











P.O. Box 1088, Austin, Texas 78767-1088 - Administrative Offices: One Texas Center, 505 Barton Springs Road, Suite 800, Austin, TX 78704 Telephone (512) 974-7065; Fax (512) 974-7084

Through the Urban Trails Program, the City of Austin Public Works Department (PWD) promotes pathways for recreational and alternative transportation. PWD is working closely with partners to create the most useful, environmentally conscious urban trail system in the country. Austin now has approximately 30 miles of urban trails. As envisioned in the City Council-adopted Urban Trails Master Plan, the City will eventually be home to more than 300 miles of urban trails for all ages and all abilities.

PWD is proud to support the *Shoal Creek Trail: Vision to Action Plan* as an important step towards achieving this big vision for our City. This Plan is the culmination of a yearlong public-private partnership between the Shoal Creek Conservancy and PWD. It is the result of a robust stakeholder engagement process as well as technical input from many City departments and public entities. Through this community-led process, we have developed an overall vision for the future of Shoal Creek Trail, identified and prioritized gaps and opportunities for connecting and improving existing segments of the trail, and identified phasing and routes for extending the trail north of Highway 183 to connect to the Northern Walnut Creek Trail.

It is with great pleasure that PWD accepts the Shoal Creek Trail: Vision to Action Plan as a guiding document for trail projects along the Shoal Creek Corridor. We will also work to include the Plan as an amendment to the Urban Trails Master Plan during the next revision process. We look forward to partnering with Shoal Creek Conservancy, other City of Austin departments, City officials, and other stakeholders to implement this community vision for the future of Shoal Creek.

Sincerely,

Richard Mendoza, P. H.

Director, Public Works Department



June 1, 2018

On behalf of the Shoal Creek Conservancy Board of Directors, staff, and dedicated volunteers, I am pleased to share the Shoal Creek Trail: Vision to Action Plan. This community-initiated and community-developed Plan presents a bold vision for the future of Austin's oldest hike-and-bike trail and our city's growing trail network. It is the result of a yearlong public process facilitated in partnership with the City of Austin Public Works Department. A diverse set of stakeholders guided development of the Plan: the 60+ member Community Advisory Group, the Technical Advisory Group comprised of more than 10 public entities, and a team of skilled consultants.

The Plan proposes improvements to the existing 3.9 mile Shoal Creek Trail, as well as a 9+ mile trail extension. When complete, the Shoal Creek Trail will extend for 13 miles from the Butler Trail at Lady Bird Lake to the Northern Walnut Creek Trail north of Highway 183. It will provide a continuous pathway for runners, walkers and cyclists from downtown past the Domain. The Trail will not only connect schools, businesses, neighborhoods and other major destinations, but will also enhance the natural environment and celebrate our city's cultural heritage along the way. Ultimately, the Trail will become part of become part of "The Big Loop Trail," a 30-mile loop of urban trail that will traverse Austin by way of creeks and parks.

While the Plan presents a sweeping vision for the Shoal Creek Trail, it also embraces a concrete and resourceful approach to achieving this vision. With your help, we've not just developed a guiding vision for the future of the Trail, but also identified achievable short-term projects along each stretch of the pathway. For example, the Plan identifies a number of key Trail improvements to be initiated within first year after the Plan's release.

I'd like to extend a heartfelt thanks to all of the people that made this Plan possible. Thank you to the City of Austin Public Works Department for embracing this public-private partnership and guiding the process alongside the Conservancy. Thank you to the Conservancy's generous private donors for supporting this important work. Last, but very certainly not least, we are extremely grateful to the community members and technical advisors that thoughtfully shared their input, guidance and expertise throughout the process.

I invite you all to join us on the next leg of this journey. In the coming months and years, Shoal Creek Conservancy will transform our Trail vision into reality. The Conservancy, the City, and community will work together to create a Trail that is accessible to a broader range of community members, easier and safer to use, and connects to more destinations than ever. Let's build it and use it -- together.

Sincerely,

Joanna Lynn Wolaver
Executive Director

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This community project is made possible by the contributions, leadership and participation of:

PRIVATE DONORS

The Charles and Betti Saunders Foundation Fund

Constructive Ventures

Downtown Austin Alliance

The Georgia B. Lucas Foundation Fund

Jack and Carolyn Long

MFI Foundation

The Powell Foundation

The St. David's Foundation

PLANNING PARTNERS

The Shoal Creek Trail: Vision to Action Plan Community Advisory Group (CAG) (See Appendix A.2 for member list.)

The Shoal Creek Trail: Vision to Action Plan Technical Advisory Group (TAG) (See Appendix A.2 for member list.)

Fermata, Inc. and Ted Lee Eubanks for the *Shoal Creek Interpretive Guidelines*

dwg. landscape architects for the Duncan Park Preliminary Plan

Limbacher and Godfrey Architects and Sparks Engineering for the 3rd Street Trestle Conceptual Master Plan and the 1887 West Sixth Street Bridge at Shoal Creek Restoration Study

Pease Park Conservancy and WRT for the Pease Park Master Plan

The Shoal Creek Conservancy's Historic Bridges Committee

Walker Partners for the 5th to 15th Street Preliminary Engineering Study

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(to be made available online at www.shoalcreekconservancy.org/trailplan)

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EXECUTIVE SUMMARY

This document, The Shoal Creek Trail: Vision to Action Plan, is a collaborative effort of the City of Austin, Shoal Creek Conservancy, key stakeholders and interested community members. The planning process has been guided by the consultant team of McCann Adams Studio and Siglo Group over a 9-month period, beginning in April 2017. The Plan is a guide to improving and extending the existing, 3.9-mile Shoal Creek Trail to create a 13-mile, continuous walking and bicycling pathway system from Lady Bird Lake northward to meet the Walnut Creek Trail. The Plan also envisions how the Shoal Creek Trail will be part of a holistic approach that enhances the natural amenities of the Creek and celebrates the cultural history of this corridor.

By completing this Trail, Austin will have created a 30-mile, "Urban Trail" system loop: one that serves the broadest number of users, connecting them to parks and open space as well as to home, school, work and other daily destinations via protected pathways, both alongside existing roadways and within parkland. After reaching the northern end of the Walnut Creek Trail, trailgoers can use this relatively new Urban Trail to continue south and east to the southern reach of the Walnut Creek Trail, then continue west and south along Boggy Creek and the EastLink Trail to meet Lady Bird Lake and its Butler Trail system. From the north shore of the 10-mile Butler Trail loop, trail-goers can cross Lady Bird Lake into South Austin, thereby extending even further the connections through Austin and beyond including the now developing Violet Crown Trail that reaches into Hays County. When complete, the Shoal Creek Trail will not only serve a healthful and recreational function, but a significant regional transportation one as well.

The planning process to create the *Shoal Creek Trail: Vision to Action Plan* involved the following steps, which are documented within the Plan report and its appendices:

- 1. Analyzing the existing conditions and relevant plans, policies and projects of the study area;
- Constituting a technical advisory group (TAG) and a community advisory group (CAG);
- Developing of an overall planning and design approach for the various distinct segments of the Trail, including the crafting of guiding principles and goals for the overall Trail project; sustainable design guidelines (by Siglo Group) and interpretative guidelines (by Fermata, Inc.);
- Conducting a series of three milestone meetings involving the TAG, the CAG and the general public to take input for and vet proposals from the Consultant;
- 5. Dividing the Trail project into a series of over 20 individual projects and setting priorities for their implementation;
- Developing a planning-level budget estimate for each project and identifying potential funding sources and partners for their implementation and maintenance, and engaging these parties;
- 7. Drafting and illustrating the final Plan report; and
- 8. Vetting the Trail Plan with the TAG and CAG and finally with the general community through the City's Boards and Commissions public review process.

This last step is underway now, with the public review to commence in June 2018, and it is anticipated that the City's Public Works
Department will accept the Vision to Action Plan as a guiding document by Fall 2018. The Plan will ultimately be considered for City Council adoption as an amendment to the next update of the Urban Trails Master Plan. City Council adoption is not only important in setting up individual project funding through City of Austin sources, but it is also key to attracting funding from both the non-profit and private sectors, as these sources generally require that their investments go toward projects that support the public good and have won public approval.



The 1976 Austin Creeks Plan, created as part of America's Bicentennial celebration, envisioned a network of greenbelts for Austin following its dense network of creeks. The Vision to Action Plan upholds this legacy, proposing a cohesive Trail system that ties into numerous parks and neighborhoods. The three segments of this Trail Plan reflect the diversity in character of the Shoal Creek Trail.



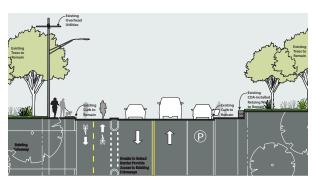
Create and implement an Interpretive and Wayfinding Master Plan for the entire Shoal Creek Trail Corridor. The project scope should include designing and installing the wayfinding signage that link travelers to key public destinations (schools, parks, trails, transit stops, community buildings, historic sites and buildings) for the entire Trail. (Example from way-finding sign near Lady Bird Lake, left)



Construct a West 3rd Street bicycle/pedestrian underpass; rehabilitate and re-use the historic trestle bridge as a scenic overlook/public plaza; and create another public plaza within the 3rd Street right-of-way, west of Shoal Creek, on the south side of The Independent condominiums. (Simulation of Trail underpass at the 3rd Street trestle bridge, left)



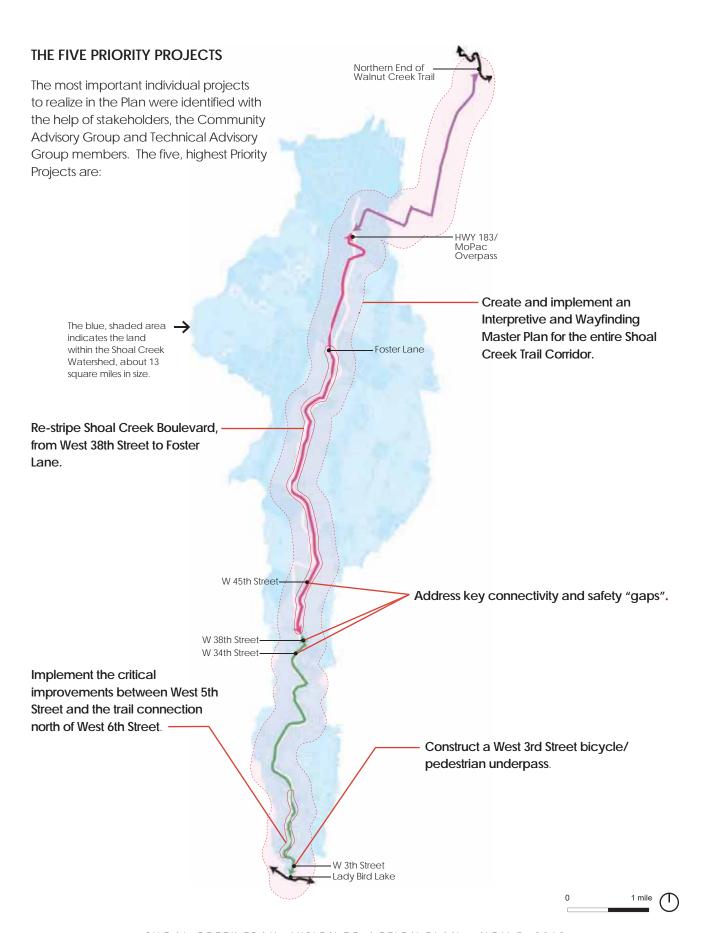
Address key connectivity and safety "gaps" along the route, including the crossings at the West 34th and West 38th streets, and the intersection of West 45th Street and Shoal Creek Boulevard. (Simulation of enhanced bike/ped crossing at 34th Street, left)

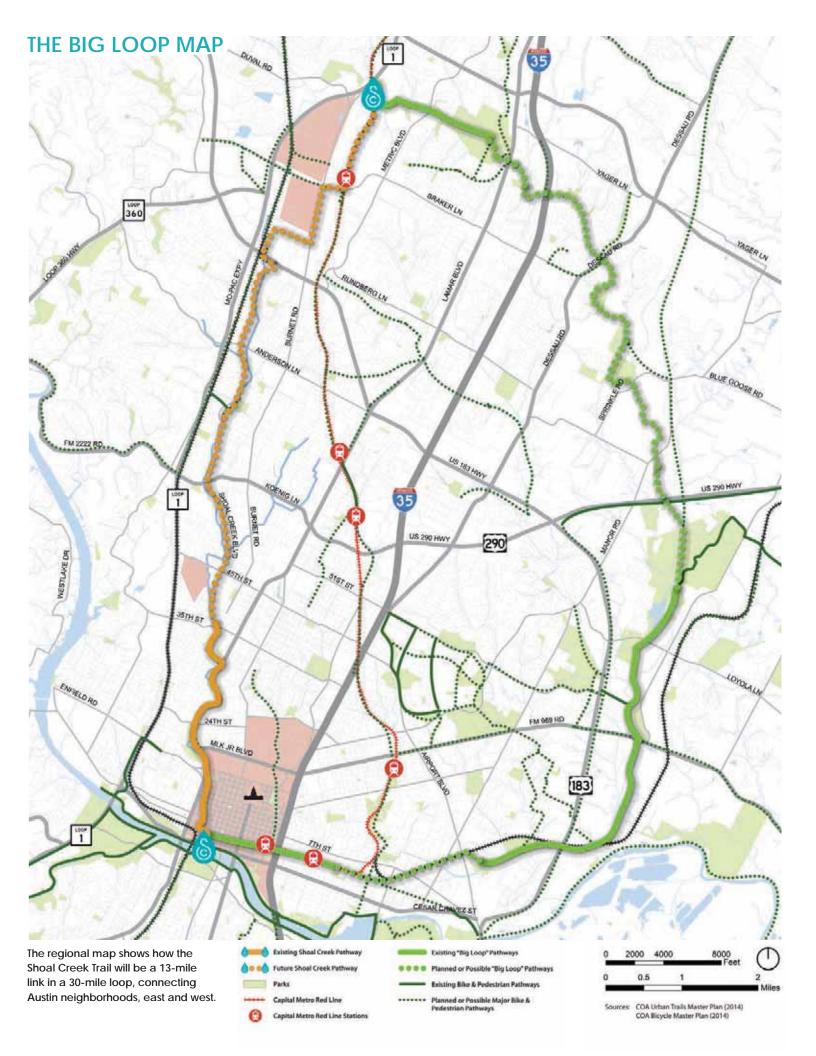


Re-stripe Shoal Creek Boulevard, from West 38th Street to Foster Lane, to create a two-way, protected bicycle lane, along the western edge of the existing curb. (Proposed preferred cross-section, left)



Implement the critical improvements between West 5th Street and the trail connection north of West 6th Street, as described in Phase 1 of the 5th to 15th Street Preliminary Engineering Report, which include improving the Trail to a 10- to 14-foot wide, Urban Trail standard - as appropriate within the specific context - while increasing native landscape and wildlife habitat and improving water quality. (Simulation of expanded trail width and new connections, left)



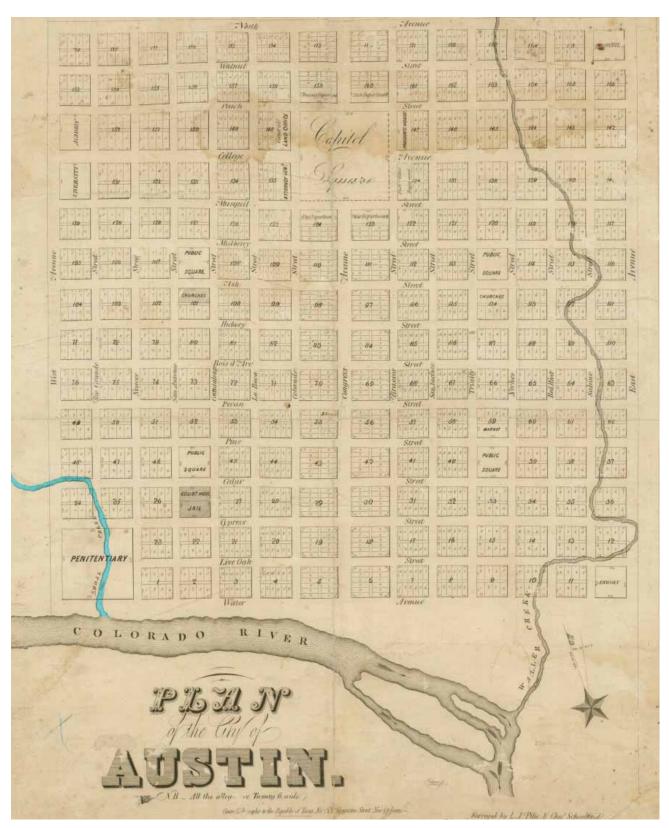


INTRODUCTION

The existing Shoal Creek Trail, constructed in the 1970s, travels along the shoreline of Shoal Creek, from the north shore of Lady Bird Lake to just north of West 38th Street, where it ends at Shoal Creek Boulevard and gives access to an existing bicycle route, striped within the existing roadway. The Trail is heavily-used, despite its often narrow widths, inconsistent paving types, poor states of repair, and varying levels of comfort and accessibility. However, the City of Austin's *Urban Trails Master Plan* recommends that the existing Shoal Creek Trail be improved to "Urban Trail" standards. The City defines an Urban Trail as "a citywide network of non-motorized, multi-use pathways that are used by bicyclists, walkers and runners for both transportation and recreation purposes". The *Urban Trails Master Plan* also calls for the Shoal Creek Trail to be extended northward along the length of the Creek to reach Highway 183. The purpose of the *Shoal Creek Trail: Vision to Action Plan* is to define a vision, and then, to identify and prioritize the individual component projects that comprise the overall Plan.

Shoal Creek itself extends even further north, beyond Highway 183, and beneath the MoPac Expressway, re-emerging west of MoPac at its headwaters in a tranquil green space within the University of Texas' Pickle Research Campus "West". The Shoal Creek Watershed encompasses approximately 13 acres of urbanized land, draining directly into Lady Bird Lake. A major goal of this Plan, as well as of the Shoal Creek Conservancy and the City of Austin, is to improve the ecological function and natural beauty of Shoal Creek and to reveal and celebrate its cultural and environmental heritage along its banks as Trail improvements are made.

The Shoal Creek Trail: Vision to Action Plan describes how the existing Trail could be extended nine miles northward as a continuous pathway, connecting to the north end of Walnut Creek Trail. The Trail will soon connect to the southern section of the Walnut Creek Trail, which will then connect to the EastLink Trail and the Butler Trail around Lady Bird Lake. So, extending the Shoal Creek Trail as described in the Plan will realize a long-standing community vision by completing a major Urban Trail system in the form of a 30-mile "big loop", connecting East, South and West Austin, as illustrated on the map to the left.



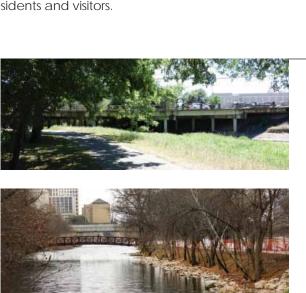
Austin's first mayor, Edwin Waller, drafted the original (1839) plan for Austin, inscribing the grid of streets between Shoal and Waller creeks, overlooking the Colorado River. (Source: Texas General Land Office Holdings, Austin, Texas, Map Number 76204)

1.1 BACKGROUND AND PURPOSE

What is the Shoal Creek Conservancy and what does it do?

The Shoal Creek Conservancy, a 501(c)3 nonprofit organization, is the proud steward of the 13-square-mile Shoal Creek Watershed in Austin, Texas. The mission of the Conservancy is to champion the Shoal Creek Watershed in order to create a healthy and vibrant community. The Shoal Creek Watershed provides an oasis in a rapidly growing urban area, and the Conservancy believes that with thoughtful investment, this natural treasure can better benefit the ecology, economy and enjoyment of the outdoors.

The Shoal Creek Conservancy envisions a continuous network of green spaces stretching throughout the Watershed, connected by hike-and-bike trails in a healthy habitat. With more green space and a greener built environment, native plants and animals will flourish. Restored, enhanced, and celebrated, Shoal Creek will shine even more brightly as a central part of Austin's cultural heritage. The Watershed will become a dynamic, safe and well-cared-for geographical area that improves the lives of residents and visitors.



The blue, shaded area indicates the land within the Shoal Creek Watershed, approximately 13 square miles in size. A watershed is a geographic area within which all water drains to a common source. Any water that falls on the ground in the Shoal Creek Watershed eventually reaches Shoal Creek (if it doesn't evaporate first).

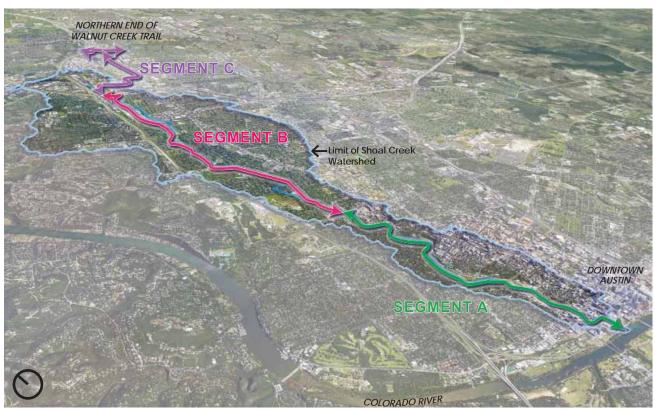
Today, the Shoal Creek Trail extends from Lady Bird Lake to West 38th Street. The Plan refers to this as "Segment A".

To this end, the Conservancy engages in thoughtful public and private partnerships, leads fun and meaningful educational programming, and spearheads on-the-ground improvements that make Shoal Creek and the Shoal Creek Trail safer, more accessible and more inspiring places to be. Learn more about the Conservancy programs and projects at www.shoalcreekconservancy.org.

In April 2017, the Shoal Creek Conservancy (SCC) initiated the *Shoal Creek Trail: Vision to Action Plan.* The purpose of the Plan is to serve as a guide for improving the existing Shoal Creek Trail and extending it northward to the Creek's headwaters, near the intersection of Highway 183 and Loop 1 (MoPac), connecting it to the Walnut Creek Trail System and Austin's growing Urban Trail network.

The Plan aims to create a signature bicycle and pedestrian transportation Corridor that is - at once - a recreational and healthful open space, a haven for the natural environment and a revelation and celebration of the unique history of this important place in the history of both Austin and Texas.

The study area of the Plan was established as a one-mile wide corridor of land – roughly one-half mile on either side of the Shoal Creek Trail. This was done to be cognizant of and study any potential transportation connections that could link to this major north-south spine. Recognizing and eventually signing and improving these connectivity opportunities throughout the Corridor is essential to creating the dense network of travel choices for the public called for in *Imagine Austin*, the City's comprehensive plan.



Shoal Creek is roughly 11 miles in length and its Watershed, nearly 13 square miles in size. (City of Austin FloodPro dataset, 2017)

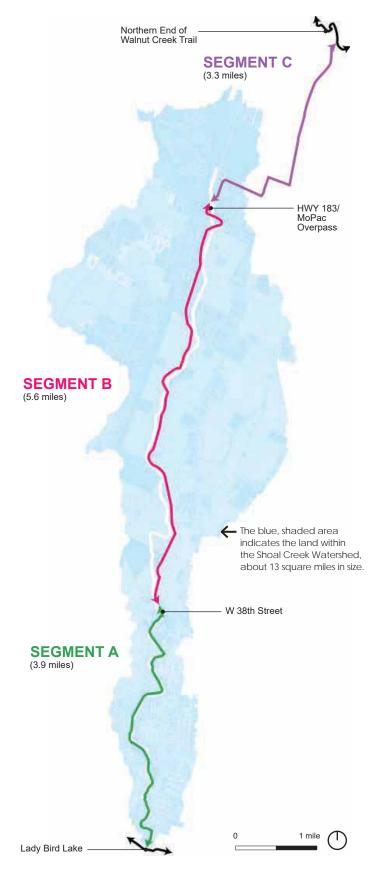
Recognizing that a large amount of the Corridor is in the floodplain and is prone to flash-flooding, the Plan calls for improvements to be located, designed and constructed in a way that improves Creek conditions and safety, wherever possible.

The Vision to Action Plan will guide the Shoal Creek Conservancy, its principal partner the City of Austin, and Shoal Creek stakeholders in making strategic investments that will assure a continuous and functional transportation and recreation corridor. As funding for the detailed design, engineering and implementation of improvements is identified, the Plan will continue to guide Trail investments to enhance connections and related open spaces, restore the Corridor's environmental integrity and tell the stories of its nature and culture.

This report documents the "Guiding Principles" and "Goals" for the Project, that resulted from weaving together the ideas and desires of both technical and community stakeholders with those of professional planning best practices and the "priority programs" and goals of *Imagine Austin*, the City's comprehensive plan.

The Plan establishes the route – or alignment - and the varied cross-sectional designs of the Trail, as it travels through four miles of City parkland and nine miles of city streets in the form of trails, sidewalks, shared-use paths and protected bicycle lanes, as detailed below. The Plan also identifies challenges or "gaps" in the Trail, as well as key opportunities, or "Focus Areas" that warrant timely attention.

