



NAUTICAL MILE COMMUNITY DESIGN CHARRETTE

SUMMARY REPORT

DRAFT - JANUARY, 2016

RESILIENT | Macomb

Produced by

LIAA



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Introduction

The Resilient Macomb project focused on fostering economic and climate resilience in coastal communities located along Lake St. Clair in Macomb County, Michigan. The project was conducted from January through December 2015 by the Land Information Access Association (LIAA), a non-profit planning organization in Traverse City. The Resilient Macomb project gathered diverse stakeholders to identify climate vulnerabilities and recommend actions for managing coastal resources in coastal Macomb County. The Resilient Macomb project was one of a handful of similar projects conducted in communities across the state under LIAA's Resilient Michigan program.

As a part of the Resilient Macomb project, an interactive design workshop, or charrette, was held to investigate design options and strategies to foster greater economic resilience and improved marketing of community assets along the Nautical Mile in St. Clair Shores. A charrette is a multi-day collaborative planning event that engages community members, planners, and designers to create a feasible plan for the community. The Nautical Mile Community Design Charrette aimed to establish a vision for the waterfront, roadways, and public spaces within this unique corridor that runs along Lake St. Clair in the City of St. Clair Shores.

The Nautical Mile was chosen for this design charrette based on conversations with Macomb County planners about the corridor's untapped potential to serve as a vibrant, mixed-use coastal district. In addition, the Nautical Mile Tax Increment Finance Authority (TIFA) Board expressed interest in solidifying a vision for the corridor after several years of visioning exercises. The Nautical Mile has been slow to redevelop despite a large base of community support, and community leaders from the County and City felt that a design workshop would be a useful way to reenergize the vision for the corridor.

The four-day charrette was held from October 26th-29th, 2015 at the Blossom Heath Inn on Jefferson Avenue. The Blossom Heath Inn is within the Nautical Mile in the City of St. Clair Shores. Planners and landscape architects from LIAA coordinated the charrette, with additional assistance from the Viridis Design Group of Grand Rapids, Michigan.



The Nautical Mile



Many buildings along Jefferson Avenue are built near the setback line with a landscape buffer between the building and sidewalk.

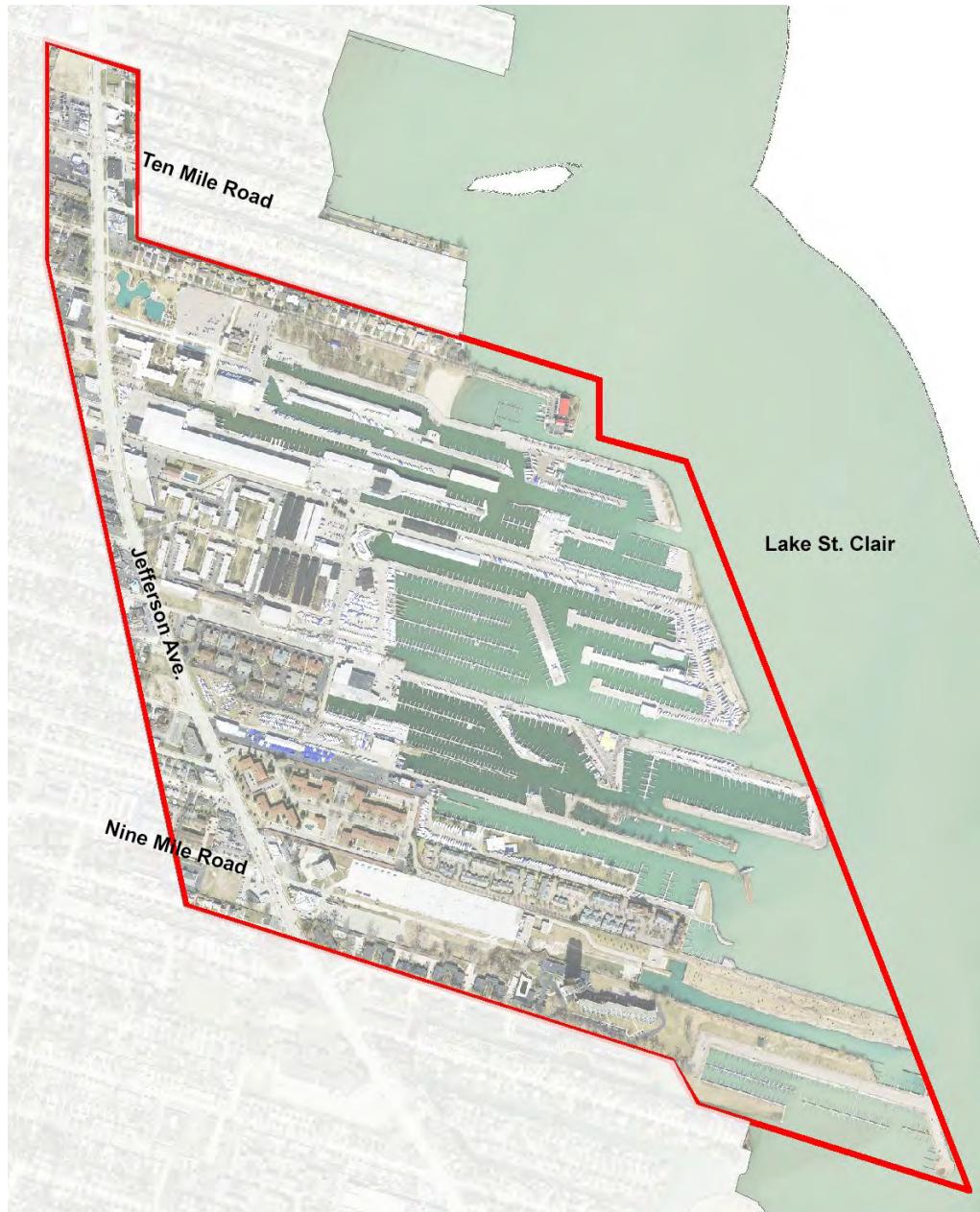
The charrette study area consists of the properties and roadways along Jefferson Avenue in St. Clair Shores between roughly 9 Mile Road and 10 Mile Road and between Jefferson Avenue and Lake St. Clair. A map of the charrette study area can be found on the following page.

A variety of existing land uses, both public and private, can be found within the study area. Jefferson Avenue is lined with restaurants, offices, retail stores, marina facilities, apartment complexes, and public spaces. Development along the corridor tends to consist of individual buildings with parking lots located in front of, behind, or alongside the structures. Many existing buildings are built at or near the front setback line with a landscaped strip between the structure and sidewalk.

The properties between Jefferson Avenue and Lake St. Clair primarily consist of private marina facilities. These marinas include a mix of docks, boat storage buildings, boat sales showrooms, and marine service facilities. In addition, many of the marinas have waterfront restaurants located on site.

