April 28th, 2023

North Grand River Avenue Corridor Study, Lansing Michigan

Dan Fallon, James Maher, Kade Peck, Joe Pezzotti, Mitch Robinson
MICHIGAN STATE UNIVERSITY

Table of Contents

Acknowledgements

We would like to personally thank and recognize the individuals and organizations for providing their time to this project and allowing it to be possible:

- Zenia Kotval Ph.D, FAICP, Urban and Regional Planning, Michigan State University
- Katharine Merritt, MURP, Urban and Regional Planning, Michigan State University
- Josh Gunn, Ph.D, Urban and Regional Planning, Michigan State University
- Simon Verghese, Economic Development Specialist, Lansing Economic Development Corporation (LEDC)
- Aurelius Christian, Corridor & Commercial Development Specialist, Lansing Economic Development Corporation (LEDC)
- Kris Klein, Vice President, Lansing Economic Development Corporation (LEDC)
- Nicole Noll-Williams, C.M., President and CEO, Capital Region International Airport
- Robert Benstein, A.A.E., Vice President and COO, Capital Region International Airport
- Calley Green, Community Engagement Coordinator, Peckham, Inc
- Andy Fedewa, Principal Planner, City of Lansing, Planning Office

Acknowledgement of Funding Assistance

Practicum is supported by our community clients and through generous financial assistance from Michigan State University Extension and the Regional Economic Initiative grant received from the United States Department of Commerce-Economic Development Administration. The statements, findings, conclusions, and recommendations are solely those of the authors and do not necessarily reflect the views of Michigan State University or any federal or state agency.

Executive Summary

The Spring 2023 practicum report focuses on the North Grand River Avenue Corridor, a 3.3-mile-long stretch of roadway from Waverly Road to East Street in Ingham County, Michigan. This report covers a socio-economic profile analysis, zoning, and land use assessment, mobility report, parcel analysis and best use scenarios, community survey, and case study analyses. The purpose of this study is to provide recommendations based on data and research retrieved from various sources that will highlight the highest priority needs of the corridor that will lead to greater economic growth, cohesiveness, and connectivity throughout the study area.

Socio-economic data presented in this report was used to identify community characteristics within seven (7) census tracts to create a study area profile comprising area demographics and economic characteristics. The corridor is experiencing a growth in population with the predominant ages ranging from 20 to 24. Housing trends show an increase in new housing unit construction and a rise in median home value. Residents along the corridor are mainly employed within the education and health care sectors and are seeing a rise in employment and household income from 2010 to 2021. There are also opportunities for economic growth within the arts and entertainment, education, construction, and food services sectors.

Zoning and land use within the study area, supplemented with numerous site visits within the corridor were used to create a zoning and land use assessment highlighting potential land uses for target parcels outlined in this report. The predominant land uses along the North Grand River Avenue Corridor include single-family housing and industrial developments such as warehousing. Future land use trends show the desire for more light industrial development and continued use of low-density residential neighborhoods. Vacant space is designated future open natural space. Paired with existing open space and the Lansing River Trail, opportunities are present to balance nature and greenery with existing industrial uses.

Roadway conditions measurements and concept roadway design is featured in the mobility section. Key locations along the corridor that need attention and improvement are identified. Many roads within the corridor are in poor condition and require repair. The lack of crosswalks along Grand River Avenue also poses a safety threat to drivers and pedestrians, as the latter may resort to jaywalking to cross the four-lane street. There is little to no screening used to provide protection between the road and sidewalks, which may further deter pedestrian travel.

Three vacant parcels located along the corridor were identified for further research. Best-use scenarios identified include new lodging facilities to cater to airport travelers, a community center where local residents can engage with each other, and childcare facilities and new dining options.

A strengths, weaknesses, opportunities, and threats (SWOT) analysis was performed to summarize key areas of interest within the corridor that can provide unique opportunities for growth, as well as identify areas of concern that threaten the wellbeing of residents and businesses. Due to the City of Lansing being the state capital, many residents are employed by the state government and can serve as a catalyst for future development. The Capital Region International Airport is also located along the North Grand River Avenue Corridor, which provides a unique opportunity for economic growth, as it is one of the few airports in Michigan that service international flights and can

accommodate high volumes of commercial shipping and receiving. Current threats to the corridor include lack of direct connectivity to Michigan State University and its large student population. The Capital Region Airport also serves as visitors' first impression of the City of Lansing and the corridor which currently lacks visual appeal which may serve as a deterrent for extended visits.

A community survey was distributed to key stakeholders within the study area to better identify what assets could potentially be introduced that would provide positive social and economic impacts. Many respondents voiced desires for increased dining options within the corridor, infrastructure updates such as additional crosswalks, and an increased focus on community engagement events. Respondents also identified a need for more exterior lighting along the corridor to provide a greater sense of security and pedestrian safety.

This report contains two case studies of similar corridors to highlight successful strategies and methods. Public outreach and community engagement events were often used throughout the case studies to gather public opinion. Another focus was the protection of natural resources and open spaces. The North Grand River Avenue Corridor has many parks and areas used by residents, which presents the goal of preserving these natural spaces. An Environmental Impact Statement (EIS) is a potential method to plan further and ensure natural space continuation.

Recommendations provided within this report are separated into two categories, procedural and physical. Procedural recommendations involve planning processes and strategies that can enhance community engagement and policy implementation, while physical recommendations include tangible changes to the environment of the area including infrastructure updates and beautification changes. Best use cases for the three parcels include a community engagement center, a farmers' market along with food truck stands and a community garden, and additional dining options and child care facilities.

Project Introduction

Practicum Course Structure

The Michigan State University Planning majors are enrolled in a practicum course. The purpose of the practicum class is to engage students with a real-world project that encompasses everyday work skills that they will use in the future. Practicum challenges the students through encouragement to apply the skills and knowledge they have learned at Michigan State to real-world situations. The students are paired with professional partners in the workspace to help them along the journey. The students will look to their professional clients to provide data and experiences to help the students complete the project and provide recommendations that satisfy the needs of the client and project.

In the case of the North Grand River Avenue Corridor Study, the practicum group was asked to evaluate the current conditions and needs of the study area and three parcels selected by the LEDC. Ultimately, the practicum team will analyze the data by conducting various assessments in a professional report and recommend the best use for the three selected parcels.

Professional Client Background

The Lansing Economic Development Corporation (LEDC) is dedicated to business growth and private development within the city of Lansing. They are a "nonprofit organization whose mission is to make Lansing a great place by helping businesses, creating jobs, redeveloping properties, and forging public/private partnerships." The LEDC prides itself on redeveloping blighted parcels to serve the city of Lansing again. The corporation also serves as a liaison between private investors and the city of Lansing.

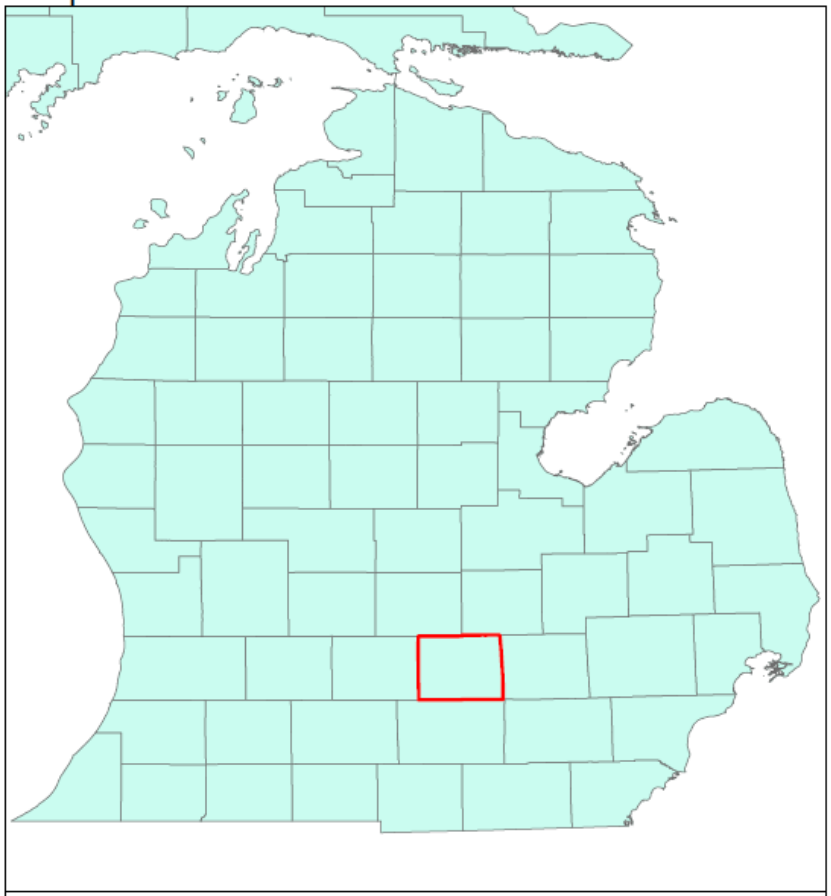
Scope of Service

The scope of services drafted by the practicum team was presented to the clients and agreed upon with a primary focus on finding the best uses for three parcels. The students will work with the Lansing Economic Development Corporation (LEDC) with assistance from the community and stakeholders to help the students with the overall goal of finding best use cases. Elements of the North Grand River Avenue Corridor Study include a socio-economic profile, zoning & land use assessment, mobility report, parcel analysis, community survey, case study analysis, and parcel concept renderings. There will also be data-driven student recommendations for short, medium, and long-term goals.

North Grand River Avenue Corridor Location and Project Boundaries

The North Grand River Avenue Corridor is located within Ingham County, Michigan, and the city of Lansing. Maps 1, 2 and 3 aim to contextualize the location of the North Grand River Avenue Corridor in greater detail.

Map 1:North Grand River Avenue Corridor Location



Legend

Ingham County - Lansing/Corridor Location

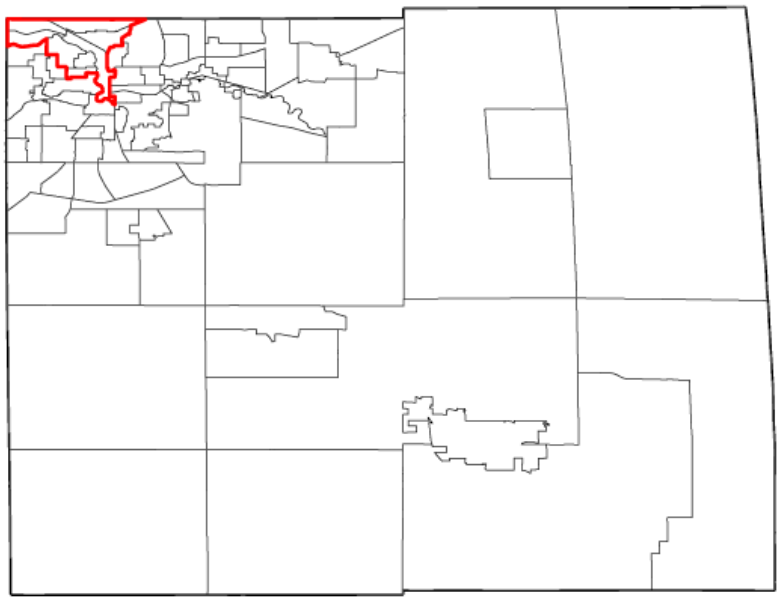
Michigan Counties

N

0 25 50 100 Miles

Date: 2/21/2023
Source: Michigan Open Data

Map 2: North Grand River Avenue Corridor Location (Ingham County) View



Legend

Study Area/Corridor

Census Tracts

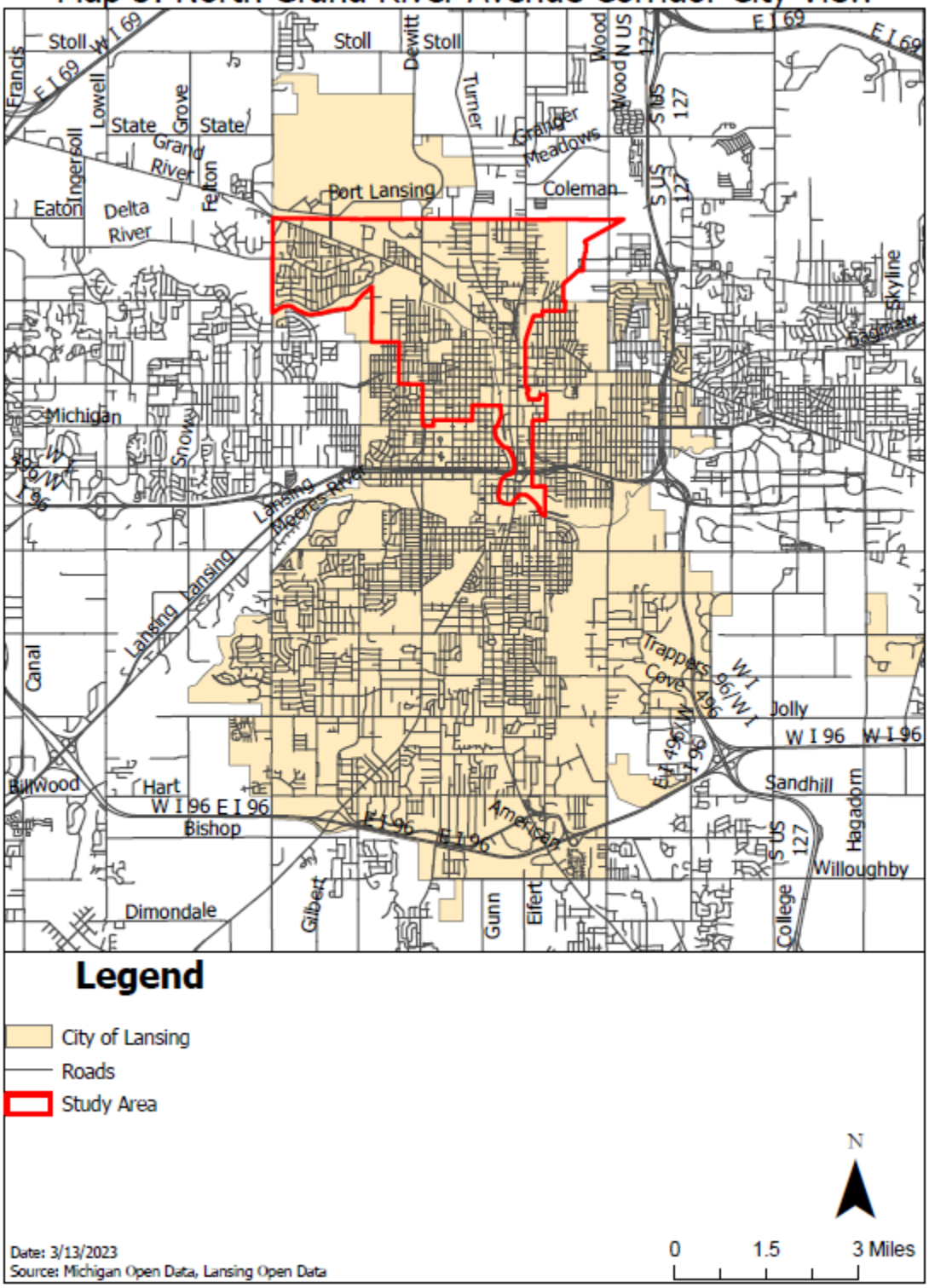
Ingham County

N

0 2.75 5.5 11 Miles

Date: 2/21/2023
Source: Michigan Open Data, Lansing Open Data

Map 3: North Grand River Avenue Corridor City View



Chapter 1: Socio Economic Profile

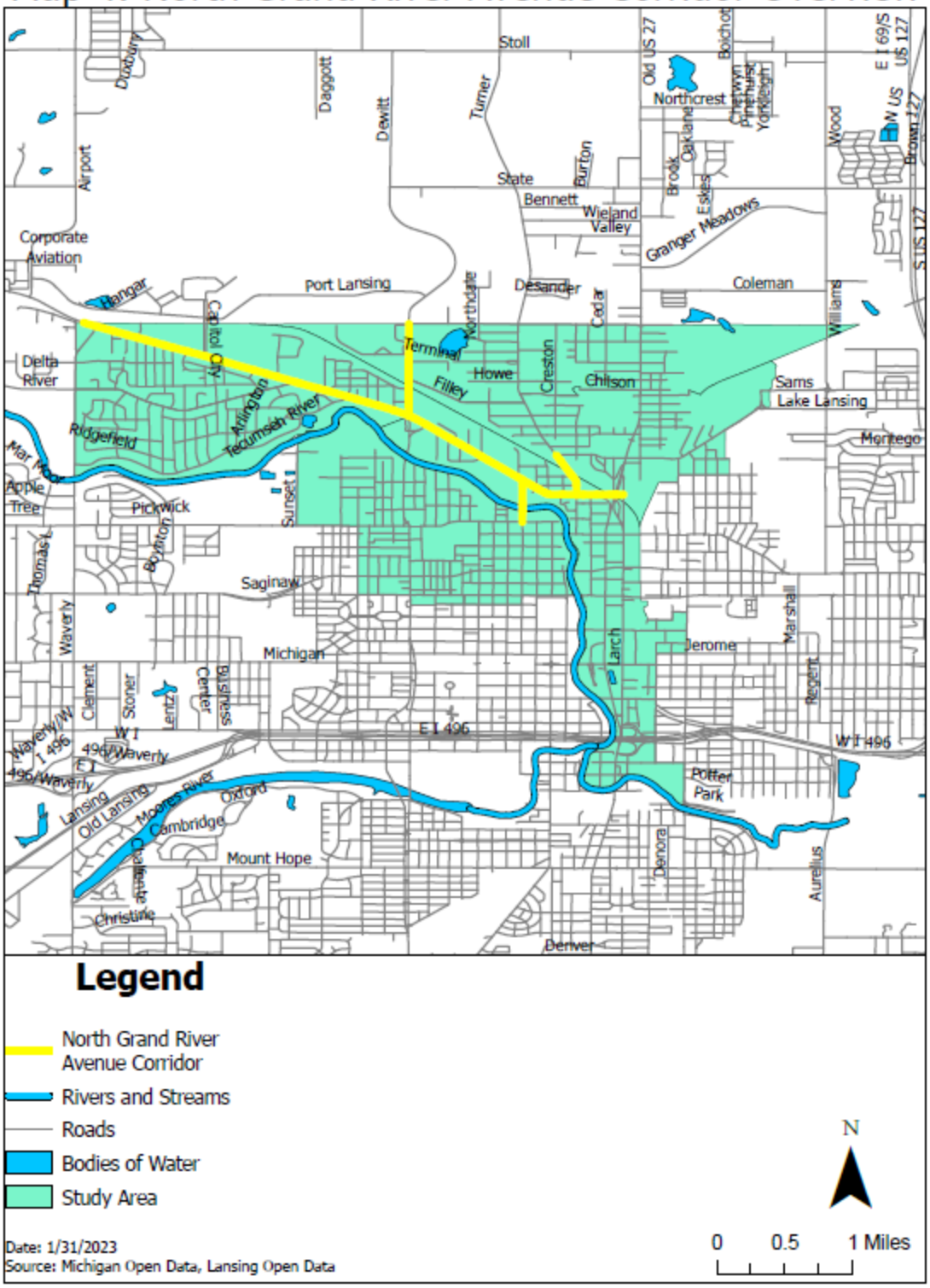
1.1 Introduction

The North Grand River Avenue Corridor provides a unique opportunity for economic growth and revitalization within the city of Lansing and its surrounding communities due to the presence of the Capital Region International Airport and other key employers. The socio-economic profile will take an in-depth look at data trends to help make informed decisions regarding future land development and investigate the study area's economic state by analyzing key demographics, such as commute time, poverty rate, income, and unemployment rate.

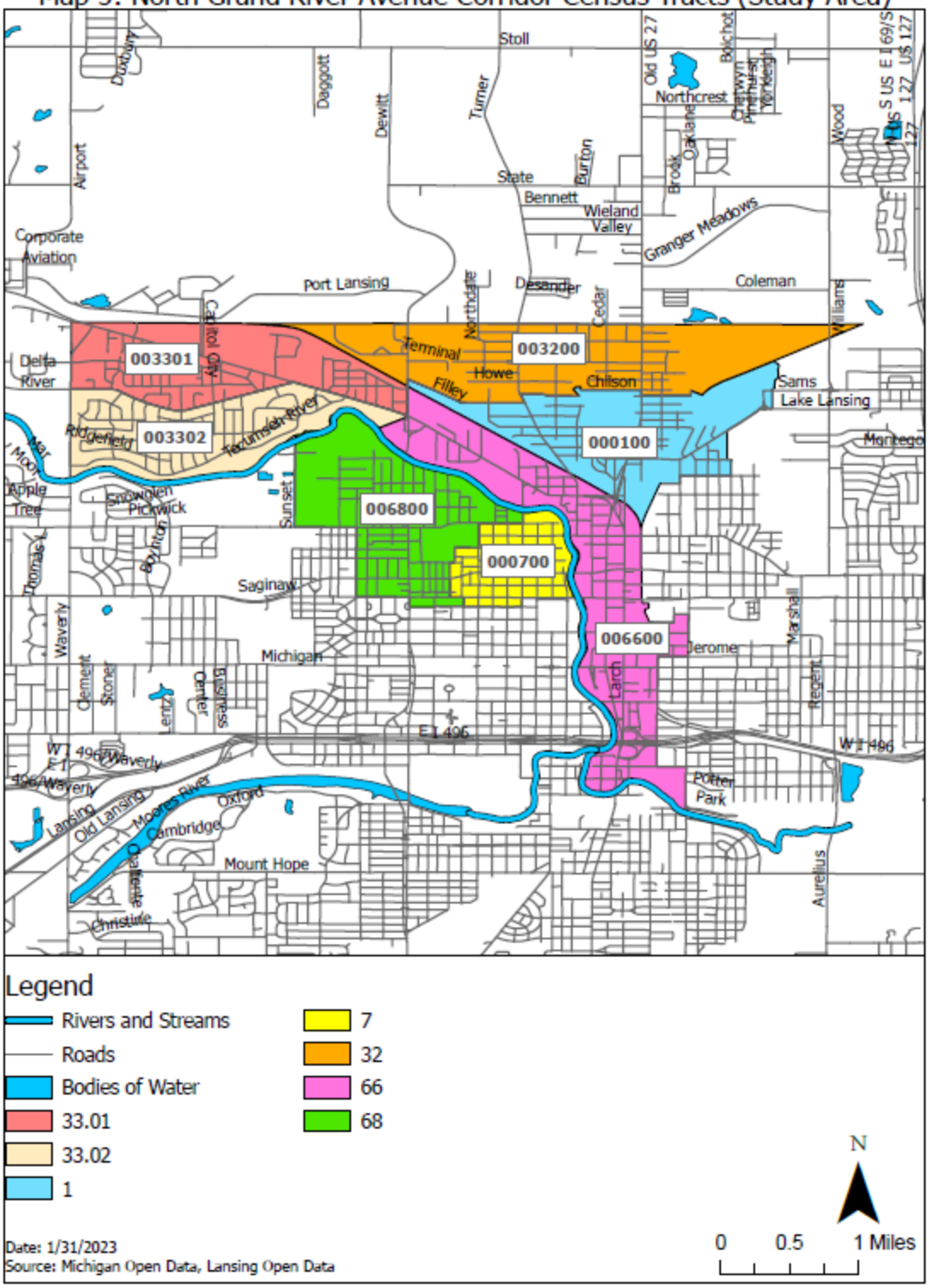
Data presented in this profile was sourced from the U.S. Census Bureau's Decennial Census from 2010 through 2021, the American Community Survey 2021 5-year estimate, and ESRI ArcGIS Business Analyst Online. The study area mentioned throughout this report consists of census tracts 01, 68, 32, 33.02, 33.01, 66, and 7, with Census tract 33.01 containing three high-priority parcels identified by LEDC for future development. The study area data will be compared with the city of Lansing and Ingham County data to provide a larger comparison and context taken from 2010, 2015, and 2021, using data from the U.S. Census ACS 5-year estimates.

Map four provides an overview of the study area boundary with the North Grand River Avenue Corridor location relative to roadway and natural landmarks. Map five divides the study into separate census tracts to provide greater locational context. Map six identifies the location and boundaries of the three previously mentioned parcels relative to the rest of the study area.

