



# Host Field Advantage

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**001**

**Thesis**

**Introduction**



## 001.1 Background

Since the year 1860, people from all over the world have competed in the sporting event of the Olympics (Olympics). It is a spectacle which combines the intense pride of each nation and the fierce competitiveness of amazing athletes. Every four years, this event occurs in a new host city, which has been chosen by the International Olympic Committee. Today the games are much larger, over 12,000 athletes will come to compete and live for two weeks in the host city while around 3 billion people will watch from home (Stoll 2022). Large stadiums are built, along with highways and transit rails and even an entire Olympic village. These mega sporting events are a large undertaking in terms of physical construction, but also a large financial undertaking for the host city which is usually carried out through public funds (Hurley 2018).

This is just one example of large sporting events in society. These events can also exist on a smaller scale such as a collegiate championship event, or a marathon. The common themes across all events are a specific sport or sports, the gathering of people and the event takes place over a certain period of time. During the Olympics, over 200 sports are played (Olympics). On the other hand, an event that consist of one sport could be an auto race, for example. In both instances, many people are brought together to spectate at the event. These are spectators that need to be housed if they are traveling from out of town and can provide economic

benefit in the area. These events typically run one week, but can vary in length of time.

In recent events, an edition of the World Cup has begun in Qatar. The World Cup is a large soccer competition which brings together nations from all over the world and requires an intense amount of sporting infrastructure. For this year's event, Qatar has built eight brand new stadiums and many complexes of housing for spectators. Most of these stadiums will be downsized or demolished after the month-long event (Football 2022). Questions have been raised about the way in which the venues have been constructed and the treatment of spectators at the event. It is estimated that between 4,000 and 3,000 migrant workers died during the 10-year construction window. In addition, these workers were often exploited with the use of slave labor and forced working hours (Dixit 2021). In hopes to improve their reputation and increase investment in Qatar, the government has looked the other way and promoted their games strongly. Unfortunately, this not an uncommon occurrence in events of this kind; the political influence these large events can have which often leads to the mistreatment of certain people. While leaders and investors have benefitted, residents and communities have been displaced, over payed through taxes or been demolished through the production of these events (Donahue 2020).

While the situation in Qatar is a bad stain on the jersey of large sporting events, they can serve a strong purpose in creating an even playing field for the world to compete and create a stage for countries to grow

as some events have shown. It is an opportunity for smaller countries to cheer on their home athletes on the world stage. A true moment of unification and support from nations which is rarely seen in today's geopolitical climate. Sports lead people towards a common goal which creates a united front and something to relate with driving connections between people, culture and national pride. When planned sustainably, these events can be an asset to host communities which can drive economic upturn and psychical development.

At the heart of these events is the competitions which fuel spectators and athletes. Sports have the power to unite stadiums full of people and create a unique atmosphere of community. In addition to these benefits, sports also has many personal benefits. For example, sports contribute to one's psychical health. Studies have shown that competing in sports and psychical activity can improve a person's lifespan significantly. Secondly, sports and physical activity can also improve mental health. Being able to move and sweat contributes to the ability to let go of mental blocks or clear your mind. Thirdly, sports foster social intelligence. Especially in children, sports can create a great atmosphere for kids to meet people and create trust. Lastly, sports and psychical activity give competitors an opportunity to set goals and chase them. Sports can act a small-scale representation of a life event which creates adversity and challenges to overcome. Achieving goals within competition is a great way to improve self-esteem along with working out and getting active. Because of these

aspects, events and spaces which competitions are performing, have a strong place in our society. In this context of this thesis, a recreational center with community programming can give residents spaces to achieve these expected benefits and has value. Specifically in an underprivileged neighborhood such as 7mile / Wyoming, a recreation center can contribute to the overall health of the community in a sustainable way.

## 001.2 Thesis Introduction

Large sporting events are commonly extremely wasteful, massively over-budget and often infringe on the human rights of many citizens through displacement and unsafe working conditions. This thesis proposes a case study for an adaptive-reuse project of a local recreation center where a large sporting event acts as the catalyst to design a space which is adaptive, sustainable and responds the needs of the surrounding community. The focus is to address the unsustainability of sporting events through creating a venue with a sustainable community impact. Through this process, the benefit received by investors and leaders will be shifted to the residents of the host city. A designed sporting architecture could create a strong lasting impact of a large sporting event on a community that can be economically positive and physically sustainable.

The research for this thesis primarily focused on the large event scale. This revealed large dilemmas which encompass entire nations and geo-political systems such as corruption, human rights offenses and unruly investment. Countries often support investment into sports and events to create a skewed perspective of the country. These investments show strong development and dominance; however, the country's residents are struggling. This has been coined "sport-washing" and is a very relevant in the case of Qatar 2022. This thesis also employs research into specific pieces of sports architecture. With the lessons learned from the large-scale events as well as "sport-washing" and precedent studies, this thesis aims to tackle the unsustainability of sporting events at the neighborhood scale with an adaptive re-use project. While there is policy and government solutions possible to end the unfair treatment of communities and residents by sports events, this thesis provides an architectural solution to the problem. Rather than suggesting a possible large sporting event at a specific host city, this thesis will illustrate a specific venue and how a design can respond to the large scale questions of sustainability and equity. Through community engagement, re-using a site, hosting a curated event and retrofitting the site, this architecture can become one piece to a large puzzle of a mega sporting event.

Sports events are used by leaders and investors to grow profit and reputation in many cases, however, as the true value of sports exist in the ability to compete on a fair pitch and to unite people together, it is crucial to create

Sports events are used by leaders and investors to grow profit and reputation in many cases, however, as the true value of sports exist in the ability to compete on a fair pitch and to unite people together, it is crucial to create spaces in which these values can be expressed. These include spaces for 7 am swim laps in an empty pool to grow an individual's health, or a Wednesday night pick-up basketball league that has made strangers into friends or even an open field for children of the community to play soccer together. This thesis aims to produce a design which addresses the recreation needs of community to allow residents to experience the positive aspects of sports while also using architecture to allow the hosting of large sporting events.

The optimum site for this investigation is Detroit, Michigan. This is a city with a legendary sports history and a concentrated sporting district in the downtown area. Each year, the city welcomes over one million fans for various professional games (Detroit). There are many distinct communities in the city which vary in size and cultural elements. In recent history, the city was plagued by economic distress and loss of investment. However, there also has been a surge of physical development in the downtown area. Part of this development was moving all 4 major professional sports teams to the downtown region. The implication of this is the centralized development of the city. Neighborhoods outside of the downtown region have seen much less investment and therefore have lacked in opportunity for growth. This thesis proposes a design which pushes decentralized growth in the city by creating spaces to host sporting



events, but more importantly, the design creates spaces and economic opportunities for residents to benefit.

The city of Detroit holds 16 recreation centers which currently provide areas to play sports for residents (Recreation). While recent investment has proposed plans to improve some facilities, there exist opportunities to address inequalities in the opportunity of community members to play sports. These existing infrastructures provide the prime location for a case study example.

Because they already serve community members and are spread out from the downtown region, one of these sites could stand to gain the most benefit and produce sustainable sporting infrastructure with a lasting positive legacy created from hosting a sporting event. In order to address this proposition, this book will explore large sporting events in a world context, design strategies and principles for optimum sporting venues, analysis of the City of Detroit and lastly, look to propose a possible sustainable event.



FIGURE 001.1

002

**Value  
of Sports**



## 002.1 Introduction

Large sporting events are large in scale, extremely expensive and attract attention from the entire world. Because of this, these events can create a strong reputation for the host nations. Highlighting their ability to host an event of this scale and generate spending in their economies. However, the original event of the Olympics was founded on traditional values of fair competition and pride in country. The current games and trajectory of these events show little emphasis on the strong values that make the games a unique environment. Events are more focused on reputation and economic gain rather than the comradery of country, athletes and fans. In addition to the unifying quality of sporting competition, athletic movements and actions have larger health and societal qualities as well. Sports and athletics have been proven to increase mood, decrease social anxiety, improve health and increase knowledge of movement.

## 002.2 Recreation Model

Physical:

The biggest commonality of all athletic activity is that it involves movements and coordination of the brain and body at the same time. Research has shown that even a small amount of physical activity each day can improve one's lifespan. Sports and physical activity can increase stamina, attractiveness.

Social:

Within sporting competitions there is often teams and groups competing together or against one another. The team dynamic fosters a ground for social interaction and relationship building. Participants learn to build trust, understand social cues and foster unique relationships. In addition, the uniting factor of teams is pushing together towards a common goal. This creates a strong bond among members and can be felt by fans as well. Applied at the larger scale, at the Olympics, entire nations are compelled by athletes representing their nation because of the common goal they share to increase success for their countries.

Knowledge:

Sports and activity also creates a great situation to learn. To learn about movement and body motions. To learn about techniques and consistency. Most importantly, the opportunity to learn about oneself and internal implications. Sports provide the opportunity, as an individual, to set goals and chase them and create internal dialog. A way to build confidence and be independent.

Psychological:

Physical activity can reduce anxiety, depression and feeling tired. It is important to move the body each day to raise the heart rate. This keeps the mind healthy and the body relaxed because you can create and release energy. All of this leads to a balanced mind, more able to adapt to situations and be creative. The ability to create goals and achieve them in sports will lead to increased confidence.

**Symbolic:**

Relating to the unifying nature of sports, teams also are symbols for the people and nations they represent. For example, the 1989 Detroit Pistons were known for their ruthless and aggressive style of play. There was no team they were afraid of playing and teams feared playing them. This team became a symbol for the hard-working culture of the city of Detroit. Players would openly say that they would play this style for the city. It created a huge buzz around the team and connected thousands of Detroiters through a basketball team. Fans believe in their teams, and teams play for the fans.

**FIGURE 002.1**

003

**Sporting Events**



# 003.1 Background

Large sporting events vary in scale and impact. Each event, however, brings people together for a specific sport or contest. In the example of the Olympics, this event brings hundreds of thousands of people together in the same city. On the other hand, in the case of a high school football game, there could be 500-1000 spectators. In any event, there is an impact to the hosting community across many dimensions.

The largest event of the Olympics was once a small event as well. In the first year of the official year of the modern event, there was 14 competing nations. In addition, the event hosted 50,000 spectators which was monumental, at the time. As the years have gone on, the popularity of the event has massively grown. It has been hosted in 19 different countries and across 29 events happening every four years (Olympics). Most recently, the Tokyo Olympics of 2020 were held in 2022 due to Coronavirus creating suspensions. This event amassed over 3 billion tv viewers (Stoll 2022). In addition, this event hosted 206 nations across more 40 sports. While this event has grown in size, it has also grown in the implications an event can have on host city. It is a common misconception that an event such as the Olympics has a truly positive impact on the host city. These events touch all aspects of a city. The amount of space required for the development of the venues is large and often not centrally located. Transportation infrastructure is stressed and people surge into the city from all over the world. The economic burden is significant and

often rest on the backs of the city's residents. The physical development of the event can be greater than the existing demand for space, leading to wasteful construction. Lastly, because of the political impact of these events, resident's opinions and communities are commonly overlooked.



FIGURE 003.1

## OLYMPIC GROWTH

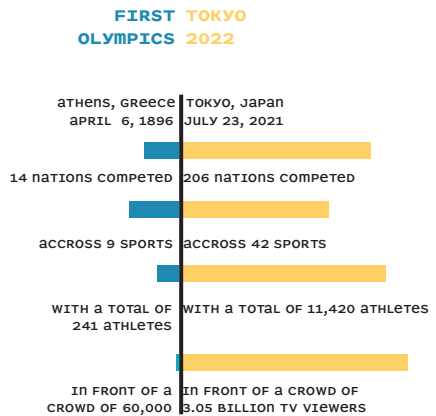


FIGURE 003.2



## 003.2 Dimensions

These events have had many issues in recent years. One issue being the financial feasibility of the event. These events cost massive amount of money to put on. The majority of the cost coming in the construction phase and the development needed to host such events. What has commonly been thought as a economic boost for host cities, is now more of an economic burden to carry. Many universities economist have agreed that the proposed benefit of events is often exaggerated (Hurley 2018). Economist usually site one of two problems being expressed. The first problem is substitution. While some businesses could do really well during an event, others can be completely left in the dark due to a centralized location of venues and sports. The other problem cited is the actual total revenue brought in through tourism, does not cover the cost of the construction of the event. In the case of South Africa 2010, although the country experienced a 1 billion dollar boom in tourist revenue, that did not come close to covering the cost of the construction of stadiums and transit infrastructure (Hurley 2018).

In addition to the large overall burden, host cities residents often feel the impacts directly. For example, in 2004 Athens hosted the Olympic games and created a brand new Olympic park along with countless other state of the art facilities. The games soon ran over budget substantially. These games were primarily funded by public taxes. It is estimated that the total tax burden to each Athens resident has totaled over \$50,000 (Smith 2012). Athens is not the only example of this



FIGURE 003.3

### COST OF THE GAMES

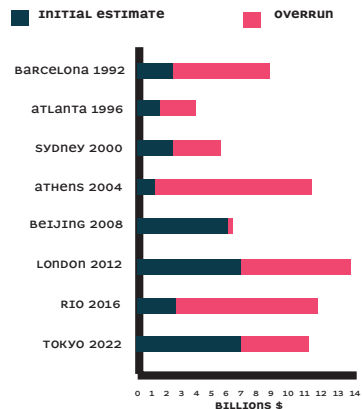
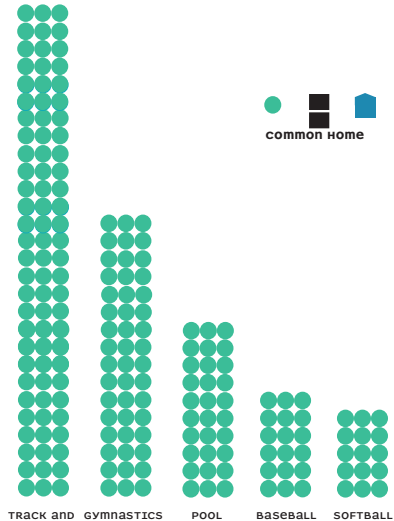


FIGURE 003.4

strong burden. In Rio 2016, residents are left with promises unmet. The Olympic plan came with proposed upgrades to transit and communities. However, due to lack of funds, these infrastructures are still unbuilt while the taxes on residents reflect as if they were built (Goldenbaum, Chris, and Isabella Galante 2021).

The next dilemma plaguing large sporting events is the overall wastefulness. With a spectacle as large and imposing as the Olympics, countries often build many new arenas and stadiums from scratch to improve their reputation. However, after the two week event, many of these brand new venues are left with a fraction of the capacity of during the games. This leads venues to go bankrupt and eventually abandoned. Not only is this an economic issue, but the carbon impact is massive to build these.



\*OXFORD OLYMPICS STUDY 2016, TOKYO ORGANIZING COMMITTEE  
**FIGURE 003.5**

In recent history, many events have had venues go abandoned. In Athens 2004, venues such as the softball and baseball stadiums were left to rot due to lack of demand after the games. In addition, the Olympic pool from this games has gone by the way side as well due to not being used (Smith 2012). In Beijing 2008, the country of China made the world awe at the architectural marvels produced for the games by the likes of Herzog and de Meuron with the Olympic stadium and others. However, today this venue and others are struggling to maintain operation with the cost of operating being higher than the revenue made (2008 Olympics 2018).

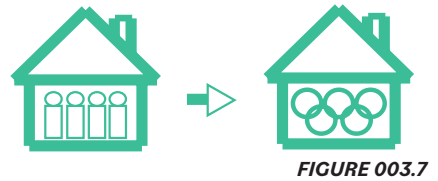


**FIGURE 003.6**

Even more impactful than the psychological presence of these events, is the various human rights violations these events have made over the



years. Large sporting events have often been used as tool by leaders and investors to increase the reputation and investment into an area. This can be a good thing, however, in recent history it has often been applied as justification for human rights offences. In Rio 2016, over 700 families were displaced from their homes to make way for the Olympic Park (Goldenbaum, Chris, and Isabella Galante 2021). In Beijing 2008, a similar story, people were forcibly moved from their community to make way for construction of Olympic facilities. The kicker of this is the fact none of the spaces constructed are still being used to their designed capacity and largely sit empty (2008 Olympics 2018).



Another example of a human rights violation is what has happened in Qatar for the World Cup of 2022. It has been reported by the organizing nation that as many as 500 migrant workers have died in the process on construction (Dixit 2021). Others close the situation have even estimated that many more may have possibly died. Dating back to 2010, reports have been coming out about poor working conditions, in addition, it has been reported that the World Cup governing organization (FIFA) took bribes to elect Qatar as a host nation (McPhillips 2022). When this occurs, it not only negatively effects those involved in the rights violations, but it also negatively impacts the public's outlook on large sporting events. Unfortunately, these events have shown to be more motivated through money and reputation, rather than the true sporting values of fairness and unity they were first founded on.



## 003.3 Hosting Event

To be selected to host a large event such as the Olympics, it involves a long process which includes a proposal, debate and ultimately in comes down to a vote. A vote by the International Olympic Committee (Olympics). However, they are not just voting on personal preference. The IOC looks for a criteria of elements within a host city which would they believe would be used for a great event. Of course, as previously mentioned, this committee is susceptible to bribes and other forms of corruption such as all governments, but this is the system that exist.

The first criteria the committee is looking for is space. The Olympics are typically hosted in a large and notable city. The host area has to be able to provide enough space to construct necessary sports venues and host many thousands of tourists. The way this space is found, is not always ethically sound, as previously mentioned, sometimes people are displaced to make way for construction (Goldenbaum, Chris, and Isabella Galante 2021). Another aspect of where this space comes from is the number of existing facilities a city can offer. The IOC is of course concerned for safety of athletes and tourists and with the rise of gun violence, this issue has been more of a concern then in recent years. The IOC next looks to transit opportunities in the city. Often, host cities will throw in transportation infrastructure upgrades as part of their Olympic proposal in order to show capacity to host thousands of moving people. People have to be able to move around a host city with ease, or else the games will not be as

economically diverse in spending geographically. The IOC also looks at accommodations in the city.