The study area also includes Blossom Heath Park and Pier, Wahby Park, a county-owned stormwater control facility and public space, and the Blossom Heath Inn. Blossom Heath Park and Pier serves as the primary public access point to Lake St. Clair within the Nautical Mile. However, these parks are only open to residents of the City of St. Clair Shores. The Blossom Heath Inn is a historic, City-owned property that is leased to a private event management company that operates the facility as an event space. Residential condominium developments and private yacht clubs are also located within the study area.

Jefferson Avenue is one of the primary north-south roadways in the region, carrying approximately 22,000 vehicles each day. Within the study area, Jefferson Avenue has five lanes, two travel lanes for both north and southbound traffic and a center left turn lane. Sidewalks are present along each side of Jefferson Avenue throughout the study area. Although somewhat limited, crosswalks allow pedestrian access across the roadway at intersections, with signalized crosswalks located at the 9 Mile Road, 10 Mile Road, and Fresard Street intersections. Unsignalized mid-block crosswalks, with pedestrian refuge islands, can be found near the Harper Lake Avenue and Revere Street intersections. In 1997-98, the Nautical Mile Tax Increment Finance Authority (TIFA) completed a streetscape project on Jefferson Avenue that included reconstructed sidewalks with decorative pavers and decorative street lighting. A mixture of public and private roads and sidewalks provide access to the properties and spaces east of Jefferson Avenue.



The Charrette study area.

Charrette Preparation

Prior to the charrette, the project team gathered information and data about the study area to help inform charrette activities and the planning process. Information included property tax data, parcel data, road widths, location of existing sidewalk infrastructure, parking locations, existing development character, existing zoning regulations, current land uses, daily traffic counts, and past and current plans for the study area.

The project team also conducted a walking audit of the study area to identify potential areas of concern and document existing visual character. The team also interviewed community stakeholders to determine important topics of focus for the charrette process.

The charrette studio, or working space, was set up in the Blossom Heath Inn on Jefferson Avenue within the study area. To promote stakeholder and public participation in the charrette process, the project team issued press releases to local media outlets, sent personal invitations to key stakeholders, and publicized the event through email newsletters and social media sites. City staff provided the project team with relevant stakeholders to contact via email.

Charrette Process and Activities

The following pages provide an overview of each charrette activity. The findings from each activity were used to identify the key issues and themes found later in this report.

Day One

The charrette began with a public walking tour and audit and concluded with a public kickoff meeting.

Walking Tour and Audit

The walking tour and audit gave citizens, stakeholders, and project team members an opportunity to experience Jefferson Avenue from a pedestrian perspective and identify positive and negative aspects of the corridor. Participants scored the pedestrian experience using worksheets that asked them to rank and assess the friendliness, comfort, and safety of various locations along the Nautical Mile. The worksheet asked that the following items be considered when scoring the corridor.

Walker Friendliness

- Are sidewalks clear of debris or overgrown vegetation?



- Are there street trees?
- Are there interesting storefronts or points of interest like art and historical markers?

Comfort

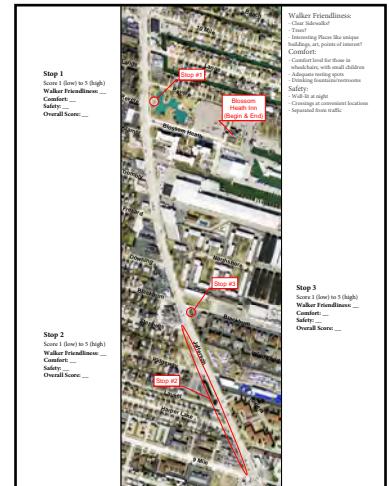
- Would this space be comfortable for those using wheelchairs, pushing baby strollers, or in a large group?
- Are there adequate resting spots?
- Are there drinking fountains, public restrooms, and other amenities available?

Safety

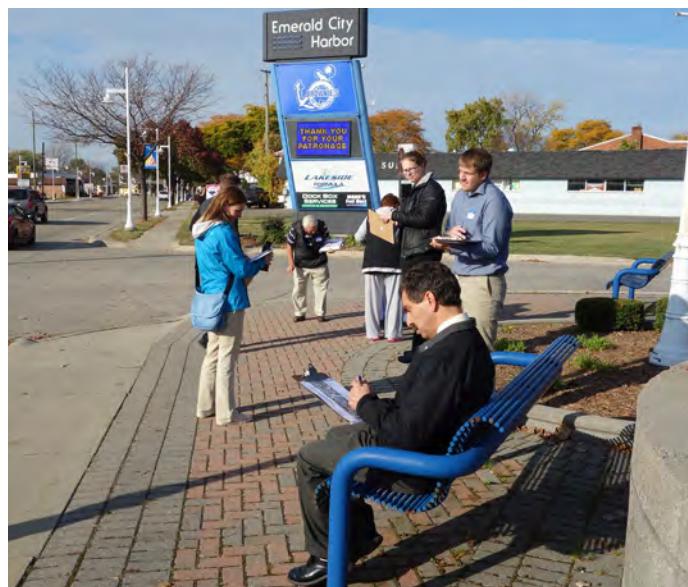
- Generally, do you feel safe on this walk?
- If you were to walk this route at night, would it be well-lit?
- Are crossings located at convenient locations?
- Does the timing of crosswalk signals at intersections allow young children and the elderly to safely cross?
- Do you feel safely separated from vehicular traffic?

At three locations along the Jefferson Road corridor, walking tour participants scored the pedestrian experience on a scale of 1 (low) to 5 (high) in walker friendliness, comfort, and safety and also gave an overall score for each location. Upon completion of the tour, the project team compiled the individual scores and calculated the following composite scores at the three locations (at Wahby Park, near the Ridgeway Street intersection, and near the Blackburn Street intersection).

- Location One – Wahby Park: 3
- Location Two – Ridgeway Street Intersection: 2.5
- Location Three – Blackburn Street Intersection: 2.5



A walking tour map identified the route of the tour and marked specific stops where the pedestrian experience was to be assessed.



Kickoff Meeting

The project team started the kickoff meeting with a presentation providing information about the history of the Nautical Mile, an overview of the charrette process, and a summary of existing conditions in the study area. Next, the project team facilitated a series of brainstorming activities with participants. Working in small groups, participants were asked to identify, map, and illustrate:

- Five positive places in or aspects of the study area.
- Five negative places in or aspects of the study area.
- Three improvements for the study area.
- Four ideas of what the study area should look like in 20 years.

Following the brainstorming exercise, participants prioritized ideas the ideas generated by voting for those that they felt were most important. Then, a representative from each small group summarized the results of their table's activities to the entire group.

The results from the kickoff meeting were summarized and reviewed by the project team. This information, along with the walking tour audit results, formed the basis of the preliminary design concepts drafted in Day Two.

Day Two

On the second day of the charrette, the project team began creating preliminary design concepts and alternatives for the study area. The project team also held meetings with stakeholder groups to gather additional input on the study area and allow stakeholders to provide feedback on the preliminary design ideas. Over the course of the day, the charrette team met with stakeholder groups consisting of area residents, area business owners, and local officials and staff members. The input received during the second day of the charrette reiterated many of the ideas generated during the first day's meetings. Development of preliminary design concepts and ideas continued throughout the day in preparation for the activities of day three.