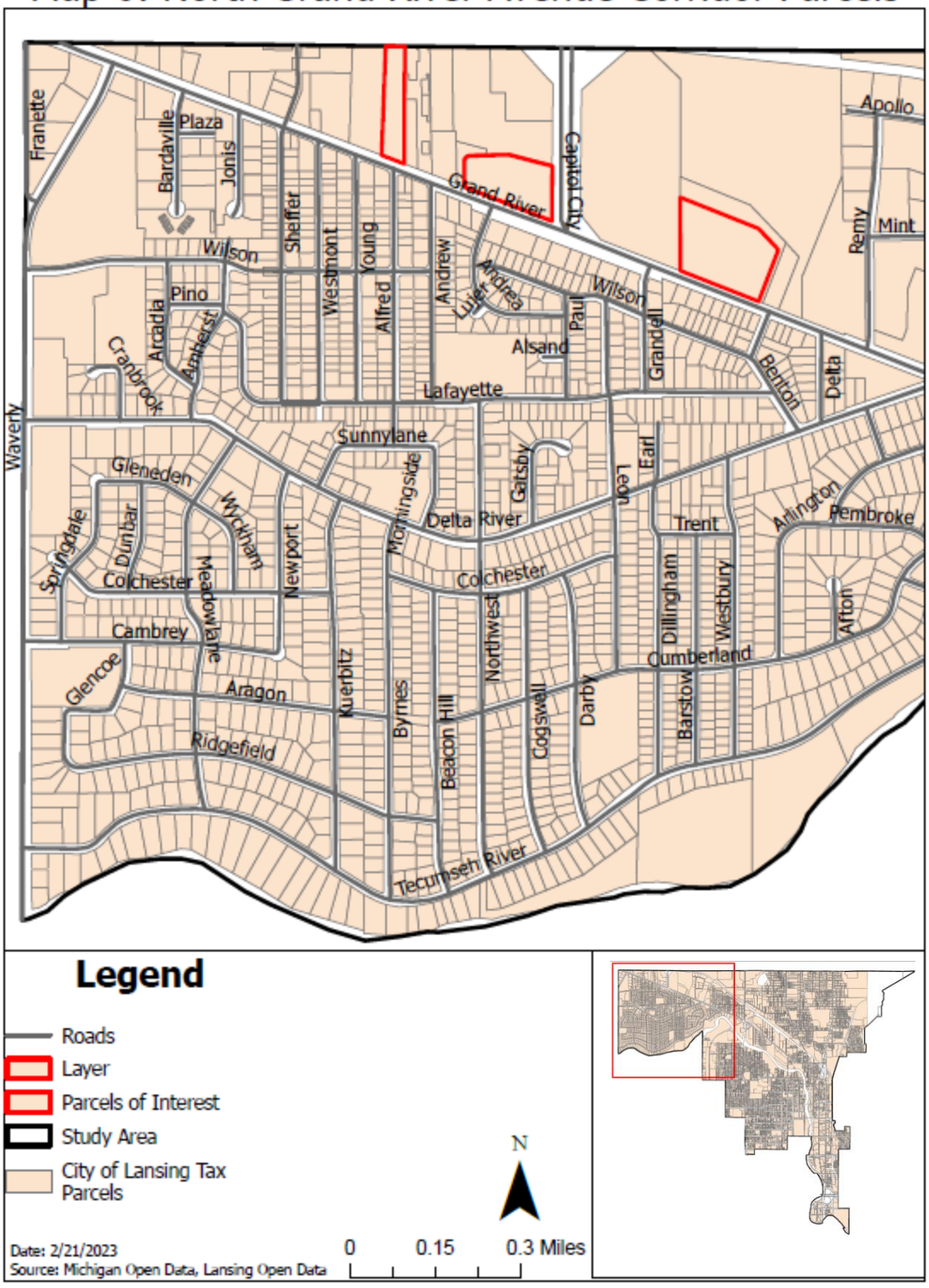
Map 4: North Grand River Avenue Corridor Overview



Map 5: North Grand River Avenue Corridor Census Tracts (Study Area)



Map 6: North Grand River Avenue Corridor Parcels



1.2 Demographics

Introduction

This section discusses the demographics collected across the various census tracts. The profile includes population, age distribution, race, and educational attainment. The following demographics were analyzed to give a better understanding of the community located around the corridor. Each demographic was compared between the Study Area (census tracts), city of Lansing and Ingham County. In order to identify trends over time, data was collected from 2010, 2015, and 2021.

Population

The North Grand River Avenue Corridor study area consists of seven census tracts. By collecting and analyzing the population data of the corridor, well-informed decisions backed by primary and secondary data can be made about what improvements the area needs.

As shown in Table 1, population trends show steady increases from 2010 to 2021. The study area grew by 3.9%, and Ingham County saw a population growth of 1.1%. The city of Lansing experienced a 19% drop in population. The study area experienced a greater growth rate compared to Ingham County and Lansing during the observation period, increasing the potential of more working residents moving in. As a result, there is an opportunity for more business and job opportunities to follow, as a larger workforce will be able to host a greater number of new businesses.

Study Area Total Population			Lansing, MI Total Population			Ingham County Total Population		
2010	2015	2021	2010	2015	2021	2010	2015	2021
18,320	18,754	19,029	114,017	114,110	111,833	280,812	286,085	284,034

Table 1: Total Population Change; Source: 2010-2021 Census Bureau

Age Distribution

Depending on the distribution, knowledge about age characteristics provides valuable insight when determining what industries should be introduced to the corridor and study area in the future. Looking into different age categories will help planners determine what type of employees will be entering the workforce, and what industry sectors will be drawn to that population.

Tables 2, 3, and 4 visualize the age distributions within the study area, city of Lansing, and Ingham County. One key difference between the three tables is that the age group of 20 to 34 is the most prevalent in Ingham County. In contrast, the age distribution within the study area is more evenly distributed, while the city of Lansing contains a high percentage of ages 20 to 24.

Age Distribution: Study Area (2010 - 2021)						
	2010		2015		2021	
	Number	Percent	Number	Percent	Number	Percent
Under 5	1,757	9.6%	1,690	9.0%	1,198	6.2%
5 to 9	990	5.4%	1,330	7.1%	1,309	6.8%
10 to 14	1,160	6.3%	1,298	6.9%	1,695	8.8%
15 to 19	1,413	7.7%	1,137	6.1%	1,235	6.4%
20 to 24	2,061	11.3%	1,608	8.6%	1,870	9.7%
25 to 29	1,569	8.6%	1,723	9.2%	1,494	7.8%
30 to 34	1,285	7.0%	1,445	7.7%	1,518	7.9%
35 to 39	866	4.7%	1,006	5.4%	1,510	7.9%
40 to 44	878	4.8%	989	5.3%	1,114	5.8%
45 to 49	1,404	7.7%	1,067	5.7%	769	4.0%
50 to 54	1,353	7.4%	1,400	7.5%	954	5.0%
55 to 59	897	4.9%	1,333	7.1%	1,018	5.3%
60 to 64	940	5.1%	886	4.7%	1,106	5.8%
65 to 69	590	3.2%	746	4.0%	699	3.6%
70 to 74	241	1.3%	483	2.6%	528	2.8%
75 to 79	520	2.8%	220	1.2%	730	3.8%
80 to 84	199	1.1%	160	0.9%	205	1.1%
85 Over	163	0.9%	211	1.1%	246	1.3%

Table 2: Age Distribution 2010: Study Area vs. Ingham County; Source: 2010 Census Bureau

Age Distribution: Lansing, MI (2010 - 2021)						
	2010		2015		2021	
	Number	Percent	Number	Percent	Number	Percent
Under 5	9,007	7.9%	8,102	7.1%	6,085	5.4%
5 to 9	7,183	6.3%	7,874	6.9%	6,557	5.9%
10 to 14	7,183	6.3%	6,618	5.8%	5,322	4.8%
15 to 19	7,411	6.5%	6,961	6.1%	7,608	6.8%
20 to 24	10,718	9.4%	12,438	10.9%	12,086	10.8%
25 to 29	11,060	9.7%	11,753	10.3%	10,857	9.7%
30 to 34	8,323	7.3%	8,444	7.4%	8,457	7.6%
35 to 39	8,437	7.4%	7,189	6.3%	8,157	7.3%
40 to 44	6,499	5.7%	6,618	5.8%	7,317	6.5%
45 to 49	6,499	5.7%	6,048	5.3%	4,432	4.0%
50 to 54	7,525	6.6%	6,961	6.1%	6,106	5.5%
55 to 59	6,841	6.0%	7,759	6.8%	7,074	6.3%
60 to 64	6,727	5.9%	4,907	4.3%	6,318	5.6%
65 to 69	3,763	3.3%	5,135	4.5%	6,579	5.9%
70 to 74	1,938	1.7%	2,168	1.9%	3,848	3.4%
75 to 79	2,508	2.2%	1,712	1.5%	2,841	2.5%
80 to 84	1,254	1.1%	1,369	1.2%	1,163	1.0%
85 Over	1,140	1.0%	1,940	1.7%	1,026	0.9%

Table 3: Age Distribution 2010-2021: Lansing, MI; Source: 2010 Census Bureau

Age Distribution: Ingham County (2010-2021)						
	2010		2015		2021	
	Number	Percent	Number	Percent	Number	Percent
Under 5	16,006	5.70%	16,021	5.60%	14,486	5.10%
5 to 9	14,602	5.20%	16,021	5.60%	17,042	6.00%
10 to 14	17,691	6.30%	16,021	5.60%	14,770	5.20%
15 to 19	30,889	11.00%	26,320	9.20%	28,403	10.00%
20 to 24	34,540	12.30%	39,766	13.90%	32,948	11.60%
25 to 29	20,780	7.40%	21,170	7.40%	40,333	14.20%
30 to 34	17,410	6.20%	18,023	6.30%	35,788	12.60%
35 to 39	16,006	5.70%	15,735	5.50%	27,835	9.80%
40 to 44	15,725	5.60%	16,021	5.60%	16,190	5.70%
45 to 49	16,849	6.00%	15,449	5.40%	14,770	5.20%
50 to 54	18,814	6.70%	16,879	5.90%	25,279	8.90%
55 to 59	16,849	6.00%	18,309	6.40%	11,645	4.10%
60 to 64	14,602	5.20%	15,449	5.40%	4,261	1.50%
65 to 69	9,548	3.40%	12,874	4.50%	14,202	5.00%
70 to 74	5,897	2.10%	7,724	2.70%	11,077	3.90%
75 to 79	6,459	2.30%	4,863	1.70%	8,237	2.90%
80 to 84	3,931	1.40%	4,005	1.40%	3,124	1.10%
85 Over	3,931	1.40%	5,150	1.80%	4,261	1.50%

Table 4: Age Distribution 2015: Study Area vs. Ingham County; Source: 2015 Census Bureau

One potential reason for Ingham County's strong concentration of ages of 15 through 34 is the presence of Michigan State University, which is approximately four miles away. With the study area age distribution being more balanced, there may not be a need for developments targeting student needs, such as off-campus housing and apartment complexes. Thirty-eight percent (37.9%) of the study area is between under 5 and 24 years old. As such, land uses that target these age groups may find greater success in the area.

Race

A community's variety of racial demographics provides valuable insight into an area's diversity. When there is a healthy number of different cultures, a new and inclusive atmosphere can be created that has a greater potential to attract more diverse business owners and residents to an area.

Figures 1, 2, and 3 show the distribution of races over the three periods. Most of the population within the study area and Ingham County is white at 52.9% and 72.7% as of 2021, respectively. There has been little change to the distribution. Within the study area, two or more races have increased every five years, with a 1.7% increase 2010-2015 and a 4% increase 2015-2021. Distribution of the white population within the study area decreased by 9.3%, a sign that the study area community is experiencing a more diverse population, which can help provide positive benefits of cultural diversity in the form of new business opportunities and community involvement and engagement. This transition to a more diverse community should be capitalized upon through collaboration between local economic development agencies and entrepreneurs which can spur new business opportunities.

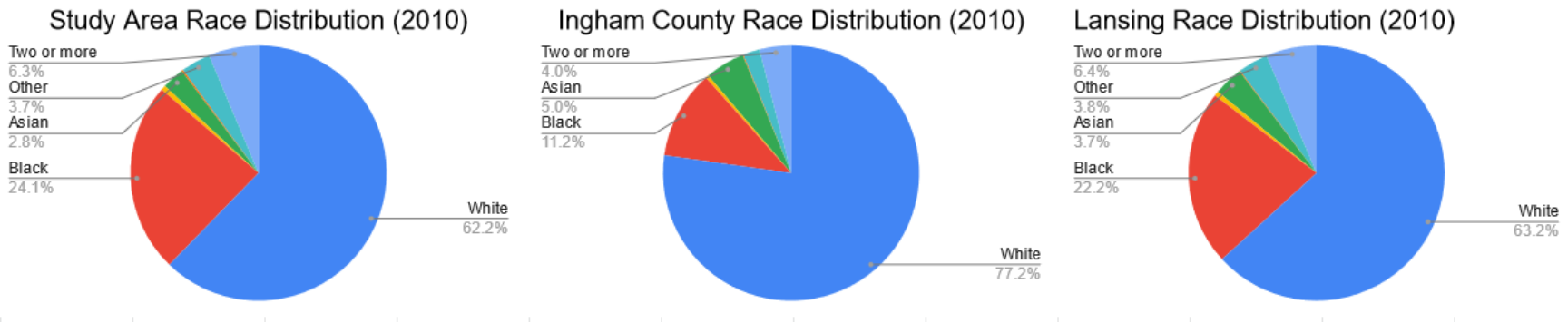


Figure 1: Study Area, Lansing, and Ingham County Age Distributions; Source: 2010 Census Bureau

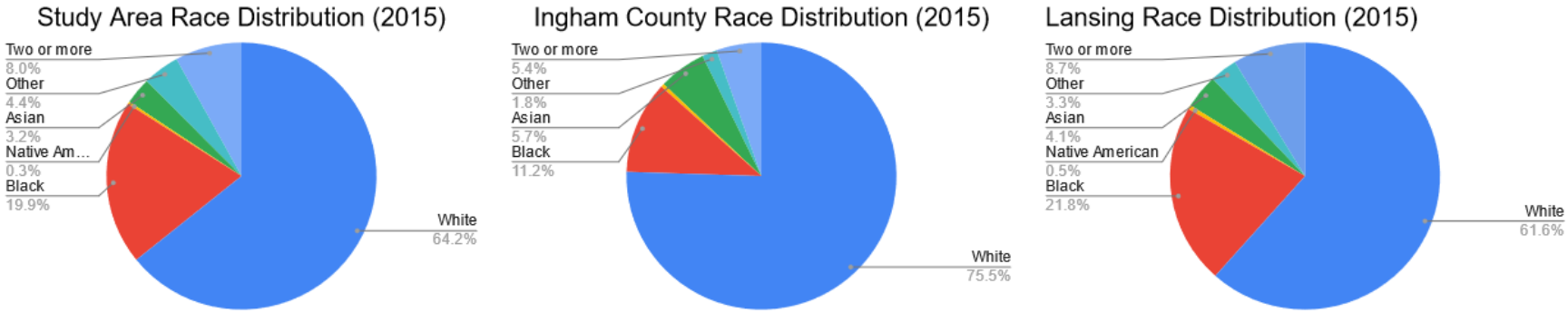


Figure 2: Study Area, Lansing, and Ingham County Age Distributions; Source: 2015 Census Bureau

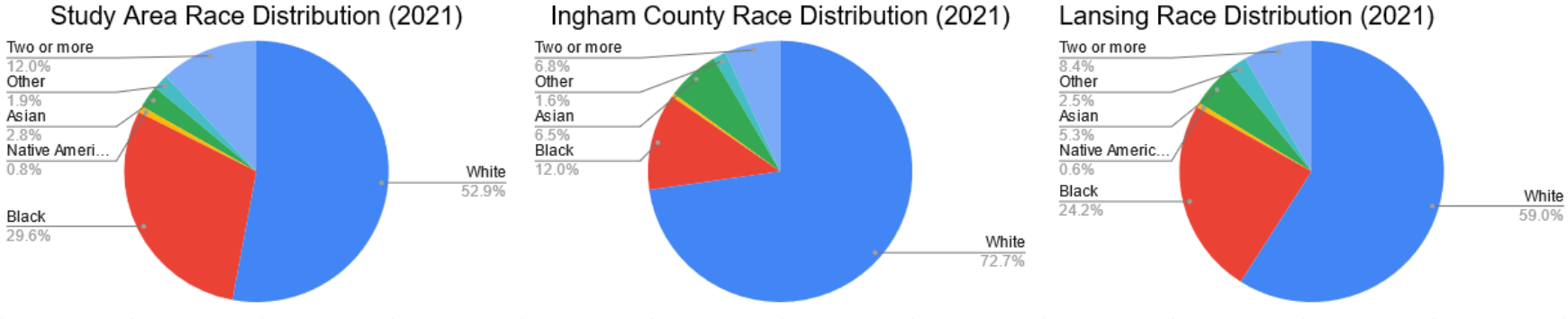


Figure 3: Study Area, Lansing, and Ingham County Age Distributions; Source: 2021 Census Bureau

Educational Attainment

Based on Figure 4, educational attainment of a bachelor's degree or higher with residents ages 25 years or older within the study area increased from 16.6% in 2010 to 22.5% in 2021, with an increase in attainment as well within Lansing and Ingham County, which saw increases of 9.5% and 21.7% from 2010 to 2021, respectively. As more residents seek a higher level of education, higher-paying job opportunities become available, which can lead to higher household income and spending.

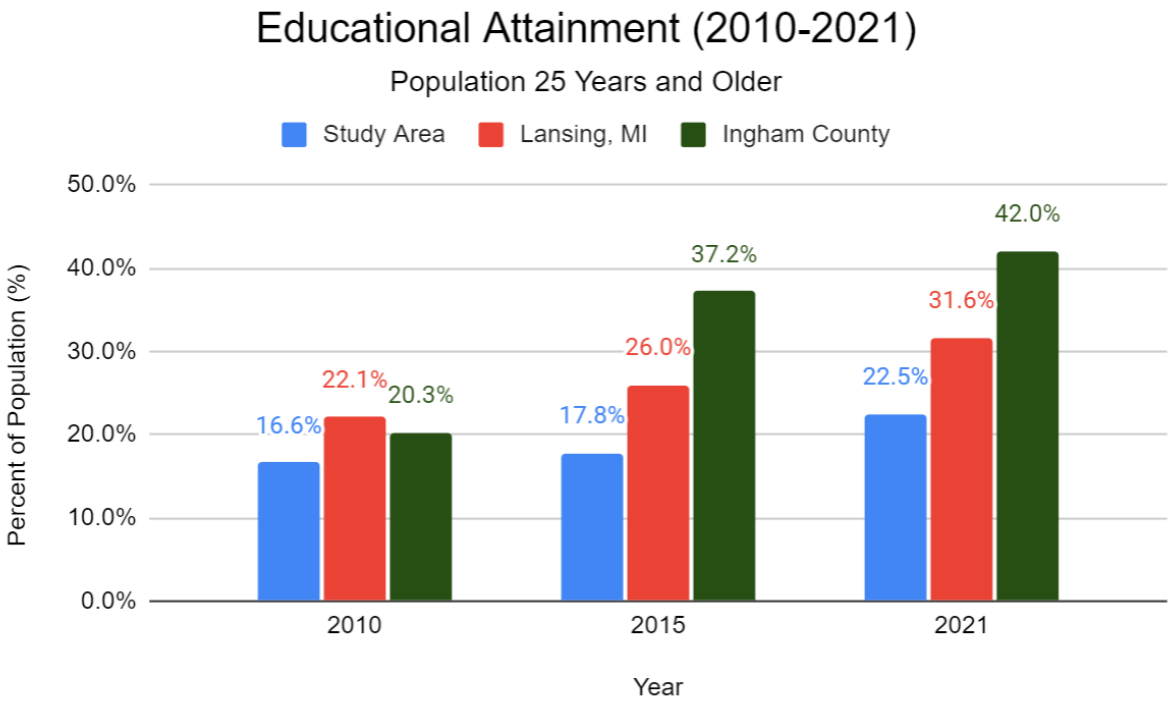


Figure 4: Educational Attainment - Percent bachelor's degree or higher; Source: 2010-2021 Census Bureau

1.3 Housing Analysis

Housing units

Analyzing the growth or decline in housing units within an area can help gauge the performance of economic sectors and determine whether such economic conditions can support an increase in housing developments. Table 5 represents the total number of housing units within the study area, Lansing, and Ingham County, showing growth in housing units between 2010 and 2021. The increase in housing units is a positive indicator of economic growth within the study area, as more housing units are needed for a growing workforce population. The development of more housing units may also lead to other forms of development, such as restaurants or attractions, to accommodate the growing population.

Total Housing Units			
Year	**Study Area**	**Lansing**	**Ingham County**
2010	8,726	54,233	121,253
2021	9,056	55,897	125,749
Growth Rate (%)	3.80%	3%	3.70%

Table 5: Total Housing Units 2010 & 2021: Study Area vs. Ingham County; Source: 2015 Census Bureau

Year Built

Determining the age of households by year built can help provide a snapshot of development trends within an area. A larger proportion of older homes may indicate a low demand for new housing. As shown in Table 6, most households in all three areas were built pre-1980. The age of these households could produce structural and infrastructural hazards, such as outdated water pipes made from lead or the presence of asbestos. Many homes within the study area were constructed before 1939 to 1969 (80%), during which the use of lead pipes and asbestos was still allowed. The same trend is seen in both the city of Lasing (67%) and Ingham County (52%).

Households By Year Built			
	Percentage (%)		
Year	**Study Area**	**Lansing**	**Ingham County**
Before 1939	32%	24%	17%
1940-49	12%	10%	7%
1950-59	24%	17%	14%
1960-69	12%	16%	14%
1970-79	8%	15%	16%
1980-89	4%	6%	10%
1990-99	2%	6%	11%
2000-09	4%	4%	9%
2010-13	1%	1%	1%
2014+	2%	1%	2%

Table 6: Households by Year Built, Study Area, Lansing, and. Ingham County; Source: 2022 ESRI Business Analyst Online

Median home value

Median household value provides a snapshot of the current housing market conditions by indicating how affordable an area is to live in and the prosperity of the local economy. Median value can also indicate the relative living conditions of a community, as higher prices can be associated with higher quality housing that is fit to accommodate residents.

Table 7 shows median home value trends between the years 2010 and 2021. Median household value within the study area since 2010 has more than doubled, with Lansing home value increasing by 9.9% and Ingham County increasing by 35.6%. The sharp increase in home value can most likely be attributed to increased economic activity and development within the area, leading to a larger number of local residents and demand for housing.

Median Home Value (Dollars)			
	Study Area	Lansing	Ingham County
2010	$38,569	$89,200	$122,600
2021	$90,734	$98,076	$166,200

Table 7: Median Home Value (Dollars) 2010 & 2021: Study Area vs. Ingham County; Source: 2021 Census Bureau

Home Ownership & Vacancy

Identifying the distribution of home ownership between owner and renter-occupied housing can help reveal buying trends within the local population. A larger proportion of owned establishments might indicate that residents are looking for short-term housing options such as apartments rather than long-term housing such as permanent homes.

Shown in Table 8, both the Study Area, Lansing and Ingham County owner-occupied housing increased by 0.9%, 1.1%, and 0.5%, respectively. While the increase in owner-occupied housing is small, it is still a positive sign that residents are seeking more permanent housing options and will contribute to the local economy. Vacant housing rates in the study area have remained flat between 2010 and 2021 while increasing by .4% within Lansing and decreasing by 2.7% in Ingham County during the same period.

	Home Ownership (%)					
	Study Area		Lansing		Ingham County	
	2010	2021	2010	2021	2010	2021
Owner Occupied	48.2%	49.1%	48%	49.1%	54.5%	55%
Renter Occupied	40.1%	39.3%	41.4%	39.9%	34.8%	37%
Vacant	11.7%	11.7%	10.6%	11%	10.7%	8%

Table 8: Home Ownership (%) 2010 & 2021: Study Area vs. Ingham County; Source: 2021 Census Bureau

1.4 Economic Analysis

Table 9 shows what industry sectors are prevalent within the study area. The three most prevalent industries within the study area are retail trade, professional, scientific & tech services, and other services (except public administration). The table also shows the employee distribution within all industrial sectors, with the highest employee distribution in Health Care and Educational Services. One possible reason why industry mix and employee distribution do not correlate is because of the average commute time people take to get to work. The average commute time is just about 20 minutes for people in our study area, meaning they work elsewhere. Regarding educational services, there are 12,146 employees within the study area, but the industry only makes up 1.9% of business in the study area, most likely due to the presence of post-secondary institutions such as Michigan State University and Lansing Community College.

