

Community Development Through a Walkable & Livable Clawson, Michigan



Corridor Plans for: Rochester Road North Main Street



**2015 Wayne State University
Masters of Urban Planning Capstone Project**

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City of Clawson Farmers Market

The residents and visitors of Clawson

Executive Summary

In 2015, the City of Clawson, in seeking corridor improvement ideas for both Rochester Road and North Main Street, partnered with the Wayne State University (WSU) Department of Urban Studies and Planning to enlist the skills of Masters of Urban Planning students to create an innovative and practical corridor improvement plan for potential inclusion in the City of Clawson Master Plan update.

Clawson is a small bedroom community with areas of commercial and light industrial development. In order to make recommendations, the relationships between economics, housing stock and population demographics were analyzed to assess current conditions. Given the economic and demographic trends, Clawson is ready to implement effective community development tools such as Complete Streets strategies, future land use visions and engagement techniques to enhance and expand the commercial corridors and retain a family-friendly environment.

Rochester Road and North Main Street present opportunities for development and placemaking strategies. The formal adoption of a Complete Streets ordinance would help simplify coordination with future updates to non-motorized and masters plans and also serve favorably when the City is considered for grants and funding requests. Best practices from other cities, both locally and nation-wide, provide implementable Complete Streets strategies to help Clawson manage the transportation needs of residents and visitors.

To help guide long-term visions for Clawson, a future land use plan is a crucial tool to help shepherd development and offers guidance for property owners, developers and public officials in promoting economic viability and maintaining the City's character. Business attraction/retention strategies, supplemented by effective community engagement, assist in implementing the future land use plan forward into a visually cohesive and economically viable future.

Corridor visions are provided for both Rochester Road and North Main Street; these plans focus on commercial and mixed-use development that not only enhance the visual appeal of the corridors, but builds upon the successes seen in Clawson's thriving downtown. By upholding existing ordinances (including the adoption of a Complete Streets ordinance), strategic rezoning, facade improvements, and implementing the tenants of good urban design, commercial corridors will thrive in Clawson.

The goal of the corridor visions are to entice developers to underutilized sites and provide an example of feasible projects that are not only economically sustainable, but that contribute to a cohesive and distinct design for Clawson. Site development pro forma and financing models are included for properties along both Rochester Road and North Main Street that are poised to serve as catalysts for other development along the corridors. Roadway improvements, influenced by Complete Streets design elements, are also suggested to enhance the accessibility of multi-modal transportation at some of Clawson's busiest intersections. Easy, safe access to commercial corridors helps to promote a thriving business community as well as the notion that Clawson is a desirable destination for business owners, shoppers and families.





Source: Xiao Zhou

2.0 Introduction

The City of Clawson, in seeking corridor improvement ideas for both Rochester Road and North Main Street, partnered with the Wayne State University (WSU) Department of Urban Studies and Planning to enlist the skills of Masters of Urban Planning students to create an innovative and practical corridor improvement plan for potential inclusion in the City of Clawson Master Plan update. Through a Capstone project, the students were asked to envision commercial corridors that encouraged economic growth and revitalization while maintaining Clawson's credo - "Little City with a Big Heart."

In addition to the application of zoning, design, and real estate development best practices, the WSU 2015 Capstone class solicited input from a variety of stakeholders in the planning process. City officials, employees, residents and visitors were consulted in order to gain a greater understanding of current conditions and visions for Clawson's future to inform the recommendations proposed by the Capstone team.



Source: cityofclawson.com

3.0 Clawson Today

Clawson is a small bedroom community with areas of commercial and light industrial development. As relatively small city with an area of 2.2 square miles, it is important to both City officials and residents that an environment of small, local businesses and a family-friendly atmosphere is preserved amidst the large commercial and entertainment development expanding within neighboring communities as Clawson celebrates its 75th anniversary with a Diamond Jubilee.

Based on 2015 Niche.com survey, Clawson was ranked 45th Best Suburb to Raise a Family in Michigan. Niche.com ranks US suburbs based on age, demographics, school ratings, crime rates, access to affordable housing, childcare, libraries and grocery stores. A high ranking indicates that a suburb attracts young families with good schools and safe community.

Recently, Clawson has undergone economic redevelopment in the downtown area located along the intersection of Main Street and 14 Mile. New bars, restaurants and small shops have opened, attracting a younger customer base. The expansion of brick-paver sidewalks allows for outdoor seating at the new eateries with ample space for friends and families to meet, mingle and enjoy the downtown atmosphere.



Source: Xiao Zhou

However, Rochester Road does not have the same charm as downtown Main Street. It is also populated with shops and businesses, but each building is a separate entity and the corridor lacks a cohesive and inviting flow. Unlike downtown, patrons of Rochester Road cannot enjoy an afternoon walking from one shop to another. Rather, they will drive and park. Eliminating foot traffic means there will be a significant reduction in sales that could result in shops closing and an increase in storefront vacancy rates.

3.1 Current Conditions

In order to make recommendations, the relationships between economics, housing stock and population demographics were analyzed to assess current conditions. Using data from the American Community Survey (ACS) and the 2010 Decennial Census as presented by the Southeast Michigan Council of Governments (SEMCOG), Clawson was examined in relation to nearby areas as well as within the broader context of Oakland County with a focus on three categories of data: income, housing, and age of population. The following analysis, supplemented by comparative charts, highlights areas of opportunity for setting future goals. This snapshot of Clawson's demographic and economic data creates a framework in which illustrates the need for multi-modal, pedestrian friendly streets and businesses in the City of Clawson.

3.1.1 INCOME

While income by itself is not a sign of economic health, it can be used as an indicator to examine changes over time within an area and as compared to other neighboring communities. In Clawson, the median household income in 2010 was \$54,639 (ACS 5-year, 2010). This figure decreased by \$12,020 between 2000 and 2010 (2000 Census and ACS 5-year, 2010).

While this is a significant change, it is consistent with other households within Oakland County, who experienced a decrease in median household income from 2000 to 2010 of \$14,638. On average, households in both Clawson and Oakland County saw a decrease of about 18 percent within this time period. This is consistent with other communities within Michigan and other parts of the nation given the economic downturn and subsequent job loss due to the Great Recession.

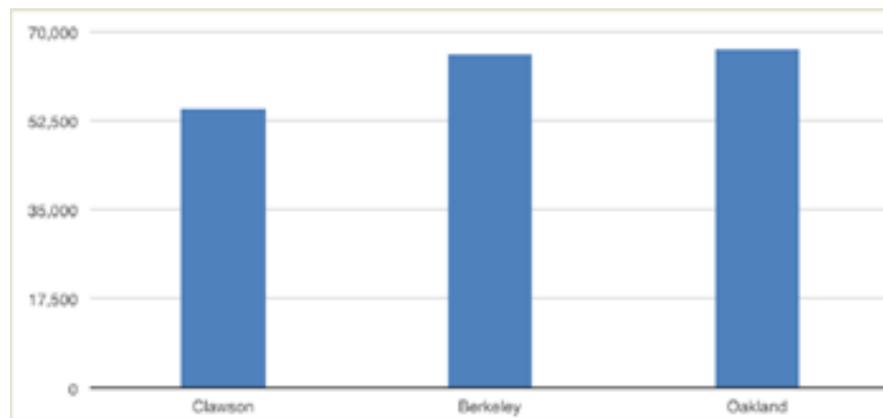


Figure 3.1 - Median Household Income Across Geographies
Source: ACS 5-year, 2010

Comparatively, in the nearby community of Berkeley, the median household income was \$65,548 and was \$66,390 in Oakland County. While incomes are higher in these geographies, the differences are not as significant as one might expect. Though the price of housing in Berkeley and Oakland County is higher than housing in Clawson, (explored more thoroughly within the Housing section) the median household income is not significantly different when examined across these geographies.

3.1.2 HOUSING



Source: Google Street View, 2012

While many factors affect housing in communities, tenure and affordability were found to be the most important elements when assessing change. Through comparisons to similar communities, such as Troy and Berkeley, growth and change in Clawson can be better understood.

Tenure

Given the identity of Clawson is that of a community comprised primarily of single-family homes, it was important to examine tenure within Clawson, Berkeley, Troy and Oakland County as a whole. In Clawson, 68 percent of homes are owner-occupied. This is similar to Oakland County overall, where 67 percent of homes are owner-occupied. However, in Berkeley, 77 percent of homes are owner-occupied. For all three places, the number of owner-occupied homes has dropped and renter-occupied housing has increased between 2000 and 2010 (Decennial Census, 2010). This could indicate an increased market demand for rental housing and a decrease in market demand for homeownership in the future.

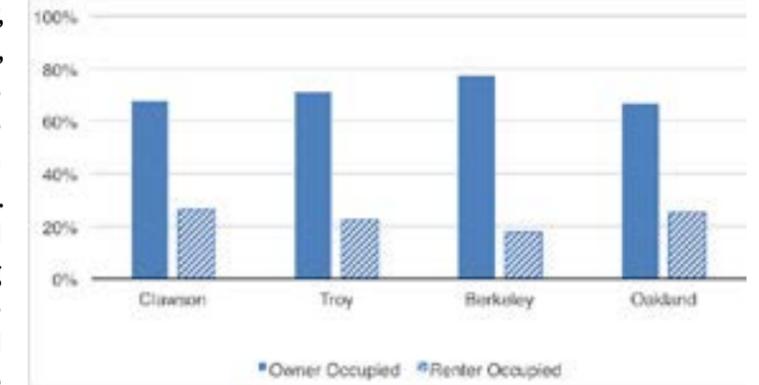


Figure 3.2 - Comparative Graph of Housing Tenure, Percent Owner-Occupied and Renter-Occupied
Source: 2010 Census

Affordability

Given the predominance of single-family homes in Clawson, it is important to gain a better understanding of affordability when compared to other communities within the area as well as Oakland County as a whole. This illustrates whether the median household income allows the "average" Clawson resident to afford to buy a home within the community.

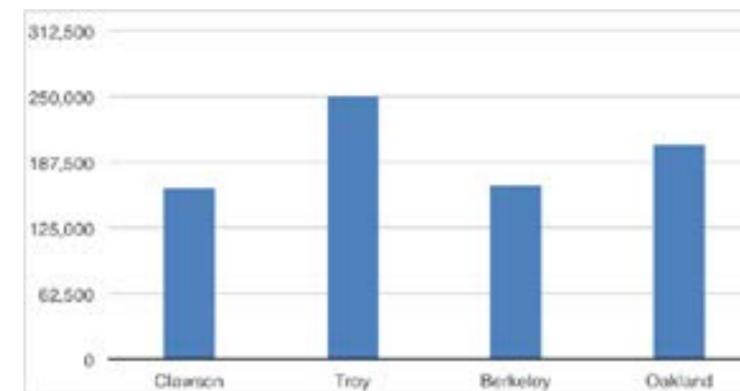


Figure 3.3 - Comparative Chart, Median Housing Value
Source: 2010 Census

According to the 2010 Decennial Census, the median value of a home in Clawson was \$162,700. This is much lower than the median home value in Troy, which in 2010 was \$249,700. This may help to explain why many residents in Clawson choose to commute to Troy for work rather than owning a home in Troy.

With the median household income of \$54,639, and a \$20,000 down payment, a household could afford a mortgage payment with a PITI (principle, interest, taxes and insurance) of \$1,377 with an overall price of \$222,776. This is calculated at 30 percent of the monthly household income. Given this breakdown, an average household in Clawson can comfortably afford the median household value of \$162,700. This is much lower than the median housing value in Troy, where 17 percent of Clawson residents commute for work (ACS 5-year, 2013). Therefore, residents working in Troy can easily commute to work from Clawson and pay less for housing.

3.1.3 AGE OF POPULATION

While the age of a community's population is not the only determining factor for community health, a range of age groups can lead to greater economic stability over time given a wide-range of needs at different life stages. This section explores changes over time and predictions for age cohort distribution, including senior and youth populations across different geographies.

4.0 Guiding Principles of Community Development

Senior and Youth Populations

In Clawson, seniors over 65 years of age decreased by nearly 10 percent between 2000 and 2010 (Census, 2000, 2010). This is not consistent with Oakland County as a whole, which experienced an increase of nearly 18 percent for seniors 65 years and older between 2000 and 2010 (Census 2000, 2010). In Clawson, the population of seniors 65 years and older is projected to increase by over 80 percent between 2010 and 2040 (SEMCOG, 2012). This is consistent with Oakland County as a whole, which is projected to increase its population of residents 65 years and older by over 90 percent between 2010 and 2040 (SEMCOG, 2012).

Projections for youth are quite different for both geographies. Between 2000 and 2010, Clawson's population of children between the ages of 5 and 17 decreased by over 23 percent and is projected to grow by only 4 percent between 2010 and 2040 (SEMCOG, 2012). In Oakland County the population of children between the ages of 5 and 17 decreased by 3 percent between 2000 and 2010 and is expected to lose about 10 percent between 2010 and 2040 (Census, 2000, 2010; SEMCOG, 2012).

Other Population Changes

Both Clawson and Oakland County are forecasted to experience a decrease in population of individuals between the ages of 25 to 59 between 2010 and 2040 (SEMCOG, 2012). While these changes are significant, the population projections for Clawson overall between 2010 and 2040 are a net increase of 548 residents. This is a net increase of about 4 percent. While this may be considered a small increase in population, it is a larger percent increase than that of Oakland County as a whole, which is forecasted to increase its overall population by just over 3 percent between 2010 and 2040 (SEMCOG, 2012).