The Olympics and other sporting events bring in not only athletes, but coaches, trainers, construction workers, transit drivers, nurses and thousands of spectators. Second to last, but equally important, the IOC looks at the money each host city either has or could raise in order to put on the event (Olympics). Typically, whoever provides the most money, will be the city selected due to events being very costly. The IOC is not likely to give the games to struggling nation economically. Lastly, and most important, a city is chosen because it is of the IOC's business interest to be there. The IOC recently has chosen various Asian nations to host the games including: Beijing 2008, Tokyo 2020, PyeongChang 2018. This is not by accident. The IOC was trying to push their product (the games) into large Asian markets and the best way to do that is to bring the games right to the market (Shao 2022).

# EVENT REQUIREMENTS



TRANSPORTATION



SECURITY



ACCOMMODATIONS



IOC'S INTEREST



money

FIGURE 003.9



## 003.4 Analysis

Comparing the London 2012 Olympics to the Rio 2016 Olympics revealed some possible explanations for why some games are more successful than others. The London games were mostly considered a success because of the improvement to the city afterwards and the positive reputation that surrounded the event. The main Olympic Park has been opened to the public and the previous Olympic stadium is now being used as a major football team's home field (Olympics). In addition, the city made improvements to transit options and also planned the games in way which spread the economic impact in geographically diverse locations (London 2012). On the other hand, the Rio games of 2016 involved some downfalls which may have led to a negative reputation and an ultimately unsuccessful game. One of which was the displacement of over 700 families in the region of the now existing Olympic Park. This park now sits mostly empty and is need of repair (Goldenbaum, Chris, and Isabella Galante 2021). In addition, residents were promised multiple transit upgrades that have yet to have been completed. While Rio was ultimately restricted by the already economically struggling of Brazil, some choices in the planning of the event also played a part in the demise of the event.

Specifically, the built Olympic Park for the Rio games exist 14.4 miles from the city center (Google Earth). At first glance, it does not seem like a large problem, however, when compared the London games of 2012 (4 miles from city center), it reveals itself as a stronger dilemma. These types of

events are very connected to the transit routes of the city and rely heavily on the ability for thousands of people to move around. Because Rio never built the transit to the fullest extent, the logistics became more difficult for spectators and fans. In addition, The Rio games were largely built from scratch, a real attempt of the Brazil government to flex their muscles as developers (Olympics). This also created some problems; as many facilities struggled to maintain the demand to keep them open post-Olympic games. The London games made use of both temporary and permanent structures which allowed the event to be planned in a more strategic way in relation to transit (Olympics) . Which in the end, created opportunities for the facilities to keep strong demand after the games were over. While Rio made a strong attempt to create world-class public facilities, the transit opportunities made it difficult to have those dreams become fully true.

London specifically benefitted from creating a central-decentralized games. As previously mentioned, the London Olympic was 4 miles from the city center. However, many event were held at iconic locations around the city through the use of temporary structures. This allowed the economic impact to be spread throughout the region and not just at the Olympic



FIGURE 003.10

Center. The central location of the Olympic Park made majority of transportation to large events easy and created a public recreation district essentially after the event was done. In summary, one of the most important actions for a host city planning games are to plan an effective transit system which can move people to decentralized locations as well

as provide ease of transport to the center. The architecture involves temporary facilities which spread economic impact and also permanent facilities which benefit the public after the games. One facility in particular employed both the use a temporary element and a permanent structure which is now open to the public and is a world class facility.



**LONDON 2012**

.46 sqmiles



14.4 miles from city center



**RIO 2016**

.48 sqmiles and multiple locations



4 miles from city center

**FIGURE 003.11**



004

**Design  
Principles**





## 004.1 Introduction

For centuries, people have gathered together to watch sporting events. The first prominent games being the Olympics during the roman times. Even before that, however, people gathered in huge stadiums to watch gladiators and warriors. Designing spaces to host a sporting event involves the integration of a large capacity and an intimate experience. One thing that remains today from gladiator times is the fact that stadiums are large and imposing. This ultimately makes them difficult to construct, expensive to pay for and hard to keep ecologically positive.

Despite these concerns, the current race to build the best stadium is a real competition in the world. An American sports writer wrote that the situation has become similar to the Renaissance times in Italy, where each region was in a battle to build the fanciest and biggest cathedral (Schalter 2017). New stadiums are built each year; each one fancier and more expensive than the last. Most stadiums do not make an effort to decrease their carbon footprint. The energy required to build stadiums is increasing as the overall size of stadiums has only grown (Morrissey, John & Iyer-Raniga, Usha & McLaughlin, Patricia & Mills, Anthon 2013).

Through the cloud of all the fanciness, there exist examples of quality sports architecture which employ sustainable design strategies as well as are integrated with their surrounding community. This is a crucial aspect of a successful sports stadium because

the events can drive the overall destination value of the region. For example, in Detroit, Michigan Little Caesars Arena has replaced the former Palace of Auburn Hills by moving right downtown Detroit. LCA ranks 10th the United States in total revenue for the sports arena category (Riper). The former Palace was 20 miles outside of Detroit and was surrounded by a large parking lot.

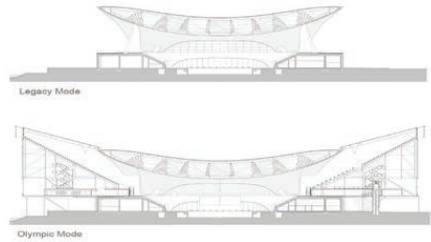
In addition to traditional sports architecture, planning and designing sports events creates its own set of criteria and considerations. In this chapter, this thesis will analyze specific precedent architecture of sports venues and venues which have been used for large sports events. The purpose is to understand what design principles and frameworks can be applied to create a sustainable, integrated and well-designed sports center which can be enjoyed by residents, but also host sports events.



FIGURE 004.1

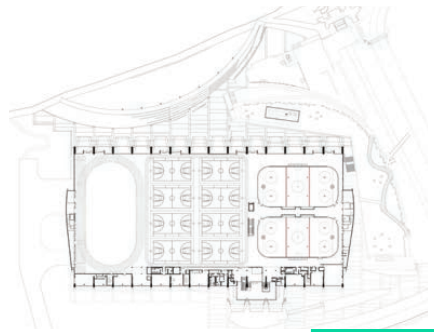
## 004.2 Precedents

The first precedent to note is the London Aquatic center, which was a part of the 2012 Summer Games in London. The building was designed by Zaha Hadid Architects and hosted the swimming events (Zaha Hadid Architects). At the peak of the games, the building hosted 17,000 spectators; many of which were located on temporary bleachers. Without harming the overall design intent of the form and the experience of the spectator, the design employs a temporary strategy for hosting the event. The center now hosts 2,500 spectators and is a public building. A world-class swimming center for the public to use as part of London's legacy planning for the Olympic games (Silva). The takeaway from this precedent is the use of an efficient temporary design to respond to the lack of demand in spectators after the games.



**FIGURE 004.2**

Next, an important design to note is the Richmond Olympic Oval in Canada. The building is a large shed style vault which is held up by curving wood members that span the width of the structure. During the winter games, the Oval was used as the speed skating arena (ArchDaily). Hosting thousands of fans. Now, it is an all-inclusive recreation center, essentially. Under one roof, there can be 8 different sports being played. This can also be seen in the Multisport Center in Tarbes, France. This adaptive re-use project employs the same strategy of large open spaces and therefore 9 sports can be played under one roof (Arch Daily). These precedents employ the use of adaptability to respond.



**FIGURE 004.3**

In Penzance, England, a café was designed as an adaptive re-use of a community pool changing area. The linear and tucked away changing rooms is now the quaint and well-lit Jubilee Café (Arch Daily). What is important in this precedent is the fact that within this renovation of the pool, the design responds to a community demand of connection through the restaurant. For and for most, however, is the project is a re-use of an existing space. This is beneficial because it typically is better for the environment and can cost less money.



**FIGURE 004.4**

Another precedent of note is the FaulknerBrowns Velodrome in Canada. This building is an example of a community informed design because many programs are being employed as well as the design allows for recreation and connection of people. The main design program driver is the cycling track, however, underneath the track are basketball courts and tennis courts. In addition, within view of the track, a café area exist for increasing connection between people (FaulknerBrowns). This design is Similar to the Colin Sports Hall in Mexico because each complex responds to their context and community directly. In Mexico, the Colin Sports Hall provides open air shaded areas for competition and connection. It also employs the use of many programs and a variety of facility options creating a true complex. The takeaway from these architecture's is how they respond to their community through specific programming and contextual design.



**FIGURE 004.5**



## 004.3 Analysis

From the precedents analyzed, 4 main design principles emerged to create spaces for sports architecture as well sporting events. The first principle is temporary facilities. Meaning, designing all or some elements of a sporting venue to be only realized for a certain amount of time. Afterwards, these structures are designed to be easy to disassemble and quick to take down. The second trait is adaptability. This refers to how well a venue can host and provide spaces for various events and sports (Aquino, Ileana & Nawari, Nawari 2015). Adaptable spaces have tall ceilings and wide column spacing as well as storage for a variety of programs. This trait is very important when considering sporting event design. Thirdly, adaptive re-use projects provide the strongest opportunity for creating a sustainable project. By decreasing embodied energy of new materials and transportation, re-using a structure can create a positive carbon effect. Especially when designing for a large event, up front construction cost and energy required to construct the venues can be decreased through adaptive re-use (Wergeland 2021). Lastly, but ultimately most important, is designing spaces which respond to community needs. As the purpose of the thesis is create a lasting positive sporting opportunity within a community, the biggest takeaway is the understand of program and contextual design importance.

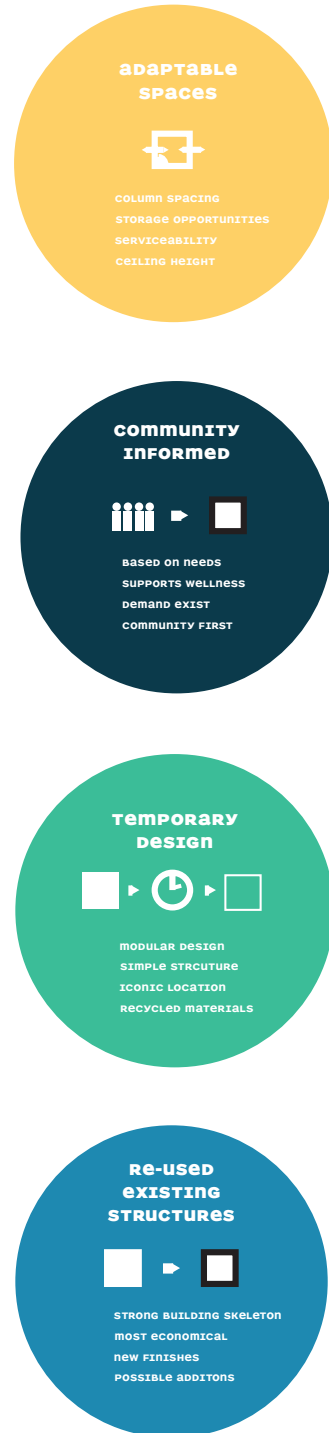


FIGURE 004.6

## 004.4 Life Cycle

From the understanding of the previous Olympic and large sporting events, it is clear one thing that has not been considered is the life cycle of the venues being designed. Olympic buildings are created with the mindset of trendiest design without much thought being applied to what happens after the games. As previously mentioned, this has often led to many Olympic arenas going abandoned after a certain number of years. This thesis aims to illustrate how thinking of these projects more in terms of a full cycle, rather than one night on the red carpet. Each of the design principles analyzed apply directly to a life cycle frame work. The beginning of the project is the design and construction, which involves the adaptive reuse of a structure to decrease carbon footprint and integrate in a community.

The second step is the hosting of the event. In this time segment for the life of the building, temporary design elements are employed to host a large crowd or for a specific program. After the event, the facility is adapted to a different configuration which is used by the community. The space allows for many programs and community events. Connected to this step is the community informed aspect of the design which involves the building being adapted in a way that is inclusive of the community's needs. This cycle then can repeat itself without the construction phase and skip right the event part. Therefore, providing an ecologically sustainable, economically opportunistic and community uplifting sporting venue design.



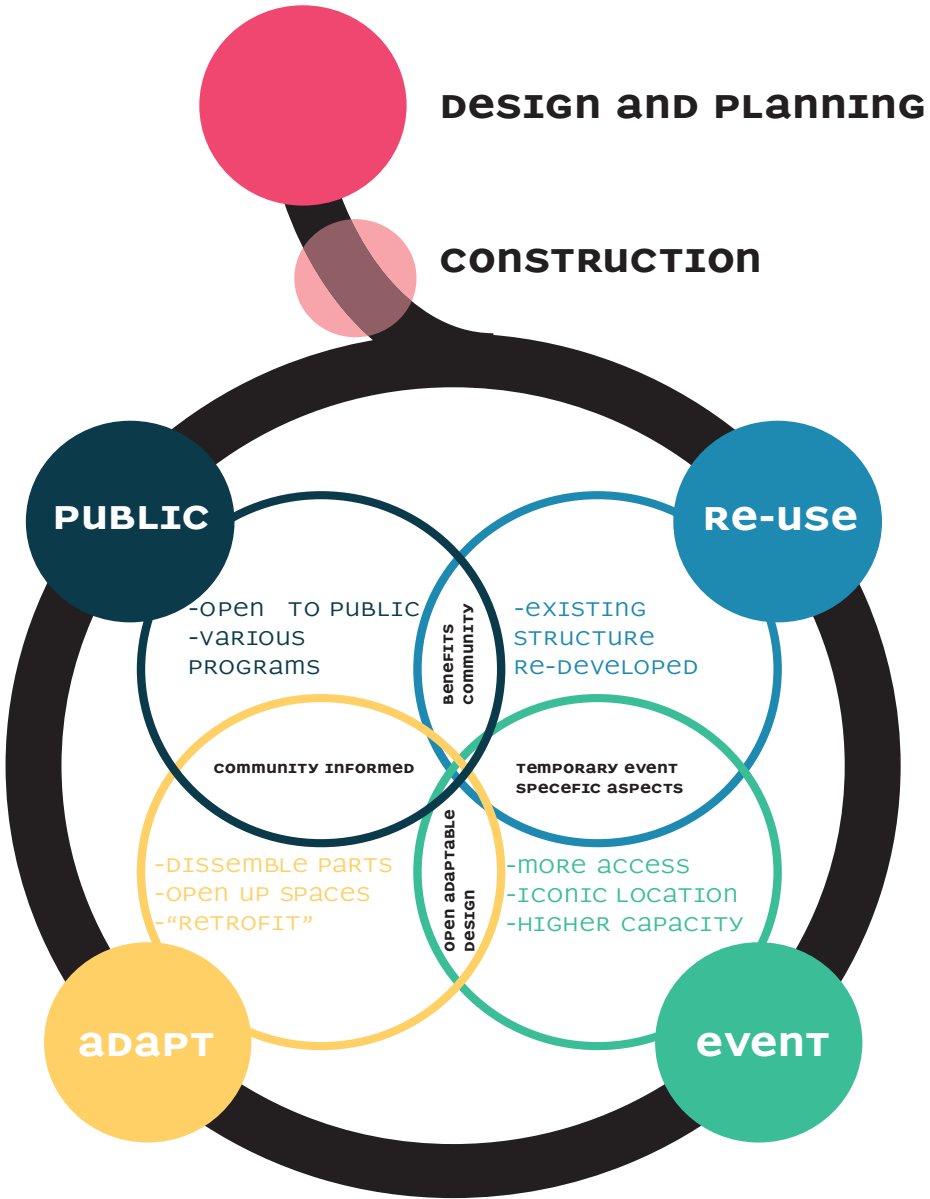


FIGURE 004.7



005

**Sports in  
Detroit**





## 005.1 Background

The city of Detroit, Michigan is large urban area covering 144 square miles and is located firmly in the Midwest along the banks of the Detroit River. As the birthplace of the automobile, and subsequently the center of rapid industrialization and development, the city has long been established architecturally and culturally.

When it comes to sports, Detroit has a legendary history with many important teams and events. In fact, in 1935 when the Detroit Tigers, Lions and Red Wings all won their respective league championships, and Joe Louis became a world champion boxer, the governor of Michigan declared Detroit the “city of champions” and made an official state holiday for April 18 (Detroit Olympics).

In recent years, the actual sports teams may not have be having as much success in their matches, however, the city of Detroit is establishing itself as a sports destination city. All of the major 4 professional sports teams play in downtown Detroit. This is the only city in America with this situation going on. Little Caesars Arena host the Detroit Pistons and the Detroit Red Wings and was ranked 10th the United States in total revenue by a sports arena. In addition to local events happening in Detroit, the city has also been elected to host the 2024 NFL Draft which is expected to bring in 500,000 people (Official). While the development has been met with mostly positive implications, the very central investment into the downtown area has caused an inequality in progress being made in other communities in

the city.

The downtown area of Detroit represents a single square mile of the total 144 square miles of the whole city. It also does not accurately represent the population. There 650,000 residents in the city and the majority of the residents are African American with Caucasian and Hispanic representing small majorities (City of Detroit) Because of the very centralized investment into the downtown region, other communities have been seen less improvement. To combat this, the city has identified areas of investment and created framework plans for certain districts around the city (Recreation). The goal is to spark economic burst in these areas and improve quality of life. The city could benefit even more from continued outward improvement through a variety of community led projects.

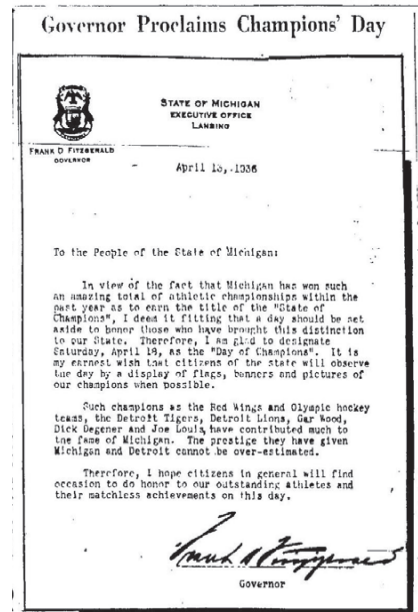


FIGURE 005.1

## 005.2 Olympics In Detroit

A legendary sports town cannot be complete without hosting an Olympic games, at least trying to host an Olympic games. Detroit tried 6 unsuccessful times to bring the games to the city. Organizers argued Detroit had great existing facilities and was centrally located in the United States while also being close to Canada. In addition, organizers even proposed grand Olympic stadiums with futuristic renderings and images.

