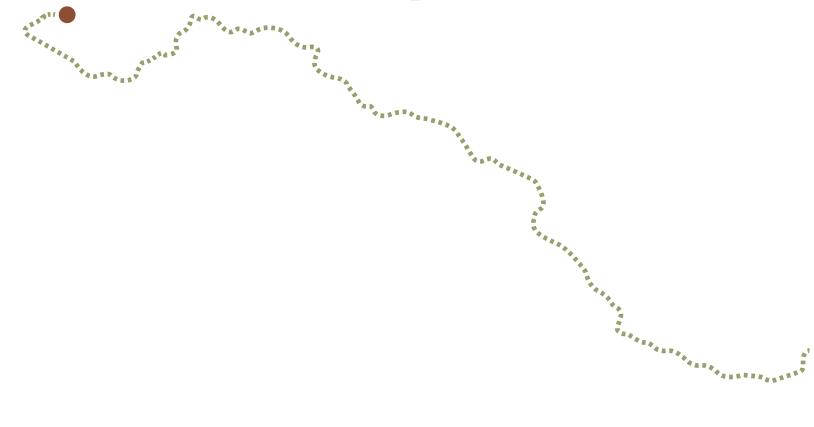
The Right Path

A Trail-Oriented Development Primer





TRAIL-ORIENTED DEVELOPMENT

Communities across the country are investing in local trails and reaping the benefits of active transportation. Whether residents use them for biking to work or walking for recreation, new trails add to a community's list of amenities and improve public health. Through strategies such as public art, outdoor furniture, and trail-themed events, trails can also prompt investment in trail-adjacent properties.

Trail-oriented development intentionally blurs the boundary between trails and nearby properties by creating and expanding adjacent amenities.

This primer offers tools, strategies, and case studies that can set local govenments and trailside property owners on the right path for fostering local trail-oriented development. It will teach you how to identify candidate trails and parcels for new amenities and the site-specific strategies best-suited for each location. The primer can also be used to kick start conversations with local business owners, elected officials, economic development and tourism directors, planning and parks staff, and residents.

What's in this Primer?

Strategies for Trail-Oriented Development

Trail-Oriented Toolbox

A Trail-Oriented Region ——

Houston-Galveston Area Council

This document was produced by the Houston-Galveston Area Council (H-GAC), the voluntary association of local governments in the 13-county Gulf Coast planning region of Texas. H-GAC also serves as the Metropolitan Planning Organization (MPO) for the eight-county Houston-Galveston Transportation Management Area.

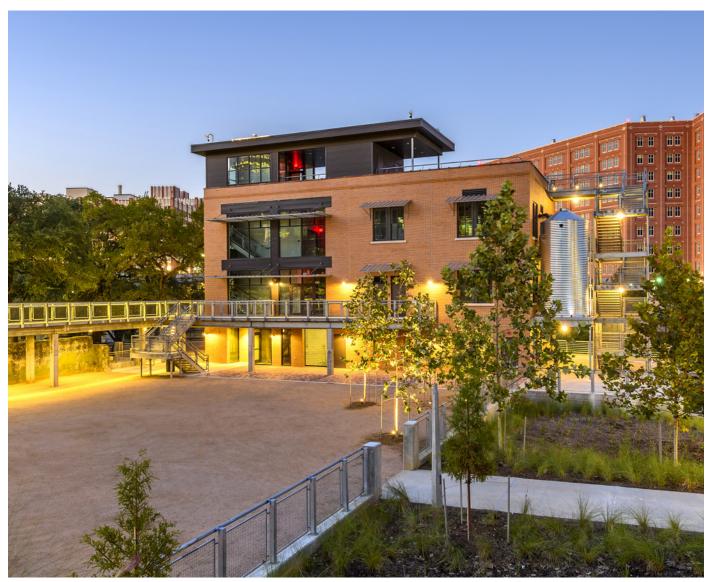
BENEFITS

Good for Business

Trail-oriented development projects at or near businesses can attract more foot and bicycle traffic, increasing spending, job creation and land value for properties along trails. Businesses that embrace the trails through trail-oriented development are likely to benefit from their location.

