ABSTRACT

Title of Thesis: GOLDEN DISRUPTION: CREATING A SUSTAINABLE GAME

Angela Devon, Master of Architecture 2022

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As the world cheers on the most elite athletes, they see a beautiful and modern city. Behind the television screen is a city full of displaced citizens and gentrified communities. Once off the screen the people of the cities are left with abandoned facilities that created only a brief interruption to their lives. Through analyzing the underserved community of South-West Baltimore, this thesis explores the idea of an Olympic design that brings positive change to host cities. By strategic planning and design Olympic facilities can transform underserved communities. This thesis will explore a sustainable approach to urban Olympic design that seeks to avoid the pattern of displacement and abandonment that causes irreversible damage to individual lives and entire communities during past Olympic cycles.

GOLDEN DISRUPTION: CREATING A SUSTAINABLE GAME

by

Angela Devon

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Advisory Committee:
 Professor James Tilghman, Chair
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Table of Contents

List of Figures

Chapter 1: Understanding the Olympic Games

History

Every four years the Olympic Games allows the world to come to together to watch and support the greatest athletes. A friendly, yet elite, competition that symbolizes the unity and solidarity between nations. A competition that athletes train their entire lives to compete in and that sports fans dream of attending.

The modern Olympics are the result of an ever-evolving game. The Olympic Games originated in Athens, Greece between 776 bc and ad 261[1]. It consisted of only a few events including the pentathlon, running, jumping, discus throw, wrestling, boxing, pankration, and equestrian events[2]. As the Olympic Games progressed and sporting events were added, the organization and planning of the Olympic Games did not grow with the success of the games. By 1852 the expansion of Games weren't much more than a disorganized gathering. This resulted in an Olympic Games revival in 1896; the start of the modern Olympic Games[3].

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[1] Chalkley, Brian, and Stephen Essex. "Urban Development through Hosting International Events: A History of the Olympic Games." *Planning Perspectives* 14, no. 4 (January 1, 1999): 372.

[2] "Ancient Olympic Sports - Running, Long Jump, Discus, Pankration." *International Olympic Committee*. Last modified July 14, 2021. Accessed October 13, 2021. https://olympics.com/ioc/ancient-olympic-games/the-sports-events.

[3] Chalkley, Brian, and Stephen Essex. "Urban Development through Hosting International Events: A History of the Olympic Games." *Planning Perspectives* 14, no. 4 (January 1, 1999): 372.

The revivalist of the Olympic Games was Baron Pierre de Coubertin, who promoted the Games being played every four years in different host cities to ensure the spirit of the Games was kept alive. He had three main objectives; "to foster the goals of competitive sports, to provide a legacy of facilities that will stimulate athletic development which would not have been possible with interior facilities, and to heighten the profile of the sports involved by providing better opportunities for training as well as sites for national and international competition" [4]. Those three main objectives are still used today in the 21st century when creating the Games.

Figure 1 Modern Olympic Games stadium in Bejing for 2008 Olympics (Source: Wikimedia Commons)

In 1896 in Athens, Greece the first modern Olympic Games were held, the perfect site to pay homage to the ancient Games. The 1896 Olympic Games and the

[4] Chalkley, Brian, and Stephen Essex. "Urban Development through Hosting International Events: A History of the Olympic Games." *Planning Perspectives* 14, no. 4 (January 1, 1999): 372-373.

two Olympic Games following, were small in scale and did not facilitate much new infrastructure, if any. The use, want, and status of new Olympic infrastructure did not come until the 1908 London Olympics where the new infrastructure was planned and glorified. From 1908 to 1932, the Olympic Games set the precedent for all future games by starting to build new, permanent, and culturally individual athletic facilities[5].

New Olympic infrastructure got pushed even more for the 1936 Olympic Games. Berlin, Germany introduced the first Olympic Village along with their athletic facilities. It not only put Berlin above all other host cities of the time, but it created the idea that the athletes should be in the same vicinity and that every Olympics from then on should do the same[6].

Between 1980 and 2000 the Olympics grew exponentially with new sports and events. This caused a problem for host cities and eventually lead to a limit of events being added to the number of sports and events that could be included. This started with the 2004 Athens Olympics[7]. The most recent modern Olympic Games took place in Tokyo, Japan in the summer of 2021. These Olympic Games hosted 349 events within 33 sport that spanned about two weeks[8].

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[5] Chalkley, Brian, and Stephen Essex. "Urban Development through Hosting International Events: A History of the Olympic Games." *Planning Perspectives* 14, no. 4 (January 1, 1999): 374-377.

[6] Chalkley, Brian, and Stephen Essex. "Urban Development through Hosting International Events: A History of the Olympic Games." *Planning Perspectives* 14, no. 4 (January 1, 1999): 377-379.

[7] Cashman, Richard. *Impact of the Games on Olympic Host Cities [online Article]*. Barcelona: Centre d' Estudis Olímpics (UAB). International Chair in Olympism (IOC-UAB).

[8] "A Brief Guide to Every Sport at the Olympics." Accessed October 13, 2021. https://www.nytimes.com/article/olympic-sports-explained.html.

The Olympic Games are made of four committees and organizations. These committees and organizations keep the Olympic Games running and alive between Olympic years. The International Olympic Committee (IOC) is the leader of organizations. They dictate what sports are competing and what city is hosting. The International Federations (IF) decides regulation for facilities and controls individual sports. The national Olympic Committee (NOC) is responsible for supplying athletes and teams for each sport. Lastly, within each host city there is an Olympic Organizing Committee that ensures all rules and regulations are being followed that are implemented by the IOC[9].

In order to become a host city of the Olympic Games, it first must enter a bid. Hosting the Olympic Games can lead to a higher global status which can bring capital and tourism. This would benefit the host city past the games, making bidding and hosting the Olympic Games very attractive. A city must develop an Olympic Games plan that is enticing to the IOC and the host community. In order for the plan to be likable by all parties, the plan must show that it is positively transformative of the community through infrastructure, environment, and livability but also is economically feasible. Once chosen, the city has seven years to prepare for the games. The citizens of the host city must prepare for seven years of construction, disruption, and excitement in their daily lives[10].

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[9] Chalkley, Brian, and Stephen Essex. "Urban Development through Hosting International Events: A History of the Olympic Games." *Planning Perspectives* 14, no. 4 (January 1, 1999): 369–394.

[10] Cashman, Richard. *Impact of the Games on Olympic Host Cities [online Article]*. Barcelona: Centre d' Estudis Olímpics (UAB). International Chair in Olympism (IOC-UAB).

When a city is chosen to host the Olympic Games, it forces that city to beautify. The host city strives to make people want to come to their city to watch the Olympic Games and leave such an impression on the people watching from home to make it a dream for them to also come to their city. This beautification can bring both social and economic restoration. Many nations also use hosting the Olympic Games to build their nation. They use it as a time to not only create jobs, but to create skills in their people. It also forces nations to better their roads, transportation, and safety. It can be very beneficial to communities that are hosting the Olympic Games, as those citizens will, hopefully, be the ones able to utilize the new facilities and infrastructure. Lastly, it helps a nation define their culture and express it globally. Promoting it how they want to be seen and heard[11].

To beautify a host city includes evicting and expediting gentrification of communities. It is to displace families and to marginalize people who are deemed unwanted. This happens because many plans for infrastructure and development are focused on the short term of creating a beautiful Olympic host city and are not focused on the long-term legacy that the Olympics could be creating. The impact that marginalizes or remove the 'unwanted" population is nearly irreversible[12].

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[11] Pentifallo, Caitlin, April 28, 2017. Accessed October 13, 2021, https://pub-calgary.escribemeetings.com/filestream.ashx?DocumentId=13430.

[12] Pentifallo, Caitlin, April 28, 2017. Accessed October 13, 2021, https://pub-calgary.escribemeetings.com/filestream.ashx?DocumentId=13430.

Olympic Legacy

The Olympic Games seem to come and go very quickly for almost everyone except the city hosting the games. For that city, the impact of the games lasts far longer. This is known as the Olympic Legacy. The Olympic Legacy document written by the IOC states "The Olympic Games have the power to deliver lasting benefits which can considerably change a community, its image, and its infrastructure."[13] Olympic Games leave a legacy in multiple ways, but typically fall into five categories; sporting, social, environmental, urban, and economic.

Sporting legacies can be very unique to Olympic Games host cities. Having Olympic quality sports facilities allows for further development and involvement of Olympic sports in these host cities, while also allowing for more and better training of these sports. The 1984 Los Angles Olympics used hosting the Olympics as an opportunity to provide underserved youth with accessible sporting venues, equipment, programs, and coaches[14].

Social legacies are intangible and long lasting. When hosting the Olympics, the host city is met with visitors from all over the globe. This is giving the host city and country a chance to share their culture with the rest of the world. It gives the citizens a chance to embrace and showcase their nations traditions. The Olympic

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[13] International Olympic Committee. *Olympic Legacy*.
https://stillmed.olympic.org/Documents/Olympism_in_action/Legacy/Olympic_Legacy.pdf.pdf

[14] International Olympic Committee. *Olympic Legacy*.
https://stillmed.olympic.org/Documents/Olympism_in_action/Legacy/Olympic_Legacy.pdf.pdf

Games also brings education and volunteer programs. New volunteer programs have

the potential to lead to new work standards and work life all together[15].

