

URBAN ENVIRONMENTS

CONNECTING PEOPLE AND PLACE THROUGH MULTIMODAL SYSTEMS



SMITHGROUP

RETHINKING CITIES FOR THE URBAN CENTURY

Cities are forged through social, ecological, and economic changes, and it's their dynamism and adaptive capacity that makes them so remarkable.

The dynamic environment of a city represents a world of potential. With two-thirds of earth's inhabitants projected to live in cities by 2050, urbanizing areas are where we can realize the greatest social, economic, and environmental impacts. SmithGroup recognizes the extraordinary opportunities and unprecedented challenges facing our cities. The specialized professionals who make up our Urban Design team—urban and transportation planners and designers, landscape architects, civil, structural, coastal, and urban systems engineers, and architects—have dedicated their careers to the layered complexities of the urban environment, and the rapid changes occurring within them.

By operating at the intersection of our varied disciplines, ideas, and expertise, we arrive at design solutions unique to the place and people. We partner with the public and private sectors to create transformative, human-centered solutions that make a real difference for cities and their residents.





**AT SMITHGROUP, WE VIEW MOBILITY WITHIN
THE GREATER CONTEXT OF URBAN SYSTEMS,
CONNECTING PEOPLE, PLACES, AND ASSETS.**

DETROIT MIDTOWN LOOP GREENWAY, CASS AVENUE ENHANCEMENTS

**PUBLIC-PRIVATE PARTNERSHIP YIELDS A NEW
HYBRID FORM OF URBAN MOBILITY ON CAMPUS.**



ARIZONA STATE UNIVERSITY COLLEGE AVENUE STREETScape ENHANCEMENTS

Tempe, Arizona

Conceived through a public-private partnership between Arizona State University and the City of Tempe, the vision for this project was to transform the existing multi-use transportation corridor into vital public realm space with a focus on walkability and encouraging infill development and adaptive reuse of vacant land and buildings. College Avenue now accommodates the greatest variety of motorized and non-motorized traffic as an important pedestrian, bicycle, and service route during pedestrian-only times on campus. Neither a pedestrian mall nor a car-dominant roadway, the street is a lively, programmable space that can adapt to multiple needs and users.



LET'S MAKE CONNECTIONS

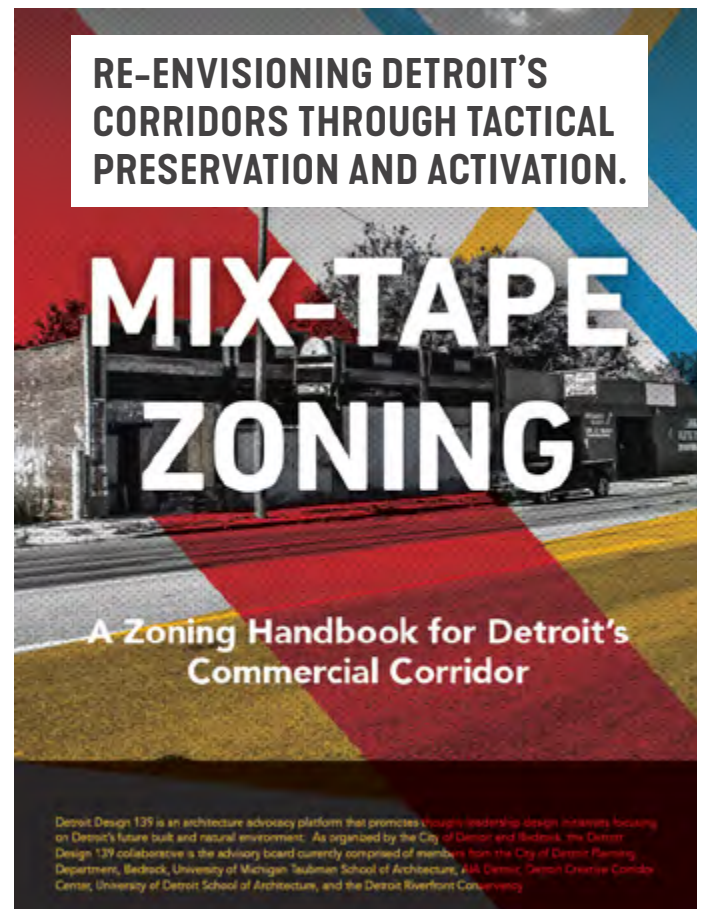


INTEGRATED APPROACH TO ENHANCING URBAN MULTIMODAL SYSTEMS

By employing research, data, advanced technologies, and human-centered design thinking we help solve complex mobility and connectivity challenges.

SmithGroup's transportation planning and design expertise resides within our Urban Design practice, bringing a holistic approach to solving today's, and tomorrow's, mobility challenges. We focus on integrated systems rather than individual modes of travel, balancing the needs of pedestrians, motorists, bicyclists, and transit users, and providing flexibility to adapt to future demands and needs.

We believe that connecting people to their community assets is the key to urban revitalization and sustainability. Mobility forges the connections that are essential for growth, economic prosperity, and neighborhood vitality. Our process seeks to meaningfully engage the broadest possible base of community interests and goals. We then give shape to a design direction that connects residents and visitors to the community's unique assets and destinations. This emphasis on social linkages is foundational to the way we approach urban mobility.





**INCREMENTAL CHANGES—STREETScape ENHANCEMENTS
AND NON-MOTORIZED FACILITIES—SET A VISION FOR THE
FUTURE OF MOBILITY IN DETROIT.**

MICHIGAN DEPARTMENT OF TRANSPORTATION M-5 STREETScape

Detroit, Michigan

Teamed with Fishbeck, SmithGroup led the design of streetscape enhancements and non-motorized facilities throughout a 2.8-mile corridor that spans two Detroit neighborhoods with distinct retail districts. The streetscape enhancements introduced a road diet to accommodate pedestrian amenities, curb extensions, floating bus stops, mid-block crossings, gateway transition elements, and landscaping. New transit stops enhance shelters and include improved signage and amenities. The non-motorized facilities feature a two-way, protected cycle track the entire length of the corridor.