A Healthy Path

By creating connections from a trail to adjacent properties, trail-oriented development strategies give residents and visitors more reasons to walk, jog, or bike around town. Replacing automobile trips with walking and biking reduces greenhouse gas emissions from private vehicles, and also improves air quality.



The Sunset Coffee Building in Houston connects to the Buffalo Bayou Trail via a new sidewalk. (Source: Buffalo Bayou Partnership)

STRATEGIES FOR TRAIL-ORIENTED DEVELOPMENT

Customization

From picnic tables at a trailside restaurant to a new sidewalk linking residents to a trailhead, trail-oriented development takes many different forms and varying levels of time, effort, and resources. Trail-oriented development connects trail users with nearby land, improves or adds to the number of destinations along a trail, and increases bicycle and pedestrian traffic to trail-adjacent businesses and amenities.

Individual trails and the surrounding properties will benefit most from projects that are customized for their location using a mix of low-, moderate-, and high-investment strategies, see the tables on the next page. This list is not comprehensive, and communities should consider their unique properties when developing specific strategies.

Phasing

Strategies can be implemented in phases to allow property owners and governments to enhance trails without extensive (and expensive) upfront investment while gaining momentum and buy-in for future projects.

A trail-connected restaurant near a dog park may first invest in outdoor water bowls, then later construct a petfriendly patio overlooking the trail. A senior living facility along a trail may first invest in shade trees and benches while they work with the local planning and public works departments to ensure their portion of the trail is designed to be age-friendly.



A jogger runs along the Museum Reach in San Antonio. (Source: Pearl Brewery)

OUTDOOR STRATEGIES

Low-Investment

Outdoor furniture
Landscaping
Bike parking
Dog water bowls
Bike tire pump
Programmed events
Water station

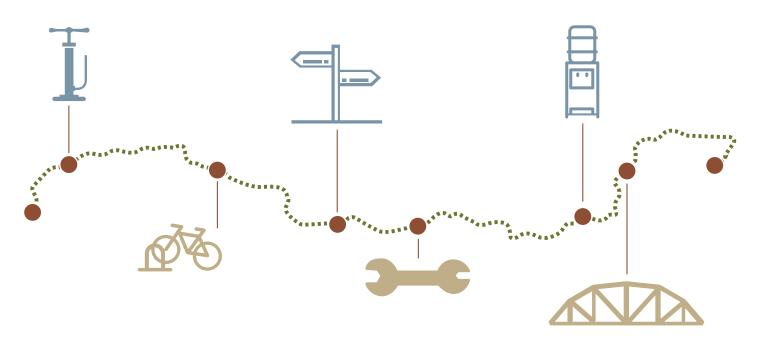
Moderate-Investment

Public art
On-site bike rentals
Bike tool stations
Dedicated repair station
Canopy/shade structure
Movable water hose
Open space for events
Wayfinding signage

High-Investment

Bike part vending machine Direct trail access

- Trail widening
- Sidewalks
- Bike/ped bridges
- Trail extension



INDOOR STRATEGIES

Low-Investment

Free water refills
Discounts for trail users
Free restroom use

Moderate-Investment

Dedicated bike storage Locker facilities

High-Investment

Bike valet
On-site bike mechanic
Shower facilities
Widened hallways
Bike elevators
Key-card protected storage

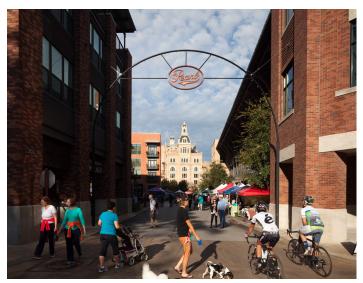
TRAIL-ORIENTED TOOLBOX

Partnerships, Policy, and Funding

Trail-oriented development strategies require considerations for partnerships, policy, and funding. The tools used to implement trail-orientated development projects are as diverse as the projects themselves, each requiring a unique approach.