Study Area Business Summary (2023)				
Industry	**Businesses**		**Employees**	
	Number	**Percent**	**Number**	**Percent**
Agriculture, Forestry, Fishing & Hunting	0	0.0%	0	0.0%
Mining	1	0.1%	6	0.0%
Utilities	3	0.3%	258	0.8%
Construction	64	7.1%	485	1.6%
Manufacturing	37	4.1%	702	2.3%
Wholesale Trade	40	4.4%	820	2.7%
Retail Trade	134	14.8%	910	2.9%
Transportation & Warehousing	20	2.2%	116	0.4%
Information	15	1.7%	138	0.4%
Finance & insurance	20	2.2%	113	0.4%
Retail Estate, Rental & Leasing	32	3.5%	118	0.4%
Professional, Scientific & Tech Services	85	9.4%	2,217	7.2%
Management of Comapnies & Enterprises	1	0.1%	3	0.0%
Administrative & Support & Waste Management & Remediation	36	4.0%	492	1.6%
Educational Services	17	1.9%	12,146	39.3%
Health Care & Social Assistance	72	8.0%	7,191	23.3%
Arts, Entertainment & Recreation	22	2.4%	737	2.5%
Accommodation & Food Services	64	7.1%	821	2.7%
Other Services (except Public Administration)	152	16.8%	2,442	7.9%
Public Administration	19	2.1%	1,039	3.4%
Unclassified Establishments	70	7.7%	130	0.4%
Total	904	100.0%	30,884	100.0%

Table 9: Study Area Business Summary 2023: Study Area vs. Ingham County; Source: 2023 Census Bureau

Major Employers

The largest employers in the Lansing area shown in Table 10 include only the state government, education, healthcare, manufacturing, and insurance industries. The largest is the State of Michigan, with the capitol building and state offices downtown. Michigan State University also employs many people across the area, coinciding with Lansing Community College and the Lansing School District in the education industry. Sparrow Health System and McLaren Health are the two major employers in the healthcare industry. Both Auto-Owners and Jackson National Life employ those in the insurance industry. Finally, General Motors and Peckham employ a large number of employees in the manufacturing industry.

Lansing, MI Largest Employers		
Company	**Industry**	**Employees**
State of Michigan	Government	13,880
Michigan State University	Education	10,253
Sparrow Health System	Healthcare	9,000
General Motors	Manufacturing	4,274
McLaren Health	Healthcare	3,000
Auto-Owners Insurance	Insurance	2,720
Jackson National Life Insurance Co.	Insurance	2,439
Peckham, Inc.	Manufacturing	2,200
Lansing Community College	Education	1,957
Lansing School District	Education	1,082

Table 10: Major employers within city of Lansing, Source: Lansing Economic Area Partnership (LEAP)

Unemployment

Unemployment status was an essential element to consider when gathering data for this profile. The percentage of unemployed residents indicates the local economy's health, and a lesser percentage provides a more hospitable environment for new business owners to invest within the community.

As shown in Figure 5, both the study area and Ingham County experienced a decrease in unemployment rates of 0.7% and 1.5%, respectively. While the unemployment decrease is not as strong as Ingham County, it is still encouraging to see a decrease in unemployment within the study area, which indicates that more residents are becoming employed. The 0.2% rise in unemployment from 2015 to 2021 in the study area may be due to the COVID-19 pandemic.

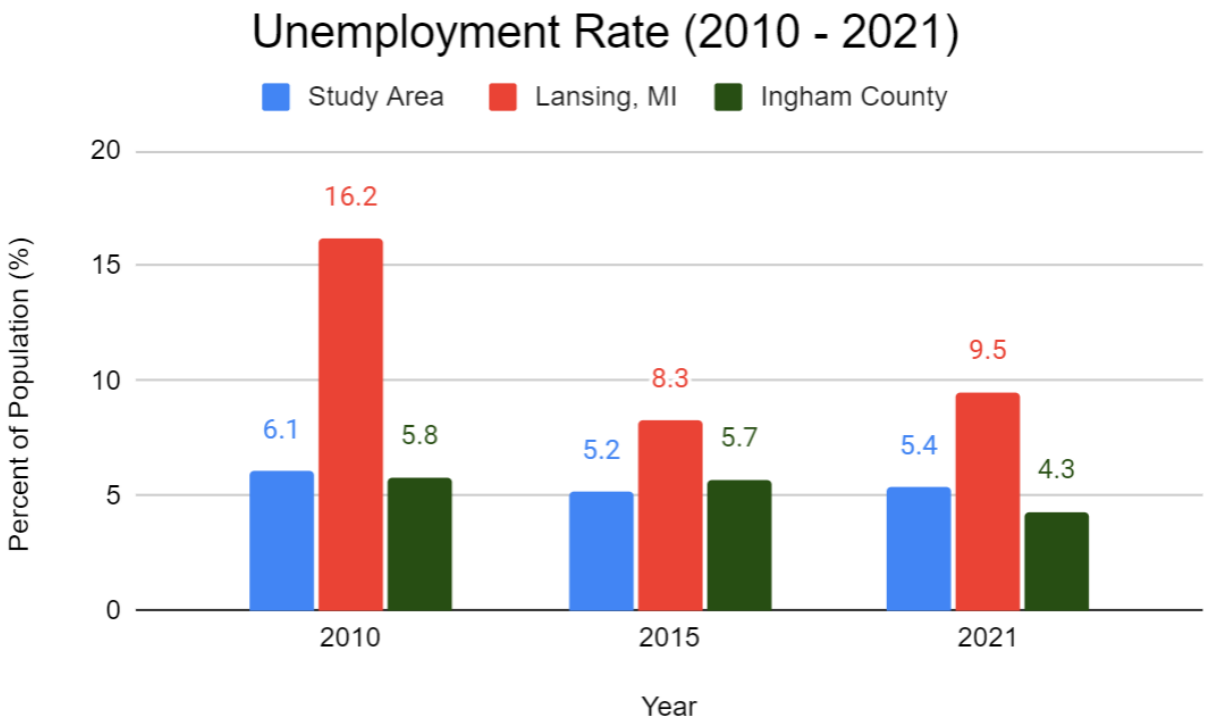


Figure 5: Unemployment Rate; Source: 2010-2021 Census Bureau

Household income

Household income is another key indicator of the quality of life within a community. It allows planners to identify which areas earn more wages, reflecting the local economy's state. Subsequently, planners can summarize how much money the community brings in to predict market trends based on consumer habits. Household income can be analyzed to determine the past and current standard of living residents are experiencing. Gauging the state of household income will also help measure the current state of local industries and businesses within the study area and whether or not the current economic climate can sustain household living.

According to Figure 6, average household income in the study area and Ingham County increased from 2010 to 2021. Household income in the study area grew by 22.84% from $42,736 to $55,385, less than Ingham County, which increased by 27.33% from $57,572 to $79,227. These increases show that both areas are experiencing wage growth, but the rest of Ingham County consists of more high-income households than the study area. One possible explanation is a lesser presence of high-paying industries within the study area, which will be discussed in this report's shift share and market analysis. Median household income within the study area totaled $42,001.

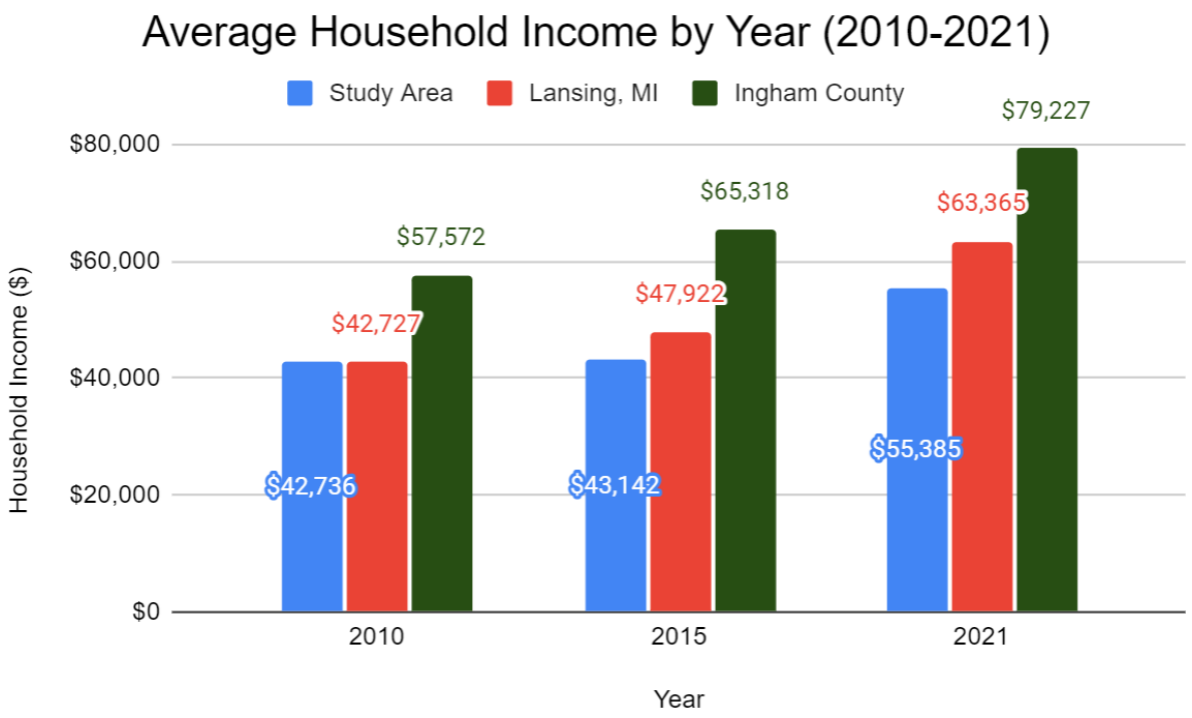


Figure 6: Average Household Income; Source: 2010-2021 Census Bureau

Poverty rate

Poverty rate is another essential measure of a community's well-being. Higher rates may lead to blight, unemployment, and lack of available jobs. Areas experiencing higher poverty rates are subject to more significant social & economic challenges that can scare off potential investors.

Figure 7 shows the study area consistently had a higher poverty rate than Ingham County. The study area had a significant jump from 2010 to 2015, increasing by 7.6%, most likely due to the 2010 economic downturn. Throughout the eleven years, the study area, Lansing, and Ingham County saw an overall decrease in the poverty rate of 3.9%, 8.9%, and 2.2%, respectively. As the corridor is revitalized, nearby residents could have more opportunities to improve their financial situation.

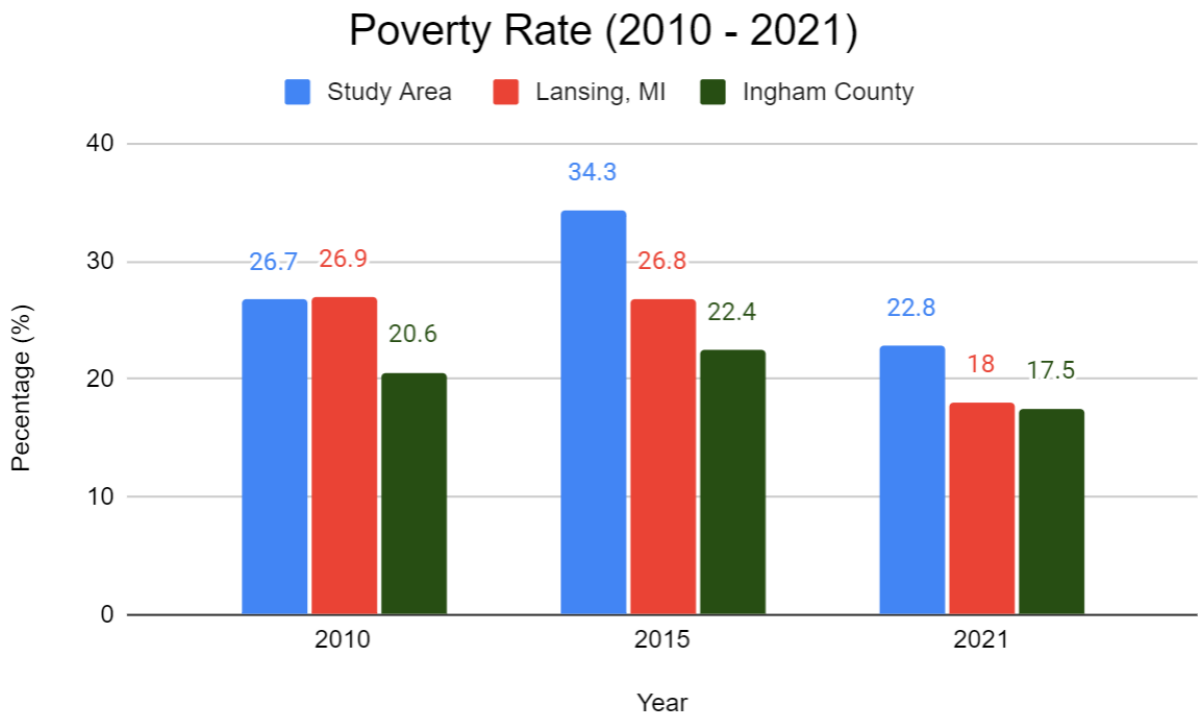


Figure 7: Poverty Rate; Source: 2010-2021 Census Bureau

Shift Share Analysis

A shift-share analysis was conducted for the city of Lansing compared to Ingham County as a way to analyze the employment trends by industry between 2010 and 2021, shown in Table 11. A few interesting notes for the shift include manufacturing and transportation are growing, meaning from 2010 to 2021, both Lansing and Ingham County have seen a rise in employment for these industries. However, in the share analysis, manufacturing has seen a decline compared to the rest of the economy, meaning it has yet to keep pace with the growth the industry is experiencing throughout the rest of Ingham County. In addition, transportation is experiencing a local disadvantage, despite the industry in Lansing seeing an increase in employment from 2010 to 2021. It has been outpaced by Ingham County in terms of overall employment among all industries.

The following terms are further defined below:

- Shift - yearly improvement or decline of industries within city of Lansing compared to Ingham County
  - Local advantage - The industry grew in Lansing and declined in Ingham County
  - Local disadvantage - The industry declined in Lansing and grew in Ingham County
  - Growing - The industry grew for both Lansing and Ingham County
  - Declining - The industry was in decline for both Lansing and Ingham County

- Share - growth or decline of the individual industry compared to the overall economy of Ingham County
  - Local advantage - Industry share of economy in Lansing outperformed Ingham County
  - Local disadvantage - Industry share of the economy in Lansing was outperformed by Ingham County
  - Growing - The industry share saw growth at city and county level
  - Declining - The industry share saw decline at city and county level

Shift-Share Analysis: Lansing, MI vs. Ingham County (2010-2021)		
Industry	**Shift**	**Share**
Agriculture, forestry, fishing and hunting, and mining	Declining	Declining
Construction	Declining	Declining
Manufacturing	Growing	Declining
Wholesale trade	Declining	Declining
Retail trade	Growing	Local Advantage
Transportation and warehousing, and utilities	Growing	Local Disadvantage
Information	Declining	Declining
Finance and insurance, and real estate and rental and leasing	Growing	Growing
Professional, scientific, and management, and administrative and waste management services	Growing	Growing
Educational services, and health care and social assistance	Local Disadvantage	Local Disadvantage
Arts, entertainment, and recreation, and accommodation and food services	Declining	Declining
Other services, except public administration	Local Advantage	Declining
Public administration	Growing	Local Advantage

Table 11: Shift-Share for City of Lansing & Ingham County; Source: Census Bureau

Location Quotient Analysis

A location quotient represents how employment by industry compares to the rest of the economy. A score over 1.00 means an industry is experiencing growth and brings in consumers from neighboring areas. A score of less than 1.00 means the industry is struggling, and local consumers are leaving the area to access that industry in another community. A few takeaways from Table 12 includes manufacturing transitioning from an underperforming sector to an outperforming one, compared to Ingham County between 2010 and 2021. On the contrary, construction and hospitality-related industries saw a shift into an underperforming status.

As of 2021, the strongest industrial sectors located within Lansing include manufacturing, wholesale and retail trade, transportation, public administration, and other services not specified. If new businesses were introduced within the study areas that apply to the industries mentioned, there would be excellent growth potential. One target industry that should be looked into for potential growth includes arts, entertainment, and recreation as activities that fall within that category such as restaurants, are key assets that can bring communities together and encourage interaction between businesses and residents.

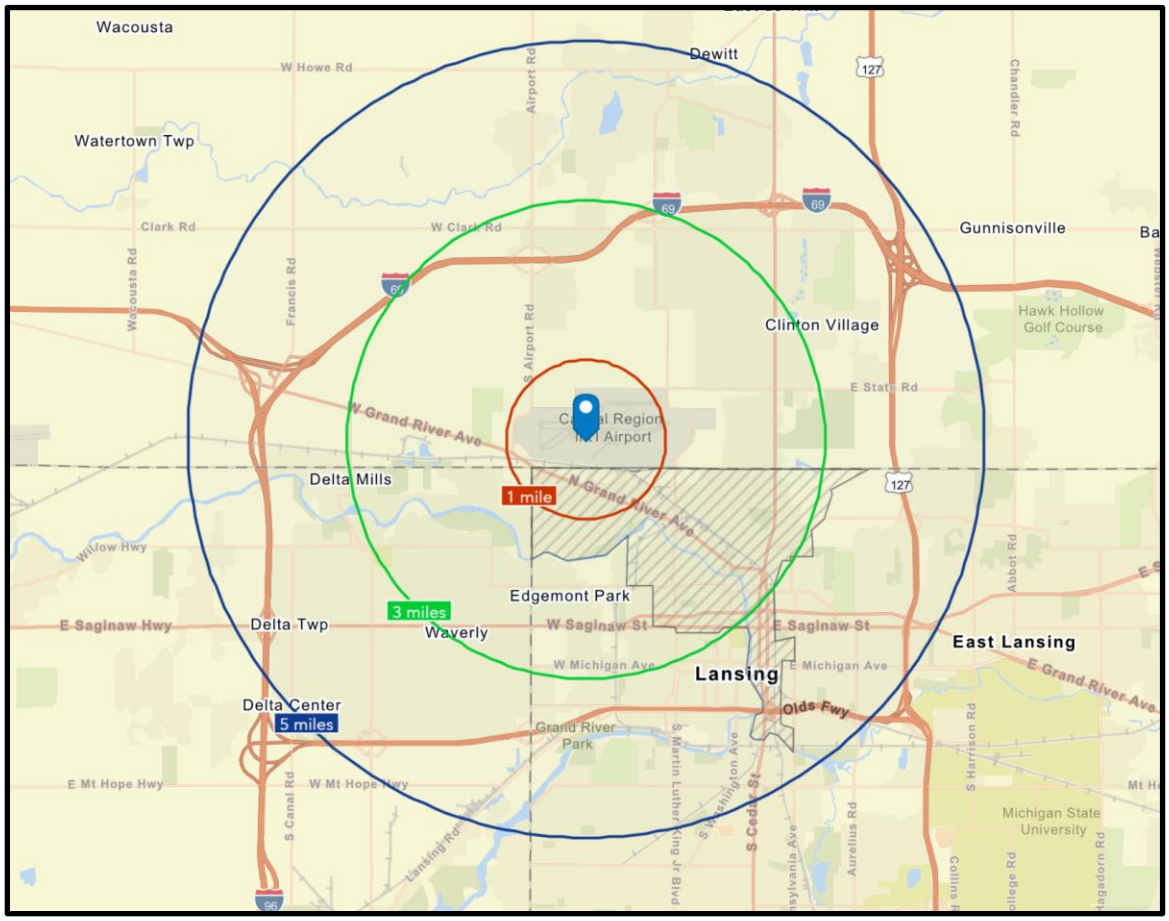
Location Quotient Analysis - Lansing, MI vs. Ingham County		
Industry	**Location Quotient 2010**	**Location Quotient 2021**
Agriculture, forestry, fishing and hunting, and mining	0.50	0.33
Construction	1.23	0.74
Manufacturing	0.99	1.03
Wholesale trade	1.39	1.06
Retail trade	1.11	1.23
Transportation and warehousing, and utilities	1.42	1.17
Information	0.74	0.43
Finance and insurance, and real estate and rental and leasing	0.79	0.95
Professional, scientific, and management, and administrative and waste management services	1.08	0.90
Educational services, and health care and social assistance	0.87	0.70
Arts, entertainment, and recreation, and accommodation and food services	1.04	0.95
Other services, except public administration	1.31	1.26
Public administration	1.04	1.06

Table 12: Location Quotient Lansing & Ingham County; Source: Census Bureau

1.5 Retail & Market Gap Analysis

The following analysis aims to identify and describe the current economic and market conditions. By identifying the composition of the business market within the study area and corridor, informed decisions about what is best for the area can be formulated. Table 10 provides an overview of the current distribution of business types within the study area. The most prevalent sectors are retail trade, professional services, and other services, including automotive repair shops and other similar uses. While these businesses make up the majority, the industries that employ the greatest number of employees are health care and educational services. Several schools are within the study area, including Cumberland and Gier Park elementary schools.

The following gap analysis pertaining to the identified area on Map 6 will help identify supply and demand trends of various industry subsectors. By analyzing the trends shown in the following figures, decisions can be made about which sub-sectors can provide the best economic benefits for the surrounding area. The market gap analysis was conducted using three different radii: 1, 3, and 5 miles, using data from ESRI's 2017 data on BAO (Business Analyst Online), as shown in Map 4. A market gap analysis identifies leakages and surpluses within an area. Leakage occurs when there is a lack of sufficient supply of goods in a specific industry, meaning those who reside there will leave the area to satisfy the demand. A surplus is when an area draws in people from other places because the supply exceeds the demand.



Map 7: Market Gap Radius Map, Source: ArcGIS Business Analyst Online, ESRI

1 Mile Radius

Figure 8 represents the first of the three radii metrics to review: the industry's leakage and surplus within 1 mile of the study area. The industries with the most surplus include gas stations, electronic & appliance stores, and food services. This results from outside residents visiting the study area and spending money in these industries. It is important to note the nature of the study boundary, being 7 census tracts with creative extensions into downtown Lansing and Old Town, possibly skewing these numbers. For example, in Map 5, census tract 66 stretches far south from the corridor, encapsulating multiple industries to contribute to the data. As a result, there may be a strong concentration of one industry sector that is present on the southern edge of tract 66 that is not present along the corridor but contributes to the overall results of this report. On the contrary, many industries within 1 mile of the study area suffer from a significant leakage. Furniture & home furnishings, building & garden supply, sporting goods & bookstores, clothing, food & beverage stores, and healthcare are all significantly lacking within 1 mile.

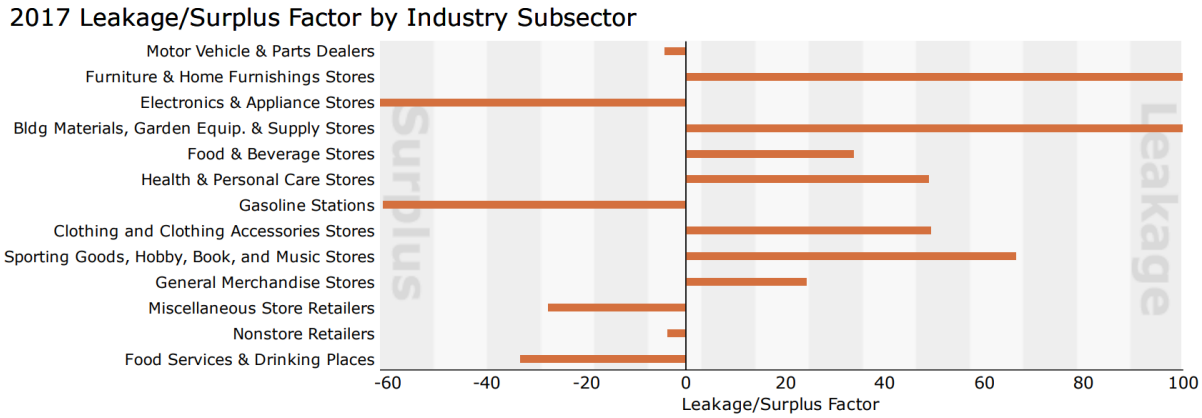


Figure 8: 2017 Leakage/Surplus Factor by Industry Subsector; Source: ArcGIS Business Analyst ESRI

3 Mile Radius

Figure 9 represents the 3-mile buffer and its pertinent data. Overall, the conditions within the 3-mile radius show negative trends, as a greater majority of industry sectors are experiencing leakages. Motor Vehicles & Parts Dealers and Furniture & Home Furnishing Stores are experiencing the greatest leakage of the represented industries. Food & Beverage Stores are the next industry with the highest leakage. This shows a high demand for this industry, but the current supply cannot support it. The remaining industries experiencing a consumer leakage within the 3-mile radius include building and garden materials, health and personal care, gasoline stations, general merchandise, and non-store retailers. The greatest surplus within the 3-mile radius is sporting goods, hobbies, books, and music stores. One potential cause of such a high surplus in the mentioned sectors is due to the presence of the Lansing Mall and its surrounding chain retailers such as Target and Walmart that specialize in those sectors.

