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NPS Form 10-900 OMB No. 1024-0018

United States Department of the Interior
National Park Service
National Register of Historic Places Registration Form

1. Name of Property

Historic Name: West Fifth Street Bridge at Shoal Creek
Other name/site number: National Bridge Inventory (NBI) 142270B00015001
Name of related multiple property listing: NA

2. Location

Street & number: West Fifth Street at Shoal Creek
City or town: Austin State: Texas County: Travis
Not for publication: ☐ Vicinity: ☐

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this ☐ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☐ meets ☐ does not meet the National Register criteria.

I recommend that this property be considered significant at the following levels of significance:
☐ national ☐ statewide ☐ local

Applicable National Register Criteria: ☐ A ☐ B ☐ C ☐ D

State Historic Preservation Officer
Signature of certifying official / Title **Date**

Texas Historical Commission
State or Federal agency / bureau or Tribal Government

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria.

Signature of commenting or other official **Date**

State or Federal agency / bureau or Tribal Government

4. National Park Service Certification

I hereby certify that the property is:

___ entered in the National Register
___ determined eligible for the National Register
___ determined not eligible for the National Register.
___ removed from the National Register
___ other, explain: _____

Signature of the Keeper **Date of Action**

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5. Classification

Ownership of Property

	Private
X	Public - Local
	Public - State
	Public - Federal

Category of Property

	building(s)
	district
	site
X	structure
	object

Number of Resources within Property

Contributing	Noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	total

Number of contributing resources previously listed in the National Register: 0

6. Function or Use

Historic Functions: Transportation: Road-related=bridge

Current Functions: Transportation: Road-related=bridge

7. Description

Architectural Classification: Other: cantilever concrete girder bridge

Principal Exterior Materials: Concrete

Narrative Description (see continuation sheets 7-6 through 7-7)

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8. Statement of Significance

Applicable National Register Criteria

X	A	Property is associated with events that have made a significant contribution to the broad patterns of our history.
	B	Property is associated with the lives of persons significant in our past.
X	C	Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
	D	Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations: NA

Areas of Significance: Community Planning and Development; Engineering

Period of Significance: 1931

Significant Dates: 1931

Significant Person (only if criterion b is marked): NA

Cultural Affiliation (only if criterion d is marked): NA

Architect/Builder: Helland, Hans R. F. (City of Austin engineer); Johnson, John F. (contractor)

Narrative Statement of Significance (see continuation sheets 8-8 through 8-15)

9. Major Bibliographic References

Bibliography (see continuation sheet 9-16 through 9-17)

Previous documentation on file (NPS):
- _ preliminary determination of individual listing (36 CFR 67) has been requested.
- _ previously listed in the National Register
- _ previously determined eligible by the National Register
- _ designated a National Historic Landmark
- _ recorded by Historic American Buildings Survey #
- _ recorded by Historic American Engineering Record #

Primary location of additional data:
- x State historic preservation office (*Texas Historical Commission*, Austin)
- x Other state agency (Texas Department of Transportation)
- _ Federal agency
- _ Local government
- _ University
- _ Other -- Specify Repository:

Historic Resources Survey Number (if assigned): NA

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10. Geographical Data

Acreage of Property: less than one acre

Coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84: NA

1. Latitude: 30.269578° N Longitude: -97.752363° W

Verbal Boundary Description: The nominated parcel includes the entire bridge structure at West Fifth Street and Shoal Creek in Austin, Texas. The bridge is 112 feet long and 52.5 feet wide.

Boundary Justification: The boundary includes all components historically associated with the structure.

11. Form Prepared By

Name/title: Rebekah Dobrasko
Organization: Shoal Creek Conservancy
Street & number: 701 7th Street
City or Town: Austin State: Texas Zip Code: 78701
Email: rdobrasko@hotmail.com
Telephone: (512) 474-2412
Date: June 12, 2019

Additional Documentation

Maps (see continuation sheet MAP-18 through MAP-19)

Additional items (see continuation sheets FIGURE-20 through FIGURE-24)

Photographs (see continuation sheets PHOTO-25 through PHOTO-29)

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Photograph Log

West Fifth Street Bridge at Shoal Creek
Austin, Travis County, Texas
Photographed by Bonnie Tipton Wilson, June 28, 2019 and Rebekah Dobrasko, October 2018

Photo 1: View of roadway deck over W. 5th Street. View southeast.

Photo 2: South side of bridge. View northeast.

Photo 3: Concrete girders under bridge showing imprint of wooden forms built for construction South side. View northeast.

Photo 4: Partial view of north side of bridge. View south.

Photo 5: Detail, north side of bridge. View south.

Photo 6: Detail of bridge railing. View north.

Photo 7: Detail of bridge plaque located on northeast corner of bridge. View north.

Photo 8: Staircase cut into bridge to access Shoal Creek trail, date unknown. Southwest corner of the bridge. View northwest. (Photographed by Rebekah Dobrasko, October 2018).

Photo 9: Roadway deck over West 5th Street Bridge. View west.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

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Description[1]

The 1931 West Fifth Street Bridge is a three-span, cantilevered reinforced concrete girder bridge over Shoal Creek in downtown Austin, Texas. Constructed of reinforced concrete, it is 112 feet long and 52.5 feet wide with a center arch span of 44 feet flanked by two, 34-foot cantilevered spans. The bridge rests on two reinforced concrete piers in Shoal Creek and two reinforced concrete abutments at either end of the bridge. Its arched appearance, balustrade rails, and decorative inset panels with applied pebble finish enhance the bridge aesthetics. Designed by City of Austin engineer Hans R.F. Helland and constructed by contractor John F. Johnson in 1931, the graceful curved girder bridge retains excellent integrity.

The West Fifth Street Bridge at Shoal Creek is located approximately 0.6 miles west of the intersection of West Fifth Street and Congress Avenue in downtown Austin, Texas. The bridge is surrounded by multi-story office, retail, and residential buildings. The 52.5-feet-wide roadway deck carries four lanes of traffic on a 40-foot-wide asphalt driving surface bordered by 6.5-foot sidewalks on the south and north sides. A concrete rail with square balusters and two bronze bridge dedication plaques are visible at the street level. The concrete rail extends past the bridge itself over all four concrete wingwalls over the abutments. On the southwest corner of the bridge, a concrete staircase (added at an unknown date) leads to the west bank of Shoal Creek and joins a paved hike-and-bike path that goes underneath the bridge along the Shoal Creek greenbelt. One section of the bridge rail, including eight square balusters, was removed for this addition.

The 1931 bridge is a three-span cantilever concrete girder bridge that is 112 feet long inventoried in the National Bridge Inventory (NBI Number: 142270B00015001). Its main span measures 44 feet in length and is flanked by two cantilevered spans that measure 34 feet each. The nine concrete girders rest on rounded concrete pedestal piers. The bridge has a 26-degree left forward skew.[2] Design engineer Hans R.F. Helland chose a cantilevered concrete bridge design to mimic a concrete arch bridge, which allows for a cheaper and quicker way to cross the width of Shoal Creek as opposed to a true concrete arch bridge.

The West Fifth Street Bridge exhibits an overall pleasing design that is enhanced by ornamental finishes. Spandrels and wingwalls are accented by inset enframed panels that are pebble finished. The concrete rail has square balusters divided into sections of nine balusters along the sidewalk and eight balusters along the wingwalls divided by square concrete posts. The concrete posts above the bridge piers are larger, emphasizing the ornamental treatment of the design.

Shoal Creek runs underneath the West Fifth Street Bridge and has an intermittent flow, but it is prone to flooding after a heavy rain. Records show that it floods every three to ten years, although the water rarely overtops the bridge itself. The bridge's concrete shows staining due to flooding and from air and traffic pollution due to the bridge's location in downtown Austin. The Shoal Creek Greenbelt runs under the bridge along the west side of the creek. Approximately 16,000 vehicles cross the bridge on a daily basis. The bridge continues to maintain its structural integrity despite the heavy traffic.[3]

The West Fifth Street Bridge at Shoal Creek retains a high degree of integrity, and it is in good condition. The City of Austin completed a major repair program on the bridge approximately 10 years prior to this nomination. The work fixed minor concrete spalling that exposed the steel rebar reinforcing the concrete. There have not been any significant

[1] At the time of submission, neither the City of Austin Public Works Department nor the Austin History Center had drawings or plans of the nominated property.
[2] Texas Department of Transportation, "Fifth Street Bridge," Historic Bridge Inventory.
[3] TxDOT, "Fifth Street Bridge."