Volunteers install signage at the Trinity River National Wildlife Refuge. (Source: Trinity River National Wildlife Refuge)



Residents and visitors walk and ride their bikes near the restored trailside Pearl Brewery. (Source: Pearl Brewery)

PARTNERSHIPS

Trail-oriented development involves at least two stakeholders: the trail owner and the property owner. Leveraging this partnership and others (e.g., realtors, developers, Chamber of Commerce, etc.) will bring additional resources and more buy-in from community members.

What can municipalities do to build strong partnerships?

- Commit to building trails in available municipal rights of way (ROW).
- Promote the benefit of trails to the broader community.
- Invite the Chamber of Commerce, bankers, and property owners to a walking meeting at a local trail to start a conversation about trail-oriented development.
- Contact key property owners to test a pilot project.
- Meet with local developers to clarify what is/is not allowed near trails and ask what would make trailside development strategies easier for them.
- Work with economic development and tourism directors to create and improve trail-related events and use the events to gain feedback from the community through surveys and interviews.
- Create a trail-oriented development task force of local property owners, municipal officials from a wide array of departments, and local community organizations with an interest in trails. Establish a clear set of goals to increase trail usage through trail-oriented development strategies.
- Provide information to local businesses about applying for a Bike Friendly Business designation from the League of American Bicyclists to boost recognition and promote further adoption of trail-oriented development.

POLICY

Communities interested in trail-oriented development strategies can support trailside development and land use policies that encourage those strategies. Support can come in the form of information gathering, research, planning, or policy proposals.

What can municipalities do to encourage trail-oriented policymaking?

- Regularly gather data to understand trail usage before and after implementing trail-oriented development strategies.
- Analyze local parking demand and parking ordinances to identify underutilized parking facilities that can be converted into space for trail-oriented development.
- Review current building codes to verify if trail-friendly retrofits are allowed on existing buildings. Determine the right time for an update to building codes that allow for trail-facing renovations.
- Review ordinances on trails and sidewalks to ensure they support trail-oriented development and encourage connections between trails and trailside properties.
- Include trail-oriented development strategies as a focus area in park and trail plans.
 When planning a new trail, consider locations that maximize opportunities for trail-oriented development, perhaps in a right-of-way adjacent to local businesses or community institutions like a library or school.
- Commit to regular trail maintenance near properties that have installed trailoriented development strategies.

FUNDING

Implementing trailoriented development is not free. Since most strategies are on private property, it is up to each property owner to make investments. It is critical that local governments make investment both easy and worthwhile for trailside businesses and institutions.

What can municipalities do to encourage funding?

- Work with your local economic development corporation to offer matching grants for low-investment strategies and pilot projects.
- Connect property owners with local community groups and non-profits that can donate time or items (e.g., planters, trees, bike racks, etc.).
- Conduct a temporary, low-cost installation of trail-oriented development strategies at a key location to demonstrate the benefits for property owners.
- Explore options for allocating a portion of sales or property taxes to trail-oriented development strategies or trail improvements (this can include adopting a Section 4B Sales Tax, or creating a Tax Increment Reinvestment Zone).
- Explore options for incentivizing trailside development with Chapter 380/381 agreements. These agreements allow local municipalities and counties to extend loans, grants, or services to promote economic development.
- Discuss cost-sharing agreements with developers for specific, trail-oriented development strategies.

BEST PRACTICE CASE STUDIES

Three case studies on the following pages illustrate the range of strategies and tools available for trailoriented development. They are categorized by the level of time, effort, and resources needed: lowinvestment, moderate-investment, and high-investment.





Low-Investment

A small business embraces its location along the Tammany Trace Trail with outdoor furniture and local partnerships

Core Public House Springdale, AR

Moderate-Investment

A local brewery leases a newly renovated trailside building to benefit from its proximity to the Razorback Regional Greenway and its users

Pearl Brewery District San Antonio, TX

High-Investment

Major investment in San Antonio's Museum Reach complemented the mixeduse redevelopment of an historic industrial campus around the trail

SCENARIOS FOR THE GULF COAST REGION

Each case study is accompanied by a hypothetical scenario for trail-oriented development in the Gulf Coast region, also categorized by level of investment. These scenarios demonstrate the potential impact of trail-oriented strategies.