Source: <https://www.flickr.com/photos/alliecat1881/14991048992/>; Creative Commons License

Given the economic and demographic trends, Clawson is poised to implement effective community development tools such as Complete Streets, future land use strategies and engagement techniques to enhance and expand the commercial corridors and retain a family-friendly environment. The following section describes the theory behind these tools, supplemented by nationwide and local best practices, that sets the foundation for specific recommendations for Clawson.

4.1 Complete Streets

4.1.1. DEFINITION OF COMPLETE STREETS

Today, many cities are finally making the much needed change of implementing the elements of Complete Streets. "A complete street is a road that is designed to be safe for drivers; bicyclists; transit vehicles and users; and pedestrians of all ages and abilities. The Complete Streets concept focuses not just on individual roads but on changing the decision-making and design process so that all users are routinely considered during the planning, designing, building and operating of all roadways.



Source: <https://www.flickr.com/photos/completestreets/4109490356/>; Creative Commons License

It is about policy and institutional change."¹ Design of Complete Streets should consider the entire right of way to enable safe access for all users. Components include wider sidewalks, street trees that beautify roads and buffer pedestrians against busy traffic. Streets lanes should also be narrower with clear and identified crosswalks and improved access to mass transit.

The current design of both North Main Street and Rochester Road accommodates automotive transportation more than any other mode of transportation. Along Rochester Road, several businesses have excessive parking that needs to be reduced significantly. A substantial portion of the sidewalks throughout the corridor are narrow and inconsistently placed. This forces cyclists to travel in the street or sidewalk, and pedestrians to walk alongside the curb. These issues can be alleviated through the design of safer streets for all users and modes of transportation. With Complete Streets improvements as a priority, North Main Street and Rochester Road will contribute to the continued growth of Clawson, as the "Little City with a Big Heart."

¹ Laplante, John and Barbara McCann. Complete Streets: We Can Get There From Here. May 2008, ITE Journal. Available at <http://smartgrowthamerica.us/documents/cs-resources/cs-ite-may08.pdf>

4.1.2. THE 2010 CLAWSON RESOLUTION

The City of Clawson took an innovative step forward in 2010 when the city council adopted a Complete Streets resolution in 2010. The resolution led to Clawson's first non-motorized plan and was helpful in the city's recent TAP (Transportation Alternatives Program) application to add pedestrian improvements to 14 Mile Road. To build off Clawson's momentum in planning equitable mobility for all street users, it is recommended that the city adopt an official Complete Streets ordinance. The ordinance is more permanent than a resolution, allows for future coordination with updates to the non-motorized plan and master plan, as well as being viewed more favorably for grant applications and funding requests. [Smart Growth America provides a guidebook](#) and best practices for city staff to implement an ordinance in the near future.



Figure 4.1 - Clawson Complete Street Resolution, 2010
Source: [m-bike.org](#)

RECOMMENDATION: Clawson adopts a Complete Streets Ordinance

4.1.3. TRAFFIC SAFETY AND CRASH STATISTICS

Complete Streets improvements stem from safety needs of the community. In 2011, SEMCOG (in conjunction with nearby communities and Clawson officials) crafted a Rochester Road Access Management Plan that called the corridor "a key transition between the more traditional development that occurred in the 1960's and 70s south of the city, and the suburban style development to the north."²⁴ The 2011 plan hoped to improve the corridor with safety, capacity, walkability, aesthetics, business vitality and investment preservation.³ SEMCOG's analysis determined intersections and the corridor's level of service would not only operate at an acceptable level after a four to three lane conversion, but safety would improve along the corridor for all users of Rochester Road.⁴

More recent crash statistics from SEMCOG for Rochester Road show the existing four-lane undivided road had 27 left turn crashes and 33 rear end crashes from 2010 to 2014 (Figure 4.3). 75 percent of the total crashes on Rochester Road were left turn or rear end crashes during that time period (SEMCOG). Though the five-lane North Main Street is wider than Rochester Road, the crash figures were similar (Figure 4.4). The thoroughfare had 18 left turn crashes and 36 rear end crashes from 2010 to 2014 with 73 percent of the total crashes being left turn or rear end crashes (SEMCOG). [According to the Federal Highway Administration](#), "four-lane undivided highways have inherent design aspects that make them susceptible to crashes...and contribute to rear-end crashes, left-turn crashes, and speed discrepancies."⁵ Studies by transportation agencies have examined the safety benefits of converting four-lane undivided roads to three-lane cross sections with two way left turn lane (TWLTL). Such conversions can lead to expected crash reduction of 19 to 47 percent dependent upon variables such as pre-installation crash history, installation specifics and traffic volumes.⁶

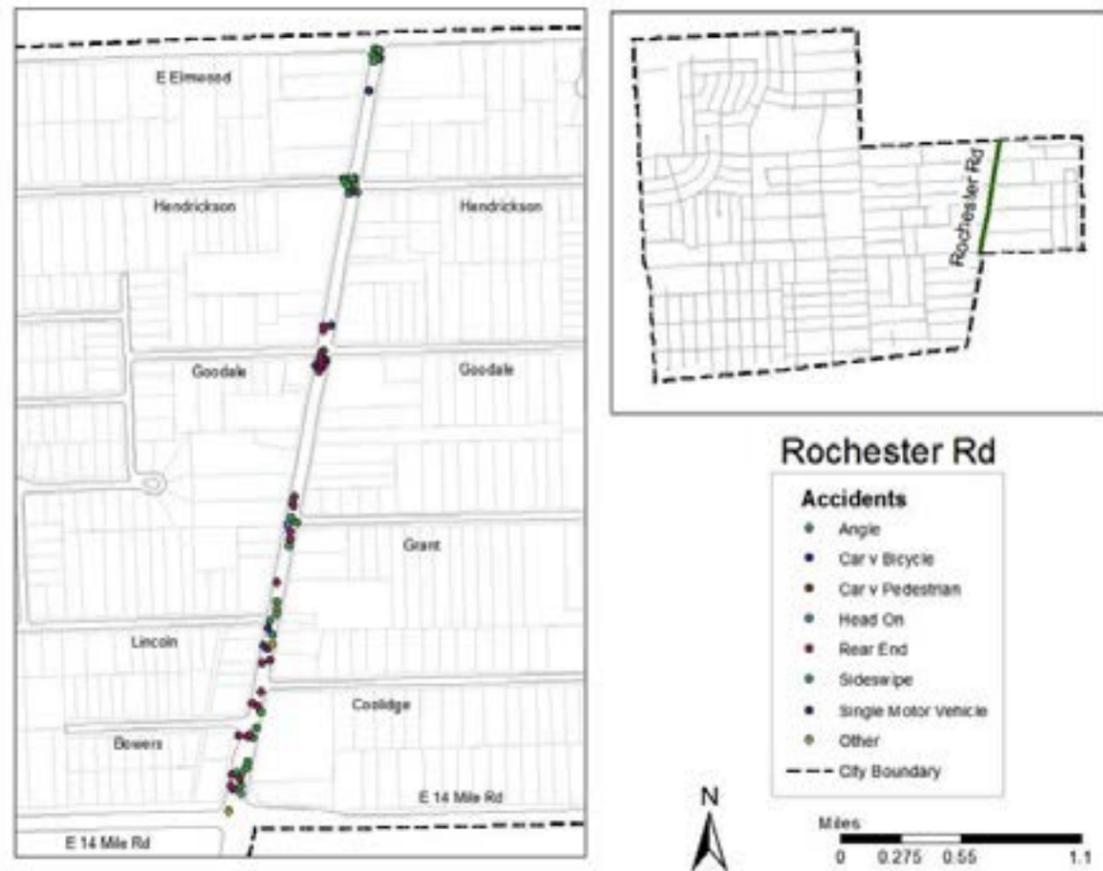


Figure 4.3 - Rochester Road Accident Map
Source: SEMCOG 2010-14

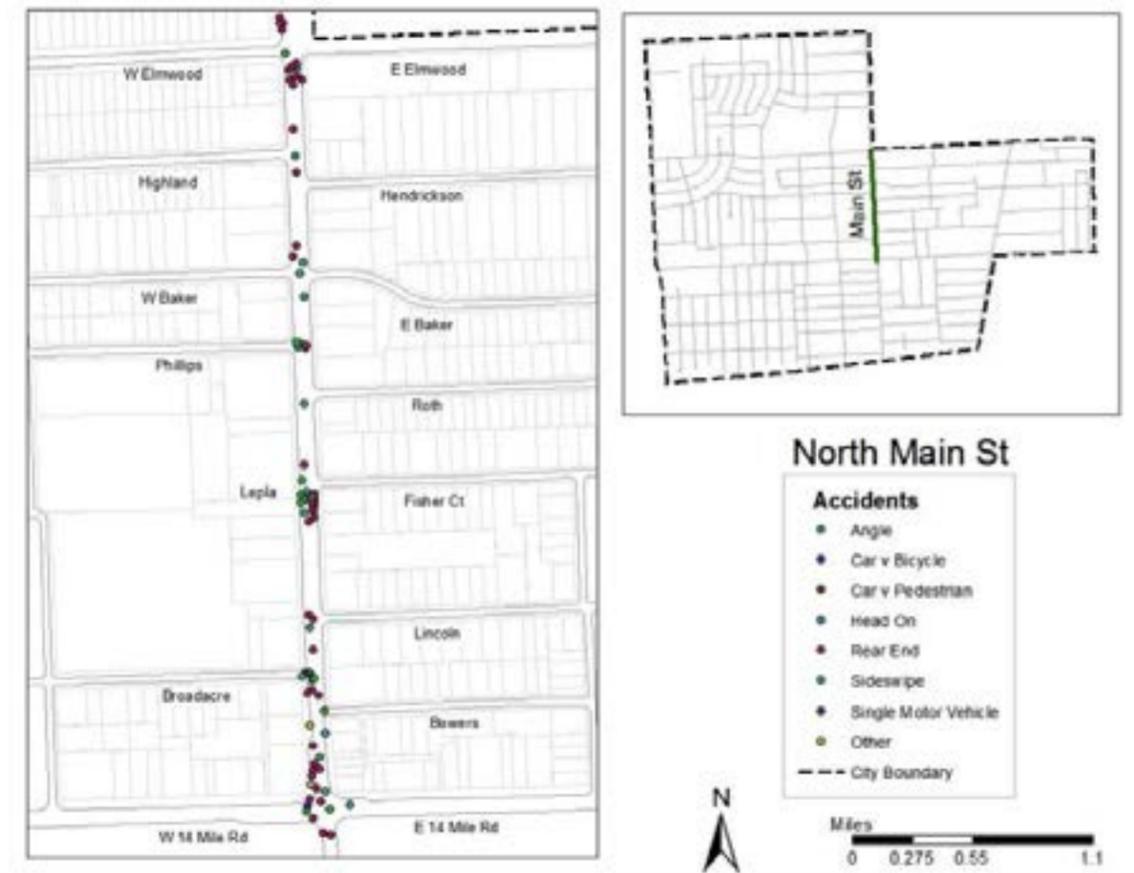


Figure 4.4 - North Main Street Accident Map
Source: SEMCOG 2010-14

²⁴ Southeast Michigan Council of Governments. Rochester Road Access Management Plan

⁵⁶ Federal Highway Administration. Road Diet Informational Guide

A possible conversion to three lanes should consider impacts on the equitable mobility and access of all road users along Rochester Road. Inclusion of on-street parking or a bike lane would create a safer buffer between pedestrians, cyclists and moving automobiles (Figure 4.5). A collection of studies by the FHA determined road diets can reduce speed differential and anecdotally can result in lower speed variability. The case studies collectively showed that the 85th percentile are likely to decrease speed by 3 to 6 mph.⁷

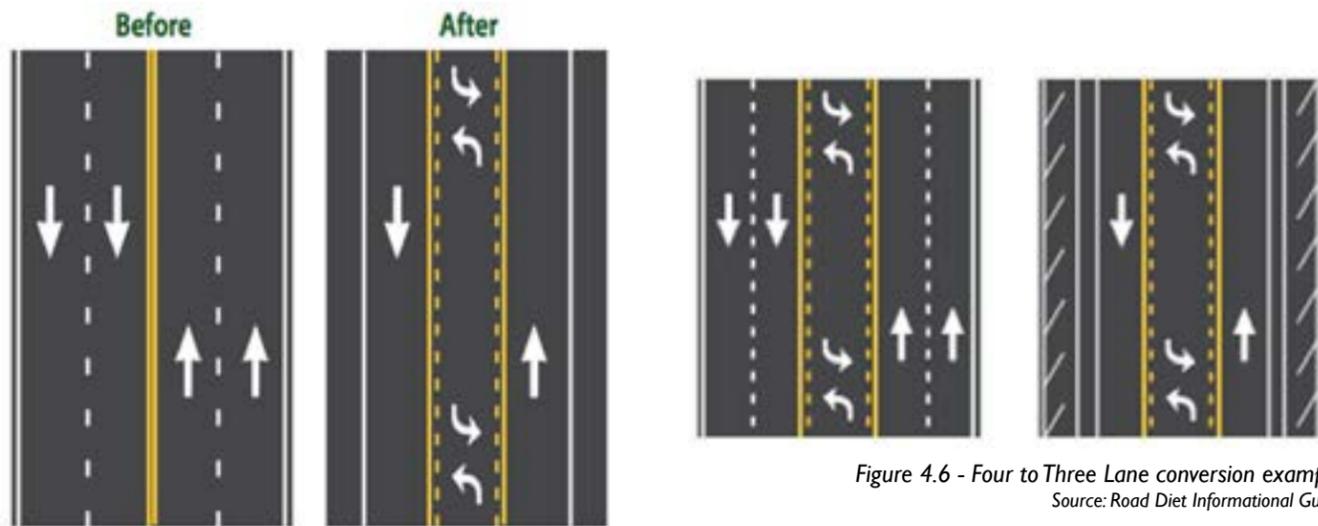


Figure 4.5 - Four to Three Lane conversion example
Source: Road Diet Informational Guide