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alterations to the bridge since its construction. Sections of the bridge have been painted to eliminate graffiti, and the bridge carries a large utility line underneath the deck. West Fifth Street Bridge is at its original location in downtown Austin. Rapid growth in the last 20 years has brought about substantial changes to the downtown area with the scale of commercial and residential buildings exponentially larger than when the bridge was built. Thus, the integrity of setting diminished as downtown Austin evolved from sleepy capital city to a modern metropolis. The nominated bridge retains excellent integrity of design, materials, and workmanship as a cantilevered reinforced concrete girder bridge designed to connect downtown Austin to, what were once, the western limits of the city. This bridge type was constructed for a limited number of decades in Texas, and as such the nominated property retains its association and feeling of that era of municipal bridge construction. It continues to carry heavy vehicular and pedestrian traffic across Shoal Creek, almost 90 years after its completion, and is an intact example of Austin's implementation of the 1928 City Plan that resulted in a municipal beautification program in the late 1920s and early 1930s.

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Statement of Significance

The 1931 West Fifth Street Bridge in Austin, Texas is a cantilever reinforced concrete girder bridge that spans Shoal Creek. In 1928, the City of Austin adopted a city plan to guide community development and planning, improve infrastructure, and beautify the urban landscape. The nominated structure was constructed in accordance with the plan that called for beautiful bridges, and it opened a much-needed second roadway from West Austin suburbs to the downtown commercial district. Designed by H.R.F. Helland, the West Fifth Street Bridge is a rare bridge type used exclusively in the 1920s and 1930s. Curved cantilever girder bridge technology, an alternative to true arch construction, was suitable to the site and preferred for its architectural aesthetics. The West Fifth Street Bridge at Shoal Creek retains a high degree of integrity and is nominated to the National Register of Historic Places at the local level of significance under Criterion C in the area of Engineering as an excellent example of a cantilever reinforced concrete girder bridge designed with an arched appearance, concrete balustrade railing, and pebble-finished panels that reflected the city's desire for beautiful infrastructure. It is also meets Criterion A in the area of Community Planning and Development as a structure that represents the implementation of an ambitious city plan that significantly shaped Austin's future development. The bridge is a rare example of its type and continues to serve one of Austin's principal east-west roadways. The period of significance is 1931, the year it was built.

Austin, Travis County

In 1839, Edwin Waller laid out Austin's one-mile-square plan that was bounded by three waterways— Shoal Creek to the west, Waller Creek to the east, and the Colorado River to the south—and had a broad central avenue (Congress Avenue), which extended from the river to the capitol grounds. The business district lined Congress Avenue and peripheral blocks south of the Capitol. Residential blocks were drawn on either side of Congress Avenue and extended to the eastern and western city limits, which were defined by Shoal and Waller creeks.

Within 20 years, residential development already began to cross these waterways, and new bridges were built to connect downtown with new areas in west and east Austin. Some new suburbs, like Hyde Park (1891), north of the University of Texas were platted along new streetcar lines without the impediment of rivers and creeks to greatly hinder development. In 1883, the King Bridge Company constructed an iron bridge across the Colorado River, which encouraged residential development in South Austin. Raymond Plateau and Raymond Heights were the first suburbs west of Shoal Creek. James H. Raymond, the entrepreneur behind those neighborhoods, helped secure one of the earliest bridges to cross Shoal Creek. The West Sixth Street bridge was built in 1873. Originally a bowstring arch metal truss bridge, in 1887 a stone arch bridge replaced it.[1] It was one of two bridges that crossed Shoal Creek until the 1920s.

In 1900, many of 22,000 Austinites enumerated in the state's capitol that year lived in newly-developed suburbs that lay beyond the original city limits and traveled downtown for work and shopping. While Austin's minority and poor residents lived where land was the cheapest, often along flooding waterways like Shoal Creek and Waller Creek.[2] The city's infrastructure was strained by city growth. Austin had only one paved street in 1905 and the unpaved roads were prone to flooding. The city struggled to move traffic from the outlying and growing residential areas, across the few bridges in Austin, to downtown. When the 1883 bridge across the Colorado River was lost in a flood, the city built a replacement in 1910. Additional residential development occurred when Austin extended its streetcar system over Shoal Creek on West Sixth Street in 1887. By the 1920s, middle class and working-class people lived in bungalows

[1] The West Sixth Street at Shoal Creek Bridge was listed in the National Register of Historic Places in 2014. National Register of Historic Places, West Sixth Street Bridge at Shoal Creek, Austin, Travis County Texas, National Register #14000499, 8-9.
[2] Hardy, Heck, Moore, Inc. "City of Austin Historic Resources Survey, Final Report, Volume II," Austin, TX, 24 October 2016 (http://www.austintexas.gov/page/east-austin-historic-survey: accessed 12 June 2019), Busch, "City in a Garden," 53.

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west of Shoal Creek and commuted downtown via streetcar or automobile.[3] The Sixth Street bridge over Shoal Creek took the brunt of the traffic headed west of the city center. While the bridge was structurally adequate to handle the traffic, the congestion caused complaints to the city.[4] Bridges constructed across Shoal Creek in the 1920s north of downtown served the growing residential communities and developments near the university. In 1926, a bridge over Shoal Creek at Twenty-Ninth Street and the 1928 bridge at Twenty-Fourth Street became heavily traveled as the city continued to grow, and developers opened residential areas in northwest Austin.[5]

City Beautiful Movement in Austin

The antecedents for the City Beautiful Movement were laid in the late 19th century, and it reached its national peak between 1900-1910, but the effects reverberated for decades. At the foundation of movement—which was political, ideological, economic, civic and cultural—was the belief that the functional and aesthetic environment of cities directly correlated to its productivity, economic health, and civic patriotism. Across the United States, cities followed the tenants of the City Beautiful Movement in planning that improved the beauty and function of the urban landscape. These ideals were imbued in the construction of public and civic buildings, new or enhanced boulevard and park systems, and even in basic infrastructure work like roadway paving, street furniture, and landscaping.[6]

Texas cities like Dallas, Fort Worth, Houston, and San Antonio undertook City Beautiful programs "for the common good" and hired experts to develop comprehensive city plans.[7] San Antonio began its famous river improvements in 1910. The same year, Dallas implemented the Kessler Plan to create parkways and boulevards across the city. These civic works projects were enhanced by classical architectural style and embellishments that beautified the appearance of roads, bridges, parks, and public buildings.[8]Similarly, the Texas Highway Department (THD) embraced the City Beautiful movement. THD hired landscape planners to assist in the layout and design of roads to take advantage of natural and scenic vistas. Bridge engineers encouraged pleasing designs. THD's Chief Bridge Engineer stated that bridges should "add to rather than detract from the general architectural beauty of the city's improvements"[9]

The City of Austin approached beautification in incremental stages from 1900 to 1930, when it began implementing the 1928 City Plan. Austinites first promoted the movement's discourse in 1904 that called for a partnership between private citizens and local government to do their part to create a "city beautiful." Local government passed ordinances to enforce uniform standards for construction by individuals in public the right-of-way, rules preventing litter, and rules to keep livestock from running freely on downtown streets.[10] Financing civic projects, however, was not always

[3] For more information on the development of western Austin, see Myers, Terri and A. Elizabeth Butman, "West Line Historic District," National Register of Historic Places nomination, 7 March 2005.
[4] Koch and Fowler, "A City Plan for Austin, Texas;" "Shoal Creek Bridge in Bond Program, Austin *Statesman*, 14 June 1928; Hardy Heck Moore, "City of Austin," II-34 and II-64.
[5] Leila Downs Clark, "The History of Shoal Creek," May 1954.
[6] William H. Wilson, *The City Beautiful Movement* (Baltimore: Johns Hopkins University Press, 1989) 1-3; Mark Gelernter, *A History of American Architecture: Buildings in their Cultural and Technological Context*, Hanover, CT: University Press of New England, 1999, 210.
[7] Gelernter, *A History of American Architecture*, 204.
[8] Texas Department of Transportation, "Historic Road Infrastructure of Texas, 1866-1965," Multiple Property Submission, 115.
[9] TxDOT "Historic Road Infrastructure," Section E., 57.
[10] Not yet a municipal responsibility in 1904, individual property owners laid sidewalks that extended into the public right-of-way, creating what one person called a "crazy quilt" of wide and narrow roads. Citizens also called on leaders to establish ordinances to curb other aspects of local blight. One concerned Austinite decried that cows were an obstacle to beautification: "It is the duty of every citizen that lives in Austin to see that our city looks nice. If a man fixes up his sidewalks he does it for the benefit of every citizen…Sixth Street, one of our principal streets in Austin is over run with cattle every night…[that] trample over all over yards and crush down asphalt sidewalks in front. It should be stopped. The city fathers should enforce the law to keep cows as well as

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community endeavor. Thus, some urban improvements were slower to develop. For example, in 1910 street paving was primarily the responsibility of property owners, and the City had limited legal power to force the paving of most city streets. Congress Avenue and Sixth Street, the city's most prominent thoroughfares, were only paved by "popular pressure."[11] Civic organizations, like the Chamber of Commerce, continued to promote the City Beautiful Movement through the first decades of the 20th century. Projects they promoted, however, were primarily implemented by private groups.

