

North Carolina Department of Cultural Resources State Historic Preservation Office

David L. S. Brook, Administrator

Michael F. Easley, Governor Lisbeth C. Evans, Secretary Jeffrey J. Crow, Deputy Secretary Division of Historical Resources David J. Olson, Director

January 29, 2003

MEMORANDUM

TO:

Greg Thorpe, Manager

Project Development and Environmental Analysis Branch

NCDOT Division of Highways

FROM:

David Brook BJEfor David Brook

SUBJECT:

Historic Architectural Resources Survey Report Phase II, Replacement of Bridges

61 & 62 over Gum Swamp Creek, B-3373, Scotland County, ER03-0106

Thank you for your letter of January 9, 2003, transmitting the survey report by Ms. Cynthia de Miranda, Edwards-Pitman Environmental, Inc.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following property is eligible for listing in the National Register of Historic Places under the criterion cited:

X-Way Milling Company located on the southeast side of SR 1108, seven tenths of a mile southwest of the junction with SR 1116. The X-Way Milling Company is eligible for the National Register under Criterion A in the area of industry and under Criterion C as a mostly intact example of mid-twentieth gristmill construction. The mill is significant as the only intact water-powered gristmill surviving in Scotland County.

We concur with the Nation Register boundary for the X-Way Milling Complex as described and delineated in the survey report. It encompasses the mill building, the turbine house, the feed mill, the dam, the two tailraces, and a portion of the pond immediately adjacent to the complex. The boundary also includes Bridges 61 and 62, which are not individually eligible for the National Register.

The above comments are made pursuant to Section 106 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.

January 29, 2003 Page 2

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT

Cynthia de Miranda, Edwards-Pittman

bc: Brown/McBride

County





STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY GOVERNOR

LYNDO TIPPETT SECRETARY

January 9, 2003

Mr. David L. S. Brook Deputy State Historic Preservation Officer North Carolina Department of Cultural Resources 4617 Mail Service Center Raleigh, North Carolina 27699-4617

ER03-0106 5 Due 2/4

Dear Mr. Brook:

RE:

B-3373, Scotland County, Replace Bridge Nos. 61 & 62 on SR 1108 over Gum Swamp Creek, State Project #8.2590401, Federal Aid #BRSTP-1108(4)

The North Carolina Department of Transportation (NCDOT) is conducting planning studies for the abovereferenced project. Please find attached three copies of the Historic Architectural Resources Survey Report, which meets the guidelines for survey procedures for NCDOT and the National Park Service. This report concludes that there is one property, the X-Way Milling Company, within the Area of Potential Effects (APE) that is eligible for the National Register.

Please review the survey report and provide us with your comments. If you have any questions concerning the accompanying information, please contact me at 733-7844, ext.300.

Sincerely,

Mary Pope Furr

Mary Pope

Historic Architecture Section

Attachment

Cc (w/ attachment):

Michael Penney, Project Engineer, PDEA

Don Voelker, Federal Highway Administration

FILE COPY)

Historic Architectural Resources Survey Report Phase II Historic Architectural Evaluation

Replacement of Bridges 61 & 62 on SR 1108 over Gum Swamp Creek Scotland County TIP No. B-3373 State Project No. 8.2590401 Federal Aid No. BRSTP-1\$\psi 08(4)

Prepared by:

Edwards-Pitman Environmental, Inc. 5400 Glenwood Avenue, Suite 412 Raleigh, North Carolina 27612-3228 919-785-9702

Prepared for:

Project Development and Environmental Analysis Branch North Carolina Department of Transportation 1548 Mail Service Center Raleigh, North Carolina 27601 919-733-7844

Historic Architectural Resources Survey Report Phase II Historic Architectural Evaluation

Replacement of Bridges 61 & 62 on SR 1108 over Gum Swamp Creek Scotland County
TIP No. B-3373
State Project No. 8.2590401
Federal Aid No. BRSTP-1008(4)

Prepared by:

Edwards-Pitman Environmental, Inc. 5400 Glenwood Avenue, Suite 412 Raleigh, North Carolina 27612-3228 919-785-9702

Prepared for:

Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27601
919-733-7844

January 2003

On Man a Missa of	1.8.2003
Cypthia de Miranda, Principal Investigator	date
Edwards-Pitman Environmental, Inc.	
Att. W	1/8/03
Jennifer Martin, Project Manager	date
Edwards-Pitman Environmental, Inc.	
Mary Pope hur	1.9.2003
Mary Pope Furr, Supervisor	date
Historic Architecture Section	
North Carolina Department of Transportation	

Replace Bridges 61 & 62 on SR 1108 over Gum Swamp Creek, Scotland County, North Carolina TIP No. B-3373

PROJECT DESCRIPTION

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridges No. 61 and 62 on SR 1108 over Gum Swamp Creek in Scotland County. The bridges are timber, steel, and reinforced concrete structures that carry the two-lane SR 1108, also known as X-Way Road.

PURPOSE OF SURVEY AND REPORT

Edwards-Pitman Environmental, Inc. (EPEI) conducted a survey and compiled this report for the North Carolina Department of Transportation (NCDOT) in order to evaluate one property, the X-Way Milling Company, in the Area of Potential Effects (APE) for the project. This evaluation is part of the environmental studies performed by NCDOT.

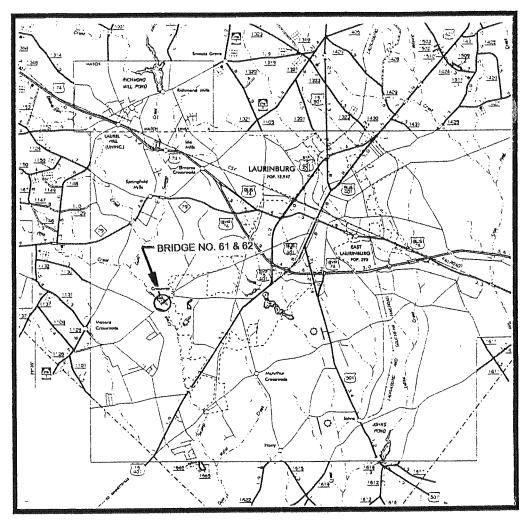
METHODOLOGY

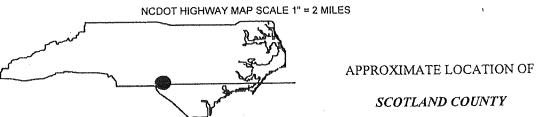
EPEI conducted the survey and prepared this report in compliance with requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, other state and federal regulations, and NCDOT's current *Guidelines for Survey Reports of Historic Architectural Resources*.

