U.S.Department of Transportation
Federal Highway Administration

January 2018 Volume 6, Number 4
FHWA-HEP-18-027

FHWA's Fostering Multimodal Connectivity Newsletter

In This Issue

Editor's Note: With the New Year and the release of the *U.S. Department of Transportation Strategic Plan for Fiscal Years 2018- 2022*, we are introducing some formatting changes to this publication to highlight the development and implementation of multimodal transportation projects.

Introduction

The Federal Highway Administration's (FHWA's) Fostering Multimodal Connectivity Newsletter is intended to provide transportation professionals with real-world examples of ways that multimodal transportation investments promote economic revitalization, provide access to jobs, and achieve safer communities through support of accelerated project delivery, technology and design innovation, and public/private partnerships. This newsletter communicates FHWA and partner efforts in support of the U.S. DOT Strategic Plan by improving connectivity, accessibility, safety, and convenience for all users.

Want to access additional tools and resources? Please visit FHWA's website. Past issues of the newsletter are also available. To subscribe to the newsletter, visit GovDelivery.

Providing Multimodal Transportation Options on Austin's Mopac Mobility Bridges

Janae Spence, Urban Trails Program Manager, City of Austin, TX & Annick Beaudet, Assistant Director, Austin Transportation Department

Only two miles separate Southwest Austin neighborhoods from landmark outdoor spaces like Zilker Park, Barton Springs Pool, and the economic engine of Downtown Austin. Yet for decades, the Texas State Highway Loop 1, known as the Mopac Expressway, a corridor over the environmentally-sensitive Barton Creek, presented a barrier to active transportation options. In 2012, a funding opportunity arose for TxDOT Congestion Management funds through Capital Metropolitan Planning Organization (CAMPO), the Metropolitan Planning Organization (MPO) for Central Texas counties. Through a partnership between the city of Austin, CAMPO, and the Texas Department of Transportation (TxDOT), the city of Austin Bicycle Program was able to secure funding to close the gap in connectivity.

Figure 1: Mopac Mobility Bridges. (Image courtesy of the city of Austin)

Around 1998, TxDOT repurposed the northbound shoulder on the bridge, eliminating bicycle access. TxDOT was also interested in converting the southbound shoulder of Mopac into an auxiliary lane for Highway 360, but wanted to avoid eliminating further bicycle access. Seizing an opportunity to solve two problems at once, city of Austin staff approached TxDOT with an idea. The staff proposed partnering on a two-fold project that would turn the southbound shoulder of Mopac into an auxiliary lane to manage automobile congestion and provide a separate bridge for bicycle and pedestrian use. This creative, multimodal solution allowed for TxDOT to relieve congestion on Mopac and created a high quality active transportation connection for users of all ages and abilities. As the project developed, the need for a second bicycle and pedestrian bridge became apparent to address access to the entrance ramp to Mopac. As a result, the Mopac Mobility Bridges project was born, with design beginning in 2012. The Mopac Mobility Bridges provide two miles of bicycle and pedestrian infrastructure, connecting to Austin's urban trail network.

TxDOT and the city of Austin agreed to share the costs of the project. The city applied for a $2.5 million CAMPO grant, and the Mopac Mobility Bridges project was awarded funding. The total project cost of $14.5 million was shared between the Federal Highway Administration (FHWA) Surface Transportation Program Metropolitan Mobility funding through CAMPO, TxDOT Prop 12 Metro and Urban Mobility funding, and city of Austin bicycle-specific bond funding. This project is a great example of how partnerships between Federal, State and local governments can be key to solving problems and getting impactful projects off the ground. Specifically, FHWA flexibility for multimodal funding, coupled with innovative project scoping by the State and local governments were crucial to the project's success.

As the project site spans the Barton Springs Edwards Aquifer, Austin's source of drinking water, finding environmentally sensitive design and construction solutions was critical. During the planning process, the project team involved multiple water quality/environmental experts and stakeholder groups, namely the Save Barton Creek Association, Save our Springs (SOS), and the Sierra Club. Once construction began, the team found that the limestone bedrock was deeper underground than soil borings originally indicated, leading engineers to adjust the design of bridge pilings. Although this delayed construction of the project, staff again went above and beyond to include environmental stakeholders in the problem-

solving process. By bringing these groups in early on, staff gained their trust and support, which was imperative to solving problems that arose during construction and ultimately bringing the bridges to fruition. In fact, without the early input and cooperation of environmental community partners, it would have been very difficult to find the best approach to meet mobility and safety objectives of the corridor and ultimately move the project forward. After three years of construction, the Mopac Mobility Bridges opened in summer 2017. The project provides a route for a daily average of over 200 bicycle and pedestrian users that previously could not cross the bridge, with the number of peak daily users at 521.

