

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

1. Name of Property

historic name Loray Mill Historic District
other names/site number

2. Location

street & number Roughly bounded by W. Franklin Boulevard, S. Vance Street,
S. Trenton Street, and W. Sixth Avenue B not for publication
city or town Gastonia vicinity
state North Carolina code NC county Gaston code 071 zip code 28052

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this nomination
 request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the
procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register Criteria. I recommend that this property
be considered significant nationally statewide locally. (See continuation sheet for additional comments.)
Jeffrey Crow SHPO 8/17/01
Signature of certifying official Date
North Carolina Department of Cultural Resources
State or Federal agency and bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria. (___ See continuation sheet for additional comments.)
Signature of commenting or other official Date
State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

	Signature of Keeper	Date of Action
<input type="checkbox"/> entered in the National Register <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined eligible for the National Register <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined not eligible for the National Register	_____	_____
<input type="checkbox"/> removed from the National Register	_____	_____
<input type="checkbox"/> other (explain): _____	_____	_____

Loray Mill Historic District
Gaston County, North Carolina

8. Statement of Significance

Applicable National Register Criteria

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

Criteria Considerations (Mark "X" in all the boxes that apply.)

- a owned by a religious institution or used for religious purposes.
- b removed from its original location.
- c a birthplace or a grave.
- d a cemetery.
- e a reconstructed building, object, or structure.
- f a commemorative property.
- g less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance

**SOCIAL HISTORY
INDUSTRY
ARCHITECTURE**

Period of Significance **1900-1935** Significant Dates **1900-1901, 1919, 1921, 1929, 1935**

Significant person(s): **N/A**

Cultural Affiliation **N/A**

Architect/Builder **Lockwood, Greene and Company, Engineers
Robert and Company, Engineers**

Narrative Statement of Significant: **See Continuation Form Section 8 page 1**

USDI/NPS NRHP Registration Form

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9. Major Bibliographical References

Bibliography; See Continuation Form Section 9 page 1

Previous documentation on file (NPS)

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

Primary Location of Additional Data

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: NC Div. Archives and History, Raleigh

USDI/NPS NRHP Registration Form

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10. Geographical Data

Acreege of Property: Approximately 55 acres.

UTM References Zone Easting Northing

See Continuation Form Sections 10 page 1

Verbal Boundary Description: See Continuation Form Section 10 page 1

Boundary Justification: See Continuation Form Section 10 page 1

11. Form Prepared By

Mattson, Alexander and Associates, Inc. date 8-20-00

2228 Winter Street telephone 704-376-0985
Charlotte, NC 28205

Property Owner

(Complete this item at the request of the SHPO or FPO)

name _____

street & number _____ telephone _____

city or town _____ state _____ zip code _____

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Continuation SheetSection number 7 Page 1Loray Mill Historic District
Gastonia, Gaston County

Located in Gastonia, North Carolina, the Loray Mill Historic District encompasses the five-story brick Loray Mill and all or parts of some thirty blocks of frame mill houses constructed primarily between the early 1900s and the 1920s. The historic district stands at the western outskirts of downtown Gastonia, and is bounded on the north and south sides by major four-lane thoroughfares. On the north side, West Franklin Boulevard, the city's principal east-west artery, is lined with modern commercial-strip activities that clearly separate the district from a smaller area of mill houses associated with the Loray Mill to the north. On the south side, Garrison Boulevard is a modern expressway that cuts diagonally across the southwest side of the city. This highway and adjoining modern dwellings and open space delineate the district's southern boundary. On the west side of the historic district, modern industrial uses mark the area beyond South Vance Street, the district's principal western boundary. Along the eastern boundary near Hill Street, a modern athletic field and a twentieth-century neighborhood not associated with the mill village clearly separate the historic district from later residential and civic developments to the east. The eastern boundary is also drawn to exclude a sizable, modern apartment complex located east of South Weldon Street and south of West Third Avenue.

The focal point of the Loray Mill Historic District is the massive former mill, which is currently vacant but substantially intact. It occupies the north side of an industrial complex that includes modern (ca. 1970) facilities to the south. This large complex comprises some six city blocks framed by West Second Avenue to the north, and the rear property lines of houses facing West Fourth Avenue to the south; South Dalton Street to the east; and South Vance Street to the west. The surrounding mill houses typically occupy the fronts of compact lots neatly arranged along straight streets in a grid pattern composed of long blocks.

In contrast to many North Carolina mill villages, where houses have deep rectangular lots for vegetable gardens, the Loray Mill village is characterized by relatively small (often nearly square) parcels, with compact back yards and dwellings arranged nearly back to back to face the parallel streets. The exception to this pattern lies along the east side of the district, where a creek restricted development and created spacious back yards along portions of South Highland and South Hill streets. The historic district occupies gently rolling terrain typical of the North Carolina Piedmont, and some of the houses occupy raised lots with stonework steps. Few of the mill dwellings have ornamental foundation plantings or large trees in the yards.