EPEI conducted an intensive survey with the following goals: (1) to develop historic and architectural contexts and eligibility requirements for mills in Scotland County; and (2) to evaluate the National Register eligibility of the X-Way Milling Company and, if appropriate, recommend carefully delineated and justified National Register boundaries.

The survey methodology consisted of a field survey of the X-Way Milling Company buildings, with additional survey of other grist mill sites in the county. EPEI staff conducted field surveys on foot on 17 October 2002 and by car on 3 December 2002.

In addition to the field survey, EPEI reviewed the survey files at the North Carolina State Historic Preservation Office (HPO) in Raleigh. EPEI staff also completed background research at the State Archives and State Library of North Carolina; the North Carolina Collection at the University of North Carolina at Chapel Hill; the North Carolina Collection at the Main Branch of the Durham County Public Library; and in the Heritage Room of the Scotland County Memorial Library in Laurinburg. EPEI staff also consulted with Tom Butchko of Elizabeth City, who conducted the county's architectural survey in 1980, as well as with several local residents, most notably George E. Cashman, whose father-in-law, D. A. Monroe, Jr., built the X-Way Mill.





NOTE: ALL LOCATIONS ARE APPROXIMATE

Project Location Map Laurinburg vicinity, Scotland County, North Carolina

Figure 1

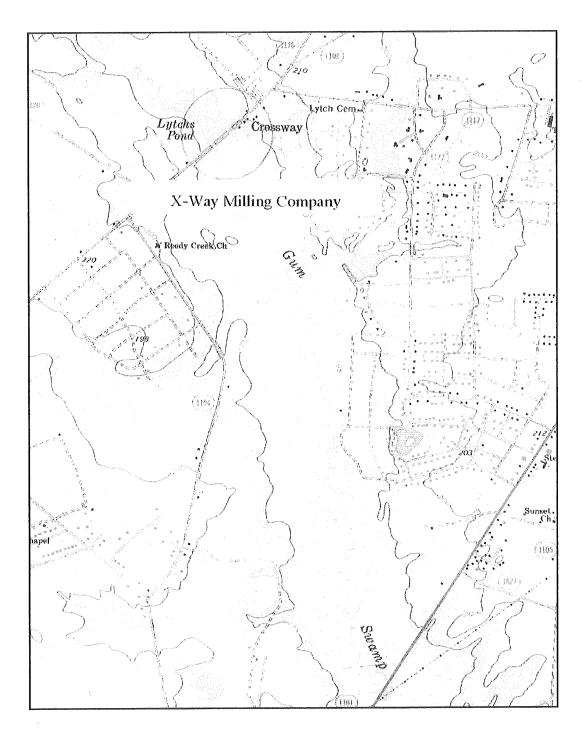


Figure 2

PROPERTY LOCATION MAP

X-Way Milling Company, SR 1108 over Gum Swamp Creek Laurinburg vicinity, Scotland County, North Carolina McColl Quadrangle

PROPERTY EVALUATION

Property Evaluated and Considered Eligible for the National Register of Historic Places

X-Way Milling Company

Location

The X-Way Milling Company is located on Gum Swamp Creek in southern Scotland County. The small complex stands on the southeast side of SR 1108, seven-tenths of a mile southwest of the road's junction with SR 1116.

Date of Construction

The buildings were erected in 1953, after a fire destroyed the previous mill buildings. A dam has been at the site since at least 1869, possibly as early as 1840. The dam suffered damage at least twice: in a 1927 hurricane and again in a 1950s flood. Repairs in 1927 included replacing the waterwheel with submerged turbines. The 1950s repairs included the addition of sheet-piling to make the dam more stable. The concrete overflow spillway at the south end of the dam dates from the mid 1970s, when earlier wood spillway gates were removed from their location at the center of the dam, just south of the existing feed mill building.

Description

The X-Way Milling Company consists of a small complex of mill buildings and a low earthen dam at the southeast end of the mill pond. SR 1108 crosses the dam, and all the buildings stand next to the road on its southeast side. (From this point forward, for the sake of clarity, the description is written as through SR 1108 runs due north-south, with the milling complex to the east.)

The northernmost structure is the two-story grist mill. The frame building stands on a raised brick foundation and has a gable-end roof with a full-length gabled monitor. Asbestos shingles cover the building's diagonal wood siding. Oversized cargo doors provide access at the northwest end of the building. The building's double-hung wood windows appear to be salvaged: 12/12, 6/6, and other lite configurations are present. Concrete loading docks at the foundation height run along the north and west sides of the building and are sheltered by a wrap-around shed roof that extends from a height between the first and second stories of the building. Like the gable roof and monitor, the shed roof is sheathed in metal and has exposed rafter tails.

Just south of the grist mill is the turbine house, a single-story metal-clad building that shelters the mill's turbines and shafts and holds the penstock gates. The gable-end building stands on wood piers and has a truss roof supported by three hewn beams. The horizontal shaft that linked the turbines to the milling equipment in the mill building remains intact, although other shafts and bevel gears in the turbine house are out of place. The turbines rest below the water level. A steel stringer bridge on timber abutments carries SR 1108 over the headrace, which is lined with timber retaining walls. Some brick retaining walls from earlier structures also remain.