CITY OF DETROIT, MICHIGAN COMPLETE STREETS PROGRAM

Detroit, Michigan

SmithGroup recently served as a consultant on a five-year program to administer a \$200 million complete street design bond program in Detroit. Several streets and intersections were improved for enhanced pedestrian safety, non-motorized mobility, and public realm interaction. A series of traffic calming measures featured sidewalk bump-outs to reduce crossing distances, center refuge islands, LED-enhanced flashing crossing signs, speed tables to slow down vehicles, protected bike lanes, defined pavement markings, and signage for appropriate street usage.

Each solution drew upon its neighborhood's cultural, historical, and social characteristics. This created an appropriate aesthetic for site amenities, street trees, landscaping, gateways, signage, and structures.

Sustainable solutions included green stormwater enhancements, infiltration systems, bioretention/raingarden planting areas, and flow-through planters.



CITY OF MILWAUKEE, WISCONSIN NORTH SECOND STREET

Milwaukee, Wisconsin

The City of Milwaukee's North Second Street is an experiment—a test of mobility and place. Across the U.S., cities are reclaiming streets and returning to their roots as places for people, not just for cars.

It is a recipe that is fairly new to Wisconsin's largest city. SmithGroup's design adds innovative parameters of safety as gleaned from cities around the globe. It also adds local Milwaukee flavor. In addition, green infrastructure layers technical expertise into a streetscape design that will please pedestrians, motorists, and businesses alike.





KEY RESILIENT STRATEGIES

- Integrate electric charging infrastructure to ensure the uptake of more sustainable fuel sources.
- Identify synergistic public-private partnerships to deliver equitable mobility choices.
- Use community-identified values to create innovative funding strategies, such as congestion pricing and free, or reduced, transit services.
- Lower urban heat island temperatures through a reduction in impervious pavement area and green street design.
- Incorporate stormwater management strategies that enhance infiltration, capture, and filtration of runoff pollutants.
- Enhance carbon sequestration capacity through tree planting and landscaping.



CREATING A RESILIENT MOBILITY FUTURE

Climate change is confronting cities and regions with a diverse range of issues and challenges, driving changes in energy use, commuting patterns, and the ability to live and thrive in a place.

Partnerships between governmental entities, developers, and design and construction firms will drive the comprehensive and holistic solutions needed to address the climate emergency. We believe design disciplines will integrate even further into one another as radical, holistic solutions will be needed to reverse climate change.

Our ability to think and work at district and regional scales allows us to incorporate new strategies for shared mobility. Our integrated systems approach allows us to understand water and energy networks as well as social networks and how these systems integrate with mobility to create resiliency. We emphasize a broader application of green infrastructure—integrating natural systems and air and water quality enhancements. We know that urban livability and the long-term sustainability of our planet require a more environmentally responsible approach to mobility system design—and we take on that responsibility willingly.

PROVIDING EQUITABLE ACCESS FOR COMMUNITY REVITALIZATION

Improving access to transportation options, including alternative modes, allows flexibility of travel choices and promotes healthier lifestyles.

Shared use mobility options are spurring across cities globally, from car sharing to bike and scooter rentals. Drones, electric bicycles, and three-wheeled scooters are also emerging as new micromobility options. The opportunity to use these resources along with traditional modes of transportation such as walking, bicycling, or taking transit gives residents of all ages more control over their transportation options while decreasing greenhouse gas emissions.

Access to alternative modes of transportation not only provides choice but ensures safety, strengthens public spaces and drives equitable access. SmithGroup's approach emphasizes appropriately designed universal accessibility, sidewalks, crosswalks, raised medians, traffic-calming measures, and access management.



SPIN HUBS: ELECTRIC SCOOTER SHARING CHARGING STATIONS

SmithGroup recently collaborated with SPIN and the City of Detroit to establish a six-scooter charging station downtown. The charging station is situated in the public right-of-way, which makes the scooters more accessible and helps reduce congestion by preventing them from gathering in one location.



LARKIN BLOCK

McDonald



**ENSURING TNC'S, LOADING, AND VALET
NEEDS ARE BALANCED WITH PUBLIC
TRANSIT, BICYCLISTS AND PEDESTRIANS TO
CREATE STRONG WALKABLE DOWNTOWNS.**

