

## North Carolina Department of Natural and Cultural Resources **State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper Secretary Susi H. Hamilton

Office of Archives and History Deputy Secretary Kevin Cherry

December 20, 2018

**MEMORANDUM** 

TO: Kate Husband

> Office of Human Environment NCDOT Division of Highways

Renee Gledhill-Earley (ane Wledhill-Earley FROM:

Environmental Review Coordinator

SUBJECT: Historic Structures Survey Report, Replace Bridge 84 on SR 1234 Over I-40, BR-0033,

PA 17-12-0047, McDowell County, ER 18-3996

Thank you for your November 27, 2018, memorandum transmitting the above-referenced report. We have reviewed the report and concur that Bridge 142 (MC0129) is not eligible for listing in the National Register of Historic Places under any criteria for the reasons outlined in the report.

The above comments are made pursuant to Section 106 and 110 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Mary Pope Furr, NCDOT, mfurr@ncdot.gov cc:

# Received: 12/04/2018





# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

**ROY COOPER** GOVERNOR

JAMES H. TROGDON, III SECRETARY

ER 18-3996

November 27, 2018

**MEMORANDUM** 

Due -- 12/31/18

TO:

Renee Gledhill-Earley

Environmental Review Coordinator

North Carolina State Historic Preservation Office

FROM:

Kate Husband

Architectural Historian

NCDOT Division of Highways

SUBJECT: BR-0033, Replace Bridge No. 84 on Sr 1234 (Parker Padgett Road) over I-

40, PA 17-12-0047, McDowell County

Enclosed please find the Historic Structures Survey Report, survey site database, and additional materials for the above referenced project for your review and comment per Please contact me by phone (919-707-6075) (klhusband@ncdot.gov) if you have any additional questions or comments.

# HISTORIC STRUCTURES SURVEY REPORT

for

Replace Bridge No. 84 on SR 1234 (Parker Padgett Road) over I-40
McDowell County
North Carolina Department of Transportation
TIP No. BR-0033
WBS No. 67033.3.1

Prepared for:
Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, NC 27699-1598

Prepared by:
Acme Preservation Services, LLC
825C Merrimon Avenue, #345
Asheville, NC 28804
828-281-3852

November 2018

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November 2018

Clay Griffith, Principal Investigator Acme Preservation Services, LLC

Date

Mary Pope Furr, Supervisor Historic Architecture Team North Carolina Department of Transportation

Date

# Replace Bridge No. 84 on SR 1234 (Parker Padgett Road) over I-40, McDowell County North Carolina Department of Transportation TIP No. BR-0033 | WBS No. 67033.3.1

#### **MANAGEMENT SUMMARY**

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 84 on SR 1234 (Parker Padgett Road) over Interstate 40 (I-40) near Old Fort in McDowell County. The project area is located in the western portion of the county between the towns of Marion and Old Fort. The Area of Potential Effects (APE) for the proposed project is delineated as 300 feet from the north end of the bridge, 1000 feet from the south end, and 100 feet on either side of the center line.

The project is subject to review under the Section 106 Programmatic Agreement for Minor Transportation Projects (NCDOT/NCHPO/FHWA/USFS 2015). NCDOT Architectural Historians defined an APE and conducted a site visit to identify and assess all resources of approximately fifty years of age or more within the APE. Only one resource warranted an intensive National Register eligibility evaluation, which is the subject of this report. NCDOT Architectural Historians determined that all other properties and districts are not worthy of further study and evaluation due to lack of historical significance and/or integrity.