Figure 4.6 - Four to Three Lane conversion example
Source: Road Diet Informational Guide



Figure 4.2 - Clawson Bike Route Map, 2011
Source: City of Clawson

4.1.4 BICYCLE SAFETY STATISTICS



Figure 4.8 - Cyclist/Motorists Conflict on Rochester Road
Source: Xiao Zhou

When multi-modal transportation improvements are considered, reduction of potential conflicts between pedestrians and cyclists should be a component. Cyclists move faster than pedestrians and riding a bicycle on the sidewalk creates unsafe conditions for all users on the street. Not only are pedestrians more likely to be hit by a cyclists, riding bicycles on the sidewalk “increases the potential for common intersection collisions.”⁸ Motorists that stop at an intersection pay attention to the traffic on their left and right, along with pedestrians on the sidewalk, but cyclists are nearly invisible when moving quickly on sidewalks. In Orlando, bicycling on the sidewalk was cited as a 1.6 times riskier than on a roadway. Sidewalk cycling should only be considered the roadway is heavily traveled or on long, narrow bridges.⁹

Intersections and road crossings are also important to road diets where multiple users interact, whether they be side streets or major thoroughfare. FHA guidelines recommend “any bicycle facility should be carried up to and through the intersection...where right-turn lanes are added, lane markings will be needed to channelize and separate bicycles from right-turning vehicles.”¹⁰

Examples of multimodal intersections include the following best practices:

- **Bicycle boxes** (Figure 4.9) are a traffic control device at signalized intersections that require motorists to stop a short distance before the crosswalk and allow bicyclists to stop in the area between the cars and the crosswalk. Bicycle boxes give cyclists’ priority by allowing them to go to the head of the line. A second stop bar for bicyclists placed closer to the centerline of the cross street than the first stop bar. Typically used with crossing treatment (i.e. curb extension) to encourage bicyclists to take full advantage of crossing design.
- **Protected intersections** (Figure 4.10) include:
 - Corner Refuge Island – an island brings the protective barrier from the bike lane into the intersection, like a curb extension for bicyclists.
 - Forward Stop Bar for Bicyclists – the stop bar (painted line indicating where a car/bike should stop) for autos is placed behind that for bicyclists, increasing the visibility of bicyclists.
 - Setback for bike and pedestrian crossing – instead of running alongside auto traffic, the bike lane bends away from the intersection, creating a setback bicycle and pedestrian crossing
 - Phased Bicycle Signals – signals are phased to give bicyclists lead time in crossing; this is also a practice for “Walk/Don’t Walk” signals that give pedestrians several seconds to begin crossing before autos get the green light to proceed.
- **Combined right hand turn lane** (Figure 4.11) for automobiles that is also a through lane for bicyclists, marked or unmarked, but signed as such.
- **Crosswalks and traffic signals** (Figure 4.12) are key to Complete Streets improvements so pedestrians, cyclists and motorists feel safe and aware of all users of the street. Pedestrian actuated crossing signals ensure that directions are visible to pedestrians and should provide a walk interval for every cycle. Non-visual guidance for pedestrians with sensory restrictions, such as audible walk indicators, ADA compliant crossing ramps and tactile arrows.¹¹ Pedestrian push buttons must be well positioned and within easy reach for all approaching pedestrians. Highly visible, marked crosswalks should also be installed in conjunction with pedestrian signals and at intersections.

⁸ Pedestrian and Bicycle Information Center. Bicycling on Sidewalks

^{9,10} AASHTO Guide for Development of Bicycle Facilities. <http://nacto.org/wp-content/uploads/2011/03/AASHTO-Guide-for-the-Development-of-Bicycle-Facilities-1999.pdf>

¹¹ American Council for the Blind. Accessible Pedestrian Signals. <http://acb.org/node/617>

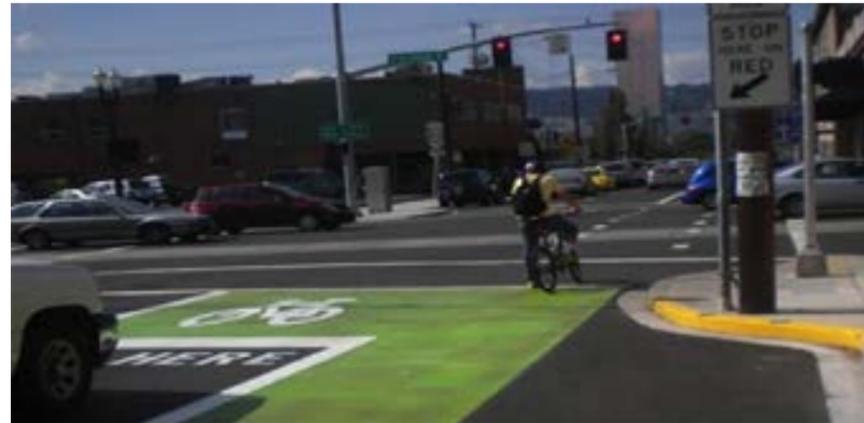


Figure 4.9 - Example of a Bicycle Box
Source: NACTO's Urban Bikeway Design Guide



Figure 4.10 - Example of a Protected Intersection
Source: NACTO's Urban Bikeway Design Guide



Figure 4.11 - Example of a Combined Right-Hand Turn Lane
Source: NACTO's Urban Bikeway Design Guide



Figure 4.12 - Pedestrian Cross Walks and Signals
Source: American Council For The Blind

4.1.5. EXAMPLES OF OTHER COMMUNITIES

Best practices observed in Complete Streets implementation around the nation illustrate positive economic benefits and community improvements. In 2002, the Village of Hamburg, New York began initial discussions of installing Complete Streets throughout some of its main thoroughfares. The street designs incorporated traffic calming roundabouts and improved sidewalks, which resulted in increased private investment and property values, and decreased traffic congestion. In 2010, the American Association of State Highway Transportation Officials, The American Automobile Association, and the US Chamber of Commerce selected the Hamburg roundabouts as one of the top ten transportation projects in the country.¹²



Figure 4.13 - Main Street in Hamburg, New York
Source: http://www.nytimes.com/2013/08/17/nyregion/widen-main-st-community-had-other-ideas-and-thrived.html?_r=1

Indianapolis, Indiana has what is considered one of the nation's best urban trails. The idea of the trail was to cater specifically to pedestrians and bicyclist. "The Indianapolis Cultural Trail (ICT) was conceptualized in 2005, with construction beginning in 2007. The ICT's construction cost of \$63 million was funded by the city, government grants, and private donations... The ICT is an eight mile-long urban greenway that includes bike and pedestrian paths linking five of the six cultural districts in the city: Fountain Square, Mass Ave, Indiana Avenue, the Canal and White River State Park, and the Wholesale District."¹³ The ICT, in a literal sense, is an urban greenway in downtown Indianapolis. But more than that, it holds the goal of creating a more connected and appealing Indianapolis community. The ICT is unique from other urban greenways in that it holds as central to its vision for the goal of uniting the cultural districts of Indianapolis both physically and in the minds of city residents.¹⁴



Figure 4.14 - Indianapolis Cultural Trail
Source: <http://sdapa.org/go/its-time-for-a-new-kind-of-pedbike-network/>

Currently in Ferndale, Michigan, a number of streets are undergoing Complete Streets transformation. The City experienced positive results of a four-to-three lane road diet on West Nine Mile Road. The City implemented new signage and "sharrows" to indicate shared lanes for bicyclists and motorists. Bicycle and car parking line the street's new on-street parking lanes, which have been paved with a porous material that allows water to soak right into the ground. Curb bumpouts and mid-street crossings have also been placed on West Nine Mile as traffic calming measures. Aside from making motorists aware of other street users, the crossings offer pedestrians and wheelchair users a convenient way to cross traffic without going to an intersection.¹⁵



Figure 4.15 - Ferndale Bike Lanes
Source: <http://wearemodeshift.org/ferndale%E2%80%99s-complete-streets-are-no-small-feat-michigan-transportation-odyssey-2014>

¹² Dan Burden. Part 2 Case Study: Hamburg, NY: Restoring Vitality & Value Project Background Current Conditions Before & After. September 2011. Walkable & Livable Communities Institute. http://contextsensitivesolutions.org/content/case_studies/u_s_route_62_village_of_hamburg/resources/Walkable_Olean_Hamburg_CaseStudy/
¹³⁻¹⁴ The Indianapolis Cultural Trail. https://umbraco.butler.edu/media/2858941/ict_spring2012.pdf
¹⁵ David Sands. Ferndale's Complete Streets Are No Small Feat: Michigan Transportation Odyssey 2014. Mode Shift May 2015. Available at <http://wearemodeshift.org/ferndale%E2%80%99s-complete-streets-are-no-small-feat-michigan-transportation-odyssey-2014>

4.2 Future Land Use Plan

The future land use plan is one of the most important documents a municipality can utilize as a tool to help guide future development. The future land use plan offers guidance for property owners, developers and public officials for the appropriate placement of specific land use within a long term vision. Corridor plans are sub-areas of the future land use plan that require great detail of review, in this instance Rochester Road and North Main Street corridors. The future land use plan identifies the Rochester Road corridor for local business, multiple-family residential and industrial land uses. The majority of Rochester Road corridor plan parallels the current zoning of Rochester Road, barring a few deviations.

The corridor plan for North Main Street varies greater from the current zoning than Rochester Road. The future land use plan designates the area north of the Central Business District on North Main as a significant Public/Quasi Public space including recreational/open space, limited areas of office, multiple family and general business land uses. In order for the city of Clawson to implement the goals and visions of the future land use plan, it is important that city officials review the future land use plan during site plan review, during review and discussion of possible amendments to the zoning ordinance, and determining an economic development strategy. Significant changes to current policies are recommended to promote a walkable and livable city through the implementation of Complete Streets policies, identifying goals and visions for the community, ordinance amendments, and proposing civic engagement opportunities for public input, all of which should be coordinated in the future land use plan. Criteria such as walkability, density, business attraction and retention, and safety and efficient uses of land serve as principles to guide future land use recommendations.

RECOMMENDATION: Clawson adopts significant changes to current policies to promote a walkable and livable city through the implementation of Complete Streets policies, identifying goals and visions for the community, ordinance amendments, and proposing civic engagement opportunities for public input.

Walkability

The future land use vision for Rochester Road and North Main required a walkability component which can be implemented through the tenants of Complete Streets. The corridor plan regarding land use required future development to establish narrower building setbacks. Reducing the distance from the public street to the building footprint can enhance the streetscape, reduce traffic speeds and allow for pedestrian access only at building frontage. In addition, a walkable community allows for creative design in commercial and retail spaces. Walkability also promotes aesthetic qualities that businesses and property owners can implement in building design and non-motorized networks. Another component to walkability is the safety for motorists and non-motorized users. This includes determining access management practices that incorporate safe travel for motorist on existing roadways in Clawson. The future land use plan should recognize traffic patterns and parking demands for safe and efficient vehicular movement.

Density

Overall density should be increased in areas of commercial/retail/mixed-use and reduced in areas of parks/open space/residential. A higher form of density will enable the land use to be more efficient. Increased density also enables Clawson to preserve lands that are lower density used for residential and open spaces. Current land use practices in Clawson provide multiple family residential areas at a higher density, located adjacent to major thoroughfares and near commercial and industrial uses. Continued efforts should be implemented to maintain higher density to current zoning locations. The preservation of low density single family residential area maintains Clawson's characteristic of a bedroom community.

Business Attraction and Retention

The future land use plan should assist in the goals and policies to help promote economic development through business retention and attraction. In order for the corridor plan to become successful, a future land use design concept can attract businesses to a specific locations which are conducive for growth and specialized industries. Although business retention is subject to market demands, Clawson should plan for adequate space that can support uses that comply with the city's characteristics. The future land use plan should continue to recognize locations that meet (or do not meet) market demands with implementation focused on adaptive re-use.



Source: Xiao Zhou

Safety and Efficient Uses of Land

Safety is closely related to the efficient uses of land, by which the land proposed is the highest and best use of land. Establishing efficient land uses reduces infrastructure costs, promotes the public health, safety and welfare, enhances the character of the community and reduces nonconformities.

