁹², *RASOI* also include preparation stations to instruct on the proper harvesting of meat. Contemporary food will focus on incorporating more greens such as kale or cabbage. The sub-section to follow on urban foodways will bridge the gap between food produced that is both nutritious and culturally relevant.

⁹² Chan et al., 25.

TRADITIONAL FOODS

FOUND IN:

- BOREAL PLAINS ECOZONE
- PRARIE ECOZONE
- BOREAL PLAINS ECOZONE

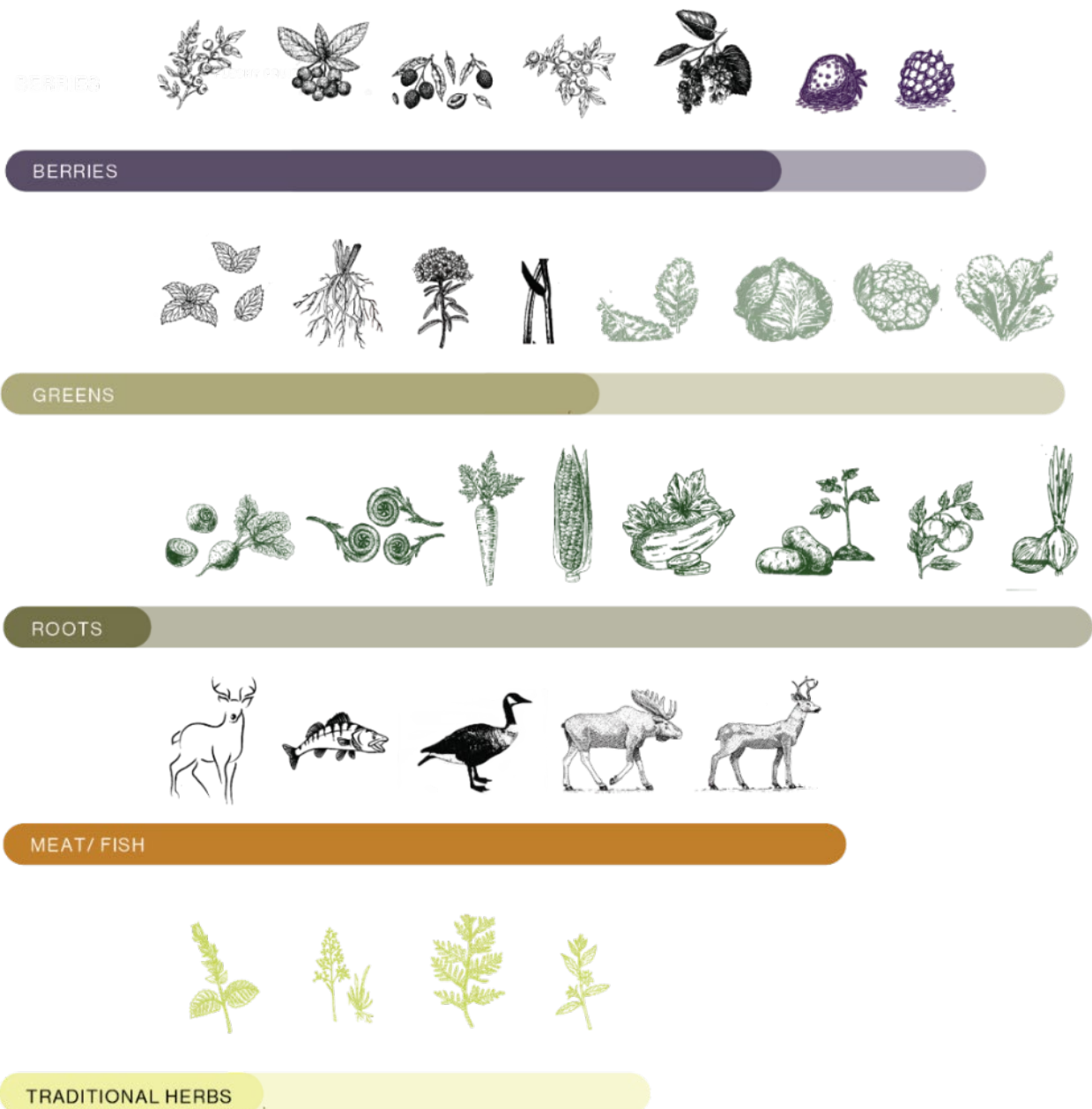


Figure 41: Traditional foods from Manitoba ecozones.
Graphic adapted from FNFNES Summary of key findings for eight assembly of first nation regions 2008-2018. 7.

Traditional farming was practiced in unison with the moon cycles. In Anishinaabe culture there are 13 moons that indicate weather patterns, animal behaviour, and medicinal knowledge. In farming, each cycle informs the path in which the planting the varying phases of the moon indicate the appropriate time to plan harvest and gather.⁹³ The teachings promote a practice of “good way of life”. The reason that the moon is used is because of its connection to water. This indicates the best time for watering plants for increased soil absorption.⁹⁴ Moon cycles inform the user’s function and are another way individuals can stay connected to the land without physically being on it. The movements and the connection between water, the moon, and femininity are seem to be in unison throughout design language. The teachings are embodied by the curvilinear language featured the project.

Food harvesting and processing varies from plant to plant as some could quickly be eaten raw while others require more preparations to preserve for the winter months. Preserving foods is crucial for communities living in colder climates, as it allowed for storing harvested food for colder months when gathering was not an option. This is even more important within Point Douglas, as the limitations created by the urban environment of Winnipeg’s cold temperature limit traditional farming practices. Techniques such as picking and canning were standard; for example, berries were canned with sugar in jars and, or created into syrup.⁹⁵ Dehydration was another important preservation technique which used the sun, wind or heating over a fire to

⁹³ “Moontime and Grandmother Moon,” Anishnawbe Mushkiki, accessed July 24, 2023, <https://mushkiki.com/our-programs/moontime-and-grandmother-moon/>.

⁹⁴ “The Thirteen Moons Teaching Cycle,” Durham College, accessed September 3, 2023, <https://durhamcollege.ca/info-for/indigenous-students/information-and-resources/13-moons>.

⁹⁵ Monica Cyr and Joyce Slater, “Honouring and Grandmothers through (Re)Membering, (Re)Learning, and (Re)Vitalizing Metis Traditional Foods and Protocols,” *Canadian Food Studies* 6, no. 2 (May 2019): 59, <https://doi.org/10.15353/cfs-rcea.v6i2.339>.

preserve large quantities of food while also making food lighter for transportation. Lastly, Fermentation was a technique used on greens, berries and root foods that would alter the taste to make foods sourer.⁹⁶ The spaces within the community center provide the right environment to practice preservation technique. Meals were shared and played a prominent role in traditional ceremonies and rituals. Feasting was a meaningful ceremony since it allowed them to share their knowledge and meals with others. Ceremonies often involved four traditional herbs of tobacco, sage, sweetgrass and cedar.⁹⁷ These herbs were used in smudging ceremonies to cleanse the space, with each herb providing a specific purpose. Accessibility of traditional foods decreased due to a disruption in traditional hunting, which was influenced by high hunting and licensing costs, along with inadequate fishing and gathering areas."⁹⁸ Adding to it, the diet shift from traditional to processed foods makes elders worried about the growing distance between youth and traditions.⁹⁹ The emphasis on growing food is seen as a way to improve individual, family and community wellness by providing nutritious food and profoundly connecting to culture.

Indigenous food insecurity is a growing concern, and in urban areas such as Winnipeg, the rise of more infrastructure leaves land-based teachings starving for attention. The traditional way of gathering has altered, and new adaptations to the current environments include a more digital approach with vertical farming demonstrating a new way of cultivating food. The

⁹⁶ Kuhnlein and Turner, *Traditional Plant Foods of Canadian Indigenous Peoples*. 11

⁹⁷ "Tribes - Native Voices," accessed September 3, 2023, <https://www.nlm.nih.gov/nativevoices/exhibition/healing-ways/medicine-ways/medicine-wheel.html>.

⁹⁸ "Northern Manitoba Food, Culture, And Community Fund 2014," *Food, Culture, And Community Fund 2014 - Make Way*. Accessed May 25, 2022. https://Makeway.Org/Wp-Content/Uploads/2019/05/2014_NMFCCF_Report.Pdf, 2014, 7.

⁹⁹ Corinne A. Isaak and Gail Marchessault, "Meaning of Health: The Perspectives of Aboriginal Adults and Youth in a Northern Manitoba First Nations Community," *Canadian Journal of Diabetes* 32, no. 2 (2008): 77, [https://doi.org/10.1016/S1499-2671\(08\)22008-3](https://doi.org/10.1016/S1499-2671(08)22008-3).

importance of Indigenous foodways informs the selection of food grown within indoor grow rooms via vertical farming as a way to promote Indigenous land based values. For example, within the community food center there is a grow room specifically for perennials which teach about medicinal qualities of plants. Plants include sage, lemon balm, lady mantle and more. Another grow room emphasise produce for cooking and traditional preservation workshops specifically through the selection of foods grown. Lastly, Indigenous foodways affects spatial orientation of the community center. For example, you will want to keep areas that require smudging in a well ventilated area or with a window for smoke to exit. The healing circle should be located in an area that is open and receives circulation. Accessible space enables activities like smudging to be held and experienced by multiple people. The accessibility of the space also becomes something that showcases activities and draws other people into joining the experience.

3.2.3 Urban Foodways

Urban foodways take a less traditional land-based approach to food production than Indigenous foodways. Living in cities, the foodways created respond to the urban structures around us. An increase in urban growth has resulted in a decrease in arable land, due to an estimated impact of climate change, urban growth, farming and soil disruption.¹⁰⁰ As an agricultural province, Manitoba is not excluded from food deserts. Inequitable distribution of resources and inflation have left areas of the city deprived of affordable and healthy food options. To alleviate this problem, a new forward approach to food cultivation adapts to the urban sprawl that has taken up arable land for farming. The Impact of the new way of food

¹⁰⁰ Sarvenaz Pakravan, Shahin Keynoush, and Ehsan Daneshyar, "Proposing a Pedagogical Framework for Integrating Urban Agriculture as a Tool to Achieve Social Sustainability within the Interior Design Studio," *Sustainability (Switzerland)* 14, no. 12 (June 2022), <https://doi.org/10.3390/SU14127392>. pg 4

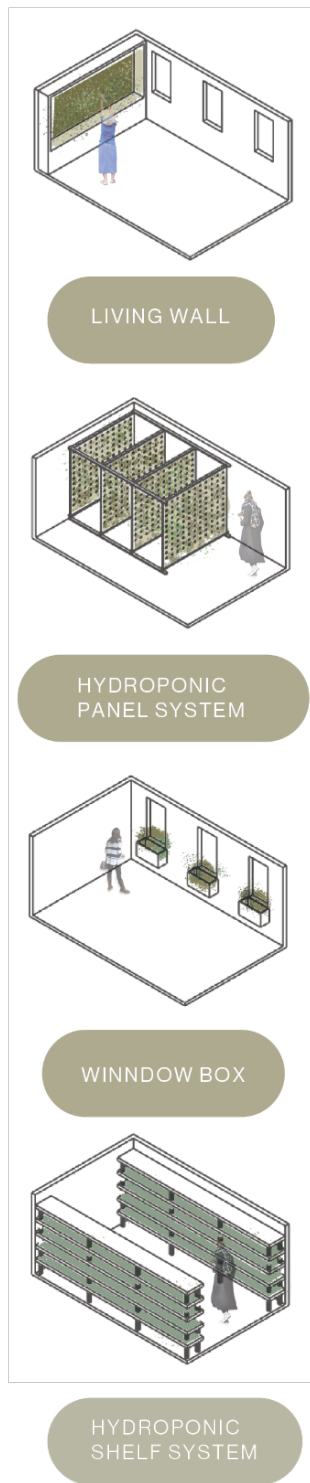


Figure 42: Interior farming strategies

production shows a reduction in urban heat island effects recycling urban waste, reducing the energy embodied in food transportation.¹⁰¹ This section identifies vertical farming and the techniques focusing on soil- and non-soil-based systems. The intention is to identify Western strategies for food production that employ a more technological approach within interior spaces.

As an interior design project, utilizing interior spaces is the primary goal. Precedents, such as container farming, freight farms, and smartfarms, all employ varying strategies for indoor farming. From these examples, there are three primary systems, hydroponic, LED, soil-based farming, that is implemented within the community center. From these three primary systems, varying strategies arise. Figure 42 depicts a few strategies that include superficial additions such as a living wall which is used as a soil based system with drip irrigation for watering. Another, window box that is added to the sill of a window as it optimized the amount of natural light that enters. More extensive additions include contemporary urban rooftops. 814 Main street is situated in an industrial area and the off-gas or pollution can lead to negative impacts on crops in a rooftop garden. Adding a greenhouse on the roof with proper air ventilation may be an effective way to mitigate this risk. Within these greenhouses, LED grow lights can be great for areas that receive minimal

¹⁰¹ Pakravan, Keynoush, and Daneshyar. pg 6

light and additionally create interior grow rooms for plants such as edible crops, herbs, edible flowers sprouts, leaves and vegetables. LED systems are unique because they can be self coded and utilized in a program that can aid with the needs of the plants. This almost customizable component to LEDs are beneficial as this can be taught to younger students to help them build employable skills at a young age.

Hydroponic systems require a specific cycle informing the designer of circulation and equipment required for the design layouts. Hydroponic systems are closed-loop systems that result in the circulation and recycling of drainage water.¹⁰² This system is ideal for vegetables, roots, wine crop bulbs, tubers, and medicinal plants. Hydroponic systems include bottles, floating rafts, wicking beds, nutrient file techniques, top drip stem media beds and more.¹⁰³ As mentioned earlier within the Indigenous foodways sub-section 3.2.2, there is a lack of leafy greens in traditional Indigenous diets. *RASOI* will work to produce more leafy greens as a way to introduce a well rounded diet to residents and will be more compatible with hydroponic production systems. Hydroponic systems are incorporated into the community center and help

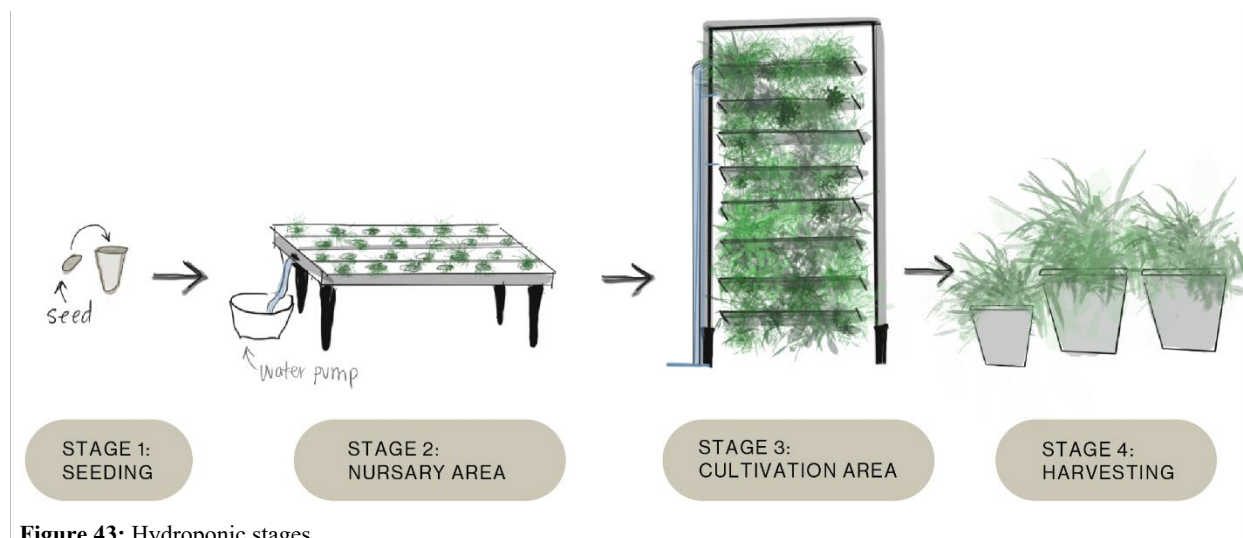


Figure 43: Hydroponic stages

¹⁰² Pakravan, Keynoush, and Daneshyar. Pg 9

¹⁰³ Pakravan, Keynoush, and Daneshyar.pg 9

designers to appropriately estimate the amount of space required for grow rooms and the materiality required within these spaces. The image below display the four primary stages within hydroponic farming, an understanding of the following stages aid in the spatial development of the community center.

As seen in Figure 43, *Seeding/Germination* is the first stage and takes up to one week. This stage involves the process of taking seat moss or grow plugs and placing seeds within them. The plugs are then placed into a humidity dome where they can mature. This stage can be messy, so considering a kitchenette area where users can clean themselves off while working is beneficial. *Nursery area* is the second stage which takes up to two weeks, and the plants are placed horizontally in rows where they can grow. Ensuring this nursery is a hygienic area prevents contaminations between plants. This can easily be done by adding accessible mats that individuals can use for clean up. The third stage involves the *transportation of crops to the cultivation area* where they are carefully placed vertically on panels. The best planting techniques are row planting for large crops or linear planting. The equipment required for this stage would be rolling carts, track systems for panels to move quickly, and an irrigation system for water with a specified nutrient solution to be given to the plants. A key concern for this stage is hygiene; ensuring that the area is closed to other matters is crucial for ensuring a healthy crop. While planning for this stage, considering a barrier or space of pause for people to clean off before entering with the proper equipment along with additional storage, is essential. Stage four involves *harvesting the crop*. This stage requires a basket and cart to collect all the goods. Once harvested, the food would be taken to an area where it could be packaged and distributed.

3.2.4 OCN Smart Farm

A great example of the convergence of Indigenous and urban foodways is described through Opaskwayak Cree Nation Smart Farm. Located in the community center of Veteran Hall, the community of Opaskwayak Cree Nation (OCN) has allocated 850 sq feet of their community hall to house a Smart Farm operation.¹⁰⁴ Smart farm operations are a new agricultural phenomenon which allow technology to automate specific growing conditions for vertical farming that uses a hydroponic system. The indoor farming approach allows farmers to year-round farming, which produces more crop yield and bypasses environmental conditions that limit the growth of food.¹⁰⁵ Smart Farm produces many different fruits, vegetables and herbs, but leafy greens such as lettuce and kale have proven to be a community favourite. A conversation with Stephanie Cook, the Indigenous Smart farm manager, highlighted a connection between traditional Indigenous and Western farming practices. Key concepts related to Indigenous foodways informed specific farming schedules and routines. For example, moon cycles play a significant role in harvesting and that the employees start with a smudging ceremony each morning to help cleanse the space before working. By starting the day with a ceremony, the employees begin with setting positive intentions. The community center employs spaces to honour traditional



Figure 44: OCN smart farm, photos provided by Stephanie Cook

¹⁰⁴ Martin Cash Posted, “Jul 2021: Smart Farm May Hold Solutions for North,” *Winnipeg Free Press* (blog), July 10, 2021, <https://www.winnipegfreepress.com/business/2021/07/10/smart-farm-may-hold-solutions-for-north>.

¹⁰⁵ Joy King, “Indoor Smart Farms For Beginners,” accessed July 11, 2023, <https://blog.growlink.com/indoor-smart-farms-for-beginners>.

Indigenous knowledge within the interior by practicing farming in consideration to the moon cycles.

3.2.5 Conclusion

Indigenous foodways inform spatial programming of ceremonial spaces and traditional food processing techniques. *RASOI* programs spaces that encouraging ceremonial practices such as smudging, preservation through smoking for dehydration, and production of medicinal crop. Urban foodways influence the project's high-tech approach to food cultivation which in return help the community center to establish food sovereignty. Since soil-based farming is a traditional technique essential to implement, hydroponic solutions allow for ease of access and a more hygienic approach. In contrast, Indigenous foodways influence the design language and sustainable design approaches to emphasize the connection to the land through inspiration from nature.

3.3 Design Theories and Concepts

3.3.1 Two-eyed seeing

The term Two-eyed seeing, also known as *Etuaptmumk* in Mi'kmaw, was introduced by Mi'kmaw Elder Albert Marshall, according to Cape Breton University.¹⁰⁶ This concept embodies an Indigenous approach to education that harmonizes the strengths of traditional Indigenous knowledge and Western knowledge. Two-Eyed Seeing is significant for designers, as it broadens our perspective to embrace diverse viewpoints to design inclusivity and sustainability. One way

¹⁰⁶ Cheryl Bartlett, Murdena Marshall, and Albert Marshall, "Two-Eyed Seeing and Other Lessons Learned within a Co-Learning Journey of Bringing Together Indigenous and Mainstream Knowledges and Ways of Knowing," *Journal of Environmental Studies and Sciences* 2, no. 4 (November 2012): 331, <https://doi.org/10.1007/s13412-012-0086-8>.

to achieve this is by fostering the growth of "third spaces," which blend elements of the past and present to create intermediary environments. These spaces serve as valuable transitional zones, inviting individuals to learn and heal.¹⁰⁷ The importance of third spaces, in reconciliation, focuses on the significance of recognizing Canadian Indigenous people's history and experiences. This document refrain from looking at traditional teachings in a manner that assimilates Indigenous values into Western practices. Instead, demonstrates that traditional strategies offer alternative perspectives on similar issues. For instance, there is a desire to integrate Indigenous land-based values into modern contexts, potentially aligning with Western design approaches like biomimicry. The significance of Two-Eyed Seeing is in its ability to foster diversity in understanding and problem-solving. The capacity to examine a problem from different angles encourages more compassionate thinking and design.

Sub-section 3.3.6 – design summary, weaves design theories using the lens of two-eyed seeing to create third-space solutions based on Western and traditional theories and concepts from transculturation adaptive reuse, biomimicry and Bimaadiziwin. The analysis provides a deeper understanding of how to design in a culturally and spiritually meaningful way that aligns with Western and traditional Indigenous values outlined in Bimaadiziwin.

3.3.2 Third Space

Homi Bhabha coined "third space" to reference the postcolonial understanding of hybrid cultures.¹⁰⁸ His work looks at contact zones that identify the unique dynamic space for

¹⁰⁷ Nicole Bell, "Anishinaabe Bimaadiziwin: Living Spiritually with Respect, Relationship, Reciprocity and Responsibility," in *Environmental and Sustainability Education in Teacher Education*, ed. Douglas D. Karrow and Maurice DiGiuseppe, International Explorations in Outdoor and Environmental Education (Cham: Springer International Publishing, 2019), 89, https://doi.org/10.1007/978-3-030-25016-4_5.

¹⁰⁸ Homi K. Bhabha, *The Location of Culture*, 2nd ed. (London: Routledge, 2004), 22, <https://doi.org/10.4324/9780203820551>.

constructing a new identity, culture, and meaning. The main point within his work seeks to integrate a flexible idea of culture that is a continuous negotiation.¹⁰⁹ Felipe Hernandez's book "Bhabha for Architects" interprets Bhabha's theories to create flexible architectural spaces.¹¹⁰ As Bhabha calls for deconstructing binary oppositions, this essentially means that Western and traditional teaching solutions should merge. The significance of Bhabha's theory of third space acknowledge historical impact of colonization and moves toward seeking solutions that aim to blend two opposing views into one that creates its own cultural identity. Similar to the concept of two-eyed seeing, third spaces seek to create a hybrid solution that blend opposing cultures. In *RASOI*, third spaces speak to the Western and traditional methods of food production combining land-based and high-tech Western solutions for food cultivation. *RASOI* does this through using urban food production to cultivate food which aligns to traditional Canadian Indigenous foodways and informed by Manitoba ecozones.

3.3.3 Transculturation

To insert my personal experience with food and culture, transculturation offers a pathway to acknowledge varying perspectives on food sovereignty and welcome the community's diverse members. From the viewpoint of communication theorist Richard Rogers, the transculturation theory introduces the concept of reciprocity between interacting cultures. The theory speaks to the dynamic relationship culture has with the varying identities it meets and intersects with.¹¹¹ The theory of transculturation is understood through the relationship between the myriad of cultures residing within Point Douglas. As mentioned in Chapter Two using 2021 census data,

¹⁰⁹ Bhabha, 36.

¹¹⁰ Felipe Hernandez, *Bhabha for Architects* (London: Routledge, 2010), 99, <https://doi.org/10.4324/9780203855935>.

¹¹¹ Richard A. Rogers, "From Cultural Exchange to Transculturation: A Review and Reconceptualization of Cultural Appropriation," *Communication Theory* 16, no. 4 (2006): 474, <https://doi.org/10.1111/j.1468-2885.2006.00277.x>.

the predominant cultures include Filipino, Canadian Indigenous, and Indian. Additionally, foodways is traditionally accredited to women's impact within the process of food preparation and cooking. Within my personal experience, knowledge of traditional Indian foodways have been passed down through matriarchal influences, whether from mothers, grandmothers, and aunts. With this understanding, transculturation also emerges at the crossroads of various cultures and intergenerational food wisdom. Such wisdom aids in applying high-tech solutions while maintaining land-based knowledge to understanding of food. Technology is applied in a way to protect nature, rather than circumvent it. The integration of transculturation broadens the scope of participation in foodways, fostering an equitable distribution among genders and cultures.

To build upon this theory, Professor of Spanish and Portuguese Languages and Literatures at New York University, Mary Louise Pratt introduces the concept of contact zones in her book Imperial Eyes: Travel Writing and Transculturation. Unlike Homi Bhabha's use of contact zones to create a new hybrid identity, Pratt emphasizes how subjects are "constituted in and by their relations to each other, not as separate entities but as co-presences engaging in interaction, understanding, and practices."¹¹² Pratt accredits contact zones to social spaces for the exchange of cultural information. Within *RASOI*, these contact zones are identified through varying clusters of social spaces that focus on activities such as teaching kitchens, galleries, and multidisciplinary rooms which range in activities from harvesting of food grown in cultivation stations or workshops in preservation techniques for food. These clusters reinforce cultural contact zones through educational means and opportunity to develop meaningful relationships in

¹¹² Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation*, 2nd ed. (London: Routledge, 2007), 8, <https://doi.org/10.4324/9780203932933>.

a collaborative manner. For example, teaching kitchens are an excellent way to share knowledge of preparation and preservation of foods relevant to different cultures. Depending on the number of individuals working in the teaching kitchens, they have the capacity to expand with adjustable walls to accommodate increased participation. Additionally, production spaces for vertical farming provide intergenerational knowledge for food production, while traditional medical rooftop gardens serve a similar purpose, focusing for land-based knowledge. Given the weightiness of these topics, individuals may engage in significant reflection within these spaces. Therefore, it's crucial to consider designing areas where individuals can take moments to pause and decompress, preventing feelings of overwhelm. The adaptable design of these social spaces enables them to radiate and expand, spark curiosity through flexible and adjustable partitions.

Transculturation has faced a lot of criticism due to the oversimplification of power dynamic between cultures and their complicated history. The evolution of cultures can not be overlooked due to the influence of social conditions such as immigration or environmental conditions like climate change. These changes are passed down through generations or shaped by urban living practices. A combination of these changes encourages cultures to adapt to their surroundings whether it be influenced by environment of social conditions. Regardless, the implementation of transcultural theory acknowledges these changes and fosters an inclusive environments to embrace a culturally rich approach to food sovereignty as a way to enhance and grow with other cultures.

3.3.4 Adaptive reuse

The Western design theory of adaptive reuse is a modern term that refers to the renovation and reuse of pre-existing structures for new purposes, responding to the existing conditions of the site.¹¹³ Graeme Brooker is an influential figure in the development of the theory of adaptive reuse. His view uses a functional approach derived from military planning.¹¹⁴ He breaks down the theory into smaller strategies that use sustainable practices to extend the longevity of a building. Of the strategies identified by Brooker, *RASOI* implements strategies of *Narrative* and *Insertion*.

Narrative is a strategy within adaptive reuse that emphasizes the user's experience through a building by design.¹¹⁵ This strategy works with the existing space and brings forth the natural features of a building. One way this is achieved is through storytelling, presented as symbolic features within the space. Creating a narrative within the building of 814 Main Street brings the space to life and creates a stronger connection with the community of Point Douglas. Narrative is an essential Western strategy in adaptive reuse because the strategy of narrative acknowledges the beauty of existing elements, and rather than breaking them apart, it emphasizes what is already there. Similar to Brooker, Sally Stone views *narrative* as a way to honour the past through the notion of *patina*.¹¹⁶ The layers of the space indicates a story of past lives and can be used to connect with history.

¹¹³ Brooker, Graeme, *Adaptation Strategies for Interior Architecture and Design* (London: Bloomsbury Visual Arts, 2017), 9.

¹¹⁴ Brooker, *Adaptation Strategies for Interior Architecture and Design* London:, 9.

¹¹⁵ Brooker, Graeme and Stone, Sally, *From Organization to Decoration* (New York: Routledge, 2013), 141.

¹¹⁶ “UnDoing Buildings | Adaptive Reuse and Cultural Memory | Sally Stone |,” 83, accessed September 5, 2023, <https://www-taylorfrancis-com.uml.idm.oclc.org/pdfviewer/>.

Narrative highlights the reciprocal relationship between a building's function and the existing building elements. Designing a building for a singular purpose and assigning monetary value degrades and isolates the structure from the land and people.¹¹⁷ Assigning new typologies to existing spaces enables the building to have more flexibility, and become more inclusive in the way it is sustainably designed. Additionally, using existing materials to highlight existing buildings' natural features allows for less material waste. Using the materials provided on a site excludes additional pollution associated with the embodied energy a new material produces through manufacturing and transportation. Sourcing locally enables the design to be connected to the community and be more sustainable. Narration can also be seen as a Western strategy that relates to Indigenous values, as it narrates a story through symbolism, and storytelling is a significant part of traditional culture as it promotes traditional teachings, history, values and relationships among nature and people. The community center employs the strategy of *narrative* through the design of interactive displays. The displays narrate the history of the building and community.

Insertion is a strategy that involves adding a structure to an existing building.¹¹⁸ This strategy highlights the strong contrast between the existing building and an addition. A connection between the existing building and the addition is established by the proportions, rhythms, and scale of the existing building.¹¹⁹ While working cohesively to complement each other, the existing building and addition remain independent and strong on their own.

¹¹⁷ Brooker, *Adaptation Strategies for Interior Architecture and Design* London:, 9.

¹¹⁸ Brooker, 9.

¹¹⁹ Brooker and Stone, *From Organization to Decoration*, 245.

Brooker discusses the strategy of insertion with two perspectives: as being intrusive, or a facilitator/emancipator.¹²⁰ Within the context of *RASOI*, Winnipeg's urban landscape provides an opportunity for an alternative form of farming within the interior of 814 Main Street, which is the emancipator through the opportunity it provides to the community members via farming. Insertion is informed by subsection 3.2.3: Urban foodways. An insertion of vertical farming practices connects users to the building. An interior space programmed with high-tech solutions for interior agriculture, via vertical farming strategies, creates a contrast between traditional and modern ideas. Alternatively, the addition of container farms within the building, inserting contrasting metals within the brick façade of the space. With its contrast between the cold metal containers and the natural elements. The strategy of insertion is sustainable because it allows overlooked spaces to be used.¹²¹ While the strategy contradicts a land-based design practice, the addition of non-environmental features within the space speaks to a greater sense of how it is appropriate to blend contrasting elements. To encourage natural elements into the urban space, insertion invites a rooftop greenhouse to display a medicinal herb garden.

3.3.5 Biomimicry

Biomimicry was first coined in 1997 by a scientist named Janine Benyus.¹²² Biomimicry aims to mimic nature's inherent qualities to provide sustainable design solutions within interior spaces.¹²³ The community center employs biomimicry within the design through symbolic design solutions provided by natural elements, such as plants that are significant to Canadian Indigenous culture. It is essential to recognize that biomimicry is about something

¹²⁰ Sally Stone and Graeme Brooker, "Strategy," in *Re-Readings: 2* (RIBA Publishing, 2019), 83.

¹²¹ Stone and Brooker, 248.

¹²² "What is Biomimicry." The Biomimicry Institute, <https://biomimicry.org/what-is-biomimicry/>.

¹²³ "What is Biomimicry." The Biomimicry Institute, <https://biomimicry.org/what-is-biomimicry/>.

other than what we take. Still, instead, what we learn from nature, and this value directly aligns with the traditional Indigenous teachings of the Anishinaabe. Using a practical approach to biomimicry, the designs explore energy-saving strategies to reinforce a closed-loop system—for example, the use of solar panels similar to how plants obtain energy. As Robin Wall Kimmerer's book *Braiding Sweetgrass* mentions, Indigenous architecture draws from natural inspiration. Kimmerer states the functionality of the shape of a sphere and what it offers through minimizing the material of living space or distributing the weight of snow and shedding water as well as efficient to heat and wind resistance.¹²⁴ Architectural spaces account for the complexity of nature through the patterns employed in braiding and weaving. Within the community food center, biomimicry is employed through the specification of flooring that takes inspiration from the cattail plant. The fibres within the plant inspire moisture-resistant flooring. As mentioned by Kimmerer, the historical application of the cattail plant reinforces a cultural connection to the community with traditional applications on wigwams and mats that were appreciated for their ventilation and moisture-resistant qualities. A modern application is employed in flooring and transitional space dividers with an additional aesthetic approach similar to a feature wall.

