

HOW CAN DECLINING RURAL COMMUNITIES IN NORTH DAKOTA BE SAVED? A CRITICAL INVESTIGATION

FINAL THESIS PRESENTATION

05/02/2024

SYDNEY SEAMANDS



Image from Alkabo, ND. Photo by Troy Larson and Terry Hinnenkamp, © 2016 Sonic Tremor Media

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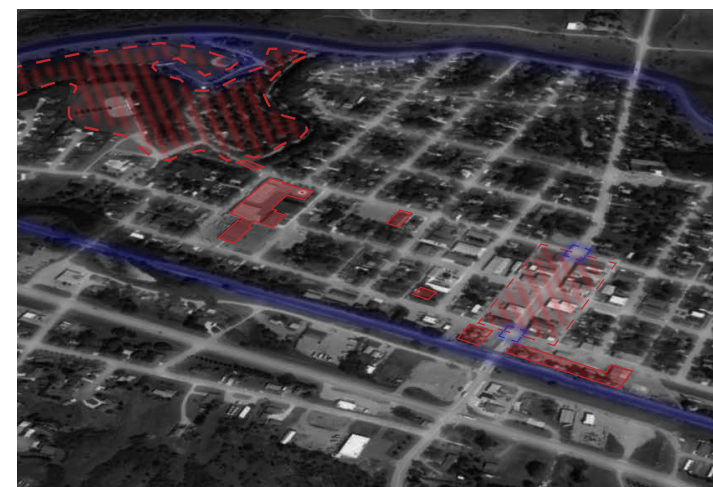
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exploration of investigation's background, aim, and significance

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SECTION 01

INTRODUCTION

BACKGROUND. AIM. SIGNIFICANCE.



Abandoned Schoolhouse in Crystal Springs, ND. Photo by Troy Larson and Terry Hinnenkamp. © 2017 Sonic Tremor Media

Rural North Dakota has become somewhat of an abandoned land. There are dozens of small communities, with major service gaps and unsustainable populations. With the death of each rural town, the state loses pieces of its history, as unique cultures, and buildings decay alongside the highways.

Rural America's population decline can be attributed to a variety of factors, with perhaps the most imposing issue being a lack of opportunity. Small towns struggle to maintain vitality with limited educational, professional, and recreational opportunities. While small-town life offers many benefits, many Americans leave for urban amenities. The primary scope of this project will focus on the reintroduction of these opportunities into a rural town as a strategy to retain and attract residents.

Economic and social development of rural communities can help to reduce poverty and inequality among rural residents and enhance community vitality. Rural revitalization can also promote environmental sustainability by supporting sustainable agriculture practices, protecting natural resources, and integrating renewable energy sources. By improving the living standards and economic opportunities in rural areas, rural revitalization can help to reduce the migration of people to urban areas. This can help to alleviate overcrowding and pollution in cities, reducing the gap between rural and urban areas and improving the quality of life for both urban and rural residents.

Rural revitalization is essential to the preservation of culture and history in North Dakota. Historic buildings and landmarks located across the state in rural areas cannot develop connections to the future if they are permanently lost to the past. Rural communities

Responses to Modern Challenges

Lowered Cost of Living

Strong Sense of Community

Environmental Connection

Reduction of Poverty and Inequality
between Urban and Rural Residents

have the opportunity to embrace the historic architecture that often remains in their built environment, whereas urban cities have lost many of these connections.

Small towns have the potential to blend all the history of their pasts with sustainable design practices and modern amenities, resulting in functional and beautiful built environments tucked into rural landscapes. This research will be universally beneficial to rural communities with revitalization aspirations, as many of the challenges facing North Dakota's rural communities also affect rural areas nationally and globally. It would be irresponsible to ignore rural revitalization opportunities, as many urban areas around the world struggle to accommodate for the needs of their individual residents.

OBJECTIVE

While small-town life offers many benefits, many Americans leave for urban amenities. The primary scope of this project focuses on the reintroduction of these opportunities into a rural town as a strategy to retain and attract residents.

A comprehensive program addressing facility programs, designed to attract new residents and businesses while enhancing conditions for existing entities was developed. This project investigates the application of the proposed Rural Revitalization program in the town of Velva, North Dakota. Velva's identity is researched, while the core focus areas identified in the program are prioritized in the outlined revitalization effort.

- Develop and apply program designed in response to Rural Revitalization in North Dakota Survey.
- Identify core focus areas for intervention.
- Integrate urban amenities and opportunities into rural communities as a strategy to retain and attract residents.

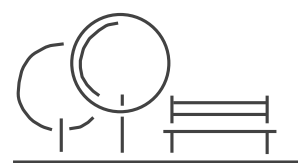
SECTION 02

PROPOSED PROGRAM

APPLICATION OF INSIGHT FROM RESEARCH REPORT.

The intention of this program is to identify strategies for implementation while revitalizing North Dakota's rural communities. Small towns face distinct challenges stemming from outmigration and lack of opportunity, as shown in precedent studies and the Rural Revitalization Survey specific to North Dakota, but they also possess unique opportunities for developing their economies and built environments. Successful schemes will require a comprehensive program addressing socioeconomic policies and facility programs, designed to attract new residents and businesses while enhancing conditions for existing entities.

CORE FOCUS AREAS IDENTIFIED



COMMUNITY AND CULTURAL AMENITIES



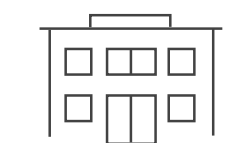
CHILDCARE SERVICES AND FACILITIES



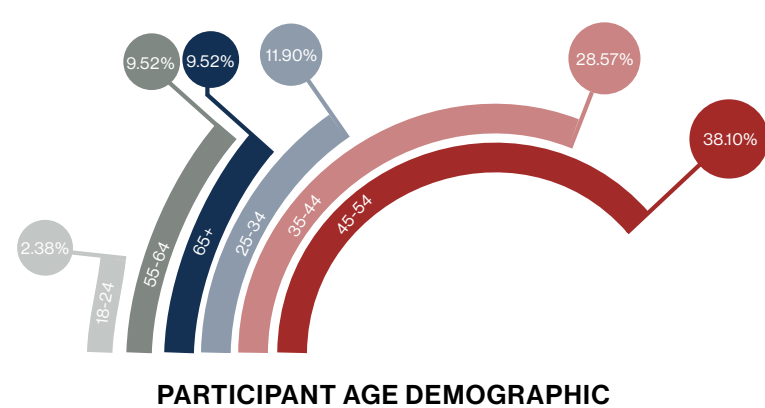
DOWNTOWN DEVELOPMENT



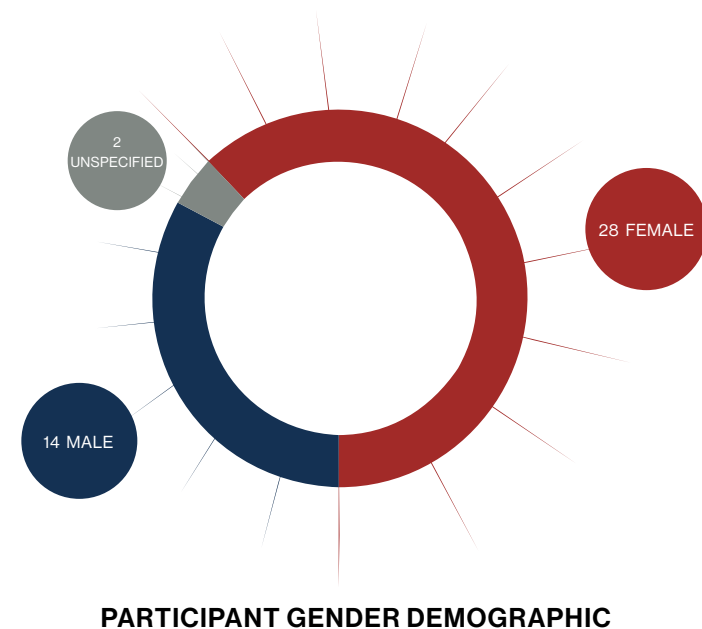
SINGLE AND MULTI-FAMILY HOUSING



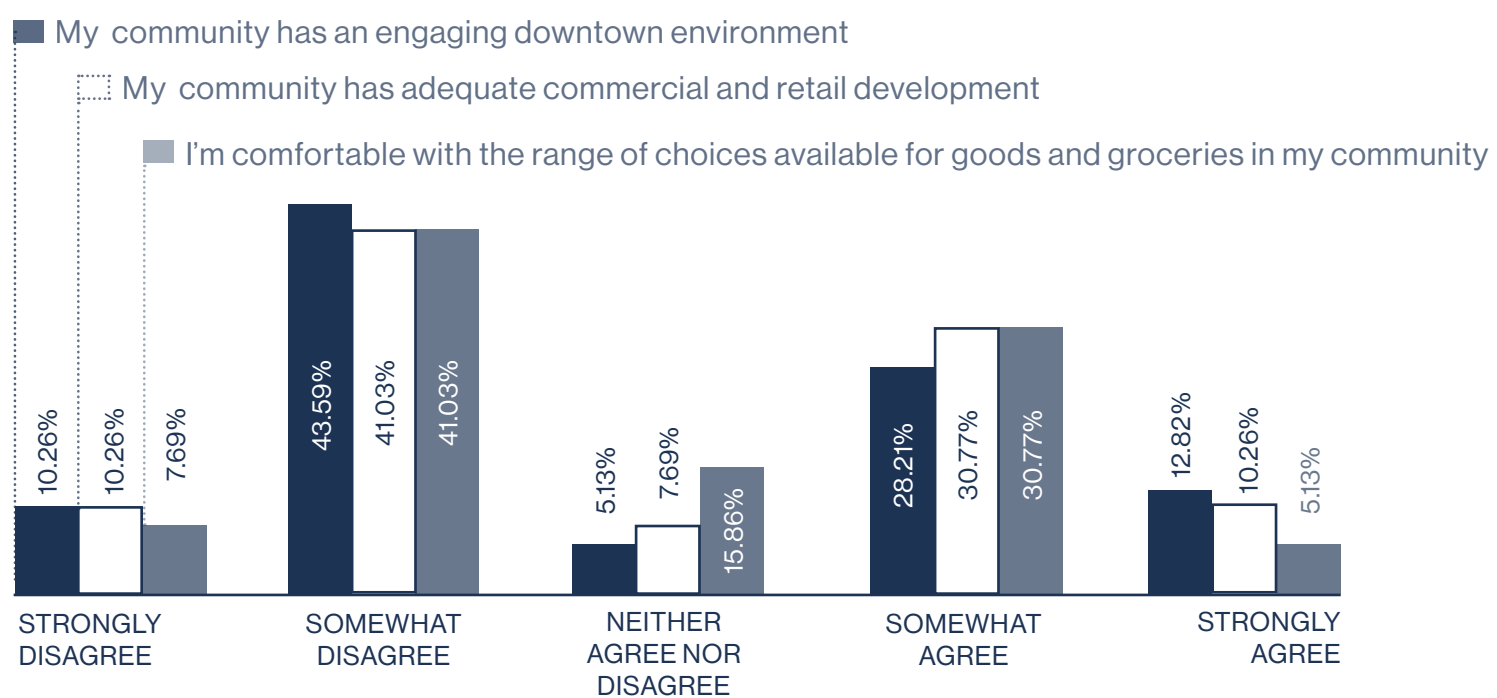
EDUCATIONAL OPPORTUNITIES AND FACILITIES



The Rural Leadership North Dakota (RLND) Program is a leadership development program offered through NDSU Extension. A total of 174 people from RLND and NDSU's Extension Leadership and Civic Engagement Program were invited to complete the survey. Past and current members of RLND were included in the target population, providing a range of responses from varying towns and age groups.