Ultimately, creative thinking, strong intergovernmental relationships, and an inclusive planning process made the project a success. The project was also strengthened by cross-agency cooperation and commitment to creative, context-sensitive solutions, participatory planning, design standards, and focused project management through completion. While initiated and motivated by bicycle and pedestrian needs, the project was most effective due to solutions that were truly multimodal and context-sensitive. Today, the Mopac Mobility Bridges provide safe, active transportation connections to jobs and entertainment, while also relieving traffic congestion and supporting accessibility for all roadway users.

Downtown Fort Lauderdale Mobility Hub Streetscape Project to Provide Connections

Charlene Burke, Local Governmental Services Principal Planner; James Cromar, Strategic Initiatives Executive Director; and Erica Lychak Communications Principal Coordinator, Broward MPO

The Broward Metropolitan Planning Organization (MPO) is funding the planning, design, and construction of the Downtown Fort Lauderdale Mobility Hub Streetscape Project (Hub) to enhance access to jobs and multimodal connections. This is the first time that Broward MPO will fund such a hub project, and it is the highest priority in the MPO's 2035 Long Range Transportation Plan.

The Hub will greatly enhance connections to the economic activity of Downtown Fort Lauderdale, an urban center with the greatest concentration of employment and high-density residences in Broward County, Florida. The Hub is centrally located near several redeveloping areas. Government buildings (City Hall, County Government Center, Central County Courthouse, and Federal District Court), cultural facilities (central library, museums, and performing arts center), and numerous shops, restaurants, and hotels are all in close proximity to the Hub.

Figure 2: View of pre-existing area of Downtown Fort Lauderdale Mobility Hub (Image courtesy of Broward MPO)

Broward MPO used $3.5 million of its annual Federal Highway Administration (FHWA) funding for this project, flexing these funds to the Federal Transit Administration (FTA). The City of Fort Lauderdale signed a sub-recipient agreement with the MPO to use FTA flex funds for design and construction of the Hub. Consistent with the city's vision, the MPO's Hub investments will provide infrastructure that emphasizes pedestrian accessibility, support mixed-use development, and improve connections to a variety of transit options. As a collaborative and coordinated effort between public and private partners, the Hub will generate opportunities for private development. The expectation is that the Hub improvements will facilitate transit transfers and generate ridership in conjunction with residential, hotel, and office uses.

The Hub project area covers four blocks that connect current and future transportation services. Existing facilities include the Broward County Transit (BCT) Central Terminal for local bus service, with boarding areas for the Sun Trolley and Tri-Rail (commuter rail) shuttles. The Hub will also include the Fort Lauderdale station for the BrightLine private inter-city passenger rail system between Miami and Orlando, and the Wave Modern Streetcar, a downtown transit circulator. The project provides an opportunity for local commuter rail service to complement the BrightLine inter-city service.

The initial Hub planning study began in 2012 in conjunction with a Florida Department of Transportation study on Broward Boulevard, a primary east-west corridor that forms the southern edge of the Hub. The planning study, known as the Joint Development Initiative, envisioned leveraging public funds to encourage investment in private developments. The MPO proposed financial assistance for construction of the Wave streetcar maintenance facility and other transit-supportive elements on two city-owned parcels as part of a privately-funded hotel/office/residential project.

Figure 3: Rendering of Downtown Fort Lauderdale Mobility Hub Streetscape (Image courtesy of Broward MPO)

However, plans changed with the unanticipated launch of the private rail initiative that would use the Florida East Coast (FEC) rail corridor. The FEC owners proposed a land swap to relocate the streetcar maintenance facility to an outlying parcel, thereby freeing up prime real estate for private development within the Hub project area. This change compelled the partners to pivot and rethink the project.

The planning team recognized the upcoming 2018 Wave and BrightLine stations would be within two blocks on either side of the BCT Central Terminal. Transit services were not planned to be centralized under one roof, so the planning team explored alternatives for safe, comfortable connections among the facilities. The MPO strategically reallocated funds toward the design and construction of streetscape improvements to connect existing and future transit options and create a framework for private development.

