

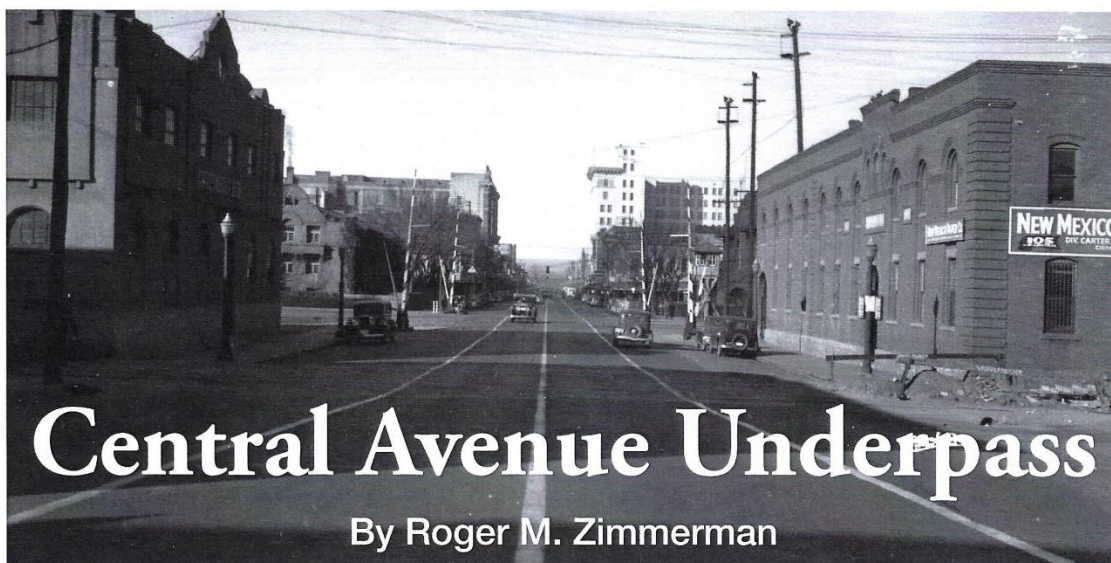
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Central Avenue Underpass

By Roger M. Zimmerman

In 1937 the Central Avenue underpass in downtown Albuquerque was the last structure to be completed before implementation of the largest rerouting project in Route 66 history. It's still in use 87 years later after surviving 48 years of Route 66 traffic. Every car, truck, ambulance, house trailer, motorhome, and motorcycle traveling on Route 66 through New Mexico after 1937 passed through this structure.

As we get ready to celebrate the 100th anniversary of Route 66, it's worth remembering this much-overlooked project. Maybe it doesn't stand out like the Parker through-truss bridge over the Rio Puerco 20 miles to the west, which is listed in the National Register of Historic Places, but it was essential to getting Route 66 rerouted through Albuquerque on an east-west axis.¹

Designers had to contend with right-of-way problems, traffic, public opinion and water. Federal highways required a grade separation between the street and the tracks, and that meant building either an overpass or an underpass.

HANNETT'S SHORTCUT

In 1926, Route 66 went through Albuquerque on a north-south alignment from Santa Fe to Los Lunas. The route was parallel to the Atchison, Topeka, and Santa Fe (AT&SF) tracks and followed Fourth Street through the center of downtown Albuquerque.