Finally, the Plan provides planning-level cost estimates, and suggests a phasing strategy for the 13-mile Corridor. After the public review process of the Plan is completed in 2018, it is anticipated that the Plan will be accepted by the City's Public Works Department as a guiding document. In the coming years, the Plan will be considered as amendment to the next update of the *Urban Trails Master Plan*.



The proposed Shoal Creek Trail system extends nine miles northward from the existing trailhead at West 38th Street to link to the Walnut Creek Trail System.

1.2 COMMUNITY AND STAKEHOLDER ENGAGEMENT PROCESS

Three community-wide meetings or "workshops" were held at key milestones during the planning process. In addition, three "technical advisory group" or TAG meetings and three "community advisory group" or CAG meetings were also held before each of the community workshops. These meetings took place in June, September and November of 2017.

Appendix A provides: a list of CAG and TAG members; the presentations for and summaries of the three sets of meetings; and the link to the online, interactive mapping of comments received throughout the nine-month planning process. During the draft Plan review period from



The Community Advisory Group met on June 14, 2017 to develop the Guiding Principles for the *Vision to Action Plan*.



As members of the Technical Advisory Group, Austin Transportation and Public Works staff explored options for a trail underpass of Allandale Road.

June 2018 - September 2018, many commets were received and documented, including a letter from Allandale Neighborhood Association's committee focused on the redesign of Shoal Creek Boulevard (See Appendix A.13).

The Technical Advisory Group (TAG)

The TAG is comprised of City of Austin senior staff from 10 departments, as well as Capital Metro, Austin Independent School District and other public entities. The TAG was led by Janae Spence, Urban Trails Program Manager with the City's Public Works Department, Shoal Creek Conservancy's key partner in developing this Plan. The TAG provided valuable input in developing the Plan's recommendations.

The Community Advisory Group (CAG)

With over 60 members, the CAG includes leaders from community organizations and neighborhood associations, as well as property and business owners, advocacy groups across the wider Austin area, and other stakeholders within or near the study corridor.

The Ongoing Role of the CAG and TAG

The community and stakeholder engagement process will continue beyond this planning process, supported by the Shoal Creek Conservancy and the City of Austin, as individual projects identified in the Plan move forward from design to implementation. Before design begins on any project, the City will conduct a number of studies to better understand the existing and potential future conditions, such as traffic impacts, parking counts, drainage, street lighting and pavement conditions. The conclusions of these studies will provide critical data for both City staff and the public to consider in their deliberation of the different design options for this project. While the size and membership of the CAG and TAG may change over time, it is anticipated that these two groups will continue to assist in the project-specific planning and design processes.



The first series of meetings in June 2017 examined the existing conditions of the study area, as well as relevant policies, plans and projects. It concluded with drafting the six Guiding Principles for the Plan.



The second series of meetings in September 2017 focused on reviewing alternative alignments and cross-sectional treatments for the main Trail, from Lady Bird Lake to the intersection of the Walnut Creek Trail.



The final series of meetings held in November 2017 established priorities among over 20 individual projects identified.



THE GUIDING PRINCIPLES



Establishing Guiding Principles for the planning and implementation of a project can help maintain a focus on key policies and goals over a long period of time - amidst changing government officials; economic upsand-downs; multiple public and private funding cycles; and changing levels of community participation and shifting priorities.

The first step in creating the *Vision to Action Plan* was to work with stakeholders and the community to establish a set of such principles. These provide a "north-star" for the Project and will help guide what is anticipated to be a continued, multi-year planning and implementation process.

The planning team solicited the input of the Technical Advisory Group, the Community Advisory Group and the community to establish the goals to achieve each Guiding Principle. Finally, these three groups were asked to help identify, shape and prioritize specific projects that could help achieve these goals. This Section 2 of the Plan:

- Provides the rationale and background for the adoption of each of the six Guiding Principles;
- Sets the major Goals to achieve the Guiding Principles; and
- Identifies those Priority Project(s) in the Plan that should be implemented early on.

THE SIX GUIDING PRINCIPLES

The Project community and stakeholder engagement process identified six principles that are meant to set intentions and guide - at a high level - the more detailed planning and design that must take place as individual projects identified within the Plan move forward to implementation. The six principles described below are meant to focus the Project's "lenses" on the important elements of any Trail planning project. These are:



History and Culture

Tell the stories. Interpret and celebrate this area's unique history and culture in a way that's informative and engaging to diverse communities.



Natural Resources and Ecology

Identify and integrate best practices in environmental stewardship, sustainability and resiliency.



Activities and Recreation

Enhance access to and opportunities for recreation, education, social activities and community events, and ensure that it is maintained as a place of beauty, calm and refuge.



Connectivity and Community Access

Increase connectivity and comfort for people of all ages and abilities who are walking, biking and taking transit.



Safety, Health and Well-Being

Create a safe Trail system that makes being active a fun, easy and daily choice.



Advocacy and Implementation

Collaborate with the public, private and non-profit sectors to implement the *Shoal Creek Trail: Vision to Action Plan* in a timely way, and to put in place a program to maintain the Corridor.

Public comments about each of the six Guiding Principles were collected throughout the engagement process on the *Shoal Creek Trail: Vision to Action Plan*'s interactive map, which geographically shows each comment received. Please visit www.shoalcreekconservancy.org/trailplan to explore. Appendix A.3 includes the over 500 comments received in tabular format.





46 comments were made about history and culture, with suggestions on where and how to provide interpretation.



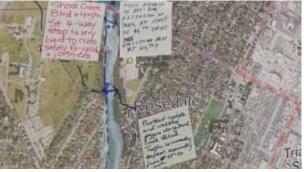


72 comments were made about how to protect and to provide interpretation of the natural environment.



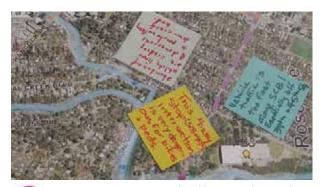


121 comments were made about desired placemaking and types of activities/recreation.





178 comments were made with ideas on how to improve connectivity and community access.





113 comments were made with suggestions on how to address safety, health and well-being.





8 comments were made with suggestions on how to advocate for and implement the Plan.



2.1 HISTORY and CULTURE

Background

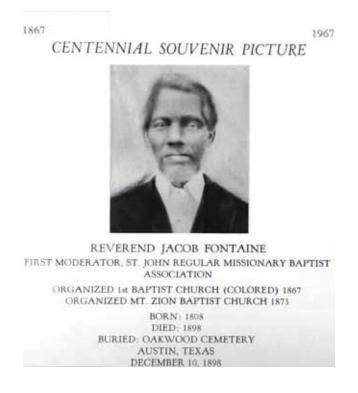
"Shoal Creek's story is Austin's story.... The histories of many Shoal Creek communities and epochs (slave, freedmen, Mexican American, Native American, Civil War, New Deal) have never been told to the public in situ." - Ted Lee Eubanks (See Appendix C.1: Shoal Creek Interpretive Guidelines.)

As it stands, there is little historical interpretation along Shoal Creek. Bringing to light the untold stories which occurred along its shores is a priority identified during the Trail planning process by stakeholders and the community. (See example of one such story below.) This effort is supported by the Austin City Council's recent *Strategic Direction 2023* and the *Imagine Austin* Comprehensive Plan, both of which emphasize the importance of honoring and preserving the history of the peoples of Austin.

Given the resounding public interest in the Creek's stories, as witnessed during this planning process, and the importance of narrative's role in connecting people and cultures, the Guiding Principle for History and Culture is:

Tell the stories. Interpret and celebrate this area's unique history and culture in a way that is informative and engaging to diverse communities.

As described in Appendix C.1: Shoal Creek Interpretive Guidelines, the Plan recommends that the telling of these stories be part of an overaching interpretive strategy. Fermata, Inc., the interpretive planning firm which developed the Guidelines, notes that an interpretive strategy needs narratives, which are used to connect "new with old and to foster a sense of identity, pride, and civic awareness. Through this process, the planner and community carefully construct a thematic framework overlaying place and time." Fermata developed three, overarching narratives to further interpret and make palpable in situ physically - at or near the sites where these stories actually took place. Three key narrative storylines of Shoal Creek are:



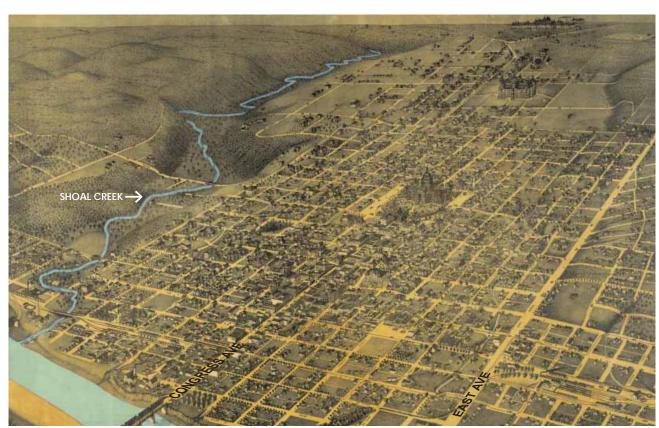
One example of a history waiting to be told more visibly is that of Jacob Fontaine (1808 – 1898), an African American emancipated slave whose story is woven into the Shoal Creek Corridor and that of early Austin. "FONTAINE, JACOB (1808–1898). Jacob (Jake) Fontaine, Baptist preacher, political and civic leader, and newspaper publisher in Austin, was born into slavery in Arkansas in 1808. His several owners included the Tuttle and Isaacs families, but his best known and most influential master was Rev. Edward Fontaine, a great-grandson of Patrick Henry, who moved to Austin, Texas in 1839 as the personal secretary of Texas president Mirabeau B. Lamar. The Fontaine family lived on the Woodlawn plantation near the Austin home of ex-governor Elisha M. Pease." (Photo and history from the Texas State Historical Association, www.tshaonline.org)

- 1. Austin's Origins Storyline includes the history of Comancheria, Early Settlement, Waterloo and Edwin Waller's 1839 City Plan, which laid out Austin between its two creeks, Shoal and Waller. Mirabeau Lamar, then President of the Republic of Texas, wished that Austin be on the frontier in order to expand its territory, referencing the expanse west of Shoal Creek that remained Comanche territory.
- 2. The City Arises and the New Deal Storyline includes the history of Governor Pease, the Woodlawn Estate and Jacob Fontaine, the Civil War and Reconstruction, the Great Depression and the New Deal.

The New Deal built modern Austin, funding a number of its icons, such as the Lamar Bridge and the dams on the Colorado River. More bridges were constructed over Shoal Creek during this era, continuing Austin's westward expansion.

3. The "Edge of the Plateau" Storyline:

Shoal Creek informally marks the division between two bio-regions: the eastern Balcones Escarpment and the western Edwards Plateau. On either side of the Creek, the landscape shifts from the Hill Country in the west to the Prairie in the east. Parts of the Balcones Fault may be seen near Seiders Springs and Split Rock Canyon.



This Plan of Austin, circa 1887, by Augustus Koch, clearly shows Shoal Creek as the "edge of the plateau", a major geological and biological dividing line in Central Texas. (Map courtesy of the Austin History Center)

Goals and Priority Project

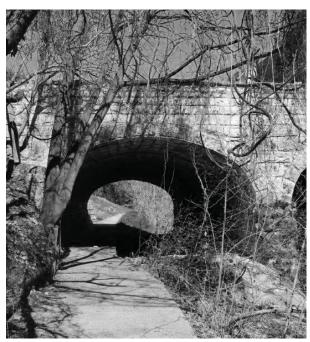
The three, community-prioritized goals developed to achieve this Guiding Principle are:

- Research and document the history of the Trail Corridor, and develop key narratives or "storylines" that illuminate and connect the community to its past.
- Develop interpretive signage, public art and other media to interpret both the natural and human history of the Corridor.
- Identify and name key spaces, landmarks, nodes and even Trail segments of the Corridor, so these are grounded in the Austin community's heritage.

Based on the feedback received over the third series of community workshops, the highest **Priority Project** that furthers the goals of the History and Culture Guiding Principle is to:

Develop an overall Interpretive and Wayfinding Master Plan to link people of all cultures to the history and places of Shoal Creek, starting with the reach between Lady Bird Lake and West 5th Street.

This Interpretative and Wayfinding Master Plan should be the lens through which to locate, plan and design future projects in the Corridor, be they in the realm of transportation or ecological improvements, placement of trailheads, lighting, public art, or cultural interpretation.



Recently listed in the National Register of Historic Places, the West 6th Street bridge at Shoal Creek is a key landmark for Shoal Creek. Built in 1887, it opened the way for Austin's expansion westward.



Wooldridge Square, one of Austin's four original squares, was improved to become a public park in 1909. It has since been the setting for major political events, including one featuring Booker T. Washington in 1911. (Photo courtesy of Austin History Center, PICA 15113)

In implementation, projects should strive to integrate the stories of Austin along Trails and spaces by including:

- "Types of interpretive signage and graphics coordinated so that their design is consistent throughout Austin,"
- "New trail connections that connect public spaces, recreational sites and heritage resources in the central city," and
- "Trailheads that are well marked not only with wayfinding signage, but with interpretive information as well." (See Appendix C.1: Shoal Creek Interpretive Guidelines.)

Implementing public art throughout the Trail Corridor, with murals, sculptures, performances and installations, would also celebrate Austin's cultural history and creative spirit. Potential locations include bridge underpasses and along the Gap Project retaining wall between West Avenue and West 5th Street.



These designs from the City's *Downtown Wayfinding Master Plan* (2013) show the type of signage and graphics that could be used through the downtown section of Shoal Creek. (See www.austintexas.gov/wayfinding)



The Cypress (3rd) Street trestle bridge, first built in 1876 and reconstructed in 1925, is the object of an ongoing community discussion about how it could be preserved and reused. The trestle is one of the few remaining artifacts of Austin's railroad history, making it an ideal place for interpretation.



"Beacon", a symbolic "map pin" outside the Central Library, is the starting point of "Wander", an Art in Public Places project that features interpretive information which could grow to include Shoal Creek. (See www.wanderatx.com)



2.2 NATURAL RESOURCES and ECOLOGY

Background

The community-developed vision for the Shoal Creek Trail is to increase the Creek's ecological function while enriching the Trail user experience; to create opportunities to connect with Austin's urban forest; and to enjoy the flora and fauna of Central Texas. The community can play an active role in creating landscapes in urban areas that are sustainable and ecologically-functional. Some of the greatest challenges and opportunities facing Shoal Creek are to: expand native plant communities, better manage water resources, mitigate invasive species and erosion, and reduce impervious cover.

Shoal Creek has experienced six major floods throughout Austin's recorded history, from the 1869 Colorado River flood to the Memorial Day floods in 1981 and 2015. With the Shoal Creek Watershed acting as a major drainage basin for Austin, and with nearly half of it under impervious cover, it is essential to the community's well-being to develop ecological strategies to mitigate flooding risks.

The parks and open spaces in the City's watersheds also enrich the lives of Austinites: there are over 25 parks in the Shoal Creek Watershed, totaling over 275 acres; and, as stated in *Imagine Austin*, "we enjoy an accessible, well-maintained network of parks throughout our city." The Shoal Creek Trail system connects many of these parks together, giving the Austin community an accessible network of natural amenities.

Any project identified within the *Shoal Creek Trail: Vision to Action Plan* should focus on repairing environmental degradation, and enhancing plant communities and habitat, to create resilient, aesthetically-pleasing and ecologically-functional landscapes. Therefore, the Natural Resources and Ecology Guiding Principle is to:

Identify and Integrate best practices in environmental stewardship, sustainability and resiliency.



The 1981 Memorial Day flood left substantial damage, as shown by the number of wrecked cars near the West 6th Street Bridge. (Photo courtesy of the Austin History Center, 1981, PICA 29471)

Goals and Priority Projects

The three, community-prioritized goals that address this principle are:

- Repair and improve the ecological function of the Shoal Creek Corridor.
- Restore and enhance plant communities.
- Enhance the user experience.

To help achieve these goals, the Plan outlines a series of *Sustainable Landscape Guidelines* aimed at promoting improvement that enhance the ecological performance of the Corridor. (See Appendix C.2) The **Priority Project** then, is to:

Require that all projects identified in this Plan achieve these Sustainable Landscape Guidelines.

The Shoal Creek *Sustainable Landscape Guidelines* track the "SITES" certification framework, which, to date, is the most comprehensive system for developing sustainable landscape.

As explained on the SITES website (<u>www.sustainablesites.org</u>):

"SITES is a sustainability-focused framework that ushers landscape architects, engineers and others toward practices that protect ecosystems and enhance the mosaic of benefits they continuously provide our communities, such as climate regulation, carbon storage and flood mitigation. SITES is the culmination of years of research and development by leading professionals in the fields of soil, water, vegetation, materials and human health. By providing performance measures rather than prescribing practices, SITES supports the unique conditions of each site, encouraging project teams to be flexible and creative as they develop beautiful, functional and regenerative landscapes. SITES-certified landscapes help reduce water demand, filter and reduce stormwater runoff, provide wildlife habitat, reduce energy consumption, improve air quality, improve human health and increase outdoor recreation opportunities. SITES certification is based on a point system: the number of points that a project earns determines the certification level it receives. The SITES certification process allows projects to benchmark against performance criteria."

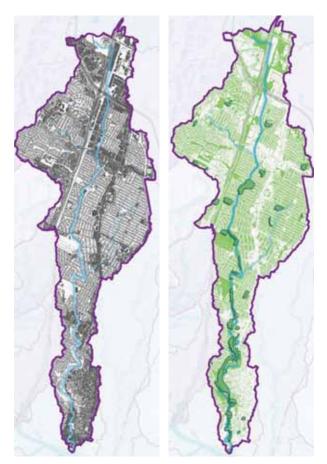


The Northwest District Park hosts organized sports fields and cookout/picnic areas, while also providing critical stormwater mitigation for North-Central Austin.

The Sustainable Landscape Guidelines follow the SITES framework, but are tailored to the Shoal Creek Watershed context.

The following are the 10 major topic areas of the *Guidelines* that are key to incorporating best practices for natural resources and ecology.

- Understanding the Shoal Creek Trail System
 Context: The Trail contains two types of "landscapes":
- (a) 4.2 miles, or about one-third, of the almost 13-mile main spine of the Shoal Creek Trail that is contained within more natural, mostly green areas, and



The impervious cover of the Shoal Creek Watershed (left) comprised over 53% of its overall land area in 2013. There are over 25 parks totaling over 275 acres of open space, or about 7% of permeable land (right). (Source: Siglo Group)

(b) 8.5 miles of public right-of-way (ROWs), comprising the remaining two-thirds of the Trail, which are mostly paved roadways and sidewalks, with few or no landscaped areas.

The aim of the Plan for both types of "landscapes" is to:

- enhance user experience and a sense of safety,
- create shade,
- reduce impervious surfaces,
- · allow for greater water infiltration,
- incorporate landscaped areas with native plants,
- · design for sustainability,
- identify maintenance needs,
- integrate green infrastructure as a crucial part of street design, and
- define sustainable maintenance and management practices and identify roles and responsibilities for these.
- 2. Assessing and Planning with an Integrative Team: A project team should include the appropriate expertise to be able to undertake site assessments and implementation, addressing:
- consideration of the impacts to adjacent pervious areas,
- pedestrian, bicycle and automobile flow,
- recreational use integration, connection to active centers and community gathering areas,
- ADA accessibility,
- biodiversity, water resource impacts, vegetation and soil protection, and
- goals and metrics to evaluate long-term success.

- 3. Integrating Water Resources: Water resource management particularly stormwater management must be included in all aspects of planning and improvements associated with the Trail system and natural areas of Shoal Creek. Projects emanating from this Plan should:
- improve water infiltration cumulatively throughout the Watershed,
- · reduce impervious cover,
- use landscape grading and soil selection to support stormwater infiltration,
- formalize access to the water to reduce degradation by the more informal points,
- set measurable goals that create a net improvement in stormwater infiltration in the Shoal Creek Watershed, and
- coordinate with the City's Watershed
 Protection Department regarding floodplain regulations.
- 4. Integrating Soil and Vegetation Management: The two main factors degrading parts of the Trail Corridor are soil disturbance and erosion, and invasive species. Soil disturbance and erosion may be addressed by:
- alleviating user impacts by designing sufficient and sizable trails,
- formalizing access to the water,
- repairing informal trails, retired trails and trampled areas,
- stabilizing soils impacted by stormwater by providing additional dips, small culverts and streamlets, and
- managing invasive species to biodiversity and soil stabilization.

Ecological and vegetation restoration also factor into the Corridor's management whereby:

- soils are restored using testing, composting and planting, and
- riparian vegetation is restored while growing the urban forest and "Grow Zones".

- 5. Selecting Context-Sensitive Landscape and Hardscape Materials: Impervious materials ought to be reduced throughout the Shoal Creek Watershed, whenever and wherever possible. As for plant and seed material found to be appropriate in the Corridor, they should be:
- native to the Central Texas area,
- available through the local nursery trade or native plant society groups, and
- proven as successfully used in restoration projects within Central Texas.

These Sustainable Design Guidelines also recommend paving materials and design for the Trail, as well as for retaining walls, fencing, lighting, furnishings, signage and other elements along the Trail. Consistent with the Natural Resources and Ecology Guiding Principle and its goals, the choices of trail widths and paving materials, in particular, should fit the specific "context" or environment of the Shoal Creek Corridor, while still maintaining the minimum standards for an Urban Trail.

Trail Design Widths: For example, given the narrow passage of flat space flanking the Split Rock Canyon segment of the Trail, and given its rugged, natural appeal, it is proposed that a narrower-than-standard, pedestrian-only path be maintained along this stretch to allow users to explore its winding, scenic area. The Urban Trail section, with provision for bicycles, is proposed along the west edge of North Lamar Boulevard.



Split Rock Canyon is an example of a secondary trail where the width is too constrained for both bicycle and pedestrian passage.

Paving Materials: In terms of paving materials, there are again two distinct conditions: the "off-street" trails that typically travel through parkland; and the public sidewalks and "onstreet" protected bicycle lanes that run along the curbsides throughout the Urban Trail system. For many of the off-street trails, the paving material of choice is a type of broom-finish concrete.

Concrete is perhaps the most stable and durable material that can be sustained on the steeper slopes and endure the sometimes virulent flooding of Shoal Creek, unlike the decomposed granite paving surfaces that are used in many trails throughout Austin. The slightly-rough surface of the broom-finish concrete provides a good wearing surface, as well as good traction for wheeled users. There still is a wide variety of choice in the colors and aggregates that may be used, allowing these to blend well with the natural environment.

Retaining Walls: Many places along the Shoal Creek Trail have employed walls of a variety of different designs to retain streambanks, to prevent erosion, and/or to provide adequate, flat space to construct a trail. A context-sensitive approach to the design and use of these walls and other structures, such as seatwalls, retaining walls and steps should be employed.

The use of native limestone blocks that perform the same function as gabions, but are more aesthetic and user-friendly, is preferred. They can also serve as benches, seatwalls, steps and landscape features and are part of the natural geology of the Shoal Creek Corridor. The precast concrete walls that imitate natural limestone, recently constructed south of West 5th Street, are not context-sensitive and should be avoided. The design of retaining walls, however, must also comply with the floodplain regulations and City Codes, as well as with private property rights.





Broom-finish concrete (top) performs much better than decomposed granite (bottom).





A good example of a retaining wall is near the Central Library (top). A less desirable example is the retaining wall south of West 5th Street (bottom).

Lighting: To provide a real transportation choice, an Urban Trail must be lighted to provide users with a safe and illuminated pathway that is useable before and after daylight hours. A priority for lighting the Trail is bridge underpasses, as many currently lack adequate illumination to feel safe after dark.

The lighting must be "dark-sky friendly" and should be respectful of its context. For example, near the very urban Lower Shoal Creek Segment (south of West 5th Street), the main path has pole-mounted lights that produce a consistent, high-level of illumination near the Central Library. This is appropriate to its context, where high volumes of Trail users travel through at all hours. In contrast, lighting along most secondary trails could be illuminated by bollards, which can also carry wayfinding, 911 information or mile-markers. Alternatively, ground-mounted trail lights can be used where vegetation and slopes create zones that would otherwise feel unsafe or less secure. These kinds of lower-level lighting are also more wildlife-friendly, as the spread and intensity of light is much lower and more focused on the trail itself.

6. Incorporating Human Health and Well-Being:

Exposure to the natural landscape enhances mental and physical health and helps generate positive social connections through interaction with healthy plant communities, wildlife and water, as well as in exploring natural areas and parks. Improvements to streetscape and drainage design as part of the Trail ought to support a resilient and vibrant landscape for people to enjoy and experience.

According to the Children and Nature Network, spending time in nature increases well-being, relationship skills, and Vitamin D levels, as well as reduces stress, anger and depression. Indeed, as part of the Austin Public Health survey conducted for this *Vision to Action Plan*, 97% of respondents believe visiting nature and green spaces is important to public health. Please see the Safety, Health and Well-Being Guiding Principle (p. 32) for more information on the relationship between public health and the use of trails and parks.



Above is an example of a ground-mounted trail light that may be appropriate in areas that require lower light levels.



Children in Nature Network's research highlights the importance of natural environment.