City of Liberty Trailhead Liberty County

Low-Investment

The Trinity River National Wildlife Refuge and its partners envision a trailhead linking local residents with the larger trail system

White Oak Bayou Village Harris County

Moderate-Investment

Nankani Development considers building renovations and landscaping to embrace the nearby White Oak Bayou Trail

Lockwood Water Plant Harris County

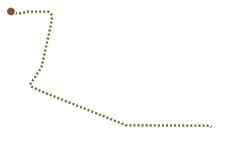
High-Investment

The Buffalo Bayou
Partnership imagines
possible designs for
an abandonned water
treatment plant along the
Buffalo Bayou Trail

CASE BROOKS' BIKE SHOP



THE TRAIL



- Tammany Trace Trail
- Brooks' Bike Shop

THE CONTEXT

The Tammany Trace Trail is a 31-mile, mostly wooded trail that passes through five towns in St. Tammany Parish, Louisiana, including Covington. The Trace was built as part of a Rails-to-Trails project using grants and federal funding to convert the abandoned Illinois Central Railroad corridor into an asphalt path with pedestrian bridges. Since construction began on the Trace, adjacent businesses and residences opened or expanded, including Brooks' Bike Shop.

In 2012, Patrick Brooks opened the bike shop alongside a city-owned pocket park and offers bicycle rentals, repairs, and sales. To encourage trail users to stop at his business, Mr. Brooks installed trail-oriented development features including bike parking, benches, and outdoor lights. The shop sponsors a sculpture each year, and restrooms in the shop are open to all trail users. The shop also serves as an informal information center for trail users when the Covington Trailhead Museum is closed.

The Brooks' Bike Shop location in Covington has seen such great success that it opened a new trailside shop in nearby Mandeville, also on the Trace.





STRATEGIES

Outdoor furniture
Landscaping
Bike parking
Restrooms
Bike rentals
Trail information

TOOLS

Partnerships

The City of Covington regularly maintains the pocket park by the shop. Brooks' Bike Shop and the Covington Trailhead Museum benefit from a positive informal relationship that increases the use of the trail and bike rentals from the shop.

Policy

Trail maintenance is funded by \$0.02 sales tax in unincorporated areas of the Parish and through rental income on Parish-owned property. That policy keeps trails attractive so that businesses like Brooks' Bike Shop can take advantage of their location.

Funding

All costs associated with these trail-oriented development strategies are part of the operating expenses for the business. By strategically locating along the Trace, the bike shop is able to capitalize on bike rentals as a critical source of revenue.

SCENARIO CITY OF LIBERTY TRAILHEAD



THE TRAIL



- Trinity River National Wildlife Refuge Trail
- Liberty Trailhead

THE CONTEXT

In 2010, the City of Liberty and its neighbor, the Trinity River National Wildlife Refuge, set out to create 29 miles of trails to connect the refuge with the city and to expand recreation opportunities in the community.

The refuge identified future areas for trail improvement, including extension to Liberty Municipal Park and construction of a new trailhead near a senior living complex, a behavioral health center, and Liberty High School.

School officials support the idea of a new trailhead and see it as a means of giving students direct access to the trail from the school and the recently opened athletic track on campus.

In the trail-oriented scenario for the site shown on page 13, the trailhead includes signage, benches, bike parking, and Americans with Disabilities Act (ADA)-compliant ramps for easier access to the future trail. As indicated by the sign for the 5K run, this trailhead also serves as a key location for community events that connect the high school and Liberty Municipal Park.