¹²⁴ Kimmerer, *Braiding Sweetgrass*, 225.

3.3.6 Bimaadiziwin

Bimaadiziwin is an Anishinaabe word that translates to "the good life" or "a way of living a good life" in English. *Bimaadiziwin* is also the traditional Anishinaabe teaching paradigm that connects all humanity in a personal and powerful way. According to Ojibwe researcher, Nicole Bell, this results in a holistic relationship between the cardinal points and Anishinaabe teachings of the mind, body, spirit and heart.¹²⁵ Figure 45

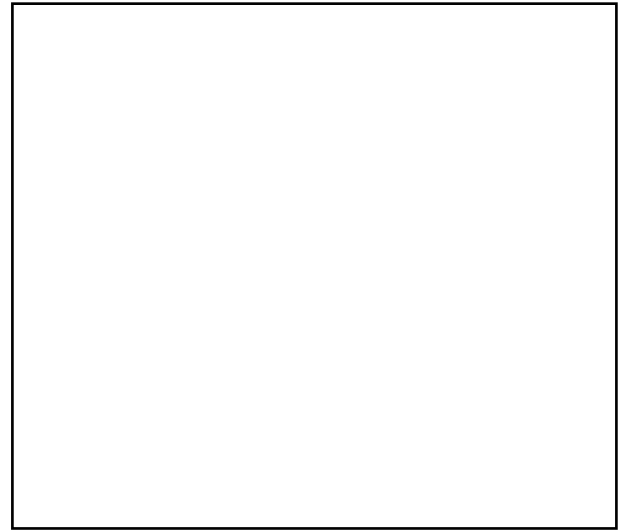


Figure 45: Gift of Four Directions. Provided by Nicole Bell

depicts the four directional gifts of responsibility, respect, relationship, and reciprocity, which are woven together with the medicine wheel to emphasize their interdependence. Because Indigenous values are fluid, they are represented by a circular pattern that represents a holistic way of thinking that is unlike traditional Western thought. The Indigenous mindset includes thinking beyond oneself. The following section explores Bell's and Indigenous ecologist Robin Wall Kimmerer's interpretations of the directional gifts and unravels them into practical design strategies.

First, *responsibility* is associated with the northern direction. It is an action-oriented approach, which the Anishinaabe apply to decisions that affect the environment and future generations.¹²⁶ Thus, this design approach seeks a flexible strategy that can adapt to a changing environment. The responsibility of Anishinaabe communities is to design in a manner that is

¹²⁵ Bell, "Anishinaabe Bimaadiziwin," 89.

¹²⁶ Bell, 102.

cognizant of the environment, for example, through sustainable practices. They face choices in spatiality and materiality that are relevant to contemporary interior designers. A way in which this can be applied to spaces is through repurposing materials. By reusing local materials, designers reduce the embodied energy of a material and its negative impact on the environment.

Secondly, the eastern direction, which is associated with *respect*, encourages heightened awareness and is called the *spirit*. Bell's interpretation of *respect* notes a sense of evaluation and mindfulness relating to the importance of natural systems.¹²⁷ *Respect* translates into a design response that seeks to implement sustainable design strategies. Taking this into account, designers highlight natural features of the interior spaces as a way to represent the complexity of nature. For example, creating large opening to invite natural sunlight in the space and incorporating earth tones. A Western design application is also linked to biomimicry in terms of learning from nature. Alternative design strategies promote the addition of indoor farming techniques, the community center bring nature directly into the interior. Sustainable systems seek to honour what is already established within the environment through mimicking nature into the interior of the community center.

The third, or southern direction, which is known as *relationship* is described as the *heart*. Bell notes that "[e]verything is but an individual manifestation of an underlying whole."¹²⁸ One can interpret the quote to mean that everything is part of a larger cohesive whole. This understanding applies to our relationship with the land, because it highlights the impact our actions have on the land. For example, with the materials we choose in design and the consideration of the embodied energy a material has. Kimmerer notes that traditional Indigenous teaching emphasize the

¹²⁷ Bell, 97.

¹²⁸ Bell, 99.

importance of convergence and the idea of working together with nature. The strategies are implemented more aesthetically within the community center through symbolic gestures and a reflection or remembering of the past through traditional artwork.

Lastly, the west represents *reciprocity* and indicates the act of giving thanks and creating a balanced relationship between people and the land. Kimmerer notes that ceremonies are a form of reciprocity and incorporate spaces for traditional practices such as gardening and preservation as a way to give can give back through teaching skills or providing food knowledge. Similar to Pratt's views on contact zones, clusters of social spaces are incorporated for the exchange of knowledge between different cultures. Additional Western approaches to implementing traditional Indigenous direction of reciprocity is viewed through the programming of interior grow rooms for vertical farming. Users of the community center are able to produce food year-round and share with their community members. *RASOI* establishes spaces for visitors to experience reciprocity through traditional and Western forms of giving, whether if be through educational workshops, grow rooms or distribution center.

3.3.7 Design Summary

The beginning of section three is built towards understanding the issues presented by food sovereignty and the solutions to achieve more food-secure spaces within the context of interior design strategies. However, the later analysis focuses more on hybrid solutions presented by Western and traditional teachings from foodways and design theories and concepts that reinforce values represent in Point Douglas community's needs. From the lens of two-eyed seeing, Figure 46 illustrates how traditional and Western theories and concepts work together to inform a triad of guiding values that inform spatial and design implication within *RASOI*.

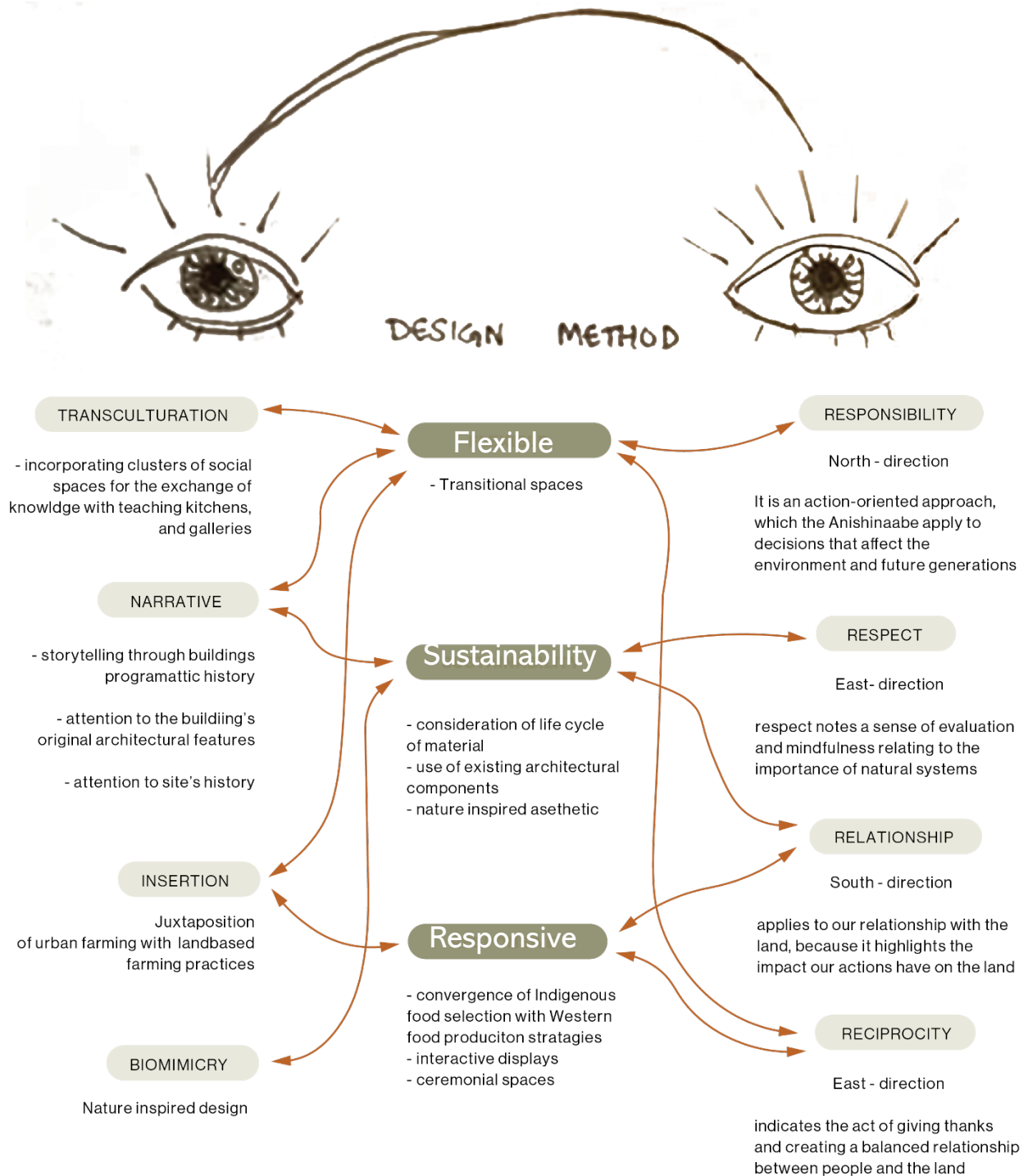


Figure 46: Two- Eyed Seeing - Design Summary

The first guiding value introduces, *flexible design* as a way to respond to traditional aspects of responsibility and reciprocity. As mentioned earlier, these directional teachings focus on action-oriented and mindful responses. The way flexible design strategy considers inter-generational responsibility is through providing future generation with the flexibility to use the space how it would suit their needs. For example, in the community center, adjustable partitions are designed to expand for more public events or contract to create smaller spaces. These partitions additionally host artwork for a functional display purpose and act as a soundproofing opportunity for the space. Programming markets into the space, also inserts a form of reciprocity as the program employs a pay as you feel method allows residents to equitably contribute to the community center, whether it be through their work, talent, or recipes. Flexible design is also applied within the materiality of the space as a way to respond to the theory of third space through the developments of transitional spaces. For example, *RASOI* incorporates visual transparency in windows that can alternate between opaque and transparent, allowing visitors to observe the production process within grow rooms while also ensuring privacy when needed. This feature is particularly utilized in vertical farming spaces designated as cultivation rooms, which necessitate sanitation and specific LED lighting for plant growth.

The second value is *sustainability* which responds to the traditional view of respect and relationship. As respect is a nature inspired traditional direction that shares a strong connection with the Western theory of biomimicry. By learning from nature, the community center explores practical design solutions that are energy efficient. For example, reducing embodied energy through sourcing local materials or incorporating natural systems to stimulate the growth of food within the building via grow rooms. Alternately taking an aesthetic approach with nature inspired design, invites more natural features to the interior of the space through sunlight, and neutral

tones. The Western strategy of narrative also encourages sustainable practices as it urges designers to consider the existing features of the space and incorporate it into the new aspects of design. 814 Main Street shares story of woe, as a once prominent building with economic function and entertainment to now a rundown space used for storage. The community center provides the 814 Main street with new purpose as the building continues to serve its community through economic opportunity and entertainment.

The third value is, *responsive design*, in relation to natural conditions and engages with the cultural and social values of Point Douglas. The idea resonates with the work of Graeme Brooker's strategy for insertion and Nicole Bell's understanding of *relationship* and *reciprocity*. This method is implemented by adding grow rooms that respond to Point Douglas' urban landscape. The addition of container farming proves to be an effective response to the limitations presented by Winnipeg's cold climate and lack of outdoor farming space. The juxtaposition created by the addition of container farms adds a unique interactive component to the space that narrates the story of Winnipeg's food desert in a more positive direction. Implementing the teaching from Indigenous foodways by adding spaces for the ceremony also responds to the space's cultural needs, highlighting the community's identity through relationships.

3.4 Chapter Summary and Conclusion

Theories explored in chapter 3 guides the design of *RASOI* through an in-depth understanding of concepts addressed in food sovereignty, food insecurity, urban and Indigenous foodways and lastly, design theories of Two-eyed seeing, third space, adaptive reuse, biomimicry, and Bimaadiziwin.

Section 3.1 established a theoretical framework that addressed critical concepts in food sovereignty from Nettie Wiebe, Kevin Wipf, Dawn Morrison and The Peoples Food Policy. Pat Vanderkooy and Valerie Tarasuk's understanding of *household food insecurity* highlighted the financial needs of individuals that promoted the programming of spaces for employment. *Community food insecurity* noted the production of food by Michelle Kaiser and focused on activities that encouraged food security through promoting access, agency and adequate food for residents. Understanding these concepts enabled design solutions for food cultivation through sustainable design forms that inspired a closed-loop food system. Lastly, *Indigenous food insecurity* highlighted the lack of culturally appropriate food. Researchers Stephen Penner, Jaimie Cidro and Tabitha Martens explored food concepts as 1) medicine, 2) teacher, and 3) relative. These concepts develop spaces for cultural food activities such as preservation, ceremony, and cultivation. These spaces promote acceptable food that aligns with tradition and values.

Section 3.2 explored Indigenous and urban foodways. Indigenous foodways helped inform the user function and programming of the site. In the following sections, researcher Jaimie Cidro helped communicate an understanding of specific Indigenous practices that have helped inform the design applications. Practices such as smudging, harvesting, preservation, and

feasting helped to understand holistic Indigenous values that prompted sustainable design choices, such as using local materials and feasting as communal activities that encourage a sense of belonging and place through sharing food. Urban foodways sought urban agriculture solutions such as rooftop gardens and vertical farming practices. This informed flooring, lighting, furniture and equipment specification for vertical farming practices.

Section 3.3 discussed the convergence of Western and traditional design theories to focus on 1) flexible, 2) sustainable, and 3) responsive design that is informed by design theories of two-eyed seeing, third space, transculturation, adaptive reuse, biomimicry, and Bimaadiziwin. Elder Albert Marshall's Two-eyed seeing informed transitional spaces that encourage transparency between different spaces. For example, visual transparency for windows located in vertical farming spaces can become opaque or transparent so visitors can see the production process. Homi Bhabha's exploration of third space creates flexibility between spaces through adaptable partitions. Mary Louise Pratt's work on contact zones is incorporated through clusters of social spaces as a way to encourage collaborative exchange of knowledge through teaching kitchens, multi disciplinary spaces and galleries. Adaptive reuse by Grame Brookers and Sally Stone explores strategies on narrative and insertion as Western forms of sustainable design practices. Narration considers storytelling through material selections and designing interactive exhibits that encourage visitors to engage with kiosks for information on healthy food options and inter-generational knowledge of Canadian Indigenous foodways. Insertion creates juxtaposition by developing high-tech solutions for vertical farming grow rooms. Biomimicry from Janine Benyus explores natural inspiration from sustainable energy production by solar panels to an aesthetic approach to designing with neutral tones and cattail flooring specifications.

Bimaadiziwin from Nicole Bell examines the gifts of the four directions: 1) responsibility, 2) respect, 3) relationship, and 4) reciprocity.

Overall, this chapter focused on understanding concepts within food sovereignty and foodways as a way to interact with design theories of adaptive reuse, biomimicry and Bimaadiziwin. The community food center's design methodology discloses a familiar pattern of responsive and sustainable design approaches that are informed by Point Douglas' current economic, social, and cultural climate. The theories of two-eyed seeing, transculturation, and third space reinforce flexible design methods employed through materiality and spatial programming. The design of the community center focuses on creating interactive environments for group-based activities, such as kitchens and grow rooms, that are informed by urban and Canadian Indigenous foodways.

MAIN THEORY AND CONCEPT	THEORIST or WRITER	STRATEGY	SPATIAL AND DESIGN IMPLICATION
Foodways	Jaime Cidro Tabitha Martens	Indigenous Foodways	- Ceremonial spaces - Proper ventilation to ensure smudging ceremony - Cultivate and prepare traditional food diet - Preservation through dehydration or smoking - Feasting location – sharing foods - Organic material choices - Recycling programs for composting
	Sarvenaz Pakravan, Shahin Keynoush, and Ehsan Daneshyar,	Urban Foodways	- Process of hydroponic farming dictates spatial organization and need for hygienic spaces, ventilation, specification in flooring, lighting, furniture and equipment that is mold resistant. - Rooftop garden
Two-eyed seeing	Elder Albert Marshall		- Transitional spaces that encourage transparency between different spaces. Ex) visual transparency in windows that can become opaque or transparent so visitors can see the process of production. - Encourage values of flexibility, Sustainability and responsive features within a design. – see fig 44 for design summary
Third Space	Felipe Hernandez Homi K Bhabha		- Spaces that encourage flexibility, adaption and continuous negotiation of cultural meaning – flexible partitions for expand and contract for users needs - Blending of westerns and traditional food production. Food that is created is informed by traditional foods of Manitoba but produced by urban farming - Land-based vales informs how light informs placement of indoor farming practices.
Transculturation	Richard A Rogers Mary Louise Pratt	Contact zones	- Social spaces for community activities as a way to encourage collaboration and exchange of knowledge of cultural information. This can be doe through teaching kitchens, multidisciplinary spaces ranging for activities such as harvesting of food grown in cultivation stations or workshops in preservation techniques for food and galleries. - The spaces have a potential to radiate out bleed into other spaces through flexible partitions. The adjustable features of the spaces encourage curiosity. - Additionally, incorporate spaces for pause and reflection to not overwhelm participants.
Adaptive Reuse	Graeme Brooker Sally Stone	Narration	- History/ Storytelling – previous buildings programming provided economic and entertainment benefits, reincorporate that into future of the building's program - Use existing material from site - Interactive exhibits for visitors to engage – touch screens kiosks for information on healthy food options and indigenous foodways - Tour of space to show life cycle of food from conception to composting – story of food cycle – gives context to production of food. - Natural Lighting informs the location of specific programming of spaces
	Graeme Brooker	Insertion	- Juxtaposition between spatial elements - Incorporate urban foodways into the design with insertion of vertical farming strategies for grow rooms. That overall improves communities access to healthier and more affordable food options
Biomimicry	Janine Benyus	Biomimicry	- Nature inspired design – consider neutral tones, sun path - Specification of flooring inspired by cattail plant which is moisture resistant - Using feature walls and cattail plants
Bimaadiziwin	Nicole Bell	Responsibility North	- repurposing materials
	Robin wall Kimmerer	Respect East	- Nature inspired design – aesthetic approach to incorporating nature within interior space – sunlight and natural tones - Employ urban foodway strategy for grow rooms to introduce indoor grow rooms - Solar panels
		Relationship South	- traditional artwork - Indigenous symbolism
		Reciprocity West	- Understanding and sharing through ceremonies such as feasting and healing circles - Workshops for learning how to cook - Indoor gardening workshops

Figure 47: Spatial and Design Implication Chart

Chapter 4: Design Precedents: Investigation and Analysis

4.0 Introduction

The following chapter explores three projects highlighting design methods outlined in the literature review: flexible design, sustainable design, and responsive design. Each of these precedents demonstrates characteristics incorporated into the design of the community food center. One of the selected projects is local to Winnipeg, one is in Ontario, Canada, and one is an international design in Tokyo, Japan. Neechi Commons in Winnipeg demonstrates a culturally sensitive practice in the way it operates and is selected for its programming, sustainable design practices, and employment of adaptive reuse. Roots to Harvest in Thunder Bay, Ontario, is a community food center and is selected to use community values in an architectural practice employing flexible design strategies. Pasona Urban Farm, an office space in Tokyo, Japan, is selected for the way it implements vertical farming within an urban context, exploring programming and sustainable strategies. Each contributes a different idea to the community center, and each uses a culturally sensitive approach to design for Indigenous communities and urban agriculture through vertical farming. Together, the lessons learned from these projects guide the design of *RASOI* to become more inclusive, flexible, and sustainable.

4.1 Neechi Commons



Figure 48. Exterior View of Neechi Commons from Main Street. Winnipeg, Mb. Accessed September 3, 2023.
<https://www.bridgmancollaborative.ca/neechi-commons.html>

Designer: Bridgman Collaborative Architecture
Client: Neechi Foods Co-Op (Louise Desmarais & Russ Rothney)
Location: Winnipeg, MB, Canada
Sq/Ft: 28,000 sq ft
Date: 2013

As mentioned in chapter two, the neighborhood of Point Douglas is classified as an inner-city food desert, because it does not meet neighborhood needs. In addition to a lack of affordable and healthy food options, due to limited knowledge of Indigenous foodways, the community experiences a lack of ethnic food options. As a response Neechi Co- op LTD responded to these concerns starting in the 1990's with the addition of a small grocery store. With community support, Neechi Coop expanded from their original 1990's location at Dufferin to 845 Main Street. The new expansion created Neechi Commons, which was a community business complex established by the Neechi Food Co-op LTD in Point Douglas.¹²⁹ The name *Neechi* comes from the Ojibway and Cree words meaning *friend*.¹³⁰ Neechi Commons was established to respond to the needs of Point Douglas by providing cultural entertainment and celebration, as well as health-related services.¹³¹ With a primary focus on its grocery store, the Commons was intended to provide healthy food through local Indigenous farms. Neechi Commons promoted community values of equity, nurturing, and sustainability¹³² through programs that encouraged collaboration, and with spaces for storytelling. The building specifically catered to Indigenous perspectives by supplying economic opportunities and supporting Indigenous artists. The support of local Indigenous farmers acknowledges traditional Indigenous foodways that respect Indigenous customs such as bread like *bannock* and medicinal herbs for Indigenous ceremonies. Since its inception in 2013, Neechi Commons has closed their doors due to mounting debt from renovation lost and lenders. However, this closure should not be interpreted as a lack of

¹²⁹ "Neechi Commons Legacy," *Neechi Commons* (blog), December 9, 2010, <https://neechi.ca/about/>.

¹³⁰ Elyssa Woods, "Cultivating Community in the Exchange: An Interior Adaptive Reuse Project to Revitalize Food Security and Culture" (Master or Interior Design Practicum, University of Manitoba, 2018), 76, <http://hdl.handle.net/1993/33378>.

¹³¹ "Neechi Commons Legacy."

¹³² Bridgman et al., "Listening to the Community in North Point Douglas: A Five-Year Action Plan," 2.

perseverance from members or staff. Neechi Commons remains a leading precedent for culturally appropriate approaches to non-profit business spaces that promote cultural identity.

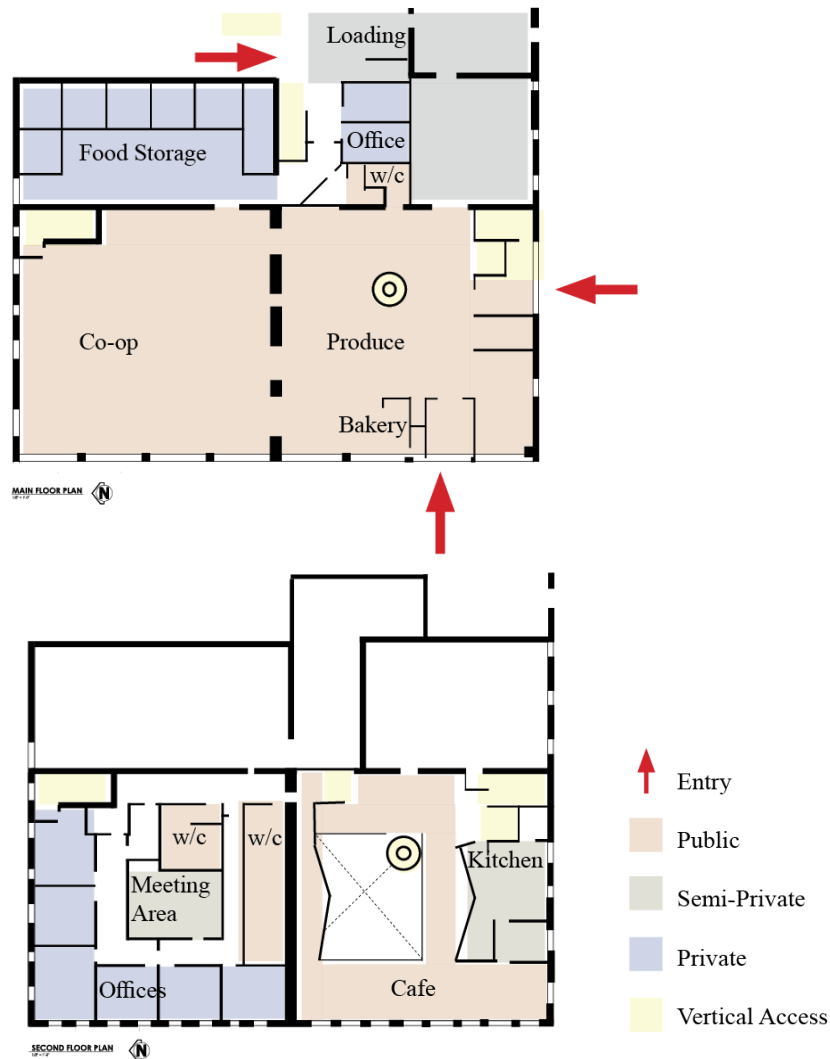


Figure 49. Neechi Commons Floor Plans. (Adapted from: Bridgman Collaborative Architecture Plan. N.d. Architectural Drawings. Accessed September 3, 2023.

The narrative of the space at Neechi Commons is shaped by its activities. Food takes center stage in the building and is influenced by local Indigenous knowledge for both meat and plant-based products. The inclusion of kiosks expands the breadth of knowledge to encompass traditional Indigenous art, history, and culture.

As seen in Figure 47, The building floor plans, individuals are invited into the first floor from the primary entrances along the west and south façades of the building. Semi-private and private spaces along the first floor are reserved for staff needs such as loading dock, offices, and food storage, which are organized along the building's east façade. The public area of the first floor creates a sense of openness that fosters curiosity as users explore areas such as a co-op store, bakery, and produce area. Users can access the second floor either by an elevator or spiral staircase. Individuals are invited into a public space with standalone kiosk and a café. Semi-private spaces are identified by the commercial kitchen, and general-purpose room. Private spaces are for offices, classrooms, and boardrooms. Admirable features of the space include a kitchen that allows users to see how and where food is prepared, which is an excellent use for workshops and allows more participation. Users should feel welcome in the space, and adding points of engagement that encourage exploration enhances the user's experience and makes them more confident. The engagement points can be identified through open windows, spacious floorplans, ease of movement, and not blocking off spaces. Open spaces allow the user to create a natural circulation rather than being blocked off by other parts of the space.

Like Neechi Commons, *RASOI* addresses critical issues in Point Douglas such as food insecurity as a component of food sovereignty. By implementing lessons learned from Neechi Commons, the community center works to encourage a sustainable food system. The first floor of the Commons is filled with public spaces that focus on the distribution of food with markets spaces. The second floor focuses on the production and consumption of food as characterized by the kitchen and cafeteria spaces. Informed by the programming of Neechi Commons, *RASOI* distributes types of spaces in considerations to foot traffic. Celebratory spaces to encourage

community engagement are also valued through incorporating art and sustainable systems that reduce the environmental impact on the building by promoting natural lighting via sky lights.

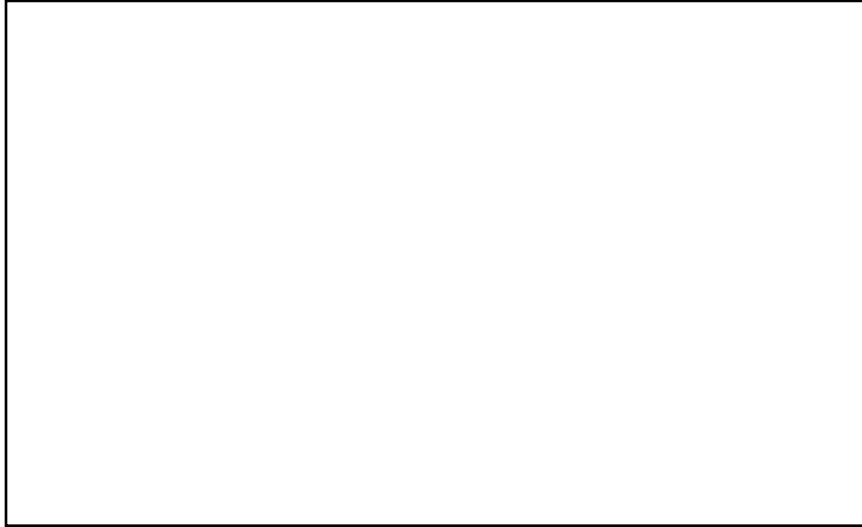


Figure 50. Neechi Commons First Floor Entrance. The grocery, bakery and staircase leading to the second level. Allows visitors to access the public spaces into the market and café directly. Winnipeg, MB. Accessed September 3, 2023. <https://www.bridgmancollaborative.ca/neechi-commons.html>

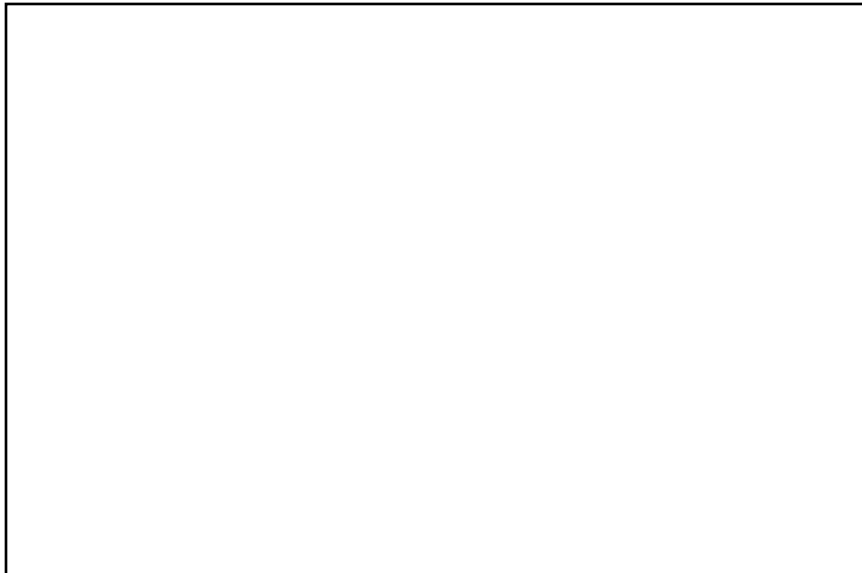


Figure 51. Neechi Commons Second Floor, Café. Winnipeg, MB. Accessed September 3, 2023. <https://www.bridgmancollaborative.ca/neechi-commons.html>

The current plans for the space remain committed to supporting local Indigenous identity. The space has been acquired from the Southwest Resource Development Council (SERDC), which aims to provide culturally appropriate services to Indigenous people.¹³³ The new facility will offer programs and services such as a support work program, foster care programs, holistic wellness initiatives for children and young people, and Memegwaa Youth Transitional Services for individuals exiting care.¹³⁴

As mentioned in section 3.2 Food Sovereignty the subsection explored the issues of Indigenous food insecurity. Neechi Commons provided acceptable food in line with traditional values. Jaime Cidro and Tabitha Marten lay specific Indigenous foodways which encourage this practice. The relevance of Neechi Commons is displayed through the connection with Indigenous foodways. The building encourages programme with the neighborhood through a public market design of prominent local Indigenous farmers and artist within Winnipeg. The ability to provide economic opportunity with values that align with Indigenous perspectives (teachings) through the community values of equity, sustainability, and nurturing. Repurposing buildings can create economic opportunities. The addition of urban agriculture responds to the community value of equity, as the project enhances the idea of accessibility as it invites users to produce their own food.

The project will also partner with other grocery stores by collecting unsold food at a significantly lower price. Inspired by redistribution programs mentioned in Chapter three, community food insecurity section, these programs will redirect food to people who can not afford the high food cost or employ a pay-as-you-feel method at cafes. This is a way to reduce waste by supporting the

¹³³ “NEWS RELEASE - SERDC Purchases Neechi Commons Building Supporting Enhanced Indigenous Service Delivery in Winnipeg’s North End | SERDC,” accessed February 20, 2024, <https://serdc.mb.ca/news-release-serdc-purchases-neeche-commons-building>.

¹³⁴ “NEWS RELEASE - SERDC Purchases Neechi Commons Building Supporting Enhanced Indigenous Service Delivery in Winnipeg’s North End | SERDC.”

regional economy and reducing food waste that both satisfy an equitable distribution of food and sustainable approach to food waste.

A central theme employed within the design is the concept of flexibility. The invitation for users to make the space their own and use it to their desire; by doing so, they insert their narrative into the space and create memories that teach and inspire others to do the space. The flexibility of the space also encourages curiosity within the spaces, which emphasizes a positive user experience. The ability to produce food creates a sense of belonging and anatomy over the user through the implementation of spaces that enhance such activities. For example, engaging with the community by designing interior grow rooms for cultivating traditional herbs and sharing the process and harvest with the community enhances the bond between community members.

