The Original Palm Avenue* Swing Bridge

*Also known as S.W. 11th Avenue

by Robert K. Hathaway
New River Crossings©

As one of the oldest operating swing bridges (1925) in Florida, Fort Lauderdale’s historic Palm (S.W. 11th) Avenue bridge ranks first in the hearts of the people who cross it today. But this 83-year-old landmark isn’t the first swing bridge to connect the neighborhoods of Riverside and what is now Sailboat Bend on the North Fork of the New River. There had been another, built some nine years earlier. This is the story of that bridge.
First Swing Bridge Installed 10 Years Earlier

Like many Floridians, Palm Avenue’s original swing bridge was a retiree unexpectedly embarked on a new career. Its first job had been just 11 blocks east at Andrews Avenue, where it was built and installed in 1905 by the Converse Bridge Company of Chattanooga for $6,640. Until 1915 it served there as the only pedestrian/vehicular crossing at the New River.2

Over the years, traffic at the Andrews Avenue crossing continued to build, reflecting the rapid influx of tourists, new residents, developers, and commerce along the corridor from Palm Beach through Fort Lauderdale to Miami. With the completion of the Dixie Highway, linking the highway to Andrews Avenue, it became clear that the bottleneck created by the swing bridge’s single lane design would only get worse. The bridge would have to be replaced.3

North Fork Residents Request Old Bridge

Opportunity knocked for property owners in Waverly Place (now Sailboat Bend) and Riverside. If you’re going to replace the Andrews Avenue Bridge, they asked in a February, 1914 petition to the Fort Lauderdale Town Council, why not let us have the old one? At the time they wanted it moved to what was then known as West Avenue on the North Fork (now called Lauderdale Trail/S.W. 9th Avenue).4

The property owners’ request was, perhaps, somewhat premature since it wasn’t until September, 1914 that the Town Council finally approved the Andrews Avenue project, while moving to “investigate the matter” of whether and where to relocate the existing swing bridge.5 On January 5, 1915 the town signed a contract with the Dade County Board to share the cost of building the new Andrews Avenue Bridge (the town to contribute $6,000 and the county $10,000).6 The next day, the Champion Bridge Company was awarded the contract to build the new bridge and to move the old swing bridge to a temporary location at Osceola (S.E. 1st) Avenue, where traffic would take a one-block detour during construction.7

The Council had much to think about in 1915, including the creation of Broward County in April, its borders incorporating portions of Palm Beach and Dade counties, with Fort Lauderdale as the new county seat.8

Meanwhile, Riverside property owners Jeanie and James Kelley proposed a creative, cost-saving idea for relocating the swing bridge once its temporary duties were over. If the town would forgive their back taxes, forgive any special new road assessments and pay them $150, the Kelleys would donate a 40-foot wide strip of their land for bridge access. The proposed strip stretched from the south bank of the North Fork opposite Palm Avenue south to S.W. 4th Street.9

The question of what to do with the swing bridge was not decided until barely one month before the new Andrews bridge was scheduled for completion. On November 4, 1915 the Board of County Commissioners voted to advertise for bids for “the removal of the temporary bridge now located at Osceola Avenue to a point where Palm Avenue crosses the North Fork of New River.”10 The following week (November 11) they voted to pay for the relocation, noting that the Kelley property was the “best location obtainable at a reasonable cost.”11

U. S. War Department Approves Relocation Plans

On November 20, 1915, the Town Council voted to sign a contract with the Kelleys for the $150, plus the tax and assessment relief they had requested.12 Two days later, with drawings in hand for the Palm Avenue installation (prepared by civil engineer H.C. Davis), the council voted to present the plans to the U. S. War Department,13 which soon gave its approval under the signature of Henry Breckenridge, then Assistant Secretary of War under President Woodrow Wilson.14

The Champion Bridge Company won the contract to move both the old swing bridge and bridge tender’s building and to install them at their new location up river. The cost for the entire project: $3,200 (roughly equivalent to $66,000 in today’s dollars). The contract, signed December 10, 1915, stipulated that the project was to begin December 20 (shortly after the new Andrews Avenue Bridge had opened) and was to be completed within 60 days.15

With the more efficient swing bridge soon to be in operation at Palm Avenue, an old fixed bridge that crossed the North Fork one block west at Seminole Avenue was no longer needed. Undoubtedly, the cash-strapped commissioners were delighted with the deal they struck with contractors Newland and Olson in February of 1916. The contractors agreed to remove the old bridge, accepting only the bridge itself as payment.16

There was still the matter of paying for the work at the Palm Avenue site. To fund the project, as well as other bridges and roadway improvements, Broward County floated a bond issue for $175,000. The measure was submitted to voters on March 18, 1916, after the Palm Avenue project was completed. It passed
overwhelmingly, but funds didn’t become available until after May 25, when the F. L. Fuller Company of Cleveland, Ohio was awarded its bid to purchase the bonds. Fortunately, the Champion Bridge Company was patient.

While initially agreeing to wait for their check until May 1, 1916, it was not until September 11, 1916 that the Broward County Commissioners finally approved payment.

And so this single lane swing bridge from Andrews Avenue, the first public bridge across the New River, had gained a useful new life. The refurbished bridge faithfully served the growing neighborhoods of Waverly Place and Riverside for ten years. It also provided more convenient access to the remaining waters of the North Fork, which then, as now, extended northwest roughly to the area known today as Martin Luther King Jr. Avenue at Sunrise Boulevard.