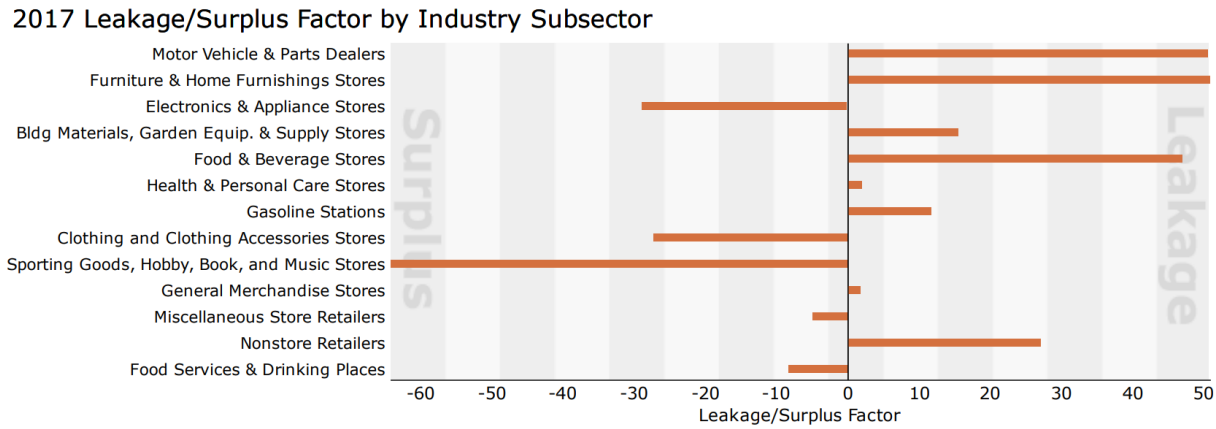


Figure 9: 2017 Leakage/Surplus Factor by Industry Subsector; Source: ArcGIS Business Analyst ESRI

5 Mile Radius

Figure 10 represents the 5-mile radius of the study area and has large surpluses in the Sporting Goods, Hobby, Book, and Music Stores industry sub-sector. Overall, nine industry sectors experienced a surplus, with the greatest surpluses occurring in the sporting goods and food and beverage sectors. The study area has a large leakage in Non-store Retailers and a lower leakage in Gasoline Stations and Motor Vehicle and Parts Dealers. The study area has a slight leakage in Building Materials, Garden Equipment, and Supply Stores. The more distanced radius has the greatest number of industries in a surplus compared to the two smaller radiuses being analyzed. This means more industries in this area can service the people in the area.

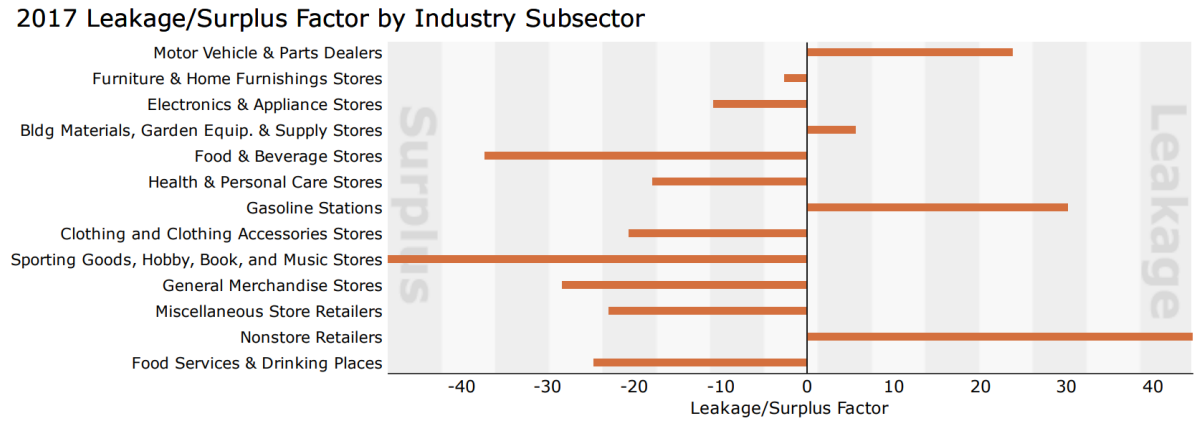


Figure 10: 2017 Leakage/Surplus Factor by Industry Subsector; Source: ArcGIS Business Analyst ESRI

Chapter 2: Zoning & Land Use Assessment

2.1 Introduction

The following section identifies and assesses current and future zoning and land use trends within the study area. By recognizing present conditions, well-informed decisions can be made about the area's developability and can aid in determining whether current land use promotes certain industry development. This section will also determine how current land uses interact with the North Grand River Avenue Corridor and whether these uses contain development potential.

2.2 Existing Zoning Conditions

The study area has 21 separate form-based zoning districts as shown on Map 7. Form-based code differs from other zoning methods as the main goal of form-based zoning is to achieve a desired physical appearance that best suits the impacted community. This method differs from traditional Euclidean zoning, which focuses on solely separating land uses into designated zones. Due to the large number of zoning uses within the study area, there is potential for almost any type of building use desired by the community and that fits the needs determined by primary and secondary data. The zoning uses in the study area will be summarized in the appendix. Map 7 consists of 21 separate zoning use classifications, ranging from industrial to residential and commercial uses that are permitted within the study area. The wide range of uses allows for many possibilities for development and can introduce variety and diversity to the community. The most prevalent type of zoning uses that are most current according to Lansing Parcel Viewer that are located within the study area include suburban industrial, R-2 and R-3 suburban detached residential, and R-5 urban detached residential.

The three parcels identified within the study area boundary, previously shown in Map 5, are zoned as either IND-1 (Suburban Industrial) or S-C (Suburban Corridor). IND-1 permits light to medium-density industrial uses, such as research facilities, manufacturing, and warehouse complexes. S-C is intended to provide a location for suburban-style commercial areas that are auto-dependent, including strip-style or single-tenant buildings with ample parking off the road they reside on.

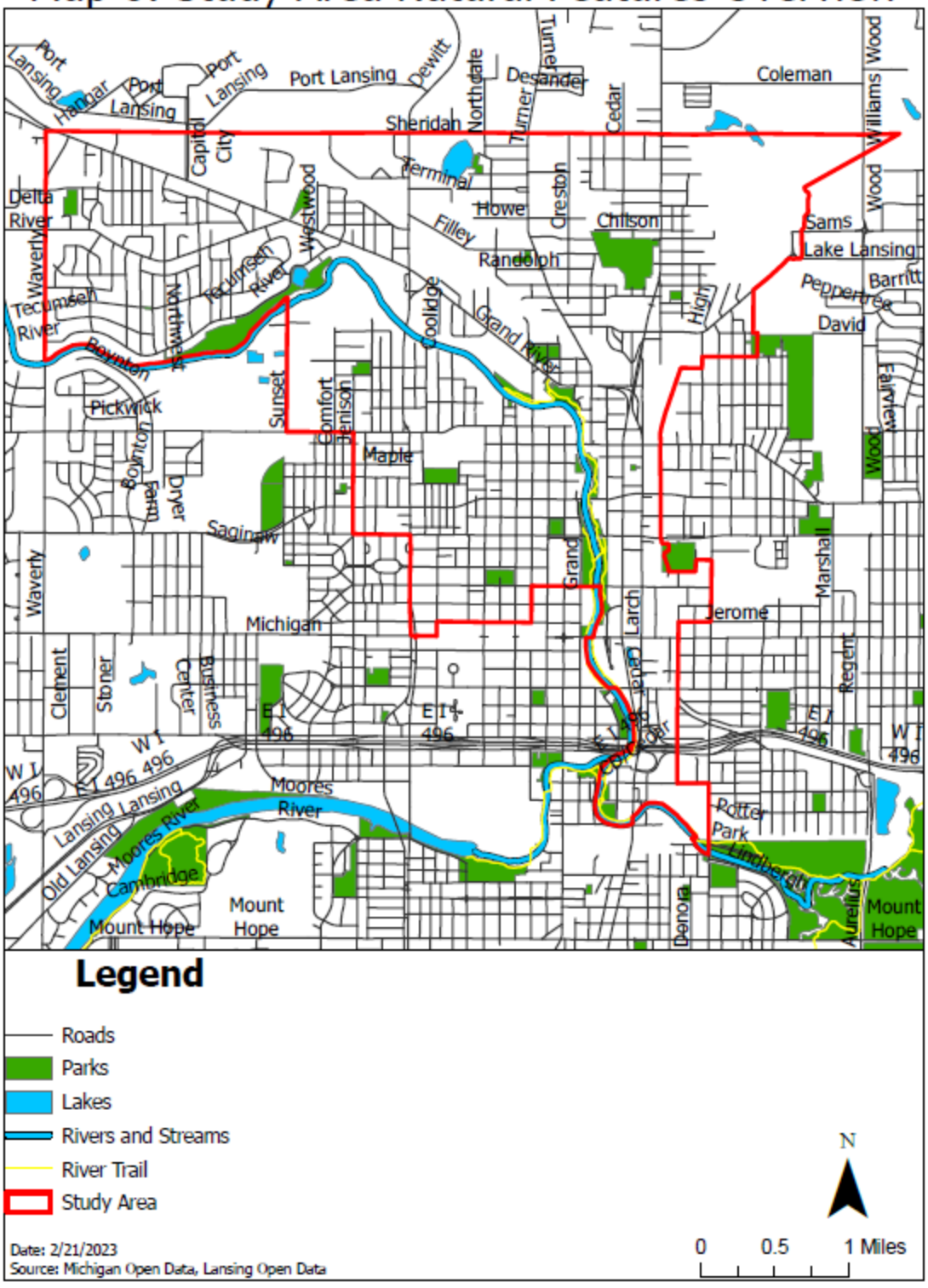
2.3 Current and Future Land Use

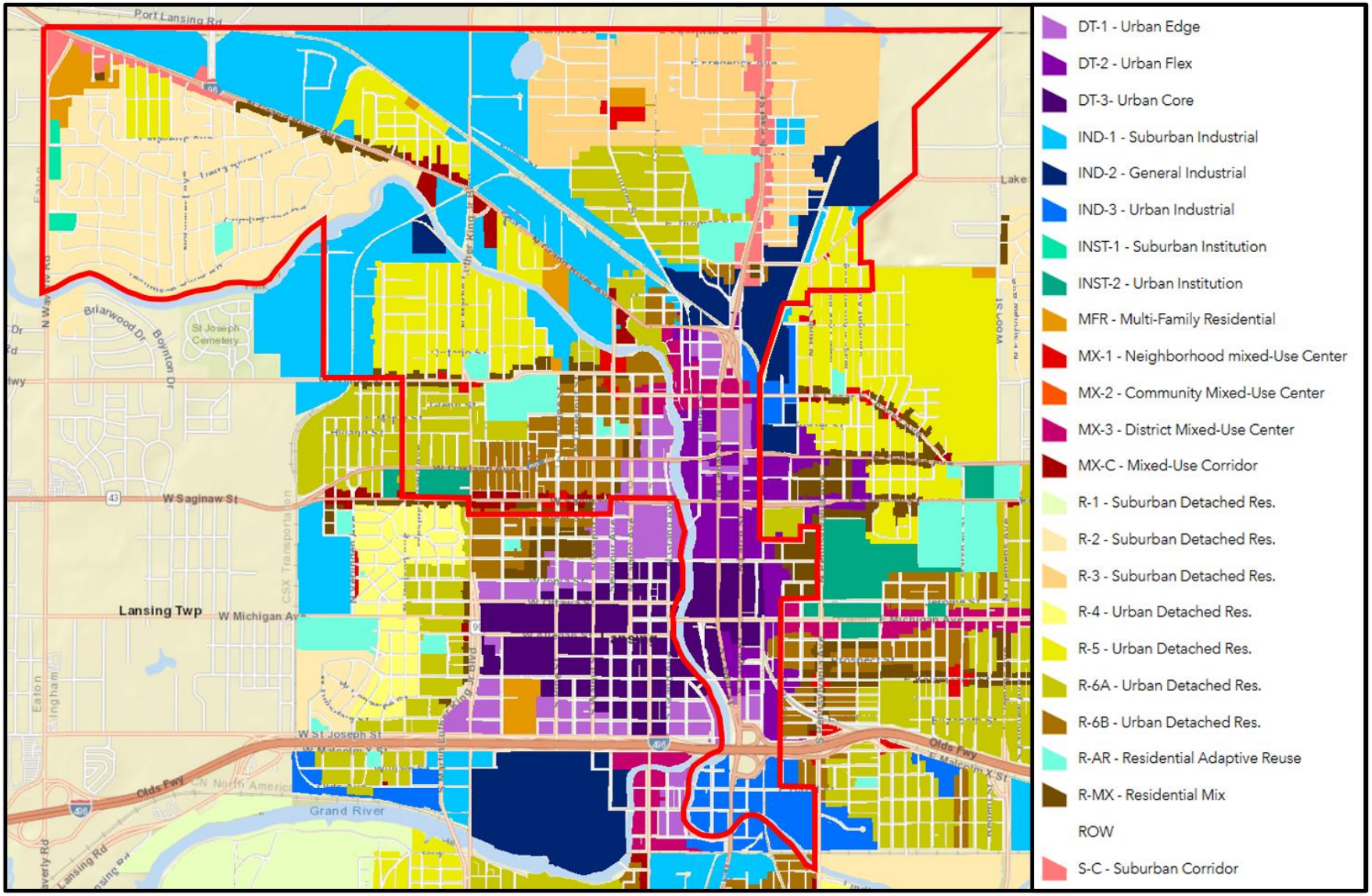
Map 8 identifies natural features within and around the study area, including parks, rivers, and bodies of water. Map 8 also outlines the location of the Lansing River Trail, a 13-mile-long stretch of walking paths that is home to many leisure activities, amenities, and attractions such as Brenke Fish Ladder, Rotary Park, and Turner Dodge Mansion. Map 9 provides an overview of the City of Lansing most recent form-based code, as defined by Lansing Parcel Viewer.

Maps 10 and 11 represent the current and future land use within the study area outlined in the Design Lansing 2012 Comprehensive Plan. Both current land use and zoning maps (Maps 10 and 11) follow the trend of primarily single-family residential with industrial uses in the northwestern portion of the study area. One major change regarding land use is the desired change from public, warehouse, and institutional land uses to a uniform light industrial district at the northern end of the study area. A shift from single-family to low-density residential is also present between current and future land uses.

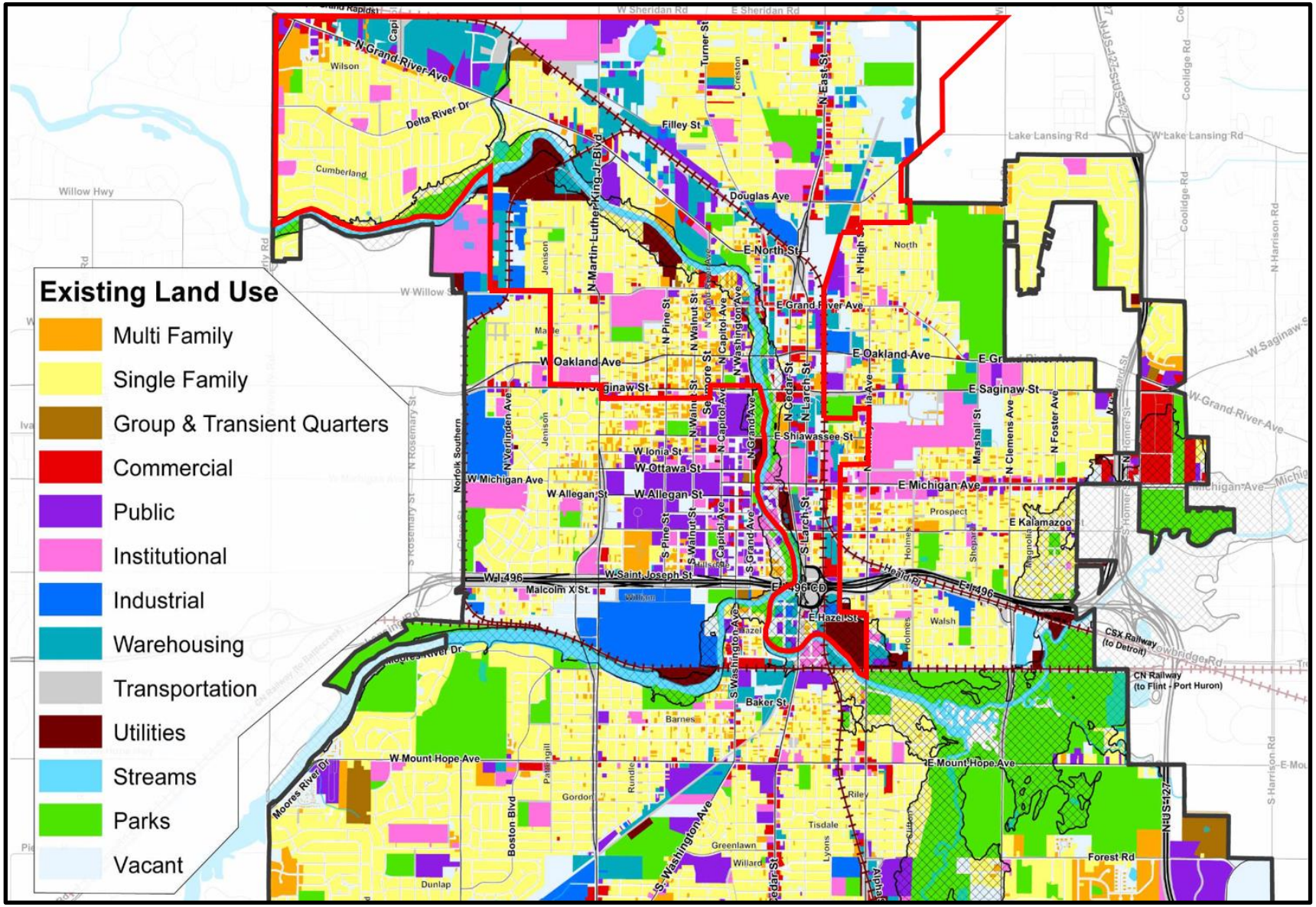
A positive trend that is developing is the dedication of vacant space at the northeastern portion of the study area to be used as open space and potential natural area. , With many industrial land uses being planned for future land use, it is essential for green open spaces to be present, as parks and related areas provide residents with the option to interact with nature and participate in leisure activities such as biking or hiking. The intention to turn vacant land into open space also tackles the issue of potential crime and property damage associated with vacant lots, providing a greater sense of security.

Map 8: Study Area Natural Features Overview

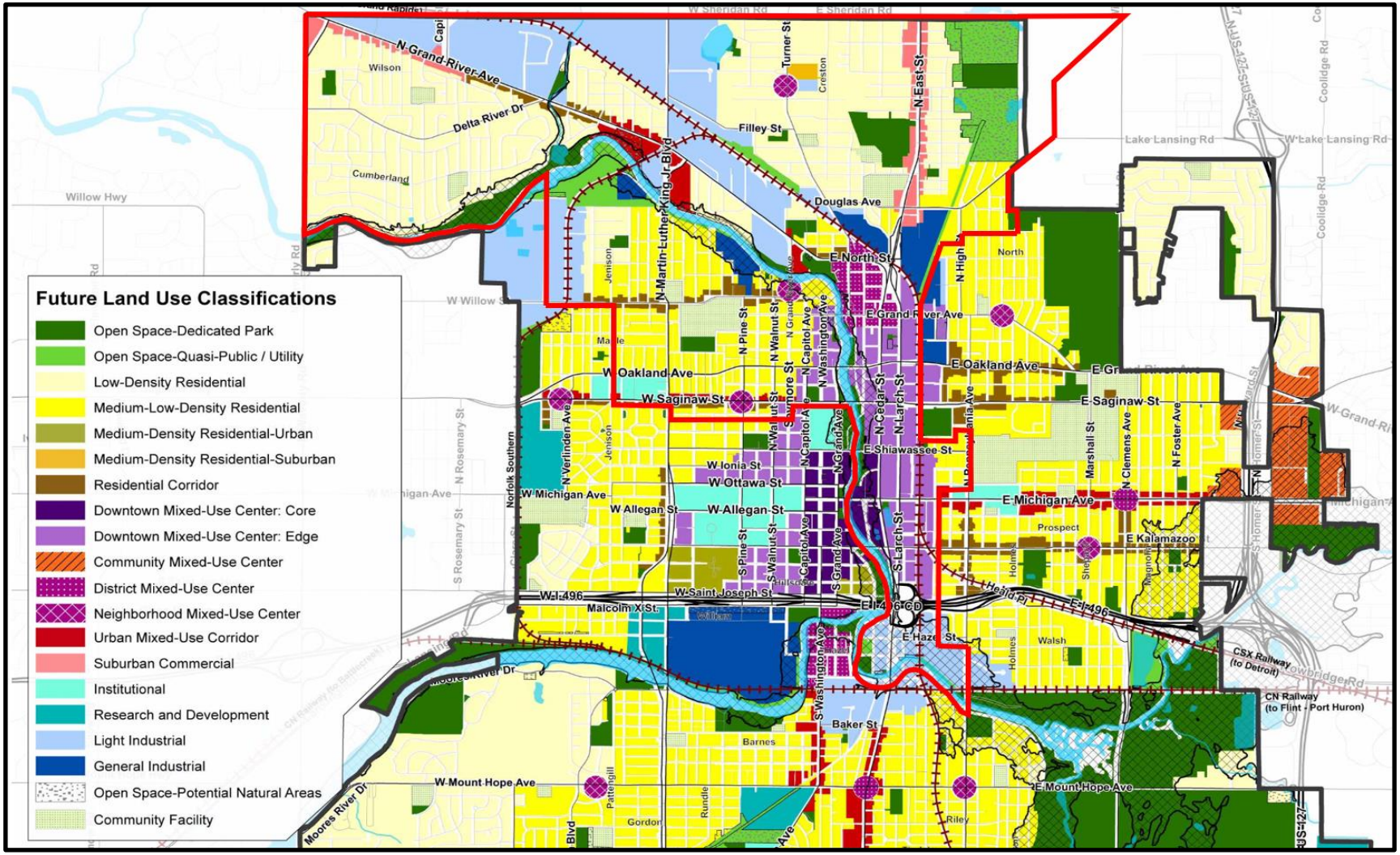




Map 9: Lansing Form Based Code Relative to Study Area, Source: Lansing Parcel Viewer



Map 10: Study Area Current Land Use, Source: Design Lansing 2012 Comprehensive Plan



Map 11: Study Area Current and Future Land Use, Source: Design Lansing 2012 Comprehensive Plan

Chapter 3: Mobility Report

3.1 Introduction

This section aims to evaluate current road and transportation conditions within the North Grand River Avenue Corridor. The conditions of roads, sidewalks, and transportation amenities affect residents' vehicle health, sense of safety, and overall enjoyment of travel. Higher quality conditions promote travel and interaction within an area between residents and businesses, further strengthening the local economy. Good conditions attract future residents, building local tax bases that can maintain travel conditions.

3.2 Existing Conditions

IRI & PASER Road Conditions

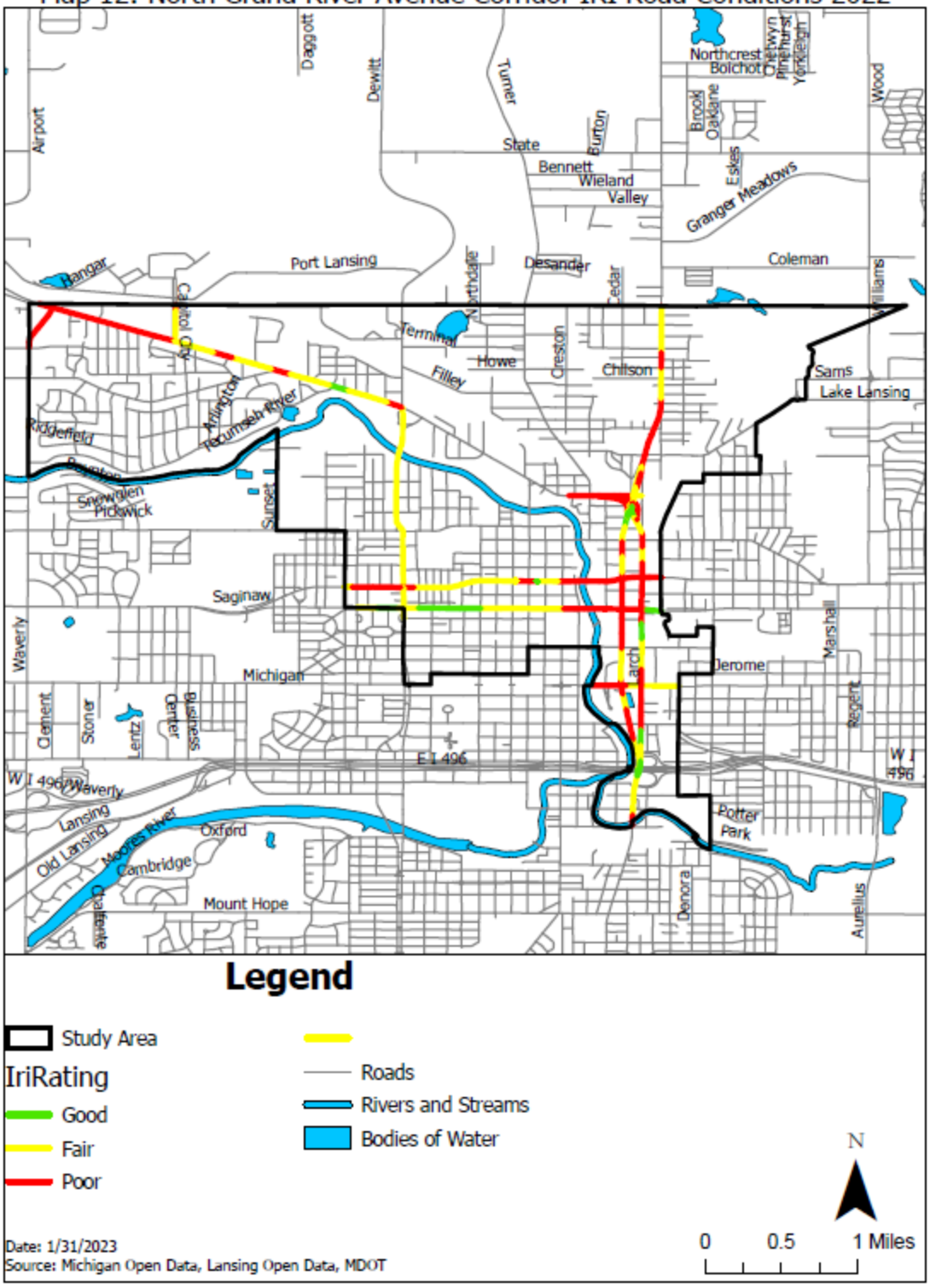
Road conditions within the North Grand River Avenue Corridor vary, with most roads in poor condition. Road conditions were classified based on data from the International Roughness Index (IRI) used by the Federal Highway Administration (FHWA) and Pavement Surface Evaluation and Rating (PASER), used as assessment tools for the Michigan Department of Transportation (MDOT). Based on the FHWA and MDOT assessment of selected roads within the corridor, most roads within the study area were classified as either in fair or poor conditions Standard identifiers of poor road conditions consist of potholes and pavement cracks that create unfavorable driving conditions. The IRI and PASER rating systems were used to determine which stretches of roads within and nearby the corridor are in the worst condition.