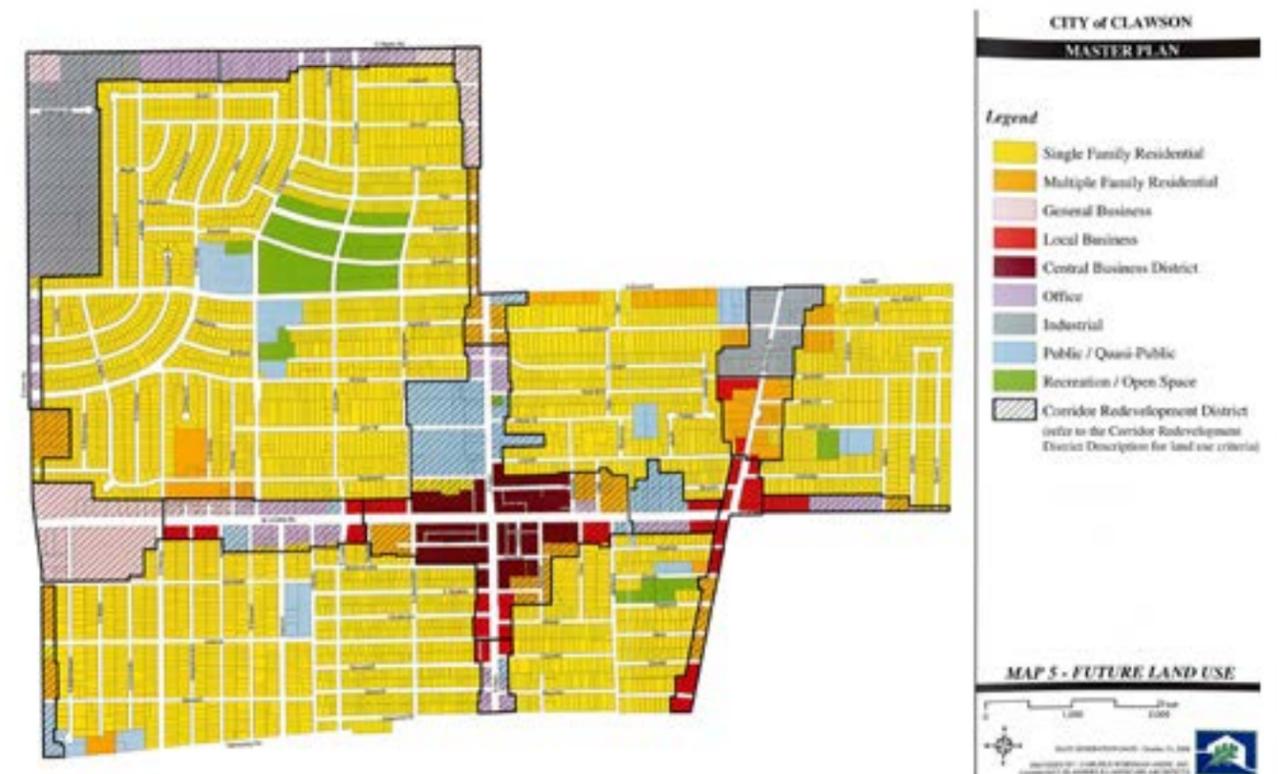


Figure 4.16 - City of Clawson Existing Future Land Use Plan
Source: City of Clawson Master Plan

4.3 Community Engagement

In addition to well-researched strategies and design best practices, a crucial element to community planning is feedback from residents and visitors. These community voices help to guide planners and city officials towards successful plan implementation. Through two engagement opportunities, participants were able to provide feedback on their thoughts on two issues: biking and businesses along the two study corridors in Clawson. At the July 19, 2015 Clawson Farmers Market, approximately 100 people answered two questions about Clawson:



Source: Sylvia Tatman-Burruss

- 1) What businesses would you like to see in Clawson?
- 2) What is the best use of a vacant space in your community?

Table 4.1 - Desired Businesses in Clawson

• Bagel shop	• Bike shop (3 votes)
• Dessert Oasis	• Stores for kids
• Downtown bistro	• Dog park (3 votes)
• Fruit market	• Community/youth theater (2 votes)
• Old Country store	• Vegetarian/vegan restaurant (3 votes)
• Community garden	• Starbucks
• Fewer salons	• Better business neighbors
• More restaurants such as: Vinsetta Garage, Imperial, Public House	• Fewer dog groomers
	• Speciality foods (e.g. hydroponics/aquaculture)
	• Grocery store at Livernois & Maple

Table 4.2 - Best Use of Vacant Space

Suggested Uses of Vacant Space	# of Votes
Splash Pad	85
Food Truck Park	41
Community Garden	35
Park	30
Dog Park	21
Fruit Market	13
Walking Path	1
Total	226



Source: Sylvia Tatman-Burruss

Participants wrote their business suggestions on sticky notes and placed them on a board and/or voted for their preferred use of vacant space with colored stickers (five votes per individual). A summary of the responses are provided in Tables 4.1 and 4.2.

Additionally, a survey about complete streets and commercial space use was also administered via tablet. In order to engage the community more widely, the survey was also available online from July 19 - 26 and promoted by the City of Clawson Facebook page. The survey aimed to gauge participants comfort with implementing Complete Streets strategies as well as use of land along the study corridors; 209 users participated in the online survey. Overwhelmingly, participants expressed preference in having activated as opposed to vacant spaces. People generally feel safe when driving on Rochester Road and I4 Mile and feel that bicycle lanes would be an asset to the community in terms of safety and accessibility. Participants were interested in preserving a small-town feel in Clawson with more restaurants, opportunities for youth (such a shops that cater to children, youth theater, splash pads, etc.), and balancing the need for amenities with

the desire to promote small and local businesses. For survey questions and results, please refer to Appendix A.

5.0 Rochester Road Corridor

The Rochester Road study area was defined as Rochester Road from I4 Mile north to the City of Troy boundary near the E. Elmwood and Badder intersection. The corridor currently is zoned for B-3 General Business, B-1 Local Business, RM-1 Multiple Family Low Rise Residential, and I-1 Limited Industrial. The future land use map indicates similar uses with only a few variations. Several parcels zoned vehicular parking district were zoned as Industrial and several multiple family parcels were designate at local business in the future land use map.

5.1 Existing Conditions

The Rochester Road corridor contains three key components that will have the potential to transform Rochester Road into an attractive and busy corridor:

- There is a well-defined transition zone from commercial uses to residential and then finally industrial at the northern portion of Rochester Road.
- Enough space is available for infill development and redevelopment to incorporate both the tenants of smart growth and Complete Streets.
- Recent pedestrian improvements, including ADA compliant crosswalk curb ramps and a pedestrian actuated signal at Goodale Street are a great start in transforming Rochester Road into a walkable corridor.



Figure 5.1 - Current Site Conditions on Rochester Road (Site 1)
Source: Xiao Zhou

5.2 Corridor Vision



The future vision of Rochester Road corridor consists of transforming Rochester Road into a walkable corridor with protected bicycle lanes and mixed-use developments (Figure 5.4).

The corridor has potential for infill developments, with the major opportunity at the current CVS facility at 110 North Rochester Road (Suite 1, see Figure 5.2). Currently the site contains excessive parking, expansive setbacks, a dangerous access management system and aesthetic failures. It is recommended that Clawson should promote the site as infill development of a two story mixed-use structure with retail space at ground level and office/commercial space at the second level. Good urban design should be incorporated in the building façade, which includes exposed brick, large clear windows, creative signage, well-maintained and aesthetically pleasing streetscape with pedestrian facilities, and the elimination of access driveways on Rochester Road (see Figure 5.3). Parking spaces will be designated in the rear of site, with primary access coming off 14 Mile Road. Vehicular circulation will be provided as a redesigned parking lot will encourage better traffic movement.

Figure 5.2 - Site 1 Proposal, 110 N. Rochester Road
Source: Xiao Zhou



Figure 5.3 - Site 1 Proposal, 110 N. Rochester Road
Source: Xiao Zhou



Figure 5.4 - Rochester Road Corridor Vision
Source: Xiao Zhou

5.3 Zoning Recommendations



Figure 5.5 - Current Site Conditions, 806 N. Rochester Road (Site 2)
Source: Google Street View, 2012

Another infill development opportunity is also available at the vacant lot (parcel #20-34-402-004) located just to the north of the current Royal Oak Plumbing Site at 806 North Rochester Road (Site 2, see Figure 5.5).

The site appears to have been vacant for an extended period of time. A viable development would be a two-story building with rear parking, delivery space and a common access drive connected to the adjacent businesses to the north with a pleasing landscape design (see Figure 5.6). The site is designed for a creative industrial use that requires enough space for manufacturing, packaging and shipping of products, but does not infringe on adjacent residential dwellings to the east with potential externalities. The building will allow for minimal parking and enough maneuvering space for deliveries and vehicular circulation.



Figure 5.6 - Site 2 Proposal, 806 N. Rochester Road
Source: Xiao Zhou

Sec. 34-661 of the City of Clawson Zoning Ordinances states that front yard setbacks in the B-3 General Business and B-1 Local Business districts is 0 feet. During site plan review, developers must bring the front wall of all structures at the current address of 110 North Rochester within at least 15 feet of Rochester Road. This recommendation should also be encouraged with all commercial sites in the B-1 and B-3 zoning districts in Rochester Road for developments and redevelopments during site plan review. Reducing the expansive setback distance will create a corridor that is more enticing for pedestrians, cyclists and other non-motorized users. Building height regulations shall remain intact of 30 feet (or 2 ½ stories). By enforcing these regulations, the City will establish smart growth tactics of increased density, activating the street. In addition during the site plan review process, it is recommended that the City require shared parking agreements between all of the building owners to eliminate excessive parking and impervious surfaces. Division 14 of the zoning ordinance shall be amended to permit mixed-uses in the B-3 General Business District, either by right or by special use. The permission of mixed use will attract developers to the site and create an active corridor site, accompanying the commercial uses along the west side of Rochester Road.

Sec. 34- 981 refers to the Vehicular Parking District. The Vehicular Parking district severely limits possible development due to the strict zoning regulations. It is recommended that the City rezone parcel #20-34-402-004 to I-1 Limited Industrial, allowing for light manufacturing, commercial use. The rezoning recommendation is consistent with the future land use plan, avoids current spot zoning, and eliminates blighted property. The elimination of blight promotes the pride of ownership, maintains or increases property values, achieves code compliance and encourages development.

The majority of the corridor will incorporate the tenets of Complete Streets policies, allowing for a street that provides opportunity for users of all ages to enjoy Rochester Road. This will correlate smoothly with the existing multiple family dwellings located throughout Rochester Road. Many of the residents are children and the elderly who are not completely reliant on personal vehicles and would benefit from such design. In addition, a creative façade agreement during the site plan review process with developers can fortify an aesthetically pleasing corridor.

5.4 Complete Streets Improvements

To incorporate equitable transportation and mobility improvements for all users of Rochester Road, it is recommended that the City of Clawson implement key elements of Complete Streets. This includes a four to three lane conversion from East 14 Mile Rd to Elmwood Ave to increase safety for all users. The project would include two north and southbound ten foot wide traffic lanes, one ten foot wide center turn lane and two five foot wide buffered bicycle lanes (see Figure 5.7).

The recommended conversion will provide a safer and more consistent level of service due to reduction of left turn backups and rear end crashes. On-street bicycle lane markings and signage will provide cyclists an improved experience that will also make drivers more aware along the corridor. Existing bicycle route signage will be updated to note destinations within Clawson (such as library, parks, schools, etc.) and will include the amount of time it will take to arrive by bicycle.



Figure 5.7 - Potential Rochester Road Complete Streets Improvements
Source: Streetmix

Pedestrians will benefit with streetscape improvements to correct the winding sidewalks, more street trees and placement of mid-block refuge islands at key crossing areas (see Figure 5.8). Sidewalks should allow for a minimum width of five feet to allow two people to walk side by side comfortably. Street trees will increase tree canopy in the district, contribute to groundwater recharge, and provide a safety buffer for pedestrians to traverse Rochester Road comfortably. Mid-block refuge islands will enhance crossing treatments at segments where Clawson residents have a desire to walk, but are inhibited by traffic. This traffic calming measure should be implemented after a pedestrian tracking study to determine the most utilized portions of Rochester Road.



Figure 5.8 - Before and after photos of a mid-block refuge crossing
Source: NACTO

bikes to turn right onto westbound 14 Mile Road. Cyclists will also have sharrows (on-street markings) in the right turn lane that will make drivers aware that cyclists are allowed in that lane. This execution encourages smooth traffic flow for cyclists and motorists traveling southbound on Rochester Road and allows for the four to three lane conversion to carry through to the Royal Oak border, if desired.

