Joe Louis Greenway As A Strategy For Community Empowerment: Multidisciplinary Methods For Ensuring Positive Impacts

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Abstract

Cities like Detroit are increasingly turning to green infrastructure improvements such as greenways to provide multifunctional benefits including connectivity, improved social and environmental health, and community empowerment and healing. How does an infrastructure project accomplish environmental justice goals and how can we ensure that the local communities are receiving the benefits? Through our research project, we examine how the Joe Louis Greenway will impact Detroiters and what strategies can be used to promote positive social and environmental outcomes.

To answer these questions, we took a multidisciplinary research approach. This included a literature review to understand the challenges and opportunities greenways offer communities and to identify key elements of equitable green development including what should be measured to ensure local benefits. Evaluating local news provided a non-intrusive understanding of the public perception of the Greenway, which is an important indicator of its long-term viability. We also conducted an analysis of the impact of design by examining existing and notable urban greenway projects from different cities and scales through the lens of landscape architecture, urban planning, and design.

Our final piece is an extension of the City of Detroit's Housing & Jobs Toolkits from the Joe Louis Greenway Framework Plan (Vol. 1), which explores a range of tools that can be implemented alongside the construction of the Joe Louis Greenway in order to achieve goals of wealth creation and affordable housing. We built on this to create a similar toolkit that looks at social and environmental aspects of the Greenway with recommendations for land use, design, and program strategies. We included suggested ways to measure progress toward social and environmental outcomes. Finally, we provided guiding questions based on the lessons learned from our research to help evaluate how the Joe Louis Greenway is meeting its goals.

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The Joe Louis Greenway is a recreational pathway that will unify Detroit's neighborhoods, people and parks. Through this greenway, we strive to honor Joe Louis by providing equitable spaces through arts, programming, and economic opportunities for all.

(Joe Louis Greenway Framework Plan Vol. 1)

INTRODUCTION

The Joe Louis Greenway (JLG) marks unprecedented investment into historically marginalized neighborhoods and a commitment to equitable, transformational change. The City of Detroit explains this unique green infrastructure project as "a recreational pathway that will unify Detroit's neighborhoods, people, and parks" (Joe Louis Greenway, 2023). The 27.5-mile trail will traverse through the cities of Detroit, Dearborn, Hamtramck, and Highland Park, while also connecting to the existing Dequindre Cut and RiverWalk trails (Joe Louis Greenway, 2023). With construction underway, there is a timely opportunity to better understand how the JLG can be more than simply a bike path and become a driver of positive change for Detroiters.

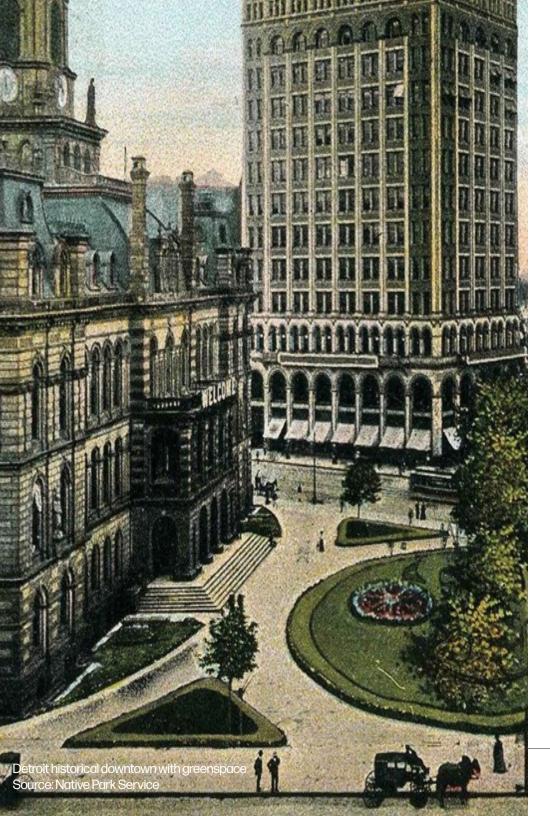
The JLG has become a symbol of hope, a promise of transformation, and a catalyst for economic, social, and environmental justice. Greenways hold immense promise as they can have significant social and environmental benefits, such as improving air quality, reducing urban heat island effects, providing opportunities for recreation and exercise, and enhancing community cohesion. However, to ensure that the JLG delivers on these many potential benefits and more, it is important to be able to measure and evaluate what progress is being seen and who is receiving those benefits.

The City of Detroit has done a commendable job in planning the JLG by engaging with local communities and stakeholders, prioritizing equitable access and sustainability, and leveraging partnerships and funding to bring the project to fruition. The initial planning document, the Framework Plan (Vol. 1), not only outlines the vision, goals, and values of the Greenway but goes into specific analysis of inclusive economic growth opportunities and strategies to achieve that. Additional social and environmental elements of the Greenway are acknowledged as important, such as through the emphasis on art and sustainability, however, no evaluation plans or strategies are considered. While economic factors are exceptionally important when considering equity, relying solely on economic indicators to measure progress can lead to a narrow and incomplete understanding of overall well-being and sustainability (Meadows, 1998). For example, research has demonstrated that a primary indicator of local use of a greenway was a sense of both safety and

community belonging (Jelks et al., 2021). These factors are arguably not possible to quantify in dollars but have a direct impact on who might benefit from the JLG.

Our research aims to address the gap in knowledge and emphasis of the social and environmental impacts of the Greenway. The significance of considering these elements lies not only in the complex systems-level impact that the JLG may have on Detroit's communities, but also in the City's aspirations to accomplish social improvements, healing, and unification through the project. We bring together our multidisciplinary knowledge and resources to provide useful information that can help with better monitoring and evaluation of progress towards equity goals, deciding on strategies to implement to further promote benefits, and ultimately being able to celebrate the proven achievements of the Joe Louis Greenway.

6 Introduction



BACKGROUND

Detroit's History

From the beginning of our project, we understood that we had to recognize the historical legacy of the city and how the Greenway enters the story. In the 19th century, the City of Detroit saw huge industrial growth and a boom in urban development, as people migrated in to fill the newly created employment opportunities. This placed immense pressure on the City's resources and created tension between existing and new residents. The population in 1880 rose from 116,000 to 205,000 in just 10 years (Cialdella, 2020). The 20th century brought fast-paced changes to Detroit with Henry Ford and the rise of the automobile industry: the number of residents purchasing automobiles increased, many new roads were being constructed, and a new culture around driving was prompted. The Great Migration brought high numbers of African Americans from oppressive conditions of the rural South to northern cities like Detroit in search of better opportunities (Cialdella, 2020). Following the immense growth was then overwhelming stress.

Detroit's decline was not a unique experience, as all cities along the Rust Belt were facing similar losses in

employment after a booming development period. The difference between Detroit and others is largely a matter of degree. Ford's \$5 workday, introduced in 1914, led to depressed wages and growing competition for good jobs ("Turning Points in Detroit History," 2000). The Great Depression created more difficult conditions for many people, represented by the Ford Hunger March in 1932, which saw three to five thousand unemployed workers protesting layoffs and inadequate welfare allowances. By 1933, the unemployment rate in the state of Michigan was at nearly 50% (Cialdella, 2020).

Some residents had better opportunities to leave these conditions than others. With the National Housing Act of 1934, the Federal Housing Administration was created, which included guiding policies such as building standards that improved the quality of new housing and a mortgage insurance program. This program made it easier for homeowners to acquire loans and was a major reason for the boom in suburban development between the 1940s and 1960s, as well as the racial and class segregation

of residential areas (Cialdella, 2020). The FHA's 1939 Underwriting Manual set the standard that crowded, older neighborhoods with 'non-conforming' racial groups were less desirable and less valuable than all-white subdivisions. The Federal Homeowners Loan Corporation (HOLC) created in 1933 constructed a risk map that "applied... notions of ethnic and racial worth to real-estate appraising on an unprecedented scale," usually rating neighborhoods with any Black inhabitants at the lowest grade, noted with a red line drawn around the neighborhoods - leading to the term 'redlining' (Cialdella, 2020). Urban renewal projects placed even more hardships on neighborhoods as slum clearance made way for other development, as seen with the communities of Black Bottom and Paradise Valley (Carpenter, n.d.). In 1951, 140,000 Black residents lived in Black Bottom, yet it was completely bulldozed by 1954, then remained vacant for half a decade with some portions being converted to interstate (Carpenter, n.d.). Former residents recall a rich street life with Black-owned stores, restaurants, clubs, barbershops, beauty salons, and doctor's offices (Thompson, 1999). The trauma from the loss of these

communities and the associated identities, culture, and prosperity were often ignored while they were being torn down.

In the late 20th century, the restructuring of these companies and offshoring caused a major loss in bluecollar jobs of city residents, while the affluent white residents with high-paying jobs left for the suburbs. The economic recession of the 70s and austerity of the 80s led to further decline in industries. Between 1970 and 1980, white flight resulted in more than 310,000 residents leaving for the suburbs, raising the percentage of black residents from 43.7% to 67.1%. This also resulted in the loss of a significant portion of the city's economic base and what has been described as "Detroit's exceptional downfall" (Thompson, 1999). A stressed economic system with a shrinking tax base, high levels of vacancy, property abandonment and blight, rising crime, unemployment, dropping property values, and limited resources were all results of the major loss of jobs and disinvestment in vital services and infrastructure. Therefore, deindustrialization and suburbanization, along with racism, resulted in Detroit neighborhoods suffering from concentrated disadvantage, an outcome that's more extreme than the sum of its parts (Herbert, 2021). The Great Recession in the first decade of the 21st century intensified the declining conditions. In 2010, the city's official unemployment rate was just under 30%, though the Mayor and local leaders estimated that the real rate was closer to 50% (Montgomery, 2020; HuffPost, 2010).

Today, the scale of development taking place in Detroit's main commercial area has resulted in a feeling of resurgence (Jay & Conklin, 2020). Investment has been pouring in, with over \$9 billion in projects for Downtown real estate developments from 2006 to 2014. Major investors include Mike Ilitch and Dan Gilbert as well as numerous others. The Ford Motor Company has purchased the international emblem of Rust Belt decay, Michigan Central Station, a symbolic gesture of reinvestment within Detroit. However, this resurgence might result in a very different Detroit. For example, between 2011 and 2016 white residency increased by 66%, while Black residency decreased by 5%

(Jay & Conklin, 2020). There is worry that this new Detroit will not acknowledge the central role that African Americans have played in the social and cultural life of the city since the early 1900s (Cialdella, 2020). Foremost in these debates is how existing Black communities benefit from this renaissance, as this should be a top priority in development projects moving forward.

Detroit's Green History

Iln the early and mid-nineteenth century, Detroit's park systems were primarily developed through privately funded projects. The City, in partnership with developers, built only a small number of squares and parks either in or near the city center. This left working-class, mostly African American, neighborhoods who were left in the City with few, separate, and unequal facilities. The lack of open space was later used to justify the aforementioned discriminatory plans for urban renewal as they were seen as unattractive places (Cooper-McCann, 2019). Around the same time, the City Beautiful movement, which focused on reforming architecture and urban planning to beautify cities, was spreading around the world. Detroit was keeping up with this trend by bettering select parks and addressing vacant lots (Cialdella, 2020).

One park involved in this movement was Belle Isle, a 700-acre island that has long been a site of escape, informal recreation, and semi-public use for Detroiters (Cialdella, 2020). According to Austin Allen's film Claiming Open Space, Detroiters themselves described Belle Isle as "A place for Blacks who are surrounded by concrete to get themselves out close to the water and really enjoy nature," and "It's more

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of a gathering, of a reunion. Everybody has a good time most of the time. Until the cops come and make you leave" (A. Allen, 2016). Before the city's purchase of the island, small parks totaling 13-acres dotted Detroit's landscape but none were as astounding as Central Park in New York, and the city felt that they were falling behind. It was officially designed by Frederick Law Olmstead and turned into a city park in 1881. Though Black Detroiters visited to find calm and community in this park, it was elite Detroiters' environmental ideals that informed the planning of it. An increase in visitation created an increase in police presence, yet gatherings continued as an escape from the grittiness of industry (Cialdella, 2020). Belle Isle continues to be "perhaps the most important Black public space in the country," but other options for outdoor recreation such as the RiverWalk and neighborhood parks are beginning to be utilized more, as well (Detour Contributor, 2020).

Another form of connection with the outdoors in Detroit was shaping during the end of the 1800's when Hazen S.

Pingree became Mayor on a platform of ending corruption in the city government. One part of his agenda was

supporting food gardens, referred to as "Pingree's Potato Patches," to address unemployment and poverty while also keeping residents busy and using vacant lands. This act of urban gardening had another strong wave a decade later, displayed with the gathering of hundreds of gardeners at Belle Isle in 1979 for the Detroit Harvest Festival (Cialdella. 2020). This era of gardening set the stage for Detroit's community now, as a way to bring community gardens and urban agriculture to the forefront to respond to industrial abandonment. Government-sponsored programs including Growing Roots and Farm-A-Lot, along with important activists in the city, such as Grace Lee Boggs, were critical to the reintroduction of urban gardening and the push to rebuild Detroit with a long-range perspective. It was and is viewed as a grassroots way to connect with the environment, provide food, visibly improve conditions of the city, and contribute to social change (Cialdella, 2020).

Outside of the city limits, the Huron-Clinton Metropolitan Authority, established in 1939, relied on visitors to have automobiles and access to highways to reach their natural spaces that were both physically and conceptually distanced from Detroit, including Kensington and Metropolitan Beach, their first two parks created in 1947 and 1950 respectively. These two parks alone matched the size of the city's already-existing parklands. Under the advice of consultant Robert Moses, they focused more on building parks rather than a parkway system that would have been the connection to the city of Detroit along the Detroit River. The planning and construction of these parks were funded by taxpayers in Detroit and Wayne County at a time when the City was losing both population and revenue. It was providing environmental amenities for those who left the city for suburban communities and instead of creating a unifying space, the Metroparks system contributed to the unequal distribution and maintenance of environmental spaces within the region (Cialdella, 2020). Upkeep of public areas within the city was hard to manage with fewer funds and the quality of these spaces declined. After 2000, some parks began to flourish again as they were put under new management, such as Belle Isle when the State government took over in 2013. However, neighborhood recreational facilities remained neglected, as investors have been selective in their revitalization efforts, further contributing

to the disparity between the quality of life in the majority Black city and both its gentrifying core and whiter suburbs (Cooper-McCann, 2019).

In the 1990s, a regional initiative called the Southeast Michigan Greenways was beginning to form, driven by a Lansing, Michigan-based branch of the national organization Rail-to-Trail. Though it had quite a bit of support, it did not progress, possibly due to lack of funding, buy-in from key city leadership, and other, higher priorities. Following, with more success, was the Community Foundation for Southeast Michigan's GreenWays Initiative, with an official launch in April of 2001. This represented the first time such an extensive program for funding greenways had been developed in the region. The root of their success compared to the first effort is considered to be financial support, local relevance, and leadership (Cooper-McCann, 2019).

Today, greenways in Detroit are a large part of city revitalization efforts. There are two predominant interpretations of greenways in Detroit: one which sees them as part of an externally driven redevelopment

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project, unrelated to local expectations, and another which considers them part of a community-centered redevelopment process (Salazar, 2005). As Carmichael & McDonough explain, residents of Detroit have been resistant to green infrastructure approaches, such as street tree planting, due to the absence of inclusion in decision-making and long-term maintenance responsibilities (Carmichael & McDonough, 2018). Greenspace has also come to symbolize loss of community, as vacant lots become 'wastelands' that are filled with 'greenness' (Hoalst-Pullen et al., 2011). Still, there is broad support of the value of green infrastructure approaches as a survey uncovered (70% of respondents appreciated its value) (Carmichael & McDonough, 2018). This appears to be contingent on local involvement as noted by Salazar, "where local input and leadership were strong, the greenways concept differed from that of external agents; it was better adapted and molded to the local reality." (Salazar, 2005).

Planning the Joe Louis Greenway

This focus of local input, involvement, and leadership was a guiding principle for the development of the Joe Louis Greenway (JLG). This began with the naming of the greenway after one of Detroit's most notable residents. The City says, "Through this greenway, we strive to honor Joe Louis by providing equitable spaces through arts, programming, and economic opportunities for all," (Joe Louis Greenway, City of Detroit). Joe Louis was an American hero and icon who earned the World Heavyweight Championship title and help lead the way to the Civil Rights Movement when segregation and racism were widespread across the United States. (Framework Plan, Vol. 1). According to the Framework Plan (Vol 1), community participation and authorship of residents from all neighborhoods was the core of the planning process. They "sought to uncover the hopes, dreams, questions, concerns and vision that residents have for the Joe Louis Greenway," (Framework Plan, Vol 1). They also created a Citizen Advisory Council (CAC), made up of one member from each of the five Detroit Council Districts along with members from the other three cities, to volunteer long-term participation in the JLG.

The vision for the Joe Louis Greenway is to provide connected, equitable and engaging spaces throughout Detroit and the region, where people and neighborhoods will find opportunities for empowerment, unification, and healing.

The City and residents worked together to create **goals** for the greenway and came up with the following:

- 1. The greenway will enhance residents' quality of life and promote community development.
- 2. The greenway will promote equity.

and action will create economic

opportunity for residents in

every neighborhood the Joe

Louis Greenway touches.

building, mutual understanding

neighborhoods, communities

and unification across

3. The greenway will be a unifying, connective, multi-modal transportation network.

Also identified were seven thematic values, or areas of focus, that are reflected in the plan.



greater connection across

the city-and more human

connection among residents

enable us to collectively build

Source: City of Detroit, General Services Department Joe Louis Greenway Framework Plan Vol. 1

cultivate, protect and celebrate

the natural world within our city.

Details regarding environmental

sustainability can be found in

Framework Plan Vol. 2: Design

wellbeing, Connecting Detroite

enhance the quality of life in all

neighborhoods along its path.

to safe and ability-inclusive

retention and access to

of economic growth.

affordable housing will enable

Detroiters to enjoy the benefits

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The planning process also uncovered a need from community members to heal historical traumas. The plan mentioned that acknowledging, promoting dialogue, and providing new opportunities to heal from these pasts through the Greenway will create a better understanding of racial justice.

Today, with construction of one segment complete and others underway, the community involvement has strongly continued. The City has recently begun the Joe Louis Greenway Neighborhood Planning Study which will look into the areas around the Greenway and assess their current conditions while meeting with residents regarding strategies that could be used to support, stabilize, and develop the area. The City looks at this as a chance to "protect housing affordability, spur new economic development while learning how we (they) can support current needs of residents, community organizations, and local businesses" (City of Detroit, 2023). This is a two-year, four-phase project that will result in plans and recommendations for investments, policies, and land uses.

