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

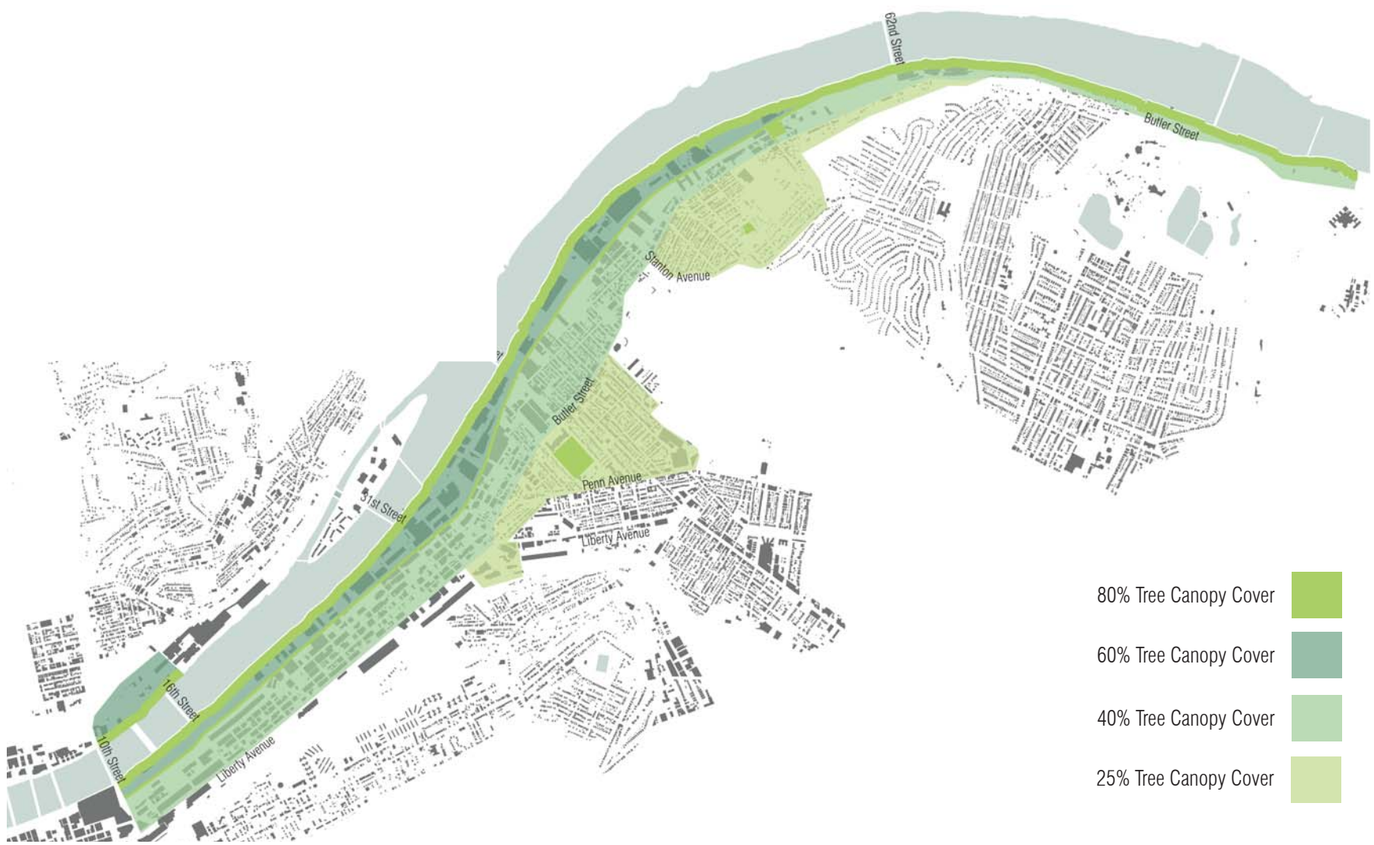
All of the green infrastructure recommendations are the means to reaching these targets. More opportunities occur along the riverfront where more open space and tree canopy can be provided than elsewhere. As the distance from the river increases, the types of green infrastructure change to improvements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

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.