With completion expected by 2019, the Hub will increase safe and accessible connectivity for bicyclists, pedestrians, and transit users. The streetscape improvements are consistent with the Downtown Fort Lauderdale Design Guidelines and will include sidewalks, crosswalks, lighting, wayfinding elements, street furniture, and landscaping for comfort in a hot and humid climate.

The unique local challenges and opportunities of the Hub project provide lessons that can be adapted to other locations. A Hub can reduce barriers to opportunity by providing access to safe and affordable multimodal connections. A Hub that provides connections to major employment centers can encourage economic investment, revitalize communities, and support job creation and new business development. The Hub supports quality of life benefits for the community such as reduced travel times, increased access to mobility choices that meet individual daily needs, and health benefits associated with active transportation.

Success of the Hub project is a result of maintaining the focus on long-term outcomes and adapting to unexpected issues to become an agent for change. According to Broward MPO's Deputy Executive Director of Strategic Initiatives, and Mobility Hubs Project Manager James Cromar, the approach has been to "aim high, but don't forget the little things."

Kentucky SHIFTs Ahead

Eileen Vaughan, Transportation Engineer, Division of Planning, Kentucky Transportation Cabinet

Like many States, Kentucky struggles to fund many of the transportation projects it needs. Kentucky's current six-year highway plan includes more than $6 billion in unfunded transportation projects. This is ten times greater than the State funds available. While aspirational goals and plans can be productive, a mismatch between plans and funds can lead to public expectations that may be unattainable.

At the direction of Governor Matt Bevin, the Kentucky Transportation Cabinet (KYTC) created the Strategic Highway Investment Formula for Tomorrow (SHIFT) in 2017 to help prioritize its spending of the funding KYTC receives from the Federal Highway Administration (FHWA), as well as State transportation dollars, on capital projects.

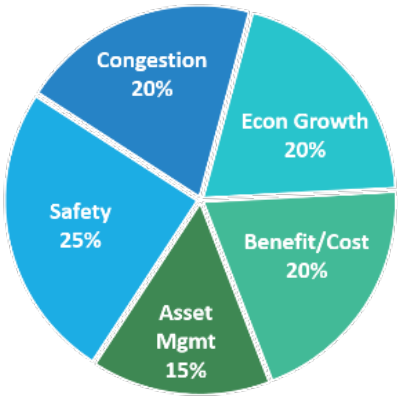

Figure 4: SHIFT Statewide Formula (Image courtesy of Kentucky Transportation Cabinet)

SHIFT is both data-driven and collaborative. The formula portion of SHIFT uses an objective approach, incorporating data on safety, congestion, asset management, economic growth and cost-benefit ratios. The collaborative portion of SHIFT engages local transportation leaders (area development districts and metropolitan planning organizations) and KYTC Highway District Offices in shaping the next recommended highway plan.

Throughout 2017, KYTC evaluated and scored more than 1,100 projects through SHIFT. The projects consisted of a mix of existing six-year plan projects and new projects identified through the collaborative efforts of local transportation leaders and KYTC Highway District Offices throughout the State. The first evaluation step in the SHIFT process identified and ranked projects of statewide significance based upon the SHIFT Statewide Formula. These projects were located on the National Highway System, on roadways that move people and goods from one Kentucky region to another, as well as to other States. Using objective data gathered and calculated through SHIFT, KYTC identified 70 projects of statewide significance to be considered for funding in the next highway plan. KYTC publicly released scores on projects of statewide significance in June of 2017.

The next step in the SHIFT process focused on ranking regional projects. These projects were transportation improvements within geographical sections of the Commonwealth. KYTC grouped the State's 12 Highway Districts into four geographic regions—north, south, east, and west—each consisting of three districts. SHIFT created a more level playing field across the State by allocating regional priority funding evenly across four regions.

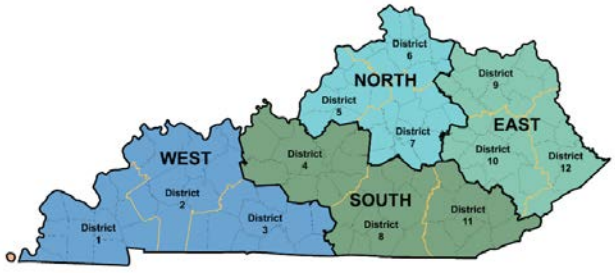

Figure 5: SHIFT Regions and Highway Districts regions (Image courtesy of Kentucky Transportation Cabinet)

As part of ranking regional projects, local transportation leaders and Highway District Offices met to recommend projects to prioritize for highway plan funding in their areas. The meetings

held by local transportation leaders were open to local officials and the public. The groups considered more than 1,000 projects across the State, scored using the SHIFT Regional Formula. The Regional Formula consists of 70 percent data, 15 percent input from local transportation leaders, and 15 percent input from Highway District Offices.