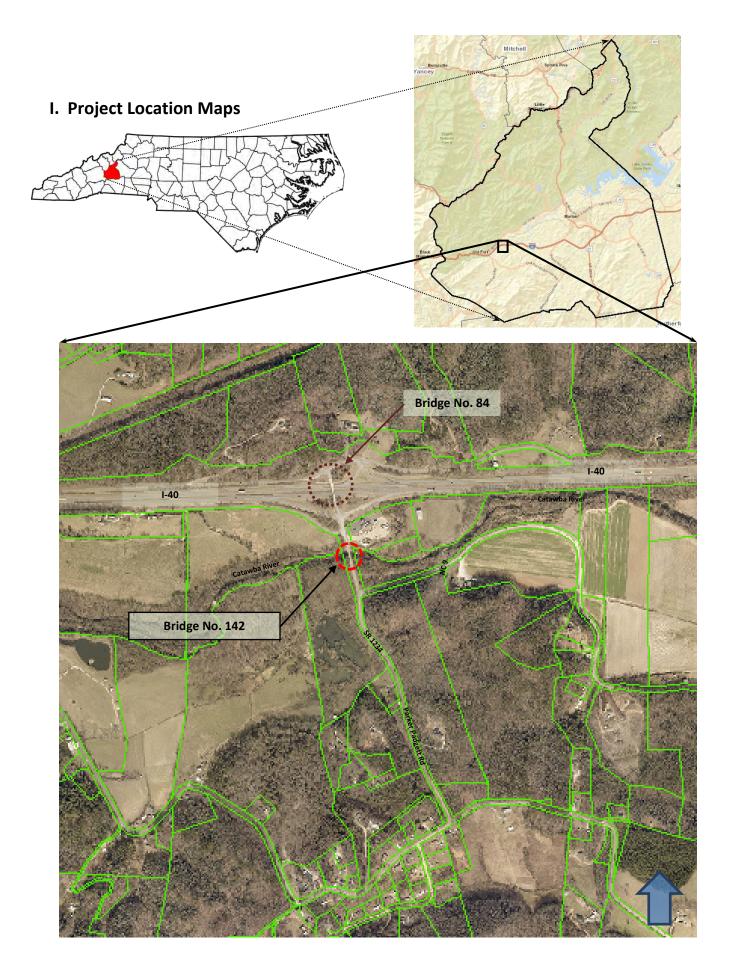
NCDOT contracted with Acme Preservation Services, LLC (APS) in August 2018 to complete an intensive historic resources evaluation of Bridge No. 142 (MC 129), a steel and concrete bridge on Parker Padgett Road just south of the I-40 interchange. Architectural historian Clay Griffith conducted the fieldwork on August 8, 2018, photographing and mapping the resources and project area, and authored the report. Background investigation included research through the McDowell County Register of Deeds Office, McDowell County GIS, and Pack Memorial Library in Asheville. The North Carolina State Historic Preservation Office's Polk County survey files at the Western Office of Archives and History in Asheville were searched to provide some architectural context. After an intensive evaluation following the National Register of Historic Places criteria for eligibility, Bridge No. 142 was found to be not eligible due to a lack of any special historic and architectural significance.

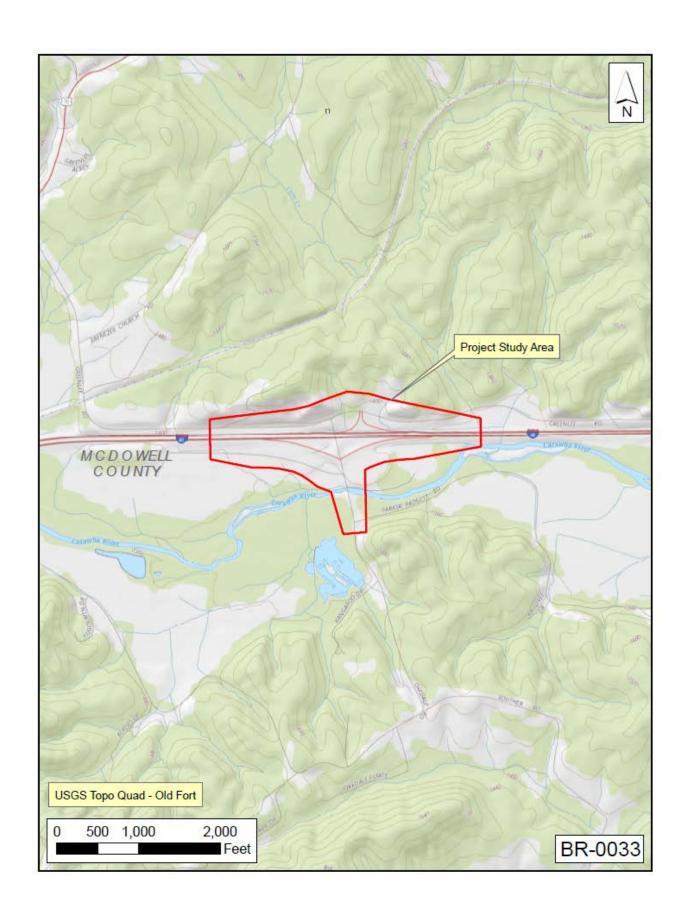
APS conducted the survey and prepared this report in accordance with the provisions of the Federal Highway Administration (FHWA) Technical Advisory T 6640.8A (Guidance for Preparing and Processing Environmental and Section 4(f) Documents); the Secretary of the Interior's Standards and Guidelines for Archaeological and Historic Preservation (48 FR 44716); 36 CFR Part 60; 36 CFR Part 800; the HPO's Report Standards for Historic Structure Survey Reports/Determinations of Eligibility/Section 106/110 Compliance Reports in North Carolina; and NCDOT's current Historic Architecture Group Procedures and Work Products. This property evaluation meets the guidelines of NCDOT and the National Park Service.