The speed limit of many roads within the corridor is 45 mph, including Grand River Avenue. With such roads being close to existing sidewalks coupled with no form of pedestrian screening or protection may deter pedestrians from utilizing sidewalks as a form of transportation. A lack of crosswalks also creates hazardous conditions for pedestrians seeking to cross the road.

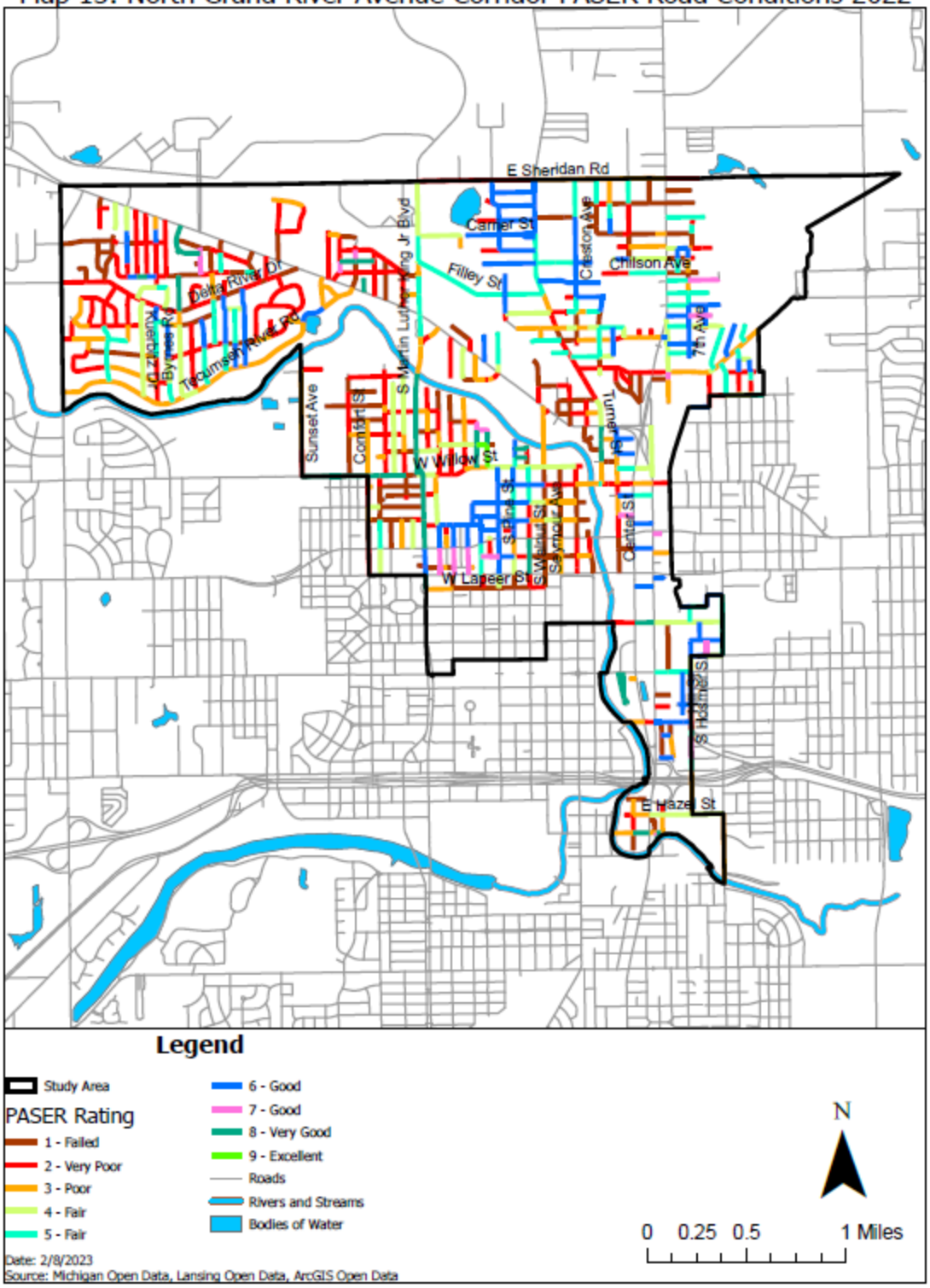
As shown in the Zoning and Land Use Assessment section, much of the corridor area is zoned for industrial use. It is home to the Capital Region International Airport, which deals greatly in shipping goods, so using semi-truck haulers is common throughout the study area. The excessive weight of these trucks and icy winter conditions can further deteriorate road conditions over time.

Bus stop identification markers mainly consist of one metal sign denoting bus route numbers. There are very few transit shelters for pedestrians to use during precipitous weather conditions, which further discourages residents from using public transit. Maps 12 and 13 below, depicting IRI and PASER road conditions, show that much of the roads within the corridor and study area are in poor condition and require repair.

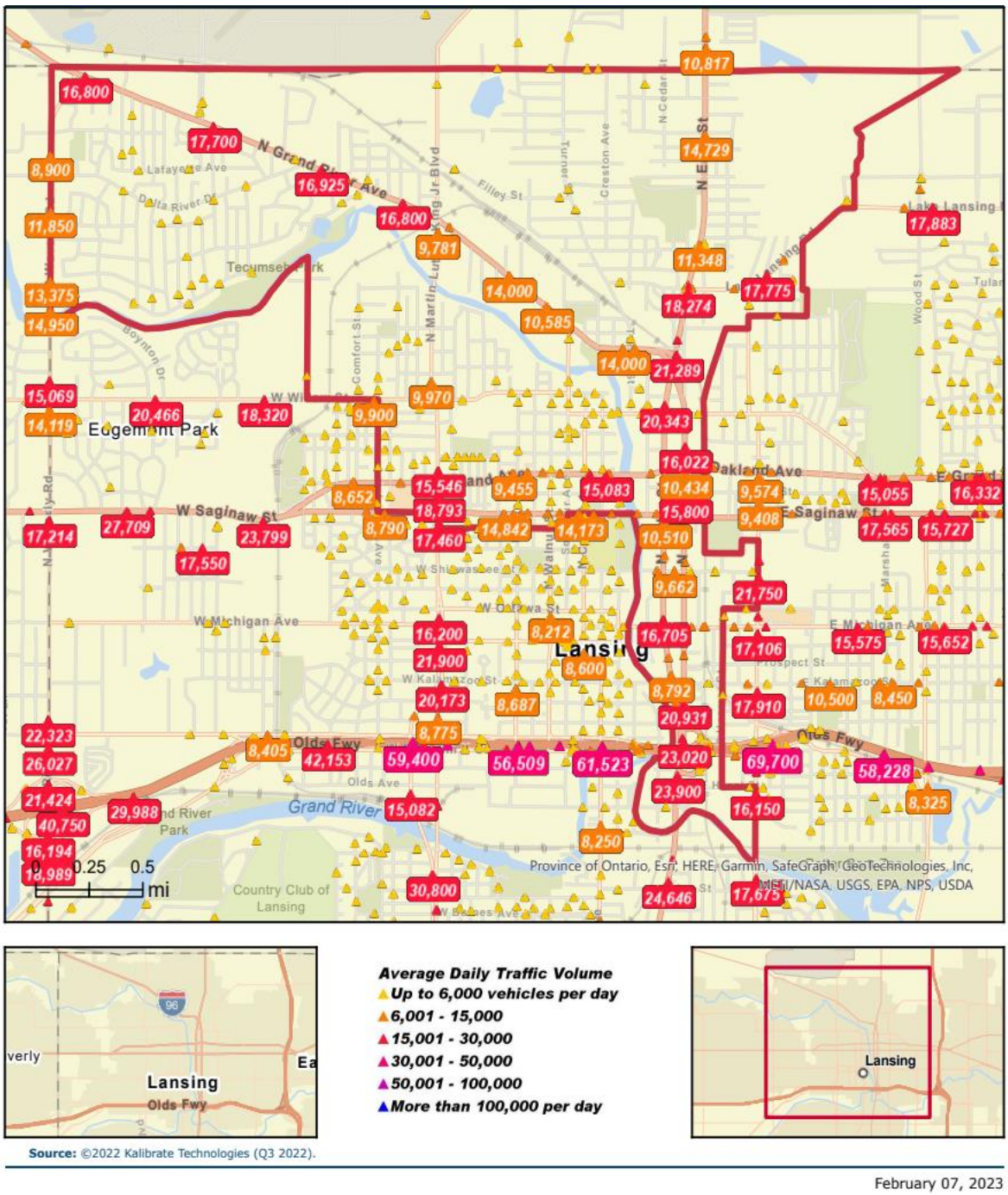
Map 12: North Grand River Avenue Corridor IRI Road Conditions 2022



Map 13: North Grand River Avenue Corridor PASER Road Conditions 2022



The main road in which the North Grand River Avenue Corridor is located is Grand River Avenue, which shown on map 14 sees on average a traffic volume of 14,573 vehicles daily, serving as an arterial road along with East Street that feeds into I-496/US-127, both of which fall under MDOT and Federal Highway Administration (FWHA) jurisdiction. All roads located within the study area excluding I-496 and US-127 are under the authority of the City of Lansing and Ingham County Road Department.



Map 14: Traffic Volume Counts, Source: ArcGIS Business Analyst ESRI

Average commute time

Average commute time indicates how much time residents spend commuting to work. The larger the number, the greater chance the place of work is located outside of the corridor area, which leads to leakage and less economic activity within the area.

As shown in Figure 11, the average commute time within the study area increased by three (3) minutes, while commute time in Lansing decreased and Ingham County increased by less than a minute from 2010 to 2021. Based on the trends above, residents within the study area are seeking jobs a greater distance away, which may indicate fewer job opportunities within the study area than the rest of Ingham County.

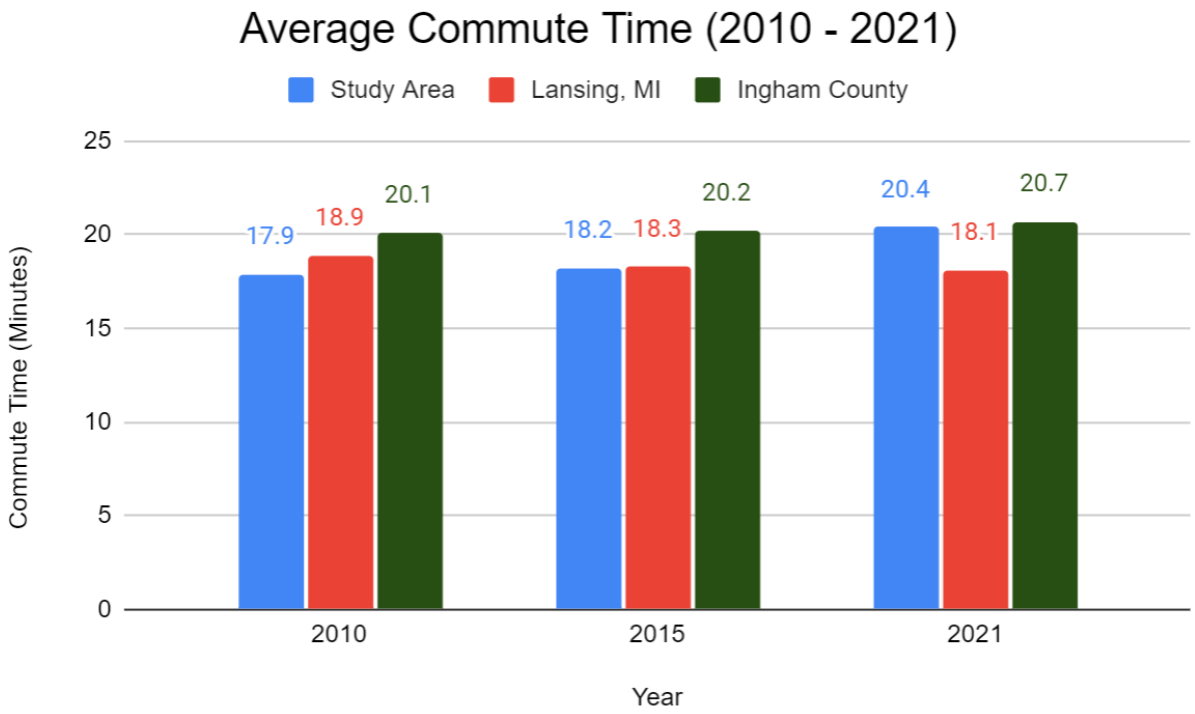
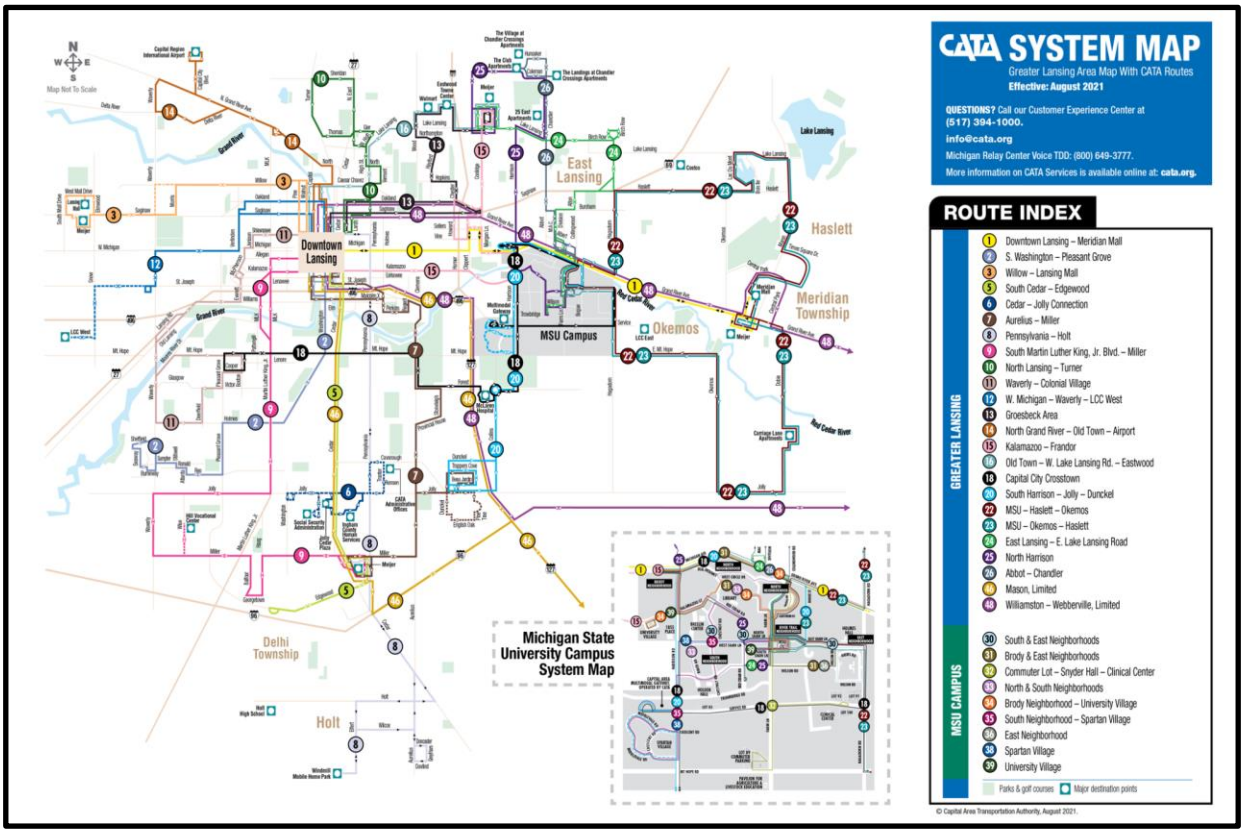


Figure 11: Average Commute Time; Source: 2010-2021 Census Bureau

Public Transportation

The Capital Area Transportation Authority (CATA) has numerous bus stops throughout the corridor. The services that CATA provides to the Lansing Gateway Corridor are a resource that can be greatly utilized, as only 5.8% of residents within the study area rely on public transportation such as CATA. One possible reason for such a low percentage is the lack of sidewalks providing connectivity between stops. CATA provides a mobile phone application that allows users to see real time location information of bus routes, allowing for greater transparency of wait times for passengers. As shown in map 15 below, CATA already has current routes that travel within the North Grand River Avenue Corridor and the Capital Region Airport, providing the foundations for a more connected corridor.



Map 15: CATA System Map, Source: CATA.org

Chapter 4: Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis

Introduction

The following SWOT analysis aims to identify and summarize the current state of conditions within the North Grand River Avenue Corridor. The analysis considers all the previous chapter's findings to create a snapshot of current conditions, with the goal of aiding in future decisions by providing areas of improvement and concern.

Strengths

Local Workforce: One of the strengths of Lansing is its large, high-density residential downtown that supports a large number of government jobs that few cities in Michigan can compare to, as Lansing is the capital of Michigan. This aspect helps provide a large workforce presence for businesses in the corridor that can attract other industry sectors.

Accessibility: The Lansing Capital Region International airport is located along the corridor, providing great accessibility for businesses and community residents. The airport also provides multiple benefits to the area, including:

- The potential to provide easy and fast transportation and shipping services through partnerships with UPS and other shipping services for local businesses
- Ability to service international flights of more than 19 passengers, making the airport one of only two airports in the state of Michigan
- International Trade: Foreign Trade Zone (FTZ) #275 covers eight counties, allowing for international imports of goods that can broaden economic outreach
- Establishment of 13-14 parks and open spaces, presence of Grand River (body of water)

Weaknesses

The area lacks investment, with most of the area along the corridor in poor condition and upkeep with trash on front lawns; a lack of greenery and natural features also creates an unwelcoming environment. The current state of public transportation also presents the following concerns:

- No direct bus routes that connect the airport to the Capital or MSU Campus
- Lack of route options
- Lack of shelters for riders waiting for bus services
- Provides first impressions of the city of Lansing for new visitors, which in the corridor's current state provides a negative one

Opportunities

One opportunity that Lansing has is the Capital Region International Airport. This airport handles $1 billion of cargo annually and acts as a distribution center where goods are further distributed throughout Michigan. Developing businesses and residential buildings that support the airport allows Lansing to grow economically. The corridor is home to many vacant lots prime for redevelopment. Other opportunities include:

- Airport provides strong industry by handling $1 billion worth of cargo annually
- Currently updating utility infrastructure on airport-owned parcels of land to help incorporate and incentivize potential development opportunities
- Expansion of shipping and receiving tarmac will allow for an increased volume of goods to be processed and shipped throughout the country
- The presence of Grand River access and Lansing River Trail can provide great connections to nature and open space for residents in relation to a large amount of industrial uses

Threats

Competing Airports: Capital Region International Airport (LAN) has found a niche as a local hub for cheap flights and charter vacations. However, Gerald R. Ford International Airport (GRR), Detroit Metropolitan Wayne County Airport (DTW), and Flint Bishop International Airport (FNT) remain rivals in the industry. LAN had lost many flights during the pandemic of 2020 and is still recovering, with only non-stop year-round service to Detroit, Chicago, Orlando, and Washington D.C. as of today with seasonal service to Mexico, the Dominican Republic, and Jamaica. LAN will need to continue bringing back its former flight catalog to maintain its hold as a successful destination for Lansing MSA residents.

- Emphasis on industrial zoning along the corridor currently creates little opportunity for other retail and entertainment services to be introduced, as such could serve as a deterrent for recreational uses due to noise and lack of green space on industrial properties
- Capital Region International Airport has lost many flights since the pandemic, and they must compete with other airports such as Detroit Metropolitan Airport
- Vacant space/abandoned buildings in addition to lack of green space/landscaping along North Grand River Avenue creates an unwelcoming atmosphere

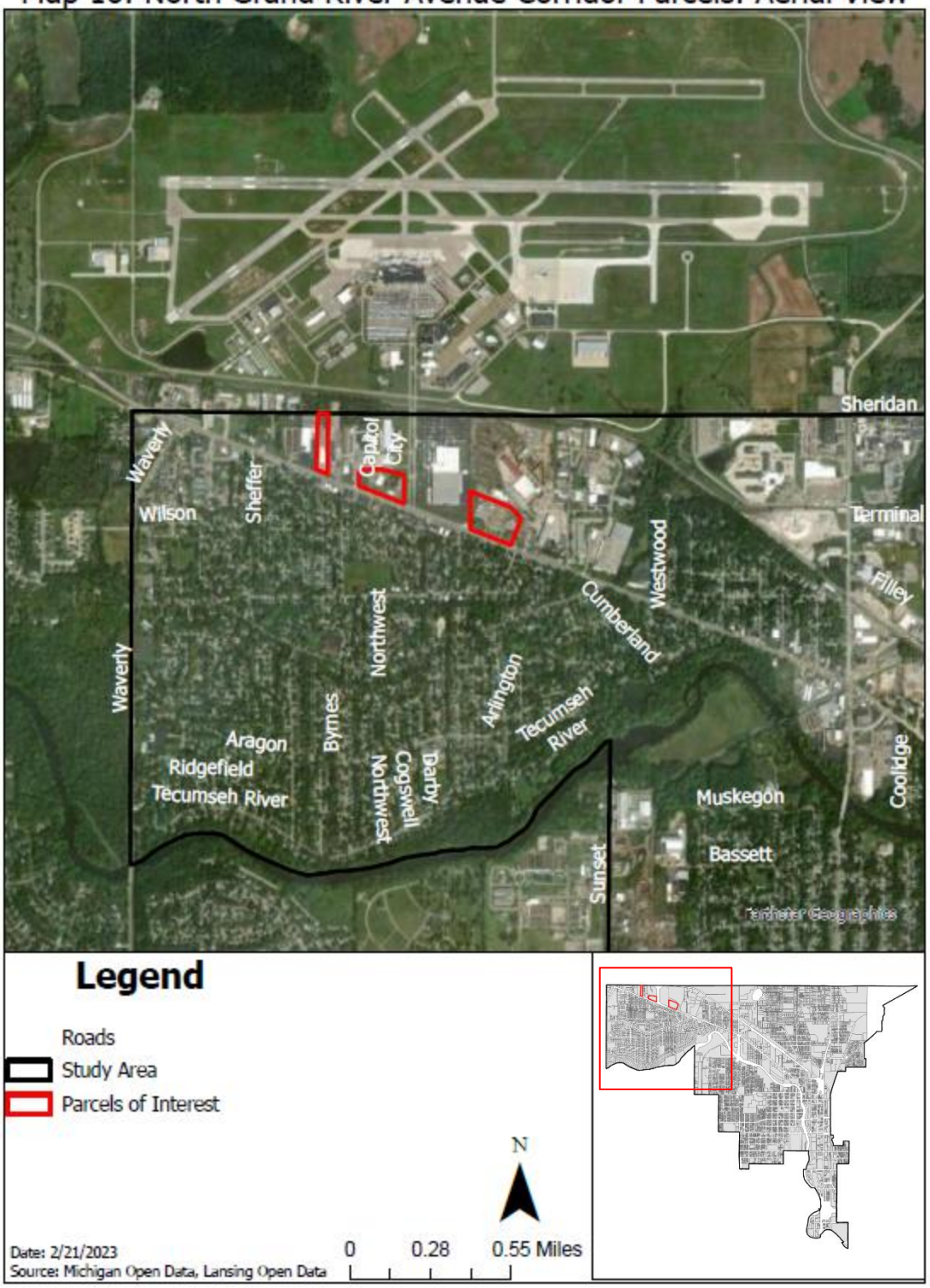
Chapter 5: Parcel Analysis

4.1 Introduction

The following section aims to analyze the current conditions of three parcels located within the North Grand River Avenue Corridor and identify land use scenarios that will best fit each parcel to best serve the community. Information used to determine the following best-use scenarios include current and future zoning, community input from the community survey, and current developer interest. Map 17 provides an aerial overview of the three parcels to provide greater locational context.