Our team was in attendance at the first phase meeting for the JLG Westside on Tuesday, March 14th, 2023 to understand how the City was working with community members and what the general feedback was that they were receiving. The themes of these meetings, which were pulled directly from the first round of engagement, are the following: building wealth, housing affordability, creating jobs & sustaining business, neighborhood improvements, connectivity & mobility, and organizational capacity. They had information tables prepared with pamphlets for attendees that showed data about the area such as population, race, median household income, housing units, land use, vacancy, and a map of where businesses are located. They wanted to hear from residents about how accurate this information seemed and what was missing. They also held a variety of activities to get attendees involved: a Neighborhood Worksheet gathered information on important things to know and future ideas about their neighborhoods; a collective map showing where attendees live, a Rose and Thorn activity had tables working together to discuss what was positive and negative about their

neighborhood, and a mapping activity where tables identified places they loved and where community assets may be located, as well as where challenges may reside. With this being just the first phase of the Neighborhood Planning Study, there is a lot of work to be done; the City seems well-prepared to do so.

Gentrification

The green spaces that cities are increasingly investing in are not exempt from possible negative impacts. There is a rich literature on different types of gentrification (green, ecological, and environmental) and how these often well-intentioned projects may result in unintended, sometimes negative, outcomes (Draus et al., 2020). The term gentrification has become a catchall term to mean many different kinds of urban issues beyond neighborhood change.(Gallagher, 2010) It was first coined by sociologist Ruth Glass in her 1964 book London: Aspects of Change and was used to underscore the process of class-based conflict (Pohorelsky, 2019). It can be defined as the transformation of a working-class or vacant area of the central city into middle-class residential and/or commercial use (Lees et al., 2013). Research has found that gentrification and its associated displacement effects can be damaging and can range from cultural alienation to eviction and violence (Mah, 2021; Pohorelsky, 2019). Not only does it lead to physical and mental health issues, it can also cause vital social support networks to fray, reducing the social resilience of low-income communities (Mah, 2021). There is a well-

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acknowledged paradox of low-income communities being deprived of quality parks but as park spaces are created or restored, the neighborhood becomes more desirable (Suiter, 2016).

Recent projects provide evidence that these improvements can be a form of environmental gentrification and can alter neighborhoods beyond the boundaries. From 2011 to 2015, the Atlanta Beltline created a rise in housing values from 17.9% to 26.6%, depending on the segment. Listing services for homebuyers now have a category of "Near the Beltline" (Immergluck & Balan, 2018). Similarly, within 10 years of being announced, the High Line in New York City generated a 103% property value increase (Suiter, 2016). Near the Beltline, most poor residents are likely to be renters and the rising housing costs result in the burden being placed on them. They are less likely to have savings or credit to help with a sudden increase in rent, resulting in their displacement (Immergluck & Balan, 2018). In the same light, Suiter discusses that these residents also do not benefit from the use of the new green space, as increased security is present to keep up

aesthetics, empty garbage bins, and promote movement rather than places to sit, rest, and gather, leading to many feeling as if they do not fit in or are not welcome along with park anxiety (Suiter, 2016). With the example of the High Line, citizens do not choose the acceptable uses for the park, which is critical for public land (Suiter, Aaron, 2016). Though these effects are well documented, it does not guarantee that this is the result of all rail-to-trail initiatives or of green space improvements in general.

Elliot's study found three dominant attitudes about if and how gentrification was impacting Detroit. One group found that gentrification was taking the same form as always, seeing it as a process of urban renewal and exclusionary urban planning practices. Others expressed that it would never happen in Detroit, while some found that it may be needed (Elliott, 2018). The majority of opinions may not be this clear-cut, though; in reality Detroiters experiencing it in their neighborhoods have mixed feelings about its impact. Long-term residents, for example, expressed both a concern and hope for their new neighbors. These residents are torn

by the prospect of urban renewal and growth in business that might revitalize their city, but also are concerned about the threat of relocation and loss of existing character (Osburn, 2018).

Among debates on how gentrification is viewed are debates about the extent to which it is taking place. An assumption seems to exist that gentrification in a highly abandoned city is minimal due to having an abundant supply of housing. However, high vacancy does not automatically mean housing affordability, but rather unpredictable and inadequate housing options (Mah, 2021). To date, the effects of gentrification on Detroit thus far have been relatively small, compared to other large cities. The Gentrification in America Report from 2015 assessed the nation's 50 largest cities and found Detroit at 47 with 2.8% of eligible tracts gentrifying. On the other hand, the highest ranked was Portland, with 58.1% of eligible tracts gentrifying (Maciag, 2015). Similarly, in Brummet's study, Detroit was displayed as having a gentrifying rate of 0.7% (Brummet & Reed, 2019). Though these rates are low, their impact is highly

concentrated in specific locations, with high impact on the surrounding neighborhoods. Much of the gentrification is concentrated with 'The 7.2', which is a collection of eight central neighborhoods (Downtown, Midtown, New Center, Woodbridge, Corktown, Eastern Market, Lafayette Park, and Rivertown) that comprises of 5% of both the city's area and population (Doucet, 2020).

As Draus explicitly states, there are two potential trajectories for greenways, specifically for the Joe Louis Greenway: green gentrification or green reparations (Draus et al., 2020). In a green reparations scenario, the JLG and other projects would be designed and constructed with a main goal of achieving social equity, with benefits targeted toward areas most historically harmed (Draus et al., 2020). The recognition that memories of these traumas may be invoked when these areas are redeveloped is an important consideration during conversions of these spaces; projects that acknowledge and incorporate the history of the residents may be more likely to engage them (Draus et al., 2020).

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A range of policies and programs to limit the negative consequences of gentrification have also been studied and suggested. "Anti-displacement zoning" is a policy intervention that could prevent the negative impacts of green gentrification. Five floating zones or special districts could be created to support or discourage development in different areas to manage negative impacts: mature development zones, conditional development zones, limited development zones, expansion zones, inclusionary new construction zones (Marcuse, 1985). The Special Clinton District in New York City is a successful example of the conditional development zone, established in 1975 "to preserve the scale and character of the core residential area of Clinton and to redirect future development to the community's perimeter" (City of New York, 1990).

A set of Detroit-specific advice has also been created based on three lessons from Brooklyn's history of gentrification and may be useful to apply to the political and economic setting today: 1) practice fair zoning, 2) reduce developer subsidies, and 3) track displacement (Pohorelsky,

2019). There is evidence and experience rooted behind these recommendations: 1) "some of the most intense gentrification in Brooklyn that has taken place has been rooted in rezoning practices", 2) public subsidies for private development have created major inequities in housing options, and 3) tracking gentrification and displacement carefully helps to deter the fast-paced process (Pohorelsky, 2019).

Similarly, Parks-Related Anti-Displacement Strategies (PRADS), collected from 12 cities that were employing various efforts to limit green gentrification, are promising avenues to explore (Rigolon & Christensen, 2019). Their strategies were separated into three types of actors who would benefit from them - renters, homeowners, and businesses and workers - and three types of actors who play a role in implementing them - private developers, public housing organizations, and park funding agencies. A few of these tactics from each category are renters workshops (for education and empowerment), accessory dwelling units and compact lot subdivisions, job creation for long-

time and low-income residents (such as first source hiring), and inclusionary zoning (Rigolon & Christensen, 2019). Immergluck & Balan concur with these ideas by explaining that planners seeking to avoid large-scale gentrification and displacement while maintaining some level of economic diversity should address housing affordability from the beginning of planning (Immergluck & Balan, 2018). This can be done with two tactics: setting policies that will buffer the impact of rising land values on existing, lower-income residents (both homeowners and renters) and putting in place inclusionary housing policies to require the set aside of new housing units at affordable rents (Immergluck & Balan, 2018). Detroit passed an Inclusionary Housing Ordinance in 2017 which ensures that new development receives public subsidy to provide housing for a range of income levels. This lays out the City policy for affordable housing, but doesn't provide detailed guidance on how to implement, allowing for some wiggle room of enforcement (City of Detroit, 2018).

The City has addressed many of these concerns in their

Framework Plan and appears to continue to do so through the Neighborhood Planning Studies (Joe Louis Greenway Neighborhood Planning Study, 2023). The method through which they implement certain strategies has the potential to greatly impact the success of actualizing their vision of equitable green development. In the following section, we outline key principles to consider when implementing strategies to achieve positive social change.

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EQUITABLE GREEN DEVELOPMENT

Building for Social Impact

"The Joe Louis Greenway will provide connected, equitable and engaging spaces throughout Detroit and region, where people and neighbors will find opportunities for empowerment, unification and healing." (Framework Plan, p.10)

While on the surface the Joe Louis Greenway (JLG) is a capital improvement project for the City of Detroit, the goals and objectives go beyond providing physical infrastructure and aim to improve social conditions for Detroiters. In this way, the Greenway is acting as a strategy for community change. Urban planning design choices have a significant impact on the way people interact with their communities and thus live their lives. People living in areas with limited green space may struggle to find places to relax, exercise, or spend time with friends and family. This can lead to increased stress, social isolation, and poor health outcomes (Astell-Burt et al., 2022). People living in areas with decades of disinvestment and neglect may have limited access to public transportation, job opportunities, and basic infrastructure, and may find it difficult to navigate their community safely and access essential services. Transforming urban areas offers an opportunity

to address social, economic, and environmental inequities. A specific example relevant to the JLG is the reclamation of abandoned railroad tracks. Approximately 80% of the proposed route will be constructed on former railroad tracks (City of Detroit, 2021). These tracks have historically dissected neighborhoods, cutting off possible connections between people who would have been neighbors, disrupting social cohesion, disenfranchising residents, and reducing their collective power. Now, transforming these private places to public spaces drastically increases the potential to strengthen social ties.

The impact of our living environments extends beyond mere access and availability, often reaching deeper levels of influence. In his article, "The Sociological and Geographical Imaginations", David Harvey introduced the concept of "spatial imaginaries", which argues that place is vital to contextualizing social and historical identities (Harvey, 2005). Simply put, significant parts of individual and cultural identities are place-based. When spaces closely connected to these identities are destroyed, as

they have been in Detroit, populations can experience communal trauma (Poe, 2022). Writing about place-based, communal trauma, Jocelyn Poe clarifies that communal trauma is not synonymous with victimhood and instead is a valid response to harm and wrongdoing inflicted upon marginalized communities (Poe, 2022). She argues that trauma imaginaries are critical expressions of resistance against oppressive spatial processes and that they can persist if unaddressed, leading to ongoing placed-based trauma with generational implications (Poe, 2022). If the goal of the JLG is to build a space, "where people and neighbors will find opportunities for empowerment, unification and healing", then it is critical to acknowledge and address communal trauma (City of Detroit, 2021).

A Community-Based Strategy

"With public sentiment, nothing can fail; without it, nothing can succeed" – Abraham Lincoln

As discussed, a driving force behind significant investment in green infrastructure projects like Detroit's JLG is to support community empowerment, unification, and healing. Greenways are therefore being used as a strategy to achieve goals such as improved health and well-being of the surrounding communities. To start understanding how, we must first explore what we mean by 'the community' as well as what is understood as empowerment, unification, and healing in the context of Detroit and the JLG.

In the realm of urban planning, community is often used to simply refer to the people in a certain geographic area. Yet, in practice, community encompasses a much broader scope, consisting of a group of individuals who are united by shared interests, values, backgrounds, and other commonalities. However, it is not merely the presence of these commonalities that is enough to qualify a group as a community; rather, it is imperative that the members of the community establish links and undertake collective

actions aimed at achieving mutually shared objectives.

Therefore, community ought not to be considered solely as a noun, but also as an active verb (Checkoway, 1995).

Recognizing community as a verb when planning a new development demonstrates the necessity of collaborating with community members to identify their needs, concerns, and aspirations, create a sense of ownership, and build a more sustainable outcome.

In the JLG Framework Plan (Vol. 1), empowerment is defined as creating opportunities for residents to participate in the planning and development of the Greenway, encouraging ownership and engagement from diverse communities, and promoting economic growth and sustainability. The plan aims to empower residents through education, job training, and entrepreneurial opportunities, with a focus on equitable access to resources and decision-making. Unification is defined as connecting diverse neighborhoods and communities through the development of the Greenway, creating a sense of shared identity, and promoting social cohesion. The plan aims to unify communities through

the creation of safe and accessible public spaces, promoting health and wellness, and fostering connections between neighborhoods and people. Healing is defined as addressing the legacy of disinvestment, neglect, and environmental injustice in the area, and promoting physical and mental health and well-being. The plan aims to address historical traumas and promote healing through equitable development, community engagement, and access to resources and opportunities.

Community-based strategies likely have the greatest potential for achieving the project's ultimate goals. By including community members, the city can elevate the priorities of those that are supposed to benefit from JLG, which is likely to increase the positive impact on local residents and businesses. Moreover, including these voices will add critical local knowledge that can head-off issues unknown to practitioners and officials.

Essential Elements of Equitable Change

Detroit has clearly defined equity as a top priority and guiding principle for the JLG project. The Framework Plan (Vol. 1) identifies promoting equity as one of three primary goals. The plan defines equity as a series of steps, or a process:

Residents participating in greenway engagement made it clear: equity is our top priority. This means first identifying the ways in which race, gender, and socioeconomic status affect a person's ability to benefit from and enjoy this greenway. Then, structuring policies and programs—in housing, job training, and small business development—that enable all Detroiters to not only have access to a world-class greenway, but also receive the economic benefits the greenway is sure to deliver (p. 32).

While this quote illustrates the importance of addressing issues of race, gender, and socioeconomic status in promoting equitable outcomes, it is a missed opportunity to acknowledge and address the complexity and intersectionality of social identities and systemic inequalities that are central to achieving equity. This definition of equity, the only one offered in the plan, tends to focus on individual-level access and opportunity, rather than the historical, systemic, and structural issues of inequality and discrimination. While increasing access to resources and opportunities is import-

ant, it does not necessarily address the underlying power structures and systemic inequalities that create and sustain social and economic disparities. In addition, the focus is primarily on economic equity, which is certainly an important dimension of equity, but is not the only one. It equates well-being with material wealth, a narrow and individualistic conception of the 'good life', rather than including broader social, cultural, and environmental factors. Therefore, while defining equity in terms of fair and just access to resources and opportunities is a positive step towards promoting greater social justice and inclusion, it is important to recognize the limitations of this definition, and to engage in broader efforts to address systemic and structural issues of inequality and discrimination, and to promote a more holistic and inclusive vision of well-being and social progress.

Traditional equity analyses that consider economic and demographic factors are helpful in identifying historically disadvantaged communities and can be useful tools in prioritizing efforts and monitoring impact. However, as urban planning projects have a great influence on the current

and future well-being of communities, they must engage the community in their planning, implementation, and operational processes. Though there is no cookie-cutter framework that will apply to all community change projects, there are several practices that help to foster equitable change. Specifically, this can be conceptualized into four categories: establishing a shared vision, distributing power through collective leadership, fostering strong social networks, and developing a transparent process for measuring impact and adaptive management. This is not a comprehensive summary, and it is essential to consider the context of the specific community and to consult with local experts and community members to ensure that any solutions proposed are tailored to the specific needs and realities of the area.

Shared Vision

Vision statements can be found on almost every organization's website and at the beginning of most master plans. They are a familiar starting point for planners, but often lack important steps which can enhance their effectiveness. Developing a shared, community-defined vision ensures that goals are transparent and representative of community needs and desires and that all stakeholder's future actions are working towards a common objective (Meadows, 1994). The process, coined by Donella Meadows as 'collective envisioning', can also lead to more community buy-in, which increases the likelihood of achieving the desired goals (Meadows, 1994).

Going through the process of establishing a shared vision also ensures that all parties have the same interpretation of key constructs. One of the central measures in Grabowski et al.'s equity analysis of green infrastructure plans is a clear definition of equity in the plan (Grabowski et al., 2023). When embarking on a planning project, it is important to consider

diverse understandings, or mental models, as they provide insight into how individuals perceive and interact with the built environment (Jones et al., 2011). By understanding these mental models, planners and designers can create environments that are more in line with the needs and preferences of the individuals who will be using them (Holtrop et al., 2021). For example, if a planner understands that individuals have a mental model of a park as a place for passive recreation, they may design the park with plenty of seating and open spaces for relaxing. Alternatively, if the planner understands that individuals have a mental model of a park as a place for active recreation, they may design the park with more sports facilities and walking paths.

The act of envisioning itself is very powerful and can influence behavior. Changing the way we perceive what the future can hold, can alter our behaviors in the present (Lakoff & Johnson, 1980). Often traditional vision statements evoke an ideal that may not be obtainable within the constraints of

the system and timeframe. Responsible visions consider the constraints and, rather than being blocked by them, plan for ways to remove barriers or change the landscape to work around them (Oettingen & Reininger, 2016). This approach also considers possible unintended consequences of actions in pursuit of goals, like green gentrification caused by greenways, and plans for ways to prevent them.

The planning process for the JLG has put a significant effort into working with diverse stakeholders to develop a shared vision for the Greenway. However, there is still room to clarify particularly complex phrases like equity to empowerment to ensure that people are on the same page and have appropriate expectations. It would be worth examining how community groups specifically envision achieving the goals outlined in the Framework Plan (Vol. 1).

Collective Leadership

When considering leadership, most people, especially in the United States, pull up a mental image of one individual guiding others. However, there is a growing body of research that examines leadership as a collective experience that is built through social interactions. This shift from a traditional, hierarchical view of leadership to a more collaborative and inclusive approach is particularly relevant in complex problem-solving situations where no single individual possesses all the knowledge and expertise required to develop effective solutions (Shonk, 2022). By embracing collective leadership, a group can leverage diverse perspectives, knowledge, and skills to create innovative and long-lasting solutions to complex problems. As a project within the constraints of local government bureaucracy, the JLG must actively engage in practices that go out of the standard operating procedure to allow for collective leadership. By involving community members in decisionmaking, planners can create more inclusive, equitable, and sustainable urban environments.

Often when discussing public spaces, the idea of the 'tragedy of the commons' is raised to imply that an overarching authority, which could be thought of as a consolidated leadership, is needed to avoid misuse of shared resources. Elinor Ostrom was the first woman to receive the Nobel Prize in Economics for her work in showing how collective action, trust, and cooperation were effective in sustainably managing common pool resources. The key principles of collective action include design, planning, and monitoring elements. A critical element of this is that the community participated to develop a process to establish and enforce shared rules and resolve conflict (Ostrom, 1990).

Another way to think about managing communal spaces is through collective leadership. In their article, "Leadership in the Plural", Denis et al. outline four streams of collective leadership (2012). They include working collaboratively in teams, pooling top leadership from diverse groups,

diffusing leadership over time and across boundaries, and producing leadership through participation and coproduction. The JLG has employed many of these forms of collective leadership in the planning process. An example of the third stream, the Community Advisory Council works as 'executive constellations' where eight members represent the five Detroit Council Districts, Hamtramck, Highland Park, and Dearborn. Acting as community leaders for each area, they serve as ambassadors and advocates to address the concerns, wants, and needs of their neighborhoods. These different approaches to collective leadership demonstrate the diverse ways power and decision-making authority can be shared and diffused to best address an issue. This extends past the planning process and continues into the long-term implementation and stewardship of a program as well. It is an opportunity for the JLG to continue with different types of collective leadership moving forward that best suit the needs of the situation.