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

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

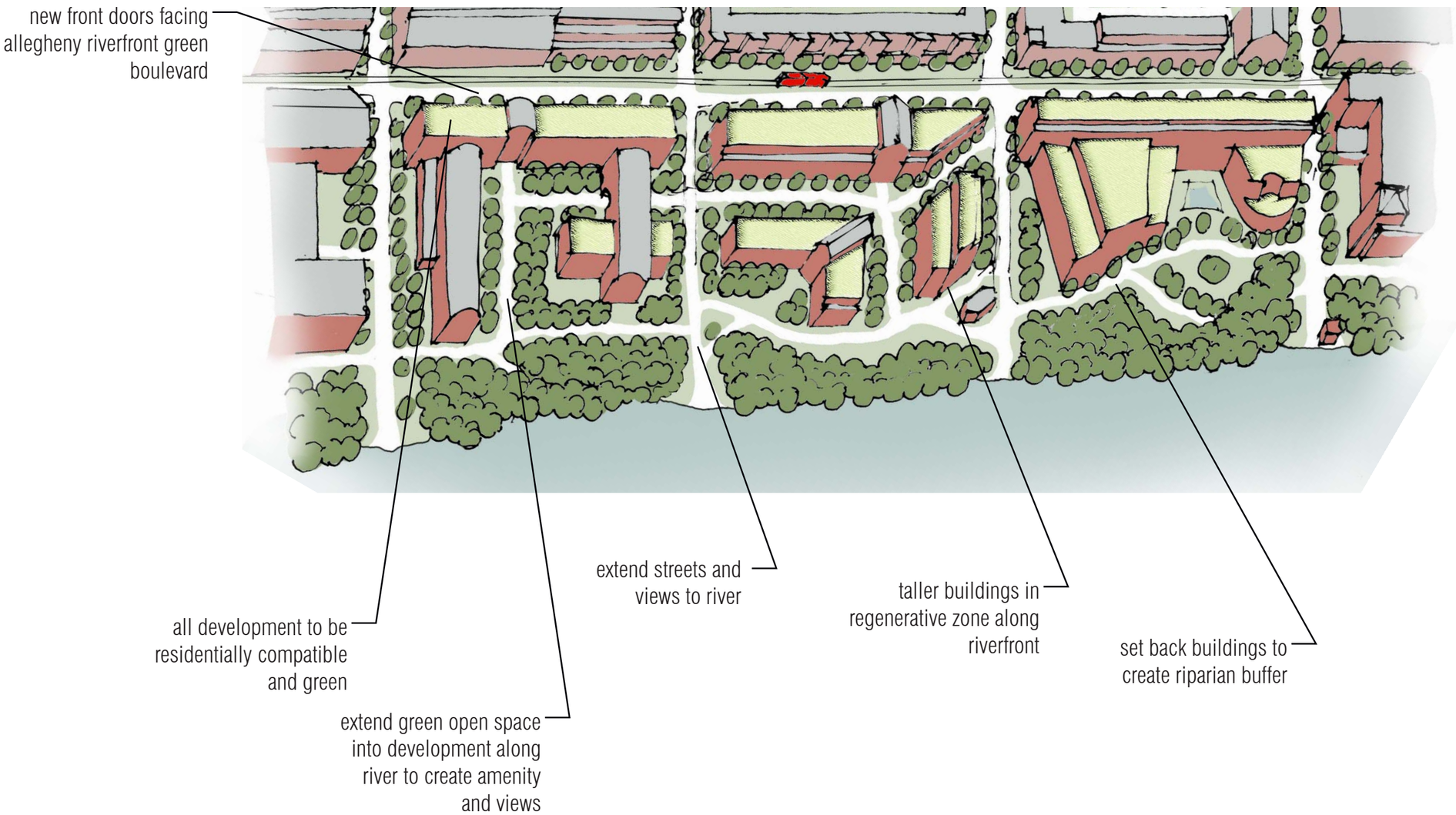
Density is a measurement of intensity in a specific area. Cities have been finding that added density often adds benefits, such as more services and choices. Denser neighborhoods are generally more walkable because larger populations often result in an increase in the variety of shops, neighborhood services, 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