In 1968, Detroit came in second place to the of Roma, Italia and it would the closest the city would come to attaining a games. The Olympic committee cited issues with civil rights violations and corrupt governments leading the city (Detroit Olympics). These concerns can be sustained because, in fact, civil rights protest broke out into violence during Detroit Olympic proposal committee's announcement to the city in the downtown area (Burton). Detroit was not selected because the city had not come to terms with the issues the residents were facing and had not accepted all its people. The connection can be made to recent times with investment and improvement not fairly being completed. While the downtown region has been benefitting largely, other areas are left behind. Essentially, another act of sport washing that is similar to in 1968 when the city would have used the Olympics as a tool to help Detroit's reputation during a large civil rights unrest. The attention is focused in the downtown region because of the sporting action, washing out attention to communities.



FIGURE 005.2





*FIGURE 005.3*



## 005.3 Events In Detroit

While Detroit is primarily known for its local teams, the city also hosts many large events. For example, the Detroit Grand Prix is an Indy Car race that was previously run on Belle Isle and is now being moved to downtown. This event is expected to bring \$11,000,000 in economic investment to the region. Another example of a large event is the Detroit Auto Show.

Not a sporting event, but still drawing 500,000 people annually at the Huntington Place (Official). These events show precedent for Detroit's ability to host a large event. The commonality across these events is the location of Downtown. More events should push outward development into more diverse and culturally rich neighborhoods for unique opportunities in investment and improvement.



FIGURE 005.4

## 005.4 Private Sports in Detroit

The venues which would be hosting these large events are typically home to one or two of the major professional sports teams in the city. These and other sports charging spectators to watch make up the private sports opportunities in the city. These developments take up 25% of the downtown region including their parking infrastructure. More than 1 million people visit the downtown area each year to see a game making the area very busy (Detroit Tigers). These major teams are owned by 3 billionaires and they see a majority of the benefit from these teams. While fans come to watch the games and loves their teams, the average cost of a ticket is \$144 making it out of reach for a lot of lower income families.

## 005.5 Public Sports in Detroit

On the other end of the spectrum, Detroit also has 16 operating recreation centers which are spread throughout the city. These centers are home to countless sporting programs as well as many organizations and groups use these spaces for a home base. 12,500 residents each week use the facilities to compete, gather and grow (Recreation). Recent investment has seen plans for improvement to several facilities designed and the outlook is positive. However, many sites require further facility improvements and or changes in the program of the building to respond the community. In addition, many communities could benefit from hosting large events which can drive investment and improvement into an area.



FIGURE 005.5

## 005.4 Implications

Analyzing the location and scale of private vs. Public facilities have revealed an inequality in the opportunity to experience sports in the city. Large amounts of downtown real estate are given to parking lots and stadium infrastructure which is extremely expensive for fans and truly benefits few owners. The average cost of a professional game in Detroit in \$144 making it hard for the typical Detroit resident to see a game (Mlive). The public facilities, on the other hand, give thousands more people the opportunity to play sports as well as experience them, but their condition and size do not meet an acceptable standard. This is another example of the largely central investment within Detroit and lesser focus being paid to the surrounding communities. These recreation facilities fairly deserve as much investment and improvement as the downtown region because they serve more people and can be beacons within a community for actual resident health. In addition, this thesis aims to illustrate that with a large sporting event acting as an improvement catalyst for a recreation facility, residents and communities can benefit with a world-class space and opportunities to grow economically.

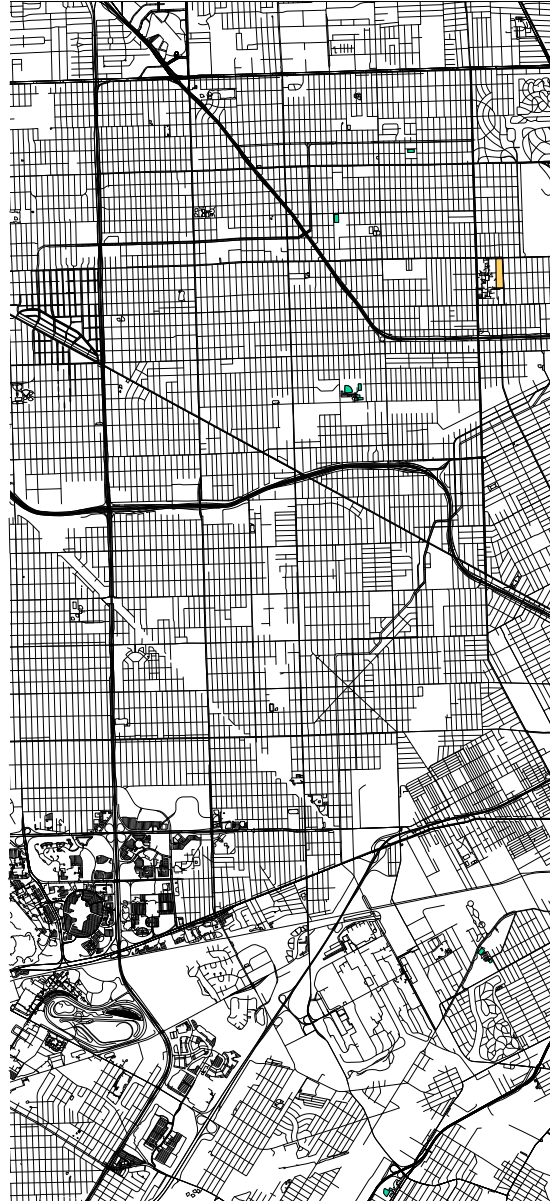


FIGURE 005.6



# SPORTS IN DETROIT



## PRIVATE FACILITIES

## PUBLIC FACILITIES

**ROBO FIELD**  
PROGRAM: DETROIT LIONS  
FACILITY: CONGRESS

**COMMERCE PARK**  
PROGRAM: DETROIT TIGERS  
FACILITY: CONGRESS

**LITTLE CASSARS**  
PROGRAM: DET ROYALS  
FACILITY: DET. PARKERS  
CONGRESS

**JOE LOUIS ARMORY (ARMORERIA)**  
PROGRAM: DETROIT RED WINGS

**CORNER**  
PROGRAM: MICHAELBAY COLLEGE

**HUNTINGTON PALACE**  
PROGRAM: CONVENTIONS

**DETROIT MERRY ATHLETICS**  
PROGRAM: COLLEGIATE SPORTS  
STUDENT CLUB

**DEPTWORTH STADIUM**  
PROGRAM: DETROIT CITY FC

**WAYNE STATE ATHLETICS**  
PROGRAM: COLLEGIATE SPORTS

**PEYTONS FACILITY**  
PROGRAM: PASTORS PRACTICE

**LEXUS VELODROME**  
PROGRAM: WREN CARS

**DETROIT CITY FIELDHOUSE**  
PROGRAM: WREN CARS  
RESTAURANT

**ADAM BUTZELL COMPLEX**  
PROGRAM: ICE SKAT, BASKETBALL COURT  
OUTDOOR STADIUM

**SEBASTIAN POOL**  
PROGRAM: GARDENING, SKAT, PARK, COMMUNITY ROOMS

**ROBERTO CLEMENTE**  
PROGRAM: GOLF, WRESTLING ROOMS, COMMUNITY ROOMS

**COLEMAN YOUNG CENTER**  
PROGRAM: GOLF, WRESTLING ROOMS

**DETROIT MERRY ATHLETICS**  
PROGRAM: COLLEGIATE SPORTS  
STUDENT CLUB

**DEPTWORTH STADIUM**  
PROGRAM: DETROIT CITY FC

**WAYNE STATE ATHLETICS**  
PROGRAM: COLLEGIATE SPORTS

**PEYTONS FACILITY**  
PROGRAM: PASTORS PRACTICE

**KEMENY CENTER**  
PROGRAM: GARDENING, BASKETBALL

**LASKY CENTER**  
PROGRAM: GOLF, BASKETBALL, COMMUNITY ROOMS

**NORTHWEST CENTER**  
PROGRAM: COMMUNITY ROOMS, POOL

**PATTON CENTER**  
PROGRAM: GOLF, POOL, WRESTLING ROOMS

**TINDALL CENTER**  
PROGRAM: PLANTING FIELD, GOLF, COMMUNITY ROOMS

**COLEMAN YOUNG CENTER**  
PROGRAM: GOLF, WRESTLING ROOMS

**DETROIT MERRY ATHLETICS**  
PROGRAM: COLLEGIATE SPORTS  
STUDENT CLUB

**DEPTWORTH STADIUM**  
PROGRAM: DETROIT CITY FC

**WAYNE STATE ATHLETICS**  
PROGRAM: COLLEGIATE SPORTS

**PEYTONS FACILITY**  
PROGRAM: PASTORS PRACTICE

**JOSEPH WALKER WALKER**  
PROGRAM: GARDENING, GOLF



006

**Site Selection**



## 006.1 Introduction

This thesis proposes a sustainable sporting event in the city of Detroit. The sites that were chosen were based on various forms of analysis including: cultural, urban and historical. In addition, the proposal includes a conceptual design of a specific structure which employs the life cycle model being a part of the larger proposed event. In other words, the site selection does not only include a single site for a conceptual design, but also the understanding of possible connections and event opportunities at many sites in the city. The main intention guiding the site selection was choosing existing sporting structures, possibly vacant, in communities which illustrated the greatest need for improved athletic opportunities.

As learned from previous successful events such as London 2012 and the Junior Hockey Games of 2022, it is important to consider not only existing sporting infrastructures, but also possible city landmarks that may interweaved within the event plan to drive outward development. As a part of this process, urban analysis was completed on recreation centers in the city of Detroit. These sites were understood for their proximity to a completely residential area. The proposed event should not be held in an area of mostly homes. The proposed event structure will be most successful on a site which is close to a commercial corridor that is poised for an economic boost. In addition, and arguably most important, the project should be located in an area which demonstrates a need for renovation and subsequent positive outcomes. The last factor worth looking at is a site which has enough land space to design a world-class sporting event center without having to displace residents.



FIGURE 006.1

## 006.2 Analysis

Many sites have been explored through land use maps as well as understanding program. The first is the Brennan Pool located in Rouge Park. This center is located in a historical underprivileged neighborhood being located next to large industrial areas and environment pollution. A renovated pool could provide a strong community beacon of growth and support while also being the heartbeat of new economic developments. This site is particularly intriguing because there are opportunities to grow the program based on available space. In addition, the site is located on a large road able to handle traffic.

Another center which could be a possible is Lasky Recreation Center which proposes a great opportunity to expand on a relatively small building footprint with available space. This center is also located along a main road in the Buffalo Charles Community which makes it easily accessible to transit routes. The current program is oriented around mostly outdoor activities as the site could stand to benefit from added indoor space. Another center like this is the Kemeny Recreation Center in the River Rouge community which also is next to a commercial corridor. This corridor could benefit from the center being the site of some sporting events. However, this center has been a part of recent recreation center upgrades and is not in the front of the line for sites who need large improvements. In addition, the site offers a large array of programs including a swimming pool.

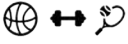
The largest complex for public recreation in the city is the Adam Butzell Athletic Complex. This site contains basketball courts, tennis courts, fitness area, playing field, swimming pool and an ice rink to name a few of the programs. The center is located in the Littlefield community and recently has been awarded new money for renovations. This site serves as a strong beacon in the west Detroit communities as the largest and most well-equipped recreation center.

Another well-equipped center is the Patton Recreation Center located in southwest Detroit. The Patton Center is nestled within a residential area, close to large roads and commercial district in Vernor Hwy nearby. The site offers large green space as well as one of the large structures analyzed so far. The center offers many programs including pickleball and swimming in a large pool.

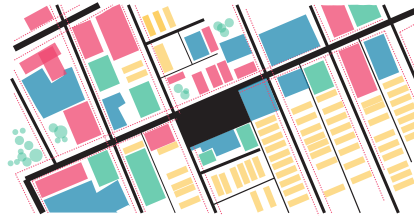
On the Eastside of Detroit there is the Heilman Recreation Center. This center is located near 8-mile road in the Regent Park community. This site is nestled in a primary residential area; however, the site is within a 1 min driving distance to the 8-mile commercial corridor. The building has received recent upgrades and offers many programs including a pool. Also, on the east side is the Butzell Family Recreation Center which has been a beacon of community empowerment in the Island view community for many years. This site offers many programs including a swimming pool and basketball courts. It is located on Kercheval Ave which has seen recent development.

46

# CLEMENTE RECREATION CENTER



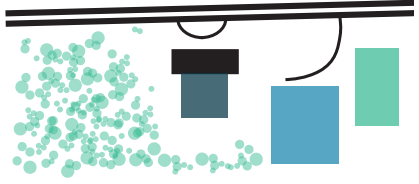
<b>SIZE:</b>	<b>NEIGHBORHOOD:</b>	<b>RENOVATION:</b>
20,000 SQFT	CORKTOWN	720K IN 2022



# BRENNAN PUBLIC POOL



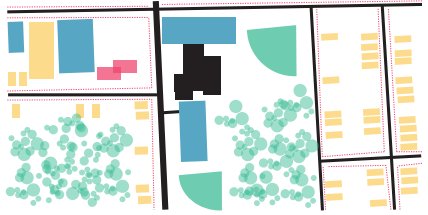
<b>SIZE:</b>	<b>NEIGHBORHOOD:</b>	<b>YEAR BUILT:</b>
75,000 SQFT	ROUGE PARK	1929



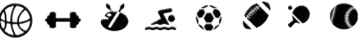
# CROWELL ACTIVITY CENTER



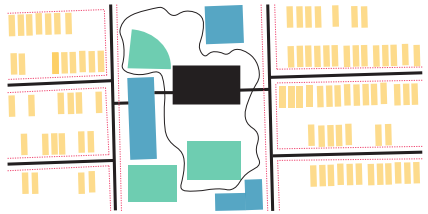
<b>SIZE:</b>	<b>NEIGHBORHOOD:</b>	<b>RENOVATION:</b>
30,000 SQFT	BRIGHTMOOR	828K IN 2021



# HEILMAN RECREATION CENTER



<b>SIZE:</b>	<b>NEIGHBORHOOD:</b>	<b>YEAR BUILT:</b>
40,000 SQFT	REGENT PARK	2006



# KEMENY RECREATION CENTER



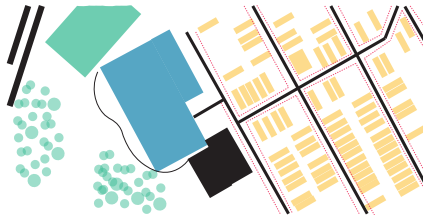
<b>SIZE:</b>	<b>NEIGHBORHOOD:</b>	<b>YEAR BUILT:</b>
20,000 SQFT	BOYNTON	1957

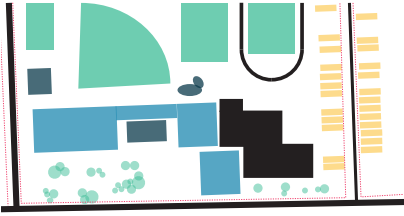


# PATTON RECREATION CENTER



<b>SIZE:</b>	<b>NEIGHBORHOOD:</b>	<b>YEAR BUILT:</b>
30,000 SQFT	SPRINGWELLS	1953





adam BUTZEL RECREATION CENTER



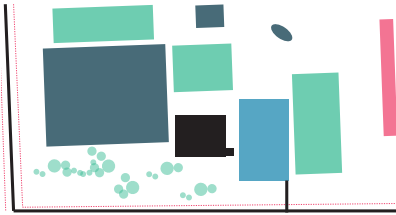
SIZE: 80,000sqft NEIGHBORHOOD: LITTLEFIELD YEAR BUILT: 1981



COLEMAN A. YOUNG RECREATION CENTER



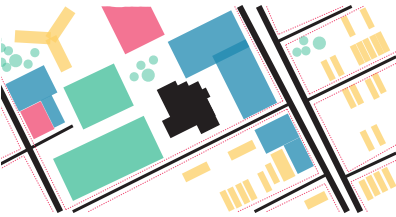
SIZE: 40,000 SQFT NEIGHBORHOOD: LaFAYETTE YEAR BUILT: 1955



FARWELL RECREATION CENTER



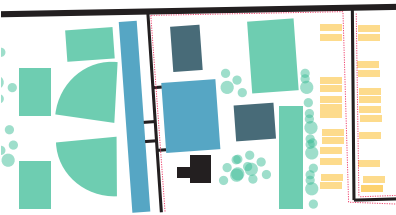
SIZE: 25,000 SQFT NEIGHBORHOOD: FARWELL RENOVATION: EXPECTED 2023



JOSEPH WALKER WILLIAMS RECREATION CENTER



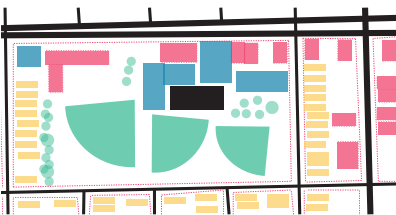
SIZE: 40,000 SQFT NEIGHBORHOOD: VIRGINIA PARK



LASKY RECREATION CENTER



SIZE: 12,000 SQFT NEIGHBORHOOD: BUFFALO CHARLES RENOVATION: \$2M IN 2011



TINDALL RECREATION CENTER



SIZE: 20,000 SQFT NEIGHBORHOOD: BAGLEY RENOVATION: 2021

FIGURE 006.2



This analysis does not include every recreation center within the city of Detroit. These centers represent the best opportunities for being part of a larger event network. Detroit recreation centers have been a part of the urban fabric and cultural identity of the city for decades. During the first decade of the 2000's, the city of Detroit went through a large economic toil and many recreation centers lost funding. Because of this, the number of centers went from 27 to 16 during that time. The city lost 11 recreation centers in total and has yet to bring any of them back. Therefore, there exists an opportunity for positive revitalization of vacant recreation centers if they are a part of a large prosed sustainable sporting event.

## 006.3 Vacant Rec. Centers

Centers that were completely empty were also examined in addition to centers that were already established. The fact that these centers are either fully gone or inoperable makes them the best candidates for community enhancement. Out of the remaining 8, three abandoned recreation centers stood out as the best candidates for potential renovation. The primary factors in deciding which of these locations to investigate further included the amount of space available for hosting events and the urban environment, as determined by an analysis of the nearby centers. However, using statistical health information from the Census Bureau, higher obesity rates and fewer access to medical care were placed on top of Detroit neighborhoods, indicating areas and towns in higher opportunity zones.