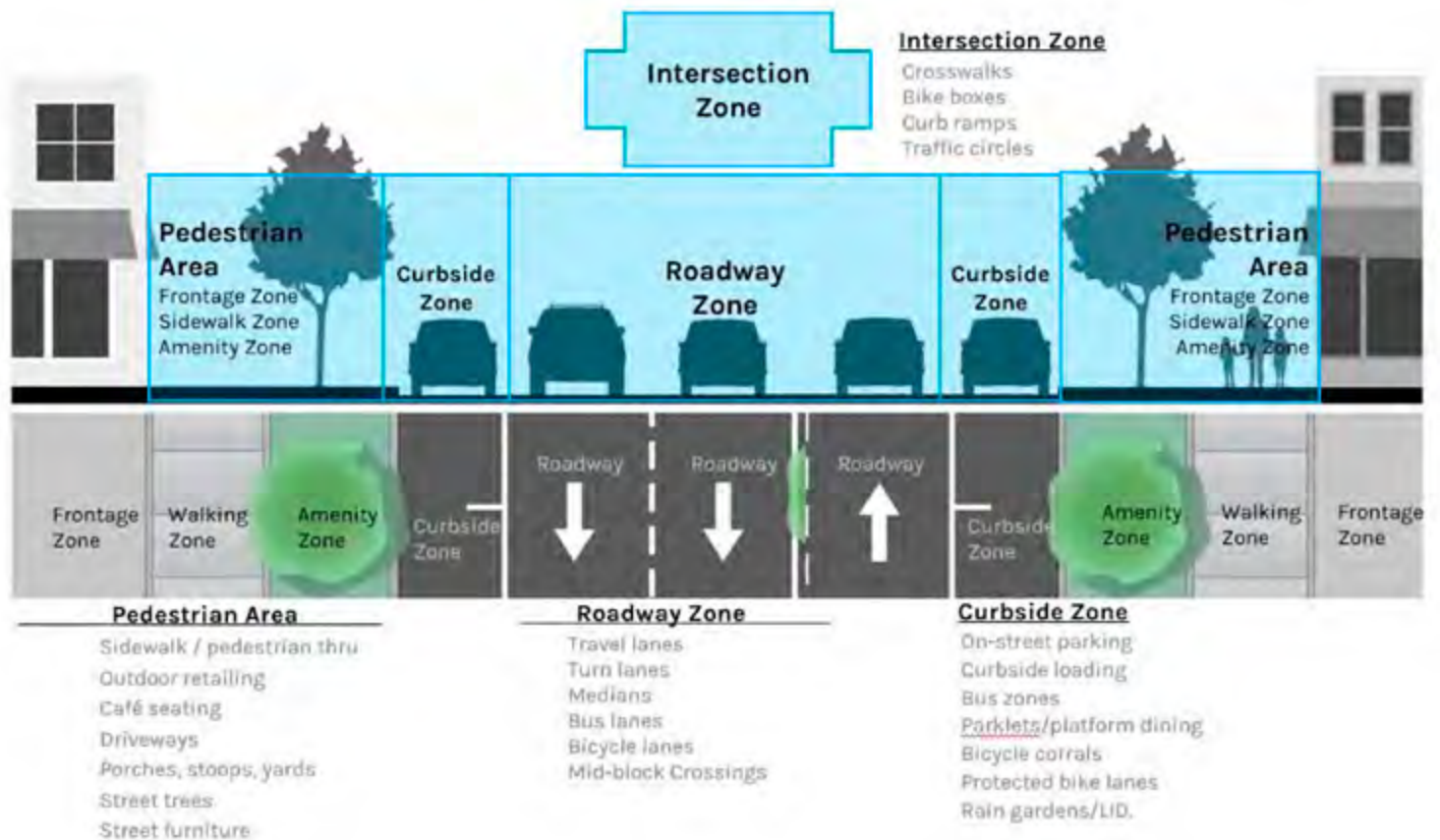
DOWNTOWN PHOENIX PARTNERSHIP CURBSIDE STUDY

Phoenix, Arizona

In coordination with the City of Phoenix, the Downtown Phoenix Partnership sought to identify solutions regarding the future of shared public rights-of-way in downtown Phoenix. Demographics, weather, and geographical layout are traditional factors that historically made Phoenix streets largely auto-centric. New downtown demographics, technologies, transportation, and land uses have led to a desire to re-think and re-configure the future of the street. Through a day-long workshop with a core group of government officials and downtown leaders, SmithGroup developed a study that assessed right-of-way policies and procedures enforced in various cities throughout the U.S. to assist the City of Phoenix in overcoming similar obstacles and balancing the demands of new and traditional mobility options, loading, and parking.

"For Phoenix, the vision is clear. Great cities are made from creating great public spaces, so we must ensure that streets are designed and maintained to be convenient, accessible, comfortable and safe for everyone."