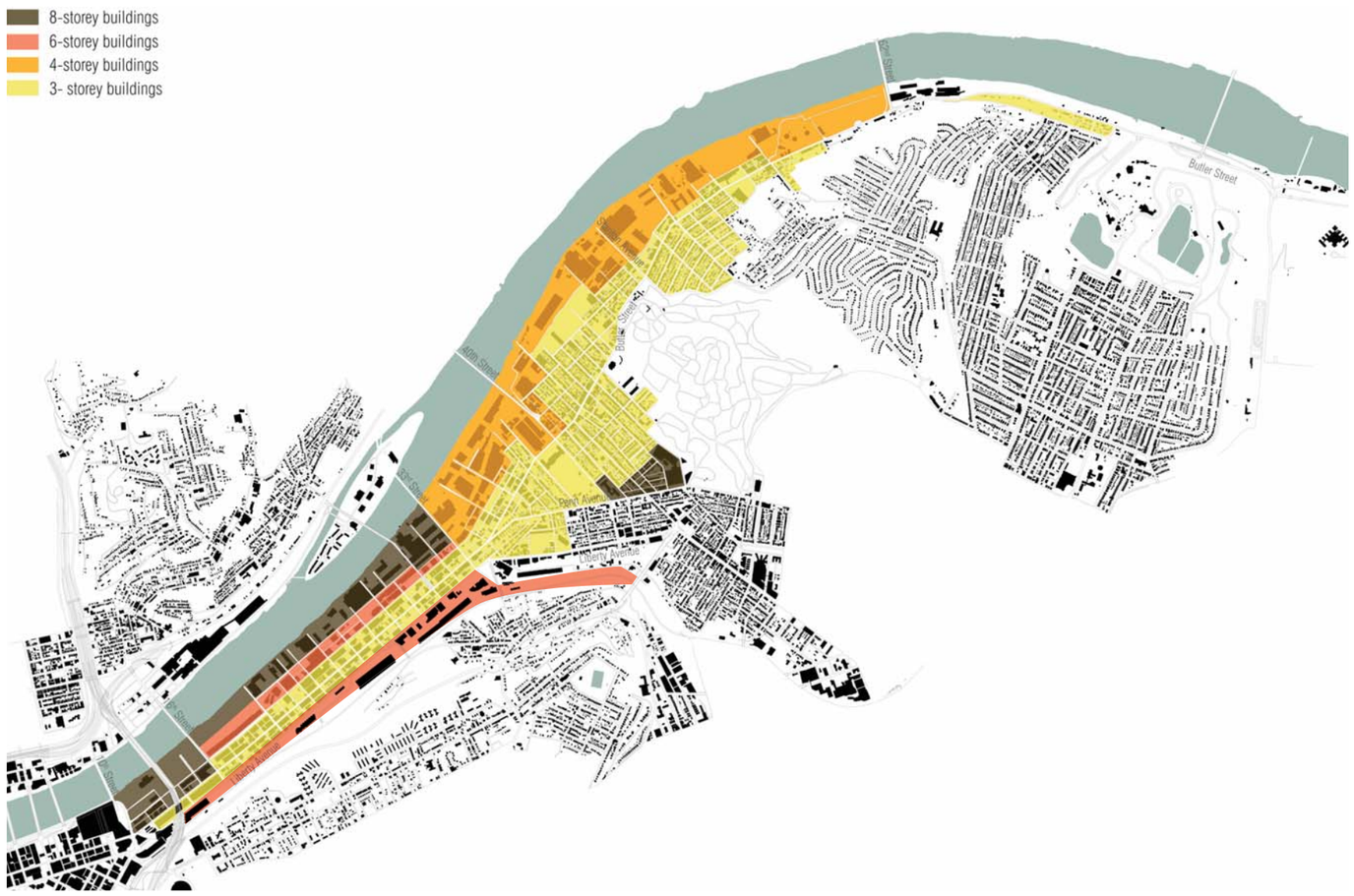
While industrial uses will continue and always be a part of the Strip District and Lawrenceville, the Allegheny Riverfront's future lies in reconceiving these riverfront communities as thriving and active mixed use communities where there is little distinction between industrial, residential, and business 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 need. 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. Permeable 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.