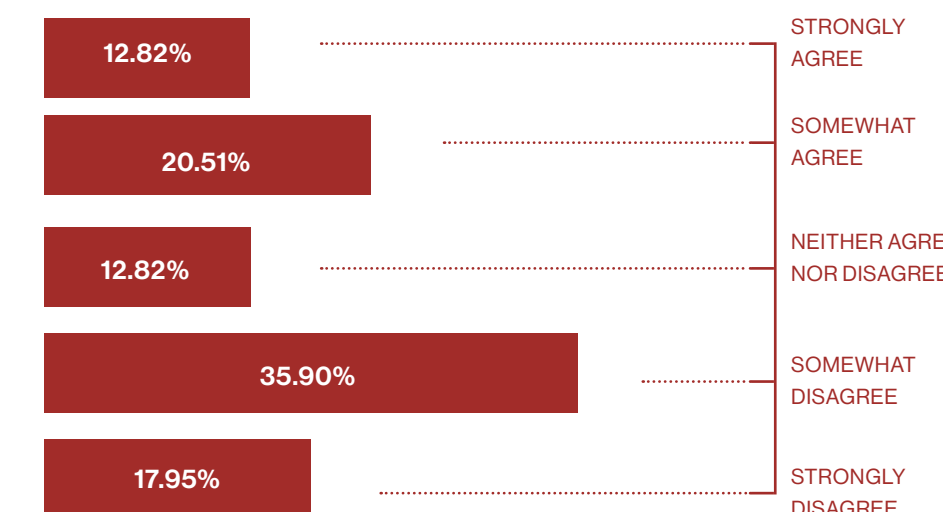
Considering the cultivated set of participants, the survey prompted responses on a 5-point Likert scale regarding community identity, amenities, and safety. Opportunities for open-ended responses, specifically about revitalization implementations, were also provided. With these responses, the research identifies subject areas that are adequate, and subject areas that require intervention across several rural communities in North Dakota.



Responses to Question 18: 'What are some of the most important characteristics of your community to maintain? select all that apply'



Responses to Question 15: 'What are some core challenges your community faces? select all that apply'



In response to Question 12: 'There are opportunities and services that meet the needs of my community for adequate childcare options'

SECTION 03

VELVA'S IDENTITY

- A - RICHARDTON, ND
- B - GARRISON, ND
- C - VELVA, ND
- D - MAYVILLE, ND
- E - RUGBY, ND



CRITERIA	NEGOTIABLE		A	B	C	D	E
	YES	NO					
Rural Town in North Dakota (population approx. 2000)	X		✓		✓	✓	✓
Opportunities for Tourism		X	✓	✓	✓		✓
Close Proximity a Post-Secondary Education Facility		X			✓	✓	✓
Close Proximity a Healthcare Facility	X		✓		✓	✓	
Historic Buildings in the Downtown District	X		✓		✓		✓
Availability of Housing to Accomodate Some Growth		X		✓	✓		✓
Low Environmental and Cultural Impact		X	✓	✓	✓	✓	✓
Existing Infrastructure to be Updated as Needed	X		✓	✓	✓	✓	✓



Entrance Approaching Main Street

Velva, North Dakota

Velva has been selected as the site for the proposed rural revitalization project. Velva's community and its surrounding towns make it an ideal location to implement the revitalization design program outlined in the research report. It meets the criteria established in response to feedback from the rural revitalization survey, sent to North Dakota's rural residents in positions of leadership.

Spatial Ideation for "The Star City", as it's advertised, will include an abstract for the community as a whole, along with a more thorough analysis of the downtown district, and its organization. Downtown development is a major subject of focus for this project as it will include elements from various core revitalization strategies.

Velva was founded in 1897 and currently has a population of 1,067 people.

- has a school with a student body of 480, offering K-12th grade
- ambulance service and a fire department
- 3 churches of Lutheran, Methodist, and Catholic denomination
- 50 bed nursing home and a 16 unit assisted living wing
- active senior citizen center
- public library (in the school)
- 3 dining establishments
- clinic, chiropractic, and dental offices
- bank and credit union
- gas station and mechanic shop
- swimming pool and park
- 9-hole golf course
- 12-unit motel
- home of 'Dotz Pretzels'





Main Street, Velva, N. D.

Reb. for G. W. McKnight

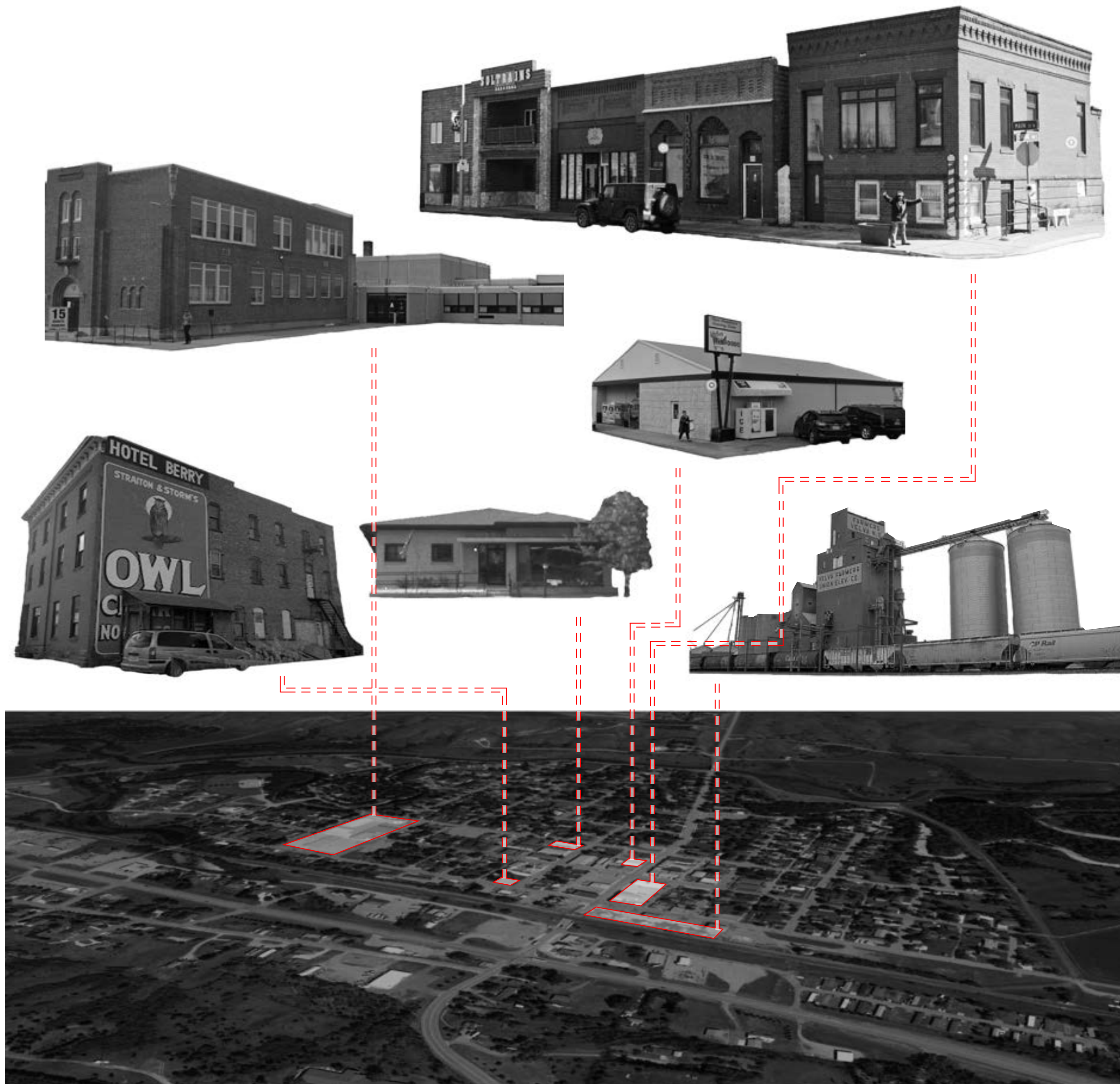
Mainstreet 1917

Historically, Velva's mainstreet was lined with traditional commercial storefronts. One goal of this project is to reclaim the charm of velva's historic downtown with proposed restoration and respectful infill projects.

The physical conditions of the downtown should be updated for improved safety, comfort, and aesthetics as necessary. Appropriate traffic stops, additional street lighting, and clear signage for wayfinding can make downtowns safer and more secure for residents to enjoy. Downtown development projects will preserve the existing character of buildings by implementing guidelines for consistent and attractive storefronts and streetscapes.







Each icon shows the current state of affairs in Velva and represents an area of focus for the revitalization project or a town landmark.

The uppermost image shows a portion of Velva's downtown district. These facades have been maintained, while others have not.