Day Three

During the third day of the charrette, additional stakeholder meetings were held to gather additional feedback on the design ideas being generated. The charrette team incorporated suggestions from these meetings into the conceptual designs and began work on new ideas provided during the day. During the evening, a public open house was held in the charrette studio. The open house provided an informal setting for stakeholders and members of the public to review the preliminary design concepts created by the project team and provide comments and feedback.

Day Four

On the final day of the charrette, the project team worked to finalize its recommendations and design concepts for the study area based on input from the previous day's stakeholder meetings and open house. At the end of the day, the team presented the final recommendations and design concepts at another public meeting.



Charrette Findings and Recommendations

The results and recommendations of the four-day Nautical Mile Community Design Charrette are provided on the following pages. It is important to remember that many of the concepts and ideas are just that – concepts and ideas. While these concepts have been vetted by the project team through preliminary analysis and stakeholder verification, additional study, analysis, and design will be required. Implementation of these recommendations will require cooperation with property owners and local, regional, and state agencies.

A large portion of the stakeholder and community discussions during the charrette involved, in one way or another, enhancing the Nautical Mile and creating a unique identity, or sense of place, within the study area. Creating a more vibrant, welcoming atmosphere with stronger connections to Lake St. Clair was seen by many participants as a way to improve the residential, commercial, and entertainment options available to local residents and encourage economic development and tourism. Many of the comments provided during the charrette noted that, despite its location on the shores of Lake St. Clair, the study area doesn't provide a "waterfront" experience. Other points of emphasis included a lack of connectivity within the study area and the need for additional public waterfront access.

Four Major Themes

Over the course of the four-day charrette, four common themes were identified and became the primary focus of the recommendations and design concepts. Those themes were:

Show Me the Water: Public Access and Public Space

Public space near the water is incredibly important to residents and visitors, but it is underutilized. Wherever possible, views of the water should be created and maintained along the Nautical Mile at street level and from rooftops and balconies. Limits on public access to the waterfront should be addressed and any future development on private properties in the study area should consider the inclusion of waterfront spaces that are open and accessible to the public. Boat storage is an important use of land along the Mile, and residents and visitors enjoy the presence of boats in the area. However excessive boat storage that blocks views of Lake St. Clair detracts from the area's potential as a walkable, vibrant space.

Welcome Visitors: Wayfinding

Visitors and residents are often unsure how to access restaurants and amenities within the Nautical Mile study area. Fences, confusing signage, and an unclear sense of public and private property are common frustrations. Wayfinding is essential to eliminate stress from the visitor experience and make it clear where visitors and residents are not only "allowed" to go, but "welcome" to go. Wayfinding efforts should include clear vehicular and pedestrian signage, elements marking the arrival to the Nautical Mile, and makers for various destinations.

Stop and Explore: Create Experiences

The Nautical Mile is more than themed signage and marina slips. The Mile is home to thriving restaurants and many successful local businesses. Creating connections between areas of activity will help visitors and residents better access and enjoy the amenities along the Mile. Additionally, the creation of dynamic, human-scale spaces that relate to the waterfront will help the Nautical Mile become more of a destination for those who do not own a boat. Connections should be made for boaters leaving the marinas, travelers along Jefferson Avenue, and those who live in the area. Festive lighting, increased retail activity, year-round events, and redesigned public spaces will help create a sense of cohesion and liveliness.

By Land & By Sea, By Car & By Foot: Multi-modal Transportation

Corridor improvements like traffic calming, pedestrian infrastructure, and non-motorized pathways will help create a place where pedestrians, drivers, bicyclists, and boaters will find the Nautical Mile comfortable, safe, accessible, and functional. Suggested improvements for complete streets include benches, public art, redesigned transit stops, and non-motorized lanes or pathways.

Recommendations by Theme

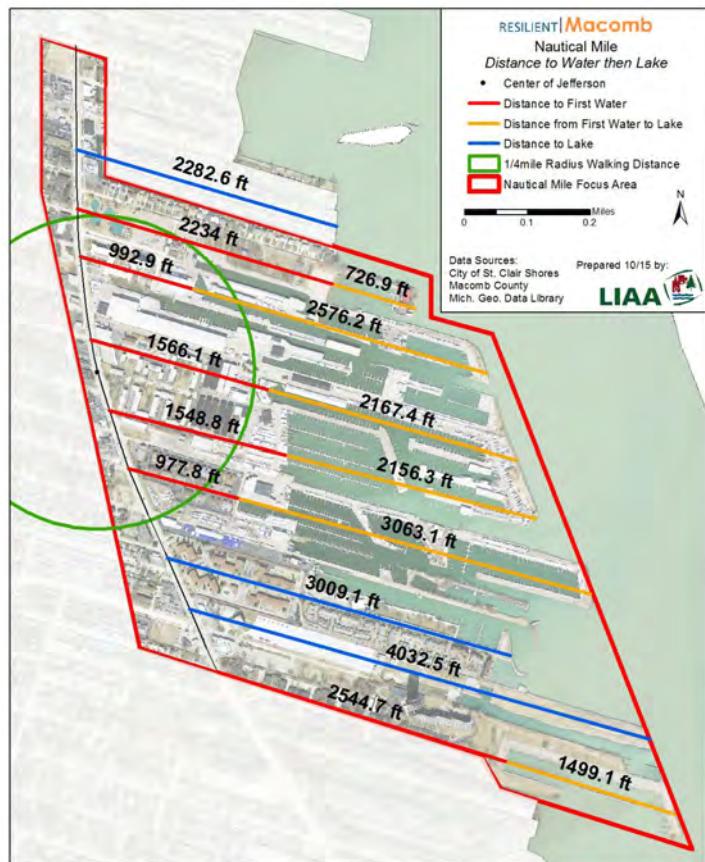
Over the course of the charrette, the project team developed a series of recommendations related to the four major themes identified during the charrette process.

Distances between Jefferson and Lake St. Clair are significant.

Show Me the Water

During the charrette process, many participants noted that it is nearly impossible to see Lake St. Clair from any point along Jefferson Avenue within the Nautical Mile. It became clear that there was a desire to create a better connection between Jefferson Avenue and the Lake. The physical distance between Jefferson and Lake St. Clair is nearly 1,000 feet in the closest locations and generally buildings and other physical structures block any views of the water. A generally comfortable walking distance for most people is $\frac{1}{4}$ mile (1,320 feet), making the physical distance between Jefferson and Lake St. Clair a clear impediment between the area's major thoroughfare and the waterfront.

A majority of the property between Jefferson Avenue and the Lake is private, preventing open public access to the Lake. Limited public opportunities to access the Lake are provided at Blossom Heath Park at the north end of the Mile and a County-owned property at the south end of the Mile. A number of waterfront restaurants can be found on the private properties along the Mile, but



access routes to them are sometimes confusing and unwelcoming. Hints of the waterfront nature of the area can be found along Jefferson in visual cues found in some of the area's architecture and streetscape treatments. A stronger nautical theme along the corridor could help strengthen the feeling that the Nautical Mile is truly a waterfront district.