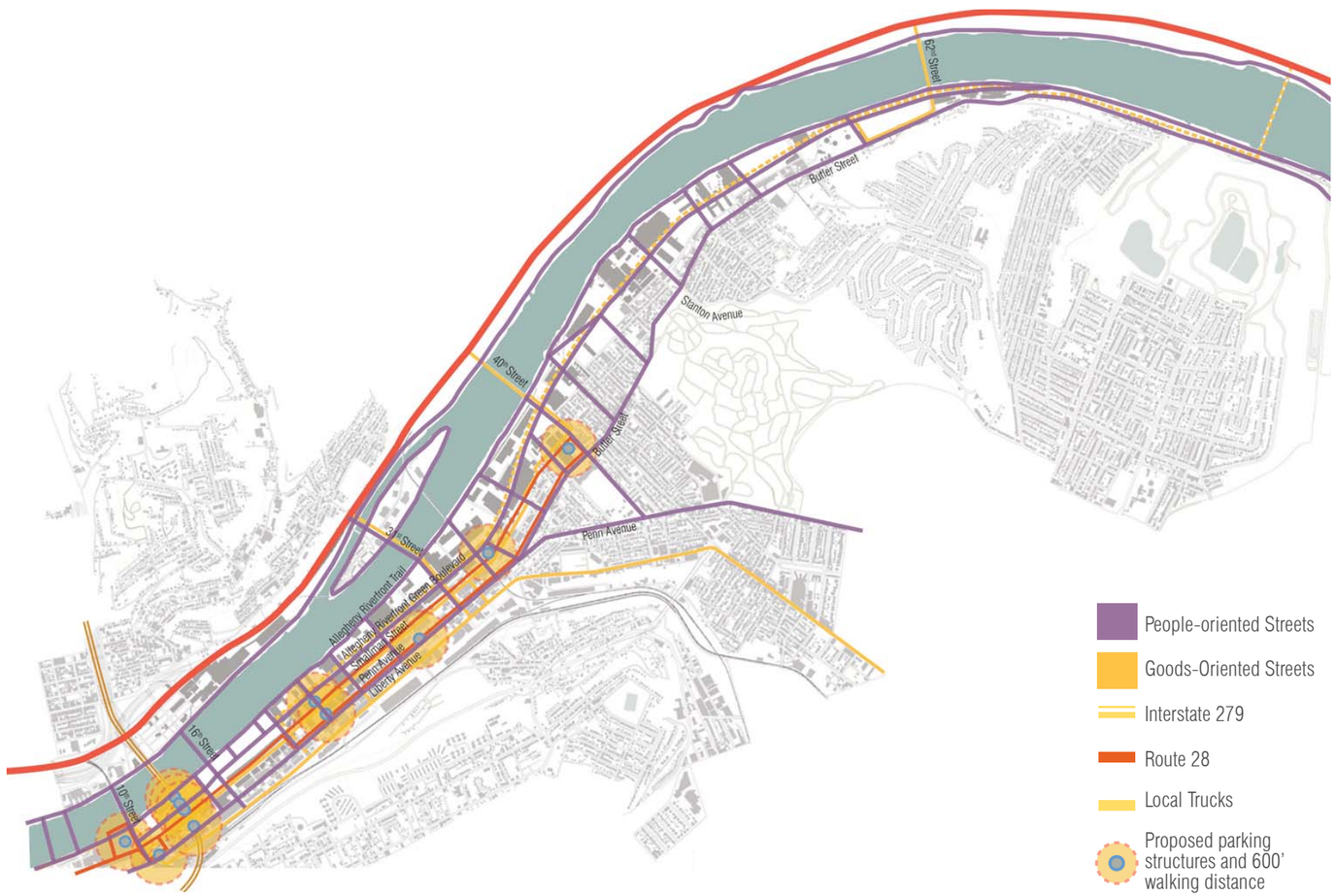
Transit and Street Network

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.