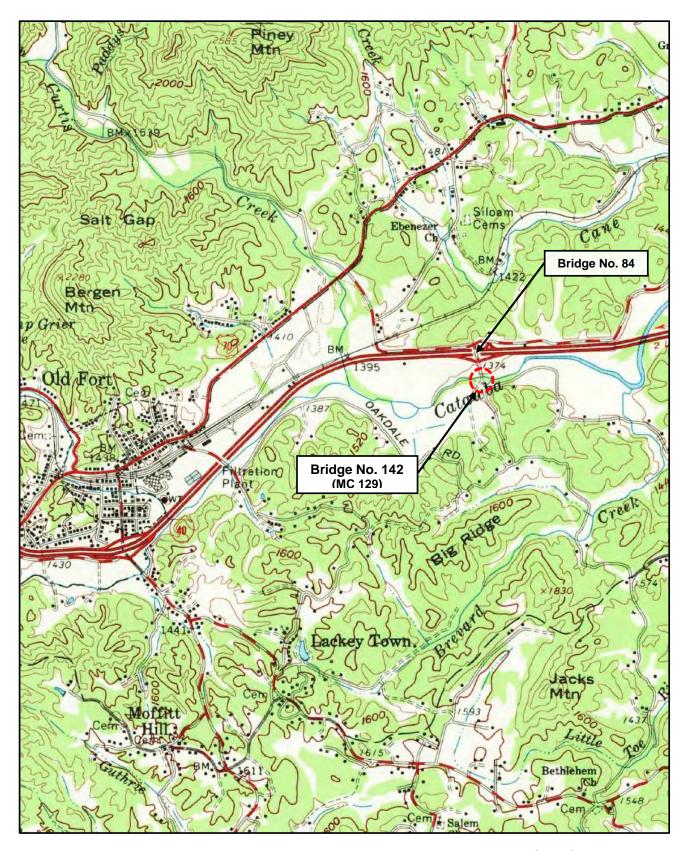
SSN	Property Name	Address	PIN	Eligibility Determination	Criteria
MC 129	Bridge No. 142	SR 1234 over Catawba River	none	Not eligible	

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Location Map – Marion, N.C. USGS topographic quadrangle map (1962)

#### II. Introduction

NCDOT proposes to replace Bridge No. 84 on Parker Padgett Road (SR 1234) over Interstate 40 in McDowell County. The project area is located in the western section of the county, two miles east of the town of Old Fort. Bridge No. 84, built in 1958, is part of the interchange that forms Exit 75 on I-40, which was constructed through McDowell County in the late 1950s.

The Area of Potential Effects (APE) for the proposed bridge replacement project encompasses the interstate interchange and is delineated as 300 feet from the north end of the bridge, 1000 feet from the south end, and 100 feet on either side of the center line. Bridge No. 84 was built in 1958 as part of the construction of I-40 between Hildebran in Burke County and Old Fort. A convenience store dating from the late 1960s and a mobile home trailer are located in the southeast quadrant of the interchange. Aside from the interchange bridge, a second bridge (No. 142) located approximately 525 feet south of the interchange is only other structure over fifty years of age within the APE and is the subject of this report.

The general project area is defined by the interstate right-of-way and the interchange with Parker Padgett Road. Greenlee Road (SR 1246) runs east-west along the north side of the interstate and generally forms the northern limit of the project area. Land lying to the south of the interstate is characterized by bottomlands and agricultural fields bordering the Catawba River's wooded banks. Parker Padgett Road continues south from the interchange, spans the river, and turns sharply to east before forming a wide, sweeping curve through agricultural fields to the southeast.