4.2 Roots to Harvest



Figure 52. BrookMcIlroy, Roots to Harvest,Thunder Bay, Ontario. 2019. Entrance. Accessed September 3, 2023.
<https://brookmcilroy.com/projects/roots-to-harvest-interior-renovation/>

Designer: Brook McIlroy Architecture
Client: Roots to Harvest
Location: Thunder Bay, ON, Canada
Sq/Ft: 2, 500 Sq/Ft
Date: 2019

Roots to Harvest is a community food center in Thunder Bay that aims to enhance youth engagement with farming by offering employment and educational opportunities within local agriculture.¹³⁵ Notable programs include a *culture kitchen*¹³⁶ that operates daily for recent female immigrants or refugees to Thunder Bay.¹³⁷ Community kitchens are a substantial way to share food, preparation skills, and recipes, as well as coordinating meals together. During the COVID-19 pandemic, Roots to Harvest pivoted their operations to assist local community members with food supply in Thunder Bay by taking advantage of the flexibility of their space for additional activities such as packing meals for those in need. All these additional activities led to the need for renovations to support new programming of meeting and gathering spaces. Brook McIlroy worked with Roots to Harvest employee Heather Cranston to envision improvements that support current programming and create opportunities for Roots and Harvest to grow. The renovation of Roots to Harvest focused on upgrades to their woodshop, office spaces, and meeting spaces.¹³⁸ The contemporary design improves lighting by allowing natural light into the interior spaces. Additionally, a barrier-free washroom makes Roots to Harvest more inclusive¹³⁹, thereby creating a more welcoming environment for specific individuals. Workspaces are designed with adjustable glass dividers that either expand to create separate meeting rooms for more privacy or contract and open the space for larger communal activities as seen in Figure 53, below. The glass dividers promoted flexibility in the spaces programming.¹⁴⁰

¹³⁵ “Roots to Harvest Interior Renovation,” *Brook McIlroy* (blog), accessed October 30, 2023, <https://brookmcilroy.com/projects/roots-to-harvest-interior-renovation/>.

¹³⁶ “The Culture Kitchen program allows members to practice creating and budgeting recipes, share their language and practice English, gain certification in Safe Food Handling and coordinate cooking meals together.

¹³⁷ “Kitchen,” Roots Community Food Centre, accessed October 30, 2023, <https://www.rootscfc.org/kitchen.html>.

¹³⁸ “Roots to Harvest Interior Renovation.”

¹³⁹ “Roots to Harvest Interior Renovation.”

¹⁴⁰ “Roots to Harvest Interior Renovation.”

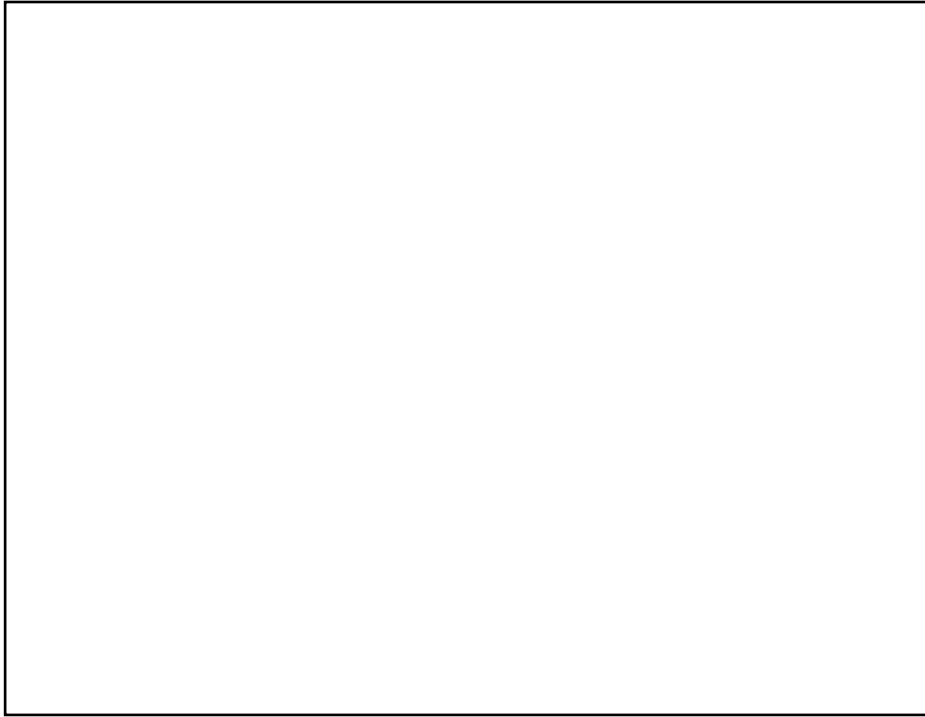


Figure 53. BrookMcIlroy, Roots to Harvest, Thunder Bay, Ontario. 2019. Workspace with detachable curtain doors. Accessed September 3, 2023. <https://brookmcilroy.com/projects/roots-to-harvest-interior-renovation/>



Figure 54. BrookMcIlroy, Roots to Harvest, Thunder Bay, Ontario. 2019. Communal Kitchen space. Accessed September 3, 2023. <https://brookmcilroy.com/projects/roots-to-harvest-interior-renovation/>

With its programs, Roots to Harvest focuses on implementing a closed-loop food system that reduces the reliance on commercial grocery stores. As mentioned by dietitians, Pat Vanderkooy and Professor, Dr. Valerie Tarasuk's understanding of Household food insecurity, they highlighted the individual needs for food security. These needs for Household Food security are addressed by Roots to Harvest through the programming of commercial kitchens and gardens. The ability share recipes and allow individuals to have physical access to food is empowering. As a design precedent, Roots to Harvest is valued for its spatial programming and outreach to community members through youth and senior engagement, cultural kitchen events, and community food markets that supply locally harvested vegetables and fruits for residents.¹⁴¹ *RASOI* integrates both Western approaches to the design of kitchens that emphasize functionality and efficiency and a traditional Indigenous approach that revolves around shared community experiences and collaboration. An excellent introduction to this is illustrated through Roots to Harvest. This precedent illustrates key components of teaching kitchen operations which are implemented within *RASOI*. Elements such as mobile kitchen spaces with full-service operations to host team-building events, mobile carts with simple, portable cooking elements, and access to power. It is important the process of cooking that staff have multiple workstations and adequate storage. As seen in Figure 54, kitchen components are arranged flexibly in consideration of varying programs, such as collaborative events, like teaching kitchens or even assembly-based activities such as packaging the harvested foods. Appropriate materials such as stainless steel and linoleum ensure hygiene and ease of cleaning. The community center expands on the design of the commercial kitchen spaces with the understand of Indigenous foodways, mentioned in Chapter three.

¹⁴¹ "Kitchen."

4.3 Pasona Urban Farm



Figure 55: KONO Design, Pasona Group, Tokyo, Japan. 2013. Exterior View. Accessed September 3, 2023.
<https://konodesigns.com/urban-farm/>

Designer:	Kono Design
Client:	Pasona HQ
Location:	Tokyo, Japan
Sq/Ft:	215 000 Sq/Ft
Date:	2013

Pasona Urban Farm displays a unique combination of a corporate work environment and an urban farming space. Pasona is a Japanese recruitment company that houses an urban farming facility within a 215,000-square-foot corporate office.¹⁴² The green space takes up more than 43,000 square feet, which is 20% of the building and harvests more than 200 species of fruits, vegetables, and rice.¹⁴³ This food is prepared and served in the building's cafeteria space, which makes the operation a large farm-to-table project. In addition to maintaining the integrity of the original fifty-year old building, the architects at Kono Design upgraded the interior of the building to accommodate a vertical farming facility. Changes included updates to climate control systems and upgrades to lighting for grow rooms and office spaces.¹⁴⁴ While the benefits of these changes work to produce an energy efficient building, some users on the corporate floors criticized the building's climate control as it often keeps the spaces warmer than is comfortable for offices, and this is arguably its greatest weakness.¹⁴⁵

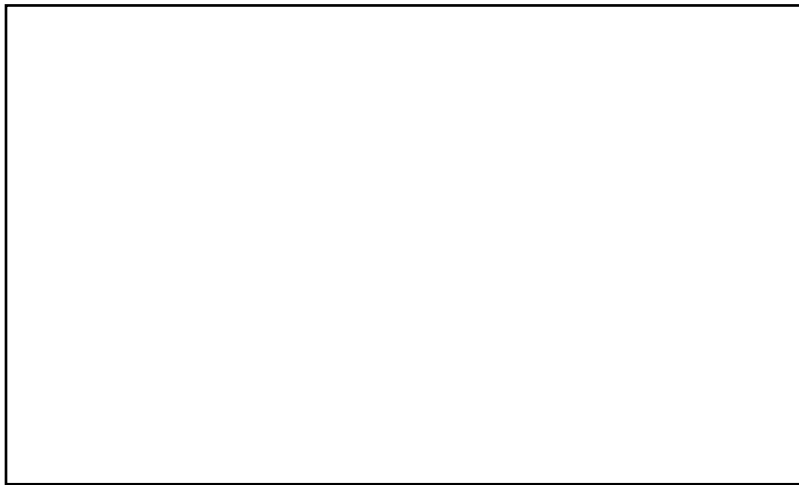


Figure 56. KONO Design, Pasona Group, Tokyo, Japan. 2013. Nursery area with integrated seating. Accessed September 3, 2023. <https://konodesigns.com/urban-farm/>

¹⁴² Kate Andrews, *Pasona Urban Farm by Kono Designs*, September 12, 2013, September 12, 2013, <https://www.dezeen.com/2013/09/12/pasona-urban-farm-by-kono-designs/>.

¹⁴³ "Pasona Urban Farm – Konodesigns," accessed July 2, 2023, <https://konodesigns.com/urban-farm/>.

¹⁴⁴ Lettow Studios, "Pasona Urban Farming," INSIDEflows, accessed November 19, 2023, <https://www.insideflows.org/project/pasona-urban-farming/>.

¹⁴⁵ Andrews, *Pasona Urban Farm by Kono Designs*.



Figure 57. KONO Design, Pasona Group, Tokyo, Japan. 2013. Diagram of areas to depict different areas for vertical farming stages. Accessed September 3, 2023. <https://www.insideflows.org/project/pasona-urban-farming/>

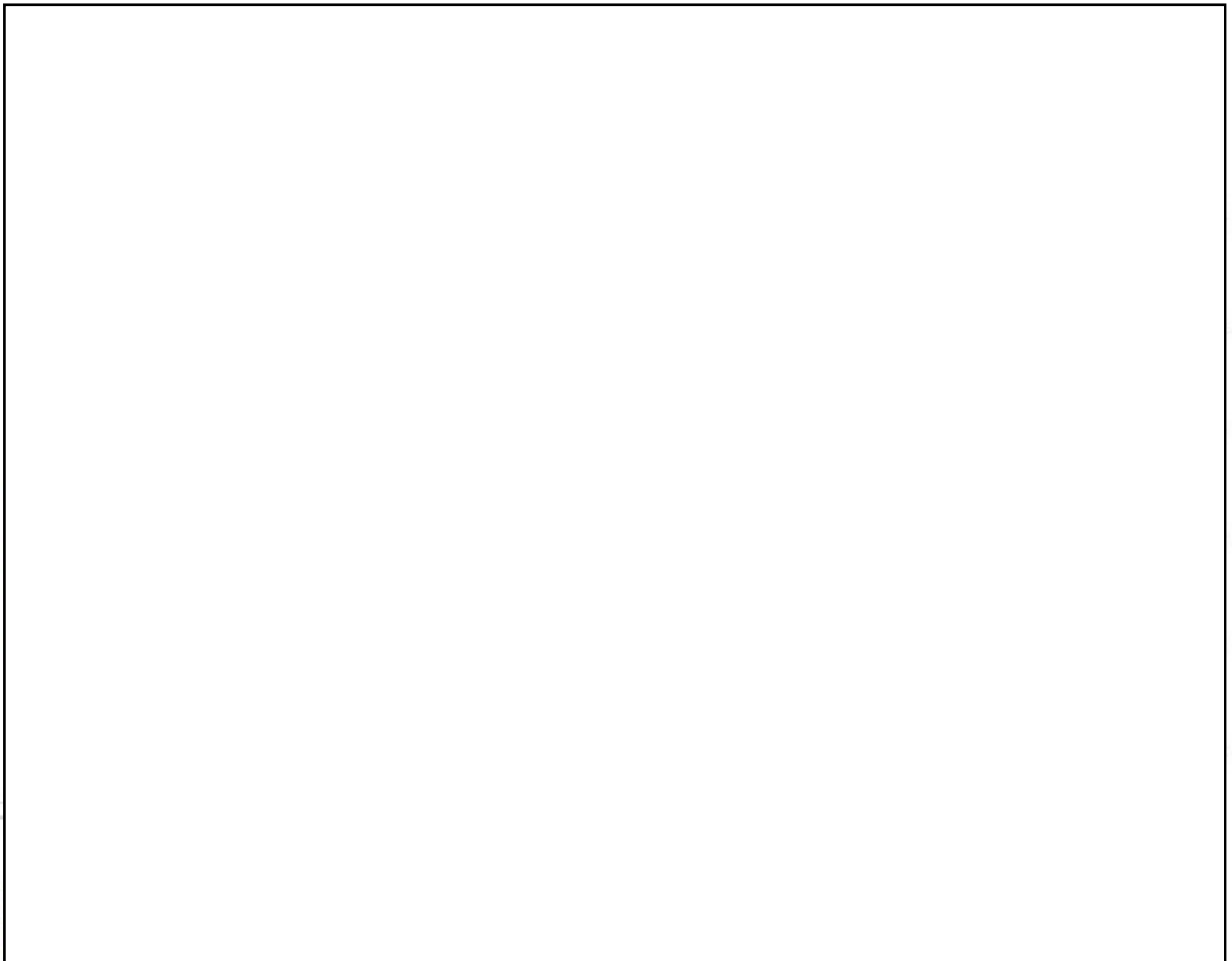


Figure 58. KONO Design, Pasona Group, Tokyo, Japan. 2013. Floor Plans depicting different types of farming space. Accessed September 3, 2023. <https://inhabitat.com/pasona-hq-is-an-urban-farm-that-grows-food-for-its-employees-in-tokyo/pasona-hq-kono-designs-14/>

By using both traditional soil mediums and hydroponic solution for growing plants, the architects delineate space to prevent cross-contamination between workspaces and growing spaces. As indicated by the floor plan (figure 58) the integration of distinct types of green spaces—nurseries, cultivation plots, and harvesting stations—is spread out among offices but primary growing spaces for nursing and cultivation are separated from each other for sanitary purposes as depicted in figure 59. The design of sterile areas for hygienic farming creates barriers, which is problematic in designing flexible spaces. *RASOI* addresses the sterility issue by incorporating clear panels which are sealed for transparency in barriers. Clear panels that function as dividers allow users to engage visually while also blocking off contaminants that are necessary for the growing process. For example, controlling visual transparency through opaque or transparent windows, designers can make spaces customisable to user needs. Figure 60 shows a vertical planter bordered with glass panels that are sealed from the top. The glass does two things: it protects the plants and lets people visual engage with the process of food production.

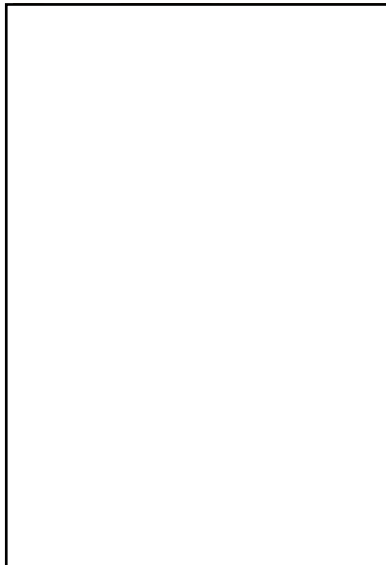


Figure 59. KONO Design, Pasona Group, Tokyo, Japan. 2013. Seeding trays integrated into seating. Accessed September 3, 2023. <https://konodesigns.com/urban-farm/>



Figure 60. KONO Design, Pasona Group, Tokyo, Japan. 2013. Cultivation area, bordered with glass for protection against contaminants. Accessed September 3, 2023. <https://konodesigns.com/urban-farm/>

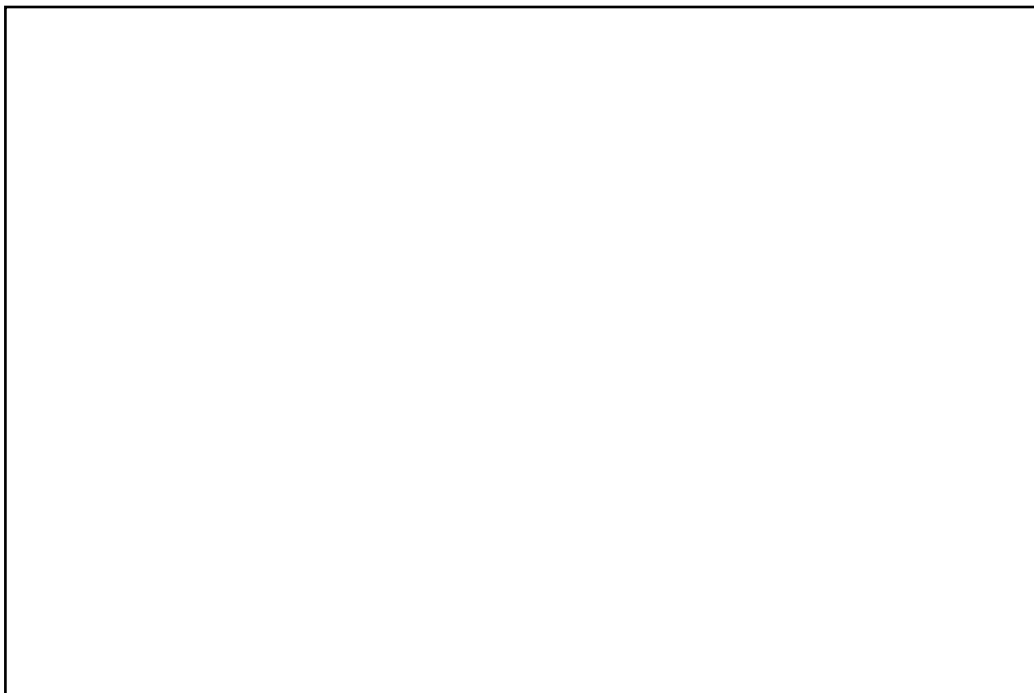


Figure 61. KONO Design, Pasona Group, Tokyo, Japan. 2013. Harvesting. Accessed September 3, 2023. <https://konodesigns.com/urban-farm/>



Figure 62. KONO Design, Pasona Group, Tokyo, Japan. 2013. Sterile cultivation area with LED grow lights. Accessed September 3, 2023. <https://konodesigns.com/urban-farm/>

This precedent supports community food security through the production of food. As mentioned by Professor Dr. Michele Kaiser the production of food enables agency within the community as members can control the food they can eat. Through vertical farming practices, urban foodways are integrated within the precedent. As observed by Pakravan, et al, the interior design of the building can better be understood through the stages involved within a hydroponic farming style. The programmatic and practical needs for the varying stages help to determine the flow of the space. For example, the needs of a germination stage require proper storage and potting of seeds. Figure 59 shows how Pason integrating this stage within the seating of their communal workspaces. Other stages such as cultivation require more attention and care with specific LED grow lights to encourage healthy growth for plants. As seen in figure 62, the cultivation stage requires more sterility to avoid contamination. The Pasona building employs adaptive reuse by inserting agricultural spaces into a corporate environment. This architectural insertion stimulates conversations between users of the space and balances the building's approach to feeding its employees through gardens and kitchen spaces. Pasona, in its sustainable approach to urban agriculture, offers a relevant precedent for *RASOI*. Its sustainable approach to urban agriculture and the high-tech feature of the space fully uses the building's capabilities. By cultivating food and returning it to the community, Pasona Urban Farm facilitates a closed-loop food system. The architects invite nature into the building's interior both with the act of growing food and through the aesthetic selection of earth tones such as beiges and browns that compliment the materiality in the space with the warm tones of the wood.

4.5 Summary and Conclusion

Project	Detail	Description	Relevance	Design Strategy and Design Implication
Neechi Commons	Winnipeg, MB 2013 Bridgeman Collaborative Architecture 28 000 sq ft	Grocery store	• Programming • embrace local Indigenous identity – strong narrative to the space. • use of adaptive reuse strategies • ability to provide economic opportunity to community. • strong connection to neighborhood • public market design • community kitchen	• consideration of Sustainable design strategies • Geothermal/skylights • Use of open space planning • Circulation – staircase • Recycled materials • Idea of transparency through program of space and views • Pattern color texture to highlight local Indigenous identity.
Pasona Urban Farm	Tokyo, Japan Kono Design 2013 215 000 sq ft	Office/Urban Farm	• integration of agriculture within urban spaces - successful approach to vertical farming interior. • Limitations of the project • Net loss with heating.	• Sustainability –nature inspired interiors through selection to earth tones • Merging of rural and urban environments • Adaptive reuse strategy of Insertion through implementing vertical gardens in workspaces. • Practical consideration to vertical farming – such as spatial planning and specification in lighting and climate control systems • Consideration of barriers between cultivation and workspaces to prevent cross contamination. • Flexibility of interior space interior partition and visual transparency
Roots to Harvest	Thunder Bay, Ontario Brook McIlroy Architecture 2019 2, 500 sq ft	Community Food center	• Community kitchen – layout and requirements for efficiency	• Flexibility of space – able to adapt to user needs. • Responsive to user needs through transitional spaces of curtain walls to expand or contract spaces. • Transparency between spaces – ability to easily access spaces and be invited to participate. • Universal washrooms • Kitchen materiality – ease in cleaning • Functionality of kitchen space – mobile carts- electrical

Figure 63. Precedent Summary.

The precedents studied in this chapter provide insight into the design, programming and arrangement of production, distribution, and consumption spaces. Each precedent sheds light on design theories explored in chapter three, particularly emphasizing the incorporation of flexible, responsible, and sustainable design principles within *RASOI*.

Neechi Commons' significance is rooted in community values displayed through its connection to local Indigenous farmers, artists, and community members. The spaces give a notable example of spatial planning and demonstrate a thoughtful integration of sustainable design strategies, incorporating elements such as geothermal systems, skylights for natural lighting, and recycled materials. The consideration of circulation through the spiral staircase contributes to the seamless flow and accessibility within the spaces. An intentional use of pattern, color, and texture is employed to highlight and celebrate the local Indigenous identity, creating a culturally resonant atmosphere within these community-oriented spaces.

Roots to Harvest is favoured for its adaptable spaces, emphasized by the project's responsiveness to user requirements. This is achieved through the incorporation of transitional spaces with adjustable glass dividers, allowing for the expansion or contraction of areas as needed. Transparency between spaces is prioritized, facilitating easy access and inviting active participation within the community. The inclusion of universal washrooms ensures inclusivity and accessibility for all users. Additionally, the choice of kitchen materiality focuses on ease of cleaning, promoting hygiene and practicality. The kitchen space's functionality is enhanced through mobile carts and electrical considerations, contributing to a dynamic and efficient culinary environment.

Lastly, Pasona Urban Farm in Tokyo is admired for its architectural strategies to blend agricultural production spaces and corporate work areas. Through adaptive reuse strategies, the implementation of vertical gardens in workspaces displays a creative approach to repurposing the office space and enhancing the aesthetic appeal of the interior. Practical considerations for vertical farming are shown through the spatial planning and specifications for lighting and climate control systems, ensuring the viability of agricultural practices within the given spaces. Additionally, the projects prioritize hygiene by incorporating barriers between cultivation areas and workspaces, effectively preventing cross-contamination. The flexibility of interior space is emphasized through well-thought-out partitioning and visual transparency, promoting adaptability and a dynamic use of the spaces. Overall, all three precedent projects reinforce a closed-loop cycle to food production through the spaces' programming and inform the design of *RASOI*.

Chapter 5: Design Application

5.0 Introduction

The following chapter outlines the proposed design application for *RASOI*, synthesized from the literature review, precedent studies, and site exploration analyses. These sources illuminated localized needs, diverse approaches to food production, consumption, and distribution, as well as theories and concepts for crafting sustainable, flexible, and responsive spaces. As the last chapter within my document, the chapter will inform the evolution of the design through two key elements, a discussion of the practicum's limitations and the programme overview, including user analysis, spatial diagramming, and concepts. The evolution of the design will guide the reader towards preliminary sketches and narrative collages which aid in the understanding and application of previously discussed spatial and design implications within the interior environment of *RASOI*. This information will be used to inform the overall design to a much more fluid approach. The result is a strategy that focuses the most secure needs within defined clusters of contact zones which radiates outwards to create spaces for resilience, capacity building and gathering that weave amongst each other.

5.1 Limitations of Practicum

This practicum hypothetically addresses problems related to food sovereignty and has four limitations. First is the scope of the practicum project itself. *Food Sovereignty* is a complex issue that requires more than one community food center to respond to the environmental, cultural, and financial issues of Point Douglas. Acknowledging the root cause of food sovereignty as food insecurity is essential. According to health management and policy researchers, food insecurity is a governmental problem created by the inequitable distribution of

economic resources.¹ For *RASOI*, designing a community food center implements solutions specific to the capabilities that an interior designer may provide. Solutions presented range from spatial specific to client needs to interior design strategies for urban food production concerning traditional Indigenous customs. These strategies also look to implement specific interior systems for food production.

The second limitation includes constraints around the building. The building plans acquired by Cibinel Architecture, which was responsible for redesigning the space, did not include structural columns or ceiling heights. As the owner of the building was not available, access to the physical space was denied. Only two interior images were found from a news article and a realtor's website. The columns and any structural support were estimated from those two images, as well as the positioning of exterior windows and information gathered on the building's renovation history.

The third limitation recognizes the highly diverse group of users occupying the space and considers their cultures, beliefs, experiences, and needs. For this project, my primary focus is on Canadian Indigenous individuals of Anishinaabe descent, reflecting the predominant demographic of Point Douglas. I also integrate my personal experiences into the project by incorporating cultural perspectives from India, specifically a Kashmiri Sikh viewpoint. Additionally, I take into account the Filipino community, the second-largest group in Point Douglas. While this approach may not be entirely precise, these three locations offer sufficient diversity and scope to anticipate and address the multifaceted cultural dynamics and user requirements that will arise throughout the project.

¹ Zsofia Mendly-Zambo and Dennis Raphael, "Competing Discourses of Household Food Insecurity in Canada," *Social Policy and Society* 18, no. 4 (October 2019): 543, <https://doi.org/10.1017/S1474746418000428>.

Lastly, a need for more communication with interested parties limits the project. While there is personal communication with Canadian Indigenous members and scholars, formal interviews or data were not created.

5.2 Design Programme

The following section outlines the proposed design program for *RASOI*. User profiles are provided, summarizing the users and highlighting their individual needs. A list of required spaces and programmatic activities for inclusion in the project, along with their corresponding functional and aesthetic requirements, is outlined, followed by zoning diagrams to visually communicate the spatial relationships of the included activities. Unless otherwise specified, the term "zone" in subsequent chapters refers to areas designated or segregated based on their function or use, within the context of interior design.

5.2.1 Client and user profile

Programming processes of *RASOI* begins with an introduction to both the hypothetical client, [Name of Client], and the primary project funder, [Name of Funder]. The client and user profile breaks down the three user types: primary, secondary and tertiary. Each category suggest potential building users, which include *RASOI* guests, staff and visitors. Goals and objectives relevant to a successful outcome of this practicum project are highlighted and considered. ensuring that the space adequately addresses their requirements.

Primary User	▪ Non for Profit /organization employees - Managing Staff • Front of house ○ Receptionist ○ Community center manager/Financial coordinator/Grant writer, social media manager • Back of house ○ Gardening specialist ○ Vertical farming specialist/operators ○ Community kitchen educators ○ Market managers – distribution center ▪ Point Douglas Community Members ▪ Group Visitors: • Student groups
Secondary User	▪ Board of directors ▪ Food Market patrons ▪ Community kitchen patrons ▪ Gallery patrons
Tertiary User	▪ Shipping and delivery ▪ Maintenance ▪ Janitorial staff ▪ Technology specialist

Figure 64 : User grouping

USERS	ACTIVITIES	NEEDS
Community Center/Financial Coordinator. Grant writer, social media manager	- Daily use - Oversee management of facility functions - Typical computer based skills	- Office – privacy for meetings - Personal Storage - Focused environment - Staff lounge and kitchenette
Receptionist	- Daily use - Greet guests and members - Take calls - Answer Emails and make appointments	- Personal or paper storage - Desk with computer and phone
Members	- Daily – Weekly Use - Community membership and receive notifications for volunteer opportunities/ Workshops. Event setups	- Personal storage - Workrooms - Lounge
Gardening specialist	- Daily use - Oversee management of facility functions - Typical computer based skills	- Gardening equipment storage - Sanitation stations - Plumbing
Vertical Farming Specialist	- Daily use - Technical coding skills - Operate hydroponic grow rooms - Responsible for growth schedule and managing employee shifts	- Sanitation stations - Semi private for meeting and scheduling needs
Community Kitchen Educators	- Daily – Weekly Use - In charge of managing harvested food stocks grown within the cultivation spaces. - Managing culinary teaching workshops - Cooking - Growing herbs	- Storage - Food storage/ personal storage - Semi private office - Kitchen
Student Groups	- Daily use - Meet organizers - Participate in cultural food preparation workshops - Visit cultivation spaces	- Multi purpose space - Coat racks - Wayfinding

Figure 65 : Primary Users

Secondary Users

USERS	ACTIVITIES	NEEDS
Board of Directors	- Once a month meetings - Oversee management of facility - Typical computer based skills - Meets once a month	- Board room for meetings
Food Market Patron	- Daily use - Purchase or donate food	- Shopping baskets - Check out station
Dining Patron	- Daily use - Purchase drinks or food - Lounge and socialize or work	- Seating - Tables - Outlets
Gallery Patron	- Bi weekly use - View artwork and walk around the space	- Wayfinding

Figure 66 : Secondary Users

Tertiary Users

USERS	ACTIVITIES	NEEDS
Shipping and Delivery	- Delivering equipment/ food/ other supplies	- Easy access between loading and storage spaces
Technical Specialist	- Check vertical farming machinery and fix any technical difficulties which may arise	
Maintenance and Janitorial	- Clean spaces depending on frequency of use – first floor bi-weekly	- Cleaning supply closet with sink and additional chemical storage

Figure 67: Tertiary Users

5.2.2 Spatial Requirements and Zoning

Following an exploration of activities and user analysis across primary, secondary, and tertiary user groups, RASOI will incorporate three activity zones. Before classifying these zones, a photography study was conducted to understand how to integrate natural elements from Winnipeg into the design. The collage of images highlighted three natural elements: water, fire, and earth.

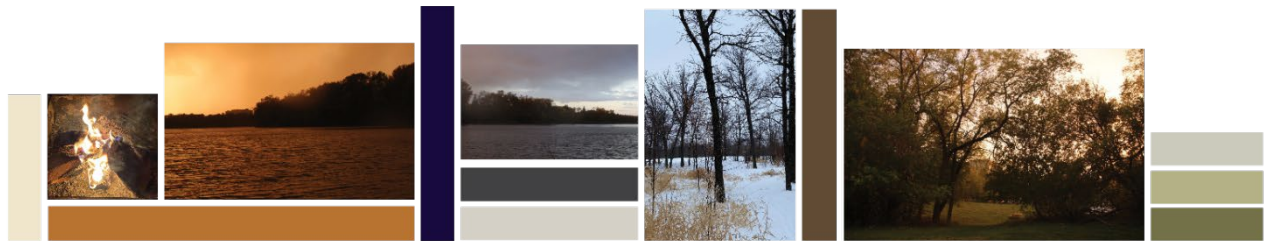


Figure 68: Winnipeg Landscape Collage

WATER: Reflection zones, outlined in the color dark blue are encouraged to allow users to pause and contemplate their experience within the space. These areas may include informal lounging spaces such as cafes, or more formal areas for analytical conversations such as boardrooms.

- Lounge
- Dining space -feasting
- Market
- Gallery
- Meeting room

FIRE: These spaces are outlined in the color orange and support Canadian Indigenous food sovereignty through traditional food practices and ceremonial spaces where users are seen and respected. More private areas may be classified as offices or public gathering areas for community support.