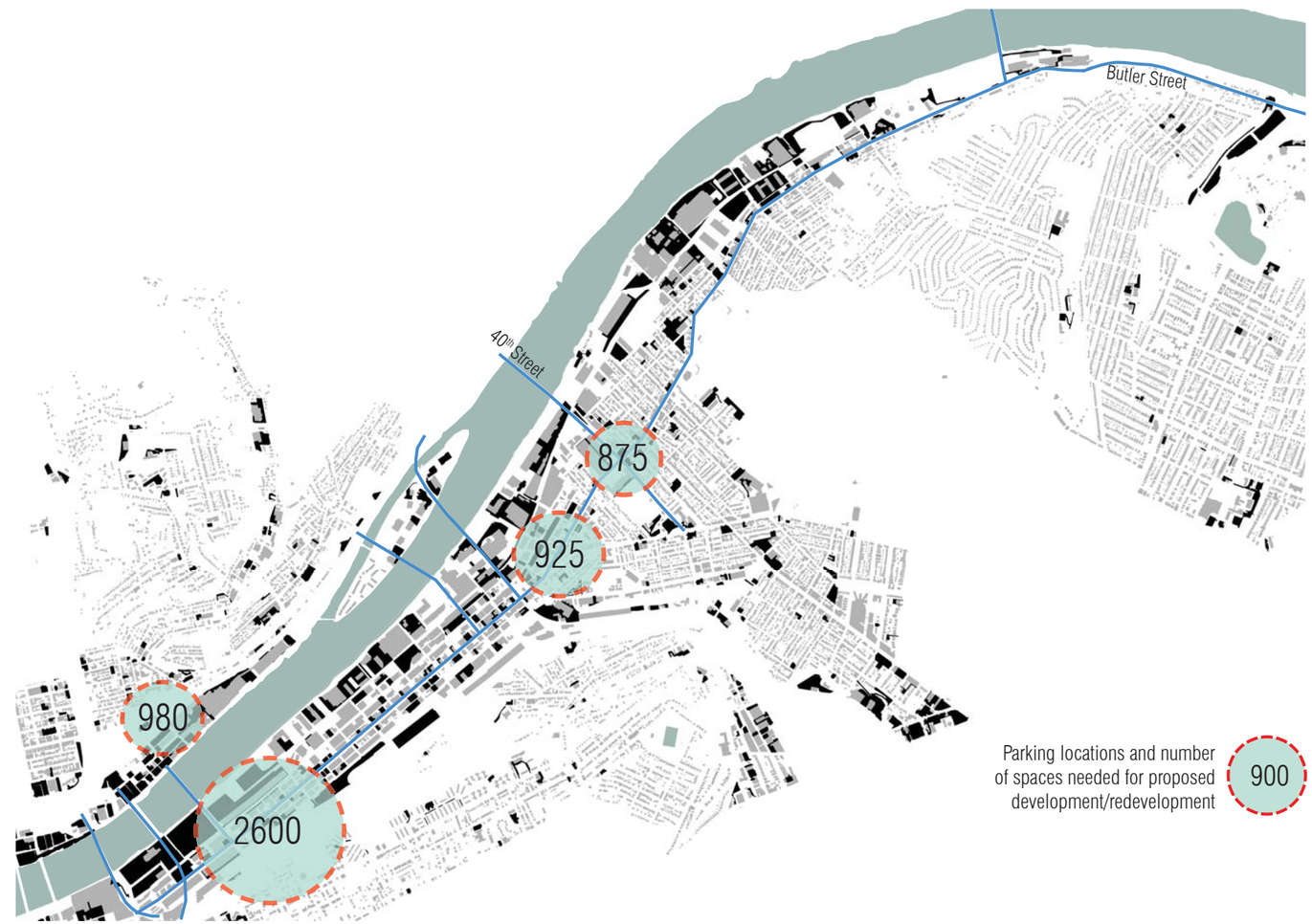
Parking Recommendations

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 compatability 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.