The first vacant center explored was the former Veterans Memorial Recreation Center. This center once stood in the River Rouge neighborhood. The building consisted of two main spaces with large glu-lam beams spanning across each. One space housed the city of Detroit's third public ice rink and the other was a large boxing gym. At the time of operation, Detroit's population was well over one million people, but the city only had three public ice rinks revealing a clear deficit in the typical Detroiter's access to ice time. In 2023, the city has even less ice rinks with only 2 in operation. In terms of programming, a possible retrofitted

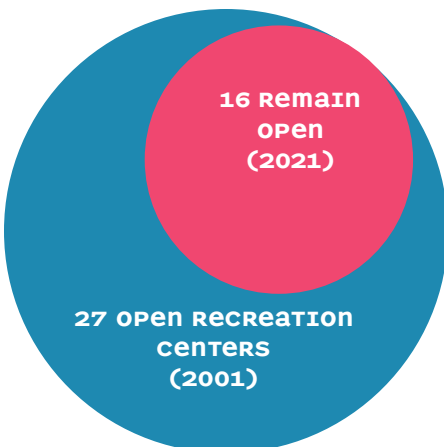
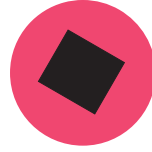


FIGURE 006.3



design would focus on bringing boxing back to the light in Detroit as well as increasing ice time to residents. However, because the River Rouge community has two existing nearby facilities the prospect of returning the center to operation is lessened.

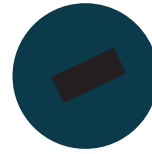
The second existing center analyzed was the Brewster-Wheeler Recreation Center. The center is essentially the only remaining structure still standing from the era of the Black Bottom neighborhood and Paradise Valley in Detroit. In the 1950s, Chrysler Freeway (375) was constructed unjustly right through these thriving, predominantly African American, neighborhoods and effectively destroyed the once tight-knit urban fabric (Detroiturbex). The first federally funded housing project was constructed on the remaining site called the Brewster-Wheeler Projects (Photo). Through years of poor maintenance and no funding to keep the buildings running, these buildings were demolished in 1991 to make way for more upscale townhomes. The Brewster-Wheeler Recreation Center once was a community beacon for a thriving Detroit neighborhood and one of the only libraries in the city African Americans could go at the time. The center might serve as more than just a place for entertainment; instead, it could work as the cornerstone of a neighborhood, as it once did, therefore any potential retrofitting design concept should put an emphasis on community interaction and potential programming outside of sporting competition. On the other hand, because the center is practically in the middle of Detroit, it is less likely to spur growth outside the city than hubs positioned farther out.



## VETERANS MEMORIAL

PROGRAM:

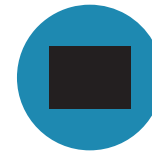
- BOXING
- ICE SKATING



## BREWSTER WHEELER CENTER

PROGRAM:

- BASKETBALL
- BOXING
- SWIMMING



## JOHNSON CENTER

PROGRAM:

- BASKETBALL
- SWIMMING
- PLAYGROUND
- COMMUNITY ROOMS

FIGURE 006.4



**DETROIT'S THIRD ICE RINK TO OPEN IN NEIGHBORHOOD**  
THE DETROIT PRESS 2012

**Veterans Memorial Recreation Center**  
 OPENED IN 1976, IN THE RIVER ROUGE NEIGHBORHOOD, PROVIDING (AT THE TIME) THE SECOND PUBLIC ICE RINK IN THE CITY. THE BUILDING SAW BUDGET CUTS IN THE EARLY 2000'S, AND BY 2012 THE ROOF HAS BEGUN TO BREAK OPEN.

**(abandoned 2012)**



**When Detroit PAVED OVER PARADISE**

**BREWSTER-WHEELER Recreation Center**  
 BEHINDING US 3 FEBRUARY 1911, THIS BUILDING HAS A LONG HISTORY IN DETROIT. IN 1924 WHEN THE NEIGHBORHOOD HAD GROWN WITH AN INFUX OF AFRICAN AMERICAN RESIDENTS, THE FACILITY WAS CONVERTED INTO A RECREATION CENTER WHERE 81 CLUBS MET IN 6 ROOMS FOR NEARLY 20 YEARS. WHEN 1-75 WAS CONSTRUCTED IN THE 1950S, THE PARADISE VALLEY AREA WAS DESTROYED AND A NEW FEDERAL SUBSIDIZED HOUSING FACILITY WAS BUILT. THROUGH YEARS OF MISTREATMENT BY THE CITY, THE PROJECT HAS BECOME OVERLOOKED AND LESS DESIRABLE TO LIVE IN. DEMAND FOR THE RECREATION CENTER FELL AWAY AND THE STRUCTURE SITS EMPTY TO THIS DAY.

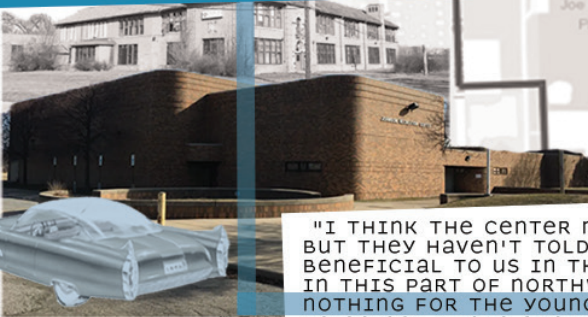
**(abandoned 2006)**





### JOHNSON RECREATION CENTER

THE JOHNSON RECREATION CENTER WAS ONE OF THE FIRST ATHLETIC FACILITIES IN THE WEST SIDE OF DETROIT THAT WAS NOT SEGREGATED WHEN IT OPENED IN 1940 ORIGINALLY. THE FACILITY IS RECOGNIZED AS A BUILDING OF HISTORICAL IMPORTANCE WITH AN EMPHASIS ON THE BUILDINGS CULTURAL AND SOCIAL IMPORTANCE. IN ADDITION, THE FACILITY IS ONE THE ONLY ORGANIC STYLE BUILDINGS IN THE DETROIT AREA. RECENTLY, THE SITE WAS PURCHASED BY U OF D JESUIT SCHOOL AND THE COMMUNITY HAS RAISED CONCERNS ABOUT THE FACILITY BECOMING MORE PRIVATE.



(SOLD 2017)

"I THINK THE CENTER NEEDS TO BE REOPENED BUT THEY HAVEN'T TOLD US WHAT WILL BE BENEFICIAL TO US IN THE NEIGHBORHOOD. HERE IN THIS PART OF NORTHWEST DETROIT, THERE IS NOTHING FOR THE YOUNG PEOPLE TO DO. NOWHERE TO GO AND THERE SHOULD BE SOMETHING HERE. WE PAY TAX DOLLARS JUST LIKE EVERYONE ELSE."



Johnson Recreation Center on the West Side

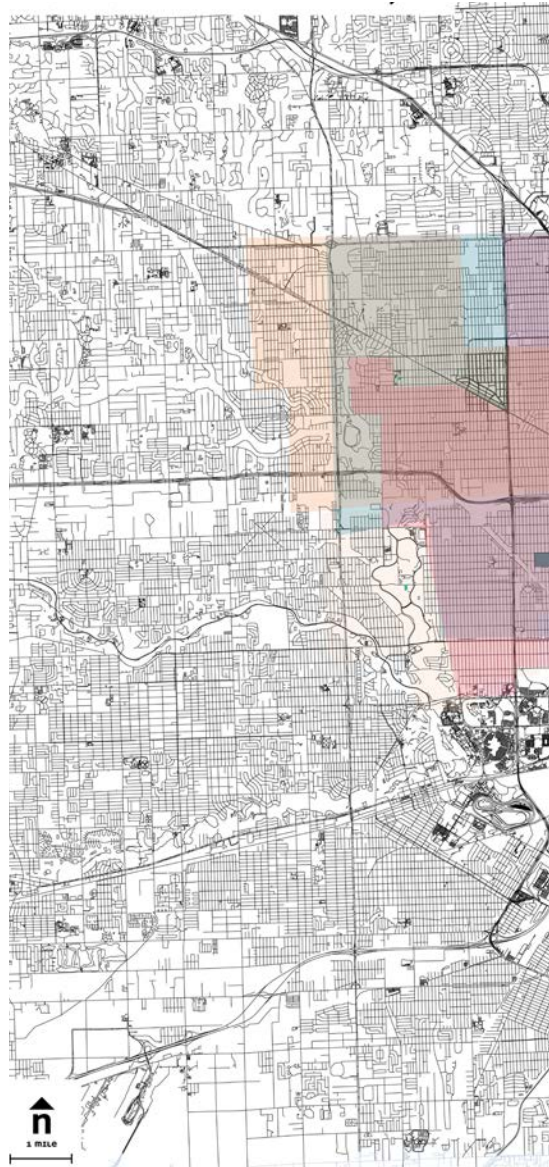
\*CITY OF DETROIT, DETROIT FREE PRESS, DETROIT NEWS, DETROIT HISTORICAL COMMISSION, DETROIT URBEX

**FIGURE 006.5, 006.6, 006.7**  
Historical and cultural analysis of three vacant recreation centers in the city.



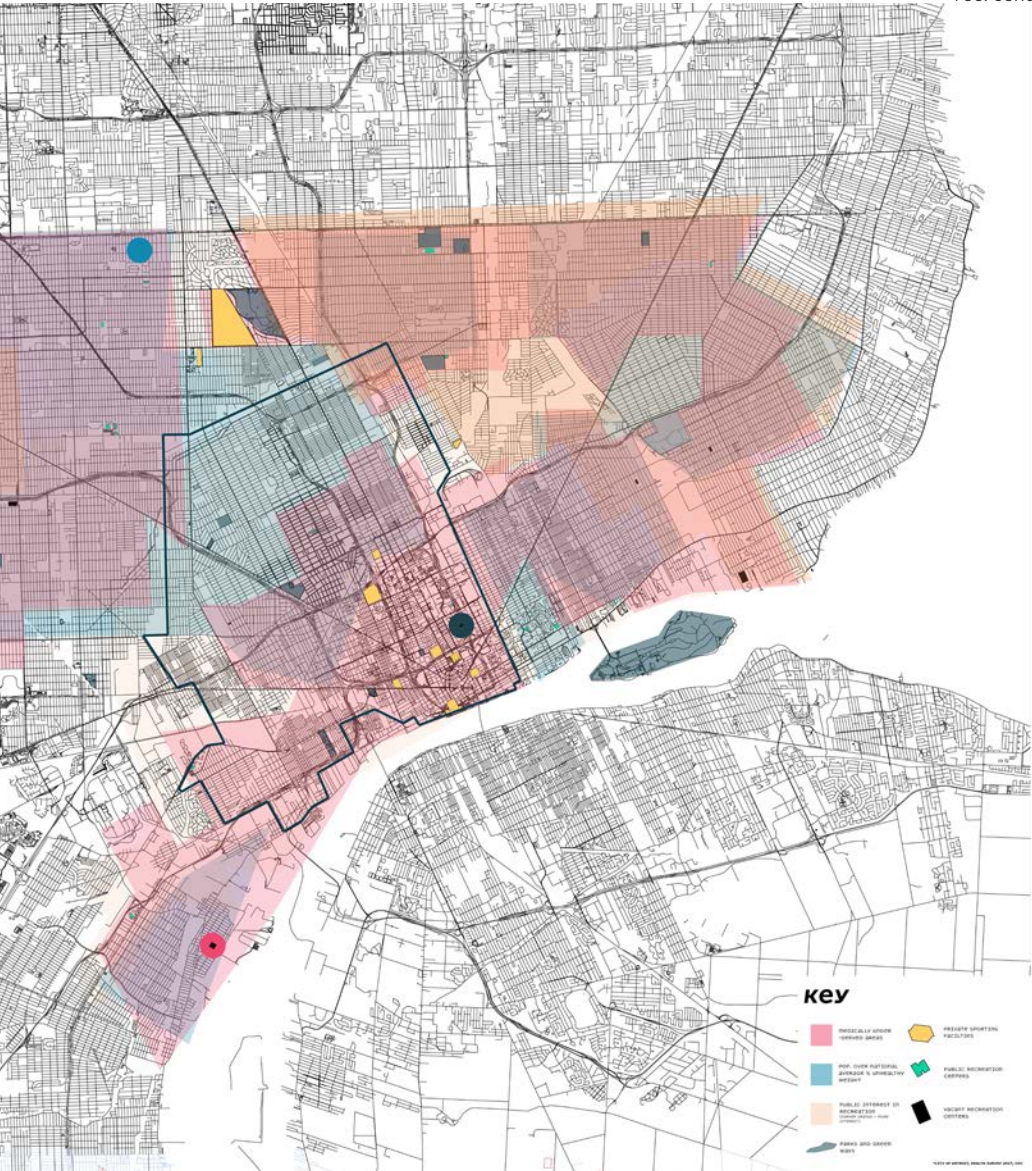
## 006.4 Community

Understanding community demand and wants is the most crucial step in the site selection process, above and beyond contextual and urban factors. This is a direct reaction to the unsustainable huge athletic event design that constructs a stadium before determining whether the general people will really use it. In order to choose the location that could benefit the most, this thesis investigated community cultural concerns, recent contextual information, and transit/urban planning patterns. Additionally, it is crucial to take into account the potential economic boost from hosting such events from the perspective of the neighborhood. In other words, would there be businesses ready to profit from tourists or spectators that spend money in the area. The Johnson Recreation Center presents the most chance for redevelopment, according to this analysis. The building has a long history of serving the community and providing many programs, most notably a pool. In terms of culture, the center dismantled obstacles and gave residents access who previously lacked it. Additionally, the expansive land offers a fantastic opportunity to stage an event and is close to a lengthy 8-mile road. In the next chapters, this thesis will propose an event plan based on previous research, as well as propose a conceptual design for the Johnson Recreation Center.



**FIGURE 006.8**

Map of sporting opportunities in Detroit with layered statistics such as: obesity rates, medical access and demand for a rec. center.



007

**Proposed Event:**  
Fina World Championships



## 007.1 Introduction

This thesis will suggest an environmentally friendly athletic event for the city of Detroit in this chapter. The event is planned using previous mistakes in planning or lessons learnt from those mistakes. The event's major goal is to give community access and utilities priority. The Fina World Championships, a water sports competition that takes place every two years, is the event that is being suggested. Swimming, open water swimming, synchronized swimming, water polo, and diving are among the sports represented. The last actual competition, the Fina World Championships, took place in Budapest, Hungary, in 2022. In this most recent competition, Hungary hosted around 500,000 spectators over a 17-day span, with the majority congregating in "fan zones" as opposed to the venues' arenas (2017). Multiple considerations led to the selection of the Fina World Championships. Fina presented a wonderful chance to increase access based on data revealing an imbalance in the ordinary Detroiters' access to water sports. A World Cup or Olympic event in Detroit may appear spectacular, but in actuality, the city lacks the financial resources to host an event of that magnitude. The availability of empty leisure centers in the city became the target events host structures as a direct reaction to the life cycle model, which prioritizes the re-use of existing structures. This means that any proposed event would need to be sizable enough to encourage growth but not sizable enough to overflow recreation facilities with temporary seats. The Fina World

Championships satisfies these requirements since it not only generates a niche community feel, as has been discovered via analyses of smaller events, but also enjoys global reputation.



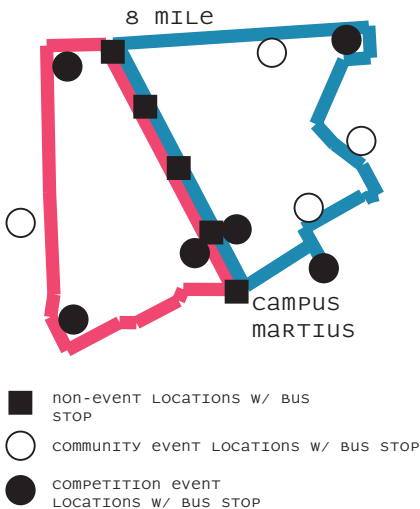
FIGURE 007.1



## 007.2 Event Plan

The proposed event's arrangement is set up along two effective shuttle circuits. The Woodward Avenue portion of Loop A extends from 8 Mile to Campus Martius. After then, it makes a westward turn and travels through Southwest Detroit before making a northward turn and traveling through a number of neighborhoods before arriving at 8 Mile. The path then takes a westward bend and returns to the original starting location at 8 Mile and Woodward Avenue. From 8 Mile to Campus Martius, efficient transportation Loop B follows Woodward Ave before turning east and heading toward the Islandview neighborhood. Chandler Park is a halt along this route before continuing north to 8 Mile Road. Following 8 Mile East, the path returns to the original starting location at 8 Mile and Woodward Avenue.

### COMPLIMENTARY BUS ROUTES



Along the route is 2 vacant recreation centers planned to be revitalized, 2 existing recreation centers, 1 city park and 1 professional arena. In addition, the route also includes 4 additional existing recreation facilities which will offer Fina sporting competitions to the public. The purpose of these 4 centers is to emphasize community access to athletic competition and drive interest in water sports. In general, the event plan is laid out in two circles which pulsate through the Woodward corridor, one of the main transportation routes in the city. However, while the main bus stops may be downtown and along Woodward Ave, the bus routes quickly turn into wide loops which drive spectators much further out into the city. An opportunity exist through this transportation for residents to see other parts of the public infrastructure that is in the city, that they may not have known about previously. For example, bus route B drives to Belle Isle Park as a part of the open water swimming competition. Residents could enjoy a complimentary shuttle ride to the park to enjoy watching an open water contest. Next, residents could continue along the same bus route and end up at Chandler Park, another great park amenity in the city. Each competition site was chosen by many criteria including urban fabric, proximity to planned route, amenities nearby, vacant or existing, capacity, landmark or monument and community need most importantly.

FIGURE 007.2

Belle Isle Park was chosen as the site for the open water swimming competitions. Temporary bleachers will be established to host thousands of spectators. The influx of spectators on the island could be accompanied by planned festivals at the island nature center and aquarium to spur interest. After the event, the temporary structures will be dismantled and taken away, returning the island to its previous state. This site was chosen because it provides an opportunity to showcase a large public utility in the city of Detroit.



**FIGURE 007.3**

Collage illustrating temporary open water swimmin event on Belle Isle



Little Ceasars Arena was chosen to host the opening and closing ceremonies. At these events, more spectators can be expected than traditional sporting events because these events appeal to the entire competition community. Little Ceasars Arena is the home of the Detroit Pistons and Red Wings as well as the host to many headlining concerts. It is in the downtown area with the most amenities to host a very large amount of people. Fina World Championships will be a small part of the arena's very busy calendar which follows the life cycle diagram by showing a public demand for the arena.