The charrette team developed a number of recommendations to improve the connection between the corridor and the Lake and improve public access to Lake St. Clair. Improvements to Blossom Heath Park and the public pier at the north end of the Mile could provide a more dynamic and inviting experience for residents and visitors, providing a place along the mile that promotes more interaction between people and the lake. The conceptual design for potential improvements to Blossom Heath Park and the public pier found below shows improvements including enhanced pedestrian connections to Wahby Park and Jefferson Avenue, a new multi-use community building, open green spaces, a public boardwalk on the lake, and a focal point sculptural element at the end of the pier. The conceptual plan also incorporates existing plans for the upgrades to the Coast Guard harbor area, including filling of the stagnant west side of the harbor and access drive to the Coast Guard Station.



Creating pleasing, dynamic spaces at Blossom Heath Park and on the public pier, and opening them to the public, will provide greater opportunity for people to have a meaningful connection to Lake St. Clair.

Creating waterfront open space and a public boardwalk in Blossom Heath Park would provide an enhanced space for public events, festivals, and gatherings. See the image on the following page for an example of how this improved space could be used for a community festival. Improving the public pier to increase its usability and make it a more enjoyable space would also help draw people to the water and increase the perception of the Nautical Mile as a place where one can experience the Lake. Ideas for the potential improvement of the public pier can be seen on the following page. Creating a more aesthetically pleasing space with better seating, interactive landscape elements, and space for smaller events or gatherings makes the pier a more people-friendly place. Additionally,



Potential improvements to Blossom Heath Park and the public pier could create a community gathering space where festivals and events are held.

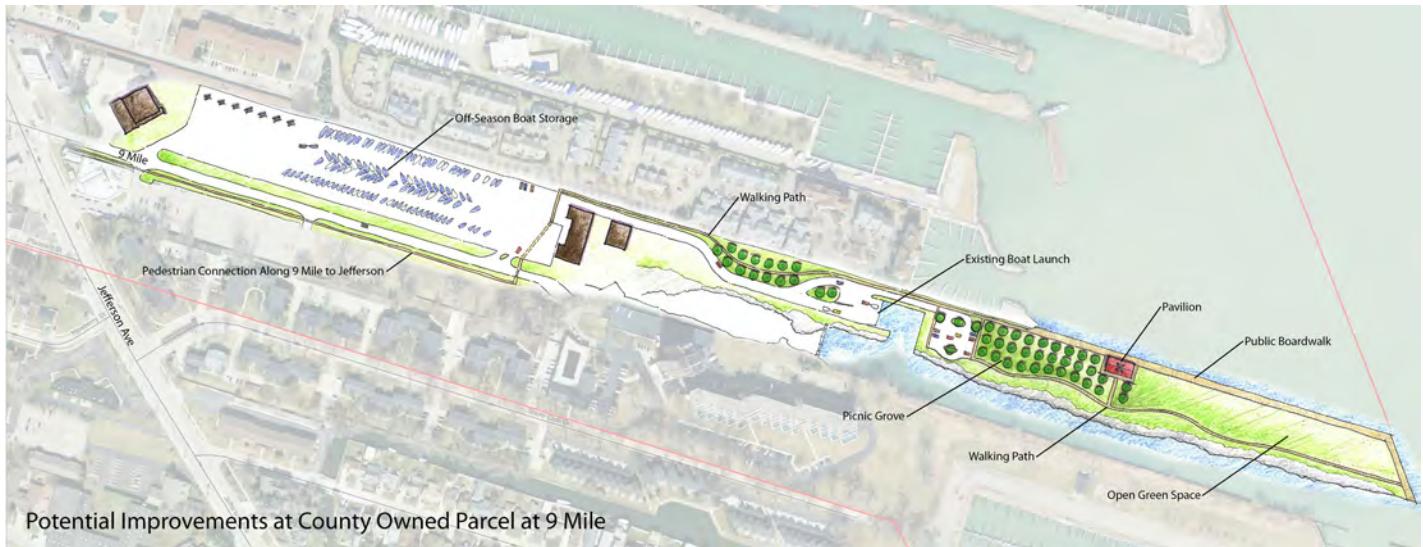


Improvements on the public pier could create a more people-friendly place that provides spaces for gathering, interactive landscape features, and opportunities for event or food vendor setup.

the charrette team recommends making the park and pier open to the public instead of limiting access to only City residents.

Recommendations for the County-owned property at the south end of the Mile include the addition of inviting, publicly accessible recreation space to the land that extends into Lake St. Clair. A green open space, public boardwalk, pavilion, and picnic grove are shown on the conceptual drawing on the following page. Amenities like these would give people a pleasurable place to enjoy Lake St. Clair

without needing to get out on a boat. The plan also recommends utilizing the large parking lot on this property for seasonal boat storage in order to eliminate the need to store boats on properties along Jefferson Avenue, improving the aesthetics of the corridor for both pedestrians and motorists.

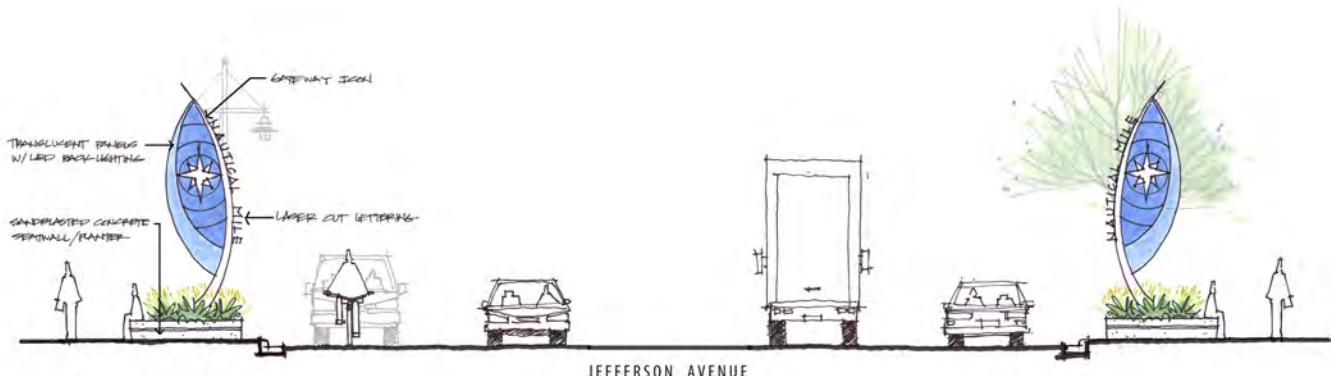


Potential improvements at the County-owned property to the south of the study area could provide additional opportunities for the public to enjoy the Lake.