A third building, the feed mill and store, stands slightly farther south. The two-story front-gabled feed mill has asbestos shingle siding, a metal roof, wood double-hung sash windows, and two

large cargo entries with six paneled wood doors. A single-story gable-roofed addition creates more space at the rear, and another single-story addition spans the entire north side of the building. This addition served as the feed store; its shed roof is hidden on the west side behind a false front. The west façade also features a single-leaf door flanked by windows beneath a false front that hides the addition's shed profile. A small shed roof shelters the entrance. A metal grain silo stands south of the building.

The earthen dam stretches from the grist mill past another bridge to the south. A concrete-lined spillway at the far south end of the dam passes beneath the bridge, which is a steel stringer on timber pile bents with timber abutments and wing walls.

Background Information

There is record of a dam at this site on Gum Swamp Creek as early as 1869, although local lore says James Lytch built the millpond before the Civil War. James probably acquired the Gum Swamp Creek land in 1845 from Archibald Lytch, and the pond the dam impounds has nearly always been known as Lytch's. ¹

Lytch's mill is listed in the 1870 industrial census as a water-powered grist and flour mill with a daily capacity of sixty bushels ground by two stones. Lytch appears as a place name at the mill site on an 1886 map, which likely indicates that a post office had already been established at or near the mill. A post office at Lytch in Scotland County is listed in the 1902 business directory for the state, the first year that volume was published.²

Despite the namesake mill pond and post office, James Lytch is better known in Scotland County as an inventor of farm implements, particularly the Eclipse cottonseed planter that he patented in 1878. In 1881, the planter won an award at the International Cotton Exposition in Atlanta. Lytch the inventor was honored again, much later, with the erection of a North Carolina Highway Historical Marker in 1957, which stands a quarter-mile north of the mill site. The marker reads: "James Lytch. Invented Lytch cotton planter (patented 1878), a favorite in the South, and other implements. Shops were ¼ mile S.W. This was his home." Some of Lytch's "other implements" included a cotton scraper, cider mill, fertilizer distributor, door check, and a greaser for buggy axles.³

¹ Notes in the Survey Site File for Site SC278 indicate that the mill was built around 1840, but the source for that information is not listed. Mention of the dam was found in Scotland County Record of Deeds, on microfilm at the State Archives in Raleigh. The 1845 deed conveying land from Archibald Lytch to James Lytch is unreadable on microfilm, but the 1869 deed mentions the dam, as well as "860 acres [previously] conveyed by James Stewart Lytch to Archibald Lytch to James Lytch." The Gum Swamp Creek tract was probably part of that 860 acres, likely deeded to James in the illegible 1845 deed.

² Ninth Census of the United States, 1870: Richmond County, North Carolina Industrial Schedule (microfilm), State Archives, Division of Archives and History, Raleigh; John McDuffie and N. A. Graham, *Map of Richmond County, N.C.* (N.p., n.p.: 1886); *North Carolina Year Book and Business Directory 1902* (Raleigh: News & Observer, 1902), 480.

³ Joyce M. Gibson, Scotland County Emerging: 1750-1900 (Laurel Hill, N.C.: Joyce M. Gibson, 1995), 149, 151; Michael Hill, ed., Guide to North Carolina's Highway Historical Markers, 9th ed. (Raleigh: Division of Archives and History, Department of Cultural Resources, 2001), 186.

James Lytch died in an accident on Gum Swamp Creek in 1890, and his son Daniel C. Lytch continued to run the mill while expanding production and sales of the cottonseed planter. The mill changed hands a few times in the early twentieth century, and the post office closed by 1906. In 1920, W.F. Norman and P.S. Bean of Scotland County purchased the property from the Lees of Scotland County for \$25,000. The deed, which describes the tract as the "land known as D.C. Lytch mill property," reveals that a sawmill, cotton gin, and roller mill had been added to the grist mill operation. The dam may have been heightened as well, as the deed refers to the "new water power now utilized in running the said mill and gins." Norman and Bean had also bought 219 nearby acres from Miranda Lytch in 1919.⁴

The new owners operated the Norman Power and Milling Company at the site, supplying electricity to the town of Gibson for some years. D.A. Monroe, an electrical engineer from Montgomery County, came down to run the plant. In 1927, a hurricane swept through the area and damaged the dam. Monroe made repairs and further upgraded the mill by replacing the waterwheel with submerged turbines.⁵

Upon Norman's death in 1933, the eighty or so acres were sold to Monroe, by then the company president. The deed reveals that, in addition to the land, the mill buildings, and the waterpower, Monroe also purchased a ten-acre tract with the riparian rights on the Miranda Lytch portion sold to Norman in 1919. According to the deed, that portion "is now required or may be required in the future for the development of power by means of a dam at the Norman Mill, up to the present level of said dam or such higher level as may be required for the development of power not exceeding a total elevation of eighteen (18) feet." Finally, the sale also included power equipment owned by the Norman Power and Milling Company: a DC generator, transformer, oil engine, and a second generator.

Monroe sold the power equipment to Carolina Power & Light, converted the site to a flour, corn, and feed mill, and ran it until he sold the operation to his son, D.A. Monroe Jr., after World War II. The younger Monroe operated under the name X-Way Milling Company. The name is alternately credited to nearby crossroads (since straightened) and to a crossroads community in Montgomery County known as Exway.⁷

Scotland County's X-Way became well-known throughout the area when Monroe established a swimming hole and dance pavilion at the site. Rural mills are historically social places, but the

⁴ Gibson, 151; North Carolina Year Book and Business Directory 1906 (Raleigh: News & Observer, 1906); Scotland County Record of Deeds, Volume L (1918-1923), 414-415, and Volume R (1931-1935), 432.

⁵ George E. "Butch" Cashman, Laurinburg, telephone interview by the author, 26 November 2002.

⁶ Record of Deeds, Volume R, 432; Cashman interview.