7. Employing Best Construction Practices:

For ecologically-functional and sustainable landscapes to be successful, they need to be carefully described and detailed within a project's construction and maintenance plans. Elements to consider before construction are to:

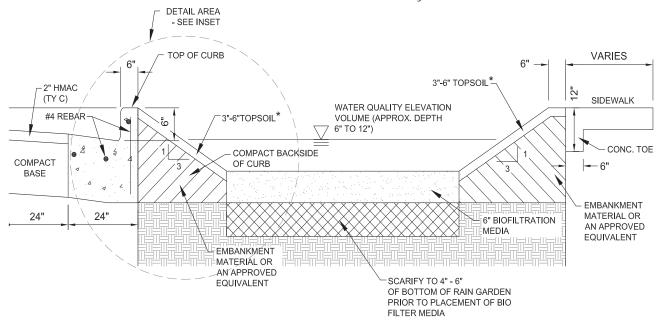
- identify vegetation and soil protection zones;
- communicate with the contractor at the outset of a project specific criteria and evaluation, time-sensitive elements for sustainable landscapes, and to undertake oversight walks throughout the term of a project; and
- ensure compliance with tree protection, weed-free planting material, restoration of disturbed soils and prevention of equipment leakage.

8. Creating an Operations and Management Plan:

By having an operations and management plan equipped with the needed resources, a project may be maintained, evaluated and even improved over time. Some management components include:

- utilizing a landscape construction contractor with training and experience working with native plant landscapes,
- ensuring a project fulfills all specifications and warranty requirements, and
- breaking up larger landscape areas into discrete management units to facilitate a task-oriented approach that can facilitate more specific evaluation.
- employing an adaptive approach to adjust for existing conditions, previous successes, and unforeseen challenges.

In considering operations and maintenance needs, it is not advisable to undertake projects that existing City of Austin resources cannot reasonably maintain.



Construction details, such as the one for the City of Austin's typical rain garden (above), must be carefully detailed and constructed to ensure positive ecological function.

9. Monitoring Project Performance:

SITES recommends monitoring and oversight for at least three years after a project's completion. Action items for sustainable landscapes include:

- Perform regular monitoring at least twice a year to ensure that any developing issues are addressed.
- Require that monitoring of new projects includes geographic, photographic, quantitative and narrative descriptions, such as annual photo points, early detection evaluation, landscape specification documentation, and evaluation and documentation of water infiltration.
- Advocate for better practices outside of parkland and Right-of-Way areas. Outside of capital improvement projects, businesses and neighborhoods should be encouraged to push both ecological restoration and green infrastructure construction forward in their parts of the Trail - in concert with community organizations.
- Set and track metrics to monitor the cumulative success of implementation over many years. For example, a metric for the Shoal Creek Trail could be: Within five years, decrease mowing of areas connected to the Trail and/or the Creek by 30%. (See Appendix C.2 for a list of such metrics.)

10. Innovation to Achieve Exemplary

Performance: Incorporating and performing the above elements in a project can result in a net positive impact on stormwater management - for not only the areas where improvements are to be implemented - but also upon adjacent streets and neighborhoods. For instance, if a five-block segment of Shoal Creek Boulevard is retrofitted with rain gardens, the stormwater from the street and pedestrian areas, as well as adjacent areas, could be absorbed within the project area.



The Shoal Creek Conservancy regularly organizes Creek Clean-Up Days, when community members are invited to remove debris, trim vegetation and remove invasive species.



2.3 ACTIVITIES and RECREATION

Background

Shoal Creek has long been associated with recreation and relaxation, whether used for dog-walking in Pease Park or birdwatching on the Silverway Drive bridge. In the first community workshop, participants were asked to place different "activity type stickers" along the Trail and in adjacent parkland. Sixty percent of participating community members chose the more tranquil and informal activities, such as meditation, yoga, recreational biking and dog-walking, rather than more organized and intensive public activities. It is very clear that people appreciate and want to preserve the "refuge in nature" aspect of the Shoal Creek Trail.

The Guiding Principle for Activities and Recreation, developed by the Community Advisory Group, the Technical Advisory Group and the public during the community workshop, is:

Enhance access to and opportunities for recreation, education, social activities and community events, and ensure that it is maintained as a place of beauty, calm and refuge.

Goals and Priority Projects

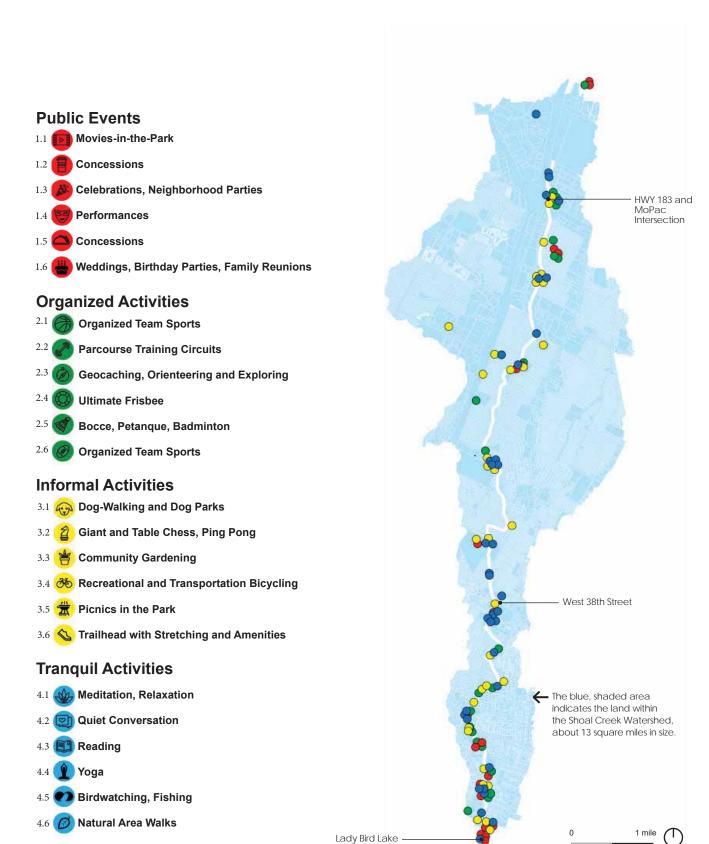
The top, community-prioritized goals under the Activities and Recreation Guiding Principle are to:

- Preserve places of tranquility and refuge throughout the Shoal Creek Corridor, and locate more active, noisier activities and event spaces away from these areas.
- Connect both children and adults to nature, and create an environment that helps people de-stress and be aware of nature.
- Locate new places along the Trail that could serve as trailheads, community gathering spaces, picnicking, informal sports and other activities.

The highest Priority Project is *imagining the West 3rd Street right-of-way as a series of small public spaces or plazas*, as explored in the concept for the old Cypress Street (West 3rd) and Shoal Focus Area (page 76). This project would bring new community gathering spaces to a rapidly-densifying area that currently lacks such pockets of high-quality, public space.



Overall, many community members commented on how they appreciate the tranquility along Shoal Creek, which provides opportunities for birdwatching.



During the first community workshop, participants considered 24 types of activities and were asked where these should be located along the Corridor, if at all (shown as dots on the map). These activities included: public events (1.1-1.4), organized activities (2.1-2.6), informal activities (3.1-3.6) and tranquil activities (4.1-4.6). The latter two types (yellow and blue) were the most desirable activities.

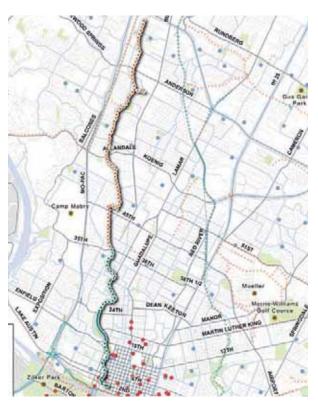


2.4 CONNECTIVITY and COMMUNITY ACCESS

Background

The Shoal Creek Trail: Vision to Action Plan intends to connect the community to the places they want to go in a safe and healthy way. In a larger context, the Plan connects Austin through a citywide network of Urban Trails that promote "active transportation". The Vision to Action Plan proposes developing the Shoal Creek Trail as an Urban Trail. Urban Trails are "non-motorized, multi-use pathways ... used by bicyclists, walkers and runners for both transportation and recreation purposes." (City of Austin's Urban Trails Master Plan, 2014) An Urban Trail is meant to serve the broadest number of users, connecting them to parks and open space as well as to home, school and work. An Urban Trail must be accessible to people of "all ages and abilities", where every user can feel safe and comfortable traveling in and recreating along its pathways.

The *Urban Trails Master Plan* identifies the Shoal Creek Trail as one of the City's 10 main Urban Trails: from Lady Bird Lake to West 38th Street it is classified as a high priority, Tier I Trail, as it "serves a high number of potential users, is located near dense populations, connects multiple destinations and has been at least partially constructed." From West 38th Street to Highway 183, the proposed Shoal Creek Trail leaves the Creek to follow the west side of Shoal Creek Boulevard as a two-way, protected bicycle lane. This northern segment has been adopted in the *Urban Trails Master Plan* as a Tier II Trail, one that has "been identified either during the planning process for this plan or during previous trail planning processes" for future development.



The *Urban Trails Master Plan* shows a conceptual alignment, where the blue dotted line is a Tier I Urban Trail, and the orange dotted line is a Tier II Urban Trail. (See www.austintexas.gov/urbantrails)



The City of Austin's *Proposed Corridor Construction Program* calls for mobility improvements, including a shared-use path along Burnet Road, that will be funded through the 2016 Mobility Bond. (See www.austintexas.gov/corridormobility)

Austin's 2018 Local Mobility Annual Plan (LMAP) proposes projects to be funded from the 2016 Mobility Bond. The LMAP recommends that the following projects be implemented, all of which are projects or connectivity opportunities in the Vision to Action Plan:

- high priority, low cost improvements to the Trail between 5th Street and 15th Street, as described in first phase of the 5th to 15th Street Preliminary Engineering Report (PER) conducted by the City of Austin,
- protected bicycle facilities on Shoal Creek Boulevard, between West 38th Street and Highway 183, as adopted in the *Urban Trails* Master Plan,
- Red Line Trail segment of the Shoal Creek Trail

 THE DOMAIN

 Connectivity opportunity along Union Pacific and Pickle Research

- bicycle lanes and pedestrian facilities from Highway 183 to Braker Lane along the Union Pacific Railroad and Pickle Research Campus, and
- the proposed Red Line Trail, following Capital Metro's Red Line rail tracks, from Braker Lane to the Walnut Creek Trail.

To guide the vision of a 13-mile, continuous pathway linking Lady Bird Lake to the Walnut Creek Trail, the community developed the following Guiding Principle for Connectivity and Community Access:

Increase connectivity and comfort for people of all ages and abilities who are walking, biking and taking transit.

The excerpt of the 2018 Local Mobility Annual Plan Interactive Map (left) shows two recommended connectivity projects related to the Shoal Creek Trail: The Red Line Trail, which connects Braker Lane to the northern section of the Walnut Creek Trail along Capital Metro's Red Line, will complete the northernmost sub-segment of the Shoal Creek Trail. The University of Texas Pickle project, which connects Highway183 to the Braker Lane along UT's Pickle Research Campus, will provide a connectivity opportunity for Trail users to reach the Domain. (See www.austintexas.gov/localmobility)

Goals and Priority Projects

In keeping with the Guiding Principle for Connectivity and Community Access, three major goals were identified in the community workshops:

- Ensure that the project attains an "all ages and abilities" pathway system.
- Provide shade along all public pathways and within connecting parks and activity spaces, so they are useable and comfortable during the summer.
- Establish clear trail gateways, trailheads and wayfinding signs that include bicycle and walking travel-time to key public destinations.



The southern reach of the Walnut Creek Trail signs are a good example of wayfinding that could be used along the Shoal Creek Urban Trail. (Example from the City of Austin Public Works Department)

The highest **Priority Project** that achieves these goals is to:

Improve Shoal Creek Boulevard, from West 38th Street to Foster Lane, by creating a two-way, protected bicycle lane and a wider, shaded public sidewalk along the western edge of the existing roadway, as space and existing trees permit.

During the third round of community meetings, this project received the greatest amount of support, through an informal "dot-voting exercise" (see page 7; Appendix A.9).

Redesigning Shoal Creek Boulevard as an Urban Trail is a key opportunity to connect many of the assets along Shoal Creek further north, where there are presently few good pathway options - such as to the future park at The Grove, the Northwest Recreation Center, the Northwest District Park and Lake Fail (see next page). This segment of the Trail also links to existing pathways like the Great Northern Dam Trail and the twoway, protected bicycle lane on Justin Lane.





One project identified during community workshops is to extend the Trail beneath the Allandale Road bridge, so that pedestrians and bicyclists can safely pass beneath the fast-moving, vehicular traffic at the Shoal Creek Boulevard and Allandale Road intersection.

Connecting Community Assets Along Shoal Creek Boulevard Great Northern Dam Northwest District Park

The Beverly S. Sheffield Northwest District Park





The future park planned as part of The Grove at Shoal Creek

Wide Sidewalk)

Connectivity Opportunity

Proposed Urban Trail

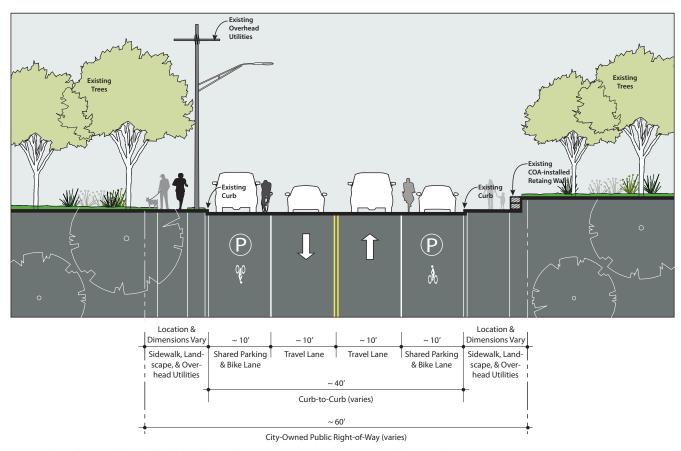
(Off-Street, Shared-Use Path)

Why a Two-Way Protected Bicycle Lane and Wider Sidewalk on the West Side of Shoal Creek Boulevard is the Preferred Alternative

In order to achieve the vision for the Shoal Creek Boulevard Priority Project from West 38th Street to Foster Lane, it is essential that the bicycle portion of the existing roadway be a protected one, so it may truly serve bicyclists of "all ages and abilities". The pedestrian portion of the street - the public sidewalk - is already protected from street traffic by being outside the roadway. Ideally, the sidewalk should be widened where it will not impact existing trees and where the public right-of-way space allows. However, even the sometimes narrow, existing sidewalks in this segment of Shoal Creek Boulevard provide a safe place for pedestrians, which is also a comfortable one, thanks to the shade from the existing tree canopy. This "protected" bicycle facility is now considered a professional best practice in terms of transportation safety, and it is consistent with the Urban Trails Master Plan and Bicycle Master Plan, both adopted by the City Council in 2014.

In contrast, the existing, shared bicycle and car-parking lane on both sides of this segment of Shoal Creek Boulevard does not achieve an "all ages and abilities" facility, as it does not provide protection between moving vehicular traffic and bicycles. In addition, the bicycle lanes have a net width of only three feet, as the lane is "shared" with the car parking lanes. This creates a dangerous condition for bicyclists, who must navigate within and outside of this shared lane, creating moments when the bicyclists must veer into the immediately adjacent vehicular lane. (See the "Existing Condition" cross-section, below.)

ALTERNATIVES CONSIDERATION: All alternatives are within City-owned public right-of-way (ROW), the land dedicated or reserved for streets, utilities, and other public facilities. The planning process considered three alternatives for improving



Existing Condition of Shoal Creek Boulevard: 38th Street to Foster Lane, Looking North

Shoal Creek Boulevard to achieve an "all ages and abilities" facility, referred to as "protected bicycle lanes". However, please note that a detailed planning process will be conducted by City of Austin Transportation Department, as part of its 2016 Mobility Bond Local Mobility Annual Plan. This effort would begin with a public engagement process to explore several options with the community, including a "do nothing" option. This process is anticipated to begin in late 2018 and to continue into early 2019. The City will then analyze the existing conditions in this corridor, in terms of numbers of users, parking, transit, vehicular speeds, safety, etc. The alternatives considered during the Vision to Action Plan include:

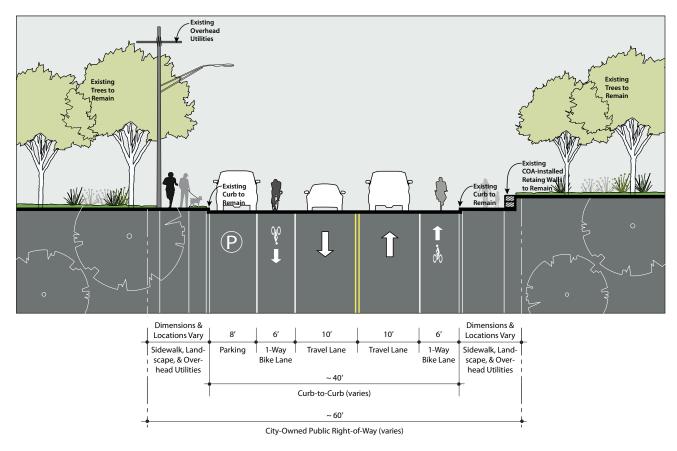
Alternative 1: Two, one-way, unprotected bicycle lanes on both sides of the street;

Alternative 2: Two, one-way, protected bicycle lanes on both sides of the street; and

Alternative 3: One, two-way, protected bicycle lane on the west side of the street.

Alternative 1: One-Way, Unprotected Bicycle Lanes on Both Sides of the Street:

The first alternative considered was to simply remove parking on one side (west) of the street and add striping for two new bicycle lanes on each side of the roadway. There would be no barriers or buffers between the vehicular and bicycle lane – only a stripe painted on the pavement. This alternative runs in opposition to the Council-adopted master plans, and was not pursued as a preferred alternative, from a safety standpoint, as it does not adequately protect bicyclists from vehicular traffic. (See the "Unprotected Bicycle Lanes" cross-section, below.)

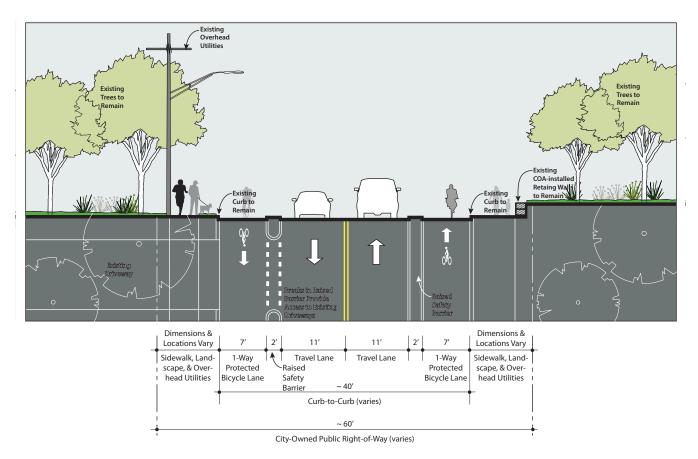


One-Way Striped Bicycle Lane on both Sides of Shoal Creek Boulevard: 38th Street to Foster Lane, Looking North

Alternative 2: One-Way, Protected Bicycle Lane on Both Sides of Street:

The minimum width for a one-way protected bicycle lane is seven to eight feet "clear", that is, there are no curbs or other barriers, such as landscaped areas, in this space that is dedicated to bicycle riders. The lane is typically protected from the adjacent vehicular travel or parking lane by an additional "buffer zone", such as a curbed median of two to three feet in width. This required buffer provides a much safer space for bicyclists, with its raised barrier separating the bicycle lane from vehicular traffic. Implementing a one-way, protected bicycle lane on each side of the street, however, would require removing all of the existing, onstreet parking within the City's right-of-way, between West 38th Street and Foster Lane.

(See the "One-Way, Protected Bicycle Lane" cross-section, below.) This alternative was considered unacceptable to residents along the street as it would require removal of parking on both sides of the street.

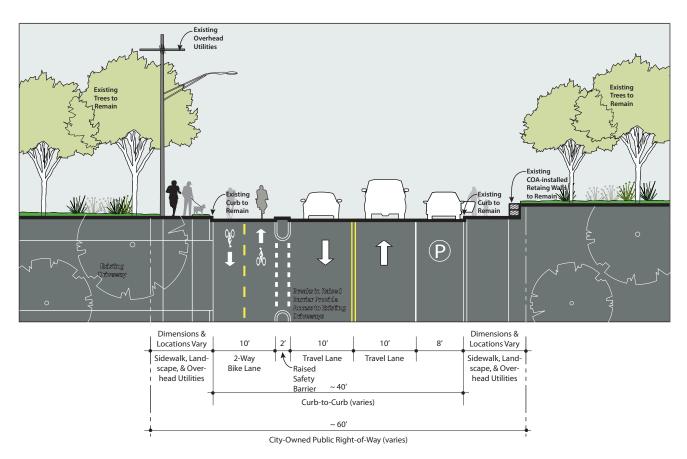


One-Way Protected Bicycle Lanes on both Sides of Shoal Creek Boulevard: 38th Street to Foster Lane, Looking North

Alternative 3: Two-Way, Protected Bicycle Lane Alternative:

The minimum width for a two-way, protected bicycle lane is 10 feet, with an added "buffer zone", such as a raised median of two to three feet in width. This option leaves enough space to maintain the curbside parallel parking on the east side of Shoal Creek Boulevard. As proposed, this two-way, protected bicycle lane is located on the west side of Shoal Creek Boulevard, where the Creek and much of its associated parkland are located, thus allowing Trail and park users direct access to this series of parks. The existence of parkland along the west side of Shoal Creek Boulevard also reduces the number of driveway and street intersection "conflicts" for both bicyclists and drivers. Also, the bi-directionality of the

two-way, protected bicycle lane is also more flexible, allowing bicyclists to pass other bicyclists or even to ride abreast, if bicycle traffic permits. Finally, co-locating both the bicycle facility and its pedestrian facility on the park-side of the Shoal Creek Boulevard also strengthens the presence and identity of the Shoal Creek Urban Trail, making it easier to recognize the major transportation and recreational amenity in the city. Throughout the community input process, comments were received both in favor and against this alternative. This feedback, including emails, a letter from the Allandale Neighborhood Association and other correspondence received during the process, are included in the Appendices.



Two-Way Protected Bicycle Lane on West Side of Shoal Creek Boulevard: 38th Street to Foster Lane, Looking North (PREFERRED)



2.3 SAFETY, HEALTH and WELL-BEING

Background

One of the eight priority programs of Imagine Austin is to "Create a Healthy Austin." There are several ways in which the Shoal Creek Trail can be planned to improve the health of the community, which is a large part of the Austin Public Health's mission. As members of the Technical Advisory Group, staff members from this City department (previously called Health and Human Services) helped spotlight how the design of the Trail and its connections can encourage its use not only for recreation, but for what is termed "active transportation", that is, for walking, biking and taking transit to daily destinations like school and work. To be successful, these active transportation pathways, must attract people of all ages and of all levels of physical ability, if they are to make a significant positive impact on community health. Austin Public Health staff conducted a survey and interviews at each of the three community workshops and prepared a report with the findings, from which this section of the Plan is derived. (See Appendix B.1 for the full report.)

The physical environment affects human safety:

In 2012 Austin ranked seventh in the number of pedestrians killed in U.S. cities with populations greater than 500,000, with a fatality rate of three pedestrians killed per 100,000 residents. Cyclists, motorcyclists and pedestrians comprise less than 7% of Austin commuters, but make up more than 50% of all traffic deaths.

Imagine Austin states that the City is committed to eliminating transportation-related deaths and serious injuries through a holistic "Vision Zero" approach, where " any death is too many." That means it is critical to shape the environment so that pedestrians and cyclists are protected from vehicular traffic.

As part of the *Vision to Action Plan's* planning process, Austin Public Health conducted its community health assessment, consisting of interviews to assess needs and a survey taken

by almost 300 people from ages 8 to 89. (For the survey methodology and complete results, see Appendix B.1.) A major finding is that many people fear using the existing Trail, and particularly the on-street, unprotected bicycle lanes, because of concern for bodily injury by cars and/or bicycles. For many, this is a major deterrent for choosing to take a bicycle or walk to destinations, even for short distances.



Statistics from the City's *Vision Zero Action Plan* show how severe the dangers are when pedestrians, bicyclists and motorcyclists are involved in vehicle accidents. (Source: *Vision Zero Action Plan, American Community Survey Journey to Work Data*, 2013 5-year aggregate, and *City of Austin Traffic Safety Data*)

The environment affects human health:

In 2015, 61% of Austin residents were overweight or obese, 14% were diagnosed with pre-diabetes or diabetes, 9% had asthma, and 5% were diagnosed with cardiovascular disease. (*Texas Behavioral Risk Factor Surveillance System*, 2015; *US Census 2015 Population Estimates*)

Creating viable alternatives to driving with more active forms of transportation, like walking, biking and/or using transit, will help to reduce such public health risks.