LOW-INVESTMENT



STRATEGIES

Outdoor seating Ramps Bike parking Programming Trail signage

TOOLS

Partnerships

The refuge can continue to work alongside the Liberty Independent School District to build momentum for the project and connect to other sources of funding. Likewise, partnerships with the City of Liberty Parks and Recreation Department and nearby property owners, including the senior living complex and the behavioral health center, will be key to increasing the usage of the trailhead.

Policy

The City of Liberty can encourage trail-oriented development strategies at this trailhead when they pursue their next open space or greenway plan. The refuge can also consider a shared maintenance agreement for this portion of the trail with the City of Liberty or the school district.

Funding

The refuge can draw on past experiences using volunteer labor and repurposed materials to construct and install trail-oriented development strategies like the signage and outdoor seating. Given past success in obtaining small grants and the location near a school and a senior living facility, the refuge can seek grants for educational trail-oriented strategies or strategies that make the trailhead more accessible for older residents, like seating and ramps.

CASE CORE PUBLIC HOUSE



THE TRAIL



- ---- Razorback Greenway
 - Core Public House

THE CONTEXT

The Razorback Greenway runs through six communities in Northwest Arkansas, connecting neighborhoods with existing and new businesses like Core Public House in Springdale. Jesse Core, the brewpub's owner, would not have opened his restaurant and bar had it not been for an available Greenway-adjacent property.

In searching for a location for the pub, Mr. Core found a lease for a renovated commercial building with new doors, windows, and awnings that face the Razorback Greenway and Walter Turnbow Park. The building allows for direct access from the trail to his business. Thanks to the trailfacing facade, Core Public House attributes a significant percentage of its business to the Greenway and supports trail users with trail-oriented development strategies, including accessible restrooms, outdoor seating, water coolers, bike racks, water bowls for dogs, and signage.

In total, Mr. Core owns four locations—all along the Greenway—and hosts a "Tour de Core" event for bicyclists along 25 miles of the trail. Future plans include hosting community events at Walter Turnbow Park.

MODERATE-INVESTMENT



STRATEGIES

Bike parking
Landscaping
Trail-user restrooms
Building modifications
Direct trail access
Trail signage
Water
Programming
Canopy/shade

TOOLS

Partnerships

The City and Chamber of Commerce worked with developers to change the culture of development and make trailside development as easy as possible, recognizing trails infrastructure as both a transportation and economic development investment.

Policy

In Springdale, this type of development is encouraged by a new form-based zoning code that stipulates design parameters for new and renovated buildings. In Springdale, the form-based code reduces setbacks and parking requirements, allowing more flexibility for developers to embrace trails.

Funding

While funding for the trail system came from a federal transportation grant, matched by the Walton Family Foundation, the trail-facing retrofits to the building were choices made by the developer, who considered the location an asset.

SCENARIO WHITE OAK BAYOU VILLAGE



THE TRAIL



- ···· White Oak Bayou Trail
- White Oak Bayou Village

THE CONTEXT

When Nankani Development purchased the White Oak Bayou Village in 2014, they envisioned the shopping complex as a link between the community and the White Oak Bayou Greenway, which runs directly behind the property. The shopping center is also located on an active METRO bus line, carrying nearly 7,000 riders daily.

To achieve their vision, Nankani Development studied options for creating stronger connections throughout the shopping complex, between the neighborhood and the trail. To date, Nankani Development has made \$600,000 in site improvements to not only enhance their property, but also make a difference in the community through better connectivity. They installed new signage for the property and hired artists to paint murals on one of their trail-facing buildings, leading to a sharp decline in illegal trash dumping.

As funds become available, Nankani Development plans to invest heavily in trail-oriented development strategies for one of their buildings by retrofitting it with doors and windows that face the trail. To complete this vision, they hope to install bike parking and wayfinding signs, bring a Houston BCycle Station to the property, and build on partnerships to create a trailhead.

MODERATE-INVESTMENT



STRATEGIES

Bikeshare partnership
Trail-user restrooms
Bike parking
Building modifications
Bike repair station
Trail signage
Landscaping
Programming
Direct trail access

TOOLS

Partnerships

Nankani Development has built relationships with the City of Houston, local media, Houston Parks Board, and the Near Northwest Management District, sparking interest in the project that can assist in finding funding for future trail-oriented development features.