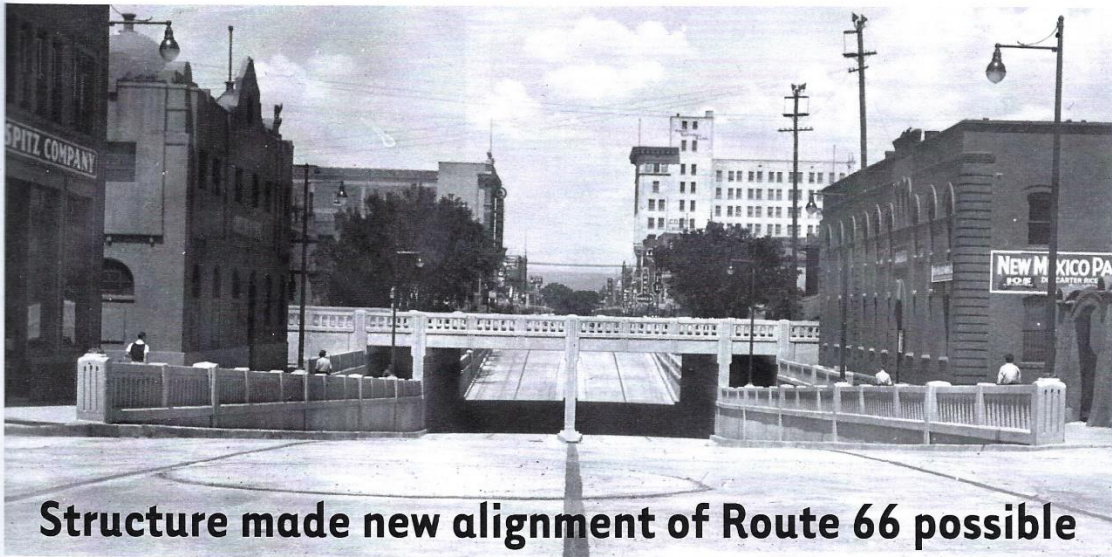
Outgoing Democratic Governor Arthur T. Hannett was afraid that the incoming Republican governor would not take advantage of a 107-mile, Santa Rosa-Laguna shortcut that was available. The existing road curved through Santa Fe and Los Lunas and didn't enhance

transcontinental traffic flow through the state. As an act of defiance after not being re-elected, Hannett, using state funds, constructed a Santa Rosa cutoff in his final days of office that would save 90 miles of travel between Santa Rosa and Albuquerque.²

One of the features of the shortcut was that east-west travel through Albuquerque would be on Central Avenue, which had a wider, 80-foot right-of-way, where other streets had 60-foot right-of-ways. A disadvantage to the shortened east-west travel was that the roadway would have to cross the AT&SF tracks in downtown Albuquerque, and this could affect downtown street traffic.³

It took from 1926 to 1931 for state and federal highway officials to agree that Route 66 would be rerouted along the shorter east-west route. After 1931, roadways were improved, and bridges were built on the new alignment, but it would take another six years to get the Central Avenue underpass constructed.

One problem with the grade separation was that it was located on AT&SF property. Eventually former Mayor Clyde Tingley arranged for Federal Work Progress Administration (WPA) funds to construct two underpasses and a viaduct.⁴ The Central Avenue underpass was designed by railroad design engineers and constructed by the state Highway Department using federal funds.



Structure made new alignment of Route 66 possible

Photo on page 14: Central Avenue is shown here, ca. 1930, before the underpass. (Cobb Studio, Albuquerque Museum, gift of Walter C. Haussamen) Photo on page 15: The Central Avenue underpass was completed in 1937. Notice the height of the tracks relative to buildings. (Albuquerque Museum, Cobb Studio, gift of Walter C. Haussamen)

The underpass was dedicated on July 11, 1937, with the attendance of governors Clyde Tingley of New Mexico and E. W. Marland of Oklahoma. W. W. Kelly, chief engineer for AT&SF's western region attended with other railroad officials.⁵

UNDERPASS OR OVERPASS?

A major problem during the early 1930s was agreeing to design the structure as an underpass rather than an overpass because of right-of-way problems. On the west side were the Alvarado Hotel and the YMCA. On the east side were the Putney and Gross-Kelly buildings, which had railway sidings. An overpass on Central would have required an excessive amount of right-of-way that would interfere with First Street traffic patterns downtown and might block the street near the Central intersection or bypass it.

A proposal floated in April 1935 was to eliminate the railroad crossings at Central and Coal Avenue and shift Route 66 to a viaduct on Coal Avenue, but there was opposition to removing Route 66 from Central Avenue.⁶

The committee that wanted an underpass on Central Avenue was headed by Dr. J. W. Hannett, brother of the former governor, and M. L. Fox. More than 10,000 people signed a petition to keep Route 66 on Central Avenue and secure the underpass. It was distributed to the Bureau of Public Roads, the governor, and the State Highway Commission. The petition was successful.⁶

By that time traffic on Route 66 had increased 300 percent, and more than half was from out of state. The commission authorized federal spending for the Central Avenue underpass, an underpass on Tijeras Avenue and a viaduct on Coal Avenue. The state Highway Department, the City of Albuquerque, and the AT&SF cooperated in producing an important structure for Route 66 traffic.⁶

