



allegheny riverfront vision plan

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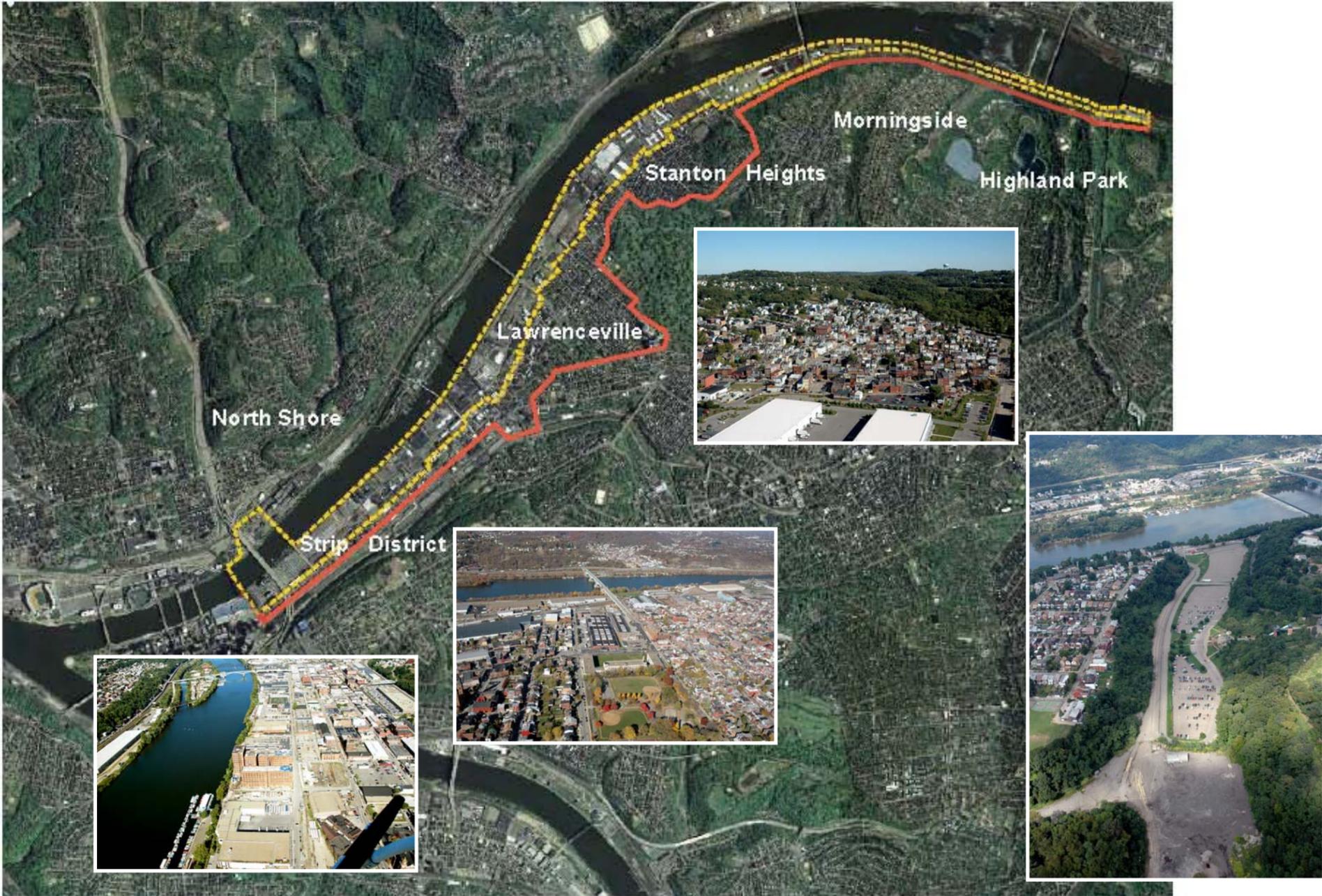
table of contents

introduction	1
strengths to build on	3
major issues	9
approach	15
alleggheny riverfront vision plan	17
major features of the vision plan	35
recommendations for projects at different scales	49
transformative development	49
strategic catalysts	54
repurposed places	56
maintenance	57
conservation	58
recommendations for policies and systemic changes	59
implementation and resources	69



Stakeholders explore the Allegheny Riverfront area

allegheny riverfront vision area



The study area, later enlarged to include the local watershed

introduction

Just upriver from Pittsburgh's Golden Triangle several city neighborhoods line the banks of the Allegheny River. The river is alive with recreational boaters and paddlers of all types; fishermen try their luck in waters that have hosted fishing tournaments; adventurous swimmers brave the chilly river; and from the green banks one takes in vistas of Downtown, the opposite shore, and the river valley itself. But standing on almost any street corner in the Strip District or Lawrenceville—where you see older buildings, cars and trucks, parking lots, metal sheds, and perhaps brick row houses—you wouldn't guess that such a remarkable resource is only a few blocks away.

The Allegheny Riverfront Vision Plan presents a new direction for the banks of the Allegheny River and for the Strip District and Lawrenceville riverfront communities. It is a vision based on respecting fundamental ecological principles, employing smart strategies to increase resident and business connections, increasing the quality of urban living, and achieving a regenerative and sustainable market for long-term investment. Its recommendations address six miles of Pittsburgh's Allegheny Riverfront, but its vision offers guidance for Pittsburgh as a riverfront city.

Location

At the heart of the study is the Allegheny Riverfront between downtown Pittsburgh at 11th Street and the city boundary at Washington Boulevard in Highland Park. The Vision Area encompasses about 2,000 acres of Pittsburgh city land, including most of the rivershed to the south and a short segment on the north bank opposite the Strip District. Two neighborhoods comprise most of the Allegheny Riverfront Vision Area: the Strip District and Lawrenceville, and they are the primary focus of the study. Three residential communities—Stanton Heights, Morningside, and Highland Park—front the Allegheny Riverfront at its eastern end complete the study area.

Civic Engagement

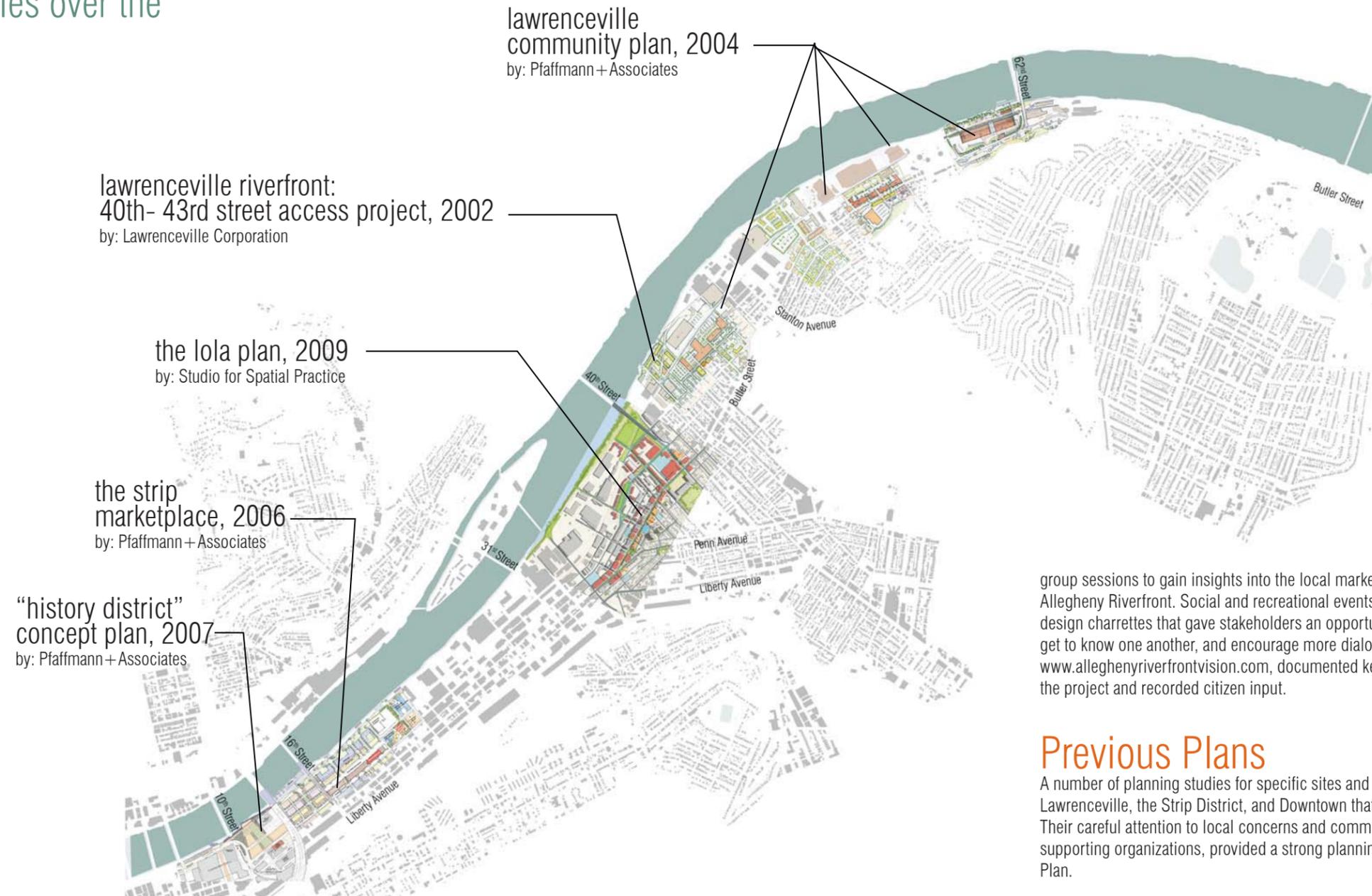
Residents, businesses, and stakeholders were engaged in the planning and decision-making process for the Vision Plan. A Steering Committee met monthly under the leadership of the URA. This committee was comprised of representatives of other sponsors and key stakeholders, provided advice and guidance throughout the planning, and served as the primary "client group" for the design team. Members of the Steering Committee were selected with the intention that they take a leadership role in the Vision Plan's implementation. In addition, an Advisory Committee of over 35 city-wide organizations and individuals met at key design milestones for feedback on ideas and policies for development sites, the riverfront, trails, and open space.

Over the course of the twelve-month planning process a number of community-building events took place. At four community meetings, citizens worked with the Steering Committee and the design team to shape priorities and proposals. Many businesses and individuals were interviewed and several progress meetings were held with local community organizations, including design review meetings with the Lawrenceville design community. The URA conducted specific focus



Community meetings and design charrettes

planning studies over the last 10 years



group sessions to gain insights into the local market and development issues specific to the Allegheny Riverfront. Social and recreational events took place between progress meetings and design charrettes that gave stakeholders an opportunity to explore the Allegheny Riverfront Area, get to know one another, and encourage more dialogue. An interactive website, www.alleghenyriverfrontvision.com, documented key meetings and events throughout the project and recorded citizen input.

Previous Plans

A number of planning studies for specific sites and neighborhoods have been prepared for Lawrenceville, the Strip District, and Downtown that are currently guiding development planning. Their careful attention to local concerns and community values, including adoption by their supporting organizations, provided a strong planning foundation and starting point for the Vision Plan.

strengths to build on

It's Almost All Right

The Allegheny Riverfront Area is rich in resources: its people, land, community, history, and livability. The riverfront's green edge and views of green bluffs beyond offer some of the most dramatic natural scenes within the city limits. The Allegheny River is Pittsburgh's recreational river, full of pleasure boats, kayaks, rowers, and fisherman. As the city's cleanest river, it provides most of Pittsburgh's drinking water. Its six bridges provide good access to the north side and to the feeder arterials and highways leading to the Interstate system. The riverfront trail, while not continuous, is in place between 11th Street to 21st Street, 24th to 25th Street, and from 36th to 43rd Streets. Three marinas are located along the south bank.

The Allegheny Riverfront is home to two regional destinations: the historic marketplace of the Strip District and the Pittsburgh Zoo. It contains a good variety of building stock, from six-story warehouses to modest bungalows. Its inventory of industrial structures is one of the richest in the city, ranging from simple steel sheds that once housed steel fabrication shops to substantial masonry structures for warehousing and storage. The housing stock varies from narrow brick row houses in Central Lawrenceville, to cheek-to-cheek frame houses on the slopes, to hip residential lofts and condominiums in former industrial buildings.

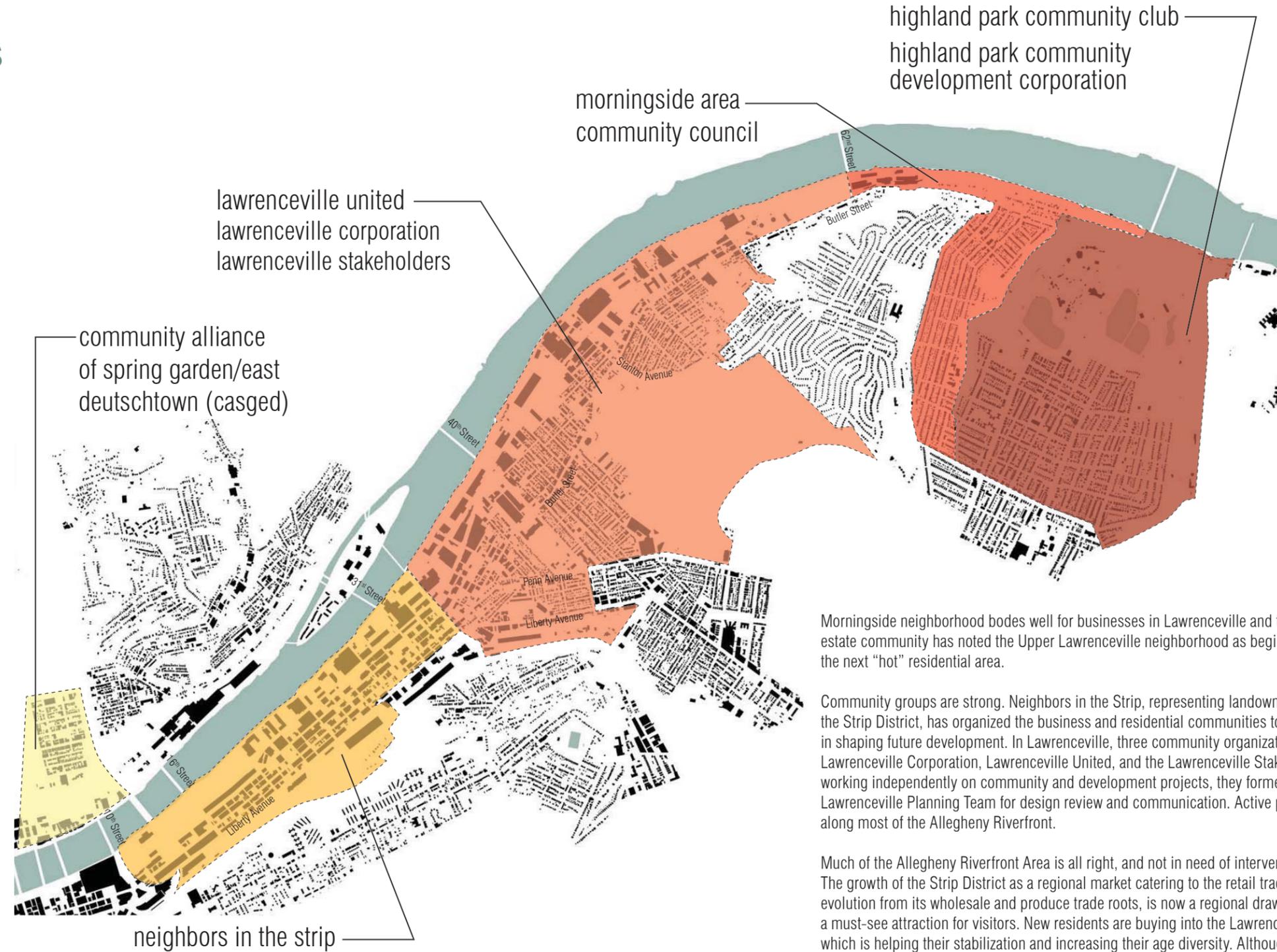
Recently there have been a number of significant investments that have pioneered the area's resurgence. The art and design community has made the Allegheny Riverfront Area its home, including furniture and cabinet makers, professional design offices, product showrooms, art galleries, artist studios, the Pittsburgh Ballet, and the Pittsburgh Opera. In recognition, the Riverfront markets itself as the 16:62 Design Zone (16th to 62nd Streets). Oakland institutions have begun investing in the Allegheny Riverfront Area. Carnegie Mellon University opened the National Robotics Engineering Center (NREC), which now employs over 120 in robotics research and development. Children's Hospital, newly built in Central Lawrenceville, has brought bio-med research into Lawrenceville and is contributing to increasing residential land values in the immediate neighborhood. The hospital's research and development tower along with NREC are beginning to define Lawrenceville as a center for research. New green industry has also begun to locate in Lawrenceville and the Strip, encouraged by inexpensive rents and the "cool" factor of locating in a pioneering community.

New loft and high-end residential development between 21st and 31st Streets is marketed as "downtown living," anchored by the Cork Factory's renovation into 297 rental units. The area has attracted the interest of newly-arrived residents to Pittsburgh and empty nesters relocating from the suburbs. Doughboy Square, through the efforts of the Urban Redevelopment Authority, the Lawrenceville Corporation, and several business and land owners, is undergoing stabilization and investment. Butler Street is gaining a new reputation as new restaurants and boutique retail stores serving a city-wide market are beginning to cluster in two zones: from Doughboy Square up to 39th Street and between 40th and 46th Streets. Their success has led to some spillover as new restaurants and shops are beginning to appear east of 47th Street. New families moving into the



Vibrant neighborhoods and good building stock

community organizations



Morningside neighborhood bodes well for businesses in Lawrenceville and the Strip, and the real estate community has noted the Upper Lawrenceville neighborhood as beginning to show signs of the next "hot" residential area.

Community groups are strong. Neighbors in the Strip, representing landowners and businesses in the Strip District, has organized the business and residential communities to take a proactive role in shaping future development. In Lawrenceville, three community organizations are active: the Lawrenceville Corporation, Lawrenceville United, and the Lawrenceville Stakeholders. Although working independently on community and development projects, they formed the collaborative Lawrenceville Planning Team for design review and communication. Active planning is continuous along most of the Allegheny Riverfront.

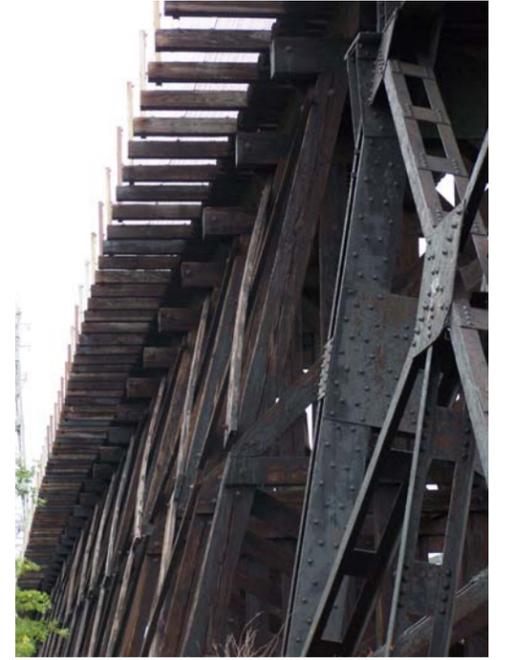
Much of the Allegheny Riverfront Area is all right, and not in need of intervention or transformation. The growth of the Strip District as a regional market catering to the retail trade, a relatively new evolution from its wholesale and produce trade roots, is now a regional draw on the weekend and a must-see attraction for visitors. New residents are buying into the Lawrenceville neighborhoods which is helping their stabilization and increasing their age diversity. Although economic progress is slow, it is steady and these areas are evolving well on their own. Locations requiring stimulus to keep pace with the majority of the Allegheny Riverfront are along the riverfront, the vacant and large former industrial sites, and a few inboard locations where residential and neighborhood services would benefit from catalytic intervention.

Authenticity and Identity

The Strip District conjures an image in everyone's mind as a rough, gritty place. Historically, it came alive in the early morning hours when trucks, dollies, and teamsters hauled and distributed the city's food and produce. Today most recognize it as a chaotic and crowded, yet fun, market place along Penn Avenue where vendors squeeze the sidewalk spaces hawking produce and merchandise and buildings line the avenue where you can buy the best cheese and specialty foods in town. Although the area of hustle and bustle is now relatively small, this image has become enlarged to now include all of the Strip District as far east as 40th Street.

Lawrenceville presents another, although similar, image: a community of hard-working residents who have spent their lives serving local industries and survived with little amenity. While not a wealthy community, it nonetheless attracts new residents because of its inexpensive housing, authentic character, convenient location, and image of a "Pittsburgh urban experience." Residents and businesspeople throughout the Allegheny Riverfront Area want to continue the mixture of people, uses, and buildings.

There is an area-wide authentic aesthetic that is alive and well. The buildings are simple forms with distinctive roofscapes. The older metal shed buildings have an architectural character that is clear in its functionality and massing. Many industrial and wholesale buildings are substantially built and worth redeveloping into other uses.



Strong and Diverse Neighborhoods

The Strip District, with its long flat blocks, is full of diverse uses—from food wholesaling to county offices to fashionable restaurants. It is walkable and has a strong, branded identity. Lower Lawrenceville is also walkable and has a substantial historic fabric. Central Lawrenceville has a strong residential base and active industrial uses. Upper Lawrenceville has good residential stock and the potential for a revived Butler Street. The adjacent neighborhoods of Morningside, Stanton Heights, and Highland Park have affordable mixed-income housing and an emerging, if not already stable, residential base to help support activities in the Allegheny Riverfront Area.

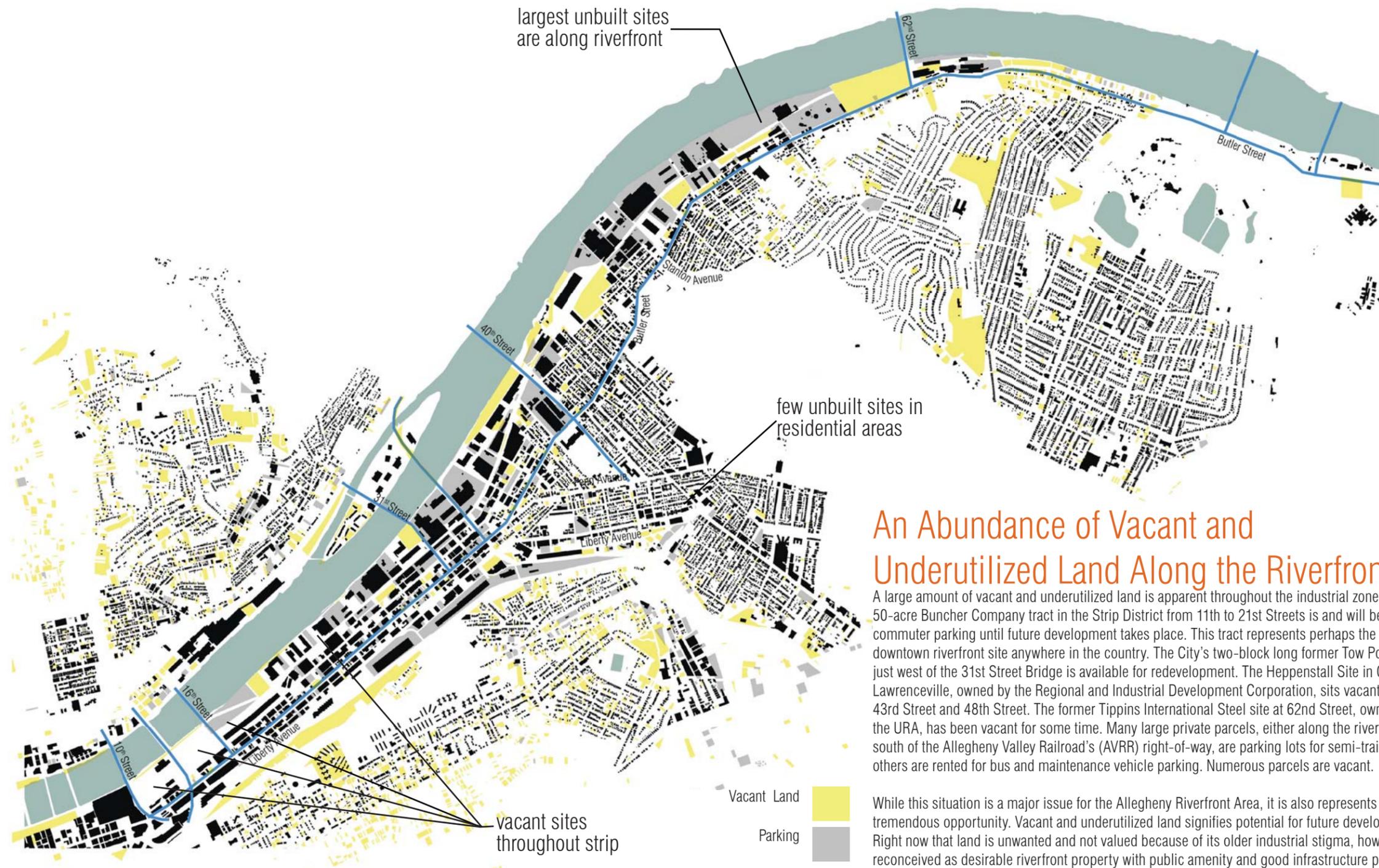
Regional Draw

Retailers in Pittsburgh—both the city and the metropolitan area as a whole—depend on non-resident spending for their survival, and the Strip District and retailers along Butler Street in Lawrenceville are well-positioned to benefit. The Strip District attracts the largest concentration of outside customers in the Allegheny Riverfront Area and, as a regional destination for shopping, has greater flexibility in adding retail that can be sustained by non-resident spending. Butler Street is beginning to distinguish itself as a city-wide, if not regional, draw with a wide diversity of restaurants, specialty retail stores, and entertainment venues.



Authentic, strong, and diverse neighborhoods attract residents, workers, and visitors

unbuilt parcels



An Abundance of Vacant and Underutilized Land Along the Riverfront

A large amount of vacant and underutilized land is apparent throughout the industrial zones. The 50-acre Buncher Company tract in the Strip District from 11th to 21st Streets is and will be used for commuter parking until future development takes place. This tract represents perhaps the largest downtown riverfront site anywhere in the country. The City's two-block long former Tow Pound site just west of the 31st Street Bridge is available for redevelopment. The Heppenstall Site in Central Lawrenceville, owned by the Regional and Industrial Development Corporation, sits vacant between 43rd Street and 48th Street. The former Tippins International Steel site at 62nd Street, owned by the URA, has been vacant for some time. Many large private parcels, either along the river or just south of the Allegheny Valley Railroad's (AVRR) right-of-way, are parking lots for semi-trailers while others are rented for bus and maintenance vehicle parking. Numerous parcels are vacant.

While this situation is a major issue for the Allegheny Riverfront Area, it also represents a tremendous opportunity. Vacant and underutilized land signifies potential for future development. Right now that land is unwanted and not valued because of its older industrial stigma, however reconceived as desirable riverfront property with public amenity and good infrastructure points to a stronger future. The Allegheny Riverfront is one of the few areas in the city that can accommodate new industry, desirable riverfront residential development, supportive retail and commercial activities, and higher densities.