One of the most, if not the most, tangible legacy the Olympic Games brings to

a host city is the urban legacy. Starting years before the games, the host cities take on

a transformation to ensure their city is as beautiful as it possibly can be when it is

being broadcasted across the world. This includes updating infrastructure and

transportation, redevelopment of sites that may not be seen as presentable, and the

new development of Olympic program that can be transformed after the Olympic

Games are over.

[15] International Olympic Committee. *Olympic Legacy*.
https://stillmed.olympic.org/Documents/Olympism_in_action/Legacy/Olympic_Legacy.pdf.pdf

Chapter 2: Social and Architectural Issues Caused by the Olympics

Every Olympic Games host city wants to attain a high global status. By doing so these cities create both positive and negative impacts for the people within them. In order to successfully diagnose the impact of an Olympic Games on a city, it is important to look at former games that both failed and succeeded in a social and/ or architectural way. By critiquing the way an Olympic Games host city manages; displacement, gentrification, and marginalized citizens, a plan to create an Olympic Games that does not follow this trend could be created.

<u>*Atlanta, Georgia 1996*</u>

Figure 2 Atlanta Georgia 1996 Olympic Games (Source: Wikimedia Commons)

The 1996 Olympic Games hosted by Atlanta, Georgia is an example of how a host city displaced and marginalized "unwanted" citizens. To prepare for the Olympic

Games, Atlanta displaced two types of citizens, the homeless and those in public housing. It was clear that Atlanta wanted a certain demographic of people to represent them when the world would see their city[16].

The homeless in Atlanta had one of two ways to be removed from the proximity of the Olympic Games site. They were either arrested due to one of the various new or newly enforced laws such has "being in an abandoned building". The second was being given a one-way bus ticket to a neighboring state. Between 1995 and 1996 about 9,000 homeless people were arrested in Atlanta[17].

About 30,000 residents were evicted or displaced between 1990 and 1996, in preparation for the Olympic Games[5]. The majority of the displaced citizens were in the United States oldest subsidized housing project, Techwood Homes. This area sat adjacent to centennial park. It was riddled with crime, low-income, and poverty. The city decided it was time to assist Techwood, when they decided it was going to be used as the Olympic Village for athletes from around the world[18].

The housing complex suffered from neglect and was deteriorating while its residents were still occupying it. Crime and poverty grew in that community while the rest of the city flourished. The Atlantic Committee on the Olympic Games (ACOG) went on to propose a renovation of $25,000 per unit in the housing complex. The

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[16] Gustafson, Seth. "Displacement and the Racial State in Olympic Atlanta 1990–1996." *Southeastern Geographer* 53, no. 2 (2013): 198–213.

[17] Gustafson, Seth. "Displacement and the Racial State in Olympic Atlanta 1990–1996." *Southeastern Geographer* 53, no. 2 (2013): 198–213.

[18] Vale, Lawrence, and Annemarie Gray. "The Displacement Decathlon." *Places Journal* (April 15, 2013). Accessed October 14, 2021. https://placesjournal.org/article/the-displacement-decathlon/.

decision to renovate this complex into the Olympic Village lead to only seven percent

of displaced residents returning after the Olympic Games[19].

<u>*Rio de Janeiro, 2016*</u>

Figure 3 Rio de Janeiro 2016 Olympic Games (Source: Wikimedia Commons)

In 2009, Rio de Janeiro was announced as the host of the 2016 Olympic

Games. It was the first South American city to host the Olympics, so the city

rightfully was ecstatic. Much like Atlanta, Rio was excited to be able have a global

spotlight. With the hosting the Olympics came many promises to the citizens of Rio

de Janeiro. The top priority for the Rio Olympic Organizing Committee was water

quality. Rio has many sanitation and infrastructure issues that leads to its waterways,

ultimately leading to Guanabara Bay being contaminated, and becoming dangerous to

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[19] Vale, Lawrence, and Annemarie Gray. "The Displacement Decathlon." *Places Journal* (April 15, 2013).
Accessed October 14, 2021. https://placesjournal.org/article/the-displacement-decathlon/.

anybody who is in or drinks the water. The promise was to treat 80 percent of the sewage leading into Rio's water system by the 2016 games. This was to ensure safe conditions for the athletes and for the citizens post Olympics. This promise was not fulfilled. With only 49 days until the start of the 2016 Olympics the Governor of Rio declared a state of emergency. Once the games started less than 45 percent of the water leading into Guanabara Bay was being treated. Various athletes fell ill and one of Rio's most important Olympic legacies had failed[20].

In order to have a proper Olympic site for Rio to broadcast to the world, it had to first become absent of all low income and marginalized citizens. Vila Autodrómo, favela on the western edge of Rio, was completely erased along with other favelas[21]. Author Sukari Ivester suggested "… the term *removal* is preferred here…. *removal* has an element of practical language that alludes to the favela as a *problem*, *as disorder*, a sentiment that permeates the state interventions in these locations." The announcement of Rio hosting the 2016 Olympics is almost synonymous with Rios's announcement of reducing favelas by 3.5% and removing more than 100 favelas in preparation. According to Sukari Ivester the previous mayor of Rio de Janeiro, Cesar Maia, stated "The Olympic Games are, most of all, an economic event related to sport. It has its logics and demands. Imagine a first page photo in a newspaper showing an athlete and in the background a favela with a squalid man. We don't want to hide our problems, but it's important to understand the complexity of the Olympic

[20] Trendafilova, Sylvia, Jeffrey Graham, and James Bemiller. "Sustainability and the Olympics: The Case of the 2016 Rio Summer Games" 16 (2016): 22.

[21] Vale, Lawrence, and Annemarie Gray. "The Displacement Decathlon." *Places Journal* (April 15, 2013). Accessed October 14, 2021. https://placesjournal.org/article/the-displacement-decathlon/.

Games." [22] The citizens of these self-made communities battled back against displacement and eviction. They did not want their sense of place and belonging destroyed because Rio wanted to beautify themselves for a world event[23].

London, 2012

Figure 4 London 2012 Olympic Games (Source: Wikimedia Commons)

In 2007 London won the bid for the 2012 Olympics while promoting "social diversity and community involvement". London had a goal to be a sustainable Olympic Games. It ran under five main themes of climate change, waste, biodiversity, inclusion, and healthy living. Compared to other Olympic Games, London's Olympic

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[22] Ivester, Sukari. "Removal, Resistance and the Right to the Olympic City: The Case of Vila Autodromo in Rio de Janeiro." *Journal of Urban Affairs* 39, no. 7 (October 3, 2017): 970–985.

[23] Ward, Chandra D. "Atlanta and Other Olympic Losers." *Contexts* 12, no. 3 (2013): 46–51.

Park displaced about 1000 people with 425 being residential. With these displacements the London Organizing Committee of the Olympic Games (LOCOG) went into development with a transformative goal. First was to create an Olympic Park that introduced new environmental practices. Second it planned to use the site as a development in a larger plan to respond to social, economic, and infrastructure problems in surrounding neighborhoods. Third, it was designed for community volunteers, and it was designed for them to become overall healthier. Fourth, the end goal was to create an environmentally competitive region in the UK[24].

With good intentions, London could not avoid rent increases and eviction in neighborhoods surrounding the site of the Olympic Park. One third of the landlords in the surrounding area told their tenets they would have to move before the Games. In 2011, four of the six Olympic Park surrounding neighborhoods had some of the highest rent for a two-bedroom apartment in the country[25].

With these former Olympic Games host cities, it is apparent that displacement and gentrification are hard to avoid. Hosting the Olympics also seems to be the time cities decide to intervene on marginalized citizens and communities. Atlanta intervening by arresting and Rio intervening by removing an entire community. London did not avoid displacement and gentrification completely, but they went into

[24] Hayes, Graeme, and John Horne. "Sustainable Development, Shock and Awe? London 2012 and Civil Society." *Sociology* 45, no. 5 (2011): 749–764.

[25] Bernstock, Penny. *Olympic Housing: A Critical Review of London 2012's Legacy*. Farnham, UNITED KINGDOM: Taylor & Francis Group, 2014. Accessed October 14, 2021. http://ebookcentral.proquest.com/lib/umdcp/detail.action?docID=1589590.

organizing their Olympic Games with goals to avoid as much negative social impact

as possible.

Chapter 3: Baltimore: History and Context

Brief History

Baltimore City is the largest city in the state of Maryland. As of 2019, Baltimore was home to 609,032 people[26].Established in 1729, Baltimore situated itself around, what is now known as the Inner Harbor, a water access to act as a port for trading and transportation. The city started as a hub for tobacco trading, but quickly turned into a city thriving off the trade of flour. During the revolutionary war, Baltimore thrived. With the city's ability to build ships and the access to the port, the city was still able to make trades in turn, allowing the city to flourish. This brought new communities, paved roads, street lighting, and many other urban devlopments to the growing and booming new city[27].

By 1816, the city had a population of about 46,000 people and was now home to the National Anthem "The Star-Spangled Banner." With the city growing, a city plan was needed. The city plan consisted of a grid with a hierarchy of streets, and diversity of housing choices. Baltimore quickly became the nation's second largest city, until the Erie Canal was built. The Erie Canal created easier trade from the Midwest that promptly caused an economic downturn in Baltimore. As a result,

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[26] "Baltimore - Place Explorer - Data Commons." Accessed November 10, 2021. https://datacommons.org/place/geoId/2404000?utm_medium=explore&mprop=count&popt=Person&hl=en.