Bridge No. 84 on SR 1234 (Parker Padgett Road) over I-40, Exit 75, view to west



Bridge No. 84 (Exit 75), view to north along SR 1234 (Parker Padgett Road)



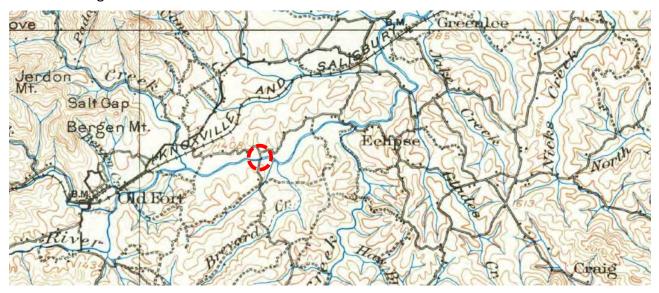
Parker Padgett Road (SR 1234), view south from Exit 75 toward Bridge No. 142

## III. Methodology

The field survey was conducted on August 8, 2018, and the project area around Bridge No.84, and Bridge No. 142 was photographed and recorded. Basic research on the project area was conducted by consulting with McDowell County GIS records, the Register of Deeds online records, and at Pack Memorial Library in Asheville. The project area is not covered by Sanborn maps, but it is shown on USGS topographic quadrangle maps dating back to 1900.

McDowell County has not been comprehensively surveyed for historic architectural resources, but the North Carolina State Historic Preservation Office's (HPO) survey files at the Western Office of Archives and History in Asheville were searched to provide some architectural context. Ted Alexander, as part of a ten-county Western Regional Survey project, conducted a reconnaissance survey of the county 1985 and prepared a brief summary report.

A review of the HPOWEB GIS Service (<a href="http://gis.ncdcr.gov/hpoweb">http://gis.ncdcr.gov/hpoweb</a>) revealed no recorded properties in and around the project area with the exception of Bridge No. 142 over Catawba River. Six other bridges in McDowell County have been determined eligible for the National Register of Historic Places, including two reinforced concrete arch bridges located on the Blue Ridge Parkway (Nos. 97 and 109). Bridge No. 322, known as Cane Creek Bridge, is located on a bypassed section of the old Central Highway, NC 10, approximately one mile north of the project area. Built in 1921, the Cane Creek Bridge is single-span reinforced concrete slab structure from the early years of statewide design standardization. In the eastern part of the county, two Pratt Through Truss bridges, built by the Virginia Bridge and Iron Works in 1919, span the Lake James spillway. The two spans were taken out of service in 1981, when a new bridge was erected downstream during rehabilitation of the Lake James Dam. A small number of additional survey files were created for McDowell County bridges with the release of inspection reports from NCDOT's Bridge Maintenance Unit.



Mount Mitchell, N.C. USGS topographic quadrangle map (1900) – approximate bridge location

# IV. Bridge No. 142

Resource Name	Bridge No. 142 (58142)
HPO Survey Site Number	MC 129
Location	SR 1234 (Parker Padgett Road) over Catawba River
PIN	None
Date(s) of Construction	1966
Eligibility Recommendation	Not Eligible



Bridge No. 142 over Catawba River, view to north along SR 1234 (Parker Padgett Road)

#### Description

Bridge No. 142 over Catawba River is a three-span structure measuring approximately 120 feet in length and consisting of a reinforced concrete slab on steel I-beams. It rests on concrete abutments with two reinforced concrete bents anchored in the river bed. The low railing consists of a single, square concrete bar supported by concrete posts. The bridge carries the two-lane roadway of Parker Padgett Road (SR 1234) over the river with a relatively low clearance.