City of Phoenix Complete Streets Brochure

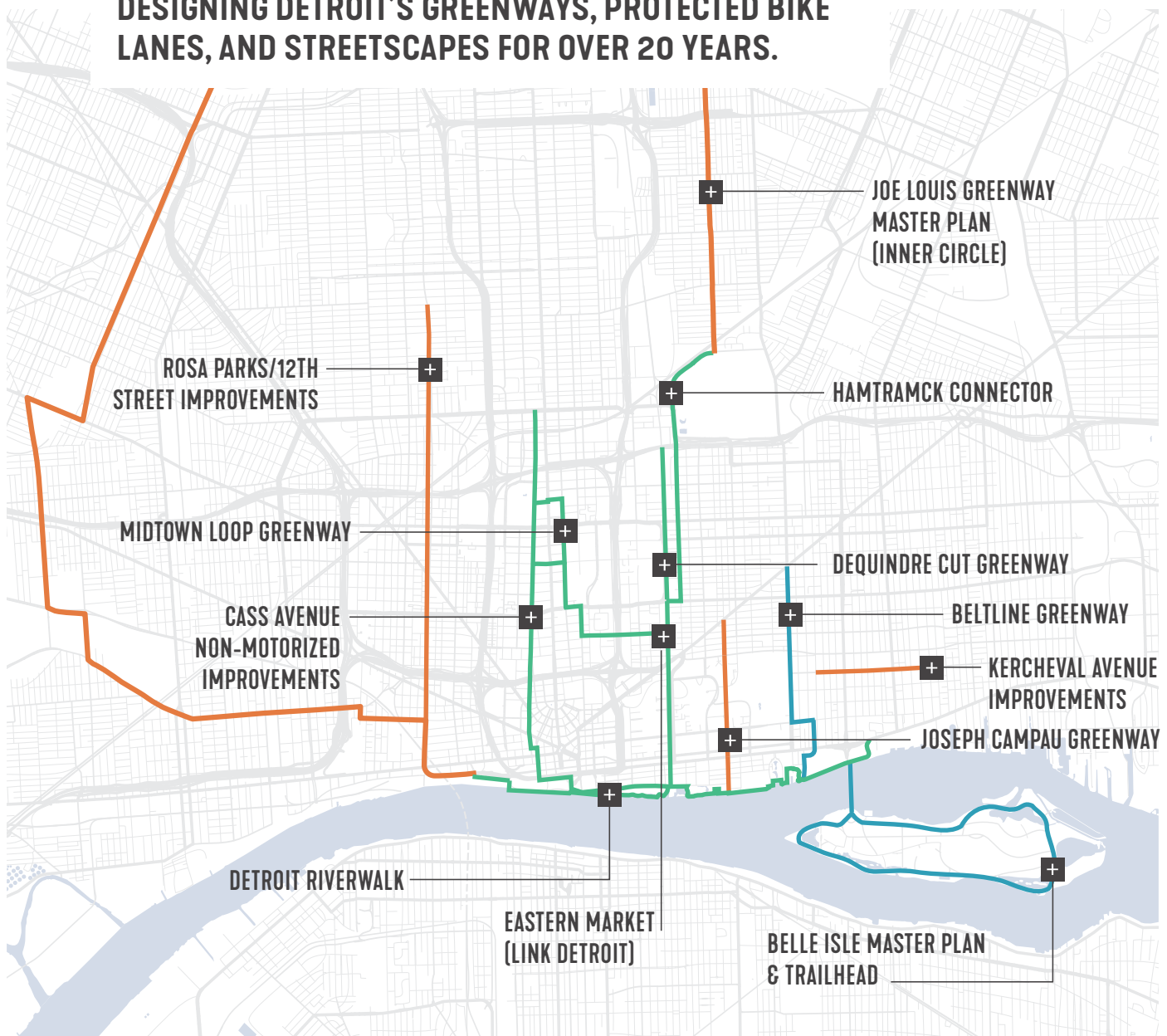


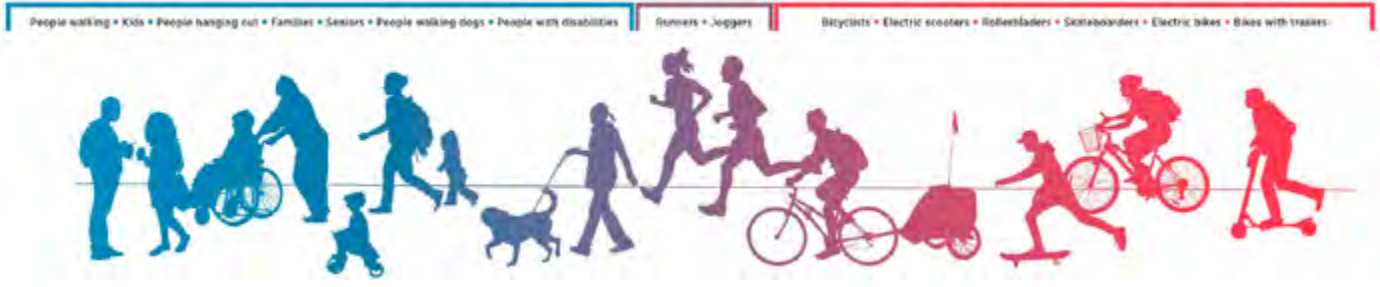
CITY OF DETROIT GREENWAYS, TRAILS, AND CONNECTORS

Detroit, Michigan

Set out to advance healthy living by creating an environment that encourages safe biking and walking throughout connected areas between the Detroit Riverwalk, Eastern Market, the Detroit Medical Center, Wayne State University, Midtown, Brush Park, and the City of Hamtramck, SmithGroup's Detroit greenway projects have enhanced the quality of life to neighboring residents and visitors but has also provided greater linked access to miles of bike paths, public open space, mixed-use neighborhoods, employment centers, cultural institutions, and fresh locally grown produce.

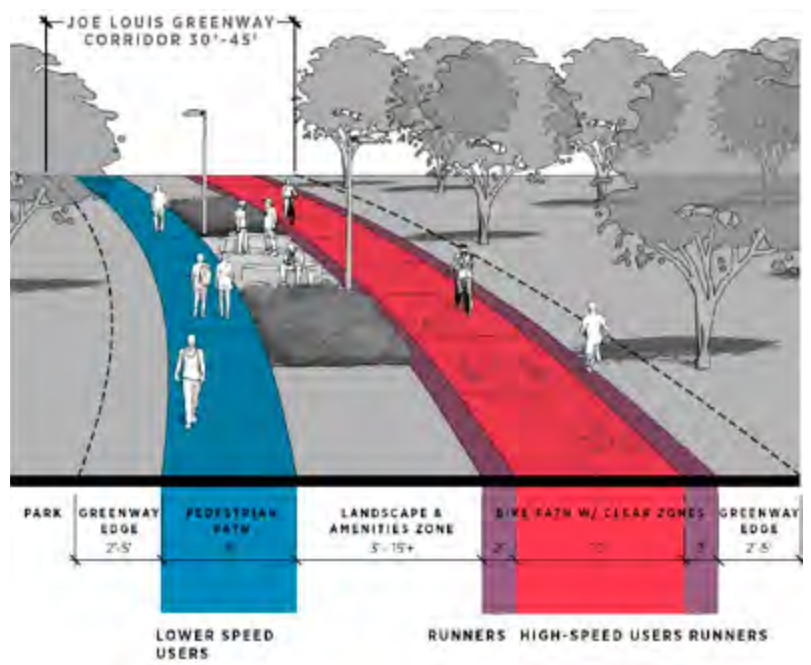
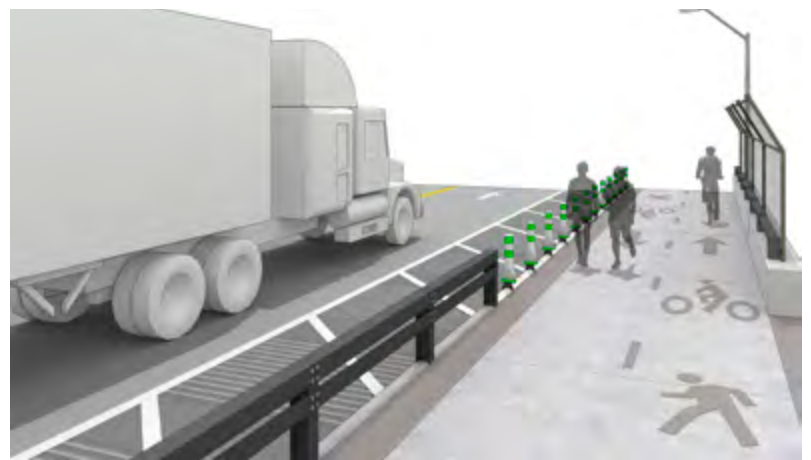
DESIGNING DETROIT'S GREENWAYS, PROTECTED BIKE LANES, AND STREETSCAPES FOR OVER 20 YEARS.