A Strategic Location in the City

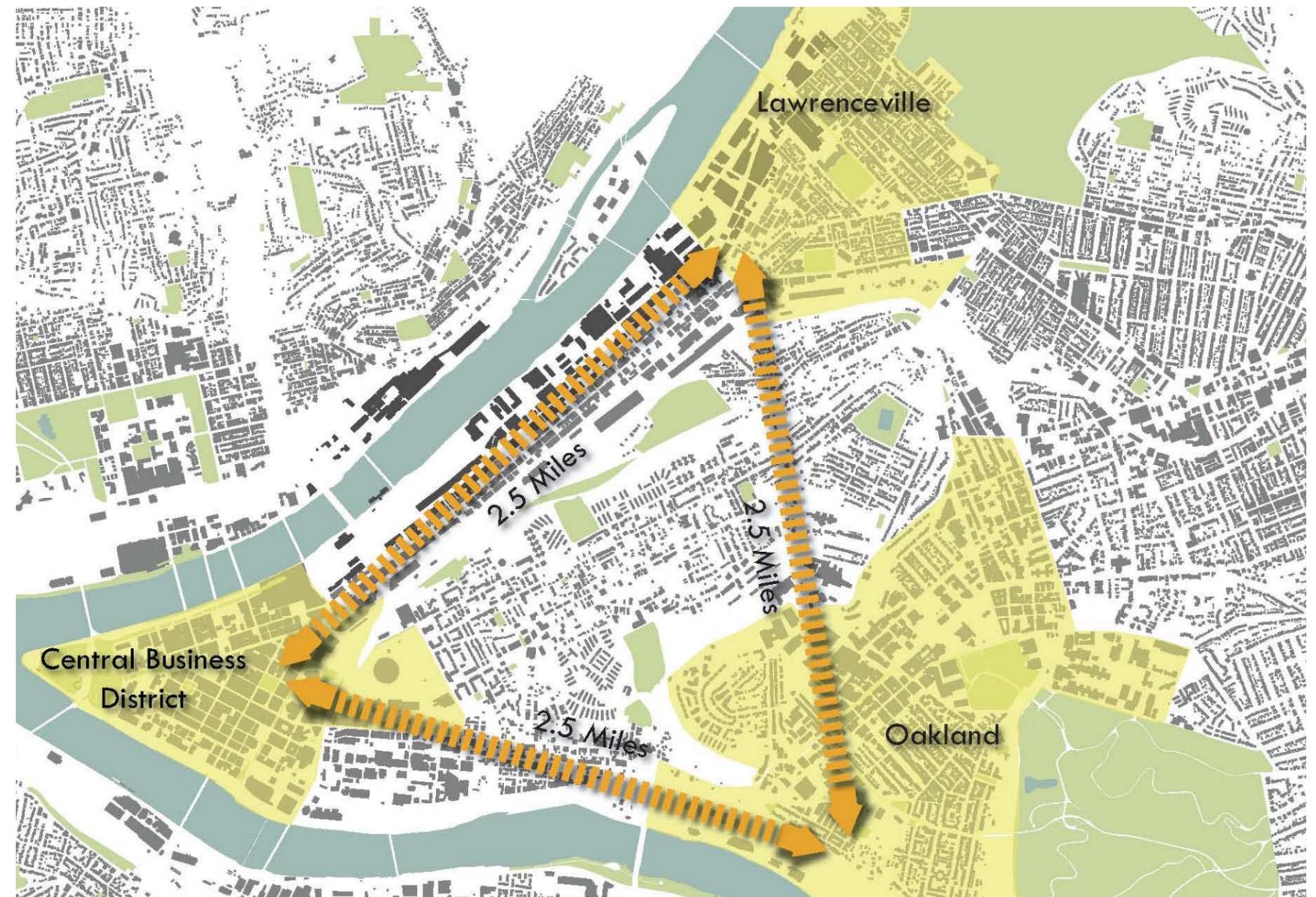
The center of Lawrenceville is equidistant from Downtown and Oakland, which suggests the potential for these three destinations becoming interconnected and complementary. Each is a center of productivity and value creation for the city: Downtown is the center of finance and management; Oakland is the center for innovation and education; and the Allegheny Riverfront is well-suited as a center of service for both Downtown and Oakland. The Allegheny Riverfront has a vital role to play in this new triangle—a resource of people, business, and industry. The complementary productivity of all three suggests a new definition of the Golden Triangle. No longer just the triangle of Pittsburgh’s corporate downtown, this “New Golden Triangle” links these three vital centers of Pittsburgh’s future.

the “new golden triangle” offers strategic resources

Community Themes

Although the Strip District and Lawrenceville are separate neighborhoods, they share very similar concerns, desire similar outcomes, and strongly believe in a collaborative approach to improving their communities. Common themes emerged from the civic engagement process, as well as from their previous plans:

- Reinforce identity and authenticity
- Reinforce the power of place and historic precedent
- Build on current social and physical assets
- Connect neighborhoods to the river
- Improve connections within the Allegheny Riverfront and to the city
- Resolve auto and truck conflicts
- Provide new open space, trails, and a pedestrian-friendly environment
- Encourage economic development of housing and retail within a mixed-use context



The Downtown and Oakland legs of the New Golden Triangle meet at 40th and Butler Streets: a location with good north, south, east and west access and, in market terms, Lawrenceville’s 100% corner. It is also noteworthy that the center of the Strip District is in the middle of the Downtown-Lawrenceville leg of the triangle, well-situated to stand alone as its own destination, yet close enough to encourage greater interaction between Downtown and Lawrenceville.

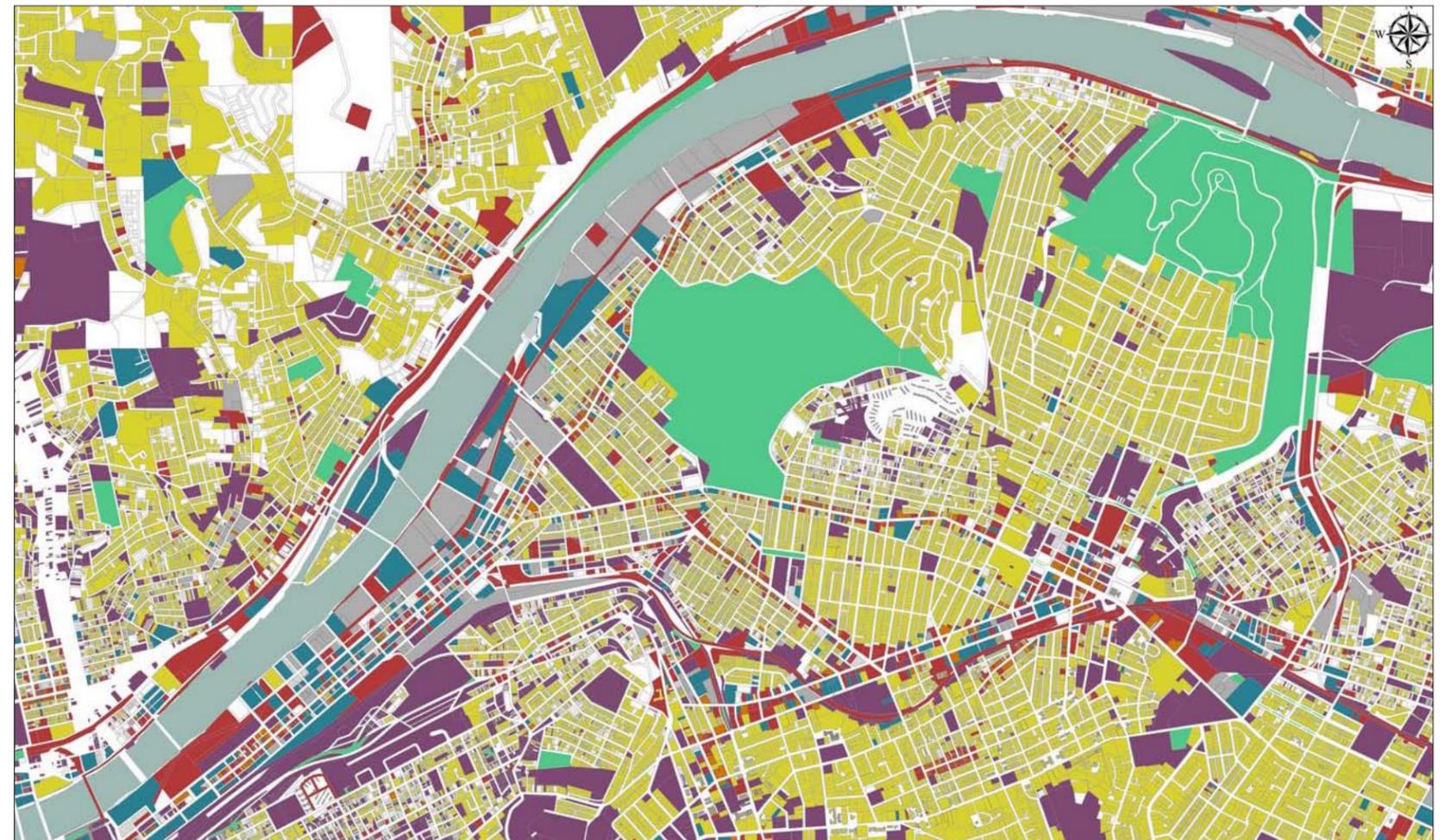


existing land uses

It's hard to get around the fact that the Allegheny Riverfront was designed and built for another time. The fabric is a clear documentation of 19th century community values and technology, where riverfront industry and commerce dominated the landscape. Movement of goods, essential for commerce, required an infrastructure of railroads and barge piers. The natural environment was sacrificed to provide as much land as possible; and the land, including its steep slopes, was stripped of trees and vegetation. Investment in infrastructure was kept to a minimum. Streets were for walking and horse-drawn traffic, not today's automobiles and large trucks. The quality of life was rough and frugal. Today the effects of those decisions are seen in traffic conflicts, empty warehouses, parking lots, and weeds—ironically in one of the most privileged locations in the city.

major issues

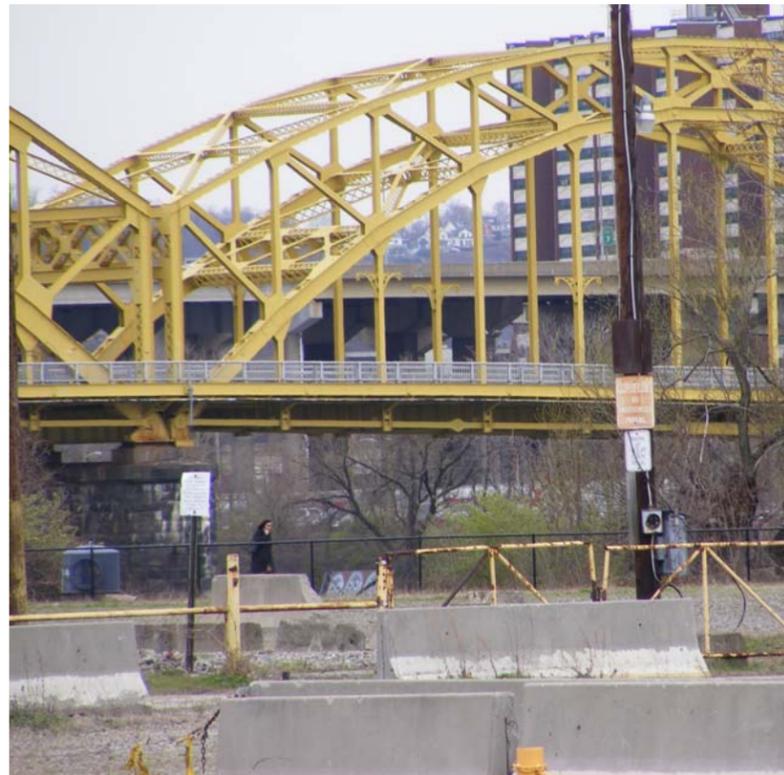
- Commercial
- Office
- Industrial
- Institutional
- Residential
- Mixed Use



Large riverfront properties, while diverse, are disconnected from adjacent neighborhoods east of 31st Street



View corridors to the river blocked by buildings



Riverfront trail has little interaction with riverfront neighborhoods

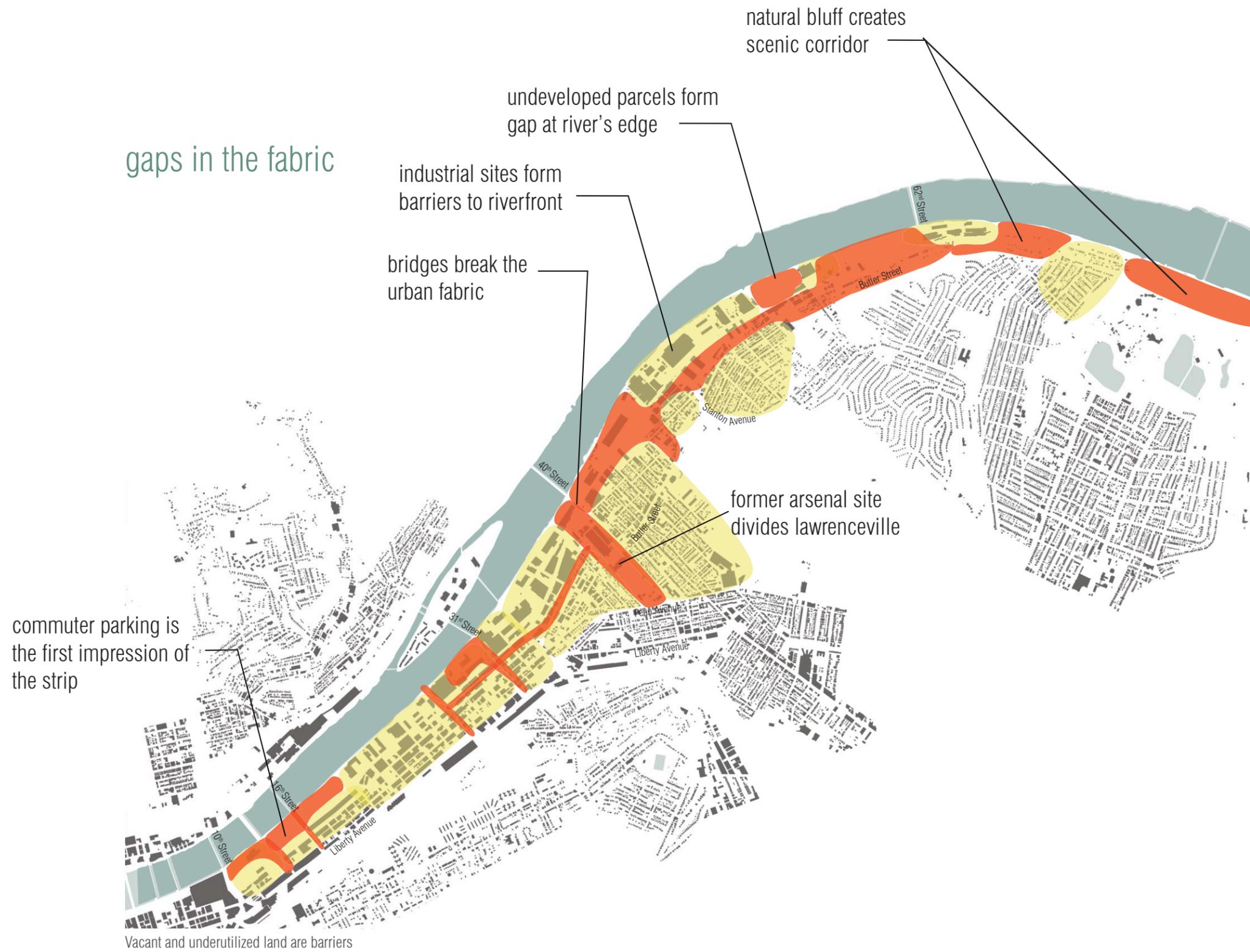
Disconnect Between the River and the Communities

The Allegheny Riverfront Area's largest parcels are the industrial sites along the riverfront. Most buildings are low, flat, and large. Some older buildings are steel sheds, remnants of steel industry rolling mills but many date from the 1950's to 1960's era, with little architectural merit. Behind the mill sites are several blocks of smaller warehouses, industrial buildings, and retail establishments, with worker housing mixed in. On the riverfront itself, only one structure, the repurposed Armstrong Cork Factory, is devoted to residential uses. General Industrial (GI) and Urban Industrial (UI) District zoning are predominant along the riverfront. The zoning allows a mixture of uses including residential; however, it is clear the City's current land use policies, as reflected by the existing zoning, favor an industrialized riverfront.

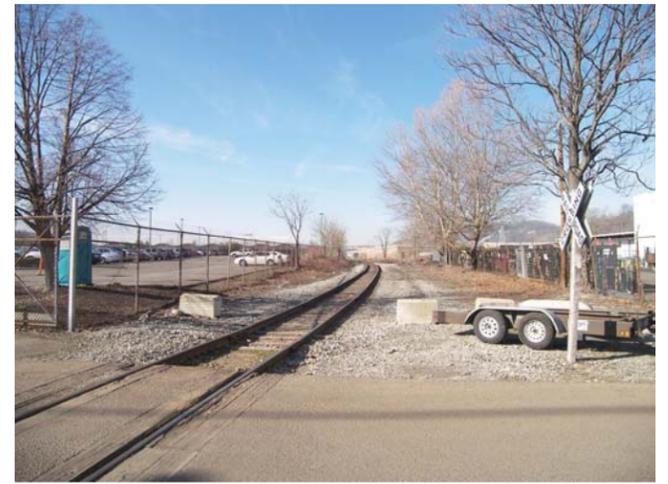
From inside the Strip District and Lawrenceville neighborhoods, the river is nearly invisible. Except for residences atop the slopes, the river can't be seen because it lies 20' to 25' below the riverbank's steep edge. Many view corridors to the riverfront are blocked by buildings or tall towers that support electrical lines connecting one side of the river to the other. The street grid stops short of the river's edge to allow for the large industrial sites. Only two streets connect the Lawrenceville neighborhood to the river, 40th and 43rd Streets. Several in the more industrial and wholesale oriented Strip District east of 21st Street make it close to the river. While Lawrenceville is a more residential neighborhood than the Strip District, the industrial zone is deeper and a greater barrier to the river. The neighborhoods we see today did not grow as riverfront communities, but as (riverfront) industrial communities.

In addition to the industrial plants, railroad lines historically cut off neighborhoods from the river. Most of the rail yards are long gone and converted into warehousing banks and parking lots. On the remaining rail right-of-way and generally one parcel inboard of the riverfront, the AVRR serves industrial uses from 21st Street to around 55th Street and continues east past Highland Park to communities farther up the river.

gaps in the fabric

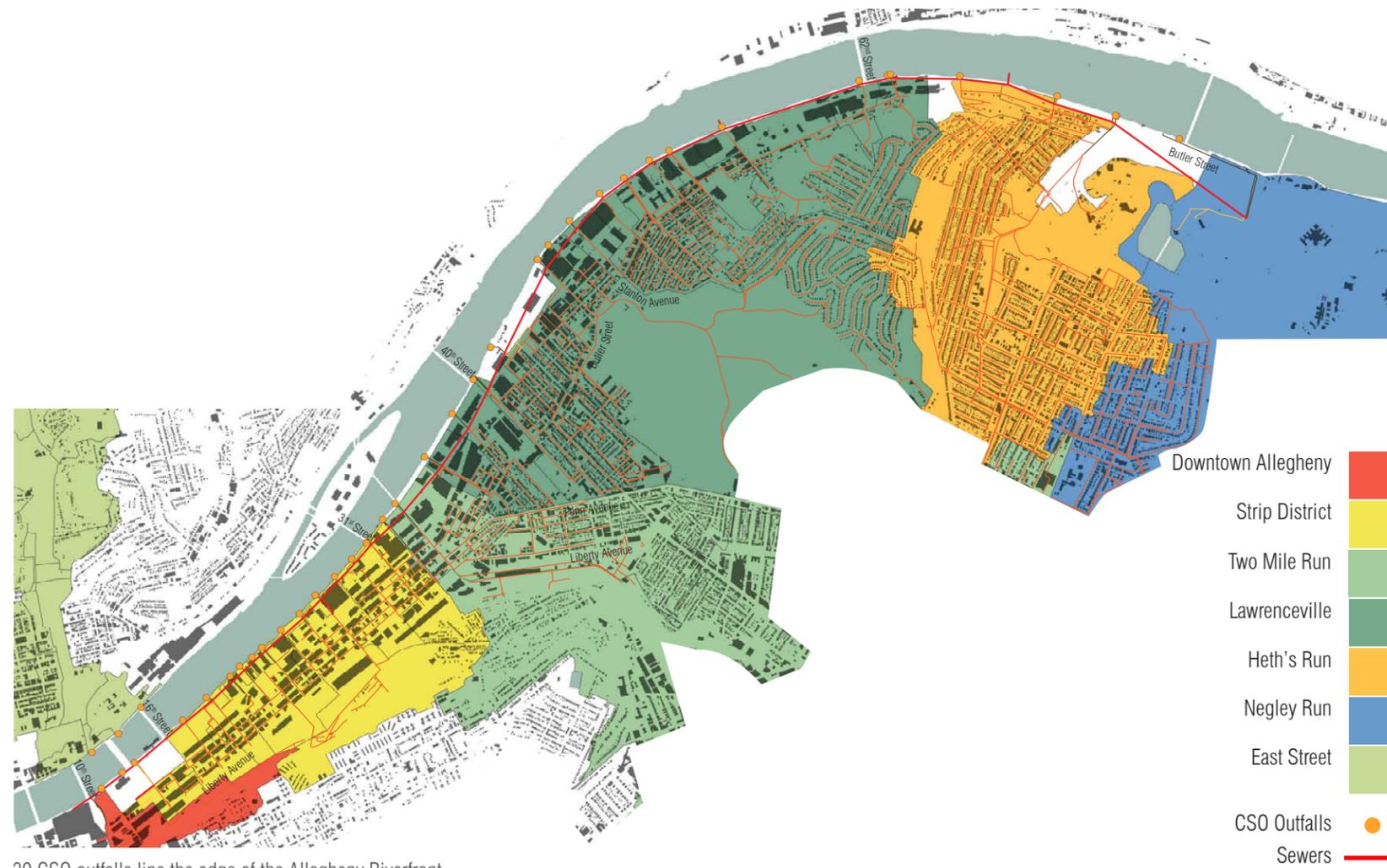


Former Arsenal site divides Lawrenceville



Allegheny Valley Railroad tracks cut off neighborhoods from the river

sewersheds



39 CSO outfalls line the edge of the Allegheny Riverfront

- Downtown Allegheny ■
- Strip District ■
- Two Mile Run ■
- Lawrenceville ■
- Heth's Run ■
- Negley Run ■
- East Street ■
- CSO Outfalls ●
- Sewers —

Degraded Environment and a Non-Functional Ecology

The Allegheny River was difficult to navigate until the construction of a series of locks and dams by the United States Army Corps of Engineers early in the 20th century. This allowed the river to become a significant part of the inland waterway system that moves bulk materials down river to the Ohio and Mississippi. The construction permanently altered the ecology of the river, changing it from a highly variable river to a series of long lakes. In the process of controlling the river, small islands situated along the riverfront were filled and became part of the upland community. The new "fast land" was quickly occupied and filled with structures and residences, so that soon no evidence of islands or the original river edge remained. In addition, many streams, which still exist today, ran down the steep slopes into the river, though they have been piped and encased into the urban storm sewer system.

With development, virtually all of the original vegetation was removed from the land, taking all but the hardiest of flora. Today with the exception of a few open spaces, vegetation consists of trees planted along streets or clinging to the riverbanks. The remainder of the land is hard packed soils or impervious surfaces. Consequently, the area's natural hydrology is generally non-functional. Of the regions 38" of annual rainfall, only 2" are returned to the atmosphere by its vegetation; very little infiltrates through the soil mantle; and as much as 36" is runoff from impervious surfaces. The rest (95%) of the rainfall is transported as untreated runoff water through the city's combined stormwater and sanitary sewers, with much of it flowing directly into the river via the 55 combined sewer outlets (CSOs) along the Allegheny Riverfront during moderate and heavy storms.

Infrastructure along the riverfront is primitive, the minimum needed to support the industry of the 19th century. Compared to other Pittsburgh neighborhoods, there are few public improvements and little public open space, parks, or trails. The largest open spaces are the private Allegheny Cemetery and the unimproved Allegheny Valley Railroad's right-of-way between 33rd Street and Highland Park. Arsenal Park and the Leslie Park ballfield are the only designated city park spaces. Maintenance of the infrastructure is an on-going issue in Pittsburgh due to the City's perpetual financial difficulties and the neglect is evident in the streets, parks, and public spaces in the Vision Area.



Poor Movement and Connections

The linear geography of the Riverfront Vision Area makes crosswise movement difficult. Bridges are needed to cross the river and they are spaced progressively farther apart, the farther they are from Downtown. Steep slopes in the Strip District and the Allegheny Cemetery in Lawrenceville preclude good connections to the near East End. There is a lack of transit cross connections to important destinations in Oakland.

The best street connections follow the river, but even so, travel by car or bus is often congested. Movement is restricted by narrow streets, an abundance of automobiles, and oversized trucks. Trucks, autos, pedestrians, bicycles, and freight rail all compete for street space. Parking is scarce for retail activities and businesses, while residential areas are beginning to feel the effects of two-car families. Between 33rd Street and Downtown there are several parallel streets providing choice, however east of 33rd Street only Butler Street is continuous through Lawrenceville. At 40th Street the only through-street is Butler Street, requiring all movement to funnel to 40th Street and Butler, the area's most congested intersection. The other primary movement restriction is the Allegheny Cemetery which blocks all traffic between Butler Street and Penn Avenue. Pedestrian and bicycle traffic is relegated to the same streets as automobiles and trucks throughout the Allegheny Riverfront and the short segments of riverfront trail provide no relief alternative.



Truck and automobile congestion is not conducive to business nor is it friendly to cyclists or pedestrians

existing street hierarchy



No distinction between movement of goods and movement of people



Little perceived value of property near the riverfront

Not Perceived as a Place to Invest

Lack of serious investment since the 1950's and 1960's in the Riverfront Vision Area, particularly between 11th and 40th Streets, contributes to the perception of the area as one of the city's "back yards." Many properties are used by City and County services, parking storage grounds for trucks and school buses, industrial service uses, and parking lots. Most new buildings are pre-engineered steel shed service or warehouse structures or flex buildings. These are all signs of little perceived value of property, low-value of investment, and even disinvestment where low-investment structures dilute nearby land values.

Generally, the Allegheny Riverfront Area is not perceived as a place to invest. The land along the riverfront is controlled by a relatively small number of landowners and, given the large parcel sizes and present market conditions, its redevelopment will be slow. Even with the high number of vacancies, available properties are generally only for lease and few commercial and industrial properties are for sale. Although many talk of the great potential for the riverfront, recent riverfront investment has occurred only at the Cork Factory, the Crane Building next door, and distribution/flex facilities at 33rd and 51st Streets. Investment by The Buncher Company, the largest landowner along the riverfront, has generally been low-risk flex industrial/commercial buildings. Except for a few spots along Butler Street, the Allegheny Riverfront Area has yet to be seen as a safe and stable place to invest by the development community. Lower Lawrenceville and the Upper Strip District are such a mixture of uses they have not established a clear identity, even with the conversion of former warehouse buildings into desirable residential and office uses.

This low level of investment in the Allegheny Riverfront Area creates a setting that is incompatible with better quality residential and commercial development. Example after example of best practices demonstrate that the combination of residential development, good transit, and good public space drives the market for commercial/retail activity, related business services, and eventually new jobs. Continuing to build risk-adverse, market-driven, low-cost space with little investment keeps values low, preventing higher appraisals that could raise the overall quality of investment. It is a self-perpetuating condition that will continue unless there is a concerted effort to invest in higher quality development and in making a more livable community. Given the present and foreseeable market, it will take several major transformative or catalytic projects through public-private partnership to break out of this present situation and forge a new investment climate.