Welcome Visitors

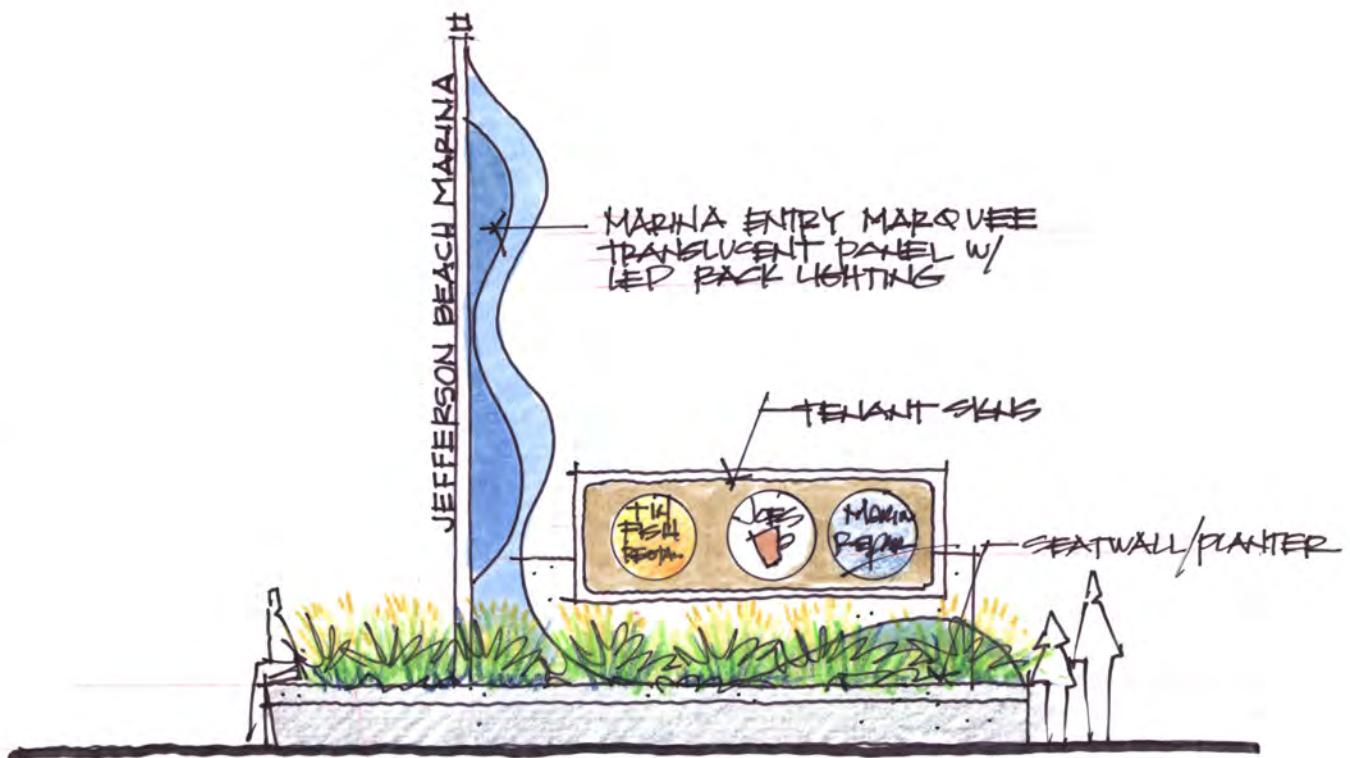
Input received from participants in the charrette process noted that the atmosphere along the Jefferson Avenue corridor is “uninviting” and gives the perception that access to Lake St. Clair is limited to only those who have boats at the local marinas. Fences, restricted access to public spaces, and existing signage all contribute to this perception. It was also frequently mentioned that it is not always clear that the Nautical Mile is located on the Lake for those traveling the corridor. Existing signage along the corridor can be confusing to those who are not familiar with the area and does a poor job of indicating where access to the Lake, on public or private properties, can be found.

The charrette team made a series of recommendations for wayfinding and thematic additions to the corridor to reinforce its correlation with the Lake and to better direct people to the Lake, public spaces, and businesses along the lake. The creation of a cohesive set of streetscape amenities, signage, and other thematic elements will help reinforce the perception of the Nautical Mile as a waterfront destination and a special place. Conceptual drawings showing recommendations for streetscape improvements, wayfinding, and thematic marquee and tenant signage can be seen on the following page.



GATEWAY SECTION

New streetscape amenities, like the planters and thematic identification signage shown above, would help announce an entry into a special place at the gateways on the north and south of the Nautical Mile on Jefferson Avenue.



MARQUEE & TENANT SIGN

Consistent, themed signage for marinas and other commercial establishments off of Jefferson Avenue would reinforce the Nautical Mile's impression as a waterfront destination and help remove confusion for motorists and pedestrians.

Stop and Explore

Current conditions along the Nautical Mile do little to persuade visitors and customers to spend any additional time exploring the area. Most of the development along the corridor encourages people to drive to the one location they are intending to visit, get what they need, and then leave. The charrette team recommends promoting walkable redevelopment on properties along the Mile to create a vibrant, welcoming atmosphere that becomes a year-round destination. This walkable redevelopment should include a mix of uses including residential, commercial/retail, and entertainment. Connecting adjacent properties and developments with pedestrian infrastructure and providing publicly accessible open space along the waterfront is also recommended. This type of redevelopment would create a node of activity within the community and provide a village-like atmosphere near the Lake. Providing additional residential density along the Mile also increases the walkability of the area and provides an increased customer base for local shops and restaurants.

A variety of ideas to improve the year-round attractiveness of the Mile were developed during the charrette. They included a list of potential events that would draw visitors during the winter months and amenities that celebrate and promote the area's unique history and cultural significance. Ideas for potential new winter events included:

- An ice fishing tournament
- Winter kayaking and paddle sports
- An ice hockey tournament
- Winter carnival
- Winter beer festival