To be clear, the commonly used term, 'community engagement' does not necessarily include elements of collective action or leadership. Research has shown that while agencies are in favor of participation, engagement alone does not often result in active changes in program management or control over the outcomes (Checkoway, 1995). This can be considered performative engagement at best, while it runs the risk of being extractive, placing work on the public without compensation or true consideration (Checkoway, 1995). It is important to consider the level of community decision-making that is appropriate for the project and to be transparent about the process and how final choices will be made. The International Association for Public Participation (IAP2) is a global organization that promotes and supports the practice of public participation and community involvement. Their useful tool, the "Spectrum of Public Participation," provides a framework for understanding the different levels of participation and empowerment that can be achieved in decision-making

processes. The spectrum consists of five levels: inform, consult, involve, collaborate, and empower. Each level represents an increasing degree of participation and empowerment, with the highest level, empower, representing a process in which the community has the power to make final decisions. If the goal of the JLG is to empower the public in the planning and implementation process, it implies that the City will implement what the public decides. If this is not accurate, it is important to be clear on what power the public does hold.

"Co-production is a bold, pragmatic strategy that shatters limits on social change" --- Edgar S. Cahn

Success in collective leadership scenarios requires several essential elements, including sharing of power, a commitment to shared learning, trust-building, transparent and effective communication, and mutual accountability (Cassandra O'Neill & Monica Brinkerhoff, 2018). This does not necessarily mean that governments should operate

more like community groups or that community groups need to conform to the bureaucratic process. In Edgar Cahn's book, "No More Throw-Away People", he illustrates this through a story of blobs and squares (Edgar S. Cahn, 2000). The "squares" represent the traditional top-down approach of government decision-making, while the "blobs" represent the diverse and complex needs and perspectives of communities. In the story, 'blobs' are slowly turned into 'squares' through attempts at collaboration. Instead, he argues for the unique skills and resources both 'squares' and 'blobs' bring to create innovative and sustainable solutions to complex problems. It illustrates that true coproduction requires a commitment to shared learning, where both parties are open to learning from each other's expertise, knowledge, and experiences.

Have 6-minutes? Watch, "The Parable of Blobs and Squares", an animation based on the story from Cahn's book, "No More Throwaway People": https://vimeo.com/42332617

Strong Social Networks

The Joe Louis Greenway's goals of equity, community development, and connectivity are attempts to influence complex social systems. Social systems refers to the network of relationships between individuals, groups, and institutions that constitute a larger whole. By understanding and improving these relationships, we can more effectively and efficiently influence the larger group (Meadows, 2008). Utilizing programs, policies and other tools which strengthen social networks is critical to accomplishing significant and durable community empowerment.

A traditional economic view of social networks is the study of social capital. Social capital refers to the connections, networks, and norms of trust and reciprocity among individuals and groups in a society or community. It is a form of collective resource that can facilitate cooperation and coordination, and it can have positive effects on a wide range of outcomes, including economic development, social well-being, and political participation. Social capital can be

thought of as a 'resource' that individuals and groups can draw upon to achieve their goals, whether those goals are economic, social, or political in nature.

In his 1998 paper, "Social Capital and Economic
Development: Toward a Theoretical Synthesis and Policy
Framework", Woolcock provides a theoretical framework
for understanding the relationship between social capital
and economic development (Woolcock, 1998). He argues
that social capital is an important determinant of economic
development and poverty reduction. However, the nature of
how social capital is developed can lead to negative results,
like reinforcing existing power imbalances and exclusionary
behavior. Woolcock suggests that development
interventions should focus on building both bonding and
bridging social capital, as well as on addressing potential
negative outcomes. Bonding social capital refers to
connections within a homogeneous group, such as family,
friends, or colleagues. These connections are strong and

can foster trust and reciprocity among group members.

Bonding social capital can be positive for group members, but it can also lead to exclusion and mistrust of outsiders.

Bridging social capital, on the other hand, refers to connections across different groups, such as connections between people from different ethnic or socio-economic backgrounds. Bridging social capital can help facilitate cooperation and coordination between different groups and can contribute to the creation of more diverse and inclusive communities.

Other scholars have since added a third type of social capital, coined 'linking social capital' (Lin, 2001). Linking social capital refers to the connections and relationships between individuals or groups who hold different positions of power, such as relationships between citizens and public officials, or between workers and managers. Linking social capital is important for facilitating access to resources and opportunities that are controlled by those in positions of

power and building trust. However, linking social capital can also be negative if it reinforces existing power imbalances or leads to patronage and corruption. Therefore, it is important to promote forms of linking social capital that are based on reciprocity, trust, and mutual benefit. Similarly, a recent expansive study which reviewed billions of social media connections has found that 'cross-class' friendships have a more profound impact in raising people out of poverty than other factors like school quality, family, race, or job availability (Chetty et al., 2022). Relationships across socioeconomic status were shown to increase the average income of children from low income families by 20% (Chetty et al., 2022). The study suggests that the people you know, friendships you have, and people you interact with can open up opportunities. In the New York Times article about this study, the authors offer a few solutions to encourage cross-class friendship including building free, accessible greenspaces in cities (Miller et al., 2022). By focusing design, policies, and programs to increase connections between

socioeconomic groups, the JLG has the potential to have a significant impact on poverty reduction. As the areas around the Greenway experience increased economic opportunities, it is crucial then that anti-displacement measures are a priority to allow for the benefits associated with economic mixing.

Responsibly building social capital also can increase a sense of belonging within a community, which has been recognized as an important determinant of wellbeing, particularly in the context of urban environments where social fragmentation and isolation can be prevalent.

Numerous studies have examined the relationship between sense of belonging and wellbeing, and have found a consistent positive association between the two. One study, for example, found that individuals who reported a stronger sense of belonging to their community had higher levels of life satisfaction, as well as lower levels of anxiety and depression (Haslam et al., 2009). Similarly, another study

found that a sense of community belonging was positively associated with subjective well-being, as well as with greater resilience and lower levels of stress (Hagerty et al., 1992). A sense of belonging has also been linked to other indicators of wellbeing, such as physical health. For example, a study of older adults found that a stronger sense of community belonging was associated with better physical health outcomes, such as lower rates of hypertension and diabetes (Cramm et al., 2013). There are also examples particularly relevant to sustainable green development. In their meta-analysis of green gentrification and health, Jelks et al. found that the positive health outcomes related to green spaces are dependent on both green space safety and sense of community and belonging (Jelks et al., 2021). However, it is not guaranteed that the Greenway will have significant impacts on health and wellbeing, at least not right away. In their study of a new urban greenway in Northern Ireland, Hunter et al. found no population-level improvements except notably about the perception of

social capital for the community (Hunter et al., 2021). Overall, these findings suggest that policymakers and practitioners in urban planning and community development should prioritize strategies that foster social connections and a sense of belonging among residents to promote well-being and reduce social isolation.

Measuring Impact & Adaptive Management

We rely on indicators every day to inform our decisions. We check the weather before getting dressed. We alter our responses in a conversation based on the body language of the person we are talking to. In planning, tracking indicators are essential to help make informed, effective, and equitable decisions. When working to influence a system, it is necessary to devote significant time and resources to developing responsible indicators that can provide insight into progress toward goals. Indicators refer to tools or methods for assessing and monitoring progress toward specific goals or objectives. Effective measurement and evaluation enable project managers to make informed decisions about resource allocation and project design, identify areas for improvement, and adapt to changing circumstances. However, not all indicators are created equal and there are some key considerations to ensure that data are used appropriately and responsibly.

The seminal report, "Indicators and Information Systems for

Sustainable Development" by Donella Meadows provides a thorough exploration of the role of indicators in decisionmaking (Meadows, 1998). She argues that indicators, when chosen and used effectively, can be a powerful tool for guiding policy decisions and monitoring progress toward sustainability. She emphasizes that the choice of indicators should be based on a clear understanding of the goals and values underlying the desired sustainable development outcome. Often, indicators are chosen because they can be easily measured rather than prioritizing what can give us real insight. Indicators that are poorly designed, irrelevant, or misused can distort priorities, create unintended consequences, and even undermine the very goals they are intended to achieve. For instance, focusing on GDP growth as a measure of economic progress can result in policies that prioritize short-term gains over long-term sustainability, while neglecting important social and environmental factors. Similarly, using indicators that do not reflect the local context or cultural values can lead to inaccurate or

incomplete information, and fail to address the root causes of problems.

"Indicators must be simultaneously meaningful in two different domains: that of science and that of policy" - Wouter Biesiot (Meadows, 1998, p. 17)

There are numerous resources that identify the ideal characteristics of indicators. While these qualities represent the ideal, it can be difficult (if not impossible), to find and use them in practice. However, by striving to achieve these qualities, communities and decision-makers can develop more accurate and useful indicators that lead to better outcomes and a more sustainable future. A common framing for determining indicators is the S.M.A.R.T. method; that indicators should be specific, measurable, achievable, relevant, and time-limited. In addition, Meadows outlines some additional crucial characteristics of a good indicator which can be categorized into the following four groups (1998). The first category pertains to the process through which indicators are developed. Good indicators are

democratic and accessible. They include the community in data collection, analysis, and dissemination of information. The second category is that indicators need to clearly convey the information they are trying to provide. Large units without context are not easy to understand and are not compelling. In addition, indicators should be able to be applied to policy decisions in a way that is relevant for all stakeholders, especially marginalized groups. Also, indicators do not exist in a vacuum and depending on how they are communicated can either prompt political action or polarize decision-makers (DeLeo & Durate, 2022). The third category concerns the quality of the information. Indicators should be timely so that the information can be used before it is no longer relevant. They should be collected at the right scale and give enough information to understand, but not be overwhelming or miss the full picture. When possible, Meadows suggests using physical indicators. For example, there is a common trend to measure indicators in equivalent dollars, like healthcare costs instead of actual

(or 'physical') health conditions like the number of asthma cases. Finally, the fourth category is innovation. Indicators should add to our understanding of the system. They should include information that is not easily measured when being done on a smaller scale (like satellite imagery and other technologies). They should be leading, providing early warning of potential problems or opportunities. The final and potentially most important aspect of developing indicators is that they are treated as provisional, rather than fixed, so that they can be reviewed and updated as new information becomes available.

The reason for collecting data and tracking progress towards goals through indicators is to respond to changing circumstances or alter ineffective strategies through adaptive management. Adaptive management is a systematic approach to managing complex and uncertain systems through continuous learning, monitoring, and adjustment. It involves a flexible and iterative decision-

making process that takes into account new information and changing conditions. Adaptive management is based on the recognition that natural and social systems are dynamic and subject to change and that management strategies should be adjusted accordingly. This method increases the resiliency of a project which is particularly critical for sustainable development management in our increasingly changing climate (Folke et al., 2002). By continuously reviewing and updating indicators based on new information, decision-makers can make informed decisions, respond to changing circumstances, and develop strategies that contribute to a more sustainable future. Ultimately, the use of responsible indicators and adaptive management can increase the likelihood of the Greenway achieving its complex social, environmental, and economic goals and contribute to more effective and equitable decision-making.

Resource: Measuring the Civic Commons

"Measuring the Civic Commons" provides a comprehensive and practical guide for measuring the social and economic impacts of shared placemaking, with a particular focus on public spaces that foster social connections, equity, and civic engagement. The authors use a mixedmethod approach that draws from both quantitative and auglitative data to evaluate the benefits of the civic commons, including improvements in physical health, mental well-being, social cohesion, economic growth, and environmental sustainability. The document presents a robust set of indicators and measurement tools that can be adapted to different contexts and stakeholders, such as survey questionnaires, participant observations, and digital analytics. For example, some indicators to evaluate "social cohesion" include density of interactions, diversity of users, sense of belonging, and collective action. Density of interactions measures the number of social interactions that occur in a given public space. It can be quantified by observing the number of people who use the space,

the duration of their visits, and the types of activities they engage in. High-density spaces tend to foster more opportunities for social connections and community building. Diversity of users measures the range of demographic and social characteristics of the people who use the public space. It can be assessed through surveys, observations, or demographic data. A diverse user base can enhance social cohesion by fostering cross-cultural understanding, 'cross-class' relationships, reducing social isolation, and promoting inclusivity. Sense of belonging measures the degree to which people feel connected and invested in the public space. It can be evaluated through surveys, focus groups, or participatory design processes. A strong sense of belonging can promote social cohesion by creating a shared identity and purpose among community members. And finally, collective action measures the degree to which people collaborate and take collective action to improve the public space or address community issues. It can be assessed through attendance of community or

city-led initiatives and events, the number of partnerships involved, voter turn-out, and more. Collective action can enhance social cohesion by promoting mutual trust, shared responsibility, and a sense of empowerment.

One of the strengths of this guide is its emphasis on collective action and co-creation, which encourages stakeholders to be active partners in the design, implementation, and evaluation of the civic commons. This participatory approach can enhance the relevance and responsiveness of the metrics used and foster a sense of ownership and accountability among community members. However, one limitation of the document is that it does not address the challenges and limitations of data collection, especially in underserved communities with limited resources and access to technology. In addition, it does not provide a cost estimate for the data collection work. It suggests that costs will vary depending on factors such as the size of the community, the amount and type

of data being collected, and the methods used to collect and analyze the data. The paper emphasizes the need for communities to make strategic choices about what data to collect and how to collect it, based on their specific goals and resources. It also suggests that communities may be able to leverage existing data sources and partnerships to minimize costs. Nonetheless, "Measuring the Civic Commons" offers a valuable resource for urban planners, community leaders, and researchers seeking to advance evidence-based placemaking that promotes equity, sustainability, and social well-being.

(Reimagining the Civic Commons, 2018)
https://civiccommons.us/2018/01/measuring-civic-commons/



LOCAL NEWS REVIEW

Background

Goal

Understanding public perception of the Joe Louis Greenway project is a key indicator of its long-term viability and an important component of equitable change for which it ensures that there is a shared, community-driven vision. As mentioned, collective envisioning leads to more community buy-in, which increases the likelihood of achieving the desired goal (Meadows, 1994). One way of assessing whether this community buy-in exists is through media such as online local news. The proposed sentiment analysis of news articles assists with painting a picture of how the Greenway is being both framed and interpreted. While opinions are collected through this news lens, we believe this likely captures popular sentiment surrounding the project, given that we assess multiple news outlets. We begin by discussing the growth of the idea of the Joe Louis Greenway and how it came to be the transformational project that it is today. We then move into major events, those mentioned by more than a single article, that have been highlighted by news sources and what their sentiment

was. Finally, we discuss the sentiment of these articles by categorizing them into prominent themes. This public sentiment analysis is highly relevant for city officials and planners to gain an understanding of differing visions of the project, allowing a chance to address unaligned public expectations and project plans.

Reimagining the Civic Commons

Reimagining the Civic Commons (RCC) is a national initiative aimed at revitalizing public spaces in cities, as we have already introduced. Their first project from 2016 to 2019 took place in five demonstration cities. Detroit's RCC efforts focused on the Fitzgerald neighborhood and on spaces that no longer provided the connective tissues that brought residents together. Additional goals included strengthening civic engagement, fostering socioeconomic mixing, improving environmental sustainability, and catalyzing value creation (Reimagining the Civic Commons, n.d.). To measure progress of strengthening these areas, they created a framework with five tools: site intercept surveys, neighborhood surveys, observation mapping, tree benefits analysis tool, and local news sentiment analysis. This final tool provides a framework for analyzing public perceptions of sites through the lens of the City's local news media. This method aims to measure the frequency that the site is discussed and whether it is positive or negative. Using this tool gives important insights on how sentiments of the

project change over time, as the news media analysis can be repeated over time (Reimagining the Civic Commons, 2018). In our project, this tool is used as a research method to review local news coverage around the Joe Louis Greenway. As this Greenway is in its beginning phase, it is essential to record initial responses and emotions to the project for providing a benchmark with which future attitudes and perception can be compared. There has been significant planning and conversations around this greenway for years, providing a sufficient base of information and articles to establish this benchmark. This analysis will furthermore provide a valuable critical assessment of the viability of this method for monitoring public perception long-term.

Method

We collected newspaper articles on the topic "Joe Louis Greenway" from December of 2013 to December of 2022 to analyze public sentiment of the project. This follows the 4 steps outlined by the Reimagining the Civic Commons methodology "How to use the Local News Sentiment Analysis Tool" (Reimagining the Civic Commons, 2020). Relevant local news sources were identified by searching 'Joe Louis Greenway Detroit news' in the Google search engine. Our evaluation criteria included their relevance to Detroit, and those with news articles on the Greenway. The 15 most common from this search and those used for our research are displayed in Table 1. A comprehensive list of all articles used for evaluation can be found in the Appendices.

Table 1 New Sources

News Source	Site	Description
Detour Detroit	https://detourdetroiter.com/	An independent, local source for equitable journalism and community.
Hour Detroit	https://www.hourdetroit.com/	Monthly magazine covering the region's interesting stories along with the best restaurants, clubs, events and useful resources.
Detroit Free Press	https://www.freep.com/	Part of the USA Today Network. The largest daily newspaper in Detroit.
Click On Detroit	https://www.clickondetroit. com/	Detroit's Local 4 News (WDIV) affiliated with NBC.
One Detroit	https://www.onedetroitpbs.org/	Part of Detroit Public TV (WTVS), a viewer-supported PBS member station.
Detroit Metro Times	https://www.metrotimes.com/	A progressive alternative newspaper. The largest circulating weekly newspaper in the metro Detroit area.

Fox 2 Detroit	https://www.fox2detroit.com/	TV station (WJBK) serving as the Fox network outlet.
Bridge Detroit	https://www.bridgedetroit.com/	A nonprofit community news, information and engagement media service produced by and for Detroiters to fill a growing deficit of vital information and engagement in the City's news ecosystem.
The Detroit News	https://www.detroitnews.com/	Serving Michigan since 1873. Considered one of the two major newspapers in Detroit.
Curbed Detroit	https://detroit.curbed.com/	Began in 2004, covering local issues in 12 American cities. They concluded their coverage of Detroit in 2020 and became part of New work Magazine.
WDET	https://wdet.org/	Detroit's NPR (National Public Radio) station. A community service of Wayne State University.
Urbanize Detroit	https://detroit.urbanize.city/	Commercial real estate development news.
CBS Detroit	https://www.cbsnews.com/ detroit/	Part of CBS Television Stations, a division of Paramount, and one of the largest network- owned station groups in the country.

We next identified the keywords that related to the site and the area of research, which was simply 'Joe Louis Greenway' since this is the current official name. A second key phrase was used to reflect an earlier name for the Greenway, which was "Inner Circle Greenway'. With this, we created the search query to be conducted on Google. The two search queries were repeated 15 times for each news source and were the following:

- "Joe Louis Greenway" site:name of news
- "Inner Circle Greenway" site:name of news

We did not define a time period as the title "Joe Louis Greenway" is fairly new and "Inner Circle Greenway" had very few articles, combining to not have an unmanageable amount of articles in any source. These searches resulted in a total of 123 relevant articles from the 15 sources for "Joe Louis Greenway" and 22 relevant articles for "Inner Circle Greenway" with 4 being repeated articles from the "JLG" search. To conduct the research, we clicked each link on the results of the search, manually filtered to ensure

the Greenway was mentioned, collected its information (date, title, link), read the article, took notes on the sentiment toward the Greenway, and rated it as 'positive', 'negative', 'mixed', and 'neutral'. If the article did not mention the Greenway but had a link or phrase on the page that triggered the result, it was removed for irrelevancy and not included as part of the research.