As referenced earlier, there are a number of intersection treatments that are safer for multimodal transportation. The intersection at Rochester Road and 14 Mile Road measures 80 feet wide, which is wider than the rest of the right of way in the corridor. This would allow Clawson to carry through the three-lane conversion, while giving cyclists safe passage with an additional buffer and permitting automob-

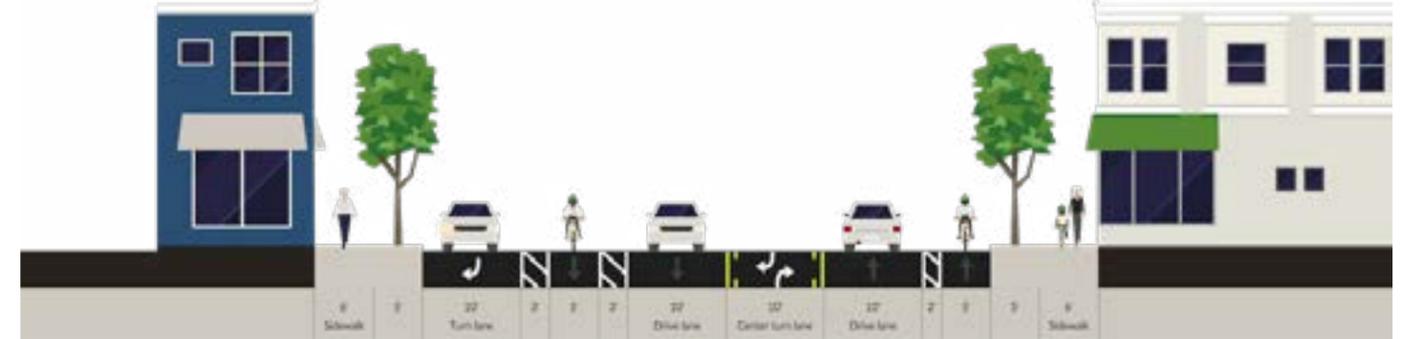


Figure 5.9 - Potential Rochester Road/14 Mile Intersection Complete Streets improvement
Source: Streetmix

The estimated cost for the Rochester Road Complete Streets project is:

- High Visibility Crosswalks With Signs: \$9,000-\$11,000
 - Updated Bike Route Signage: \$2,000-\$4,000
 - Buffered Bike Lanes: \$24,000-\$30,000
 - Street Trees: \$15,000-\$20,000
 - Design and Engineering: \$15,000-\$18,000
 - Project Total: \$60,000-\$85,000*
- *Estimated cost does not include improvements south of 14 Mile Road (\$50,000-\$70,000)

5.5 Site Pro Forma: Rochester Commons



Figure 5.10 - Proposed designs for Rochester Commons (Site 1)
Source: Xiao Zhou

6.0 North Main Street Corridor

ROCHESTER COMMONS

The corner of Rochester Rd and 14 Mile Road is a pivotal junction in Clawson (Site 1). With a strong retail presence by CVS and an overabundance of land, investment in this corner is attractive. Incorporating more mixed-use retail could create a secondary business hub and further diversify the types of establishments in Clawson.

“Rochester Commons” would cost \$14.475 million in building and finance costs which, based on report calculations, could be recouped within eight years with the inclusion of a bridge loan or State match of 25 percent against building cost. Rents are estimated at \$16 per square foot for retail which would net an annual gross rent of \$585,000 and a Net Operating Income of \$380,000 in the first year, assuming a 32 percent cost to income ratio and vacancy of 3 percent. Investors would need to leverage approximately \$2.75 million in debt to finance the project, assuming 25 percent match from the State and \$286,000 equity, aside from land that is already acquired.

Mortgage cost would be \$240,000 annually or \$20,000 per month. After taxes investors could expect to realize \$94,000 in cash flow with an expected cash flow of \$315,000 in the tenth year before the sale of the property. This is assuming the sales price is approximately \$4.7 million. Investors could expect to realize \$1.5 million after taxes in the tenth year. The internal rate of return after tax cash flow is 21 percent and there is a 12 percent return on initial equity that does not include the land.

Based on these assumptions, this project would be profitable for an investor willing to leverage assets to see the project realized. Assuming a strong market, long-term gains would be substantial from a project of this size while short term gains are unlikely. Additional financing information is provided in Appendix B.

Site Name:	Rochester Commons	
Address:	Rochester Road and 14 Mile Road	
SF Total:	36,609	
Residential SF:	0	
Retail SF:	36,609	
Land Asking Price:	0	
	\$ (in thousands)	\$ per SF
Building Price		
New Building	2,746	75.00
Land	300	0.00
Demolition	71	1.94
Site Work	842	23.00
Architecture	37	1.00
Engineering	37	1.00
Closing Costs	18	0.50
Legal	9	0.25
Phasing, Survey	5	0.15
Financial Match	686	18.75
Finance Points (0.05%)	2	0.06
Interest Carrying Cost (5%)	238	6.49
Contingency 5%	100	2.74
Total Investment (less Credits)	\$3,718,781.06	
Annual Gross Rent Required		
Payback (years)	8.14	

Figure 5.11 - Primary Project Cost Estimate – Rochester Commons

North Main is a primary north-south thoroughfare in Clawson. North Main can be described as a high volume and speed street conducive for motorized travel. Unlike the Rochester Road corridor, City officials have focused on portions of North Main within the City Center district with the adoption of the DDA Master Plan. However, there are several reservations on the future land use along the remaining portion of the corridor, which runs past Broadacre to Maple Road on the border of Troy. North Main accommodates motorists and is under the management of the Oakland County Road Commission.

The zoning map details a large portion of the corridor as O-1 Office Service, consisting of dental, medical and legal offices, public buildings, places of worship, commercial businesses and some vacant parcels and buildings. Northward from East Elmwood the corridor converges into RM-1 Multiple Family Low Rise Residential district with single-family homes and small townhomes. Further north on the west side of North Main, current zoning merges back into O-1 Office Service and B-3 General Business. The corridor transitions into a commercial district largely populated with fast food restaurants, gas stations and parking lots.

6.1 Existing Conditions

North Main consists of the following strengths to help implement the vision of the Corridor Plan:

- Several areas are infill development sites and the existing center city urban design should be drawn upon as a current success. Members of the Planning Commission agreed this urban design is a good plan for the future and they would “like to see the progress move north on North Main.”
- The recent expansion of the downtown walkway, the pedestrian actuated signal at Fisher Court, and streetscape improvements (benches, ornamental lighting, ADA compliant curb ramps) serve as a positive base for our vision for the corridor.
- North Main Street provides ample space to encourage a road diet within the Complete Streets framework.

A five to three lane conversion will require a great deal of collaboration and communication to execute, along with the recommended zoning changes, but progresses the walkable trends implemented previously by the City.



Figure 6.1 - Current Conditions of 121 North Main Street
Source: Google Street View, 2012



Figure 6.2 - Rochester Road Corridor Vision
Source: Xiao Zhou

In addition to the street plan, two sites have been described for infill development in the vision for North Main. The priority site on our list was the vacant parcel located at 121 North Main (Site 3, see Figure 6.1). Though 121 North Main is located just outside the study area, it provides a tremendous opportunity for Clawson to incorporate smart urban design. A three-story mixed use structure consisting of retail on ground level and residential upper levels would be a good fit in this location (see Figure 6.3). Parking for the site will be located in the rear with an access drive off Broadacre. Street trees, large windows and aesthetically pleasing façades shall be incorporated in the site plan review stage. The proposed use takes advantage of the ample amount of pedestrian space already existing with the wide brick paver sidewalks.



Figure 6.3: Proposal for Clawson Square - Aerial View (Site 3)
Source: Xiao Zhou

CLAWSON SQUARE PLAZA



Figure 6.4 Proposed for Clawson Square (Site 3)
Source: City of Zeeland, MI

121 North Main provides an opportunity for Clawson to expand upon established public improvements. Private development is frequently subject to turbulent market forces and owner ambitions, thus it is recommended that the City consider purchasing 121 North Main (“Clawson Square”) through the DDA or other funding as a contingency plan. By purchasing the property, the City will have direct control of the use of the site. The site will also complement the existing strengths of the downtown area. This location is feasible for a plaza space, with attractions for residents of all ages. The space is a tremendous placemaking opportunity, consisting of a potential splash pad, seasonal variations of celebrations throughout the year, food vendors and a possible ice skating rink during the cold winter months (see

Figure 6.4). In addition, the plaza space will attract attention toward the downtown to support existing businesses and promote economic development.

Further north, 722 North Main has a (Site 4, see Figure 6.5) large vacant parcel currently zoned O-1 Office Service. It is envisioned as a child day care center (see Figure 6.6) or similar uses.



Figure 6.5 - Current Conditions of 722 North Main Street (Site 4)
Source: Google Street View, 2012



Figure 6.6: Proposal for 722 North Main Street - Aerial View (Site 4)
Source: Xiao Zhou

Both 772 North Main (Site 4) and 665 North Main (Site 5) are recommended for infill development. The sites are large enough to provide space for ample parking, construction of a building footprint, secure and buffered outdoor play area and enhanced landscape. During the site plan review stage, the City shall require vehicular access off East Baker to enhance safety component and reduce traffic hazards on North Main. Allowing parking on the side streets will continue to establish the goal of eliminating excessive and underutilized parking lots. The use will serve as a neighborhood anchor for office, commercial, professional businesses and provides a service to many residents of the community. It does not conflict with existing adjacent residential land uses.



Figure 6.7 - Proposals for 722 and 665 North Main Street (Sites 4 & 5)
Source: Xiao Zhou



Figure 6.8 - Proposal for 722 and 665 North Main Street (Sites 4 & 5)
Source: Xiao Zhou

6.3 Zoning Recommendations

To meet the goal of rear parking, it is recommended that the City Council amend the zoning ordinance to provide for closer front yard setbacks in the O-I Office district, reducing the front yard setback from 25 to 15 feet. Parking should be limited to maximum parking requirements, allowing for on street parking along side streets within a few blocks of North Main. Parking should always be directed to the rear portion of the site with access drives off the side roads and delivery space located in the rear. Good preservation of existing landscaping should be incorporated, allowing for a significant buffer or the use of fencing.

The zoning ordinance should be amended to include public plaza space as a permitted use in the O-I Office district, which coincides with the future land use plan. This will allow for ample opportunity to enable a location to support the city's slogan of "Little City with a Big Heart". In addition to the recommended zoning amendment, City Council should adopt a vendor ordinance to permit food vendors to occupy space within the plaza and alongside streets. This will encourage active spaces and promote economic development.

6.4 Complete Streets Improvements

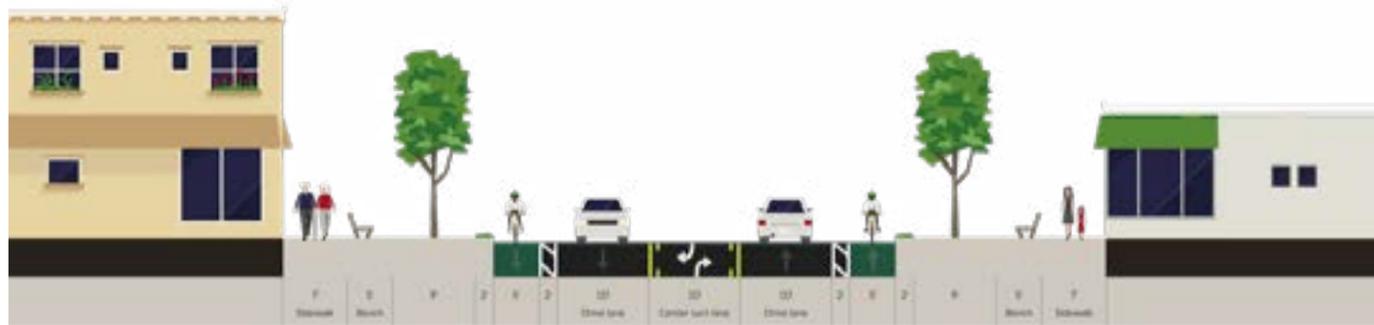


Figure 6.9 - Potential North Main (Elmwood to Philips) Complete Streets Improvement
Source: Streetmix

Users of North Main Street would also benefit from equitable transportation and mobility improvements that incorporate Complete Streets elements. A five to three lane conversion is recommended from Elmwood to Broadacre with a mixture of street improvements to enhance safety along the corridor such as high visibility crosswalks and updated bike route signage. From Elmwood Street to Philips Ave, there would be three traffic lanes (center turn lane), buffered bike lanes, extended pedestrian sidewalk and streetscape improvements, such as street trees and pedestrian scale lighting (see Figure 6.9).

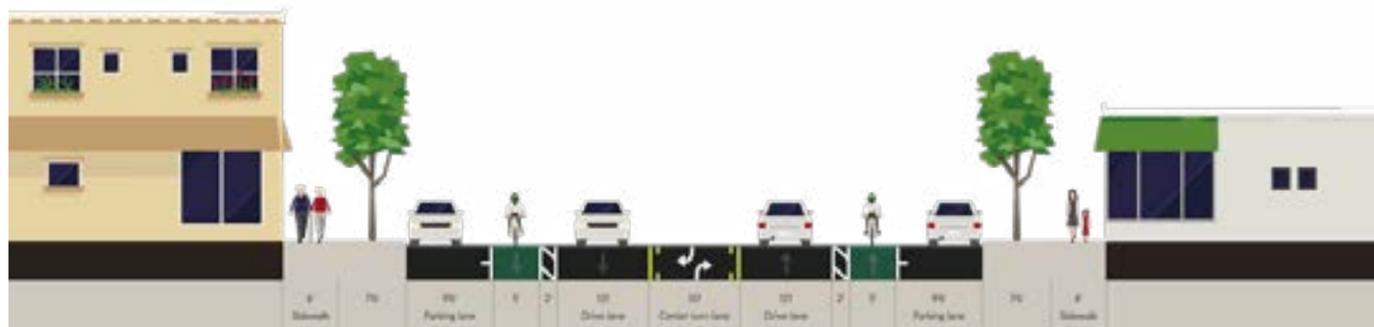


Figure 6.10 - Potential North Main (north of Broadacre) Complete Streets Improvement
Source: Streetmix

From Philips Ave to Broadacre, the street could continue as a three traffic lane road with buffered bike lanes and the addition of on-street parking (Figure 6.10). The on-street parking would encourage business owners to open street level retail because they would have customers closer to their doors. The city could also look to redevelop off-street surface parking if on-street parking relieves stress on city lots. Cyclists would feel safer with a painted buffer and have an additional separation from motorists with on-street parking on their right.