The architectural centerpiece of the historic district is the five-story Loray Mill built in 1900 and 1901 and enlarged in 1921 and 1922). Originally built of heavy mill construction, the building has thick, brick exterior walls, a low side gable roof, and banks of nine-over-nine windows with multiple light transoms. The focal point of the original building is the Romanesque Revival entrance tower, which projects from the facade (north elevation). Encompassing nearly one-half

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million square feet of interior space when completed in 1901, Loray Mill was touted as the world's largest textile mill under one roof, with room to accommodate 1,000 workers.

Three basic types dominate the associated mill houses. Two of these types emerged during the mill's first major construction campaign in 1900 to 1901, and are depicted in the 1906 Lockwood-Greene Plan of the mill village. They are one-story or one-and-a-half stories high, often marked by upper-story windows in the gable ends. The south and east sides of the district, especially south of West Second Avenue, feature a single-pile, frame, weatherboarded house type with a three-bay façade, a side-gable roof, and an interior brick chimney. The standard model has a double-pile form with a center-bay, shed-roofed porch, though some have full-façade porches with hip or shed roofs. The other common early type arose primarily on the north side of the district, above West Second Avenue. It is a frame, weatherboarded dwelling, three bays wide with a side-gable roof. It has a center chimney and a full-façade, shed-roofed porch. The third predominant house type, which is one story, was constructed during the mill's second construction campaign in the early 1920s, and is depicted in the 1922 Sanborn Map of Gastonia. Located largely in the southwestern section of the district, this type has a double-pile form with a hip roof and offset, gable-front porch that shelters a slightly recessed entry.

The district also contains a number of other mill houses that represent both traditional and nationally popular domestic types. Sited near the mill are several traditional frame, three-bay I-houses erected around the turn of the twentieth century. Located throughout the district are simple one-story, side-gable and gable-front bungalows with weatherboard siding. These worker cottages suggest the bungalow style in their relatively low-pitched roofs, exposed rafters, Craftsman-style four-over-one windows, and, on occasion, brick porch piers. Constructed mainly in the 1920s, they are illustrated in the 1930 Sanborn Map of Gastonia.

With few exceptions, all of these mill houses have been altered since the 1940s when they became privately owned. The most common alterations include the application of aluminum, asbestos, asphalt, or vinyl siding; modern metal or wooden replacement porch posts; enclosed front and rear porches to increase living space; and replacement window sash. In some cases, porches have been removed or replaced with small, gabled entry porches. Many of the hip-roofed cottages now have enclosed front porches. However, most of the remodeling has left the basic character of the houses intact. The houses typically retain their original forms and many have original facade openings and porch configurations. There are few modern intrusions so that the original architectural rhythm of the district, characterized by rows of look-alike houses along straight streets, survives little changed. The well-preserved five-story Loray Mill continues to be the focal point of the district, with its banks of large, multiple-paned windows and striking Romanesque Revival entrance tower that rises above the surrounding mill houses.

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In addition to the mill and worker housing, the district holds an assortment of other contributing resources associated with the development of the mill village. These include a commercial building (No. 246) on West Franklin Boulevard, a corner grocery store (No. 257), a log community building (No. 50), and apartment houses (Nos. 267, 346). The district contains a small collection of garages, including several with multiple bays (e.g., No. 314a).

Inventory List

The historic district contains 343 contributing and 62 non-contributing resources. While some of the non-contributing properties are modern, most are early-twentieth-century mill houses so heavily remodeled as to significantly compromise their basic forms and key design elements. Typically, such houses have undergone a series of renovations, including many of the changes noted above as well as major additions or reconfigurations of roofs or windows.

In order to avoid excessive repetition, the three principal house types found in the district are designated Types A, B, and C and are described below.

Type A

One-story or One-and-a-half story, single-pile, side-gable mill house of frame construction with weatherboarded exterior, exposed rafter ends, three-bay front façade, gable-roofed rear ell, center-bay shed-roofed porch with chamfered posts, interior chimney at the junction with the rear ell, six-over-six sash windows. Good examples include Nos. 150, 244, and 273.

Type B

One-and-a-half story, double-pile, side-gable mill house of frame construction with weatherboarded exterior, exposed rafter ends, façade-width shed-roofed front porch with square posts, six-over-six sash windows, interior center chimney on front roof slope. Single family version has three-bay façade with paired windows flanking center door; duplex version has four-bay façade with single windows. Good examples include Nos. 102 and 238.

Type C

One-story, double-pile, hip-roofed mill house of frame construction with weatherboarded exterior, three-bay front façade, offset gable-front porch with square posts, recessed entry bay, three-over one or six-over-six sash windows, rear ell. Good examples include Nos. 336, 339 and 341.

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The inventory list begins with the Loray Mill complex, the principal resource in the historic district. Subsequently, the list follows the surrounding north-south streets, moving west to east, and then the east-west avenues, moving north to south.

The resources in the historic district are keyed by number to the inventory map. Major exterior alterations are noted below.