In the final step, we analyzed the sentiment of the article. For this, we reviewed the notes taken for each article and highlighted the exact sentiment that encouraged the rating of 'positive', 'neutral', and 'negative' feelings toward the Greenway. To ensure a level of fairness in these subjective ratings, we asked other evaluators to assess 10% of the articles, chosen at random, with the same methodology. That is, 15 articles were read by other group members to provide an independent measure of interrater reliability. The results of this are as follows:

- 9/15 articles had all raters in agreeance
- 2/15 had some agreeance between cross-validators and

- the original rater
- 4/15 had all cross-validators rating the sentiment different than the rater

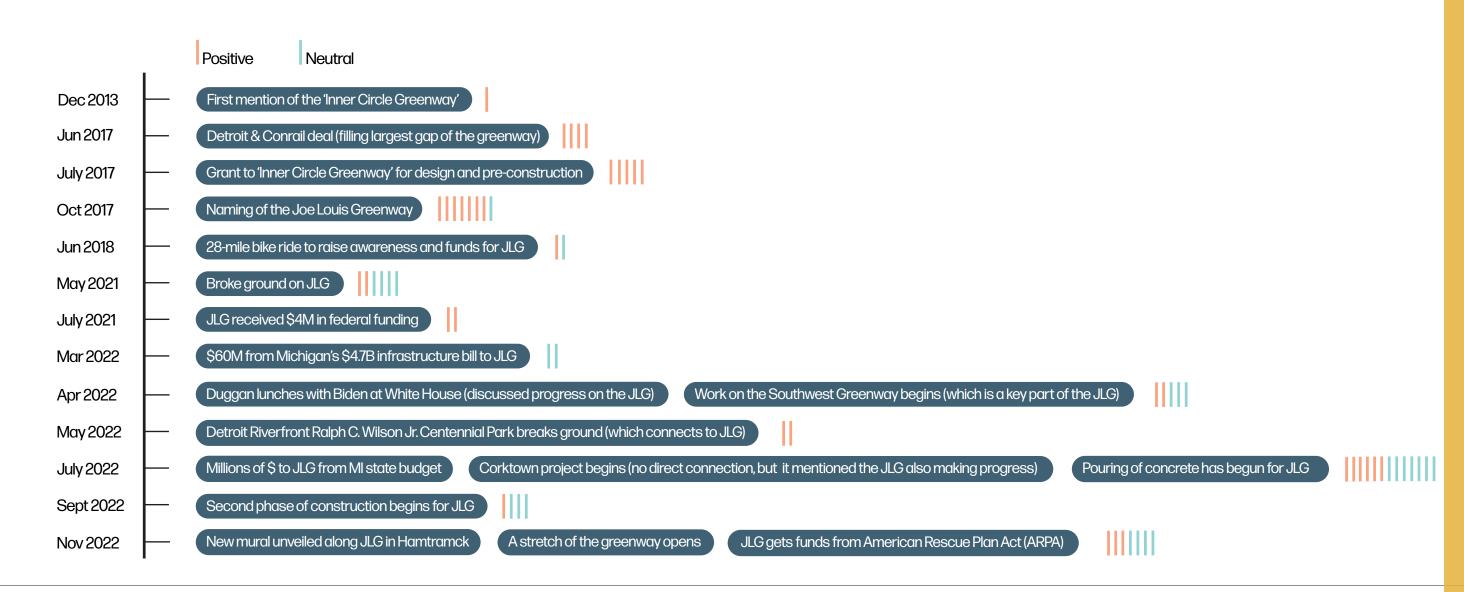
This proves that ratings of the sentiment is open to interpretation and is a biased process. Our results show that 60% had all raters agreeing, but about 73% of articles had the majority voting the same. On the other hand, about 27% of the articles were rated differently than the original rater. This may be a representation of the full set of articles, though that is not certain. This form of research should be cross-validated or completed by multiple people, if being conducted manually, for transparency in the rating process.

Articles were rated based on the type of comments made within the article. A neutral rating were those that gave updates about progress or recent funding, mentioned the Greenway connecting to a larger project, or consisted of general statements about the Greenway, such as that it "is a 27.5 mile loop around the city." A positive rating would include a comment regarding its benefits. For example, "it connects

neighborhoods to the City's resources and riverfront" would be considered positive. Negative sentiment was anything that questioned the goals of the Greenway or had pessimistic comments, including time lags, residents being unaware of the project, or that money should be spent on more important things. Mixed articles expressed comments from both the positive and negative categories. In a few instances, news site paywalls prevented us from evaluating specific news articles. The Detroit Free Press presented 2 articles that required subscriptions and the Detroit News presented 11; those were not read or accounted for.

Results

Major Event Timeline / Sentiment Chart



Counts

JOE LOUIS GREENWAY

Official Count: 122

- 55 positive
- 58 neutral
- 00110001
- 6 mixed3 negative

INNER CIRCLE GREENWAY

Official Count: 22

- 15 positive
- 3 neutral
- 4 repeats (from JLG)

The table on the right displays major events, or those covered more than once, that were highlighted within the news articles. Along with the number of articles that discussed the event, this displays what type of sentiment was used in discussion around it. All of these articles were either positive or neutral.

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Comparing Stories

According to Framework Plan (Vol. 1)

"This greenway concept began in 2007 with the Friends of the Inner Circle Greenway and became part of the Detroit Greenways Coalition Network Vision in 2009. The coalition continued to advocate for the development of the Inner Circle Greenway, working closely with the City of Detroit, local experts, property owners and stakeholders to refine the alignment and vision for the route. In 2017, the City of Detroit formally adopted the greenway plans. As the first step in this important process, Mayor Mike Duggan announced the renaming of the Inner Circle Greenway to the Joe Louis Greenway, after the legendary boxer and Detroiter, Joe Louis. In 2018. The City of Detroit acquired 7.5 miles of abandoned Conrail Railroad property using grants from Michigan's Natural Resources Trust Fund and Michigan Department of Transportation. This railroad property, formerly the Detroit Terminal Railroad, will become the northern and western part of the Joe Louis Greenway loop. In 2017, the Ralph C. Wilson Jr. Foundation awarded \$2 million to the City of Detroit to develop a framework plan and construction drawings for the project. The Community Advisory Council was also created, composed of community members from each Detroit City Council Districts to represent local residents and advocate for important facets of the route. After a publicly vetted Request For Proposals process with wide attendance from residents and stakeholders across Detroit, in April 2019, The City of Detroit announced that SmithGroup and their partners were selected for the project."(City of Detroit, 2021)

According to News Articles

The trail has been more than 15 years in the making (Digital Daily Editor, 2017). The concept has been on the table since 2007 when Friends of the Inner Circle Greenway began working with the City to establish loops, routes, and land acquisitions (Jordan, 2021). Before the City took the lead on the greenway design and construction, the Detroit Greenways Coalition was responsible for the project. What was initially envisioned as a trail became a development and neighborhood revitalization strategy. Todd Scott of DGC said the City taking over has allowed for an increased capacity, access to resources, and ability to collaborate with other entities (Brooker, 2020). The City decided to take ownership of the greenway in 2017. At that time it was expected to cost around \$50 million. The final price tag will be much higher (Mondry, 2019b). In June of 2017, the City of Detroit reached an agreement with Conrail for 7.5 miles, or 76 acres, of old railroad property that was once along the Detroit Terminal Railroad that supplied resources to assemble Ford Model T automobiles. This purchase cost \$4.3 million. At that time, all the land acquisition for the 'Inner Circle Greenway' had been funded, but funding for the construction was still looking for commitments (Riley, 2017). Two design firms (Spackman Mossop and Michaels, LLC & SmithGroup, Inc)

were in the running to be chosen to lead the project. The firm was expected to review existing conditions of the path, determine alignment and access points, develop a phasing and implementation plan, incorporate effective stormwater management techniques, and create a signature greenway connected to local arts, culture, and history (Runyan, 2019). SmithGroup designers were expected to finalize the framework plan in early 2020 (Mondry, 2019b). Partners in the project range from community leaders to nonprofits, such as the Detroit Greenways Coalition, and foundations, such as the Kresge Foundation and Community Foundation of Southeast Michigan (Digital Daily Editor, 2017).

Sentiments

Our findings of topics from commentary within the articles can be divided into prominent themes: connection, beyond the boundaries, gentrification, bike lanes, climate, construction and costs, green reparations, and community involvement. This review reveals avenues that may be useful for the City to explore and displays what type of messaging is taking place and if that is fulfilling the whole vision for the Greenway.

Inner Circle Greenway

Early sentiments from research on the 'Inner Circle' Greenway' primarily focused on the same two ideas: improved safe transit options and connections to the City's treasured assets, including goods and services, along with education and employment options. There was also excitement around having better access to public open spaces like Palmer Park, Clark Park, Lasky Park, and the Riverfront. This sentiment was sourced mostly from City officials and discussed little about community engagement. This seemed to be the beginning phases of just getting the word out that this project is happening and move forward.

Connection

"'The road to a strong, more equitable city starts by reconnecting people, local businesses, schools, and jobs with each other - and with a safe and active new ways to get there.'" - Janette Sadik-Khan, Principal with Bloomberg Associates. ("Joe Louis Greenway officially breaks ground on Detroit's west side", Detroit Urbanize).

"'That level of interconnectedness is something that has the potential to change the way people think about cities like Detroit.'" - Charlotte Blackwell, Detroiter ("Detroit embarks on new planning study for Joe Louis Greenway", Bridge Detroit).

These ideas continued to be prevalent in the majority of the 'Joe Louis Greenway' articles. Many comments regarded safe alternative transportation and enhanced recreation options, including easier access to the City's riverfront and to other new extraordinary parks underway such as the Ralph C. Wilson Centennial Park. However, sentiment within the articles clearly acknowledges that the greenway is much more than a path to walk or bike on; the dominating idea within the positive sentiment is that of connection.

News articles explain this as being a highly important characteristic in an area where a quarter of residents do not have a vehicle and a large number of residents lack

access to a close park ("Going motorless in the motor city", Detroit Free Press). It is estimated that when the JLG is finished, 40,000 people will be within a 10-minute walk of the greenway ("New Joe Louis Greenway will stretch through 23 communities, 4 cities", the Detroit News). They are describing current issues of green space access and mobility between areas of the City, both of which will be increasing from the project.

A wide range of connectivity examples are given in the articles: neighborhood connections to each other, to the City's resources, to other thriving areas, to more green and public spaces, to businesses, to schools, to jobs, to families, to local arts, to history, and more. Yet another connection being made that was mentioned is that between residents and City officials. They are working together to bring positive change by addressing issues and putting life back to community. The sentiment around connectivity covers a broad range of types and does so with exceptional excitement. There were no discussions of how connectivity itself could result in anything negative, though one article

mentioned the bigger picture of the network should be considered. They want to ensure that the new bike lanes and trails are actually taking Detroiters to places they want and need to go. This is an area of research that the City take on within the Neighborhood Planning Study.

A potential element to look into is making bicycles more available for people who need them. For example, a recent program in Denver is taking shape as the City is offering rebate vouchers, or upfront discounts, to residents who purchase bikes and e-bikes from participating bicycle shops. Along with standard rebates are offers of income-qualified and adaptive rebates, for those who may need economic assistance or may not have the physical ability to use standard e-bikes and need customizations (Electric Bikes, Denver). Engaging in partnerships with businesses such as Wheelhouse Detroit, which is the only female-owned bike shop in Metro Detroit and is located along the greenway, is a fantastic opportunity. Along with selling and fixing bikes, they also provide rentals and offer tours focused on different subjects such as architecture, automotive heritage, haunted

Detroit, music heritage, and urban agriculture ("Wheelhouse Detroit to Open Second Location in Hamtramck", Curbed Detroit; Wheelhouse Detroit).

Beyond the Boundaries

"There are developments. And then there are transformational developments- those that change how we live, work, play, and get around our city." - Curbed Detroit ("12 developments set to transform Detroit", Curbed Detroit).

Effects and public opinions about them should also be considered for the area beyond the trail. Articles have called the JLG a variety of things: a game changer, a blessing, the best thing that's happened in the area, a transformational project, and a representation of what has always been inside Detroit: "A comeback spirit and the heart of a champion" (Kelley, 2022). One article mentions that those in the Planning Department with the City are looking at the JLG to be the best greenway yet in the country (Detroit Today, 2022). These are strong titles being attached to the Greenway that express how the community is viewing it and the high expectations that are had for it. The sentiment

explains that Detroit has never seen anything like this in terms of scale or impact, which will extend beyond the boundaries of the path itself. As of September 2022, 297 residential properties had been demolished with plans for another 450. Similarly, 148 had been stabilized with plans to secure another 71 (Kelley, 2022). Lots along the path that have most likely been an eyesore in the community for a long period of time are being addressed and cleaned; more importantly, the news articles are providing solid evidence to readers of how widespread the effects of the Greenway are by showing those numbers. With this, articles say that residents are excited to use the Greenway to activate other positive changes beyond the boundaries, turning the attention into an opportunity to address long-standing problems they have faced including illegal dumping, codeviolating industrial businesses, blight, and disinvestment. However, an interesting point has been raised about how the Greenway can be successful and the vision can be carried out if non-compliant businesses are allowed to keep operating (Colvin, 2021). Bringing this idea up through news outlets is a way to bring attention to those that may be able

to do something about it. It's a consideration that the City should address.

Articles express that the Greenway coming to neighborhoods gives incentive to clean up parks and improve the representation of the area. Many articles also discuss developing signage to ensure that visitors know the history and culture of where they're at. Residents are expressing that this is an opportunity to no longer be forgotten (Winn, 2020). One community member, who has been in the same neighborhood since 1963, says that this project could really change the look and feel of the area in some good ways (Huffman, 2022). Mayor Mike Duggan is documented in multiple articles explaining that one of the biggest things driving Detroit's revitalization is creating more and better parks and green spaces in neighborhoods. This statement gives readers the impression that politicians are finally putting attention toward the neighborhoods, where Detroiters actually live, and that adding greenspace will have far more benefits than just those encompassed within the boundaries. The City gives the same impression,

as well. As Meaghan Elliot, Chief Parks Planner of the City of Detroit, says in an article, "The areas that buffer the greenway have a lot of potential for great work for neighborhood stabilization, affordable housing, access to jobs - everything," (Mondry, 2019).

News articles also document that practitioners have become excited for the potential of the park to catalyze business opportunities by stabilizing and bringing development and traffic, and in result spurring services. According to Michele Flourney, Lead Planner for Detroit's Planning and Development Department, "This plan will be a little bit different because we're looking at the impact of the greenway and how that might affect the markets, the economic opportunity, and also what policies could actually go alongside the greenway that might be different than other places in the city," (Huffman, 2022). Articles reflect this idea, as well, and explain that the Greenway is helping more people recognize that public green spaces are not only a downpayment for improving public health, but also powerful in triggering housing and commercial investments

(Rapson, n.d.). In response to this, residents wonder if the development that comes with the Greenway will be stores and restaurants that they actually want or need (Huffman, 2022). This sentiment could represent a widespread concern among community members and is something that the City can work with them on to ensure that they are able to voice their opinions and preferences about what comes into their neighborhoods.

Gentrification

"'Are you concerned about rising affordability challenges? Are you concerned about property taxes? Are you concerned about different ethnic groups moving in or being forced out? Let's discuss the core issues and then let's address those issues." - Antoine Bryant, the City's Director of Planning and Development ("Are Detroiters being heard on historic investment in neighborhoods?", Bridge Detroit).

Though the exact term 'gentrification' was not frequently mentioned, conditions which are often associated with it were indeed brought up. Multiple articles discuss the possibility of the Greenway resulting in a rise of property values, but one specifically states that that is not necessarily a bad thing (R. Allen, 2019). However, another

article raised concerns about the potential of neighbors getting priced out of their homes (Huffman, 2022b). Another idea brought up was the Greenway creating a need for more housing altogether. Trey Scott, a planner with the City, responded to this by suggesting that publicly-owned land around the Greenway could provide a chance to create mixed-use housing (Colvin, 2021). This idea, though given by just one individual in this case, gives the impression that the City is hearing out these concerns, thinking about them already, and is ready to provide real solutions.

An article from 2020 reminds readers that although Detroit currently has one of the lowest gentrification rates of any major U.S. city, it's still happening (Brooker, 2020). Antoine Bryant, the City's Director of Planning and Development, explained that he understands that residents may be worried about the potential of gentrification and that the City should dive into what their core concerns are (Huffman, 2022b). One article addresses the fact that green space in urban areas can sometimes be linked to gentrification and displacement, but that is not always the case when

community engagement is done in the earlier stages of planning, leading to benefits for everyone involved. The Joe Louis Greenway is included as an example in this scenario, along with the Dequindre Cut and Ella Fitzgerald Park (Runyan, 2022). In support of this sentiment of the JLG's community involvement, another article tells about The City of Detroit sending members of the Joe Louis Greenway Advisory Council to Atlanta, Georgia to learn from officials about their successes and mistakes regarding the Atlanta Beltline, which pushed some residents out of their housing around the Greenway due to increasing (Brooker, 2020). Although those successes and mistakes are not explicitly stated, the article mentions that upon return, RuShann Long, one of the advisory council members, reported that the JLG has safeguards in place to ensure that people don't get pushed out; there was also little specificity in terms of what safeguards exactly. To further engagement, Long and others formed a nonprofit called the Greenway Heritage Conservancy to help speak with community members to help them gain an understanding of what the Greenway is, while encouraging them to get involved (Brooker, 2020). This discussion around gentrification acknowledges that it is a possibility from the Greenway, but the sentiment is shaped to support the idea that residents shouldn't be worried.

Bike Lanes

"Look this isn't L.A., Denver, or Portland or any of those tofu-eating, carbon footprint, stupid places! So stop trying to turn the D into some lalaland B.S." - Facebook Comment ("Autos vs. bikes: Watch for shrinking roads in metro Detroit", Detroit Free Press).

Another topic of interest in the articles was that of bike lanes. One article mentions that opposition is bold and loud. Some people have tried to claim that road diets, or projects that remove traffic lanes or narrow streets often with the addition of bike lanes, hurt businesses, but experts disagree, claiming that they instead "improve safety, business, and quality of life" (R. Allen, 2019). Local officials admit that road diets can slow car traffic at busy times but that that's not necessarily a bad thing, as it's a form of traffic calming. There seems to be a disconnect between what the public understands and what officials and planning experts know about the impact of bike lanes. Communication needs to

improve to address anger and annoyance of shifting away from auto-centric planning and educate about the positive effects this may create. Despite a handful of residents against them, Todd Scott of Detroit Greenways Coalition says that Detroit's embrace of bike lanes, which has grown exponentially in recent years, has been a wonderful surprise (R. Allen, 2019). He is painting a picture of the positive side and showing that some residents do in fact support the alterations. In fact, an article also mentions that it's getting back to the roots of Detroit: before it was the Motor City. bicycles were the way of navigating roads until the streetcar came in the 1890s, which were then followed by personal vehicles (R. Allen, 2019). In terms of actual usage, Brian Pawlik, a transportation engineer with Southeast Michigan Council Government, explained that Michigan's household transportation survey shows that where investments have been made in biking infrastructure, usage has increased (R. Allen, 2019). This sentiment is providing solid research that shows that Detroiters are not all about cars. It tells that when the structure of their atmosphere changes, their lifestyles will change to reflect that, and that they are able

and willing to adapt to these transformations.