[27] "The Master Plan." *Department of Planning*. Last modified January 7, 2016. Accessed November 10, 2021. https://planning.baltimorecity.gov/planning-master-plan/plan.

Baltimore built the Baltimore & Ohio Railway Company. This was the first long

distance and passenger railroad in the world[28].

*Figure 5 Todays Inner Harbor in Baltimore which was once the
main port of the city (Source: James Cridland, Flikr.com)*

     This construction of the B&O Railroad revamped the city and allowed for

further growth. The construction of cast-iron buildings, production of steel, and

supplying the world with oysters; Baltimore was quickly back on the map. With

Baltimore being a hub for immigration and African American migration, Baltimore's

population grew rapidly. By the 20th Century, Baltimore reached half a million people

and prided itself on the jobs for men and women of all races[29].

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[28] "The Master Plan." *Department of Planning*. Last modified January 7, 2016. Accessed November 10, 2021. https://planning.baltimorecity.gov/planning-master-plan/plan.

[29] "The Master Plan." *Department of Planning*. Last modified January 7, 2016. Accessed November 10, 2021. https://planning.baltimorecity.gov/planning-master-plan/plan.

Having jobs for the African American population was a start, but Baltimore was still discriminatory in housing laws making it impossible for an African American to a buy a home in a white neighborhood. Unfortunately, this meant that the new developments in East Baltimore were inaccessible to the black citizens of Baltimore. The result of this was the cities black population residing in West Baltimore[30].

Following World War II, the rise of suburbanization caused for much of the, specifically white, population to move out of the City of Baltimore and into a suburbia. This allowed for the black citizens to move to different neighborhoods and expand out of the west part of Baltimore. Suburbanization led to many abandoned buildings, homes, and rowhomes[31]. The pattern of abandoned and vacant buildings is still very prevalent in Baltimore and can be seen in the neighborhoods that surround the site of this thesis project.

Carroll Park

On the southwest side of Baltimore city, just below the B&O railroad, is a public park. The recreational and historical part of the park is bordered by three main neighborhoods: Carroll Camden Industrial Area, Pigtown, and Mount Clare. This Park, and these neighborhoods will play a pivotal role in the design and decision making of this thesis.

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[30] "The Master Plan." *Department of Planning*. Last modified January 7, 2016. Accessed November 10, 2021. https://planning.baltimorecity.gov/planning-master-plan/plan.

[31] "The Master Plan." *Department of Planning*. Last modified January 7, 2016. Accessed November 10, 2021. https://planning.baltimorecity.gov/planning-master-plan/plan.

Figure 6 A block of townhomes in Pigtown (Source: Wikimedia Commons)

The most populated of the neighborhoods surrounding the park is Pigtown,

see in *Figure 6*. Pigtown was one of Baltimore's earliest working-class

neighborhoods. It came with the addition of the B&O Railroad. The new railroad

brought workers who required new homes. Communities of railroad workers started

to form south and east of the B & O railroad yards. Small and affordable brick

rowhomes lined thirty-six city blocks creating, what is known today as, Pigtown.

With the growth of industrial needs, many of the rowhomes of Pigtown were

demolished for the newer infrastructure[32].

Adjacent to Pigtown is the neighborhood Mount Clare. Like Pigtown, Mount

Clare was built to be a working-class community catering to the B&O Railroad. It

consists of mostly rowhomes and shares a name with the historic mansion and

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[32] "Pigtown." *Historical and Architectural Preservation*. Last modified July 9, 2018. Accessed November 10, 2021. https://chap.baltimorecity.gov/pigtown.

museum that resides in the neighboring park, Carroll Park[33]. Mount Clare, Pigtown, and the Carroll Camden Industrial Area all border historic Carroll Park, which will be an integral part of the exploration in this thesis.

Before Carroll Park was a city park, it was a plantation containing barrister Charles Carroll's, summer home, which he named Mount Clare (*Figure 7*), and of a training camp for Union army soldiers during the civil war. In 1890, after Charles Carroll's passing, the family sold twenty acres of the land to the city and created Carroll Park. The Park now contains baseball fields, softball fields, basketball courts, a skatepark, playgrounds, golf course, open space, Mount Clare Mansion, and a World War 1 Memorial[34].

Figure 7 Mount Clare Mansion, now a museum, located within Carroll Park (Source: Maryland Preservation

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[33] "Mount Clare – Southwest Partnership," n.d. Accessed November 10, 2021. https://swpbal.org/neighborhoods/mount-clare/.

[34] Richmond, Scott M. "Carroll Park | Baltimore City Parks," July 10, 2020. Accessed November 10, 2021. https://baltimorecityparks.com/carroll-park/.

The 117-acre park is a green and open space in a dense and industrial part of west Baltimore City. Unfortunately, the park does not have distributed access throughout its perimeter. The main access points are on the east and north side of the park opening toward Pigtown and Carroll Camden Industrial Area. Meaning, the community of Mount Clare, that borders the entire west side of the park, and other communities on the west and south borders do not have equal accessibility to the amenities the park has to offer[35].

Montgomery Park

The Carroll-Camden Industrial Area neighborhood is made of almost entirely industrial businesses and buildings. Within that area, there is a nationally registered historic property. Built in 1925, the Baltimore Montgomery Ward Warehouse and Retail Store, now known as Montgomery Park, was the one of nine warehouses built by Montgomery Ward and Company. Designed by W. H. McCaully, it is a large fireproof warehouse that was a significant piece of architecture in the early 20th century. This eight story Art Deco warehouse is made of reinforced concrete and contains a train shed in the building that was used for easy and efficient handling of goods[36]. The building overlooks Carroll Park and can be seen from neighboring highways. Around the turn of the century, Montgomery Ward was renovated into

[35] Richmond, Scott M. "Carroll Park | Baltimore City Parks," July 10, 2020. Accessed November 10, 2021. https://baltimorecityparks.com/carroll-park/.

[36] "National Register Properties in Maryland." Accessed December 16, 2021. https://mht.maryland.gov/nr/NRDetail.aspx?NRID=1251.

Montgomery Park, which now has various offices. In 2003, Montgomery Park won

the Environmental Protection Agency's Phoenix Award[37].

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[37] The Explore Baltimore Heritage Team. "Montgomery Park - Award-Winning Reuse of the Montgomery Ward Warehouse." *Explore Baltimore Heritage*. Accessed December 16, 2021. https://explore.baltimoreheritage.org/items/show/412.

Chapter 4: Site and Analysis

Site Selection

When selecting a site in Baltimore for this thesis, there were questions to take into consideration:

- Would the facilities, infrastructure, and resources from hosting an Olympic Games be beneficial to the community?

- Will the Olympics positively transform the community?

- Would residents of the community become displaced?

- Is there a connection to green space and to water?

- Are there existing facilities that can be used?

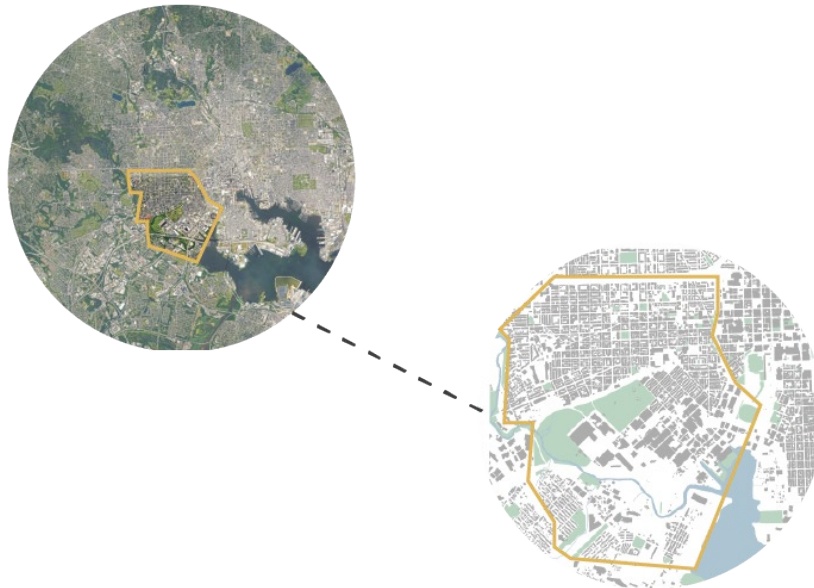- Is there a diverse walking radius?

- Is there public transportation?