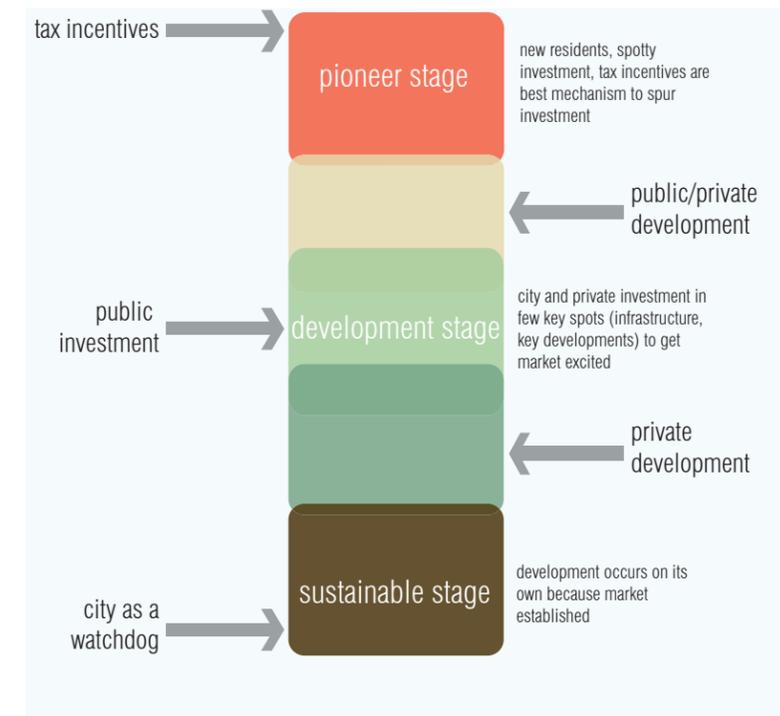
What we see today—which is almost all right—is what remains of an economy and a society that has disappeared. Over the course of the 20th century, the Riverfront Vision Area lost its large-scaled industrial driver—its fundamental reason for being. The banality and neglect are the physical expression of the subsequent disinvestment and the failure of confidence and imagination. The best of what is there is an authentic legacy of that history and its optimistic view of the future.

The Timing is Right

The importance of timing cannot be stressed enough. Successful cities have understood that the right timing is critical and took advantage of the anticipation and sense of urgency among stakeholders that something is about to, or needs to, happen. Government seizes the moment, intervenes, and begins a planning process that builds consensus, sets direction, and commits to investing by providing tax or zoning incentives, purchases property for development, begins to install infrastructure, or some combination of these. Successful precedent cities evolved over three recognizable stages, irrespective of the timeframe:

- Pioneer Stage: New residents move in because of low cost, desirable space, or enjoy being pioneers. Investment is spotty and unplanned. The location is beginning to establish an identity and generate interest.
- Development Stage: Government and private industry partner to spur the market with key developments and infrastructure.
- Sustainable Stage: Market self-sufficiency.

Governmental actions typically occur late in the Pioneer Stage. If the opportunity is missed, change will occur elsewhere where market interest is on the rise. The Allegheny Riverfront is near the end of its Pioneer Stage.



approach

There is momentum underway within the Allegheny Riverfront Area that is beginning to push for something to happen. Lawrenceville has been planning. The Strip District is already beginning to see it happen. The development community is aware that the timing is right. The City is aware and has begun to take the first steps.

This is a chance to redefine, enhance, and advance the Allegheny Riverfront Area to serve the future Pittsburgh and set an agenda for revitalizing the city's riverfronts. The approach is to create a "new" infrastructure from what's "all right" that recognizes 21st century values and the resurgence of city living as a desired alternative, to do so strategically, and to make it sustainable over the long term.

Vision Goals

Six overall goals emerged to guide the planning. The 10 Principles of the Vision Plan for Pittsburgh's Riverfronts were the starting point. From there the Design Team began to merge what was learned from the context research, interviews, and community feedback recorded through community and project progress meetings, design charrettes, and focus discussions, then began to modify them from broad community themes to goals specific to the Allegheny Riverfront's visioning.

- **Goal 1: Increase Economic Vitality**
Maximize investment possibilities for long-term resilience and develop at sufficient density to support sustainable urban infrastructure and services, including viable public transportation.
- **Goal 2: Improve Connections to the River and the City**
Increase public access to the riverfront and the river, increase connections between riverfront neighborhoods, and make better connections to other centers of resources, particularly Oakland and Downtown, to improve the Allegheny Riverfront Area as a desired civic resource.
- **Goal 3: Restore and Enhance Ecological Character and Quality**
Recognize stormwater and vegetation as natural resources for a healthy ecology.
- **Goal 4: Develop Complementary Uses and Amenities**
Enhance the experience of the river's edge with new recreational, commercial, residential, and cultural uses recognizing the need for compatibility.
- **Goal 5: Create Beautiful and Memorable Places Built upon Natural, Historical, and Present Resources**
Give the city a new "front door" orientation toward the river and identify opportunities for authentic and distinctive "places" within the Allegheny Riverfront Area.
- **Goal 6: Plan for Sustainable Development**
Plan for incremental and adaptive development to occur over space and time, build to sustainable standards, and create a model for future riverfront development in the city and the region. Create a regenerative and green agenda to guide development. Engage stakeholders in catalytic interventions that will leverage future development and create strong and lasting partnerships among the stakeholders.



Increase the quality of life throughout the Allegheny Riverfront



Regenerative Development

The concept of sustainable development, “meeting the needs of the present without compromising the ability of future generations to meet their own needs,” has generally been interpreted in terms of greater efficiency and less waste. To create a sustainable society, though, we must do more than stretch our resources. Good stewardship in our use of energy, land, and materials is indeed highly beneficial but perpetuates the fundamental problem of turning whatever resources we have into waste (albeit more slowly), whether landfills or pollution, which will ultimately compromise our quality of life.

Realizing that today we need a better model of sustainability, we are looking to natural ecosystems as models for solutions not only to environmental problems, but to social and economic issues as well. The fundamental characteristic of ecosystems is that they sustain themselves by continuous cyclical regenerative processes—processes that restore and renew their own sources of energy and matter. Ultimately, for human development to be sustainable, we have to figure out how to take part in these cyclical processes, since the alternative is progressive degradation.

This approach has informed all four components of the Allegheny Riverfront Vision Plan: ecology, connections, market, and urban form. In the ecological domain, we have focused on sustaining the quality of our natural resources, especially on the quality of water and our rivers. Our approach has been not to identify isolated problems, such as sewage overflows, but to examine the full hydrological cycle, understand why it’s not working, and find ways to restore it. We take the same approach to our built environment, our infrastructure, and our systems of movement and production.

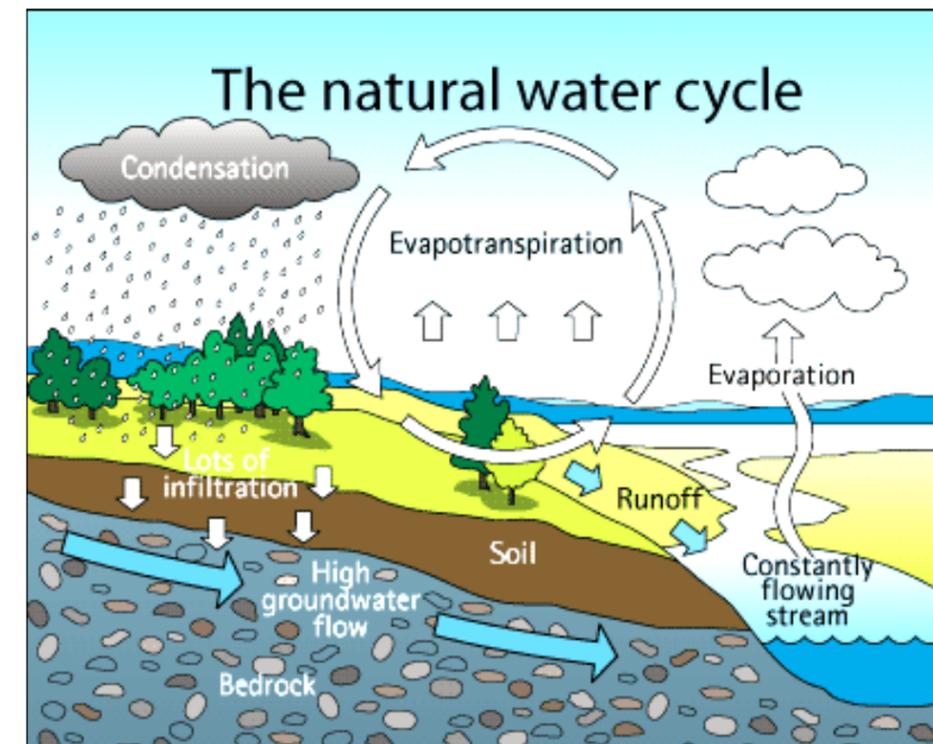
In the domain of “connections,” we recognize that circulation systems are by nature continuous and cyclical, whether they exist to transport nutrients or people or freight. In the Riverfront Vision, we see movement systems as an integral element of a regenerative city: to create a well-functioning urban transportation system, we look to minimize the use of pollution-producing vehicles; to introduce new and better inter-modal connections; to improve access and accessibility; and to enhance the positive effects of both vehicles and rights-of-way on private property.



Regenerative environments sustain themselves, whether they be ecological, connections, market, or urban form

In terms of market, our approach is to build the resilience of a regenerative community by creating opportunities for an interactive mix of uses and by encouraging synergies among them. As is evident from existing conditions, a mix of uses in itself is not sufficient to ensure economic vitality and eliminate conflicts, such as truck traffic through residential neighborhoods, nor is it sufficient to generate a thriving economy. A regenerative community needs to sustain its own population base over time, with the resilience of diversity, social bonds, and investment in human development. Residential development fuels the economic metabolism of the community, but local businesses, better educational facilities, and community-supported services and recreational amenities also have an integral role if they support and strengthen continuing investment. Lasting economic vitality can be developed only by creating a “cycle of reinvestment” in the community.

With regard to envisioning urban form, our goal is based not only on the principles of good urban design, but even more fundamentally on turning land and buildings into self-renewing resources which sustain their value over time. In a regenerative environment, development must not only meet standards of quality of construction and design, but also contribute to the value of property around it (which of course protects its own value). Similarly, buildings will sustain their value over time only if they are well-built and can be converted from use to use.



alleggheny riverfront vision plan

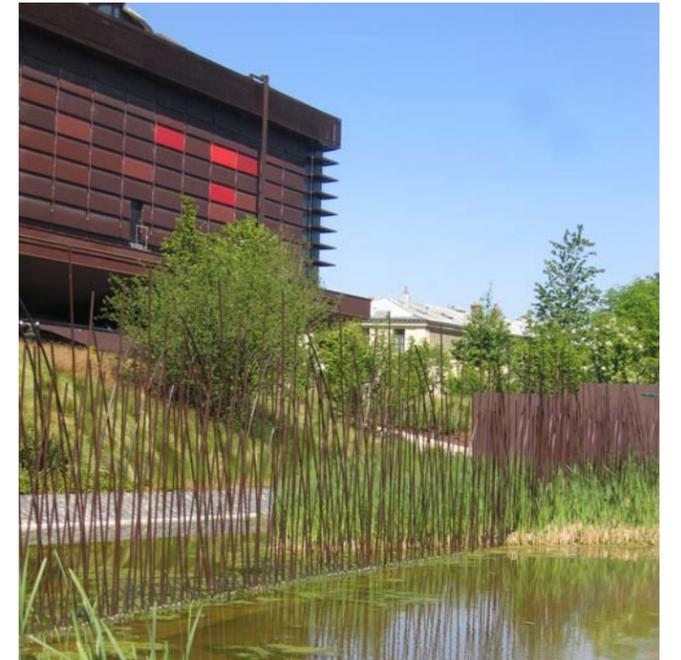
IMAGINE an Allegheny Riverfront Where:

- Young families move because of the healthy, green environment and the affordable houses
- There is a wide variety of incomes and family types alongside new industries
- Residents can walk to restaurants, shops, and entertainment activities—which also draw people from all over the city
- Sense of community is strengthened by improved street linkages and new forms of public transit, which also connect Lawrenceville to Downtown and Oakland
- Pedestrians and cyclists are encouraged, and are separated from heavy vehicular traffic
- Public open spaces invite kids to ride their bicycles to the river and friends to take long walks, or sit and watch the boats pass by
- There is more river activity, from people taking their kayaks to work to water taxis, boating, and fishing
- There is a return of flora and fauna and a normal hydrological cycle, which no longer contributes to sewage overflow and pollution of the river or drinking water

Imagine an Allegheny Riverfront that is a model for Pittsburgh riverfront communities.

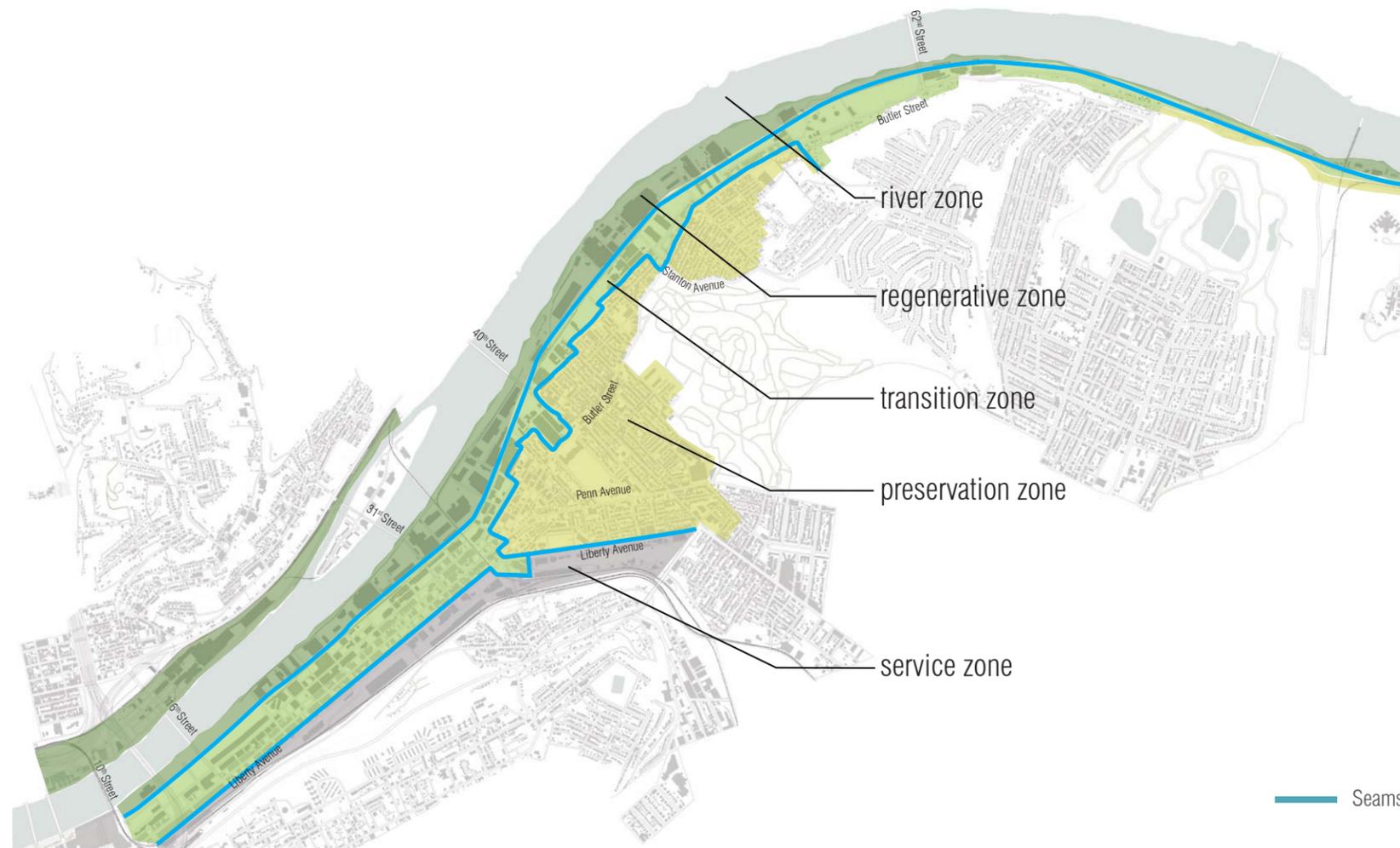
“For decades, Pittsburgh’s riverfronts were used as transportation corridors for industrial production, and the land surrounding them did not connect to our communities. Today we recognize the riverfronts as our most treasured assets that have tremendous potential to improve our quality of life. We now have the opportunity to reconnect our neighborhoods, reclaim these waterways as amenities, and provide new venues for recreation.”

~Mayor Luke Ravenstahl



Urban living is enhanced by walkable and green amenities

linear zones of the allegheny riverfront



Linear zones define character

Principles of the Vision Plan

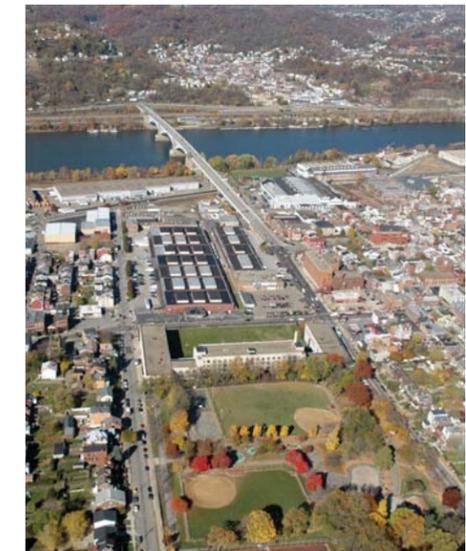
Our approach was to analyze five dimensions of the Vision Area to understand it in greater depth. Overlaying them on each other, we find resonances and alignments that give rise to the overall vision. Spatial, Ecology, Connections, Market, and Urban Form frameworks form the foundation of the ideas and concepts of the Vision Plan. Each framework provides the basis for the recommendations that follow.

Spatial Principles

Industrial technology and the 19th century grid established an order of land uses and infrastructure that supported the area for well over 100 years. Today's ideas of urban living have changed, including new attitudes towards city living and the role of the river. The spatial framework recognizes that the Allegheny Riverfront is comprised of linear zones that parallel the river and separated by linear seams, such as major east-west arterials, which are divided into neighborhood sections by perpendicular seams, such as bridges. Urban fabric may be seen as a grid, or rather a series of grids, but it is also important to perceive it as a network of distinct zones that offer both order and flexibility. Streets that parallel the river mark distinct changes in density, scale, and stability. The new order, aligned with natural processes, is not a strictly defined hierarchy, but rather a dynamic balance. What seems like a lack of order is often a deeper and more resilient order.



The elongated east-west blocks and large-scale riverfront buildings accentuate the linear nature of the riverfront.



Bridges and other perpendicular seams divide the linear grid into neighborhood sections.

Five distinct linear zones—river, regenerative, transition, preservation, and service—provide a place-making structure. The “river” zone is the Allegheny River, the city’s recreational river and source of its drinking water. The “regenerative” zone describes a new Pittsburgh riverfront, with an emphasis on mixed uses that are residentially compatible and includes amenities that appeal to workers and residents alike, built upon values intended to revitalize and enhance the riverfront. The “transition” zone, between the railroad and the major Allegheny Riverfront Area’s arterials, recognizes the strong mixed use and authentic nature of this zone and its existing building stock—an asset of both the Strip District and Lawrenceville. The “preservation” zone is the residential areas of Lawrenceville. The “service” zone, the area south of Liberty Avenue, contains uses similar to the transition zone, yet is out of the mainstream and is a good location for city services and other out-of-the-way service resources.

1. Differentiate development strategies by zone

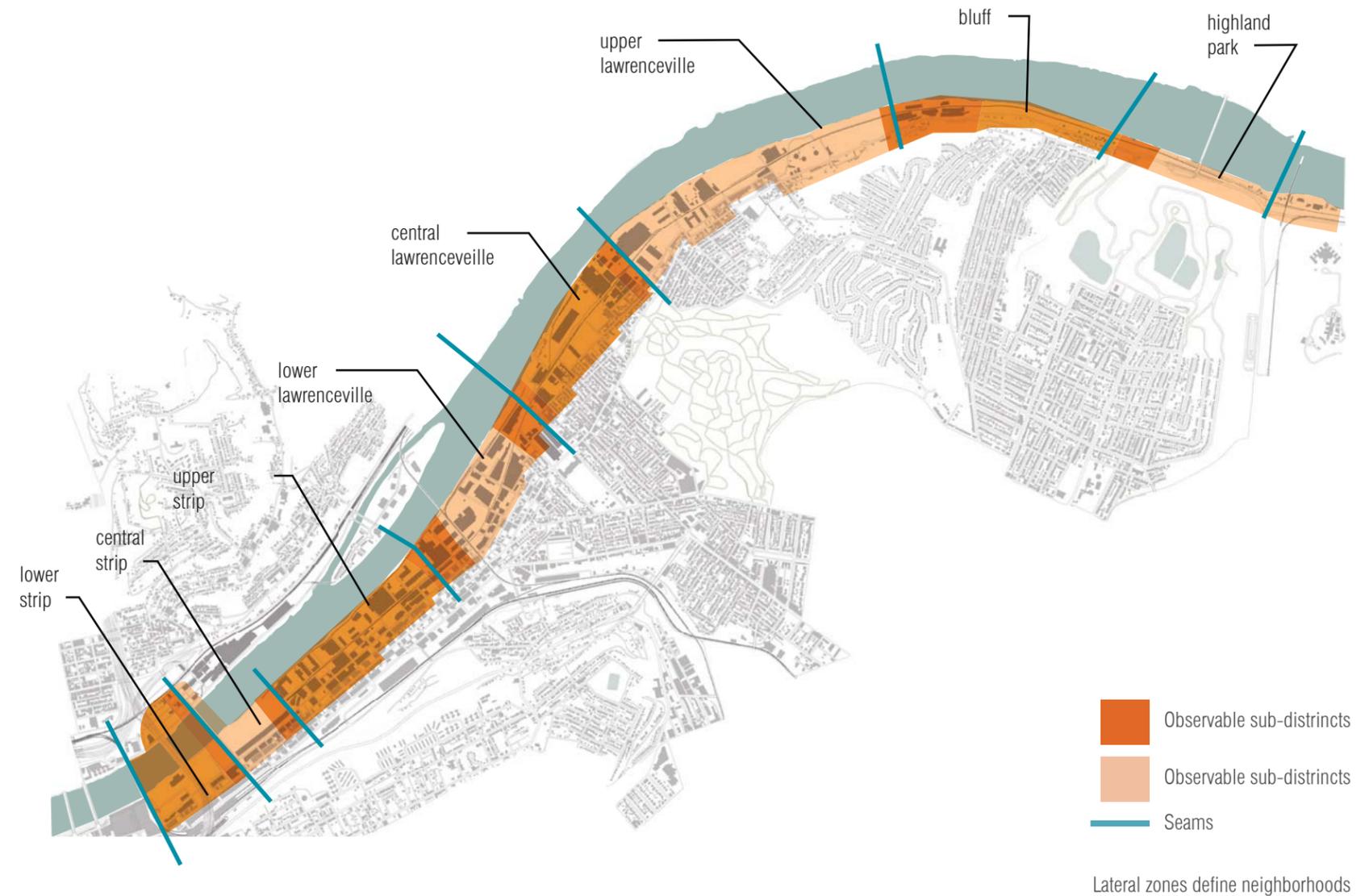
The five distinct zones—river, regenerative, transitional, preservation, and service—provide a place-making structure. Different development policies and strategies are called for in each zone.

- The “river” zone is a regional resource in need of public access, ecological restitution, and protection.
- The “regenerative” zone calls for the construction of a new fabric of buildings, infrastructure, and natural spaces. Conceived as a public amenity and model for future riverfronts, the intention of this zone is to remove the past’s heavy industrial connotation and replace it with the certainty of multiple land uses, infrastructure, and the zoning needed to encourage future investment.
- The “transition” zone requires more infill and adaptive reuse.
- In the stable “preservation” zone, the emphasis needs to be on preservation and affordability.
- The “service” zone can become a resource center for the city.

2. Reinforce linkages

- The AVRR right-of-way extends almost the full length of the Allegheny Riverfront and has the potential to become the front door to riverfront development, a transit corridor, and a public and environmental amenity.
- Butler Street and Penn Avenue can be enhanced as the centers of community life and regional draw.
- Former streams and public open spaces should be acknowledged as extensions of the green hillsides linking the valley edges to the river.

lateral zones of the allegheny riverfront





Ecological infrastructure can increase value and attractiveness

Ecological Principles

The natural system of land and water that forms the waterfront ecology is bound together by these three elements: rain, soil which holds the rain, and the vegetation that returns the rain to the atmosphere. Without any one component, the system fails to sustain life as we know it. Recognizing that a healthy ecological system is essential not only to our own health, but also to our prosperity and cultural development, it is an essential goal for developing the Vision Area.

1. Restore the hydrologic cycle by capturing stormwater

CSO sewage dumped into the Allegheny River with almost every rainfall ultimately harms those communities who draw their water from the river system. This CSO overflow/water quality issue is the single greatest environmental issue facing the Pittsburgh region. In the city only 2" of the annual rainfall is returned to the atmosphere—the remainder 36" enters the sewer system. The Vision Plan seeks to begin a process of change that could serve as a model for the Pittsburgh community: restore the hydrologic cycle and keep the rain out of the sewer system. This can be achieved when we capture and hold every 1" and less storm on-site with every new and redevelopment opportunity.

2. Rebuild a healthy and functional tree canopy

Trees are powerful "machines" we need to put to work—the Vision Plan seeks to create a habitat that humans will live and work in during the next century that is healthy, safe, and sustainable – a Green City. The 40% canopy goal is based on the best science available required to restore air quality, reduce CO2, sustain the hydrologic balance, and provide a long list of amenities for humans that are difficult to quantify but are obvious to most of us. Given the existing impervious footprint, the major opportunity for this new/old tree canopy is along the river's edge.

3. Create a riverfront riparian buffer along the Allegheny River

Creating a riverfront riparian buffer is directly interrelated with the canopy goal, because it is the portion of the Allegheny Riverfront that offers the greatest opportunity to re-establish tree cover in significant and continuous areas. No matter how much of the Allegheny Riverfront Area is available to rebuild over the next century, the existing residential communities will most likely remain intact, and while we may build street tree corridors and rain gardens in selected locations, the bulk of available undeveloped land is along the riverfront. A 200' wide buffer is required to reintroduce the habitat necessary to support the return of such valuable ecology and wildlife.

4. Transform the AVRR right-of-way into a green corridor

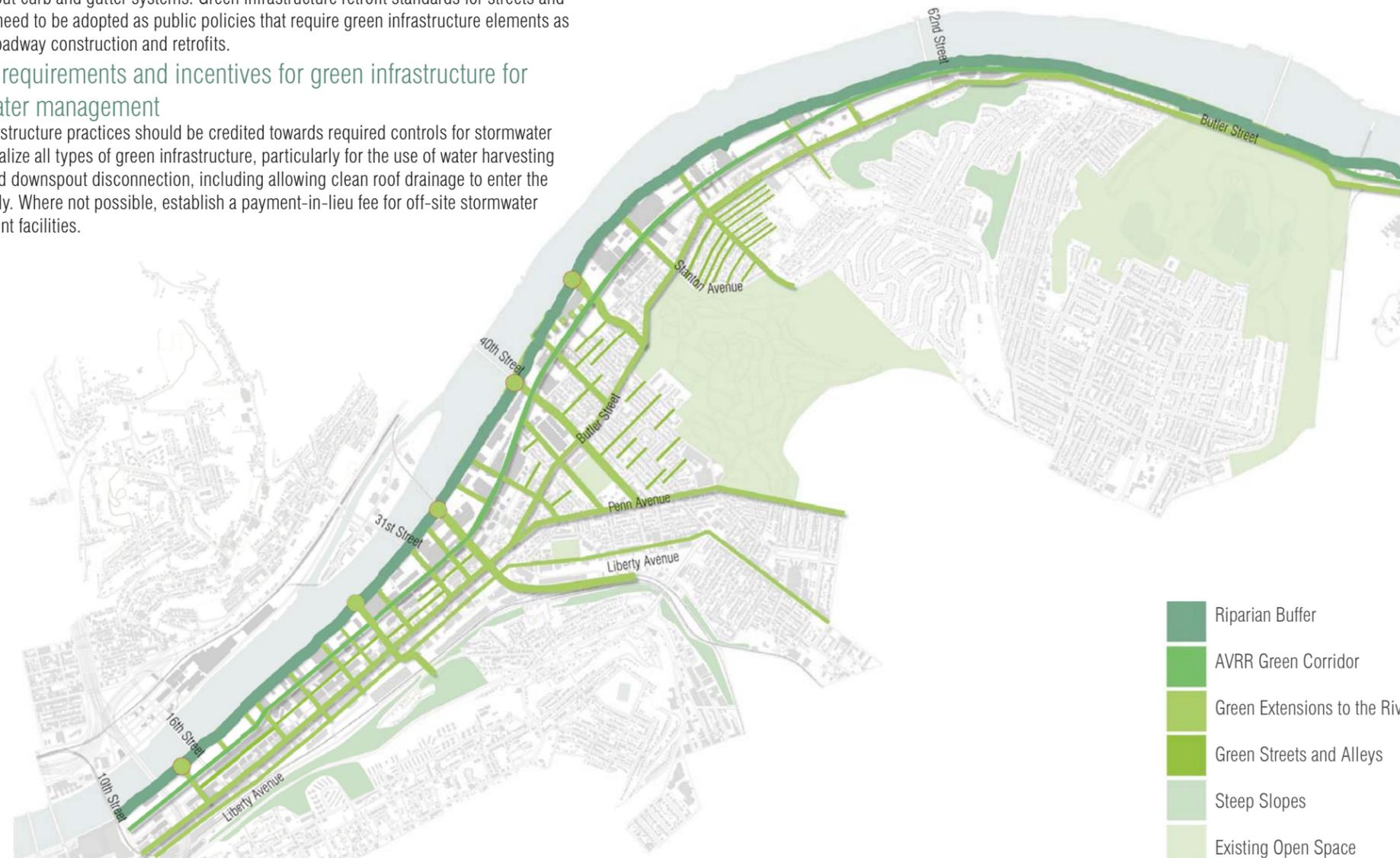
The existing AVRR right-of-way has the opportunity to become a green space. The form and dimensions of this corridor will vary, however the basic design elements should be consistent with the larger pattern of new vegetation throughout the riverfront.