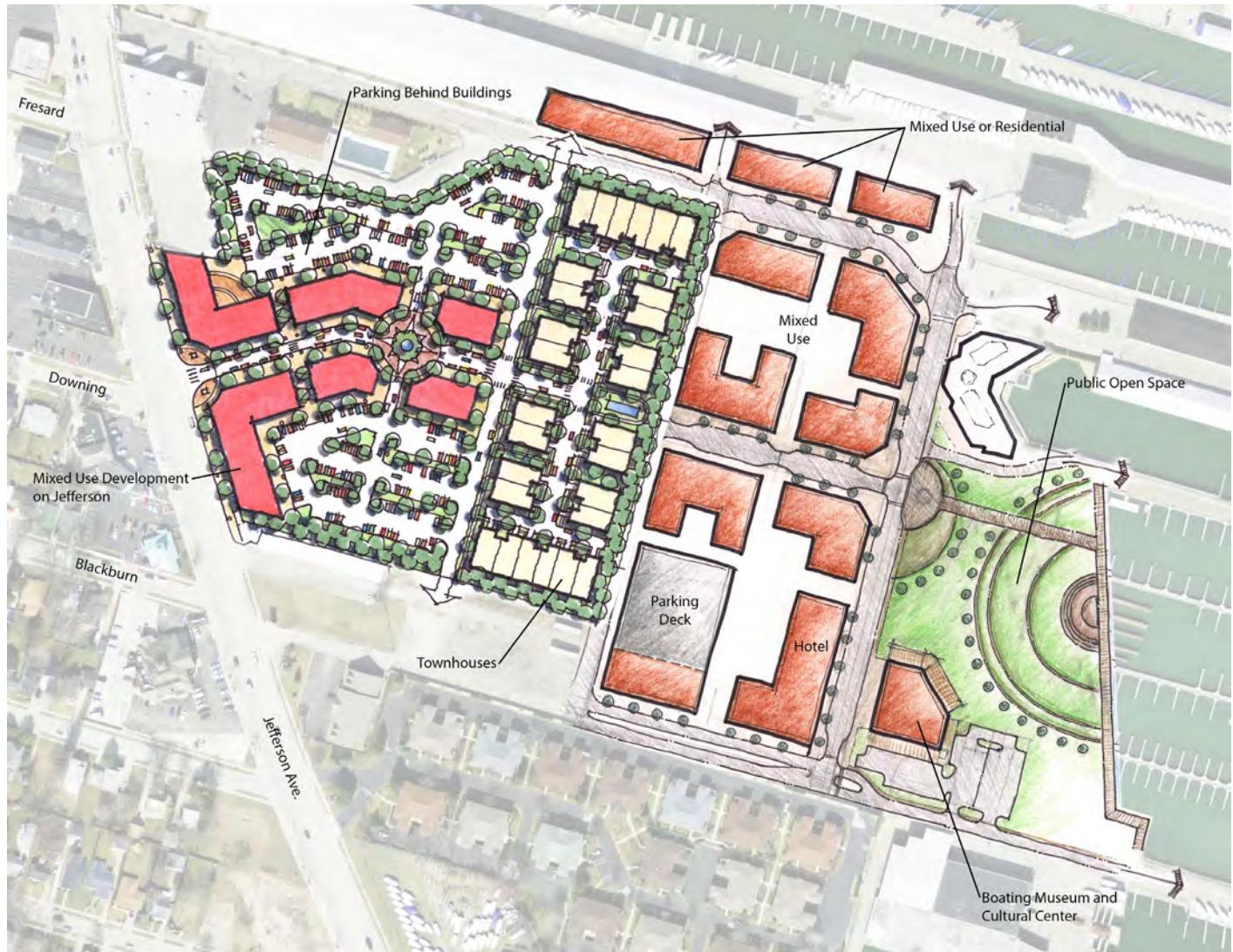
An example of using one of these types of events to draw visitors to the area is the annual pond hockey tournament held in Whitmore Lake, Michigan.

In order to increase residential densities and create a village-like atmosphere, a more compact pattern of development is needed. The charrette team recommends promoting redevelopment that sites buildings close to roadways to improve the pedestrian experience and aesthetics of the corridor. In an urban environment, pedestrians feel more comfortable with buildings located on the sidewalk due to the sense of enclosure provided. Buildings with multiple stories help provide for additional residential density opportunities and capitalize on their added height to provide views to the Lake from residential units and upper story or rooftop restaurants. It is also recommended that a variety of year-round events be planned along the Mile to increase visitation during the winter months. These events could be held at existing public spaces or in common spaces of future redevelopment areas.

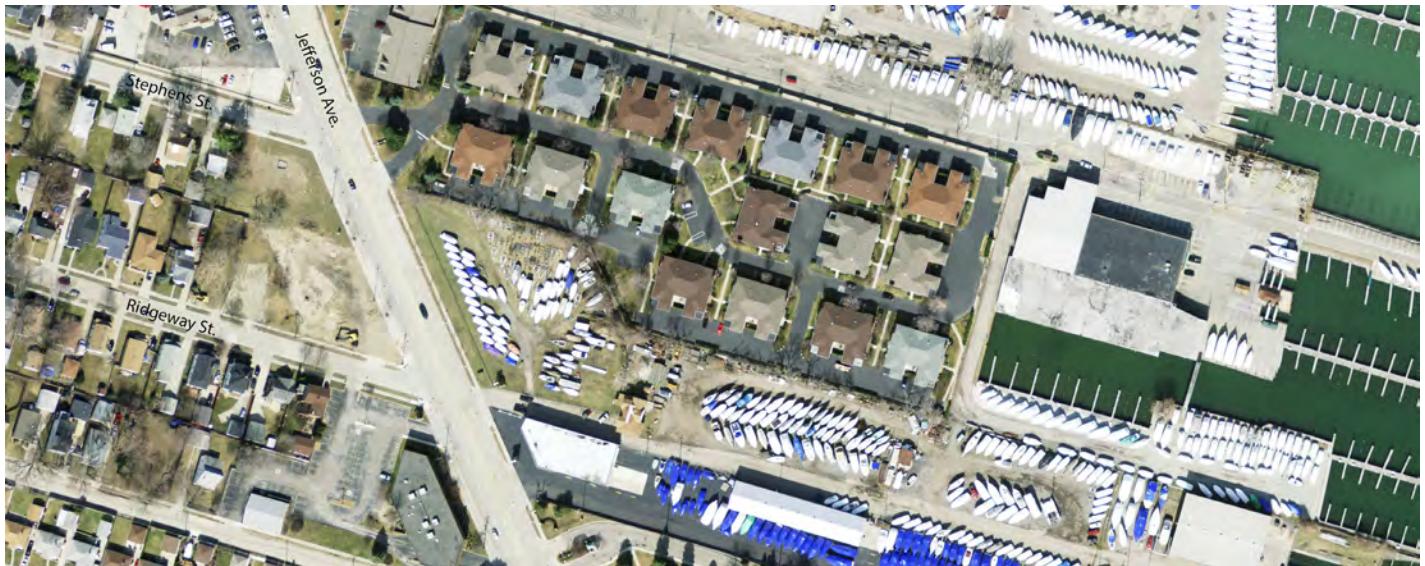
The conceptual plans on the following pages show what potential compact, mixed-use development in the area could look like. Mixed-use buildings, effective pedestrian and vehicular circulation, publicly accessible open space on the waterfront, and the inclusion of an event space or maritime museum would help increase activity in the area and create an improved sense of place for the Nautical Mile. In order to accommodate and promote this type of redevelopment, it will require cooperation between the City of St. Clair Shores and private property owners. It will be necessary that the City's Zoning Ordinance be reviewed to ensure that the desired types and forms of redevelopment are allowed on the properties within the Nautical Mile. The City could also investigate the feasibility of adopting form-based zoning standards and regulations that would further dictate the type of development allowed in the area and help eliminate the possibility of future development that does not match the vision for the area.