During this period, the City focused much its public monies and efforts on controlling the Colorado River. The Colorado River, which formed the original southern boundary of the city, flooded frequently and destroyed many of buildings and structures in its path. In April 1900, a major flood destroyed the city dam, killed seventeen people, and damaged over $9 million worth of property. City and county government worked together to complete two projects across the waterway: a new dam and the Congress Avenue bridge were completed in 1910. The Congress Avenue Bridge is a concrete arch bridge that spans 945 feet over the Colorado River. Although not explicitly designed as part of a beautification program, its engineers nevertheless included a classically-inspired ornamental balustrade, beautiful arched spans, which later local bridges mimicked.[12]

By the end of the 1920s, Austin city leadership was ready to undertake City Beautiful improvements that civic groups had been touting for decades. The Austin Chamber of Commerce was at the forefront to get the City Council behind a city plan. With the backing of former Mayor A.P. Woodridge and the Chamber of Commerce, city leaders passed an ordinance in 1926 to create a city plan commission. Their goal was for "Austin, the Friendly City [to] become the City Beautiful."[13] Two years later, they commissioned the Dallas firm Koch and Fowler to develop a comprehensive plan for urban development and beautification. The fundamental element of the document was its street plan, on which "the life and growth of the city depends on," and a major factor that limited Austin street traffic was the lack of bridges.[14]

1928 City Plan and Road Infrastructure

By 1920, the City of Austin needed desperately to invest in a road system that could handle the growing population. In a thirty-year span, the population increased approximately 125% from 22,000 people in 1900 to more than 50,000 by 1930.[15] The first car came to Austin in 1902, which led to a mix of transportation demands on the Austin road system, from pedestrians and horses and buggies to the new automobiles.[16] Austin had very few paved roads. This was true for roads across Texas. Highway, road, and bridge construction at this time was under the purview of cities and counties. The Texas Highway Department was not formed until 1917, and the new department focused their attention on roads connecting large cities to one another and developing standards for road and bridge construction.[17]

In 1926, Austin voters approved to restructure city government from the ward system to the council-manager form of city government. The change reflected a new, business-like approach to governing with urban planning—zoning, infrastructure, and beautification—as the means by which to improve the economy and functionality of the city.

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any other animal out of the streets." "A City Beautiful," *The Austin Statesman*, November 21, 1904; "A City Beautiful," *The Austin Statesman*, June 18, 1904.

[11] "Street Paving," *Austin Daily Statesman*, January 21, 1910.

[12] Busch, *City in a Garden*, 25-29.

[13] "'It's the Beginning of a Great Future,' Mayor Declares," *The Austin Statesman*, 17 April 1928.

[14] Koch and Fowler, "A City Plan," 6, ftp://ftp.austintexas.gov/GIS-Data/planning/compplan/1927_Plan.pdf. accessed June 1, 2019.

[15] Texas Almanac, 1900, 1910, 1930.

[16] Hardy Heck Moore, "City of Austin," II-64.

[17] See Texas Department of Transportation, "Historic Road Infrastructure of Texas, 1865-1965," Multiple Property Nomination, for more information.

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Austin's business leadership worked with other cities to lobby the State Legislature to create zoning laws. The concept of local zoning allowed a city and its elected leadership to decide how and where certain types of real estate was located. Once Austin changed its governing system to a city manager and city council, the business leaders pushed for a new city plan to improve Austin's public spaces, attract new businesses, and enhance the city's natural beauty. [18]

The city hired the firm of Koch and Fowler to develop a city plan.[19] Koch and Fowler's plan addressed a city park system, the creation of an airport (Mueller Airport), the development of a civic center (Palmer Auditorium), the location of new schools, playgrounds, cemeteries, and fire stations. The plan is now notorious because it institutionalized Jim Crow laws when it recommended a program to force ("incentivize") African American Austinites to relocate to a segregated district in East Austin. Marketed as a smart business strategy, Koch and Fowler argued that concentrating African Americans in one area would preclude the city from having to build duplicate schools, parks, and other public facilities across the city.[20]

The first priority outlined in the document was the improvement of the city street system in the central business district. Access to the central business area at Congress Avenue and Seventh Street , the report found, was limited from all directions. In particular, the city's traffic flow was hindered by a lack of bridges to provide access from areas south of the Colorado River, east over Waller Creek, and west over Shoal Creek.[21] The "Sixth Street bridge across Shoal Creek is the only opening…[and] It is obvious that Sixth Street alone will not be able to handle the future traffic in this direction." [22] Koch and Fowler found that West Austin suburbs, like Raymond Plateau and Raymond Heights, caused considerable traffic on West Fifth and West Sixth Streets. The city plan proposed widening and extending Fifth Street because, "the natural topography north of Sixth Street makes it impractical to open a parallel relief street on the north for over one-half mile."[23] This meant potentially constructing a new bridge to cross Shoal Creek, widening Fifth Street no "less than eighty-feet wide for its entire length," and paving the street.[24] The paired Sixth and Fifth Streets, along with improvements at "Riverside Boulevard," would relieve congestion during Austin's developing rush hour.[25]

The 1928 City Plan proposed the construction of four bridges to improve mobility **(Figure 3)**. Two were to cross the Colorado River at East Avenue (present-day IH-35) and, what is now, Lamar Boulevard. The other two were proposed to cross Shoal Creek at Twenty-Fourth and West Seventh streets. In 1928, Seventh Street ended at Shoal Creek but extended past Waller Creek into East Austin, whereas East Fifth ended at railroad tracks. The plan reasoned that because Seventh was already an important business road downtown, a new bridge at that roadway would transform it into a new, east-west business district.[26]

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[18] Andrew M. Busch, *City in a Garden: Environmental Transformation and Racial Justice in Twentieth-Century Austin, Texas*, Chapel Hill, The University of North Carolina Press, 2017, 42; Texas Almanac and State Industrial Guide for 1911 with Map, book, January 1911;(https://texashistory.unt.edu/ark:/67531/metapth123781/: accessed June 12, 2019),University of North Texas Libraries, The Portal to Texas History, https://texashistory.unt.edu; Texas Almanac and State Industrial Guide 1931, book, 1931; Dallas, Texas. (https://texashistory.unt.edu/ark:/67531/metapth117160/m1/1/: accessed June 12, 2019),University of North Texas Libraries, The Portal to Texas History, https://texashistory.unt.edu; David C. Humphrey, "Austin, TX (Travis County)," *Handbook of Texas Online*; Busch, 71-73.
[19] "Paving Program to Start in City Plan Adoption," The Austin *Statesman*, 23 May 1927.
[20] Koch and Fowler, "A City Plan," 6.
[21] Ibid.
[22] Ibid.
[23] Ibid., 8.
[24] Ibid., 8-9.
[25] Koch and Fowler were not referring to Austin's current Riverside Drive, but what is now known as Cesar Chavez Boulevard; Koch and Fowler, "A City Plan."
[26] Koch and Fowler, "A City Plan," 17.