5. Create a network of green streets and alleys

Seek to reduce overall imperviousness and encourage streets to be no wider than necessary to move traffic effectively. Construct driveways and parking spaces with pervious systems, revamp local street specifications to allow context-sensitive street design with narrower travel lanes without curb and gutter systems. Green infrastructure retrofit standards for streets and alleyways need to be adopted as public policies that require green infrastructure elements as standard roadway construction and retrofits.

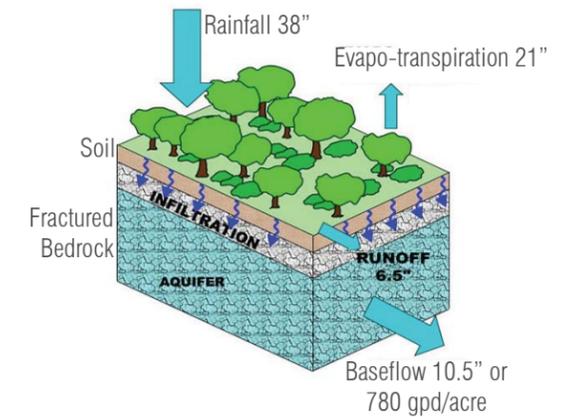
6. Provide requirements and incentives for green infrastructure for stormwater management

Green infrastructure practices should be credited towards required controls for stormwater runoff. Legalize all types of green infrastructure, particularly for the use of water harvesting devices and downspout disconnection, including allowing clean roof drainage to enter the river directly. Where not possible, establish a payment-in-lieu fee for off-site stormwater management facilities.

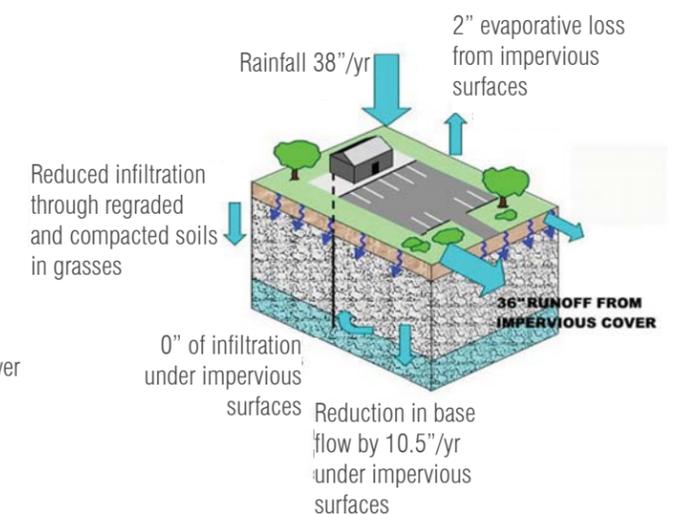


A network of green streets, alleys, open space extensions between the river and large open spaces and river valley bluffs, in addition to the railroad right-of-way green corridor and the riparian buffer, along with a heavier tree canopy will provide the green infrastructure to restore the hydrologic cycle and greatly reduce CSO outflows.

ecological green street network



Annual hydrologic cycle for an undisturbed acre in the Allegheny Plateau. Data Source: Cahill and Associates, based on historic rainfall records (NOAA, 2007)



Annual hydrologic cycle for a developed acre in the Allegheny Riverfront. Data Source: Cahill and Associates, based on historic rainfall records (NOAA, 2007)



Provide new transit options and encourage walking and cycling

Movement Principles

The Allegheny Riverfront Area's connections reflect the lineal nature of the physical environment with good connections in the east-west direction, particularly between the Strip District and Downtown, but poor connections between local residential areas, access to the riverfront, and between the Allegheny Riverfront and Oakland. The Connections Framework identifies a series of structural changes to overcome the grid's obstacles with new transit and pedestrian possibilities, classifying streets by preferred movement types, and introduces parking strategies to enhance business needs. It also suggests short- and long-term strategies to help resolve truck conflicts.

1. Introduce new commuter line and trolley services as alternatives to the automobile

A new multi-modal transit system will increase the Allegheny Riverfront Area's business and connections opportunities. Adding a light rail commuter line to the AVRR green corridor and a new urban circulator trolley to the Vision Area's street system will have a profound transportation and economic impact, particularly in the Strip District. These connections to Downtown, with later extensions to Oakland, will position the Allegheny Riverfront as a major resource center and significant intermodal center of the region.

2. Prioritize the street system to facilitate either movement of goods or movement of people

Creating a movement hierarchy that clearly identifies those streets intended as connecting arterials will begin to sort truck traffic from everyday use of the local street system. The hierarchy identifies streets that prioritize pedestrian use and others that prioritize heavy vehicle use to coordinate intersection and other improvements that improve safety and walkability. Combined with the recommended framework of green streets, the Allegheny Riverfront Area will benefit from better traffic flow and a more attractive public realm.

3. Design bicycle and pedestrian paths integral with trails and rights-of-way

Anticipating the long-term implementation of a continuous trail system along the riverfront, a proposed trail network utilizes completed sections of the riverfront trail, the AVRR green corridor, and perpendicular green streets that link them. The result would be a loop network system that provides users with short-term excursions or a day trip that covers all of the Allegheny Riverfront Area. Integrating bicycle and pedestrian paths into the Allegheny Riverfront Area's street system connects users and visitors to centers of these riverfront communities.

4. Create shared parking facilities to support retailing and development

As an efficient use of land and resources, the proposed parking strategy recommends placing large parking facilities at development edges so that people will walk to destinations, rather than encourage parking within individual structures. The goal is to pool resources for mutual benefit. Shared residential parking on the fringes of residential neighborhoods and smaller shared community lots within residential blocks will help lessen the impact of increased residential density as well as more families with multiple cars. On-site residential parking below occupied structures is recommended, while waiving on-site parking requirements is suggested for most high density commercial development. Shared facilities are preferred over on-site parking for all uses.

5. Limit trucking-oriented land uses and eventually regulate truck size in neighborhoods

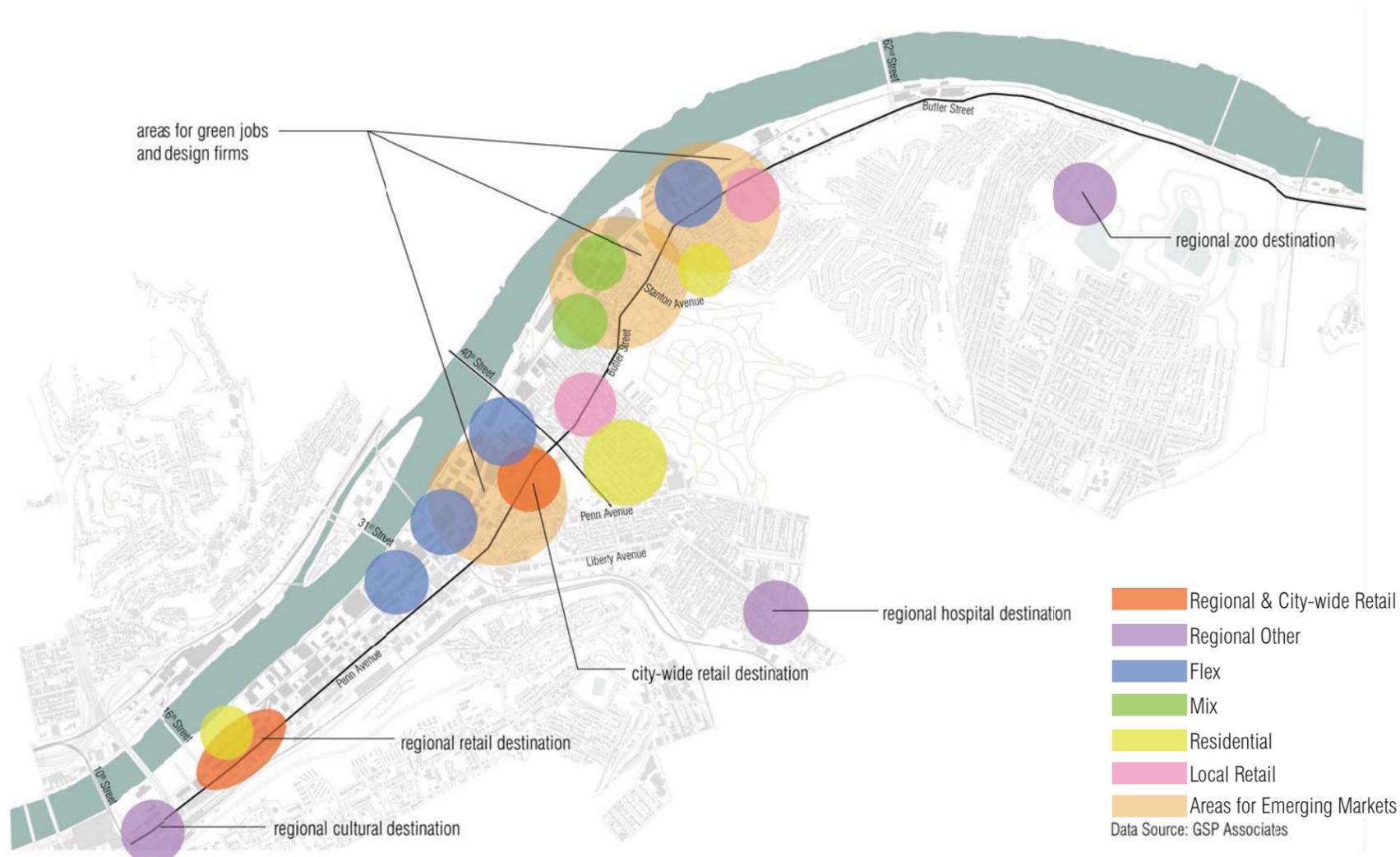
The proposed street system movement hierarchy will begin to sort vehicles and increase flows over the near term, but at some point regulating large truck traffic (semi-trucks) in dense urban settings will be needed. As other cities have already found, two-axle delivery vehicles are more appropriate. Likewise, City zoning regulations should consider limiting trucking-oriented land uses in locations where new and higher density job-producing and residential development is contemplated.

bicycle and walking trails



Walking and bike trails are integrated with the green street network

regional and emerging market areas



Emerging markets concentrate in the Upper Strip/Lower Lawrenceville and east of 48th Street | Data Source: GSP Associates

Market Principles

Market conditions in the Allegheny Riverfront Area reflect the city as a whole, yet there are new uses emerging that suggest potential new markets and development opportunities. Retailing in the Allegheny Riverfront Area has become more dependent on traffic from outside the local area and this has continued to grow despite the lack of a strong residential base to support local service needs. The Market Framework suggests increasing the residential base as a necessary component to the Allegheny Riverfront Area's sustainable future.

- 1. Increase the local residential population**
 Increasing the residential population is one of the most direct ways to support a more varied infrastructure of services and support and one of the most successful in building strong neighborhoods. In the long run, a stronger residential base in both the Strip District and Lawrenceville will benefit the Allegheny Riverfront Area with increased transit, development, and investment.
- 2. Encourage emerging innovation markets**
 With new opportunities emerging in the green and design fields, the Strip District and Lawrenceville are well-suited to capture and nurture a large share of these emerging industries. The building stock and mixed use nature of the Upper Strip and Lawrenceville, along with an industry infrastructure, are already in place for this happen. Partnering with the innovation-based economic development organizations in a concerted effort is a good near-term strategy while in the long term increasing the connectivity between Downtown and Oakland will help sustain and grow these emerging markets.
- 3. Create opportunities to support and expand existing markets**
 The retail and commercial market is growing slowly because of its reliance on outside visitors and abundance of adjacent Downtown space. However, the area's ability to continue to attract shoppers has reinforced its function as a retail destination that provides local benefits and enhances the Allegheny Riverfront Area's city and regional presence. Expanding the residential market will further support existing retail and commercial markets.

development opportunities

4. Increase the Allegheny Riverfront's regional draw

The Strip District is becoming more of a regional and tourist draw as more and more former wholesale businesses convert to hybrid firms also offering retailing services. Redeveloping the center of Lawrenceville by linking the retail activities of lower and upper Butler Street and installing a circulator trolley to 40th Street will transform the immediate area. This will begin to repurpose Lawrenceville's retail and commercial market that, in turn, will strengthen the area's draw as a good place to locate new industry, businesses, and residents.

5. Encourage land uses that strengthen economic development of the Allegheny Riverfront

As the Allegheny Riverfront Area evolves from a heavy industrial and wholesale economic base, the vacant and underutilized land and buildings provide opportunities for new markets, increased density, a higher quality of life, and an improved environment. Adopting an ecological agenda will reinforce the riverfront's attraction and begin to set a new direction for infrastructure and create a stronger draw for businesses and people seeking an urban lifestyle. The Buncher properties in the Strip District and the Heppenstall site in Central Lawrenceville are two opportunities to catalytically change markets. Retaining the existing stock of buildings with flex uses will continue to provide the job-generating base needed for the future. The Allegheny Riverfront Area presents a unique opportunity to demonstrate how urban redevelopment can restore ecological quality while providing economic development for long-term sustainability.



Regenerative Zone
Transformative Project Sites

Regenerative zone and transformative project sites show the most promise for new development



Urban Form Principles

The Urban Form principles aim to achieve a stronger sense of place, local identity, and physical improvements that will increase livability. In transforming the 19th century fabric into a 21st century city, the Allegheny Riverfront Vision will bring mixed-use developments, urban density, walkable communities, and natural amenities.

1. Develop key places to link neighborhoods to the river

There are a number of large vacant sites in the Allegheny Riverfront Area, such as the Buncher properties in the Strip, the Heppenstall site, and the Tippins International site, which can achieve transformative results and play significant and strategic roles along the riverfront. Other key locations link development and green open space extensions to the riverfront. 33rd Street from the Iron City Brewery to the riverfront could be reconceived as a green extension of a former creek bed. 40th Street has the potential to link Penn Avenue and green spaces to the river. When Heth's Run is completed, it will extend the green watershed of Highland Park to the river. Converting the Public Works property at the foot of Washington Boulevard into a public park will encourage public use of the riverfront.

2. Accentuate and reinforce memorable places

Accentuating and creating memorable places will enhance the area's urban character and increase its livability. Identified key places range from quaint neighborhood gems to regional-quality assets. Place-making should be high on the agenda when developing the public realm and new development should be encouraged to "stretch" its design and place-making qualities to enrich these riverfront communities.

3. Maintain an authentic character

The Strip District and Lawrenceville share an authentic character that is becoming a much-cherished asset. It is what draws Pittsburghers and visitors alike and is a critical factor for Allegheny Riverfront Area residents. Fortunately, the Allegheny Riverfront Area now contains an abundant building stock of industrial, mixed use, and residential structures, but the retention by reuse of quality structures will need to be strongly encouraged rather than new construction if that character is to survive. Blending the new with the old will continually need to be a deliberate community agenda.

4. Increase density, but limit it

Higher densities for in-city redevelopment have provided the basis for expanded services and amenities in many cities and urban neighborhoods. Attracting today's businesses and workers is no longer a matter of available space, but a combination of factors that also include good transportation, a variety of restaurant and retail choices, and a physical environment that can only be achieved by increasing density.



Accentuate and create memorable places

5. Design for residential compatibility

The City has the opportunity to establish higher quality design and development standards for the Allegheny Riverfront Area that will set the tone for future riverfront development in Pittsburgh. High quality standards create value, which translates into a strong real estate market and long-term sustainability because of the desirability and demand it creates. At the core of higher standards is a very simple concept: design for residential compatibility. Adopting this policy will assure that mixed uses will proliferate throughout the Allegheny Riverfront Area and there will no longer be the worry of low-investment development driving down property values in amenity-rich neighborhoods.

6. Develop green communities

Green standards result in life-cycle returns much higher than traditional financial returns, longer-lasting and sustainable structures, and lower carbon footprints that benefit residents and businesses alike. The Regenerative Zone along the riverfront is intended as an all-green zone with the expectation that other areas in the Allegheny Riverfront will seek similar green benefits. Greening the Strip District and Lawrenceville will increase the livability in these communities for all who work, reside, and visit. A dual public and private effort will be needed to build the green infrastructure that will support green development, and the adoption of green development standards will assist the development and real estate industries to carry through with green buildings and site improvements.

7. Rebuild everyday utility infrastructure

Changing how new infrastructure can provide long-term benefits opens up possibilities of using renewable energy for public purposes. For example, a geothermal grid under public or public-private ownership could provide low-cost energy for heating and cooling throughout the Allegheny Riverfront Area and reinvest profits back into creating and maintaining green infrastructure to offset the CSO problem. Providing underground utilities will help to further beautify the riverfront and, hopefully, begin a conversation about improving the quality of Pittsburgh's physical environment.

link to the river



28th Street as a green street that leads to the river and the riverfront trail



Existing 28th Street

“We are creating the Petri dish for growth. As the public sector we need to create infrastructure, connections, and other support that need to exist in order for markets to function properly.”
Rob Stephany, Urban Redevelopment Authority

A Comprehensive Vision

The Vision Plan links the city back to the river. Moreover, it envisions that new relationships act as an impetus to creating the 21st century city. It introduces a sustainability agenda adapted to the character and challenges of the Riverfront Area. It is about an evolutionary change that will slowly, yet deliberately, build stronger, more livable, and more productive riverfront communities.

At the core of the Vision is the idea that riverfront communities encompass all of the land, every property and right-of-way. It all contributes to a livable environment. “Communities” in the 21st century city are more than 19th century neighborhoods. Traditional neighborhoods are the “livable” areas of the city, but today we are seeing greater urban vitality as people move into downtowns, warehouse districts, and the “fringes” between neighborhoods. Just as in nature, there are no residual or wasted areas, so the future city will encompass all aspects of life—residence, commerce, manufacture, and recreation—within livable communities. The segregation of “noxious uses” from congenial uses, characteristic of 19th century cities, cannot exist in a sustainable city going forward.

The Vision Plan supports the eventual re-establishment of the natural ecology, particularly hydrological cycles in the city. The new fabric of the Riverfront Vision Area integrates urban buildings with generous green infrastructure. By keeping almost all of the annual rainwater out of the sewer system and achieving greater tree canopy coverage, the natural environment can clean and refresh itself without massive and costly engineering interventions. Not only will this bring a green landscape into the Allegheny Riverfront’s urban areas but will also significantly contribute to making the Allegheny Riverfront an increasingly livable and more beautiful community.

The Regenerative Zone is where the most change will occur. As former industrial sites are developed, the space between the river’s edge and the railroad will take on its former wooded character, trail segments will begin to connect and loop back into the neighborhood, new green and energy-efficient sites will absorb and reuse stormwater, and pathways to the river will be abundant and easily accessible. The riverfront will begin to come alive with a mixture of uses that encourage living and working nearby, along with walking, recreation, and river activities. The riverfront parcels will have a new “front door” along Railroad Street and the railroad right-of-way’s new multi-functional Allegheny Riverfront Green Boulevard, which will offer sidewalks, a walking and bicycle trail, a commuter train, and a roadway for cars and trucks to serve the riverfront properties and provide an alternate east-west route for vehicles.

Development of the large vacant parcels will bring opportunities for linking the riverfront to its adjacent neighborhoods by introducing open space along green streets. These developments will also begin to link neighborhoods together by extending and introducing new streets and pedestrian pathways. These large sites will have transformative qualities that will stimulate the real estate market to further spillover development and eventually sustainable growth throughout the Allegheny Riverfront.

Pittsburgh has the opportunity to create a riverfront that offers new places to live, new places for businesses, and communities that offer an authentic urban lifestyle. The Strip District and Lawrenceville have the inherent assets to make this happen and a community that shares a spirit for a more amenity-based quality of life. The better Pittsburgh can create the infrastructure for that to happen, the more successful will these riverfront communities become. A better infrastructure—a regenerative environment—holds the key to economic sustainability and the lifestyle these communities want. As other cities have demonstrated, the better the infrastructure, the stronger the private investment.

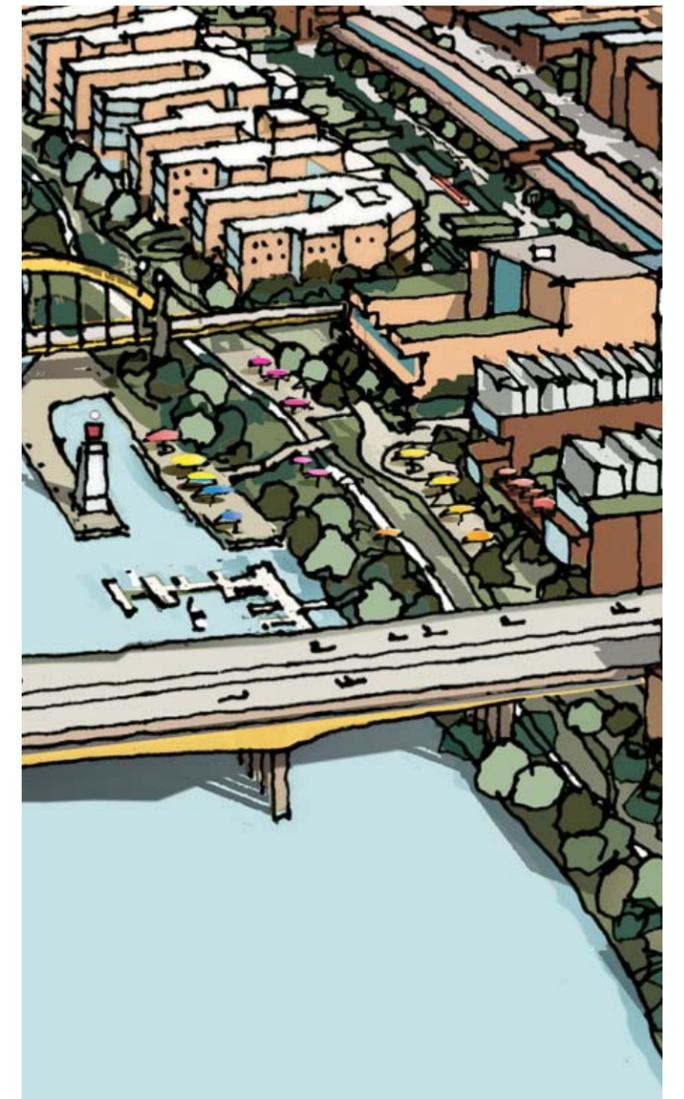


River’s edge would begin to take on its former wooded character

envisioning the new riverfront

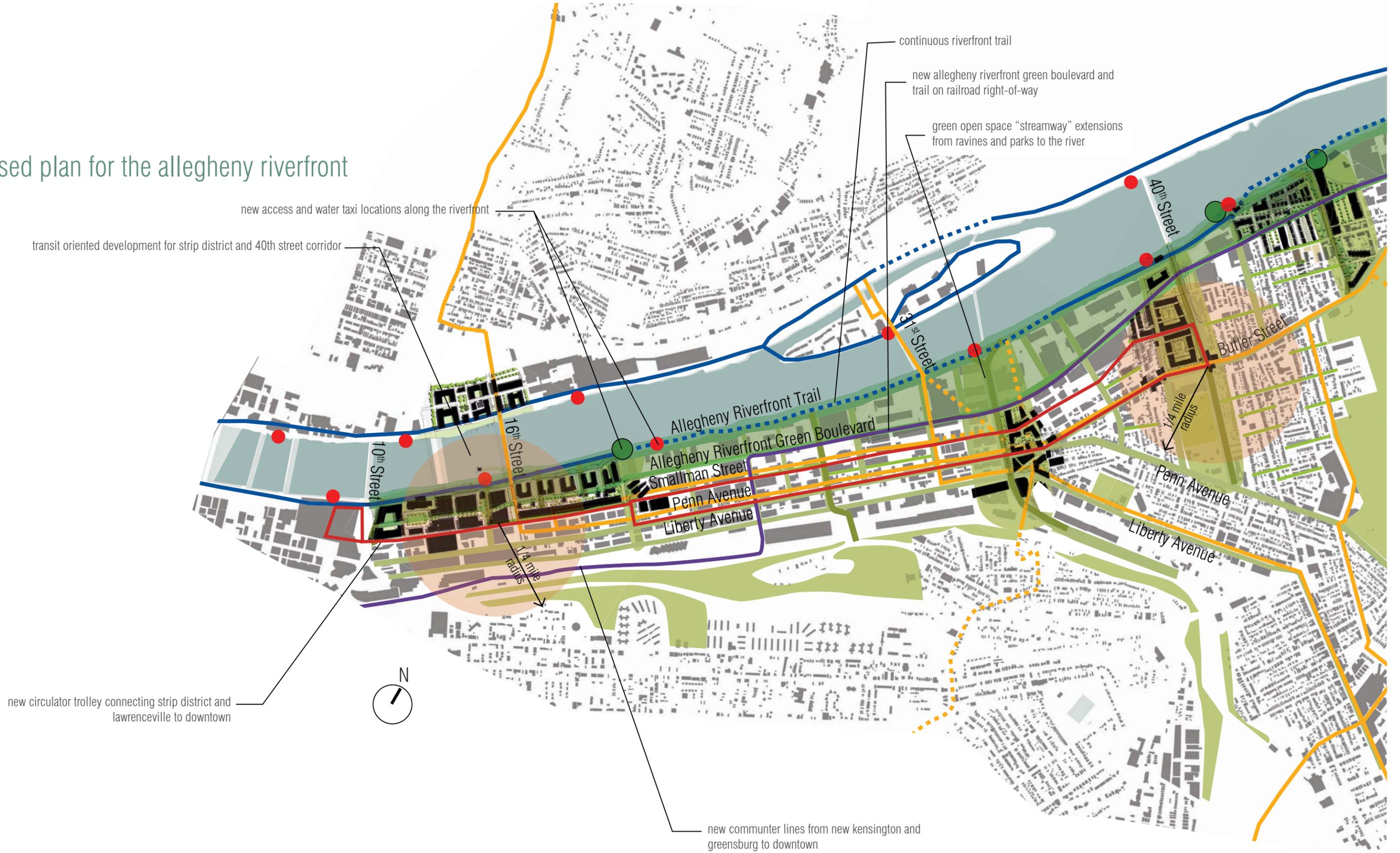


A new mixed-use urban center for the Strip District between the Veterans and 16th Street Bridges