South Side 1100 Block W. Second Avenue**1. C Loray Mill. 1900-1901, 1921, 1922.**

Built in three campaigns beginning in 1900-1901, Loray Mill occupies a large site west of downtown Gastonia. Designed by the noted engineering firm of Lockwood, Greene and Company, the original mill was a rectangular, brick building measuring 130 feet by 527 feet and standing five stories on a raised basement. Loray Mill was built of heavy mill construction with twelve inch by twelve inch wooden framing members. The building has thick, brick exterior walls laid in a running bond, a low-pitched, side-gable roof, and rows of double, nine-over-nine windows with tall, multiple light transoms. The windows have stone sills and are capped by brick segmental arches. The focal point of the original building is the Romanesque Revival entrance tower, which projects from the facade (north elevation). The tower has double leaf, wood and glass doors and features such Romanesque Revival detailing as a corbeled cornice above small square openings, decorative stringcourses, granite belt courses, and round arched windows capped by brick arches with keystones. Three ells extending from the south elevation housed the engine house, boiler room, and fan room. These one and two story service ells all have steel structures, brick walls, and segmental arched windows.

In 1919, Loray Mill was sold to the Jenckes Spinning Company of Rhode Island, and the new owners converted the mill from cotton to tire fabric production. The new owners soon planned an expansion campaign, and in 1921, the Atlanta firm of Robert and Company designed a five-story addition for the west end of the building. The addition, which was oriented perpendicular to the main building, extended three bays north of the original mill. The following year, a second section was added along the north wall of the addition, creating a wing measuring 107 feet by 259 feet and giving the building a truncated L-shaped plan. The southwest corner of the addition was clipped to accommodate a rail spur line. Like the mill, the two additions also have brick exterior walls, low-pitched gable roofs, and a series of segmental arched, steel sash windows.

In both its structural system and its exterior design, Loray Mill typified turn-of-the-century factory design, but the mill was unusual because of its massive size. Unlike most textile mills of the Piedmont, which typically stood no more than two or three stories, Loray Mill has five stories

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and a basement and encompasses approximately one-half million square feet of interior space. When constructed, Loray Mill was touted as the world's largest textile mill under one roof with room to accommodate roughly 1,000 workers.

The interior of the original building conveys its vast size with open production areas broken only by wooden columns. The entrance tower, which housed the main staircase, has a foyer on the first floor with a broad staircase rising to the upper floors and to the basement. The staircase has a solid wooden railing and a decorative newel. Behind the tower, each floor of the main building was divided into two rooms of unequal size, separated by brick partition walls and metal fire doors. The original building has hardwood floors, exposed brick walls, wooden columns, and tongue and groove ceilings. The raised basement has segmental arched windows and square, wooden piers, and in places, the walls of the basement are covered in tongue and groove paneling. The basement is divided by a small drive that allowed access from the rear of the building to the freight elevators for easy loading and unloading. The wing also has hardwood floors and exposed brick walls, but is supported by metal poles. Each floor of the wing contains one open production room. A secondary stairwell and freight elevator shaft connects the west end of the original mill and the wing. The stairwell has brick walls and wooden staircases and retains its original fire hoses and stretcher cabinets.

Until the wing was added in the early 1920s, the first and second floors of the mill housed cloth operations in the smaller east rooms and weaving in the large west rooms. The picker rooms were located in the east rooms of the third and fourth floors, and carding operations occupied the west rooms of the third and fourth floors. On the fifth floor, spinning was found in the west room, and the smaller east room was used for spooling and warping.

With the change from cotton to tire fabric production, interior functions were modified. Twisting was added to the spinning operations on the fourth floor, and the third and fifth floors were used for expanded spinning operations. Weaving was confined to the basements of the original mill and addition, and the cloth operations were housed in east room of the first floor and the first floor of the addition.

The mill complex once included a long warehouse, divided into eight sections, a large reservoir, and a weaving shed that was added in 1930. The warehouse, shed, and reservoir were all located behind the mill to the south, but none of these resources survives.

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Gastonia, Gaston County**2. C Loray Mill Office Building.** Ca. 1921.

In front of the mill is a freestanding office building with eclectic detailing. The brick building is one story tall with a hip roof, punctuated by lunette dormers. The roof has broad eaves and exposed rafters with curved ends. The building is seven bays wide with a central, single leaf door flanked by tall windows capped by multiple paned transoms set in segmental arches.

3. N Office Building. Ca. 1970.

In front of the entrance tower is a modern, one story, frame office building with a hip roof and an interior breezeway that allowed controlled access to the mill. The building has single and paired, six-over-six, double hung windows.

4. N Industrial Complex. Ca. 1970.

To the rear of the mill is a modern industrial complex divided from the mill by a driveway. The rear complex consists of a series of interconnected, one and two story, brick buildings as well as detached, metal clad and concrete block buildings. Because access was denied to this part of the site, the number of resources associated with the complex was difficult to ascertain. Consequently, this modern complex is considered a single, non-contributing resource. Now a Firestone Tire Company facility, the complex replaced the weaving shed, reservoir, and cotton warehouse associated with Loray Mill.