Descriptive Information Collected for each Parcel	
Property Photo (Street view and Aerial)	An on-site photo taken to provide visual context, accompanied with an aerial boundary image
Parcel Identification Number	Tax assessor ID number used to identify parcel
Current Land Use	What the existing land use is designated for parcel based on land use map on page 38 and current use from site visit
Property Zoning	Identifies the current zoning district parcel is located within. Zoning descriptions can be found within the appendix
Parcel Size	The area size of the parcel in acres
Property Land Value	The assessed value of the parcel in United States Dollars ($)

Map 16: North Grand River Avenue Corridor Parcels: Aerial View



4.2 Parcel Information

Property 1: 4000 North Grand River Avenue

Introduction

4000 North Grand River Avenue is the easternmost and largest parcel within this inventory, located to the right of the Peckham building. The property is listed for sale by Eyde Development and is currently being used as a tractor trailer staging area. Much of the parcel is vacant, undeveloped land which can serve as an opportunity as a blank slate for community visions to take shape. Land uses around the property are zoned as suburban industrial. Current uses today include a dry cleaner (North Grand River Co-op), an auto parts store (Johnson's Speed Warehouse), and an industrial machinery storage facility.

Property Photo

Image 1: 4000 North Grand River Avenue

Property Photo (Aerial)

Image 2: 4000 North Grand River Avenue

Parcel Identification Number - 33-01-01-06-226-090

Current Land Use - Public

Property Zoning - IND-1: Suburban industrial

Parcel Size - 6.91 acres

Property Land Value - $253,700

Property 2: 4400 North Grand River Ave, 4416 North Grand River Avenue, 3301 Capital City Boulevard

Introduction

The second area included within this inventory consists of three separate parcels close to each other. Each parcel consists of one vacant building and parking lot. Surrounding land uses include an apartment complex (Capital Landings Apartments), a marijuana dispensary (The Botanical Co.) and an industrial building (Demmer Corporation Engineering Center). The existing buildings present on site can provide structural value through interior renovation, as no new construction would be needed. Existing sidewalks and pavement may need repairs to provide better accommodation for future visitors. One building, as shown on the far left in image 20 previous use was a fast-food establishment and is currently being restored to its original use.

Property Photo

Image 3: 4400 North Grand River Avenue

Property Photo (Aerial)

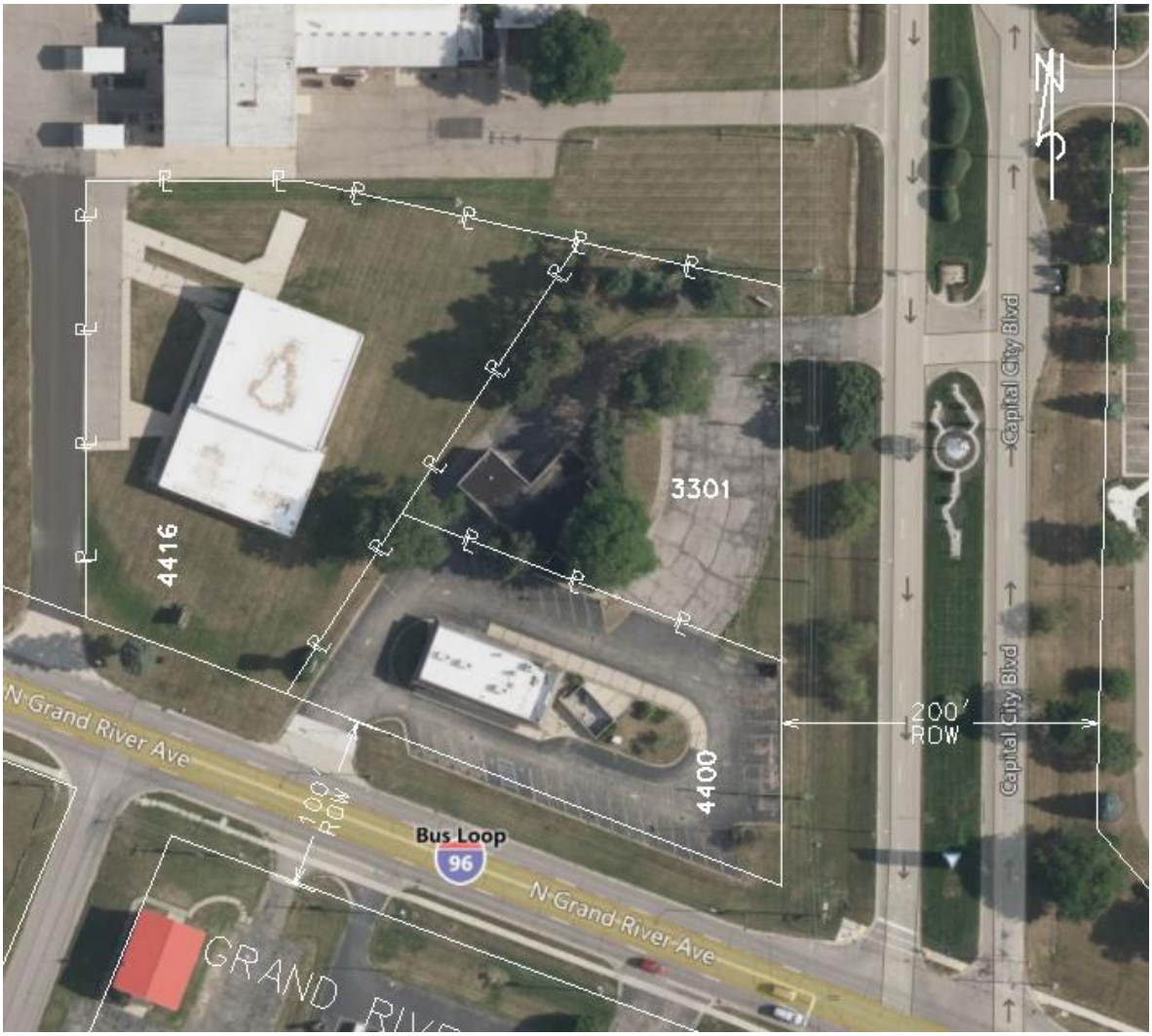


Image 4: 4400 North Grand River Avenue

Parcel Identification Number(s) - 33-01-01-06-201-061, 33-01-01-06-201-017, 33-01-01-06-201-071

Current Land Use - Commercial, public, warehousing

Property Zoning - S-C: Suburban corridor

Parcel Size - 3.51 acres (total for all three)

Property Land Value - $410,200 (total for all three)

Property 3: 4700 North Grand River Avenue

Introduction

The final and third parcel used to be the home of the Fraternal Order of Eagles and is currently listed as vacant property and for sale by the current owner. Surrounding land uses around the parcel include a used car dealership (H&R Auto, LLC), and a car rental agency (Oliver Rent a Car). Towards the rear of the parcel is a section of green, open space that could provide unique outdoor experiences in the future.

Property Photo

Image 5: 4700 North Grand River Avenue

Property Photo (Aerial)

Image 6: 4700 North Grand River Avenue

Parcel Identification Number - 33-01-01-06-126-021

Current Land Use - Warehousing

Property Zoning - IND-1: Suburban Industrial

Parcel Size - 2.58 acres

Property Land Value - $397,200

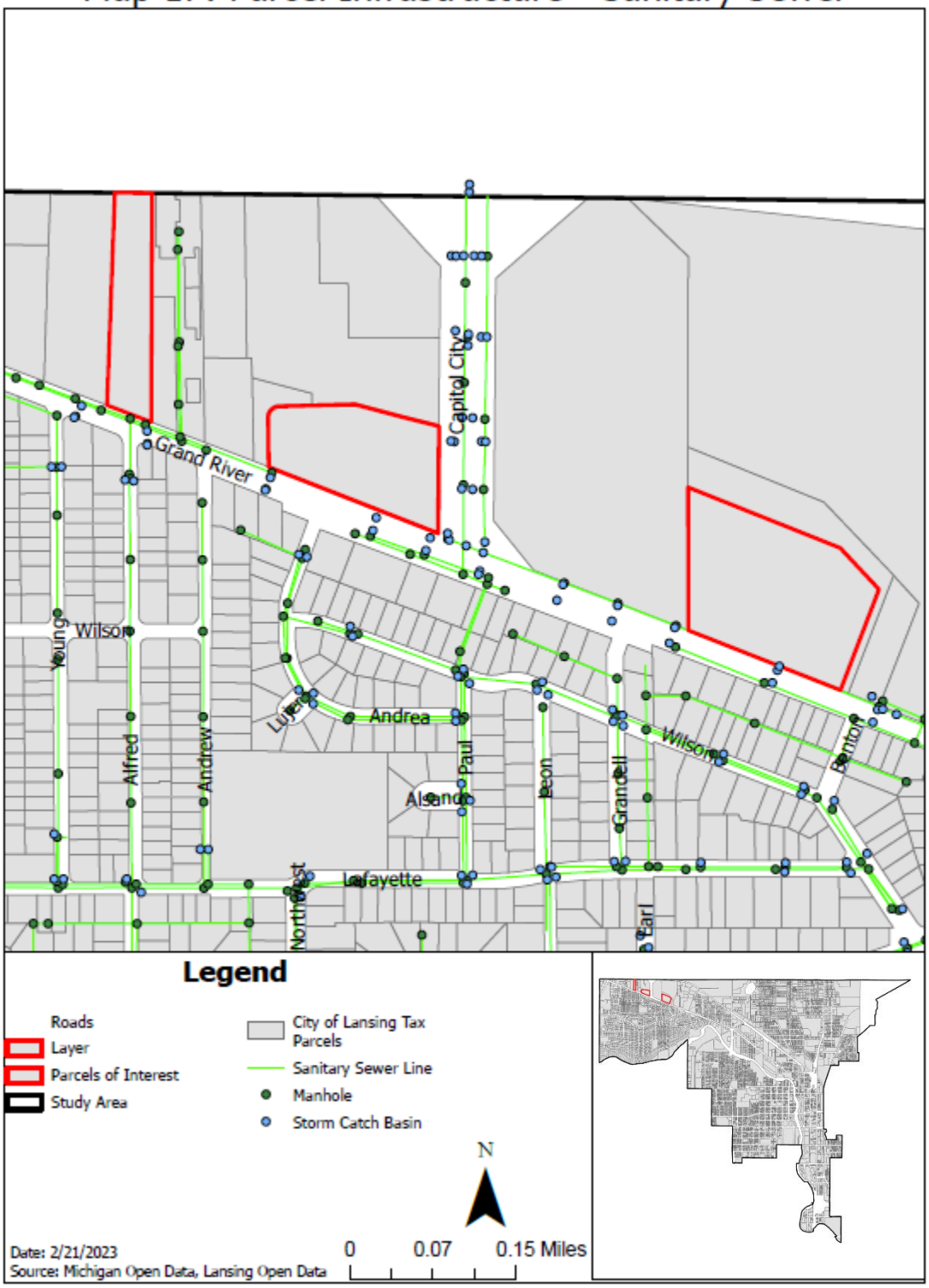
4.3 Existing Utility Infrastructure

Maps 17 and 18 depict sanitary sewer and gas line infrastructure reported near the identified target parcels. Identifying whether necessary infrastructure lines exist near these parcels is essential for future development, as new buildings will need to be connected to said lines to function properly.

Map 17 shows the known sanitary sewer lines, and manhole covers for sanitary purposes, and storm catch basins for water drainage. Sanitary sewer lines are responsible for protecting public health and water quality by transporting sewage and other substances away from buildings to wastewater treatment plants. After being cleaned and treated, the wastewater is returned to the environment.. Manholes provide sewer access for maintenance crews to perform inspections, upgrades, and replacements if needed. Storm catch basins are used for additional drainage, especially during periods of heavy rainfall while also filtering out large debris from entering pipes. All data presented on map 24 was sourced from Michigan and Lansing open data, and the city of Lansing Planning department.

Map 18 represents the present gas lines that service the area. Connecting to existing gas lines gives future buildings the ability to provide heating to residents within, an essential feature given the nature of weather conditions present in Michigan winters. Gas line information was sourced from Esri, the United States Geological Survey (USGS), and Consumers Energy.

Map 17: Parcel Infrastructure - Sanitary Sewer



Map 18: North Grand River Avenue Corridor Parcels – Gas Utility Lines

Chapter 6: Community Survey

6.1 Introduction

The following community survey aims to gather information and preferences from stakeholders within the North Grand River Avenue Corridor study area. Gathered information about impressions of current conditions and future recommendations will be summarized within this section. Each question will be summarized, and pertinent information will be analyzed based on community stakeholder answers.

LEDC distributed the community survey to various stakeholders and the city of Lansing, which was then placed on social media platforms such as Facebook to be made available to any interested residents. The survey was made available to stakeholders and the public on 3/2/23. The data presented within this chapter is from 3/24/2023 to 04/05/2023. The survey will remain open after the conclusion of this report for the LEDC to monitor.

6.2 Overview of Survey Questions/ Findings

The occupation of respondents ranged from current residents to business owners. An equal number of participants have lived or worked within the corridor for more than 10 years as those who recently came to the area (1-5 years) at 28.6%. The ages of respondents ranged greatly, with a majority of respondents living between the ages of 36-45 at 71.4%. Very few respondents interact with the corridor on a daily basis, with only 13.3% indicating daily activity, with 26.7% indicating weekly interaction. The most common reason for no interaction of residents within the corridor was a result of lack of access and options within the corridor to attract residents. Respondents strongly recognized the need for more community engagement events and spaces such as a farmers' market or recreational areas.

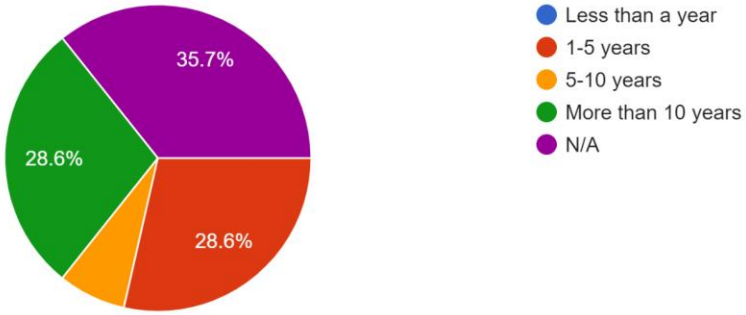
Respondents who filled out the community survey felt strongly about improving the overall visual appearance of the North Grand River Corridor. Respondents also felt strongly about improving existing infrastructure such as exterior lighting components and redevelopment of vacant properties. The greatest safety concerns among respondents were the lack of crosswalks along the corridor and high traffic speeds. The lack of dining and grocery options currently available to residents was also a major concern. Road and sidewalk repair is another high priority issue that many respondents want addressed.

1). What is your relationship to the N. Grand River Avenue Corridor?

15 responses

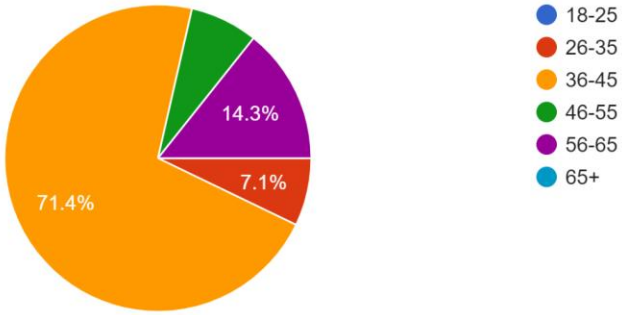
2). How long have you lived or worked in the corridor?

14 responses



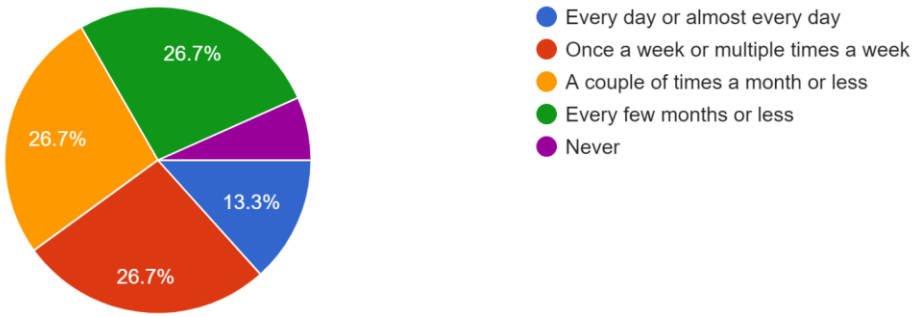
3). What is your age?

14 responses



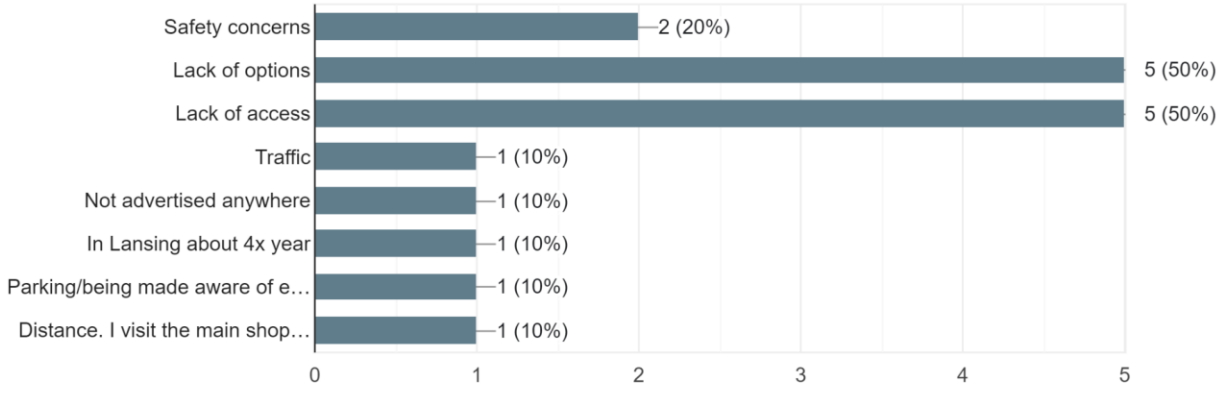
4). How often do you participate in activities along the N. Grand River Avenue Corridor? (shopping, dining, neighborhood meetings, sports/recreation, walking/biking, church, etc.)

15 responses



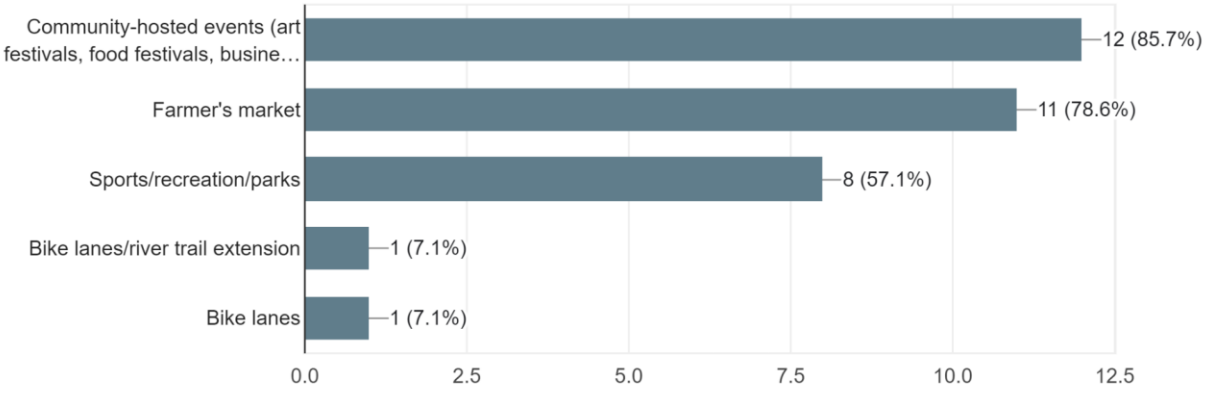
5). If you don't participate in activities along the N. Grand River Avenue Corridor, why not? (check all that apply)

10 responses

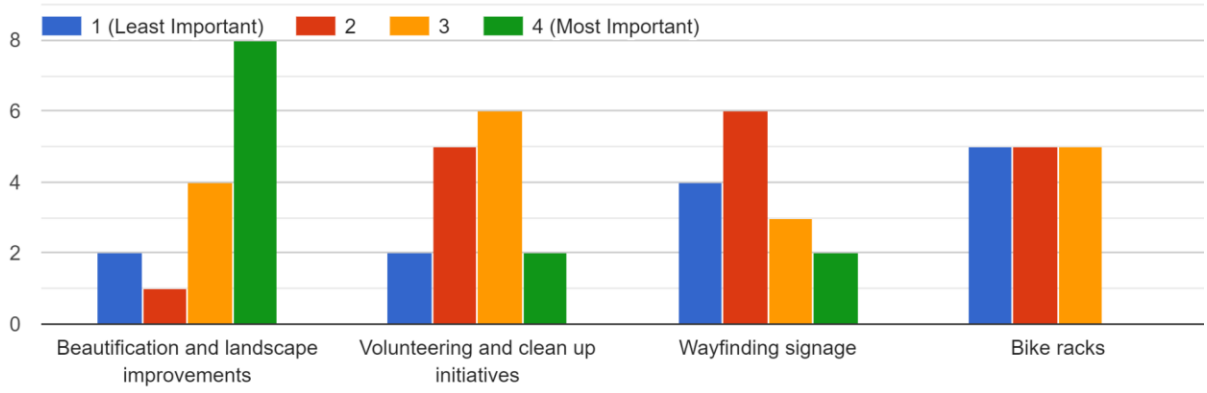


6). What types of amenities would you like to see on the N. Grand River Avenue Corridor? (check all that apply)

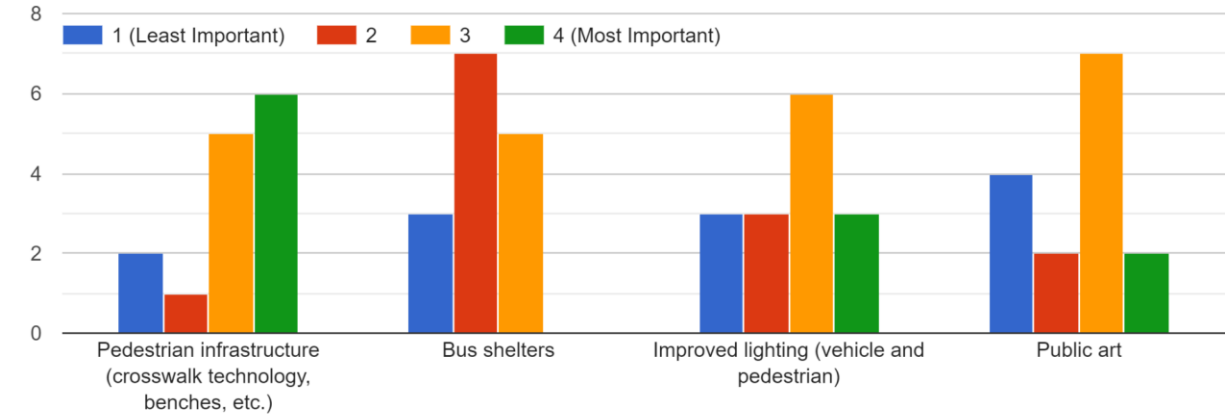
14 responses



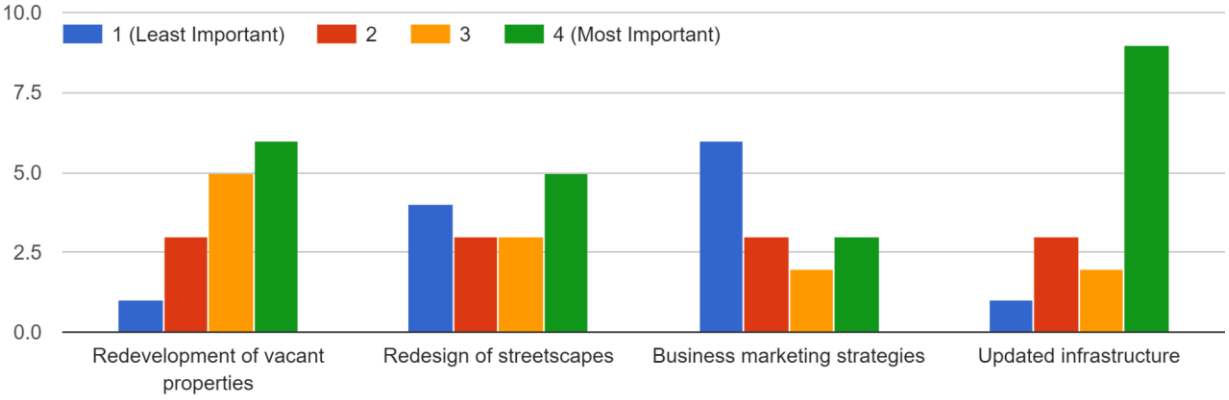
7). Please rate these short term goals in order of importance to you.