The environment affects human well-being:

Today, 23% of Austinites are not participating in any physical activity; 51% of residents are insufficiently active (meaning less than 150 minutes of moderate to vigorous physical

activity per week); 18 % of residents have been diagnosed with depression; and 11% of residents report 14 or more days per month of poor mental health. Improving access to nature can mean a greater sense of well-being for the Austin community through the joys of activities in the outdoors and contact with nature (*Texas Behavioral Risk Factor Surveillance System*, 2015; *US Census 2015 Population Estimates; Children and Nature Network*, 2015).

Based on the research and statistics from Austin Public Health, as well as the community's input, the Guiding Principle for Safety, Health and Well-Being is:

Create a safe Trail system that makes being active a fun, easy and daily choice.



Seiders Springs, with the sound and presence of trickling water, is a tranquil and restorative place with a positive effect on well-being.



The Trail under most bridges – like this one at West 38th Street – is not lighted, making it feel unsafe to many users.

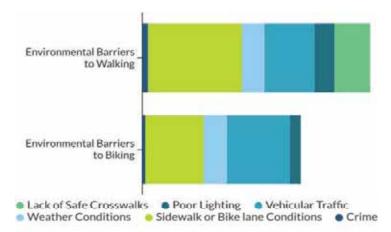
Findings from Austin Public Health's Community Health Assessment show that:

96% support biking and walking pathways throughout the Shoal Creek Corridor.

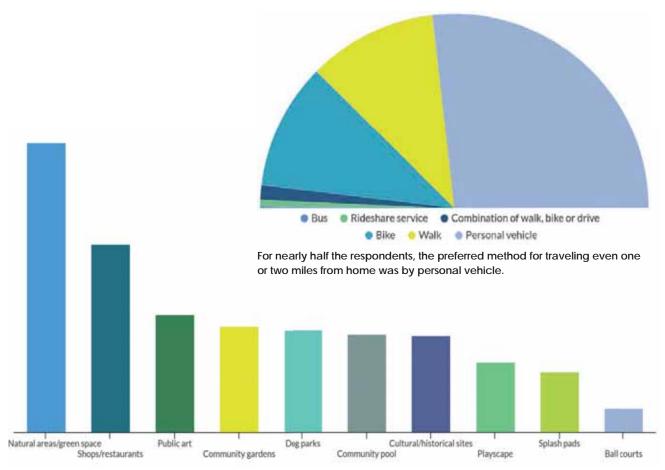
86% would walk or bike more if there were a safe path.

90% would walk or bike more often to places less than one mile from home, if there were a path nearby.

97% believe visiting nature and green space is important.



In terms of environmental barriers to walking or biking, the majority of respondents indicated that, the poor quality of sidewalks was the biggest barrier to walking. For cyclists, the barriers were unprotected bicycle lane conditions and busy vehicular traffic.



Survey participants responded that the most desired destinations along or near the Trail included natural areas and green space, followed by access to shops and restaurants.

Goals and Priority Projects

The community-prioritized goals to achieve this Guiding Principle are to:

- Design the Trail to minimize conflicts between the various types of users. Construct "dual tracks" or separated, parallel paths for both wheeled and non-wheeled users where possible and where such facilities are not intrusive to the natural environment.
- Increase the safety, comfort and use of the Trail with shade trees, drinking fountains, restrooms, lighting, call-boxes, security patrols, and other amenities, that encourage Trail use during all seasons of the year, both night and day.
- Develop programs and provide features to promote the Shoal Creek Trail system as an active transportation Corridor with links to desired destinations; a place for recreation and physical activity; and a space to connect with nature and find quiet and respite.

Based on interviews, the Community Health Survey and the feedback received over the three series of meetings, the highest **Priority Project** that would help achieve the goals for Safety, Health and Well-Being Principle is to:

Introduce a two-way, protected bicycle lane on the west side of Shoal Creek Boulevard, from West 38th Street to Highway 183.

Other Priority Projects which received positive responses were:

- Close the "safety gaps" along the route, such as at intersections without safe crossings for cyclists and pedestrians.
- Provide amenities, including shade trees, drinking fountains, and restrooms, that encourage Trail use during all times of the year, and during day and night.
- Develop and distribute promotional materials at nearby schools, libraries, churches, workplaces and businesses to introduce and encourage use of the Shoal Creek Trail.





Creating a two-way protected bicycle lane along the west side Shoal Creek Boulevard was voted as a high-Priority Project during the Plan's public engagement process.



2.6 ADVOCACY and IMPLEMENTATION

Background

The Shoal Creek Trail: Vision to Action Plan requires action to turn vision into reality. At the first community workshop, participants were asked how the community, should advocate for the implementation the Plan – sooner rather than later. Identified strategies included:

- Utilize a wide variety of public, private and non-profit funding sources, such as City General Obligation bonds; the leveraging of already-mobilized/planned public and private projects; and create special districts, such as Tax Increment Financing districts.
- Create a "Great Creeks Fund", similar to the Downtown Great Streets Program, through which adjacent property developers can be incentivized to make trail improvements in adjacent rights-of-way and parkland, with a reimbursable portion of their costs through parking meter revenues.
- Create an "Trail Stewardship Program" and an "Adopt-a-Rain-Garden" program for the Shoal Creek Corridor.

- Advocate for the implementation of existing parks improvement plans, like the *Pease* Park Master Plan, the Duncan Preliminary Plan and The Grove Park Plan, and leverage these projects to bring dollars to nearby Trail improvements.
- Partner with neighborhood associations and community organizations, as well as property and business owners, within the Shoal Creek Corridor to implement Priority Projects.
- Seek funding from health care foundations and public health agencies that understand the linkage between physical activity and improved community health. Partner with Keep Austin Beautiful, the City's Watershed Department and others City departments and nonprofit organizations to improve the maintenance of the Shoal Creek Trail.

These conversations led to the development of the following Guiding Principle statement for Advocacy and Implementation:

Collaborate with the public, private and nonprofit sectors to implement the Shoal Creek Trail: Vision to Action Plan in a timely way, and to put in place a program to maintain the Corridor.



Community members brainstorm how to implement the Vision to Action Plan at the first community workshop in June 2017.

Goals and Priority Projects

The community-identified goals related to the Advocacy and Implementation Guiding Principle include to:

- Boost membership to the Shoal Creek
 Conservancy, targeting businesses, employers
 and residents within the Watershed.
- Garner support and interest from both nextgeneration and under-served communities.
- Promote improvements on the Shoal Creek
 Trail system as an important way to increase
 bicycle-riding by the Austin public, per the "Big
 Jump" project, a national initiative to double
 or triple bicycle ridership in the city's core.

In order to achieve these goals, the community identified the following **Priority Project**:

Adopt the Shoal Creek Trail: Vision to Action Plan as part of the next update to the City of Austin's Urban Trails Master Plan.

The Council-adoption of the Plan will set up the overall project, as well as its Priority Projects, for funding through the City's Capital Improvement Plan (CIP), as well as through grants and other funding streams available from different City departments and other agencies, including:

- Downtown Austin Alliance
- Austin Independent School District
- Capital Metropolitan Transportation Authority
- City of Austin:
 - Austin Transportation Department
 - Austin Energy
 - Public Works Department
 - Austin Public Health
 - Austin Police Department
 - Historic Preservation Office, Urban Design Division, Planning and Zoning Department
 - Art in Public Places, Redevelopment
 Services Division, Economic Development
 Department
 - Parks and Recreation Department
 - Watershed Protection Department

Other high-Priority Projects, which will be discussed in more detail in Section 5: Phasing and Implementation, include:

- Striping of Shoal Creek Boulevard to create a two-way protected bicycle lane on its west side and, where possible, rain gardens along the west edge.
- Create an Interpretive and Wayfinding Master Plan to link people of all cultures to the history and places of Shoal Creek.
- Close safety gaps along the route.



The annual Shoal Creek Awards distinguish both public and private sector projects that help improve Shoal Creek. Pictured: The Tzu Chi Collegiate Association receive the Good Neighbor Award, 2016. (Photo courtesy of Ted Eubanks)



TRAIL ALIGNMENT AND TYPICAL CROSS-SECTIONS



Before planning the main route or "alignment" for the Trail, the project team reviewed dozens of policies, plans and projects – both public and private – then presented and vetted alternatives through the Technical Advisory Group (TAG), the Community Advisory Group (CAG) and community workshops. The summaries of these documents are compiled in a slide presentation in Appendix A.4. They form the foundation and the springboard for the recommendations in this Plan. Working closely with the TAG and CAG, the project team honed recommendations that are more specific to the Shoal Creek Corridor from the much broader, City-wide policies and plans. These recommendations shape the proposed Trail alignment and cross-sections described in this chapter.

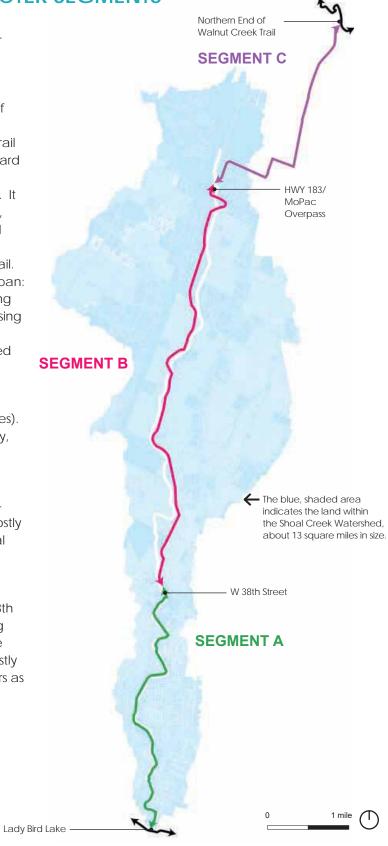
3.1 THE THREE MAIN CHARACTER SEGMENTS

The proposed Trail alignment includes three major segments. From north to south, these include the following:

Segment C begins at the northern termination of Shoal Creek Boulevard and ends at the northern section of the Walnut Creek Trail (3.3 miles). The Trail crosses under Highway 183 and continues northward along the banks of the University of Texas' water detention pond, as an off-street, shared-use path. It then proceeds north and eastward as a two-way, protected bicycle lane to link to Burnet Road and the Capital Metro Red Line right-of-way, where it terminates at its junction with the Walnut Creek Trail. The character of this segment is almost entirely urban: passing under a major highway interchange, along man-made detention ponds, through a warehousing district, along major roadways, along the Capital Metro Red Line, and finally to the newly-completed northern section of the Walnut Creek Trail.

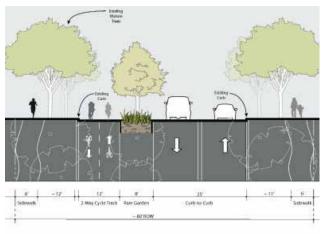
Segment B begins north of West 38th Street and extends to the Highway 183 underpassing (5.6 miles). The Trail leaves the existing Shoal Creek Greenway, surfacing to Shoal Creek Boulevard as a two-way protected bicycle lane on its west side, where it ends, just south of the Highway 183 overpass, on the east side of the Union Pacific Railroad right-ofway. The character of this stretch of the Trail is mostly shady and pleasant, as it winds through residential neighborhoods.

Segment A begins at the confluence of Shoal Creek and Lady Bird Lake and extends to West 38th Street (3.9 miles). This part of the Trail is the existing Shoal Creek Greenway, Austin's first hike-and-bike trail. The character of this stretch of the Trail is mostly naturalistic, green space, offering a refuge to users as it travels through City parkland.



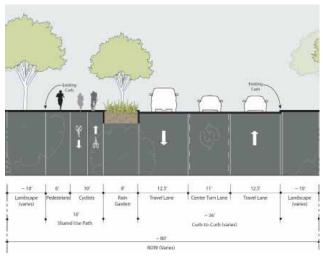


Segment C: A typical sub-segment is along Longhorn Boulevard, with its proposed cross-section, looking north (right).



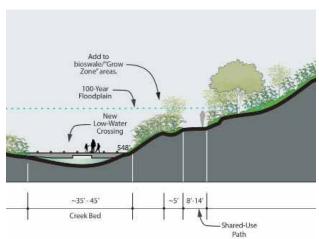


Segment B: A typical sub-segment is along Shoal Creek Boulevard north of Foster Lane, with its proposed cross-section, looking north (right).





Segment A: A typical sub-segment is in the Seiders Springs area, with its proposed cross-section, looking north (right).



3.2 THE 14 TRAIL SUB-SEGMENTS

The three main segments (A, B, C) have strikingly different characters. In addition, within each are sub-segments with unique characteristics that, in turn, may warrant different design treatments, in terms of trail widths, lighting, landscaping, drainage and other amenities. Variables in a sub-segment include available right-of-way or parkland for improvements, tendency to flood, topography, its natural or urban character, and known histories and stories to be revealed. The 14 sub-segments are as follows:

Segment A is the existing, 3.9-mile Shoal Creek Trail. Traveling from south to north, the Trail begins at Shoal Beach on Lady Bird Lake, where the Creek flows into Lady Bird Lake, and extends to West 38th Street. Segment A includes six subsegments:

A-1: Lady Bird Lake - 5th Street (Lower Shoal Creek)

A-2: 5th Street - 10th Street (Duncan Park)

A-3: 10th Street - 15th Street (House Park)

A-4: 15th Street - 24th Street (Pease Park)

A-5: 24th Street - 31st Street (Split Rock Canyon)

A-6: 31st Street - 38th Street (Seiders Springs)

Segment B is 5.6 miles long and is completely "on-street" as a two-way protected bicycle lane with an enhanced sidewalk along the west side of Shoal Creek Boulevard. Its extends from the trailhead north of West 38th Street to Highway 183. Segment B is comprised of three, key subsegments, to reflect an increase in right-of-way and a transition from residential to commercial and industrial areas along Shoal Creek Boulevard. Segment B includes four sub-segments:

B-7: 38th Street to 45th Street (The Grove)

B-8: 45th Street to FM 2222 (Rosewood and Allandale Neighborhoods)

B-9: FM 2222 - Foster Lane (Northwest District Park)

B-10: Foster Lane – Highway 183 (North Shoal Creek Neighborhood)

Segment C is the 3.3-mile section that extends from Highway 183 to the Walnut Creek Trail. Building on the 2016 Mobility Bond projects, the Trail includes Burnet Road, then the Red Line Trail, to create the northern leg. Segment C includes four sub-segments:

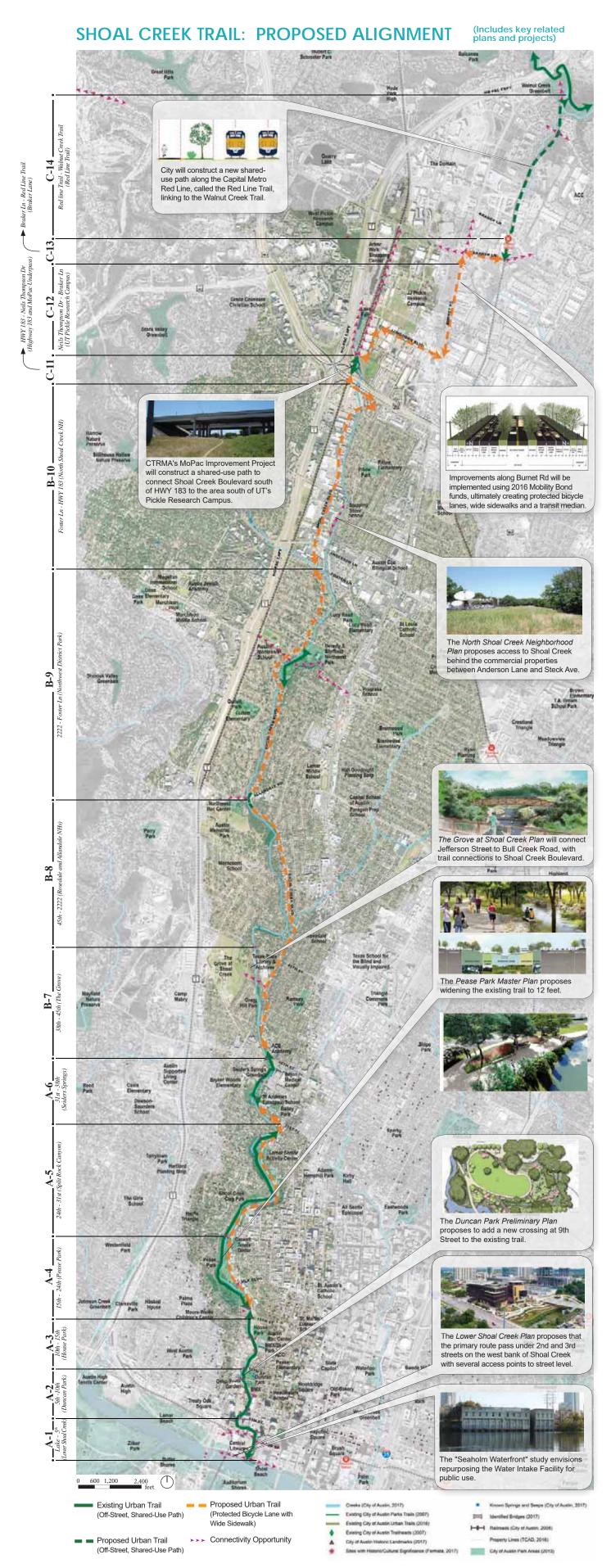
C-11: Highway 183 – Neils Thompson Drive (Highway 183 and MoPac Underpass)

C-12: Neils Thompson Drive to Braker Lane (UT Pickle Research Campus)

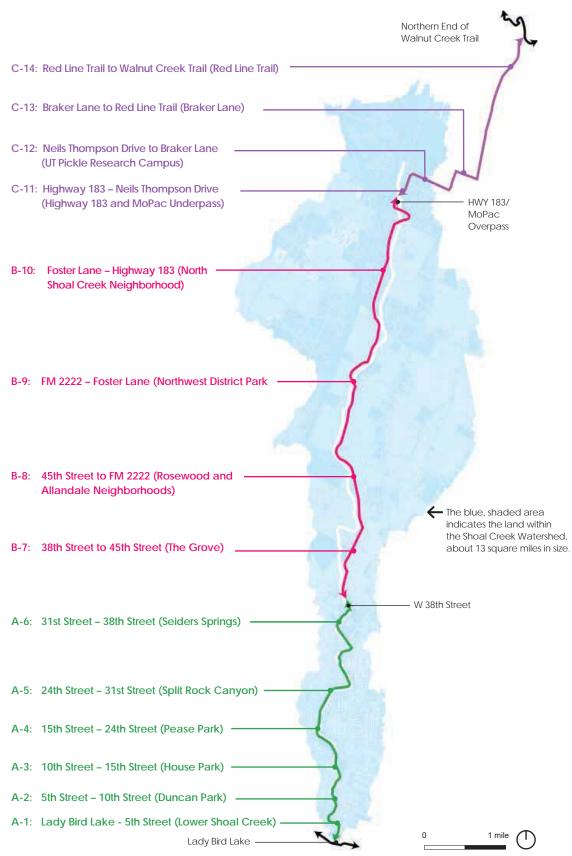
C-13: Braker Lane to Red Line Trail (Braker Lane)

C-14: Red Line Trail to Walnut Creek Trail (Red Line Trail)

This section of the *Shoal Creek Trail: Vision to Action Plan* focuses on the Trail route in each of the 14 sub-segments, including descriptions of the existing conditions and proposed amenities, as well as associated cross-sectional designs and relevant plans and projects. Each sub-segment also mentions where connectivity opportunities exist, such as to The Grove Planned Unit Development in B-7, and to Lake Fail and the Domain in C-11 and C-12.



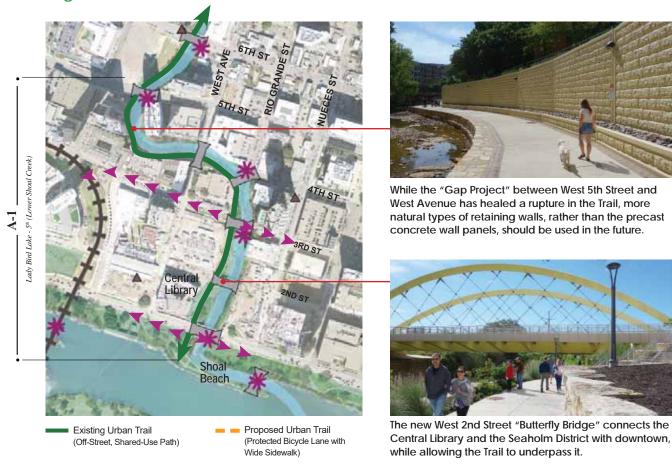




The following pages describe the existing conditions, proposed path route and cross-sections, as well as related plans for each of the 14 sub-segments.

Segment A-1: Lower Shoal Creek

 Proposed Urban Trail (Off-Street, Shared-Use Path)



Segment A-1, from Lady Bird Lake to West 5th Street is the 0.4-mile Lower Shoal Creek segment.

Connectivity Opportunity

The existing shared-use path begins at Shoal Beach, then passes under the Cesar Chavez bridge to join the recently-renovated section passing by the new Central Library, flanking the west bank of the Creek. While the current Trail uses a switchback ramp to go up to street level at West 3rd Street, the Plan proposes that it cross under the historic railroad trestle bridge and the immediately-adjacent, bicycle and pedestrian bridge. From there the Trail follows the sharp bend in the Creek, heading to the west at the foot of the The Independent high-rise condos, then passing under West Avenue and West 5th Street. Connectivity opportunities for Trail users include the existing Ann and Roy Butler Hike-and-Bike Trail along Lady Bird Lake, as well as the Lance Armstrong Bikeway on West 3rd Street, which could continue west to connect to the planned Bowie Street railroad underpass to the Gables Park condos.

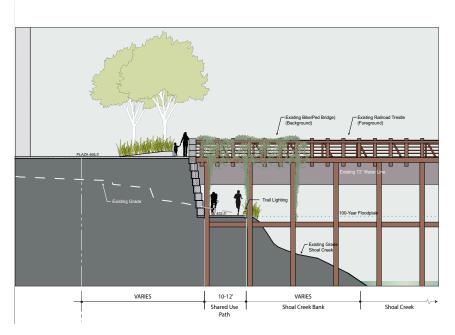
The following projects, listed from south to north, have together created a much-improved Segment A-1: the Shoal Creek Peninsula Project, the new Central Library Project, the Austin Energy Substation Enclosure, The Independent condos and the West Avenue to 5th Street "Gap Project". Further improvements are proposed for the area, such as rehabilitating the historic railroad trestle bridge into a pedestrian plaza, and creating a series of linear plazas within the West 3rd Street right-of-way. See Section 4.1, the Cypress and Shoal Focus Area, beginning on page 78, for more detail.



Simulation of Trail underpass at the 3rd Street trestle bridge, Looking North

Cypress Street Underpass, Existing:

- The Trail rises to street level near the West 3rd Street pedestrian bridge and the Union Pacific Railroad trestle bridge using a challenging switchback ramp.
- The Trail north of 3rd Street abuts The Independent condo tower.
- A 72-inch water line crosses
 Shoal Creek under the West
 3rd Street pedestrian bridge.

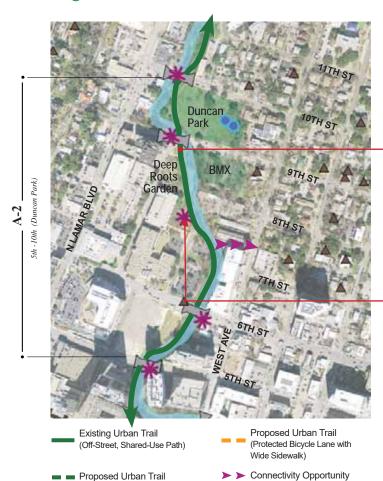


Proposed Cross-Section: Shared-Use Path, Looking North

Cypress Street Underpass, Proposed:

- Create a 10-foot to 12-foot shared-use path that passes underneath the West 3rd Street pedestrian bridge and the Union Pacific Railroad trestle bridge.
- Introduce lighting along the path, under bridges or on the abutment walls, where possible.
- Implement creek bank stabilization and ecological restoration.

Segment A-2: Duncan Park



(Off-Street, Shared-Use Path)



While the main Trail meets minimum Urban Trail and ADA standards, it is also important that the design and materials fit more seamlessly into the natural landscape than this image from the 5th to 15th PER would suggest. (Rendering by Walker Partners)



Before demolition, these homes are what remained of the Wood Street Settlement, an early Mexican-American and African-American community. This site has recently been distinguished with an official Texas Historical Marker, as part of the Undertold Marker Program.

Segment A-2, from West 5th Street to West 10th Street is the 0.4-mile long, Duncan Park segment.