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The 1928 City Plan also stressed aesthetic considerations for bridge construction. "It would be criminal," they said, "to build an ugly steel structure" in parks, parkways, and other public property. To that end, the plan recommended ornamental concrete bridges.[27] The *Austin American* promoted the proposed beautiful scenic bridges in a half-page spread. Illustrations showed four bridges, including the proposed West Seventh Street bridge, and narrated the ease by which motorists would traverse all parts of Austin with the addition of these to the local landscape **(Figure 3)**. In addition to these bridges, the city plan called for the development of a boulevard along Shoal Creek with a golf course and parkland. "Austin would truly deserve the title of the 'City Beautiful' if the vision of these planners is turned into a reality."[28]

Local voters approved $4.5 million in bonds to implement the provisions recommended in the Koch and Fowler plan, and the city carried out the work in the following decade. Numerous municipal improvements funded by the bonds included public schools, playgrounds, city parks, a new central library, and expansion of the city hospital.[29] The city purchased land on along the embankment of Shoal Creek and built a scenic boulevard from 45th Street to downtown. The bond package also provided public works funds to construct bridges, sewers, pave roads, and build new boulevards. Of the $4.5 million approved bonds, a $650,000 allocation was made for "storm sewers, bridges and other structures."[30] The bridge program undertaken was much more ambitious than what the Koch-Fowler plan proposed. Austin leaders designated a separate department from the City Engineering Department to handle the magnitude of projects funded by the bond program. This temporary division was called the Bond Construction Engineering Department, and H.R.F. Helland was hired as the Consulting Engineering for the duration of the department's existence, 1928-1932.Twenty-one bridges and culverts were built under the purview of the Bond Construction Engineering Department **(Figure 6)**. Of those projects, the West Fifth Street Bridge was the only one the city built that closely corresponded with the Koch and Fowler plan.[31]

The department "attempted to produce structures that would be pleasing to the eye as well as serve the purpose for which they were intended."[32] Reinforced concrete arch, slab, beam and slab, and rigid frame bridges were built over Waller, Bouldin, Johnson, Blunn, and Shoal creeks. Two rigid frame bridges—both over Waller Creek—were thought to be the first of that type built in the Southwest. Architectural elaboration in bond-funded bridge construction included paneling, variations in concrete finish, stone facing (to give the illusion of stone masonry construction), false arches, and balustrade railings.[33] Even plain concrete box culverts received some sort of aesthetic enhancements, most notably on the railing and headwalls of the culverts.[34] Of the total bridges constructed for the bond program, H.R.F. Helland personally-designed three. These included the nominated bridge (also described as "beam and slab" in the report), a pair of cantilever reinforced concrete girder bridges at 12th over Waller Creek **(Figures 4-5)**, and a concrete arch bridge on Second Street and Red River.[35]

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[27] Ibid., 66-67.
[28] "Scenic Bridge Open New Traffic Arteries," *The Austin American*, 4 March 1928.
[29] East Austin Resource Survey, II-71.
[30] "$3,000,000 Bond Issue to be Asked by Council Soon," *The Austin American*, 26 February 1928.
[31] The Austin Development Company, suburban developers, funded the construction of the Twenty-Fourth Street Bridge over Shoal Creek that Koch and Fowler proposed. Completed In 1928 and built by J.F. Johnson, the three-arch concrete bridge resembled municipal bridges that the city built during the same period. Koch and Fowler's proposals for bridges over the Colorado River were completed in the post-war period. "New Bridge Over Shoal Creek," *The Austin American*, July 29, 1929.
[32] Nineteen of these structures still stand. Austin City Council Minutes, 15 September 1932.
[33] Ibid.
[34] See Austin City Council Minutes, 15 September 1932, for a list of all bridges and culverts constructed as part of the Street Improvement Bond Fund Issue.
[35] Ibid.

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West Fifth Street Bridge at Shoal Creek

The West Fifth Street Bridge at Shoal Creek was the only bridge completed under the bond program that closely corresponded to the original proposal presented in the 1928 City Plan. The historical record provides speculative explanations for why it was ultimately constructed at its present location. Apparently, not all citizens wanted a Shoal Creek bridge on West Seventh Street. In June 1928, over 150 people, described simply as Austin residents and taxpayers, signed a petition asking City Council for a new bridge on West *Fifth* Street over Shoal Creek.[36] Regardless of what the City Council promised in 1928, by June 1929 they were directing the city's consulting engineer, H.R.F. Helland, to complete plans for a new concrete bridge on West Seventh Street at Shoal Creek. This bridge, however, would not meet the recommended 80-foot width in the city plan, as the council indicated the roadway would be 20 feet wide.[37]

By July 5, 1929, the city council approved the purchase of an easement to construct the Shoal Creek crossing on West Fifth Street. The council also planned purchases of new right-of-way further along West Fifth Street to ensure that the street was 80 feet wide, as recommended in the city plan. While records do not indicate why the city chose to build the crossing on West Fifth Street as opposed to West Seventh Street, it is likely that the West Fifth Street bridge location may have been the best location that fit with the city's plans for a new boulevard that was under construction along the Shoal Creek greenbelt.[38] Once the city decided to build the crossing at West Fifth Street, it never returned to its plans for a Seventh Street crossing, and there is no bridge over Shoal Creek at West Seventh Street today.

The West Fifth Street Bridge was the second most expensive bridge constructed as part of the city's bond improvement program. As one of two crossings from West Austin to the downtown commercial district, the new bridge was likely intended to be a showpiece, and the city's first step to extending the Fifth Street business district westward. Whereas most bridges constructed for the bond program cost less than $10,000, the nominated bridge cost approximately $32,000. Consulting Engineer for the Bond Construction Engineering Department H.R.F. Helland's designed the West Fifth Street Bridge.[39] Austin contractor J. F. Johnson won the bid to construct the West Fifth Street bridge. Johnson was an experienced bridge engineer having recently-completed the privately-funded concrete arch bridge over Shoal Creek at Twenty-Fourth Street.[40]

In 1931, the West Fifth Street Bridge opened to traffic and provided the city a new east-west artery. Its construction changed the character of blocks immediately surrounding the bridge.[41] Modest residences, some of which were home to Austin's poor and minority classes, were replaced by commercial buildings within several decades. Doubtless, the city initiated new zoning to encourage commercial development. In the ensuing years, auto-related businesses that already proliferated Fifth Street near Congress Avenue, extended further west to blocks around the new bridge **(Figure 2)**. In the 1940s and 1950s, the city undertook another major project to create Lamar Boulevard, which intersected West Fifth Street two blocks west of the bridge. The project rerouted parts of Shoal Creek and Shoal Creek Boulevard to create a new north-south commercial district downtown. Blocks around the nominated bridge remained a hub for auto businesses through the 1980s.

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[36] "Shoal Creek Bridge in Bond Program," *The Austin Statesman*, 14 June 1928; Austin City Council Minutes, 14 June 1928.
[37] "Bridge Planned Here," *The Austin American*, 14 June 1929.
[38] "Consider Land Purchase," *The Austin American*, 19 July 1929.
[39] The West Fifth Street Bridge at Shoal Creek cost $31,650.31 to build. The most expensive bridge was a bridge over Waller Creek. See Austin City Council Minutes, 15 September 1932.
[40] Johnson also won the bid to construct one of the other bridges built as part of the bond program, the crossing of Waller Creek at Second and Red River Streets. In addition to bridge construction, Johnson served as the contractor for the Paramount Theater (1915) in Austin, the 1927 Denton City Hall, and the Austin Filtration Plant. City Council Minutes, 15 September 1932; Joseph A. Orbock, "Paramount Theatre," *Handbook of Texas Online*; "Denton City Hall," Official Texas Historical Marker file.
[41] Sanborn Map Company, "Sanborn Fire Insurance Maps: Austin, Texas," 1935 and 1961.

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The West Fifth Street Bridge at Shoal Creek is a cantilever reinforced concrete girder bridge designed to mimic an arch bridge. This method of construction allowed for the engineers to build a longer span than a true arch and gave the structure the artistic form of a true arch bridge. The nominated bridge is a physical manifestation of City Beautiful standards that were promoted in the 1928 City Plan and the resulting bond improvement program that financed its construction. It has decorative concrete balustrade railing that extends over both sides of the bridge and along the wingwalls, the pebbled finish on concrete panels in the railing, spandrels, and wingwalls, and the rounded concrete pedestals holding the cantilevered concrete girders.

Early examples of the bridge type were constructed at the state level. The Texas Highway Department built the state's first cantilevered concrete girder bridge in 1922. This bridge carries the Old Spanish Trail (FM 1579) over the East Navidad River in Fayette County, and is listed in the National Register of Historic Places. THD only constructed four of bridges of this type across Texas, but these examples likely influenced municipalities that undertook local bridge building programs. The architectural quality of cantilevered reinforced concrete (as opposed to "an ugly steel structure") made it the preferred bridge type for Austin's bond improvement program.