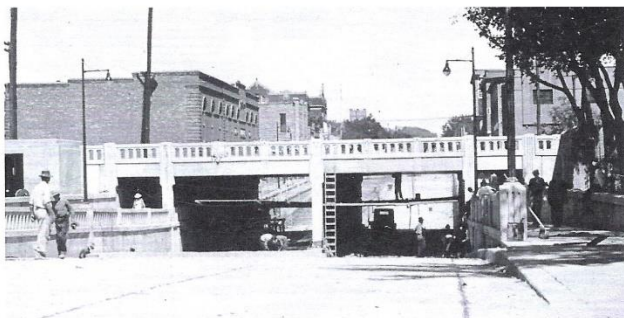
The contract for building the railroad underpasses was let in June of 1936. The Shufflebarger Company won the bid to build the two underpasses.⁷



Arthur T. Hannett
(Library of Congress)

STRUCTURAL CONFIGURATION

The Central Avenue underpass is between Broadway and First Street. The distance between Broadway and First Street is slightly over 1,000 feet. The tracks were less than 300 feet from the intersection of Central and First Street. This was a problem because vehicles had to go through the underpass and then be able to maneuver through the First Street intersection. Turning lanes were needed. City, state and AT&SF officials agreed on a solution; the tracks would be raised seven feet so the slope of the ramp going



Left: The new raised tracks of the underpass take shape in 1937. (Hanna & Hanna photo, 1937, Albuquerque Museum, gift of Albuquerque National Bank) Right: Three rows of steel columns support the bridge over the underpass. Columns rest on piles driven 30 to 40 feet into the underlying sand. (Roger Zimmerman photo)

to the west would be tolerable. The AT&SF designed the underpass with this in mind.⁸

The length of the underpass, which was 116 feet, was sufficient to allow seven separate tracks to cross over the highway. Two of the tracks were for the main through line, and the other five were associated with the railyard work located just to the south and to feeder lines to warehouses located near the tracks. Three rows of steel columns support the bridge over the underpass. Columns rest on reinforced concrete footings that were cast-over timber-treated piles driven 30 to 40 feet into the underlying sand to support the sidewalls and the huge framework that supports the railroad trestles.⁸

WATER CHALLENGES

Underpasses in general are subject to flooding during large rainstorms, but designers also had to contend with complex local hydrology. There were three major sources of water that could affect street traffic through the Central Avenue underpass: water from the floodplain that formed downtown Albuquerque west of the underpass, water from the heights of Albuquerque east of the underpass, and groundwater under and around the underpass.

The underpass was located near the low spot in land that was originally the Rio Grande. Thousands of years ago the river flowed along territory defined by First and Second streets in downtown Albuquerque. When the river made a significant deviation to the west, the new channel flowed west near Alameda, some eight miles north of downtown, and then it turned south to flow by the bluffs. The river returned to the original channel near Baretas, about two miles south of downtown. This major change in the alignment of the Rio Grande created about a 17-square-mile floodplain. Downtown Albuquerque is located in that floodplain.

Downtown has a history of being flooded from Rio Grande overflows. Initially, surface water from downtown streets in the floodplain threatened the underpass. Over time, Albuquerque has developed a surface water collection system and reduced this threat considerably.⁹

The underpass was located in the lowest spot in the floodplain, so it would have to be designed for serious surface water challenges because the surrounding region would drain to the lowest spot. The lower region of the floodplain was relatively flat and had a relatively high-water table. In 1937 the elevation of the water table near the underpass was 4,940 feet. The tops of the footings were two feet higher.⁸

Surface water was another challenge. During a hard rain, large quantities of surface storm water poured down Central Avenue from the east, and it had to be managed to avoid serious flooding in the underpass. Engineers designed systems to intercept water as it ran along Central Avenue from Sycamore Street to the underpass and collected about 81 percent of it. However, the rest of the water crossed Broadway, and two-thirds of it would end up at the bottom of the underpass. There it could pond and stop traffic.¹⁰

The original drainage system had three structures: catch basins under the two roadways, a manhole that the catch basins drain to, and the pump station connected to the manhole. The pump station was designed to drain underpass water. This drainage system is still in existence and is being used.