Figure 8 Location of site (Source: Google Earth, Cadmapper, Author)

After exploring multiple sites, the site that answered the most questions was the Carroll-Camden Industrial Area. Located in Southwest Baltimore, just south of the B&O Railroad, and a twenty-minute walk west to the Inner Harbor. This community and its surrounding neighborhoods are underserved, meaning that bringing an Olympic Games to this site could be a method of transforming the community and reducing resident's needs. The site has multiple blocks of almost entirely industrial program meaning new facilities will not displace or remove any residential homes. It borders Carroll Park, that has existing recreational facilities and has an adjacency to the Chesapeake Bay, allowing for a further connection to be made. The site is in walking distance to the existing stadiums, M&T Bank Stadium and Camden Yards, and to the port of the city, the Inner Harbor.
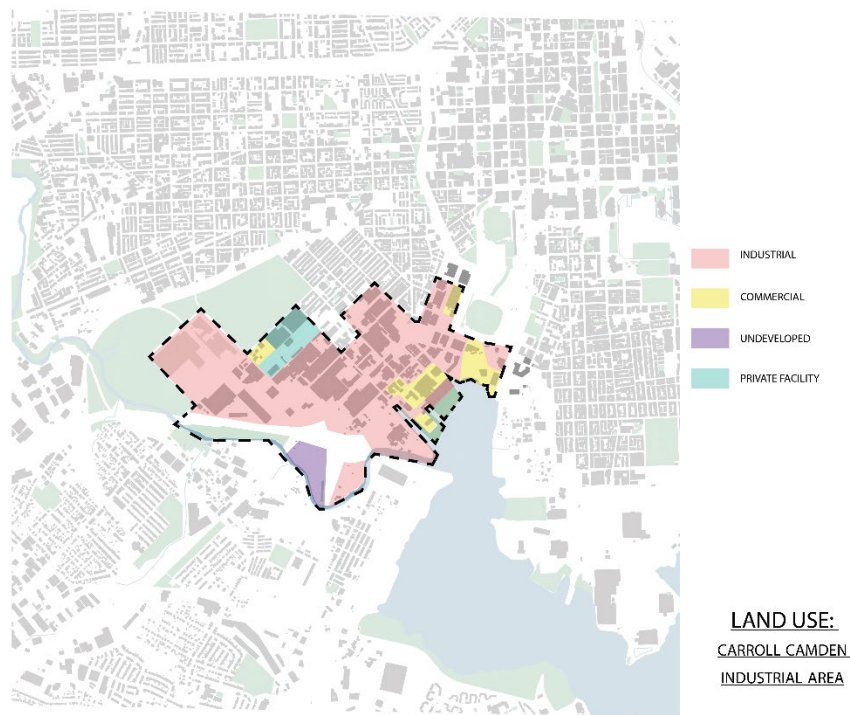

Figure 9 Land uses of Carroll Camden Industrial Area (Source: Department of Transportation Baltimore City, Cadmapper, Author)
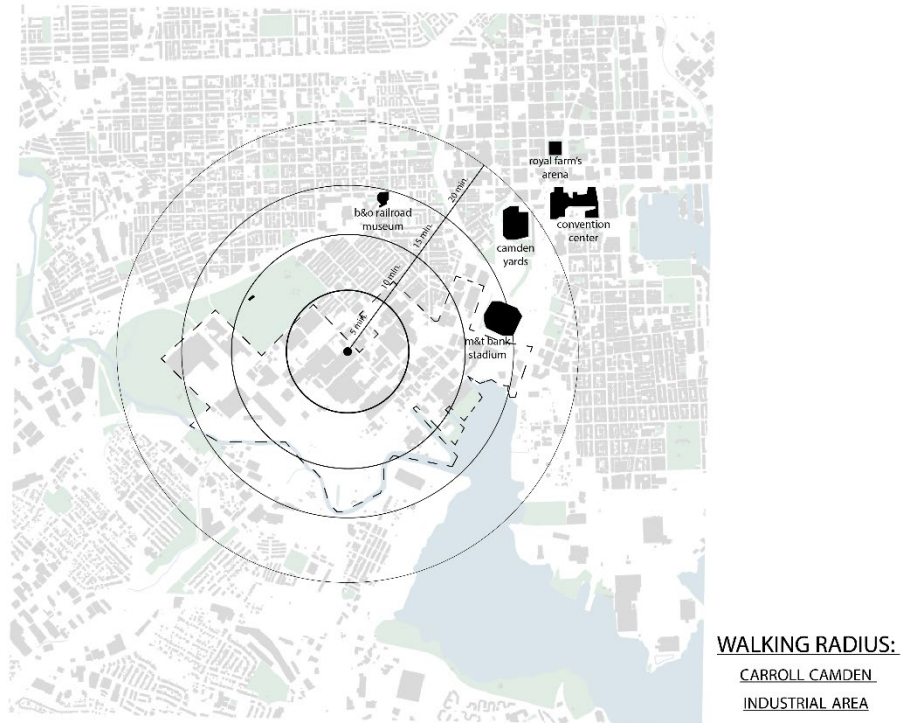
Figure 10 Walking radius centralized in Carroll Camden Industrial Area (Source: Cadmapper, Author)

Carroll Camden Industrial Area has a network of highways and train systems that will allow for easy transportation for not only Olympic athletes and guests, but also the community surrounding the site. With the resources the Olympics will bring, a renovated network of street systems and multimodal transportation will become possible. The new systems will be necessary for the Olympics and bring new opportunities for the communities. The network of highways does not only allow for easy automobile transportation to the site, but it allows for exposure of the site with elevated highway nearby.

Along with highways and railways, Carroll Camden Industrial Area allows for an addition of street types such as boulevards and avenues. By introducing these types of street types, it will allow for more pedestrian use, retail use, and more activity in

general. These types of street types will be beneficial for the Olympic Games and for the post-Olympic legacy after. Figure 12,13, and 14 show existing street and possible street walls for streets that could be transformed into a new street type.
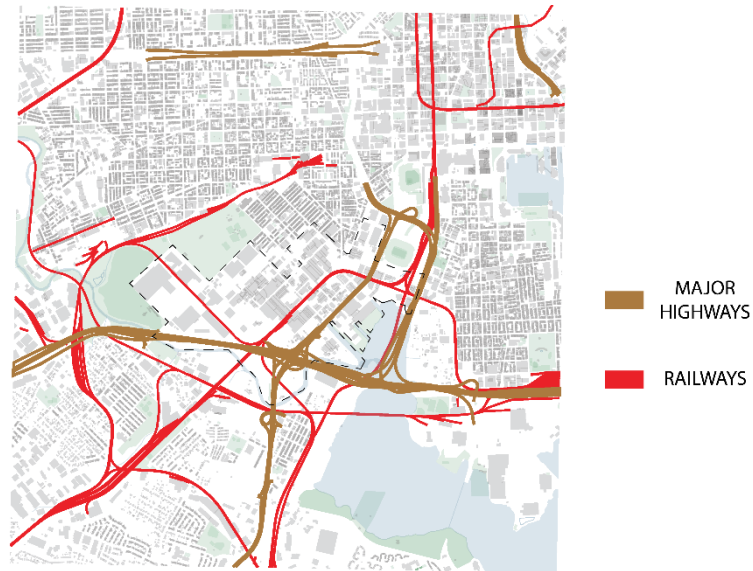

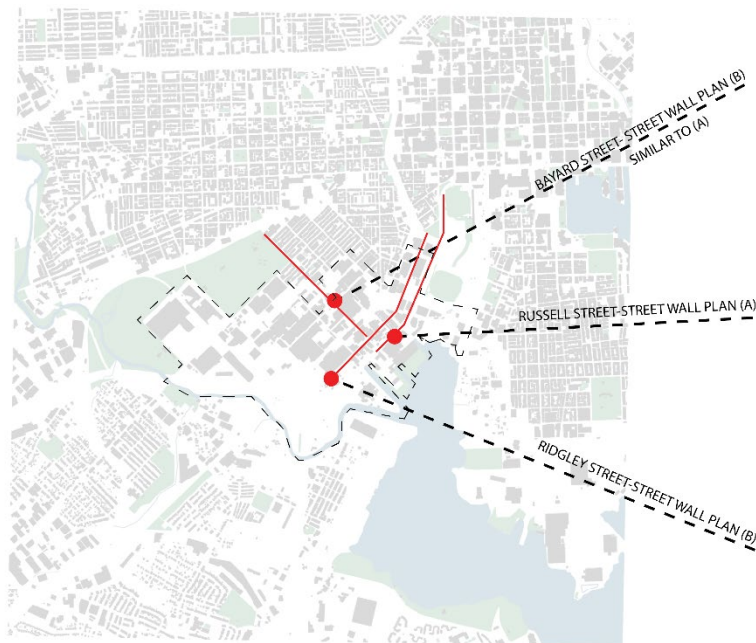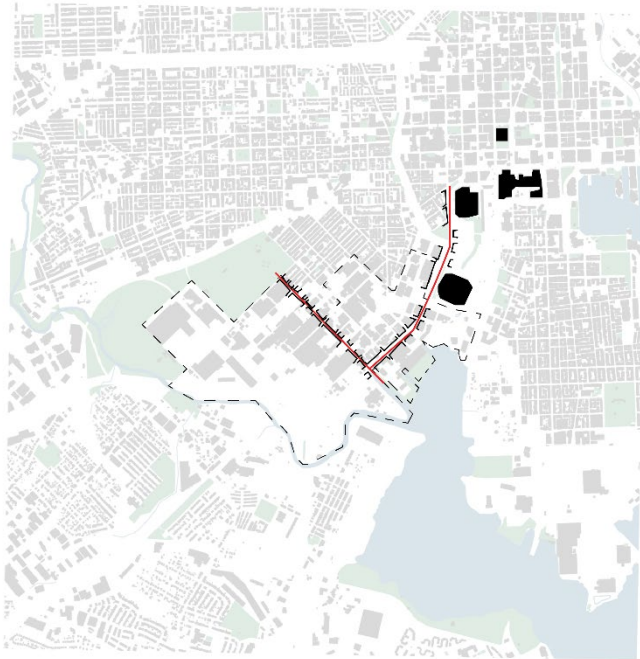*Figure 11 Major highways and railways near site (Source: Cadmapper, Author)*
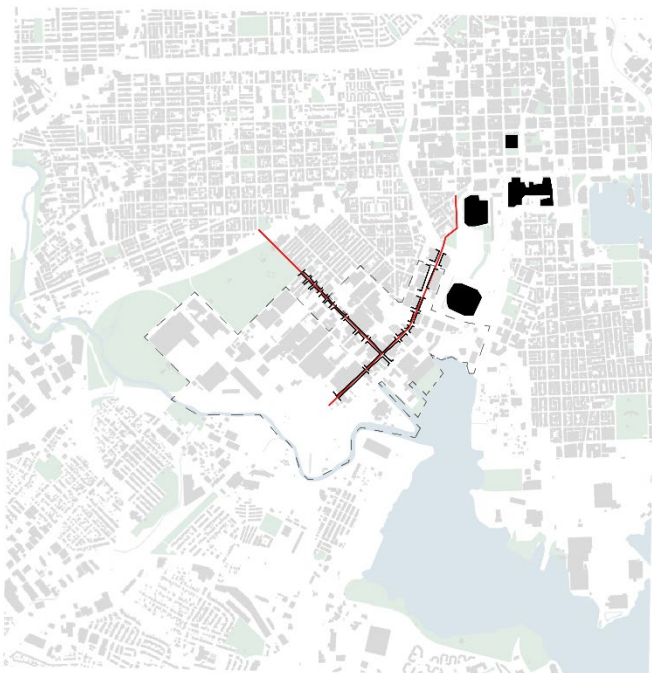