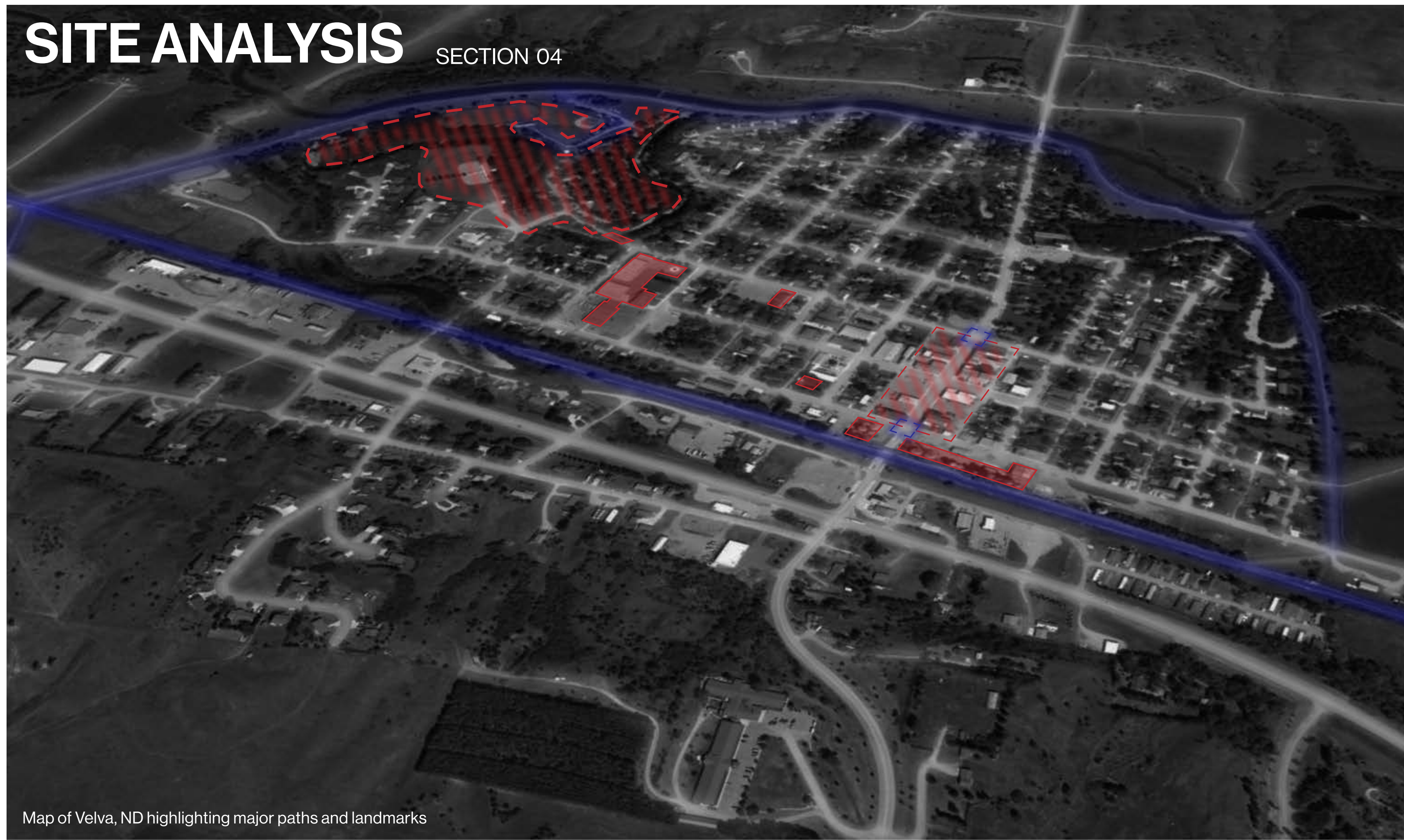
The next image to the left is the public school. This building hosts every grade level and has recently been updated and expanded. The public library is currently a part of the high school's library, which will be addressed in the project.

The next image to the right is the grocery store. It's front windows appear to be boarded even though it's still operational. This building requires some aesthetic updates.

Below and to the left, is Velva's clinic. It appears residential in nature and could benefit from some additional space and designs implementing improved accessibility.

The bottom left image is the Berry Hotel, a historic landmark, and one of the only hospitality-centered enterprises in the city, although it's not currently operational. The revitalization project will include restoring this structure to its former glory.

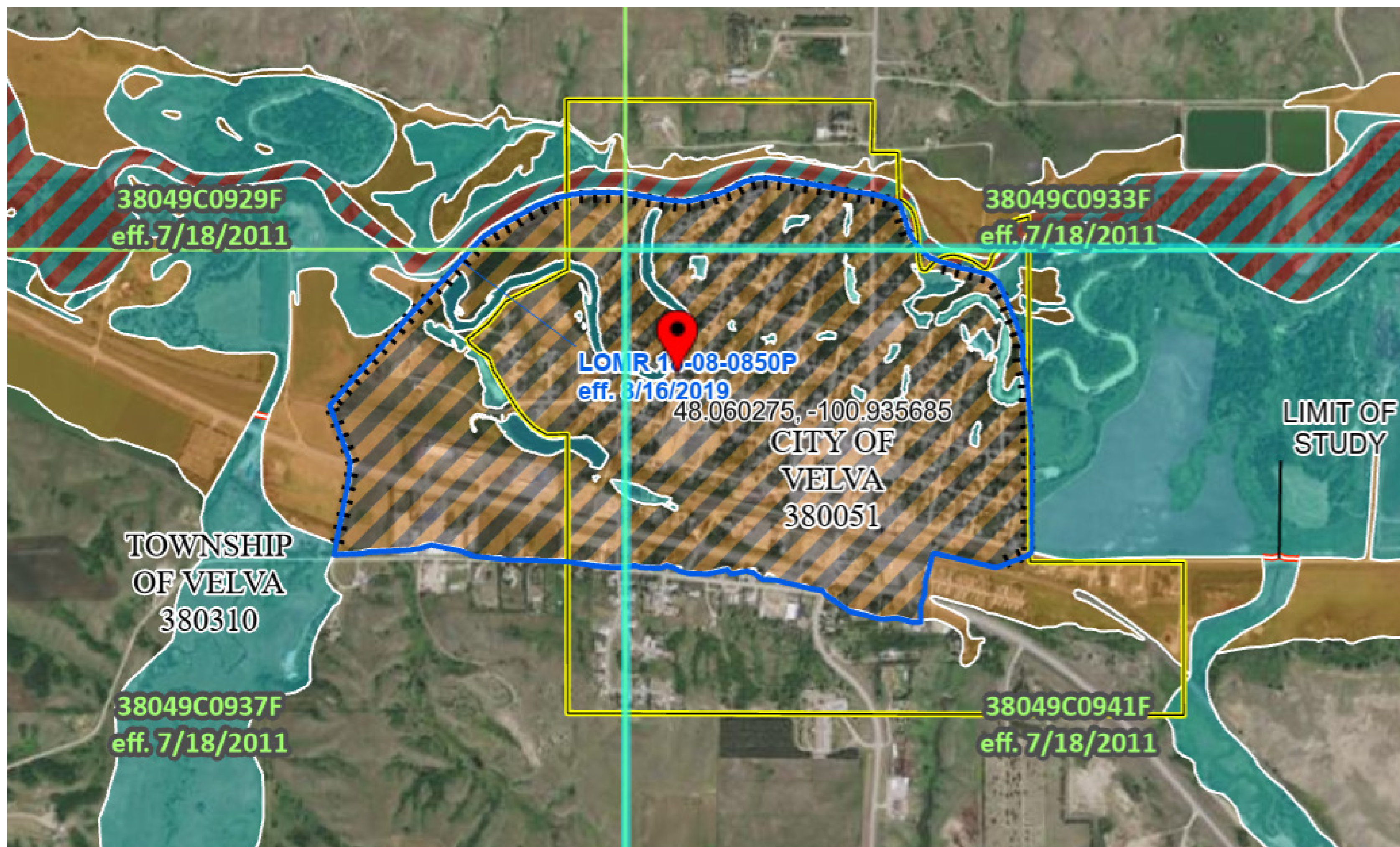
The final bottom right image shows the industrial enterprises located adjacent to the downtown district. The historic Velva Farmer's Union grain tower and railroad system are an important landmark in the town and could potentially influence aesthetic design choices in the project.



SITE ANALYSIS

SECTION 04

Map of Velva, ND highlighting major paths and landmarks



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS	NO SCREEN	Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline Profile Baseline Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

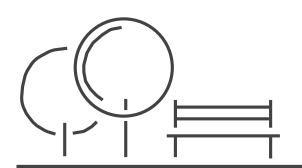
SECTION 05

DESIGN SOLUTION

This design solution addresses core challenges facing rural ND, with facility programs to retain and attract residents.

By responding to the identified core focus areas, rural communities could provide accessible and affordable places to live without sacrificing the amenities and opportunities currently exclusive to urban areas. Connecting these communities to integrated and intentional design will ease them into life with better developed amenities and opportunities while respecting their small-town identities. Velva serves as an example of how a potential rural revitalization project in North Dakota could be approached, but many of these interventions would be universally successful across the state.

CORE FOCUS AREAS IDENTIFIED



COMMUNITY AND CULTURAL AMENITIES



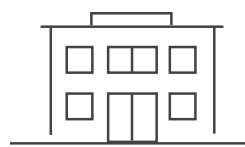
CHILDCARE SERVICES AND FACILITIES



DOWNTOWN DEVELOPMENT



SINGLE AND MULTI-FAMILY HOUSING

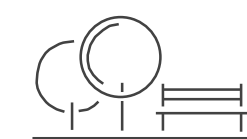


EDUCATIONAL OPPORTUNITIES AND FACILITIES



Velva, ND Site Map

COMMUNITY AND CULTURAL AMENITIES



REIMAGINING OF THE CITY OF VELVA

Organizational Criteria

Functional spaces are included in the community center in response to identified gaps in the town. Spaces are organized based on user groups, accessibility, shared spaces, circulation, noise, safety and security, and square footage.

Spatial Ideation - Community

Velva requires a community center, as proposed in the revitalization program. The site is located adjacent to the downtown district, at the end of Main St for optimized user interaction. Placing the community center at the edge of the downtown district also makes it easily accessible with an adjoining parking lot.



The community center would be a multi-functional way to provide Velva with all the amenities it currently lacks, while livening the community.