Bridge No. 142, east side, oblique view to north



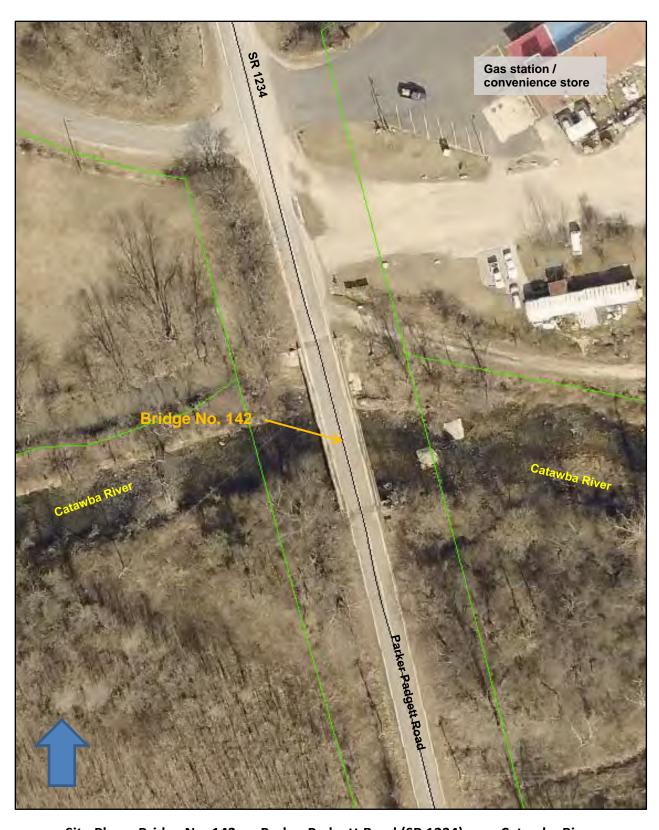
Bridge No. 142, east side, oblique view to southwest



Bridge No. 142, west side, oblique view to northeast



Bridge No. 142, west railing, view to northwest



Site Plan – Bridge No. 142 on Parker Padgett Road (SR 1234) over Catawba River



I-40 Construction, WSW from Old Fort along Catawba River, April 6, 1958, Bingham Aerial Photo [E243-5, North Carolina Collection, Pack Memorial Library, Asheville, NC]

#### Historic Background

McDowell County was formed in 1842 from territory belonging to Burke and Rutherford counties. Named for Col. Joseph McDowell, a Revolutionary War officer and local resident, the county is located along the upper Catawba River in the western foothills of the Piedmont region. The county seat of Marion was founded in 1843 on land given by John L. Carson and remained a small community until the arrival of the Western North Carolina Railroad (WNCRR) in 1870.<sup>1</sup>

The community of Old Fort, lying at the foot of the Blue Ridge in the western part of the county, falls in a topographically transitional area between the Piedmont to the east and the mountains to the west. The small town developed at the site of a fortified stockade built by Samuel Davidson and known as Davidson's Fort in the late eighteenth century. Other early settlers in the county included members of the Carson, McDowell, Greenlee, and Rutherford families.

<sup>&</sup>lt;sup>11</sup> David Leory Corbitt, *The Formation of North Carolina Counties, 1663-1943*, 2<sup>nd</sup> printing (Raleigh, NC: State Department of Archives and History, 1968), 142-144; Catherine W. Bishir, Michael T. Southern, and Jennifer F. Martin, *A Guide to the Historic Architecture of Western North Carolina* (Chapel Hill, NC: University of North Carolina Press, 1999), 163.

Following the arrival of the WNCRR, Old Fort remained the end of the line with a small collection of frame commercial buildings and log or simple wood frame houses. Work progressed slowly during the 1870s to extend the railroad across the mountains and connect to Asheville. The difficult route finally crested the Blue Ridge with the completion of the Swannanoa Tunnel in 1879. The connection to Asheville was completed in 1880 and opened the area to a surge in tourism-related development during the late nineteenth and early twentieth centuries.<sup>2</sup>

Old Fort's commercial center begin to evolve during the first decades of the twentieth centuries as one- and two-story brick buildings replaced the early frame structures. By 1920, Old Fort was emerging as an industrial center within McDowell County with a tannery, extraction plant, a bleachery, and two grist mills. New industries opening in the 1940s helped the county economy recover from the effects of the Great Depression. A rayon mill, rayon finishing plant, hosiery mill, and furniture factory brought needed jobs for county residents. During the 1940s, county officials authorized additional road construction as automobile transportation gained in prominence.<sup>3</sup>