Climate

"Over 2,000 tons of waste and more than 200 tires were removed to continue forming the greenway." - The Detroit News ("Construction begins on next major section of Joe Louis Greenway", The Detroit News)

Effects of the Greenway on climate change were barely mentioned within the articles. This is highly important to address as this has broader implications. Only one article states that this project helps to create a progressive city that invests in climate-resilient infrastructure (Kelly, 2021). How can a project this large and often considered "transformative" barely mention the climate and resilience challenges that we face today and the effects that it may have on that? This indicates that it is not a major considered benefit of the Greenway. The general media is not discussing it, which leads to the assumption that the climate effects are an afterthought. The sentiment within articles focuses much more on the amount of waste and dumping being cleaned up, which without doubt has environmental benefits, but there are no deeper connections made to

climate and resilience building. An interesting comment within an article was that this bike infrastructure may exist, but what good does that do if other issues, such as poor air quality from events like the Stellantis Plant spilling, are happening (Corey, 2022)? Sentiment in the articles expresses an interest in improving the bigger picture conditions when it comes to environmental conditions and that should be considered for the success of the Greenway. Though environmental sustainability was one of the values guiding the vision of the Greenway, it has not received as much attention as the other focuses have. There is room for improvement and collaboration with groups that have a more environmental focus, or at least for increasing messaging and communication regarding the effects on climate that this has.

Construction & Costs

"'A lot of time we start a new project and we'll be approached by residents of the area that ask if we're hiring, and we are. With a priority of hiring Detroit residents.'" - Joe Scappaticci, Major Contracting Vice President ("Joe Louis Greenway will connect 4 cities, 23 neighborhoods across 27 miles of paved trail", Fox 2 Detroit)

News articles are positive about the tangible and intangible benefits given the economic cost of the project. As we've realized, the commentary around the spurred development and businesses is generally positive and though the end vision may be exciting for residents, businesses, and the City to look forward to, it's important to also consider the impact that the process of construction is having on Detroiters' today, such as through employment. The Detroit Grounds Crew is putting Detroiters to work with skill sets that they can use within the company but that are also marketable (Golston, 2021). The articles are assisting in the spread of useful information for those who may be interested in employment and proving that local hire is regarded as important.

Another side of construction is shown by an article that mentions how construction of the Greenway, along with that of Gordie Howe International Bridge and Michigan Central Station is affecting quality of life due to noise, unstable water infrastructure, and sewage backups (Huffman, 2022a). No other direct connections of negative impacts

from construction were clearly stated. This is a subject that may need more attention from the City and may need to be a continued conversation that checks in on the wellbeing of residents.

The costs and funding of the Greenway has received a significant amount of press. This has been the case each time a large amount of money is acquired, including from the COVID Relief funding, the Ralph C. Wilson Jr. Foundation, and the INVEST in America Act. This coverage is likely to show to readers that the funds are not taking away from any other resources in the city and that donations and federal funds are assisting with the costs. Nonetheless, residents in one article say that the cost could make it difficult to attract funding for less visible neighborhood-oriented open spaces in the city (Allnut et al., 2022). Politicians are able to use this type of sentiment to oppose someone who fully supports the Greenway. This was the case when Anthony Adams, who was running in opposition to Mike Duggan in the 2021 election, raised the idea that the money should be diverted to more important things like home repair (Harding, 2021).

This sentiment captures the political challenges that are associated with and determinants of the progress of large projects.

Green Reparations

"'There are components of the green reparations framework at play. Whether or not it's going to work out that way sort of remains to be seen."

- Paul Draus, Professor at the University of Michigan-Dearborn (Detour detroit; "Can Detroit's Joe Louis Greenway Avoid Gentrification?", Detour Detroit)

"'One of the most interesting things we can talk about.. is how planning for non-motorized transit is seeking to overcome some of the frankly really racist transportation planning policies of the 21st century.'" - Sandra Svoboda, Author at WDET ("Going motorless in the motor city", WDET)

Sentiments from a resident expressed that the city has done nothing for their community; there are no changes, stores, or gas stations, and it feels like living in the country. This is an important indicator of a historically broken trust that the Greenway aims to heal. A handful of articles mention that the Greenway is an opportunity to repair injustice and connect communities that have been left out, while also prioritizing residents' voices. These types of

sentiments within articles are pushing the narrative that the social and historical aspects are strongly important to the project as a whole. Many articles talk about how the Greenway is going into neighborhoods where Detroit residents actually live and have suffered disinvestment, instead of areas that have recently been receiving the most investment like Midtown, Downtown, and Corktown. One article raised the concern that the worst case scenario would be the Greenway creating a green ring that separates a gentrified Detroit from the rest of Detroit (Brooker, 2020). However, more articles express that the Greenway will do the opposite. City officials say it will create spaces that serve communities of color first and will provide safe community and meeting spaces that can hold outdoor events for Detroiters of all abilities. Detroit City Council President, Mary Sheffield says in an article, "It will go a long way toward creating a sense of pride that helps alleviate the mental anguish of decades of disinvestment" (Jordan, 2021). Whether the public agrees with this sentiment or if these messages are being pushed solely by officials with a say in the project is hard to determine from news articles alone.

However, the picture being painted is a project of social equitability and historical awareness.

Another interesting point raised within the articles was from Ryan Myers-Johnson, founder of Sidewalk Detroit, when she says "What about spaces that aren't tended to? The message is 'you're not valued, we don't care about you" (Mondry, 2019a). This brings forth a concern regarding design and maintenance for the Joe Louis Greenway. A detailed plan should be prepared for how maintenance will proceed beyond its full construction and if one exists, it should be well communicated with residents so there are no fears or feelings of abandonment once the project is completed. The same article mentions that the Sidewalk Detroit is assisting the City with the engagement process to help them better understand what residents want out of the project. Myers-Johnson also explains that "We look at the public sphere as a place for healing" (Mondry, 2019a). Putting these two pieces together gives the impression that the City is well-paired with an organization that is aware of how to create and care for a public space for all.

Community Involvement

"Detroit's revitalization has been the subject of enthusiastic headlines around the country - and even around the world - for the past few years. Those of us who live in the city are happy for the optimistic press coverage. but we also know there is much of the story going untold - the personal stories of the residents that give Detroit its spark and serves as the foundation for its resilience." ("Welcome to the Neighborhood", Michigan Chronicle)

"I love the fact that they're actually bringing the community out and taking their suggestions to heart to help to understand the design process of the plan." - Charlotte Blackwell, Detroiter ("Detroit embarks on new planning study for Joe Louis Greenway", Bridge Detroit)

News articles can be important tests of the attitude from residents toward how much effort from the City has been put in to conduct outreach. As one article points out, 40% of the Joe Louis Greenway is located directly behind residents' homes (Detroit Today, 2022). This is a clear fact that this greenway will be directly impacting those living around it. Sentiment conveys that some residents interpret the City's methods of public outreach as inadequate, saying that they haven't done enough to include them and that if they were to raise their opinion, they wouldn't have a true

say in the project (Huffman, 2022c). There was a mention of fearing further down the line that they won't have a place in a project that could transform city neighborhoods (Huffman, 2022b). One resident explains that if the City is not communicating the plan first, then that means they don't see them being there by the time the area is fully developed (Huffman, 2022b). A few residents from the Forest Park/ McDougall-Hunt neighborhood were very direct with their opposition, saying what the city is doing is ungodly and very disrespectful and that they are not consulting with the residents (Huffman, 2022b). These residents, when asked about the 'Dequindre Cut extension plan' said they had never heard of it and that no one from the city had talked to them about it (Shead, 2022). These sentiments demonstrate an opportunity to designate more time to communicate with residents in this area and possibly in other ways.

One response from the City was that the past few years have included dozens of public meetings and events, along with signage and flyers (Huffman, 2022c). However, if residents are still feeling left out, other forms

of communication and studies should be attempted to reach more people. One article mentions that the City has updates on their website but how that is something you have to know or have to be told, while some residents may not have internet access to get those updates (Corey, 2022). Similarly, a city survey indicates that the biggest issue Detroiters have with parks and recreational centers is a lack of information (Allnut et al., 2022). A Detroit resident states clearly, "I do want more information. I don't feel like I have a good grasp of all the recreational centers around me. I don't remember seeing anything in the mail, but I think that helps you find things like that. It helps you get involved" (Allnut et al., 2022). This sentiment exemplifies that mail may continue to be a powerful form of communication.

Though there were a few concerning remarks, there was a large amount of positive sentiment toward the city's work surrounding community engagement. As mentioned previously, one article explained that Detroit is an example of greenways done the right way with community engagement in the earlier stages of planning (Brooker,

2020). A resident even explained that the city is putting the sentiment of "empowerment and equity-driven by you" into action (Brooker, 2020). Articles state that city planners have been stressing the importance of community engagement in shaping the Greenway; Meagan Elliot, GSD Chief Parks Planner says that 'Resident input has affected probably every dimension of the plan" (Mondry, 2019b). Another planner with the City, Michele Flournoy, explained in an article that the planning process ensured that the vision came about in a way that residents and stakeholders really want to see (Huffman, 2022c). The sentiments covered in the news articles are uplifting the idea that city officials are putting in an immense amount of work and consideration to involve community input. Residents in articles expressed sentiments in favor of the plans "so far" (as of September 2022) (Huffman, 2022c). One Detroiter and Block Club member said "Anything that will help beautify our city, I'm with it" (Huffman, 2022c). Another resident expressed that they loved how the City was actually bringing them out and listening to their suggestions (Huffman, 2022c). Directly quoting residents and their supporting words within

articles helps build the idea that the community is highly involved and happy to be. Reading these sentiments likely results in more members of the community being drawn in and wanting to engage when they see their counterparts embracing the events and outreach efforts.

Another way that city officials are engaging with community members is through the creation of their Neighborhood Stories & Signage program, which will inform recreational users about the history and culture of where they are traveling through, as to intentionally not erase and displace neighbors, a concern raised previously by residents.

Comments within the articles paint the picture of residents indicating the importance of this to the City, and the City supporting and helping bring this idea to life. Sentiment suggests there has been a common theme of prioritizing the residents' voices to help sustain a legacy neighborhood, with an overwhelming amount of positive sentiment coming from the Midwest neighborhood (Colvin, 2021). Additionally, the city has launched a Neighborhood Planning Study to ensure that all the areas being impacted will have a say in

what's going to happen and can understand what changes and opportunities are coming to their area (Shead, 2022).

An interesting point raised by the articles was that the key to more successful neighborhoods was the presence of a strong community development organization (Gallagher, 2019). Is this the difference being seen from the different perspectives of the Greenway? Does the Midwest neighborhood have a strong coalition while the McDougall-Hunt may have room for improvement on this front? These organizations play a leading role in neighborhood revitalization and can serve as an entry point for outside groups, the City included, to support neighborhood efforts. Sentiment within the articles convince readers that this a contributing factor in the lack of progress, meaning it may also be a contributing factor in how well the City can successfully work with residents (Gallagher, 2019). Backing this up, Dara O'Byrne from the City said, "We're so excited this first mile of the Greenway has just been so embraced by the community. Part of the reason we started in this area of the Greenway, of the 27 miles, is based on the advocacy

of the community" (Almulaiki, 2022). This sentiment proves that having a strong community foundation leads to results. Including this information in news articles may be the driving force for communities to come together and create these links, if they are missing. Hearing the successes of other neighborhoods who may already have these organizations established could be enough for those to begin piecing their own together.

Conclusion

Reviewing news articles in this way helps gather an understanding of how projects and their many facets (goals, funding, community engagement efforts, various effects) are being portrayed by the media and perceived by the public. However, it's clear that this does not show the full picture of the project and does not represent the perspectives of all stakeholders. This type of research can be set up to be a continual process that documents the ebb and flow of the Joe Louis Greenway and how public news articles may frame it through different periods in the future. We have compiled these sentiments from the first online mention of the Inner Circle Greenway in an online article in 2013 through December of 2022, which has displayed the timeline of its creation and its rise in popularity. The City or other groups will be able to take this method of monitoring from this point moving forward.

As described, there were some main themes recognized from the collection of articles of which the majority of sentiment could be grouped into. These are displayed below with a few key takeaways from each of them.

- The sentiment around connectivity covers a broad range of types and does so with exceptional excitement. They want to ensure that the new bike lanes and trails are actually taking Detroiters to places they want and need to go. A potential element to look into is making bicycles more available and accessible for those who need them
- Sentiment shows that residents are excited to use the greenway to activate other positive changes beyond the boundaries and to address long-standing problems, but they also question how the greenway can be successful if non-compliant businesses, which caused so many issues in the first place, are allowed to keep operating. Residents wonder if the development that will come with the greenway will be stores and restaurants that they actually want and need
- The term 'gentrification' was rarely used but some of the side effects (rising property values, displacement) were discussed from different points of view. It was acknowledged that it could happen, but the sentiment is shaped to support the idea that residents shouldn't be worried.
- There seems to be a disconnect between what the public understands and what officials and planning experts know about the impact of bike lanes. But residents are adaptive and when the infrastructure is there, it gets used.

- The lack of discussion around broader climate and resiliency impacts of the JLG indicates that it is not considered one of the major benefits. Sentiment expresses an interest in improving the bigger picture conditions when it comes to environmental considerations, which can play a part in the success of the Greenway.
- Residents, businesses, and the City look forward to the vision coming to life in the end, but articles are also discussing the impact that the process of construction is having on Detroiters' today: both positives, such as hiring with a priority on Detroiters, and negatives, such as impacted quality of life during construction, are mentioned. Costs and funding was highly covered, and was being used as part of political platforms.
- There are discussions around the Greenway as an opportunity to repair injustices and reconnect communities that have dissected due to historical racist practices.
- There is a large mix of sentiment within the topic of community engagement: some are saying that the City hasn't done enough while others are proud of how much outreach has taken place. Different forms of communication are needed to reach different audiences.

The news review overall shows that articles have a tendency of being regurgitated through different sources. Many articles repeat each other and use the same quotes. This causes a further uplifting of dominant voices, such as the City itself, while some may not have a chance to include their voice as much. However, those sources that are uncovering individuals and smaller stakeholders provide valuable insight. Continuing this review would be highly beneficial for the City to understand where the various parties (politicians, residents, other City departments) may see limitations to the Greenway's success, what kind of stakeholders are making the most public comments (and identify those who are being left out), and what aspects are being valued or criticized the most in terms of where attention is concentrated. All of these will help the City and other organizations or projects who value public perceptions to align their messaging and outreach with each of their values and visions.



CASE STUDIES

BENCHMARKING

Urban greenway projects are not only about creating pathways across a district. It's about how to use this linear greenspace to improve the social, ecological and economical conditions of the surrounding neighborhoods. For the Joe Louis Greenway, addressing Detroit's complex urban context and history can be informed through indepth learning from related projects. The following case studies analyze the urban greenway projects from different cities and scales through the scope of landscape architecture, urban planning and design. It is aimed to provide successful planning and design strategies as well as lessons learned. Furthermore, the unsuccessful strategies for each project are also mentioned and analyzed.

FEATURED PROJECTS

- The Highline, New York
- Atlanta Beltline, Atlanta
- City Greenway Network, Vacouver, Canada
- Jiangyin Greenway Loop, Wuxi, Jiangsu, China



Location:

Chelsea, Midtown Manhattan, New York, NY

Designer:

James Corner Field Operations, Diller Scofidio + Renfro

Client:

City of New York, Friends of The High Line

Construction time:

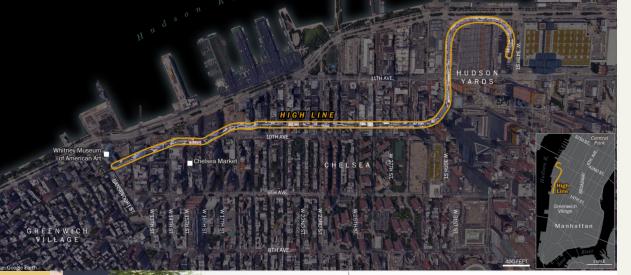
2009 to 2019

Typical Visit time:

30 - 40 mins

The High Line is a precedent urban park that reclaims a former elevated railroad for new use, promoting timely principles of ecological sustainability, urban regeneration and adaptive reuse. Preservation and innovation come together to establish an urban corridor for habitat, wildlife and people. In addition to providing valuable open space for New York City, the High Line has become an economic generator for the neighborhood, attracting investment toward new cultural institutions, commercial and residential development.

----Project Narrative by High Line Organization





The High Line & JLG

- 1. The Highline is only 1.45 miles; JLG is 27.5 miles.
- 2. Highline is mostly elevated; JLG isn't.
- 3. Highline most focus on pedestrian circulation; JLG is diverse in all types.
- 4. The surrounding building & residents density is different.

Similarity

- 1. Both are built from abandoned railways.
- 2. Both include different functional spaces throughout the greenway.
- 3. Both prioritize the importance of local plants during their design.

The Impact

The High Line is an icon of contemporary greenway design that has inspired worldwide cities to redevelop wasted infrastructure as public space and capitalize upon their respective unique characteristics to strengthen and transform life in New York (Diller Scofido + Renfro, n.d.). By 2019, this 1.45-mile park had nearly eight million visitors annually. Since its opening, it has served a vital social function much used and loved by local residents, tourists, design critics, and most New Yorkers. In addition to providing much-needed open space in New York and reintroducing 'promenading' back into the urban park experience, the High Line's long-term added economic benefits and ecological diversity to its surroundings (The High Line Organization, n.d.). Moreover, it significantly contributed to advancing theory in landscape architecture on incorporating economic, ecological, and sustainability in design. Furthermore, it focuses on grassrootsoriented local attractions, such as accessibility to visitors.

However, criticisms have been raised about the lack of public space consideration for lowincome and minority park users in the High Line design. Chelsea, where the High Line is located, experienced a huge shift from a low-income neighborhood into a luxury district as a result of the development of the greenway (Laura, 2017). There are limits on use that have excluded local users, and privileged specific activities including restrictions on open play, and a long list of posted rules: No "throwing objects" (including, say, a ball), no rollerblades, bikes, or skateboards. Also, there are some ownership issues related to existing and potential private developers underneath and adjacent to the structure. The city has addressed some of these problems by upgrading and repairing the existing structure to meet health and safety codes. Unfortunately, the design or "who this project is really for" cannot be changed. Therefore, the High Line more serves as an exhibition of how to develop greenspace that attracts tourists rather than the community.

The High Line didn't pay enough attention to low to medium income New Yorkers, particularly those in public housing next door to the park. "We were from the community. We wanted to do it for the neighborhood"

Friends of the High Line co-founder Robert Hammond

I sit on my fire escape and have a beer and everyone takes my picture and waves to me when they're walking by."