Figure 12 Possible new main streets (Source: Cadmapper, Author)

PROPOSED MAIN
STREET WALL (A)

Figure 13 Proposed new street walls (Source: Cadmapper, Author)

PROPOSED MAIN
STREET WALL (B)

Figure 14 Possible new street walls (Source: Cadmapper, Author)

Demographics

The Carroll-Camden Industrial Area is home to nearly no residents as it is an industrial area, but it is surrounded by neighborhoods containing 12,500 underserved residents [38]. These neighborhoods consist of Millhill, Carrollton Ridge, Mount Clare, Wilhem Park, Saint Paul, West Port, and Pigtown, which can be seen in *Figure 9*. Before desigining for the community it is important to understand who the community is and what does the community need.

As an underserved community in the United States, the neighborhoods surrounding the site fit the pattern for this type of community, predominantly minority, undereducated, and low annual income levels. Of the 12,500 residents, 7,125 are black. The connection between the large population of black residents and the underserved community is one of the many results of zoning and discriminatory laws that Baltimore City had in prior centuries.

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[38] "2020 Census Redistricting Demographics Data Explorer." Accessed November 11, 2021. https://baltplanning.maps.arcgis.com/apps/dashboards/5f2cb611572640b3beca2f295e1bc229.
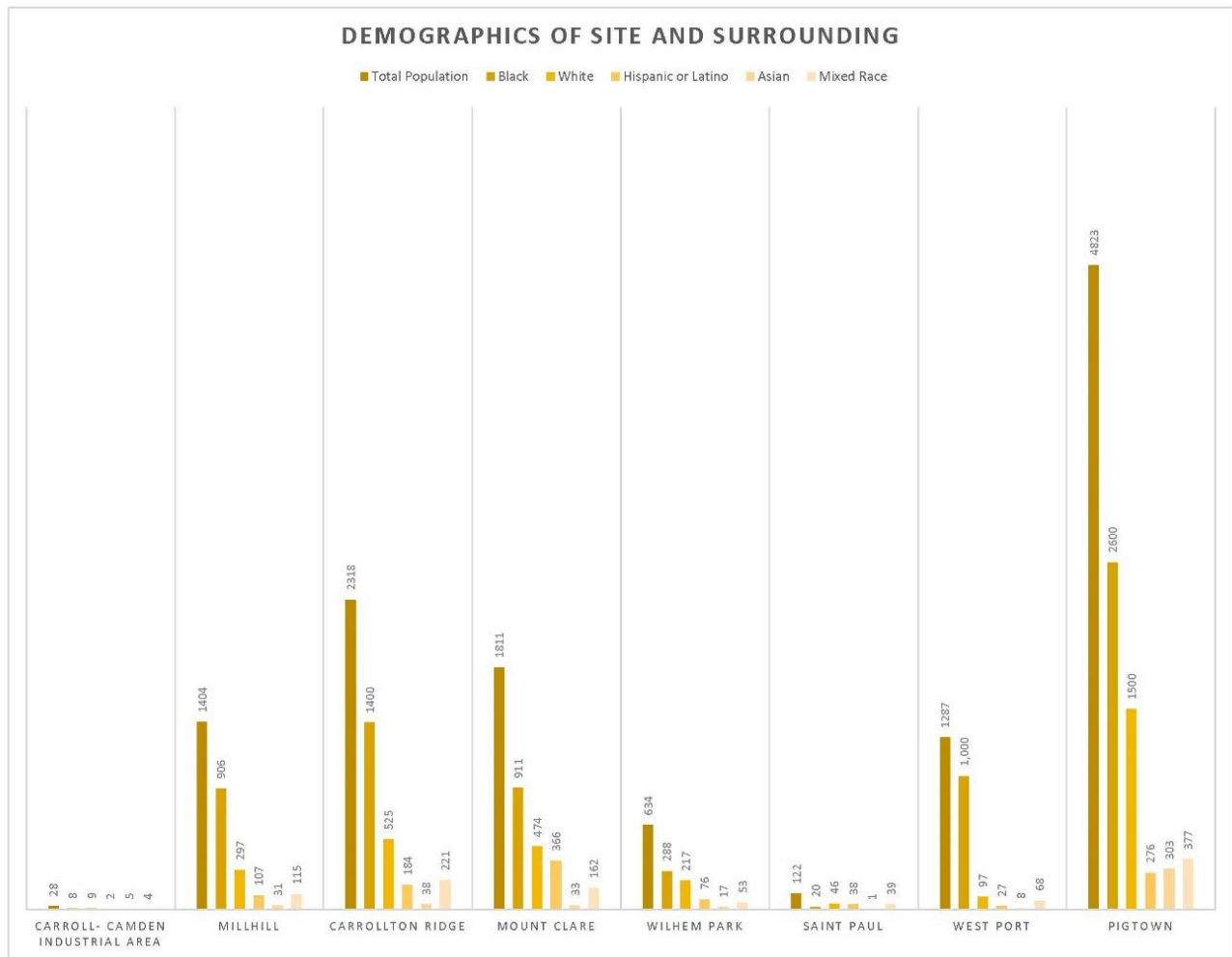
Figure 15 Demographics of site and surrounding (Source: 2020 Census, Cadmapper, Author)
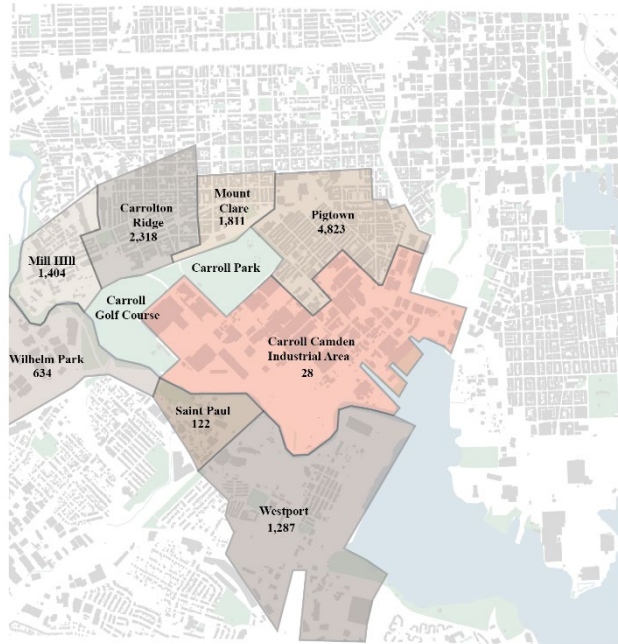
TOTAL POPULATION

Figure 16 Total populations of site and surroundings (Source: 2020 Census, Cadmapper, Author)

The most populated neighborhood of the ones listed is Pigtown. Pigtown is the northeast most neighborhood of them all, making it closest to the Inner Harbor, M&T Bank Stadium, Camden Yards, and has access to a Carroll Park entrance.