Organizational diagram of community center spaces



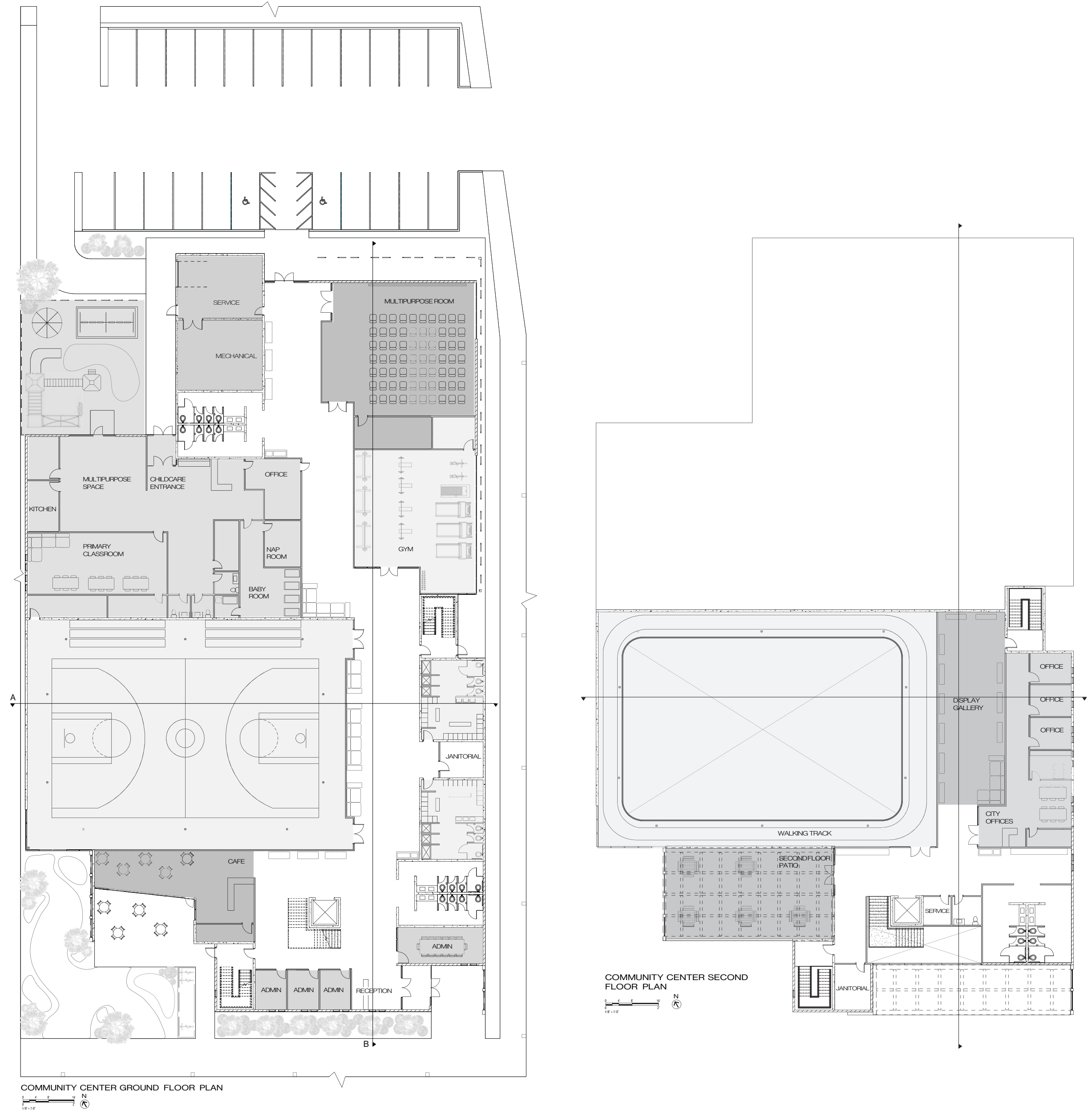
North Entrance of Community Center



Community Center Location in Velva, ND

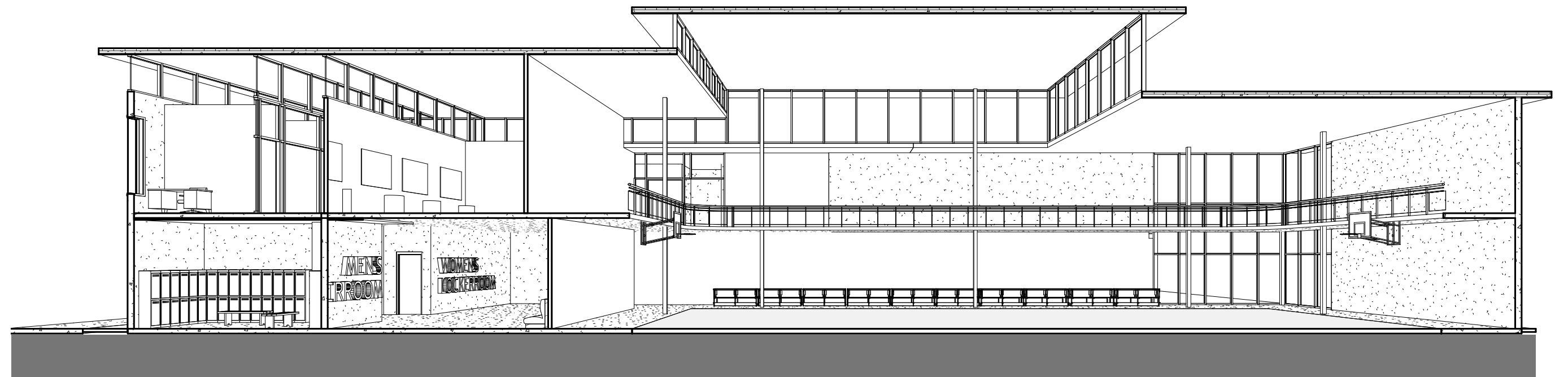


South Entrance of Community Center

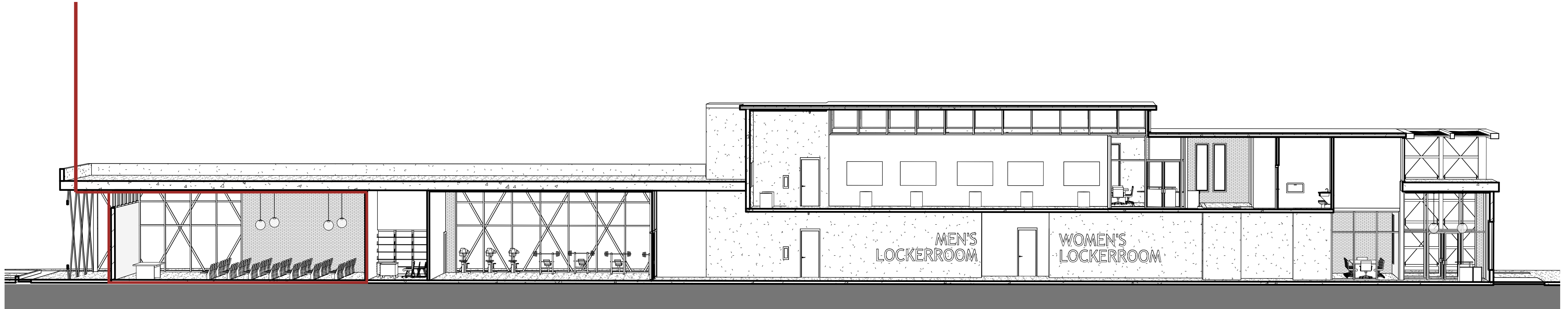




Multipurpose Room View



Section A Perspective View



Section B Perspective View



Cafe Entrance View



Community Center South Elevation



Community Center East Elevation

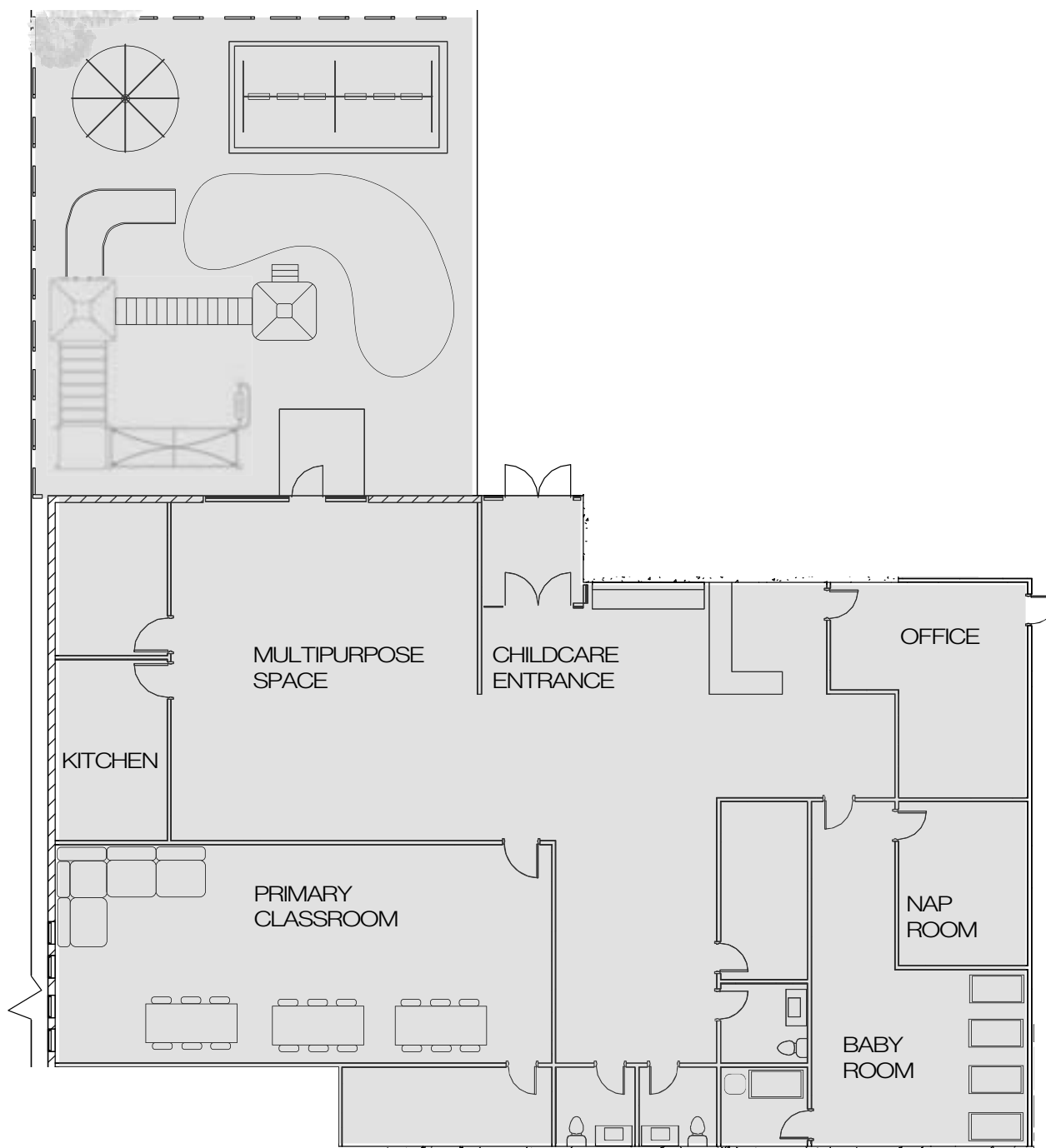
CHILDCARE SERVICES AND FACILITIES



REIMAGINING THE CITY OF VELVA

Childcare Center Integration

As a major service gap identified in rural ND, childcare in Velva is currently limited to in-home childcare providers. A childcare center was included in the community center, featuring private access points and a secure adjacent playground to provide accessible care for parents and children in the community.