A 23-year-old waitress who lives on 28th street





Case study

History & Site context

Like Joe Louis Greenway, the Highline project started from the redesign of a wasted railway. The original elevated railway was built in the 1930s West Side Improvement Project to reduce the harm to pedestrians. However, the train was abandoned and gradually under demolition in 1980. During the time of disuse, a thin layer of soil formed, and an opportunistic landscape of early successional species began to grow, capturing the imagination of a few New Yorkers and triggering the idea for its conversion into a park. In 1999, the Friends of the High Line formed with the mission to save the High Line and transform it into an extraordinary public park. Engineers and landscape architects tried to retrofit the existing structure (making it safe, accessible, and usable), preserved elements of the historic railroad, wild landscape & plants, and delivered the High Line a compelling new life and future as a unique recreational amenity and public promenade (American Society of Landscape Architects, 2010).

Regretfully, these great design philosophies were not matched well with the location of the High Line. The project is located in the Chelsea neighborhood, which is next to the Hudson River and faces New Jersey. It's defined as a medium to low-income neighborhood where 1/3 of the residents are BIPOC (Black, Indigenous, and people of color). Beyond this, Chelsea still has a lot of obsolete infrastructure with few investments. The predecessor of the High Line and the West Side Yard are two huge deserted components around the neighborhood.

Community Relationship

Completion of the High Line as a public-private partnership has undergone intense community engagement in the form of workshops and presentations throughout the design process, complex coordination with federal, state, and city agencies, and the involvement of private funding to share the responsibility of public work and establish an endowment for the maintenance and operation of the park (American Society of Landscape Architects, 2010).

Undoubtedly, the High Line brought more diverse lifestyles and services to the local residents. However, gentrification also appeared as capital flooded in: the rent and living cost increased which resulted in population displacement. The installation and implementation is associated with an elevated structure (18-30 feet high) that crosses over 22 public streets through dense neighborhoods. After the project was completed, residents' privacy and safety were under threat since they might be peeped by the visitors who are at some points, just 10 ft away. The High Line administration began to add structure and planting on the edge to relieve these problems.



Design Concepts

The new High Line landscape is marked by slowness, distraction and other worldliness that preserves the strange, wild character of the High Line.

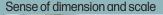
- 1. Industrial conveyance transform into post industrial instrument leisure
- 2. Destination to destination: links all the interesting sites along the High line
- 3. Agri-texture (combine organic planting with hardscape and other built environment texture that accommodates the wild, the cultivated, the intimate and the social)
- 4. New paving system ranges smoothly from 100% of hardscape paving to 100% of soft covering. Besides, harvesting gaps connect to the plant bed as a web, reducing the runoff and helps to create an immersive walking experience through nature.
- 5. Slow things down: Using long stairways, meandering pathways, and hidden niches encourage taking one's time and promote a sense of duration and of being in another place, where time seems less pressing.
- 6. Sense of dimension and scale: blend of old with new, of organic with inorganic, of close-up with distant, and of landscape with urbanism provide an episodic and varied sequence of public spaces and landscapes set along a simple and consistent line which cut across most remarkable vistas of Manhattan and the Hudson River.

Slow things down & create "space"



New paving system with different themes







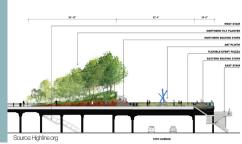




Because the High Line is an elevated linear park, the construction limitation restricts the design. Furthermore, this linear park faces the elevation change from south to north side. This makes the design sometimes need to connect the ground with stairs & elevators and sometimes it smoothly connects with main street without elevation change.



Connection with ground



Case study | 71 Case study



Location:

Atlanta, Georgia

Major Designer:

Kevin Burke, Perkins + Will, AECOM, Kimley Horn & Associates

Client:

City of Atlanta, Atlanta BeltLine, Inc

Construction time:

2005 to 2022

Main focus of this project:

Park, trail, transit, affordable housing, streetscape improvement, Economic & environmental development







"As one of the largest, most wide-ranging urban redevelopment programs in the United States, the Atlanta BeltLine is the catalyst for making Atlanta a global beacon for equitable, inclusive, and sustainable city life. This network of public parks, multi-use trails, transit, and affordable housing along a historic 22-mile railroad corridor is enhancing mobility, connecting intown neighborhoods, and improving economic opportunity and sustainability. Meet the organizations moving the Atlanta BeltLine forward."

---- Project Narrative by Atlanta Beltline Inc.

The Beltline & JLG

Difference

- The beltline overlaps with some operating railways. JLG is designed from abandoned railway
- The social and economic context for each project are different.

Similarity

- Both projects have similar scales: The Highline is only 22 miles; JLG is 27.5 miles.
- Both projects aren't only focused on greenspace, but are also interested in areas like affordable housing, transportation renewal, and surrounding streetscape improvement.
- Both projects are located in the city with diverse race and culture, public art.
- Both projects focus on a diverse transportation system: pedestrian, cycling and public transportation.

The Impact

The BeltLine provides urban amenities and public spaces accessible to all Atlantans. Approximately 100,000 Atlantans, or 25% of the city's total current population, live within walking distance of the BeltLine (Atlanta Business Chronicle, 2021). For the past decade, the Atlanta BeltLine has served as a catalyst for the development of pockets of the city that sit directly adjacent to the trail. As recently released census data show, growth in cities is outpacing growth in suburbs in 27 out of 51 of the largest metropolitan areas in the country, including the Atlanta region. By the start of 2023, the Atlanta BeltLine created 3136 units of affordable workforce housing (multifamily development has a 60% increase since its inception), \$8.3 billion dollars in economic development, 13.8 miles of improved streetscape, 396 acres of environmental clean up, 403 acres of new greenspace, and 450 public art installations and performances (Atlanta Beltline Inc, n.d.-a). Currently the most popular, developed, and heavilytraversed section, Eastside Trail runs from Piedmont Park down to Memorial Drive and is visited by over 2 million users annually. In mid-2018, the micro-market vacancy rate dropped to 3.9% compared to Metro Atlanta's total vacancy rate of 22.2% – a 1,830 basis point difference (Atlanta Business Chronicle, 2021).

The BeltLine has connected me to parts of the city that were unknown to me and has enriched my life as I walk on the Eastside and the Westside trails, as well as the interim Southside trail."

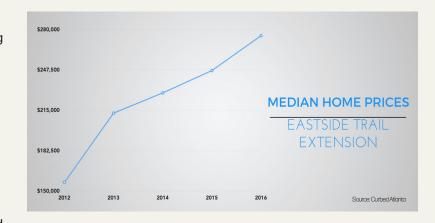
Virginia Highland

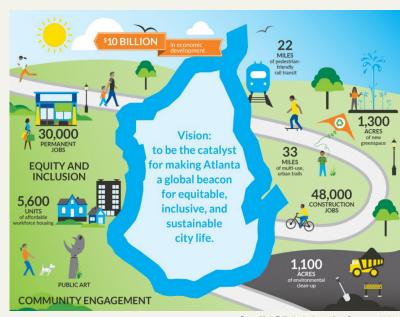
neighbor

The Atlanta Beltline is an inspirational project that mirrors our unprecedented momentum and success."

Keisha Lance Bottoms. Former Mayor, City of Atlanta

Love the city. Walking around midtown and downtown where I live it is amazing to see how the city has grown. But the Beltline is a mass gentrification project that has pushed out so many people."





Source: Atlanta Beltline Inc development forum & procurement training

History & Site Context

Railroads were the cornerstone of Atlanta's economy from the 1800s and early 20th century through World War II. These rails for the most part predate the adjacent neighborhoods, weaving through early industrial areas to form a rough loop around the City center. However, by the 1950s, the transportation industry relied increasingly on trucking with rapid development of automobiles and the road network.

Many industries along the BeltLine moved to cheaper and more plentiful suburban land, triggering a period of decline and disuse in these previously economically stable areas that continued through the 1970s and the 1980s. Over the previous two decades, the metro region has grown as quickly as any major metropolitan area in recent U.S. history. But the region's growth has come primarily in the form of sprawling, disconnected pockets of development Increasingly, residents and businesses throughout the region experience the negative consequences of such unplanned growth-long commutes, poor air quality, auto dependency, and limited public space. Moreover, this spraw has led to uneven economic activity. While the region has experienced unprecedented growth and job creation, many areas within the City of Atlanta have suffered from flight and disinvestment (Langer, 2020).



Community Relationship

As the birthplace of the Civil Rights movement, Atlanta has a rich history of community organizations and government coming together to remove barriers and build paths of opportunity. This grassroots organizing capacity along with corporate sponsorship was largely responsible for securing land, assisting with affordable housing programs, and building coalitions and trust within the community for the project. To ensure this goal, Atlanta Beltline Inc. hired the first Chief Equity and Inclusion Officer (CEIO). As the 2018 Atlanta Beltline Annual report said, "The CEIO position is heavily involved in formulating policies and approaches that address health and sustainability in communities, innovation in community outreach and communication, displacement mitigation, and housing affordability" (Atlanta Beltline Inc, n.d.-b).

Furthermore, ongoing community engagement is a core component of Atlanta BeltLine operations. Just in 2018, 41 public meetings were held with more than 1,800 participants. This did not include 60 other engagements, including pop-ups, coffees with the CEO, neighborhood associations, and business associations, as well as multiple tours. Lastly, the team works diligently to keep the public informed via local and national media outlets, using traditional and digital channels for branded storytelling. The online platform allows for more compelling visual content, interactivity with maps and other resources, and a new digital map to measure progress toward the equity and inclusion vision in several key areas (Atlanta Beltline Inc, n.d.-a).

The BeltLine team also conducted a comprehensive community study, designed to better understand how the public perceived and evaluated the project. Surveys were sourced randomly online and via phone, with the majority responding via Atlanta Beltline Newsletter. More than 6.000 surveys were completed. Key findings of the survey showed that overall satisfaction with the BeltLine is strong, with the strengths being the quality of trails, parks, and greenspaces, public art, and the BeltLine's contribution to economic development (Atlanta Beltline Inc, 2018).





6 84,341 FACEBOOK FANS











Atlanta Beltline social media. (Source: Atlanta Betline Inc.

Case study

Planning & Design

The "BeltLine" idea originated from a Georgia Institute of Technology Architecture and City Planning student, Ryan Gravael's graduate thesis. As the Atlanta Beltline redevelopment plan executive summary said, The BeltLine proposed to combine greenspace, trails, transit, and new development along 22 miles of historic rail segments that encircle the urban core (Atlanta Beltline Inc, 2005). This revived the industrial landscape and provided benefits in the following categories:









new greenspace















Mini Case Study

Historical Fourth Ward Park

Adjacent to the Eastside Trail of BeltLine, this park is an example of innovative stormwater management and infrastructure. At the heart of the Historic Fourth Ward Park sits a dual circular lake, with an amphitheater at one end for concerts and events (ATLANTA CONVENTION & & VISITORS BUREAU, n.d.). A planned underground capacity relief tunnel system was reimagined and implemented as a 2-acre lake and 17-acre park system. This project minimized downstream flooding and saved the City of Atlanta over \$15 million compared to a traditional stormwater tunnel system (Coyle et al., n.d.).







Ponce City Market

Ponce City Market (PCM) transformed an industrial building belonging to Sears Catalog Facility to a mixed-used complex that includes national and local retail anchors, restaurants, a food hall, boutiques and offices, and residential units. Nowadays, PCM is the culmination of its history. The National Trust for Historic Preservation recognizes PCM as a National Register of Historic Places and part of a plan "to move Atlanta forward while maintaining and emphasizing the city's unique history and culture" (Ponce City Market, n.d.).



Ponce market roof (source: Ponce City Roof)



Ponce market front yard (source: Archi

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Location:

Vancouver, Canada

Client:

City of Vancouver Council, Urban Landscape Task Force

Planning & Construction time:

1995 to now

Total Length and how many sub-greenway:

87 miles, 14 greenways

Notable portions of greenway:

Arbutus Greenway, Central Valley, Comox-Helmcken, Ridgeway, Seaside, Sea to River

The City is working towards the goal of ensuring there is a city greenway no more than a 25-minute walk or a 10-minute bike ride from every residence in Vancouver.

While greenways are generally evenly distributed throughout the city, routes are concentrated in areas with greater population density and a higher number of destinations, such as the downtown peninsula.

---Project Narrative by City Council





- Established Major Greenways
- --- Planned Major Greenways
- --- City Greenways

Regional Greenways Network

Parks and open space Public schools

Greenspace in other jurisdictions

First Nations Reserves

Vancouver Greenway Network & JLG

Similarity

- Both projects are expected to build greenway networks on a city scale instead of single routes.
- Both projects have a portion of waterfront greenway.
- Both projects aren't only focus on the completion of the greenway on an urban scale but also focus on how the greenway connects to the neighborhood scale infrastructure and environment.

Difference

- Greenway isn't the only way of building green transportation for Vancouver, they also have subway system (skytrain), trolley bus,
- Vancouver has a better basis on greenspace and greenway development. Before the release of the greenway network idea in 1995, Vancouver already had several greenways built in the city.
- Vancuover city greenway network also connected to the existing regional natural greenway network. The built accumulated mileage is 298 miles.

The Impact

A study by Frank et al. examined the effect of Vancouver greenway on the local residents demonstrating how activities related to greenway became a part of surrounding residents' life and began to change their lifestyles. Their findings included the following statistics: Nine in ten (89%) Metro Vancouver residents feel it is important that multi-use pathways are present in their community, including 57% who feel it is very important. A large majority (87%) of regional residents have used a multi-use pathway for walking, cycling, other leisure activities, or to get somewhere (Frank et al., 2021).

The study tracked a cohort of 524 residents over a period of three years from 2012 to 2015. They found residents living near the greenway reduced their transport GHG emissions by 21%. The opening of the greenway resulted in a 251% increase in cycling trips for the experimental group compared to the control group. Ethnically white subjects reported 130% more cycling trips than non-white subjects, and those aged 65 and older reported 79% fewer cycling trips than younger age cohorts. Furthermore, the construction of an urban greenway resulted in a considerable increase in biking for those living within 300 meters (Frank et al., 2021).

However, Vancouver is experiencing green gentrification. The city used rental-only zoning and development contribution expectations. The project also received negative reactions from the public including concerns regarding light pollution, night time transportation safety, conflict over emerging transportation modes (i.e. roller blades, scooter), noise pollution, streetcar and safety concerns.

Greenways provide more desirable and pleasant routes for walking andhiking diversity; Greenways create a sense of community awareness, pride, and responsibility"

Greenways Workshop Participant

As a Torontonian cyclist, one big difference I noticed when I travelled to Vancouver was the pedestrian/cyclist-oriented landscaping. There's far more greenery which adds an overall pleasantness to their pathways even amidst the city centre, making cycling comparably more inviting than on Richmond/ Adelaide, downtown Toronto's key east-west cycle lanes. Toronto added potted plants in some portions but I still think its lacking.

Elliot Klein, from Youtube

I once went to Vancouver for a job interview and would have totally stayed there. I went thinking that it would be "Canadian Seattle", in the sense of being Seattle but with public healthcare (I had lived in Seattle for a summer and loved it), but the amazing protected bike lanes and general human-centric feel of the city exceeded all my expectations. (I did not get the job.)."

Biking Barcelona, from Youtube

Table 4-1. Built Environment: Walkability Index measurements.					
Area	Net Residential Density (dwelling units/ acre)	Commercial Density (retail floor area ratio)	Intersection Density (per square kilometre)	Land Use Mix (0 to 1)	Walkability Index
Comox-Helmcken Greenway - City of Vancouver (500 m buffer)	164.6	1.4	68.4	0.6	9.8
Downtown New West - City of New Westminster (Columbia St & 6th St)	48.7	1.8	103.4	0.6	5.9
Metrotown - City of Burnaby (Kingsway & Sussex Ave)	33.1	2.0	63.3	0.7	3.8
Ambleside - District of West Vancouver (Marine Dr & 19th Ave)	18.0	0.9	68.8	0.6	1.6

Note: Residential density is the number of residential units per acre designated for residential use within a neighbourhood buffer. Higher densities indicate more people live in the area. Commercial density (or Retail Floor Area Ratio) is the amount of area designated for commercial within a neighbourhood buffer, using a ratio of commercial floor area to commercial and area. Higher ratio numbers indicate higher commercial density. Street connectivity is measured by the number of street intersections in a neighbourhood buffer. More intersections suggest a greater degree of network connectivity enabling more direct travel between two points using existing streets and pathways. Land use mix is the evenness of square footage distribution across residential, commercial (including retail and services), entertainment, and office development within a neighbourhood buffer. A higher value in this measure indicates a more even distribution of land between the land use types.

Credit: Dr. Lawrence D. Frank & Victor D. Ngo, UBC Health & Community Design Lab



Regional Greenway 2050 (source: BC Recreation and Parks Association)



Source: City of Vancouve

History & Site Context

The origin of Vancouver's greenway started from a waterfront promenade (sea wall) along the English Bay mentioned in the 1928 Bartholomew Plan. The City of Vancouver has had three task forces, called "citizen committees" which are charged with a particular topic. They are "Clouds of Change" which aim at solving atmospheric problems, "Safer City Task Force" which aims at personal and property security and "Urban Landscape Task Force". The last task force is tackling the interconnectivity of the greenway system and aims to link all parts of the city starting from the Stanley Park Seawall for the increasing and broadening benefit to all residents (Quayle, 1995).

Currently, Vancouver is encouraging active living and transportation for a sustainable and healthy city as per the 2015 Healthy City Strategy Plan. Between 2001 and 2016, the regional population grew from 1.9 million to 2.5 million people and regional growth is expected to add another 1.2 million people by 2050. Despite Vancouver being the densest city in Canada, it is the most walkable city, and it is estimated that more than half of all trips are made without the use of a car (City of Vancouver, 2018). However, there are also many social, economic, and health concerns that affect Vancouver residents. A major concern is affordability, more than one in five face poverty, which is due to a high cost of housing.



Source: Copernicus Sentinel-2, ESA Source: Viewpoint '

Community Relationship

Beyond the urban scale greenway system, the government also proposed a neighborhood scale greenway program and there are 9 greenways in total until now.

The neighborhood greenways aim at connecting all the destinations based on residents' needs: commercial streets, historical sites, amenities, natural areas including parks. The decisions of these greenways are made based on local residents' initiation. City government will partner with the communities to discuss and finish the projects. Government will provide knowledge on design, development & construction and funding opportunities. Communities are responsible for maintaining the space after the completion (City of Vancouver, 2018).

Building a Neighbourhood Greenway is a source of community spirit and pride. This flexible approach has worked well and accommodated the various project types and the different levels and styles of community involvement. At the same time, it has allowed the City to address general concerns such as safety.

Their community engagement strategy includes targeted planning referrals, presentation to specified regional advisory committees, a public questionnaire on the plan contents, First Nations engagement and a stakeholder webinar to gather final feedback before the plan is finalized for MVRD Board adoption.