Joe Louis Greenway Framework Plan

When designing greenways and trails, SmithGroup thinks holistically about mobility, incorporating transit, shared use, and micromobility. The Joe Louis Greenway is an example of super stop mobility hubs incorporated into a fun, safe, and inspiring space for people of all abilities to walk, bike, run, and connect. It will encourage economic growth that celebrates local business owners and residents.





S MARTIN LUTHER KING DR

S MICHIGAN AVE

STATE ST

39TH

41ST



CHALLENGE: TRAIL
ACCESS & SAFETY

CHALLENGE:
LACK OF
WALKABLE
FOOD/RETAIL

OPPORTUNITY: LA
& REGIONAL CON

NE
PRIV

OPPORTUNITY: COMMUNITY SPACES FOR
LOCAL ART, CULTURE & HISTORY

**OPPORTUNITY: PRESERVATION
OF GREEN SPACE**

**CHALLENGE: MISSING
STRUCTURES**

**CHALLENGE:
NEIGHBORHOOD
SAFETY & SECURITY**

**LAKEFRONT
CONNECTIONS**



BRONZEVILLE TRAIL TASK FORCE BRONZEVILLE TRAIL

Chicago, Illinois

The SmithGroup team is working with the Bronzeville Trail Task Force to develop a multi-use trail through the heart of Bronzeville in Chicago. This project involves converting the abandoned Kenwood Line into an elevated linear park and trail system, celebrating the community's historical roots and providing opportunities for recreation, exercise, and gathering. The trail will span approximately two miles, connecting to the Lakefront Trail and providing access to various key locations in the area. Furthermore, it aims to revitalize vacant land parcels, promote commercial and civic ventures, and enhance the urban landscape.