Developers and property owners would also need to accommodate this type of development by modifying how existing uses, particularly marina uses, in these areas are operated. Marine service and boat storage would need to be

relocated to alternative locations in order to facilitate the recommended compact, mixed-use development. These changes could help make better use of these valuable lakefront properties, providing additional revenue and creating an active, year-round community with an improved sense of place. Convincing property owners to transition away from existing boat storage uses on these properties could prove to be difficult, as boat storage infrastructure is already in place and generates substantial income for the marinas.



The conceptual drawing above shows how mixed-use, pedestrian-friendly redevelopment could transform the properties between Jefferson Avenue and the Lake by creating a vibrant center of activity on the waterfront. The drawing shows opportunity for mixed-use buildings along, and just off of, Jefferson with parking tucked behind. A residential townhouse cluster in the middle of the site provides additional residential density, and a group of mixed-use buildings near the water provide ample space for residential, retail, entertainment, and hotel uses. A parking deck is shown in the concept to ensure that parking demand for the increased intensity of uses can be accommodated. The concept also shows the creation of a large, publicly-accessible open space with an amphitheater that could be used for festivals and community events. A potential boating museum/cultural center is also shown in the waterfront space.



Before



Sample Redevelopment Along Jefferson Ave.

After

Infill development along Jefferson Avenue should include a mix of uses and place buildings close to the road right-of-way in order to create a more walkable environment on the corridor. The conceptual plan shown above incorporates mixed-use development along Jefferson, parking behind the buildings, and additional townhouse residential units behind the mixed-use development. A median in the center of Jefferson would help slow traffic, improve aesthetics, and provide a refuge point for pedestrians crossing the busy road.



Before



After

The before and after images above show what the mixed-use redevelopment concept from the previous page might look like from the perspective of a pedestrian on Jefferson Avenue.



This 3-D digital rendering provides another example of what mixed-use, pedestrian-friendly redevelopment along Jefferson Avenue could look like.



Mixed-use, pedestrian-friendly redevelopment along Jefferson Avenue could incorporate additional thematic streetscape treatments, a median in the road to provide safer crossing points, and architectural styles that create a "lakeside-village" character.



Additional 3-D digital renderings illustrating the potential for mixed-use, pedestrian-friendly redevelopment along Jefferson Avenue.





Residential development in the subarea could be designed to further reinforce the “lakeside village” theme. Attached single-family units, like the townhouses shown in these concepts, provide additional residential density and help create a walkable mixed-use community within the Nautical Mile.



As illustrated on this site at the corner of Jefferson and Blackburn, additional infill redevelopment opportunities along Jefferson could incorporate multiple-story mixed-use buildings that extend toward Lake St. Clair, helping to draw interest and foot traffic from Jefferson into the development sites. Tiered, multiple-story buildings provide opportunities for upper stories and roof top views of the Lake. Additionally, providing decorative lighting along access roads into either new or existing developments east of Jefferson could help draw the attention of corridor travelers and alert them to the fact that there are exciting things happening between the roadway and the Lake.

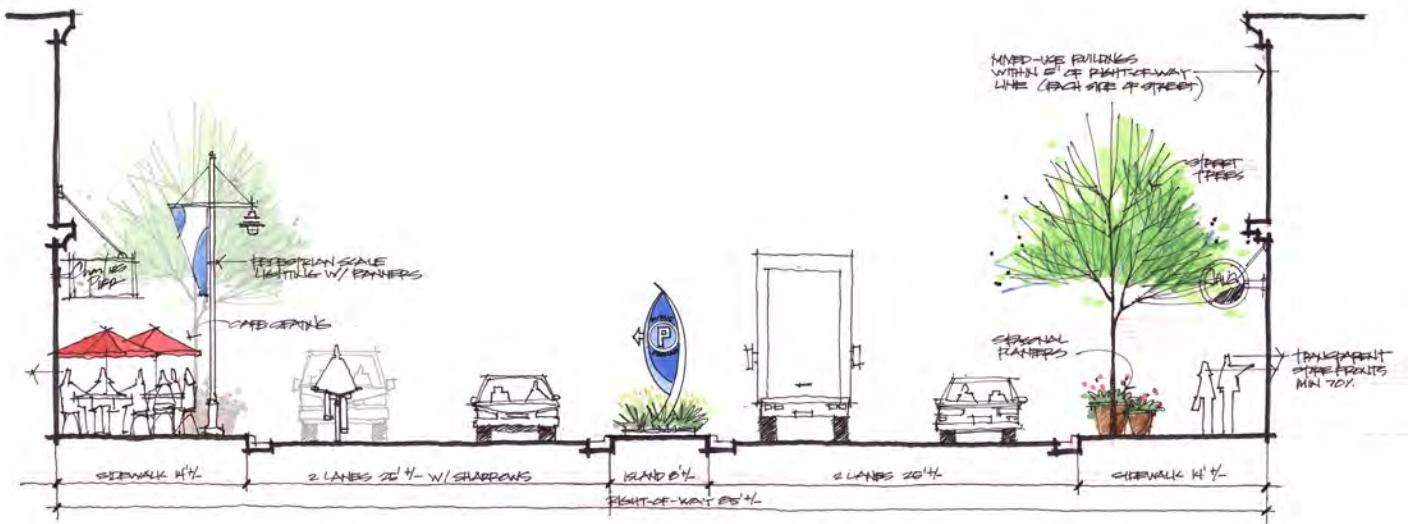


This example of mixed-use infill development at Jefferson and Blackburn provides a more pedestrian-friendly scale and promotes the "lakeside village" theme that charrette participants felt would make the Nautical Mile more welcoming to residents and visitors.