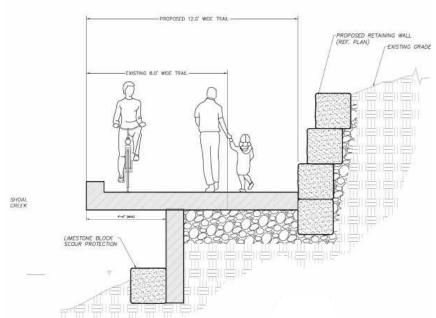
The existing Trail continues past the Shoal Creek Walk development (which includes a new connection from the Trail to West 6th Street), under the historic West 6th Street bridge, and past the historic Wood Street Settlement before arriving at Duncan Park, located between 9th and 10th streets. This section of the existing Trail has a preliminary engineering report (PER), referred to as the 5th to 15th Street Preliminary Engineering Report, that confirms the feasibility of widening the Trail in this area and identifies improvements to wayfinding, landscape, safety and drainage. Commissioned by the City's Public Works Department, the proposed improvements will bring the Trail into compliance with ADA (accessibility) and the Urban Trails Master Plan. The 5th to 15th PER calls for green infrastructure to address stormwater runoff, increased wildlife habitat and shade, and amenities that make walking and bicycling more viable. Once closer to Duncan Park, the 5th to 15th PER proposes a new bridge to replace the existing low-water crossing just south of West 9th Street at the Park's entrance. A master plan for Duncan Park is currently being developed by the City's Parks and Recreation Department. See Section 4.2, the Duncan Park Focus Area, on page 80. The Vision to Action Plan recommends keeping the existing route and implementing many of 5th to 15th PER improvements, including widening the Trail where appropriate, while balancing them with the Guiding Principles, the Interpretive Guidelines (Appendix C.1) and the Sustainable Landscape Guidelines (Appendix C.2), which call to preserve Shoal Creek's unique human history and natural character. One potential connectivity opportunity is a new pedestrian bridge across the Creek to West Avenue, connected by Cirrus Logic-owned green space between 7th and 8th streets.



Existing Condition, Looking South

6th Street to 9th Street, Existing:

- An eight-foot, concrete shared-use path is cantilevered over the Creek edge.
- The Creek maintains a permanent pool of water, supporting aquatic life.



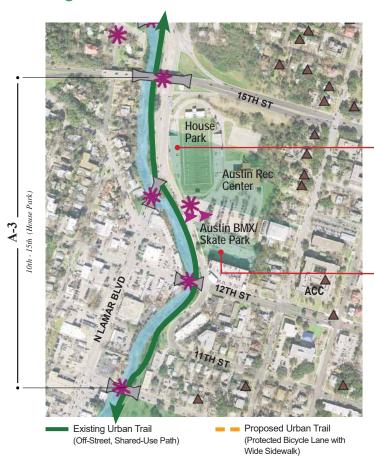
(Cross-Section: 5th to 15th Street Preliminary Engineering Report, Walker Partners)

Proposed Cross-Section: Shared-Use Path, Looking South

6th Street to 9th Street, Proposed:

- Widen the Trail to a 12foot shared-use path (where appropriate) to accommodate increased traffic.
- Design seating and vegetation into the adjacent, context-sensitive retaining walls of natural limestone, where possible.

Segment A-3: House Park



 Proposed Urban Trail (Off-Street, Shared-Use Path)



House Park, the Austin Independent School District football stadium, is on east side of Shoal Creek Boulevard.



The Heath Eiland and Morgan Moss BMX Skate Park features two public art pieces by local artist Chris Levack. The Austin Community College parking garage is seen beyond.

Segment A-3, from West 10th Street to West 15th Street is the 0.5-mile long, House Park segment.

Connectivity Opportunity

From Duncan Park, the improved Trail heads north toward House Park, via the proposed alignment in the 5th to 15th Preliminary Engineering Report, as a highly-amenitized pathway that is widened where appropriate. As described in the 5th to 15th PER, a new pedestrian crossing at Shoal Creek Boulevard will allow safer access to the Heath Eiland and Morgan Moss BMX Skate Park, House Park and the Austin Recreation Center, as well as to the western entrances of the Austin Community College Rio Grande Campus. The Trail turns west and crosses under North Lamar Boulevard, then northward, crossing under the West 15th Street/Enfield Road bridge to Pease Park.

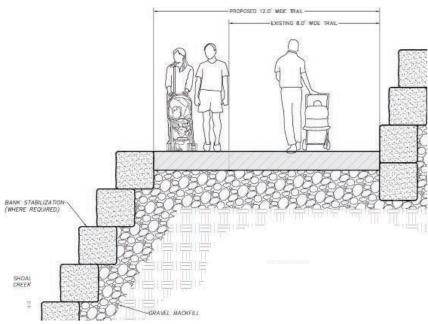
This sub-segment, as well as sub-segments A-1 and A-2, all pass under a number of the bridges, many of which are dimly-lit, even during the day. Improvements to the Trail ought to incorporate lighting so that they are comfortable and safe to use. *Please see the Lighting sub-section of Selecting Context-Sensitive Landscape and Hardscape Materials on p. 19.*



Existing Condition, Looking North

9th Street to 15th Street, Existing:

- An eight-foot concrete shared-use path follows the Creek on its east bank.
- Trailheads in this subsegment lack adequate ADA access.



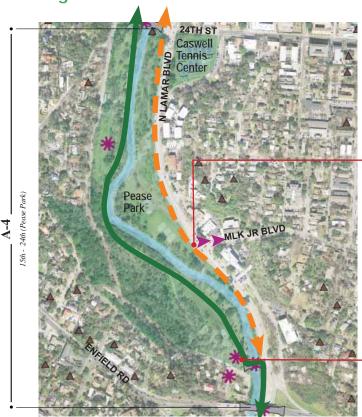
(Cross-Section: 5th to 15th Street Preliminary Engineering Report, Walker Partners)

Proposed Cross-Section: Shared-Use Path, Looking North

9th Street to 15th Street, Proposed:

- Widen the main path to 12 feet to accommodate increased traffic.
- Improve accessibility to the trailheads with switchback ramps.
- Stabilize the bank where required, while preserving the natural habitat as much as possible.

Segment A-4: Pease Park





The *Pease District Park Master Plan* proposes a number of new gateways to the Park, including one at MLK, Jr. **Boulevard**. (Rendering by WRT)



The *Pease District Park Master Plan* focuses on enhancing and preserving the naturalistic feel of the park, improving its gateways and enhancing the Trail. (Rendering by WRT, 2014)

Existing Urban Trail (Off-Street, Shared-Use Path)

 Proposed Urban Trail (Off-Street, Shared-Use Path) Proposed Urban Trail (Protected Bicycle Lane with Wide Sidewalk)

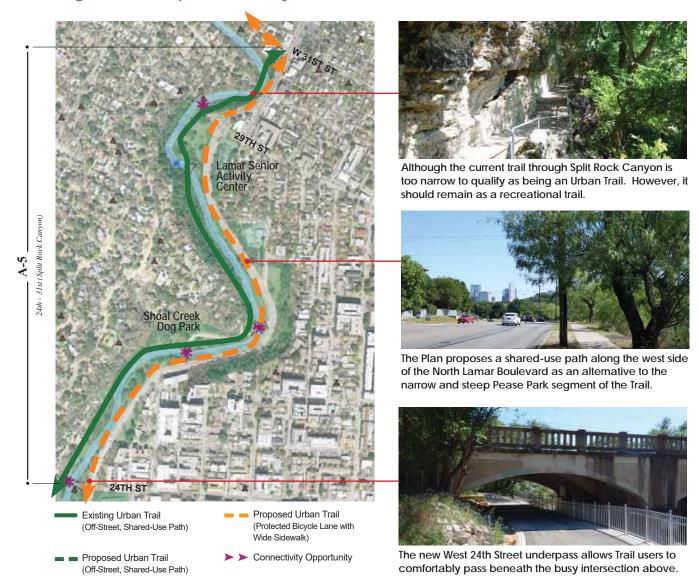
➤ ➤ Connectivity Opportunity

Segment A-4, from West 15th Street to West 24th Street is the 0.8-mile long, Pease Park segment.

Just north of West 15th Street/Enfield Road, the Trail enters Pease Park near the intersection of Kingsbury Street and Parkway, through a planned, entry plaza featuring the 1930s-vintage, stone entry columns. The entire Pease Park - from Enfield Road to West 31st Street - is the subject of the Council-adopted, Pease Park Master Plan (2014), commissioned by the Pease Park Conservancy. The Pease Park Master Plan calls for the preservation and enhancement of the Works Progress Administration (WPA)-era elements of the Park, for new trail segments and amenities, another major park entrance at the intersection of North Lamar Boulevard and MLK, Jr. Boulevard, as well as for native plantings and Creek restoration. (Visit www.austintexas.gov/department/pease-district-park-master-plan for more information about the Pease Park Master Plan.)

Given the wide variety of Trail users through this park, as well as the need for better active transportation options, the Plan proposes that the Pease Park section of the Shoal Creek Trail be an improved recreational path as described in the *Pease Park Master Plan*, while transforming North Lamar Boulevard into an Urban Trail more suitable for commuters and faster cyclists. *See page 56 for the North Lamar Boulevard existing conditions and proposed cross-sectional designs. See page 57 for the existing conditions and proposed improvements to the Pease Park section of the Trail.*

Segment A-5: Split Rock Canyon

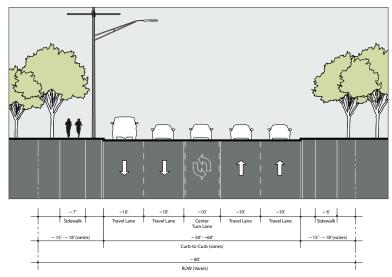


Segment A-5, from West 24th Street to West 31st Street is the 1.2-mile long, Split Rock Canyon segment.

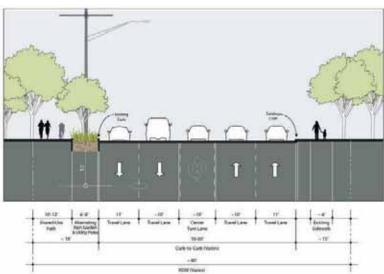
The main Trail, per the *Pease Park Master Plan*, follows the existing Creek-side alignment, which is ideal for walkers and runners. The Trail between West 24th Street and Shoal Creek Boulevard on the west side of the Creek is currently closed due to damage caused by a major landslide resulting from a heavy rain in Spring 2018. This section of the Trail requires timely repair to continue to provide a recreational path. Special consideration should be given to maintaining the natural feel of this segment of the Trail, and even rerouting this new segment to the east side of the Creek should be considered, especially if it is both more environmentally-sensitive and cost-efficient. For commuters, however, the Shoal Creek Trail: Vision to Action Plan proposes a wider and straighter, shared-use path along the west curbside of North Lamar Boulevard to West 24th Street, where there is a new underpass allowing bicyclists and pedestrians a safe crossing under this busy street. The shared-use path returns to the Lamar curbside, providing a more spacious path to connect to West 31st Street, while a more rustic, Creek-side path continues through the scenic Split Rock Canyon, a narrow and winding path that – while beautiful – is not appropriate for mixed bicycle and pedestrian traffic. See pages 56 and 57 for associated North Lamar Boulevard and Pease Park Trail conditions and improvements.



Existing Condition, Looking North



Existing Cross-Section, Looking North



Proposed Cross-Section: Shared-Use Path, Looking North

North Lamar Boulevard from 15th Street to 31st Street, Existing:

- A 50-foot to 60-foot roadway contains five lanes within an 80foot right-of-way, with 15 feet behind the curbs.
- There are existing trees and overhead lines on west side of right-of-way.
- The west side features some steep slopes.
- The existing sidewalks are too narrow to accommodate a variety of users.

North Lamar Boulevard from 15th Street to 31st Street, Proposed:

- Create a 10-foot shareduse path and an eight-foot landscape zone/rain garden on the west side of the roadway.
- Introduce street trees in the rain gardens at approximately 25-foot intervals, except where existing trees are present.
- Alternate the rain gardens and utility poles/lighting, leaving
 12 feet (or more) between the poles and the rain gardens.



Existing Condition, Looking South

Pease Park from 15th Street to 31st Street, Existing:

 A six-foot to eight-foot shared-use path winds through Pease Park in varying states of repair.

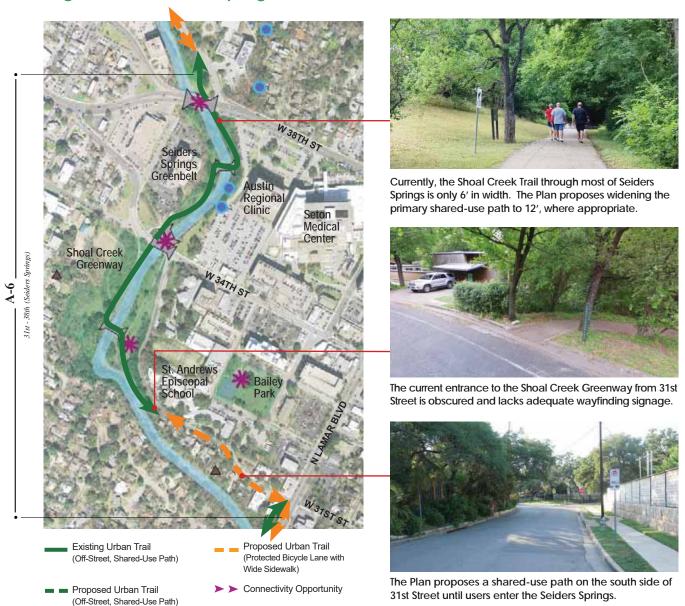


Rendering of Proposed Shared-Use Path, Looking South

Pease Park from 1th Street to 31st Street, Proposed:

- Repave the primary, shareduse path with concrete, widening to 10 to 12 feet where appropriate.
- Add edges to the path using stone.
- Pave the secondary Pease Park trails where appropriate.

Segment A-6: Seiders Springs

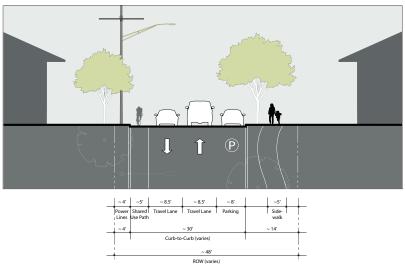


Segment A-6, from West 31st Street to West 38th Street is the 0.7-mile long, Seiders Springs segment.

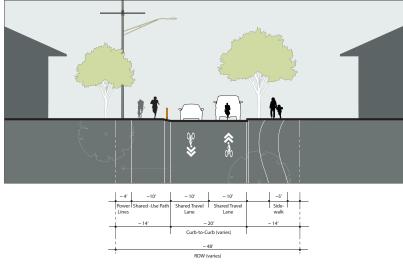
The current Trail appears to dead-end at West 31st Street, where users must use the roadway to connect between Split Rock Canyon and the Shoal Creek Greenway. The Plan proposes transforming the south side of the West 31st Street right-of-way into a shared-use path before it enters the Shoal Creek Greenway at the trailhead across from St. Andrews; doing so will improve the route to school for students arriving on foot or by bike. While the park areas have a number of trails throughout, the proposed main Trail crosses to the west side of the Creek by of the existing, 1970s-era shelter (the Gazebo). From there, the Plan calls for improving the current "Rock-Hop Bridge" to become an accessible, low-water crossing leading to the west bank. The proposed main Trail crosses under the 34th Street bridge on the west bank of the Creek, and continues to the low-water crossing by the Austin Regional Clinic, where the Plan calls for a much improved crossing to replace the narrow, existing one that has steep descents and sharp turns. Once back on east bank, the main Trail continues north, forking under West 38th and onto Shoal Creek Boulevard. See page 59 for the West 31st Street cross-section, and page 60 for the Seiders Springs cross-section.



Existing Condition, Looking West



Existing Cross-Section, Looking West



Proposed Cross-Section: Shared-Use Path, Looking West

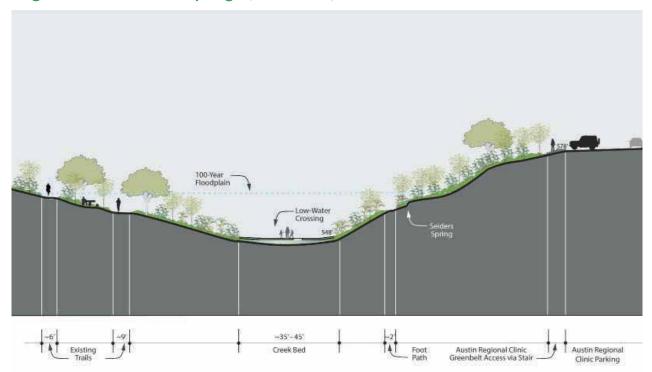
31st Street to Shoal Creek Greenbelt Trailhead, Existing:

- A 25-to-30-foot roadway exists within a 48-foot right-ofway.
- The south side features an unprotected, shared-use path in the roadway, with no sidewalks.
- Overhead utility and lighting run on the south side of the street.

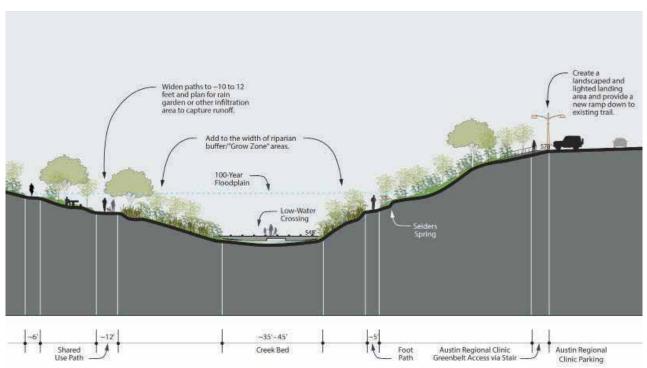
31st Street to Shoal Creek Greenbelt Trailhead, Proposed:

- Consolidate the driveways on the south edge, where possible.
- Narrow the roadway to 20 feet and stripe for sharrows.
- Construct a new shared-use path on the south side of roadway.
- Install flexible delineators between the roadway and the shared-use path, where not in conflict with existing driveways.

Segment A-6: Seiders Springs (continued)



Existing Cross-Section, Looking North



Proposed Cross-Section: Shared-Use Path, Looking North



Existing Condition, Looking East

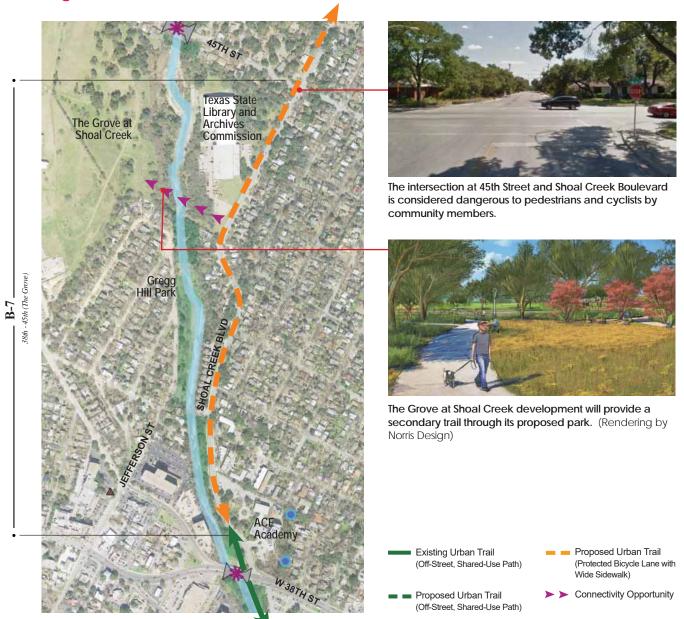
Shoal Creek Greenway/Seiders Springs from 31st Street to 38th Street, Existing:

- Two, low water crossings exist between 34th and 38th Streets.
- A narrow, shared-use path on the east side of the Creek between 34th and 38th streets becomes unpaved and informal south of the low water crossing.
- The shared-use path on the west side of the Creek exit abruptly onto 38th Street.
- 34th Street is dangerous to cross due to a lack of adequate traffic controls.
- The trailhead at West 31st Street is obscured and inadequate.

Shoal Creek Greenway/Seiders Springs from 31st Street to 38th Street, Proposed:

- Widen the path from the 31st Street trailhead to the intersection with Shoal Creek Boulevard to 10 to 12 feet, and create a rain garden or other infiltration area to capture runoff.
- Add to the width of riparian buffer/" Grow Zone" areas.
- Construct a 14-foot-wide low-water crossing bridge so that cyclists are able to move safely and better connect onto the east side of the Trail south of 38th Street.
- Improve way-finding at the West 31st Street Trailhead at the entrance of the Shoal Creek Greenway.
- Implement safer at-grade street crossings at 34th and 38th streets.

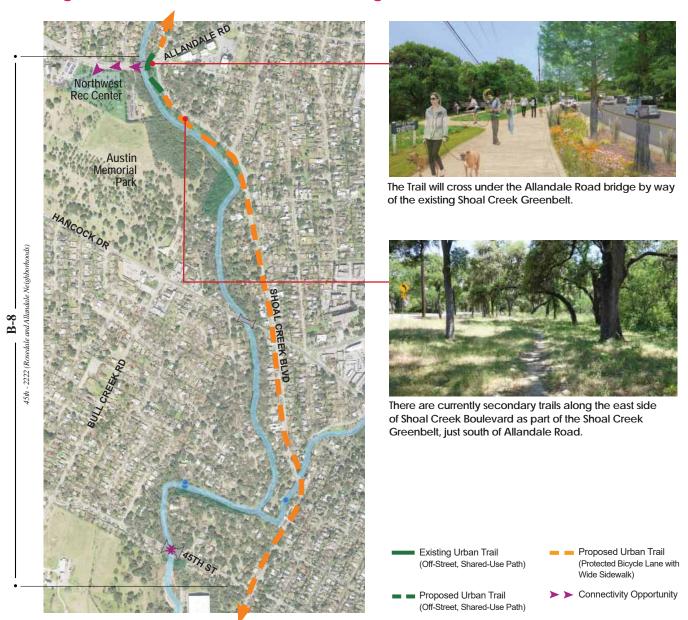
Segment B-7: The Grove



 $Segment \ B-7, from \ just \ north \ of \ West \ 38th \ Street \ to \ West \ 45th \ Street, is \ the \ 0.7-mile, \ "Grove" \ segment.$

Once north of West 38th Street, the Plan proposes an improved sidewalk and a protected, two-way bicycle lane along Shoal Creek Boulevard - due to the lack of parkland available. The Trail between 38th and 45th streets includes the emerging "Grove at Shoal Creek" mixed-use neighborhood. This neighborhood will feature a new trail through the planned public park at the heart of the development, with a proposed bridge over Shoal Creek to connect to Shoal Creek Boulevard. Even before the arrival of this new, 76-acre neighborhood, the surrounding neighborhood stakeholders called for installing a four-way, traffic signal at the intersection of Shoal Creek Boulevard and West 45th Street. The Vision to Action Plan recommends that the City's Austin Transportation Department do a traffic study of this area to determine if a signal is warranted, and to recommend other safety designs/measures to be implemented. See page 65 for the associated Shoal Creek Boulevard cross-section. See pages 30 - 33 for discussion of "Why a Two-Way Protected Bicycle Lane ... is the Preferred Alternative".

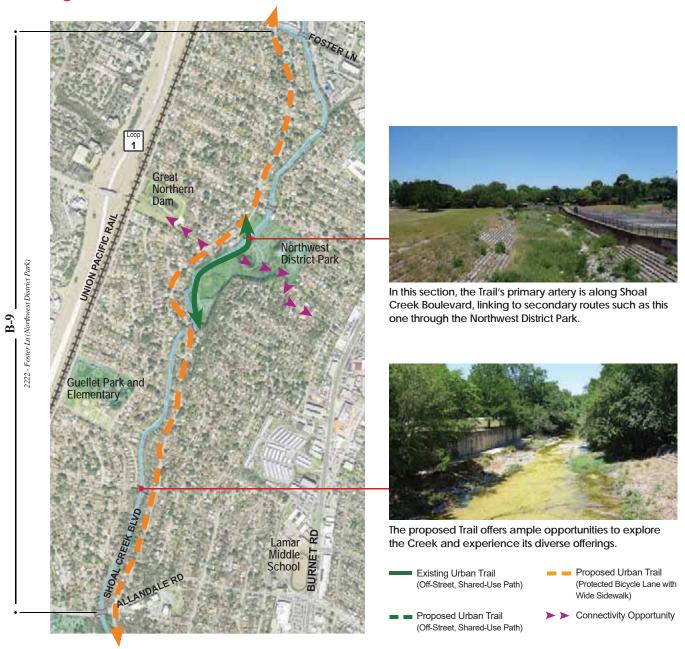
Segment B-8: Rosedale and Allandale Neighborhoods



Segment B-8, from West 45th Street to FM 2222, is the 1.3-mile, Rosedale and Allandale segment.

This stretch of Shoal Creek Boulevard is almost entirely residential and relatively calm. The same cross-sectional design of an improved sidewalk and two-way protected bicycle lane continues north to FM 2222, also known as Allandale Road. The Plan recommends an under-passing of the Allandale Road Bridge in order to avoid the intensifying vehicular traffic of this major arterial roadway. Another recommendation is to improve the connection from the street level at this intersection westward to the Northwest Recreation Center, a major community destination that is located just across the Creek from Shoal Creek Boulevard. Please note that no trail amenities or improvements are recommended for the Austin Memorial Park. See page 65 for associated Shoal Creek Boulevard cross-section.

Segment B-9: Northwest District Park

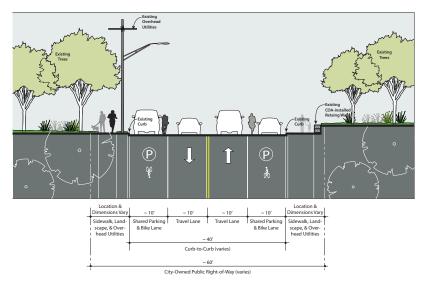


Segment B-9, from FM 2222 to Foster Lane, is the 1.9-mile, Northwest District Park segment.