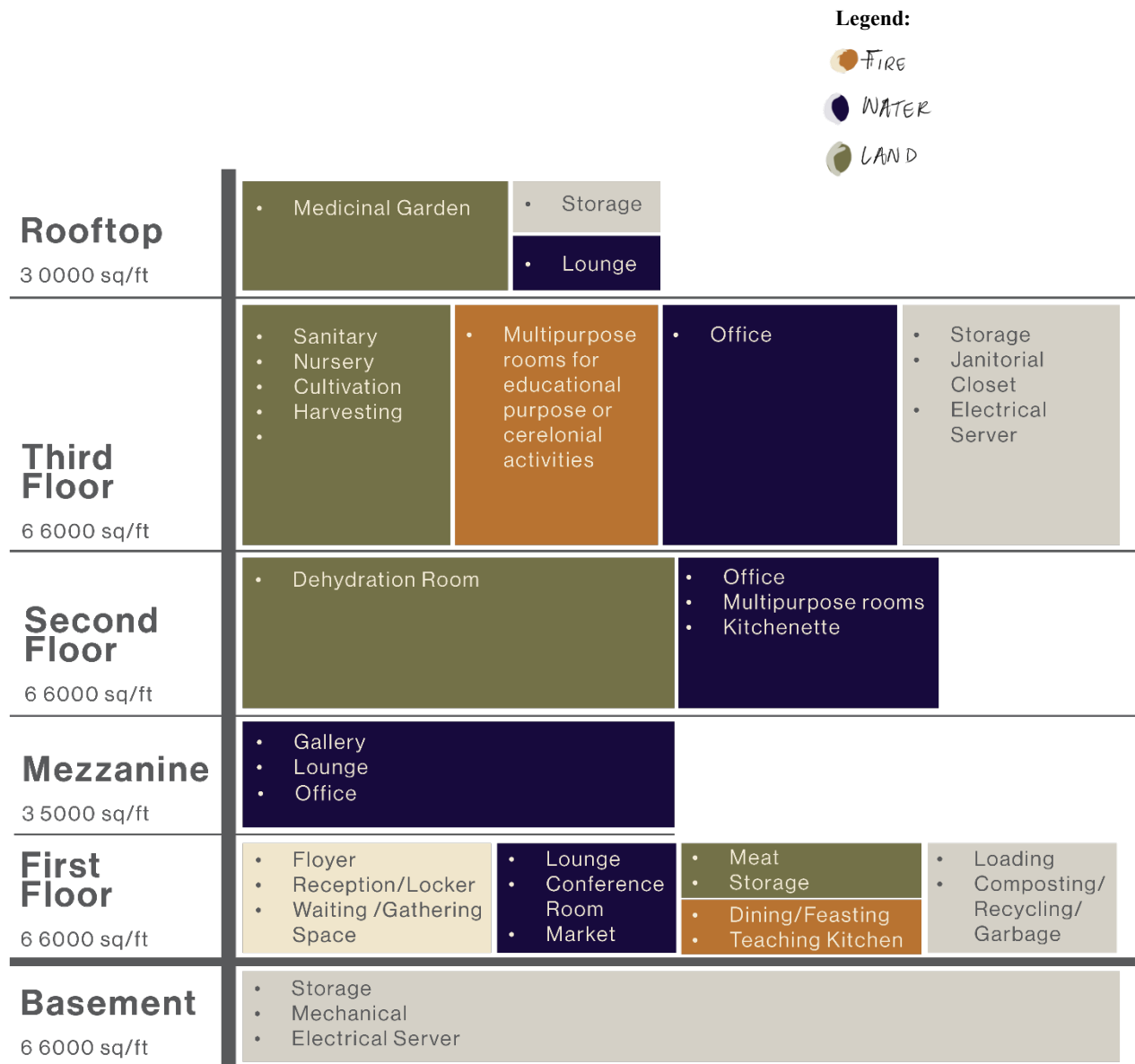
- Dining space- feasting
- Community kitchens
- Staff office
- Multi purpose rooms for educational purpose or ceremonial activities

LAND: This zone encompasses areas that inspire growth and knowledge and are outlined in the color green. Through educational opportunities such as participating in indoor or outdoor gardening, members can grow their own food. Many of these spaces are classified as semi-private and involve membership for participation

- Vertical farming production spaces
 - Sanitary
 - Nursery
 - Cultivation
 - Harvesting
- Green house
 - Medicine Garden
- Community kitchen
- Dehydration rooms – traditional processing
- Greenhouse and Medicinal Garden

Additionally, there are welcome and ancillary zones. Welcome zones engage and organize members or visitors of the community food center before entering the space or an event. These spaces include a foyer, reception area, waiting and meet-up area/gathering space, and locker storage. Ancillary zones encompass all back-of-house spaces critical to the flow and execution of programming, such as storage, janitorial closet, mechanical and electrical server rooms, security room, offices, loading area, composting, recycling, and garbage facilities.

Stacking Diagram



STACKING DIAGRAM

Figure 69: Stacking Diagram

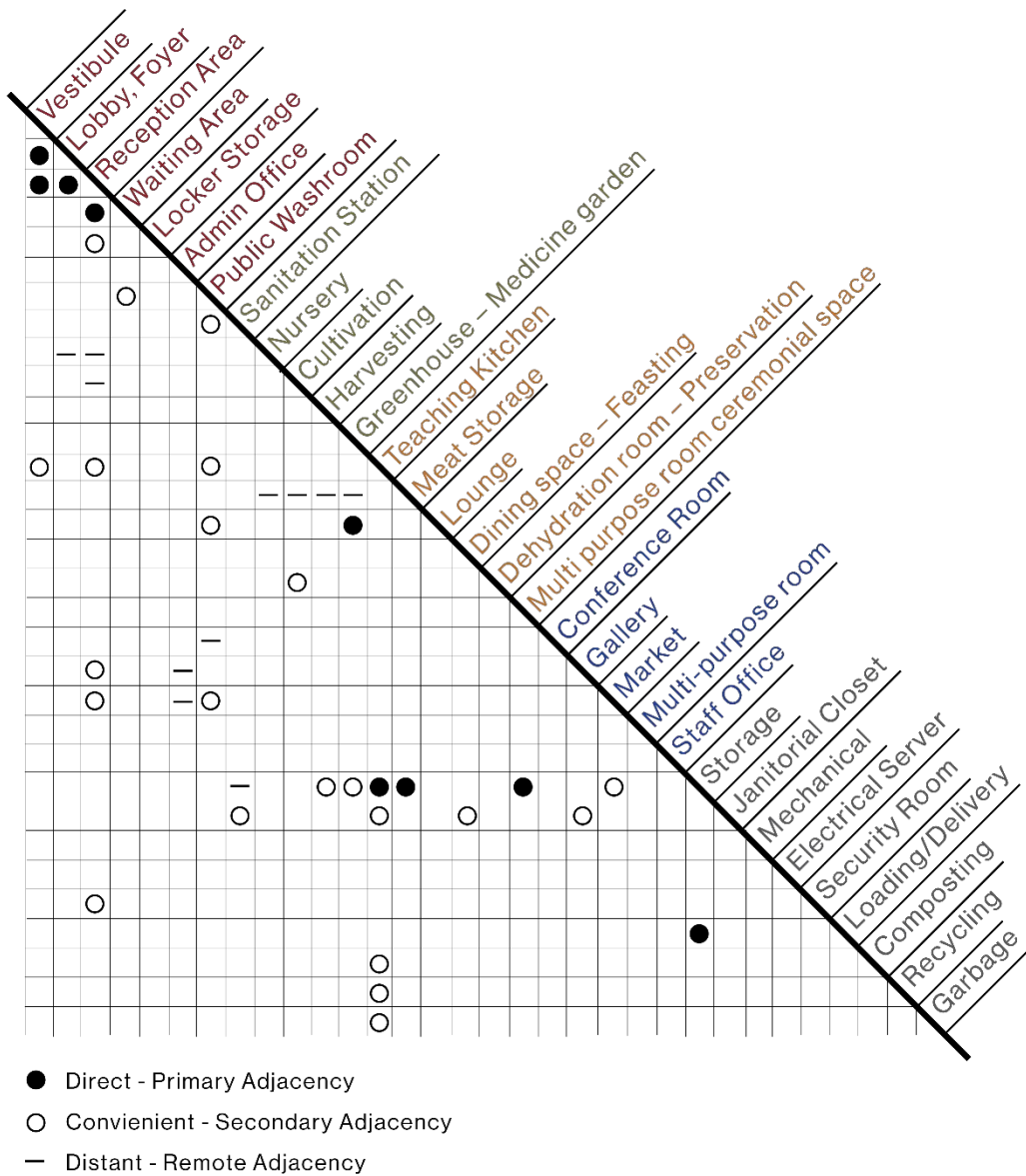
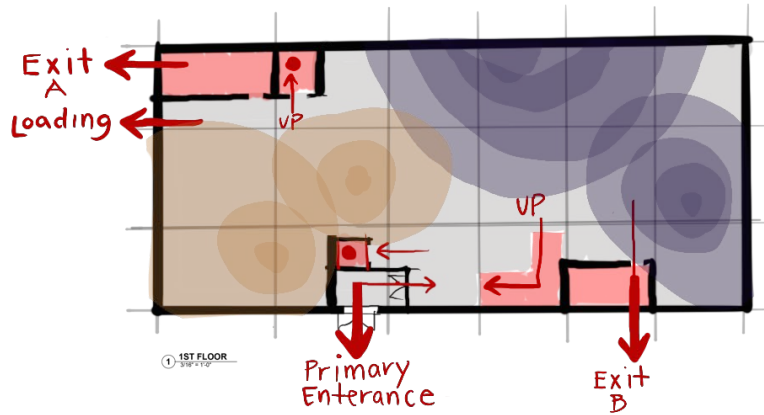


Figure 70: Adjacency Matrix



- FIRE
- WATER
- LAND
- ↑ entrance

Figure 71. First Floor. NTS.
Bubble diagram

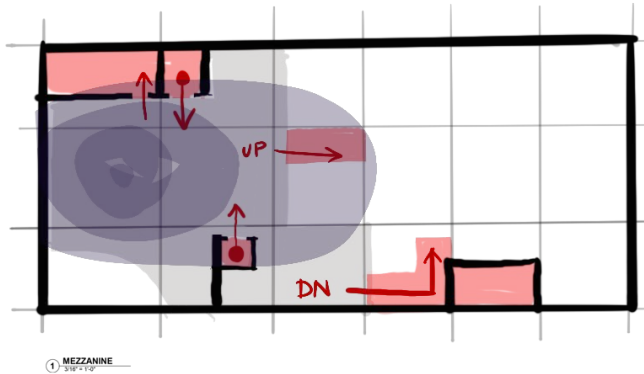


Figure 72. Mezzanine Floor.
NTS. Bubble diagram

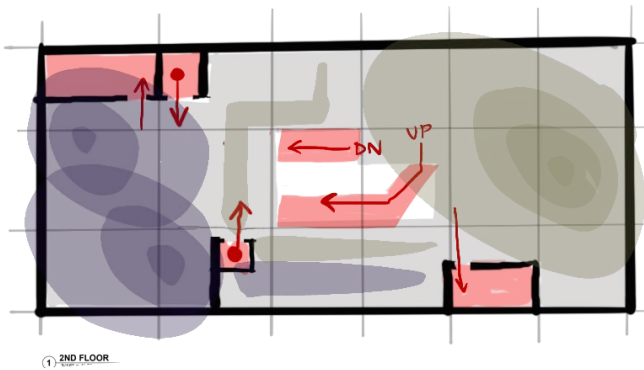


Figure 73. Second Floor. NTS.
Bubble diagram

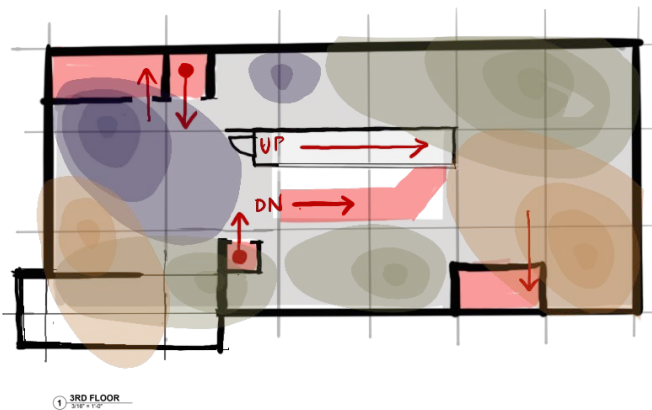


Figure 74. Third Floor. NTS.
Bubble diagram

Space	Sq Ft	Privacy Level	Function	Atmosphere	Verbs	FF&E	Additional Notes
Lobby, Foyer	75	Public	Receives employees, members and visitors	- Welcome - Warm - inviting	- appear - assemble - observe	- Walk off mat	
Reception Area	150	Public	Welcomes guests, transition space	- Welcome - warm - inviting	- observe - discover - wait - sit - inform - gather	- Work surface - task seating - soft seating - mail boxes - feature wall with welcome signage	
Locker Storage	200	Semi-Private	Storage for employee personal items	- Secure	- Store	- Key locks	
Admin Office	150	Private	Focused individual work, meetings		- Teach - Learn - Discover - Sit - Organize - Plan	- Desk - Task seating - Storage	
Public washroom		Private	Gender Neutral Washrooms Universal W/C	- Clean - Secure - Accessible - Hygienic	- Clean	- Toilets - Mirror/Sink/faucet/soap - Changing table - Paper towel/Hand dryer - Garbage - Grab bars	
Lounge	500 X 2 = 1000	Public	Relaxing and moment of pause	- Warm - Welcoming	- Reflect	- Soft seating - Planters - Sheer curtains	
Dining space Feasting	700	Public	Socializing, eating, drinking, for visitors and staff	- Warm - Welcoming - Communal activities	- feed - share - observe - gather - listen - laugh	- Large seating - Guest seating	
Meeting room	400	Semi Private	Group meetings and presentations	- Warm - Neutral - Focus-ed	- inform - learn - teach - communicate - present	- Printer - Projector - Whiteboard - Conference desk with power - Task seating - Storage	

Figure 75: Programme details. Pt 1

Space	Sq Ft	Privacy Level	Function	Atmosphere	Verbs	FF&E	Additional Notes
Vertical Farming Sanitation station	200	Private	Clean - Store supplies and equipment	- Hygienic - Warm	- Communicate - Report - Coordinate - Clean - close	- cleaning mat upon entry - desk - closet space - cleaning supply - sink - LED lighting	- Smudging may take place
Vertical Farming Nursery	400	Private	Grow - Area for plotting seeds	- Focus	- grow - check - compare - assemble - transport	- transportation trays - gloves - carts - desk - LED lighting	
Vertical Farming Cultivation	500	Private	Growing leafy greens and berries	- Focus	- Grow - Move - Inspect - Maintain	- Fatigue mats – easy to clean - LED lights (blue and purple to encourage growth) - Rubber mats - PVC interlocking panels - LED lighting - Water tanks	- Water resistance materials - Electro-chromic glazing
Vertical Farming Harvesting	800	Semi-Public	Extract foods from cultivation area and organize for distribution	- Focus - Spacious	- Extract - Inspect - Manage - Transport - Gather	- Baskets - Carts for transportation - Packaging area - LED lighting	- Smudging
Greenhouse medicine garden	1000	Public	Grow	- Welcoming - Calm - Fresh	- Identify - Teach - Transport - Lounge - Maintain	- Plots with different herbs and vegetables - Garden boxes - Patio furniture - LED lighting - Water resistance materials	
Community Kitchen	800	Public	Space to gather and cook meals together Area to share cultural food recipes and preservation methods. Growing herbs	- Inviting, - Accessible - Lively - durable	- experiment - encourage - eat/taste/feed - follow - hang - clean - collect/share - assemble - watch	- Fridge, freezer, oven, cooktops, sinks, dishwashers, food and dishware storage - Slip resistant flooring - Fatigue mats - Low height seating - LED dimmable lighting - Firepit - Planters	- Smudging

Figure 76: Programme details. Pt 2

Space	Sq ft	Privacy Level	Function	Atmosphere	Verbs	FF&E	Additional Notes
Gallery	500	Public	Socialize and view work and have interactive displays to inform	- Spacious - Focus lighting - Gentle	- Observe - Inform - Share - Interactive - hang - explore	- Interactive touch screen displays - Track lighting - Podium display for cultural artifacts	
Market	600	Public	Display foods produced from the area and share with visitors	- Spacious	- Give - Provide - Share	- Checkout station - Racks for food display - Mobile display carts - Metal grids for hanging foods.	- Adjustable walls
Multi-purpose room	500 X 2 = 1000	Public	Adjustable space for varying activities	- Spacious	- Interactive - Explore - Assemble - Collaborate - Laugh - Listen	- Projector and screen - Task seating - Acoustic lighting - Sheer and acoustic curtains for separation and privacy	
Staff office	150 X 3 = 450	Semi private	Office for focus work and meetings	- Focus lighting	- Inform - Help - Manage - Listen - Learn	- Task chair - Desk with return - Guest seating - Storage - File cabinet - Soft seating - White board	
Dehydration room preservation	400	Public	Rooms to practice traditional practices of dehydration	- Inviting - warm	- Move - Hang - Store - Learn - Mix - Wash	- Racks for hanging - Vertical storage for preservation - Sink for cleaning - Specific heating req - Dehydration ovens	- Smudging
Multi purpose room	500	Public	Space for gathering	- Warm, neutral, inviting, comfy	- Learn - Observe - Sit - Reflect	- Soft seating - Circular arrangement - Modular furniture - Flip tables - Space saving racks - White board	- Smudging

Figure 77: Programme details. Pt 3

Space	Sq ft	Privacy Level	Function	Atmosphere	Verb	FF&E	Notes
Food Storage	300 x 2 = 600	Private	Space to store excess food	Secure	- Move - store	- Racks - Freezer - fridge	
Equipment Storage	300	Semi Private	Space to store excess goods or equipment	Secure			
Supply Storage	300	Semi Private		Secure			
Janitorial closet	50 x 4 = 200	Private	Storage for cleaning supplies and custodial duties	Secure, clean	- Wash	- Sink, soap dispenser, - hooks, mop, - vertical shelving	
Mechanical	100	Private	Storage for Mechanical equipment	Secure	- Close		
Electrical server	100	Private	Storage for electrical equipment	Secure			
Security room	50	Private	surveillance room with security video	Secure	- Sit - Observe	- Computers - Desk - Task Chair	
Loading delivery	100	Semi private	Route for delivered foods, equipment, or supplies	Clean, secure, accessible	- Move	- Dolly	
Composting Recycling Garbage	150	Private	Storage for garbage, recycling, and compost	Clean, secure	- Transport - Sort - Clean	Waste, recycling and compost receptacles	

Figure 78: Programme details. Pt 4

5.3 Design Concepts and Process

The design concept for *RASOI* incorporates design theories and concepts explored in chapter three, embracing a two-eyed seeing approach to spatial and design implication within *RASOI*. Consequently, I determined that the design should prioritize sustainability, responsiveness, and flexibility, with a critical consideration of incorporating natural elements into the space. From this, I also drew inspiration from my personal traditional Kashmiri background, as well as from Western and Canadian Indigenous culinary experiences, which have been enriched through dialogues with Anishinaabe design professionals and elders. Initially, the design was shaped by a visual exploration of the flow within both traditional Indian kitchens and Western kitchens

Figure 80 illustrates the influence of my Nani's kitchen in Srinagar, Kashmir, capturing a broader movement and providing ample spaces for pauses, including a raised platform for communal gatherings. Meanwhile, Figure 79 showcases the narrative of the Western kitchen, emphasizing perceived and functional movements geared towards efficiency. Through a harmonious fusion of these influences, as depicted in Figure 81, the design integrates communal seating arrangements conducive to group activities, layered with efficient kitchen appliance specifications.

Kitchen #1

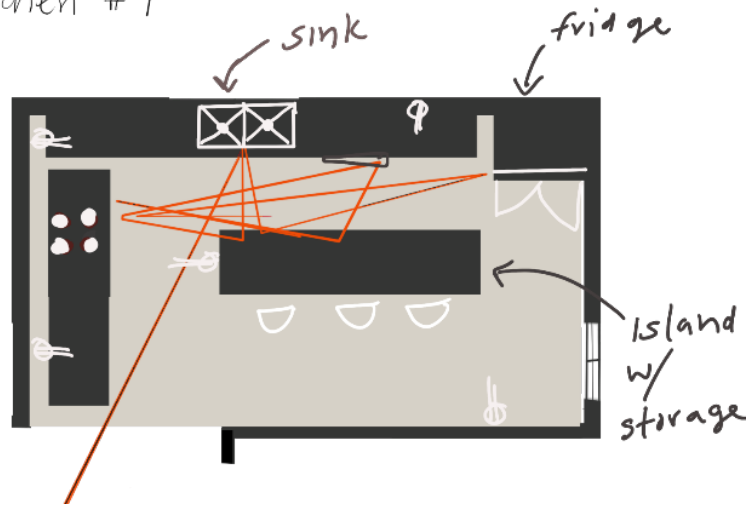


Figure 79: Western Kitchen. Floorplan. Winnipeg, Manitoba

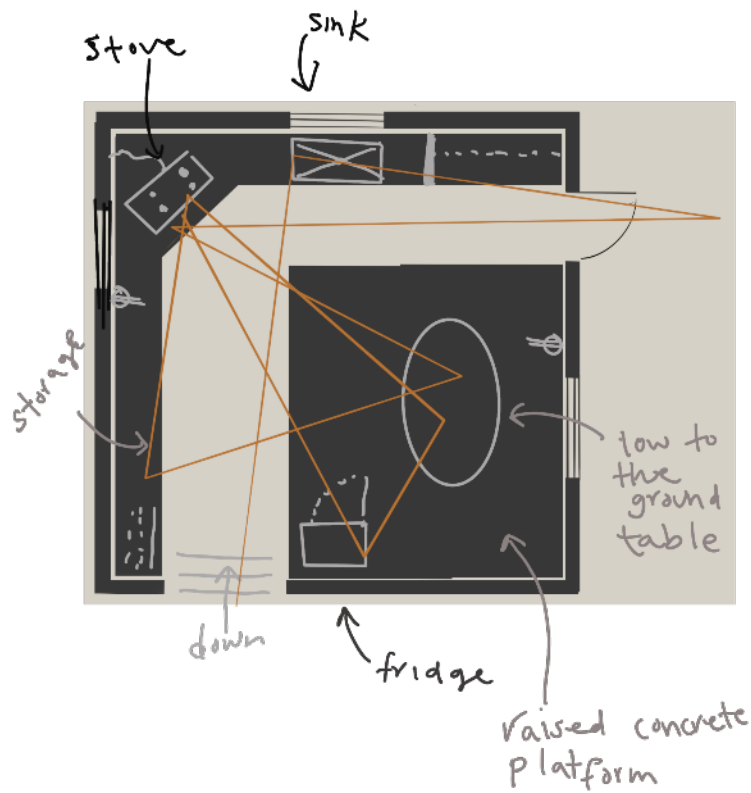


Figure 80: Nani's Kitchen. Floorplan. Srinagar, Kashmir

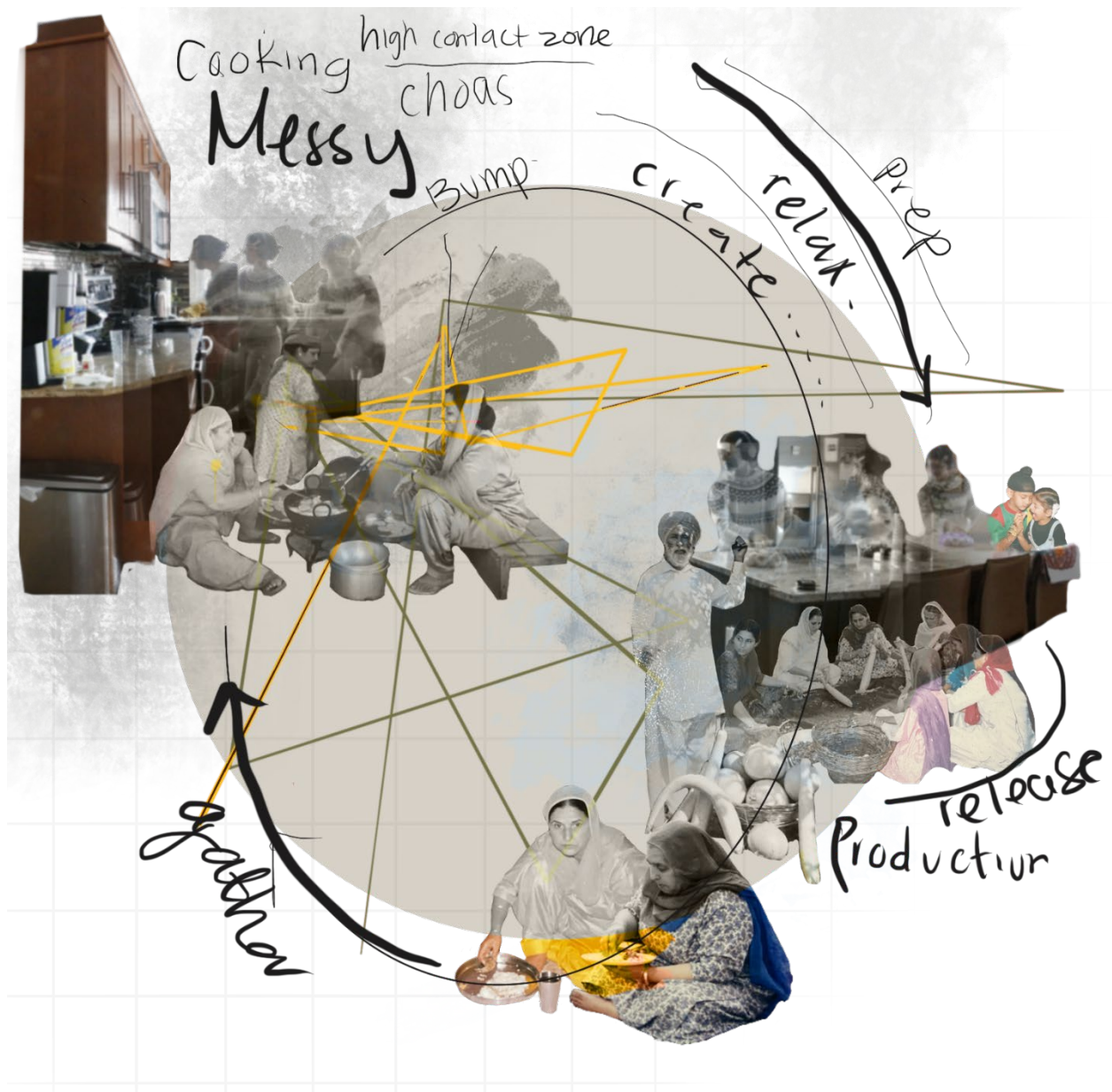


Figure 81: Cooking Collage



Figure 82. Winnipeg Landscapes Drawing 1

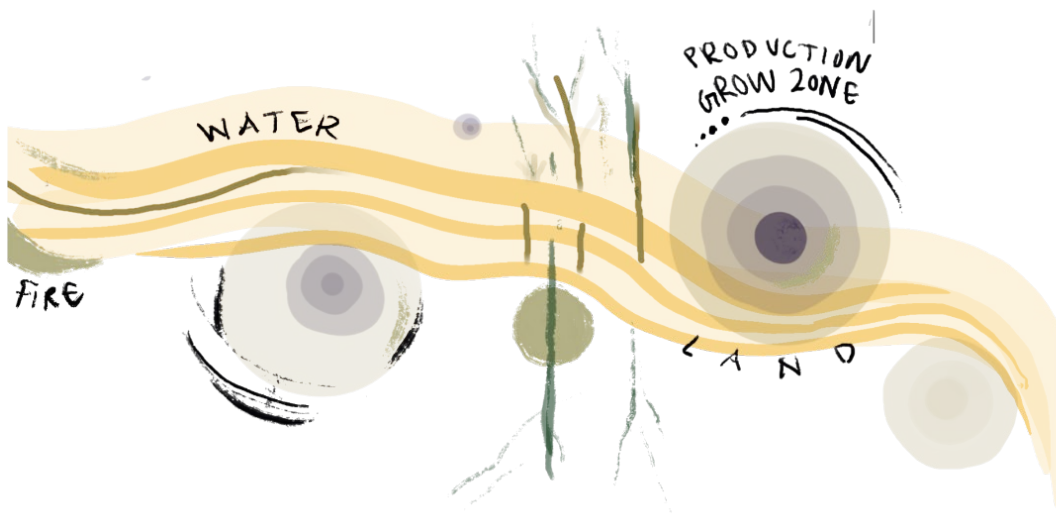


Figure 83: Winnipeg Landscapes Drawing 2

The design outcome prioritize the narrative of *RASOI* and the integration of Winnipeg's natural environment into the design. While historical narrative was acknowledged, the focus shifted towards crafting my own story, particularly emphasizing the interaction between vertical farming spaces and social hubs like community kitchens, within the urban landscape of 814 Main Street.

Initially, I drew inspiration directly from photographs of Winnipeg, highlighting natural elements such as fire, water, and earth, as seen in Figure 82. Observing the seasonal shifts and their impact on these elements provided valuable insights into the materiality of the space. For instance, the transition of water from summer to winter months offered various options for texture and opacity in potential glazing choices for *RASOI*. By playing with such transparency, I aimed to authentically incorporate natural elements into the space, moving beyond viewing water as a singular liquid form. Moreover, the choice to experiment with the opacity of materials also facilitated the implementation of spatial implications, allowing for the design of spaces with visual transparency to foster flexibility in contact zones.

As I overlaid sketches onto collages of the Winnipeg landscape, organic forms emerged, reinforcing the concept of radiating elements similar to Pratt's interpretation of contact zones. These initial sketches guided me towards developing narrative collages of the space, considering functional elements like water closets, emergency exits, and elevators. Zoning diagrams, supplemented with graphic cutouts and descriptive words, were employed to convey the daily routines of the spaces. Notably, narrative collages were focused on the first floor, third floor, and rooftop garden, as these areas best showcased the spatial and design implications, particularly highlighting community kitchens and food production zones.

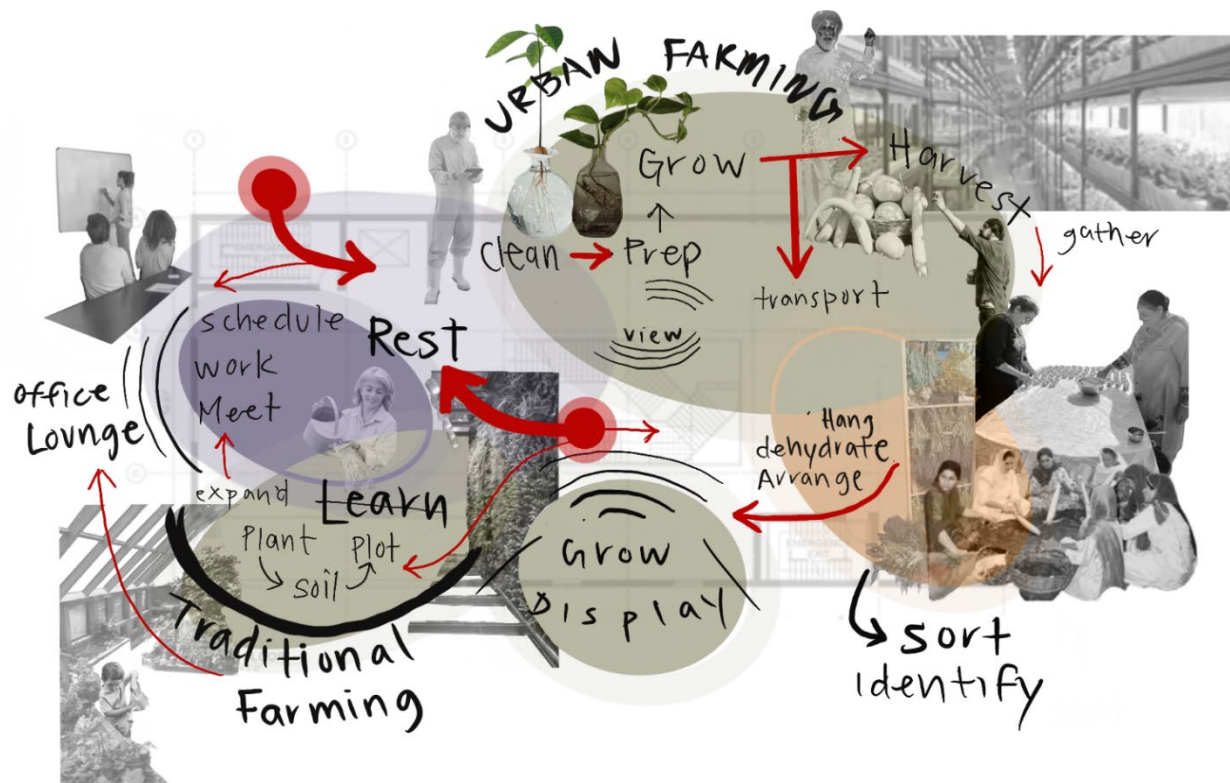


Figure 85: Third Floor. Narrative Collage

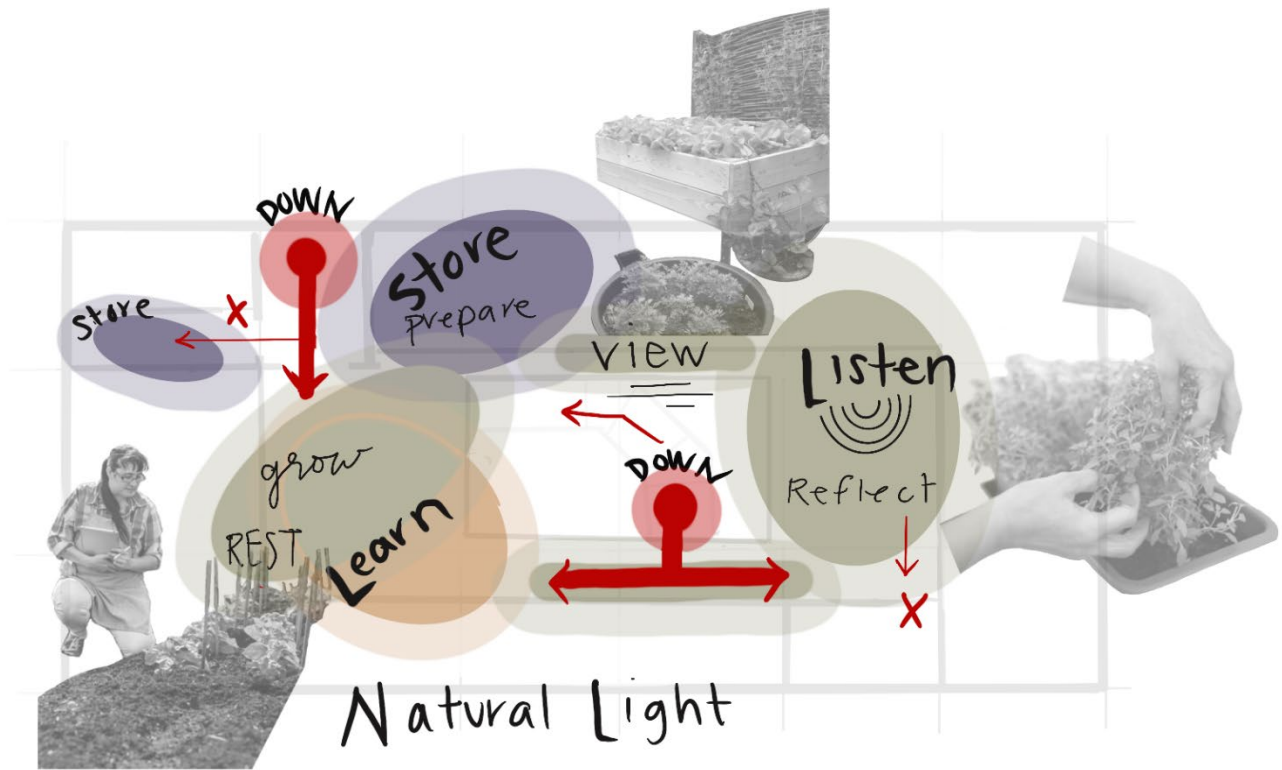


Figure 86: Rooftop Floor. Narrative Collage

Figure 84 displays a narrative collage for the first floor. The first floor encompasses welcome and ancillary zones designed to greet members into the space. The majority of the area is dedicated to fire and water zones, with radiating colors symbolizing the spaces' adaptability to different program requirements. The fire zones depicted in the color orange, support Canadian Indigenous food sovereignty through traditional food practices and ceremonial spaces, where users are respected and engaged in community-led activities such as teaching kitchens and areas for sharing food through feasts. Recognizing the significance of meat in foodways, despite the initial focus on supplying leafy greens, I advocate for the inclusion of a dedicated space for meat preparation, reflecting the importance of meat in traditional food cultures. Water zones, depicted in a dark blue, is the second largest zones on the first floor, encourage reflection on personal experiences. The public nature of the first floor includes programmed markets for easy distribution of food produced in production spaces, as well as a gallery space for visualizing traditional food knowledge and expressing cultural artistry. The narrative collage evokes fluidity through gentle transitions, meandering paths, and clusters of gathering spaces.