⁷ Cashman interview; Reginald McCoy, Laurinburg, telephone interview by the author, 26 November 2002; Marilyn Wright, *A Sense of Place: Part II*, (n.p.: Walsworth Publishing Co., 1996), 92-93; William S.Powell, *The North Carolina Gazetteer: A Dictionary of Tar Heel Places* (Chapel Hill: University of North Carolina Press, 1964), 166. Some refer to D.A. Monroe Sr.'s mill as X-Way, but Mr. Cashman maintains that it was the younger Monroe who established the X-Way Mill.

addition of the recreational facilities made "X-Way Beach" very popular with area residents and provided enduring memories of the site.⁸

A catastrophic fire destroyed the mill buildings in 1952. In 1953, Monroe rebuilt the gristmill and the feed mill, the latter to be run electrically. But he kept the gristmill water-powered, using that as his selling point. Even twenty years later, his listing in the Laurinburg City Directory advertised "Water Ground Corn Meal and Custom Grinding."

According to George E. "Butch" Cashman, son-in-law of D.A. Monroe, Jr., the gristmill has four upright millstones: thirty-inch stones and a single twenty-inch stone. Monroe added sheetpiling to the earth embankment after a 1950s flood overtopped the dam. In the 1970s, Monroe removed the wood spillway gates at the center of the embankment and replaced them with the concrete overflow spillway at the south end of the dam. Cashman recalls that Monroe sold rights to the X-Way name to Autry Brothers in the mid 1970s, but the mill was still grinding cornmeal at the time of the 1980 county architectural survey. Notes on the survey form record that the grist mill's production capacity was 1,800 pounds of corn meal per hour, with normal production about six to eight thousand pounds of corn each eight-hour day. X-Way was believed to be one of just three water powered gristmills in the state at the time of the 1980 survey. The property was sold and divided in the 1990s, and milling had probably ceased by then. ¹⁰

Historic Context: Water-Powered Gristmills in Scotland County, North Carolina

Scotland County is virtually a twentieth-century creation, cleaved from Richmond County in the last months of 1899 because of population growth. (Richmond County, in turn, was created in 1779 from Anson County.) Scotland County includes the geographical transition between the coastal plain and piedmont regions of the state at its border with South Carolina. The county's geography reflects its location: eastern Scotland County is flat and sometimes swampy, while sandhills characterize the western portion. Several major streams—Gum Swamp Creek, Juniper Creek, Jordan's Creek, and Big and Little Shoe Heel Creeks—rise in the sandhills and flow south. ¹¹

Waterways have always defined Scotland County. This is literally true in its geography: Drowning Creek forms the northeast county line, while Joe's Creek and Gum Swamp Creek mark two-thirds of the northwest county line. Waterways affected settlement patterns before those borders were established, as streams were early transportation routes. The first white settlers generally chose sites with access to navigable waters. Scotland County waterways are blamed with limiting settlement in the colonial period, however; the streams' swampy nature made other rivers in the area more popular for transportation and settlement. American Indians

⁸ Wright, 92-93; Cashman interview; McCoy interview. There is no consensus as to the date of establishment of the recreational facilities; most accounts place it after World War II.

⁹ "Fire at X-Way: Milling Plant is Destroyed by Fire," *Laurinburg (N.C.) Exchange* 16 September 1952; "Rebuilding Mill at X-Way Pond," *Laurinburg (N.C.) Exchange*, 16 January 1953; Cashman interview; *Hill's Laurinburg (N.C.) City Directory for 1972* (Richmond: Hill Directory Co., 1971), 177.

¹⁰ Cashman interview; Architectural Survey Form for SC 278.

Gibson, 2; Scotland County Golden Jubilee Celebration 1899-1949: Fifty Years of Progress and Achievement (Laurinburg, N.C.: n.p., n.d), 1.

had left the Scotland County area by the mid-1700s, but only a few whites bought land there before the 1760s, and most of those were not resident landowners. 12

For those who were residents, gristmills were important establishments. Corn was an early crop in the Scotland County area, and farmers needed a place to grind their corn into meal for home consumption. The need for small mills was not uncommon: the colonial government in North Carolina recognized that fact as early as 1715, offering incentives in land and tax and military service exemptions for those who started a gristmill or sawmill. The earliest reported gristmill in what would become Scotland County—the James Patterson Mill on Beaver Dam Creek—was built in 1750. In researching the area, local historian Joyce Gibson found that "the water-powered gristmill for changing corn into meal was a dominant interest in Richmond/Scotland records" from 1779 through the start of the twentieth century. Gibson records thirteen known gristmills on Scotland County's creeks between 1779 and 1797. By the 1850s, "mills" appeared as a category in business directories for the county. These mid-nineteenth century mills ground flour and sawed lumber in addition to grinding cornmeal.¹³

Often, mills determined placement of some roads in Scotland County. Gibson reports that "continuous road building" in the post-Revolutionary War years connected communities and settlements. A 1909 soils map of Scotland County shows existing mill ponds and roads, and nearly every mill dam has a road running across its crest. The roads were generally named for the mill: Lee's Mill Road, McNair's Mill Road. The popular need to visit the mills turned them into social outlets, and some millers established post offices on site. Of the twelve post offices listed in Richmond County in 1869, two were at mill sites.¹⁴

After Reconstruction, demand for a cash crop grew in Scotland County and farmers turned to cotton. The 1900 census reported that 25,780 acres in Scotland County were planted in cotton, and the 1909 soil survey reported that the number had increased "considerably" since then. Corn remained the second most important crop, with 18,225 acres planted in corn by the 1900 census. Millers attached cotton gins to their water-powered enterprises and became part of the textile industry. In 1929, the Laurinburg Milling Company (formerly the McNair Milling Company) introduced wheat to Scotland County farmers as a commercial farm crop. The company had built a large flour mill in Laurinburg and ground wheat shipped from other states. In 1920, however, the company distributed seed wheat to farmers, letting the farmers pay the company back in grain at harvest time. In 1959, the *Laurinburg Exchange* told the story in the newspaper's "Special Industry Appreciation Edition" under the headline "Flour and Feed: Milling Vital to Economy." Much of this "vital" milling was now powered by electricity, as was the case with the Laurinburg Milling Company operations. An article in the same issue proclaimed in headline "Grinding Grain Pioneer Industry" and discussed some early grist mills like James Patterson's. 15

¹² Jubilee, 1; Gibson, 2, 4, 15.