Helland designed three reinforced concrete arch and cantilevered girder bridges for the City of Austin under the bond improvement program: The West Fifth Street Bridge over Shoal Creek, the paired bridges at Twelfth Street and Waller Creek, and an arch bridge at Second Street and Red River. Its architectural enhancements were finer than other bridges constructed. Whereas other bridges conveyed classical-inspired balustrades through molded concrete oval cut-outs **(Figure 4)**, the nominated bridge has individually-molded squared balusters. The West Fifth Street at Shoal Creek Bridge is one of only a few concrete cantilevered girder bridges built in the state and is a significant local example of this bridge type.[42]

The West Fifth Street Bridge over Shoal Creek continues to serve Austin today, and Fifth Street remains an important east-west roadway. The bridge's current setting is comprised of multi-story office and residential buildings. The Shoal Creek Trail runs under the bridge on the west side of the creek. The bridge's wide sidewalks continue to carry pedestrians along West Fifth Street and the bridge carries four lanes of vehicular traffic. The City of Austin undertook a significant rehabilitation of the bridge in 2008 to strengthen the concrete and improve the deck.

Hans R.F. Helland (1890-1950)

Helland was the son of Hans Helland and Marie Helen Muller Helland. Hans Helland was one of Texas' first consulting engineers. Helland followed his father into the civil engineering business and received his engineering degree from the University of Texas in 1911. In the early 1920s, H.R.F. Helland served as the civil engineer for Montgomery & Ward in Wichita Falls, Texas and was the City Engineer for Paris, Texas and Waxahachie, Texas. Helland moved to San Antonio to become head of the Hawley, Freese, and Nichols engineering company branch office. As part of Hawley, Freese, and Nichols, Helland assisted in designing a river cutoff and flood gate system for the San Antonio River, which allowed for the later development of the San Antonio Riverwalk. He also designed a sewage disposal plant, in addition to his work in Austin with the Bond Construction Engineering Department as part of his time with Hawley, Freese, and Nichols.[43]

[42] TxDOT, "Historic Road Infrastructure," Section E., p. 113.
[43] Simon W. Freese and D.L. Sizemore, *A Century in the Works: 100 Years of Progress in Civil and Environmental Engineering; Freese and Nichols Consulting Engineers, 1894-1944*. Available online: https://www.freese.com/sites/default/files/century.pdf, accessed 28 April 2017; *Engineering World*, vol. 20, January –June 1922; "Helland Appointed Sanitary Engineer," *The Austin Statesman*, 4 March 1922.

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Conclusion

The 1931 West Fifth Street Bridge is nominated under Criterion C in the area of Engineering at the local level of significance as an intact and rare example of a concrete cantilever bridge. Engineers designed less than ten of these cantilevered bridges across the state in the 1920s and 1930s, using this design to mimic a concrete arch design. The bridge served as a much-needed link from downtown Austin in the 1930s to its growing western edge. Now considered to be located in downtown proper, the West Fifth Street Bridge continues to serve travelers coming and going from the heart of Austin's downtown. The bridge is one of 21 built to implement Austin's 1928 City Plan, which called for improved streets, paving, and bridges all while highlighting the natural beauty of the capital city. The bridges were all designed with aesthetic enhancements to make them beautiful. The West Fifth Street Bridge has pebbled concrete finishes and panels on the spandrels and wingwalls, as well as a turned concrete baluster railing and rounded concrete pedestals in the substructure of the bridge. It is also nominated to the National Register under Criterion A in the area of Community Planning and Development at the local level, as it exemplifies the investment in infrastructure the city took after the approval of its 1928 City Plan. The period of significance is 1931, the year it was constructed.

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14 June 1928
7 March 1929
15 September 1932

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1910
1911
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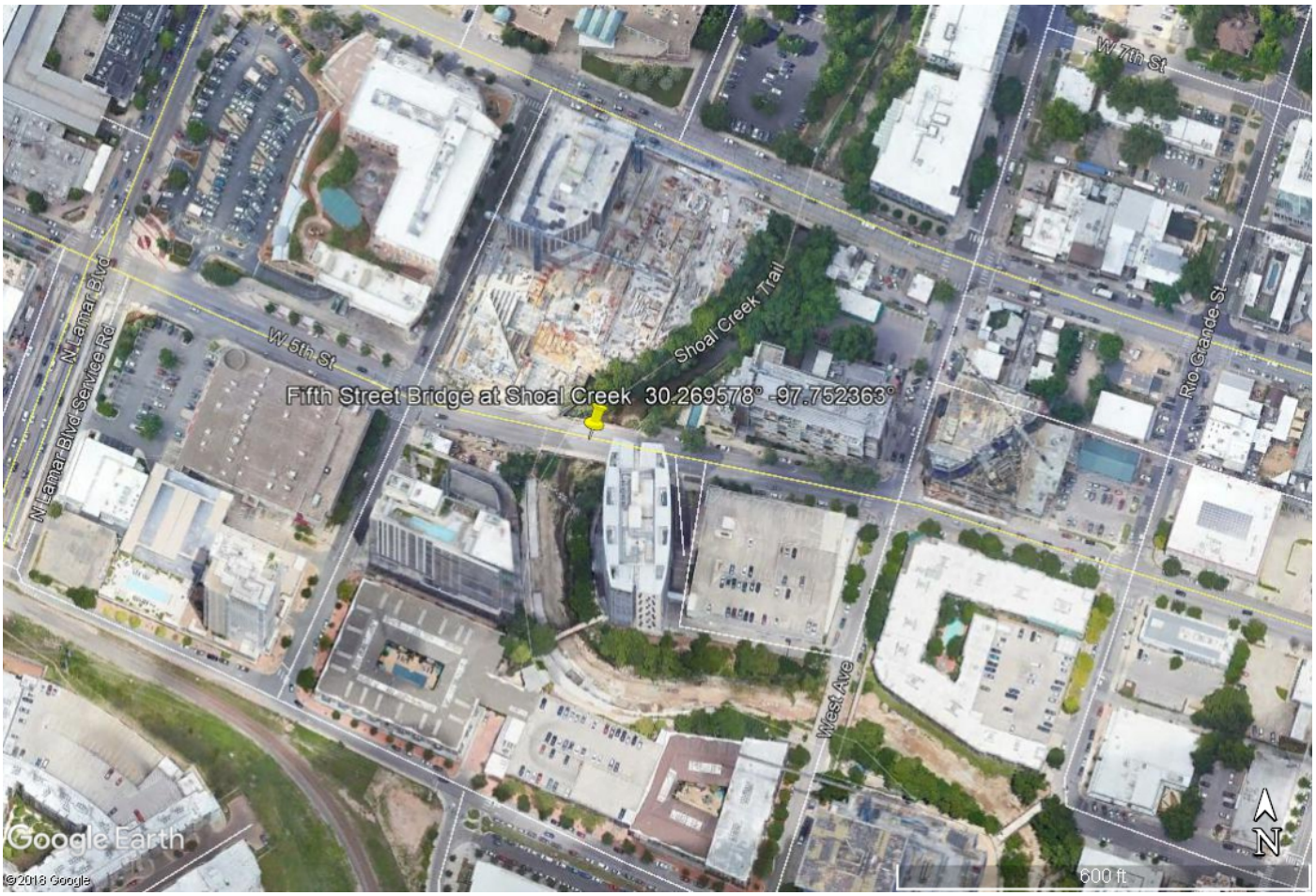
Maps