Childcare Facility Organization



Childcare Multipurpose Room View Towards Playground



Map of Current Available Childcare in Velva, ND



Community Center North Elevation



Community Center West Elevation

DOWNTOWN DEVELOPMENT



REIMAGINING THE CITY OF VELVA

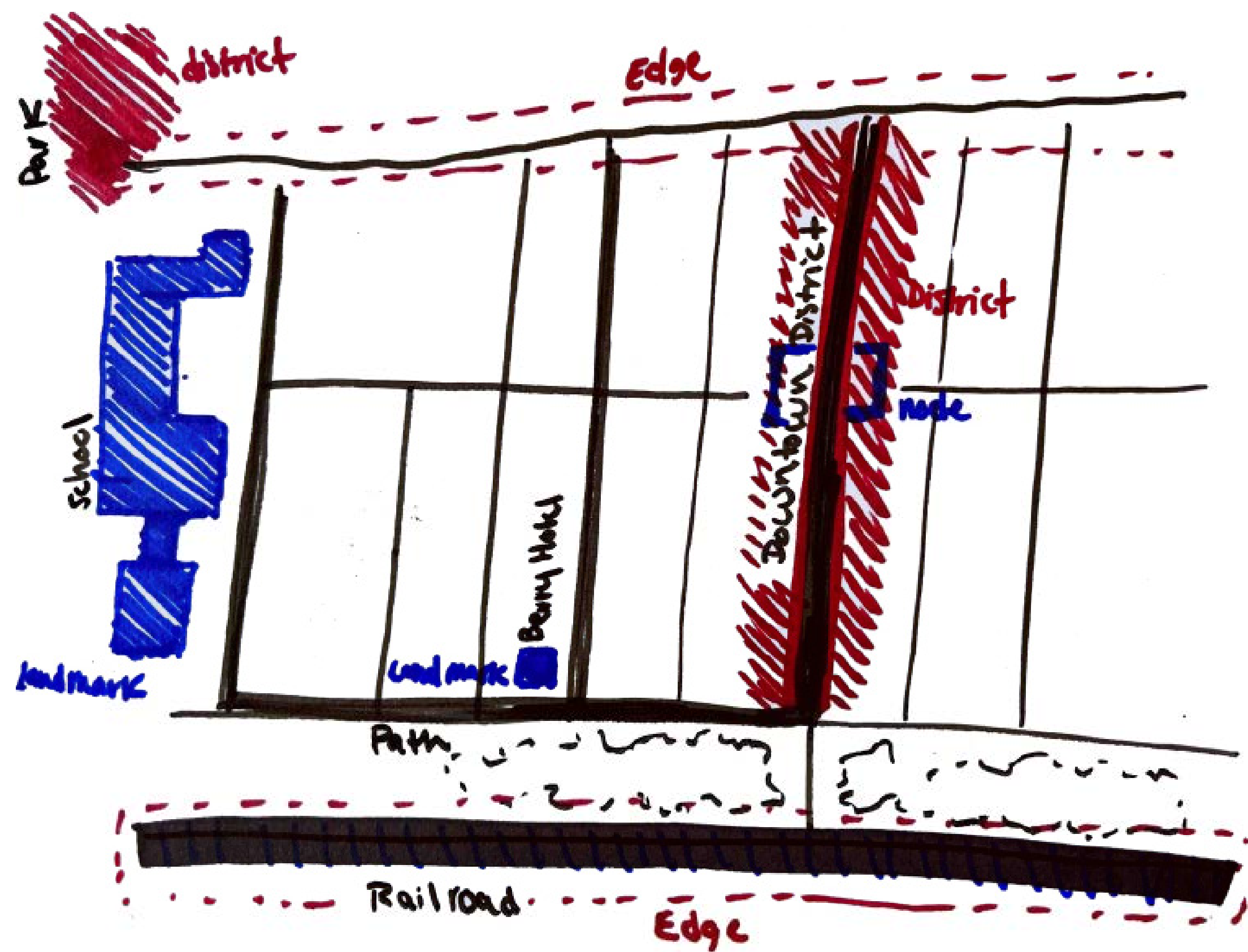


Illustration of Velva's Conditions

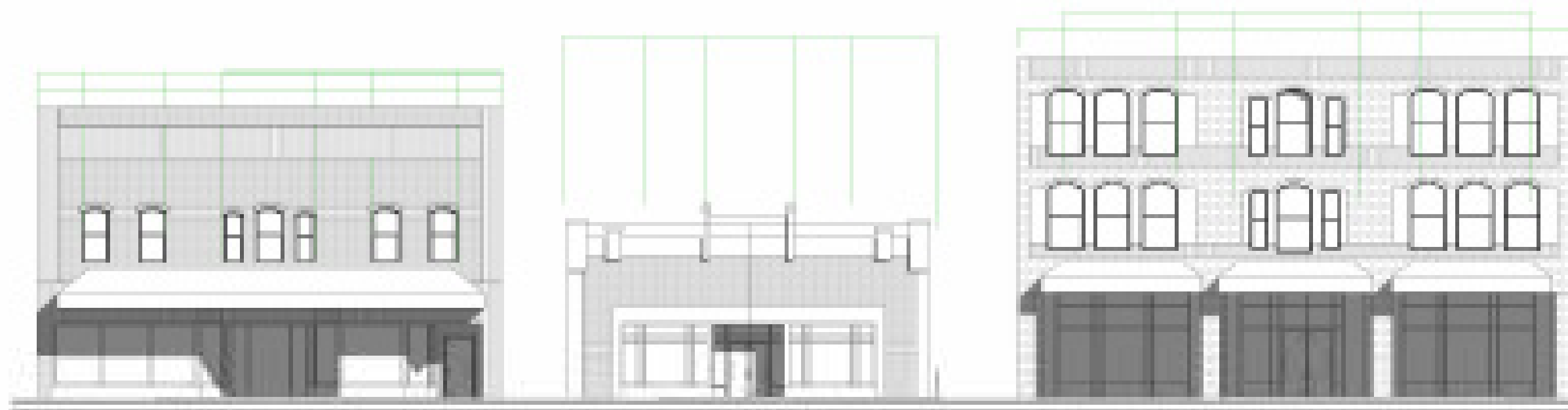
Downtown Scheme

While designing potential infill projects for Velva's Main Street, a proportional scheme that could be applied (and modified when appropriate) for facade design was established. The scheme was taken directly from the remaining MUUS BLOCK building built in 1901. It's important for these buildings to blend with the remaining historic architecture so there is a harmonious relationship between old and new elements.

The scheme features a tertiary hierarchy and organization of facade elements such as windows and doors. Most of the infill buildings have also been designed to have one or two residential upper levels to address the lack of multi-family housing in Velva.