The intersection at North Main St and 14 Mile Rd could be transformed and build off the recent streetscape improvements by making it safer for multiple modes of transportation (Figure 6.11). Existing left turn and south-bound drive lanes would remain, but decrease in width to 10'. The buffered bike lane would transition into a shared right turn lane (utilizing sharrow) with automobiles. Cyclists would have the opportunity to turn right on 14 Mile Rd or share lanes with drivers to turn left or drive through the intersection. Once cyclists pass through the intersection, Clawson could replicate the road treatment of North Main St and incorporate bicycle lanes. Signage would be important throughout the corridor to ensure all users of North Main St were aware of the proper usage.

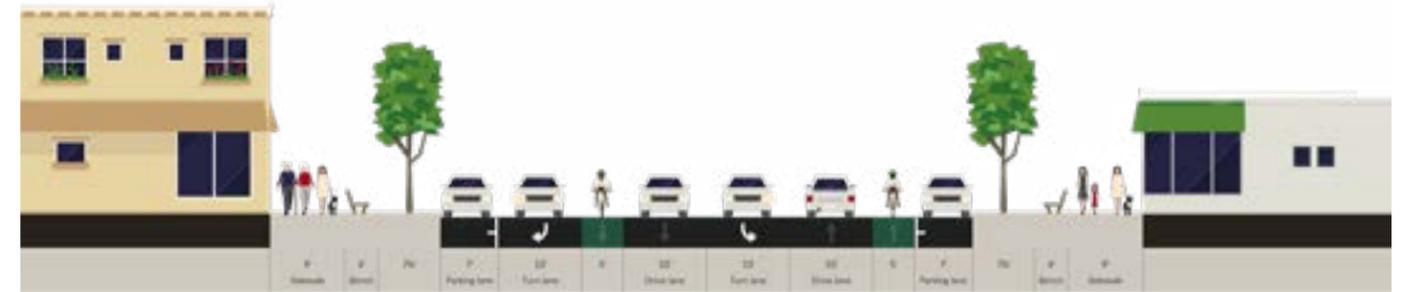


Figure 6.11 - Potential North Main (Broadacre to 14 Mile) Complete Streets Improvement
Source: Streetmix

The estimated cost for the North Main Street Complete Streets project is:

- High Visibility Crosswalks With Signs: \$15,000-\$17,000
 - Updated Bike Route Signage: \$2,000-\$4,000
 - Buffered Bike Lanes: \$31,000-\$36,000
 - Street Trees: \$15,000-\$20,000
 - Design and Engineering: \$20,000-\$24,000
 - Project Total: \$85,000-\$100,000*
- *Estimated cost does not include improvements south of 14 Mile Road (\$60,000-\$70,000)

Similar to the recommendations for Rochester Road, there are grants that Clawson could apply for in the next few years to make the North Main improvements a reality. In the short term, re-striping the street to accommodate bicycle lanes and on-street parking could complete the proposed improvements to North Main. In the long term, some of the crosswalk extensions should be narrowed and street lights on North Main that have recently been upgraded could be realigned. These changes would still allow for pedestrians to have a safe, wide pathway. Adding more pedestrian scale lights and street trees would even further unify the vision of the district. Both options could be paid in part through SEMCOG's Transportation Alternatives Program grants, but applying for the improvements on Rochester Road first is recommended.



Figure 6.12 - Potential configuration of turn, drive and bicycle lanes at North Main St/14 Mile Rd Intersection
Source: NACTO

6.5 Site Pro Forma: Clawson Square



Figure 6.13 - Design for Clawson Square
Source: Xiao Zhou

Activating a long vacant and vital space in Clawson, Clawson Square combines a progressive design with a mixed use that will have both residential and retail. In conjunction with Complete Streets this type of development will produce an activated corner and extend the success of downtown Clawson further north. This project would pay back in 5 and ½ years assuming the estimates of attached costs. Overall the project would cost \$1.7 million in upfront cost with an anticipated brownfield tax credit of 50 percent toward the building cost since the site was a former gas station. To generate immediate and stable income the top two floors could be utilized as residential space with a total of 11 units (six one bedrooms units and five two bedroom units) and 5,000 square feet of retail on the first floor.

Rents are estimated at \$1.30 per square foot for residential and \$14.00 per square foot for retail. Netting an annual gross rent of \$227,500 and a Net Operating Income of \$155,700 in the first year, assuming a 28 percent cost to income ratio and a vacancy of 3 percent. Investors would need to leverage approximately \$1.13 million in debt to finance the project assuming a 50 percent financial match and a bridge loan from the state with \$286,000 in equity (aside from already acquired land).

Site Name:		Clawson Square	
Address:		121 N. Main Street	
SF Total:		15,000	
Residential SF:		10,000	
Retail SF:		5,000	
Land Asking Price:		0	
		\$(in thousands)	\$ per SF
Building Price			
New Building	1,125	75.00	
Land	0	0.00	
Demolition	29	1.94	
Site Work	345	23.00	
Architecture	15	1.00	
Engineering	15	1.00	
Closing Costs	8	0.50	
Legal	4	0.25	
Phasing, Survey	2	0.15	
Financial Match	563	37.50	
Finance Points (0.05%)	1	0.07	
Interest Carrying Cost (5%)	105	7.02	
Contingency 5%	49	3.27	
Total Investment (less Credits)			
		\$1,135,465.18	
Annual Gross Rent Required			
Payback (years)		5.30	

Figure 6.14 - Primary Project Cost Estimate – Clawson Square

Mortgage cost would consist of an annual \$73,000 or \$6,100 per month. After taxes, investors could expect to realize \$59,000 in cash flow with an expected cash flow of \$127,800 by the tenth year before the sale of the property. The sales price is expected to be approximately \$2 million. Investors could expect to realize \$854,800 after taxes in the tenth year from the property sale. The internal rate of return of after tax cash flows is 30 percent. There is also a 20 percent return on initial equity not including land. Based on these assumptions, this project would be profitable for the investor willing to leverage assets to see the project realized. Assuming a strong market, long term gains would be substantial from a project of this size whereas short terms gains are unlikely. Additional financing information is provided in Appendix C.



7.0 Implementation

The City of Clawson has the opportunity to implement the aforementioned recommendations, but we realize that a coordinated, planned approach is the only way these ideas can truly happen. Much like the City's Master Plan and Future Land Use process, priority projects should be separated from long-term goals and visions to have an impact for the residents and businesses in Clawson. In the following section, recommendations are outlined in three sections with a focus on community engagement and an implementation timeline:

- Complete Streets
- Community Support for Land Use Changes
- Financing

7.1 Complete Streets

While many communities and residents across the country are embracing Complete Streets, organizations that effectively communicate how the concept affects tax-paying residents have the most success. Creating awareness for ideas that could have a positive impact on the quality of life for Clawson residents will not only make residents more informed, but could enhance community support. As Clawson embraces Complete Streets planning, the following implementation tactics should be considered:

- Non-Motorized Plan Website
- Temporary Bike Lane Demonstration
- Safety Town
- Bicycle Racks
- Wayfinding Signage

NON-MOTORIZED PLAN WEBSITE

Creating a non-motorized transportation plan is a great start to informing residents and businesses how the City of Clawson views future mobility. In the next iteration of the plan, the City should consider a stand-alone website for the plan where people can give feedback directly and interact with plans/maps of Clawson. Ferndale created a stand alone dynamic website ([Ferndale Moves](#)) for their non-motorized plan, which showcased priority projects, timelines, and opportunity for public input throughout the plan. Community members continue to engage with the site because the City updates projects in progress and posts safety tutorials for pedestrians, cyclists and motorists.



Figure 7.1 - Example of a non-motorized transportation plan site
Source: City of Ferndale

TEMPORARY BIKE LANE DEMONSTRATION

Throughout the non-motorized transportation plan process, Clawson could physically engage and inform residents with a temporary bike lane demonstration. Utilizing low-cost and temporary materials such as spray chalk, traffic cones and signage, the City of Clawson could gauge interest in a future bike lane and residents could learn how a bike lane makes cycling safer. A senior group in Kalamazoo, Michigan recently coordinated a week-long bike lane demonstration that they hoped would eventually connect with a nearby bicycle route ("Kalamazoo Pop-up Bike Lane..."). The group incorporated an online survey that users took after using the temporary bike lane and gathered valuable input regarding the project. Clawson can engage residents and businesses by asking a nearby retailers, such as florists or bicycle shops, to promote the event as part of a "Clawson Bike Week". Whether the demonstration lasted for a week or weekend, residents and city officials could learn a great deal from this type of execution.



Figure 7.2 - Kalamazoo, MI temporary bicycle lane, 2015
Source: Alex Mitchell, MLive.com

SAFETY TOWN



Figure 7.3 - Example of bike week activities
Source: Street Blogs, San Francisco

Hosting a Safety Town event at City Hall would be a great way to inform both parents and kids about the new Complete Streets improvements by hosting 2 or 3 meeting throughout one week. The presentation should last no longer than 30 minutes and dedicate the bulk of the meeting to answering resident questions. In conjunction with the meetings, a Bike Week event would connect residents to local businesses who could provide discounts to customers who bike to their establishments during the event time-frame.

BICYCLE RACKS

Encouraging residents to bicycle more on Rochester Road and N. Main Street also means cyclists need more places to park. The City of Clawson already provides 16 bike racks to users, primarily downtown with some also located in parks (Rochester Road does not currently have any bicycle racks). Providing more bicycle racks would increase accessibility for residents and would showcase Clawson's commitment to multimodal transportation. Businesses would bring potential customers even closer to their door than street or lot parking. The City could work with the DDA to consider a bicycle rack program that provides a funding match for businesses interested in more bicycle parking. The City could also reduce automobile parking requirements for new businesses during the site plan review process if those businesses were to add bicycle racks to their plan.



Figure 7.4 - Example of a bicycle rack
Source: South Windsor Parks and Recreation

WAYFINDING SIGNAGE

Wayfinding signs are used to inform people of their surroundings and guide people in the right direction. They can be used to guide pedestrians, bicyclists and drivers who may be unfamiliar with the area and are designed to provide a clear, comprehensive and consistent visual system to direct people to a space or location. Creating landmarks, establishing orientation and providing navigation are some of the characteristics of wayfinding signs. Signs can be color coordinated to help identify certain areas and can also vary in size to denote different types of places and be color coordinated to help identify certain areas of Clawson.



Figure 7.5 - Example of wayfinding signage
Source: City of Danville, California

7.2 Community Support for Land Use Changes

Engaging the community can help implement projects that are desired in their community. Clawson prides itself as being a small town bedroom community, with a friendly atmosphere with unique characteristics that distinguish it from other nearby communities. However, even small tranquil cities such as Clawson can produce vehement opposition such as the “large lot ordinance” proposed in 2012.¹⁶ Local units of government must adopt ordinances, regulations and development standards to protect the public health, safety and welfare. However, when ordinances are revised or amended the public shall be provided ample opportunity to provide input. Civic engagement should not occur retroactively, or such amendments and revision to ordinances may create a hostile, adversarial relationship between the City and its residents. In order for Clawson to be proactive in community engagement, the following actions and processes are recommended:

1. Provide ample public notice through social media, literature and signage to inform the public;
2. Civic engagement opportunities (such as design charrettes, strategic work sessions or public meetings held outside of traditional location) to gather information about the community’s values, goals and visions;
3. Encourage concerned citizens and business owners to attend public meetings or submit written comments;
4. Survey opportunities for the community to provide input (e.g. Farmers markets, craft shows, downtown events);
5. Hold annual joint meetings with City Council, Planning Commission, Zoning Board of Appeals, Downtown Development Authority the and Chamber of Commerce that are actively advertised.

Through an established community engagement program, Clawson will position itself as a community that is proactive and transparent with its residents. Fortifying the framework at this time will assist the City when ordinance amendments occur, large-scale developments are proposed, plan revisions are scheduled and placemaking opportunities are available. Promotion of community engagement will further establish Clawson as the “Little City with a Big Heart”.

Without financing mechanisms, the suggestions within this report are infeasible. Therefore, several options for financing various stages of implementation are provided based on funding and project type. The financing mechanisms are organized by type and how those mechanisms relate specifically to suggestions outlined within the corridor plan. These mechanisms include grants, special tax area designations and government tax incentives based on project or geography. Appendix D includes application and program contact information. Realistically, the corridor plan recommendations will be resource intensive for the City, business owners and residents. Various incentives, grants, services, and technical assistance programs that can assist in implementation are provided..

MICHIGAN SAFE ROUTES TO SCHOOL

Michigan’s Safe Routes to School (SR2S) program promotes walking and biking to school using education and incentives. This program offers training, logistical, administrative and technical support to access the safety needs for the routes surrounding K-8 grade schools. First a SR2S team needs to be established that should include: a school administrator, a representative from the local government, parents and a law enforcement officer. The team would assess the safety of walking and biking routes traveled by students and create an Action Plan. The Action Plan will address education, encouragement, enforcement and/or engineering needs. In early January 2016, Clawson K-8 schools would be eligible to apply for mini-grants to help implement items on their action plan. These funds can be used to help implement the Complete Streets recommendation for North Main Street.

COMMERCIAL REHABILITATION DISTRICT

The Planning Commission provided valuable feedback during the preliminary meeting in June 2015. The unattractiveness of the business facades along Rochester Road was a recurrent theme. Therefore, it is recommended that Clawson creates a Commercial Rehabilitation District which will encourage the rehabilitation of commercial property by abating the property taxes generated from new investment for a period of up to 10 years. The new investment must result in improvements aggregating to more than 10 percent of the true cash value of the qualified facility. Current and future business owners will likely participate in the district which will not only improve their facades but will ultimately make Rochester Road more attractive.