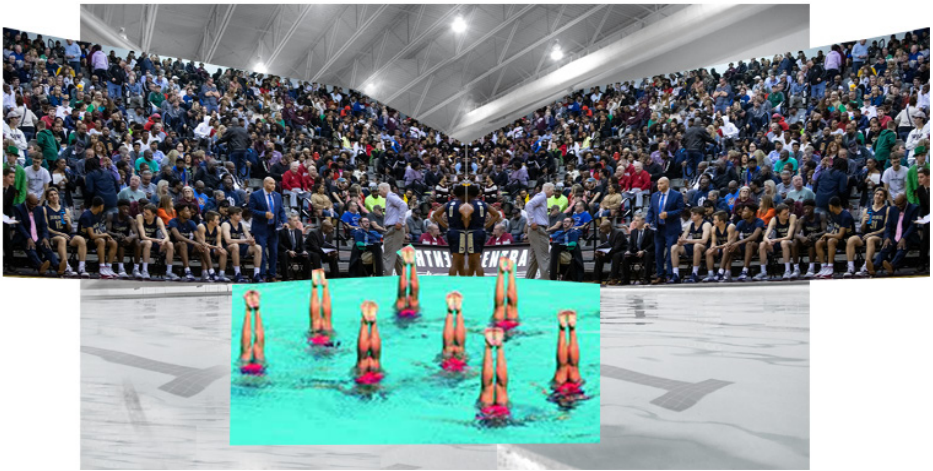
Patton Recreation Center was chosen to host water polo for this proposed event. This center is located in Detroit's Southwest Detroit neighborhood of Springwells. Patton is a community asset in its context and the proposed Fina event would provide first time access of water sports to residents. As well as the opportunity to see more events and landmarks in the city through the bus routes.

**FIGURE 007.4**

Collage illustrating water polo event at the Patton Recreation Center



The Heilmann Recreation Center was also chosen to host sporting competition in the Fina Proposal. Synchronized swimming will be performed in the facilities recently updated pool. This proposal imagines a temporary seating aspect with in the building to reach a high capacity. The Heilmann Center is located near the 8 Mile corridor which could see an influx of economic activity during an event. After the event, the facility will remain a 100% public amenity.



**FIGURE 007.5**

Collage illustrating a synchronized swimming event at the Heilmann Recreation Center

**FIGURE 007.6**

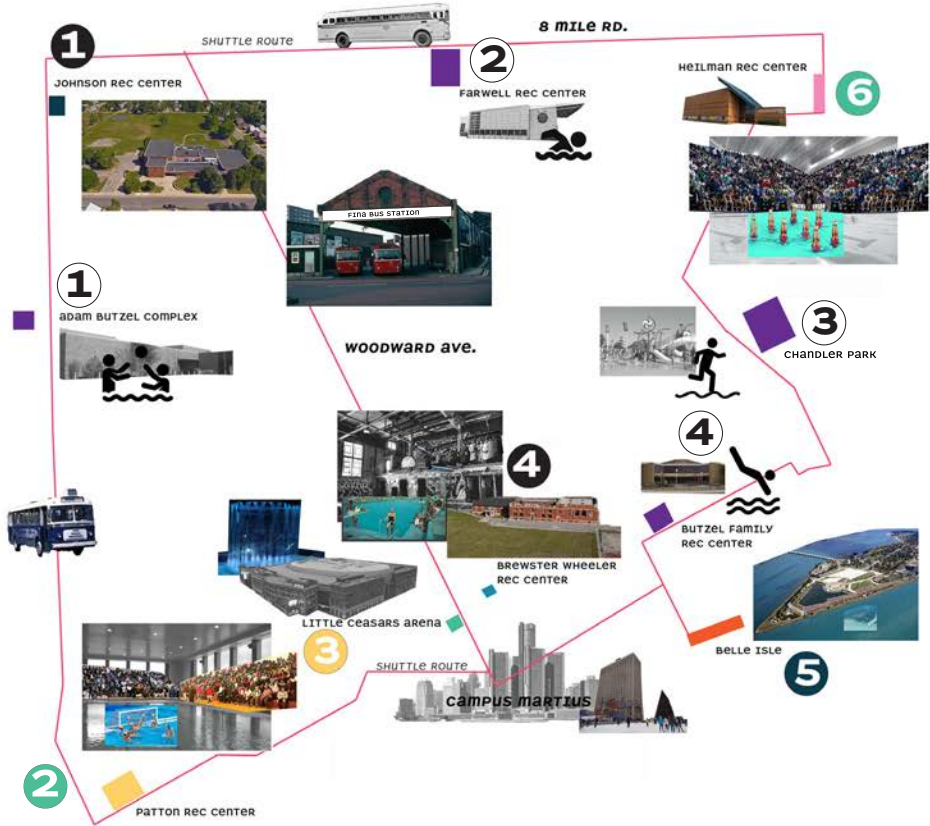
Collage illustrating a revitalized Brewster-Wheeler Recreation Center hosting a diving competition,



The first vacant recreation center chosen was the Brewster-Wheeler Recreation center. Diving events can take place at this site because the structure boasts tall ceilings and large vertical windows letting in ample light. This proposal imagines the Brewster-Wheeler Center being revitalized with financial boost from

hosting the Fina World Championships. The structures bones and community core must remain as after the event the facility aims to become a community cornerstone again by filling needs through programming.



**event collage map**

**FIGURE 007.7**

Collage showing the event map for the Fina World Championships

The Johnson Recreation Center was picked as the second unoccupied facility. This location envisions hosting swimming events through a significant remodeling project and the inclusion of a flexible pool. This facility was selected due to a clearly expressed cultural demand for swimming opportunities and its general closeness to facilities that would be useful to spectators, such as the Livernois Corridor. The conceptual design proposal for this site, which demonstrates revealed design concepts and the life cycle model, is illustrated in the following chapter of this thesis.

# FINA EVENT FACILITIES

## JOHNSON RECREATION CENTER

7 MILE / WYOMING

1

EVENTS  
HOSTED



LEGACY  
PROGRAM

GYM  
POOL  
MULTI ROOM  
FITNESS

BUS ROUTES

a

CAPACITY



SCHEDULE

June 5 - 9 :

9:00am - 11:00am

5:00 - 7:00PM

June 12 - 16 :

12:00PM - 2:00PM

FINALS 7:00 PM - 9:00PM

## PATTON RECREATION CENTER

SPRINGWELLS

2

EVENTS  
HOSTED



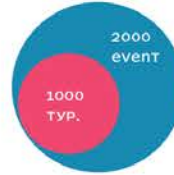
LEGACY  
PROGRAM

GYM  
POOL  
MULTI ROOM  
FITNESS

BUS ROUTES

a

CAPACITY



SCHEDULE

June 5 - 9 :

12:00PM - 2:00PM

7:00PM - 9:00PM

June 12 - 16 :

9:00am - 11:00am

FINALS 5:00PM - 7:00PM

## LITTLE CAESARS ARENA

DOWNTOWN DETROIT

3

EVENTS  
HOSTED



LEGACY  
PROGRAM

CONCERTS  
PISTONS  
REDWINGS

BUS ROUTES

a/B

CAPACITY



SCHEDULE

June 4 :

7:00PM - 9:00PM

opening ceremony

June 17 :

12:00PM - 2:00PM

CLOSING CEREMONY

## BREWSTER WHEELER CENTER

DOUGLAS

4

EVENTS  
HOSTED



LEGACY  
PROGRAM

POOL  
LIBRARY  
GYM

BUS ROUTES

a/B

CAPACITY



SCHEDULE

June 5 - 9 :

9:00am - 11:00am

5:00 - 7:00PM

June 12 - 16 :

12:00PM - 2:00PM

FINALS 7:00 PM - 9:00PM

## BELLE ISLE

RIVERTOWN

5

EVENTS  
HOSTED



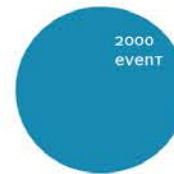
LEGACY  
PROGRAM

PARKS

BUS ROUTES

B

CAPACITY



SCHEDULE

June 5 - 9 :

12:00PM - 2:00PM

7:00PM - 9:00PM

June 12 - 16 :

9:00am - 11:00am

FINALS 5:00PM - 7:00PM

## HEILMAN RECREATION CENTER

REGENT PARK

6

EVENTS  
HOSTED



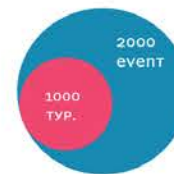
LEGACY  
PROGRAM

GYM  
POOL  
MULTI ROOM  
FITNESS

BUS ROUTES

B

CAPACITY



SCHEDULE

June 5 - 9 :

11:00am - 1:00PM

6:00PM - 8:00PM

June 12 - 16 :

8:00am - 10:00am

FINALS 1:00PM - 3:00PM

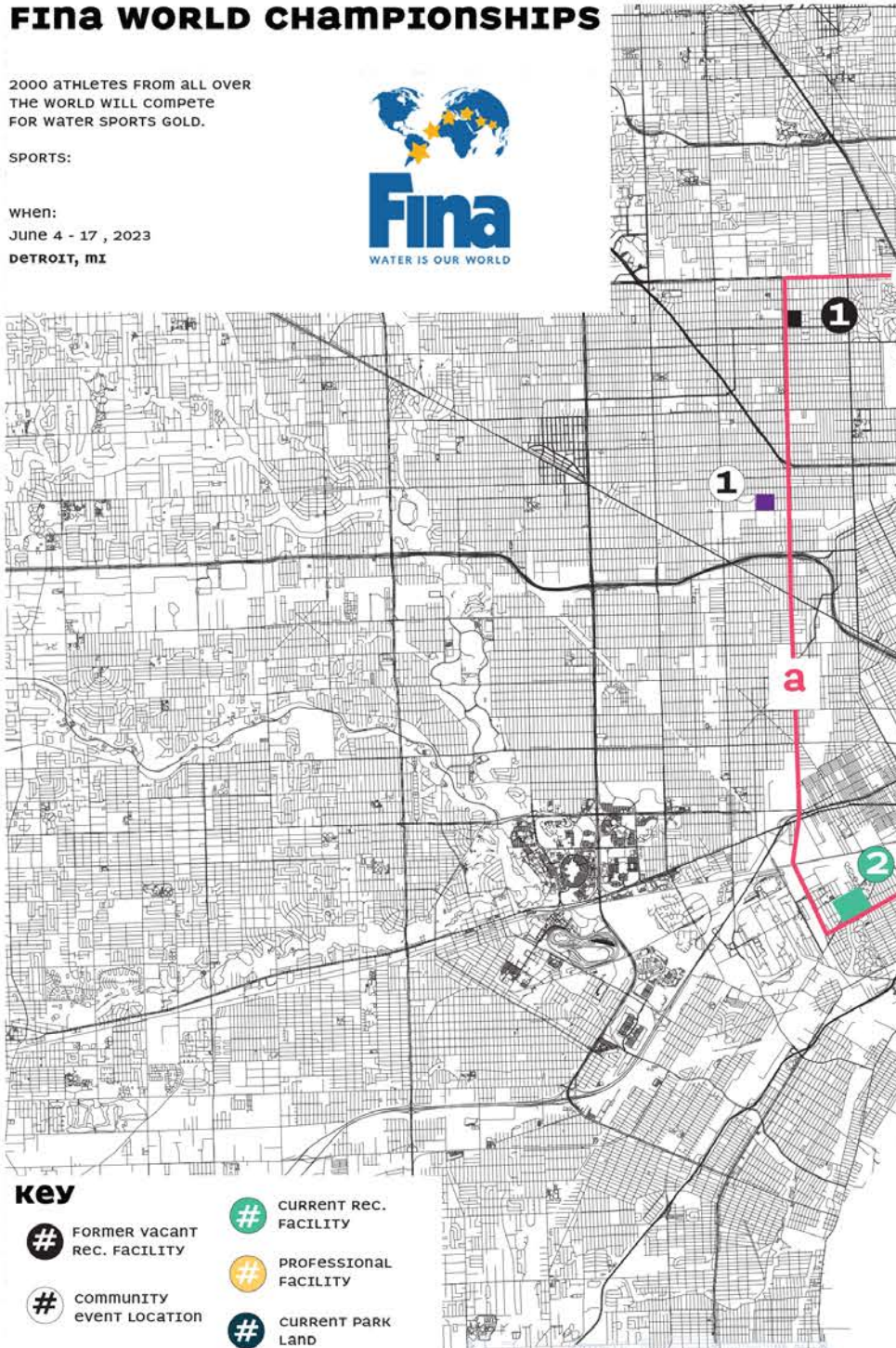
FIGURE 007.8

# FINA WORLD CHAMPIONSHIPS

2000 ATHLETES FROM ALL OVER  
THE WORLD WILL COMPETE  
FOR WATER SPORTS GOLD.

SPORTS:

WHEN:  
JUNE 4 - 17 , 2023  
DETROIT, MI



**key**



FORMER VACANT  
REC. FACILITY



COMMUNITY  
EVENT LOCATION



CURRENT REC.  
FACILITY



PROFESSIONAL  
FACILITY

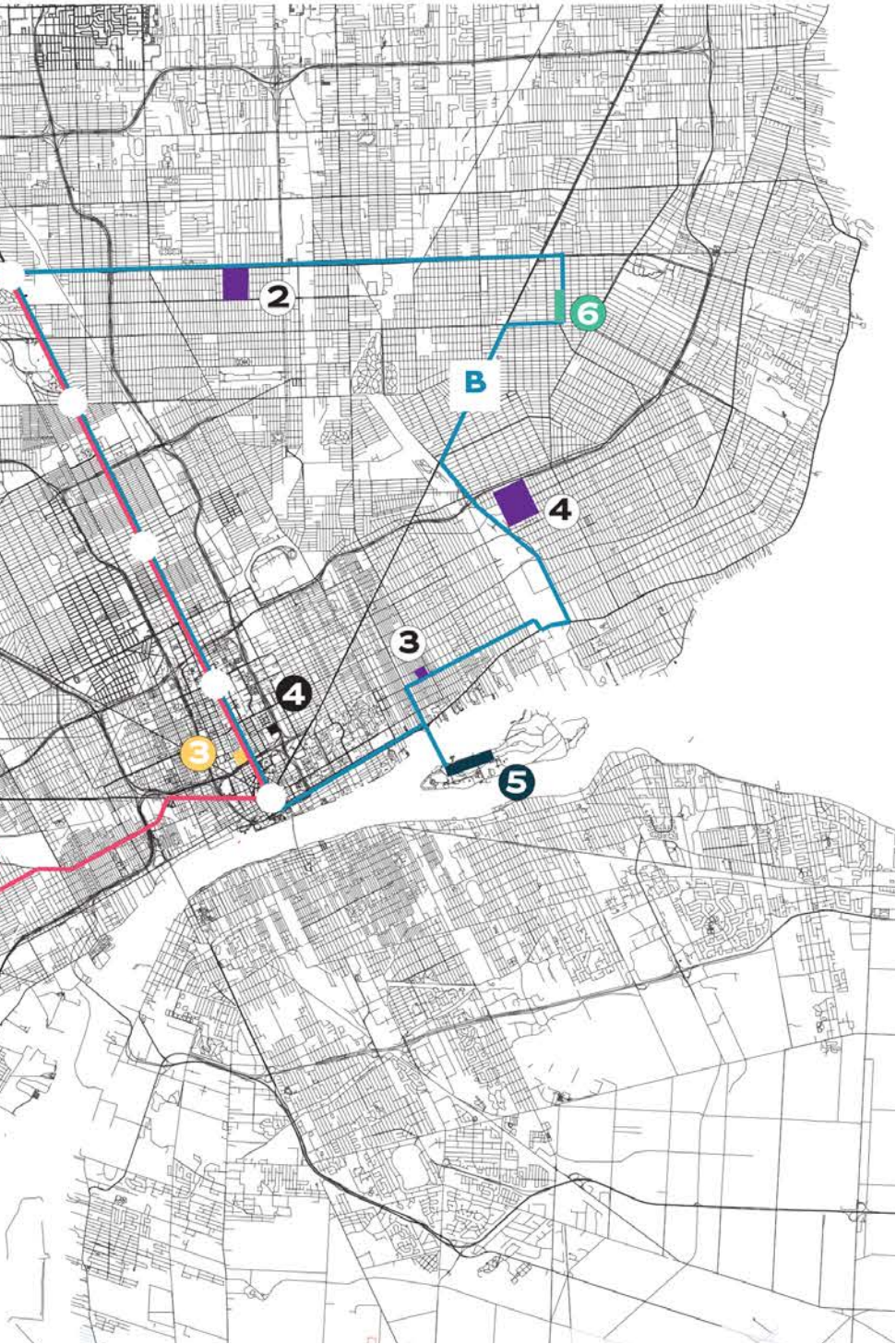


CURRENT PARK  
LAND

FIGURE 007.9



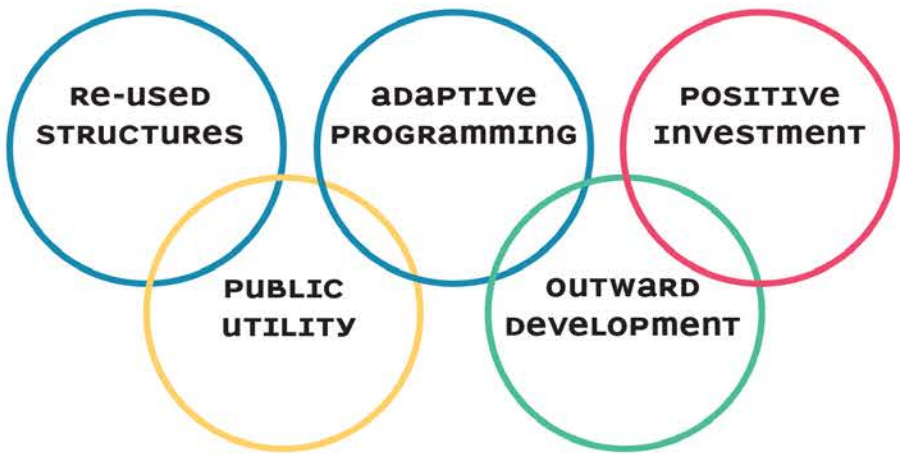




## 007.3 Event Intentions

The Fina World Championships are proposed as a sustainable athletic event in Detroit. Repurposing existing buildings and designing an event that suits the size of the facilities selected are given top priority in the event plan. Fina mainly uses recreation centers, therefore the number of expected spectators fits that range. In addition to making use of the recreation centers, this plan envisions the use of adaptive programming by designating four recreation centers as venues for open competitions. Following the event, these facilities will resume offering community-requested programming with an increased focus on water sports. The idea is that by putting the money in the community's hands, this event will turn out to be a worthwhile investment. The amenities remaining in the community are what really matter when designing and planning for a life cycle mode. The majority of the benefits from this event should be distributed to the general people. Last but not least, this event also affects the city as a whole by spurring growth outside the city by including locations from a significant outreach. Residents and spectators will have the chance to visit many different parts of the city that are typically inaccessible.