8). Please rate these medium term goals in order of importance to you.

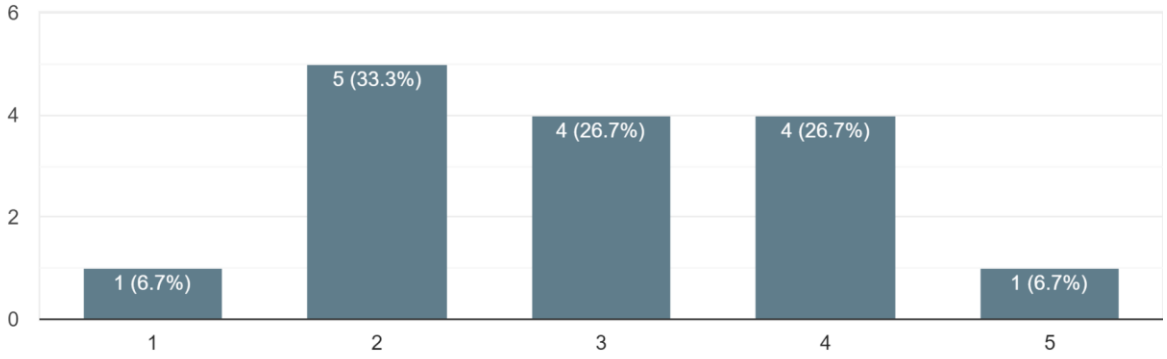


9). Please rate these long term goals in order of importance to you.



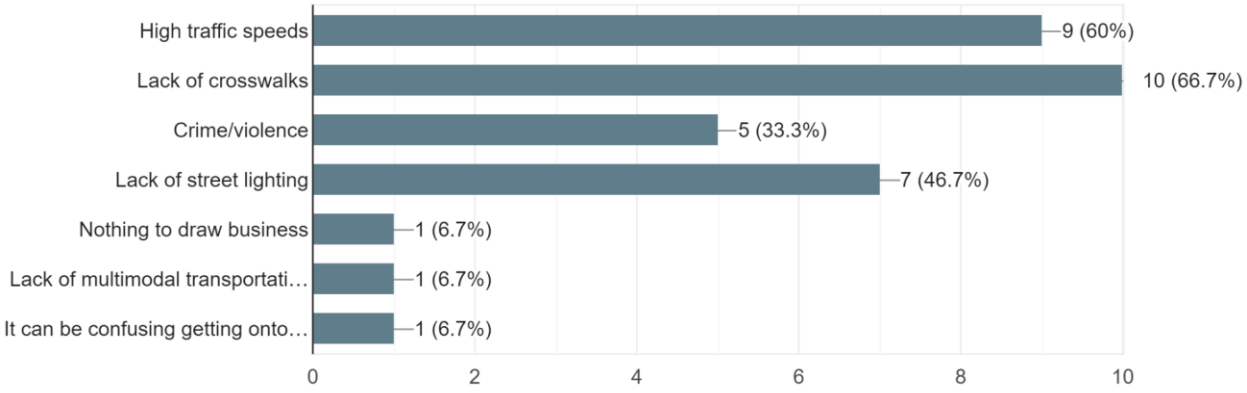
10). How would you rate the safety of the N. Grand River Avenue Corridor?

15 responses



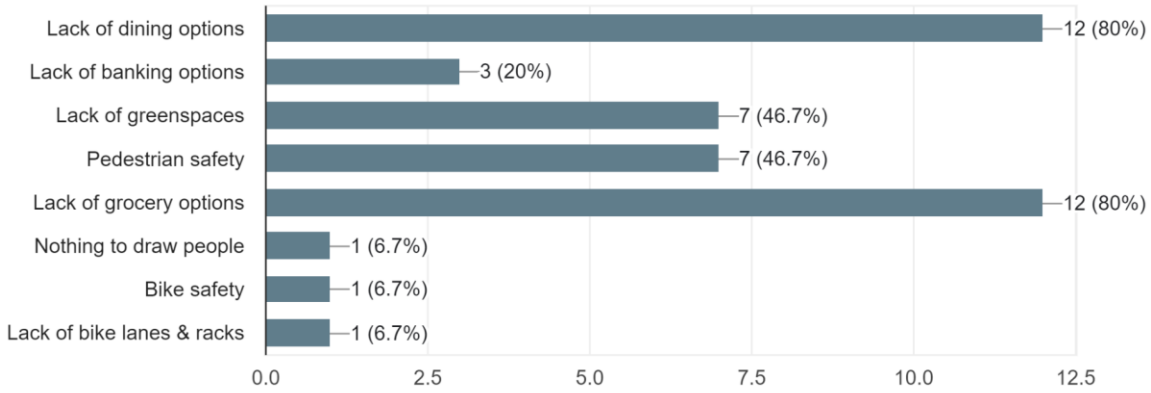
11). What are your safety concerns for the N. Grand River Avenue Corridor? (check all that apply)

15 responses

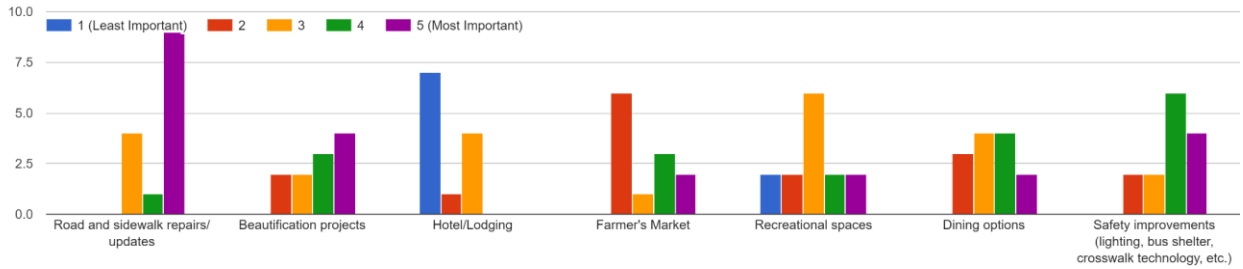


12). What do you see as challenges to the N. Grand River Avenue Corridor? (check all that apply)

15 responses

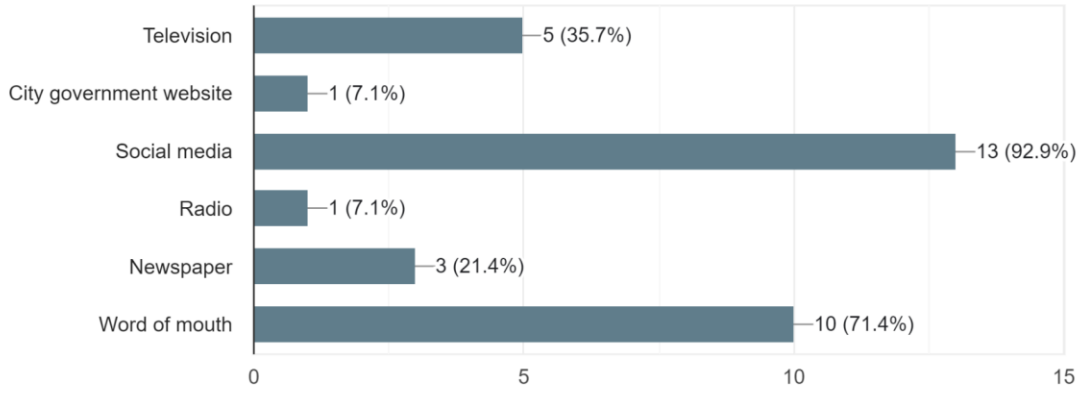


13). Among these options, describe the importance each of these have to you.



14). How do you learn about things happening in your community? (check all that apply)

14 responses



Chapter 7: Case Study Analysis

7.1 Introduction

The purpose of the two case study analyses below was to identify similar corridor plans from other locations within the United States that face similar situations and conditions as the North Grand River Avenue Corridor. Both case studies have an airport and contain similar population numbers to that of the study area. By reviewing these situations and the strategies used to improve the conditions of other corridors, there may also be an opportunity to implement such methods within the study area.

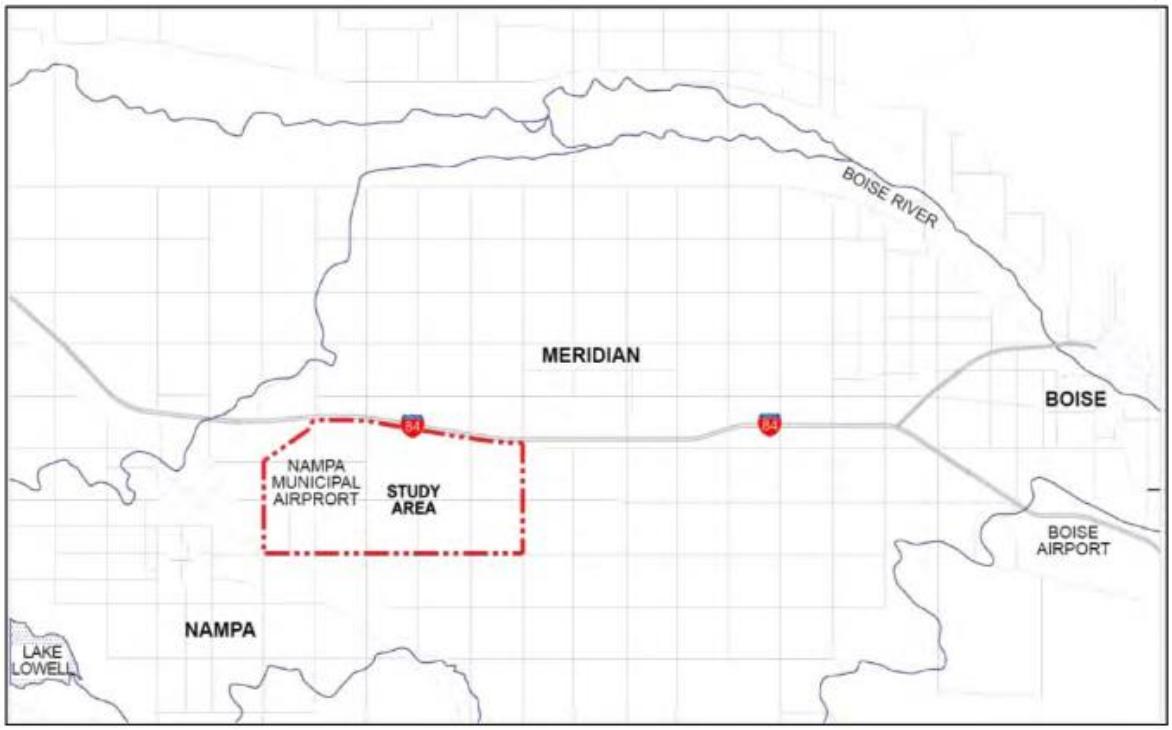
Case Study Selection Criteria	
Criteria	**Description**
City/County/State Location	Each municipality contains different regulations and policies that influence how an area can develop. Identifying each area is essential when comparing back to the North Grand River Avenue Corridor. In addition, a similar climate that presents snow and ice conditions that influences strategies is essential.
Composition of Corridor	Determining what land uses and patterns exist within each case study area and how they interact with each corridor can highlight new strategies that could see implementation.
Date of Publication	Finding case studies that were conducted within the last 15 years ensures that strategies used are not too outdated to be implemented.
Transportation and Connectivity	Analyzing each corridor's methods of transportation and strategies used to promote connectivity applies to the North Grand River Corridor main goals.
Proximity to Airport	Due to the unique situation presented within the North Grand River Avenue Corridor with the presence of the Capital Region International Airport, being able to analyze how different corridors capitalized on airport proximity and its effect on local business can lend valuable insight.

7.2 Airport / Overland Road Corridor, Meridian City, Idaho and Nampa, Idaho

Basis for Selection	
Criteria	Description
City/County/State Location	Meridian City, Idaho and Nampa, Idaho are cities of a similar population to Lansing. It is located in a similar climate and weather patterns to Lansing.
Composition of Corridor	The size of the Overland study area is 20 square miles. It features land uses of low density residential, agriculture, and commercial use.
Date of Publication	July 2011
Transportation and Connectivity	The Airport / Overland Road Corridor Study prioritizes its transportation system that connects Nampa and Meridian City aligning with the transportation focuses of the North Grand River Avenue Corridor Study.
Proximity to Airport	Similar to the North Grand River Avenue Corridor, the Overland study is within close proximity to an airport. The Nampa Airport's role in the respective study was its size and effect on local transportation patterns.

Background

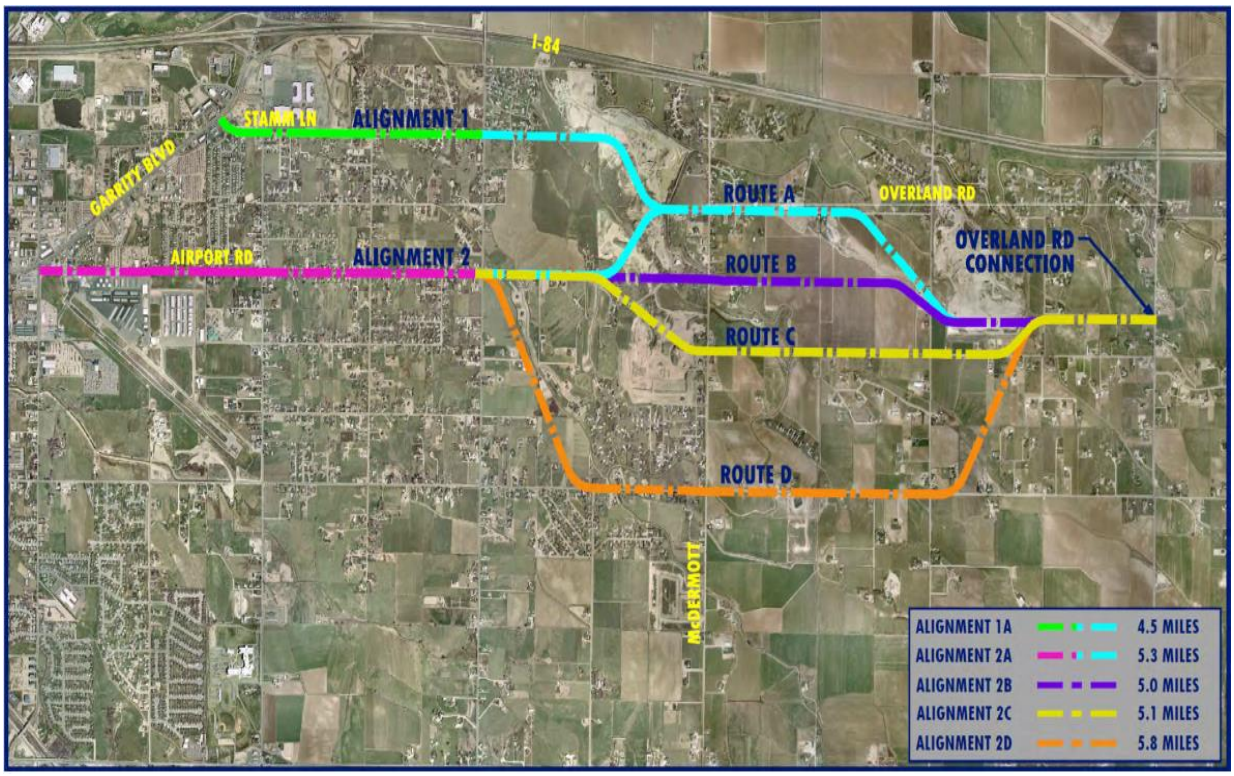
The Airport / Overland Road Corridor Study is located in Nampa, Idaho. Conducted in July of 2011, the main objective of the study aimed to find a more direct route connecting both Nampa Airport and Garrity Road Interchange in Canyon County, as future traffic projections and data called for an improved and connected roadway system. The stakeholders involved in this study included the City of Nampa, Nampa Municipal Airport, Nampa Highway District No.1, the city of Meridian, and the Ada County Highway District. The study area that was chosen to be analyzed was approximately 20 square miles, encompassing the Nampa Municipal Airport.



Map 19: Airport/Overland Road Corridor Study overview

The study analyzes existing and projected future conditions for the study area to formulate recommendations. Key aspects discussed within the project include land use, transportation networks, and environmental constraints to help determine the best route to connect the airport to the rest of the study area. A variety of routes were analyzed and given a rating to help determine which routes would serve the study area the best. The study created a Technical Advisory Committee (TAC) to involve parties who would be affected by future decisions. The TAC helped inform local government officials, boards, and committees of project progress.

The study conducted community outreach with individual stakeholder interviews as well as public meetings. The study presented routes decided by the TAC and listed expected outcomes if the suggested route would be used as the alternative between the two locations. Aspects such as expected traffic and roadway information, infographics, road access, stormwater management, unique physical characteristics of the roadway, and project costs are explained in depth to give more information about the TAC's route decisions. The conclusion of the study gives implementation strategies for recommendations, such as a uniform corridor plan approved by all stakeholder agencies and the construction of a new roadway centerline and right of way.



Map 20: Alternate route options

Amenities

Amenities were not a focus of the Airport / Overland Road Corridor Study, but some present can connect with the North Grand River Avenue Corridor Study. The study area focuses on two large cities in Idaho that provide large commercial areas.

Applications to North Grand River Avenue Corridor

The Airport / Overland Road Corridor Study is mainly transit-oriented, focusing on different routes to be able to accommodate the population that travels to and through the Nampa Municipal Airport. The Airport / Overland Road Corridor analyzes in-depth environmental constraints towards alternative routes and how the road system would be affected by decisions. An environmental impact assessment (EIA) could prove helpful in determining the feasibility of future development within the study area and North Grand River Avenue Corridor. The Airport / Overland Road Corridor Study also heavily emphasizes public outreach strategies, such as public policy meetings and creating a committee to decide on recommendations. Such public outreach methods can also be used in the city of Lansing and the study area to engage with local and potential stakeholders.

7.3 New Hampshire 12 South Corridor Study

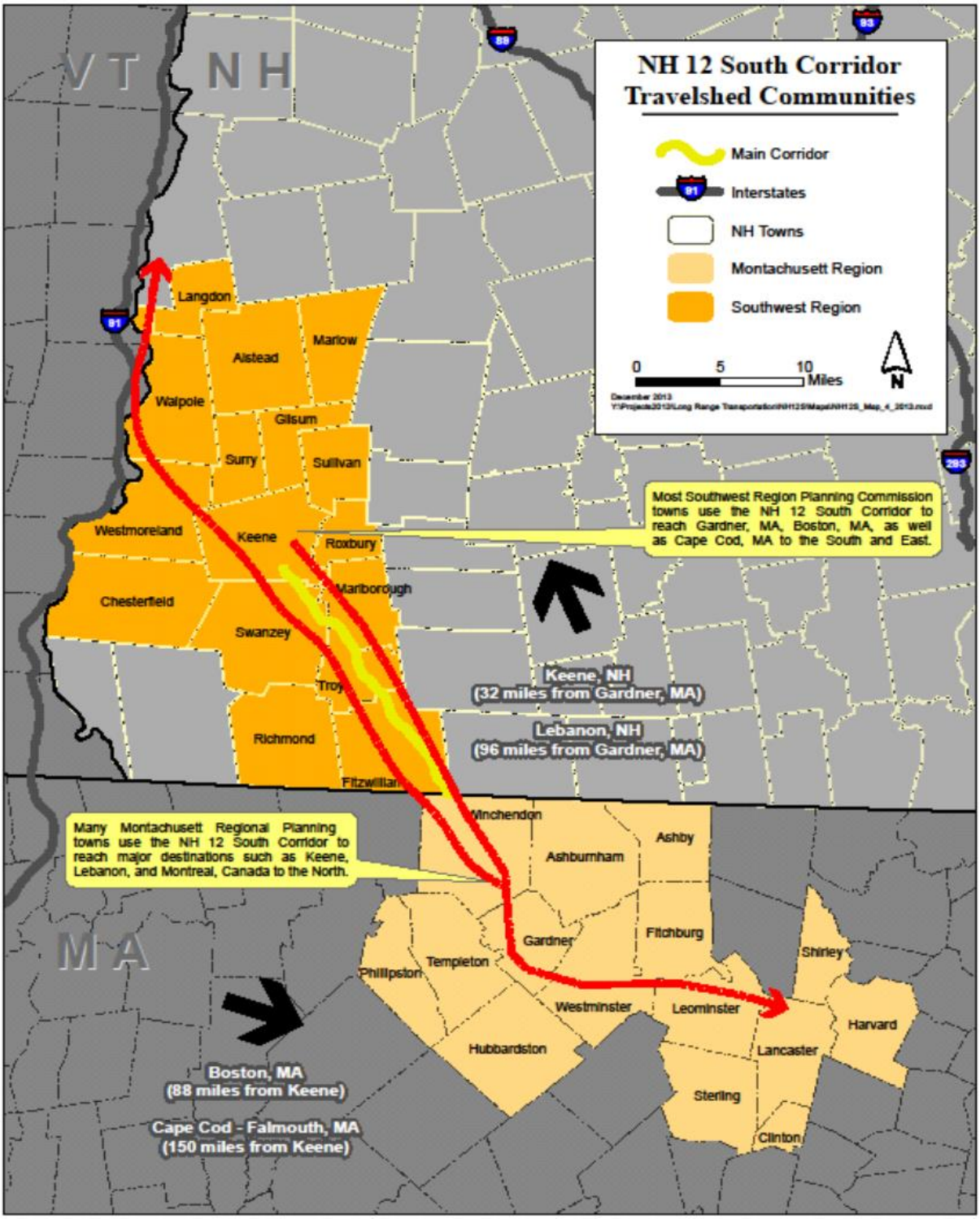
Basis for Selection	
Criteria	Description
City/County/State Location	The chosen case study and the North Grand River Avenue Corridor Study are situated in states with very similar climates and weather patterns.
Composition of Corridor	The NH 12 South Corridor Study is a corridor that is 18 miles long. In its 18-mile stretch it runs through different communities and it has a mix of businesses and residents
Date of Publication	The NH 12 South Corridor Study took place in 2015 which is within the 15-year criteria.
Transportation and Connectivity	Along the NH 12 South Corridor, public transportation had to be improved, similar to the North Grand River Avenue Corridor Study.
Proximity to Airport	Like the North Grand River Avenue Corridor , the NH 12 South Corridor has an airport along the similar in size to the airport along the North Grand River Avenue Corridor.

Background

The NH 12 South Corridor Study was conducted in 2015 and spans approximately 18 miles across five different communities in New Hampshire, including Keene, Swanzey, Marlborough, Troy, and Fitzwilliam. The corridor was identified due to its ability to connect employment nodes from the surrounding area, focusing on the shopping hub of Keene. The study was conducted to research how the corridor impacts local employment, housing opportunities, public infrastructure, environmental and historical needs. The study was conducted by the Southwest Regional Planning Commission (SWRPC) and the New Hampshire Department of Transportation. The report mentions three previous corridor studies conducted by SWRPC that provided insight on the corridor's physical characteristics, assets, and issues involving transportation, safety improvements, and recommendations.

In the beginning stages of the corridor study, SWRPC created a traffic research team to collect data from various locations in the study area. Alongside the traffic study, a land use assessment and socio-economic profile were created.. The corridor study also prioritized public outreach and engagement to gain further insight on the area. A major finding in this case study was the identification of numerous locations along the corridor that needed infrastructure improvements to increase pedestrian safety. The study also discovered the potential for growth along the corridor with many vacant lots and buildings. The three major recommendations consistent across all communities were highway construction, bicycle safety, and growth opportunity. One growth opportunity mentioned was the presence of Dillant-Hopkins Airport which could help stimulate economic development within the area.

This case study is an example of another area that had a redevelopment of a similar corridor. This corridor redevelopment study has come up with some traits that can be used for the Corridor study that were proven to be successful. The reason for looking over the Corridor study is because it will be able to directly. The methods used in the case study used a multi-community environment with lots of businesses, most notably an airport development. This corridor study is the second and last study looked at. It will be used to look at their data collection strategies for what they found useful, along with their planning/ recommendations.