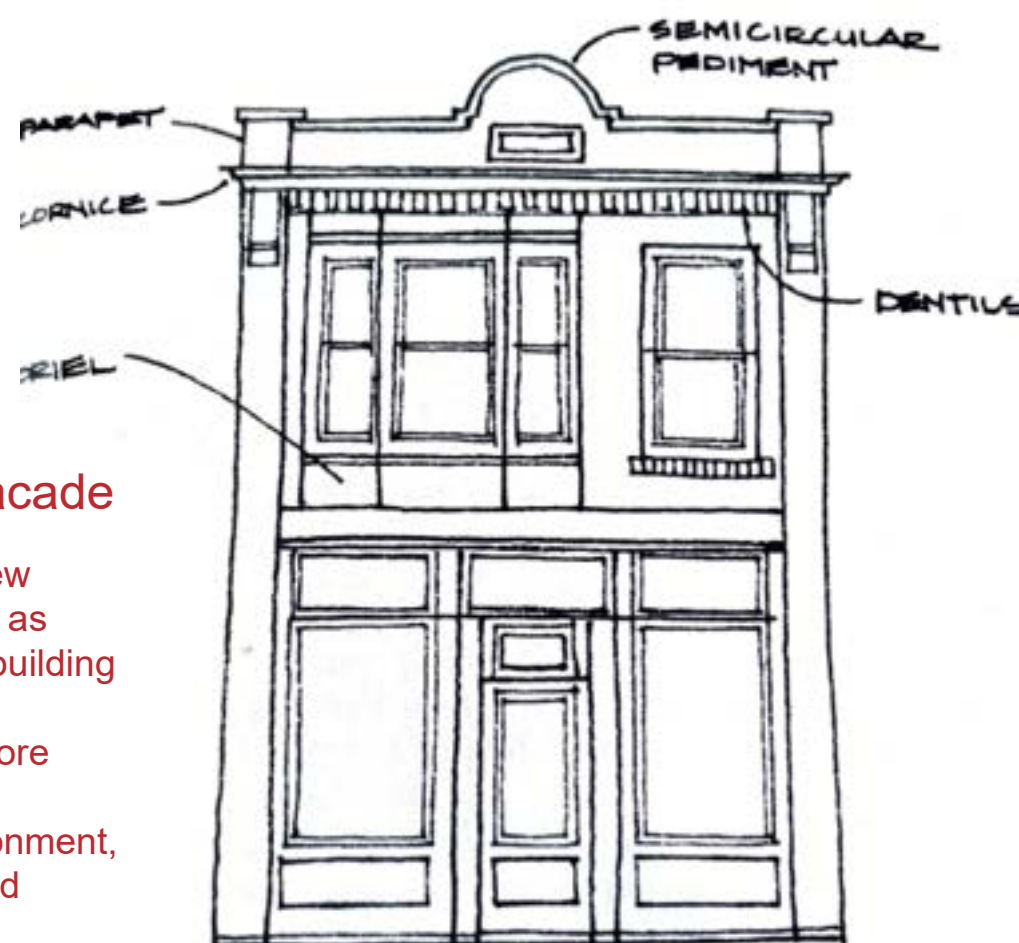
Precedent Storefront Design Diagram



Application of Proportional Scheme Upon Main Street Facades

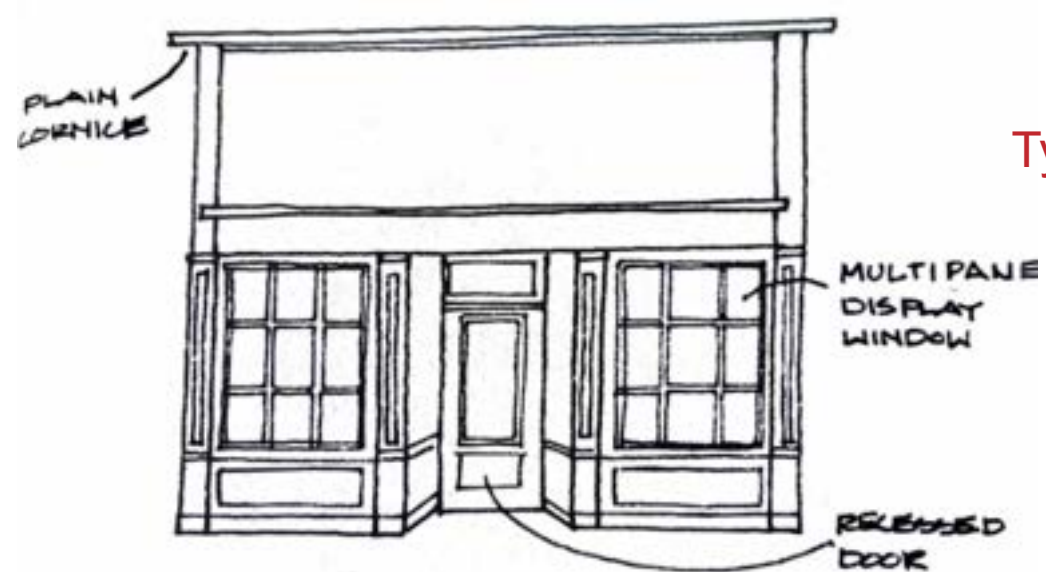
Typical Storefront Facade

- currently present in few downtown structures, as many of the existing building lack upper levels
- plan to reintroduce more prominently into the downtown built environment, with varying styles and organized uses



Current Grocery Store on Main Street

Interventions to Main Street can help better frame Velva's built environment. The integrity of Velva's Downtown District could be restored, by replacing some of the current conditions with buildings responding to service gaps, that also adhere to the typical storefront design established with respect to Velva's historic identity.



Typical Storefront Level

- currently present in some downtown structures
- plan to reintroduce more prominently into the downtown built environment



Remaining Historic Main Street Facades

Remaining historical building should be protected from unnecessary modifications. Multi-story buildings are to be reintroduced for historical integrity, but also to offer housing opportunities downtown in upper level units, as explored in the program.

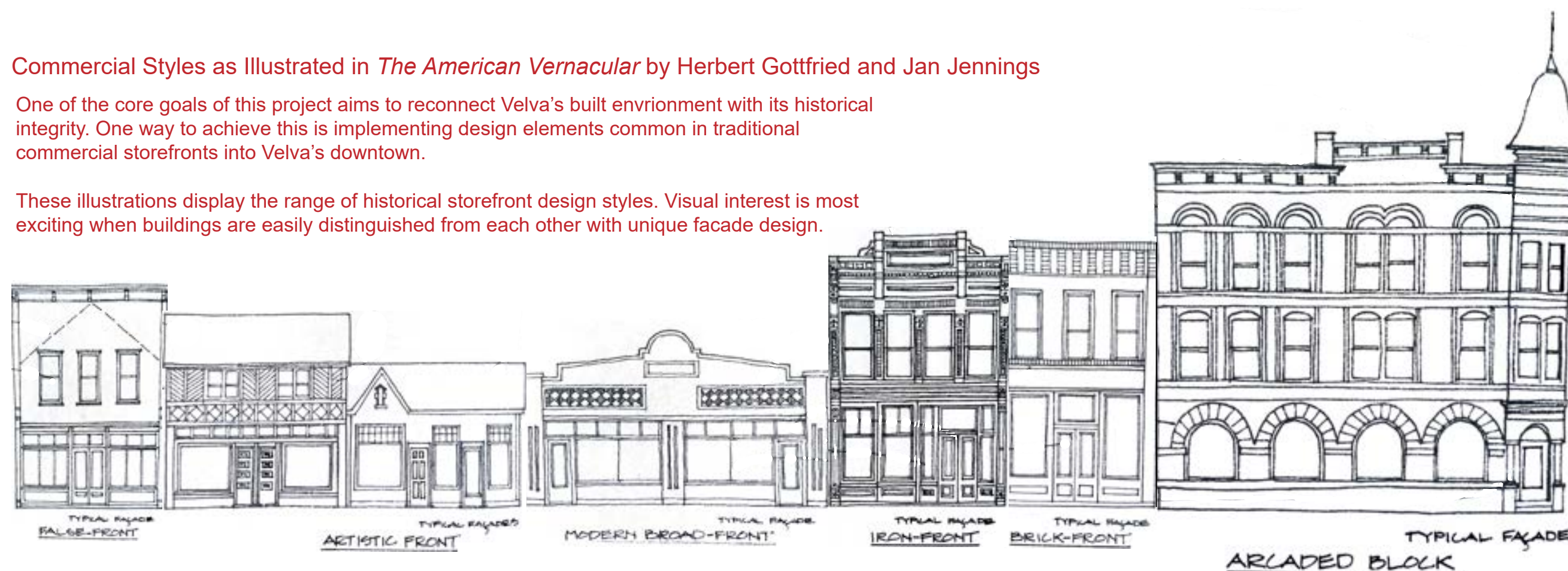


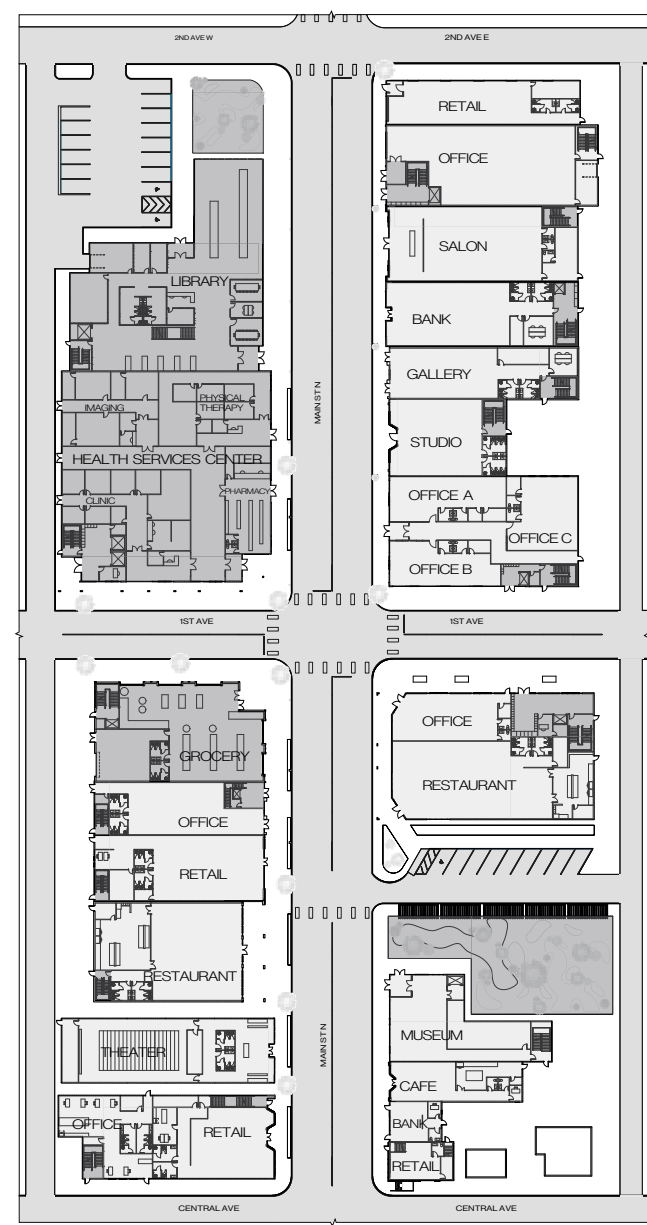
Portion of Downtown Velva - Main St Entrance

Commercial Styles as Illustrated in *The American Vernacular* by Herbert Gottfried and Jan Jennings

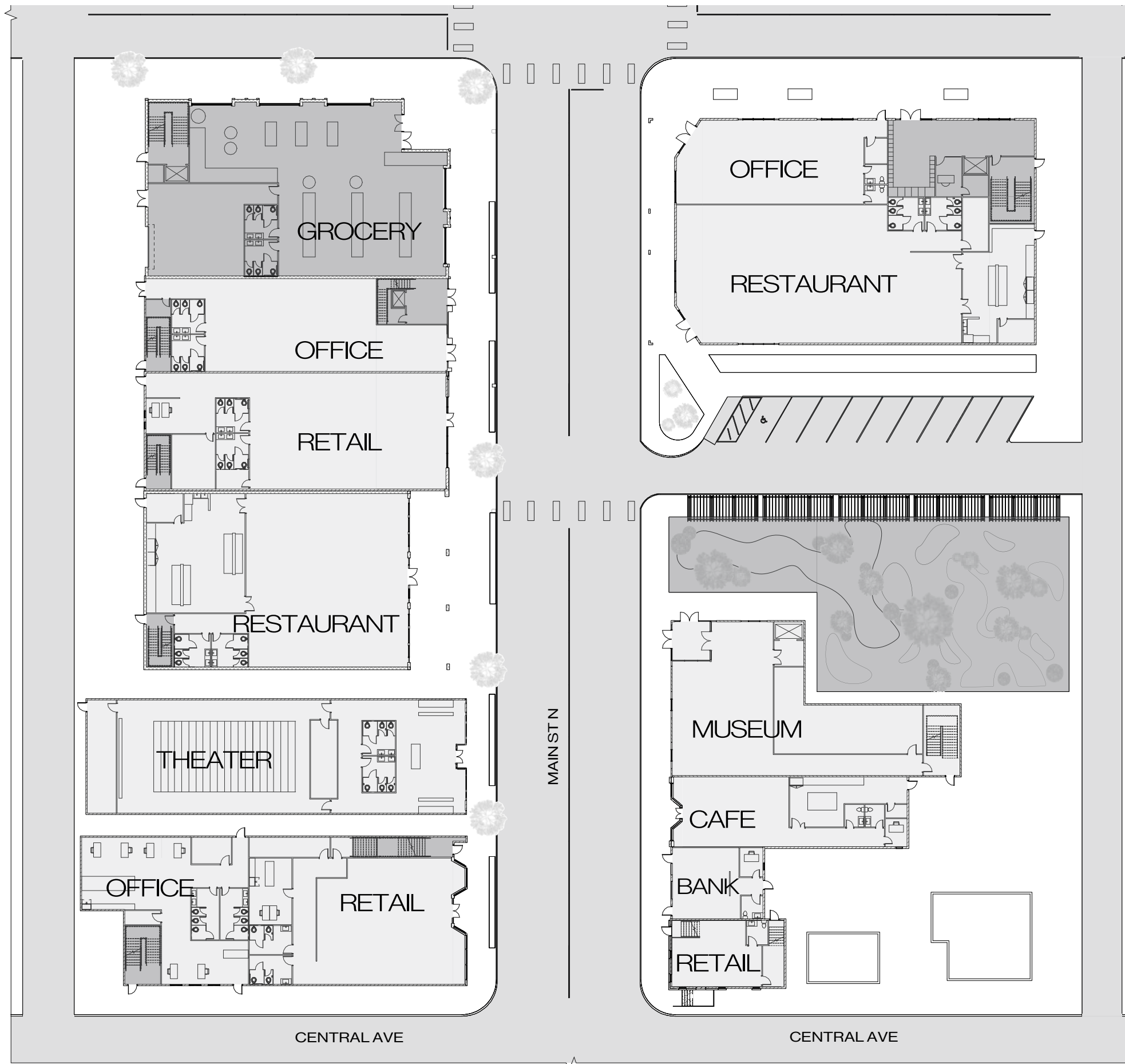
One of the core goals of this project aims to reconnect Velva's built environment with its historical integrity. One way to achieve this is implementing design elements common in traditional commercial storefronts into Velva's downtown.