Map 1: Travis, County

Map 2: Google Earth, accessed May 9, 2018



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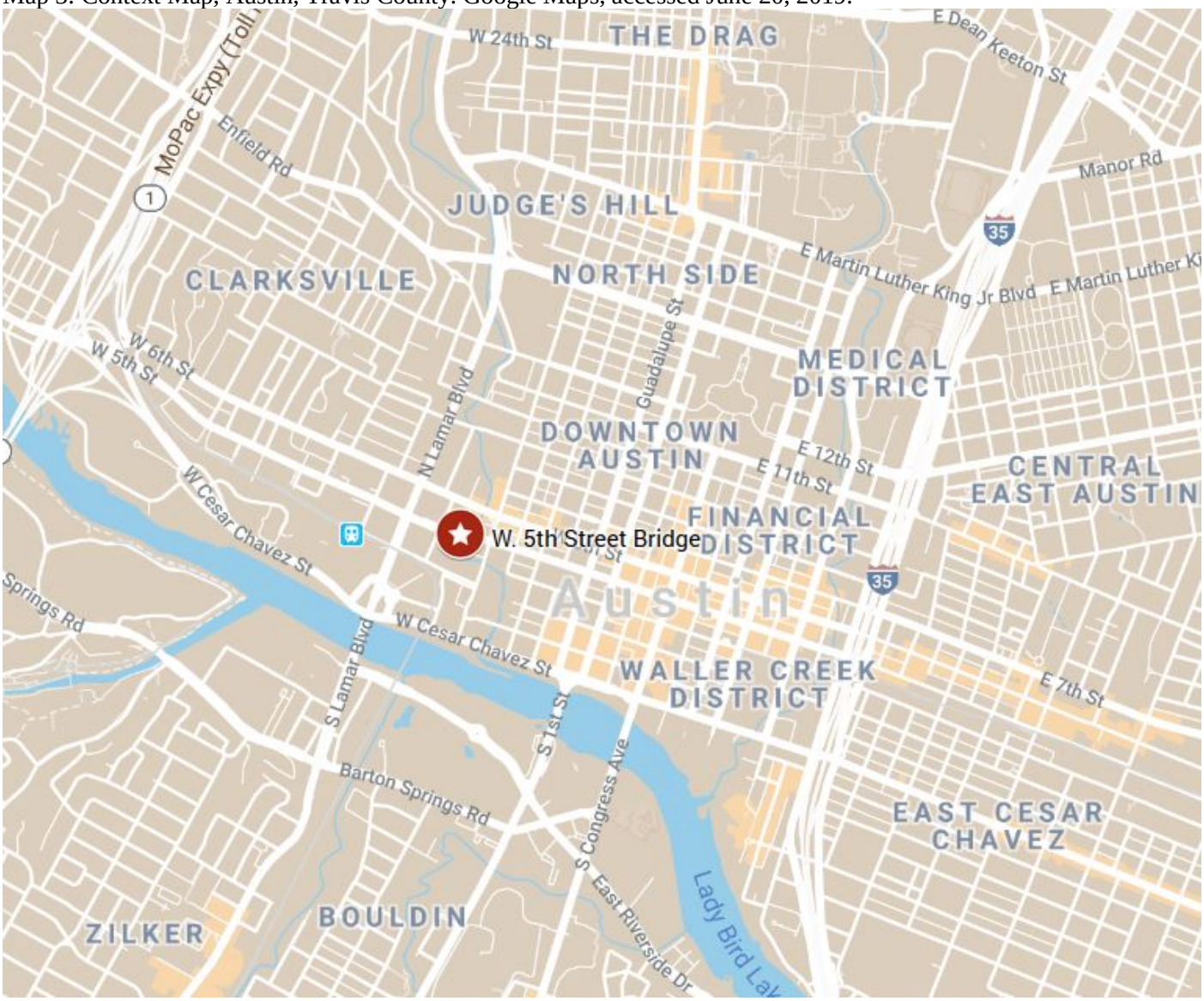
Map 3: Context Map, Austin, Travis County. Google Maps, accessed June 20, 2019.



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Figures

Figure 1: The nominated bridge is shown on the Sanborn Map in, what was once, a primarily residential neighborhood. Source: Sanborn Map Company. Austin, Travis County, Texas, 1935. Courtesy of Proquest Digital Sanborn Maps.

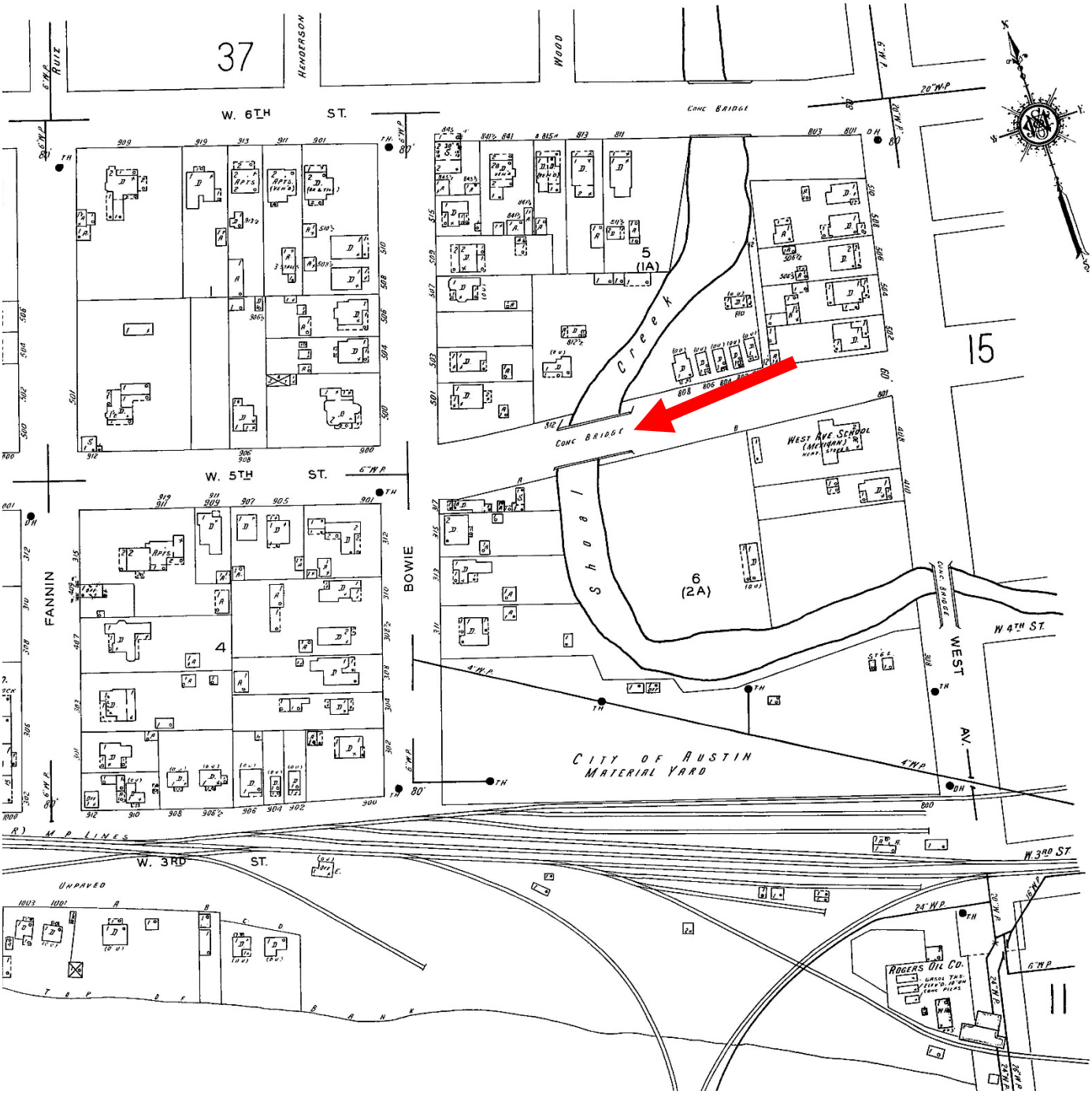

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Figure 2: By 1961, blocks immediately surrounding the nominated bridge were commercial. A high proportion of the businesses along W. 5th Street were auto-related. Source: Sanborn Map Company. Austin, Travis County, Texas, 1935 updated to 1961. Courtesy of Proquest Digital Sanborn Maps.