GREAT RIVERS GREENWAY BRICKLINE GREENWAY

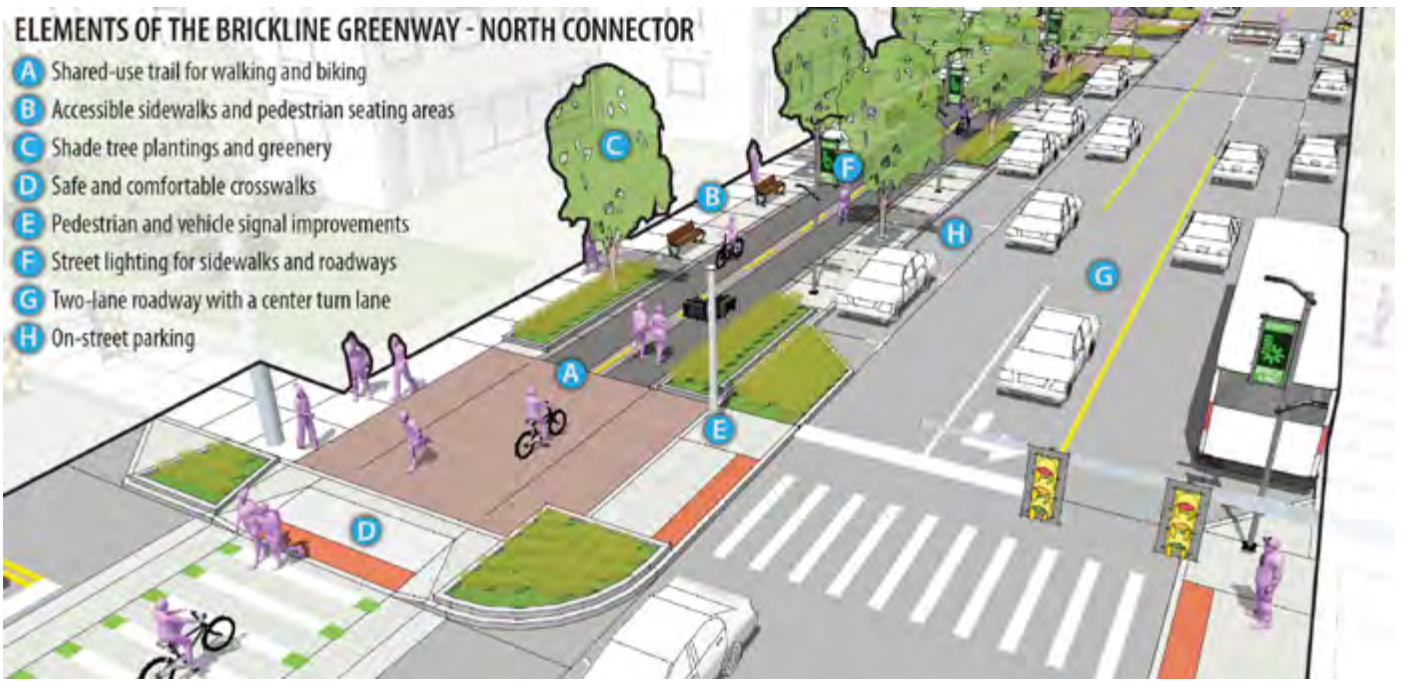
St. Louis, Missouri

SmithGroup is working with Great Rivers Greenway (GRG) to implement the “North Connector” portion of the Brickline Greenway system in the City of St. Louis. This section of the Brickline extends through north St. Louis, a predominately African-American neighborhood with a legacy of disinvestment. The greenway follows the North Grand Avenue corridor, which is subject to significant traffic violence and safety concerns. SmithGroup is leading the design and engineering work to completely transform the North Grand Avenue corridor through the implementation of the Brickline. Building on a recent federal RAISE grant, SmithGroup helped GRG and the City to secure additional federal funding to not only implement the trail but also to fully reconstruct the entire two+ mile-long corridor as a complete street project. This includes a roadway “right-sizing” to reduce travel lanes and manage vehicle speeds, extensive safety improvements, new utility infrastructure, street lighting, and landscape amenities.



ELEMENTS OF THE BRICKLINE GREENWAY - NORTH CONNECTOR

- A** Shared-use trail for walking and biking
- B** Accessible sidewalks and pedestrian seating areas
- C** Shade tree plantings and greenery
- D** Safe and comfortable crosswalks
- E** Pedestrian and vehicle signal improvements
- F** Street lighting for sidewalks and roadways
- G** Two-lane roadway with a center turn lane
- H** On-street parking



INCLUSIVE DESIGN INFORMED BY EMPATHY

Our iterative process works continuously from macro to micro, to ensure the largest systems strategies accommodate the smallest moments.

Transportation development projects depend on collaborative networks for success: forging local partnerships and building community coalitions, drawing on multiple funding sources, and securing agency support and regulatory approvals, to name just a few. SmithGroup helps navigate this collaborative process with a strong sense of civic responsibility and stewardship.

We know deep listening leads to lasting and rooted ideas. We are experts in inclusive design processes organized around robust and authentic engagement, where stakeholders of potentially divergent viewpoints can share insight while finding common ground. Utilizing an inclusive process, we identify and prioritize the core experiences by fostering deep stakeholder engagement and leveraging user insight to create transformational, or breakthrough solutions.

As centers of civic gravity and activity, we believe that streets should not only enhance the movement and flow of people but also create social and civic growth opportunities. Corridor projects are public space projects and are increasingly being looked to as catalysts for broader community revitalization and growth.

SmithGroup helps our clients capitalize on their unique opportunities to re-energize urban centers with new attractions, activities, and events. We bring the community together with artists, economists, and technology experts to explore unique ways to redefine streets, celebrate the legacy of place, and drive economic development.