### 1. RE-USED STRUCTURES

THE PROPOSED EVENT EMPLOYS RE-USING STRUCTURES FOR **ALL EVENTS** INCLUDING REVIVING 2 RECREATION CENTERS BACK TO LIFE. THE LARGEST CAPACITY EVENT IS TO BE HELD IN THE **ONLY PROFESSIONAL ARENA IN THE PLAN.**

### 2. ADAPTIVE PROGRAMMING

THE PROPOSED EVENT ENCOURAGES COMMUNITY ENGAGEMENT WITH THE SPORTS DIRECTLY THROUGH HOSTING **EVENTS OPEN TO THE PUBLIC.** IN ADDITION, EACH LOCATION WILL TAKE ADVANTAGE OF THE EVENT THROUGH HOSTING **OPEN MARKETS, LIVE MUSIC AND OTHER GATHERING PROGRAMMING.**

### 3. POSITIVE INVESTMENT

THE PROPOSED EVENT ILLUSTRATES POSITIVE INVESTMENT THROUGH FUNDS BEING USED FOR THE NEEDS OF THE COMMUNITY THROUGH **RETROFITTING OF FACILITIES** AFTER HOSTING THE FINA CHAMPIONSHIPS. **ECONOMIC UPTURN** CAN BE EXPECTED AT NEARBY COMMERCIAL CORRIDORS SUCH AS THE **FASHION AVENUE** FROM VISITORS TO THE EVENT.

### 4. PUBLIC UTILITY

THE PROPOSED EVENT PRODUCES PUBLIC UTILITY BY **UPGRADING EXISTING RECREATION FACILITIES** AND **RENOVATING 2 VACANT FACILITIES BACK TO LIFE.** THE INTENT OF THE EVENT PLAN IS TO OPEN EACH EVENT FACILITY TO THE PUBLIC AFTER THE EVENT WITH IMPROVED CONDITIONS AND NEW OPPORTUNITIES.

### 5. OUTWARD DEVELOPMENT

THE PROPOSED EVENT HIGHLIGHTS OUTWARD DEVELOPMENT BY INCLUDING **EVENT SITES NOT IN THE TYPICAL DOWNTOWN AREA.** AN **EFFICIENT TRANSIT SYSTEM** CONNECTS ALL LOCATIONS AND INCLUDES SOME IMPORTANT **LANDMARKS IN DETROIT.**

FIGURE 007.10

008

**Proposed**

**Design:**

Johnson Recreation Center



## 008.1 Introduction

This thesis provides an illustration of the Johnson Recreation Center's conceptual design as it relates to the projected Fina World Championships. This center was selected due to the large amount of space on the property and its close access to 8 Mile Rd. Being the first desegregated recreation center in Detroit's Northside, the facility was also important historically and culturally. Due to the historical significance of swimming classes and the existence of a neighborhood open gym, swimming is demonstrated as a communal need.

As was already mentioned, the location is now owned by a private high school, which has agreed to grant community access. Residents, though, are dubious and worry that access may differ from when the facility was fully open. An examination of the new development's scheduled programming can validate their suspicions. Only male locker rooms, a wrestling room, a golf simulator, and a "film room" (Joe) are part of the design. It is difficult to think that this programming for a site is the most community adaptable. This thesis's suggested design prioritizes a pool extension, expanded gathering space, and increased exercise access in order to address community requirements.

FIGURE 008.1

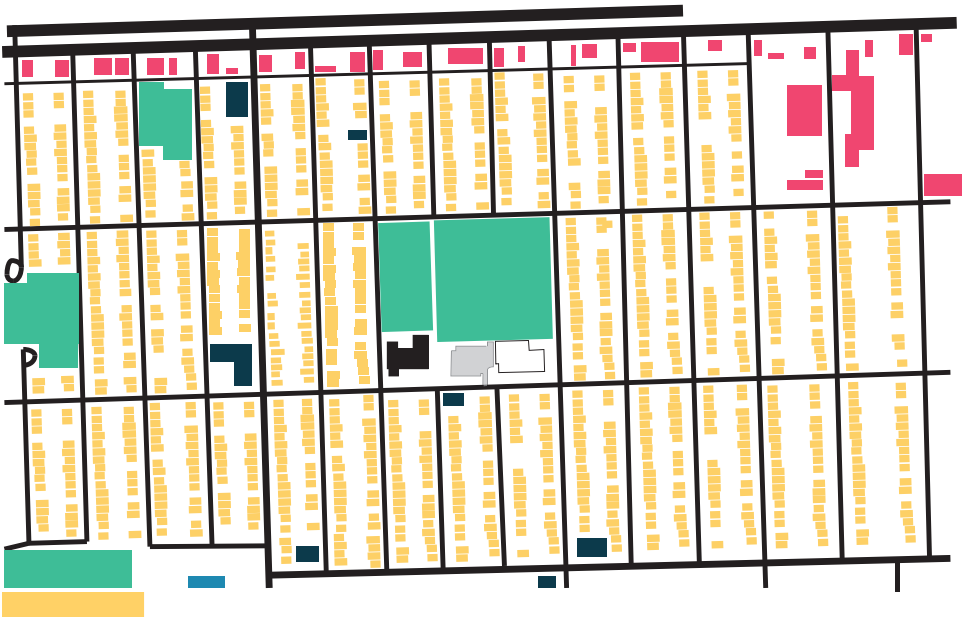




FIGURE 008.2

## 7 MILE / WYOMING

- AVERAGE INCOME HOUSEHOLD INCOME: \$40,000
- ABOVE AVERAGE YOUTH POPULATION: 25%
- LIVERNOIS COMMERCIAL CORRIDOR CLOSE BY

### ● SCHOOLS

- BATES ACADEMY
- MARYGROVE COLLEGE
- UNIVERSITY OF DETROIT MERCY

### ● COMMERCIAL

### ● PLAY FIELDS

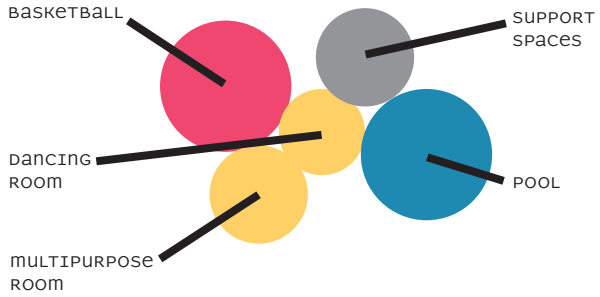
### ● RESIDENTIAL

### ● SPIRITUAL



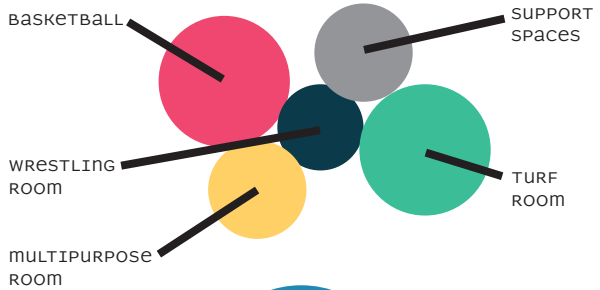
**ORIGINAL JOHNSON RECREATION CENTER**

- BUILT IN 1979
- THE CONSTRUCTION INVOLVED COVERING THE EXISTING POOL ON THE SITE AND CONNECTING IT TO AN EXISTING COMMUNITY STRUCTURE THROUGH THE ORGANIC ARCHITECTURE STYLE



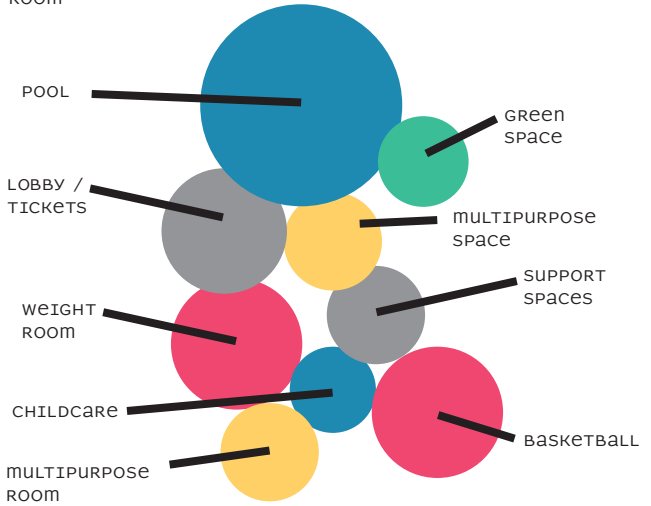
**U OF D JOHNSON RECREATION CENTER**

- BUILT IN 2021
- THE RENOVATION INVOLVED REMOVING THE EXISTING SWIMMING POOL AND WOMAN'S LOCKER ROOMS. A GOLF SIMULATOR AND WRESTLING ROOM WERE ADDED TO THE PROGRAM



**PROPOSED PROGRAM DIAGRAM**

- PROPOSED PLAN ADDS NEW POOL ADDITION TO THE NORTH OF THE SITE.
- DESIGN EMPHASIZES COMMUNITY NEEDS THROUGH INCLUSION OF POOL, FITNESS AREA AND CHILDCARE AREA.
- MAIN ENTRANCE IS MOVED TO THE MIDDLE OF THE BUILDING.



**FIGURE 008.3**  
Program diagrams of the Johnson Recreation Center





## 008.2 Design Intentions

The planned site contains a variety of interventions that can be customized for both before and after an event. For instance, a planned splash pad is used on the site's north side. But in order to accommodate many spectators, a sizable temporary seating area is planned over the splash pad during the event. After the event, the area will serve as an outdoor splash pad, or other activities like projecting big movies onto the pool's façade can be used.

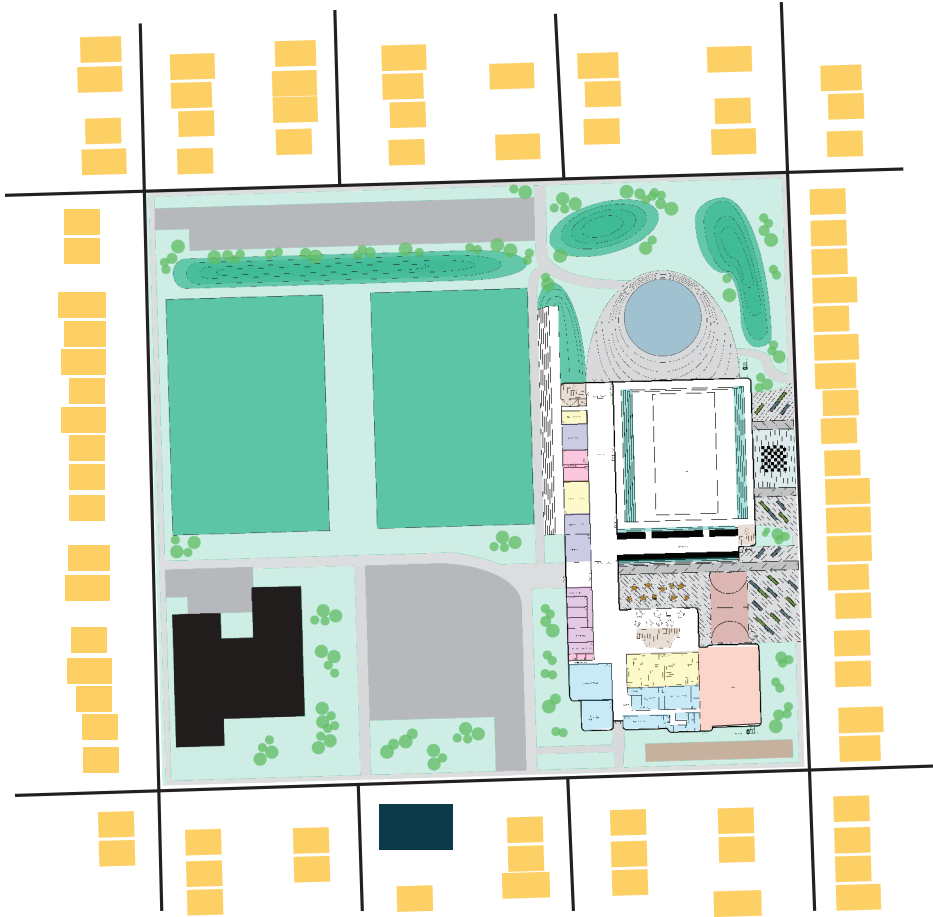
The recreation center's expansive entrance sequence is another design component. The area has a basketball court, a circulation route, a meeting place with tables and chairs, and an overlooking balcony with café services. To capitalize on big spectator audiences, this area might be turned into a lengthy queue area with a pop-up market during an event. This area is intended to accommodate a variety of event types and provide a distinctive entry sequence to a community landmark that prioritizes interaction and walkability.

A massive grand staircase inside the structure transports crowds of people to the arena's top level and then onto the main concourse. The main concourse is envisioned as a flexible, sizable open space. The area will act as a vendor-served concessions area for the event, showcasing regional cuisine. Treadmills and weightlifting apparatus will be placed in the area after the event. The 5,000-seat grandstand, which overlooks the pool and looks out to the neighborhood through







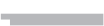





the East façade, is reached from the main concourse. Large windows in the design can pivot to enable winds, light, and community energy into the structure.

This site also envisions a community garden that would offer residents opportunities to study and grow their own food. Large berms are sporadically placed to create varying topography and different vantage positions for events and landscapes. Two parking lots are used at the location, and a walking route circles the whole site. This complex can accommodate markets, soccer games, lacrosse games, football games, kids festivals, basketball events, fitness activities, swimming events, and of course community events thanks to its various multipurpose rooms both inside the building and outside.

Overall, the plan aims to provide the neighborhood with a good and meaningful location following the event. The event serves as a spur for the facility's redevelopment, but the locals profit most from it because they have a fantastic recreation area. Swimming and water sports, community meeting and connecting spaces, kid-friendly outdoor programming, a sizable garden area, and a sizable workout facility are among the programs pursued. This proposal envisions how the Johnson Recreation Center may be modified for an event by adding two temporary seating elements, and then those spaces could become community gathering places available for a variety of programming following the event. Therefore, responding to the life cycle model by understanding community needs and prioritizing them in the renovation.



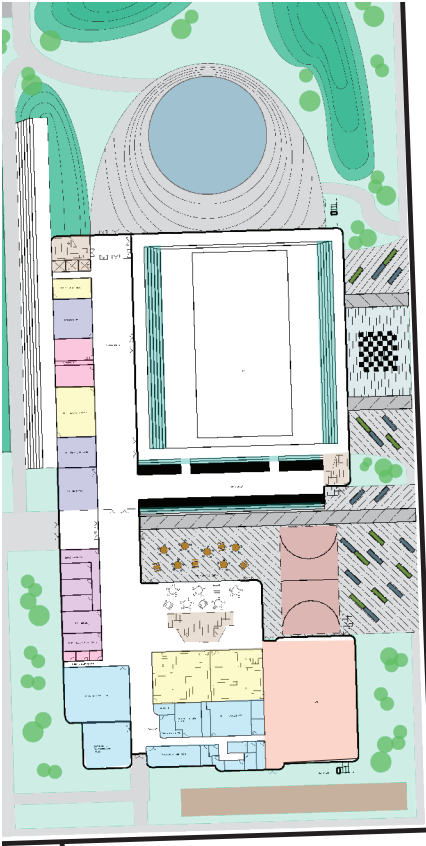
**SITE PLAN KEY**

- |   |                    |   |                     |
|---|--------------------|---|---------------------|
|  | STREET             |  | LANDSCAPE BERM      |
|  | SINGLE FAMILY HOME |  | LIFESIZE CHESS      |
|  | PLAY FIELD         |  | HIGGENBOTHAM SCHOOL |
|  | PARKING LOT        |  | COMMUNITY GARDEN    |
|  | SPLASH PAD         |  | TABLES AND CHAIRS   |
|  | COURT              |  | TREES               |

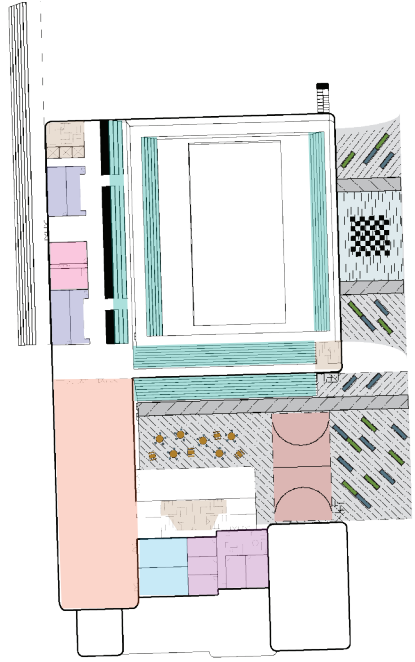
**FIGURE 008.4**

Site plan of proposed design, note entrance sequence with basketball court and gathering area













**SECOND FLOOR**



**Plan key**

	LOCKER ROOMS		OFFICES / MECHANICAL
	GYM / FITNESS area		CONCESSIONS / PRO SHOP
	REST ROOMS		MULTI-PURPOSE ROOMS
	CIRCULATION		SEATING AREAS

**FIGURE 008.5**

Floor plans of proposed design, note center grand staircase and adaptive fitness area on second floor





**FIGURE 008.6**

Top image North to South section, middle image after event elevation, bottom during event elevation





**FIGURE 008.7**

Top image during event entrance rendering,  
bottom image post event rendering



009

**Conclusion**



## 009.1 Limitations

This thesis' lack of genuine community interaction is one of its weaknesses. On the basis of demographic and statistical data, historical and cultural analysis, and urban analysis, the Johnson Recreation Center's programming was developed. The usefulness of the thesis rests in the life cycle model and sustainable design principles, even though this understanding might have an impact on the proposed event's ethos and conceptual design programmatically. The life cycle model does not alter even when the program of the design might due to genuine community interaction. The ideas' aims and intentions remain the same. The process starts with community involvement during the planning stage, is followed by construction, the event, facility retrofitting, and finally public opening with the involved programs. The purpose of selecting an empty recreation center in the proposed case study is the same, but other potential activities might be more in demand than swimming or a place for community gatherings. In each situation, the ultimate objective is to establish a successful community recreation facility.