**Epilogue**

The final retirement of the original Palm Avenue swing bridge was decided on December 3, 1924, when the Broward County Commissioners acknowledged that the old bridge was “in a dangerous condition and unsafe for traffic.” Also acknowledging that the county did not have the funds to build a new one, they resolved to accept a proposal from the City of Fort Lauderdale to take over both the reconstruction and control of the replacement bridge. The Champion Bridge Company won the contract to build the bridge, completing the project in 1925.

This is the two-lane swing bridge at S.W. 11th Avenue that continues in service today.
Figure 2: Drawing of bridge at its proposed new location at Palm Avenue. It also illustrates the distance to the Mean Low Water line to the top of the bridge deck (9.4 feet). Dated December, 1915. Courtesy Broward County Historical Commission.

Only the steel draw span, the entire moveable section of the original swing bridge was to be detached, transported one mile to the west, and reinstalled at Palm Avenue. Davis was concerned that the bridge be installed at a precise elevation above the water line, specifying that “the plane of reference shall be mean low water at New River Inlet and the ENGINEER shall keep a suitable tide gauge plainly showing such elevation at the site of the work at all times during the progress of the work.”

First a new substructure had to be built at the site, beginning with the “center pier,” the critical pivot point that would support the draw span. When completed, the center pier would be a tight cluster of 23 pilings surrounded by a steel casing filled with concrete. The 23 pilings were strategically located and driven down to the firm bearing rock beneath the river. The three piles nearest the center of the cluster were drawn closely together and secured with steel wire cable at the top.

A 12-foot diameter sheet metal casing provided the form for the center pier. It consisted of “sheet metal three-sixteenths inches in thickness . . . securely riveted together” to minimize leakage. The upper edge of the casing was set level with the finished top of the center pier, while the lower edge was “set at least 12 feet below the plane of reference.” When “all sand, mud and debris were removed” concrete was poured into the form, filling it to the top. Anchor bolts were then embedded in the wet concrete to be used for securing the base and track castings to the center pier.

New rest piers were installed at either end of the draw span, each consisting of two piling bents or caps used to hold the piles in their correct position.

The original span that was to be mounted atop the new substructure was repaired and retrofitted to assure its safety and operability. Davis specified that all floor joists that were not “sound and suitable” be replaced with new timbers. He also called for the deck to be “entirely removed and replaced with two inch ‘Dade County’ pine” and that the existing sidewalks be replaced with new sidewalks “of the same design and dimension,” also using the Dade County lumber. In addition, brackets, joists and hand rails were replaced, as needed.
H.C. Davis et. al.

Herbert C. Davis: The Man Behind the Designs

H.C. Davis, served as both the Town Engineer for Fort Lauderdale and the first County Engineer for Broward County. His designs were pivotal in the early development of roadways, bridges and sidewalks in the area. In this 1915 photo taken shortly after Broward County was created, he is shown with other county officials (left to right): Davis, commissioners C. E. Ingalls (Hallandale), A. B. Lowe (Dania), J. J. Joyce (Fort Lauderdale) and County Attorney W. I. Evans. Photo (#5-5444) courtesy Fort Lauderdale Historical Society.

The Traveling Bridge

The original Palm Avenue swing bridge had a career on the move in more ways than one. This photo, taken circa 1912-1915, shows the bridge at its original Andrews Avenue location where it was in use from early 1905 to late 1914. After its removal to make room for a larger bridge at Andrews Avenue, this versatile little bridge took on two more jobs – first as the temporary detour bridge at Osceola Avenue for a few months while the new Andrews Bridge was being built and then, for ten years, as the original swing bridge at Palm (S.W. 11th) Avenue, the precursor to the larger swing bridge currently operating at that location. Photo (#5-4561) courtesy Fort Lauderdale Historical Society.
(Figure 3: Pratt's drawing of Waverly Place)
Development Spurs Improved Access

Figures 3 & 4. 1910 and 1911 drawings by engineer Charles Pratt showing two new residential developments on either side of the North Fork of the New River in Fort Lauderdale where the Palm Avenue Bridge would be installed a few years later. Drawings courtesy of website for Clerk of Courts, 11th Judicial Circuit of Florida, Miami-Dade “Old Plat Book Image Search.”

What prompted the relocation of an eleven year old bridge to Palm Avenue at the east end of the New River’s North Fork? Simply stated: the need for improved navigation and access in the face of rapidly expanding settlement.

On October, 1910, Charles Pratt, a civil engineer, laid out a new addition to Fort Lauderdale, called Waverly Place.\textsuperscript{26} Five months later, in its March 15, 1911 edition, the (Miami) Daily Herald announced that “The sale at Waverly Place [now Sailboat Bend] located five blocks west of the FEC railroad station, was proving to be a great success.” In January, 1911 Pratt laid out another addition called Riverside, across the river from Waverly Place.\textsuperscript{27}

Two years later a “want ad” in the December 31, 1912 edition of the Miami Metropolis, proclaimed: “All live wires in Fort Lauderdale, no knockers there. That’s why its growth has been so wonderful. Fort Lauderdale has its start and you CAN’T STOP IT. Fort Lauderdale, city of Destiny. Growing faster possibly than any other town in U.S. All Fort Lauderdale boosters are requested to meet Willingham in front of Osceola Hotel New Year’s morning at 10 o’clock.”\textsuperscript{28}