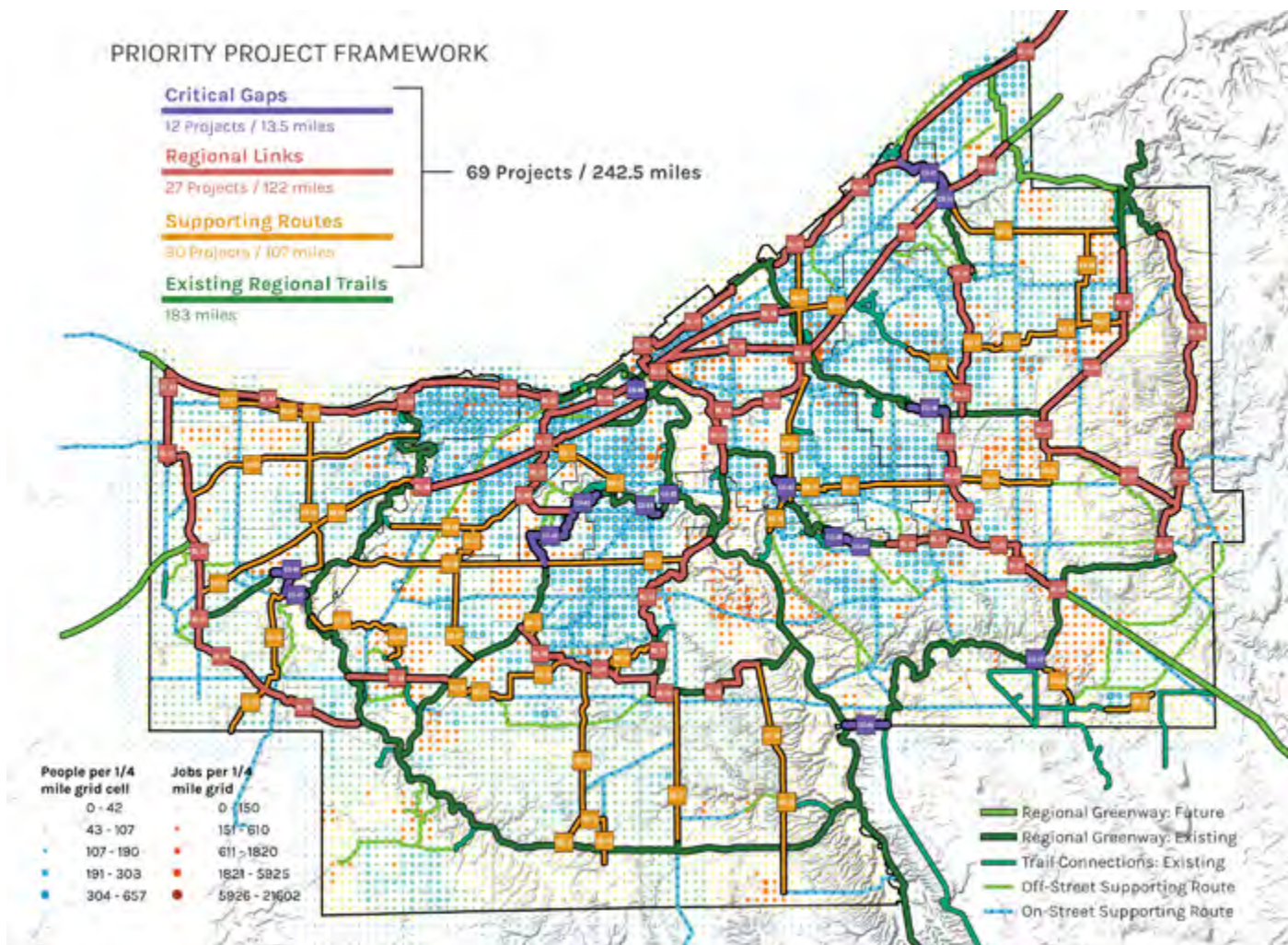


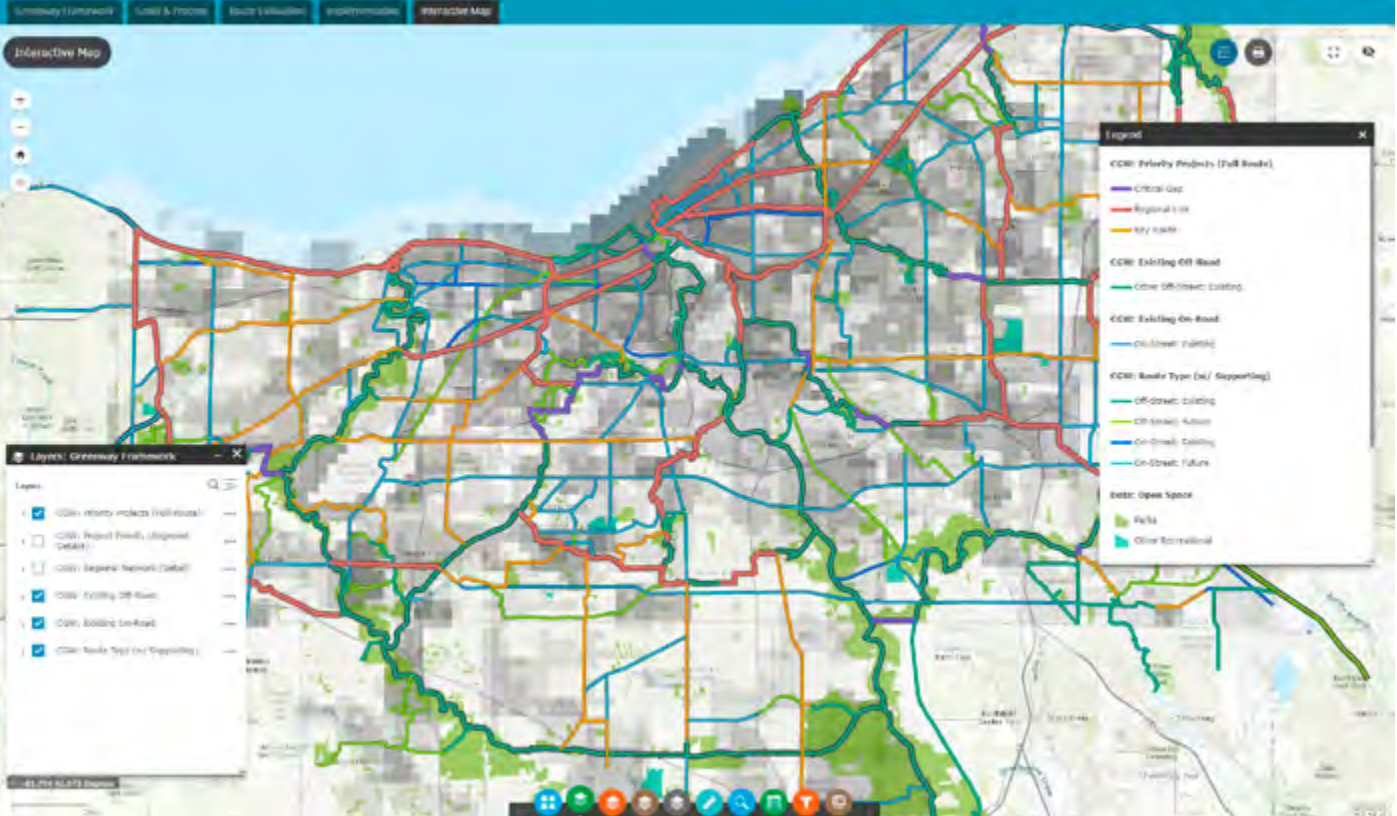
CUYAHOGA COUNTY FRAMEWORK PLAN

Cleveland, Ohio

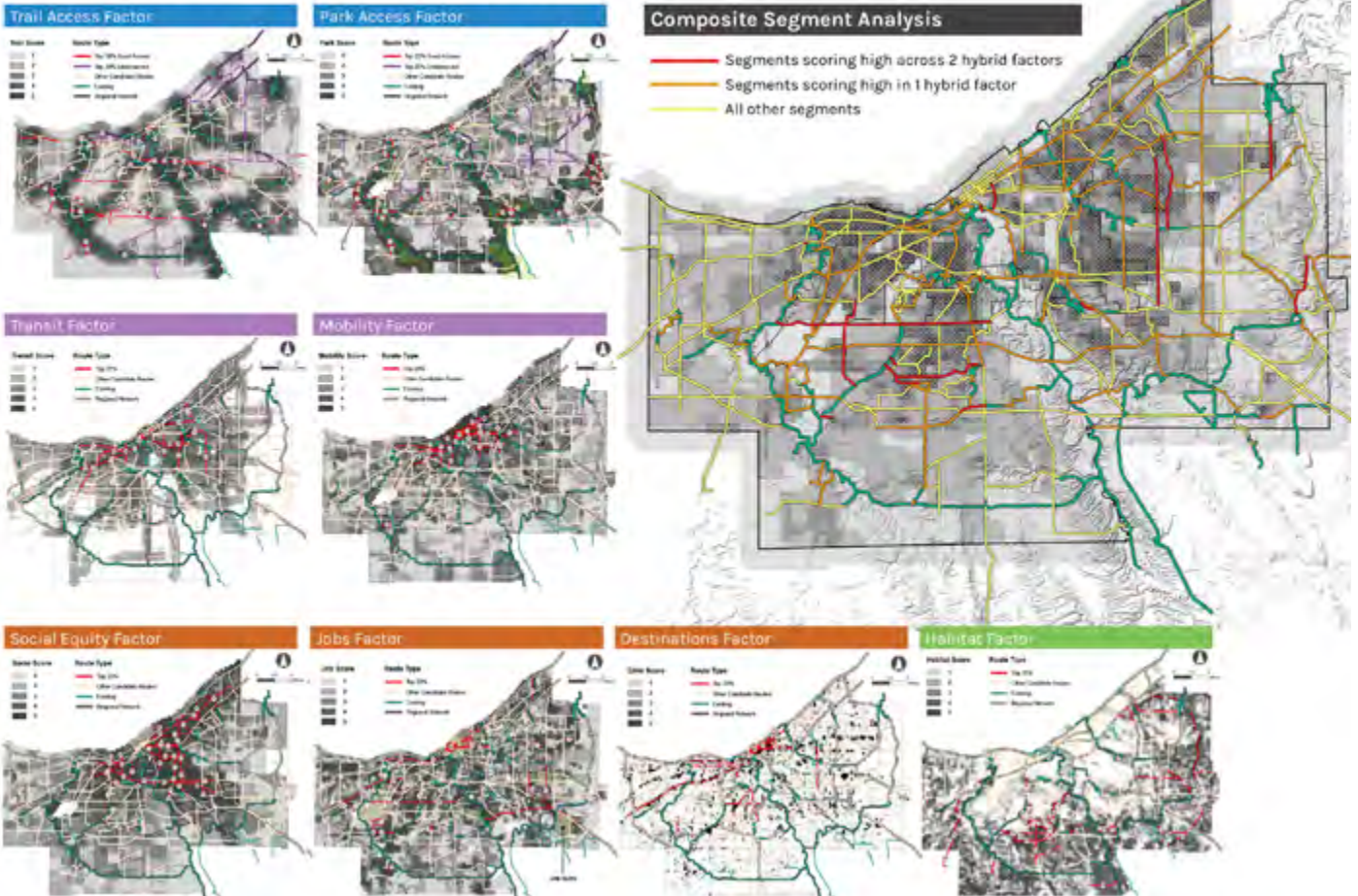
Building on a successful SmithGroup-led trail and greenway planning effort in the eastern portion of the county, the Cuyahoga Greenways project sought to develop a regional network of greenways and urban trails that interconnects Cleveland and surrounding municipalities. Following the identification of a web of candidate greenway routes across the county, these routes were evaluated and prioritized using a GIS-based and community-input-driven process to determine the benefits, challenges, and implementation opportunities for each option.

COLLABORATIVE MAPPING—SHAPED THROUGH STAKEHOLDER ENGAGEMENT— CREATED A DYNAMIC GREENWAY NETWORK.





OVER 1,300 ROUTE SEGMENTS EVALUATED





CHANGBAI HIGH SPEED RAIL DISTRICT, CHINA



INFORMING THE FUTURE OF URBAN MOBILITY

As we anticipate a rapidly shifting mobility context, we must advocate and design for the holistic future of mobility—a future that by necessity will be increasingly multi-modal while incentivizing transitional shifts to more sustainable transportation solutions.

Adapt Spaces for People First. Our cities should be built and adapted for people first, emphasizing public health outcomes and human-powered movement, while balancing space for cars with places for human connection and contact.

Create Truly Sustainable + Resilient Places. While compact urban cores represent the most sustainable form of development, they often fall short of goals to not only do less environmental harm but also mitigate climate change, withstand and recover from chronic stresses and acute shocks, and generally improve the quality of life for all residents. Along with technological advances, cities must emphasize systematic, sustainable, and resilient performance of their public realm and mobility networks to ensure success for generations to come.