West Side South Vance Street

5. **C 301 Mill House.** Ca. 1901. Two-story, side-gable, three-bay, single-pile dwelling; weatherboard siding, hip-roofed porch with turned posts; probably built for a mill supervisor.
6. **C 305 Mill House.** Ca. 1901. One-story, double-pile cottage with side-gable roof and gable-roofed center porch with square posts; probably built for a mill supervisor.
7. **C 313 Mill House.** Ca. 1901. Two-story, side-gable, three-bay, single-pile dwelling; aluminum siding, hip-roofed porch; probably built for a mill supervisor.
8. **C 319 Type C Mill House.** Ca. 1920. Partially enclosed porch; vinyl siding.
9. **N 325 Mill House.** Ca. 1950. One-story weatherboarded cottage with simple Tudor Revival influence; front-facing chimney; arched doorway; possibly an altered Type C mill house.
10. **C 329 Type A Mill House.** Ca. 1901. Asbestos siding; hip-roofed porch with metal posts.
- 10a. **N Garage.** 1960s. Frame, gable-front garage.
11. **C 335 Type C Mill House.** Ca. 1920. Asbestos-sided; metal porch posts.
12. **C 341 Mill House.** Ca. 1901. Single-pile, three-bay, side-gable cottage with aluminum siding; center decorative roof gable; porch gone.

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- 13. C 351 Mill House. Ca. 1901. Single-pile, three-bay, side-gable cottage with aluminum siding; center decorative roof gable; hip-roofed porch with metal supports.
- 14. C 359 Mill House. Ca. 1901. Two-story, side-gable, three-bay, single-pile dwelling; German siding, hip-roofed porch with metal supports; probably built for a mill supervisor.
- 15. C 363 Type A Mill House. Ca. 1901. Weatherboard siding and square porch posts.
- 16. C 373 Type A Mill House. Ca. 1901. Weatherboard siding and square porch posts.

East Side South Vance Street
Parking Lot

- 17. C 354 Mill House. Ca. 1930. One-story, side-gable, double-pile cottage; gable-front entry porch with metal supports; vinyl siding.
- 18. C 342 Type A Mill House. Ca. 1901. Weatherboard siding, square porch posts.
- 19. N 336 Mill House. 1930s-1940s. Heavily altered hip-roofed cottage with offset, gable-front porch; metal supports; replaced Type A Mill House on this site.
- 20. C 332 Type A Mill House. Ca. 1901. Aluminum siding; chamfered porch posts.
- 21. C 326 Type C Mill House. Ca. 1920. Asbestos siding; square porch posts.
- 22. C 324 Type A Mill House. Ca. 1901. Vinyl siding; chamfered porch posts.
- 23. C 322 Type A Mill House. Ca. 1901. Asbestos siding; square porch posts.

Vacant Lot

Vacant Lot

Vacant Lot

- 24. C 212 Type A Mill House. Ca. 1901. Vinyl siding, square porch posts.
- 25. C 210 Type C Mill House. Ca. 1920. Weatherboard siding; enclosed porch.
- 26. C 208 Type A Mill House. Ca. 1901. Asbestos siding; enclosed porch.
- 27. C 206 Type A Mill House. Ca. 1901. Weatherboard siding; metal porch supports.
- 28. C 204 Type C Mill House. Ca. 1920. Vinyl siding; metal porch supports.

West Side South Millon Street

- 29. C 209 Mill House. Ca. 1901. Hip-roofed, double-pile cottage; asphalt siding; center-gable porch with metal posts; paired windows; possibly a supervisor's cottage.

Vacant Lot

Vacant Lot

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Vacant Lot

30. C 212 Mill House. Ca. 1930. Gable-front bungalow with gable-front, inset porch; asbestos sided.
- 30a. C Garage. Ca. 1930. Aluminum sided; gable-front.
31. C 210 Type B Mill House. Ca. 1901. Asbestos siding; gable-front entry porch.
32. C 208 Type B Mill House. Ca. 1901. Vinyl siding; metal porch support; duplex variation.
33. C 206 Mill House. Ca. 1930. Gable-front bungalow; inset, gable-front porch; aluminum siding.

Vacant Lot

West Side South Dalton Street

34. C 501 Type C Mill House. Ca. 1920. Aluminum siding; metal porch supports.
35. C 505 Mill House. Ca. 1930. Gable-front cottage with offset gable-front porch; asbestos siding; grouped porch posts on brick piers.
36. C 601 Type C Mill House. Ca. 1920. Aluminum siding.
37. C 605 Type C Mill House. Ca. 1920. Vinyl siding; partially enclosed porch with clipped gable porch roof.

East Side South Dalton Street

38. C 606 Type C Mill House. Ca. 1920. Aluminum siding, metal porch supports.
39. C 324 Type A Mill House. Ca. 1901. Aluminum siding; relocated to this site from elsewhere in the district and re-oriented gable end to the street.
40. C 320 Garage. Ca. 1920. Substantial, five-vehicle garage with hip roof, weatherboard siding.
41. N 316-318 Water Tank. Ca. 1960. Metal, cylindrical water tank (one of two).
42. N 316-318 Water Tank. Ca. 1960. Metal, cylindrical water tank (one of two).
43. C 312 Type A Mill House. Asbestos siding; partially enclosed porch.
44. C 310 Mill House. Ca. 1930. Bungalow with side-gable roof, double-pile; aluminum siding; gable-front porch roof.
45. C 308 Type A Mill House. Ca. 1901. Aluminum siding; later gable-front porch; replacement paired windows.
46. C 306 Type B Mill House. Ca. 1901. Asbestos siding; screened porch.
47. N 304 Ranch House. Ca. 1960. Composition siding.