Source: City of Vancouve

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Planning & Design

City's planning strategy include:

City's planning strategy include (Extracted from Vancouver Greenway Plan 1995):

1. Exhibit and connect distinct local characters

These characters include local destinations, such as waterfront, downtown, mountain; adjoining amenities such as parks, shopping streets and museums. They contribute to the uniqueness & diversity of greenways and also provide complete illustration of Vancouver's urban landscape. 2. Create a city wide network

There are also critical issues appeared after the opening of greenways, city changed their planning strategy to solve these problems:

1. Light pollution or night time transportation safety

The lighting is designed to use Dark-Sky compliant fixtures and physical light shields to minimize light spill while still providing enough light to ensure safety and Crime Prevention.

2. Roller blades and scooter transportation

The greenway is separated into two lanes, cyclists who are moving quickly and walkers who are moving at a slow pace. Medium speed users such as roller blades and scooters are forced to choose between the

3. Clear signage is needed in order to clarify where medium speed users belong in order to reduce conflict.

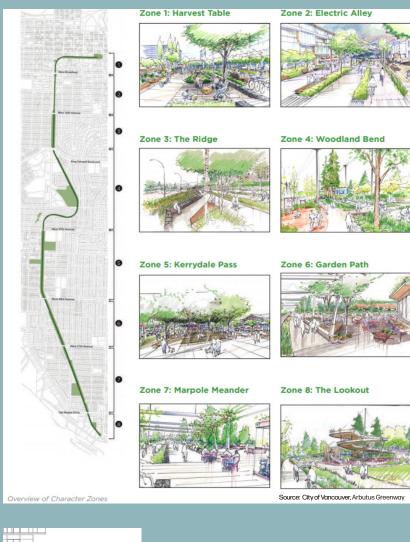
4. Street car noise pollution and safety concerns

The streetcar is envisioned to be a green track (planting material surrounding the track to reduce noise), and powered by electricity to further reduce noise. Safety will be ensured through the use of a dedicated right-of-way for the street car.

5. Gentrification

As mentioned above, rental-only zoning and development contribution expectation are tools used by the government to reduce land speculation (City of Vancouver, 1995).













Location:

Jiangyin, Jiangsu, China

Designer:

Brearley Architecture & Urbanism

Client:

China Construction City Development Ltd in Jiangyin

Planning & Construction time: 2018 to now

Total Length 18 miles

The Jianayin Greenway loop responds to a growing movement in China towards a cleaner environment, sustainable transportation, and urban enjoyment. The loop is made of four clearly identifiable sections, each with both unique expression and common elements. The northern segment of the loop has been built. This project, the eastern segment of the loop leads to the Yangtze River, the river to which Jiangyin owes its existence, and it explores the

---Narrative by City government

story of the river itself.







Jiangyin Greenway Loop & JLG

Similarity

- The overall shape for both projects are quite the same as square: include one side as a waterfront pathway.
- Both projects have portions of greenway run along the highway.
- Both projects use multi functional planning strategy: include public space, commercial space, natural preserve area etc.

Difference

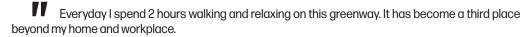
- Because these two projects are located in different countries with different cultures, the policy and public work might be different regarding urban greenway projects.
- Compared to Detroit, Jiangyin may have a better natural environment.
- Jiangyin Greenway Loop is also connected to the existing regional greenway network.
- Jiangyin and Detroit view their greenway projects differently: Detroit hopes
 to use this greenway as an opportunity to bring prosperity to the city again.
 Jiangyin, Wuxi currently is the top county (city) in China. Their desire for this
 greenway is mainly to improve the local ecosystem and provide great public
 space for the residents.

The Impact

Jiangyin Greenway Loop responds to China's growing environmental needs and sustainable transportation. Jiangyin Greenway loop became the longest sports greenway in the world after it was finished. The finished phases of this project became exemplary of how greenway can create connections across urban areas, overcoming a dense interconnected network of elevated highways that form physical barriers to intercommunity movement (Meicheng, 2022).

However, despite its success, critiques noted issues related to:

- 1. non-effective highway noise reduction & tail gas dilution strategy
- 2. Lacking public toilets around the greenway.
- 3. Few pathways have a vague boundary between pedestrian and cycling.
- 4. Segments of the greenway except for recreational & fitness space are under low utilization rate because of low public awareness.
- 5. Incomplete maintenance and management which lead to insufficient supply of needed facilities
- 6. Public transport connection, parking are insufficient.
- 7. Local ecosystem was interrupted like trees were distributed and rare plants species lacked protection



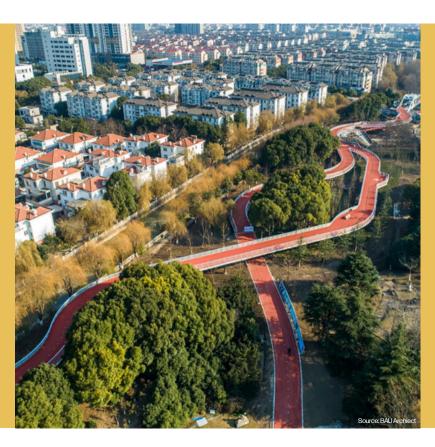
Liu Dan, from Xiaohongghu

Cycling is wild on this greenway, escpecially during the weekend when people are crowded. Also it's absurd that pets walking are prohibited on the greenway"

Duoduo, from Xiaohongshu

Jiangyin completed the bridge greenway; it's convenient for people to exercise, but the most regrettable thing is the loss of apricot flower forest on the east side of the river. 20 years ago, Jiangyin Yangtze River Bridge opened to traffic and the apricots forest is there. However, because of the construction of the greenway, lots of old apricots have been destroyed, and I especially regret two rare green flower old apricots!"

Jiangsuwenda, from weibo





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History & Site Context

Jiangyin is a county-level city located in Wuxi, Jiangsu. The narrowest portion of Yangtze river with the river delta is located in this city which makes it the most important fortress along the river in the past dynasties.

It is an important transportation hub in the north and south of the Yangtze River and a natural port city for river and sea transportation. Jiangyin has a history of 7,000 years of human existence, 5,000 years of civilization and 2,500 years of written records. According to the 2019 census, the permanent population is 1.65 million. In 2019, the city's forest coverage rate was 20.14 percent. In 2022, the total GDP of Jiangyin was 475.18 billion yuan, ranking the second place in China's counties in 2022 (China Daily, n.d.).

Jiangyin City was built along the Yangtze River and prospers because of it. However, due to overuse of the Yangtze River bank and intensive land development since the 1990s, the riverfront is not viewable and accessible for many Jiangyin residents. "Return the river to the people, return the shore to the people, return the scenery to the people. With the consensus of jointly grasping great protection and not carrying out great development", Jiangyin Municipal government took the initiative to adjust port functions and vacate land along the Yangtze River coastline into natural land which could serve and be enjoyed by the local residents. For the evacuated riverside space, Jiangyin also promotes the construction of an ecological garden city, and implements ecological restoration in accordance with the requirements of "flowers in four seasons and scenery everywhere" (China Daily, n.d.).

Community Relationship

Community members also feel the responsibility of maintaining this greenway which benefits them a lot. The neighborhood committee spontaneously founded four "Greenway Good Deeds Civilization publicity Service teams", organizing volunteers to maintain the order, provide guide to visitors and set up service stations on weekends, holidays and other times when there are lots of people on greenway.

The government also moved the annual National Fitness Day celebration to the gymnasium next to the greenway. Every year on August 8, thousands of nearby residents walk on the greenway to show their vitality, spread the concept & strategies of healthy lifestyle and call on the care of health. Beyond the government leading activity, the surrounding companies, schools and community also voluntarily organize the exercise activity on the greenway (Wuxi Sports Bureau, 2022).









Planning & Design

(1) String beads into chains to build a landscape network Several parks are linked by shortcuts and desired lines based on residents' activities. Furthermore, the 30-kilometer Jiangyin greenway follows the "4+5+8" mode: four landscape greenways connecting five public plazas and eight theme parks. The greenway twists, turns and flows smoothly, threading the needle and marking the scenery, just like a bead chain within the city.

(2) Highlight characteristics and create different vibes
The greenway integrates modern aesthetics and combines the
pedestrian overpass with the ground pathway. The whole line
is surrounded by shades and the lighting is colorful at night.
Portions around the lake and mountain are quiet and gentle
which let visitors enjoy nature; The hydrophilic public space
along the canal shows the style of Jiangnan water town and
urban vitality.

(3) Adapt to local conditions and serve the residents with all their needs

The greenway integrates bicycles and walking paths into the greenway system, along with memorable service facilities such as amphitheater, music plazas, children's playgrounds, learning stations and barrier-free elevators, activating urban social space and improving citizens' quality of life.

(4) Planning for future

The zoning & master plan also reserves key places for future commercial & multi-use development based on its location with existing road, pedestrian flow, public transportation routes and greenway itself.

(5) Structure

Steel & coloured bituminous concrete are the main materials for the greenway. Efficient prefabrication, wear-resistant and low level of maintenance are the benefits of these materials. (Weaving and Stitching: BAU616 Jiangyin Greenway Loop (Stage 1. Eastern Segment), n.d.)









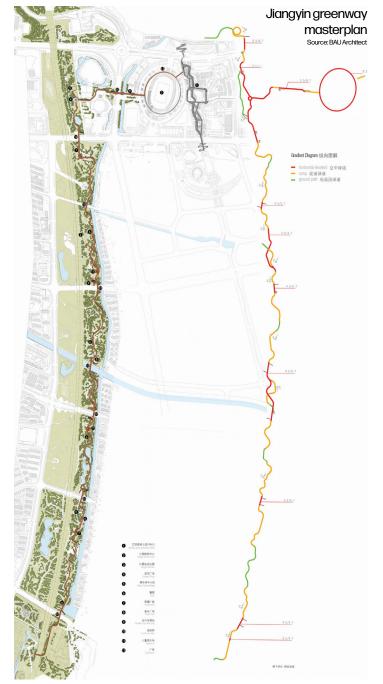












Case study

Conclusion

Greenway projects have the potential to act as catalysts for the development of urban districts. Nevertheless, such investment may inadvertently trigger gentrification and displacement, making environmental justice a crucial priority during the project planning phase.

Our research on four greenway cases, varying in scale, geography, and local culture, has revealed that each greenway project develops its unique planning and design philosophy. For instance, in a neighborhood-scale greenway, such as the High Line, design details that take into account the visitors' experience should be a focal point. In contrast, the urban scale greenway, like Atlanta Beltline, should focus on practical scenario design themes based on district characteristics. In addition, planning assumes a more significant role in larger-scale projects, with a focus on addressing realistic issues from the grassroots level. It is also imperative to obtain feedback from visitors and other stakeholders during the ongoing and post-construction phases. The development of a comprehensive greenway project requires equitable input and efforts from all potential participants.

For the Joe Louis Greenway, there are some specific design principles we can glean from these case studies that can be applied to strengthen social, economic, and environmental justice. Here are some examples of considerations:

- Visualizing residents' design suggestions obtained in community engagement meetings or via official websites would be a tangible way to show that their priorities are being heard and integrated into such projects. This will also increase public sentiment about a project.
- We find there are numerous online platforms and applications for residents to submit their opinions about the planning & design considerations. However, we question whether these are fully accessible to a diversity of residents.
- The Greenway definitely offers a diverse purpose for diverse visitors. However, the design for handicapped people is not often promoted, which could result in differently-abled people not feeling welcome or safe on the Greenway.
- Brownfields and vacant lots surrounding the Greenway are likely to have hazardous soil conditions and invasive species that pose environmental challenges in construction. Plant selection could alleviate some of these issues, and also reduce harmful pollutants.
- Planning & design should come from comprehensive and updated data research. Despite government data being open source, it is rarely user-friendly to access and use for local residents, designers, or researchers. Offering a user-friendly tool to visualize this data would increase the ability to assess conditions in an integrated way that considers both social and environmental conditions.
- Emphasize innovative and creative design ideas. Without fresh ideas, greenways fall short of their potential to create unique and memorable experiences for visitors. Infusing the unique culture and history that Detroit has into the design may be an important step in 'placemaking' that celebrates and enriches current neighborhoods.



SUGGESTIONS

The Joe Louis Greenway's Framework Plan (Vol. 1) acknowledges the critical role of economic, social, and environmental factors in being able to achieve its goals. However, while the plan provides strategies and data collection methods for evaluating inclusive economic growth, it falls short in addressing other crucial aspects of the Greenway. In addition, the plan's focus is largely quantitative, overlooking the value of qualitative approaches for capturing social and environmental outcomes. To address this gap, this final section of our report outlines a range of strategies, data collection methods, and indicators of success for environmental and social factors, which can help ensure a more comprehensive evaluation of the program's overall impact.

Strategic Matrix

Social

Tool	Description	Land use Design Programs	
General Plans	Ensuring that the City's Master Plans and other guiding documents align with community goals. Should be aiming for synergies rather than trade-offs.		
Specific Community Plans	Developing more localized plat for affordable housing and othe strategies. It is an opportunity	r equitable green development	
Equitable Green Development Overlay Zones	An alternative to rewriting exist using specific overlay zones. At could include affordable housir for local businesses and afford requirem	n equitable green overlay zone ng requirements, reduced fees able housing, reduced parking	
Community Land Trusts	A Community Land Trust (CLT) i acquires and holds land for the b The CLT model involves separat ownership of the buildings on the control over land use	penefit of a specific community. ting ownership of the land from ne land, allowing for community	
Shelter and Transitional Housing	Transitional housing (6 -24 months) is an intermediate housing type between shelter and permanent, affordable housing. These programs will help the people who have low income to afford the rent in the short to mid term.		
Intergenerational Spaces Shared spaces on and around the greenway sho people of different generations and abilities to me relationships.			

Tool	Description	Land use Design Programs	
Design & Architecture	Avoid hostile architecture style like limited seating, fortress- like structures & misleading 'Private Property' signs which discourage people to use the space.		
Displacement Impact Reports	Proponents of green infras developments should create a that can identify, analyze, and p significant displacement imp development in the ea	Displacement Impact Report ropose mitigation for potential acts associated with green	
Stakeholder Notification	A district-wide notification sy stakeholders when new develo be coupled with engagemen technologic	opment is planned. This should topportunities and consider	
Language Access	Ensure that all public mater languages and is free of jargor The community should be co are needed, what is culturally o language should be used. Event offered in othe	n or confusing technical terms. onsulted on what languages appropriate, and what level of is should have translators or be	
Strengthening Community Knowledge and Skills	By offering education and training on governance, land use planning, and policymaking processes, agencies can enhance the individual capacity of the community, enabling them to become effective civic leaders and decision-makers with strong community connections. This, in turn, can promote greater participation and engagement.		
Partnership with Community- Based Organizations	based organizations can lead in the success of the project. er address local needs, build and increase accountability to amunity.		

Tool	Description	Land use Design Programs	
Community Ownership	Providing methods for communities to collectively purchase property to assist in maintaining affordable housing and increasing local weath and empowerment.		
Community Stewardship	Developing local park steward education on the maintenance of replace the responsibility of the encourage pride and or	of green space. This should not City to maintain its land but will	
Accountability and Monitoring	In addition to equitable planning and design, new green development should have a framework in place to monitor the implementation and enforcement of these strategies through adaptive management.		
Community Benefits Agreements	Community benefits agreemer that the developer promise: exchange for public support	s to attach to the project in	
Programming and Operations	Project in operation should avoid privatization of public space in programming like reservations for sport courts, which allows the tracking of public space users. Analysis of surrounding neighborhoods should take place to match built projects with the right needs for the population in the long-term.		
Public Safety and Policing	Maximize the safety of public s and economic justice and hist include community co-des stewardship and guardianship, lighting and incr	oric relationships. Strategies sign, fostering community good maintainence, adequate	

Environmental

Tool	Description	Land use Design Programs	
Surplus Public Land Disposition	A regulation directs local agencies to prioritize the development of affordable housing and public green space when selling or leasing their surplus land.		
Urban Agriculture	A practice of cultivating, processing and distributing food through agriculture in the urban area. It can reduce the environmental impact of food distribution, increase opportunities for local supply chains and improve access to nutritious foods.		
Refurbishment Sewage & Stormwater Treatment Facilities	This process will ameliorate the aging sewage and stormwater system to reduce the water hygienic and flooding problem in the city.		
Adaptive Reuse With Green Building Principles	It aims to repurposing an existing building or structure different from the building's original purpose. There are lots historic building in Detroit which could be refurbish with the sustainable standard to create both economic and environmental benefits		
Invasive Plants & Weed Control	Invasive plant species and we growth of native, functional plan to the local ecosystem and	ts which cause huge problems	
Soil Remediation	Soil health is a huge problem for Soil remediation use planting or the risk in the soil to the e	chemical strategy to mitigate	

Tool	Description	Land use Design Programs
Public-Private Partnership Brownfields Redevelopment	The public entity sponsors th funding, often for environment cleanup, and a private-secto manages the pre-developme	al site assessments and initial or developer then funds and
Community Clean Energy Program	It aims to aim to provide affor solutions to households, busin This can include initiatives suc homes and buildings, develop implementing energy efficiency use of electr	esses, and public institutions. h as installing solar panels on bing community wind farms, measures, and promoting the
Deincentive Programs	Create economic disincentive those who are creating social c comm	ınd environmental costs to the

This social & environmental toolkit provides some examples of land use policies, design, and program suggestions that the City should consider implementing alongside development of the Greenway to support its inclusive growth strategy. These are similar to the categories within the Framework Plan (Vol. 1), but we found that funding was not as relevant to these factors as it was to economic ones. Land use refers to aspects of zoning and planning, design regards how a space is created, and programs are considered various projects that can be taken on by different stakeholders. Though some may seem to be very general suggestions, such as aligning general plans with community goals and language access, they hold important significance and should be applied in conjunction with others. Using these strategies can assist with creating a plan for what to implement and how to assess it, in the same way, that the City has done with housing and jobs. We recognize that some of these strategies may already be in place in Detroit, though we have not indicated within the table what is currently being done.



Measuring & Evaluating

When it comes to measuring and evaluating a project, you may encounter the question, "Do we measure what we value, or do we value what we measure?" This question goes beyond mere wordplay and highlights the tendency to give more importance to what we can easily measure rather than what we genuinely value. As discussed, data collection and tracking of indicators can be a time-consuming and costly process. However, the costs of not implementing an evaluation program for large projects like the JLG can be even higher, with the potential for the Greenway to not meet its goals or to even cause harm.

The JLG Framework Plan outlines potential metrics and processes for evaluating them, for the equity goals of a) housing affordability and wealth creation, and b) businesses and jobs. It also notes that "Refinement of these metrics, and development of additional baseline data points across the length of the Greenway and by segment once 2020 Census data is available, will be an priority for implementation partners" (City of Detroit, 2021). This is an gret start to measuring and evaluating the economic impacts of the Greenway, including the acknowledgment of co-producing the process with partners. However, as discussed earlier, the JLG is being used as a strategy to improve the lives of Detroiters on broader scale. When choosing what to measure, we must look beyond economic indicators and include social and environmental considerations.

Measuring Environmental Factors

Spatial analysis can add critical information for understanding the urban context, add motivation for planning strategies, and provide measures for monitoring the long-term social and environmental impacts of projects like the JLG. We examine environmental and social factors, from varying sources: City of Detroit open data portal, SEMCOG open data portal, EPA Environmental Justice Screening & Mapping (EJ screen), and Multi-Resolution Land Characteristics (MRLC) Consortium. This includes an environmental evaluation index that maps park location, hydrologic system, percent tree canopy, hazard waste index, air quality index, and average surface temperature within the 1-mile buffer around the Joe Louis Greenway.

