

Service Area

# TRAILS + GREENWAYS

"Greenways are...about connections: connections between people and the land, between public parks, natural areas, historic sites, and other open spaces, between conservation and economic development, and between environmental protection and our quality of life."

- Chuck Flink and Robert Searns, Greenways, 1993

# TRAIL AND GREENWAY DESIGN IS A PILLAR OF ALTA'S CORE SERVICES

#### Alta Trail Project Awards

2019 Planning Award of Merit, California Trails and Greenways Conference Awards Committee

2017 American Trails "Trail Planning & Design" (greater than \$500,000) Award

American Planning Association – 2016 Award for Excellence in Sustainability

2016 NADO Innovation Award

2016 San Diego APWA "Project of the Year"

2015 APA Northern California Award of Merit for Transportation Planning We have a proven record of implementing world-class trail projects. Alta specializes in the development of multimodal corridors that have become a nationwide priority within active communities. Our portfolio includes high-profile, large-scale facilities including construction documents for the Wolf River Greenway in Memphis, TN; the Park to Playa corridor in Los Angeles, CA; the Mojave Riverwalk in Victorville, CA; the Eastbank Esplanade in Portland, OR; the Burke-Gilman Pathway in Seattle, WA; and the Razorback Regional Greenway in Northwest Arkansas. We apply decades of experience to find creative ways of navigating the challenge and opportunities that trails present.

# WHY ALTA?

Alta plans and designs trails and greenways in contexts from dense and urban areas locations to rural, remote areas, for transportation as well as recreational purposes. Our trail projects carefully address the trail's context to create a corridor that provides an enjoyable, functional, and safe experience for trail users, coexisting comfortably within its surroundings.

Alta has recognized expertise in rail-with-trail, rails-to-trails, trails in creek and highway corridors, trails along waterfronts and levees, and trails in settings from urban core areas to rural agricultural areas and remote and rugged wilderness lands. Alta trail projects have included city, regional, state, and national/international trails and systems.

#### Key Qualifications:

Trail and greenway master plans

Urban trails

Multi-use pathways

Natural surface trails

Rail-to-trails

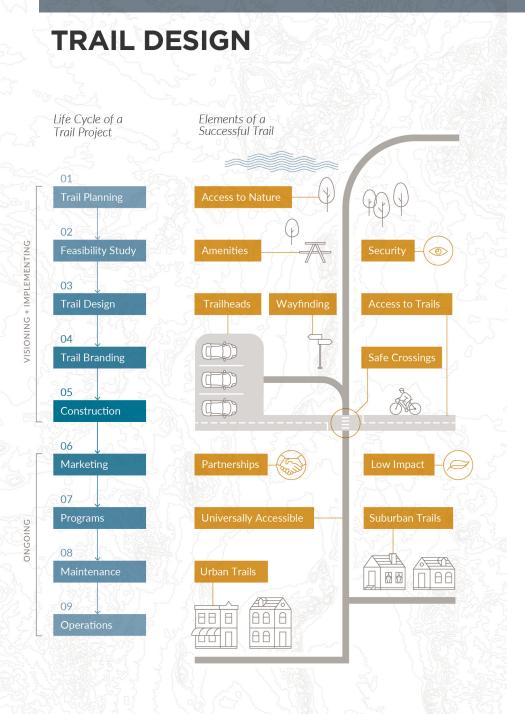
Waterfronts

Crime prevention through environmental design

Funding assistance



The Coachella Valley's CV Link presents a bold new approach to mobility. In 2013 Alta began development of the CV Link master plan for the 50-mile portion of the multi-modal pathway connecting the nine cities of the Eastern Riverside County region. Alta is serving as the lead engineer and construction will be complete in 2019. The CV Link design focuses on a theme of contrast while emphasizing the valley as a national leader in innovative technologies.



# **TRAIL TYPES**

Alta's expertise includes complete trail master planning, visioning, feasibility, benefits analysis, and trail engineering, as well as developing environmental documentation, property acquisition strategies, cost estimates, wayfinding and trail identity development, maintenance plans, management plans, and funding strategies.









#### NATURAL SURFACE TRAILS

Alta plans and designs natural surface trails that safely accommodate hikers, equestrians, and mountain bicyclists, while simultaneously protecting and promoting appreciation for sensitive resources. We access user needs, the landscape topography, and cultural and environmental resources to develop detailed designs that are cost-effective to build and maintain.