In September 1938 1.66 inches of rain fell in 24 hours, causing water to run over curbs in downtown and reach up to eight feet in the underpass. Supplemental pumps had to be used to get the structure serviceable.¹¹

Through the years flood control was greatly improved. In 2014, a storm of the type designers plan for (2.75 inch-

es in 24 hours) occurred, and there was water build-up in the Central Avenue underpass, but it was related to maintenance and not design.¹⁰

ALBUQUERQUE RAIL TRAIL

In 2024 the City of Albuquerque began to modify the pedestrian tunnels of the Central Avenue underpass to address public safety concerns and to connect them to the seven-mile Albuquerque Rail Trail. The tunnels will be closed and three new ramps will allow pedestrians and bicyclists to pass over the tracks easily and safely.¹²

A single ramp, 20 feet wide, will be located on the southwest side of the underpass. The sidewalk on the northwest side of the roadway will be closed and landscaped to conceal pumps needed for the underpass drainage system. One lane of roadway on the south side will be removed between the underpass and First Street to accommodate the wider pedestrian ramp.

On the east side of the underpass, two ramps will be connected with a pedestrian bridge high enough to not cause traffic clearance problems. This bridge will be a separate structure. The ramps on the east and west sides will be connected by a relatively wide grade crossing of the rails that will have safety controls for access and departure.¹² The designed grade crossing will be located south of the underpass structure. The Rail Trail will link downtown, cultural destinations, entertainment, mass transit, and the Albuquerque Rail Yard.

This will be the biggest change in the structure's 87-year history and will allow the underpass to continue serving well into the future.

Roger Zimmerman, a civil engineer, is past president of the Albuquerque Historical Society. He is New Mexico's representative on an American Society of Civil Engineers' committee to nominate Route 66 as a National Historic Civil Engineering Landmark.

End Notes:

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2. Kammer, David, "Historic and Architectural Resources of Route 66 Through New Mexico." National Register of Historic Places, US Department of the Interior, National Park Service, August 1993.
3. 1891 Sanborn Map of Albuquerque; City of Albuquerque Landmarks Commission.
4. "Underpass Bids Asked June 26 by Road Board," *Albuquerque Journal*, June 13, 1936, 1.
5. "Underpass on Central to be Opened Today," *Albuquerque Journal*, July 11, 1937, 1.
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7. "Piling Arrives for Tijeras Ave. Underpass," *Albuquerque Journal*, September 25, 1936, 4.
8. Communications with Gary Kinchen, State Bridge Load Rating Engineer, New Mexico Department of Transportation, 2022.
9. Communications with Sertil Kanbar, City of Albuquerque, Department of Municipal Development, 2022.
10. Design Analysis Report, Central Avenue Drainage Improvements, First Street to Broadway Boulevard, WSP, Parsons Brinkerhoff, Project No. 691895, July 20, 2016.
11. "24-Hour Period," *Albuquerque Journal*, September 2, 1938.
12. Communications with Sarah Supple, Public Information Officer, One Albuquerque, Metropolitan Redevelopment Agency, 2024.
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Route 66 Celebration to Include Speakers Series

2026 marks the 100th birthday of Route 66. To celebrate, three groups are planning a speaker series not only for the citizens of the Middle Rio Grande area but for national and international visitors.

Organizers are the Albuquerque Historical Society, East Mountain Historical Society and Historic Albuquerque Inc.

The series will be offered at multiple locations in the Albuquerque metro area on the fourth Saturday of each month in 2026, except December. Each speaker will rotate monthly to a different site, including Bernalillo, Tijeras, and Los Lunas, to give presentations. This rotation will allow us to share your research with multiple communities in central New Mexico. Schedules will be adjusted to fit the speaker's availability.

Presentation topics (nonfiction) can range from New Mexico's unique Route 66 history to historical events that happened along the route, and people or places affected by the Mother Road.

The talk should be 45 to 60 minutes long with visuals in a PowerPoint presentation.

To be a presenter (no stipend available), submit a proposal to Rt66NM100@gmail.com by Jan. 31, 2025. The proposal should include the title and description of your talk, email address, home address, cell phone number, brief bio (which could be used to introduce you), and the months you are available on the fourth Saturdays. You may submit multiple ideas.

For questions, please contact Rt66NM100@gmail.com