Entertainment venues at the river's edge

proposed plan for the allegheny riverfront





new mixed-use and residential regenerative zone along 6.5 miles of riverfront

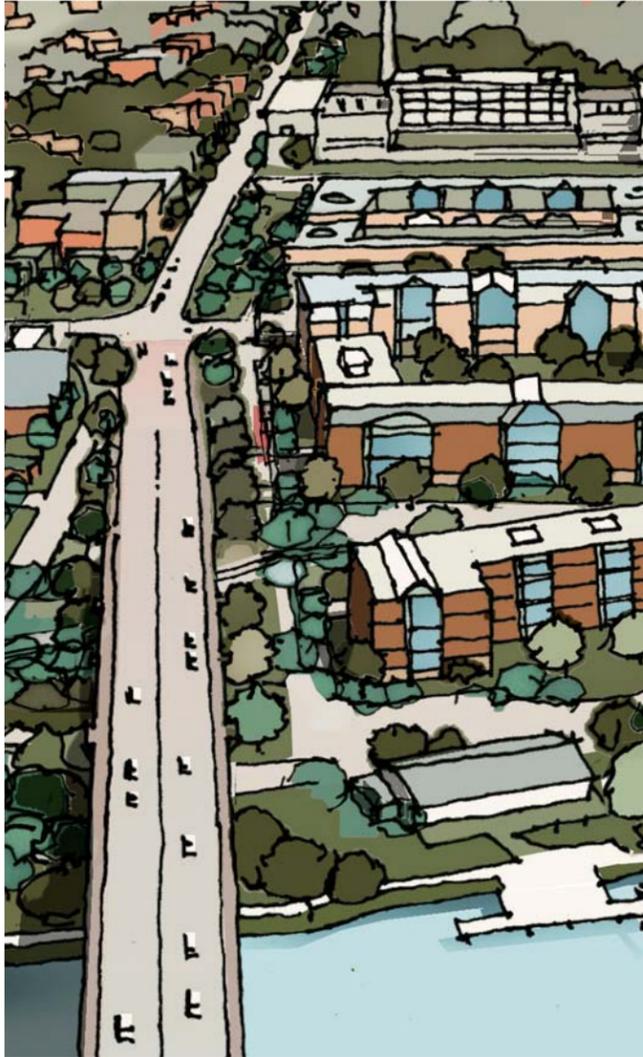
network of green streets and alleyways connect to riverfront trails and bike trails

extend bluff to river to create a green corridor connecting lawrenceville to highland park

- Proposed Water Taxi Stops
- Easy Access to River
- Proposed Walking Trail
- Existing Walking Trail
- Proposed Bike Trail
- Existing Bike Trail
- Proposed AVRR Commuter Line
- Urban Circulator Trolley Route
- Riparian Buffer
- Allegheny Riverfront Green Boulevard
- Green Extensions
- Green Streets
- Steep Slopes
- Existing Open Space
- Transformative Development
- Transit Oriented Development Zone

A new vision for the riverfront integrating development opportunities, new transit, an ecological network of green open spaces and streets, and trail system

envisioning the new riverfront



A new civic center for Lawrenceville

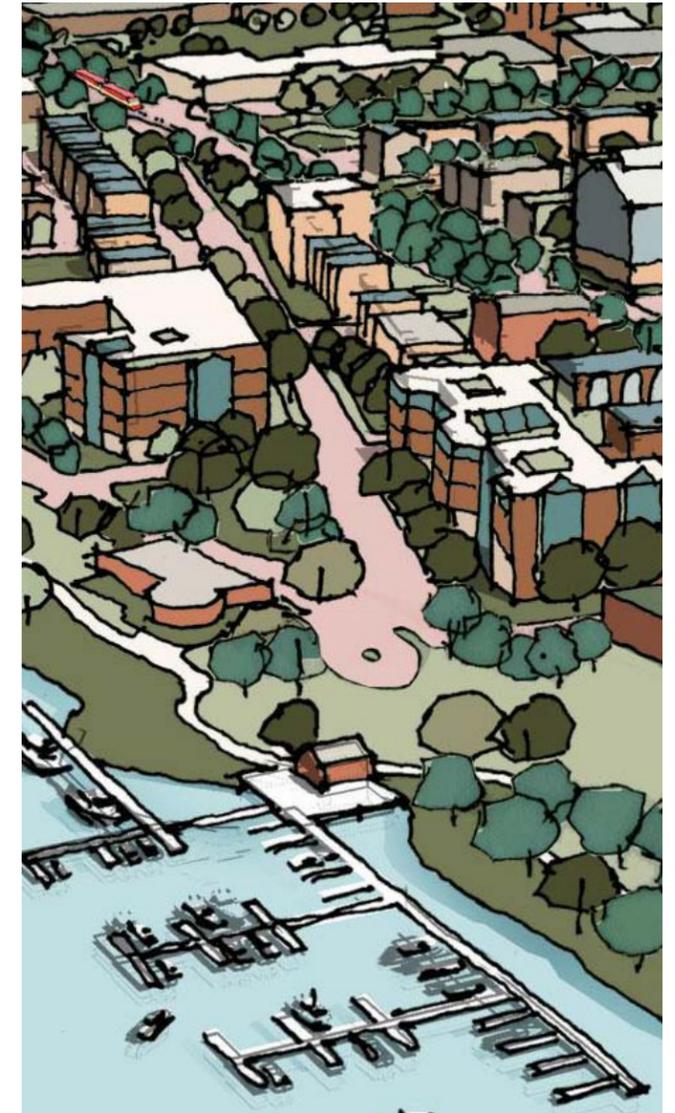


40th Street Corridor looking south

envisioning the new riverfront



Central Lawrenceville along the riverfront



Residential uses extend to the riverfront with a new marina shown at the end of 43rd Street

a framework of five development zones



River Zone

Regenerative Zone

Transition Zone

Preservation Zone

Service Zone

major features of the vision plan

Framework for Revitalization

The Spatial Principles describe a layered network of linear zones defining the different characteristics of built form from the river's edge to the upland slopes of the Vision Area. Each zone has its own identity, use types, and development potential. Likewise, the Ecological Principles describe linear areas defining appropriate green infrastructure types along with overlapping tree canopy coverage zones, while the Connections and Market Principles also make reference to the progressive layering in from the river's edge. Out of the analysis, there is a convergence in the structure of zones. The Vision Plan recognizes a framework of zones that integrates these concepts into a single set of five development zones.

- **River Zone: The Edge of the Allegheny River**

The current river edge has been neglected, is overgrown, and is as much a barrier to the Riverfront Vision Area as the current industrial zone. The public, open space at the river's edge should be made more inviting, accessible, and habitable by including such amenities as landings, marinas, bulwarks, picnic sites, overlooks, rope swings, etc. In addition, properties that front the river have an obligation to maintain the highest levels of pollution and stormwater control so that only clean water enters the river.

- **Regenerative Zone: A New Riverfront Zone**

The Regenerative Zone includes the riverfront and the properties along its edge from the riverbank back to, and including, the railroad right-of-way. The zone extends past the railroad in a few instances where large industrial properties extend further into the neighborhoods. The Regenerative Zone offers the greatest opportunity for change, because its large tracts of underutilized industrial land make this the most effective location to implement a full regenerative agenda, and the most effective location to achieve ecological restoration. New, rehabilitated, and renovation development is proposed to be ecologically sustainable, multi-use, built to green standards, and with access to the riverfront along its length. It is prime land for high-density residential and compatible industry that value riverfront amenities.

- **Transition Zone: Mixed Building Zone**

The Transition Zone extends from the AVRR green corridor to the edge of the residential fabric. The zone contains a variety of building types and uses, including industrial buildings in the Strip recently converted to apartments. Building footprints are not as large as those along the riverfront, but are larger than in the adjacent residential neighborhoods. This zone is the source of the Allegheny Riverfront Area's authentic and gritty character. Mixed use is the dominant use type and should be further encouraged as well as mixed-occupancy structures. Higher densities than presently exist are recommended to increase job-generation and residential capacity. Green buildings and site development are desired for all new, rehabilitated, and renovation development. Green streets, which provide multiple ecological benefits, will provide linkages to the riverfront. As this zone contains a number of historic structures, restoring these buildings should have high priority.

- **Preservation Zone: Established Neighborhoods**

The Preservation Zone is the residential fabric of Lawrenceville. Parcels and building footprints are the smallest in the Riverfront Vision Area and change occurs very slowly, making this zone the most stable of the five, but also the most difficult to infuse with new ecological and open space improvements. As new residences are developed and renovation and rehabilitation of older residential stock takes place, the residential neighborhoods will become more desirable and strengthen. Green strategies include green streets and alleyways, vacant lots used for gardens, and residential rain gardens.

- **Service Zone: The City's Backyard**

The Service Zone is the strip of land along the "slopes" of Liberty Avenue and the East Busway. Comprised of flex buildings and surface parking lots, this is an area that is sparsely populated and generally unseen where buildings and parcels of many sizes and configurations have been shaped into unexpected angles by the stream bed that used to drain the East End to the river. Storage and distribution activities are good uses for this zone. The City and County should consider relocation of Allegheny Riverfront service activities to the Service Zone to free desirable sites closer to the river for the private market. The large surface lots provide greening opportunities, ranging from trees to pervious paving systems, and the large flat-roofed buildings are good candidates for vegetative roofs.

Re-conceiving the Allegheny Riverfront Area as a series of layers of different characteristics and functions sets up a framework for revitalization. The river is a regional amenity and a public resource, yet it is fragile and requires protection. The River Zone, the open space at the river's edge, should be more inviting and habitable, with amenities for public use. The Regenerative Zone proscribes a new riverfront and development that recognizes the importance of the river as a public amenity. The Transition Zone is about building a mixed community that embraces variety, diversity, and choice as a transition between established neighborhoods and a repurposed riverfront. It is also about maintaining and enhancing the Allegheny Riverfront's authenticity. The Preservation Zone encompasses the residential neighborhoods that anchor the Allegheny Riverfront and are instrumental in achieving a higher quality of community life. The Service Zone is conceived as the area's support and services zone, the new back yard for the Allegheny Riverfront. Each zone is descriptive of a future that embodies the desires of the Allegheny Riverfront communities.



Stormwater management can be artistic and functional

A New Ecological Infrastructure

As most of the natural landscape is missing from the Allegheny Riverfront Area, the ecological planning is approached as restoration ecology: restore the hydrologic cycle by capturing the rain and increasing vegetative cover. The pattern of underground sewer pipes and the roadway network that sets the surface pattern of land use can also become a network of natural spaces that will perform for us the work of cleaning air and water and enriching the soil. By allowing the rainfall to follow the natural pathways into the soil mantle that has been paved over for the past century, the Riverfront Vision Area will have regenerative neighborhoods that provide clean water and healthy air while reducing carbon footprint.

Stormwater infrastructure includes a variety of elements, from backyards to green streets to vegetative roofs. Though their design depends on the distance from the river's edge, in all locations, new pavements, including surface parking lots, sidewalks, patios, and some driveways, should be constructed of permeable materials underlain by a storage/infiltration bed.

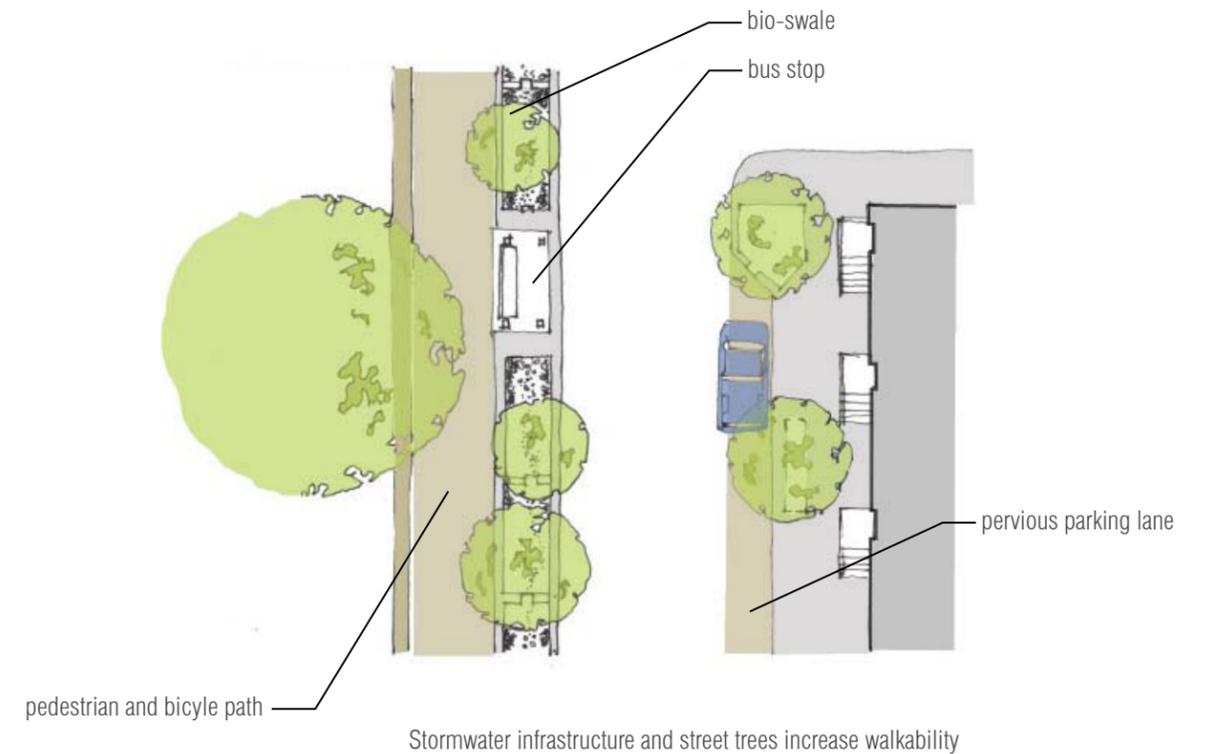
- In the Regenerative Zone the clean rooftop runoff can be directly discharged to the river or to the green corridor of the riparian buffer. The railroad right-of-way provides another green corridor opportunity for landscape and permeable surfaces.
- The Transition Zone does not include as much open space, so creating a network of green streets assumes a higher priority, utilizing vegetated curb extensions, medians, and intersection bump-outs that capture the rainwater of the public realm. Vegetative roofs are the preferred green infrastructure on private property.
- In the residential neighborhoods of the Preservation Zone, infrastructure strategies include green alleyways, urban gardens, and residential rain gardens. While not always possible, vegetative roofs are encouraged when appropriate.
- The Service Zone is similar to the Transition Zone though it lacks a street network, but applying green street infrastructure strategies to the Service Zone's large surface parking lots the same results can be achieved. The large flat roofs of this zone's flex buildings are prime candidates for vegetative roofs.

Tree canopy coverage varies by linear zone:

- The target is 80% tree canopy coverage for the first 100' of the riparian buffer and all of the AVRR green corridor, and 60% elsewhere in the Regenerative Zone.
- The Transition Zone target is 40%, the Preservation Zone 25%, and Service Zone 40%.
- With good soil volume, this tree coverage will provide the large scale evapo-transpiration functions of the original forested ecosystems.

Tree canopy coverage works hand-in-hand with the stormwater infrastructure and open space opportunities. Trees play a significant role in the hydrologic cycle by dispersing captured stormwater through transpiration as does the soil through permeation. The target for tree canopy coverage throughout the Allegheny Riverfront is an average of 40%, similar to the tree canopy coverage of the Squirrel Hill neighborhood. To accomplish this goal, the application of tree planting varies with the distance from the river's edge increases.

typical green street



Riparian Buffer

Other than the green steep slopes and bluffs, the riparian buffer will be the largest open space in the Riverfront Vision Area. It is an essential component of the natural stormwater management system.

The proposed buffer is a 200' wide green open space along the riverbank throughout the Regenerative Zone. The use of native meadow and woodland plantings, combined with forest restoration and invasive species removal, will relieve the need (and cost) of reconstructing the old engineered systems, which, as it turns out, are a poor substitute for the more effective and sustainable natural systems. Preferred uses of the buffer would include river access, passive recreation, water features, and a riverfront trail, with limited concessions and limited public facilities such as amphitheaters and performance spaces.

A river buffer is necessary to ensure establishment of plants and roots needed to prevent unnatural erosion, ensure the ability of plants and soils to filter pollutants, maintain healthy habitats, and contribute to flood protection. The width of the buffer is necessary to remediate an affected, urban waterway with industrial adjacencies. A 200' buffer is critical to reaching the 40% urban tree canopy goal and will be instrumental to increasing air quality, reducing CO2, and a key component in the restoration of the hydrologic balance. A 200' buffer is also required to reintroduce the habitat necessary to support the return of valuable wildlife and self-sustaining ecosystems. In addition, it will provide waterfront recreational opportunities currently lacking throughout the city and help to sustain a healthy drinking water supply.

Major mid-sized cities such as Kansas City and Portland have, or are in the process of developing, buffer set-back ordinances. Pittsburgh is in the unique position to become a leader in urban stream renewal as it is poised to lead the country in buffer establishment.



An ecologically sound riverfront



200' riparian buffer at the river's edge



Restoring the river's edge is a critical component of an ecological infrastructure

allegheny riverfront green boulevard looking east from 40th street

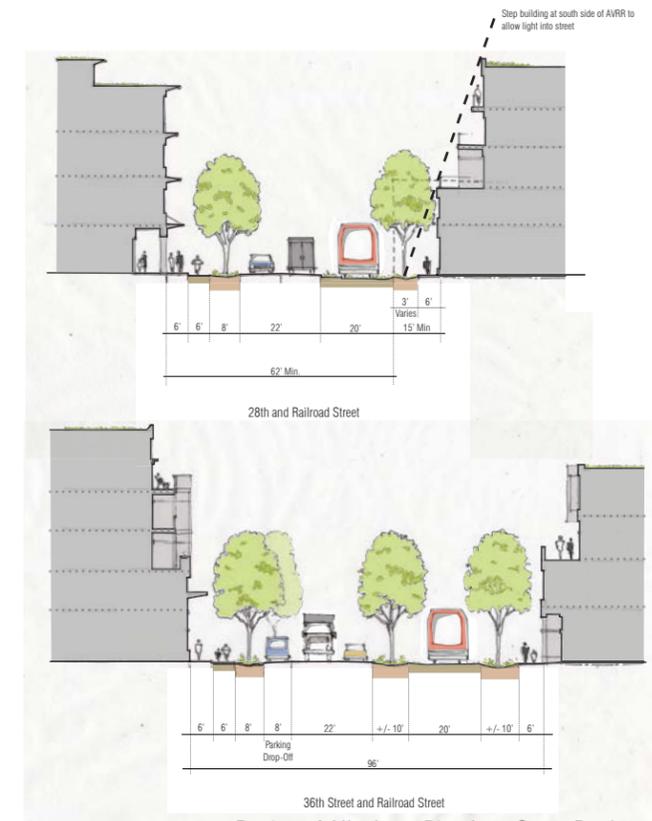


The railroad right-of-way envisioned as a multi-modal and green corridor

Allegheny Riverfront Green Boulevard

Assuming the AVRR right-of-way ownership will be transferred to a new 501(C)(4) Public Benefits Corporation or its equivalent to protect a permanent freight easement, the 62' to 100' wide right-of-way can be repurposed as a complete boulevard and public space for its full length through the Riverfront Vision Area. The term "complete" means that it contains multi-modal functions, ecological infrastructure, and elements that serve both public and private interests, including commuter rail transit, freight transit, vehicles, bicycles, pedestrians, utilities, and buildings on either side of the right-of-way.

A repurposed AVRR corridor would provide a second edge to the riverfront and a "front door" for the Regenerative Zone. It would serve as a secondary riverfront trail where the riverfront trail is not possible or blocked by existing obstructions. It would also be an alternative to automobile and truck traffic on Butler and Smallman Streets for local area businesses to help relieve truck conflicts, particularly east of 40th Street. The corridor can serve as a conduit for district-wide renewable energy distribution systems and for underground distribution of everyday utilities. By providing heavy tree canopy cover, pervious and landscape features for capture of stormwater, and needed public open space the Allegheny Riverfront Green Boulevard will significantly contribute to the Vision's green agenda.



Design of Allegheny Riverfront Green Boulevard should vary with right-of-way width

Commuter Rail and Urban Circulator

Two new transit opportunities will significantly strengthen the Allegheny Riverfront. They serve different purposes and passengers, however both are mutually supportive and connect the Allegheny Riverfront to the city and region.

Commuter Rail

The implementation of a light-rail commuter line connecting New Kensington and Greensburg in Westmoreland County through Oakmont to downtown Pittsburgh on the AVRR right-of-way would provide the foundation of a regional rail system with Lawrenceville becoming a major transfer center and multi-modal hub.

The proposed east-west route uses the Allegheny Riverfront Green Corridor to 26th Street where it would run as a streetcar on 26th Street to the East Busway, then along the Busway to Penn Station and the US Steel building to interface with the “T” system. Proposed stops in Lawrenceville include the 40th Street Corridor, 33rd Street where it could interface with rail service to Oakland and Hazelwood, 26th Street at the Busway, and the Downtown stops. A self-propelled, light diesel-powered car, built for freight-gauge track, is contemplated that could be ganged in 2- or 4-car “trains.”

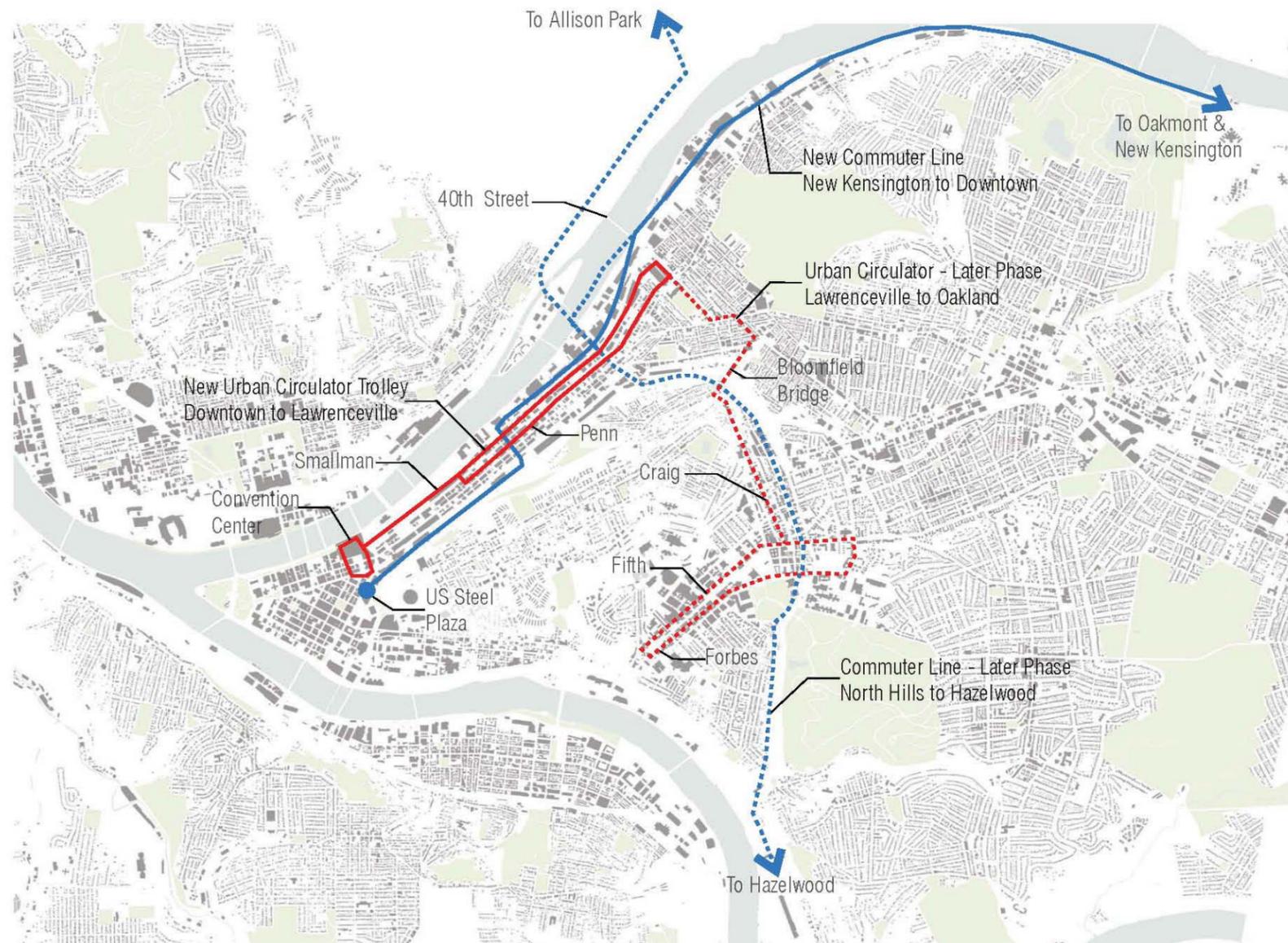
The Allegheny Valley Railroad also leases a north-south line that runs up the Route 8 corridor north to New Castle and south across Lawrenceville on the 33rd Street trestle to Oakland, Hazelwood, and farther south to Uniontown. If that line could also be used for passenger transit, Lawrenceville would become the center of the rail system as both the east-west and north-south lines cross at 33rd Street and the Allegheny Riverfront Green Boulevard. Combined with the urban circulator with its stops on Smallman at 33rd and in Doughboy Square, suggests a major intermodal transfer hub in the middle of the Allegheny Riverfront.

allegheny riverfront green boulevard looking west from 33rd street



The new boulevard creates new “front doors” to the riverfront

integrated transit for the allegheny riverfront



New transit connects to Downtown and in later stages to Oakland

Urban Circulator

The most significant transit recommendation is to establish a unique urban circulator system using fixed-rail trolley cars through the Strip District to Lawrenceville. The objective is to lessen reliance on automobile use while encouraging localized mass transit. Experience in other cities suggests that a circulator trolley should work well in the Strip District, an area that is heavily pedestrian-oriented and exhibits a demand for high frequency service, short trips, and frequent stops.

The circulator trolley would incorporate frequent stops depending on the condition of the potential stop area. Stops should be at-grade with sidewalks and roadways except for along Smallman Street where stops would be incorporated into pedestrian islands. Major stops, station-like locations where the circulator can interface with other modes of transportation, could also be implemented at the eastern and western ends of the route, i.e. Downtown on 10th Street and at 40th Street in Lawrenceville. Stops at other key locations like 21st Street in the Strip District could include more intense infrastructure improvements like circulator pull-off areas, street furniture, and other rider amenities.

The cost, estimated about \$25 million a mile, is considerably less than a light rail commuter system running on a dedicated right-of-way. (The circulator from Downtown to 40th Street is about 5 miles round trip.) There are several vehicle types that could be utilized, from modern to vintage cars, and technology exists for electric power to be provided by "docking stations" along the route rather than continuous overhead power lines.

Later phases of the urban circulator could include extending the line farther into the Lawrenceville community and extending the line to Oakland. The path to Oakland would use 40th Street, Penn Avenue, Main Street, the Bloomfield Bridge, and Craig Street to reach the Oakland corridor. Once into Oakland it could loop the corridor on Fifth and Forbes Avenues then back to Craig Street. A similar system could link Oakland to Downtown. If successful, the urban circulator could become the preferred transit of the New Golden Triangle.

Open Space Linkages to the River

Open space connections, green streets extending to the riverfront, and a trail network that ties the riverfront to the neighborhoods are the primary physical linkages to the river.