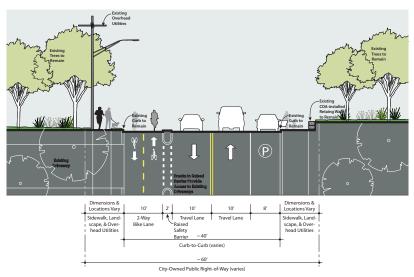
The proposed main Trail continues along Shoal Creek Boulevard with a two-way protected bicycle lane, per the future, to-be-developed, detailed design. Trail users will also have the option to travel on the existing Northwest District Park trail as a secondary route. There are two connectivity opportunities here: the Urban Trail going west across the Great Northern Dam to Far West Boulevard, and the proposed Urban Trail going east to Justin Lane.



Typical Existing Condition, Looking North



Typical Existing Cross-Section, Looking North



Proposed Cross-Section: Two-Way Protected Bicycle Lane, Looking North

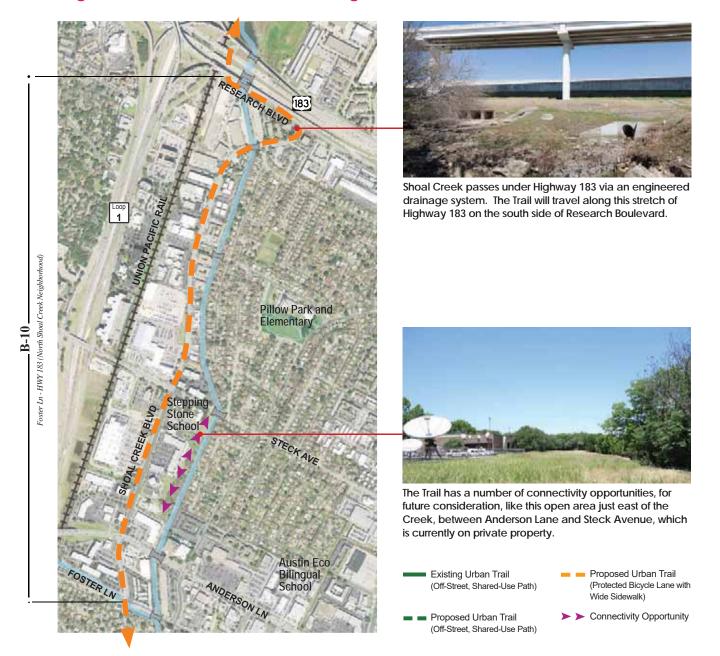
Shoal Creek Boulevard from 38th Street to Foster Lane, Existing:

- A 40-foot (curb-to-curb) roadway exists within a 60-foot City-owned public right-of-way.
- Trees and overhead utilities exist mostly on the west side of the street.
- Steep slopes exist intermittently on both sides of the street.

Shoal Creek Boulevard from 38th Street to Foster Lane, Proposed:

- Create a two-way, protected bicycle lane along the west side of the street by removing one side of parallel parking, while retaining the existing curb lines.
- Relocate any overhead utilities closer to the property line where these obstruct the sidewalk.
- Provide a landscape buffer or rain garden between the protected bicycle lane and a sidewalk, if space allows, while retaining the existing curb lines.

Segment B-10: North Shoal Creek Neighborhood



Segment B-10, from Foster Lane to 183, is the 1.7-mile, North Shoal Creek Neighborhood segment.

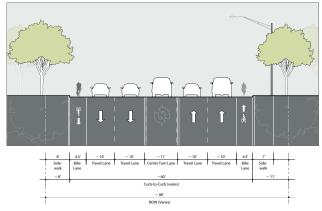
North of Foster Lane, the proposed Trail continues along Shoal Creek Boulevard, employing a widened, shared-use path with a two-way protected bicycle lane separated from the roadway by a rain garden on the west side. Trail users may potentially have the option to explore an alternate path option between Anderson Lane and Steck Avenue, where there are woods and a meadow belonging to the commercial properties fronting Shoal Creek Boulevard. (See the North Shoal Creek Neighborhood Plan at www.austintexas.gov/department/north-shoal-creek.) Once the Trail reaches Highway 183, it follows the shared-use path along Research Boulevard to cross beneath the highway, as designed by the Central Texas Regional Mobility Authority (CTRMA), so that it safely reaches the scenic water detention pond, immediately to the north.



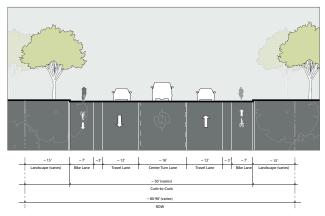
Existing Conditions, Foster Ln to Steck Ave, Looking North



Existing Conditions, Steck Ave to HWY 183, Looking North



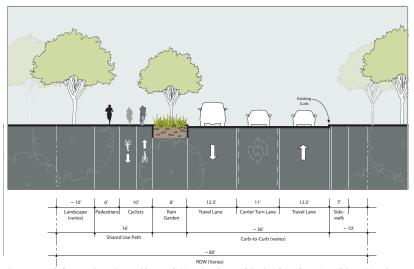
Existing Cross-Section, Foster Ln to Steck Ave, Looking North



Existing Cross-Section, Steck Ave to HWY 183, Looking North

Shoal Creek Boulevard from Foster Lane to Highway 183, Existing:

- Two, unprotected curbside bicycle lanes exist, with no on-street parking.
- Few sidewalks exist.
- Low traffic volumes could allow reducing number of vehicle lanes.

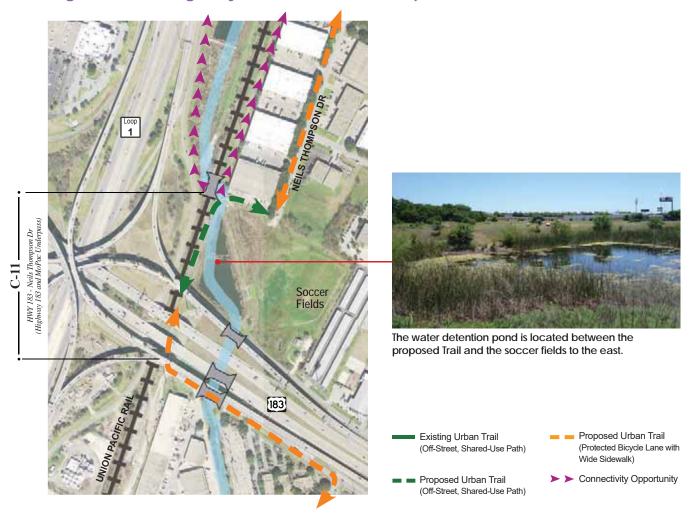


Proposed Cross-Section: Shared-Use Path and Rain Garden, Looking North

Shoal Creek Boulevard from Foster Lane to Highway 183, Proposed:

- Narrow the roadway width by reducing the number of lanes from five to three between
 Foster Lane and Steck Avenue.
- Construct a shared-use path along the west side of the street.
- Provide a rain garden between the shared-use path and roadway.

Segment C-11: Highway 183 and MoPac Underpass



Segment C-11, from Highway 183 to Neils Thompson Drive, is the 0.2-mile, Highway 183 and MoPac Underpass segment. To cross under Highway 183, the proposed Trail will use the Central Texas Regional Mobility Authority's shared-use path, which is currently in development. The shared-use path continues north between the Union Pacific Railroad on the west side and Research Boulevard on the east. Once north of Highway 183, the main Trail continues along the western edge of the existing water detention pond.

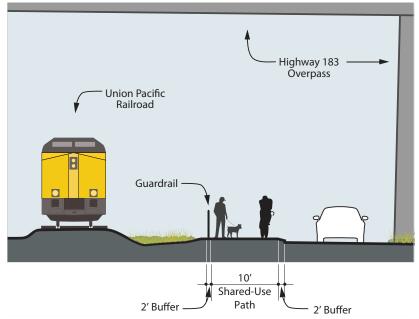
The area includes a number of connectivity opportunities: one secondary trail could parallel the Union Pacific Railroad to reach Braker Lane and connect to the Domain. A second trail, which would require an improved underpass of the Union Pacific Railroad tracks, could continue northward using the (expanded) existing public sidewalk to reach "Lake Fail" and the Arbor Walk Shopping Center.



Existing Conditions, Looking North

Highway 183 Frontage and Turnaround Road to Detention Ponds, Existing:

 A narrow, unpaved footpath exists between the water detention pond and the Union Pacific Railroad, terminating at the Highway 183 underpass.



Proposed Cross-Section: Shared-Use Path, Looking North

Highway 183 Frontage and Turnaround Road to Detention Ponds, Proposed:

- Central Texas Regional Mobility Authority will construct a 10-foot-wide, shared-use path, with two-foot buffers on either side and guardrail on the west side of the Trail.
- The Trail will begin at Shoal Creek Boulevard, following the south and west sides of the Highway 183 Frontage Road, and continue north on the west side of the existing water detention pond to reach Neils Thompson Drive.

Segment C-12: UT Pickle Research Campus BRAKER LN **Arbor Walk** Shopping Center Neils Thompson Dr to Braker Ln (UT's Pickle Research Campus JJ Pickle Research Campus LONGHORN BLVD **Existing Urban Trail** Proposed Urban Trail (Off-Street, Shared-Use Path) (Protected Bicycle Lane with Wide Sidewalk) ➤ Connectivity Opportunity Proposed Urban Trail (Off-Street, Shared-Use Path)

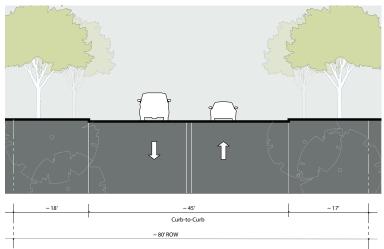
Mature oak trees shade Longhorn Boulevard, offering a pleasant route for the Trail.

Segment C-12, from Neils Thompson Drive to Braker Lane, is the 1.5-mile, University of Texas Pickle Research Campus segment. From the water detention area, the proposed Trail returns on-street along Neils Thompson Drive and Longhorn Boulevard, then turning north onto Burnet Road. In the near term, a new, shared-use path will be built along the west side of Burnet Road as part of the Corridor Construction Program and will serve as the main route of the Trail. In the far term, a multi-modal boulevard is planned, with protected bicycle lanes, shaded sidewalks and a possible bus transit zone.

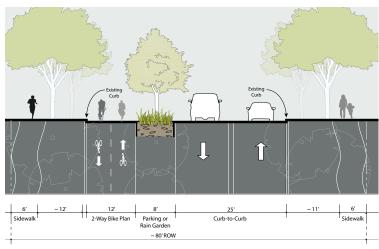




Existing Conditions



Existing Cross-Section, Looking North (Neils Thompson Drive) or East (Longhorn Boulevard)



Proposed Cross-Section: Two-Way Protected Bicycle Lane and Rain Garden, Looking North (Neils Thompson Drive) or East (Longhorn Boulevard)

Neils Thompson Drive and Longhorn Boulevard, Existing:

- A 45-foot roadway exists within a 80-foot right-of-way, with one lane each way.
- There are no sidewalks or bicycle lanes.
- Large truck bays/driveways and curbside parking exist on the east side of Neils Thompson Drive.
- Mature trees line the west side of Neils Thompson Drive and both sides of Longhorn Boulevard.

Neils Thompson Drive and Longhorn Boulevard, Proposed:

- Narrow the roadway width to construct a six-foot sidewalk at the west and north edges of the rightsof-way.
- Meander the sidewalk to preserve existing trees.
- Stripe a two-way protected bicycle lane on west and north sides of the two streets, with a raised buffer.
- Provide parallel parking and/or rain gardens along the bicycle lane.

Segment C-13: Braker Lane

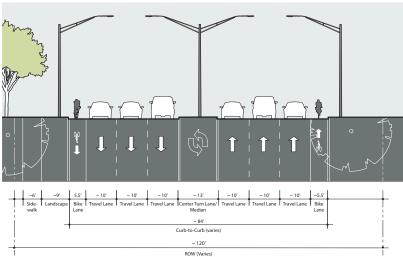


Segment C-13, from Braker Lane to the Red Line Trail, is the 0.3-mile, Braker Lane segment of the Trail. From Burnet Road, the proposed Trail turns east along Braker Lane to reach the planned Red Line Trail, which will run along the Capital Metro Red Line as an off-street Urban Trail. The Plan proposes a two-way bicycle lane and sidewalk protected by a landscape buffer on the south side of the roadway. Braker Lane has been identified as a Tier II Urban Trail in the *Urban Trails Master Plan*.

The improvements in the area provide additional connectivity opportunities: Braker Lane going west to reach the existing Urban Trail on the northwest side of MoPac, and Burnet Road going north to reach the Northern Walnut Creek Trail.



Existing Conditions, Looking East



Existing Cross-Section, Looking East

Side- Landscape Bike Travel Lane Travel La

Proposed Cross-Section: 2-Way Protected Bicycle Lane and Sidewalk Behind South Curb, Looking East

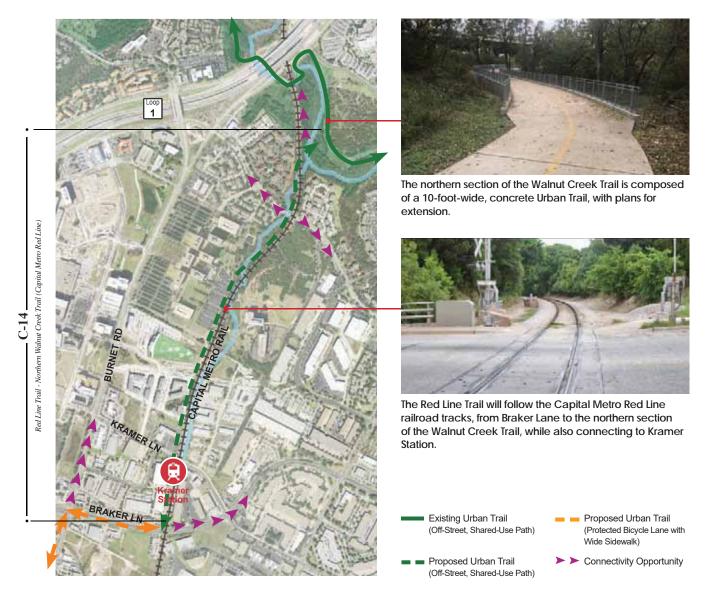
Braker Lane from Burnet Road to Red Line Trail, Existing:

- The curbside bicycle lanes are unprotected and narrow.
- There is no on-street parking.
- A narrow sidewalk exists on the north side of the street.
- The street typically experiences high traffic volumes.

Braker Lane from Burnet Road to Red Line Trail, Proposed:

- Construct two-way protected bicycle lane on south side, protected by a landscape buffer outside the roadway.
- Add a sidewalk on the south side beside proposed protected bicycle lane.
- Retain the existing curbs and bicycle paths.

Segment C-14: Capital Metro Red Line



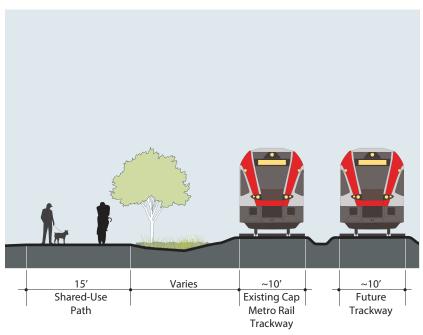
Segment C-14, from Braker Lane to the Northern Walnut Creek Trail, is the 1.3-mile, Capital Metro Red Line segment. In this sub-segment, the Red Line Trail will serve as the proposed main Trail between Braker Lane and the northern section of the Walnut Creek Trail, which will be funded by the 2016 Mobility Bond. The Walnut Creek Trail will serve as the northern terminus of the Shoal Creek Trail, connecting into the larger network of trails throughout Austin and help complete the 30-mile loop around the City. (See www.austintexas.gov/redlinetrail)



Existing Conditions, Looking North

Capital Metro Red Line from Braker Lane to Walnut Creek Trail, Existing:

 Today, Capital Metro's Red Line has a single trackway.



Proposed Cross-Section, Looking North

Capital Metro Red Line from Braker Lane to Walnut Creek Trail, Proposed:

- The City of Austin has planned a 15-foot, shared-used path, to be located primarily on the west side of the existing Capital Metro Red Line.
- There is potential for a future expansion of the Red Line to two tracks.



THE FOCUS AREAS

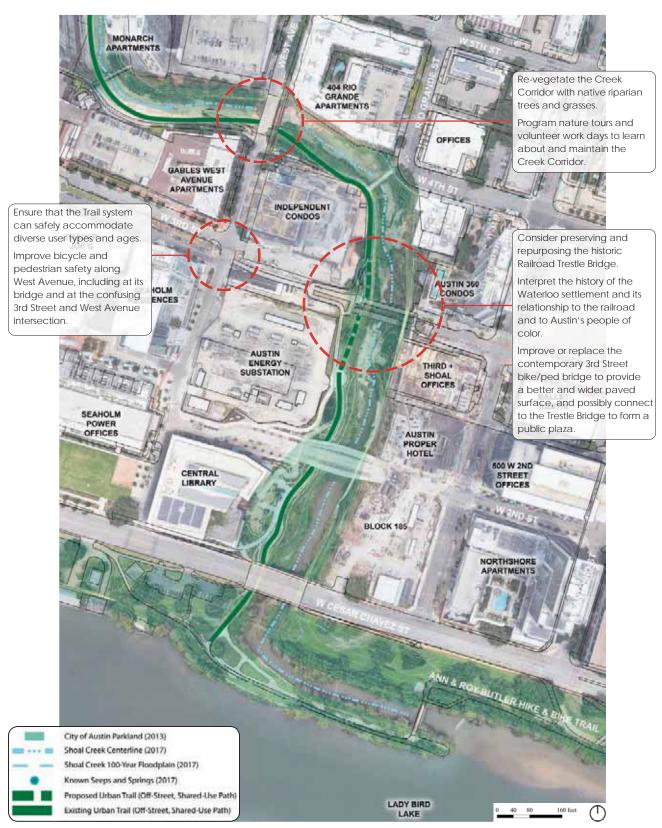
While the *Vision to Action Plan* sets the general framework for almost 13 miles of the main Trail improvements, it is important to "zoom in" on a few of its priority segments and adjacent spaces. The Focus Areas provide future designers and implementers greater detail on how a particular area might be developed and designed, consistent with the spirit of the Plan's Guiding Principles. During the second round of workshops, the community developed specific goals to improve and transform these important places, and thereby strengthen the identity and functionality of the Trail system as a whole. The Focus Areas were selected from a shortlist of over 20 such nodes along the Trail, in terms of their ability to:

- address a significant gap in the overall Trail system;
- leverage funding from an adjacent public or private project;
- create a "big bang for a few bucks"; and
- connect Trail users to one another, and to nature, history and culture.

The four Focus Areas are:

- 4.1 Cypress and Shoal
- 4.2 Duncan Park
- 4.3 Seiders Springs
- 4.4 Highway 183 and MoPac





The Cypress and Shoal Focus Area includes a number of large development projects on both the east and west sides of the Creek. The recommendations for the Cypress and Shoal Focus Area include creating a series of small public plazas within the West 3rd Street right-of-way.

4.1 CYPRESS AND SHOAL FOCUS AREA

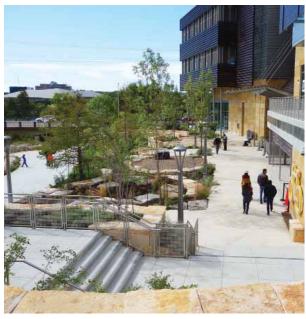
Background

The "Cypress and Shoal" Focus Area of the Downtown segment of the Trail begins where Shoal Creek flows into the Colorado River (Lady Bird Lake) and continues northward to West 5th Street. This larger area, called the Lower Shoal Creek District in the City's *Downtown Austin Plan* (2011), is undergoing a major construction boom that will continue to influence and potentially implement the Shoal Creek Trail and the new buildings and public spaces flanking it.

Both "Seaholm Power's" adaptive office reuse of the 1950s-era power plant turbine hall (reopened in 2015) and the new Central Library, (opened in October 2017), have helped to implement a new roadway and Trail system for this area, by extending West Avenue southward to Cesar Chavez Street and West Second Street westward from San Antonio to West Avenue. The City's Seaholm District Master Plan (2000) has guided the City in making such public infrastructure investments, including the Pfluger



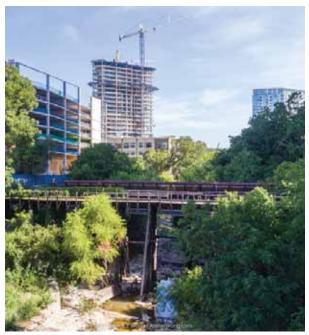
The original Seaholm Master Plan (2000) laid out the area's conversion into a mixed-used district.



The new Central Library includes landscaped paths along and above the banks of Shoal Creek.

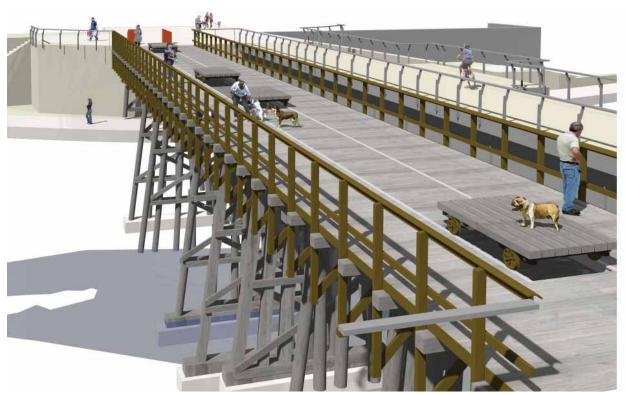
Bridge extension, the reclamation of the Sand Beach parkland and the redevelopment of the Seaholm Power Plant and adjacent, City-owned properties. "The Independent" condominium project and the "Third and Shoal" office project, along with the potentially refurbished, historic railroad bridge, are creating opportunities to improve pedestrian and bicycle connectivity in this area, as well generate a series of unique public open spaces in the form of linear plazas.

A major obstacle in realizing such a multi-block pedestrian promenade and plaza system along West 3rd Street, between Nueces Street and West Avenue and even farther west, has been resolving what to do with the wooden railroad trestle bridge. This historic trestle bridge is located within the 3rd Street right-of-way, about 20 feet south of the modern bicycle/pedestrian bridge (and 72-inch water pipe) crossing Shoal Creek. In the last 20 years, there has been a groundswell of support to preserve the bridge, one of the few, significant artifacts of Austin's railroad history, and



The 3rd Street Union Pacific Railroad trestle bridge was first constructed in 1876 and reconstructed in 1925. (Photo courtesy of Patrick Wong, 2017)

to re-purpose it for public use. However, others have wished to demolish the structure owned by the Union Pacific Railroad, as its many structural columns anchored in the streambed can obstruct flood flows and create a damming effect. There are also concerns regarding its maintenance and public safety that the City of Austin must consider. Others would like to see a new, vehicular bridge in its place that could connect the Seaholm District with the rest of Downtown. Several key decisions hinge on the whether the bridge stays or goes, and, if it stays, how it could be used - especially in tandem with the treatment of 3rd Street the adjacent developments: The Independent condos and the Third and Shoal office building.



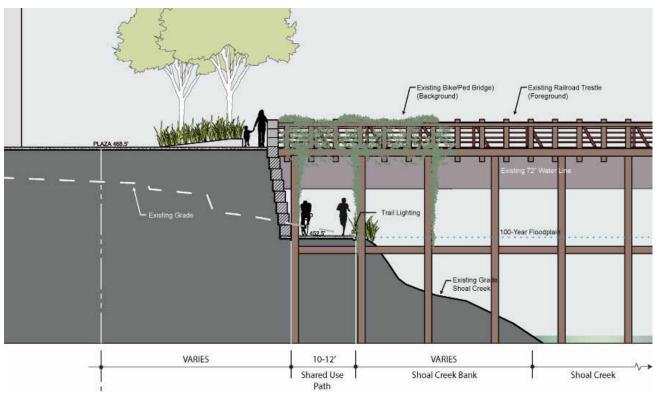
An early conceptual design for potential reuse of the 3rd Street railroad trestle bridge imagines a public plaza, pending future public discussions. (Image courtesy of Limbacher and Godfrey Architects, 2018)

Desiring to resolve this community "standstill", the Shoal Creek Conservancy, with support from the Austin Parks Foundation and Spring Condos, commissioned a structural and reuse evaluation of this bridge. The study, to be released in 2018, concludes that the bridge can be rehabilitated and could serve as a public gathering space or plaza - as many have envisioned (see rendering of proposed conceptual design, previous page).

The idea of refurbishing and reusing the trestle bridge as a sort of "mini-High Line", or casual community space for relaxation, gathering, public art and performances, has emerged as one of a handful of Priority Projects in the *Vision to Action Plan*. Stakeholders and the community deliberated as to appropriate goals for the trestle bridge, as well as the 3rd Street corridor adjoining it. These are described on the following page.