SHIFT regional project scores will be published in early 2018. Documentation of prioritization methods employed by local transportation leaders and Highway District Offices during SHIFT discussions will also be made publicly available at that time.

In November 2017, the SHIFT State and Regional scores were used to produce a prioritized, balanced plan to send to the Governor and legislators for consideration when developing the next highway plan during the 2018 General Assembly.

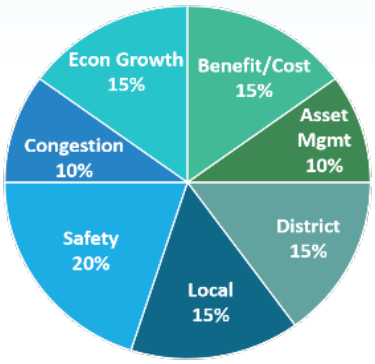

Figure 6: SHIFT Regional Formula (Image courtesy of Kentucky Transportation Cabinet)

SHIFT is helping to move Kentucky ahead with a data-driven tool for transportation spending priorities. It increases collaborative input at the Highway District and local levels. SHIFT also offers more transparency in the development of the highway plan. Ultimately, it helps to create a highway plan that citizens and businesses can trust as reliable, and ensures the efficient use of FHWA and State funding.

Electric Vehicle Carshare Program Increasing Mobility for Disadvantaged Communities in Los Angeles

Makenzi Rasey, Shared Mobility, Los Angeles Department of Transportation & Mitch Moore, Marketing Manager, BlueLA

The Los Angeles Department of Transportation (LADOT) has partnered with BlueLA to pilot the nation's largest electric vehicle (EV) carsharing program for disadvantaged communities. The program was initiated by Los Angeles Mayor Eric Garcetti's Office of Sustainability, and aims to meet the evolving mobility needs of Los Angeles residents while bringing more sustainable transportation options to low-income neighborhoods. It advances several of the goals outlined in the city's Sustainability Plan, which calls for the installation of 1,000 publicly available EV charging stations, sets a target for 25 percent of all light passenger trips to be zero-emission by 2035, and aims to increase livability through safe, vibrant, well-connected, and healthy neighborhoods.

A $1.7 million grant from the State of California provided initial funding for the pilot. Private sector funding comes from BlueLA, a division of the Bolloré Group, which has invested more than $10 million to bring its EV carshare program to Los Angeles. These combined funding sources create a public-private partnership that is beneficial for both government stakeholders as well as for-profit corporations, and can be used as a business model for other cities to replicate. A first of its kind program, BlueLA will also provide invaluable insight into how disadvantaged communities use and benefit from affordable electric carsharing, the process of permitting and constructing EV stations using public right of way, as well as best practices coordinating community partners and stakeholders. By creating a template for other cities to follow, BlueLA will encourage similar programs to launch across the country.

Carshare models have been shown to greatly reduce the need for car ownership, which can account for a large percentage of household income, especially among disadvantaged communities. The BlueLA model is "fixed station" or "point to point" carshare, wherein users can make one way trips and pay only for the time they use the service. Membership fees range from $0 to $10 per month, with usage fees ranging from $0.15 to $0.40 per minute of drive time,

and low-income users will be eligible to qualify for a 25-80 percent discount. Participants also have zero cost for parking, insurance, maintenance, and gas.

Figure 7: BlueLA electric vehicle, charger, and reservation kiosk at the pilot demonstration site in the Westlake neighborhood of Los Angeles (Image courtesy of the city of Los Angeles)

Feedback from community workshops suggests that by facilitating shorter, affordable trips—such as accessing job centers, grocery shopping, going to the doctor, or providing first and last mile connections with public transit—this service will fill existing mobility gaps for communities that spend a disproportionate amount of time and money on their transportation needs. The program also increases access by operating 24/7, eliminating the need for long wait times for transit during off-peak hours. By deploying an all-electric fleet, BlueLA will provide access to more sustainable transportation options that are often out of reach for low income families. The program will also create jobs, increase local employment opportunities through its Street Ambassador program by hiring local residents to activate new members and troubleshoot member questions.