¹³ Grimsley T. Hobbs, *Exploring the Old Mills of North* Carolina (Chapel Hill: The Provincial Press, 1985), 7; "Grinding Grain Pioneer Industry," *Laurinburg (N.C.) Exchange*, Special Industry Appreciation Edition, 1959; Gibson, 62, 152.

¹⁴ Hobbs, 7; Gibson, 21, Hardison, R. B., J.W. Nelson, and David D. Long, *Soil Survey of Scotland County, North Carolina* (Washington, D.C.: Government Printing Office, 1911), map; *Branson's North Carolina Business Directory for 1869* (Raleigh: J. A. Jones, n.d.), 136.

¹⁵ Soil Survey, 9; "Grinding Grain," Laurinburg Exchange.

Small mills became less and less vital to the county's economy in the mid-twentieth century. Thirteen mills are named on the 1909 soils map, but most were gone forty years later. A 1949 commemorative publication celebrating the county's fiftieth anniversary described the county's many streams, mentioning that "formerly, there were many dirt dams on these streams, forming ponds, which furnished waterpower to run mills of various kinds, and a few of these are still operated." ¹⁶

Despite the early and continued use of grist mills in the county, most have not survived into the twenty-first century. The 1980 architectural survey of the county recorded five mill sites; only the X-Way Mill was in operation at the time. Of the other four sites, some ponds and dams have survived, but no mill buildings were extant by the end of 2002. The X-Way grist mill appears to be the county's last standing water-powered gristmill.

Eligibility Requirements: Scotland County Grist Mills

The essential components of a water powered gristmill include: a dam, a building housing millstones, and a water wheel or turbine that translates flowing water into power. Less important are that belts and shafts or electrical connectors are intact, since the three main elements convey the method of supplying power to operate the millstones.

In Scotland County, roads commonly crossed the crest of dams, providing easy community access to the site. These roads were often named for the mill. Shop buildings were also common additions to mill complexes. Many gristmills also became multipurpose mills when cotton gins and lumber saws were attached. The presence of any of these elements would illustrate the scope of the mill's function in a community and would indicate that the given mill was a typical example of the type in Scotland County.

Evaluation of Eligibility

The X-Way Milling Company is recommended as eligible for the National Register under Criterion A in the area of industry and under Criterion C as a representative and mostly intact example of mid-twentieth century gristmill construction. The property is the only intact water-powered gristmill surviving in Scotland County. The complex includes an earthen dam, a water-powered grist mill building with surviving turbines, shafts, and bevel gears, and a feed mill and store building. The road that crosses the dam, SR 1108, is commonly known as X-Way Road. The mill complex was built in 1953 and stands on the site of previous mills dating back as far as 1840, illustrating the continued importance of this site for its water power potential, as well as the continued demand for this early rural industry.

The milling complex is not eligible under Criterion B for its association with James Lytch because the extant buildings do not date from that period of significance (1845-1890). The pond and possibly the dam date from Lytch's period of significance; without Lytch's mill and shop buildings, however, the site does not convey an association with Lytch or the nineteenth century.

¹⁶ Jubilee, 1.

¹⁷ Confirmed by the author by site visits on 3 December 2002.

Boundary Description and Justification

The recommended boundary encompasses the mill complex, including the mill building, the turbine house, the feed mill, the dam, the two tailraces, and a portion of the pond immediately adjacent to the complex. This boundary, shown on the tax map and aerial photograph below (Figures 3 and 4), encompasses the significant resource and its associated setting. As the pond was historically much larger than today, it is impossible to include the historic boundaries of the impounded water. Rather, the delineated National Register boundary captures enough of the pond to create a sense of the historic setting.

The boundary also includes Bridges 61 and 62, although the bridges are not individually eligible.

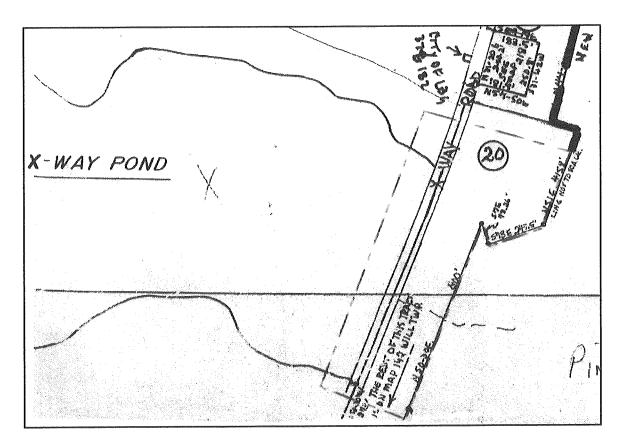


Figure 3

X-WAY MILLING COMPANY

Tax Map Showing National Register Boundary
Laurinburg vicinity, Scotland County, North Carolina

—·—· National Register boundary

Tax map from Register of Deeds, Scotland County Courthouse, Laurinburg

¹⁸ Cashman interview.

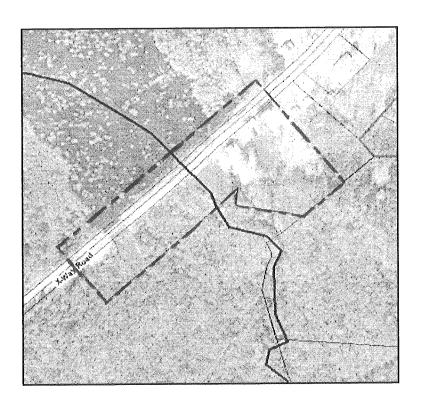


Figure 4
X-WAY MILLING COMPANY

Aerial Photo Showing Boundary
Laurinburg vicinity, Scotland County, North Carolina