#### RAILS-TO-TRAILS AND RAILS-WITH-TRAILS

Rail-to-trail projects utilize inactive or abandoned railway corridors for public use. Alta works railbanking is an alternative to abandonment that retains the integrity of the corridor in perpetuity, while alleviating rail companies of legal and financial burdens.

Rail-with-trail projects seek opportunities for the railroad and trails to co-exist within the same corridor. As the author of the FHWA's "Rails-with-Trails: Lessons Learned," Alta is one of the nation's foremost experts on rail-trail corridors in both constrained urban locations and challenging natural settings.

#### URBAN TRAILS

Urban trails are located in highly populated areas and make use of constrained rights-of-way to connect people to their destinations. Alta regularly works on the complicated property, safety, and technical details for urban trails.



Connections to where people live, work, and play are critical to the success of trail networks.



Alta's trail solution protect natural resources while providing connections through sensitive environments



Before and after of a segment of the Doodle Rail Trail, Easley and Pickens, SC.



Rail-with-trail projects seek opportunities for the two entities to coexist within the same corridor.



# COACHELLA VALLEY CV LINK

CV Link will be an innovative, multi-modal facility of national importance that connects communities in the Coachella Valley while providing significant environmental, health, wellness, and economic benefits. The Coachella Valley's CV Link presents a bold new approach to mobility. The pathway system will accommodate low speed electric vehicles (LSEVs) in addition to bicyclists and pedestrians. Alta is providing recommendations for on-street segments at the highest design standard, and supporting infrastructure, including LSEV charging facilities.

The conceptual design focused on a theme of contrast while emphasizing the valley as a national leader in innovative technologies. Wayfinding will be intuitive via bold cues of color indicating one's orientation depending on the direction one is facing. The innovative and efficient use of energy is showcased with the use of solar power, motion sensing lighting, wind activated art elements, air quality monitoring stations, and pathway counters that convert trips to miles, calories and GHGs saved. The project team and community celebrated the opening of the first phase of the CV Link in 2018.

#### Key Services Provided Trail planning and design

Wayfinding development and placement

Amenity design and development

# Trailhead design and development

Construction documentation and administration









## NORTHWEST ARKANSAS RAZORBACK GREENWAY

Alta led a team of national experts to develop a regional greenways plan for NW Arkansas. The project prioritized regional opportunities for creating trails that connect the communities of Bentonville, Fayetteville, Rogers, and Springdale.

IN THE OWNER

Stand Black Black





Alta led this trail project, working with the NW Arkansas Metropolitan Planning Organization, the NWA Regional Planning Commission, and the Heritage Trail Partnership.

The greenway extends 36 miles from Bella Vista to Fayetteville, through the heart of three downtowns, links 23 public schools, connects three Fortune 500 company headquarters and provides access to other popular destinations. The new greenway will increase connectivity, drive economic development, improve residents' health, and help make northwest Arkansas a more attractive place to live, work, and play. Key Services Provided Trail planning and design

Funding assistance/ grant writing

Wayfinding development and placement

Amenity design and development

Trailhead design and development

Construction program management and administration



## WOLF RIVER GREENWAY, TN

The Wolf River Conservancy hired Alta to lead the efforts planning, design, and implementation of a 22-mile trail along the Wolf River Corridor in Memphis. This project will be a monumental achievement for the City of Memphis as it celebrates its recent designation as a Bronze level Bicycle Friendly Community.



The Wolf River Greenway initiative is focused on connecting people and improving quality of life while encouraging healthy lifestyles. To date, Alta has led the engineering of five phases of the project, consisting of 5.8 miles of 12-foot-wide asphalt trail, 1.6 miles of separated bike lanes, 900 feet of concrete boardwalks, 14 prefabricated pedestrian bridges, and a railroad bridge underpass canopy.