Another understood limitation is the basis of research in mega sporting events, but a proposed medium sized event. Fina is a much smaller event than the most researched events of the thesis such the London Olympics or World Cups. However, this thesis has value because lessons learned from those events can drive implications at smaller scales. For example, a lesson learned from previous events is that stadiums are

often built without an understanding of the demand for the facility post event. In this thesis, whether it is a stadium or a recreation center, the demand for the facility post-event is analyzed as a key driver in selection for an event plan.

## 009.2 Discussion

The proposed event and conceptual design offer a strong push towards sustainable sporting events. The event plan prioritizes selecting facilities in neighborhoods of need and is placed along a simple two circuits of bus routes. To advance the thesis further, possible integration with current Detroit transportation routes could be explored. Offering opportunities to see world class competition along typical transit routes would be a large gained public amenity as well as direct access to recreation centers. As the plan currently imagined, it would require a pausing of other bus routes during the event to feed the demand of the A and B event routes. Therefore, exploring integration opportunities with the existing transit would benefit the event and possibly be more sustainable.

A further development of long-term contextually tailored interventions along the projected transportation routes is another discussion point for the thesis' findings and design recommendations. The goal is to draw attention to other city landmarks and spark locals' curiosity in exploring other areas of the city. Permanent architectural interventions may become durable and serve as placemaking landmarks



commemorating the communal component of the event if it were to occur every two years. The sporting event may perhaps serve as more of a method for locals

to explore and interact with the city. With this advancement, this sporting event not only acts as a catalyst for redevelopment of public utilities, but a way to drive outward development of residents and spectators.

## 009.3 Conclusions

Sporting events are displays of competition, community and pride. Sports are positive examples of activities which improve one's health and mental stability. There is value in providing opportunities for athletic competitions and sporting events to communities because of the positive health effects and the benefits culturally of becoming a part of something bigger than yourself. Too often, sporting events are clouded by high cost, unsustainable practices and unfair treatment to residents. This thesis proposes a case study Fina World Championships sporting event, and conceptual design at the Johnson Recreation Center which is sustainable and benefits the community in the long term. The event schedule and conceptual layout are meant to respond to the developed life cycle model, which makes use of adaptable spaces, temporary features, and reused buildings. These design principles that comprise the life cycle model are what give this thesis its worth. A strategy for creating sustainable athletic facilities that may be adapted to meet community demands after an event. For the Fina World Championships, the proposal makes use of temporary structures, already-existing structures, community

engagement through adaptable programming, and the inclusion of public competitions. The Johnson Recreation Center's design makes use of both temporary components and an already-existing structure. The splash pad area and entrance sequence are two examples of versatile spaces that may hold a range of activities and stress a sense of community. Through looking broadly at athletic activity, understanding shortfalls in previous events, researching context in Detroit, analyzing precedents and creating models, selecting optimal sites and proposing a sustainable sporting event along with a conceptual design, this thesis aims to illustrate how communities can truly receive a host field advantage.



## References:

- “2008 Olympics Venues in Beijing Are Now Unused and Completely Overgrown.” USA Today, Gannett Satellite Information Network, 10 Aug. 2018, <https://www.usatoday.com/picture-gallery/sports/olympics/2018/08/07/2008-beijing-olympics-venues-unused-and-completely-overgrown/924734002/>.
- Aquino, Ileana & Nawari, Nawari. (2015). Sustainable Design Strategies for Sport Stadia. Suburban Sustainability. 3. 10.5038/2164-0866.3.1.1020.
- Bradbury, John Charles, et al. “The Impact of Professional Sports Franchises and Venues on Local Economies: A Comprehensive Survey.” SSRN, Journal of Economic Surveys, 3 Feb. 2022, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4022547](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4022547).
- 82
- “Detroit Tigers Attendance, Stadiums, and Park Factors.” Baseball, Baseball Reference, 2022, <https://www.baseball-reference.com/teams/DET/attend.shtml>.
- “Detroiturbex.com - Exploring and Understanding the City of Detroit.” Detroiturbex.com - Exploring and Understanding the City of Detroit, DetroitUrbex, 2013, <http://www.detroiturbex.com/>.
- Devolder, Chris. “Sports Architecture: HOK’s Chris Devolder on the Future for Sustainable Sports Venues.” CLAD, CLAD, 2016, <https://www.cladglobal.com/architecture-design-features/>
- Dixit, Kunda. “Rights Referees Blow Whistle on World Cup Fouls.” Nepali Times, Nepali Times, 16 Dec. 2021, <https://www.nepalitimes.com/banner/human-rights-referees-blow-whistle-on-world-cup-fouls/>.
- Donahue, Bill. “Inside the Troubling Legacy of Displacing Poor Communities for the Olympic Games - and One Village’s Resistance in Brazil.” The Washington Post, WP Company, 6 July 2020, <https://www.washingtonpost.com/>

Football, Tifo. "Did Qatar Build a Whole City for the World Cup?"

YouTube, The Athletic, 2 Aug. 2022, Did Qatar build a whole city for the World Cup?

Goldenbaum, Chris, and Isabella Galante. "Five Years On: Revisiting Rio 2016 Olympics' Unkept Promises." Olympics News | Al Jazeera, Al Jazeera, 19 Sept. 2021, <https://www.aljazeera.com/sports/2021/9/19/five-years-on-revisiting-rio-2016-olympics-unkept-promises>.

Google Earth, Google, <https://earth.google.com/web/>.

Hurley, Ian. "Is There Any Real Economic Benefit to Hosting a World Cup?" Pacific Standard, Pacific Standard, 21 June 2018, <https://psmag.com/economics/is-there-any-real-economic-benefit-to-hosting-a-world-cup>.

"Joe Louis Park" Joe Louis Park - Johnson Recreation Center Campus - U of D Jesuit, University of Detroit-Jesuit, 2022, <https://www.uofdjoesuit.org/school-life/joelouispark>.

83

Kellison, Tim. "Considering the Social Impact of Sustainable ... - Ijembr.org." Internal Journal of Event Management Research, University of Florida, <https://www.ijembr.org/wp-content/uploads/2014/10/Kellison-et-al.pdf>.

"London Olympics: How Did the Games Do?" BBC News, BBC, 13 Aug. 2012, <https://www.bbc.com/news/uk-19206525>.

McPhillips, Tim. "The World Cup Is Officially Underway in Qatar. Here's Why It's so Controversial." PBS, Public Broadcasting Service, 21 Nov. 2022, <https://www.pbs.org/newshour/world/the-world-cup-is-officially-underway-in-qatar-heres-why-its-so-controversial#:~:text=Qatari%20officials%20deny%20the%20allegations,being%20dangerous%2C%E2%80%9D%20Bennett%20said>.

Morrissey, John & Iyer-Raniga, Usha & McLaughlin, Patricia & Mills, Anthony. (2013). Sustainable planning and design of large-scale metropolitan development projects. *Int. J. of Sustainable Development*. 16. 190 - 203. 10.1504/

Nettleford, Carly. "Sustainability in Stadium Design: Tokyo Olympics 2020," <https://www.imeche.org/news/news-article/sustainability-in-stadium-design-tokyo-olympics-and-paralympics-2021>.

"Official Athletics Website." Detroit Sports Commission, Detroit Sports Commission, 2022, <https://detroitports.org/>.

"Olympics: Olympic Games, Medals, Results & Latest News." Olympics.com, International

Photo from the Burton Historical Collection, et al. "Brewster-Douglass Projects - Old Photos Gallery: Historic Detroit." Brewster-Douglass Projects - Old Photos Gallery -, Historic Detroit, 2023, <https://historicdetroit.org/galleries/brewster-douglass-projects-old-photos>.

Populous. "Stadiums That Shape Downtowns: The Impact of Stadiums on Redevelopment." Populous, Populous, 10 Dec. 2018, <https://populous.com/stadiums-that-shape-downtowns-the-impact-of-stadiums-on-urban-redevelopment>.

"Recreation Centers." City of Detroit, Department of Parks and Recreation, 2022, <https://detroitmi.gov/departments/detroit-parks-recreation/recreation-centers>.

Riper, Tom Van. "In Pictures: The Most Profitable Sports Venues." Forbes, Forbes Magazine, 11 July 2012, [https://www.forbes.com/2010/01/05/lakers-cowboys-yankees-business-sports-stadiums\\_slide.html?sh=395372801167](https://www.forbes.com/2010/01/05/lakers-cowboys-yankees-business-sports-stadiums_slide.html?sh=395372801167).

Shao, Grace. "China Pours Billions into Infrastructure and Talent as It Readies for the 2022 Winter Olympics." CNBC, CNBC, 6 Feb. 2020, <https://www.cnbc.com/2019/12/25/2022-winter-olympics-china-invests-billions-in-infrastructure-talent.html>.

Silva, Valeria, et al. "Broadcasting Architecture Worldwide." ArchDaily, 14 Dec. 2022, <https://www.archdaily.com/>.

- Smith, Helena. "Athens 2004 Olympics: What Happened after the Athletes Went Home?" The Guardian, Guardian News and Media, 9 May 2012, <https://www.theguardian.com/sport/2012/may/09/>
- Stoll, Julia. "Olympic Summer Games: Global Broadcast Audience." Statista, Statista, 8 Dec. 2022, <https://www.statista.com/statistics/280502/total-number-of-tv-viewers-of-olympic-summer-games-worldwide/>.
- Wergeland ES and Hognestad HK (2021) Reusing Stadiums \ for a Greener Future: The Circular Design Potential of Football Architecture. *Front. Sports Act. Living* 3:692632. doi: 10.3389/fspor.2021.692632
- "Zaha Hadid Architects." Zaha Hadid Architects, <https://www.zaha-hadid.com/>.
- 2017, Andy Ross 04 August, et al. "FINA World Championships Attracted Huge Numbers in Budapest." *Swimming World News*, *Swimming World*, 5 Aug. 2017, <https://www.swimmingworldmagazine.com/news/fina-world-championships-attracted-huge-numbers-in-budapest/>.

## Figures:

**001.1** Graphic work by Cameron Case, Photos from Lars Baron, Tony Manfred and Shawn Botterill

**002.1** Model by Tasmania Department of Recreation

**003.1** Graphic by Cameron Case

**003.2** Graph by Cameron Case, Stats from (Olympics)

**003.3** Graphic by Cameron Case

**003.4** Graph by Cameron Case, Stats from (Stoll 2020)

**003.5** Graphic by Cameron Case, Stats from Oxford Olympic Study 2016

**003.6** Graphic by Cameron Case

**003.7** Graphic by Cameron Case

**003.8** Photo from Kai Paffenboch 2020

**003.9** Graphic by Cameron Case, info by (Olympic)

**003.10** Photo from Arne Museler

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**004.1** Photo from HOK Architects

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**004.5** Rendering from FaulknerBrowns Architects

**004.6** Principles of sustainable sporting design by Cameron Case

**004.7** Life Cycle Design Model by Cameron Case

**005.1** Photo from collection at Detroit Public Library

**005.2** Photo from HistoricDetroit.org

**005.3** Photo from (Frederic)

**005.4** Collage by Cameron Case

**005.5** Photo from City of Detroit (Recreation)

**005.6** Sketch problem mapping exercise by Cameron Case, Data from Google Maps and City of Detroit

**006.1** Collage by Cameron Case

**006.2** Mapping by Cameron Case, Data from Google Maps, Program from City of Detroit

# Figures:

**006.3** Graphic by Cameron Case, Info from City of Detroit

**006.4** Graphic by Cameron Case, Program from City of Detroit (Recreation)

**006.5** Collage by Cameron Case, photos from DetroitUrbex.com

**006.6** Collage by Cameron Case, photos from DetroitUrbex.com, HistoricalDetroit.org

**006.7** Collage by Cameron Case, photos from DetroitUrbex.com, Google Earth, City of Detroit

**006.8** Mapping by Cameron Case, data from Google Maps and City of Detroit

**007.1** Graphic from degc.org

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**007.3** Collage by Cameron Case

**007.4** Collage by Cameron Case

**007.5** Collage by Cameron Case

**007.6** Collage by Cameron Case

**007.7** Collage by Cameron Case

**007.8** Graphic by Cameron Case

**007.9** Map by Cameron Case, Data from Google Maps

**007.10** Graphic by Cameron Case

**008.1** Graphic by Cameron Case, map data from Google Maps

**008.2** Image from Google Earth

**008.3** Program Diagram by Cameron Case

**008.4** Site plan by Cameron Case

**008.5** Plans by Cameron Case

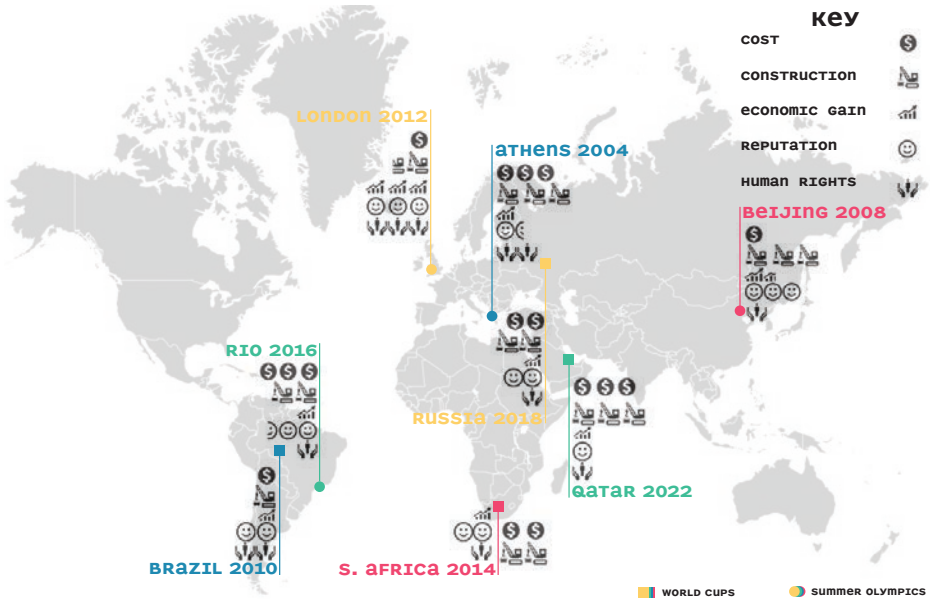
**008.6** Elevations and Section by Cameron Case

**008.7** Renderings by Cameron Case

Appendix:







**APPENDIX ITEM 001.2**

Diagram illustrating 5 main dimensions of Olympics including cost, construction, economic gain, reputation, human rights.


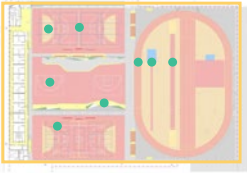
**APPENDIX ITEM 001.1**

Full media piece displaying dichotomies of sporting events.

### MULTISPORTS CENTER

**LOCATION:** TARBES, FRANCE  
**YEAR BUILT:** 2022  
**SIZE:** 115,000 SQFT  
**SPORTING EVENTS HOSTED:** RECREATION CENTER  
**SUSTAINABLE STRATEGY EMPLOYED:** RE-USED STRUCTURE

8 SPORT OPPORTUNITIES  
 1 LARGE ROOM


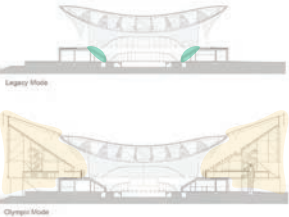



### LONDON AQUATIC CENTRE

**LOCATION:** LONDON, ENGLAND  
**YEAR BUILT:** 2008-2011  
**COST TO BUILD:** 170 MILLION POUNDS  
**CAPACITY:** 17000 (2,900) POST EVENT  
**SPORTING EVENTS HOSTED:** SWIMMING AND DIVING  
**SUSTAINABLE STRATEGY EMPLOYED:** TEMPORARY STRUCTURE


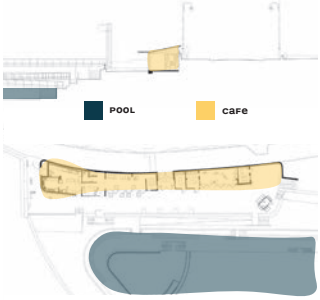
■ REMAINING AFTER OLYMPICS  
 ■ REMOVED AFTER OLYMPICS

17,500 OLYMPIC CAPACITY  
 2,500 OLYMPIC CAPACITY

### JUBILEE POOL


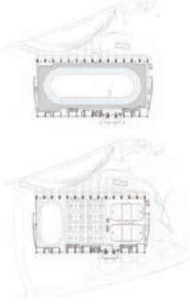
**LOCATION:** PENZANCE, ENGLAND  
**YEAR BUILT:** 2011  
**SIZE:** 2,800 SQFT  
**SPORTING EVENTS HOSTED:** RECREATION CENTER  
**SUSTAINABLE STRATEGY EMPLOYED:** COMMUNITY PROGRAM

### RICHMOND OLYMPIC OVAL

**LOCATION:** RICHMOND, CANADA  
**YEAR BUILT:** 2008  
**COST TO BUILD:** 170 MILLION DOLLARS  
**CAPACITY:** 8,000  
**SPORTING EVENTS HOSTED:** SPEED SKATING  
**SUSTAINABLE STRATEGY EMPLOYED:** ADAPTABILITY

OLYMPIC MODE SPORTS OFFERED: 1  
 LEGACY MODE SPORTS OFFERED: 5

### COLIN SPORTS HALL



**LOCATION:** MEXICO  
**YEAR BUILT:** 2010  
**SIZE:** CAMPUS  
**SPORTING EVENTS HOSTED:** RECREATION COMPLEX  
**SUSTAINABLE STRATEGY EMPLOYED:** CAMPUS CONNECTIVITY




### RIO ADVENTURE PARK

**LOCATION:** RIO DE JANEIRO  
**YEAR BUILT:** 2016  
**COST TO BUILD:** 170 MILLION DOLLARS  
**CAPACITY:** 7,500  
**SPORTING EVENTS HOSTED:** MMA AND KARATE  
**SUSTAINABLE STRATEGY EMPLOYED:** RE-USE

■ RE-USED AS PUBLIC POOL

### MASORO SPORTS AND LEARNING COMPLEX


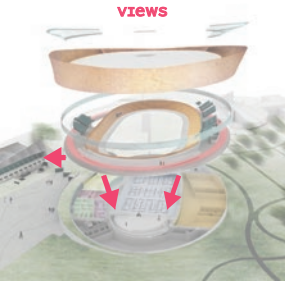
**LOCATION:** RWANDA  
**YEAR BUILT:** 2010-2015  
**SIZE:** 12,000 SQFT  
**SPORTING EVENTS HOSTED:** SCHOOL AND FINALS  
**SUSTAINABLE STRATEGY EMPLOYED:** RE-USE BUILDING




### FAULKNERBROWNS VELODROME

**LOCATION:** EDMONTON, CANADA  
**YEAR BUILT:** 2010-2012  
**COST TO BUILD:** N/A  
**CAPACITY:** N/A  
**SPORTING EVENTS HOSTED:** MULTIPLE  
**SUSTAINABLE STRATEGY EMPLOYED:** COMMUNITY INFORMED

VIEWS

**APPENDIX ITEM 001.3**

Precedent research including sports event architecture and recreation centers.