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48. C 209 Mill House. Ca. 1930. Bungalow with gable-front roof and recessed, offset porch; asbestos siding.
49. C 211 Type B Mill House. Ca. 1901. Asbestos siding; square porch posts.
50. C 305-309 Community Building. 1930s. One-story, log, side-gable building with casement windows.
51. C 311 Type A Mill House. Aluminum siding; metal porch supports.
52. N 311A House. Ca. 1960. L-plan, aluminum sided dwelling.

Parking Lot

53. N 317 House. Ca. 1960. Aluminum-sided, side-gable dwelling with attached garage.
54. N 319 House. Ca. 1960. Aluminum-sided, side-gable dwelling with attached garage.
55. N 321 House. 1930s; 1960s. Extensively altered, one-pile mill house with replacement brick and aluminum sidings; probably relocated to this site in recent decades.

East Side South Ransom Street

56. N 324 House. Ca. 1960. Aluminum-sided, side-gable cottage.
57. N 322 House. Ca. 1960. Vinyl-sided, hip-roofed cottage.
- 57a N Gazebo. Ca. 1980. Weatherboarded gazebo.
58. N 320 House. Ca. 1960. Asbestos-sided, side-gable cottage.
59. C 318 Type A Mill House. Ca. 1901. Aluminum siding; metal porch supports.
60. C 314 Type A Mill House. Ca. 1901. Weatherboard siding; chamfered porch posts.
61. C 312 Type C Mill House. Ca. 1920. Aluminum siding; metal porch supports; enclosed porch.
62. C 310 Type A Mill House. Ca. 1901. Vinyl siding; replacement turned porch posts.
63. C 306 Mill House. 1930s. Gable-front bungalow with aluminum siding; offset, recessed porch with metal supports.
64. C 304 Type B Mill House. Ca. 1901. Vinyl siding; metal porch supports.
65. C 214 Type B Mill House. Ca. 1901. Weatherboard siding; metal porch supports; duplex.
66. C 212 Mill House. 1930s. Gable-front bungalow with asbestos siding, offset, recessed porch.
67. C 210 Type B Mill House. Ca. 1901. Asbestos siding; square porch supports.
68. C 208 Type B Mill House. Ca. 1901. Aluminum siding; metal porch supports.
69. C 206 Mill House. 1930s. Clipped side-gable bungalow with aluminum siding, offset, recessed gable-front porch.
70. C 204 Type B Mill House. Ca. 1901. Aluminum siding; duplex version; shed dormer addition.

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West Side South Liberty Street

71. C 203 Type B Mill House. Ca. 1901. Asbestos siding; chamfered porch posts; exposed rafters.
72. C 205 Type C Mill House. Ca. 1920. Aluminum siding; metal porch supports.
73. C 207 Type B Mill House. Ca. 1901. Asbestos siding; slender wooden porch supports; chimney removed.
74. N 209 Type C Mill House. Ca. 1920. Extensively altered mill house with brick veneer, enclosed and remodeled porch.
75. C 211 Type B Mill House. Ca. 1901. Asbestos siding; metal porch supports; later dormer.
76. C 213 Type B Mill House. Ca. 1901. Aluminum siding; chamfered porch posts.
76a C Garage. Ca. 1920s. Weatherboard siding, hip roof.
77. C 305 Type A Mill House. Ca. 1901. Aluminum siding; metal porch supports.
78. C 307 Type A Mill House. Ca. 1901. Aluminum siding; metal porch supports.
79. C 309 Type A Mill House. Ca. 1901. Aluminum siding; metal porch supports.
80. C 311 Type A Mill House. Ca. 1901. Aluminum and permastone sidings; metal porch supports; garage added to gable end.
81. C 315 Type C Mill House. Ca. 1920. Aluminum siding; metal porch supports.
82. C 317 Type A Mill House. Ca. 1901. Vinyl siding; metal porch supports, replacement paired windows.
83. C 319 Type A Mill House. Ca. 1901. Asphalt shingles; metal porch supports.
84. C 323 Mill House. Ca. 1920. Hip-roofed, double-pile dwelling with partially enclosed hip-roofed porch, square porch posts; aluminum siding.

East Side South Liberty Street

85. C 322 Mill House. Ca. 1920. Hip-roofed, double-pile dwelling with hip-roofed porch, square porch posts; asbestos siding.
86. C 318 Type A Mill House. Ca. 1901. Aluminum siding; chamfered porch posts.
87. C 316 Type A Mill House. Ca. 1901. Asbestos and permastone sidings; square porch posts.
88. C 314 Type C Mill House. Ca. 1920. Asbestos siding; metal porch posts.
89. C 312 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
90. C 310 Type A Mill House. Ca. 1901. Vinyl siding; square porch posts.
91. C 308 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
92. C 306 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
93. C 216 Type C Mill House. Ca. 1901. Aluminum siding; paired porch posts.
94. C 214 Type B Mill House. Ca. 1901. Vinyl siding; gable-front entry; later dormers.