Figure 85 presents a narrative collage for the third floor, highlighting its capacity for food production. The semi-private nature of these activities designates the third floor for land zones, depicted in the color green. These spaces incorporate urban production concepts informed by writings by Sarvenaz Pakravan, et al., and smart farm operations in Opaskwayak Cree Nation. While individuals using the third floor select Anishinaabe crops and involve community members in planting, tending, and harvesting gardens as a way to reconnect with traditional food sources, the urban agricultural features of the spaces initially illustrate a somewhat commercialized perspective on food production. However, this collage prompted me to integrate more intentional forms of food production that place a higher value on land-based methods. One

approach to achieving this is to incorporate fire zones in orange, supporting Canadian Indigenous food sovereignty through traditional food practices and ceremonial spaces. Additionally, specific multi-purpose rooms can be designated for practicing food preservation techniques such as dehydration, smoking, or fermenting, passing down essential knowledge to future generations. Educational spaces are also crucial in sharing knowledge-based programs for wild food foraging, teaching community members how to ethically and sustainably gather foods like wild rice, berries, and medicinal plants. These trips are often led by knowledgeable elders or experts. Overall, the role of food preservation and revitalization within Canadian Anishinaabe Indigenous food traditions involves a combination of cultural, educational, and practical initiatives, ensuring the preservation and continuation of these valuable traditions for generations to come.

Figure 86 displays a narrative collage for the Rooftop extension. Drawing from insights on land-based knowledge, the rooftop features a greenhouse with a medicinal garden. This garden establishes a direct connection to supporting Canadian Indigenous food sovereignty by enabling members to participate in planting, tending, and harvesting. The selection of plants serves to pass down knowledge of the medicinal properties of specific plants to younger generations. Additionally, the spaces reinforce a traditional connection with food production by recognizing the natural influence of sunlight on the growth of the space. Sustainable practices may include the use of rainwater to water plants. Furthermore, the rooftop includes spaces for reflection and storytelling through lounge areas.

The idea of hybridity is influenced by theories and concepts of the third space, transculturation, and two-eyed seeing. These theories called for flexible and responsive design strategies that facilitated a space for activities challenging traditional and Western methods of

foodways. The spaces prioritized open floor plans for learning, teaching, conversation, and community building.

5.4 Design Overview

The previous section laid the foundation for the design overview by establishing the preliminary design, layout, and adjacency of the spaces. The following section focuses on eight major areas of the project, including the entrance, community kitchen, market space, multipurpose area, gallery, vertical farming spaces, traditional farming spaces, and a rooftop medicinal garden.

I will go into detail about the design of the overall building, including the extension and primary modes of circulation, followed by a walkthrough of each floorplan and a discussion of how spatial and design implications identified through the theories and concepts displayed within the space. The basement and second floor mainly contain private and ancillary spaces necessary for the programme. However, these areas do not significantly contribute to the spatial and design implications discussed in this practicum project. Therefore, I have decided not to cover these spaces but simply zone them within the plan drawings.

Adaptive reuse of the building at 814 Main Street emphasizes preserving the exterior elements of the building while making modifications to the interior layout. Additions to the space were made through the mezzanine level, third floor, and rooftop garden. The Mezzanine and third floor display simple extensions that protrude from the ends of the buildings as a way to extend and incorporate the urban environment. These additions feature full-story glazing and were added with considerations to optimize the copious amount of natural lighting the site receives. Additionally, the cantilever over the entrance provides protection from snowfall in winter months and may be utilized for outdoor market displays or planting in summer months.

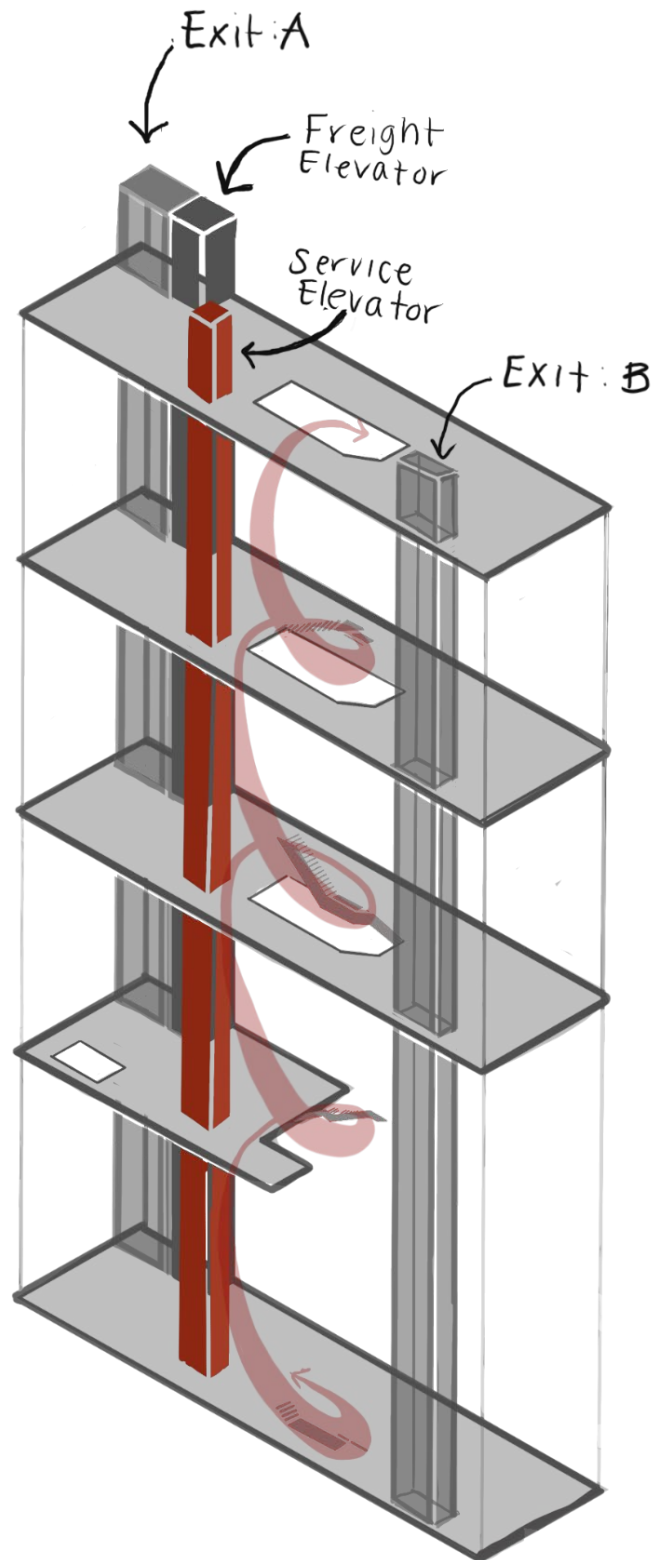


Figure 87: *RASOI* Circulation

Figure 87 illustrates the circulation within *RASOI* with several options for users to navigate the space. Vertical circulation is provided through various options highlighted by two emergency exits at opposite ends of the building, located on the north and south walls. An open public staircase in the center of the building creates an open atrium for natural light to pour into the space from the rooftop garden. Looking upwards, the space showcases red steps as a feature that communicates wayfinding for individuals occupying the space. It is important to note that the central staircase is open until the third floor, where it is enclosed and leads up to the rooftop garden. The enclosed staircase is implemented to prevent heating loss while still incorporating natural light through transparent materials such as tempered glazing.

More accessible options throughout the building include two separate elevators. One freight elevator serves for service functions, transporting vertical farming equipment, furniture, produce, and more. The second elevator provides service for individuals needing assistance in navigating the space vertically. Additionally, it aids in creating separation between private and public sectors of the building.

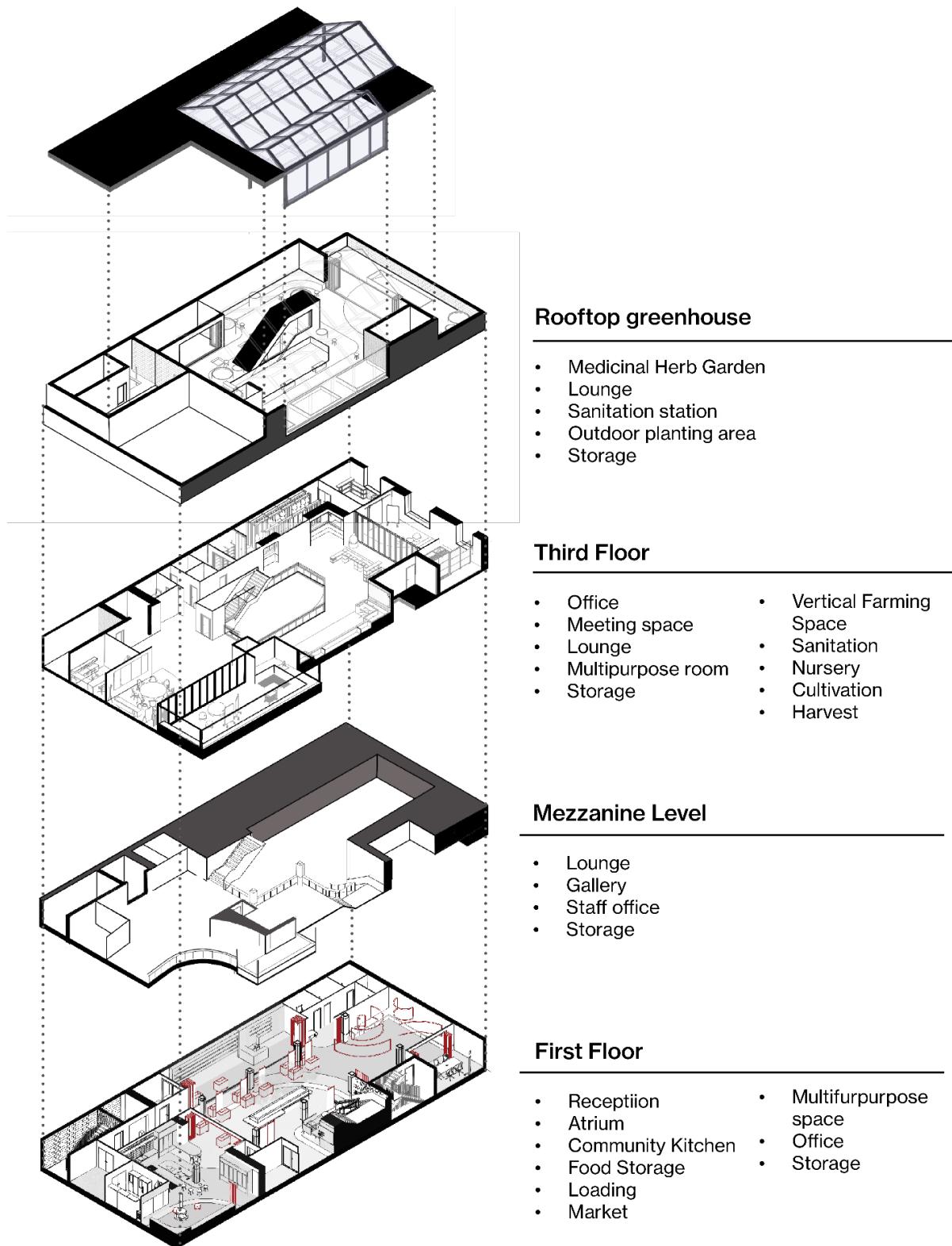


Figure 88: Exploded Isometric Floorplans

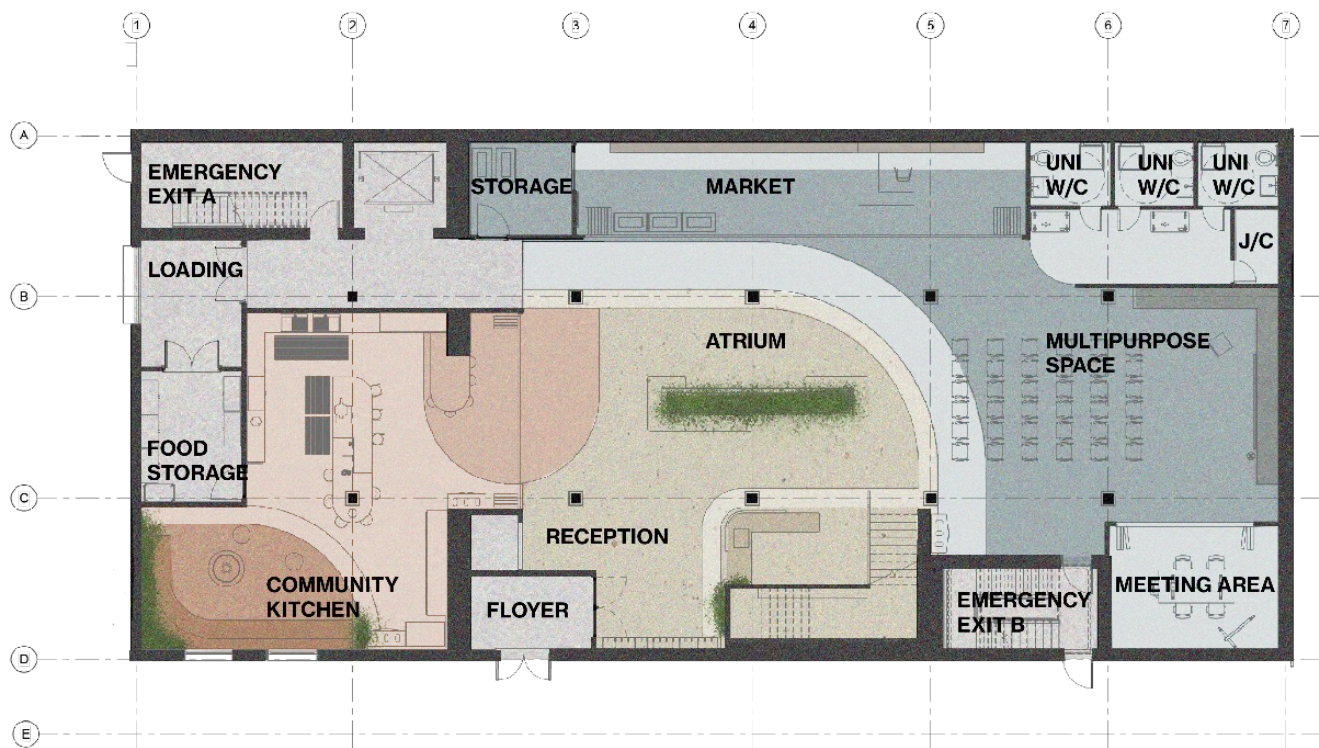


Figure 89: First Floor Plan. NTS

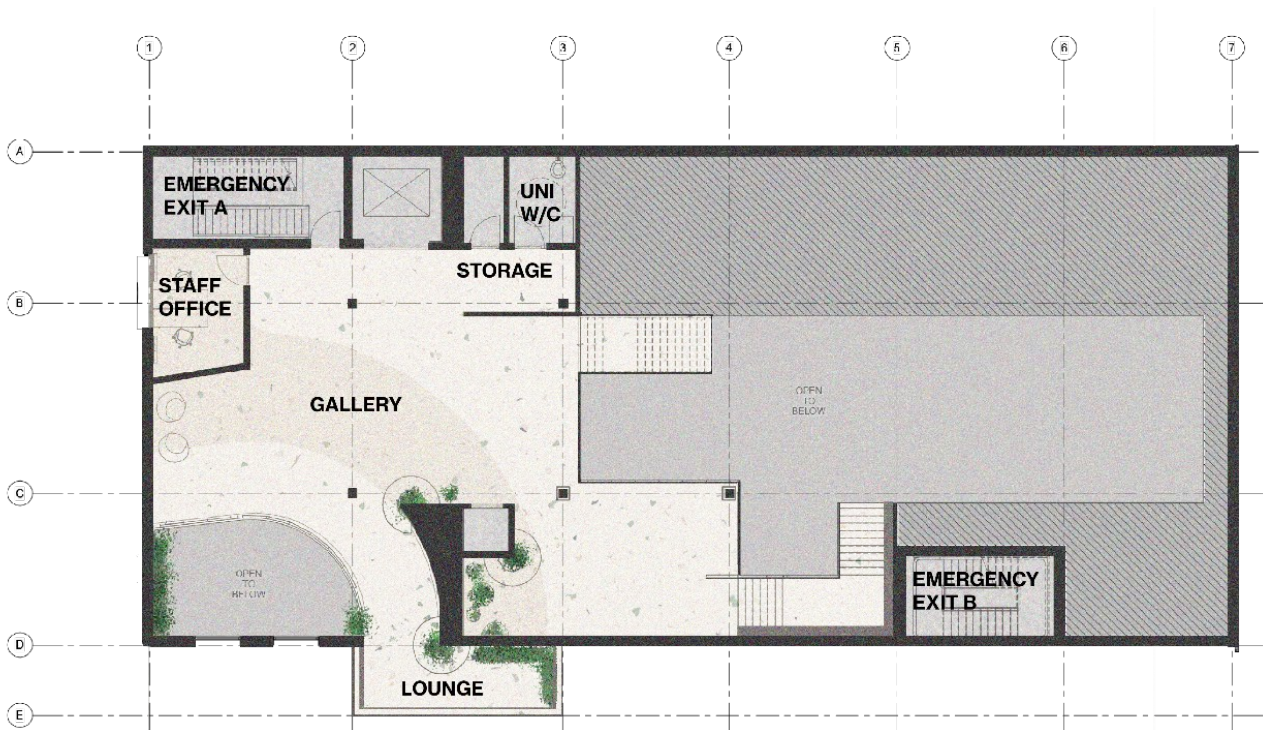


Figure 90: Mezzanine Floor Plan. NTS

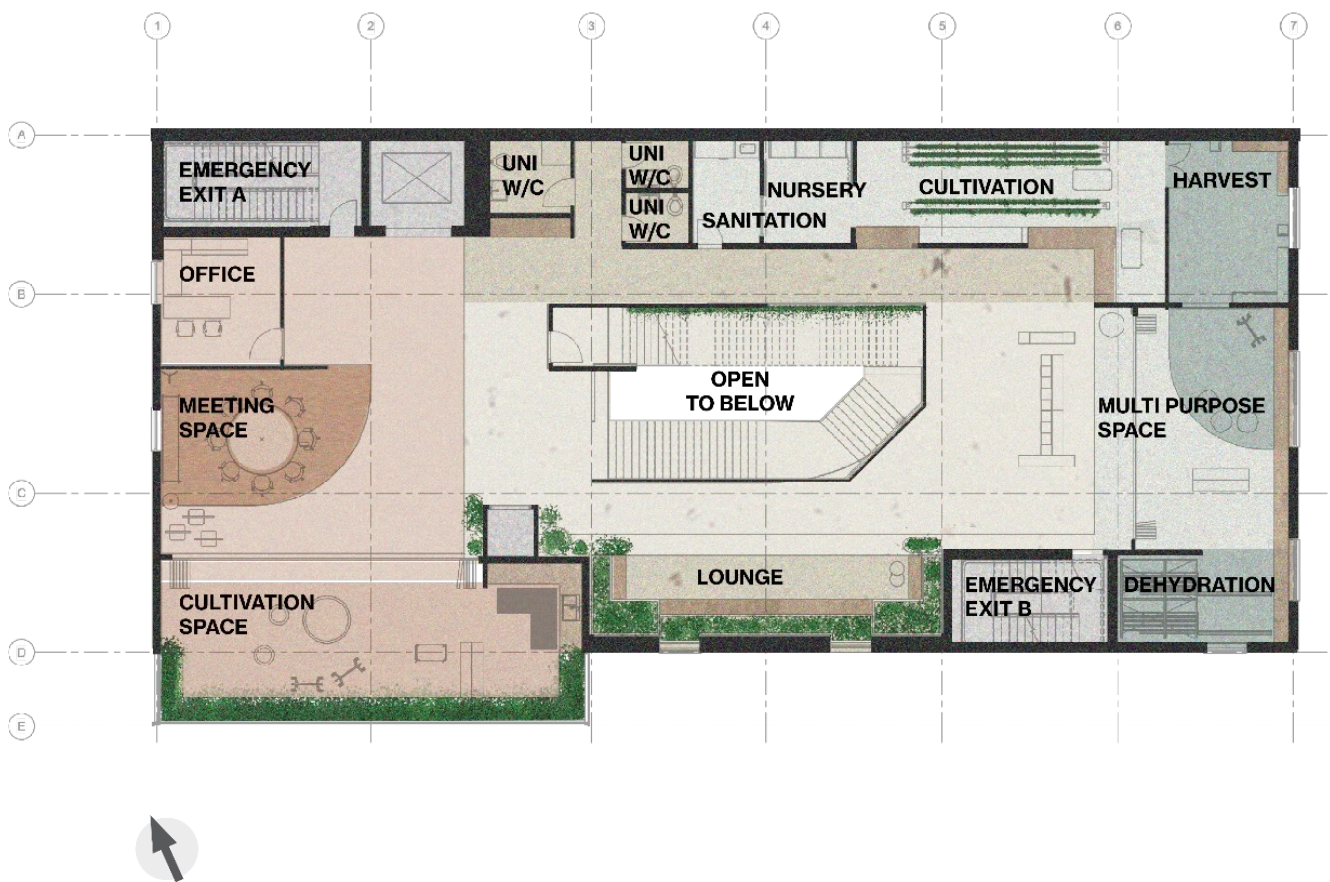


Figure 91: Third Floor Plan. NTS

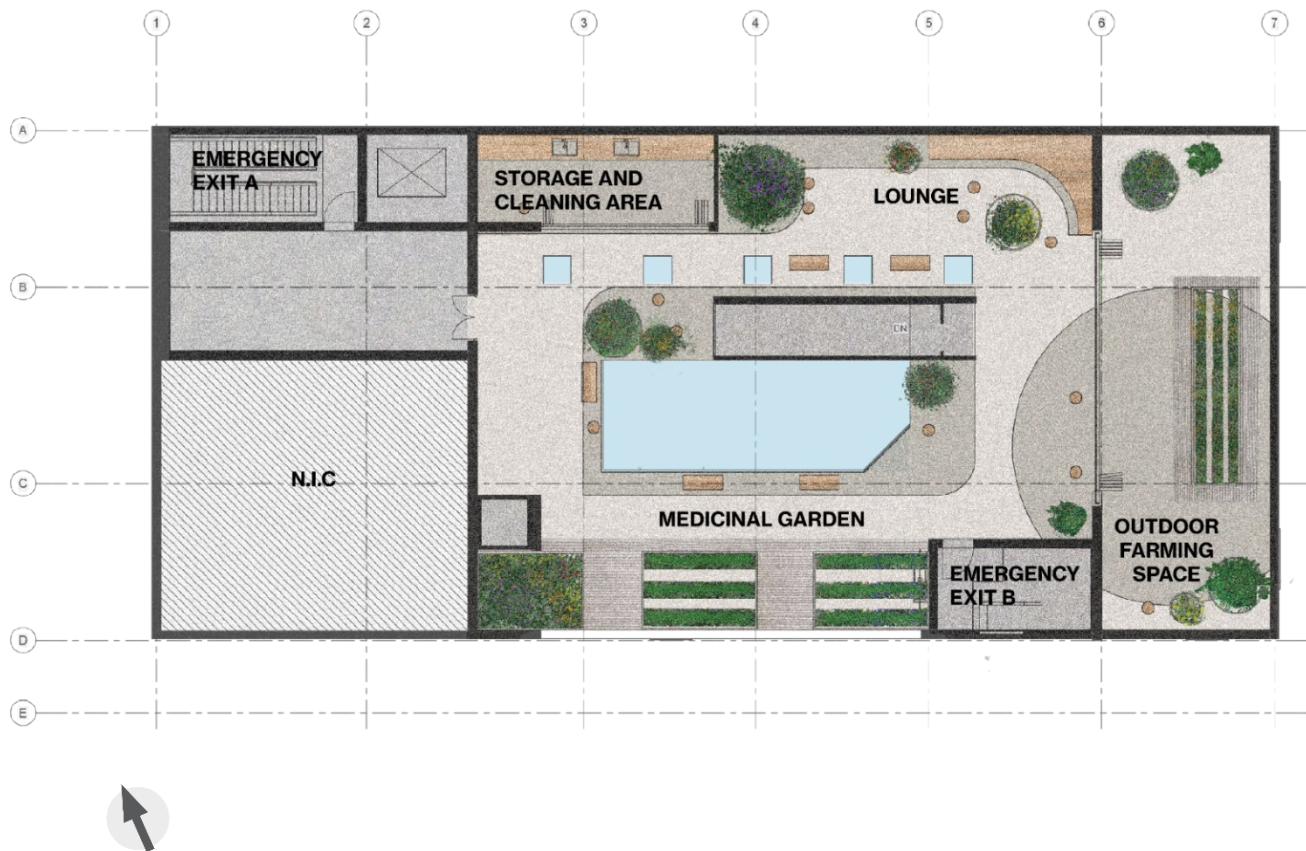


Figure 92: Rooftop Floor Plan. NTS

5.4.1 First Floor Plan

The First Floor of *RASOI* is an open space for public interactions and occasional private events. As mentioned in the narrative collages, the first floor is dedicated to fire and water zones, with radiating colors symbolizing the spaces' adaptability to different program requirements. Fire zones, support Canadian Indigenous food sovereignty through traditional food practices and ceremonial spaces, where users are respected and engaged in community-led activities such as community kitchens and areas for sharing food through feasts. Water zones, encompasses the distribution of food produced in production spaces, as well as a gallery space for visualizing traditional food knowledge and expressing cultural artwork.

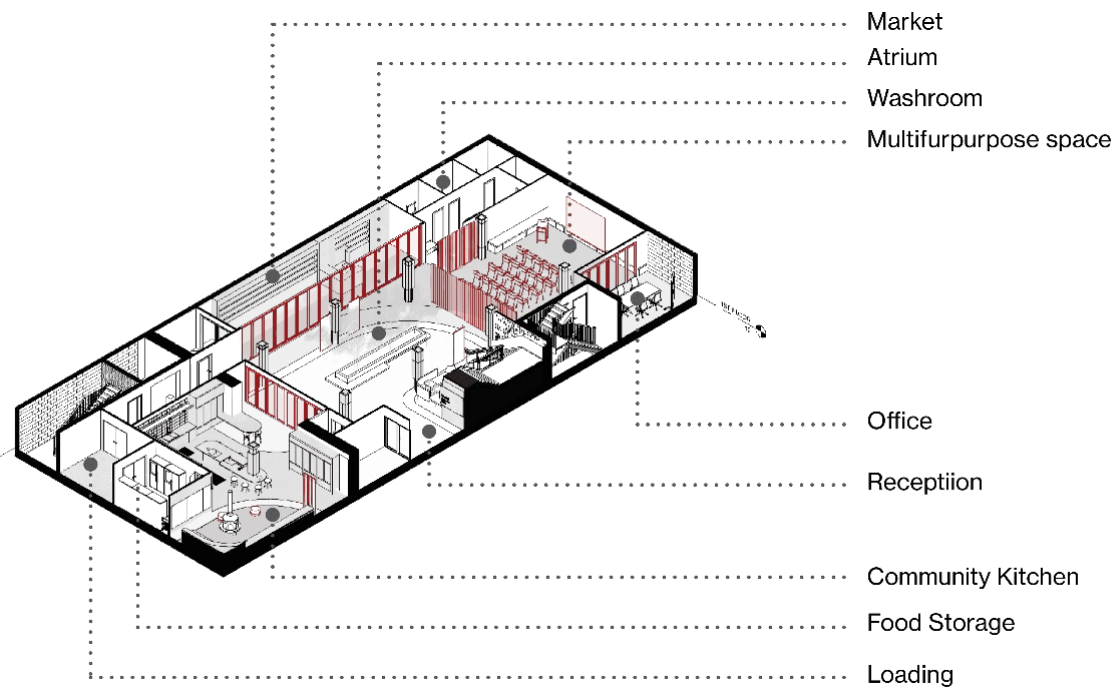
As individuals enter the space, they are greeted at the reception. The intention of the entrance is to gradually introduce people to the space. From here, the space opens up into a large atrium as if the light is welcoming them in with open arms. At the center is a custom built planter with built in seating for visitors to soak in the views visually engage with other features of the space. On the left side is the community kitchen, which is enclosed for safety reasons related to hygiene and personal safety. Just before entering this space, individuals encounter a flexible curtain wall that can expand and open into the atrium.

The primary concepts present within the first floor are identified through the programming of social spaces to represent contact zones, as explored by Mary Louise Pratt. Social spaces such as community kitchens, a market, and multipurpose space aid in the exchange of cultural information through activities for learning and viewing. By designing smaller clusters of social spaces, *RASOI* utilizes the large floorplan to facilitate multiple activities with varying sizes of events to meet the unique needs of each space. For example, the community kitchens require

work surfaces for cooking with additional equipment and adequate food storage, while the needs of the market spaces require display and more movement.

Contact zones seeks to highlight the co-presence of culture rather than separateness, making it important to consider flexibility within the design of clusters of social spaces. The flexibility of the space facilitates the exchange of knowledge into other parts of the first floor and is present in three ways: adjustable partitions through nano walls, curtains, and flooring transitions. Contact zones such as the market and multipurpose area, community kitchen are now able to expand and interact with one another. For example, the traditional foods created may be served in the multipurpose area as it transforms into a area for feasting. Other examples may include, cultural knowledge about certain foods displayed within the market may motivate some to share recipes or preparation methods as they move into the community kitchen. The transfer of knowledge acquired within one area can extend into other areas defined as contact zones as a way to grow traditional knowledge on food. Additionally, the notion of contact zones would extend to other floors, specifically food cultivation areas of the rooftop garden and vertical farming spaces to share techniques in growing methods or seeding exchanges.

Flooring transitions help to visually expand a space in which boundaries are created from bulkheads and partitions. For example, as the curtain walls along the community kitchen open there may still be an invisible boundary created from the transition of ceiling materials which frames the space as a separate area. To help connect the space flooring transition which extends out to other areas of the floorplan helps guide people with visual cues.