Policy

Form-based codes along certain parts of a trail can encourage retrofits like the one proposed for White Oak Bayou Village. The City of Houston could also offer incentives to private property owners for low impact development (LID) practices that beautify properties and help slow and retain water. The City of Houston or the Houston Parks Board could also incentivize trail-oriented development strategies by offering special maintenance agreements near properties that embrace the trail.

Funding

As a private property owner, Nankani Development must make decisions that do not hurt revenues. They understand any trail-oriented investment in their property will likely attract prospective tenants, bringing in more revenue. The property management company could benefit from small grants for site improvements and additional funding from other trail partners.

CASE PEARL BREWERY DISTRICT



THE TRAIL



- •••• Museum Reach
- Pearl Brewery District

THE CONTEXT

In 2009, the City of San Antonio completed its construction of the Museum Reach, opening a northern branch off of the city's famous River Walk. According to the San Antonio River Authority (SARA), the new trail was successful because of the simultaneous development of key properties along the waterway, including the rehabilitation of the historic building and grounds by the Pearl Brewery.

The City of San Antonio, Bexar County, San Antonio Water System and SARA spent a combined \$71.2 million on the river-level infrastructure improvements. Meanwhile, Pearl Brewery ensured that their redevelopment plans aligned pedestrian access points for trail users to enter and exit the development and constructed seating on their property to serve the river-level amphitheater on the Reach. Pearl Brewery also donated \$3 million for improvements to the turning basin along the Reach, where the River Taxi drops off visitors at the Pearl.

In addition to intentional connections to the Reach, Pearl boasts a brewery, 19 restaurants and pubs, 14 retailers, a hotel, a culinary institute, and more than 350 residential units. Pearl Brewery installed two BCycle stations, bike parking, public art, public restrooms, and a pedestrian bridge to the historic Tobin Hill neighborhood.

The Pearl Brewery District attracts year-round visitors through programming, including festivals, live music, movies, dance parties, picnics in the park, holiday lights, and farmers markets.

HIGH-INVESTMENT





STRATEGIES

Water fountains
Restroom access
Programming
Bike parking
Bikeshare stations
Outdoor furniture
Canopy/shade
Bike valet
Public art
Amphitheater
Direct trail access

TOOLS

Partnerships

The symbiotic relationship with SARA continues beyond the initial construction phase. Pearl, SARA, and the City of San Antonio benefit from programs and projects along the Museum Reach and maintain a productive working relationship to ensure their mutual success.

Policy

Before making any plans to extend the River Walk, the City of San Antonio convened a 22-member San Antonio River Oversight Committee in 1998 to meet monthly and represent resident concerns. The intentional decision by policymakers to include public guidance from the beginning created greater buy-in for pedestrian-friendly recreational amenities along the Reach, something that the committee championed.

Funding

The cornerstone of the Pearl Brewery District's success is the public-private partnership between local government entities, philanthropy, and developers. The shared funding of the \$72.1 million project makes the Museum Reach greater than the sum of its parts, benefiting the Pearl development as well as the public.

SCENARIO LOCKWOOD WATER PLANT





THE TRAIL



- Buffalo Bayou Trail
 - Meat Packing Building

THE CONTEXT

The Buffalo Bayou Partnership (BBP) manages the 10-mile stretch of the Buffalo Bayou Trail near downtown Houston. Well-designed pedestrian and biking amenities along its western stretch, including a skate park, restaurant, and direct connections to downtown, have contributed to the popularity of the trail.

BBP plans to expand the Buffalo Bayou Trail and its amenities eastward through downtown and into the East End and 5th Ward neighborhoods. As part of their expansion strategy, BBP has purchased land around Buffalo Bayou, including the site of a defunct water treatment plant on Lockwood Drive. BBP envisions a design that marries the building with the bayou and a future trail segment along the water.