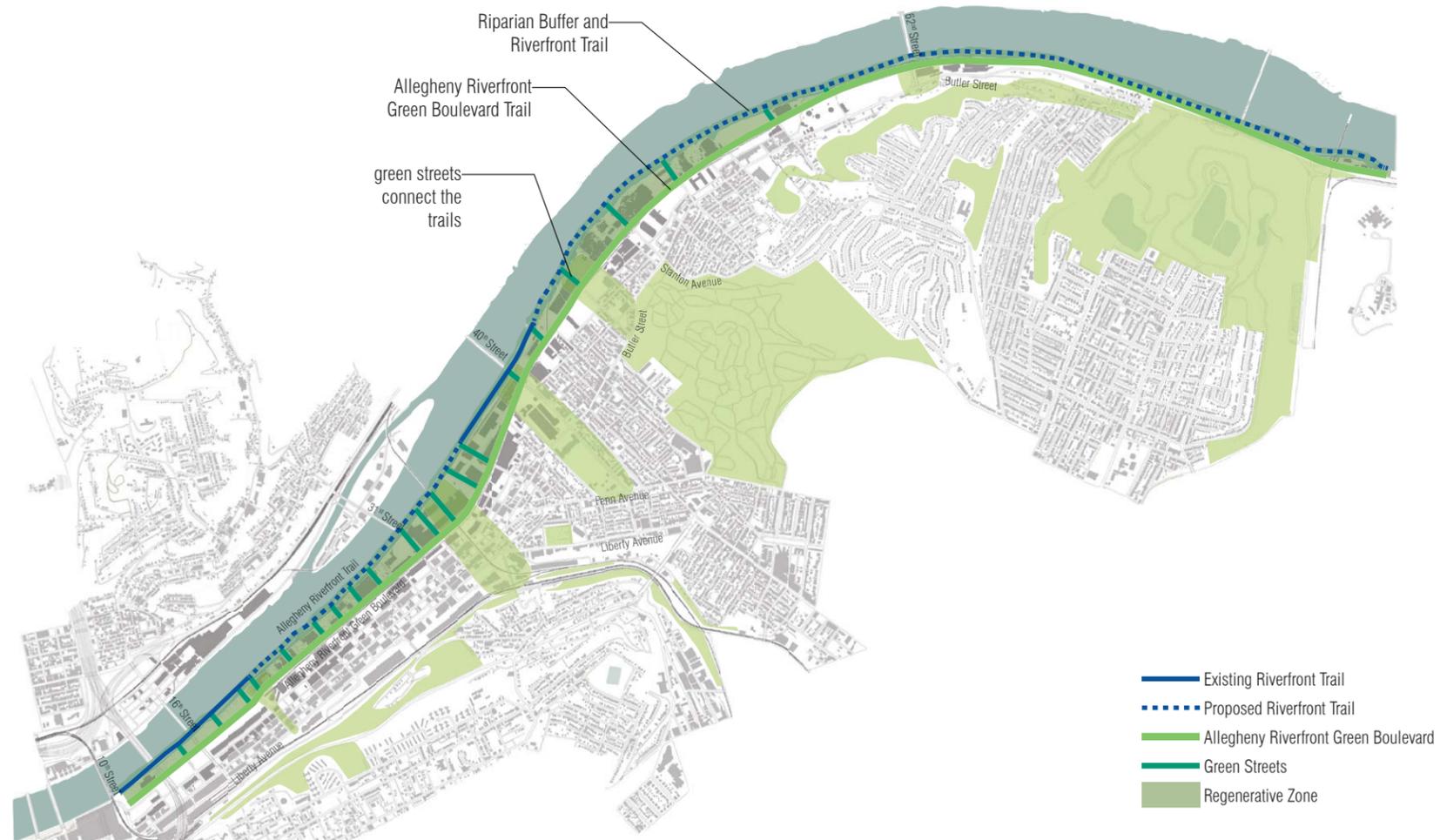
- “Streamways”**
 The former stream, creek, and drainage paths from the higher plateaus and hills of Pittsburgh’s East End flowed through the Allegheny Riverfront Area. Now buried, they should be reconstituted as natural spaces for stormwater capture. They can also provide much needed public open space for active and passive recreation for residents, employees, and visitors. Primary locations are 33rd Street to 35th Street from the Busway ravine to the river; 46th to 48th Streets from Allegheny Cemetery to the river; Heth’s Run; and Washington Boulevard and valley to the river.
- Bluffs**
 The bluffs and the steep slopes are important forested open spaces that contribute significantly to the ecological restoration and stabilization of the Allegheny Riverfront. They should remain undeveloped. These steep slopes include the Morningside Bluffs from around 62nd Street to the zoo entrance at Baker Street and the Highland Park Bluffs from the zoo around to Washington Boulevard.
- Green Streets**
 Green streets, public rights-of-way that serve both ecological and urban functions, are also open space extensions from the neighborhoods to the river. Along some streets, the landscape can extend beyond the street onto public-owned and private property to create wider swaths of open space. Prime locations are 15th Street where a center median could signal the entrance into a new mixed use center for the Strip District; along the east side of the 33rd Street railroad trestle; and along the west side of 40th Street from Penn Avenue to the river. The wider swaths are excellent locations for landscaping, dense street trees, landscaping, water features, and passive recreation activities.
- Trail and Bike Systems**
 The trail and bicycle paths are the primary linkages of the open space system. They connect the parks, the cemetery, the bluffs, the green streets, the riverfront riparian buffer, the railroad Green Boulevard, and the major arterials into a network of open space throughout the Allegheny Riverfront. Instead of a single riverfront trail, the pedestrian and bicycle paths are intended to be more like a network offering many choices of paths and bringing the river space into the neighborhoods, the neighborhoods to the river, and knitting the neighborhoods together.

restore link from allegheny cemetery to the river



Connect large open spaces and river valley hillsides to the river

allegheny riverfront trail system



Trail system is a loop network that provides a continuous trail at all times

Riverfront Trail System

A robust public trail system is strongly recommended throughout the Allegheny Riverfront Area. The long-term objective is a continuous trail along the riverfront from Downtown to the city line and beyond along both sides of the river. While now fragmented, the riverfront trail in the Riverfront Vision Area can be supplemented with a continuous inboard trail system that utilizes public streets to make the connections. Eventually the trail will be part of the riparian buffer and linked with the railroad Green Boulevard and a system of green streets throughout the riverfront communities. Similarly, the existing riverfront trail on the opposite bank will be further improved as riverfront development occurs.



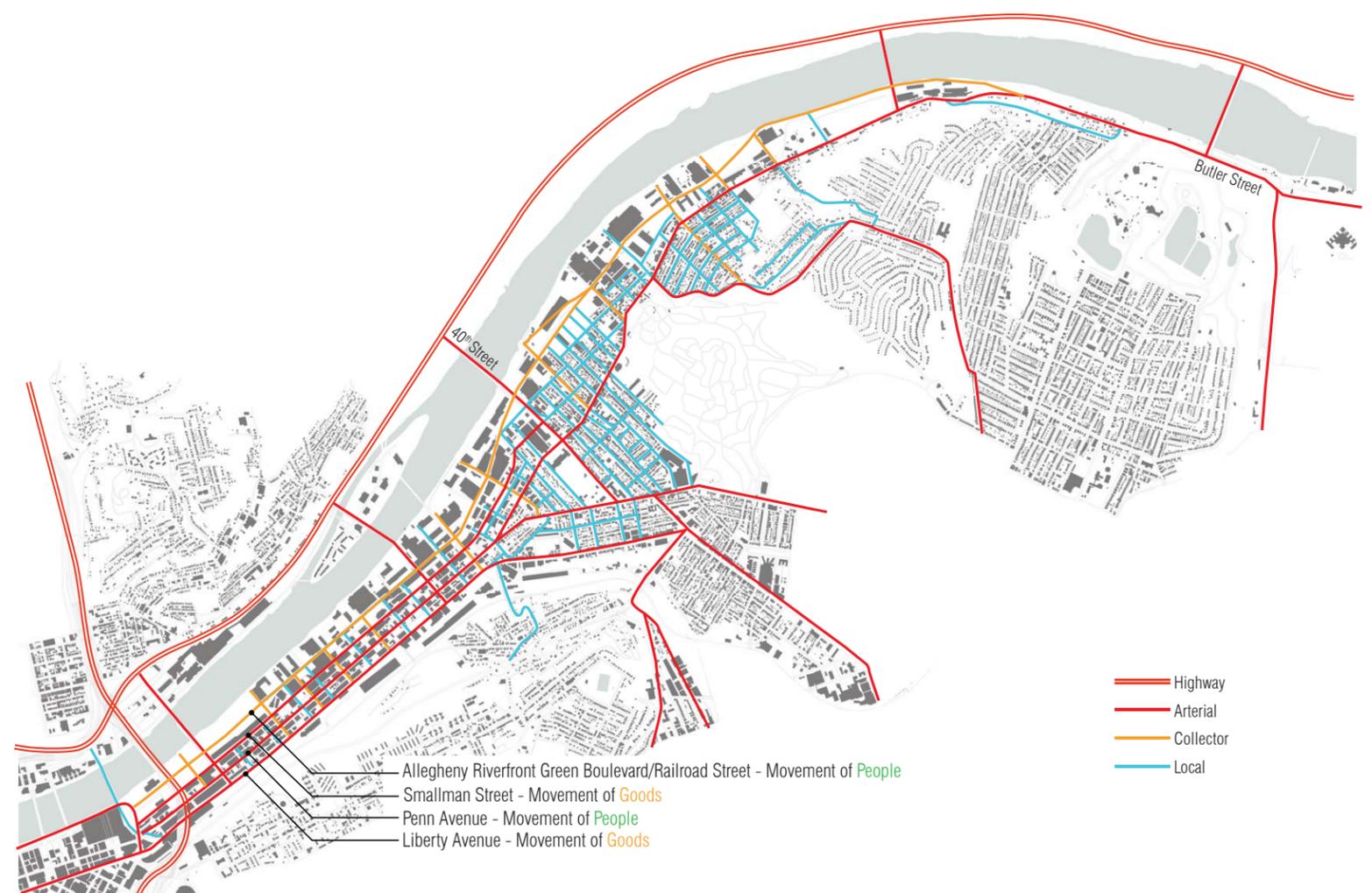
Managing the Movement System

A classified roadway hierarchy is strongly recommended for streets within the Allegheny Riverfront in order to lessen the conflict between neighborhood movement and truck traffic. The current movement system breaks down into three basic categories of roadways: arterials that move large volumes of traffic through the area; collectors which gather traffic from local roads within the area; and local roadways. Current arterial roadways include Liberty Avenue, Penn Avenue, Butler Street, Route 28, and numerous bridges across the Allegheny River.

The proposed hierarchy alternates east-west street types intended for the movement of goods from the movement of people. Arterials recommended for the movement of goods are Liberty Avenue and Smallman Street. Arterials for the movement of people are Butler Street/Penn Avenue and the Railroad Street/railroad Green Boulevard. People-oriented streets favor pedestrians and bicycles, although other means of transportation are allowed while trucks are discouraged. The alternating street type pattern interrelates with the parking strategy so that parking facilities are located just off the auto and truck routes for access, but far enough from people-oriented streets so that pedestrians will pass by stores and businesses on the way to their destination.



proposed street hierarchy



Separating movement types will increase pedestrian and cyclist safety



Variety of residential building types will appeal to a broad market

Residential Development: Highest Priority

Successful sustainable development in U.S. cities involves a wide mix of uses in a variety of settings, but what they have in common is that they are supported by residential growth. Without attracting people to live in the area, the impact of the development tends to be short-lived or even detrimental to property in the neighborhood. The development program for the Riverfront Vision Area should be predominantly housing, ranging from upscale condos to affordable rentals with specialized and innovative housing types for emerging markets. Existing neighborhood housing is an irreplaceable resource and needs to be preserved. Transformative development sites show a potential for over 3,000 new units; and that market could be significantly increased, drawing especially from outside the region.

New Urban Centers for the Strip and Lawrenceville

Two new centers are recommended for the Riverfront Vision Area that will have transformative landmark and market qualities. The vacant 50+ acres owned by The Buncher Company in the Strip District on both sides of the river would constitute one of the largest center city riverfront developments in the country. The underutilized properties between 39th and 40th Streets from Butler Street to the river could become a new “civic center” for Lawrenceville.

Strip District

The Strip District site, between 11th and 21st Streets, will create a new riverfront destination and residential neighborhood to complement the historic Penn Avenue marketplace and the repurposed Produce Terminal, and link to the residential neighborhood forming around the Cork Factory. Because the site is so large, it is easier to understand it in sections: three sections on the south riverfront are divided by the Veterans Bridge and the 16th Street Bridge and the fourth section is the land on the north side, which lies between the two bridges. Both sides of the river would be developed with the riparian buffer and riverfront trail system. Each of the four sections of the proposed concept plan would have different characteristics.

- 11th Street to the Veterans Bridge**
 Office, commercial, and some supportive retail uses as an extension of Downtown activities, but at a smaller scale.
- Between the Veterans Bridge and the 16th Street Bridge**
 24-hour mixed-use entertainment zone, with riverfront restaurants, retail storefronts, and a publicly-accessible riverfront and water taxi stop. Mixed uses, such as offices and commercial activities and perhaps a hotel and residential uses, would complement the entertainment venues. This would be the highly-public portion of the development.
- 16th Street Bridge to 21st Street**
 A five-block long residential neighborhood along the riverfront, with some office and neighborhood service retail inboard of the river. Residential development is key here, since the Penn Avenue regional destination would be diluted if the retail shopping experience were expanded to the riverfront. The Produce Terminal, as part of the development, would be repurposed as a public marketplace, retail, showroom, and professional office location fronting onto a Smallman Street public space.
- North Side from the Veterans Bridge to the H.J. Heinz plant**
 Primarily a residential development, with minor supportive neighborhood service retail and professional offices, this site could also be the location for a new marina and water taxi stop.

The concept plan recognizes the value of the Penn Avenue historic marketplace. Its present character should be preserved, while its functioning is improved. Proposed locations for parking garages are intended to encourage and reinforce public access to Penn Avenue as well as to the new development. The repurposed Produce Terminal is also intended to reinforce Penn Avenue by offering a distinctly different kind of marketplace and by creating a strong boundary for a new Smallman Street piazza.

Lawrenceville

The proposed 40th Street Corridor design concept recognizes this location as the symbolic center of the Lawrenceville community, connects Penn Avenue to the river along 40th Street, and opens up cross traffic connections between Lower and Central Lawrenceville.

Smallman Street is aligned with Foster Street and connected to 40th Street at the foot of the bridge, and Willow Street is connected below the bridge. The circulator trolley continues up Smallman to 40th Street then circles back along Butler Street and Penn Avenue. The green, park-like grounds of the Allegheny County offices at Penn and 40th are expanded along 40th Street to the river, connecting Arsenal Park, the Arsenal School grounds, the trolley right-of-way, a proposed railroad Green Boulevard commuter rail stop, and the riverfront riparian buffer and public trail. A boat house is shown at the river’s edge for river-oriented activities and a water taxi stop.

The 40th Street Corridor concept plan is more residentially-based than the Strip District center. Residential uses begin at Butler Street and continue down to the riverfront. Along Butler Street, neighborhood service retail uses are recommended for the ground floor, including a new grocery store, mixed-uses, and professional offices. The ground floor uses would fill the missing link of Butler Street’s retail spine to link Upper and Central Lawrenceville. The site would also include a trolley station, public open space, and a larger park at the riverfront.



Strip District and North Shore
(Orange circle shows 1/4-mile walking distance)



Strip District and North Shore



40th Street Corridor in Lawrenceville



40th Street Corridor in Lawrenceville

transit oriented development zones



Strip District and 40th Street Corridor qualify for TOD funding

Transit Oriented Development

The proposed new development in the Strip District, led by the concept plan proposed for the Buncher properties, and the proposed new civic center development in Lawrenceville, led by the concept plan for the 40th Street Corridor, qualify these locations for Transit Oriented Development (TOD) funding. This Federal funding encourages the use of public transit by providing monetary incentives to construct multi-modal transit and adjacent development that relies heavily on its use.

A study conducted for the Southwestern Pennsylvania Commission identified certain factors based on density that are critical to developing a successful TOD: connectivity, population, housing, employment, and zoning. Both transformative areas rely on a combination of new development, built to higher density standards than presently exist, and spillover development of the surrounding neighborhoods, including infill and repurposing of existing buildings, to meet the TOD metrics. The Strip District benefits because of its close proximity to Downtown, however it needs new housing to qualify. Lawrenceville benefits because of its high walkability and bus service, but it too requires new housing as well as new employment opportunities to qualify.

The Allegheny Riverfront's TOD factors and densities are included in the table below relative to the urban baseline metrics:

TOD SUCCESS METRICS	URBAN BASELINE	40TH STREET	STRIP
Population Density Per Acre (1/4 mile)	16.7	20	21
Housing Density Per Acre (1/4 mile)	11	12.6	13
Travel Time to Pittsburgh	13 min	7 min	3 min
Transit Time to Pittsburgh	10 min	15 min	7 min
Employment Density (1 mile)	15,000	15,598	110,000+
Zoning (# of districts/applied districts)	11/15		
Walkable Score	89	94	82
Transit Availability	YES	YES	YES
Cross Route Connections	YES	NO	YES
Dedicated Fixed Guideway	YES	NO	YES
Cross Route Service Density (weekday roundtrips/ridership)	126/3,842	0/0	56/5,094
To Downtown Service Density (weekday roundtrips/ridership)	281/24,410	63/3,700	159/14,450

Memorable Places

Where the Riverfront Vision Area can excel in further distinguishing its neighborhoods and character of place is in deliberately creating new public spaces and destinations. Memorable places are specific locations that acquire meaning beyond their spatial configuration as places of social, historical, or even aesthetic values that are generally acknowledged and respected. These locations have the potential to become new memorable places:

- **Riverfront:** Creation of the riverfront riparian buffer will clearly distinguish this place as a water-related regional asset. Within the buffer some locations have further public potential: acknowledge the shipbuilding and manufacturing history between 11th Street and the Veterans Bridge in conjunction with the History Center; develop the river's edge with a land extension for public access and water taxi landing between the Veterans Bridge and the 16th Street Bridge; and create a new regional park at the foot of Washington Boulevard on the Public Works property.
- **Allegheny Riverfront Green Boulevard as a Complete Street and Public Space:** The spatial qualities of this 62' to 100' wide space cutting through the fabric of the Strip and Lawrenceville are not matched anywhere in the city.
- **Extension of Railroad Street from 21st Street to 11th Street:** Public places could include a public plaza at 21st Street and a park between the Veterans Bridge and 11th Street that connects the History Center to the riverfront.
- **Smallman Street "Piazza" between 16th and 21st Streets:** By improving the Produce Terminal's 50' wide "front yard" as a public amenity and transit corridor and creating a pedestrian-friendly sidewalk along its south face, this 90' wide space can become a public piazza and destination for Strip District patrons and visitors.
- **33rd Street Railroad Trestle:** This dramatic steel structure and Allegheny Riverfront landmark could be given a new life by new paint or repurposing it as a canvas for an artistic installation, such as a "living wall."
- **Intersection at 40th and Butler Streets:** This portal into Central Lawrenceville could be enhanced by strengthening its spatial qualities by new buildings that build to the property line, judicious street tree plantings, and reconceiving the privately-owned property between 39th and 40th Streets as a new center for Lawrenceville. The space this forms could become a very public place and a landmark of the Lawrenceville community.
- **Bluff Scenic Byway:** Consideration should be given to designating Butler Street and Allegheny River Boulevard as a "scenic byway" from 62nd Street to Washington Boulevard. This will also create a scenic entrance to the Pittsburgh Zoo from the west.
- **River Overlook on Baker Street:** Not available to the public until the buildings were demolished atop the Morningside Bluffs on Baker Street, this location should be improved as a scenic overlook with wonderful views of the river valley. Its importance to the Morningside neighborhood as a public asset should be enhanced and protected.
- **Zoo Entrance:** The intersection of Butler and Baker Streets has potential as an open space and portal entrance for the zoo.
- **Highland Riverfront Park:** Converting the Public Works space at the end of Washington Boulevard into a public riverfront park and improving the intersection at Washington Boulevard and Allegheny River Boulevard as a portal entrance to the riverfront and park will create a new Pittsburgh asset.

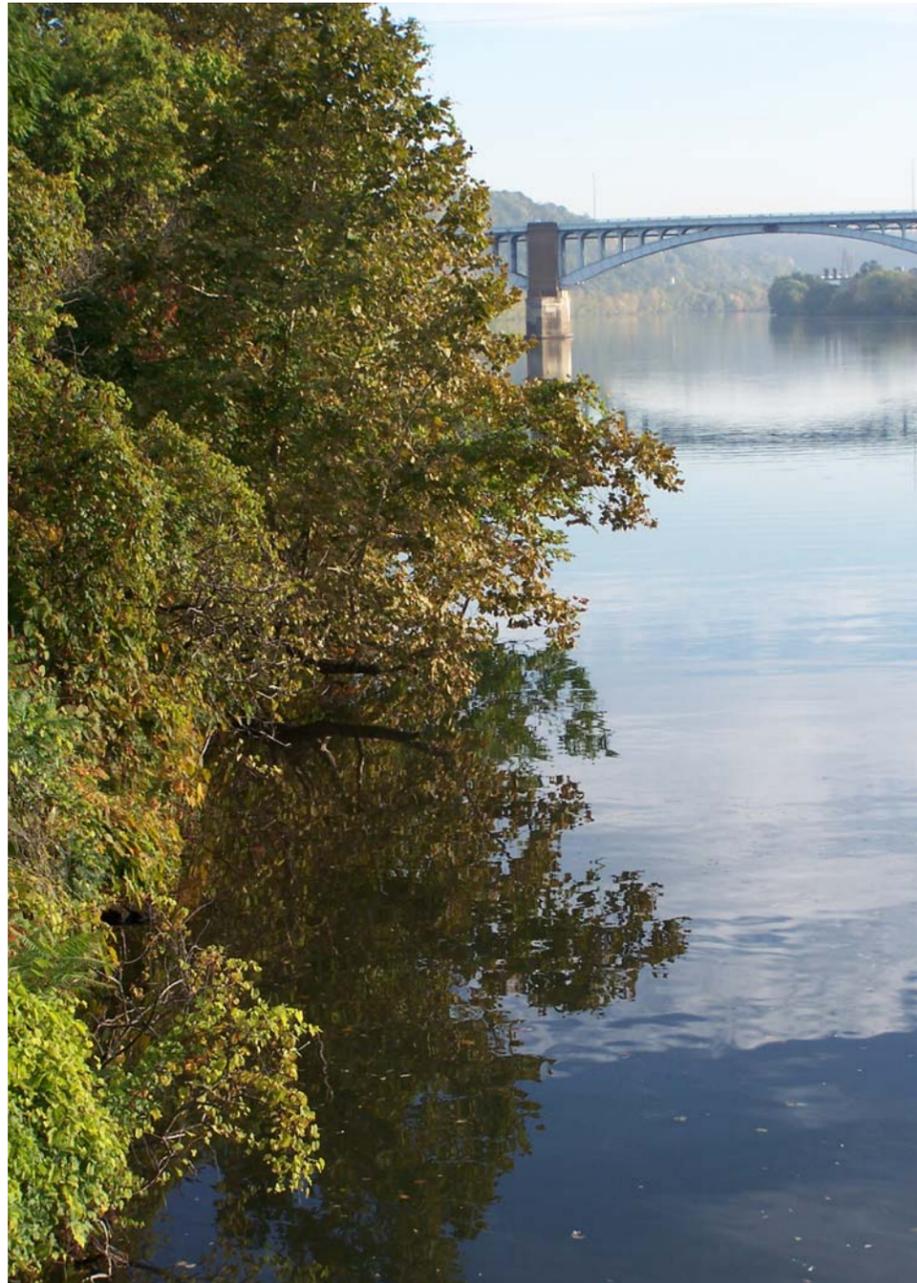
smallman street "piazza"



Green space created in front of the Produce Terminal on Smallman Street with street right-of-way relocated to south side of the new piazza



The strong basis for growth already exists in the neighborhoods of the Allegheny Riverfront



Areas Left Alone

The business and residential communities were quite outspoken that the best strategy is to leave alone what is already working. Although it may seem the Vision Plan has improvement recommendations for almost every place in the Allegheny Riverfront, the great majority of properties and places are not cited for direct improvement or intervention. Many areas have development plans already in place, and except where the Vision Plan modifies them, they should continue with implementation.

The Transition, Preservation, and Service Zones which form the core of the Allegheny Riverfront are encouraged to grow in an evolutionary manner. Their growth would be boosted by green infrastructure improvements and smaller-scale investments. It is in the Regenerative Zone and very specific locations in the Transition Zone where the Vision Plan proposes large development interventions that are market changers.

The base for economic growth and sustainability in the established neighborhoods of the Allegheny Riverfront Area already exists. The market recommendations are all based on encouraging evolutionary growth. They recognize that the present building stock and mixed use nature of the Riverfront Vision Area is the infrastructure needed to make this happen. Other than along the riverfront, residential growth is encouraged to strengthen the neighborhoods by building on vacant and infill sites. Incremental growth of the historic market place on Penn Avenue and the Butler Street retail district is likely to have positive spillover effects that will help sustain the uses around them. The Transition Zone will support emerging industries and the growth of existing industry for some time to come.

recommendations for projects at different scales

The Vision Plan proposes improvements that involve various degrees of intervention over a broad range of scales. Some entail new development on large underutilized sites that would create a market for neighborhood property; others are specific to individual sites where an infill change will make a difference; and many will evolve on their own. They cover a range of scales from very large to small, yet each has a strategic purpose:

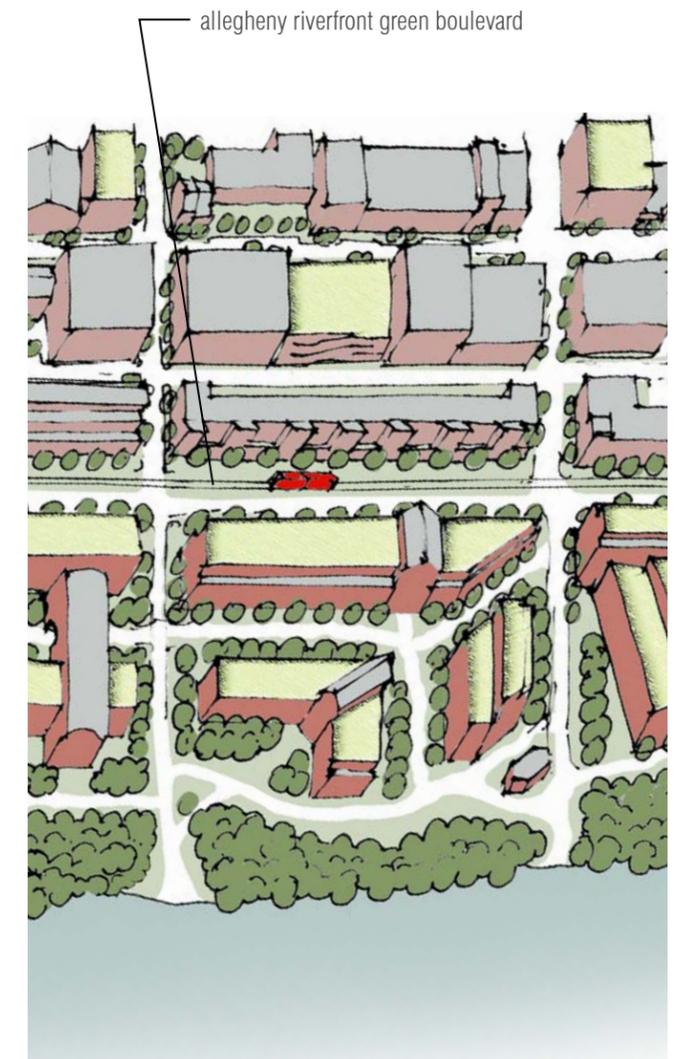
- Transformative Development
- Strategic Catalysts
- Repurposed Places
- Maintenance
- Conservation

Transformative Development

Redevelop Major Underutilized Sites

Large underutilized sites are located in key places where development could transform the landscape and create new opportunities. They would have a significant design and market impact, and exhibit catalytic qualities to help spur investment toward achieving sustained growth.

- Strip District from 11th Street to 21st Street between the riverfront and Smallman Street, including the North Side across the river between the Veterans and 16th Street Bridges
- 33rd Street Corridor/Doughboy Square from Liberty Avenue to the river
- 40th Street Corridor from Penn Avenue to the river
- Central Lawrenceville from 43rd Street to 48th Street along the riverfront, including the Heppenstall Site



Most transformative development will occur along the riverfront in the Regenerative Zone

Strip District from 11th Street to 21st Street and North Shore general design recommendations

- Development should be ecologically sustainable, multi-use, built to green standards, residentially compatible, with access to the riverfront along its length.
- Establish the riparian buffer, street grid, rights of way, and infrastructure to support future high-density development along the riverfront.
- Rebuild the public trail along the riverfront and continue the complete Allegheny Riverfront Green Boulevard as an extension of Railroad Street to 11th Street.
- Utilize Railroad Street as the front door to riverfront buildings.
- Control building heights to maintain Downtown's iconic image.
- Do not incent change of the historic retail/wholesale nature of Penn Avenue and established sites in the Strip District, but allow change to occur as an evolutionary process.
- Provide parking facilities to support the public use of the area's amenities but discourage commuter parking.