First Floor - closed view

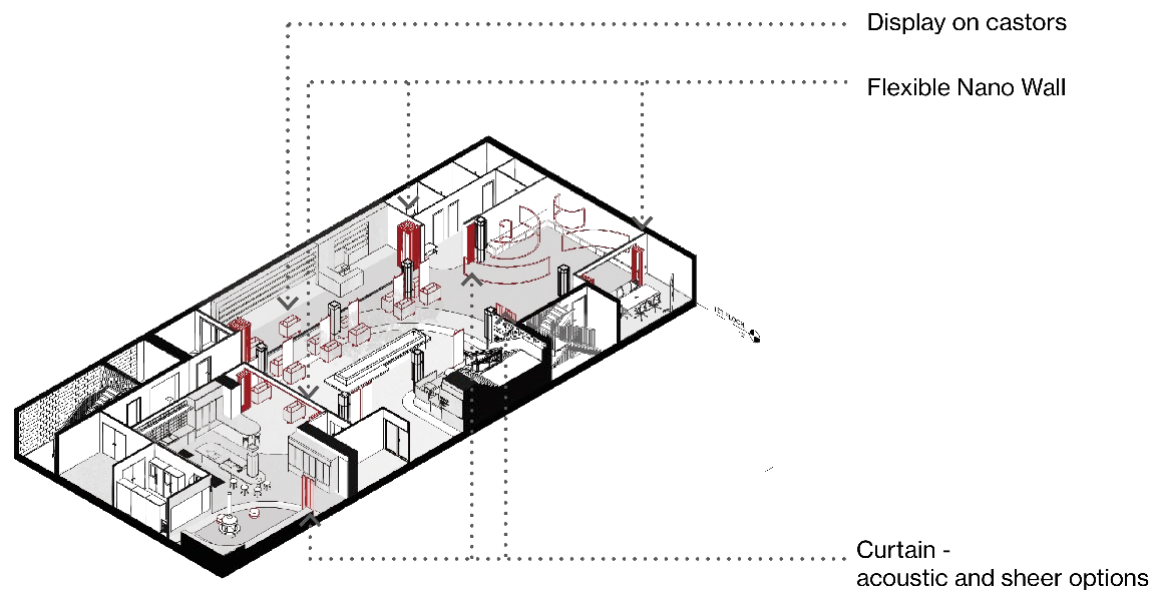


Figure 93: First Floor. Spatial Iterations. NTS

Figure 93 depicts various options for the first-floor plan, including different configurations of the flexible curtain walls depending on the day's activities. For example, the operable walls can expand outward in market spaces to display a wider variety of goods that may stimulate conversations among visitors. Additionally, transparency through glazing allows for visual engagement from passive participants in the space. Other features include projection screen and projectors for custom gallery displays and curtain separation within the multipurpose space. The curtain separation provides two options: thicker fabrics for acoustic and visual control, or more sheer fabrics to gently separate spaces while still allowing natural lighting from the atrium.

Cultural hybridity of Canadian Indigenous culture, Indian culture, and Western Culture is highlighted within the community kitchen from information about foodways. The behaviour patterns of traditional food preparations guided me to consider variety in seating heights as in my personal experience cooking with my grandmother, there are often lower platforms so people may sit together and prepare food as opposed to table height stations. As seen in Figure 98 there is a raised platform for people to sit together and gather as they prepare food. Traditional preparation methods of dehydration of herbs is integrated through metal grids along walls and ceilings as a way to provide space for hanging herbs, vegetables and tools.

The materials present within the first floor utilize Winnipeg's local timber and tyndall stone in the design of feature walls, planter displays, and ceiling material selections. In contrast to these hard materials, woven fabrics, acoustic wall coverings, and hanging felt panel displays are implemented to visually balance the space and provide acoustic support. Within the textile selection, traditional Kashmiri crewel embroidery fabric is seen through tapestries and pillow coverings.



Figure 94: First Floor. Entry Perspective



Figure 95: First Floor. Market Perspective – Open



Figure 96: First Floor. Market Perspective – Closed

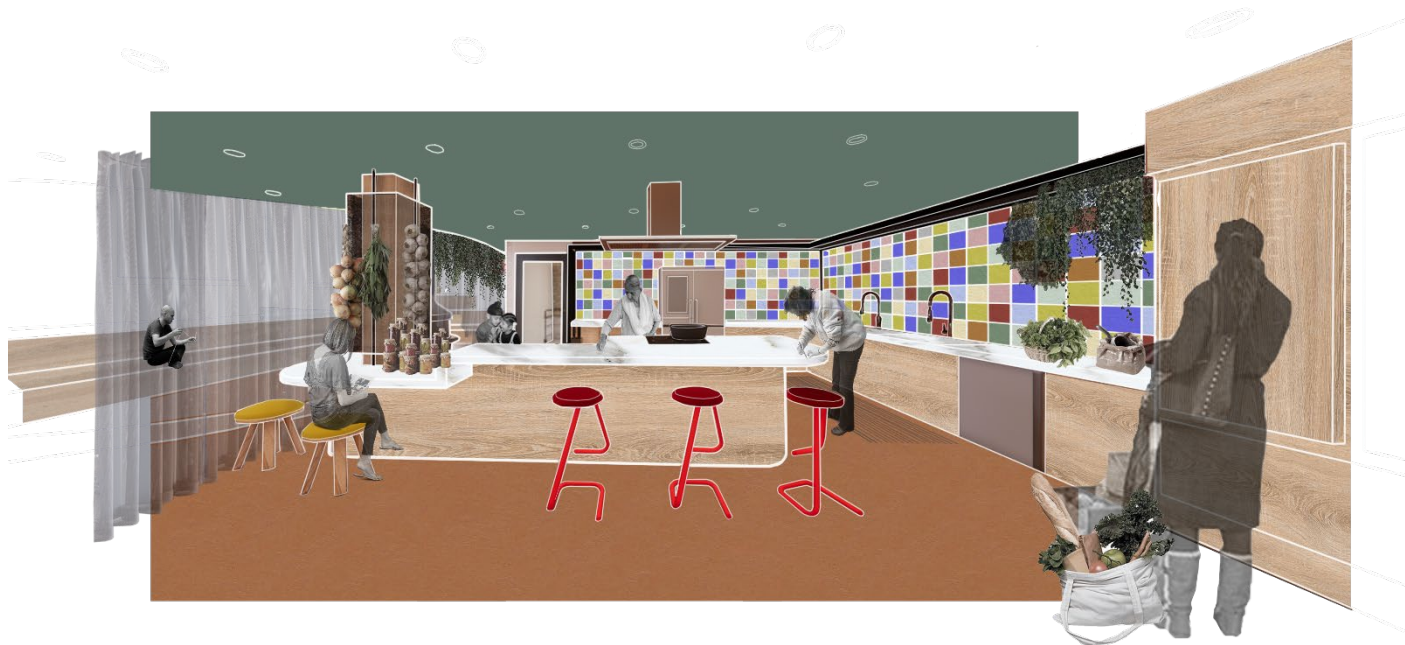


Figure 97: First Floor. Community Kitchen Perspective 1



Figure 98: First Floor. Community Kitchen Perspective 2

5.4.2 Mezzanine Floor Plan

From the first floor, visitors can access the mezzanine via a staircase located directly behind the reception area. The staircase features a custom water display, with natural Tyndall stone boarder. The feature wall guides individuals as they ascend up the stair case and provide soothing sounds of running water. The ceiling plans of the mezzanine display a curved grid that reflects the opening towards the community kitchen, with adjustable panels attached for exhibitions. The gallery showcases the strategy of narration proposed by Graeme Brooker and Sally Stone. For example, the exhibition in the gallery offer opportunities for visual storytelling through tailored displays. These interactive displays allow visitors to engage with touch screens showcasing Canadian Indigenous cultural artwork or culinary traditions from other cultures. Combined with the sensory addition of flavors from the first floor community kitchen, these elements blend together to foster a deeper understanding of traditional foodways.

The Mezzanine also includes an extension of the sunroom as a lounging space. The alterative use of the extension provides protection form natural elements, above the primary entrance.



Figure 99: Mezzanine 1 Perspective

5.4.3 Third Floor Plan

The design objectives for the third floor emphasize the importance of food production capabilities and utilizes information from the section on foodways. The third floor is distanced from public areas outlined on the first floor, and the ceiling height within the building makes it an ideal space for integrating vertical farming systems. Key areas on the third floor include dedicated spaces for vertical farming, offices, an open meeting area, multipurpose room, a lounge, and an extension for traditional farming methods.

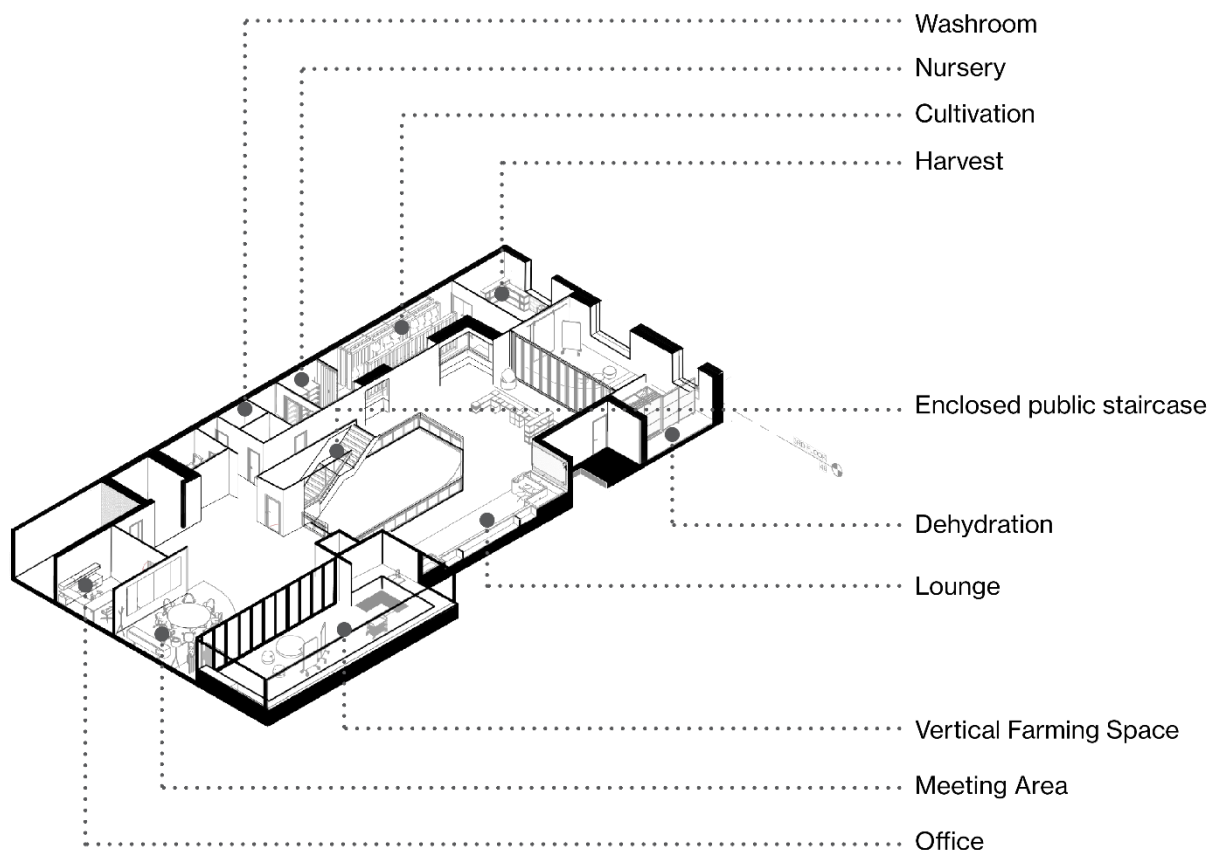


Figure 101: Third Floor Isometric. NTS

The vertical farming space is a key element of *RASOI's* design. Taking a pragmatic approach to urban farming, RASOI incorporated hydroponic systems and designed around the requirements based on the stages of sanitation, nursery, and cultivation areas. These requirements guide lighting and material selection, including interior PVC finish with interlocking linear panels for ease of cleaning within the nursery, cultivation, and harvest areas. LED lighting is used within this space due to the variety of different ranges it presents, aiding in the production of plants throughout the different stages. LED lighting within the nursery and seeding stages calls for a higher ratio of blue light, while the cultivation area requires red light for the promotion of cell production. The lighting is placed on tracks and is estimated to be 20 inches above the nursery beds.

Although incorporating hydroponic systems is a Western solution, information from Canadian Indigenous Foodways will inform the specific food produced within the area, as discussed in the section on Indigenous foodways. For example, strawberries, black berries. Alternatively, the growth of leafy greens will help bridge a nutritional gap within Indigenous diets. As previously outlined in the narrative discussion of Figure 86, the design programme identified a need for greater emphasis on food production spaces, particularly focusing on land-based approaches. While vertical farming offers valuable solutions to food insecurity, the downside is that it tends to promote a commercialized view of food production, which does not align with Canadian Indigenous values regarding processes in food production. A solution would be to incorporate land-based values into the process of vertical farming as a way to address issues of Indigenous food sovereignty. The design of the third floor looks at the challenges around incorporating land-based values within interior spaces.

One way in which RASOI honors land-based values is through understanding specific behavior patterns of land-based practices. For example, Canadian Indigenous traditional food practices and ceremonial spaces like fermenting, dehydrating, smoking, and storytelling. As discussed in the section of Canadian Indigenous foodways, some Indigenous communities practice smudging prior to the start of their practice. Stephanie Cook from Smart Farm highlights her relationship with food as a reciprocal practice. Designing spaces with the intention of fostering a deeper relationship with the plants recognizes the need for organic spaces which less automated and Linear growing areas.

Other areas within the third floor which incorporate traditional food practices and ceremonial spaces would be the multipurpose room and sunroom with the extruded extension. Although the multipurpose room is located adjacent to the harvest area and serve to provide ample room for packaging, cleaning, or sorting food that may be transported to the community kitchen or market spaces. The primary goal of the multipurpose room is to serve as an educational space for sharing knowledge on either urban foodway practices of vertical farming or traditional practices for dehydrating foods. The intention of this space is to acknowledge the teachings from elders with workshops on wild food foraging, contributing to a holistic approach to food production and cultural preservation. Other teachings may be more contemporary and encourage youth to learn the processes of vertical farming and the high tech solutions with coding workshops. Together, the space blends teachings from the past and present.

An alternative view in addressing the challenged of incorporating land-based values in interior spaces considers features like natural lighting and spatial efficiency, drawing insights from works by Sarvenaz Pakravan, Shahin Keynoush, and Ehsan Daneshyar to promote urban foodways. Elements such as window boxes are employed along, shading mechanisms, and green

walls are employed to enhance indoor air quality and ventilation within areas that receive copious amount of natural lighting. For example, custom planters with adjustable seating is designed along the north wall to emulate window boxes. A green wall is designed along the staircase leading to the rooftop. The extension utilizes natural lighting on higher levels to ensure that adjacent buildings do not obstruct light. The floor-to-ceiling glazing creates a sunroom for Indigenous farming practices, which is excellent for gatherings and storytelling. The previous farming spaces utilized high tech, hydroponic system for food production, whereas the extension uses soil based farming with raised planter beds along the windows and horizontal and vertical metal grids to hold supplies and smaller planters. The plants within this space are limited to the size so herbs will most likely be grown within this space.

The solutions discussed in the previous paragraphs draw from theories of the third space and transculturation's concept of contact zones. Reflecting on the analysis of two-eyed seeing, solutions for the third floor embody flexible, sustainable, and responsive design ideas. Flexible design is identified through the lounge and custom-built planters with adjustable seating to facilitate altering activities, as well as curtain walls. Sustainability is achieved through energy efficiency and the use of natural light, as well as skylights and farming ventilation. Responsive design is specifically viewed in the vertical farming and hydroponic systems. The alcoves from the outside create a more integrated approach to viewing the vertical farming spaces as they can extend deeper into the space. Additionally, the switchable glazing has the capacity to be opaque or transparent depending on the cultivation cycle. This glazing option allows others to visually engage with the production process while also respecting the guidelines of the process. Together, the spatial and design implications featured on the third floor effectively work to produce food in a respectful manner.



Figure 102: Third Floor. Vertical Farming (outside) Perspective



Figure 103: Third Floor. Harvest

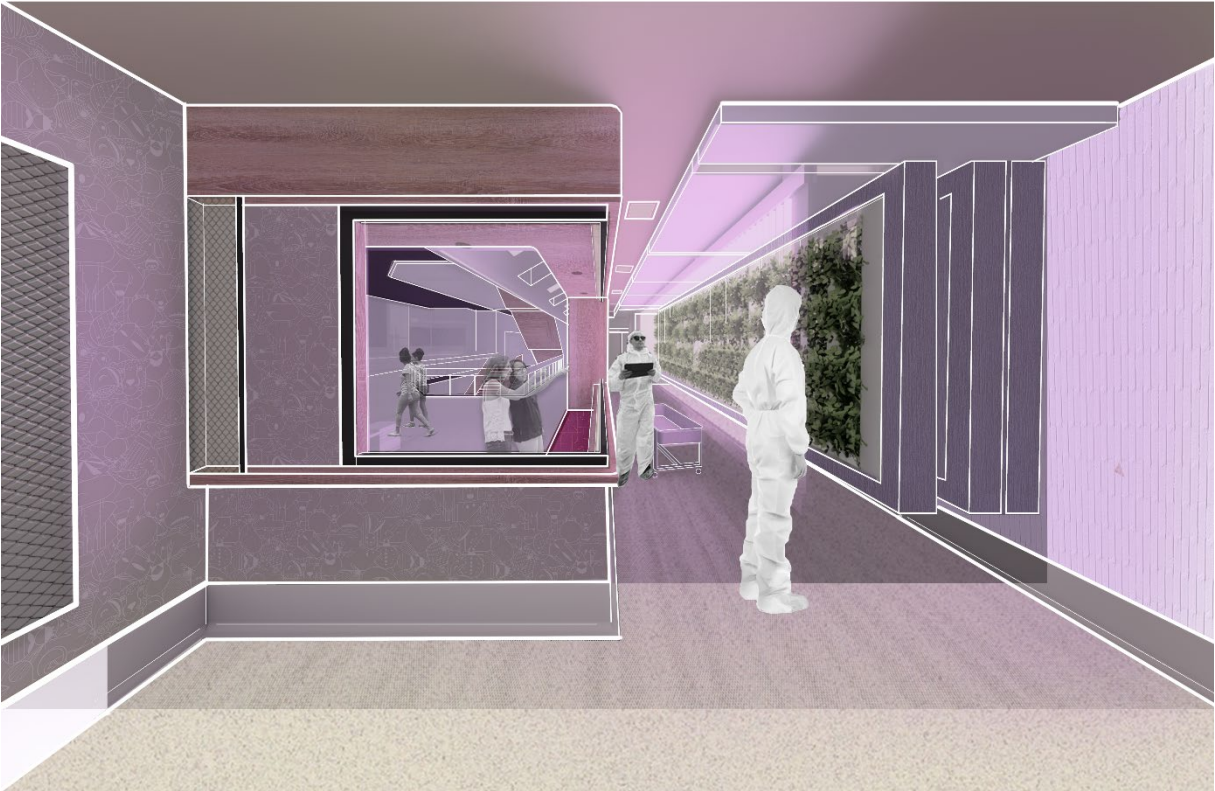


Figure 104: Third Floor. Vertical Farming (inside) Perspective



Figure105: Third Floor. Lounge



Figure 106: Third Floor, Extension Perspective

5.4.4 Rooftop Floor Plan

The rooftop is a pivotal element of *RASOI's* design. The site's urban limitations prompted the inclusion of a rooftop garden, which has a significant impact on the overall design. This addition opens up the possibility of creating a beautiful atrium with views of the building's various levels.

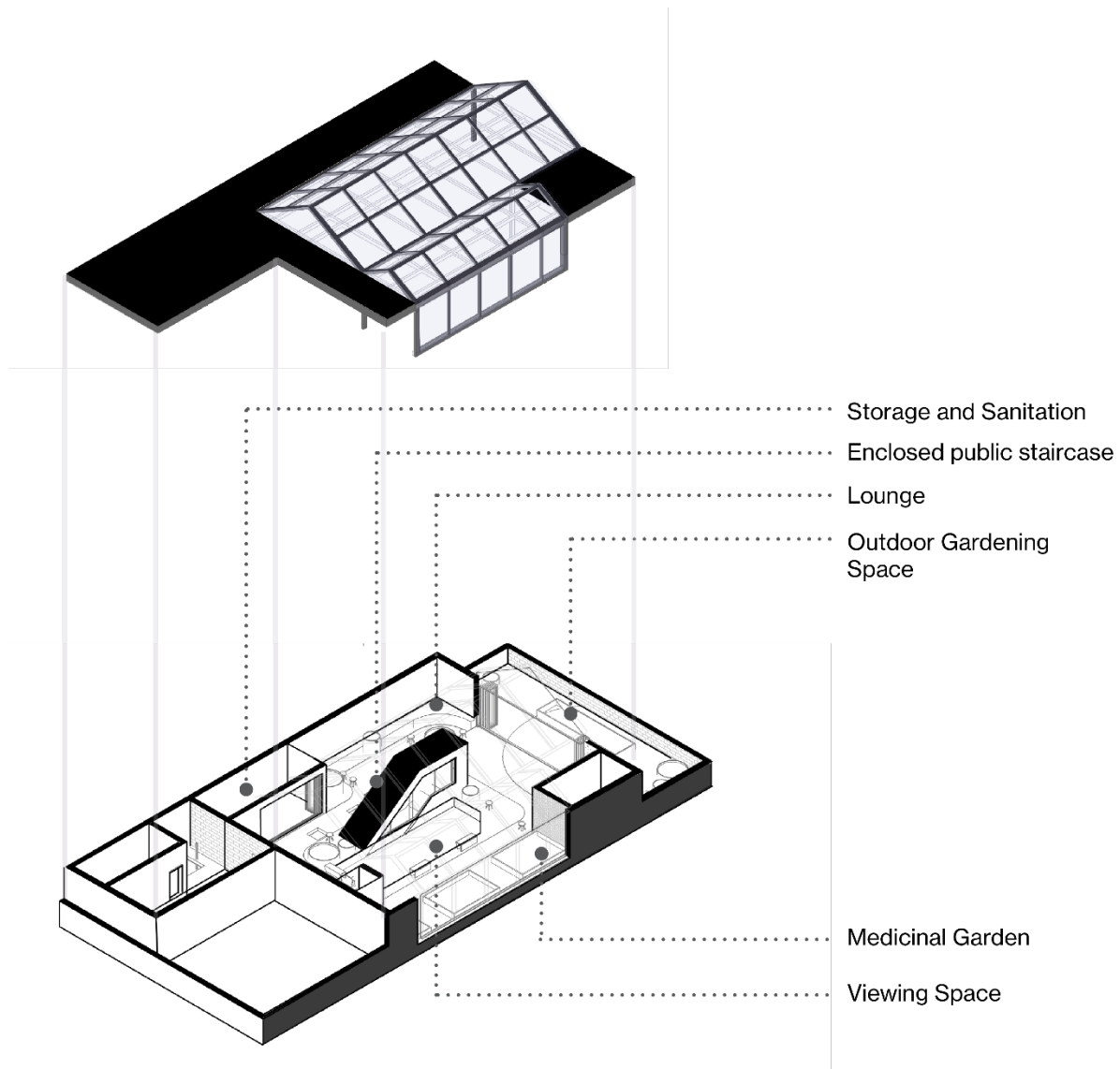


Figure 107: Rooftop Greenhouse Isometric. NTS

A prominent enclosed staircase leads all visitors to the rooftop, serving as a relaxing area that optimizes the site and building's potential. The later addition of the third floor in the 1940's constructed with open web steel joists, provides an ideal structure to support the rooftop garden. The garden facilitates various activities such as seeding, planting, foraging, lounging, and teaching, featuring gardening beds and clusters of seating for relaxation and gathering. To aid in these activities, the north wall features area for equipment storage and preparation station for farming. Furthermore, the garden reflects Canadian Indigenous culture by nurturing the growth of medicinal plants and herbs like sage, tobacco, lemon balm, lady's mantle, and more. Other areas for planting include the growth of berries and vegetables such as tomatoes. Preservation practices for dehydration integrates suspended metal ceiling grids along the north wall for hanging plants grown within the area.



Figure 108: Rooftop Greenhouse 1

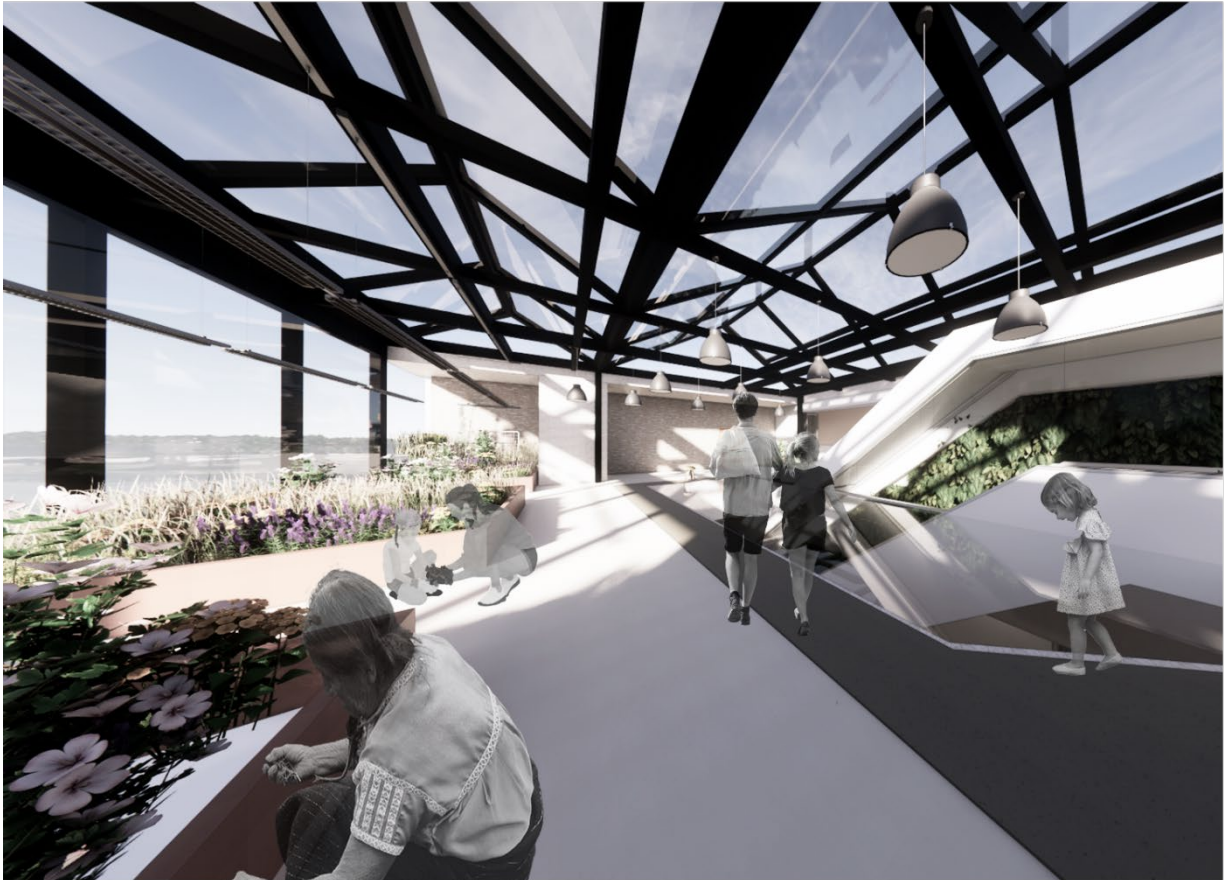


Figure 109: Rooftop Greenhouse 2



Figure 110: Rooftop Greenhouse 3



Figure 111: Rooftop Greenhouse 4

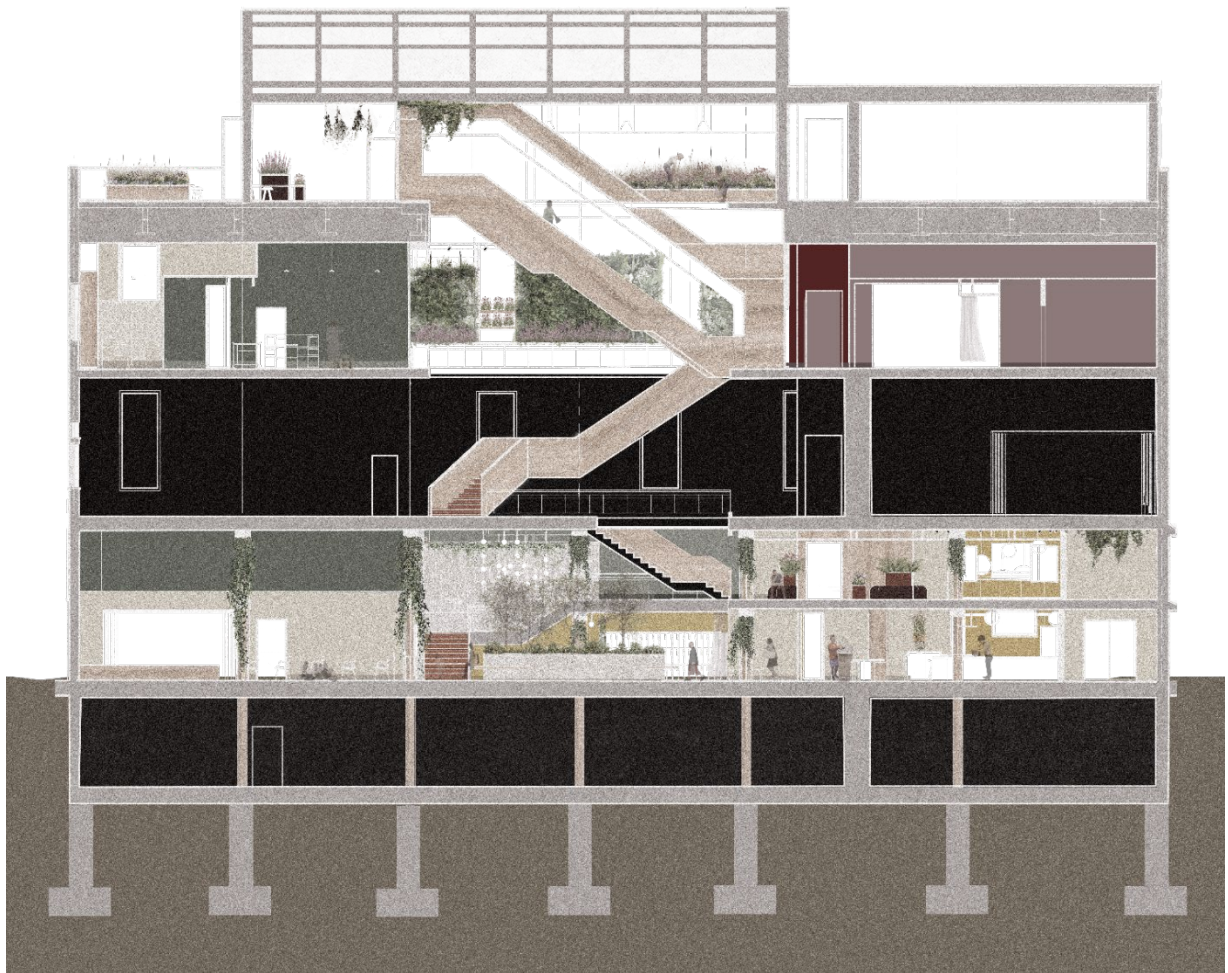


Figure 112: Building Section

5.5 Summary and Conclusion

Chapter Five presents the union of theories and concepts explored throughout the practicum project of *RASOI*. The chapter delves into the design choices and the reasoning behind spatial organization, form, material selection and lighting. These decisions are influenced by a program overview, user analysis, spatial diagramming, preliminary sketches, and narrative collages, all of which aid in understanding and applying the previously discussed spatial and design implications within the interior environment of *RASOI*. For the scope of this project, I have outlined a few critical points that directly relate to the design of the perspective images.

The theory of adaptive reuse served as the foundational principle guiding the transformation of the warehouse space at 814 Main Street into *RASOI*. Embracing the urban limitations of the site, the project integrated sustainable practices by repurposing the existing building while introducing extensions to enhance both the interior and exterior environments.

Each floorplan, from the first floor to the rooftop, has been designed to serve specific purposes while maintaining flexibility and adaptability. Social spaces on the first floor, inspired by Mary Louise Pratt's concept of contact zones, encourage cultural exchange and interaction. The mezzanine floor provides opportunities for visual storytelling and engagement through tailored exhibits, while the third floor prioritizes food production capabilities, blending modern hydroponic systems with Indigenous land-based values. Furthermore, the rooftop garden serves as a tranquil retreat and maximizes the site's potential, illustrating a commitment to sustainable design practices within urban limitations.

The concept of hybridity, influenced by theories such as the third space, transculturation, and two-eyed seeing, underscores the project's flexible and responsive design strategies.

Embracing open floor plans, *RASOI* accommodates activities that challenge traditional and Western methods of foodways, fostering learning, teaching, conversation, and community building. Throughout the design process, careful attention has been paid to circulation, natural lighting, and spatial efficiency. By incorporating theories such as the third space and transculturation's concept of contact zones, *RASOI* not only function effectively but also to nurture a sense of community, preserve culture, and uphold environmental stewardship.