— · — · — · National Register boundary

Aerial Photo from Register of Deeds, Scotland County Courthouse, Laurinburg

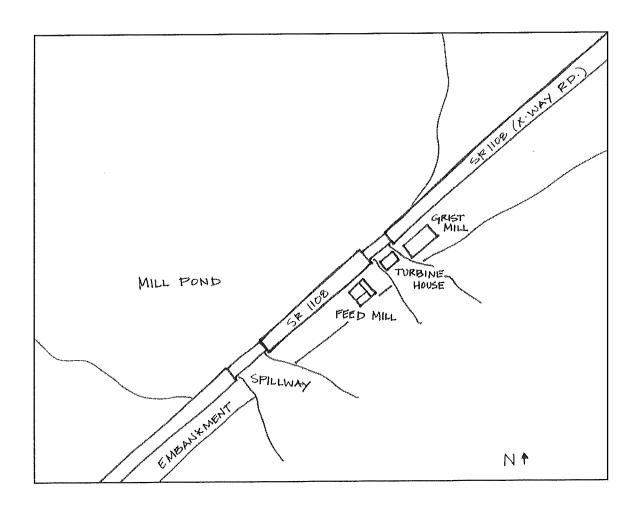


Figure 5

X-WAY MILLING COMPANY
Site Map (not to scale)



Figure 6. X-Way Milling Company Complex with Grist Mill in foreground. View to southeast.



Figure 7. X-Way Grist Mill (rear). View to west.

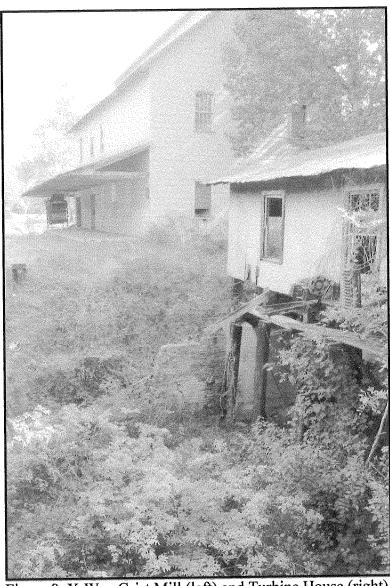


Figure 8. X-Way Grist Mill (left) and Turbine House (right).
View to northeast.

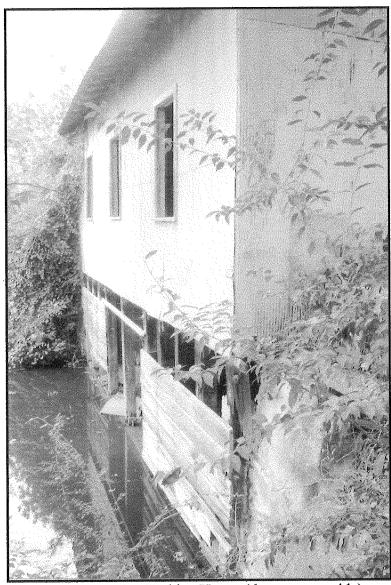


Figure 9. X-Way Turbine House (downstream side). View to southwest.

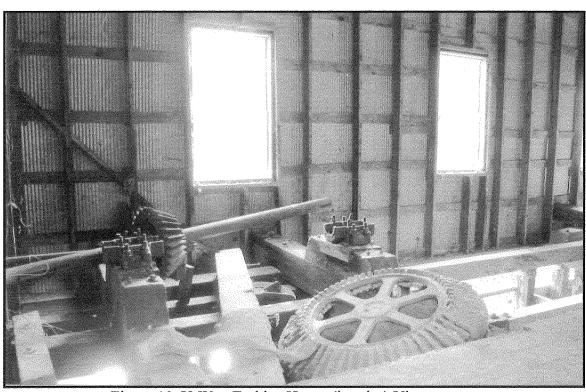


Figure 10. X-Way Turbine House (interior). View to east.

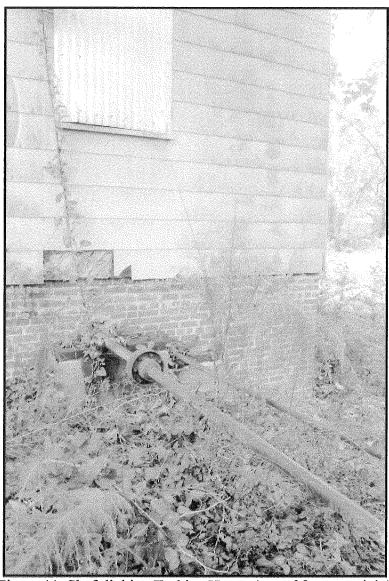


Figure 11. Shaft linking Turbine House (out of frame at right) to Grist Mill (shown in background). View to northeast.

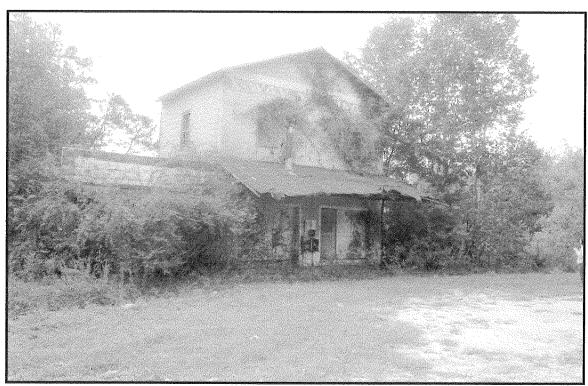


Figure 12. X-Way Feed Mill and Store. View to southeast.



Figure 13. X-Way Feed Mill (rear). View to northwest.



Figure 14. Earth embankment impounding pond at X-Way. View to southwest.



Figure 15. Spillway at south end of dam. View to southwest.

Bibliography

- Branson's North Carolina Business Directory for 1869. Raleigh: J. A. Jones, n.d.
- Eighth Census of the United States, 1860: Richmond County, North Carolina Industrial Schedule (microfilm). State Archives, Division of Archives and History, Raleigh.
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- Scotland County Golden Jubilee Celebration 1899-1949: Fifty Years of Progress and Achievement. Laurinburg, N.C.: n.p., n.d.
- Seventh Census of the United States, 1850: Richmond County, North Carolina Industrial Schedule (microfilm). State Archives, Division of Archives and History, Raleigh.
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- Wright, Marilyn. A Sense of Place: Part II. N.p.: Walsworth Publishing Company, 1996.