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95. C 212 Type B Mill House. Ca. 1901. Vinyl siding; chamfered porch posts; chimney gone; duplex version.
96. C 210 Mill House. Ca. 1930s. Clipped-gable-roofed, double-pile cottage; asbestos siding; gable-front porch with metal porch posts.
97. C 208 Type B Mill House. Ca. 1901. Composition siding; chamfered porch posts; shed dormers.
98. C 206 Type B Mill House. Ca. 1901. Asbestos siding; chamfered porch posts; shed dormers.

West Side South Weldon Street

99. C 205 Mill House. Ca. 1920. Gable-front bungalow with weatherboard siding, square porch posts.
100. C 207 Type C Mill House. Ca. 1920. Weatherboard siding; clipped-gable porch.
101. C 209 Type B Mill House. Ca. 1901. Asbestos siding; enclosed front porch.
102. C 211 Type B Mill House. Ca. 1901. Remarkably intact example with weatherboard siding; chamfered porch posts.
103. C 213 Mill House. Ca. 1920. Gable-front bungalow with permastone and aluminum sidings, metal porch posts.
104. C 215 Type B Mill House. Ca. 1901. Weatherboard siding; metal porch posts.
105. C 303 Mill House. Ca. 1920. Gable-front, one-and-one-half-story bungalow with asbestos siding.
106. N 305 Mill House. Ca. 1901; 1960s. Extensively altered Type A Mill House with aluminum and brick replacement sidings; reconfigured and enclosed porch.
107. C 307 Type A Mill House. Ca. 1901. Aluminum siding; full-façade porch with square porch posts.
108. C 309 Type A Mill House. Ca. 1901. Aluminum siding; full-façade porch with gable-front projection at entry bay.
109. C 311 Type A Mill House. Ca. 1901. Aluminum siding; square porch posts.
110. N 313 Duplex. Ca. 1960. Weatherboarded, one-story dwelling; gable end faces street.
111. C 315 Type C Mill House. Ca. 1920. Asbestos and permastone sidings; metal porch posts.
112. N 317 House. Ca. 1960. Brick veneer; one-story, one-pile cottage.
113. N 319 House. Ca. 1960. Aluminum sided ranch house.
114. C 321 Mill House. Ca. 1920. Aluminum-sided, two-pile cottage with clipped-gable roof, gable-front porch; metal porch posts.
115. N 405 House. Ca. 1960. Aluminum-sided, one-story, square cottage.
116. N 413 Mill House. Ca. 1930, 1960s. Extensively altered gable-front cottage; later brick veneer, added front chimney; enclosed porch.

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- 117. C 501 Type C Mill House. Ca. 1920. Aluminum siding; metal porch posts.
- 118. C 503 Type C Mill House. Ca. 1920. Aluminum siding; metal porch posts.
- 119. N 601 Type C Mill House. Ca. 1920. Brick and vinyl sidings; metal porch posts.
- 120. N 701 Mill House. Ca. 1930, 1960s. Extensively altered gable-front cottage; replacement siding, enclosed and reconfigured porch; fixed-sash windows.

East Side South Weldon Street

- 121. N 602 Type C Mill House. Ca. 1920. Brick and aluminum sidings; brick porch apron and square posts.
 - 122. C 504 Type C Mill House. Ca. 1920. Aluminum siding; square porch posts.
 - 123. C 502 Type C Mill House. Ca. 1920. Vinyl siding; metal porch posts, replacement windows.
 - 124. C 476 Boarding House. Ca. 1910. Two-story, asphalt-shingled boardinghouse for mill workers; main hip roof and subsidiary gable-end bays; porch gone.
 - 125. C 324 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
 - 126. C 322 Type A Mill House. Ca. 1901. Asbestos siding; metal porch posts.
 - 127. C 320 Mill House. Ca. 1920. Gable-front, one-and-one-half-story cottage with aluminum siding; metal porch posts.
 - 128. C 318 Mill House. Ca. 1920. Shotgun house (rare in the Loray district) with aluminum siding; screened porch.
 - 129. C 316 Type C Mill House. Ca. 1920. Aluminum siding; metal porch posts.
 - 130. C 314 Type A Mill House. Ca. 1901. Weatherboard siding; metal porch posts.
 - 131. C 312 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
 - 132. C 310 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
 - 133. N 308 Mill House. Ca. 1901; 1960s. Extensively altered Type A Mill House with enclosed and reconfigured front porch; later side wing; vinyl siding.
 - 134. C 306 Type A Mill House. Ca. 1901. Weatherboard siding; metal porch posts; hip-roofed porch.
 - 135. C 304 Mill House. Ca. 1920. Gable-front, one-and-one-half-story cottage with asbestos siding; gable-front porch.
 - 136. C 218 Type B Mill House. Ca. 1901. Weatherboard siding; chamfered porch posts; duplex version.
 - 137. C 216 Type B Mill House. Ca. 1901. Aluminum siding; metal porch posts.
 - 138. C 214 Type C Mill House. Ca. 1920. Asbestos siding; metal porch posts.
- Vacant Lot
- 139. C 210 Type C Mill House. Ca. 1901. Aluminum siding; metal porch posts.
 - 140. C 208 Mill House. Ca. 1920. Gable-front, one-and-one-half-story cottage with asbestos siding and gable-front porch.