The design of *RASOI* represents a harmonious convergence of tradition, innovation, and sustainability. By creating a space that caters to practical needs while enriching cultural experiences and fostering a connection to the land.

Conclusion

The idea of *RASOI* came to fruition after a studio site investigation of Winnipeg's Point Douglas neighbourhood, which the Winnipeg Health Region defines as an inner city food desert. The following research questions underscore a concern for the large-scale problem of urban food sovereignty in Winnipeg and the role that interior designers can play in solving this issue. The design of interior spaces explore the relation of cultural hybridity for understanding foodways from Indigenous, Western and Kashmiri cultures. Because approximately one third of the population of Point Douglas is made up of various Indigenous Canadians, attention was given to traditional, Indigenous, food-related practices that can contribute to the spatial design of *RASOI*. Additionally, innovations in urban farming from Western practices also inform the interior design of *RASOI*, resulting in an interior design solution based on cultural hybridity from Indigenous, Western and Kashmiri cultures.

In Chapter One of this document, the research questions presented helped guide the design of *RASOI*. Theories and concepts that influence the design results for *RAOSI* are two-eyed seeing, *Bimaadiziwin*, adaptive reuse, biomimicry, third space, and transculturation. The following paragraphs revisit the research questions and highlights solutions addressed within the design for their spatial and design implications. Transculturation provides a holistic perspective of cultural and generational knowledge about the design of food production spaces as explained by theorist Pratt. According to Pratt, contact zones anticipate issues of interior spatial flexibility in order to meet the needs of users. Interior designers can programme spaces such as community kitchens, lecture spaces and dehydration workshops to encourage the exchange of knowledge.

The research questions guiding this study explore key levels of food sovereignty and its incorporation into interior design, with the goal of tackling systemic challenges such as food deserts as identified by researchers such as Zsafia Mendly-Zambo and Dennis Raphael in Winnipeg's Point Douglas neighborhood. The research questions are as follows:

1. How can food sovereignty be addressed as an interior design problem?

I want to address the root cause of food deserts or insecurity, which Zsafia Mendly-Zambo and Dennis Raphael, Health and Policy researchers, attribute to a governmental problem created by inequitable distribution of economic resources. Through various documents, the issue of food sovereignty has underscored the need for community spaces that facilitate the production, consumption, and distribution of food in a manner that respects community values. The design of *RASOI* tackles these problems by programming spaces that facilitate activities for cultivating food, sharing recipes, showcasing art, and exchanging knowledge.

Specifically, the production spaces outlined on the third floor of 814 Main incorporate areas that promote vertical farming for food cultivation. Three options for food production are provided. The first option integrates hydroponic systems, with specific material and lighting selections to ensure appropriate indoor growing conditions. The second option involves soil-based farming with planters and LED lighting in darker areas of the space. Other production processes are showcased through feature walls exhibiting leafy greens and herbs for an aesthetic quality. Natural lighting within the interior is maximized, informing the location of planters and lounges. A key aspect of addressing food sovereignty, distinct from food insecurity, is ensuring that cultural values, particularly Canadian Indigenous values, are integrated into the design. These values will be further addressed in question three.

2. What are some specific urban and Indigenous foodways that govern the interior design of a production, consumption and distribution space?

Urban foodways and Indigenous foodways represent distinct approaches to food production and consumption. Urban foodways prioritize a commercialised view of food production where output of a quantity of food is the sole intention. In contrast, Indigenous foodways honour food through values which emphasize food as a teacher, medicine, and relative. Together these values underscore the experiential aspect, emphasizing the connection to culture, tradition, and community. The conflicting priorities of these two foodways can be viewed as a source of tension or as an opportunity to find a balance. By integrating elements from both approaches, the design of the space can serve functional and cultural purposes. It can offer healthy food options to residents while also honoring Indigenous practices and promoting cultural preservation.

Within the design process, a floorplan study comparing Western and Traditional Indian kitchens highlighted differences in approach. Western floorplans prioritize perceived and functional movements geared towards efficiency. In *RASOI*, efficiency is evident in the design of vertical farming spaces with hydroponic systems, offering greater autonomy over food production. In other areas such as the community kitchen, high-tech equipment and organized storage ensure ease of functional use.

Canadian Indigenous foodways, extending into personal connections with Indian heritage, emphasize broader movements and provide ample spaces for communal gatherings. Integrating personal experiences with lessons learned about Indigenous foodways enabled empathetic design. Specific design elements, such as low level platform seating conducive for group activities, reflect these values.

Furthermore, Canadian Indigenous foodways inform interior design by focusing on cultural practices such as smudging, feasting, preserving, and storytelling. To accommodate these practices, areas that are often smudged as part of ceremonies incorporate appropriate air ventilation, as seen in community kitchens and multipurpose spaces. The kitchen also serves as a communal space for activities like pickling, with metal grids providing space for hanging food for later use or for dehydrating practices. Additionally, the space can be opened up by removing partitions to welcome large groups for feasting together.

Market spaces operate on a pay-as-you-feel method, considering Point Douglas' limited income indicated by Winnipeg Census reports (Chapter two). While the projects may involve giving out free food, the concept of sharing differs as it promotes reciprocity. Designing spaces that encourage reciprocity allows for more equitable sharing opportunities. Individuals can contribute to the community in various ways that accommodate their capabilities, aiming to provide equitable opportunities for participation. For example, if an individual does not have the funds to purchase food they may volunteer and help to harvest the food and take some home. The idea around this example is to promote community participation.

3. How can you appropriately incorporate conventional practices of farming, with respect to traditional Indigenous land-based values.

Canadian Indigenous values, which were integrated into the design emphasize food as a teacher, medicine, and relative. Honoring food entails intentionally planting food and ensuring it is not wasted. With this in mind, sustainable methods such as recycling irrigated water in hydroponic are incorporated into the design. Additionally, the importance of preservation

practices has led to the inclusion of spaces with dehydration rooms and racks, promoting cultural practices such as dehydrating or pickling foods.

Other ways to promote land-based values would be to create a space to learn about native plants within Manitoba's ecozones and their alternative uses. For example, growing wood lilies could provide medicine from the roots, and the flower, seed, and bulb could be eaten as food. With conventional smart farming technologies, RASOI extends the land onto the rooftop with the addition of a greenhouse. The rooftop addition creates its own planting space with primarily soil based farming practices. The plants grown within this space are appreciated for their medicinal qualities and are selected through traditional Indigenous knowledge. Some of the plants grown within this area are as follows: prairie sage, wild mint, sweet grass, and more.

The rooftop provides an alternative space for growing that sees food as more than a commodity. Elder generations and younger people are able to gather within the greenhouse and learn from one another or through the process of planting within the garden.

4. How can you unite the concept of adaptive reuse with traditional and sustainable Indigenous practices of design.

To unite the concepts of adaptive reuse and traditional, sustainable Indigenous design, *RASOI* depends on the layering of historical palimpsests. Contemporary Western strategies of adaptive reuse focus on existing, local building materials that reduce the embodied energy of materials. With this, the idea of using natural, local materials emphasizes an appreciation for the building, land, and materials capabilities. Similarly, Canadian Indigenous value of respect underscores humans impact of the natural system. Rather than easily discarding existing spaces, we should look at what we can reuse. *RASOI* unites these concepts by repurposing energy

resources. For example, utilizing solar rooftop panels and implementing systems to recycle and reuse water for irrigation, aligning with both modern sustainability practices and traditional Indigenous values of resource stewardship.

The idea of layering of historical palimpsests seeks to acknowledge the importance of existing spaces to create stronger relationship with the design. As an interior design student, it is apparent that this practice can be seen as very wastefully through the idea of renovations and change in aesthetic styles resulting in frequent upgrades to a space. Instead of tearing the building at 814 Main down and ignoring the history of the space, *RASOI* highlight as much as the existing qualities displayed. Through storytelling, lessons from the past on how we work with the existing land inform important narratives of Indigenous foodways. *RASOI* tailors the design of production spaces accordingly to reflect land based values and sustainable design practices of a medicinal garden with native plant selections. Through these approaches, *RASOI* demonstrates how adaptive reuse can be harmonized with traditional Indigenous sustainable practices to create a culturally and environmentally sensitive space.

As each culture experiences food differently. The main research and design focus in this project is the issue of food sovereignty and how an interior environment promotes culturally relevant foodways in regard to the production, consumption and distribution of food. By understanding the issues of food insecurity and by learning factors that contribute to food sovereignty, interior designers can use their skill set to address these factors in their projects. The key strategies to achieving food sovereignty, as mentioned in the literature, avoid segmented, rigid, and sterile spaces. For example, designers may achieve autonomy and control in spaces through the use of curtains or wall partitions. This allows for visual access to different parts of a building, giving people the opportunity to observe processes of cultivating, preserving,

harvesting and preparing food. Less visual and more tangible are vertical, hydroponic farming spaces for growing healthy vegetables, herbs and fruits. Additionally, the rooftop greenhouse space offer traditional soil based farming practices where users can grow medicinal gardens. Lastly, contact zones provide individuals the chance to explore their cultural identity and then to share it with others.

Upon completion of the project, the research and design outcomes of this practicum raise several questions. To begin with, how could the project incorporate meat harvesting areas within the design? Secondly, could plant selection extend beyond plants used simply for nutrition to plants used in the creation of textiles? In return, this approach broadens the sustainable possibilities of the programme. Lastly, what other smart farming technologies such as automated greenhouses could help to simulate environments ideal for native crop production?

In preparing this document, my Kashmiri background and Western education challenged me to think beyond my individual experiences with food. I am thankful for the guidance found through conversations with members of communities related to this project that helped me to understand cultural values and methods related to foodways. As I conclude this project, I do so with a greater understanding of the societal challenges facing people within their daily life, who experience food insecurity and issues such as colonization and discrimination, which are harmful and require a greater breakdown of existing structures to resolve. I understand that interior design practices do not solve policy issues within Winnipeg, nor in our society as a whole. It is my hope that the design strategies proposed herein encourage new, self-reliant ways of designing interiors that promote food sovereignty within urban communities.

Appendix A
Material and Finishes

Material and finish selection considers the following:

- Inspired by natural elements such as fire, water, and earth, as seen in Figure 82.
 - Observing the seasonal shifts and their impact on these elements provided valuable insights into the materiality of the space. For instance, the transition of water from summer to winter months offered various options for texture and opacity in potential glazing and curtain selections.
- Environmentally friendly material with recycled content
 - Linoleum Flooring
- Local Building Materials
 - White Oak
 - Tyndall Stone
- Cleaning of material for farming spaces and moisture resistance
 - PVC interlocking panels
 - Silicone
 - Linoleum Flooring
- Acoustic Control
 - Felt Panels



1. White Oak
2. Linoleum Flooring
3. Tyndall Stone
4. Carpet
5. Wall Base
6. Glazing - electrochromatic
7. Corian Countertop
8. Wall tiles

Figure 112: Material Board 1



- 9. Ceangene + silacone Upholstery
- 10. Stain Resistance Upholstery
- 11. Lustre Net Curtian
- 12. Ceangene + silacone Wallcovering
iguana
- 13. Window Covering
- 14. Acoustic Wall Covering
- 15. Light Filtering Shade
- 16. Winterberry Upholstery
- 17. Levey - IdeaPaint
dryerase coating for wall covering
- 18. Zulu by Kvdrat Curtain
- 19. black out curtains
- 20. Mulberry Angle - Upholstrey
- 21. Luna - wool Upholstery
- 22. Kashmiri Crevel work
- 23. Indigo Arrows - Upholstery



Figure 113: Material Board 2

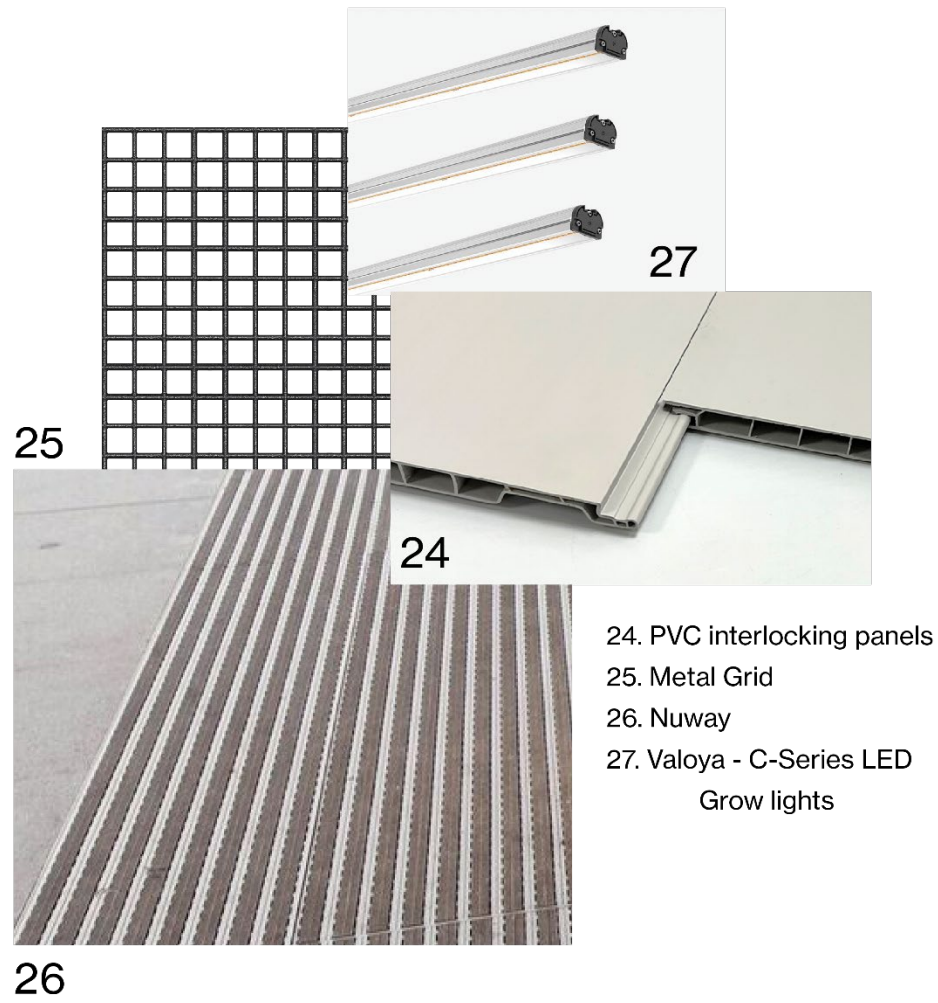


Figure 114: Material Board 3

Appendix B

Building Code Analysis

Building Code Analysis Occupancy

Name of Project: *RASOI*
Location: *814 Main Street*

General

Project Description: *4 Story Community Food Center*
Major Occupancy: *Assembly (A-2) & Agricultural (G-3) Group*

Separation of Major occupancies: *2 hr recommended separation*

Occupant load based on: *Design of building*

Occupant Load	Summary
<u>First Floor:</u>	<u>233 person</u>
<u>Mezzanine:</u>	<u>78 person</u>
<u>Second Floor:</u>	<u>80 person</u>
<u>Third Floor:</u>	<u>67.5 person</u>
<u>Rooftop:</u>	<u>41 person</u>

Building Area: *21 500 s/ft*

Building Fire Safety

Number of Storeys: *4*
Height of Building *64 ft to top of roof*
Number of streets/firefighter access: *1 street*

Building Classification

Sprinkler system proposed: *Existing? automatic*
Required fire resistance Rating: *2 hr fire rated door*
Fire alarm: *Required*
Water service: *Supply is adequate*
Standpipe: *Required*

Exits

Minimum number of exits:	2 required
Travel distance:	_____
Location of exits:	___ft to one exit
Fire resistance of rating of exit separation:	1 hr FRR
Integrity of exits:	Services spaces shall not open directly into an exit

Health Requirements

Water Closets: 3.7.2.2

Make/Female Count @ 50% / 50%

	Occupant Load		Fixtures	
			Req	Provided
First Floor:	M	116	3	3
	F	116	5	5
Mezzanine:	M	39	1	1
	F	39	2	2
Second Floor :	M	40	1	1
	F	40	2	2
Third Floor:	M	33.75	1	1
	F	33.75	2	2
Rooftop:	M	20.5	1	1
	F	20.5	1	1

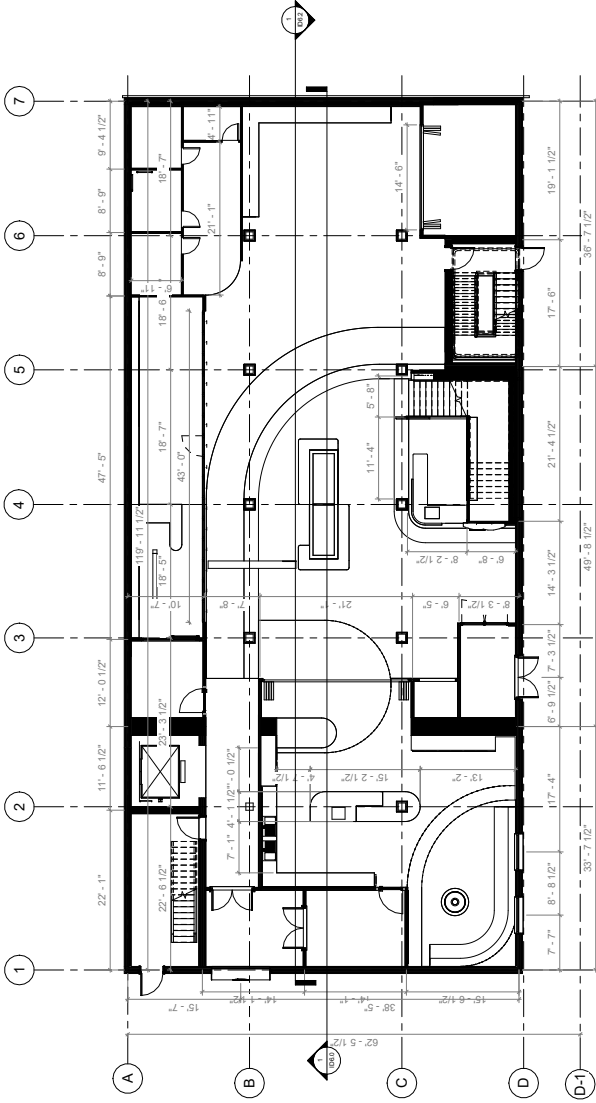
Appendix C
Technical Drawings



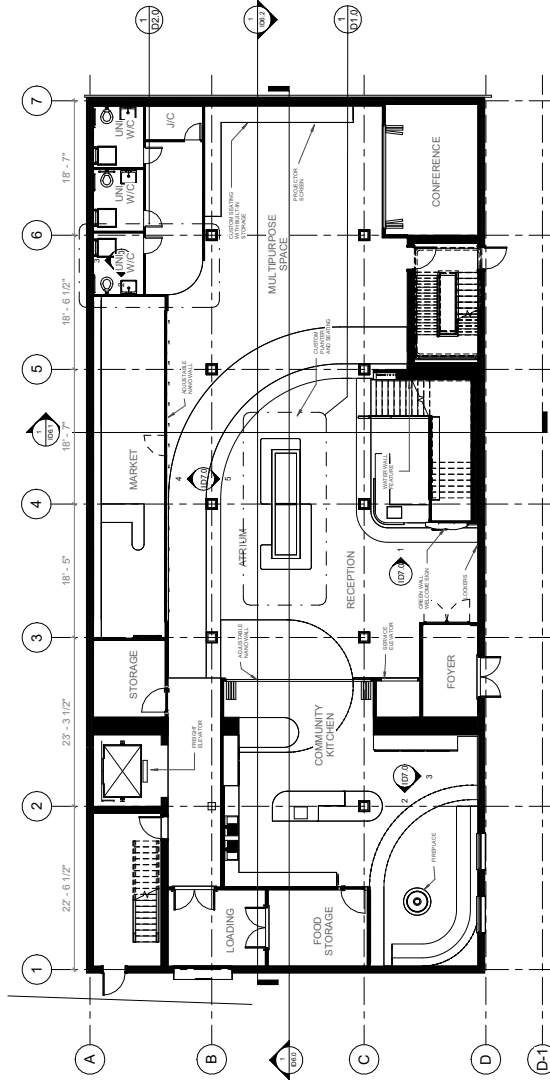
1. SPECIAL CARE MUST BE TAKEN TO PROTECT EXISTING BUILDING FINISHES DURING THE PERFORMANCE OF THE WORK. CONTRACTOR TO BE RESPONSIBLE FOR ANY DAMAGE INCURRED DUE TO IMPROPER PROTECTION OF EXISTING FINISHES. CONTRACTOR TO PROVIDE PROTECTIVE COVERING AND PROTECTION METHODS WITH CONSULTANT PRIOR TO THE START OF CONSTRUCTION.
2. ALL DIMENSIONS ARE TO FINISHED FACE OF GYPSUM BOARD, PLASTER OR MASONRY UNLESS OTHERWISE NOTED.
3. ALL NEW INTERIOR WALLS TO EXTEND TO US OF CEILING UNLESS OTHERWISE INDICATED.
4. GYPSUM PERIMETER OF GYPSUM BOARD CONTINUOUSLY BOTH SIDES OF ALL FIRE SEPARATIONS AND INTERIOR WALLS CONTAINING ACOUSTIC INSULATION.
5. THE GENERAL CONTRACTOR SHALL COORDINATE MECHANICAL AND ELECTRICAL WORK WITH STRUCTURE & ADJUST PURLING AS REQUIRED IN CONJUNCTION WITH ARCHITECT.
6. EXISTING WALLS THAT ARE TO RECEIVE NEW FINISHES ARE TO BE PATCHED AND REPAIRED WHERE REQUIRED.
7. GENERAL CONTRACTOR TO PROVIDE ALL BLOCKING REQUIRED IN WALLS TO SUPPORT MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT FROM ACCESSORIES, & EQUIPMENT (IN CONTRACT & NOT IN CONTRACT).
8. PATCH AND REPAIR ALL EXISTING WALLS WHERE DEMOLITION OCCURS TO MATCH ADJACENT WALL FINISH.
9. REFER TO ROOM FINISH SCHEDULE AND DOOR SCHEDULE FOR IDENTIFICATION OF NEW WALL, DOOR AND FLOOR FINISHES PER AREA/ROOM.
10. ALL NEW AND EXISTING GYPSUM BOARD AND PLASTER BULKHEADS AND CEILINGS TO BE PAINTED UNLESS NOTED OTHERWISE.
11. ALL WINDOWS TO RECEIVE NEW PLASTIC LAMINATE SILLS. REFER TO DETAILS FOR SILL CONSTRUCTION.
12. CONTRACTOR SHALL FIELD & VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN FOR OR TO EXISTING CONSTRUCTION PRIOR TO FABRICATION OR NEW CONSTRUCTION. NOTIFY ARCHITECT OF ANY DISCREPANCY IMMEDIATELY.
13. ALL EXISTING FLOORS TO BE PROTECTED DURING CONSTRUCTION.
14. ALL DIMENSIONS ARE TO BE VERIFIED BY CONTRACTOR IN FIELD.

GRID AND GRID LINE:	A Room Name 101	ROOM NAME	ROOM NO.
		ROOM NAME	ROOM NO.
FLOOR ELEVATION:	100 100.000	T.O MAIN FLOOR	
		FLOOR ELEVATION:	
DOOR TAG:	101 Room Name 101	DOOR TAG	
		DOOR TAG:	
WALL TYPE:	W1 Room Name 101	WALL TYPE	
		WALL TYPE:	
REFERENCE NOTE:	3 Room Name 101	REFERENCE NOTE	
		REFERENCE NOTE:	

As indicated



1 1ST FLOOR DIMENSION PLAN
1/8" = 1'-0"



2 1ST FLOOR PLAN
1/8" = 1'-0"

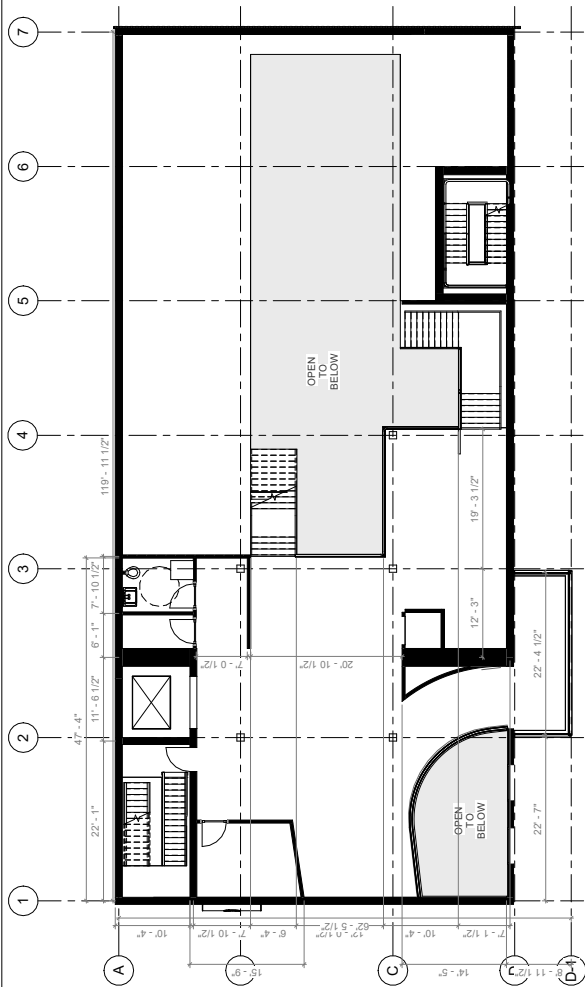
WALL LEGEND

- EXISTING WALL TO REMAIN
- EXISTING WALL TO BE DEMOLISHED
- NEW WALL

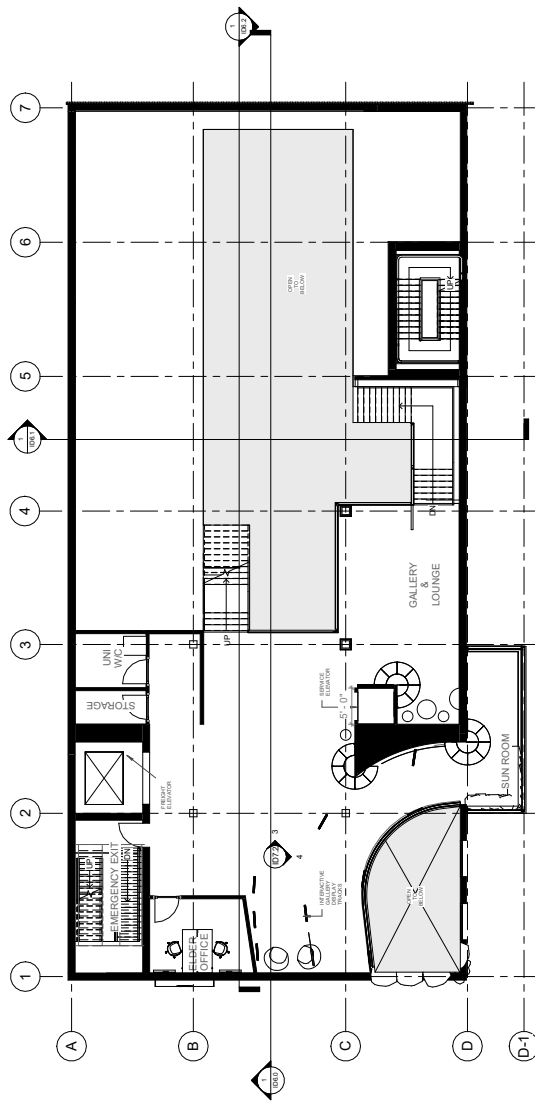
RASOI

FIRST FLOOR PLAN

Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker
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Scale	As indicated



1 MEZZANINE DIMENSION PLAN
1/8" = 1'-0"



2 MEZZANINE
1/8" = 1'-0"

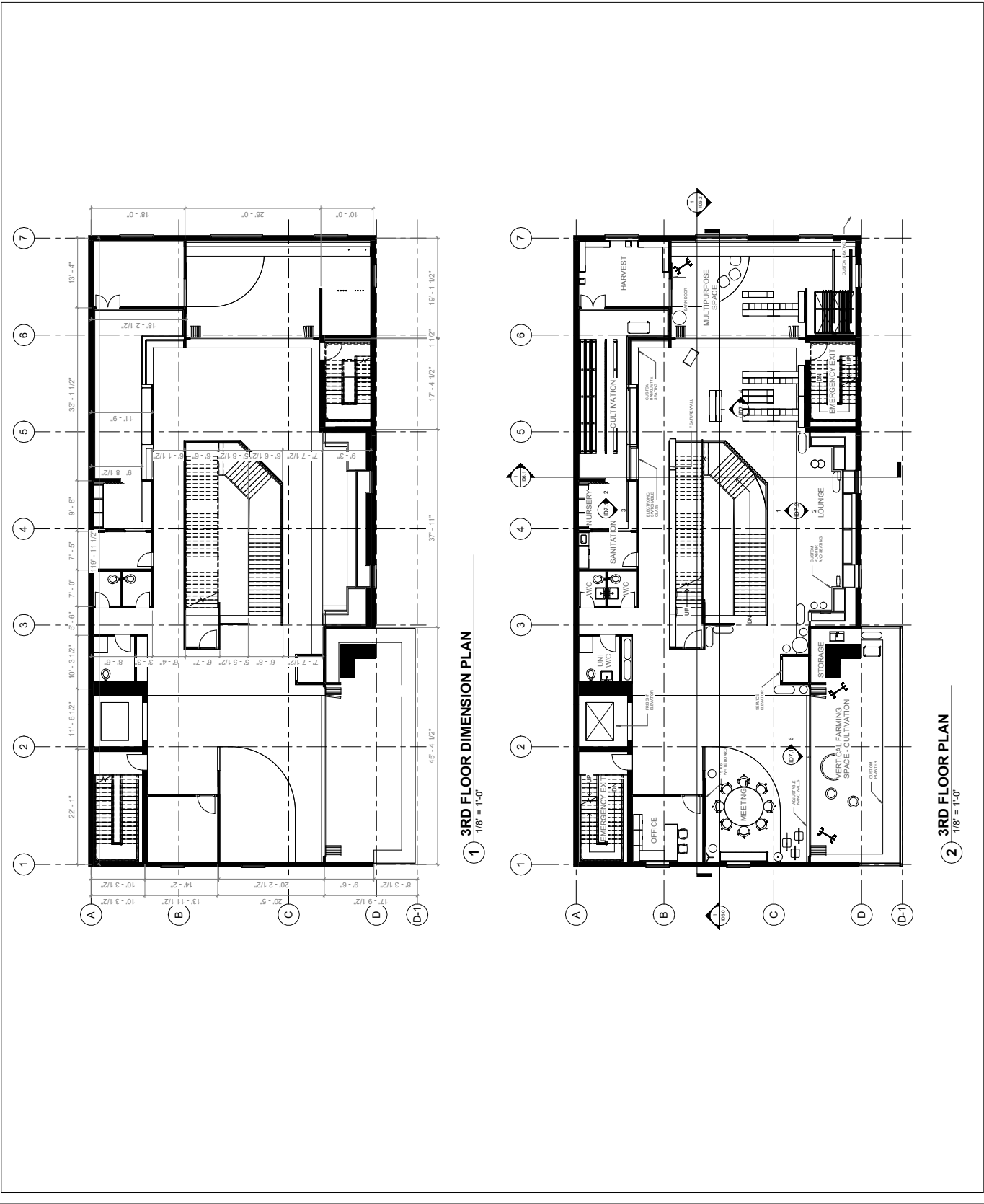
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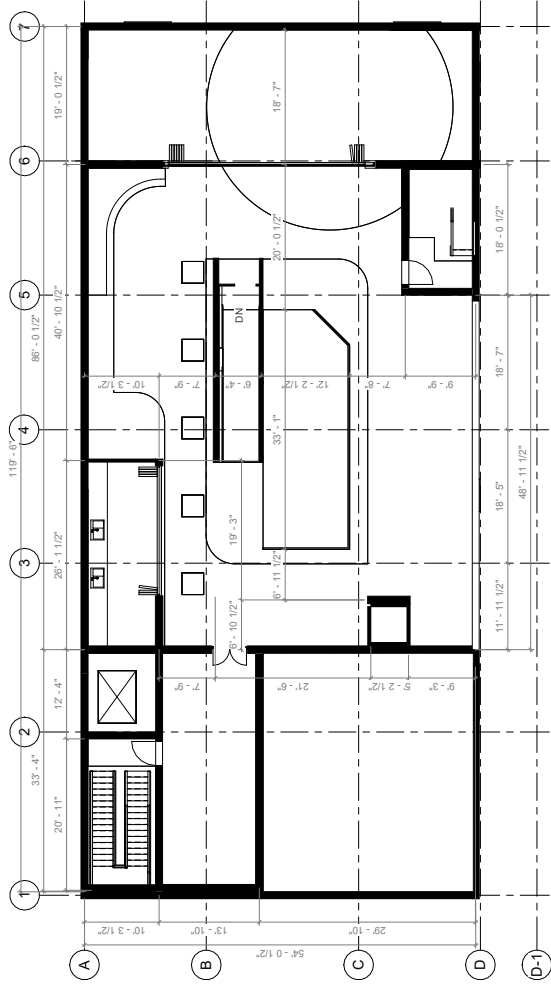
MEZZANINE FLOOR
PLAN