Figure 17 Land use of Pigtown (Source: Department of Transportation Baltimore City, Cadmapper, Author)

Next, are the neighborhood education levels. The national average of people who have an education level lower than a high school diploma is 12%, a high school diploma- 27%, some college- 29%, and a bachelor's degree, or more- 32%. The educat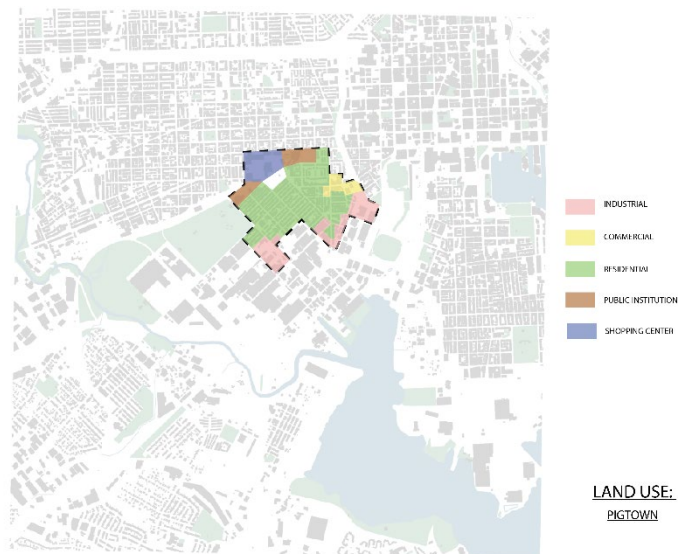ion in these Baltimore communities is drastically lower than the national average. Many of these communities have a population of 40% with an education lower than a high school diploma and almost all of them have less than 10% with a bachelor's degree or higher[39]. The most educated is Pigtown, with 37% of residents having a bachelor's degree or higher and only 18% having less than a high school diploma.
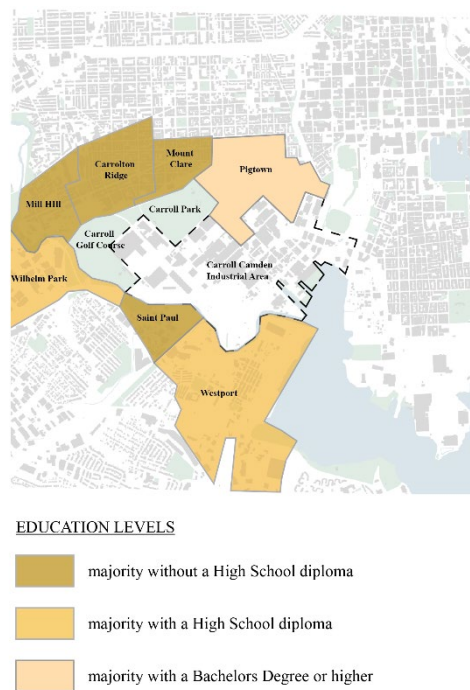
Figure 18 Education levels of the surrounding neighborhoods
(Source: 2020 Census, Cadmapper, Author)

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[39] "2021 Best Places to Live in America." *Niche*. Accessed November 11, 2021. https://www.niche.com/places-to-live/search/best-places-to-live/.

The starting income levels correlate with the education level. The communities that have a more undereducated population make less per year than the communities with high school and college degrees. Mount Clare has an average household income of $26,599 and 43% of its residents are without a high school diploma. Pigtown is averaging an annual household income of $55,148, while 37% of its residents have a bachelor's degree or higher[24].
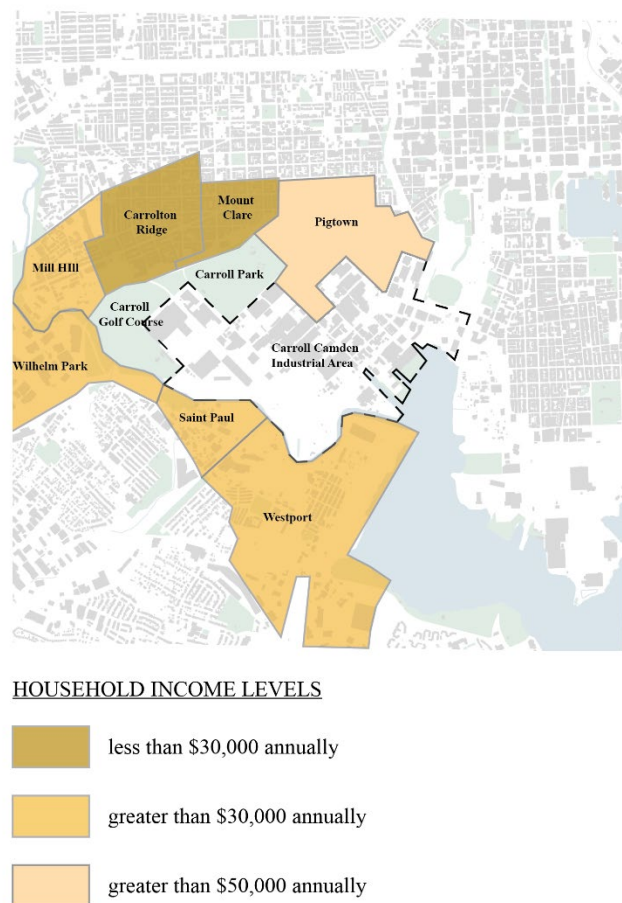
Figure 19 Annual household incomes (Source: 2020 Census, Cadmapper, Author)

Lastly, it is important to look at the amount of occupied versus vacant homes in these neighborhoods. These vacancies can start to explain how large the communities once were and how large they can become. It also points to areas of opportunities for new infrastructure that could better serve the community, rather than an abandoned home.

VACANT HOMES

greater than 30% of homes are vacant

greater than 20% of homes are vacant

less than 20% of homes are vacant

Figure 20 Vacant homes in neighborhoods surrounding the site (Source: 2020 Census, Cadmapper, Author)

Carrollton Ridge and Mount Clare have more than 1/3 of their homes vacant. These data bring multiple questions; Why are people leaving? Where are they going? What resources are lacking? What do people need and want in order to live in these neighborhoods.

Chapter 5: Design Solution

Master Plan of the Olympics in Baltimore

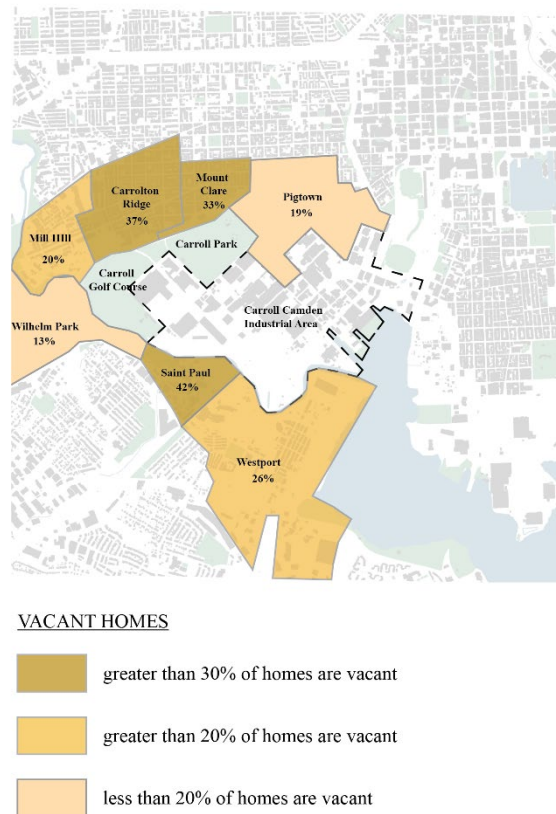Bringing the Olympic Games to Baltimore city would start with the existing site, Carroll Camden Industrial Area. Being predominantly industrial program and nearly no residential, that industrial program could be relocated to the various existing industrial sites in and surrounding Baltimore. Two structures would remain in place to be adaptive and reused for the Olympic Games and its legacy. This would be the eight story Montgomery Park building and the two MTA division buildings. These building sit adjacent to the Carroll- Camden Industrial Area and the existing Carroll Park creating a great space.

existing   olympic   legacy
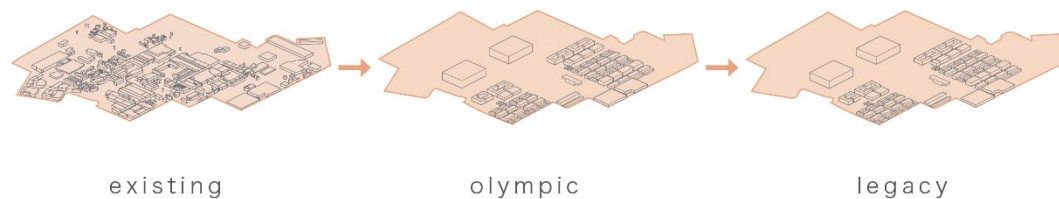
Figure 21 Programmatic phases from existing to Olympic to legacy. (Source: Author)

The now open Carroll Camden Industrial Area is able to house new facilities for the Olympic Games and the legacy thereafter. This Olympic program will have housing for 16,000 Olympians consisting of townhomes and midrise apartments. These new residential buildings will sit on a new street grid that is extended from the existing surrounding neighborhoods. This allows for these new streets to encourage the improvement of the existing street grid.