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Gastonia, Gaston County

141. C 206 Type B Mill House. Ca. 1901. Asbestos siding; square porch posts.
142. C 204 Type B Mill House. Ca. 1901. Asbestos siding; metal porch posts.

West Side South King Street

143. C 207 Type C Mill House. Ca. 1920. Aluminum siding; chamfered porch posts.
144. C 209 Type B Mill House. Ca. 1901. Aluminum siding; metal porch posts.
145. C 211 Type B Mill House. Ca. 1901. Aluminum siding; gable-front entry porch; chimney gone; attached garage on gable end.
146. C 213 Mill House. Ca. 1930. Side-gable, two-pile, one-story bungalow with gable-front entry porch; aluminum siding; metal porch posts.
147. C 215 Type C Mill House. Ca. 1920. Aluminum siding; enclosed entry porch.
148. C 217 Mill House. Ca. 1930. Clipped-gable-roofed, two-pile, one-story bungalow with gable-front entry porch; aluminum siding.
149. C 303 Mill House. Ca. 1930. Gable-front, one-story bungalow with gable-front entry porch; vinyl siding; metal porch posts.
150. C 305 Type A Mill House. Ca. 1901. Remarkably intact example with weatherboard siding; chamfered porch posts.
151. N 307 Ranch House. Ca. 1960. Side-gable; frame; double-pile.
152. C 309 Type A Mill House. Ca. 1901. Asbestos siding; square porch posts.
153. N 311 Ranch House. Ca. 1960. Permastone siding, side-gable.
154. C 313 Type A Mill House. Ca. 1901. Weatherboard siding; chamfered porch posts.
155. C 315 Mill House. Ca. 1930. Side-gable, one-and-one-half-story bungalow; vinyl siding; gable-front porch with metal porch posts.
156. C 317 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
157. C 319 Type C Mill House. Ca. 1920. Vinyl siding; metal porch posts.
158. C 321 Type A Mill House. Ca. 1901. Vinyl siding; metal porch posts.
159. N 323 Ranch House. Ca. 1960. Asbestos-sided, side-gable.

East Side South King Street

160. C 322 Type C Mill House. Ca. 1920. Composition siding; enclosed porch with brick apron.
161. C 320 Mill House. Ca. 1930. Gable-front bungalow; vinyl siding; offset gable-front porch.
162. C 318 Type B Mill House. Ca. 1901. Aluminum siding; metal porch posts.
163. C 316 Type C Mill House. Ca. 1920. Weatherboard siding; metal porch posts.
164. C 314 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
165. C 312 Type A Mill House. Ca. 1901. Weatherboard siding; metal porch posts.
166. C 310 Type A Mill House. Ca. 1901. Weatherboard siding; metal porch posts.

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Gastonia, Gaston County

167. C 308 Type A Mill House. Ca. 1901. Vinyl siding; square porch posts.
168. C 306 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts, replacement windows.
169. C 304 Type A Mill House. Ca. 1901. Aluminum siding; screened porch.
170. C 218 Type B Mill House. Ca. 1901. Asbestos siding; metal porch posts.
171. N 216 Ranch House. Ca. 1960. Vinyl-sided.
172. C 214 Type B Mill House. Ca. 1901. Asbestos siding; chamfered porch posts; duplex version.
173. C 212 Type B Mill House. Ca. 1901. Aluminum siding; square porch posts.
174. C 210 Mill House. Ca. 1930. Gable-front bungalow; aluminum siding; offset gable-front porch with metal posts.
175. C 208 Type B Mill House. Ca. 1901. Asbestos siding; metal porch posts; duplex version with one door removed.
176. C 206 Type C Mill House. Ca. 1920. Asbestos siding; metal porch posts.

West Side South Hill Street

177. C 303 Mill House. Ca. 1920. Gable-front bungalow; asbestos and brick sidings; offset gable-front porch enclosed and brick veneered.
178. C 305 Type B Mill House. Ca. 1901. Aluminum siding; square porch posts.
179. C 307 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
180. C 309 Type A Mill House. Ca. 1901. Aluminum siding; square porch posts.
181. C 311 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
182. C 313 Type A Mill House. Ca. 1901. Weatherboard siding; square porch posts.
183. C 315 Type C Mill House. Ca. 1930. Aluminum siding; enclosed porch with recessed entry.
184. C 317 Type C Mill House. Ca. 1930. Aluminum siding; metal porch posts; clipped-gable porch roof.
C 184a Garage. Ca. 1930. Weatherboard; gable front.
185. C 321 Type C Mill House. Ca. 1930. Vinyl siding; enclosed porch with recessed entry.
186. C 323 Mill House. Ca. 1930. Side-gable, two-pile cottage with gable-front porch with fanlight in gable; weatherboard siding.
187. N 325 Mill House. Ca. 1930; 1960s. Extensively altered dwelling with later gable-front wing; chimney gone; picture window; aluminum siding; metal porch posts.
188. C 401 Type C Mill House. Ca. 1930. Aluminum siding; metal porch posts.
189. C 403 Type C Mill House. Ca. 1930. Asbestos siding; metal porch posts.
190. C 405 Mill House. Ca. 1930. Side-gable, two-pile cottage with gable-front porch with fanlight in gable; weatherboard siding; two interior chimneys; replacement windows.