The High Line in New York City has been cited as an inspiration for the linear plaza spaces along West 3rd Street, that could include the refurbished trestle bridge.



The proposed cross-section, above, looking north, would provide an under-crossing of West 3rd Street and the historic trestle bridge.

Goals for the Cypress and Shoal Focus Area

During the second set of Technical Advisory Group, Community Advisory Group and community workshops held in September 2017, the goals for this Focus Area were developed:

- Preserve and repurpose the historic railroad trestle bridge.
- Construct the new, main Trail to pass under the existing West 3rd Street bridges.
- Interpret the history of the Waterloo Settlement, and its relationship with the railroad and Austin's people of color.
- Improve or replace the contemporary 3rd Street bicycle/pedestrian bridge to provide a better and wider paved surface, and possibly connect to the trestle bridge to form a public plaza.

Plazas

- Ensure that the Trail can safely accommodate diverse user types and ages.
- Improve bicycle and pedestrian safety along West Avenue, including at its bridge and at the confusing 3rd Street and West Avenue intersection.
- Re-vegetate the Creek Corridor with native, riparian trees and grasses.
- Program nature tours and volunteer work days to learn about and maintain the Creek Corridor.

The Cypress Street Public Plazas concept diagram (below) illustrates the potential of linking a series of linear plazas along old Cypress (now called 3rd) Street to create a cohesive public realm, rich with historic interpretation. The improvements as part of this concept include:

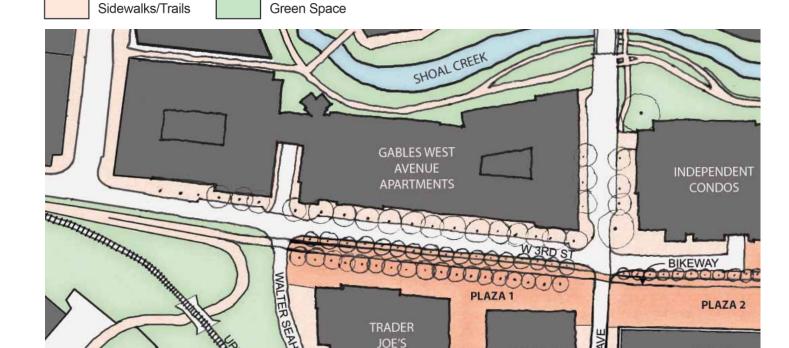
SEAHOLM RESIDENCES

EXISTING

PLAZA

ENERGY

SUBSTATION



The Cypress Street Public Plazas would link together as four or more linear plazas along West 3rd (Cypress) Street.

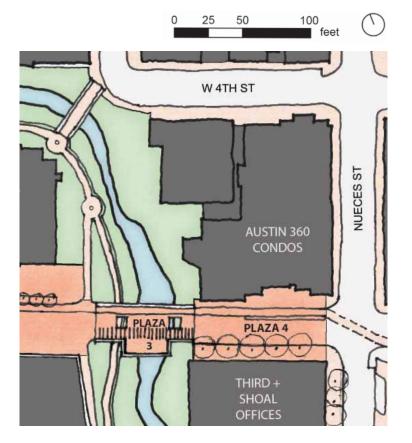
Shoal Creek

- Replace the current hike-and-bike bridge with a much larger plaza, or a new bridge with a pedestrian plaza, that connects the Lance Armstrong Bikeway to the Shoal Creek Trail
- Re-connect the improved Central Library reach of the Shoal Creek Trail from its current end point between 2nd and 3rd streets to the new Trail improvements between West Avenue and West 5th Street.

Implementation strategies for the area include:

 Integrate the Cypress Street Public Plazas concept into the improvements fronting The Independent and 3rd + Shoal projects, which will be making public space improvements in the 3rd Street right-of-way.

- Create a management entity to be responsible for the entire Seaholm/Lower Shoal Creek District, in terms of public parking, public space programming, management and security.
- Extend the existing Seaholm Tax Increment
 Financing District term and purpose, extend
 its geographic area eastward to Nueces
 Street, and use this funding to implement, at
 minimum:
 - the restoration and reuse of the trestle bridge;
 - the main Trail underpassing the trestle bridge;
 - the removal of the switchback ramp; and
 - the creation of the public plaza between West Avenue and the Creek.





The Pearl Brewery in San Antonio could serve as a precedent for the plaza designs. (Photo by Lake Flato Architects)



The Duncan Park Focus Area calls for implementation the Parks and Recreation Department's Duncan Park Improvement Project, as well as some of critical improvements from the 5th to 15th Preliminary Engineering Report.

4.2 DUNCAN PARK FOCUS AREA

Background

The Duncan Park Focus Area extends north of West 6th Street along Wood Street up to West 10th Street, which forms the northern boundary of Duncan Park. Duncan Park and the 9th Street BMX area are a key node along the Trail that connects the historic Wood Street Settlement, the Old West Austin Neighborhood, and, the North Lamar Boulevard commercial corridor. Duncan Park is classified by the City as a "neighborhood park", meaning that it is a smaller-sized park (5.1 acres) that is close enough to residents that they may access it by foot or bicycle. It has served the community for over 75 years with an open lawn, picnic tables and shade from its many mature live oak and pecan trees.

Since September 2016, the City of Austin Parks and Recreation Department has undertaken a planning process for improvements to Duncan Park. Some of the amenities proposed in the *Duncan Park Preliminary Plan* include a trailhead pavilion with restrooms at West 10th Street, new seating, a boardwalk, a picnic pavilion, as well as enhanced riparian habitat zones.

The parkland was purchased by the City in the early 1930s, and in 1974, it was named in honor of Waco businessman A. Baker Duncan, whose first wife made a charitable donation from Mr. Duncan's estate toward the park's improvement. Duncan Park was divided into its two halves with the extension of 9th Street to Lamar Boulevard around the same time. Prior to that, the southern portion had been a nature preserve, per the desire of the Duncan family.



The *Duncan Park Preliminary Plan* analyzed this City-owned park within the context of its downtown neighborhood. (Analysis by DWG)

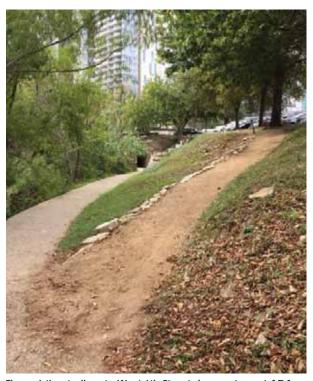


In the 1980s, Duncan Park expanded to include the preserve on the south side of West 9th Street. Today, it is known as the "9th Street BMX Park", which includes bicycle jumps and trails built by local riders as a grassroots initiative. The 9th Street Locals, an unincorporated non-profit organization, has "adopted" it as part of the Austin Parks Foundation Adopt-a-Park Sponsored Fund Account (SPA). Just across the Creek from the BMX Park is Deep Roots Garden, a community herb and food garden for neighborhood residents and non-profit partners that is sponsored by Whole Foods Market. Its vision is to "create a production and teaching garden on the banks of Shoal Creek." Harvested crops are shared among the garden's participants.

Planning efforts today include the Duncan Park Improvement Project, as well as the 5th to 15th Street Preliminary Engineering Report (PER), which proposes \$25 million of improvements in this area, including a widened main Trail, ADA improvements and a new low-water crossing at West 9th Street. Building off the Urban Trails Master Plan, the primary goal of the PER is to assess the feasibility of widening one mile of the Trail to 12 feet of paved path, along with associated streambank improvements, as well as ADA accessibility improvements, such as the trailheads at 9th Street and north of 6th Street (see photo below). Overall, the PER recommends that the Trail alignment remain the same, with added improvements and access points.



Deep Roots Garden is just off of the main Trail, south of Duncan Park and on the west side of Shoal Creek.



The existing trail up to West 6th Street does not meet ADA or Urban Trail standards, and poses maintenance issues.

Goals for the Duncan Park Focus Area

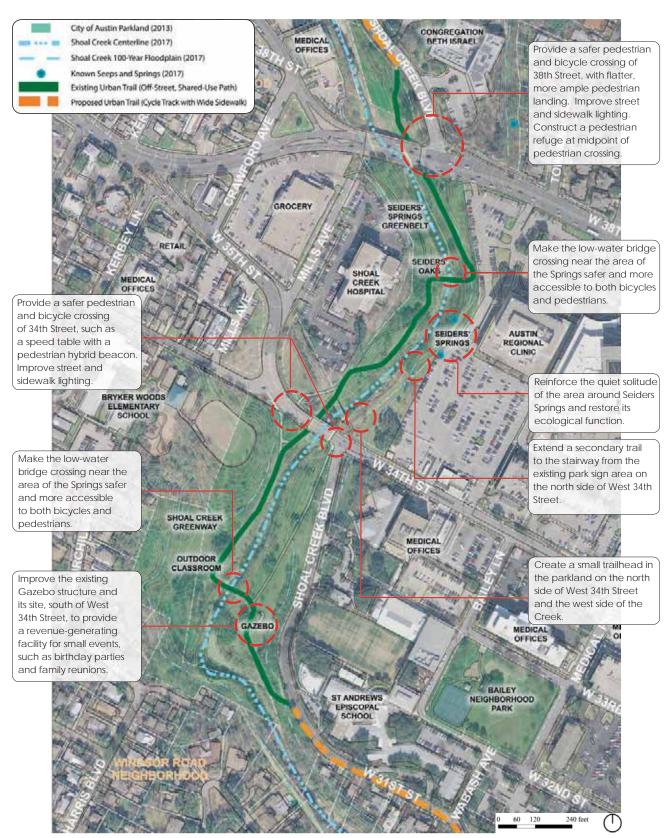
During the second set of Technical Advisory Group, Community Advisory Group and community workshops held in September 2017, the goals for this focus area were developed:

- Interpret the nearby, early Latino and African American settlements, such as the historic Wood Street settlement.
- Work with REI, Deep Roots Garden and Austin Community College Rio Grande to create an outdoor classroom space.
- Add rain gardens to intersections and/or along the Trail length, as possible.
- Locate a trailhead with signage at Duncan Park on West 9th Street, immediately adjacent to Shoal Creek.

- Make explicit, through interpretive signage, the historical connections of this area to Pease Park and to Wooldridge Square.
- Tell the story of how Duncan Park came to be a public park, and of A. Baker Duncan and his first wife, Mrs. Francis Nalle, its donors.
- Develop interpretive signage to highlight nature in this area, providing wildlife and plant identification.
- Consider the needs for native habitat preservation, filtration and erosion control when making Trail width decisions: ensure that existing and new trails be "right-sized", in terms of its specific environmental context.
- Ensure Duncan Park has both trail and street lighting, and that it is patrolled at night.



The Wood Street Settlement was located north of West 6th Street. Its remains (shown above) have since been removed. While these homes are now gone, a recently-dedicated Texas Historical Commission marker tells the story of this area.



The Seiders Springs Focus Area includes the Gazebo and Outdoor Classroom, as well as peaceful, ambling trails and bridges, in varying states of repair. The Focus Area calls for an improved primary Trail that accommodates all ages and abilities of wheeled and non-wheeled users, while respecting its sensitive environmental context.

4.3 SEIDERS SPRINGS FOCUS AREA

Background

Seiders Springs is part of the Shoal Creek
Greenway, extending from West 34th Street to
the existing trailhead at West 38th Street, near
Shoal Creek Boulevard. The Seiders Springs
Focus Area also includes the paths south of West
34th Street all the way to the southwest corner
of West 31st Street and North Lamar Boulevard,
where the Trail descends to the south toward Split
Rock Canyon. Seiders Springs provides several
idyllic pockets, including the informal, Outdoor
Classroom and the Gazebo, as well as the Springs
themselves. The significant springs can be found
within the rock walls on the west bank of the
Creek; one of them is nestled within a small grotto
that also features a statue of St. Francis.

Currently, this segment includes quiet, scenic trails that require improvements to become true Urban Trails that are accessible to all ages and abilities. The area includes several difficult creek

and roadway crossings, including the "Rock-Hop Bridge" south of West 34th Street, the low-water crossing north of West 34th Street, as well as the pedestrian crossings of both 34th and 38th streets.

Historically, Shoal Creek at Seiders Springs is where Austin's landscape "quickly changed from a border to wild", says interpretive planner, Ted Eubanks. Frontier families moved to Austin and settled along Shoal Creek's banks, like Gideon White, who built a log cabin at Seiders Springs. In 1842, White died after an encounter with a band of Native Americans. White's family continued to live by the Springs, and his daughter, Louisa Maria, married Edward Seiders. The couple lived at the family cabin by the Springs, which became known as Seiders Springs. The Seiders' maintained the land as a ranch while Austin grew in the second half of the 19th century. In 1865,





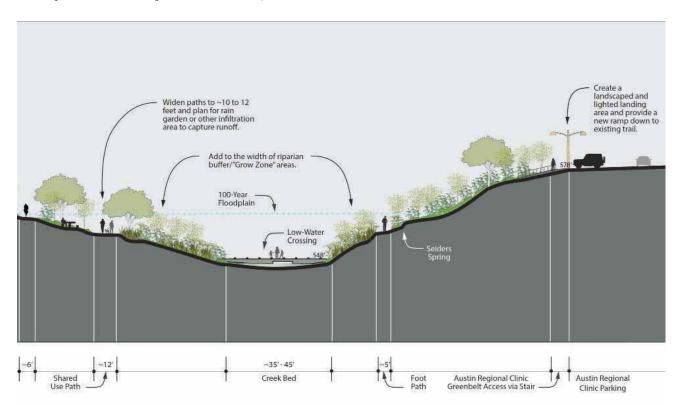
Seiders Springs currently features two challenging crossings: the "Rock-Hop Bridge" by the Gazebo, near the West 31st Street trailhead (left), and the low-water crossing near Seiders Springs and the Seton Medical Center/Austin Regional Clinic (right).



This bath house was one of the recreational amenities on offer in the late 1800s by the Seiders Family. (Photo courtesy of the Austin History Center, PICA 18489)

General Custer and his troops camped under the Seiders Springs' live oak trees. From the 1870s on, the area became popular for recreation, with the Seiders' building bath houses, picnic tables and a dance pavilion. According to the family, it was eventually sold in 1890 to a developer, whose building attempts proved unsuccessful, due to frequent flooding.

Today, Seiders Springs continues to be enjoyed as a tranquil place at the northern end of the existing Shoal Creek Trail. The area also continues provide important ecological functions that ought to be restored through riparian buffers and "Grow Zones" (see Appendix C.1: Sustainable Landscape Guidelines for more detail.)



The proposed cross-section would replace the low water-crossing with a safer bridge for both pedestrians and bicyclists, as well as a widened, shared-use path along the west bank of Shoal Creek.

Goals for the Seiders Springs Focus Area

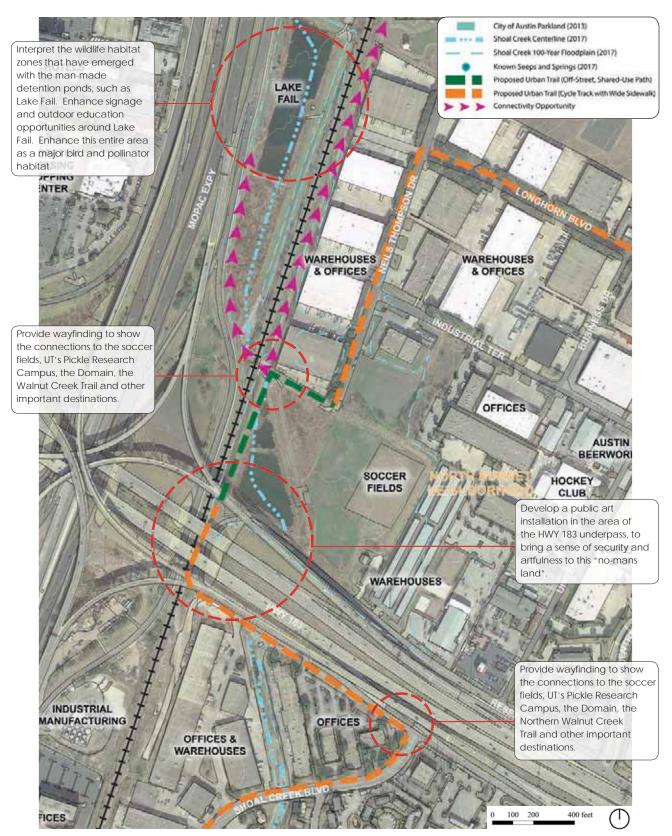
From the second set of TAG, CAG and community workshops held in September 2017, the goals for this focus area are:

- Improve the existing Gazebo structure and its site, south of West 34th Street, to provide a revenue-generating facility for small events, such as birthday parties and family reunions.
- Provide a safer pedestrian and bicycle crossing of 34th and 38th streets, such as a speed table with a pedestrian hybrid beacon. Improve street and sidewalk lighting at both intersections.
- Make the low-water bridge crossing near the area of the Springs safer and more accessible to both bicycles and pedestrians.
- Create a small trailhead in the parkland on the north side of West 34th Street on the west side of the Creek.
- Extend a secondary trail to the stairway from the existing park sign area on the north side of West 34th Street.
- Reinforce the quiet solitude of the area around Seiders Springs and restore its ecological function.





The east side of the Creek may be accessed from the Austin Regional Clinic and the Seton Medical Center by the stairway (left). Another opportunity is to improve this stairway and the difficult footpath connecting to the main Trail (right).



The Highway 183 and MoPac Focus Area includes Lake Fail to the north, as well as soccer fields and a detention pond, surrounded by highways and warehouses.

4.4 HIGHWAY 183 AND MOPAC FOCUS AREA

Background

This Focus Area encompasses the northern end of Shoal Creek Boulevard south of Highway 183 up to Lake Fail (a man-made water detention pond), University of Texas' Pickle Research Campus and the Arbor Walk Shopping Center. The Central Texas Regional Mobility Authority (CTRMA) is currently completing improvements to the MoPac corridor, which include creating a shared-use path from the northern end of Shoal Creek Boulevard under Highway 183 to connect to the scenic stormwater detention pond and adjacent soccer fields. These improvements will allow bicycles and pedestrians to move northward to the Pickle Research Campus, the Domain and ultimately to the City's Walnut Creek Trail.



The area features a wide variety flora and fauna thriving in the wetland conditions. One example is pickerel, which is found in shallow waters. (Photo courtesy of Ted Eubanks)



There is currently a narrow footpath located where the new section of the Trail will soon be built by the Central Texas Regional Mobility Authority (CTRMA).



Neils Thompson Drive and Longhorn Boulevard feature large, shady oak trees that are ideal for the proposed Trail.

Several route options were considered during the planning process; however, the Plan recommends that the main Trail follow Neils Thompson Drive and Longhorn Boulevard to reach the proposed protected bicycle lanes and sidewalks along Burnet Road, then across Braker Lane to the Capital Metro Red Line Trail and to the northern end of the Walnut Creek Trail. This way, the route makes use of several projects currently in development. The other option considered in this Focus Area was to cross under the Union Pacific Railroad to MoPac, and connect to the Urban Trail on the northwest side of Loop 1 north of Braker Lane.



The expansive rainwater detention ponds in the area have created a scenic, wildlife habitat.

The two man-made water detention ponds in the area constitute part of the headwaters of Shoal Creek. As observed by Ted Eubanks, both ponds create "vibrant wetlands crowded with dragonflies, damselflies, frogs, turtles and the like". Beyond their specific purpose of stormwater management, these ponds also support a variety of life and activity, including soccer fields, fishing and biking, as well as a diversity of flora and fauna. Being surrounded by a major highway interchange may create a connectivity challenge, but it also adds an element of built grandeur to the landscape. Given that the area around Lake Fail is such a success already, it may need renaming.

Goals for the Highway 183 and MoPac Focus Area

- Interpret the wildlife habitat zones that have emerged with the man-made detention ponds, such as Lake Fail. Enhance signage and outdoor educational opportunities around Lake Fail. Enhance this entire area as a major bird and pollinator habitat.
- Provide wayfinding to show the connections to the soccer fields, UT's Pickle Research Campus, the Domain, the Walnut Creek Trail and other important destinations.
- Collaborate with property owners and the North Shoal Creek Neighborhood to secure an easement for a trail along the west bank of Shoal Creek, between Steck Avenue and Anderson Lane.



Public art beneath the Highway 183 underpass could guide and welcome Trail-goers to the area, like this public art installation along the northern Museum Reach of the San Antonio Riverwalk.



PHASING AND IMPLEMENTATION



The total cost of implementing the *Shoal Creek Trail: Vision to Action Plan* is estimated at \$66 million, or approximately \$5 million per mile. This sum may seem daunting, but there are several major projects either in planning or already underway that will bring dollars to the Trail, and these can be leveraged to reduce the cost of implementing the Plan. However, there is no single funding source so far identified to enable the "Vision" to come to "Action" immediately. Therefore, the third and last series of stakeholder and community workshops focused on the question: which projects should be prioritized, and by what criteria?

5.1 PRIORITIZATION OF IMPROVEMENTS

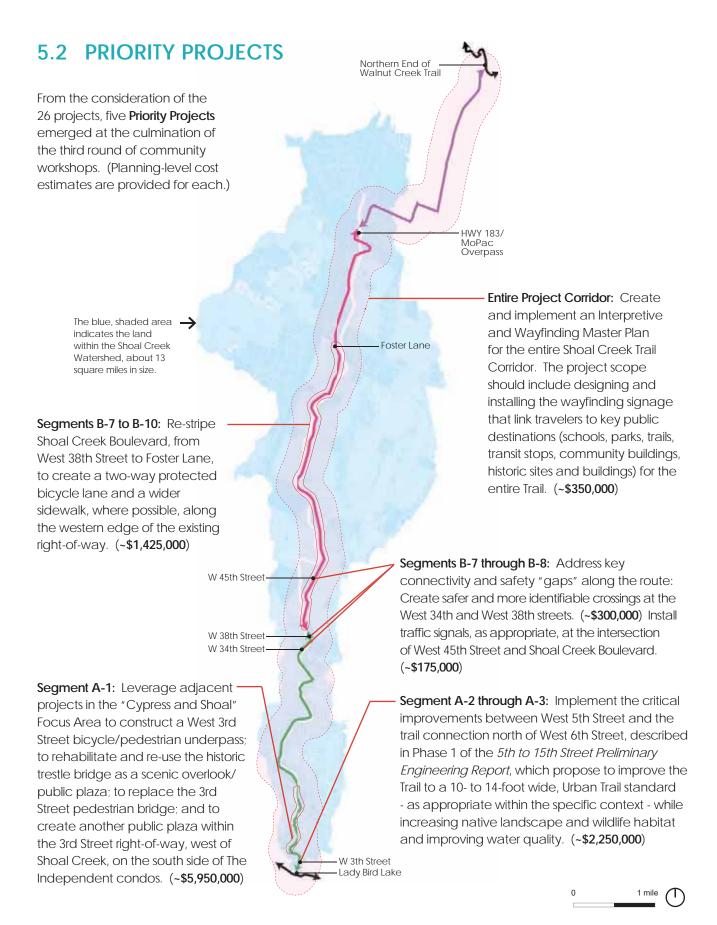
As part of the selection of the four Focus Area projects, four types of priorities emerged. It was determined that Priority Projects would:

- address or close a significant gap in the overall Trail system ("Gap-Closing");
- leverage funding from a nearby public or private project that is or will soon be underway ("Leveraging");
- create a "big bang for a few bucks" ("Small Bucks"); and/or
- connect Trail users not only to daily destinations - but to one another, to nature and to their shared history and culture ("Connectivity").

After agreeing on these four Priority Project types, the Technical Advisory Group, the Community Advisory Group and members of the community provided input on what should be implemented first. The final polling was done as the main activity during the last community workshop in November 2017. Each participant was allocated 10 "sticker dots" to affix on one or more of the 26 individual projects mapped on the large-format Corridor maps, shown below. These projects were identified on three, large-format, Segment "A", "B" and "C" maps.



Community members express preferences on which projects should have the highest priority for implementation during the third community workshop in November 2017.



5.3 LIST OF IMPROVEMENT PROJECTS

In all, 26 projects are recommended in the Plan. The following describes each, by sub-segment:

Segment A-1 "Lower Shoal Creek"

- 1. Small Bucks/Connectivity: Develop an overall Interpretive and Wayfinding Master Plan to link people of all cultures to the history and place of Shoal Creek. Construct a new trailhead "plaza" at Lady Bird Lake that could convey both the environmental and human history of Shoal Creek, including the stories of the Native American, Anglo, African-American and Hispanic settlements.
- 2. Leveraging: Construct a 3rd Street bicycle and pedestrian underpass and eliminate the existing, switchback ramps west of Shoal Creek in the 3rd Street right-of-way, south of The Independent condominiums. This will create a safer and more direct line of travel for Creek-side Trail users, as well as those wishing to access West 3rd Street, Downtown and the Seaholm District. This project would also free up public space that could become a public plaza within the 3rd Street right-of-way. In addition, restore and reuse the historic 3rd Street railroad trestle bridge as a scenic and historic overlook and plaza that tells the story of Austin's railroad history and Austin's expansion westward.
- 3. Gap-Closing: Construct a more visible and generous access to the street level at 5th Street, and develop an interpretive space here. This could take the form of a small, street level landing or plaza that could include weather protection, seating, wayfinding and lighting at this important Capital Metro bus stop. (This project is planned as part of the City's *Downtown Wayfinding Master Plan.*)

Segment A-2 "Duncan Park"

4. **Gap-Closing:** Construct a new trail where a narrow, dirt path exists north of West 6th Street on the west side of Shoal Creek. Stabilize and re-vegetate this streambank. Construct a new, stone retaining wall to replace the existing wood pile walls between 5th and 6th streets, and connect the Trail to the 6th Street Historic Bridge

- Restoration Project. (This project was planned as part of the 5th to15th Preliminary Engineering Report and the 1887 West Sixth Street Bridge at Shoal Creek Restoration Study.)
- 5. Leveraging: Improve the trails between 9th and 10th streets as part of the City's Duncan Park Improvement Project. Install under-bridge lighting; construct a new trailhead with public restrooms; and remove the dead-end Trail along the east shore of Shoal Creek, just north of 10th Street. Tell the history of Duncan Park and the development of the Old West Austin Neighborhood. (This project is part of the Duncan Park Master Plan for sponsored by the City of Austin Parks and Recreation Department as well as part of the 5th to 15th Preliminary Engineering Report.)