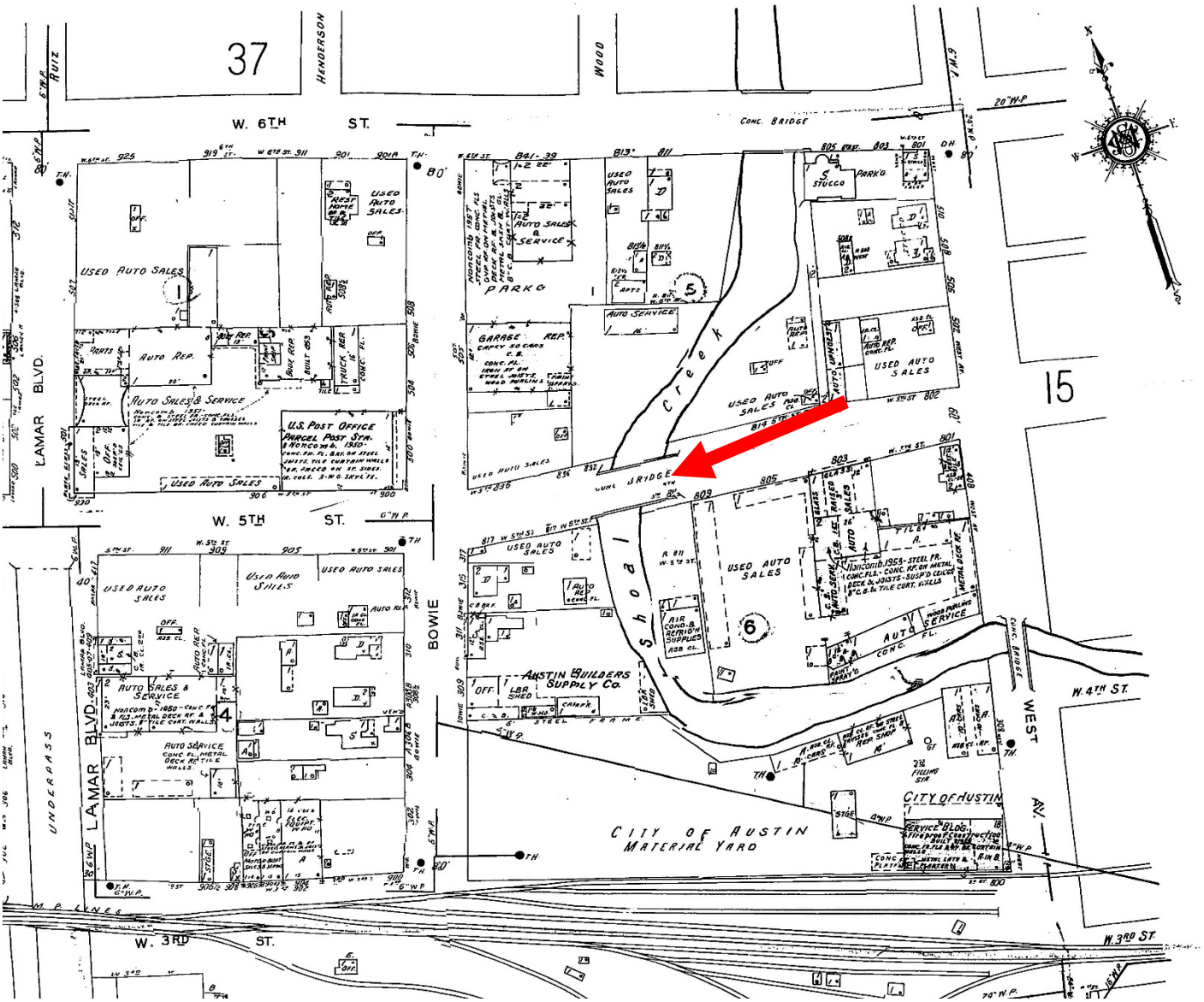

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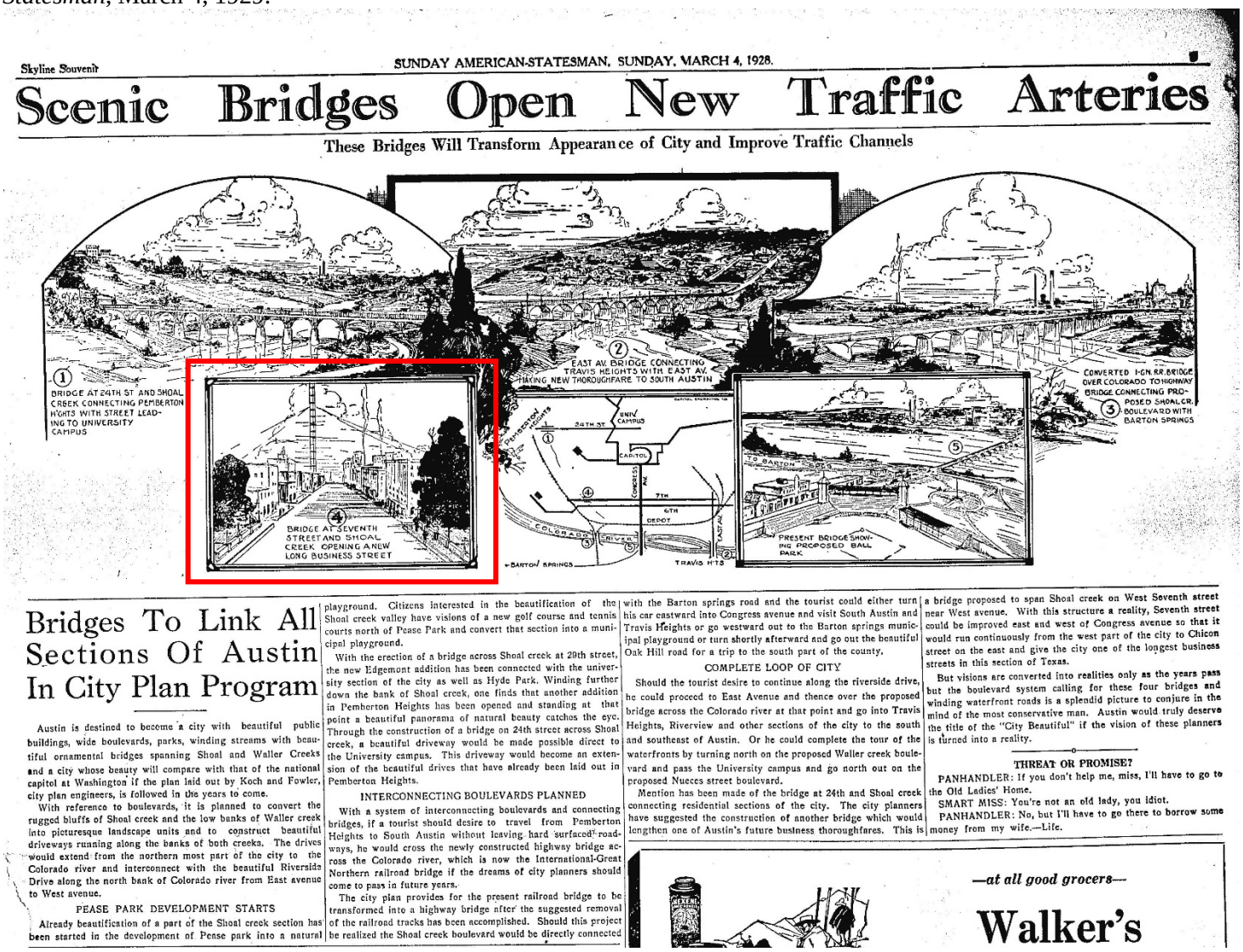
Figure 3: The 1928 Koch and Folwer City Plan for Austin included a series of bridges to aid commercial and tourist mobility through the city. It suggested a bridge over Shoal Creek at W. 7th Street to create a business thoroughfare across Austin. In 1931, city leaders opted to construct the nominated bridge, two blocks south of W. 7th, on W. 5th Street. It transformed the road from primarily residential to commericial within two decades. Source: *Austin American Statesman*, March 4, 1929.



Skyline Souvenir

SUNDAY AMERICAN-STATESMAN, SUNDAY, MARCH 4, 1928.

Scenic Bridges Open New Traffic Arteries

These Bridges Will Transform Appearance of City and Improve Traffic Channels

1 BRIDGE AT 24TH ST AND SHOAL CREEK CONNECTING PEMBERTON HGHTS WITH STREET LEADING TO UNIVERSITY CAMPUS

2 EAST AV. BRIDGE CONNECTING TRAVIS HEIGHTS WITH EAST AV. MAKING NEW THOROUGHFARE TO SOUTH AUSTIN

3 CONVERTED I-GN. RR. BRIDGE OVER COLORADO TO HIGHWAY BRIDGE CONNECTING PROPOSED SHOAL CR. BOULEVARD WITH BARTON SPRINGS

4 BRIDGE AT SEVENTH STREET AND SHOAL CREEK OPENING A NEW LONG BUSINESS STREET

5 PRESENT BRIDGE SHOWING PROPOSED BALL PARK

Bridges To Link All Sections Of Austin In City Plan Program

Austin is destined to become a city with beautiful public buildings, wide boulevards, parks, winding streams with beautiful ornamental bridges spanning Shoal and Waller Creeks and a city whose beauty will compare with that of the national capitol at Washington if the plan laid out by Koch and Fowler, city plan engineers, is followed in the years to come.