**APPENDIX ITEM 001.4**

Grading of current city of Detroit Recreation Centers.

**FACILITY GRADES**

<p><b>1</b></p> <p>access: B            Programs OFFERED: a            FACILITY CONDITION: B            INDOOR OPTIONS: a-</p>	<p><b>2</b></p> <p>access: B            Programs OFFERED: C            FACILITY CONDITION: B-            INDOOR OPTIONS: C</p>	<p><b>3</b></p> <p>CLEMENTE COMPLEX            access: B-            Programs OFFERED: B-            FACILITY CONDITION: B-            INDOOR OPTIONS: B+</p>	<p><b>4</b></p> <p>COLEMAN A YOUNG            access: a            Programs OFFERED: B            FACILITY CONDITION: B            INDOOR OPTIONS: B-</p>
<p><b>5</b></p> <p>CROWELL CENTER            access: a-            Programs OFFERED: a-            FACILITY CONDITION: B-            INDOOR OPTIONS: B+</p>	<p><b>6</b></p> <p>FARWELL CENTER            access: a-            Programs OFFERED: B            FACILITY CONDITION: B            INDOOR OPTIONS: B</p>	<p><b>7</b></p> <p>HEILMAN CENTER            access: a-            Programs OFFERED: a-            FACILITY CONDITION: a-            INDOOR OPTIONS: B+</p>	<p><b>8</b></p> <p>JOE WALKER WILLIAMS            access: a-            Programs OFFERED: a-            FACILITY CONDITION: B            INDOOR OPTIONS: B+</p>
<p><b>9</b></p> <p>KEMENY CENTER            access: a            Programs OFFERED: a-            FACILITY CONDITION: a-            INDOOR OPTIONS: C</p>	<p><b>10</b></p> <p>LASKY CENTER            access: a-            Programs OFFERED: B-            FACILITY CONDITION: a-            INDOOR OPTIONS: B+</p>	<p><b>11</b></p> <p>PATTON CENTER            access: B-            Programs OFFERED: a            FACILITY CONDITION: B+            INDOOR OPTIONS: C</p>	<p><b>12</b></p> <p>TINDALL CENTER            access: B-            Programs OFFERED: B-            FACILITY CONDITION: B-            INDOOR OPTIONS: B-</p>



APPENDIX ITEM 001.5

Figure ground plan of relevant sporting facilities in Detroit with program and location.

PRIVATE FACILITIES



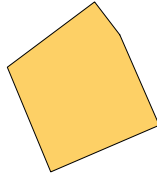
FORD FIELD

- PROGRAM:
- DETROIT LIONS
  - CONCERTS



CORNER BALLPARK

- PROGRAM:
- SCHOOLCRAFT COLLEGE



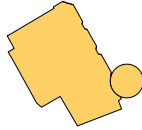
WAYNE STATE ATHLETICS

- PROGRAM:
- COLLEGIATE SPORTS



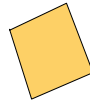
COMERICA PARK

- PROGRAM:
- DETROIT TIGERS
  - CONCERTS



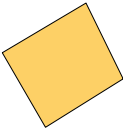
HUNTINGTON PLACE

- PROGRAM:
- CONVENTIONS



PISTONS FACILITY

- PROGRAM:
- PISTONS PRACTICE



LITTLE CAESARS arena

- PROGRAM:
- DET. REDWINGS
  - DET. PISTONS
  - CONCERTS



DETROIT MERCY ATHLETICS

- PROGRAM:
- COLLEGIATE SPORTS
  - STUDENT CLUBS



LEXUS VELODROME

- PROGRAM:
- OPEN CYCLING



JOE LOUIS arena

- (demolished)**  
PROGRAM:
- DETROIT RED WINGS



KEYWORTH STADIUM

- PROGRAM:
- DETROIT CITY FC

PUBLIC FACILITIES



DETROIT CITY FIELDHOUSE

- PROGRAM:
- YOUTH SOCCER
  - RESTAURANT



KEMENY CENTER

- PROGRAM:
- SWIMMING
  - BASEBALL



ADAM BUTZELL COMPLEX

- PROGRAM:
- ICE RINK
  - BASKETBALL COURT
  - OUTDOOR FIELDS



LASKY CENTER

- PROGRAM:
- GYM
  - BASEBALL
  - COMMUNITY ROOMS



BRENNAN POOL

- PROGRAM:
- SWIMMING POOL
  - PARK
  - COMMUNITY ROOMS



NORTHWEST CENTER

- PROGRAM:
- COMMUNITY ROOMS
  - POOL



ROBERTO CLEMENTE

- PROGRAM:
- GYM
  - WEIGHT ROOMS
  - COMMUNITY ROOMS



HEILMAN CENTER

- PROGRAM:
- SWIMMING
  - GYM



**COLEMAN YOUNG CENTER**

- Program:
- GYM
- POOL
- WEIGHT ROOMS



**TINDALL CENTER**

- PROGRAM:
- PLAYING FIELD
- GYM
- COMMUNITY ROOMS



**CANNON CENTER**

- PROGRAM:
- BASKETBALL
- SOCCER
- BASEBALL



**KRONK CENTER**

- PROGRAM:
- BOXING
- COMMUNITY ROOMS



**JOHNSON CENTER**

- PROGRAM:
- BASKETBALL
- SWIMMING
- PLAYGROUND
- COMMUNITY ROOMS



**ROWELL CENTER**

- Program:
- PICKLEBALL
- GYM
- YOGA



**PATTON CENTER**

- PROGRAM:
- GYM
- POOL
- WEIGHT ROOM



**BREWER CENTER**

- PROGRAM:
- SWIMMING
- BASKETBALL
- SCHOOL



**CECILIAVILLE**

- PROGRAM:
- BASKETBALL
- RELIGION

**ABANDONED FACILITIES**



**O'SHEA CENTER**

- PROGRAM:
- PLAYGROUND
- BASKETBALL



**MAHERAS-GENTRY CENTER**

- PROGRAM:
- BASKETBALL
- PARK



**VETERANS MEMORIAL**

- PROGRAM:
- BOXING
- ICE SKATING



**BREWSTER WHEELER CENTER**

- PROGRAM:
- BASKETBALL
- BOXING
- SWIMMING



600 FT

**ROWELL CENTER**

- Program:
- COMMUNITY ROOMS
- GYM

**JOSEPH WALKER WILLIAMS**

- Program:
- SWIMMING
- GYM

**APPENDIX ITEM 001.6**

Sample statistic data analyzed from the Aspen Insite, census.org and yrbsr 2017 conducted by the city of Detroit.

**DETROIT**

**POPULATION:**

**632,464**

**DETROIT average**

**Income:**

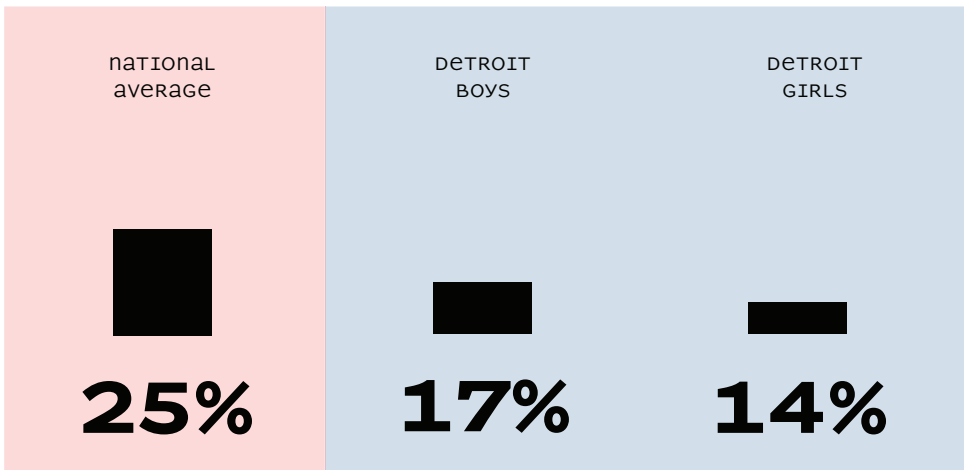
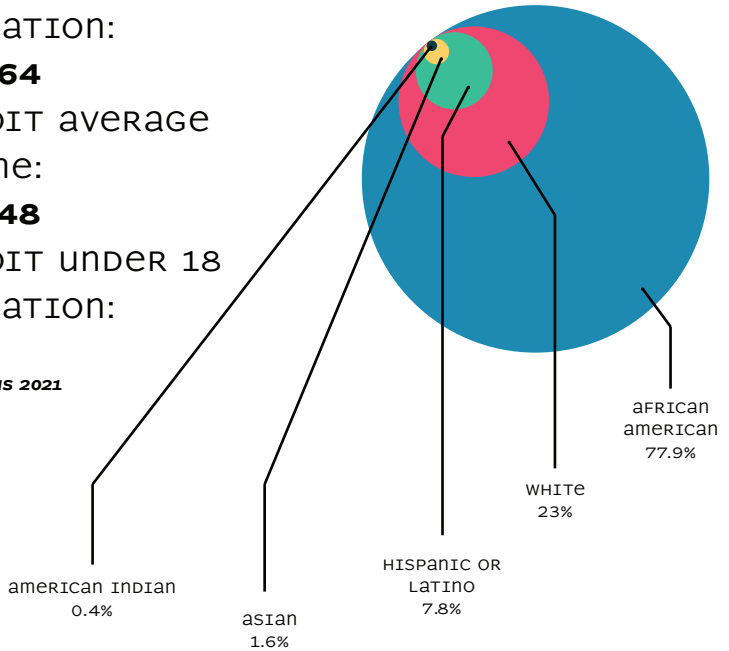
**\$32,948**

**DETROIT UNDER 18**

**POPULATION:**

**24.9%**

*\*u.s. census 2021*



*\*YRBSR 2017*

PERCENTAGE OF YOUTH WHO GET AT LEAST 60 MINUTES OF EXERCISE EACH DAY

	<b>TOTALM</b>	<b>aLeF</b>	<b>emaleW</b>	<b>HITE</b>	<b>HISP</b>	<b>aFR amer</b>
BASKETBALL	21%	26%	15%	15%	25%	35%
SWIMMING	17%	14%	20%	19%	15%	9%
SOCCER	15%	16%	13%	16%	21%	8%
BASEBALL	13%	20%	4%	15%	18%	5%
RUNNING	13%	10%	16%	12%	10%	13%
GYMNASTICS	12%	2%	22%	13%	11%	11%
CYCLING	7%	7%	6%	7%	5%	4%
FOOTBALL	7%	14%	0%	6%	5%	11%
TRACK	7%	7%	7%	6%	6%	7%

\*THE ASPEN INSTITUTE

## TOP 10 SPORTS PLAYED BY YOUTH IN SOUTHEAST MICHIGAN

	<b>TOTAL\$</b>	<b>25K\$</b>	<b>25K-\$49K</b>	<b>\$50K-\$75K\$</b>	<b>75K-\$99K</b>	<b>\$100K-\$150K</b>	<b>\$150K</b>
BASKETBALL	21%	23%	26%	20%	17%	17%	15%
SWIMMING	17%	5%	14%	17%	21%	24%	25%
SOCCER	15%	6%	15%	15%	19%	22%	7%
BASEBALL	13%	5%	11%	14%	13%	22%	7%
RUNNING	13%	11%	18%	10%	13%	13%	12%
GYMNASTICS	12%	11%	12%	10%	10%	12%	22%
CYCLING	7%	5%	7%	8%	6%	7%	3%
FOOTBALL	7%	9%	7%	7%	4%	10%	4%
TRACK	7%	4%	7%	5%	8%	6%	13%

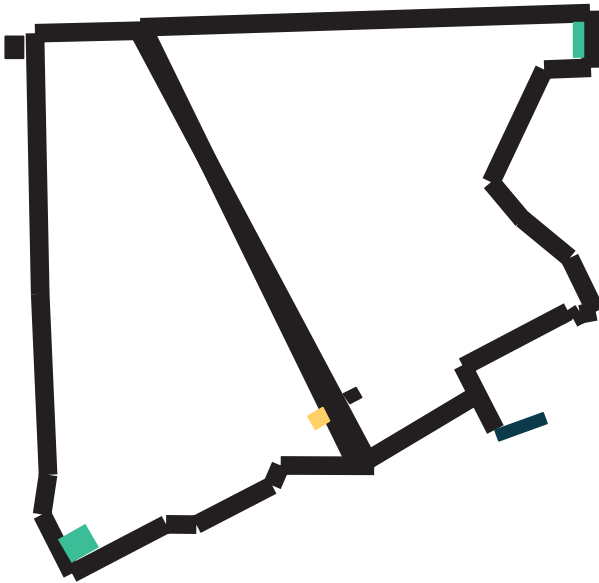
\*THE ASPEN INSTITUTE

## TOP 10 SPORTS PLAYED BY YOUTH IN SOUTHEAST MICHIGAN



**BUS ROUTE**

**a**

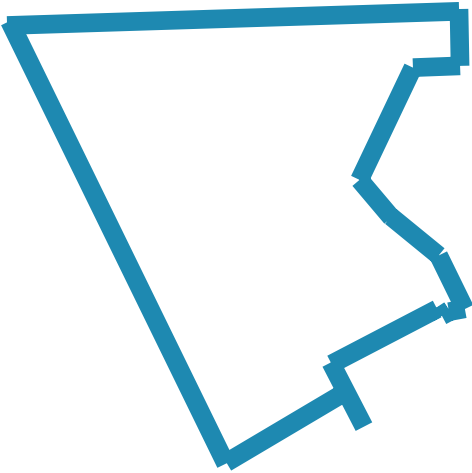


**event  
FACILITIES**

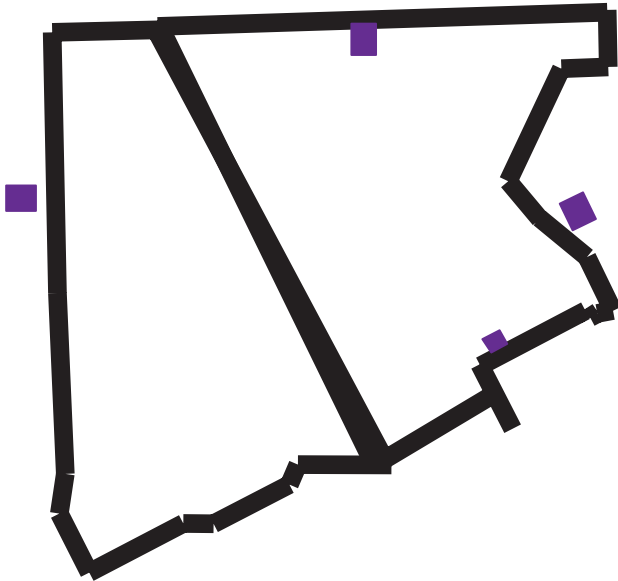


**BUS ROUTE**

**B**



**community  
event  
FACILITIES**



**APPENDIX ITEM 001.7**

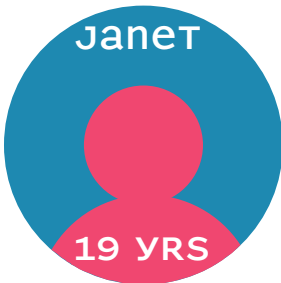
Maps of Fina World Championships proposal including bus routes, event facilities and community open competition facilities.

## RESIDENT STORY example 1



STEVE FIRST VISITS THE OPENING CEREMONIES TO KICK OFF THE FINA EVENT. THE NEXT DAY, HE VISITS A **DIVING COMPETITION** FOR THE FIRST TIME IN HIS LIFE AT THE **BREWSTER WHEELER CENTER**. AFTER THE EVENT IS OVER, STEVE BEGINS TAKING **DIVING CLASSES** AT THE CENTER OFFERED TO THE PUBLIC.

## RESIDENT STORY example 2



JANET SEES HER FIRST **SWIMMING COMPETITION** IN PERSON AT THE JOHNSON REC. SHE TAKES ADVANTAGE OF THE **FREE SWIMMING LESSONS** OFFERED AT THE **FARWELL REC CENTER** DURING THE EVENT. AFTER THE EVENT, SHE ENROLLS IN THE NEW **PUBLIC SWIMMING SCHOOL** AT THE **JOHNSON REC**.

## RESIDENT STORY example 3



SAM AND HIS FRIENDS WATCH A **WATER POLO** MATCH AT THE **PATTON REC CENTER** AND AFTER THE MATCH THEY RIDE THE BUS TO **BELLE ISLE PARK** TO WATCH AN **OPEN WATER SWIM**. THE NEXT DAY, SAM AND HIS FRIENDS TRY WATER POLO AT THE **ADAM BUTZEL COMPLEX** FOR FUN. ONCE THE EVENT IS OVER, THE GROUP CREATES A TEAM TO COMPETE AN A **PUBLIC YOUTH LEAGUE**.

**APPENDIX ITEM 001.8**

Possible resident stories that could take place during the proposed sporting event

**APPENDIX ITEM 001.9**

Beginning design stages focuses on access and adaptability of spaces.