Appendix A

Professional Qualifications

CYNTHIA DE MIRANDA

Position: Architectural Historian

Historic Preservation Planner

EDUCATION: B.A. Public Policy Studies (1991)

Duke University

Introduction to Section 106 of the

National Historic Preservation Act (1993)

Washington, DC

EXPERIENCE:

Ms. de Miranda is an Architectural Historian/Historic Preservation Planner for Edwards-Pitman Environmental, Inc. and is responsible for preparing documentation in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and various other state and federal environmental laws and regulations. Ms. de Miranda conducts field surveys to identify, evaluate, research, and document historic resources located in the area of potential effect for proposed projects. As part of her evaluation of historic structures, Ms. de Miranda delineates National Register boundaries and justifies those boundaries as part of Section 106 documentation. Ms. de Miranda prepares National Register nominations and coordinates reviews with local, state and federal agencies as needed. She also conducts comprehensive architectural surveys for the State Historic Preservation Offices in South Carolina and North Carolina.

Prior to joining the firm, Ms. de Miranda worked as an architectural historian with Hess, Roise and Company of Minneapolis, Minnesota. During her employment there, she conducted historic resource surveys; prepared National Register nominations; documented properties for the Historic American Buildings Survey and Historic American Engineering Record; and created historical walking and driving tours for heritage tourism initiatives. Ms. de Miranda has also worked on the staff of the Raleigh Historic Districts Commission and the Advisory Council on Historic Preservation in Washington, DC.

Some projects Ms. de Miranda has been involved with are listed below.

- North Carolina Department of Transportation Phase II Historic Architectural Evaluation, Scotland County (Fall 2002)
- North Carolina Department of Transportation Phase II Survey, U.S. Highway 158 Widening, Hertford County (Fall 2002)
- North Carolina Department of Transportation Phase II Survey, U.S. Highway 158 Widening, Halifax and Northampton Counties (Fall 2002)
- North Carolina Department of Transportation Phase II Survey and Report, Alston Avenue Widening, Durham County (October-November 2002)
- City of Greenville, South Carolina Architectural Survey (for the City of Greenville and the South Carolina State Historic Preservation Office) (October 2002-present; ongoing)
- North Carolina Historic Preservation Office Study List Application: Oriental Graded School and Oriental High School, Pamlico County, North Carolina (February 2002)
- Dakota, Minnesota & Eastern Railroad Corridor Study, Minnesota and South Dakota (1999)

- o Kachess Dam HAER Documentation, Kittitas County, Washington (1998-1999)
- Spruce Shadows Farm Documentation, Bloomington, Minnesota (1998-1999). Ms. de Miranda also
 published her findings as "Country Life in the Suburbs: Spruce Shadows Farm" in the Spring 1999 issue of
 Hennepin History Magazine.
- o Five Channels and Coline (Hodenpyl) Camps Archival and Literature Research, Iosco and Manistee Counties, Michigan (1998)
- o Austin Airport Expansion Section 106 Compliance, Austin, Minnesota (1998)
- Minneapolis-Saint Paul International Airport (Wold-Chamberlain Field) HABS Documentation, Hennepin County, Minnesota (1997-1999)
- Preservation Management and Marketing Plan for Iron Range Resources and Rehabilitation Board/Northern Lights Tourism Alliance, Northern Minnesota (1997)
- Wisconsin's Great River Road Interpretive Plan, Prescott to Sandy Hook, Wisconsin, for Wisconsin Department of Transportation (1996-1997)
- o Minnesota Statewide Historic Bridge Inventory for Minnesota Department of Transportation (1995-1997)
- O Hardy Hydroelectric Plant HAER Documentation and National Register Nomination, Newaygo County, Michigan (1995-1997). Ms. de Miranda presented her findings at an annual meeting of the Society for Industrial Archaeology and later published her research as "Safety and Showmanship: Corporate Requirements for the Hardy Hydroelectric Plant" in IA: The Journal of the Society for Industrial Archaeology.
- Cooke Hydroelectric Plant HAER Documentation and National Register Nomination, Iosco County, Michigan (1995)
- Montgomery Ward & Company Northwestern Catalog House HABS Documentation, Saint Paul, Minnesota (1995)
- Universal Laboratories Building National Register Nomination, Dassel, Minnesota (1995)
- Starved Rock Lock and Dam HAER Documentation, La Salle County, Illinois (1994-1995)
- Minneapolis-Saint Paul International Airport AED Intensive-Level Cultural Resources Survey, Hennepin County, Minnesota (1994-1995)
- Minneapolis-Saint Paul Airport Site 3, Intensive-Level Cultural Resources Survey, Dakota County, Minnesota (1994)

PUBLICATIONS:

"Safety and Showmanship: Corporate Requirements for the Hardy Hydroelectric Plant," *IA: Journal of the Society for Industrial Archaeology* 26, 2: 19-30 (2000).

"Country Life in the Suburbs: Spruce Shadows Farm," *Hennepin History Magazine* 58, 2: 20-29 (1999).

JENNIFER F. MARTIN

POSITION: Project Manager and Senior Architectural Historian

EDUCATION: M.A. History with Emphasis in Historic Preservation (1994)

Middle Tennessee State University

B.A. History and B.A. Sociology (1987)

University of South Carolina

Introduction to Section 106 of the National Historic Preservation Act

(2001)

University of Nevada, Reno

PROFESSIONAL AFFILIATIONS: Preservation North Carolina Board of Advisors

Vernacular Architectural Forum

National Trust for Historic Preservation

American Association for State and Local History

EXPERIENCE:

Ms. Martin currently serves as Project Manager and Senior Architectural Historian for Edwards-Pitman Environmental, Inc. She is responsible for preparing documentation in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and various other state and federal environmental laws and regulations. Ms. Martin conducts field surveys to identify, evaluate, research and document historic resources located in the area of potential effect for proposed projects. Documentation includes the determination of National Register eligibility and areas of significance as well as the justification of proposed National Register boundaries. Ms. Martin prepares effects assessments and mitigation to minimize harm to historic resources. Ms. Martin prepares nominations to the National Register of Historic Places and conducts architectural surveys sponsored by the National Park Service.