With reference to boulevards, it is planned to convert the rugged bluffs of Shoal creek and the low banks of Waller creek into picturesque landscape units and to construct beautiful driveways running along the banks of both creeks. The drives would extend from the northern most part of the city to the Colorado river and interconnect with the beautiful Riverside Drive along the north bank of Colorado river from East avenue to West avenue.

PEASE PARK DEVELOPMENT STARTS

Already beautification of a part of the Shoal creek section has been started in the development of Pease park into a natural playground. Citizens interested in the beautification of the Shoal creek valley have visions of a new golf course and tennis courts north of Pease Park and convert that section into a municipal playground.

With the erection of a bridge across Shoal creek at 29th street, the new Edgemont addition has been connected with the university section of the city as well as Hyde Park. Winding further down the bank of Shoal creek, one finds that another addition in Pemberton Heights has been opened and standing at that point a beautiful panorama of natural beauty catches the eye. Through the construction of a bridge on 24th street across Shoal creek, a beautiful driveway would be made possible direct to the University campus. This driveway would become an extension of the beautiful drives that have already been laid out in Pemberton Heights.

INTERCONNECTING BOULEVARDS PLANNED

With a system of interconnecting boulevards and connecting bridges, if a tourist should desire to travel from Pemberton Heights to South Austin without leaving hard surfaced roadways, he would cross the newly constructed highway bridge across the Colorado river, which is now the International-Great Northern railroad bridge if the dreams of city planners should come to pass in future years.

The city plan provides for the present railroad bridge to be transformed into a highway bridge after the suggested removal of the railroad tracks has been accomplished. Should this project be realized the Shoal creek boulevard would be directly connected with the Barton springs road and the tourist could either turn his car eastward into Congress avenue and visit South Austin and Travis Heights or go westward out to the Barton springs municipal playground or turn shortly afterward and go out the beautiful Oak Hill road for a trip to the south part of the county.

COMPLETE LOOP OF CITY

Should the tourist desire to continue along the riverside drive, he could proceed to East Avenue and thence over the proposed bridge across the Colorado river at that point and go into Travis Heights, Riverview and other sections of the city to the south and southeast of Austin. Or he could complete the tour of the waterfronts by turning north on the proposed Waller creek boulevard and pass the University campus and go north out on the proposed Nueces street boulevard.

Mention has been made of the bridge at 24th and Shoal creek connecting residential sections of the city. The city planners have suggested the construction of another bridge which would lengthen one of Austin's future business thoroughfares. This is a bridge proposed to span Shoal creek on West Seventh street near West avenue. With this structure a reality, Seventh street could be improved east and west of Congress avenue so that it would run continuously from the west part of the city to Chicon street on the east and give the city one of the longest business streets in this section of Texas.

But visions are converted into realities only as the years pass but the boulevard system calling for these four bridges and winding waterfront roads is a splendid picture to conjure in the mind of the most conservative man. Austin would truly deserve the title of the "City Beautiful" if the vision of these planners is turned into a reality.

THREAT OR PROMISE?

PANHANDLER: If you don't help me, miss, I'll have to go to the Old Ladies' Home.

SMART MISS: You're not an old lady, you idiot.

PANHANDLER: No, but I'll have to go there to borrow some money from my wife.—Life.

—at all good grocers—
Walker's

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Figure 4: E. 12th Street over Waller Creek Bridge in downtown Austin is one of a pair of bridges built in 1931 and designed by Helland.

Figure 5: E. 12th over Waller Creek Bridge, 1932. Source: Austin History Center

C01603, Austin History Center, Austin Public Library

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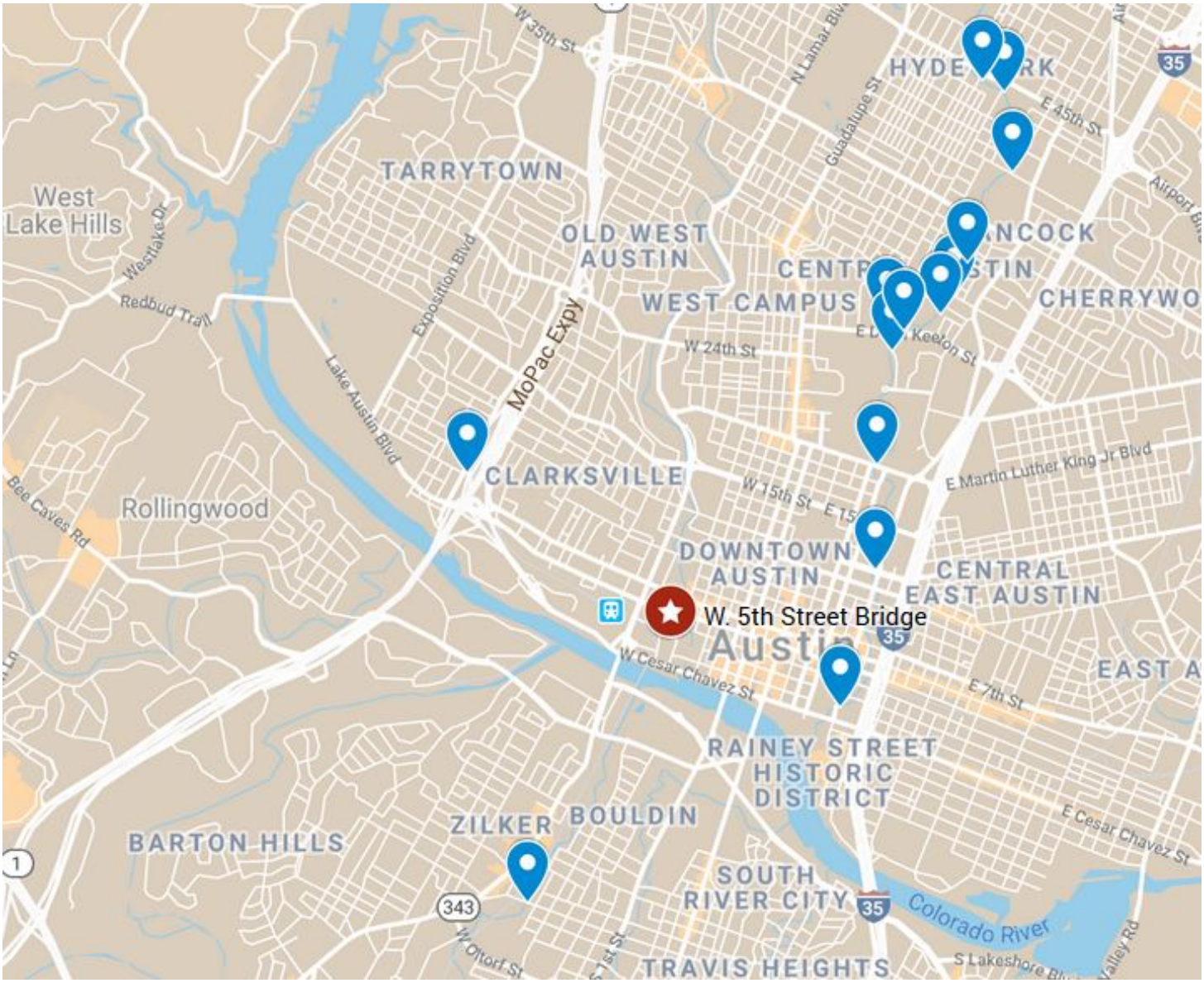
Figure 6: Approximate locations of bridges constructed under the bond improvement plan. Most were built across Waller Creek.



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Photographs

West Fifth Street Bridge at Shoal Creek
Austin, Travis County, Texas
Photographer: Bonnie Tipton Wilson
Date: June 28, 2019

Photo 1: View of roadway deck over W. 5th Street. View southeast.

Photo 2: South side of bridge. View northeast.

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Photo 3: Concrete girders under bridge showing imprint of wooden forms built for construction
South side. View northeast.

Photo 4: Partial view of north side of bridge, view south.

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Photo 5: Detail, north side of bridge. View south.

Photo 6: Detail of bridge railing. View north.

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Photo 7: Detail of bridge plaque located on northeast corner of bridge. View north.

Photo 8: Staircase cut into bridge to access Shoal Creek trail, date unknown. Southwest corner of the bridge. View northwest. (Photographed by Rebekah Dobrasko, October 2018).

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Photo 9: Roadway deck over West 5th Street Bridge. View west.

~end~