Segment A-3 "House Park"

6. Connectivity: Widen the sidewalk, plant street trees and construct a low, stone wall barrier along the Creek-side of Shoal Creek Boulevard, from West 12th Street to North Lamar Boulevard. (This project is planned in the *5th to 15th Preliminary Engineering Report.*)

Segment A-4 "Pease Park"

7. Leveraging/Connectivity: Construct a safer pedestrian crossing of North Lamar Boulevard at MLK, Jr. Boulevard that lands at the new entry to Pease Park, connecting the West Campus and Judges Hill neighborhoods. Construct a new pedestrian bridge in line with MLK, Jr. Boulevard to access Pease Park from the North Lamar Boulevard edge. (This project is planned in the Pease Park Master Plan.)

Segment A-5 "Split Rock Canyon"

8. Small Bucks: Widen the existing sidewalk along the west edge of North Lamar Boulevard to become an Urban Trail, from 15th Street to 31st Street. This is needed because the main, Creek-side Trail - while scenic - is also too narrow and rugged to accommodate bicycle traffic. (A similar project is planned in the *Pease Park Master Plan.*)

Segment A-6 "Seiders Springs"

- 9. Gap-Closing/Connectivity: Restripe West 31st Street west of Lamar Boulevard to create an Urban Trail within the existing roadway. Provide wayfinding information at the intersection of Lamar and 31st at this critical but difficult to discern juncture, where the Trail takes an abrupt, 90-degree turn to the west.
- **10. Small Bucks:** Restore the existing, dilapidated "Gazebo" to serve for small, revenue-generating events, such as birthday parties, outdoor classrooms, cook-outs, and club meetings. This 1970s-era wooden structure is located south of 34th Street and adjacent to the "Rock-Hop Bridge" and the "Outdoor Classroom" on the west side of the Creek.
- 11. Gap-Closing/Connectivity: Construct a new, low-water bicycle and pedestrian bridge to replace the existing "Rock-Hop Bridge", thus allowing a transition from the east side of Shoal Creek to its west side for all modes and ages. This would allow all Trail users to cross under the West 34th Street bridge on the west side of the Creek, which is much safer than the surface, street crossings. Make the west bank the main Trail alignment, as it links to this safe underpass and creates a more visible trailhead next to the



Replacing the "Rock-Hop Bridge" in Seiders Springs would create a more accessible transition from east side of Shoal Creek to the west. (See Project #11 described above.)

- West 34th Street bridge on the west side of the Creek, placing the park entrance sign here, as well, to reinforce this as the main Trail. If the "Rock-Hop Bridge" is replaced, consider removing the existing bridge on the north side of West 34th Street, as it would be redundant with this new one, and because it obstructs the stream flow and diminishes the scenic and habitat value of this segment of the Creek. (See photo below.)
- **12. Small Bucks:** Improve the two pedestrian crossings of West 34th Street on each side of the Creek with better lighting, a pedestrian hybrid beacon and speed tables.
- **13. Gap-Closing:** Construct a new bicycle and pedestrian bridge to replace the existing, low-water crossing north of 34th Street in the Seiders Springs segment, which is unsafe for both bicyclists and pedestrians.
- 14. Gap-Closing: Construct a safer and flatter landing zone for the main Trail to surface to street-level at West 38th Street, and provide pedestrian-level lighting and wayfinding signage so Trail users may more easily connect to the northern segment of the Shoal Creek Trail system. Construct a pedestrian refuge space (raised median) in the middle of the pedestrian crossing of this busy intersection of West 38th Street and Shoal Creek Boulevard.

Segment B-7 "The Grove"

- 15. Small Bucks/Connectivity: Create a safer and clearly-signed transition from the main Trail, just north of 38th Street to the planned, two-way protected bicycle lane on the west side of Shoal Creek Boulevard. Provide Shoal Creek Greenway park signage and information at this junction.
- **16. Gap-Closing:** Install traffic signals to replace the four-way stop signs at the intersection of West 45th Street and Shoal Creek Boulevard to improve both the safety and the flow of all modes of traffic. Traffic will likely increase substantially with the development of the nearby Grove PUD (Planned Unit Development).

17. Small Bucks/Connectivity: Stripe Shoal Creek Boulevard for a two-way protected bicycle lane and a wider sidewalk on the west side of the existing roadway, from 38th Street to 45th Street, conserving the existing curbs and preserving existing trees. (This project is planned in the City's Bicycle Master Plan and is proposed for funding through the 2018 Local Mobility Annual Plan, the LMAP.)

Segments B-8 "Rosedale and Allandale Neighborhoods"

- **18. Small Bucks/Connectivity:** Extend a new, offstreet shared-use path to pass under the Allandale Road bridge at its intersection with Shoal Creek Boulevard, on the east side of the Creek. This will allow for a safer and quicker passage of Trail users below this busy and wide intersection.
- 19. Small Bucks/Connectivity: Stripe Shoal Creek Boulevard for a two-way, protected bicycle lane and a widened sidewalk on the west side of the existing roadway, from 45th Street to 2222/ Allandale Road, conserving the existing curbs and preserving existing trees. (This project is planned in the City's Bicycle Master Plan and is proposed for funding through the 2018 Local Mobility Annual Plan, the LMAP.)

Segment B-9 "Northwest District Park"

20. Small Bucks/Connectivity: Stripe Shoal Creek Boulevard for a two-way, protected bicycle lane and a widened sidewalk on the west side of the existing roadway, from Allandale Road to Foster Lane, conserving the existing curbs and preserving existing trees. (This project is planned in the City's *Bicycle Master Plan* and is proposed for funding through the *2018 Local Mobility Annual Plan*, the LMAP.)

Segment B-10 "North Shoal Creek Neighborhood"

21. Small Bucks/Connectivity: Narrow Shoal Creek Boulevard to three travel lanes, and restripe the road to provide a buffered,16-foot wide, shared-use path on the west side of the roadway, consisting of a six-foot side sidewalk next to a 10-foot, two-way protected bicycle lane, buffered by an eight-foot wide rain garden - from Foster Lane to Highway 183. (This project is planned in the City's *Bicycle Master Plan* and is proposed for funding through the 2018 Local Mobility Annual Plan, the LMAP.)

Segment C-11 "Highway 183 and MoPac Underpass"

22. Leveraging/Gap-Closing: Enhance the soon-to-be-constructed under-crossing of Highway 183 adjacent to the Union Pacific Railroad tracks to provide for better wayfinding, signage, Trail lighting and public art, in what is currently considered an insecure and dangerous zone, as there are no inhabited spaces or buildings nearby. (Only the shared-use path section of this project is planned as part of CTRMA's MoPac Improvement Project: it will be constructed by the end of 2018.) (See photo below.)



A shared-use path will replace the existing footpath along the water detention pond that ends under Highway 183. (See project #22 described above.)

23. Connectivity/Gap-Closing: If feasible, improve the existing pedestrian underpass of the Union Pacific Railroad to allow for a safe way to transition to the existing MoPac frontage road sidewalk. Widen this public sidewalk to become a shared-use path/Urban Trail. This path continues north along the Arbor Walk Shopping Center and connects to the Braker Lane bridge crossing of MoPac, allowing a connection to the recently-completed, off-street shared-use path/ Urban Trail that reaches north to intersect with the Walnut Creek Trail on the west side of MoPac. (Note: Because this route was deemed to be both less desirable and less feasible than the main Trail alternative that heads to Burnet Road from Lake Fail, via quiet, surface streets, this segment has not been included as part of the primary Trail, and is not included in the Phasing and Funding Strategy spreadsheet in Appendix D.1. However, it is an important "connectivity opportunity", and is noted as such on the overall Plan map.) (See photo below.)

Segment C-12 "Pickle Research Campus"

24. Small Bucks/Connectivity: Re-stripe the existing, wide and shady roadways of Neils Thompson Drive and Longhorn Boulevard that connect users to facilities on Burnet Road, to create a two-way protected bicycle lane on the west side of Neils Thompson Drive and on the north side of Longhorn Boulevard. Consider providing alternating on-street parallel parking with rain gardens, as there is ample roadway width to do so. In addition, construct an offstreet, shared-use path on the west side of Burnet Road, from its intersection with Longhorn Boulevard to Braker Lane along the frontage of the Pickle Research Campus. (The shared-use path along Burnet Road is planned as part of a first phase of the City's Corridor Construction Program for Burnet Road, and is part of the 2018 Local Mobility Annual Plan, the LMAP.)

Segment C-13 "Braker Lane"

25. Connectivity: Currently there are only narrow, unprotected bicycle lanes on the busy, six-lane Braker Lane roadway. Construct an off-street, shared-use path/Urban Trail on the south side of Braker Lane, from MoPac to Kramer Lane. This Urban Trail will then connect directly to the planned, off-street shared-use path on the eastern edge of the Pickle Research Campus, as well as to the funded "Red Line Trail" along Capital Metro's Red Line. In addition, if the current Kramer Lane MetroRail station is relocated to the south side of Braker Lane - as is being considered - this new Braker Lane Urban Trail segment would access it directly.

Segment C-14 "The Red Line Trail"

26. Connectivity: Construct the Red Line Trail as a 14-foot wide, off-street, shared-use path/ Urban Trail along Capital Metro's Red Line, from Braker Lane, extending northward to terminate at its intersection with the Walnut Creek Trail. (This project is planned in Capital Metro's Rails with Trails Study, and it will be implemented through allocations from the City of Austin's 2016 Mobility Bond funding.)



The existing Union Pacific Railroad underpass could be improved to connect the main Trail to Lake Fail, on the west side of the existing railroad tracks. (See project #23 described above.)

5.4 PHASING STRATEGY

Taken together, the five Priority Projects alone total just over \$10.4 million, so a four-phase project is proposed, as described in the "Detailed Phasing and Funding Strategy by Sub-Segment" table in Appendix D.1. This table describes existing conditions for each project, a general project scope or description, a "rough, order-of-magnitude" or "ROM" cost estimate, as well as possible funding sources and project partners.

In several cases the City of Austin and other agencies have already appropriated funding for specific projects, as noted. The table includes a column called "Committed Funding", which highlights funding that has already been appropriated from other sources, such as the Red Line Trail, for which \$5 million dollars has been committed by the City of Austin.

A \$18.0 MILLION PHASE 1 PROJECT, FOR WHICH THERE IS \$7.4 MILLION ALREADY COMMITTED, WOULD FUND:

- the development and implementation of the Interpretive and Wayfinding Master Plan;
- the two-way, protected bicycle lane and a widened sidewalk, where possible, on the west side of Shoal Creek Boulevard, from West 38th Street to Foster Lane;
- pedestrian crossing improvements at West 34th Street and 38th Street bridges and traffic signals/controls at the intersection of Shoal Creek Boulevard and West 45th Street;
- the critical improvements between West 5th Street and the trail connection north of West 6th Street, described in Phase 1 of the 5th to 15th Street Preliminary Engineering Report, which propose to improve the Trail to a 10- to 14-foot wide, Urban Trail.
- the 3rd Street historic railroad trestle bridge refurbishment, with an expanded plaza/ terrace across the Creek in the 3rd Street right-of-way, a replacement pedestrian bridge, and a Creek-side Trail underpassing with streambank stabilization and ecological restoration; and

Phase 1 has \$7.4 million of funding already committed for five additional Priority Projects, which are:

- pedestrian improvements to the Cypress and Shoal Focus Area (\$300,000);
- The Grove at Shoal Creek's main trail along the Creek, funded by its developer, Milestone Community Builders (\$340,000);
- the Central Texas Regional Mobility Authorityfunded shared-use path underpassing Highway 183 (\$1.5 million, with an additional \$150,000 still needed for improvements);
- a shared-use path along the west side of Burnet Road in front of the UT Pickle Research Campus, up to Braker Lane, funded by the 2016 Mobility Bond (\$300,000); and
- a shared-use path, named the Red Line Trail, along the Capital Metro Red Line that terminates at the Walnut Creek Trail, with funds allocated by the 2016 Mobility Bond with completion set for 2022 (\$5 million).

A \$11.2 MILLION PHASE 2, FOR WHICH THERE IS \$122,000 ALREADY COMMITTED, WOULD FUND:

- the design and construction of better street level access at West 5th Street with a small plaza and historic interpretation of the 5th Street bridge;
- implementation of the 1887 West Sixth Street Bridge Restoration Plan, including street and Creek-level placemaking improvements such as lighting, landscaping and a new, formalized trail connection (with ~\$122,000 already committed to planning and design);
- main Trail improvements through Pease Park designed to Urban Trail standards, per the Pease Park Master Plan;
- off-street, shared-use path along the west side of North Lamar Boulevard, from West 15th Street to West 31st Street:
- widening the main Trail between West 31st Street and West 38th Street to Urban Trail standards:

- the design and construction of two, new bridges to replace existing low-water crossings in the Seiders Springs Segment; and
- a two-way, protected bicycle lane and widened sidewalk on the west side Shoal Creek Boulevard from Foster Lane to Highway 183.

A \$20.9 MILLION PHASE 3, FOR WHICH THERE IS \$750,000 ALREADY COMMITTED, WOULD FUND:

- a new pedestrian bridge crossing Shoal Creek where West 7th Street terminates into the Cirrus Logic-owned property connected to Shoal Creek (see photo below);
- the design, engineering and construction of the remaining 5th to 15th Street Preliminary Engineering Report Phase One improvements that have not already been implemented;
- improvements to West 31st Street, from North Lamar Boulevard to the Shoal Creek Greenway;
- restoration of the existing, wood Gazebo for small, revenue-generating events, such as birthday parties, outdoor classrooms, cookouts, club meetings, etc.;



One recommended Phase 3 project is to create a pedestrian bridge across Shoal Creek to West Avenue through the Cirrus Logic-owned open space between 7th and 8th streets.

- a pedestrian bridge to connect Shoal Creek Boulevard to the trails in The Grove (with ~\$750,000 already committed by the developer);
- a new, main Trail underpassing the Allandale Road bridge; and
- improvements to Shoal Creek Boulevard from Foster Lane to Highway 183 to create a wide, shared-use path comprised of a twoway bicycle lane and sidewalk along the west side of the street and buffered from the roadway by rain gardens.

A \$16.1 MILLION PHASE 4, FOR WHICH THERE NOTHING COMMITTED YET, WOULD FUND:

- the design, engineering and construction of the 5th to 15th Street Preliminary Engineering Report Phase Two improvements that have not already been implemented;
- intersection and pedestrian crossing improvements to North Lamar Boulevard and MLK, Jr. Boulevard, including a new pedestrian bridge over Shoal Creek connecting to Pease Park;
- a two-way, protected bicycle lane (and intermittent, adjacent rain gardens) on the west side of Neils Thompson Drive and on the north side of Longhorn Boulevard, to connect to Burnet Road from the Highway 183 and MoPac Underpass segment of the Trail; and
- a shared-use path along the south edge of Braker Lane, which would at minimum connect Burnet Road to the Capital Metro Red Line right-of-way, and include a signalized pedestrian crossing with refuge in the median of Braker Lane that connects to the new Red Line Trail

Phase	Projects Included	Estimated Cost
1	 Shoal Creek Boulevard improvements from 38th Street to Foster Lane (Segments B-7 to B-9) Interpretive and Wayfinding Master Plan (Entire Corridor) 3rd (Cypress) Street: Trail underpass, railroad trestle refurbishment, pedestrian bridge replacement and expanded plazas (Segment A-1) Pedestrian crossings at 34th and 38th streets and a traffic signal at 45th Street and Shoal Creek Boulevard (Segments A-6 and B-7) Critical Phase 1 improvements of 5th to 15th Street Preliminary Engineering Report, between West 5th Street and the trail connection north of West 6th Street (Segments A-2 and A-3) The Grove trail (Segment B-7) CTRMA's MoPac underpassing (Segment C-10) Burnet Road improvements (Segment C-12) Red Line Trail (Segment C-14) 	\$ 18.0 million
2	 5th Street Creek/street access and historic bridge interpretation (Segment A-1) West 6th Street Bridge restoration (Segment A-2) Pease Park Trail improvements (Segments A-4 and A-5) North Lamar Boulevard improvements (Segments A-4 and A-5) Seiders Springs Trail improvements and new bridges (Segment A-6) Shoal Creek Boulevard protected bicycle lane and sidewalk improvements north of Foster Lane (Segment B-10) 	\$ 11.2 million
3	 7th Street pedestrian bridge (Segment A-2) Remaining Phase 1 improvements of the 5th to 15th Street Preliminary Engineering Report (Segments A-2 and A-3) West 31st Street improvements (Segment A-6) Seiders Springs Gazebo restoration (Segment A-6) Pedestrian bridge to The Grove at Shoal Creek Trail (Segment B-7) Allandale Road underpass (Segment B-9) Shoal Creek Boulevard shared-use path and rain garden improvements from Foster Lane to Highway 183 (Segment B-10) 	\$ 20.9 million
4	 Remaining Phase 2 improvements of 5th to 15th Street Preliminary Engineering Report (Segments A-2 and A-3) Lamar Boulevard crossing at MLK Jr. Boulevard and new bridge to Pease Park (Segment A-4) Neils Thompson Drive and Longhorn Boulevard improvements (Segment C-12) Braker Lane improvements, including street crossing (Segment C-13) 	\$ 16.1 million

For a more detailed listing of projects and their costs, see Appendix D.1: Detailed Phasing and Funding Strategy by Sub-Segment. (Note: the above costs include a 20% contingency.)

\$ 66 million

5.5 ADOPTING AND IMPLEMENTING THE PLAN

It is anticipated that, after a public review process, the *Shoal Creek Trail: Vision to Action Plan* will be accepted as a guiding document by the City's Public Works Department, and later, adopted by the Austin City Council as part of the next update of the *Urban Trails Master Plan*. The acceptance by Public Woks will support the implementation of the Phase One projects. Next steps will include gathering further public and stakeholder input on each component project of the Plan: its design and engineering; its implementation; and its operation and maintenance.

Implementation of the *Vision to Action Plan* will also require studies by and coordination with the City's Watershed Protection Department to ensure that there will be no adverse impacts from flooding. *Due to the history of flooding within the Shoal Creek Watershed, it is essential that projects recommended as part of this Plan receive thorough study of their potential effects to the floodplain.*

As the design and construction of the individual projects of the Plan are funded, project implementers should consult the *Vision to Action Plan* to better understand:

- the existing policies, plans and projects that may influence the design of a specific project (see Appendix A.4);
- the concerns, preferences and priorities of the community and stakeholders about the overall Plan and its Focus Areas (see Section 4, "The Focus Areas");
- the Shoal Creek Interpretive Guidelines (see Appendix C.1);
- the Sustainable Landscape Guidelines (see Appendix C.2); and
- the challenges of defining, designing, engineering, constructing, maintaining and evaluating projects in a way that faithfully integrates the six Guiding Principles and their goals.

The six Guiding Principles and their goals should be used as a checklist for project designers and implementers to ensure that the "Vision" becomes "Action" - with integrity and clarity of purpose. To that end, the Shoal Creek Conservancy and the City of Austin will continue their partnership as guardians, implementers and sustainers of the Shoal Creek Trail: Vision to Action Plan.



Community members listen to Project team members talk about the importance of upholding the Plan's six Guiding Principles during a Trail walk during the Central Library grand opening in October 2017.

The City of Austin's Public Project Process

The City of Austin's Public Works Department (PWD) and the Austin Transportation Department (ATD), which implement Urban Trail and active transportation projects, will be responsible for shepherding specific projects from the conceptual level presented in this Plan through to implementation. Working in partnership with the Parks and Recreation Department and the Watershed Protection Department, the Shoal Creek Trail will be realized.

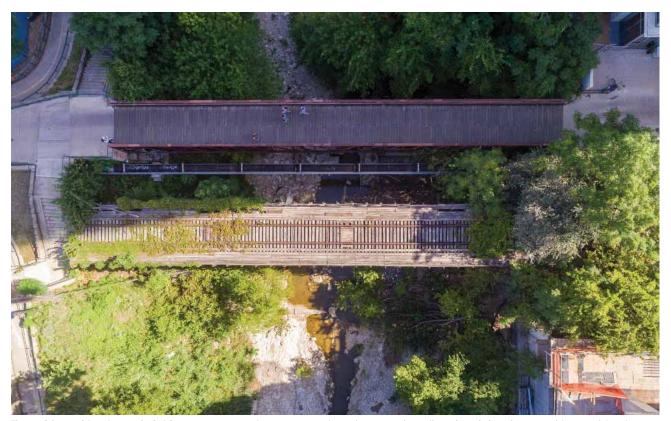
As an example, one high Priority Project in the Plan is to create a safe, "all ages and all abilities" Trail in the form of a two-way, protected bicycle lane and a wider sidewalk on Shoal Creek Boulevard between West 38th Street and Foster Lane. In order to determine the final design of the Trail, both PWD and ATD will conduct several technical analyses to understand traffic flows, intersection issues, crash data, curbside parking, roadway conditions, drainage, flooding potential and bridge under-crossing issues. This information will be shared with the public, and applied to further

analyze options for the overall roadway design. The community will have an opportunity to provide input during this process and to express both concerns and preferences.

The City of Austin and the Shoal Creek Conservancy will continue to work as partners during this process, ensuring high levels of public outreach and communication. For Shoal Creek Boulevard improvements, it is anticipated that a public dialog will begin later this year (2018), once the technical studies are complete. It is also anticipated that the Technical Advisory Group and the Community Advisory Group, established as part of the Shoal Creek Trail: Vision to Action Plan, will continue to provide input throughout the more detailed planning and design process of each individual project. In addition, members of the Technical Advisory Group are committed to monitoring the outcomes of the Shoal Creek Boulevard project, in terms of environmental improvements, transportation mode shifts, public health improvements, maintenance costs and lessons learned.



Technical Advisory Group and project team members explore ways in which the Trail could pass under the Allandale Road bridge through Shoal Creek Greenbelt parkland.



The 3rd Street historic trestle bridge presents a unique opportunity to interpret the railroad and development history of Austin. (Photo: Patrick Wong, 2017)

"A recreational trail without interpretation, without the invitation to pause, is a road. Shoal Creek lends itself to being far more than a transportation Corridor, a thoroughfare dedicated to moving bikers, hikers, joggers, and dogs at the fastest clip. Narrative-based planning allows the trail to speak to its users, inviting them to pause and to consider the truths that lie behind the roadway facade."

- Ted Eubanks, from the *Shoal Creek Interpretive Guidelines* (Fermata, 2017)



APPENDICES

(to be made available online at www.shoalcreekconservancy.org/trailplan)

A. PUBLIC OUTREACH AND STAKEHOLDER ENGAGEMENT

- A.1 Public Outreach and Engagement Strategies (5.2017 12.2017)
- A.2 CAG and TAG Membership
- **A.3** Public Comments Summary Tables
- A.4 Summary Presentation #1: Technical Advisory Group, Community Advisory Group and Community Workshop (6.7.2017 6.21.2017)
- A.5 Summary Presentation #2: Technical Advisory Group, Community Advisory Group and Community Workshop (8.30.2017 9.13.2017)
- A.6 Summary Presentation #3: Technical Advisory Group, Community Advisory Group and Community Workshop (11.1.2017 11.15.2017)
- A.7 Community Advisory Group Meeting #1: Comments (6.14.2017)
- **A.8** Community Advisory Group Meeting #2: Comments (9.6.2017)
- A.9 Community Advisory Group Meeting #3: Comments (11.8.2017)
- **A.10** Community Workshop #1 Guiding Principles Boards (6.21.2017)
- **A.11** Community Workshop #2 Focus Area Goals Boards (9.13.2017)
- **A.12** Community Workshop #3 Priority Projects Posters (11.15.2017)
- A.13 Public Review Process Comments (6.2018 9.2018)

B. PUBLIC HEALTH RESEARCH

B.1 Community Health Survey Summary and Results (Austin Public Health, 2018)

C. GUIDELINES

- C.1 Shoal Creek Interpretive Guidelines (Fermata, Inc., 2017)
- C.2 Sustainable Landscape Guidelines (Siglo Group, 2017)

D. PHASING AND FUNDING

D.1 Detailed Phasing and Funding Strategy by Sub-Segment