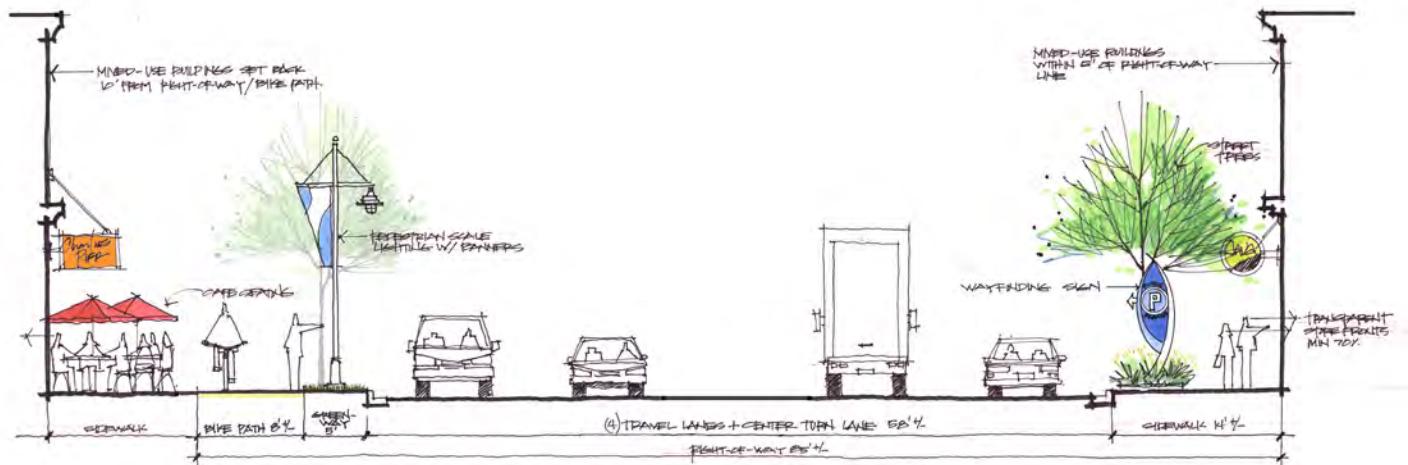
By Land & By Sea, By Car & By Foot

Charrette participants made note of the difficulties faced in traveling the Nautical mile by foot. Generally, the area is most easily accessible by car and boat, with little thought given to the pedestrian experience. Pedestrian safety was also a concern identified during the charrette process. Many of the redevelopment recommendations in the previous section of this report would enhance the pedestrian experience within future redevelopment on properties in the area and increase access to Lake St. Clair. While ample sidewalks exist along Jefferson Avenue, the existing patterns of development do not create a welcoming atmosphere for pedestrian activity.

Promoting or requiring redevelopment and infill development along Jefferson Avenue that placed buildings at the sidewalk's edge would create a more comfortable and inviting experience for shoppers, helping to induce them to spend more time along the corridor and walk between businesses instead of driving from location to location. The wayfinding and thematic design recommendations found previously in this report would also improve pedestrian experiences along Jefferson Avenue. Recommendations from the charrette process also included incorporating either a bike lane on Jefferson Avenue or a shared-use pathway alongside the road in order to allow for the effective, safe passage of bicyclists between businesses and homes in the area. The conceptual drawings on the following page show how these recommendations could be implemented along Jefferson Avenue.



INFILL DEVELOPMENT & STREETSCAPE OPPORTUNITIES - SECTION A'



INFILL DEVELOPMENT & STREETSCAPE OPPORTUNITIES - SECTION B'

These conceptual cross-section drawings of Jefferson Avenue illustrate how infill development at the right-of-way edge, enhanced streetscape elements, thematic wayfinding signage, and the inclusion of bicycle infrastructure could improve the pedestrian experience of Jefferson Avenue.

Recommendations for a Resilient Nautical Mile

Maintaining the water quality of Lake St. Clair is important both environmentally and economically. Preventing the degradation of the Lake helps maintain a healthy Great Lakes system and protect human health. Additionally, maintaining high water quality preserves a valuable natural resource that supports important boating- and fishing-based economies. Recognizing the importance of preserving Lake St. Clair as a valuable natural resource, the charrette team recommends that stormwater best management practices be implemented within the study area as often as possible. Stormwater runoff can negatively impact water quality by introducing pollutants and sediment into the lake and eroding shorelines. In such a developed area, finding the physical space to slow and filter stormwater runoff can be difficult, but the following list of best management practices should be considered for all future public and private development and redevelopment projects.

- Reduction of impervious surfaces (e.g., pavement)
- Including green roofs and other green infrastructure in development projects
- Creating vegetated bioretention areas like rain gardens and bioswales
- Increasing overall tree canopy by implementing a tree planting program

Implementation

Design Guidelines

In an effort to improve the visual appearance of the built environment along Jefferson Avenue, the planning commission and TIFA Board should work with property owners along the corridor to establish a comprehensive set of design guidelines. In general, the design guidelines should establish standards that support a more walkable and pedestrian-oriented corridor. The guidelines should address overall site design (parking, building location, mechanical infrastructure and access), landscaping, building form and orientation (bulk, entrances and façades), and signage. In addition, the guidelines could integrate components of sustainability in landscaping and building façades, such as solar panels and green roofs. Collaborating with local property owners is important, as they can be the biggest advocates of change. It is important to understand that design guidelines are not regulatory documents, they are simply guidelines. However, design guidelines help to establish the foundation for any future zoning changes that might address these components. In developing design guidelines, the *Principles of Urban Retail Planning and Development* by Robert Gibbs should be consulted.

Zoning

The City of St. Clair Shores Planning Commission should consider amending its zoning ordinance to align with and support the design and sustainability

standards outlined in the design guideline document and desired components of the charrette report. The Planning Commission should thoroughly review existing zoning language to determine if it allows and promotes the type of development recommended in this report. Potential amendments could be in the form of an overlay zoning district or an entirely new zoning district. Zoning amendments that allow for a mix of uses will be required prior to the redevelopment of the properties within the study area. In addition, zoning amendments should address parking, landscape, building form and signage standards.

Transportation Alternatives Program (TAP)

The Transportation Alternatives Program was authorized under Section 1122 of the Federal Moving Ahead for Progress in the 21st Century Act (MAP-21). Under the program, each state Department of Transportation is required to allocate 2 percent of its total Federal Highway funds for programs and projects defined as transportation alternatives. Examples of transportation alternatives include non-motorized trails, sidewalks, transit stops or stations, and education and safety programs such as Safe Routes to School. This is a potential funding source for many corridor improvements.

Natural Resource Funding Sources

The Michigan Natural Resources Trust Fund (MNRTF) provides funding assistance for state and local outdoor recreation needs, including land acquisition and development of recreation facilities. This assistance is directed at creating and improving outdoor recreational opportunities and providing protection to valuable natural resources. Grant amounts range from \$15,000 to \$500,000, with a required minimum local match of 25 percent. The Land and Water Conservation Fund (LWCF) provides grants to local units of government to acquire and develop land for outdoor recreation. At least 50 percent match on either acquisition or development projects is required from LWCF applicants. The City of St. Clair Shores and Macomb County should pursue these funding sources in support of efforts to redevelop the public parks within the study area.

Continued TIFA Improvement Funding

The Nautical Mile TIFA functions in a similar way to that of a Downtown Development Authority (DDA). The TIFA Board should continue to oversee efforts to plan for, fund and implement beneficial public infrastructure projects and the redevelopment and revitalization of underperforming commercial properties.

Start Small

Many of the recommendations developed during the charrette will take years to implement. However there are some easily accomplished projects that should be pursued by the City and TIFA Board in the short term. The following recommendations from the charrette team could be addressed in the near future:

- Assess the City of St. Clair Shores Zoning Ordinance to ensure that it accommodates and promotes the type of future development envisioned

for the Nautical Mile study area. Investigation into the feasibility of adopting additional form-based code standards to further dictate development forms and patterns could also be completed during the assessment.

- Create a thematic gateway arrival and wayfinding signage system along Jefferson Avenue.
- Eliminate restraints on public entry into waterfront parks.
- Install decorative lighting along side streets between Jefferson Avenue and Lake St. Clair.
- Pursue funding for the design and construction of improvements to public parks within the study area.
- Begin planning, marketing, and holding winter events within the Nautical Mile study area.