In this scenario, the major trail-oriented strategy is the direct connection between the building and the trail. Complemented by a BCycle station, trail-oriented retail, public art, and landscaping, the new building could serve as a dense residential complex for the growing neighborhoods.

HIGH-INVESTMENT



STRATEGIES

Bike racks
Trail signage
Programming
Trail-user discounts
Trail-user restrooms
Building modifications
Landscaping
Bikeshare partnership
Bike repair station
Exercise equipment
Indoor bike parking
Public art
Bike valet
Direct trail access

TOOLS

Partnerships

BBP can build on its existing relationships with the Harris County Flood Control District, the City of Houston, BCycle, and others. The Greater East End Management District, Fifth Ward Community Redevelopment Corporation, and BBP also completed a Livable Centers Study for a nearby neighborhood, which recommends event and recreation spaces, as well as improved bicycle and pedestrian access along the Buffalo Bayou Trail.

Policy

Given recent major flood events in the region, any development along a major waterway should be designed to withstand flooding and prevent property loss. Trail-oriented development, like in this scenario, is adaptable to policies that incentivize green infrastructure and elevated construction.

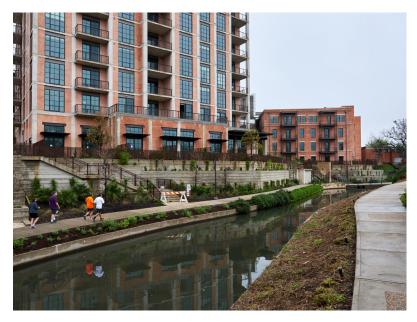
Funding

Since BBP already owns the land, this site can become a revenue generator for the organization through rent and parking fees. The trail infrastructure can be implemented through a mix of grants, philanthropic gifts, and other BBP revenue sources.

A TRAIL-ORIENTED REGION

Trail-oriented development strategies require a unique set of tools and an approach that is different than securing capital improvements for public trails and greenways. Buy-in from property owners and businesses is crucial to the success of any trail-oriented development strategy. The scale of partnerships, funding, and policies are entirely dependent upon community needs and the goals formed to meet those needs.

Building a trail-oriented region relies on the flexibility and context-sensitive possibilities of trail-oriented development. With an increasing number of greenway investments across the region, trail-oriented development offers a next step to make trails part of everyday life along the Texas Gulf Coast.









The Houston-Galveston Area Council would like to thank the many community leaders in case study and scenario cities who provided information about their trails, their properties, and their plans for current and future trail-oriented development. Firsthand information from the interviewees listed on this page provided the context for this report. Thank you.

Dr. Cody Abshier Liberty Independent School District

Pat Brooks Brooks' Bike Shop Patsy Christie City of Springdale

Jesse Core Core Brewing & Distilling Co.

Elizabeth Fauerso Pearl Brewery

Glenn Laird Harris County Flood Control District

Joanna Laufner Nankani Development, LLC

Laurie Lomas-Gonzales Trinity River National Wildlife Refuge

Lisa Maddox St. Tammany Parish

Dan Nankani Nankani Development, LLC Fred Nankani Nankani Development, LLC

Ann Marie Nikolich Pearl Brewery

Anne Olson Buffalo Bayou Partnership

lan Rosenberg INFILL Planning and Development, LLC

Brad Schroeder Covington Business Association

Yviand Serbones-Hernandez San Antonio River Authority

Rob Smith Northwest Arkansas Council

Lacey Toledano St. Tammany West Chamber of Commerce

Liberty Trailhead and White Oak Bayou Village scenario renderings by Asakura Robinson Company

Icon Attribution:
Handshake by Fission Strategy, pp. 6, 11, 13
Policy by Alina Alvarez, pp. 7, 11, 13
Truss by Seona Kim, p. 5
Water Dispenser by IconDots, p. 5
Pump by Hopkins, p. 5
Bike Parking by Luis Pardo, p. 5
Sign by Creative Mania, p. 5
Mechania by Popular, p. 5