Prior to joining the firm, Ms. Martin was employed with the North Carolina Division of Archives and History in Raleigh as the National Register Coordinator for the State Historic Preservation Office. She reviewed and processed all nominations to the National Register and coordinated meetings of the National Register Advisory Committee. In addition to her principal duties, she administered several program areas including environmental review, local preservation commissions, grant projects and Part 1 tax credit assessment. During her two-and-a-half year tenure as National Register Coordinator, 114 nominations were listed in the National Register of Historic Places. Prior to her promotion to National Register Coordinator, Ms. Martin served as Preservation Specialist in the Western Office of the North Carolina Division of Archives and History in Asheville.

Some projects Ms. Martin has been involved with are listed below.

- North Carolina Department of Transportation Phase II Survey, U.S. Highway 158 Widening, Hertford County (Fall 2002)
- North Carolina Department of Transportation Phase II Survey, U.S. Highway 158 Widening, Halifax and Northampton Counties (Fall 2002)
- North Carolina Department of Transportation Phase II Survey, Burgaw Bypass, Pender County (November 2002)
- City of Greenville, South Carolina Architectural Survey (for the City of Greenville and the South Carolina State Historic Preservation Office) (October 2002-present; ongoing)

- North Carolina Department of Transportation Phase II Survey and Report, Alston Avenue Widening, Durham County (October-November 2002)
- North Carolina Department of Transportation Phase II Survey and Report (for Kimley-Horn and Associates, Inc.) Winston-Salem Northern Beltway, Forsyth County (Summer and Fall 2002)
- Historic Structures Report on the Morganton Depot, Morganton, North Carolina: A Transportation Enhancement Grant (TEA-21) Project for the North Carolina Department of Transportation (September 2002)
- o Historic Structures Report on the Marion Depot, Marion, North Carolina: A Transportation Enhancement Grant (TEA-21) Project for the North Carolina Department of Transportation (September 2002)
- Research on historic train stations for the NCDOT Rail Division at the National Archives in Washington, D.C. In conjunction with the restoration of passenger rail service in North Carolina. (July 2002 to present; ongoing).
- North Carolina Department of Transportation Phase I Survey Report, U.S. Highway 158 Corridor, Hertford County, North Carolina (August 2002)
- O Dudley High School, National Register Nomination, Greensboro, Guilford County, North Carolina (August 2002)
- Mitchell College Historic District Boundary Expansion National Register Nomination, Statesville, Iredell County, North Carolina (April 2002)
- Architectural Survey of Wake County Public Schools Built Before 1956, Wake County, North Carolina (March 2002)
- North Carolina Department of Transportation Phase I Survey and Report, U.S. Highway 52 Corridor, Forsyth County, North Carolina (March 2002)
- North Carolina Department of Transportation Phase II Survey and Report, U.S. Highway 19/23, Buncombe and Haywood Counties, North Carolina (June 2002)
- O City of Darlington Architectural Survey, Darlington County, South Carolina. Conducted a survey of Darlington's existing National Register districts, potential new districts and areas of possible expansion of the current districts. (October 2001-June 2002)
- Dare and Currituck Counties Architectural Survey, Dare and Currituck Counties, North Carolina (2001-2002)
- O North Carolina Department of Transportation (for The LPA Group) Phase I Survey for Improvements to Exit 33 on I-77, Iredell County, North Carolina (December 2001-February 2002)
- North Carolina Historic Preservation Office Study List Applications: Madison Schools Complex, Rockingham County; Clayton Mill, Johnston County and Clemmons School, Forsyth County. (December 2001-January 2002)
- O Upper Richland County Architectural Survey, Richland County, South Carolina. Conducted an intensive-level survey of the northern half of South Carolina's capital county. Documented and recorded over 700 historic resources as part of the project funded partially by the National Park Service's Historic Preservation Fund and administered by the South Carolina Department of Archives and History. (2001-2002)

- Belmont Hosiery Mill National Register Nomination, Belmont, Gaston County, North Carolina (January 2002)
- Jean-Pierre Auguste Dalmas House National Register Nomination, Burke County, North Carolina (October 2001)
- Jesse Penny House and Outbuildings National Register Nomination, Wake County, North Carolina (October 2001)
- Apex Historic District Boundary Expansion II National Register Nomination, Wake County, North Carolina (October 2001)
- Historic Architectural Resources Survey Report: Replacement of Bridge No. 4 on SR 1565 over the Ivy River, Madison County, North Carolina (August 2001)
- Historic Architectural Resources Survey Report: Replacement of Bridge No. 56 on SR 1250 over Canoe Creek, Burke County, North Carolina (August 2001)
- Occoneechee Speedway National Register Nomination, Orange County, North Carolina (2001)
- October 2000) Cowee-West's Mill Historic District National Register Nomination, Macon County, North Carolina
- Ouplin County Architectural Survey, Duplin County, North Carolina, Conducted an intensive-level survey of a rural eastern North Carolina county. Over 500 resources recorded and a National Register Multiple Property Documentation Form prepared a completion of project. Ms. Martin published her survey findings and research into the county's history in Along the Banks of the Old Northeast: The Historical and Architectural Development of Duplin County, North Carolina. (2000)

PUBLICATIONS:

"Biltmore Complex," "Biltmore Forest School" and "Appalachian Rustic Architecture" in *The Encyclopedia of Appalachia*. East Tennessee State University (expected publication 2002)

Along the Banks of the Old Northeast: The Historical and Architectural Development of Duplin County, North Carolina. Duplin County Historical Foundation, 2000.

A Guide to the Historic Architecture of Western North Carolina (coauthor). University of North Carolina Press, 1999.

AWARDS:

Certificate of Commendation for *Along the Banks of the Old Northeast*. Presented by the American Association for State and Local History (AASLH), October 2001.

Griffin Award for Notable Research and Publication. Presented by the Preservation Society of Asheville and Buncombe County, 2000.