Figure 22 Street improvement diagram with new program (Source: Author)

The Olympic housing will be mixed-use buildings, with the required retail that is needed when designing an Olympic Park. The addition of these retail streets will also sit on that extended new grid to allow for that extension of retail into the existing neighborhoods. The Olympic dining halls will be located in the adaptive reused MTA warehouses that sit on the edge of the site and adjacent to Carrol Park.
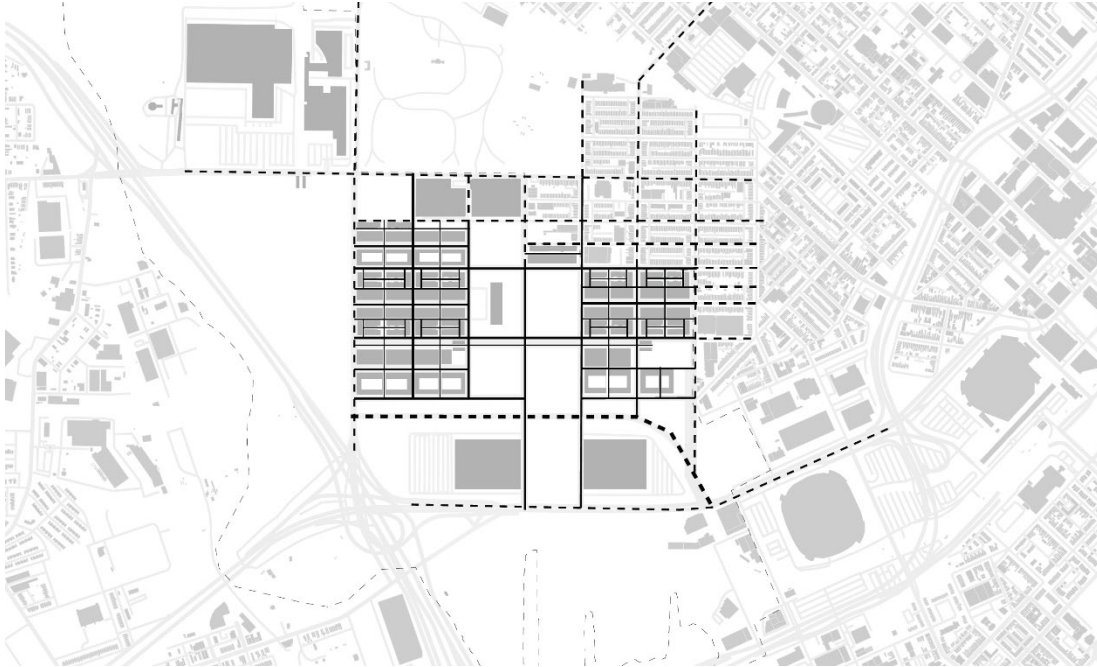
There will be an addition of two new athletic facilities. These facilities will be designed with an open floor plan and warehouse like structure in order to make it easily transformable into legacy program. Not putting resources and design into the athletic venues and keeping them bare helps break that pattern of Olympic athletic facilities becoming abandoned due to the fact the communities do not need these new facilities. The site is already surrounded by the existing athletic venues of M & T Bank Stadium and Camden Yards. Rather than making the athletic facilities an object building like many of the former Olympic Game, the object building and emphasize

34

of architectural design is going to be on a building that is easily transformative to community needs. This building will be programmatically for Olympic volunteers and general visitor center.

The volunteer and visitor center will sit in a central location between the Olympic house, Olympic dining hall, and athletic venues. It will be between two new proposed transit stops making it easily accessible to all athletes, volunteers, and visitors coming to the games.

1. media center
2. light rail station
3. olympic dining halls
4. olympic housing
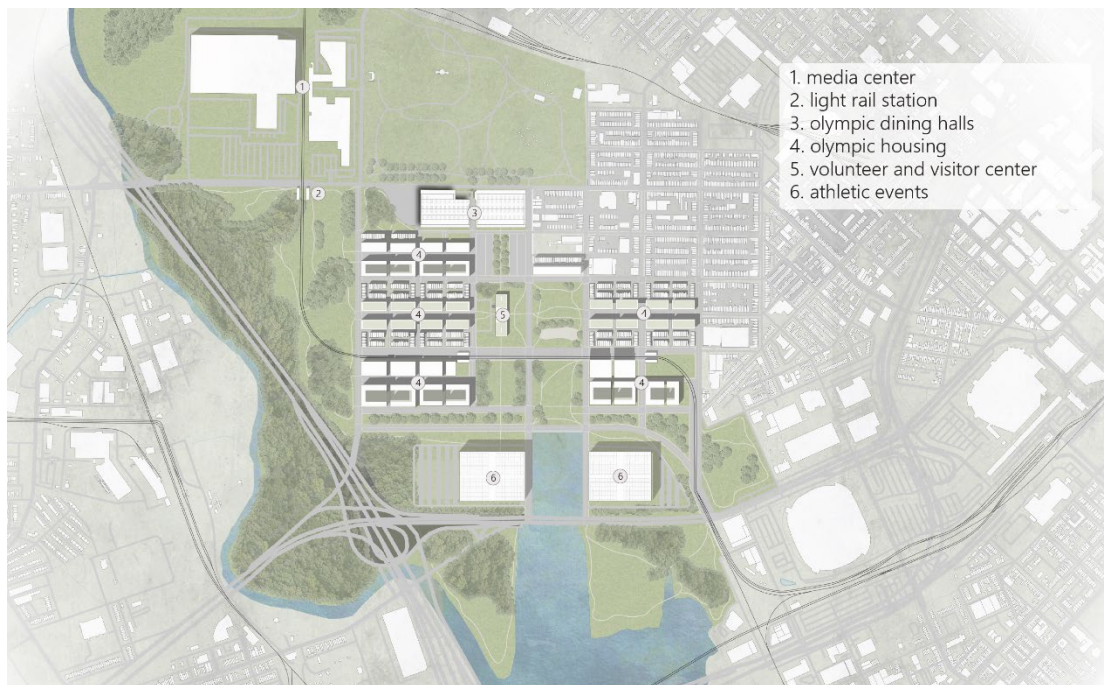5. volunteer and visitor center
6. athletic events

Figure 23 Olympic plan and program in Carroll- Camden Industrial Site (Source: Author)

Master Plan of the Legacy of the Baltimore Olympics

The legacy of this Olympic Games is the real transformative aspect of this design. The legacy is designed to transform the neighborhoods surrounding the

Olympic Park. Designing the Olympic village on a street grid by extending the existing grid allows for a seamless addition of new housing post Olympics. The Olympic housing of rowhomes and mid-size apartments would transform into mixed-income housing for the people of Baltimore. The retail would remain keeping some of these residential spaces mixed use. Keeping the retail allows for a more sustainable community to remain in the legacy of the once Olympic Park.
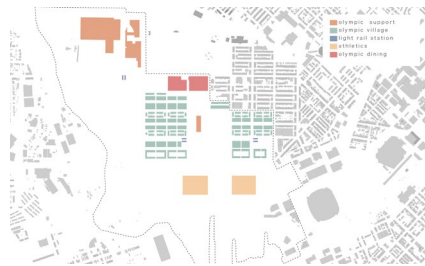
Figure 24 Program for Olympic Games (Source: Author)

Figure 25 Program for legacy of Olympic games. This shows no new projects post Olympics, but transformative program. (Source: Author)

Overall, the design of the legacy of the Olympics held in Baltimore was designed with three core elements. The production, education, and distribution of fresh food. The underserved and impoverished communities surrounding this site. The warehouse style athletic venues will transform into vertical farming facilities. The volunteer and visitor center will transform into a vertical farming education center and a community center. Allowing people in the community to get a higher education and learn how to produce in the vertical farming towers. Lastly, the

Olympic dining halls will transform to the "Baltimore Market" which will distribute the food produced in the vertical farming facilities to the local communities.
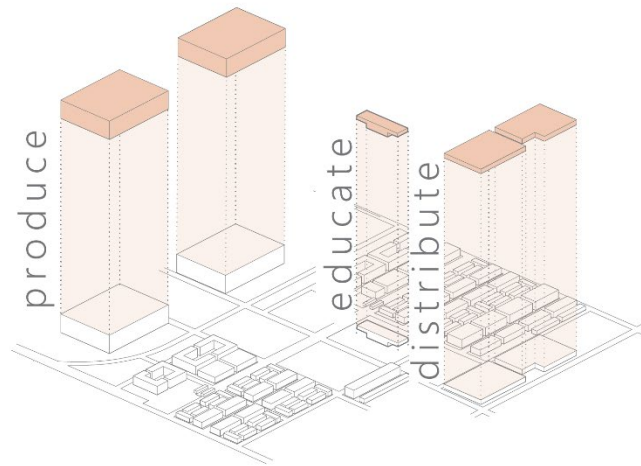
Figure 26 Core elements that will transform community in the post-Olympic legacy design (Source: Author)