BUSINESS IMPROVEMENT DISTRICT

A Business Improvement District (BID) could be established by businesses along Rochester Road by creating a tax levy on businesses within the BID for business-related improvements or promotional materials. In small communities, BIDs are often used to create marketing materials for the district, improve signage or visibility, improve and standardize landscaping, or any other district improvements selected collectively by the group. Many large cities have established multiple BIDs within their cities. Many smaller cities have now adopted them, including Grand Rapids and small rural communities within Michigan. More information about establishing a Michigan BID can be found here: <http://www.michiganbusiness.org/cm/files/fact-sheets/businessimprovementdistrict.pdf>

BROWNFIELD REDEVELOPMENT

Brownfield properties are those in which the redevelopment or reuse of the property may be complicated by the presence or perception of contamination. Revitalizing and redeveloping these properties protects the environment, reuses existing infrastructure, and creates economic opportunities. This program is administered through the State of Michigan’s Department of Environmental Quality. The Remediation and Redevelopment Division provides financial and technical assistance including grants, loans, tax increment financing and free site assessments to facilitate the redevelopment of brownfield properties. This financing mechanism can be used for the redevelopment of sites that may have been gas stations, such as the vacant parcel on North Main, just south of Broadacre. More information on this program can be found here:

http://www.michigan.gov/documents/deq/deq-rrd-BRWN-factsheetcontactmap_348474_7.pdf?20150723180911

7.4 Implementation Timeline

CORRIDOR IMPROVEMENT AUTHORITY

Similar to the concept of a BID, a Corridor Improvement Authority allows the use of tax increment financing to make capital improvements within an established commercial district. It allows communities that already have Downtown Development Authorities (DDAs) to extend similar benefits to aging commercial corridors outside the DDA district or that extend through more than one municipality. East Lansing, Lansing and Lansing Township have come together to create the Michigan Avenue Corridor Improvement Authority in order to make improvements across three municipalities. This may be the most appropriate district improvement plan available for Rochester Road and may extend into the City of Troy, or could be used to create a better connection between Clawson's DDA and Rochester Road. More information about establishing a Corridor Improvement Authority can be found here:

<http://grcity.us/design-and-development-services/Economic-Development/Documents/CorridorImprovementAuthority.pdf>

CROWDFUNDING - PUBLIC SPACES COMMUNITY PLACES

The Michigan Economic Development Corporation (MEDC) has designed a creative funding mechanism for its Public Spaces Community Places initiative in partnership with the Michigan Municipal League and Patroncity, the Michigan-based crowdfunding platform. The program is intended to create and improve the use of public spaces driven by the desires of the communities within which those spaces are created. The program utilizes a crowdfunding platform to aid communities in raising match-funding for their project. Communities, non-profits and other business entities can submit projects by applying for a Patroncity online donation campaign. Projects meeting fundraising goals can receive a matching grant from MEDC of up to \$50,000. This mechanism could be used for the development of a public splashpad (a very popular idea at the Clawson Farmers Market).

Public Spaces Community Places projects include:

- Public Plaza & Green Space Development
- Access to Public Amenities
- Farmer's Markets, Community Kitchens, Pop-Up Retail/Incubator Space
- Alley Rehabilitation
- Any other place based (or public space improvement) project

Please see Appendix D for more information on the programs listed above as well as other resources, services and technical assistance programs that could benefit Clawson.

The following charts represents the recommended implementation timeline, with each task falling within a suggested range (a short term of 0-3 months, to a long term of 5 years or more). This timeline is not all-inclusive and is subject to change.

Implementation Range	Short Term		Mid Term		Long Term	
	0-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5+ years
Complete Streets						
Install temporary bike lanes	X					
Non-motorized plan website	X					
Update pedestrian crossing	X					
Bike lane video tutorial	X					
Complete streets website		X				
Safety town meeting		X				
Improved intersections		X				
Bicycle racks			X			
Wayfinding signage			X			
Bike sharrows				X		
Designated bike lanes				X		
Streetscape improvements				X		
Rochester road diet					X	
North Main Street road diet					X	
Ordinance Amendments						
Mandatory shared parking agreements in site plan review				X		
Permit mixed-uses in B-3 District			X			
Rezone parcel 20-34-402-004				X		
Amend Section 34-661 to reduce front yard setback in the O-1 District			X			

Implementation Range	Short Term		Mid Term		Long Term	
	0-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5+ years
Developments						
Public Plaza Implementation					X	
110. N. Rochester Road						X
Parcel # 20-34-402-004						X
121 N. Main Street					X	
722 N. Main Street					X	
Parcel # 20-33-428-027					X	
Financing						
Crowdfunding		X				
BID/TIF				X		
Brownfield				X		
Commercial rehabilitation				X		
Grants		X				
Safe Routes to School (SR2S)		X				
Transportation Alternative Program (TAP)			X			
Community Engagement						
Joint meeting			X			
Design charrette visioning session				X		
Survey		X				
Public meeting notification strategy	X					
Civic engagement event	X					
Safety Town training (Bike Week)	X					

The development of Rochester Road and North Main Street is an opportunity to expand upon the existing strengths of South Main Street and Downtown Clawson. By implementing Complete Streets best practices and following a well-informed future land use plan, the public realm is transformed into an accessible, family friendly environment that leads to private investment and economic development. Implementation of the recommended corridor plans for Rochester Road and North Main Street will establish a cohesive vision for two of the primary commercial thoroughfares and enhance the overall accessibility and vitality of Clawson.

These recommendations support the goals of the City of Clawson Master Plan and provide design strategies and implementation techniques to make the Plan possible. The visions highlighted for parcels within each corridor are supported by practical considerations for ordinance and zoning updates, financing mechanisms from a variety of agencies, low-cost early action projects to engage and inform the community, and a long-term strategies for continued success. The parcel recommendations serve as examples of development options for both public and private investors.

A crucial element to effective implementation and successful communities is an active civic engagement campaign. Through public meetings, events and others ways of collecting feedback, such as surveys and charrettes, the City benefits from having an informed and engaged base community as residents and visitors develop a sense of belonging and connection to the people and places with which they interact. When a city is responsive to and meets the needs of its community, the mutual benefits help both thrive. In this way, Clawson can truly be the “Little City with a Big Heart.”



Source: Sylvia Tatman-Burruss

9.0 2015 Wayne State Capstone Class



TERI BRADDOCK

Ms. Teri Braddock is from Saginaw, Michigan. She attended Jackson State University in Jackson, Mississippi where she received a Bachelors Degree in Healthcare Administration in 2011. Teri has spent the past 3 years working for Michigan Economic Development Corporation (MEDC). Teri is currently pursuing her certification as a Certified Economic Developer (CEcD). After graduation next Spring, Teri plans to continue her work in Economic Development.



DANIELLE BROWNING

Danielle Browning is currently in her last year of the Masters of Urban Planning program and is planning on graduating with a concentration in Managing Metropolitan Growth. She received her Bachelors degree in Supply Chain Management from Western Michigan. Since then, she has been working in Purchasing for various industries. She has also served on the Paint Creek Trailway Commission, the Historic District Study Committee, and the Citizens Pathways Committee for the City of Rochester.



MATTHEW CLAYTON

Matthew Clayton is entering his final year in the Urban Planning Program. He attended the University of Michigan for undergrad, where he majored in Sociology and African American Studies. Matthew has over five years experience in community organizing and youth development. His areas of interests include GIS, information systems, filmmaking, progressive non-profits, and innovative entrepreneurship.



JAMES COURTNEY

James Courtney is a Wayne State University student studying Urban Planning with a focus on Economic Development. Before attending Wayne State University he worked as a social researcher based in Washington D.C.. He currently works in Advertising and Marketing and holds a Marketing degree from Central Michigan University.



STEPHANIE INSON

Stephanie is in her fourth year as a Program Assistant at Detroit LISC, a CDFI focused on affordable housing supported by comprehensive community development to improve Detroit's neighborhoods. She served for a term on the Hamtramck Plan Commission, has worked with the Wayne State Farmers Market and currently volunteers as a tutor for adult literacy learners in Detroit. Stephanie received her Bachelors of Science in Biology from the University of Massachusetts – Boston and enjoys graphic design, biking, fiber arts, hoop dance, travel, music and helping make Detroit great.

ERIN KOVAL SCHLUTOW

Erin is in her final year of the Urban Planning Master's at Wayne State, and plans to graduate December 2015, after the completion of the Master's Essay. She is currently working for the City of Plymouth in the GIS department, creating the city maps to be published on the city website.



JEFFREY LEWIS II

Jeffrey D. Lewis II is a graduate student at Wayne State University in Detroit, Michigan majoring in Urban Planning. He received his Bachelor of Arts in Urban Studies from WSU in 2011. Jeff professional experience exist in education and community development. Jeff has volunteered with numerous non-profit organizations that caters to youth development. His interest of city affairs began at a young age as the many different aspects that make a city flow was intriguing. He is often referred to as an "urbanologist," as his passion for resolving city issues and dismantling social inequalities are vital for any community to truly thrive.



JUSTIN LYONS

Justin Lyons is in his third and final year of Wayne State University's Masters of Urban Planning program with a concentration of Economic Development. Justin is currently a Project Planner for the City of Ferndale and well-versed in land use, transportation, community engagement and grant writing. Justin is a member of the Ferndale Parks and Recreation Commission and is accredited by the Congress for New Urbanism. Justin also has over 9 years of experience in the marketing industry at agencies such as Team Detroit and 22squared.



SYLVIA TATMAN-BURRUSS

Sylvia has a background in community development in Washington State, California, western New York State, and Arizona. Projects include a complete parcel survey of Jamestown, New York towards the fulfillment of a comprehensive neighborhood plan and the development of a workforce development program in Arizona. Sylvia will graduate from Wayne State University in August 2015 with a Masters of Urban Planning with a concentration in Housing and Community Development. Her Master's Essay Topic is Mortgage Origination in Detroit.



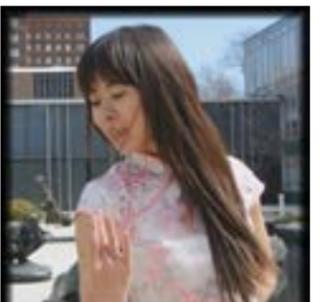
BRIAN URQUHART

Brian is currently completing his third year in the Masters of Urban Planning Program at Wayne State with a concentration in Economic Development. He received his Bachelors of Science in Urban and Regional Planning from Michigan State University in 2010. Halfway through the MUP program at WSU, Brian was hired as the Planning/Zoning Administrator for the Village of Middleville in Barry County in December 2013; the experience has been tremendously helpful in working on the Capstone project and provides an opportunity to share knowledge with Clawson officials.



XIAO ZHOU

Xiao Zhou, P. R. China, Urban Planning major at Beijing University of Aeronautics and Astronautics, and MUP candidate at Wayne State. She was a Beijing David International Partnership Architects assistant urban planner from 2011 through 2013. Project experiences include: city planning in commercial, residential, industry district, and tourism planning. Participated in the following programs in the United States: MI-Rail downtown survey phase and DEGC's I-96 employment district and Brightmoor neighborhood employee connection study school project.



10.A Community Engagement Survey Results

Online survey questions administered from July 19 - 26, 2015 as well as a summary of the results:

Question 1	How comfortable do you feel driving on Rochester Road?					Totals
Response Selections	Very Comfortable	Comfortable	Undecided/ No Opinion	Uncomfortable	Very Uncomfortable	
# of Responses	43	85	22	24	32	206
% of the Total	21%	41%	11%	12%	16%	100%

Question 2	How comfortable do you feel driving on North Main Street (North of 14 Mile)?					Totals
Response Selections	Very Comfortable	Comfortable	Undecided/ No Opinion	Uncomfortable	Very Uncomfortable	
# of Responses	41	77	13	41	35	207
% of the Total	20%	37%	6%	20%	17%	100%

Question 3	Have you ever walked or ridden a bicycle in Clawson?			Totals
Response Selections	Yes	No	Not Sure	
# of Responses	192	15	2	209
% of the Total	92%	7%	1%	100%

Question 4	Walking and biking in Clawson is safe for adults.					Totals
Response Selections	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	
# of Responses	55	110	15	24	3	207
% of the Total	27%	53%	7%	12%	1%	100%

Question 5	Walking and biking in Clawson is safe for youth.					Totals
Response Selections	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	
# of Responses	29	82	48	39	10	208
% of the Total	14%	39%	23%	19%	5%	100%

Question 6	What are your greatest concerns when you are walking or biking in Clawson?					Totals
Response Selections	Traffic	Safety	Visability	More Than One Response	Other	
# of Responses	74	38	29	45	16	202
% of the Total	37%	19%	14%	22%	8%	100%

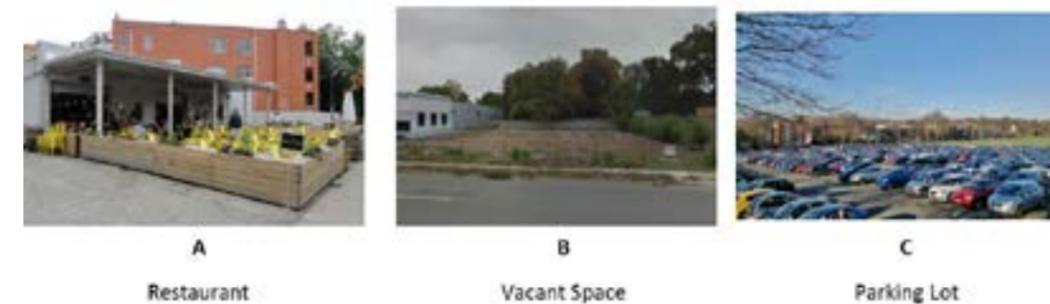


Examples of Bike Lanes

Question 7	Bike lanes on Rochester Road would make biking safer on the corridor.					Totals
Response Selections	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	
# of Responses	39	48	45	43	30	205
% of the Total	19%	23%	22%	21%	15%	100%