Map 21: NH 12 Corridor Map overview

Image 7: New Hampshire Corridor Intersection

Amenities

There are many different types of amenities that the New Hampshire Corridor has to offer. Amenities within the corridor include public transit, airport accessibility, historical sites and culture centers, and natural open spaces. The main transportation amenities identified throughout the case study were motorized transit riders such as public bussing and car transportation, while the predominant form of non-motorized transportation was pedestrian walking utilizing sidewalks. Dillant-Hopkins Airport is another amenity of focus. The airport allows local residents and businesses to travel or send products throughout the country and serves as a catalyst for economic growth. The presence of forests, bodies of water, and wildlife along the corridor allow residents to connect with nature and participate in leisure activities. The study addresses the importance of nature and wildlife protection due to the pollution of natural resources from contaminated water runoff.

Image 8: NH 12 South Corridor Study

Applications to North Grand River Avenue Corridor

The NH 12 South Corridor Study used a similar analysis in this report, allowing for comparisons. The NH 12 study area also contains Dillant-Hopkins Airport, similar to Lansing with the Capital Region International Airport. The NH 12 and Lansing corridor plans both identify existing airports as an opportunity to bring in new jobs and economic growth to the corridor. This trend is already present within the study area in Lansing, as the Capital Region International Airport has already partnered with UPS and Amazon, allowing for the transportation and distribution of business goods to the study area. The protection of natural resources and open space is also worth noting, as the strong presence of industrial uses within the North Grand River corridors are home to many pollutants used on a daily basis, such as liquids used on motor vehicles and industrial equipment such as oil and washer fluid. As previously mentioned in Chapter 1, the age of buildings throughout the study area are of key importance in relation to maintaining and updating old infrastructure.

Chapter 8: Recommendations

8.1 Introduction

The following recommendations in this section are based on previous research in this report, including the socio-economic profile, zoning and infrastructure assessment, mobility report, Community survey, and case study analysis. Strategies and actions recommended within this section are intended to aid stakeholders in future development decisions within the corridor. The following recommendations are split between two focus areas: procedural and physical. Procedural recommendations include planning strategies to expedite and create a cooperative environment between corridor stakeholders and developers. Physical recommendations include changes within the environment of the corridor, such as beatification and road condition improvements. A strategic economic development plan may also help consolidate the following recommendations in greater detail.

8.2 Overview of Recommendations

	Low Cost (< $5,000)	**Moderate Cost ($5,000 - $20,000)**	**High Cost (> $20,000)**
Short Term (<1 Year)	-Benches -Reseed grass -Public art projects -Website and social media presence -Striped crosswalk installation	-Tree planting -Shrubs/Flower beds -Street lighting -Raised crosswalk -High visibility crosswalk installation	-Park infrastructure improvements (playset, bathroom facilities)
Medium Term (1-5 Years)	-Marketing and rebranding	-Bus Shelter installation -Sidewalk repair -Greenbelt screening	-Road Repair -Outdoor Park -Community Center -Parcel Redevelopment
Long Term (>5 Years)		-Landscape maintenance	-Infrastructure repair/replacement

8.3 Procedural Recommendations

Corridor Design Charrettes and Community Engagement

One effective strategy that is incorporated into many planning activities is a community charrette. The process includes a public meeting among stakeholders within the community, where specific interests and needs for the corridor are displayed among an area. Stakeholders then vote on which areas of interest they feel would benefit the corridor and community the most.

The need for more opportunities for public participation and input stems from the Airport / Overland case study, where multiple stakeholder meetings were organized to gain input on how the project should proceed. Information about public meetings can be disseminated effectively through mediums such as press releases and direct mailing to resident households.

Corridor Improvement Authority Marketing and Online Presence

Data from the community survey shows that over 90% of respondents receive news and information about the corridor from social media. This provides an excellent opportunity for enhancement.

The Corridor Improvement Authority (CIA), as of the writing of this report, does not appear to have a social media presence. An Instagram and Facebook account for the Lansing CIA would provide the authority with a greater ability to share news and information regarding corridor improvement efforts instantly rather than waiting for mail-ins or public meetings. A coordinated marketing campaign set up to target corridor improvements has great potential, as the affected study area has a population of over 19,000 residents. Successful promotions and outreach efforts coupled with new social media outreach can inspire residents to help take action, provide insight, and visit the corridor.

A website dedicated to the North Grand River Avenue Corridor and/or CIA is another potential method that can be utilized. This website can then be linked to all social media platforms, and contain aspects such as community feedback forms, corridor news about new projects, and informational sources that are made available for residents to become more educated about. A unique logo or brand may also help the CIA stick out from other agencies that all share the same logo as the city of Lansing and that can help residents differentiate the corridor from other projects.

8.4 Physical Recommendations

Road Conditions

Overall, road conditions throughout the corridor require improvement, and appropriate funding is required to ensure improvements are made. One potential resource is the Tri-County Regional Planning Commission and its Transportation Improvement Program (TIP), which aims to provide $500 million in funding to transportation projects located within Clinton, Ingham, and Eaton counties.

Coordination between stakeholders and municipalities can further identify key areas of concern that can be addressed promptly. Adding more sidewalks accompanied by screening, such as shrubbery or trees can provide a greater sense of safety among pedestrians and enhance the corridor's visual appeal. Additions of crosswalks at key intersections will also help create safer conditions for pedestrians and drivers and is supplemented with 87% of respondents rating pedestrian safety as a high priority. If adequately advertised, in addition to improved sidewalk and bus stop connectivity, more residents may try to participate in using public transportation.

The streetscape design in Figure 12 uses screening in the form of trees to provide a natural barrier between cars and pedestrians, which the current state of the gateway corridor lacks. In addition to natural screening is the utilization of transit shelters that can provide shelter for pedestrians waiting for public transportation to arrive.

Figure 12: Concept Streetscape Design; Source: Streetmix

Corridor Beautification

According to the community survey, the issue of corridor visual appeal was of great importance to many respondents, as 85% viewed it as the highest or high priority for short-term goals for the corridor. Beautification efforts such as tree planting to match the concept street design shown above in Figure 12 can help give the corridor a more natural feel. Currently, the city of Lansing zoning ordinance does not require front greenbelt landscaping for many zoning types. Greenbelt landscaping uses shrubbery to provide a natural barrier between conflicting land uses, or to shield less visually appealing land uses. Many buildings within the North Grand River Corridor do not currently have such landscaping, and leaves many industrial buildings open to the public, some of which possess clutter and features that do not contribute to visual appeal.

The city of East Lansing has a program called "Percent for Art", which requires redevelopment efforts to dedicate one percent of the total budget towards public-facing art pieces, such as art murals and sculptures. Fifty percent (50%) of respondents who answered the community survey put public art as a high priority for beautification efforts within the corridor. The improvement of parks and open spaces within the study area will also provide greater public interaction with said spaces, and additionally serve as sites for community events.

Exterior Lighting

The need for more exterior lighting installations was a high priority for over 50% of survey respondents. Exterior lighting poles can provide an area with lighting during the night and help increase residents' sense of security when traveling at night. Adding more street lighting and sidewalk repair can increase pedestrian travel.

Infrastructure and Maintenance

The existing gas utility infrastructure on the corridor is 6" pressure lines running along the right of way on North Grand River Ave. Most of the lines were put in place in the 1950s, usually containing cast-iron pipes. These lines are approaching their lifespan at an average of 75 years. Cast-iron pipes deteriorate over time to a point where it becomes a health hazard. Updating the gas infrastructure is approaching a necessity, however expensive it may be. However, due to the existing trenching for the lines being within the right-of- way of the parcels, minimal disruption is needed to provide services to the new developments. The existing gas service is also in place for the existing buildings. It would be worthwhile to pursue future developers to update the infrastructure as they build new projects in the corridor.

Land Use Recommendations

Property 1: 4000 North Grand River Avenue

The parcel at 4000 North Grand River Avenue is the largest of the three in the study. The first option includes a hotel shown in Figure 13. A variance would be needed due to the ceiling restrictions in the IND-2 zoning. Among the evidence showing a need for lodging is the lack of hotels in the study area, with the closest options being miles away. Next, "accommodation services" includes hospitality services, which has shown a decline in the study area and county in both the location quotient and shift-share analysis. A hotel on the corridor would be able to lodge visitors for the businesses and airport and employ many in the hospitality industry.

The second option includes a community center with accompanying sports and recreational fields, shown in Figures 14 and 15. The community survey data has shown that "word of mouth" is the most prominent form of communication when it comes to community happenings. The study area also has a larger percentage of children than Lansing and Ingham County, showing a need for recreational areas. No immediate centers of this scale are present in the airport section of the corridor, with the closest community center being Gier Community Center. The building could be fitted to house any service the community and its residents deem necessary and provide a space for community engagement events.

Property 2: 4400 North Grand River Ave, 4416 North Grand River Avenue, 3301 Capital City Boulevard

The 4400, 4416 North Grand River Ave parcels and 3301 Capital City Blvd shown in Figures 16 and 17 are privately owned by a restaurateur seeking to redevelop the former Burger King into a restaurant. The plans for 3301 Capital City Blvd will be a catering facility. This will be a positive for the corridor due to the area's leakage of food services and eating establishments. Survey data has also indicated a desire for more restaurants in the corridor. The parcel at 4416 North Grand River Ave can potentially be a childcare facility. The larger percentage of children in the study area show a need for the facility. The market gap analysis also indicates a leakage in "personal care," including childcare services.

Property 3: 4700 North Grand River Avenue

The recommendation for the parcel at 4700 North Grand River Ave is a community-focused area including permanent farmer's market stalls, a food truck lot, and a community garden shown in figures 18 and 19. The corridor has shown a need for community gathering places through survey results and lack of existing opportunities. The market gap analysis has shown the corridor to be a borderline food desert with a strong leakage in food stores. The farmer's market will be an opportunity for community members to access fresh produce. The stalls and food truck lot will also be an opportunity for small businesses looking to stay within their community. The garden in the North portion of the lot will provide community members with a place to grow their own fruits and vegetables to be made available at the market.

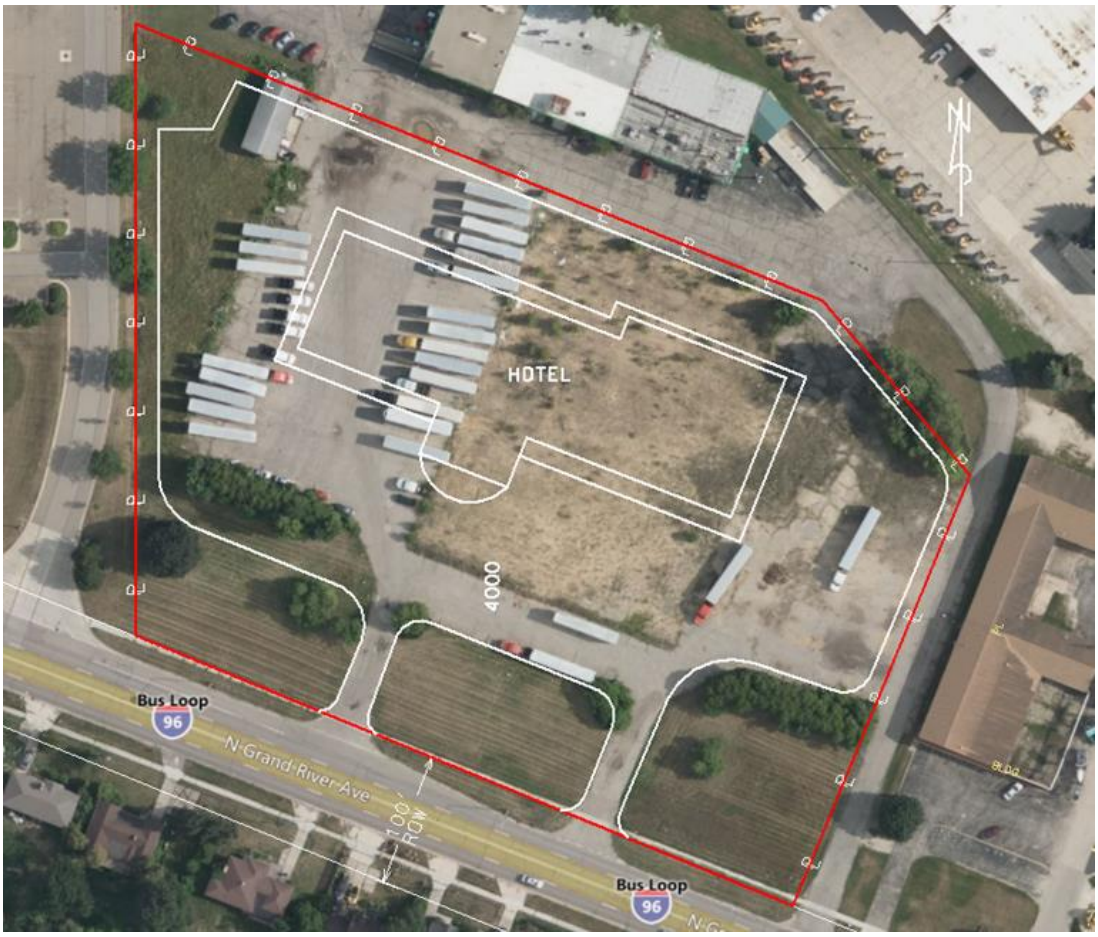


Figure 13: Hotel Concept Site Plan for 4000 North Grand River Ave

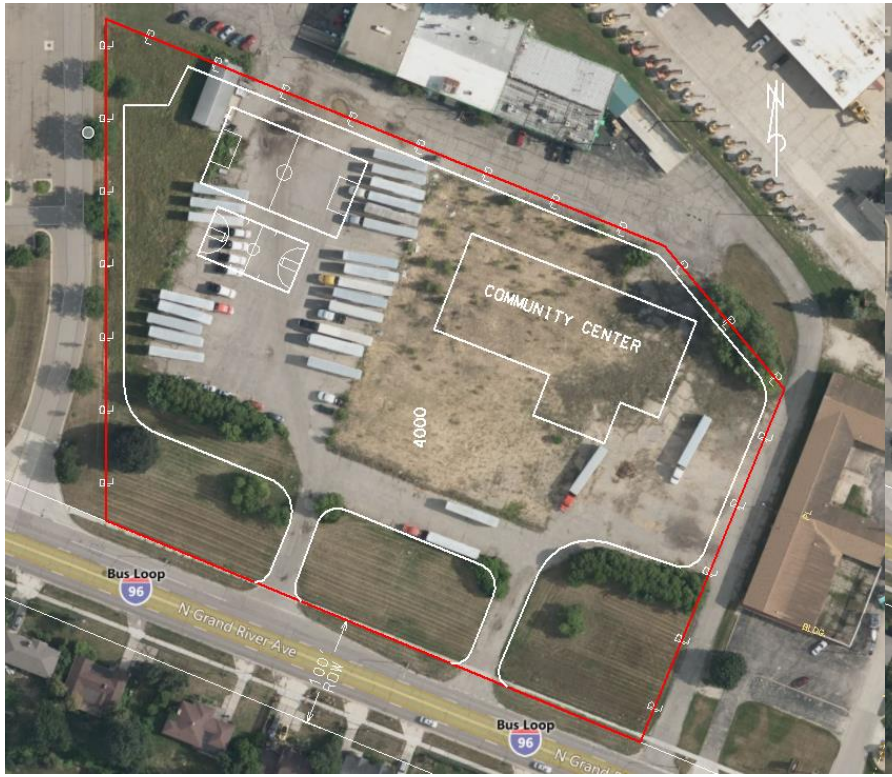


Figure 14: Community Center Concept Site Plan for 4000 North Grand River Ave

Figure 15: Community Center concept rendering for 4000 North Grand River Ave

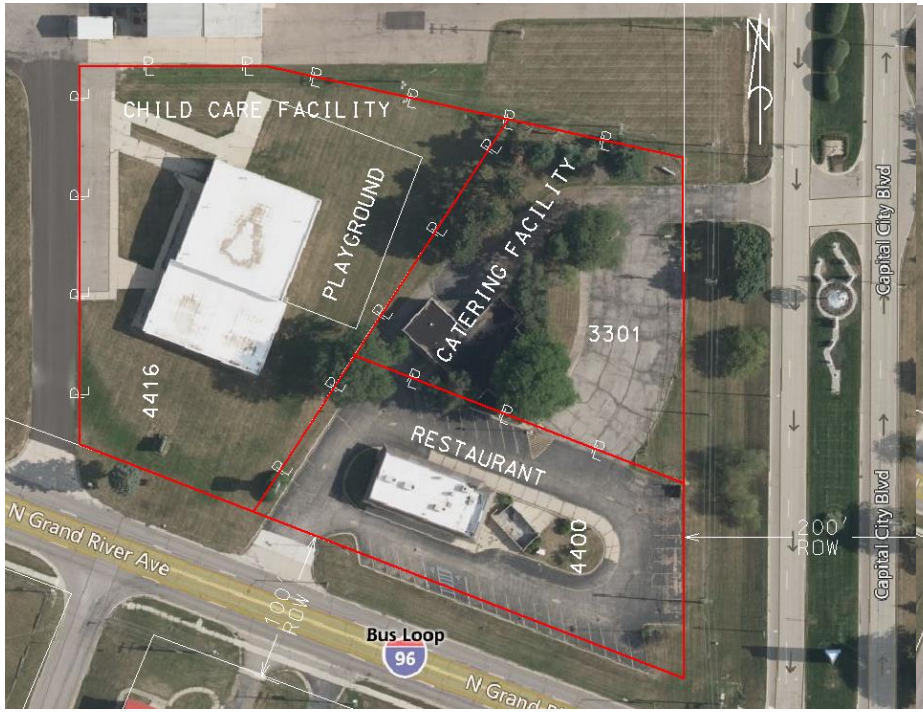


Figure 16: Restaurant and Child Care Facility Concept Site Plan for 4400, 4416, 3301

Figure 17: Restaurant and Child Care Facility Concept Rendering for 4400, 4416, 3301

Figure 18: Farmers Market Concept Site Plan for 4700

Figure 19: Farmers Market Concept Rendering for 4700 North Grand River Ave

8.5 Conclusions

The recommendations mentioned above provide a comprehensive approach to the revitalization of the North Grand River Avenue Corridor. The recommendations address the main focuses of this corridor study, including connectivity, beatification, and diversification of land use. Procedural recommendations provide means to streamline and extend CIA outreach to the study area and beyond and improve information collection and distribution. Physical recommendations are focused on improving the overall look and feel of the corridor through beautification efforts and infrastructure improvements such as updated gas lines and road safety measures, including additional crosswalks and safety identification signage and exterior lighting.

A focus on enhancing economic development along with physical infrastructure within the corridor creates an interconnected and active community that can accommodate future development and planning practices. Future plans involve the aforementioned improvements and recommendations and further modification of development components to fit this report's cost and timeframe parameters. With all recommendations and information presented within this report in mind, the North Grand River Avenue Corridor is expected to develop into a more inclusive and integrated community with a greater variety of land uses that can best serve community needs. As the shape of the economic composition of the corridor changes, the area will be equipped with resilient community assets that will ensure residents and businesses will continue to thrive.

Appendix

IND-1: Suburban Industrial

The intended use for IND-1: suburban industrial district is for light to medium-density industrial uses, such as research facilities, manufacturing, and warehouse complexes. What separates the IND-1 use from other industrial zones is the layout of such sites are more indicative of a suburban-style layout, with low rise buildings and lots coupled with expansive lawns.

IND-2: General Industrial

General Industrial (IND-2) reflects a denser land use principle than IND-1, and is more suitable for certain uses, such as condensed warehousing to heavier uses such as manufacturing and trucking terminals. Buildings within an area zoned IND-2 are placed closer together than IND-1. Both uses can be situated on adjacent parcels if desired in certain areas indicated on the zoning map.

IND-3: Urban Industrial

Urban Industrial (IND-3) are areas that have historically been used solely for industrial activities. They may contain aged, taller buildings with two to three floors and generally are located next to older residential neighborhoods. Commons uses within these districts include research and office buildings to manufacturing uses that serve the general public such as auto repair services.

DT-1: Urban Edge

Urban Edge (DT-1) is a unique zoning district that offers complementary uses to the downtown-like area by providing mixed office and residential uses. The utilization of front yard setbacks can also provide an open space feel to this district, and homes within can also be converted into businesses if requested.

DT-2: Urban Flex

The intended use for DT-2 is a mixture of residential, commercial, and industrial uses. These urban flex districts are areas transitioning from older industrial and manufacturing to high density modern uses. DT-2 provides the opportunity to have walkable streets and mix used buildings in places where it is hard to build upwards due to restrictions.

DT-3: Urban Core

The Purpose of DT-3: Urban Core is to provide a mix of uses with high density residential housing and office buildings. The height of buildings within this district are generally taller, coupled with vertical parking structures rather than open lots. Developments with the greatest density are usually built within this district.

INST-1: Suburban Institution

The intent of INST-1 is for the development of major educational, governmental and medical facilities. Additionally, it is intended for the development of office buildings with attached residential space. A benefit of the suburban institution land use is the utilization of green open space and uniform site details.

INST-2: Urban Institution
Similar to INST-1, INST-2 is intended to be used for the development of educational, governmental and medical facilities along with office buildings with attached residential space. Urban institution land uses also prioritize walkability and provide a seamless transition to residential land uses.

MFR: Multiple Family Residential District:
This use is for the highest residential density to allow for multi-family dwellings. MFR is also used as a transitional zone to change residential districts to mixed-use commercial. MFR also accommodates a wide range of residential uses, and is most beneficial at providing shared open space among residents.

MX-1: Mixed-Use Neighborhood Center
MX-1 land use allows for vertical and horizontal mixes of uses. Generally with commercial places on the ground level and residential places on subsequent upper floors. Walkability and biking are emphasized in addition to having the buildings near the street.

MX-2: Community Mixed-Use Center
Similar to MX-1, MX-2 promotes vertical and horizontal mixes of uses the same principle of residential spaces placed above ground floor commercial uses. What differs in this use is that areas are designed to be automobile oriented, but still have the ability to provide space for walkability and biking activities.

MX-3: Mixed-Use District Center
MX-3 land uses allows mixed use in the residential core of the city, meant for high density areas with the ground floor of buildings having been designated as an active area for pedestrians to interact with. The MX-3 land use is generally Intended for downtown areas with high foot traffic and good walkability features.

MX-C: Mixed Use Urban Corridor
MX-C is also intended for horizontal and vertical mix of uses with commercial on the ground floor and office/residential above, similar to previously mentioned MX land uses. MX-C is intended to promote biking and walking with proximity to the street, while also allowing for single-use buildings within the area to provide a greater variety of building types.

R-2: Suburban Residential
The R-2 Suburban Residential District is zoned with the intent for mid-century to modern subdivisions. The most common styles for the houses located in this zoned area include ranch, split level, minimal traditional, and contemporary. The houses are residential and located in neighborhoods that often are put on parcels that are medium to small size with attached garages with a variety of housing styles and sizes.

R-3: Suburban Residential
The intent of R-3 is to allow for more rural characteristics in the city. This includes ranch style houses and minimal traditional. This also includes side-facing gable roofs. The lot differences compared to R-2 would be that the parcel sizes have greater front yard setbacks to provide a greater residential feel.

R-5: Urban Residential
The intent for R-5 Urban Residential is to help to preserve a lower density than that of R-6. Many of the current homes within these residential areas are half story bungalows, and any new structures built would need to resemble the same style to preserve the physical appearance of the area.

R-6A: Urban Residential
The intent for R-6A Urban Residential is to preserve the historic character of Lansing's most urban neighborhoods while maintaining the scale of medium-density single-family detached residences. The homes in this zoning area are located on smaller parcels that were built in the early 20th century. There are alleyways located between the houses with rear loading garages.
that are detached. They respect the historic single-family characteristics. The difference between R-6A and R-6B is that R-6B uses the attached residential units into appropriate locations at the perimeter of established residential neighborhoods.

R-6B: Urban Residential
The intent for R-6B Urban Residential District is to preserve the aesthetic of the historic character of Lansing's urban neighborhoods. Includes medium density single family homes in small lots with garages in back. Intended styles include Four-Square, Craftsman, and Queen Anne architectural designs.

R-AR: Residential Adaptive Reuse
The intent of R-AR Residential Adaptive Reuse is to promote the redevelopment of former institutional sites that match the scale and intensity with the previous character of the area. Regulating building height, requiring suitable landscaping, and increasing recreational use are all included in this zone.

R-MX: Residential Mix
The intent for R-MX Mixed Residential is to allow for a mixture of housing types in a corridor. Historic single-family homes should be retained where possible. Denser housing along the corridor is intended to ease the transition to single family neighborhoods.

S-C: Suburban Corridor
The intent for S-C Suburban Corridor is to provide a location for suburban style commercial areas that are auto dependent. This includes strip style or single tenant buildings with ample parking off the road they reside on. Since it is less integrated than other areas, certain transitions and setbacks are needed to blend into the surroundings.