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Checked by	Checker
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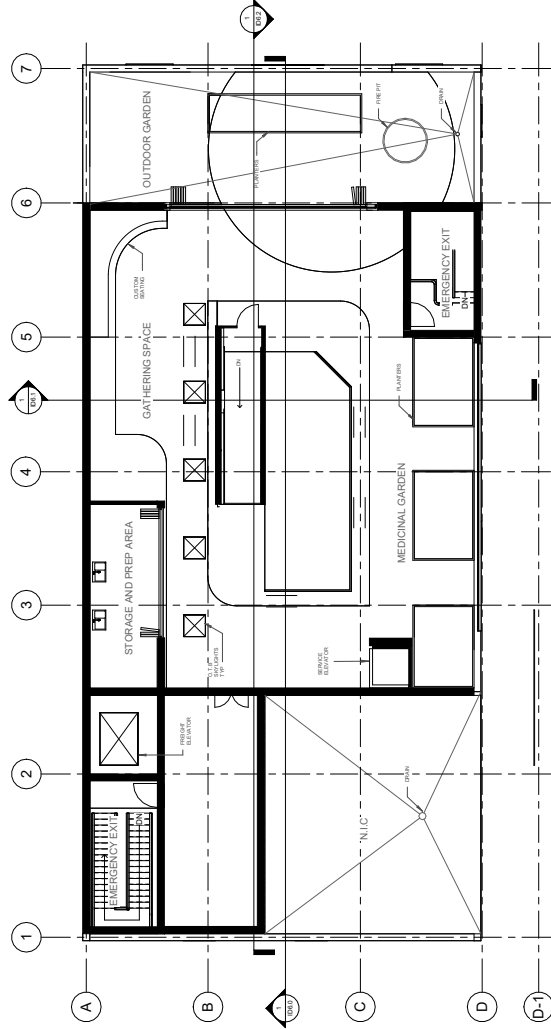
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RASOI	
THIRD FLOOR FLOOR PLAN	
Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker
ID1.2	
Scale	1/8" = 1'-0"





1 ROOF GREENHOUSE DIMENSION PLAN
1/8" = 1'-0"



2 ROOF FLOOR PLAN
1/8" = 1'-0"

RASOI

ROOFTOP GARDEN
FLOOR PLAN

Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker
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Scale	1/8" = 1'-0"

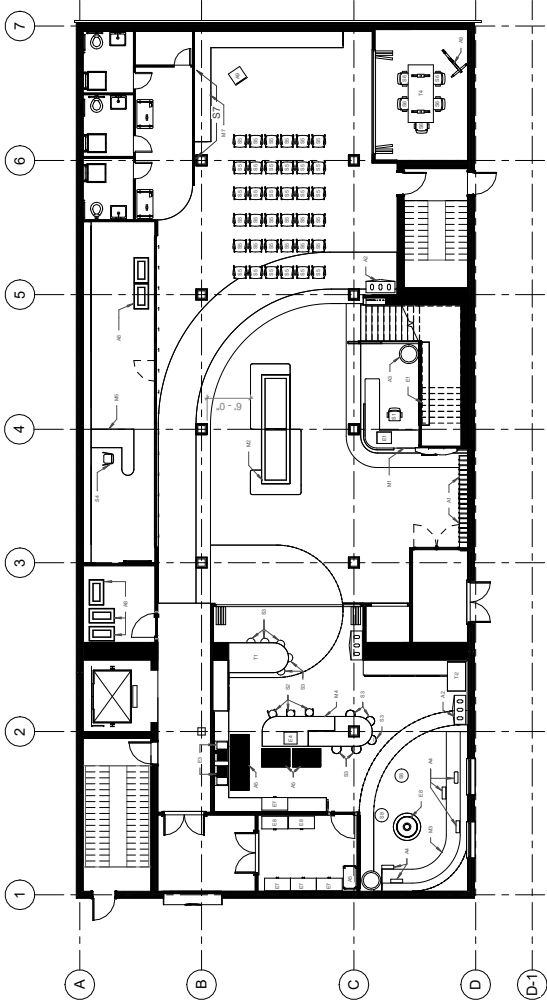
- CEILING MOUNTED
EMERGENCY LIGHT
- WALL MOUNTED EXIT LIGHT
WITH DIRECTION OF TRAVEL
- CEILING MOUNTED EXIT LIGHT
WITH DIRECTION OF TRAVEL
- DUPLEX OUTLET
- SECURITY CAMERA
- SPRINKLER

[illegible]

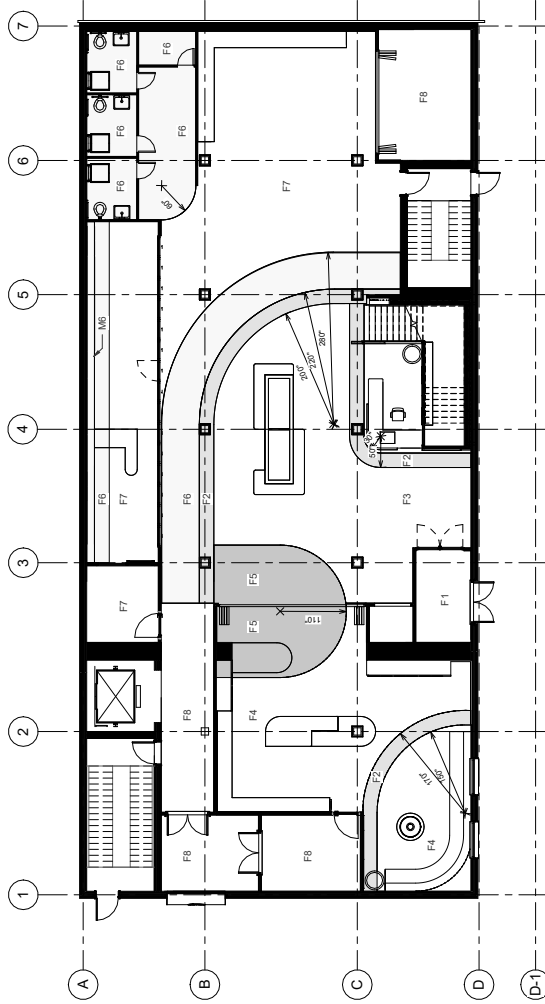
FIRST FLOOR
REFLECTED CEILING
PLAN

Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker
ID2.0	
Scale	As Indicated

ID2.0



1 1ST FLOOR FURNITURE PLAN
1/8" = 1'-0"



2 1ST FLOOR MILLWORK AND FINISHES PLAN
1/8" = 1'-0"

F&E LEGEND

- S1 TASK CHAIR
S2 STOOL
S3 CUSHION STOOL
S4 STOOL
S5 SIDE CHAIR
S6 CONFERENCE CHAIR
S7 BENCH
S8 POUF
- T1 TABLE
T2 TABLE TOP
T3 WORKSURFACE ON CASTOR
T4 DESK
- E1 COMPUTER
E2 CHAIR
E3 SINK
E4 OVEN
E5 STOVE
E6 Fridge
E7 FREEZER
E8 FIREPLACE
- A1 LOCKERS
A2 LAMP
A3 PLANT
A4 PLANTER
A5 ANTI-FATIGUE MAT
A6 CUSHIONS
A7 CUSTOM DISPLAY ON CASTORS
A8 HANGING MESH
A9 PLANT
A10 SCREEN
A11

MILLWORK LEGEND

MARK	ROOM	DESCRIPTION	DETAIL DWG
M1	RECEPTION	RECEPTION DESK	
M2	ATRIUM	PLANTER AND SEATING	
M3	COMMUNITY	CURVED SEATING	D1.0
M4	KITCHEN	KITCHEN ISLAND	
M5	COMMUNITY	MARKET DISPLAY	
M6	KITCHEN	CASH DESK	
M7	MARKET	PLANTER WITH BUILT IN ADJUSTABLE SEATING	
M8	MULTIPURPOSE		
M9	SPACE		

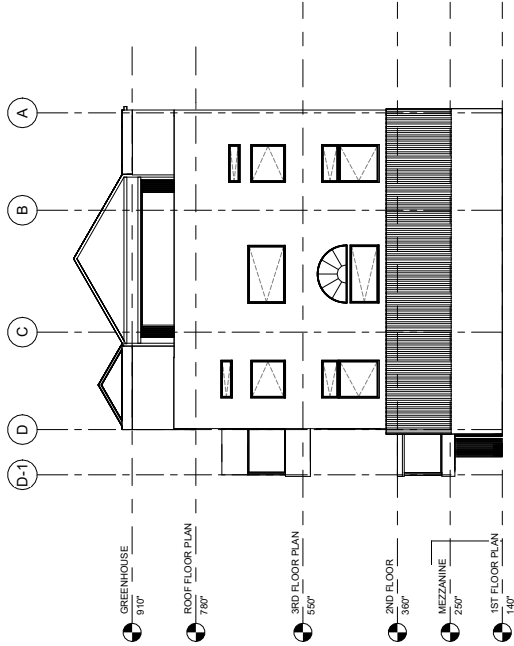
FLOORING FINISH LEGEND

- F1 NAME: ENTRANCE FLOORING
MANUF: FORBO
SERIES: UNIFY GRID
COLOR: CLASSIC ANTHRACITE
- F2 NAME: HOMOGENEOUS VINYL SHEET
MANUF: SPHERA
SERIES: SPHERA - ENERGETIC
COLOR: LINEN
- F3 NAME: HOMOGENEOUS VINYL SHEET
MANUF: FORBO
SERIES: SPHERA - ELEMENT
COLOR: HORT
- F4 NAME: HOMOGENEOUS VINYL SHEET
MANUF: SPHERA
SERIES: SPHERA - ENERGETIC
COLOR: SALTED CARAMEL
- F5 NAME: HOMOGENEOUS VINYL SHEET
MANUF: FORBO
SERIES: MARMOLEUM SOLID
COLOR: TERRA COTTA
- F6 NAME: HOMOGENEOUS VINYL SHEET
MANUF: SPHERA
SERIES: SPHERA - ELEMENT
COLOR: EARL GREY CHOCOLATE
- F7 NAME: HOMOGENEOUS VINYL SHEET
MANUF: FORBO
SERIES: SPHERA - ENERGETIC
COLOR: DEEP SEA
- F8 NAME: ACOUSTIC UNILEUM
MANUF: FORBO
SERIES: MARMOLEUM DECIBEL
COLOR: MOONSTONE
- F9 NAME: LUXURY VINYL TILE
MANUF: MILLIKEN
SERIES: ROOTWORK
COLOR: HARVEST

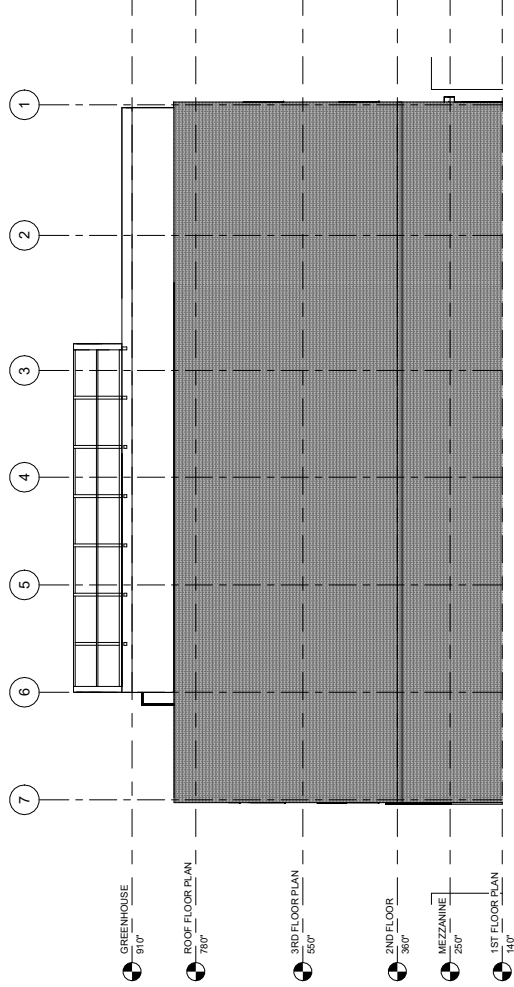
RASOI

FIRST FLOOR
FURNITURE PLAN
AND FLOOR FINISH

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Date	APRIL 15, 2024
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Checked by	Checker
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Scale	As indicated



1 East
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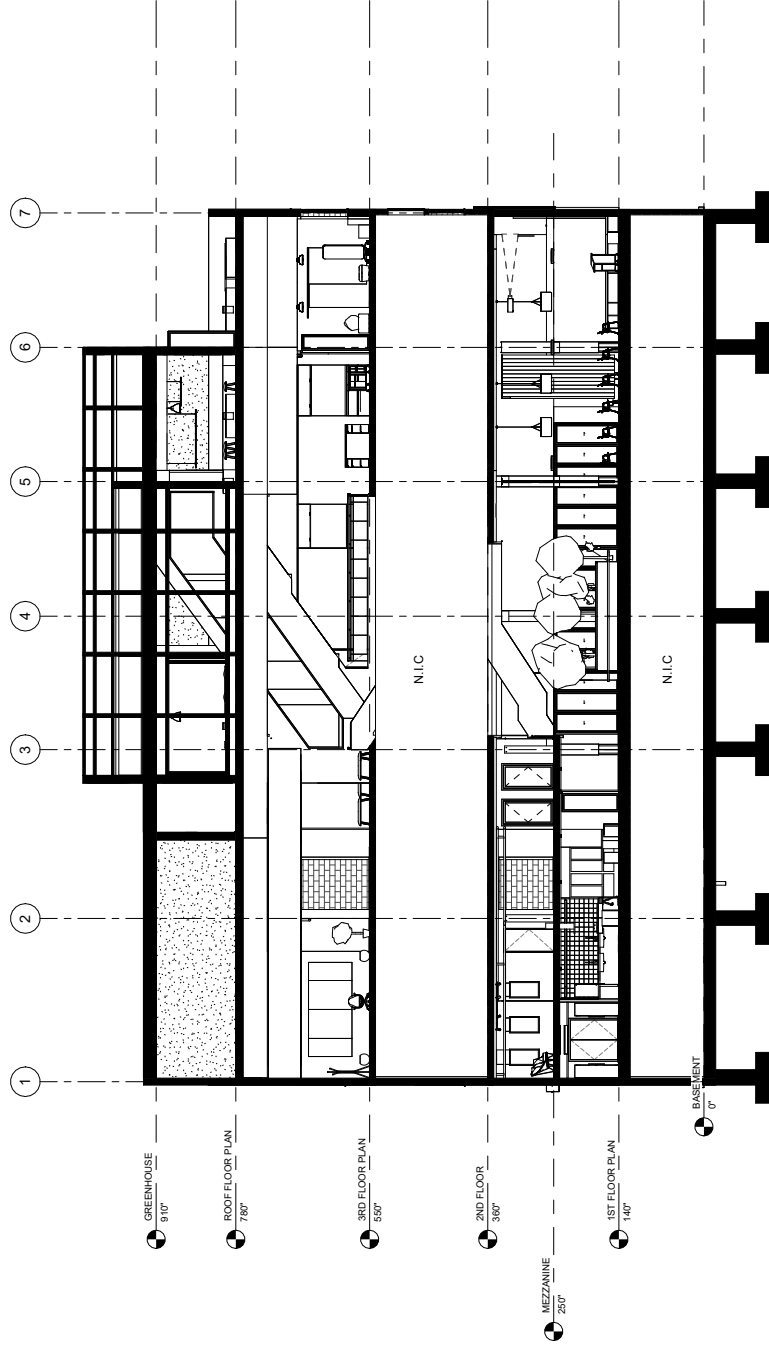


2 North
1" = 10'-0"

RASOI

BUILDING
ELEVATIONS

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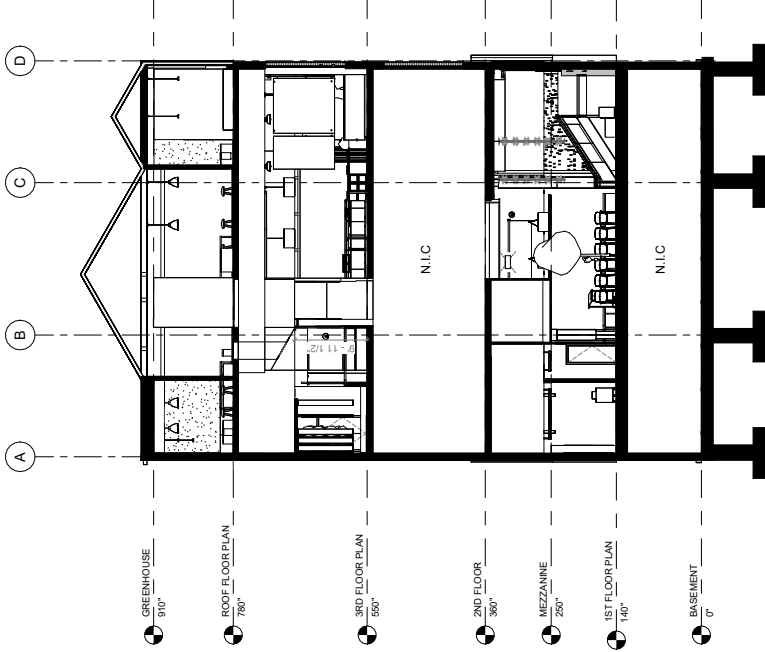


1 BUILDING SECTION A-A
1/8" = 1'-0"

RASOI

BUILDING SECTION

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Date	APRIL 15, 2024
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Checked by	Checker
ID6.0	
Scale	1/8" = 1'-0"

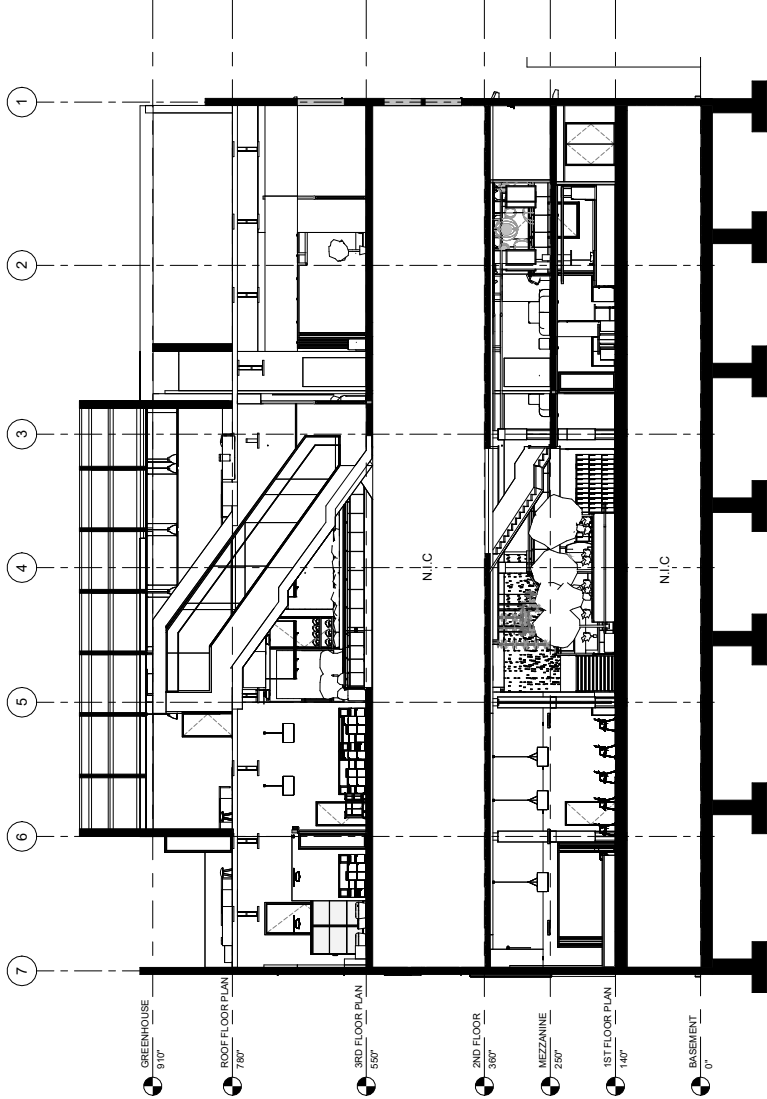


1 BUILDING SECTION B-B
1/8" = 1'-0"

RASOI

BUILDING SECTION

Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker
ID6.1	
Scale	1/8" = 1'-0"

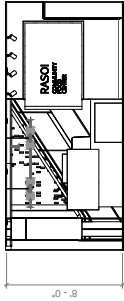


1 Section 3
1/8" = 1'-0"

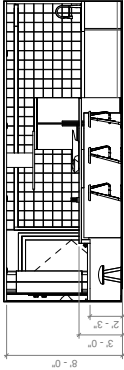
RASOI

BUILDING SECTION

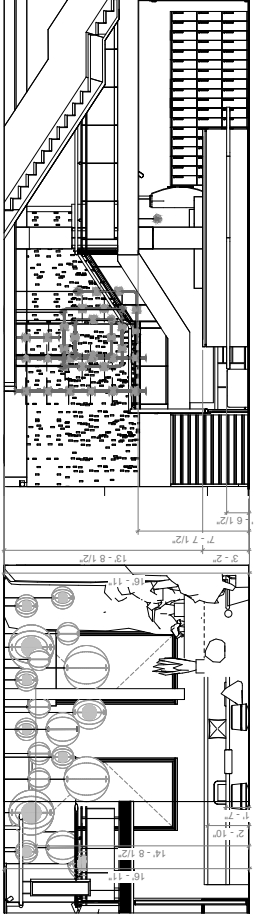
Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker
ID6.2	
Scale	1/8" = 1'-0"



1 RECEPTION
1/4" = 1'-0"

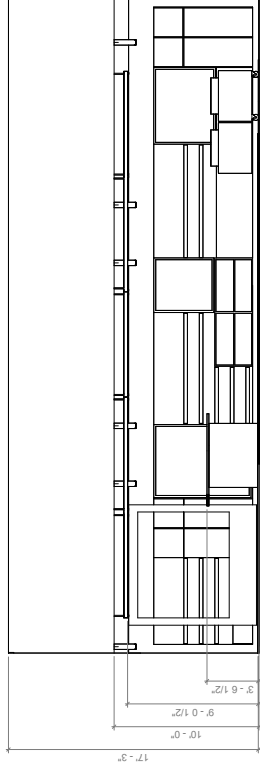


2 COMMUNITY KITCHEN 1
1/4" = 1'-0"



3 COMMUNITY KITCHEN 2
1/4" = 1'-0"

5 MULTIPURPOSE SPACE
1/4" = 1'-0"



4 MARKET
1/4" = 1'-0"

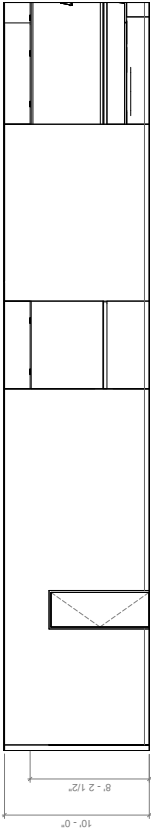
RASOI

INTERIOR
ELEVATIONS

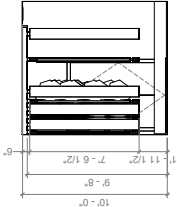
Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker

ID7.0

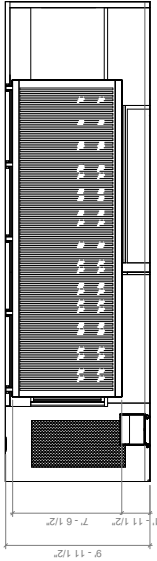
Scale	1/4" = 1'-0"
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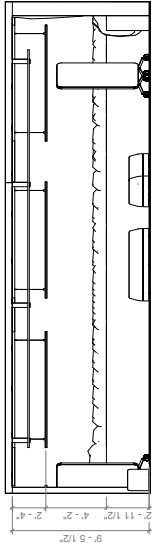
1 VF - EXTERIOR VIEW
1/4" = 1'-0"



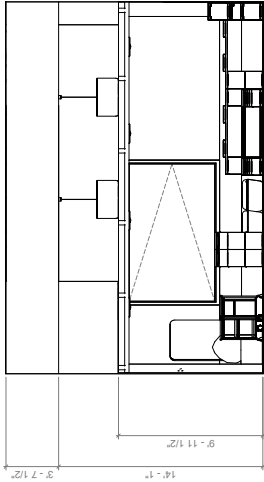
2 VF - INTERIOR VIEW 2
1/4" = 1'-0"



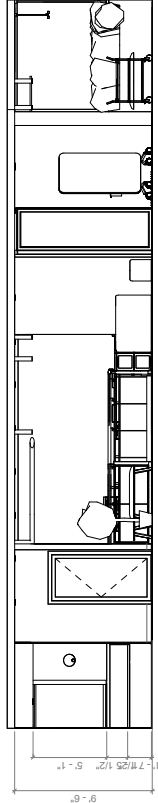
3 VF - INTERIOR VIEW 3
1/4" = 1'-0"



5 EXTENSION 1
1/4" = 1'-0"

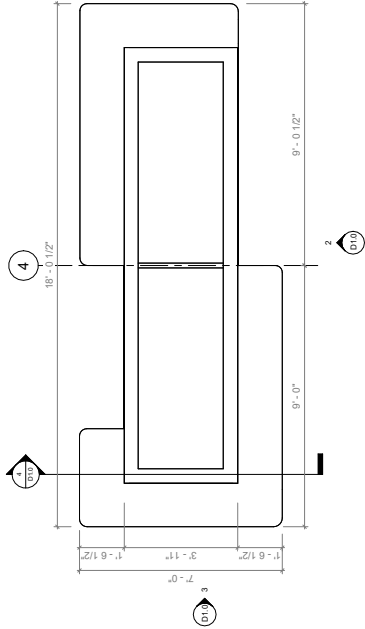


4 HARVEST SPACE
1/4" = 1'-0"

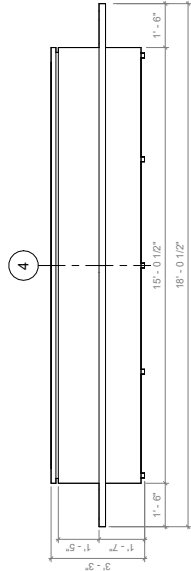


6 EXTENSION 2
1/4" = 1'-0"

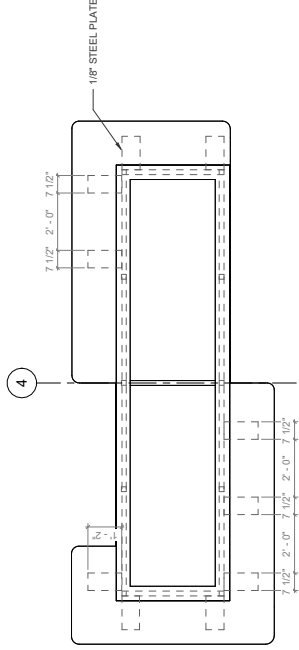
RASOI	
INTERIOR ELEVATIONS	
Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker
ID7.1	
Scale	1/4" = 1'-0"



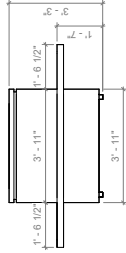
1 PLANTER & SEATING - TOP
1/2" = 1'-0"



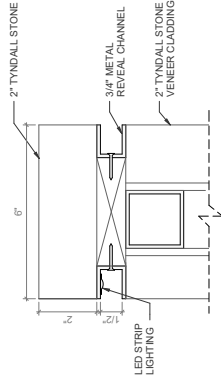
2 PLANTER AND SEATING - FRONT
1/2" = 1'-0"



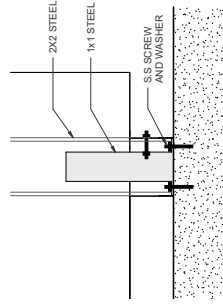
3 PLANTER & SEATING FRAME - TOP
1/2" = 1'-0"



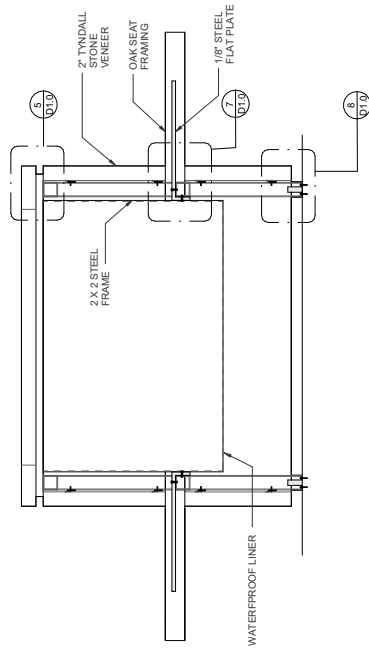
4 PLANTER & SEATING - SIDE
1/2" = 1'-0"



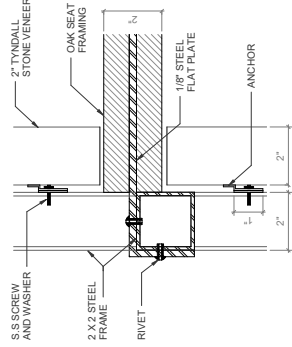
5 REVEAL DETAIL
6" = 1'-0"



6 MOUNTING DETAIL
6" = 1'-0"



7 PLANTER & SEATING - SECTION
1 1/2" = 1'-0"



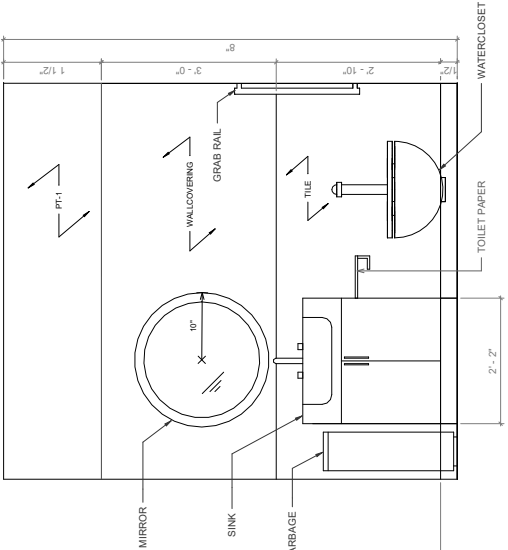
8 REVEAL DETAIL 1
6" = 1'-0"

RASOI

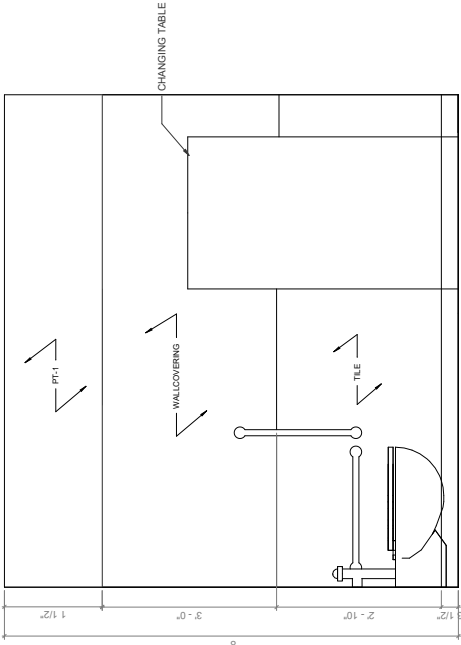
DETAIL DRAWING

Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker
Scale	As indicated

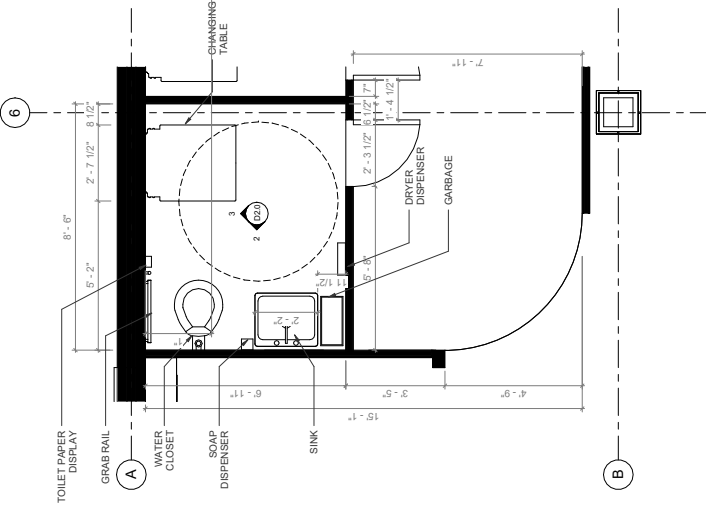
D1.0



2 WASHROOM ELEVATION 2
1" = 1'-0"



3 WASHROOM ELEVATION 1
1" = 1'-0"



1 1ST FLOOR CONSTRUCTION PLAN - Callout 1
1/2" = 1'-0"

RASOI

UNIVERSAL PUBLIC
WASHROOM

Project number	MID_SB
Date	APRIL 15, 2024
Drawn by	SB
Checked by	Checker

D2.0

Scale	As indicated
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