Environmental Analysis Map Series



The park map indicates a wide distribution of parks in the research area with large city parks mainly located along the Detroit riverfront and small parks scattered throughout the city. The map of the city's hydrology shows tributaries located throughout the area and may suggest that the areas around the JLG may have less flooding risk compared to the most severe east village and Jefferson Chalmer area (Larson et al., 2021). From the tree canopy map, we could find that the research area has a medium to high percent of tree canopy except for the east. However, considering the unique context of Detroit, the tree canopy may include tree growth and early succession in neighborhoods where homes have been destroyed. These plants may not provide environmental benefits and may even negatively impact local ecosystems. The hazard waste index map shows the high-risk area of hazardous waste related to human health. The air quality map shows the possibility of exposure to toxic air in a given area which may be related to human health. The surface temperature map showed the average hottest area in the city from May to August which is inversely proportional to the tree canopy map.

Together these measures provide locations of differing environmental challenges in JLG neighborhoods. Measures of soil quality, energy use, biodiversity, light pollution, and noise pollution would enhance understanding of the impacts of JLG, but these are less readily available. While mapped data (census, environmental monitoring) are valuable, providing consistent and long-term measures of social and environmental change, many of the impacts of green space are unlikely to be captured by these means. Novel alternative data collection techniques are promising for filling these gaps. Here we outline several promising approaches for long-term monitoring of JLG impact:

Civic science: TThe purpose of civic science is to collect data from a large number of participants to maximize the accuracy of observation. Civic scientists can use a variety of tools to collect data that could be used to assess the health of an ecosystem and identify environmental issues. In addition, civic science can help to increase public awareness and engagement in environmental issues, which can lead to more effective environmental policies

and practices. There are also lots of open-source websites like the Public Participatory GIS Tool developed by our advisor, Assistant Professor Derek Van Berkel which allows civic scientists to upload their own spatial data and create categories that outline regions for planning purposes (Van Berkel et al., 2023).

Field surveys and inspections: Conducting field surveys and inspections is a direct way to observe the local environmental condition. This could include looking at the condition of buildings and infrastructure, testing water and air quality, and observing waste management practices.

Satellite imagery: Satellite imagery can be used to analyze land use patterns, vegetation cover, and changes in the natural environment over time. This can provide insights into the impact of human activity on the environment.

Community reporting: Encouraging community members to report environmental issues they observe can help identify areas of concern and inform decision-making. This

could include setting up hotlines, online reporting systems, or community meetings to discuss environmental issues.

Environmental monitoring stations: Installing monitoring stations for air and water quality, noise levels, and other environmental factors can provide real-time data on the environmental condition of a city.

Expert assessments: Engaging environmental experts to conduct assessments of a city's environmental condition can provide valuable insights into areas of concern and potential solutions. These assessments could include environmental impact assessments, urban planning reviews, or sustainability audits.

Measuring Social Factors

Measuring social factors is an inherently difficult and complex task that requires the use of various tools and techniques.

Mapping tools like the EPA's EJScreen offer the ability to visualize social factors in specific geographic locations. These maps can help identify areas that are particularly vulnerable or disadvantaged and can inform policy and resource allocation decisions to address social inequalities. However, this alone cannot accurately measure progress towards the Greenway's vision of empowerment, unification, and healing or goals like promoting equity. More intensive methods such as surveys, focus groups, or interviews can provide insights into the lived experiences of individuals and communities.

Reimagining the Civic Commons suggests utilizing the 5 following methods to get a well-rounded perspective:

- Intercept surveys: Surveys conducted at the project site with people who are engaging with the place
- Neighborhood surveys: Surveys conducted with a sample of community members in a specific neighborhood
- Observation mapping: Visual assessments of how people engage with civic assets
- Physical survey: Visual assessments of the physical conditions of civic assets and surrounding neighborhoods
- Third-party data analysis: Assessment of data collected by outside organizations, such as the U.S. Census

Source: Measuring the Civic Commons (https://civiccommons.us/app/uploads/2018/01/Measuring-the-Civic-Commons.pdf)

We recognize that data collection is limited by funding and staff capacity in addition to the difficulties of identifying appropriate indicators to responsibly measure the complex constructs of empowerment, unification, healing, and equity. Urban planners often rely on existing sources of quantitative data or low-cost empirical methods to collect information, but there is growing recognition that qualitative approaches can also yield valuable insights. It is possible for programs to encourage participation to also provide data that can measure progress toward goals and provide insights for decision-making.

Storytelling, poems, photography, and social media have been used as creative data sources for capturing the essence of a place and its people. When used in research, this information can help to reveal the emotional and sensory experiences of a city's inhabitants, which are often difficult to capture through more traditional data collection methods. In the context of city planning, they can be used to gather information about a range of topics, including the social dynamics of a neighborhood, the cultural identity of a community, and the relationship between people and the built environment. For example, a series of photographs or a collection of poems might capture the vibrancy of a street market or the changing nature of a gentrifying neighborhood. The Los Angeles County Metropolitan Transportation Authority (Metro) poetry contest, "Poetry in Motion" provides an excellent example of this. It invites local poets to submit their work for consideration to be displayed on the inside of Metro buses and trains. The program has been successful in engaging riders and promoting the arts and has also been used to inform the transportation district's work by leveraging the

creative talents of local poets and artists. Metro has been able to gain insights into the needs and aspirations of its ridership and inform future outreach campaigns, while also creating a more positive image of public transportation. This practice could be applied to existing JLG programs like the Neighborhood Stories & Signage program to get a more nuanced understanding of the community narrative as well as track sentiments over time to analyze the impact of the Greenway. Further, by incorporating natural language processing and other data analytical tools, planners can utilize large data sources like social media posts or posted photos. By incorporating qualitative data and creative methods, planners can gain a deeper understanding of the social and cultural dimensions of a place and involve local residents in the planning process in a more meaningful way.

An additional research consideration for measuring the social impact of the JLG is the utilization of Community-Based Participatory Research (CBPR). CBPR is an approach to research that involves community members as active partners in all stages of the research process,

from identifying research questions to interpreting and disseminating results. CBPR aims to empower communities, build trust, and promote equity by engaging community members in the research process and ensuring that research findings are relevant and actionable. CBPR has gained popularity in recent years as a means of conducting research that is relevant, responsive, and respectful of the communities being studied. It has been utilized in a variety of contexts, including public health, environmental health, and social sciences. CBPR is particularly useful when working with marginalized communities, as it allows for a deeper understanding of the social and cultural factors at play. In their review of CBPR projects, Jagosh et al. found that CBPR generated population-level changes which increase the sustainability of partnerships, created additional 'spin-off' projects, and achieved systemic transformations(Jagosh et al., 2015). Over the past 25 years of proactive, CBPR has provided positive outcomes in community empowerment, healthier behaviors, and policy changes (Wallerstein et al., 2020).

A specific example of a creative CBPR method that is particularly well-suited for the context of the JLG is called Photovoice. Photovoice is a research method that combines photography and storytelling to empower marginalized individuals or groups to share their experiences and perspectives. Typically, participants are given cameras or smartphones and are asked to take photos related to a particular research question or topic. They are also encouraged to write captions or short narratives to explain the meaning behind their photos. Then participants share their photos and stories with the research team and other participants in group discussions or community meetings. Researchers analyze the photos and narratives to identify common themes and patterns. This can help to better understand the experiences and perspectives of the participants and can utilize computer learning to assist in interpreting data. One main goal of Photovoice and CBPR, in general, is to influence policy change and therefore, the results are often used to inform policy, advocacy, or community action. Photovoice is particularly effective in eliciting community perceptions of the built and social

environment, as it allows individuals to visually represent their experiences and feelings about their surroundings (Nykiforuk et al., 2011). In addition, it gives voice to individuals or groups who are often underrepresented in research, such as people from marginalized communities, youth, or those with limited literacy skills (Nykiforuk et al., 2011).

Evaluation Considerations

The process for developing an evaluation plan should be as inclusive and participatory as the development of the Framework Plan and other JLG planning initiatives.

When analyzing the economic, environmental, and social data collected, an analysis of equity, inclusive community feedback, and considerations of design decision impacts should also be considered. Below we have included guiding questions based on our research findings to help provide a framework for an intersectional assessment of the impact of the JLG.

Equitable Development

In our literature review of equitable development, we identified several principles which can promote equity in green infrastructure projects like the JLG. Keeping these in mind when evaluating data can help to ensure that the adaptive management process results in more equitable outcomes.

Guiding Questions: These are informed by the four themes of having a shared vision, leveraging diverse perspectives through collective leadership, promoting strong social networks, and effective measuring, evaluation, and adaptive management.

- Is there a consensus on what is being measured and evaluated?
- Is there a consensus on how the information will influence decision-making?
- Is the original shared vision of the Greenway still relevant and accurate?
- Are diverse partners, representing the needs of the community, involved in the measuring and evaluation of the Greenway?

- Are existing partnerships, teams, and working groups operating effectively?
- Is there a clear process for decision-making with stakeholders? Are decisions being made according to this agreement?
- Are the types of social capital bonding present?
- Are we measuring social ties?
- Are the indicators consistent with the goals? Do they meet most of the qualities outlined earlier?
- Is the data public, transparent, understandable, and accessible?
- Does data evaluation consider equity (i.e. how different populations are diversely impacted)?
- Is there a clear plan for how to use the information, and what information should continue to be collected?

News Review

Our analysis of sentiment within news articles regarding the Joe Louis Greenway uncovered useful information on the narratives associated with such green interventions. Cities can use this information to broaden their understanding of public sentiment for honing their messaging and enhancing their awareness of the varying political perspectives on these topics. Using some takeaways from our analysis of these sentiments may help guide and assess future plans. Below are questions to consider.

Guiding questions: These are informed by the prominent themes that were revealed from sentiment within the articles. Those themes were connections, beyond the boundaries, gentrification, bike lanes, climate, construction & costs, green reparations, and community involvement.

- Are the connections that will be made those that are useful and needed?
- What kind of efforts are needed to assist those who may benefit from utilizing the strategy the most but are lacking an ability to be able to?

- Will assessment of the effects ensure that it looks beyond those that have direct impacts to also include those that may have more indirect effects?
- How are effects of the strategy being framed through media sources?
- Does sentiment range across different forms of media?
- Are different stakeholders' opinions being represented through these public platforms?
- Are residents expressing a willingness to adapt?
- Are all values equally being represented in messaging to the public or are some trumping others?
- Can changes in political leadership significantly affect the success/outcome?
- What kind of impacts are possible during the process and how do they relate to those expected after the strategy is in place?
- How is funding for the project being viewed? Is this being used in sentiment in opposition to the strategy?
- What kind of maintenance or regular check-ins are needed and are they planned for the success of the strategy?

Case studies

Case studies reveal the planning and design philosophy of notable greenway projects in the world. Successful strategies along with incomplete work have been identified and could be lessons for Joe Louis Greenway.

Guiding questions:

These questions are informed by the key takeaways from our case study review. It includes considerations for plant choice, accessibility, engagement, technology, and innovation.

- Have residents' inputs on design & planning been realized?
- What are the response rates and level of engagement in technologies associated with the Greenway?
- Are there specific designs for disabled people? Are these well-known throughout the community?
- Has the use of plant selection alleviated environmental problems?
- Are the environmental and social datasets accessible and updated?
- What variety can be made in the design of the Greenway to encourage diverse uses?

Overall, these questions are a place to start when examining the data collected and do not encapsulate all that should be considered. Additional questions and considerations should be developed through engagement with the community and strategic thought on what best applies to your goals.



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CONCLUSION

Throughout this project, we have explored historical aspects of Detroit and the shaping of green spaces in the City that have led up to the idea and the current construction of the Joe Louis Greenway. As other research shows, gentrification is a real possibility of green infrastructure projects, but we have learned that community engagement can make a significant difference. Our research explores how the Joe Louis Greenway may accomplish its environmental justice goals and how the City can ensure that the local communities are receiving the benefits.

By both conducting and presenting multiple ways in which to study the impacts of green development projects, we display that multidisciplinary methods should be the preferred approach for both researchers and practitioners. The three main methods of our study are research on equitable development, a review of local news sources, and case studies of other impactful greenway projects around the world. Through these methods, we were able to integrate equity considerations, public perceptions of the JLG, and planning and design elements that could all be applied to Detroit's Greenway. Reviewing elements of

equitable change demonstrated that the JLG planning efforts have made an impressive start at centering equity in their planning process. Continuing with these practices and fine-tuning them for clarity and focus on social empowerment and cohesion is important through the development, implementation, and maintenance phases of the Greenway. The review and compilation of local news articles demonstrates the main themes being discussed in the media and how these ideas are being shaped, which can assist the City with understanding how their messaging to community members is being perceived and if there are any large gaps. The case study demonstrates some inspirational greenway examples around the world and what effects could be made from their planning & design strategies. The barriers they face in the idea-generation, construction, and reflection phases are also introduced to provide meaningful lessons for the JLG group.

Throughout our studies of the Greenway, we found that the Framework Plan adequately addressed many of the economic factors of the project and how they will impact residents through housing and jobs, specifically. Strategies and evaluation measures are outlined and presented. We suggest that social and environmental factors should be laid out in the same way and that the City should plan to evaluate the effects that the Greenway will have over time. We provide example strategies for these two aspects that fall into the categories of land use, design, and programs. Then we apply what we have learned about equity, public perceptions, and design to provide assessment questions of strategies that the City may choose to implement. We believe it is important that whichever strategy chosen, from our matrix or elsewhere, must be co-produced with community members, rather than created by the City with limited stakeholder engagement. These two things are not the same. One shares real power with the community and encourages their leadership while the other simply listens to feedback from members and may or may not take these ideas into meaningful consideration during implementation.

We believe that our research has provided a variety of options for future research avenues regarding the Joe Louis Greenway. These avenues are creative and promising and could help establish clear baselines to monitor the impact of

the Greenway. The news review also creates that baseline to build off of for future tracking.

Some barriers prevented how well we were able to find and assemble a comprehensive document regarding organizations, policies, and programs in Detroit that were related to our research topics. We know many initiatives are taking place, yet finding this information was difficult. Consolidating this information in an easy-to-find location for researchers and community-member alike is a highly beneficial thing to do. This can limit the number of groups working on similar projects with contradictory efforts, lessen the loss of institutional knowledge, and improve the level of community awareness.

Overall, this project uncovered new information for our team and for others who are interested in studying the Greenway. It has also provided guidance to the City by identifying focus areas for their future work. By taking on such a range of efforts, we hope that this has helped give a holistic view of the Joe Louis Greenway and some of the impacts that it may have.

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Appendix - News Sources

Source	Author	Date	Title	Link
Detour Detroit	Rukiya Colvin	12-16-21	The Joe Louis Greenway could transform Detroit.	https://detourdetroiter.com/joe-louis-greenway-midwest-detroit-conrail-construction/
Detour Detroit	Jena Brooker	12-21-20	Can Detroit's Joe Louis Greenway avoid	https://detourdetroiter.com/can-detroit-joe-louis-greenway-avoid-gentrification/
Detour Detroit	Aaron Mondry	12-22-20	12 Detroit development projects to watch in 2021	https://detourdetroiter.com/12-detroit-development-projects-to-watch-in-2021/
Detour Detroit	Brian Allnutt	10-1-20	Fighting for open space in Highland Park: A	https://detourdetroiter.com/fighting-for-open-space-in-highland-park-a-neighborhood-walk-with-activist-angela-lugo-thomas/
Detour Detroit	Detour Contributor	5-12-20	Belle Isle crowds raise questions about closing the	https://detourdetroiter.com/belle-isle-detroit-crowds-park-closures-coronavirus/
Detour Detroit	Kate Abbey-Lambertz	9-3-19	More than 70 ways to have an unforgettable, design-	https://detourdetroiter.com/events-in-detroit-september-2019/
Detour Detroit	Contributor	9-17-20	Making a home for fish and wildlife in the Detroit	https://detourdetroiter.com/making-a-home-for-fish-and-wildlife-in-detroit-rivers-conservation-crescent/
Detour Detroit	Nina Misuraca Ignaczak	10-15-20	Proposal 1: Detroit voters' guide to the Michigan	https://detourdetroiter.com/proposal-1-michigan-ballot-initiative-voter-guide/
Hour Detroit	Ashley Winn	1-27-20	Is the Joe Louis Greenway a Pathway to Success?	https://www.hourdetroit.com/community/joe-louis-greenway-detroit/
Hour Detroit	Steve Friess	1-18-22	6 Interesting Detroit Development Projects Expected to	https://www.hourdetroit.com/development-topics/6-most-interesting-detroit-development-projects-expected-to-open-in-2022/
Hour Detroit	Rachael Thomas	5-21-21	In Case You Missed It: Top Stories from the Week	https://www.hourdetroit.com/in-case-you-missed-it/in-case-you-missed-it-ford-electric-pickup-capacity-restrictions-lifted-joe-louis-greenway/
Hour Detroit	Rachael Thomas	9-30-22	In Case You Missed It: Top Stories from the Week	https://www.hourdetroit.com/in-case-you-missed-it/in-case-you-missed-it-top-stories-from-the-week-sept-26-30/
Detroit Free Press	Rochelle Riley	10-24-17	Detroit wants to name city-wide greenway project for	https://www.freep.com/story/news/columnists/rochelle-riley/2017/10/24/detroit-greenway-project-joe-louis/792102001/
Detroit Free Press	Elaine Cromie	10-27-17	Family of Joe Louis comes out for announcement of	https://www.freep.com/videos/news/local/michigan/detroit/2017/10/27/family-joe-louis-comes-out-announcement-greenway/107068242/
Detroit Free Press	Dave Boucher	7-2-22	6 metro Detroit projects to receive millions in new	https://www.freep.com/story/news/politics/2022/07/02/6-metro-detroit-projects-receive-millions-new-michigan-state-budget/7790939001/
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Click On Detroit	Morgan Russ	9-23-22	Joe Louis Greenway	https://www.clickondetroit.com/news/local/2022/09/23/another-milestone-hit-during-construction-of-detroits-joe-louis-greenway/
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The Detroit News	Myesha Johnson	9-26-22	Greenway	https://www.detroitnews.com/story/news/local/detroit-city/2022/09/26/construction-starts-on-second-leg-of-detroits-joe-louis-greenway/69518890007/
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The Detroit News	Beth LeBlanc	7-20-22	vetoes millions for prenancy centers, research	https://www.detroitnews.com/story/news/local/michigan/2022/07/20/whitmer-signs-54-8-b-budget-big-detroit-spends-vetoes-millions-fake-pregnancy-centers/10104753002/
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			Duggan lunches with Biden at White House to talk	
The Detroit News	Melissa Nann Burke		federal priorities	https://www.detroitnews.com/story/news/politics/2022/04/25/duggan-lunches-biden-white-house-talk-federal-priorities/7443544001/
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		1	Mural unveiled at Joe Louis Greenway connection in	
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