

Taking Action

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SUSTAINABILITY + CLIMATE AT ALTA

Alta's holistic, people-first approach to sustainable transportation helps communities implement decarbonization strategies and become resilient and future-ready.

Our work is based on the two key components of climate action planning and design:



Adapting to an Overheating World

As the impacts of global warming become more pronounced, adapting to climate change can reduce vulnerabilities and enhance resilience.



Reducing Carbon Pollution

Achieving net-zero carbon emissions in the transportation sector is a critical component of overall efforts to slow climate change.

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We apply planning, design, communications, and analytical skills to advance communities' climate strategies:

- ◆ Plan for climate risks and impacts, protecting the most vulnerable and building infrastructure resilience
- ◆ Reduce motor vehicle use to the lowest levels possible
- ◆ Clean transportation: electrify and decarbonize
- ◆ Integrate green infrastructure and water management
- ◆ Increase the benefits of natural ecosystems to support resilience
- ◆ Use vegetation and shade to cool the places where people move
- ◆ Reduce consumption of carbon-intensive products and materials
- ◆ Create compact, balanced communities
- ◆ Involve and empower people in equitable processes to build social resilience



Climate Change Adaptation + Resilience

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Planning for climate risks and impacts to protect the most vulnerable and build infrastructure resilience.

Mississippi River PROTECT Grant Application

📍 TENNESSEE

Alta played a pivotal role in securing a \$16 million USDOT PROTECT grant for the restoration of vital Mississippi River floodplain areas in the City of West Memphis. Alta's Civic Analytics team used cutting-edge methods to analyze ecosystem services and assess the project's resilience impacts. This included a bridge disruption analysis that highlighted who would be most impacted by bridge closures to make the case that reducing flooding is critical to vital infrastructure.



Climate Change Adaptation + Resilience



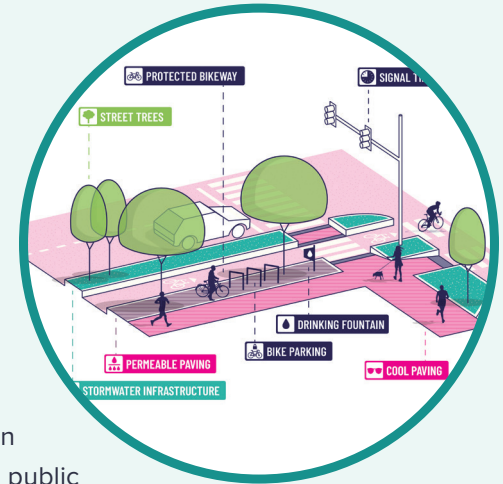
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Urban Heat Island Reduction Strategies

📍 CALIFORNIA

Alta prepared Urban Heat Island reduction strategies for three neighborhoods in the cities of Long Beach and Pasadena. Alta explored the intersections between extreme heat, mobility, equity, and public space to develop a toolkit of cooling solutions that can transform how people move through and experience public space.



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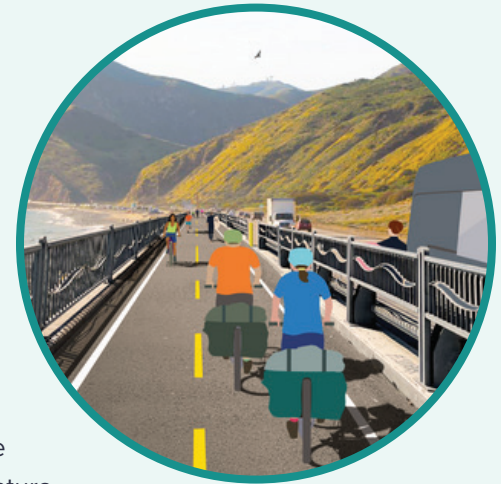
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Caltrans Pacific Coast Highway Adaptation Strategy

📍 CALIFORNIA

Alta worked with Caltrans to develop interim and long-term solutions for climate resilience and active transportation along the Pacific Coast Highway through Ventura County and similarly threatened roadways throughout the state. Alta established techniques and planning-level concepts that address sea level rise, coastal cliff stability, storm surge, and overwashing while also better accommodating the safety and mobility needs of bicyclists and pedestrians along the corridor.



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Bear Creek Greenway Fire Recovery Planning

📍 OREGON

After the devastating Alameda Fire swept through Southern Oregon's Rogue Valley and the 20+ mile Bear Creek Greenway, Alta supported the community in updating the Greenway's Master Plan to include an extensive portion dedicated to fire resilience. After conducting public outreach and technical analysis, Alta recommended changes to the Greenway's governance structure and updated its maintenance plan to prevent future disasters.



Green Infrastructure

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Incorporating native plant communities, increasing tree canopy, and integrating green stormwater infrastructure into transportation corridors.



Toronto's First Protected Intersection at York University

📍 ONTARIO

Using bioswales and green gutters to separate the bikeway from traffic and other treatments specific to intersections, Toronto's first protected intersection serves as a model for sustainable design in the region, and in North America. Alta designed the intersection to retain runoff patterns to existing curb and catch basins while minimizing impermeable surfaces as part of a retrofit roadway repurposing project. During construction, the overall project team worked together to manage constructability issues given the complexity of materials and their placement in the cross section of the bioswale.



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Atlanta BeltLine Westside Trail Extension

📍 GEORGIA

Alta is leading the design and construction of the Atlanta BeltLine Westside Trail Segment 4 with a focus on resilient design and sustainable development. Key components of the project include green stormwater infrastructure using large bioswales and regenerative stormwater conveyance swales with native vegetation, an extensive tree protection plan, and the use of green technology for concrete production on the project's structures and flatwork.



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Merced Avenue Linear Park Project

📍 CALIFORNIA

Alta provided project management, outreach, design, and construction support services for the Merced Avenue Linear Park project. The linear park was created in a new center median, and features walking and biking paths, native plantings, stormwater capture, public art, shade trees and play areas. Alta provided final plans, specifications, and estimates for the linear park design.



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Sacramento Active Transportation Plan, Tree Canopy Analysis

📍 CALIFORNIA

Alta developed a Tree Opportunity Index and implementation strategy to help the City of Sacramento analyze the need for additional tree shade and use Active Transportation Plan findings to prioritize facilities based on the greatest need for shade. The index measured variables like urban heat exposure, lack of existing tree canopy, and land use compatibility to identify locations where there is existing opportunity to plant trees where they are needed.