A major development for county residents began in the late 1950s as the State Highway Commission announced plans for massive interstate construction projects throughout the region. Although the state implemented the program of interstate construction, the impetus for high-speed limited-access highways began at the federal level with the passage of the Federal-Aid Highway Act of 1956. The act allowed the federal government to establish design standards and secure funding through the Highway Trust Fund. The North Carolina State Highway Commission, with its long history of centralized control of the highway system, effectively and efficiently launched an extensive program of design and construction for the interstate highways within the state.<sup>4</sup>

Plans for an interstate highway to link Hickory with Asheville began in 1957, with work soon beginning on the initial section between Hildebran and Morganton. More than \$83,000,000 of road work was under contract in 1957, with even greater expenditures anticipated for the coming year. One of the planned projects for 1958 was paving approximately 25 miles between Glen Alpine and Old Fort, which would "complete a four lane stretch from Hildebran to Black Mountain." By January 1959, two grading contracts were in force in McDowell County, including the fourteen-mile stretch between Marion and Old Fort. Work on this section was just beginning and was estimated to cost approximately \$2,200,000. Rugged terrain on this section required moving more than five million cubic yards of earth, and the project was described at the time as

<sup>&</sup>lt;sup>2</sup> Sybil Argintar, "Old Fort Commercial Historic District" National Register of Historic Places Registration Form (Southeastern Preservation Services, Asheville, NC, 2010), 8:10-12.

<sup>&</sup>lt;sup>3</sup> Ibid., 8:12-15.

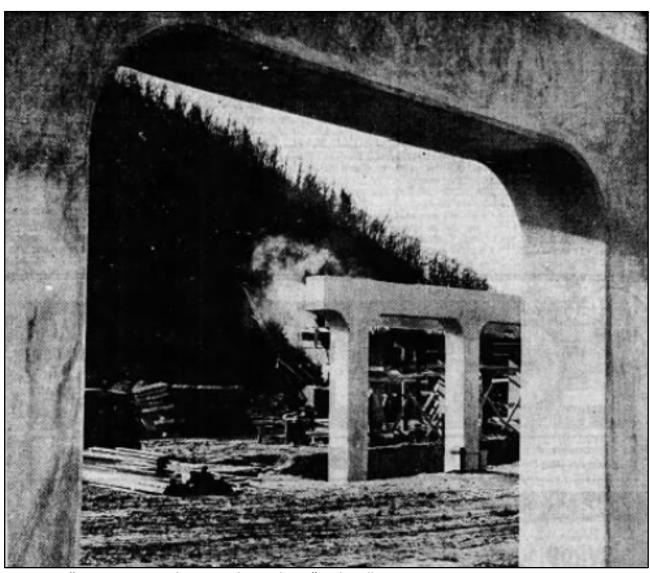
<sup>&</sup>lt;sup>4</sup> Patrick Harshbarger, "North Carolina Department of Transportation Historic Bridge Inventory," Report for North Carolina Department of Transportation, Raleigh, NC (January 2005), 71.

<sup>&</sup>lt;sup>5</sup> Philip Clark, "16 WNC Highway Jobs in Construction Stage," Asheville Citizen-Times, October 6, 1957,

<sup>&</sup>lt;sup>6</sup> "Road Work Sets Record," Asheville Citizen, December 20, 1957.

the largest grading contract ever let in North Carolina. Seventeen bridges were to be built at an estimate cost of \$1,220,000 along this section.<sup>7</sup>

Although a road crossing the Catawba River in the general location of Bridge No. 142 is shown as far back as 1900, the documented history of bridges at this location begins in the late 1950s. Records from NCDOT's Bridge Maintenance Unit provide evidence of a 60-foot single-span Warren pony truss erected here in March 1957. The truss was composed of four 15-foot sections and had a timber floor and railings; it was supported on creosote piers. The bridge was erected as construction was beginning on I-40 through McDowell County.



"A Fine New Highway in the Making," Asheville Citizen, January 8, 1959, p. A1 (Present-day Sugar Hollow Road interchange, Exit 81)

Acme Preservation Services November 2018

<sup>&</sup>lt;sup>7</sup> Karl Fleming, "Interstate 40 Job Progresses," *Asheville Citizen*, January 8, 1959.