These illustrations display the range of historical storefront design styles. Visual interest is most exciting when buildings are easily distinguished from each other with unique facade design.

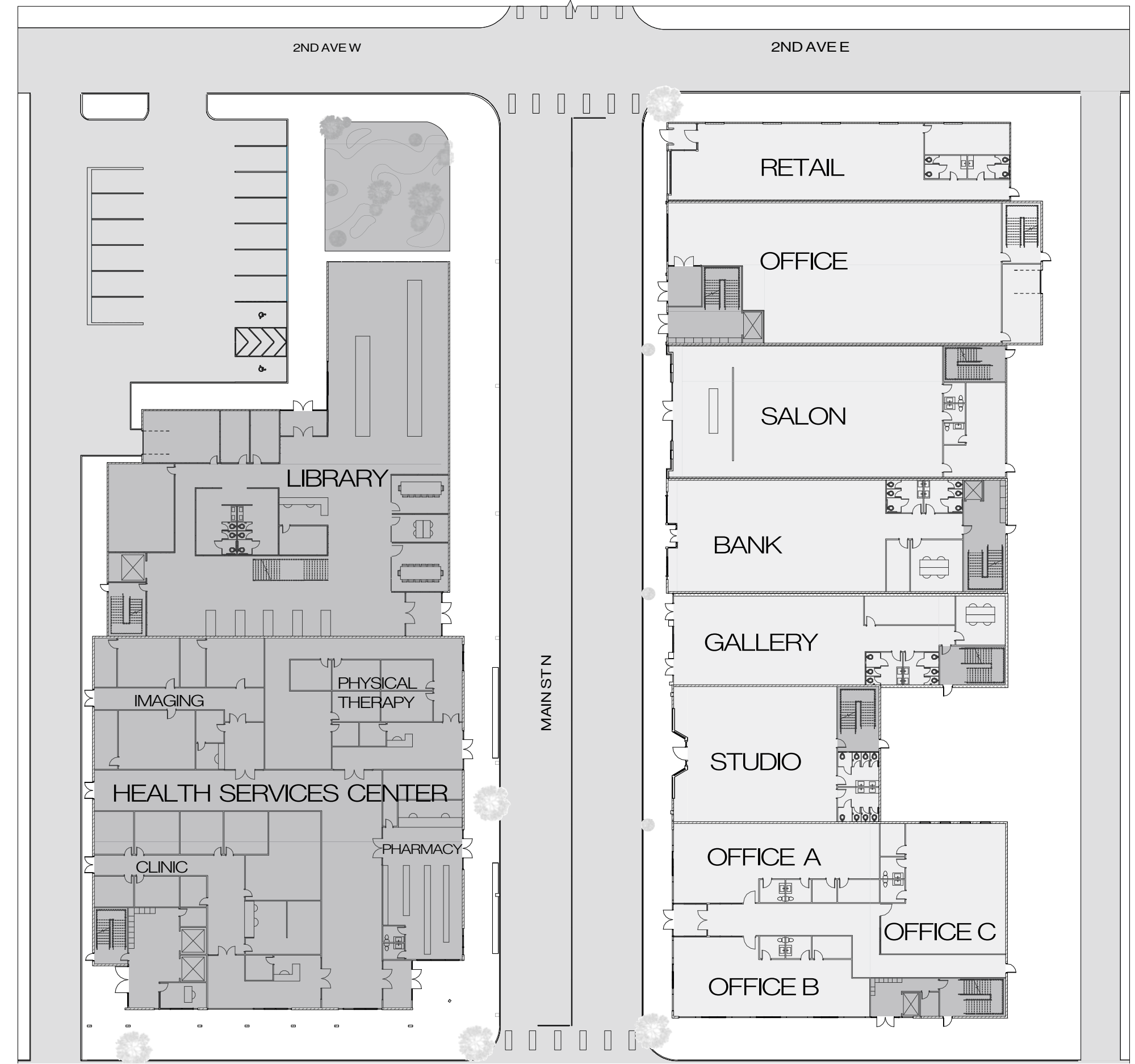




DOWNTOWN GROUND FLOOR PLAN



DOWNTOWN GROUND FLOOR PLAN



Historically, Velva's mainstreet was lined with traditional commercial storefronts. One goal of this project is to reclaim the charm of Velva's historic downtown with proposed restoration and respectful infill projects. The buildings in dark gray highlight intentionally filled services gaps, with the remaining buildings ambiguous in function.



EXISTING



Proposed Main Street Facades West Face of Main Street



Proposed Main Street Facades West Face of Main Street



EXISTING

EXISTING

EXISTING



Proposed Main Street Facades East Face of Main Street



Proposed Main Street Facades East Face of Main Street



EXISTING

EXISTING (GROUND LEVEL)



Proposed Main Street Facades East Face of Main Street







Main Street View Facing West



Main Street View Facing Northeast

SINGLE AND MULTI-FAMILY HOUSING

REIMAGINING THE CITY OF VELVA

Velva severely lacks any opportunities for residents looking to pursue multi-family housing.

Currently, Velva boasts a healthy amount of single family homes. For this investigation, priority is assigned to the multi-family housing void in the area, although an influx of new residents would eventually require developments in both single and multi-family housing opportunities.

Some original historic buildings remain standing in Velva, serving as a reference of how the downtown district was once organized. The 1903 MUUS Block building on Main St features a storefront level along with an upper residential level of apartment units. This remaining historic building serves as the precedent for new projects on Main St, designed to accommodate housing in upper level multi-family residential units.



Residential Districts in Velva, ND



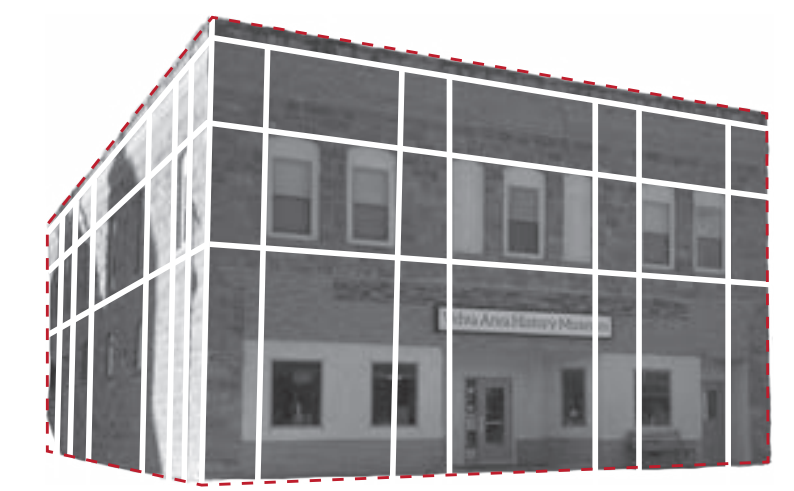
Apartment Example in Velva, ND



Current MUUS Block Building



Home Example in Velva, ND



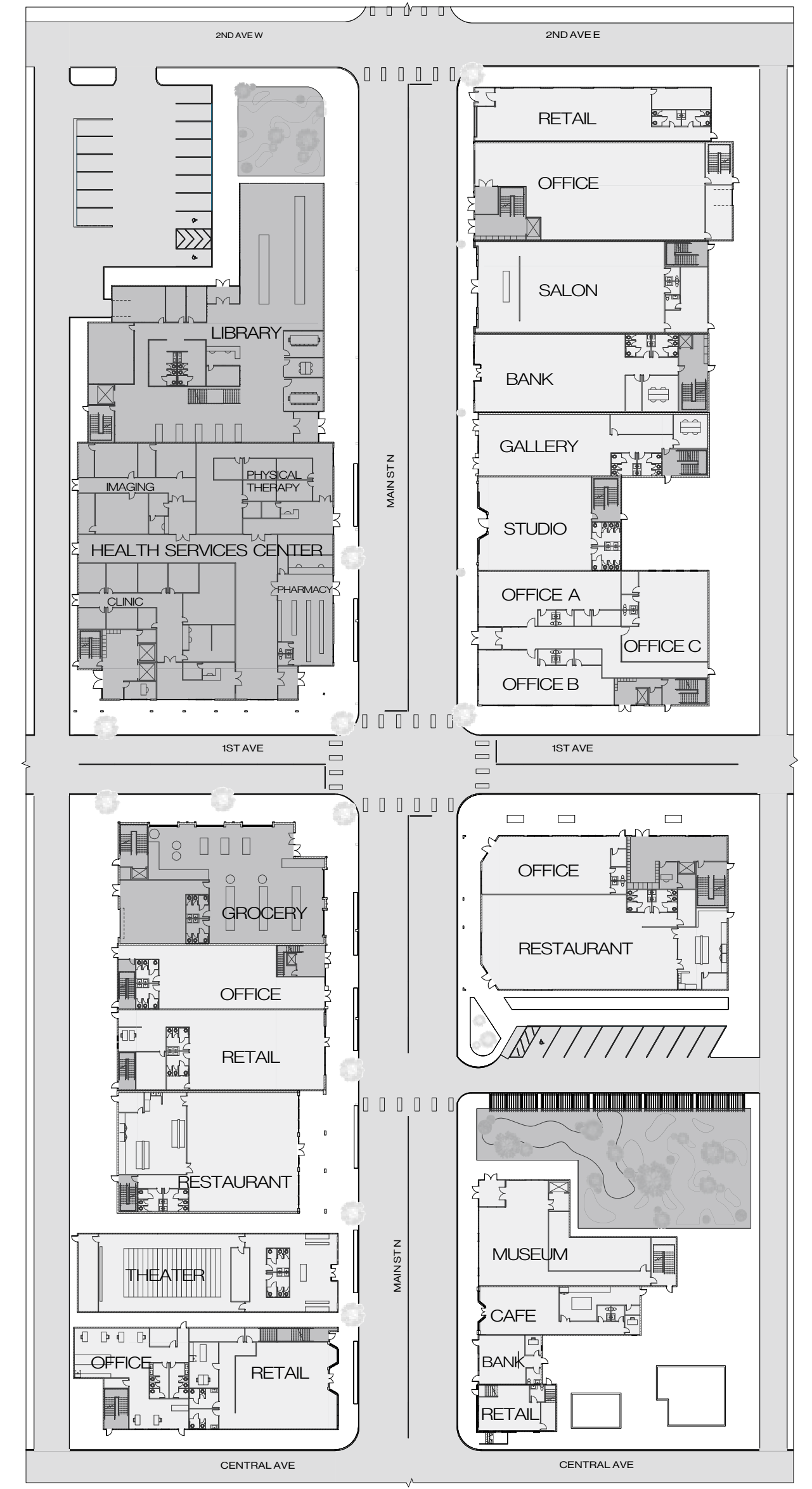
Proportional Analysis on MUUS Block Building