Alta also completed a Health and Economic Impacts Assessment, which found that once complete, the trail could generate up to \$14M per year in total economic benefits and save over \$7M from reduced vehicle emissions per year. Key Services Provided Trail planning and design

Health and economic impact assessment

Wayfinding signage system

Public involvement

Trailhead design and development

Construction documentation and administration



Hong Kong Island is the densest population center per buildable land on the planet. Bordered by steep mountains and the Victoria Harbour, Hong Kong has developed vertically for the last fifty years. With rising density, the demand for public open space has escalated, and Alta was brought in to design a solution to mobility along the



#### Key Services Provided Feasibility study

Brand identity design

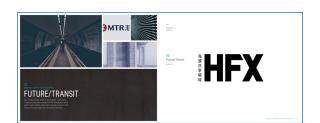
Trail planning

Wayfinding signage system

Amenity design

Standards and guidance manual development

Public involvement







Currently, Hong Kong's waterfront offers a series of public parks and open spaces, however, each space is separated and offers little connectivity. The Development Bureau of Hong Kong tasked AltaGO to study the feasibility of creating a continuous waterfront promenade that accommodates shared-use along its route. Alta evaluated alignment options, developed a standards and guidance manual for shared-use, and generated a promenade brand identity for the project.

Alta worked with Hong Kong's Civil Engineering Department, Transportation Department and Leisure and Cultural Services Department, and coordinated with the Hong Kong Cycling Alliance and the Harbour Loop Coalition to create a viable project for stakeholders. When completed, this report will become the standard for shareduse design in Hong Kong and will serve as a precedent for facility design in dense population centers across Asia.

## LA River Path Project

Trail planning and design

Alta and Jacobs are leading the team selected by the Los Angeles County Metropolitan Transportation Authority to design the landmark Los Angeles River Path project. This \$365M project—one of the largest active transportation trail projects in the country—will close an eight-mile gap in the path along the Los Angeles River in downtown Los Angeles and Vernon. Once complete, the LA River Path will be a 32-mile continuous pathway for walking and biking from the San Fernando Valley to Long Beach, providing a world-class facility for Angelenos and the region.

In completing this landmark project, the Los Angeles County region will have an impressive, preeminent, and functional pathway for walking and biking to serve as a foundation and catalyst for active transportation across the region.

## **Empire State Trail**

Alta, in collaboration with the Hudson River Valley Greenway, NYS Office of Parks, Recreation, and Historic Preservation, New York State Department of Transportation, and the Governor's Office on the Empire State Trail initiative, worked to develop an innovative plan to connect several trails, including the Erie Canalway Trail, Hudson River Valley Greenway, and Champlain Canalway Trail by 2020. This monumental effort involves a \$200 million dollar initiative of off-road trails and onroad connections across the state from NYC to Montreal and from Albany to Buffalo.

#### Key Services Provided Trail planning and design

Project management

Value engineering

Wayfinding signage system

Trailhead programming, design and implementation



Foothills Trails Master Plan, Salt Lake City, UT



#### Rey Services Provided Trail planning GIS analysis Interactive online map Public involvement

Alta led the development of the Foothill Trails Master Plan. Working with the Salt Lake City Parks and Public Lands Division, the plan provides recreational trail opportunities for a variety of users including trail runners, hikers, and mountain bikers.

Alta utilized a number of innovative tools and processes throughout the project including a GIS analysis of existing trail slopes which identified sustainable and unsustainable existing trails. Alta also conducted an intense week-long workshop, which brought together numerous decisionmakers and stakeholders into a collaborative process culminating in the development of a draft trail plan. This exercise promoted buy-in and ownership by participants while efficiently concentrating the trail plan development into a collaborative week long effort. Finally, Alta developed an engaging interactive online map to present the proposed trail system to the public. The map allowed participants to comment on trail likes or dislikes, propose new trail alignments, and voice management concerns about specific trails.

## Tualatin River Greenway Interpretive Elements, OR

The Tualatin River Greenway is a 1.25-mile pathway along the Tualatin River in Oregon. As part of a team, Alta designed the interpretive elements along the trail to illuminate the area's history from the Ice Age to present day. Rather than simply populate the trail with interpretive signs, Alta made the trail itself the main interpretive element, creating a physical chronological timeline that steps the users through time as they proceed along the path, and interprets key elements as they go, including key overlooks, paving, signage, and educational materials. The timeline from initial sketches and ideation to the release of the bid set, was under 6 months. The project opened to the public in 2016.

#### Key Services Provided Wayfinding signage system











#### ALTA PLANNING + DESIGN

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