The communities surrounding the Olympic Park site are in need of community resources, education, and fresh food. This opportunity for production, education. The Olympic Dining halls would transform into the "Baltimore Market", allowing a distribution of food to the underserved and impoverished neighborhoods surrounding the site. Being in the current MTA warehouses, the "Baltimore Market" will overlook historic Carroll Park and sit on a main design axis that overlooks the adjacent Chesapeake Bay. Creating not just a place to get fresh food, but a destination for the community to come together.
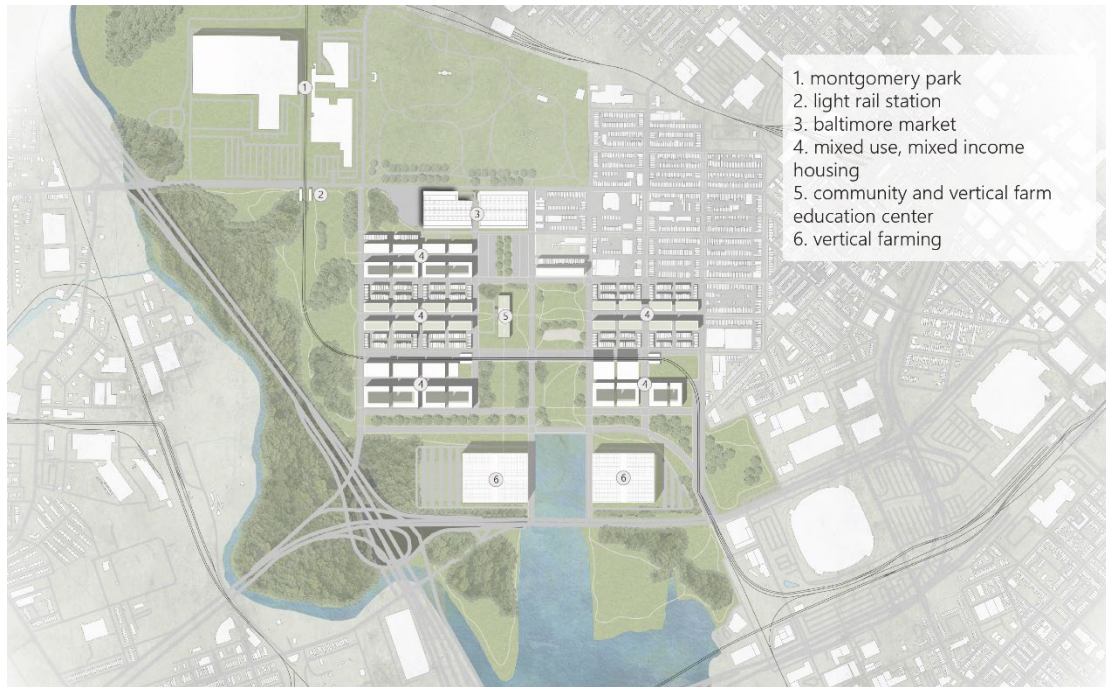
Figure 27 Post-Olympic legacy plan and program in Carroll- Camden Industrial Site (Source: Author)

Education and Community Center

The education and community center is centrally located in the design of this new community. It sits on an axis and street that connects the new community to the existing. The building sits in the intersection of that community axis and the center of the axis of the production, education, and distribution core.

The first two floors of the design would start as an Olympian center. It is where the Olympians would start their journey in this site. These first two floors would then seamlessly transform into a community center during the legacy of the Olympic Park. This would include program such as youth recreational spaces, senior spaces, and community gathering spaces.

olympic program

1. olympic exhibition space
2. warm up gym
3. service
4. lobby
5. volunteer classroom
6. restrooms
7. volunteer lounge
8. administrative offices
9. administrative gathering space
10. open offices
11. volunteer classrooms
12. volunteer training

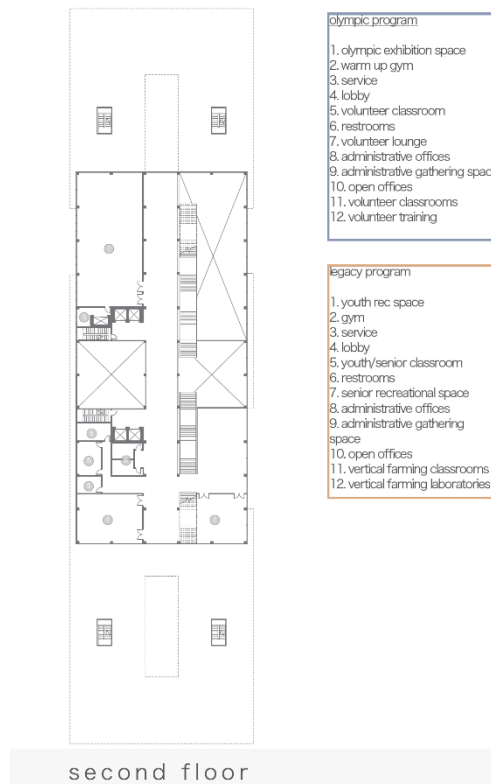legacy program

1. youth rec space
2. gym
3. service
4. lobby
5. youth/senior classroom
6. restrooms
7. senior recreational space
8. administrative offices
9. administrative gathering space
10. open offices
11. vertical farming classrooms
12. vertical farming laboratories

second floor

olympic program

1. olympic exhibition space
2. warm up gym
3. service
4. lobby
5. volunteer classroom
6. restrooms
7. volunteer lounge
8. administrative offices
9. administrative gathering space
10. open offices
11. volunteer classrooms
12. volunteer training

legacy program

1. youth rec space
2. gym
3. service
4. lobby
5. youth/senior classroom
6. restrooms
7. senior recreational space
8. administrative offices
9. administrative gathering space
10. open offices
11. vertical farming classrooms
12. vertical farming laboratories

Figure 28 Third and fourth floor of post- Olympic legacy vertical farming education and community center. (Source: Author)

39

The third and fourth floor would begin Olympic volunteer training spaces. This will then, again, seamlessly transform into vertical farming education spaces. This includes large and small classrooms, labs, and administrative spaces.

This transformative education and community center sits at the intersection of the two main ideas of this design. It allows the educational connection between the production and distribution of fresh food while connecting new and existing communities.
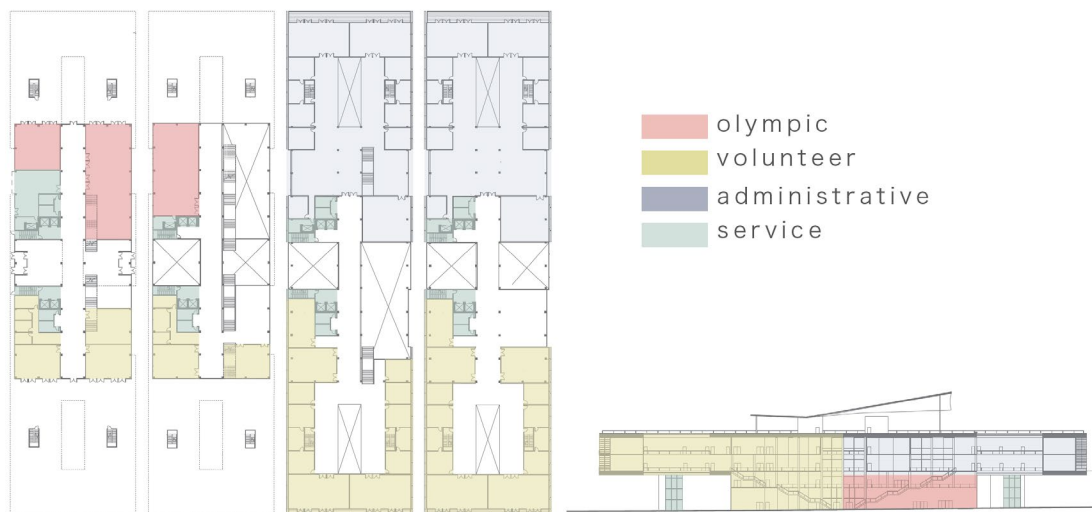

Figure 30 Blocking and stacking of Olympic stacked program in volunteer and visitor center. (Source: Author)
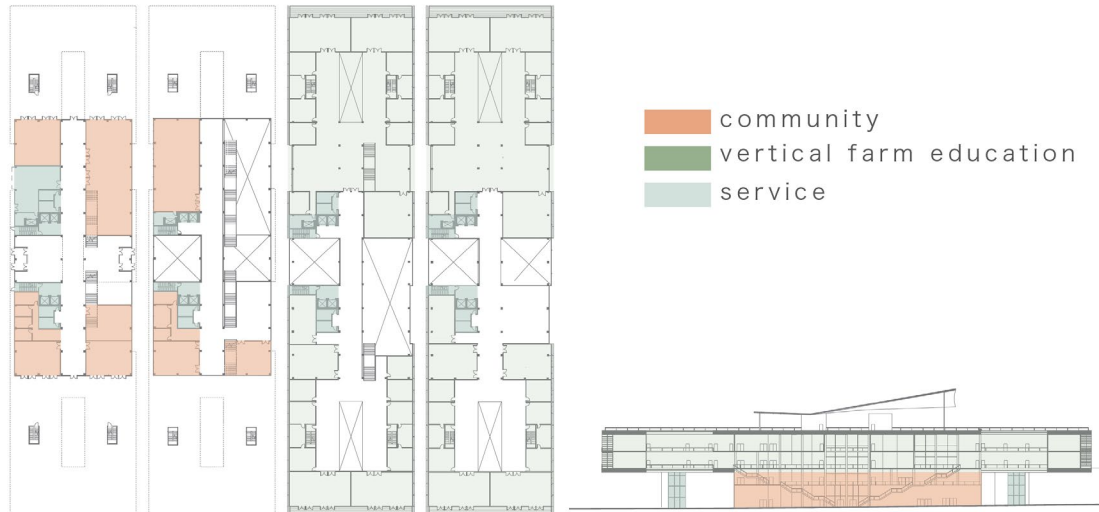
Figure 31 Blocking and stacking of post- Olympic legacy vertical farming education and community center. Showing a seamless transformation between Olympic and legacy program. (Source: Author)

Conclusion

This thesis explored the disruptive pattern of the Olympic games. The pattern disrupts individual lives and entire communities. It leaves people displaced past the games, along with facilities that have repeatedly become abandoned after the games. This thesis used the Olympic games as a transformative tool to facilitate growth in underserved and impoverished communities in Baltimore City. Rather than designing for the needs of the Olympics, this thesis designed for the communities that would be impacted after the games.

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