Proposed land use



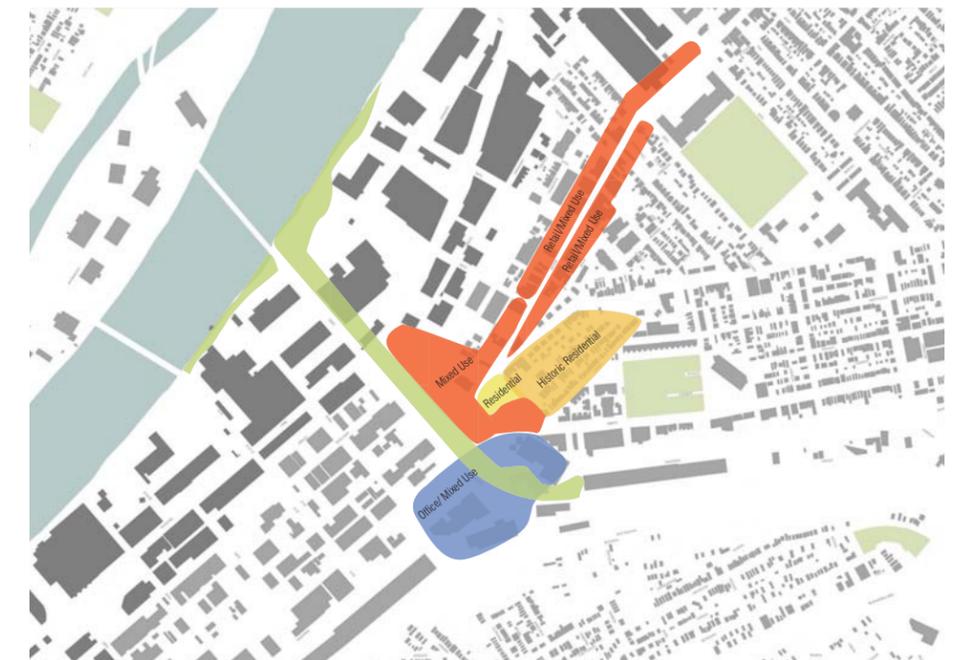
Strip District from 11th Street to 21st Street and North Shore



33rd Street Corridor/Doughboy Square

33rd Street Corridor/Doughboy Square general design recommendations

- Develop as a mix-use and transit-oriented hub with some ground floor retail activity.
- Allow higher densities because of the open space and transit opportunities.
- Increase building heights to 6-7 stories in the vicinity of the Iron City Brewery and the 33rd Street railroad trestle. Maintain 3 story heights at Doughboy Square.
- Connect Herron Avenue to Doughboy Square by extending Herron perpendicular to Penn Avenue.
- Install a 100' wide open space along the east side of the trestle from the Busway to the river where it could meet the riparian buffer. Use the open space to capture stormwater from the adjacent public realm and plant with trees to achieve an 80% tree canopy coverage.
- Transform the trestle with an art installation, such as a "living green wall" or urban graphic.



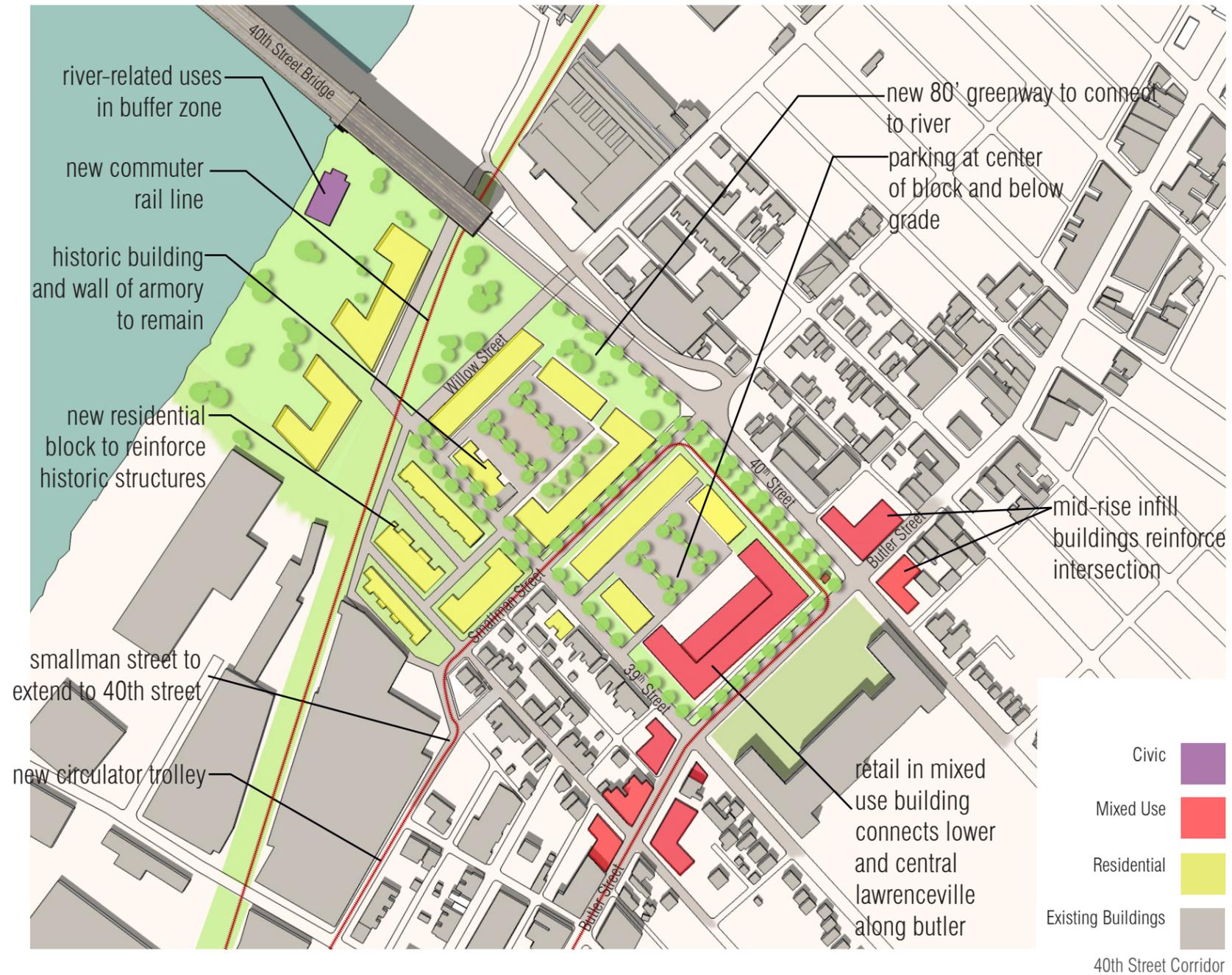
Proposed land use

40th Street Corridor general design recommendations

- Encourage development of the 40th and Butler location as Lawrenceville's civic center with mixed-use community-oriented retail and residential uses. The large parcel at 40th and Butler is critical to this area's future success and should be planned accordingly.
- Establish the riparian buffer, street extensions for Smallman and Willow Streets, rights of way, and infrastructure to support future higher-density development along the riverfront up to 40th Street.
- Encourage public access of the riverfront and the water's edge and encourage river activities, such as a marina and water taxi stop.
- Provide continuous retail storefront activity at the sidewalk property line along Butler Street.
- Use landscaped open space to connect Penn Avenue to the riverfront along the west side of 40th Street. Capture stormwater from adjacent streets and provide trees to achieve an 80% tree canopy coverage from the river to Penn Avenue.
- Provide decked parking facilities to support retail activities. Provide residential parking on-site in parking facilities below buildings, surface lots in the middle of the block, or shared parking facilities off-site. The 40th Street Corridor should not become a commuter park-and-ride location.



Proposed land use





Central Lawrenceville from 43rd Street to 48th Street

Central Lawrenceville from 43rd to 48th Street general design recommendations

- Extend Central Lawrenceville residential uses to the riverfront.
- Adopt the Lawrenceville scale for all development and maintain the neighborhood's gritty character.
- Install a public park space at the foot of 43rd Street with access to the river.
- Relocate the rail spur to McConway & Torley so that residential uses occupy the 43rd Street Concrete and Buncher Company properties at the riverfront.
- Allow 4-story buildings along the riverfront and maintain existing building heights south of the railroad.



Proposed land use



Large underutilized sites have transformative potential

Strategic Catalysts

Initial Projects to Spur Local Development

This intervention targets individual sites that could have a catalytic impact to either spur a localized market or be the first with infrastructure improvements so that others would follow. Many of these strategic catalysts are specific sites within the larger transformative development sites, yet a few others are not. They are first-step locations to achieving economic development.

Buncher Company Properties

- 21st Street at the River and/or 16th Street at the River: These two sites both within the Strip District transformative area, one at the end of 21st Street at the river's edge and the other just east of the 16th Street Bridge at the river's edge, would signal the beginning of new riverfront development in the Strip District. The 21st Street site is more suited to mixed-use development, with office-type uses facing onto Consumers Produce and residential uses oriented toward the river. The 16th Street site would be ideal for residential occupancy adjacent to the outdoor market proposed for under the 16th Street Bridge.
- Between the Veterans Bridge and the 16th Street Bridge along the south bank of the River: This Strip District site has been identified as a new entertainment destination with restaurants fronting the River and public access to the water's edge.
- Flex Building Property between 43rd and 48th Streets: This property has been identified for moderate-scaled residential development and would be the first riverfront development in the Lawrenceville 43rd Street to 48th Street transformative area.

URA Properties

- Produce Terminal: Rehabilitation of this historic building will lead the revitalization of Smallman Street in the historic Strip District. Not intended to mimic the retail nature of Penn Avenue between 16th and 22st Streets, the adapted Produce Terminal anchored by The Society for Contemporary Craft at 21st Street and the Neighbors in the Strip's Pittsburgh Public Market at the 16th Street end will set the tone as an artistic and professional center of the Strip District's transformative area.

- Tippins International Site: Redevelopment of this site into a distribution center is a strategic decision to locate distribution facilities where they have minimal impact on neighborhoods. It is also intended to absorb some distribution activities in the Strip District and those in the Buncher Company's flex buildings where other development is more appropriate.

City Property

- Tow Pound Site: Although there are no recommendations made for the eventual use of this site, it is strategically located in the Regenerative Zone making it ideal for mixed use activities. It could be one of the first sites to be developed as a regenerative demonstration.

Regional Industrial Development Corporation Property

- Heppenstall Site: This catalytic site in the 43rd to 48th Street transformative area has a key role in the future of residential development. RIDC's proposed all-industrial use would block the extension of residential development to the riverfront and have a detrimental effect on the value of the riverfront. It would be in the community's interest to promote residential development of this site and minimize industrial uses.

Other Strategic Properties

- 39th Street to 40th Street between Butler Street and Foster Street: This large property in single ownership is key to Lawrenceville’s viability as a riverfront community. It occupies “the” strategic location in Lawrenceville.
- Wendy’s and Get-Go sites at the intersection of Butler and 40th Streets: These two auto-oriented retail establishments break the retailing pattern of Butler Street, create a hazardous condition for pedestrian traffic, and do little to improve the visual quality of this important gateway into Central Lawrenceville. Replacing them with taller mixed-use structures that hold the lot lines at the intersection will assist in linking Central to Lower Lawrenceville and improving the perception of Lawrenceville.
- 43rd Street Concrete: Relocating the concrete plant to another location in the Allegheny Riverfront Area would allow 43rd Street to develop as Lawrenceville’s main access to the riverfront, allow for a new riverfront park to be installed, and contribute land for more riverfront residential development as the western anchor of the 43rd to 48th Street transformative area.
- Pitt-Ohio Property between 33rd and 35th Streets along the River: This is one of the larger sites along the riverfront that has the potential as a Regenerative Zone demonstration development.



40th and Butler Streets



Individual sites can have a catalytic impact



Repurposed buildings demonstrate sustainable investment and respect for distinctive structures

Repurposed Places

Reuse Existing Buildings to Create Distinctive Places

The Strip District and Lawrenceville are full of substantially built structures that could have second and third lives as repurposed places. Renovation and adaptive-reuse not only helps to sustain a healthy revitalization and increase in quality of the neighborhood, but also retains the structure's inherent value. Generally privately financed, these improvements are important and strategic to maintaining neighborhood character and should be encouraged wherever possible.

A number of buildings in the Upper Strip District provide good examples of reused and repurposed buildings. The conversion of the Armstrong Cork Building into apartments is the most notable example; however there have been a number of these conversions over the years involving many different uses that have helped revive the Upper Strip District and Lawrenceville:

- Chocolate Factory as flex industrial
- Cigar Factory as mixed use office
- Crane Building as mixed use
- 31st Street Lofts from industrial to residential
- Ice House as artists' studios
- NREC building as robotics research
- Brake House Lofts as residential apartments
- Midwife Center from offices to a birthing and healthcare center
- Pittsburgh Opera from industrial to rehearsal and office space
- Pittsburgh Ballet to rehearsal and office space

Upcoming repurposed buildings include:

- Otto Milk Building from industrial to residential
- Produce Terminal to a marketplace, boutique storefronts, and professional offices.

Maintenance

Allow for Continued Evolution

The hearts of the Strip District and Lawrenceville have evolved on their own and will continue to do so in the future. We've seen the increasing popularity of retailing along Penn Avenue in the historic market district; renovated storefronts along Butler Street as new uses, particularly restaurants, are changing this neighborhood street into a city-wide destination; the relocation of truck-oriented distributors to other locations outside the area; the populating of the Upper Strip with new residential development; and reinvestment in the residential neighborhoods as new residents renovate their homes.

These are the places where transformative and catalytic interventions are not needed because the market is working. The Vision Plan recommends the following notable locations for sustained maintenance:

- Historic Penn Avenue and Smallman Street market district between 16th and 22nd Streets
- Upper Strip District in the Transition Zone
- Butler Street retailing in Lower and Central Lawrenceville
- Central and Upper Lawrenceville residential neighborhoods

Evolutionary change is more acceptable to most people because incremental change is less threatening and less detrimental to its context. In commercial areas, change is more acceptable, and greater variety is often desirable. The Vision Plan's influence will be indirect, yet positive, in slowly raising the quality of life throughout the area.



Maintenance locations are "all right"



Conserve and restore the Allegheny Riverfront's historic resources

Conservation

Preserve and Enhance Authentic and Significant Resources

Although the Riverfront Vision Area is comprised of some of Pittsburgh's earliest settlements, designated historic buildings in the Strip District and Lawrenceville are sparse. Fortunately most of the bridges are designated historic structures and a good share of Lower and Central Lawrenceville is mapped as an historic district eligible for historic tax credits. Nonetheless, there remain significant buildings and streets that should be preserved either by designation actions or by community initiative to purchase and restore them. Repurposing older buildings contributes significantly to a conservation strategy.

Notable locations for conservation include:

- Market district on Penn Avenue and Smallman Street
- Doughboy Square area
- Residential buildings along 38th and 39th Streets in Lower Lawrenceville
- Catalyst Building
- Leslie Park
- Hillside bluffs from Stanton Heights to Washington Boulevard

recommendations for policies and systemic changes

Green Agenda

The ecological vision is based on a regenerative framework of the riverfront ecology – a framework which at its core strives to restore the natural water cycle and increase the urban canopy. These two critical goals are keystones of the Vision Plan and will set in motion a transformative reality in which the community is prosperous, healthy, and fulfilled. The green agenda for the Allegheny Riverfront recognizes that both the public realm and private property are needed to accomplish these goals.

The agenda is based on achieving two targets throughout the Allegheny Riverfront:

- Capture all rainwater from the first 1" of stormwater runoff
- Provide a 40% average tree canopy coverage

All of the green infrastructure recommendations are the means to reaching these targets. More opportunities occur along the riverfront where more open space and tree canopy can be provided than elsewhere. As the distance from the river increases, the types of green infrastructure change to improvements in the streets and alleyways and the creation of open space extensions to the river and public gardens.

On private property, regenerative development means that the natural environment of land and water is reestablished to the greatest extent possible and serves as the setting and benefit to a new building or structure. Beyond its footprint, the soil mantle may need to be augmented and cleaned and vegetation reestablished to mitigate existing and new pollutants produced. The rain that falls upon the parcel should be captured and utilized within the property and structure, not allowed to become a liability to the community. All development is encouraged to adopt the equivalent of LEED certification for building and site to make it environmentally responsible. Because development along the riverfront is critical to achieving the green agenda targets, green buildings and green site development should be mandatory for all new, rehabilitated, and renovation development.



Capture stormwater to restore the hydrologic cycle

tree canopy coverage zones



- 80% Tree Canopy Cover
- 60% Tree Canopy Cover
- 40% Tree Canopy Cover
- 25% Tree Canopy Cover

Tree canopy coverage goal is to average 40% over the Allegheny Riverfront vision area, which, when combined with the new green infrastructure, will restore the former ecological system and hydrologic cycle

Creating long-term sustainability for the Allegheny Riverfront is not just a function of City agencies, street improvements, and new infrastructure, but also a commitment and maintenance of those who reside, utilize, and own private property. Without the participation of area residents, businesses, and future developers and real estate interests, environmental sustainability will not be possible.

Zoning

Zoning in most of the Allegheny Riverfront reflects its industrial and residential roots. The UI (Urban Industrial) District and GI (General Industrial) District zoning covers most of the flatlands area and R (Residential) District zoning reinforces the residential areas of Lawrenceville. The present zoning, while encouraging a mix of uses, is not conducive to achieving the recommendations of the Vision Plan in some locations. Density is restricted where intermodal transit is needed, building heights are restricted to three stories, parking requirements result in large surface parking lots, and large development projects require zoning changes.

Riverfront Overlay District

A Riverfront Overlay District (RF-O) is on the zoning books; however it is a text-only district, measuring 660' deep from the water's edge, and has not been applied to any riverfront location in the city. The Vision Plan recommends adapting the Riverfront Overlay District as the basic vehicle for new zoning, but with some major changes. The area has a history of lot consolidation and vacation of street right-of-ways that have resulted in broken grid patterns, which should not continue.

Mix of Uses

Mixed use and the variety it encourages has become part of the local culture, is an attractive feature to new residents and businesses, and is memorialized in the UI and GI District zoning that promotes mixed use within an urban industrial setting. Although the tendency is to specialize and become more homogenous, a phenomenon observed in residential areas where market value increases result in protective actions, the Allegheny Riverfront would lose a lot of its character if mixed-use residential and business neighborhoods were not supported and encouraged.

proposed land uses



Regenerative mixed-use zone proposed for the riverfront



Before



After

Increasing density adds benefits, such as more services, choices, and walkability

Density

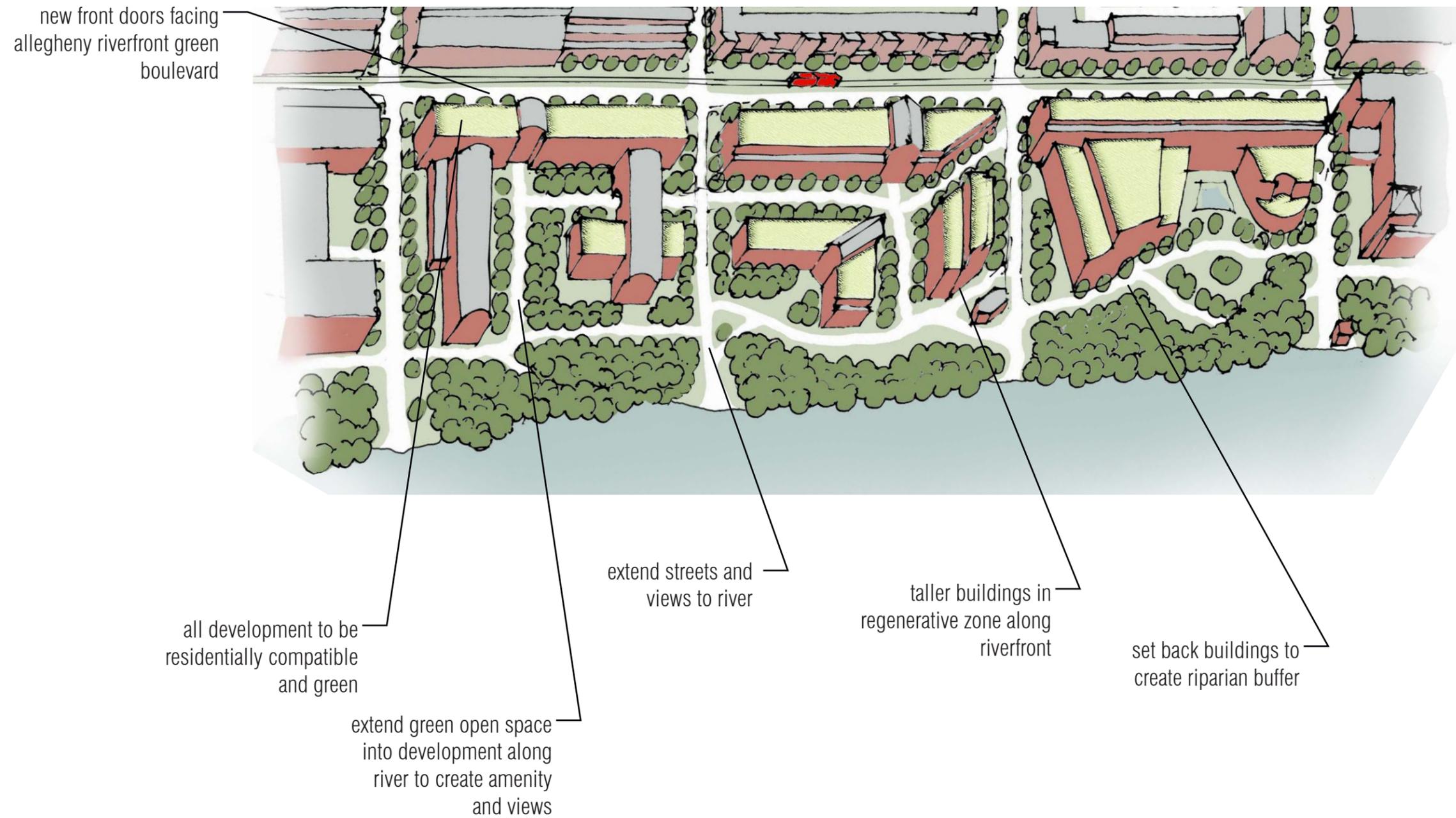
Density is a measurement of intensity in a specific area. Cities have been finding that added density often adds benefits, such as more services and choices. Denser neighborhoods are generally more walkable because larger populations often result in an increase in the variety of shops, neighborhood services, transportation services, and infrastructure improvements. It is much less costly for a city to concentrate its population rather than spread it out. Funding of transit oriented development is based on this principle, in addition to relieving automobile congestion. The Allegheny Riverfront has a finite amount of land so spreading out its population is not feasible; however concentrating density in key locations can incent other improvements to happen. Higher density can also serve to compensate development for infrastructure improvements.

Increasing density makes more sense when it can be relieved by amenities that temper the intensity of use. Good locations for higher densities include parcels adjacent to open space that is more than 100' in depth, on properties that front onto designated green streets because of their added street trees and landscaped space, along the riverfront where the open space of the river and the riparian buffer are mitigating factors, and at locations where mass transit stations and intermodal transportation facilities encourage walking. Density increases can be achieved by increasing building height.

Form-based Development

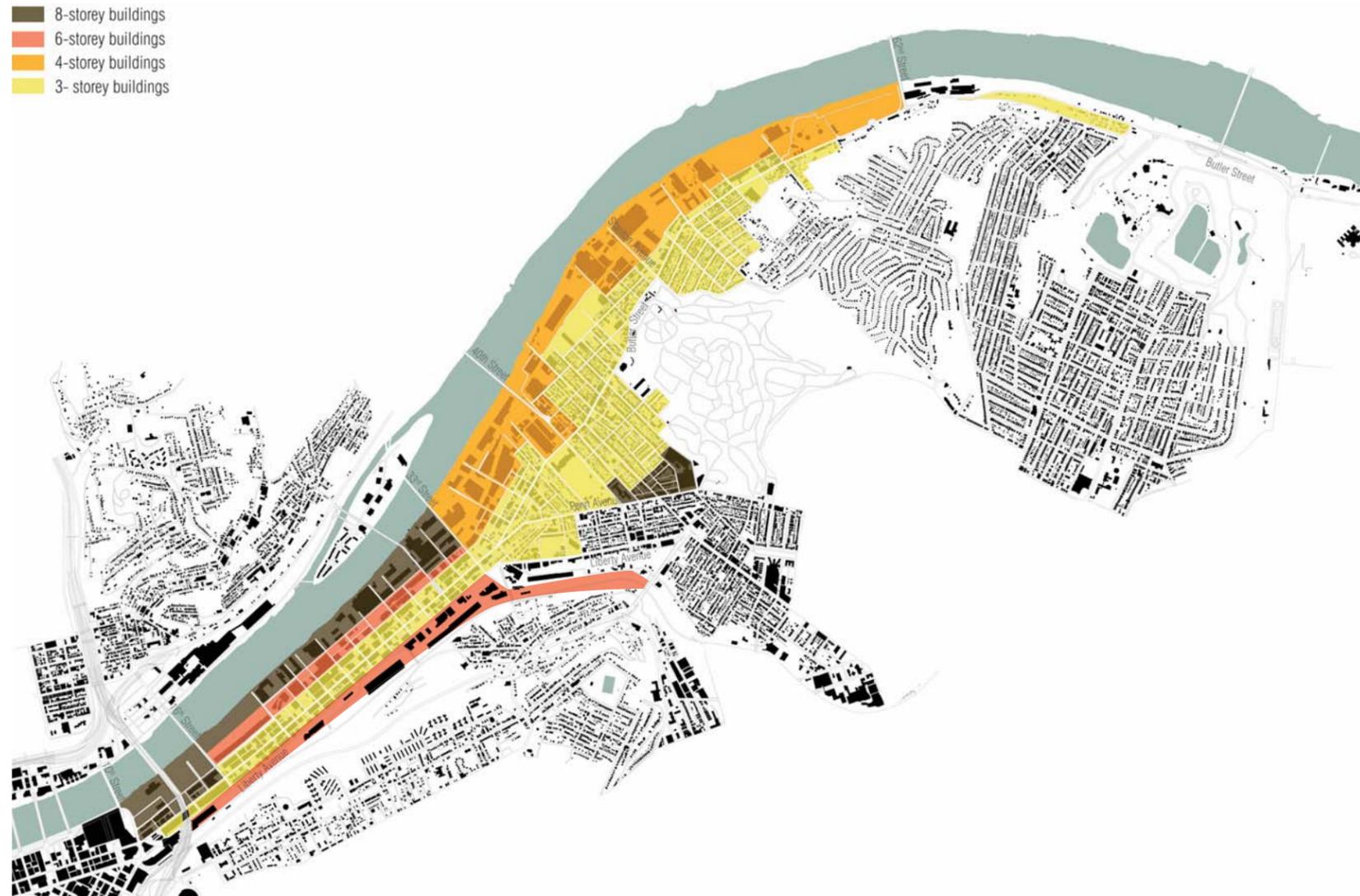
While industrial uses will continue and always be a part of the Strip District and Lawrenceville, the Allegheny Riverfront's future lies in reconceiving these riverfront communities as thriving and active mixed use communities where there is little distinction between industrial, residential, and business uses. What is more important than designating land uses are the physical design qualities of zoning where density and building massing control building form, the buildings' collective relationship to the immediate context, and the overall physical environment. Various uses can occupy the same building as demonstrated by the repositioning of many industrial and institutional buildings throughout the Strip District into residential apartments. In fact, buildings specifically designed for one use type cannot be easily converted to other uses or meet a regenerative or sustainable agenda. The future lies in designing and constructing buildings that are adaptable to many future uses or easily deconstructed and recycled.