Bridge No. 142, the steel truss structure, was removed in 1966 and replaced with the current three-span steel stringer bridge. According to inspection reports from the Bridge Maintenance Unit, the truss bridge had been overstressed during the construction of I-40. Contractors hauling heavy loads across the bridge caused both trusses to become bowed, and one diagonal member was broken completely through. The bridge was replaced with the present structure in December 1966.<sup>8</sup>

The steel stringer design of Bridge No. 142 represents one of the most common bridge types built in North Carolina. Beginning in 1915, with the creation of the State Highway Commission, North Carolina assumed a leading role in the design and construction of roads and bridges. The State Highway Commission had centralized control over highways, which allowed it to effectively improve and maintain the longest state road system in the country. North Carolina earned the moniker, "the Good Roads State," due to the extent and quality of its roads and bridges.<sup>9</sup>

Given the size of North Carolina's road system, the need for bridges to span the state's numerous creeks and rivers formed a substantial component of State Highway Commission's work. William L. Craven, the first chief bridge engineer from 1917 to 1944, significantly influenced North Carolina's standardized approach to bridge design and construction. Craven oversaw the development of standardized plans and specifications for bridges that could be readily applied or adapted to many situations. While the use of standardized plans limited variation and innovation, the practice was economical to the state and allowed for widespread bridge construction. <sup>10</sup>

The Bridge Maintenance Unit was created in 1921 by the State Highway Commission to build and maintain the state's network of bridges and culverts. While the unit ostensibly was responsible for maintenance, the Bridge Maintenance Unit had the capability to build many of the straightforward, standardized bridge types with a minimum of equipment. When the state assumed responsibility of the county road system and its 15,000 bridges in 1931, the Bridge Maintenance Unit's role was greatly expanded. The unit adopted standardized plans for timber and steel stringer bridges, as well as steel girder-and-floorbeam bridges, and began systematically replacing the majority of old county-built bridges on the secondary road system between the late 1940s to the 1960s.<sup>11</sup>

Bridge No. 101 on SR 1273 (Ted Smith Road) over Catawba River just south of Old Fort was an early pony truss bridge with pinned connections. The Bridge Maintenance Unit replaced the 45-foot single-span structure with a new bridge in 1950. Bridge No. 95 on SR 1161 (Lytle Mountain Road) over Catawba River was an 80-foot steel truss bridge built in 1918 by the county. It was replaced in 1984 by a concrete structure with solid railings. Similarly, Bridge No. 48 on SR 1130 (Mack Knoblitt Road) over Crooked Creek was a low steel truss bridge built in 1925. The structure was replaced in 1998 with a concrete bridge and solid railings.

<sup>&</sup>lt;sup>8</sup> The HPO survey file for McDowell County Bridge No. 142 (MC 129) was created with the Bridge Maintenance Unit inspection reports from NCDOT. No photographs of the steel truss bridge are included in the survey file.

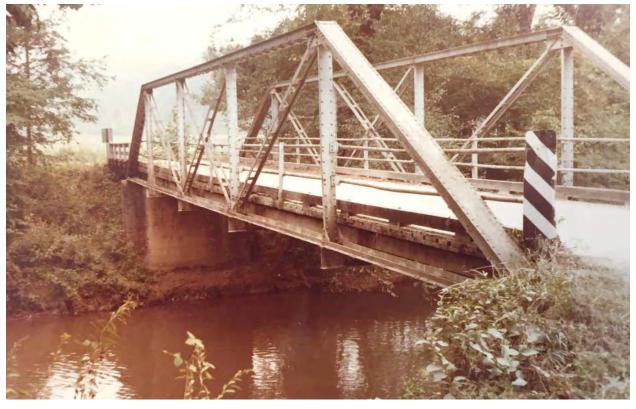
<sup>&</sup>lt;sup>9</sup> Harshbarger, 17.

<sup>&</sup>lt;sup>10</sup> Ibid., 19.

<sup>&</sup>lt;sup>11</sup> Ibid., 21.



Bridge No. 101 (MC 126), SR 1273 over Catawba River [Photo from HPO Survey Files]



Bridge No. 95 (MC 125), SR 1161 over Catawba River [Photo from HPO Survey Files]

The Greenlee Bridge (No. 93) spanned the Catawba River approximately three miles northeast of the project location. Located on Old Greenlee Road (SR 1214), the bridge featured a lengthy approach structure composed of steel stringers with a two-bar wood railing. The two principal spans over the river were a Parker Through Truss and a Pratt Through Truss. The bridge was replaced in 1977 with a concrete structure approximately 425 feet in length. The present bridge has solid concrete railings.