Home Example in Velva, ND

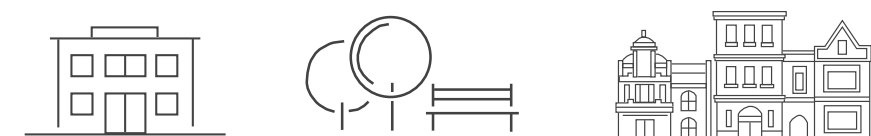


Precedent Facade Model of MUUS Block Building



DOWNTOWN GROUND FLOOR PLAN

EDUCATIONAL OPPORTUNITIES AND FACILITIES



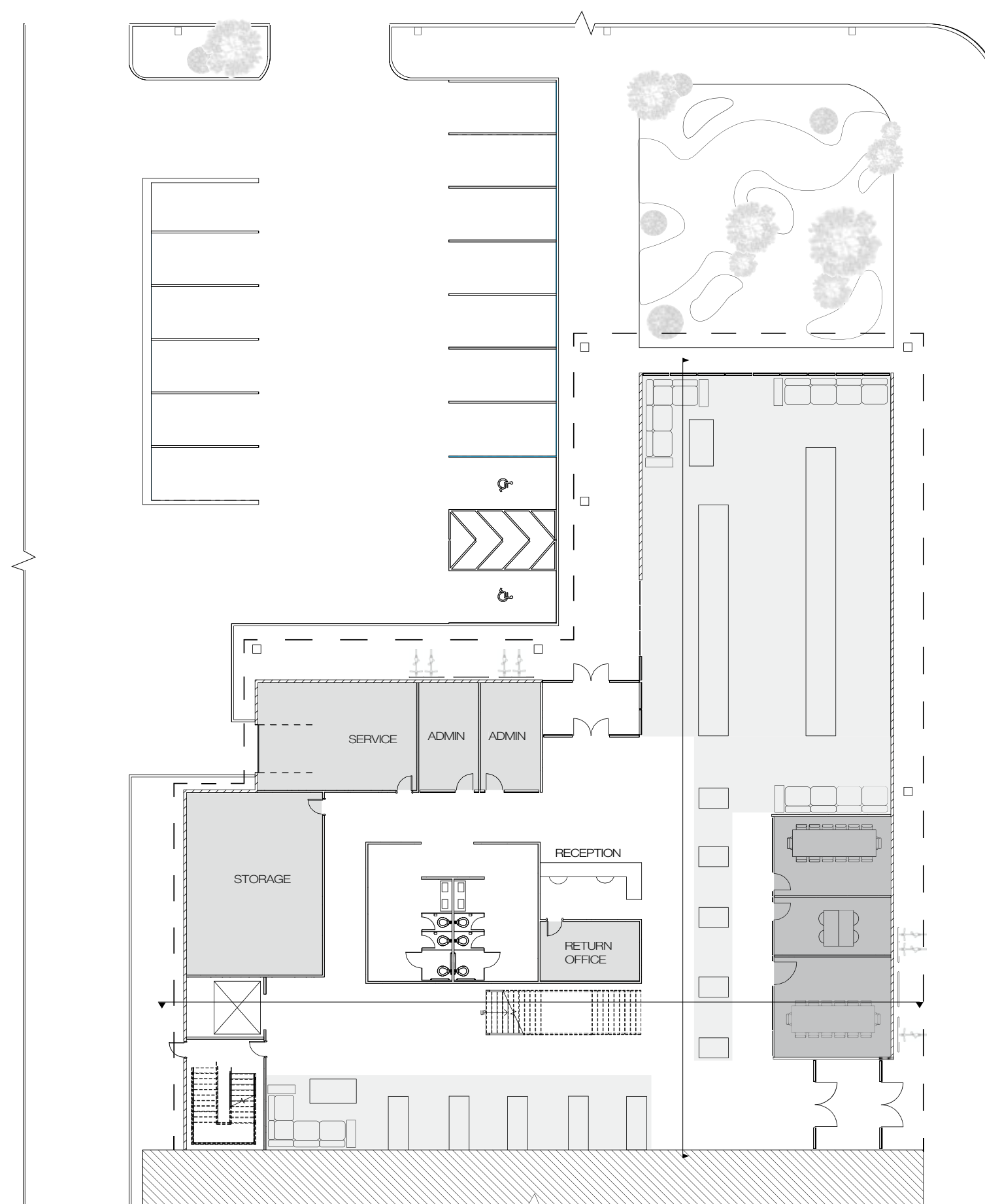
REIMAGINING THE CITY OF VELVA

Educational opportunities and facilities in Velva are in good condition.

Velva's original public school was updated and has recently received a significant addition. The building currently functions as a K-12 educational facility and a public library. As a minor intervention to the school, this project features a new library located along Main St, allowing Velva Public Schools to absorb the space currently used for the library. The relocation of the Public Library redistributes traffic away from the residential area the school is located in, and optimizes security for the facility.



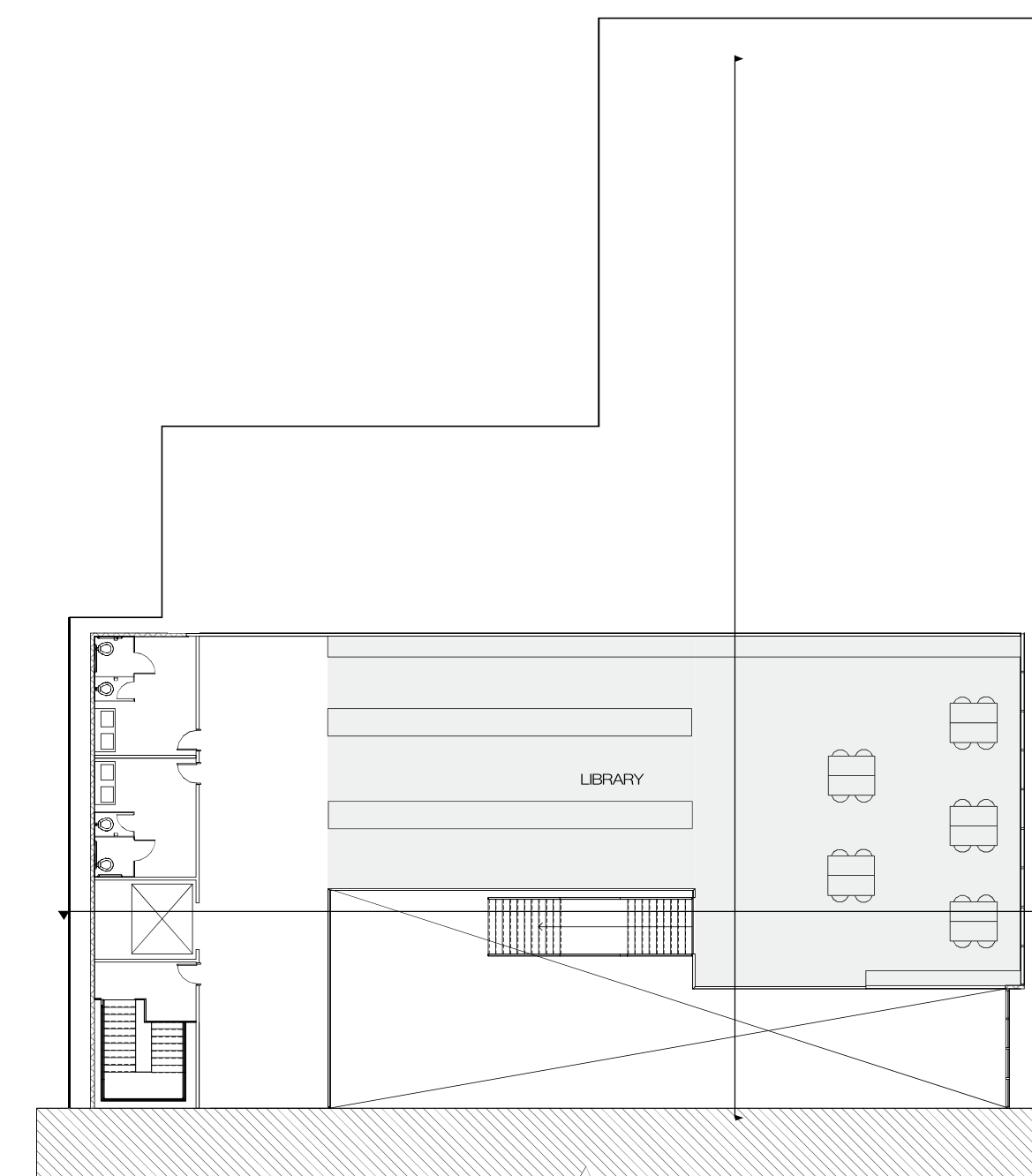
Interior View of Library Atrium Space



LIBRARY GROUND FLOOR PLAN



Velva Public School and Public Library Sign on the School Facade



LIBRARY SECOND FLOOR PLAN



Library Location in Velva, ND



Library East Elevation



Library North Elevation



Library West Elevation



THANK YOU

RURAL REVITALIZATION IN North Dakota

FINAL THESIS PRESENTATION

05/02/2024

SYDNEY SEAMANDS