Form-based development acknowledges that many uses can occupy the same structure and therefore concentrates on the structure's form and its contribution to the built environment and urban fabric. Density, height, setbacks, and the creation of usable open space that improves the public realm are the ingredients of creating a built environment that makes communities livable and desirable places. Other than a very general indication of desired uses, the economic marketplace will make fairly logical decisions about appropriate uses given the physical context. Given the Allegheny Riverfront's history, letting the marketplace determine land use patterns will continue its mixed-use nature and character.



Form-based development acknowledges that many uses can occupy the same structure

proposed building heights



Taller buildings at the edges of open space

Building Height

Higher density usually means taller buildings. If thoughtfully located, taller buildings identify locations of more intense activity which serves as a visual and orientation cue. Taller buildings can also signify where important community amenities are located. Allegheny Riverfront locations for potential building height increases includes parcels adjacent to open space that is 100' in depth or greater and for parcels fronting onto designated green and complete streets in concert with density recommendations. Riverfront parcels in the Regenerative Zone as far east as 40th Street should be given special consideration because of the Cork Factory precedent and the ability to construct taller and higher density residential buildings in UI and GI Districts.

Recommended heights in the Strip District to 33rd Street

- Up to 8 stories along the riverfront and 6 stories where development is encouraged
- All other buildings in the Strip District per existing zoning heights

Recommended heights in Lawrenceville from 33rd Street to 40th Street

- Up to 4 stories high along the riverfront and 4 stories where development is encouraged at the proposed 33rd Street Corridor and the 40th Street Corridor
- All other buildings in Lower Lawrenceville per existing zoning heights

Recommended heights in Lawrenceville east of 40th Street

- Up to 4 stories high along the riverfront and 4 stories where development is encouraged
- All other buildings per existing zoning heights

Setbacks

Most zoning codes require front, side, and rear yard setbacks so that buildings do not cast shadows onto other property depriving them of light or are built so close to one another so that air cannot circulate well. An unfortunate consequence of setbacks on all four sides, or even two sides, of a building is to place the building footprint toward the center of the parcel. Buildings then become separated, open space becomes ambiguous, and the built fabric loses its clarity.

In some city neighborhoods there are no frontage setbacks. Lawrenceville is one of these. When there is a tradition of no setbacks or uniform setbacks of the built environment, the 1998 zoning code revisions recognize this as contextual zoning and accommodations have been made to keep these streets intact. The Vision Plan endorses contextual zoning.

Building setbacks can, and do, provide public benefit in specific locations where a public amenity can be created. The Allegheny Riverfront has a few locations where mandatory setbacks are desired.

- **Riverfront Riparian Buffer:** The intention is to create a 200' wide ecological buffer along the length of the riverfront. A 200' setback is recommended for all new structures, with no structure closer than 50' to the water's edge. Development footprints within the 200' wide buffer should provide reciprocal buffer space and tree canopy coverage on a 1:1 square foot basis beyond the 200' buffer.
- **Allegheny Riverfront Green Boulevard:** Where the railroad right-of-way is less than 70' wide, structures should be set back at least 15' on the right-of-way's south frontage to allow for a 6' wide sidewalk and a landscaping buffer between the sidewalk and the railroad tracks. Otherwise the right-of-way is too narrow for buildings on the south frontage to front onto the Green Boulevard.

Infrastructure

New infrastructure is needed throughout the Allegheny Riverfront Vision Area to meet 21st century development and urban living needs. Infrastructure provides the foundation for guiding and incenting private economic investment and the growth of the city's riverfronts. Recommendations in the Vision Plan take many forms to meet a variety of needs.

Stormwater Management

To restore the hydrologic cycle while tackling the CSO outfall problem, a variety of new public and private infrastructure is needed. Clean roof drainage from structures along the riverfront can empty directly into the river. The riparian buffer and the railroad Green Boulevard are critical to providing enough space for trees to return water to the atmosphere while good soil provides permeation. Perme-

able pavements, landscaped open space and parks, vegetative curb extensions, intersection bump-outs, green alleyways, and urban gardens are recommended for the public realm. Private property owners can contribute by providing vegetative roofs, rain barrels, rain gardens, good soils, and good landscaping with trees.

Street Trees

Street trees are instrumental infrastructure elements for rain water transpiration and one of the more critical design features responsible for creating and maintaining livable and walkable communities. Particularly relevant to designated green streets, street trees should be installed throughout the Allegheny Riverfront on every possible street and open space opportunity.

Transit and Street Network

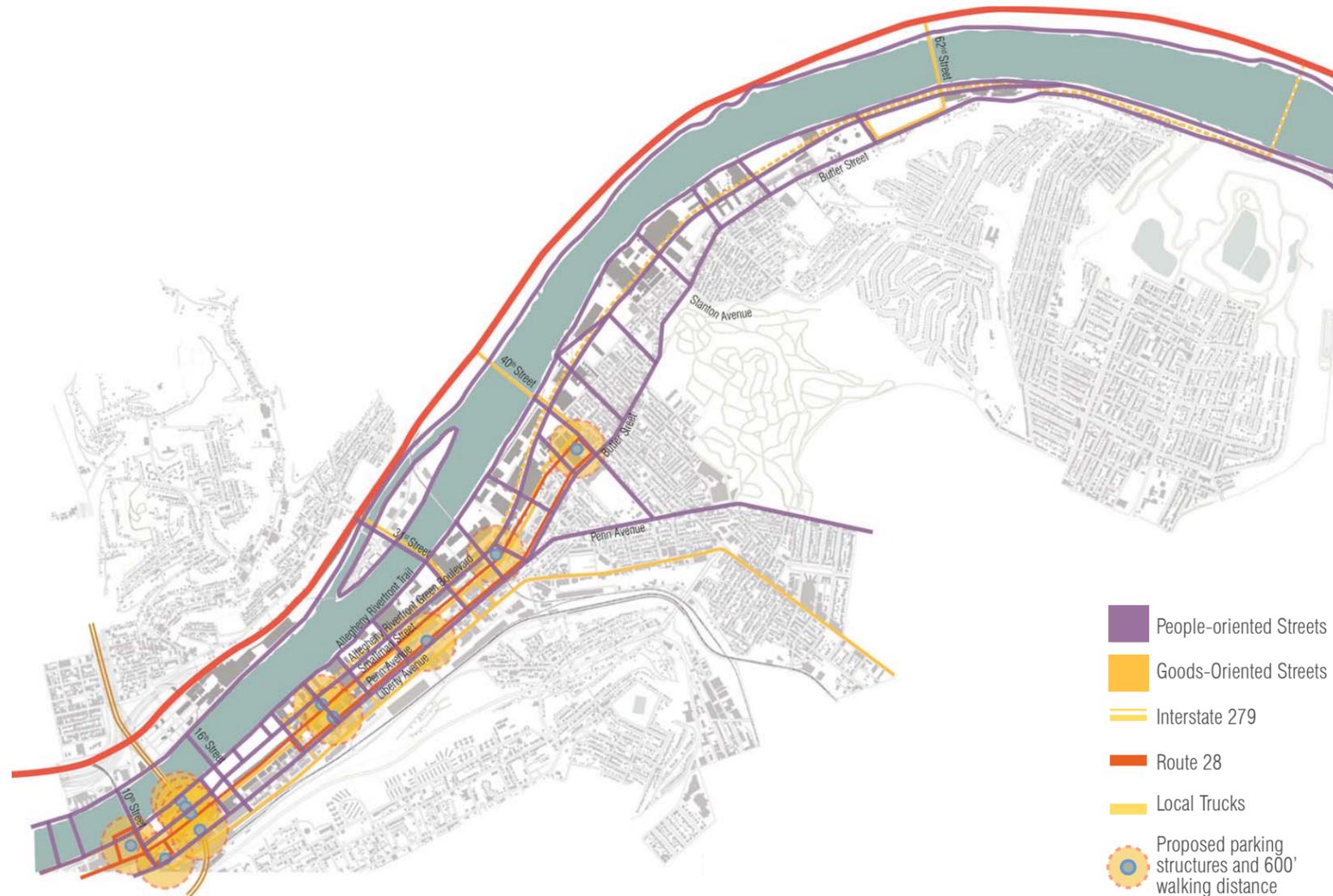
Increasing transportation choices through new public transit has proven to be one of the most beneficial infrastructure improvements to incent private investment. The proposed commuter line and urban circulator will bring about dynamic and dramatic revitalization to the Allegheny Riverfront and position it as a viable resource center to Oakland and Downtown. Street movement designations, street extensions, intersection improvements, and thoughtful pedestrian- and bicycle-friendly infrastructure will help with traffic management in the Vision Area while increasing public safety.

Utilities

Rethinking how everyday utilities are provided and distributed can benefit the visual environment and open opportunities for renewable energy. The riverfronts should be Pittsburgh's pride and joy yet we continue to permit visual blight with overhead lines and telephone poles. If there is a place to begin underground distribution, it is along the riverfront properties. The large industrial parcels and other properties in the Regenerative Zone, the riparian buffer, the proposed Allegheny Riverfront Green Boulevard, Transition Zone properties, and the inboard transformative development areas are candidates for renewable energy systems, such as a geothermal grid providing low-cost energy for heating and cooling for on-site and adjacent properties.



proposed street categories



Street types prioritized by function

Vehicle Management

Separating the movement of goods from the movement of people, extending some streets to facilitate the flow of traffic, improving street intersections, and a parking strategy that encourages sidewalk shopping are the primary recommendations for resolving movement conflict.

Roadway Network

Truck traffic originating outside the Allegheny Riverfront or destined for other places would move along arterials, which are designated to prioritize through-movements. Only in order to enter/exit truck facilities and make local deliveries, trucks would use collectors and local roads, which tend to move more slowly and experience more movement interference.

Major Street Categories for the Allegheny Riverfront

Street types should be prioritized by function, not by width. The following priorities for street use are recommended:

Liberty Avenue	Arterial	Goods: Autos, trucks, and bus transit
Penn Avenue/Butler Street	Arterial/Complete Street	People: Pedestrians, bicycles, trolley and bus transit, with autos
Smallman Street	Arterial	Goods: Autos, trucks, trolley and bus transit
Railroad Street Green Boulevard	Collector/Complete Street	People: Pedestrians, bicycles, commuter rail from 26th Street east, with autos and trucks

Wherever transit is located, bus and trolley station stops and pedestrian crossings need to be added. Bicycle parking facilities are recommended at major stops to maximize intermodal opportunities.

Smallman Street and Other Major Street Extensions

Extending Smallman Street east from the present terminus would serve to connect Smallman Street with Butler Street at 40th Street. This connection would help keep truck traffic from migrating to Butler Street, Penn Avenue, and/or Liberty Avenue between 31st and 38th Streets. Railroad Street should be extended from 21st Street to 11th Street as a segment of the Allegheny Riverfront Green

Boulevard, without the commuter line. This extension would serve as the spine street through new mixed use and commercial development recommended for this portion of the Buncher properties. Extending Herron Avenue across Liberty to Penn Avenue just below Doughboy Square will help relieve the confusion of Lawrenceville access from the Liberty/Herron intersection and provide new access between Polish Hill, Bigelow Boulevard, and Lawrenceville. With this change, 34th Street could be closed and improved as a public park or developed with new structures.

Street Intersection Recommendations

Street intersection improvements recommended to be built over time to serve the anticipated changes in use and activity within the Allegheny Riverfront, in addition to those recently implemented, include:

- The Smallman Street cross section, within the Strip District, should be modified for improved pedestrian conditions, on-street parallel parking, and provision of a travel lane for the circulator trolley cars.
- At the 40th Street terminus of the Smallman Street extension, a right-in right-out intersection of Smallman Street on the 40th Street Bridge should be created, with stop control on the Smallman Street approach.
- In the vicinity of the Tippins International site, access improvements along Butler Street should be made to accommodate automobile and truck traffic.

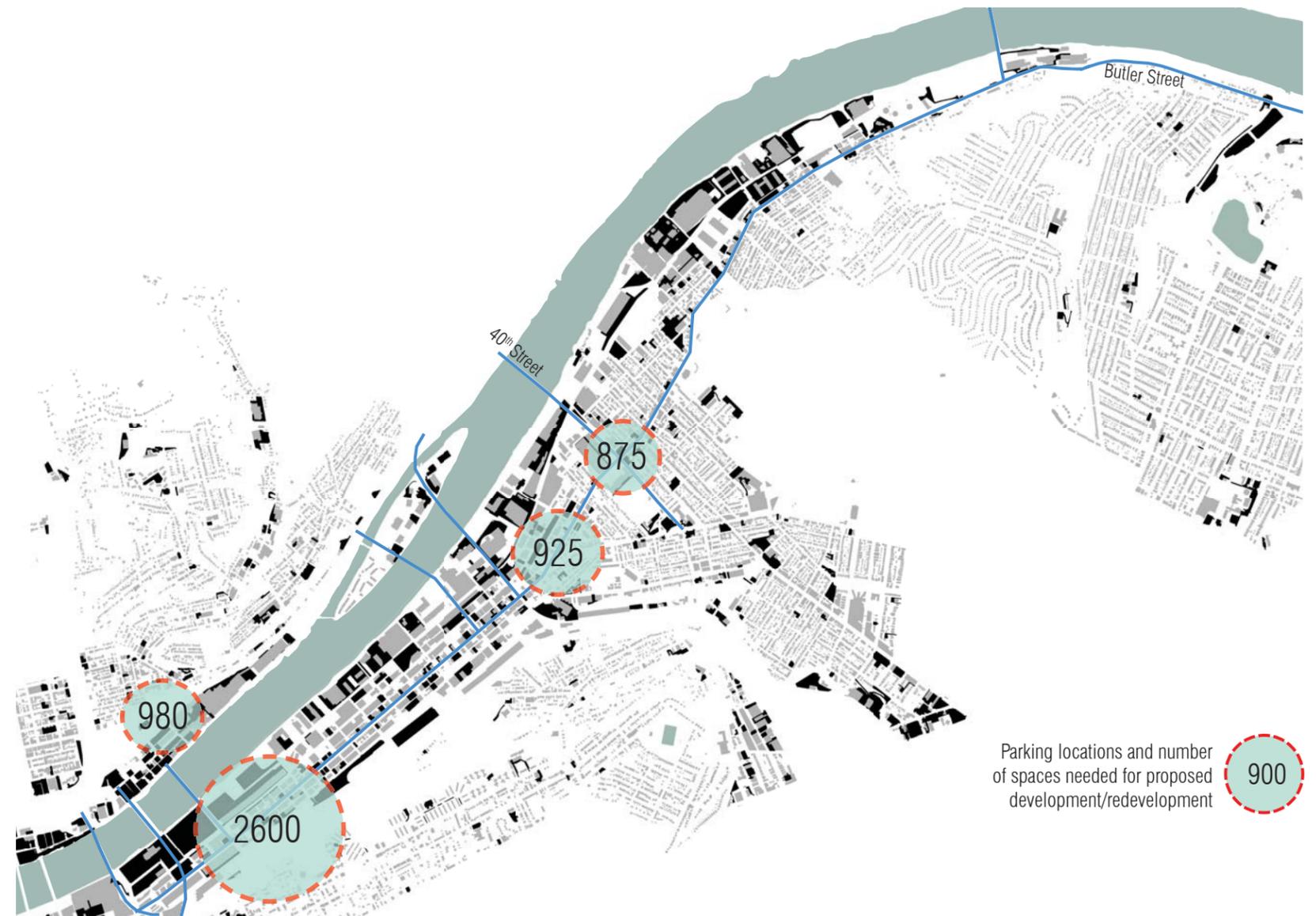
Parking Recommendations

Structured parking for shared retail, commercial use, evening venues, and others should be a parking goal throughout the Allegheny Riverfront Area. In particular, there will be many opportunities in the Strip District for shared parking between daytime office/commercial uses, retail, and entertainment activities.

Based on minimum parking requirements for residential, office and retail, with reductions applied for transit usage, shared parking and bicycle facilities, the following number of required spaces would be needed:

- Strip District 1,961 to 2,591 spaces
Plus 330 lunch/shopper spaces
(Total: 2,291 to 2,921 spaces)
- Doughboy Square 895 to 969 spaces
- 40th Street/Butler Street Corridor 871 to 892 spaces

proposed structured parking allocations



Parking locations and number of shared spaces needed for proposed development/redevelopment shown on transformative project sites



Develop to compatibility and green design standards

It is anticipated that this parking will be constructed gradually as the uses it will serve are constructed, with an emphasis on sharing reservoirs of parking to the maximum extent possible.

Parking Location Recommendations

Parking needs to be easily accessible yet strategically placed to support nearby uses.

- In the Strip District parking is recommended beneath the Veterans Bridge and east of 21st Street with access from Liberty Avenue and Smallman Street. These peripheral locations to Penn Avenue's historic market place will perform similar to department store anchors in shopping centers that help support the smaller shops in-between, while servicing adjacent commercial uses.
- Residential parking could be located underground in high density areas or at grade in residential neighborhoods inside residential developments or courtyards, with access provided from side streets rather than main streets. This will serve to decrease the number of curb cuts on through streets, reducing vehicle/vehicle and vehicle/pedestrian conflicts.
- Satellite parking outside the study area is recommended as a replacement for the fringe commuter parking currently located in the Strip District.

Development Standards

As new development occurs, including renovation and rehabilitation projects, the Allegheny Riverfront would benefit by adopting sustainable development standards. These would not only reinforce the goals of the Allegheny Riverfront Vision Plan, but serve as best practice examples of how riverfronts can become riverfront communities and models for City and County smart growth and regenerative policy.

Residential Compatibility

Uses and buildings that are residentially compatible maintain property values and encourage the intermixing of residential development with industrial and business uses. Residentially compatible translates into higher quality development of all uses and an acknowledgement that low-investment development is detrimental to the economic sustainability of the neighborhood and does not make a good neighbor. Residentially compatible development will help to regenerate the riverfront properties, raise land and market values that will increase investment opportunities, and produce desirable and livable communities whether they are residential or business focused.

Residential compatibility means investing in the building's exterior envelope. The perimeter should maximize window openings, with window openings on all facades. Durable materials should be used to increase longevity and relate to the local context. Residentially compatible also means capable of regeneration and repurposing, with buildings adaptable for other future uses, be they residential apartments, professional offices, or a vocational school. Polluting uses are not residential compatible. Uses that stream pollutants into the atmosphere, create loud noises or obnoxious smells that cannot be controlled within the property lines, or are so brightly lit that they keep neighbors awake at night are not appropriate.

Green Design Standards

While it may be desirable to require all development to be sustainable, it is not practical. However there are opportunities where implementing green design standards are possible and in the best financial interests of property and business owners.

The riverfront's Regenerative Zone is the prime location for adopting green design standards for both building and site design. As new development occurs, structures should be designed to achieve the equivalent of LEED certification and the site designed to maximize green opportunities, including aggressive stormwater management, vegetative roofs, and riparian buffer landscaping. By setting new precedents as a model for future Pittsburgh riverfronts, this zone could also set the pace for new development throughout the city.

The Transition Zone is another location where green design practices should be followed with new and renovation construction, and new construction should follow the same practices as the Regenerative Zone. When renovated, the existing building stock should be strongly encouraged to be LEED certified. Green roofs need to be encouraged for all buildings, whether renovated or not, as an ecological contribution to better environmental sustainability.

In fact, all new and renovated development in the Allegheny Riverfront Vision Area would benefit by adopting green design standards. With everyone participating, the impact could be contagious and tremendously beneficial for the city.

implementation and resources

Implementation should start by the URA and City Planning adopting the Vision Plan, modifying and adopting the Riverfront Overlay District zoning, and communicating to all stakeholders there is now a framework in which they can confidently invest. These actions will convey a sense of certainty that the City is serious about implementing the Vision Plan. Respective development plans will be needed for the large parcels identified as development opportunities for transformative intervention. The City will need to come forward and make a commitment to infrastructure—not only in the 1-3 year timeframe to support specific projects, but also in the 5-, 10-, 15-, 20-year timeframe segments needed to acquire City, State, and Federal monies. There will also be the need to coordinate efforts between the URA and City Planning with capital expenditure investments, and between other agencies, including PWSA and ALCOSAN, the Parking Authority, City and County Public Works, and PennDOT.

Infrastructure Phasing

Both the development and real estate communities are clearly looking for the City to make the first move and strongly expressed the need for public investment to precede private development. Research of precedents uncovered that the most successful district-wide revitalization examples began with government intervention with infrastructure, usually in the form of transportation and environmental improvements, occurring during the late first stage of redevelopment after the pioneers had established a strong foothold.

Recommendations

- URA and City invest in transportation and environmental improvements.
- Concentrate on connections improvements, such as the circulator trolley, the railroad Green Boulevard, and extending Smallman Street to 40th Street.
- Include stormwater improvements as integral with connections improvements.

Incentives to Spur Private Development

Revitalization of existing building stock through tax credits, along with constructing a few new buildings in transformative locations, can spur development and demand. More new construction will come later as the demand is created. It is important that any tax credit program be of limited duration to spur enough initial redevelopment to create desirability and demand, and then pull back to let normal market forces generate further development.

Recommendations

- City, School District, and County initiate tax credit programs for targeted Regenerative and Transition Zone properties.
- Tax credits should be in addition to historic and new market tax credits.
- Limit the time period for tax credit eligibility.

Hot Spots and Future Spots

Certain locations have a greater chance of early success, primarily because they are large tracts of undeveloped land under the Buncher Company's and the URA's ownership and where the URA has an interest in their immediate development. They are:

- Produce Terminal between 16th and 21 Streets on Smallman and the land between the Produce Terminal and the river (as new residential uses)
- Tippins International site at 62nd Street (as a new distribution center)
- The Buncher Company's flex building between 43rd and 48th Streets (which could become prime residential property)

Other large properties have hot spot potential:

- Heppenstall Steel property between 44th and 48th Streets
- Tow Pound site between 29th and 31st Streets along the riverfront
- Properties between 11th Street and 16th Street
- Properties between 39th and 40th Streets from Butler Street to the river (which has the potential to become Lawrenceville's "civic center")
- Pitt-Ohio property between 33rd Street and 35th Street along the river

Recommendations

- Concentrate on The Buncher Company and URA properties as the first step to undertaking development and infrastructure improvements. Use these sites as demonstration projects.
- Encourage residential development along the riverfront as early-stage objectives.

Trading Parcels

The Buncher Company/URA agreement, involving three sites, suggests the potential for trading sites to achieve "right fit" development and ownership possibilities. A few other possible trades include:

- Flex building between 39th and 40th Streets at the riverfront for space at the Tippins International site or another Transition Zone location to allow the present industrial uses to be converted to riverfront residential uses.
- Heppenstall Steel site for other land elsewhere in the city where industrial-only uses are more appropriate and accessible to free up the site for neighborhood residential and/or mixed uses.
- Pitt-Ohio Property between 33rd and 35th Streets at the riverfront for RIDC's Heppenstall site. Relocating 43rd Street Concrete to the Pitt-Ohio property is also an option as the site enjoys good trucking access.
- City- and County-owned properties to the Service Zone or more appropriate locations, particularly the City's sign shop on Liberty Avenue and the Public Works property along the Highland Park riverfront, and the County's land beneath the 40th Street Bridge.

Recommendations

- Government agencies work together to continue with land trading that matches up strategic properties with "right fit" ownership.
- Require that redevelopment activities begin within a limited time period for traded land within the Regenerative and Transition Zones.

Development Spillover

It is anticipated that once the revitalization program reaches the second and third stages the spillover effect will begin an infill process. The typical metric for spillover development are new projects undertaken beyond 600' of a major development or transformation.

Recommendations

- Strategize where early-stage development projects would have the maximum spillover effect and concentrate infrastructure and other subsidies on these locations.
- Limit subsidies and other incentives for spillover sites so that limited funds can be applied to catalytic and strategic development sites.

Letting the Market Take Over

At some point the stimulus will be felt beyond the development spillover effect. However, cities and markets are dynamic and growth is not predictable. This is where a regenerative agenda is most beneficial to long term sustainability. The second dimension of building for adaptability is to encourage development plans that adapt to changes in market needs and dynamics. The scale and pace of development needs to be phased according to availability of funding, sites under control, and current market needs without taking too much property out of private hands and off the tax rolls. Deliberate and continuous investment in the public realm infrastructure by government and the community, even when it can only be accomplished incrementally, will strengthen community's desirability and its attractiveness for private investment that will have a positive effect on the overall market.

Recommendations

- Continuously invest in public infrastructure to sustain private investment.
- Pace development plans to market conditions while conveying the community's agenda for sustained and regenerative development.

Value of Time

"Big bang" projects where heavy subsidies are concentrated on very few, but very large-scale, projects absorb the majority of market demand. The results are development spikes that, while resulting in exciting new projects, slow development elsewhere. Instead, evolutionary development is more beneficial to the community by allowing neighborhoods and infrastructure to absorb change and make accommodations, while allowing for multiple investors and investments. Development is spread over a larger area and is more responsive to opportunities.

Recommendations

- Limit development subsidies and incentives to strategic and catalytic portions of larger development projects so that normal market forces can become the economic generators of a sustained development process.
- Spread, rather than concentrate, subsidies and incentives to multiple investor developers to encourage a more evolutionary process.

Funding Programs

There are a number of available grants, loans, tax credits, and real property tax exemptions available to facilitate development projects aligned with the Allegheny Riverfront Vision Plan.

The Strip District and 40th Street Corridor transformation designs qualify under the Southwestern Pennsylvania Commission's transit oriented development (TOD) criteria. The 33rd Street Corridor/Doughboy Square transformation design would also qualify if the commuter rail lines are implemented.

City of Pittsburgh

- Tax Increment Financing (TIF)
- Pittsburgh Housing Construction Fund
- Pittsburgh Rental Housing Development & Improvement Program
- Neighborhood Housing Fund
- Commercial LERTA (conversion)
- Residential LERTA (conversion)
- Act 42 Enhanced (defined areas)

Allegheny County

- Tax exemptions and deferred second mortgages
- Act 202
- Allegheny Housing Development Fund

Commonwealth of Pennsylvania

- PA Housing Finance Agency
- Growing Greener II
- Housing and Redevelopment Assistance
- Transit Revitalization Investment District Fund (TRID)
- TRID Fund
- PA Economic Development Financing Authority
- H2O PA
- Infrastructure Development Program

Federal and Other Programs

- New Markets Tax Credits
- Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER) Program
- Federal Transit Administration
- Federal Appropriation/Earmark

Joint Federal programs for riverfronts and sustainability:

- Department of Transportation's (DOT) Transportation Investment Generating Economic Recovery program (TIGER II)
- Department of Housing and Urban Development (HUD) Community Challenge planning grants
- Upcoming joint EPA/FTA/HUD programs

Proposed Incentives by the Development Community

A number of programs were suggested by the development community during focus group sessions and interviews.

Targeted Local Tax Abatement

- City, School District, and County real property tax abatement for projects in targeted areas

Assistance with Lending and Subsidies

- Innovation Zones

Assistance with Creative Financing

- Empowerment Zones
- Energy credits
- Sustainability credits

Public Incentives

- Construct public parking facilities
- Clean up environmental hazards

Coordinated Permitting

- DEP, PWSA, County Health Department, and Pittsburgh Public Works for sustainability goals and design standards

Sponsorship Roles

Urban Redevelopment Authority of Pittsburgh

- Investment in public realm infrastructure
- Catalyst for development
 - Site acquisition
 - Site improvements
 - TIF and other incentive programs
- Land exchanges

City Planning

- Riverfront Overlay District and other zoning
- Development master plans
- Transportation planning

Riverlife

- Riparian buffer and stormwater infrastructure maintenance program
- Capital funding for long-range improvement programs (Federal and State)

Pittsburgh Water and Sewer Authority (PWSA)

City of Pittsburgh Department of Public Works (DPW)

City of Pittsburgh Code of Ordinances

Allegheny County Health Department Environmental Regulations

- Review and modify regulatory barriers to green infrastructure improvements and implementation

Pittsburgh City Council

- Tax credit and other financial incentive programs
- Zoning amendment approvals

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