Question 8	Which of the above images is a more favorable use of a vacant lot on N. Main Street?			Totals
Response Selections	A	B	C	
# of Responses	76	71	60	207
% of the Total	37%	34%	29%	100%



Question 9	Which of the above images is a better use of vacant space on Rochester Road?			Totals
Response Selections	A	B	C	
# of Responses	188	10	9	207
% of the Total	91%	5%	4%	100%

Question 10	Do you feel that there is ample parking for people visiting businesses in Clawson?					Totals
Response Selections	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	
# of Responses	20	99	35	47	7	208
% of the Total	10%	48%	17%	23%	3%	100%

Question 11 - What kind of businesses would you like to see in Clawson?
 Small, artsy businesses, like Saugatuck; More restaurants and bars; restaurants, shopping, coffee shops; large bead store; more businesses at Rochester and 14 Mile; businesses that make people want to stay and linger around; Italian restaurant, more small businesses; meat market, children's clothing or toy store; family-friendly, non-alcoholic restaurants; more retail; coffee shop and small bakery; children's indoor play place; family orientated small businesses, not fast food; no more doctor offices or nail shops; bowling alley; book/gift store; small art and music festivals, dance clubs, unique shopping stores; skate shop, sneaker shop; something similar to the Rust Belt in Ferndale; more entertainment options, like a comedy club; Menards, Papa Joe's; shoe stores; focus on the closeness of community, no more bars; Trader Joe's, healthy fast food options; boutiques; kid-friendly establishments; more local vendors instead of national chains

10.B Rochester Commons Financing and Additional Renderings

10 YEAR CASH FLOW

Year	1	2	3	4	5	6	7	8	9	10
Potential Gross Rent	585,700	603,300	621,400	640,000	659,200	679,000	699,400	720,400	720,400	720,400
Vacancy Allowance	29,300	30,200	31,100	32,000	33,000	34,000	35,000	36,000	36,000	0
	556,400	573,100	590,300	608,000	626,200	645,000	664,400	684,400	684,400	720,400
Before-Tax Cash Flow	141,200	155,100	169,400	184,200	199,400	215,100	231,400	410,800	410,800	446,800
- Income Taxes	47,500	51,600	55,900	60,400	65,000	69,800	74,800	120,500	121,500	131,700
After Tax Cash Flow	93,700	103,500	113,500	123,800	134,400	145,300	156,600	290,300	289,300	315,100

YEAR 1 OPERATING FORECAST

Potential Gross Rent	585,700
Vacancy Allowance	29,300
	556,400
Other Income	0
Effective Gross Income	556,400
Operating Expenses	
Management Fee	0
Salary Expense	0
Utilities	0
Insurance	59,700
Supplies	0
Advertising	10,200
Maintenance & Repairs	71,700
Property Taxes	34,000
Total Expenses	175,600
Net Operating Income	380,800

DEBT SERVICE

Mortgage Amount	\$3,718,781	Mortgage Calculator	
Mortgage Term	30		
Interest Rate	5.00%	Monthly Debt Service	\$19,963.22
Amortization	12	Annual Debt Service	\$239,558.65

DISCOUNTED CASH FLOW ANALYSIS

Anticipated holding period:	10	Selling Price:	4,760,000
		- Selling Costs:	142,800
Purchase Price:	3,718,781	Net Sales Proceeds:	4,617,200
Transaction Costs:	802,756	- Mortgage Balance:	3,024,900
Initial Investment Basis:	4,521,537	Before-Tax Equity Reversion:	1,592,300
Mortgage:	3,718,781	- Taxes Due on Sale:	35,200
Initial Equity:	802,756	After-Tax Equity Reversion:	1,557,100

	0	1	2	3	4	5	6	7	8	9	10
BTCF		141,200	155,100	169,400	184,200	199,400	215,100	231,400	248,300	245,100	277,800
BTER		0	0	0	0	0	0	0	0	0	1,592,300
Total	(802,756)	141,200	155,100	169,400	184,200	199,400	215,100	231,400	248,300	245,100	1,870,100

Before-tax IRR 25.49%

	0	1	2	3	4	5	6	7	8	9	10
ATCF		93,700	103,500	113,500	123,800	134,400	145,300	156,600	290,300	289,300	315,100
ATER		0	0	0	0	0	0	0	0	0	1,557,100
Total	(802,756)	93,700	103,500	113,500	123,800	134,400	145,300	156,600	290,300	289,300	1,872,200

After-tax IRR 21.00%



Additional Renderings of Rochester Commons

10.C Clawson Square Financing and Additional Renderings

10 YEAR CASH FLOW

Year	1	2	3	4	5	6	7	8	9	10
Potential Gross Rent	227,500	234,300	241,300	248,500	256,000	263,700	271,600	279,700	279,700	279,700
Vacancy Allowance	11,400	11,700	12,100	12,400	12,800	13,200	13,600	14,000	14,000	0
	216,100	222,600	229,200	236,100	243,200	250,500	258,000	265,700	265,700	279,700
Before-Tax Cash Flow	82,600	88,800	95,100	101,700	108,500	115,500	122,700	163,100	163,100	177,100
- Income Taxes	23,300	25,000	26,800	28,700	30,600	32,600	34,700	45,100	45,400	49,300
After Tax Cash Flow	59,300	63,800	68,300	73,000	77,900	82,900	88,000	118,000	117,700	127,800

YEAR 1 OPERATING FORECAST

Potential Gross Rent	227,500
Vacancy Allowance	11,400
	216,100
Other Income	0
Effective Gross Income	216,100
Operating Expenses	
Management Fee	0
Salary Expense	0
Utilities	0
Insurance	6,900
Supplies	0
Advertising	1,000
Maintenance & Repairs	23,000
Property Taxes	29,500
Total Expenses	60,400
Net Operating Income	155,700

DEBT SERVICE

Mortgage Amount	\$1,135,465	Mortgage Calculator	
Mortgage Term	30		
Interest Rate	5.00%	Monthly Debt Service	\$6,095.42
Amortization	12	Annual Debt Service	\$73,145.07

DISCOUNTED CASH FLOW ANALYSIS

Anticipated holding period:	10	Selling Price:	1,946,250
		- Selling Costs:	58,388
Purchase Price:	1,135,465	Net Sales Proceeds:	1,887,863
Transaction Costs:	285,093	- Mortgage Balance:	923,600
Initial Investment Basis:	1,421,558	Before-Tax Equity Reversion:	964,263
Mortgage:	1,135,465	- Taxes Due on Sale:	109,400
Initial Equity:	286,093	After-Tax Equity Reversion:	854,863

	0	1	2	3	4	5	6	7	8	9	10	
BTCF		82,600	88,800	95,100	101,700	108,500	115,500	122,700	130,100	129,800	143,500	
BTER		0	0	0	0	0	0	0	0	0	964,263	
Total	(286,093)	82,600	88,000	95,100	101,700	108,500	115,500	122,700	130,100	129,800	1,107,763	
											Before-tax IRR	37.69%

	0	1	2	3	4	5	6	7	8	9	10	
ATCF		59,300	63,800	68,300	73,000	77,900	82,900	88,000	118,000	117,700	127,800	
ATER		0	0	0	0	0	0	0	0	0	854,863	
Total	(286,083)	59,300	63,800	68,300	73,000	77,900	82,900	88,000	118,000	117,700	982,663	
											After-tax IRR	30.25%



Additional Renderings of Clawson Square

10.D Programs Available for Financing

Tool/Program	Lead Agency/ Contact Information	Tool Type	Information
Public Spaces & Community Places	Michigan Economic Development Corporation (MEDC); to apply, visit: https://www.patronicity.com/puremichigan	Donation/ Crowdfunding	This creative funding mechanism is available to projects located in Michigan communities which contain a traditional downtown. Projects that could be eligible for a MEDC grant match include streetscape beautification, public plaza development, bike paths & non-motorized infrastructure, and any other project that activates public space or community place.
Safe Routes to School Michigan	Michigan Department of Transportation (MDOT) Meg Thomas, Director MThomas@michiganfitness.org (517) 908-3814 Applications available January 2016	Grant	Safe Routes to School (SR2S) is an international movement to make it safe, convenient and fun for children to bicycle and walk to school. When routes are safe, walking or biking to and from school is an easy way to get the regular physical activity children need for good health. Safe Routes to School initiatives also help ease traffic jams and air pollution, unite neighborhoods and contribute to students' readiness to learn in school. http://saferoutesmichigan.org/
Transportation Alternative Program (TAP)	MDOT	Grant	TAP is a competitive grant program that funds projects such as bike paths, streetscapes, and historic preservation of transportation facilities that enhance Michigan's intermodal transportation system, promote walkability, and improve quality of life for Michigan citizens. http://semcog.org/Portals/0/Documents/Plans-For-The-Region/Transportation/TAP/TAPTransportationAlternativesProgramOverviewPresentationMarch2015.pdf
Commercial Rehabilitation District	MEDC Stacy Esbrook esbrooks@michigan.org (517) 819-3144	Incentive	Encourages the rehabilitation of commercial property by abating the property taxes generated from the new investment for a period of up to 10 years. The new investment must result in improvements aggregating to more than 10 % of the true cash value of the qualified facility. http://www.michiganbusiness.org/cm/files/fact-sheets/commercialrehabilitationact.pdf
Brownfield Redevelopment Program	MEDC Stacy Esbrook esbrooks@michigan.org (517) 819-3144 Michelle Bakun bakunm@michigan.gov (586) 819-3144	Resource, Incentive	Properties that in the not-so-distant past were considered lost forever are now being actively pursued for revitalization. In Michigan, brownfields are considered properties are contaminated, blighted, functionally obsolete or historic. http://www.michiganbusiness.org/cm/files/fact-sheets/brownfieldredevelopmentauthoritypa381.pdf
Michigan Community Revitalization Program (MCRP)	MEDC Stacy Esbrook esbrooks@michigan.org (517) 819-3144	Incentive for business owners	An incentive program designed to promote community revitalization that will accelerate private investment in areas of historical disinvestment; contribute to Michigan's reinvention as a vital, job generating state; foster redevelopment of functionally obsolete or historic properties; reduce blight; and protect the natural resource of this state. The program is designed to provide grants, loans, or other economic assistance for eligible investment projects in Michigan. http://www.michiganbusiness.org/cm/files/fact-sheets/communityrevitalizationprogram.pdf

Tool/Program	Lead Agency/ Contact Information	Tool Type	Information
Redevelopment Ready Communities (RRC)	MEDC RRC@michigan.org (517) 373-9808	Service	RRC supports communities to actively engage stakeholders to vision and plan for the future. Based on a set of best practices, RRC measures key community and economic development elements and certifies communities that integrate transparency, predictability and efficiency into their development practices. http://www.michiganbusiness.org/cm/files/fact-sheets/redevelopmentreadycommunitiesprogram.pdf
Michigan Main Street	Michigan State Housing Development Authority (MSHDA) info@michiganmainstreet-center.org (517) 241-1737	Technical Assistance	The Michigan Main Street Center staff provides technical assistance and services to communities at three different levels: Associate, Selected, and Master. Each level is designed to assist the community in tackling increasingly sophisticated downtown revitalization efforts. http://www.michiganmainstreetcenter.com/AboutTheProgram.aspx
Main Street Oakland County (MSOC)	Oakland County Economic Development and Community Affairs Bob Donohue Program Coordinator (248) 858-5444	Technical Assistance	Each MSOC is a unique economic development program with a historic preservation philosophy and an emphasis on "sense of place." They help local government develop their downtowns as vibrant, successful districts that serve as the heart of the community. https://www.oakgov/advantageoakland/programs/Pages/main-street.aspx
Pure Michigan Business Connect (PMBC)	MEDC	Service, Resource for business owners	PMBC is a multi-billion dollar public/private initiative developed by the MEDC connecting buyers to suppliers of Michigan goods and services. Michigan companies can sign up for free to access the premier business-to-business (B2B) network and be introduced to opportunities to expand their supply chain within the state and access Michigan service providers, including pro bono and discounted services, such as legal, accounting, web development, logistics and human resource assistance. http://www.michiganbusiness.org/cm/Files/Business_Connect/PMBC_B2B-market_sheet.pdf
Employer Resource Network (ERN)	MEDC communityventures@michigan.org	Service, Resource for business owners	ERNs are private/public partnerships that improve talent retention and engagement through employee support and training. ERNs are joint ventures combining funds from annual employer membership fees, public funds and foundation grants. Most of the funding is targeted toward employee job retention and training activities that provide long term savings for participating businesses. The success of ERNs in improving job retention rates can mean an outstanding return on investment for participating businesses. Companies of any size or sector can form a successful ERN. Businesses that wish to improve their employee retention rate, pay a living wage, embrace the important wrap-around services as part of their business model, and are willing to partner with local agencies and service providers are ideal partners to join an ERN. http://www.kalamazocounty.org/document-library/doc_view/4710-2015-05-15-shared-prosperity-workshop-packet

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