Greenlee Bridge (MC 124), SR 1214 over Catawba River [Photos from HPO Survey Files]

The truss design of Bridge No. 142 was one of many structures built by the Bridge Maintenance Unit in McDowell County during the mid-twentieth century. These late instances of steel truss bridges were erected on secondary roads to span small or moderate waterways. Nearly all of the steel truss bridges in the county had been replaced or taken out of service by the 1990s. Bridge No. 142 was replaced with the current structure in 1966 due to damage caused during the construction of I-40 in the late 1950s and early 1960s. The current steel stringer bridge with a low, concrete rail is one of the most common types built throughout the state during the period. More than 2,000 examples of this type of bridge dating from before 1960 remain in North Carolina. 12

<sup>&</sup>lt;sup>12</sup> Ibid., 25.

#### VI. Evaluation

For purposes of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, Bridge No. 142 (MC 129) is **not eligible** for the National Register of Historic Places. The structure is an undistinguished example of a common steel stringer bridge design with low concrete rails. The bridge retains integrity of location, setting, design, materials, workmanship, feeling, and association.

Bridge No. 142 is **not eligible** for the National Register under Criterion A (event). *To be eligible under Criterion A, a property must retain integrity and must be associated with a specific event marking an important moment in American pre-history or history or a pattern of events or historic trend that made a significant contribution to the development of a community, a state, or the nation. Furthermore, a property must have existed at the time and be documented to be associated with the events. Finally, a property's specific association must be important as well. Steel stringer bridges were one of the most common bridge types built in North Carolina. To address the state's extensive road network and multitudinous waterways, the state's chief bridge engineer developed standardized designs and specifications that could be adapted to various locations. Standardization helped the State Highway Commission to erect a large number of structures economically and efficiently. Bridge No. 142 is one of many surviving examples of the State Highway Commission's bridge building program that contributed to the development and expansion of the state's highway systems. The bridge, however, lacks any individual distinction or significant association with the state's bridge building program. As such it is not eligible for the National Register under Criterion A.* 

Bridge No. 142 is **not eligible** for the National Register under Criterion B (person). For a property to be eligible for significance under Criterion B, it must retain integrity and 1) be associated with the lives of persons significant in our past, i.e. individuals whose activities are demonstrably important within a local, state or national historic context; 2) be normally associated with a person's productive life, reflecting the time period when he/she achieved significance, and 3) should be compared to other associated properties to identify those that best represent the person's historic contributions. Furthermore, a property is not eligible if its only justification for significance is that it was owned or used by a person who is or was a member of an identifiable profession, class, or social or ethnic group. The design and construction of the bridge are not known to be associated with any individual who achieved significance under Criterion B.

Bridge No. 142 is **not eligible** for the National Register under Criterion C (design/construction). For a property to be eligible under this criterion, it must retain integrity and either 1) embody distinctive characteristics of a type, period, or method of construction; 2) represent the work of a master; 3) possess high artistic value; or 4) represent a significant and distinguishable entity whose components lack individual distinction. As noted in the historic bridge inventory completed for NCDOT in 2005, steel stringer bridges were the most common type identified with more than 2,000 examples remaining from the period 1915 to 1960. Collectively, this type of bridge has made a significant contribution to the development of North Carolina's highways, and several individual examples represent significant benchmarks in the refinement and application of this technology. Bridge No. 142, however, possesses no distinctive qualities to distinguish it from numerous other

examples of the type. Due to its lack of physical distinction and design significance, the bridge does is not significant under Criterion C for its design and engineering.

Bridge No. 142 is **not eligible** for the National Register under Criterion D (potential to yield information). For a property to be eligible under Criterion D, it must meet two requirements: 1) the property must have, or have had, information to contribute to our understanding of human history or pre-history, and 2) the information must be considered important. Built in 1966, the bridge is unlikely to contribute significant information pertaining to building technology or historical documentation not otherwise accessible from other extant resources and written records.

## VII. Bibliography

- Argintar, Sybil. "Old Fort Commercial Historic District" National Register of Historic Places Registration Form. Southeastern Preservation Services, Asheville, NC, 2010.
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