Be Action Oriented. Our cities must establish a new, paradigm-shifting relationship with automobiles. We don't need to wait for autonomous vehicles to reduce or remove zoning parking minimums, decouple proximate requirements for parking from land uses, and recapture space for affordable housing, naturalized open space, and people-oriented uses to ensure that our cities are inclusive and accessible to all.



METROPARKS TOLEDO, GLASS CITY METROPARK

CONNECTING OUR PARK SYSTEMS

Trailways promote connection between parks by providing continuous, safe, and accessible routes that link different recreational areas, allowing for a seamless experience for pedestrians and cyclists.

At SmithGroup, we connect park systems by creating trailways that enhance accessibility and connectivity for the communities we serve. In the South Bend Riverfront Parks and Trails master plan, we developed a looped multi-modal trail network to connect the city's parks, improving park and river access and strengthening connections between neighborhoods. Our work at Seitz Park in South Bend, Indiana included a redesign of the city's riverfront park and incorporating multi-modal trails like the East Bank Trail and the East Race Path to improve connectivity. In Toledo, Ohio, we were involved in designing a seven-mile loop of the Glass City Riverwalk as part of an east riverfront master plan, reconnecting the community with the river and its surrounding areas. These examples showcase our commitment to designing trail systems that provide recreational benefits and serve as vital links within and between communities, promoting inclusivity and unity across the urban landscape.



SMITHGROUP

Design a
Better Future