A demonstration site finished construction in June 2017, and BlueLA is working with LADOT to commence a public launch in spring 2018. Full deployment in summer 2018 will bring 100 electric vehicles supported by 200 charge points to 40 locations across the pilot area in Los Angeles, including Westlake, Pico Union, neighborhoods north of the University of Southern California, portions of downtown, Hollywood, and Koreatown.

To ensure the service is adequately reaching its targeted communities, the program also benefits from a partnership with the Shared Use Mobility Center (SUMC) and a committee of local community organizations, including the Salvadoran American Leadership and Educational Fund, T.R.U.S.T. South LA, and Koreatown Immigrant Workers Alliance for continuing insight. Ongoing community workshops and crowdsourced location selection further the effort to design a program that reflects the needs and desires of the pilot neighborhoods. Ultimately, this infrastructure will be made publicly available to local EV users, creating a network of EV chargers and providing increased charging accessibility throughout the city. This program is a part of Los Angeles's broader focus on vehicle electrification, including aggressive electric vehicle purchasing policies for city vehicles, installation of on-street EV chargers, and rebates for the installation of EV chargers at home and work spaces. The city has a goal of 10,000 commercial chargers by fiscal year 2021/2022. Los Angeles aims to be the EV capital of the country, with the most EVs on the road of any city in the US. Partnering with the private sector to deploy innovative EV technology, the electric vehicle car sharing program will ensure that the livability benefits of these efforts will extend to communities across the city of Los Angeles.

Announcements/New Resources

- The Federal Highway Administration (FHWA) has published the Accessible Shared Streets: Notable Practices and Considerations for Accommodating Pedestrians with Vision Disabilities. This document captures the national state of the practice for accommodating pedestrians with vision disabilities on shared streets and helps State and local partners meet Americans with Disabilities Act obligations.
- In coordination with FHWA, the Pedestrian and Bicyclist Information Center have produced a Discussion Guide for Automated and Connected Vehicles, Pedestrians, and Bicyclists. This paper is intended to serve as a discussion guide and orientation piece for people entering the conversation from a wide variety of perspectives, including advocacy, public policy, research, injury prevention, and technology developers.
- The Federal Transit Administration (FTA) recently published the Manual on Pedestrian and Bicycle Connections to Transit. This manual provides a compendium of best practices to help transportation professionals improve pedestrian and bicycle safety and access to transit, including information on evaluating, planning for, and implementing improvements to pedestrian and bicycle access to transit. In addition to covering key concepts such as access sheds, connected networks, and station area comfort, safety, and legibility, the manual covers needs specific to pedestrians, such as complete sidewalks and safe, convenient crossings, and to bicyclists, such as bicycle parking and on-transit accommodations.
- FHWA's Richmond, Virginia Pedestrian and Bicycle Network Improvement Study provides a companion "bottom up" resource. It is an example of a State and locally led quick turnaround planning process focused on developing a detailed set of infrastructure improvement recommendations. The study focuses on seven TIGER funded bus rapid transit stations currently under construction along a 7.6-mile corridor in Richmond, Virginia. The report was developed in partnership with the City of Richmond, the FHWA Virginia Division Office, and FTA. "The City of Richmond was pleased to participate with FHWA and the FTA to develop the Pedestrian and Bicycle Network Improvement Study that focused on multimodal access to seven of our Pulse BRT stations. The recommended bicycle and pedestrian improvements will be incorporated into our multimodal system plan and implemented as a part of our ongoing initiative to promote and provide transportation alternatives," said Mayor Levar Stoney. Richmond's work was also used as the primary case study for FHWA's Incorporating Qualitative Data in the Planning Process: Improving Project Delivery and Outcomes.
- FHWA developed a web-based course titled Fundamentals of Environmental Justice (EJ), released in August 2017 as a free course available to any practitioner. The course provides foundational information on EJ and how it is applicable to each phase of transportation planning and project development. Register through the National Highway Institute.
- EveryDay Counts (EDC)-4: Community Connections provides transportation agencies with the information, tools, and support necessary to connect communities that have been divided by past transportation plans and projects. Community Connections is built upon collaboration, innovation, and human-centered thinking. As part of an outreach effort, FHWA developed the EDC-4 Community Connections Innovation Spotlight video to highlight the Community Connections Toolkit, mobility options, and cities that are practicing community connections.