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Gastonia, Gaston County

191. N 407 Type C Mill House. Ca. 1930, 1960s. Extensively altered; vinyl and aluminum sidings; reconfigured porch; later fenestration.
192. C 411 Type C Mill House. Ca. 1930. Composition siding.

East Side South Hill Street

193. C 408 Type C Mill House. Ca. 1930. Aluminum siding; enclosed porch.
194. C 406 Mill House. Ca. 1930. Side-gable, one-and-one-half-story; gable-front porch with metal posts; aluminum siding.
195. C 404 Type C Mill House. Ca. 1930. Weatherboard siding; later turned porch posts; small replacement windows on front facade.
196. C 402 Type C Mill House. Ca. 1930. Aluminum siding; square porch posts.
197. N 326 House. Ca. 1960. Side-gable; two-pile; aluminum siding.
198. C 324 Type C Mill House. Ca. 1920. Aluminum siding; enclosed porch.
199. C 322 Mill House. Ca. 1930. Side-gable; two-pile; center gable-front porch with metal posts.
200. N 320 House. Ca. 1950. Side-gable; two-pile; Aluminum siding.
201. C 318 Type C Mill House. Ca. 1920. Asbestos siding; enclosed porch.
202. C 316 Mill House. Ca. 1920. Hip-roofed, two-pile, asbestos-sided cottage; hip-roofed porch with square posts.
203. C 312 Type A Mill House. Ca. 1901. Weatherboard siding; screened porch.

Vacant Lot

204. C 308 Mill House. Ca. 1920. Hip-roof; two-pile; hip-roofed screened porch; weatherboard siding.

Vacant Lot

West Side South Highland Street

205. C 207 Type C Mill House. Ca. 1920. Weatherboard siding; enclosed porch with square posts.
206. N 209 Type B Mill House. Ca. 1901. Heavily altered with asphalt siding; enclosed gable-front porch; later dormers.
207. C 211 Type B Mill House. Ca. 1901. Aluminum siding; enclosed, flat-roofed porch.
208. C 213 Type B Mill House. Ca. 1930. Clipped-gable bungalow; vinyl siding; gable-front entry porch.
209. C 215 Type B Mill House. Ca. 1901. Vinyl siding; square porch posts.
210. C 217 Type B Mill House. Ca. 1901. Aluminum siding; metal porch posts.
211. C 303 Type C Mill House. Ca. 1920. Aluminum siding; square porch posts.
212. C 305 Type A Mill House. Ca. 1901. Aluminum siding; square porch posts.
213. C 307 Type A Mill House. Ca. 1901. Vinyl siding; square porch posts.

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214. C 309 Type C Mill House. Ca. 1920. Weatherboard siding; screened and latticed porch.
215. C 311 Type C Mill House. Ca. 1920. Asbestos siding; clipped-gable porch enclosed.
216. C 317 Type C Mill House. Ca. 1920. Weatherboard siding; square porch posts.
217. N 319 Type C Mill House. Ca. 1920. 1960s. Extensively altered with reconfigured hip roof; reconfigured center entry with gable roofed canopy; aluminum siding.
218. C 321 Type C Mill House. Ca. 1920. Vinyl siding; enclosed porch and added gabled entry porch.
219. N 401 Type C Mill House. Ca. 1920. Heavily altered with major side wing; aluminum siding; metal porch posts.
220. C 403 Type C Mill House. Ca. 1920. Aluminum siding; metal porch posts.
221. C 405 Type C Mill House. Ca. 1920. Aluminum siding; enclosed porch.
222. C 407 Type C Mill House. Ca. 1920. Aluminum siding; later turned posts

East Side South Highland Street

223. C 320 Type C Mill House. Ca. 1920. Aluminum siding.
224. C 318 Mill House. Ca. 1930. Side-gable bungalow, one-and-one-half story; gable-front porch; weatherboard siding.
225. C 316 Type A Mill House. Ca. 1901. Vinyl siding; square porch posts, replacement windows.
226. C 312 Type A Mill House. Ca. 1901. Aluminum siding; metal porch posts.
227. C 308 Type A Mill House. Ca. 1901. Aluminum siding; gable-front porch with metal porch posts.
228. C 306 Type A Mill House. Ca. 1901. Weatherboard siding; chamfered porch posts.
229. C 218 Type B Mill House. Ca. 1901. Vinyl siding; metal porch posts.
230. C 216 Type B Mill House. Ca. 1901. Asbestos siding; square porch posts.
231. C 214 Type C Mill House. Ca. 1920. Aluminum siding; enclosed porch.
232. N 212 Type B Mill House. Ca. 1901. Brick veneer; metal porch posts.
233. N 210 Type B Mill House. Ca. 1901. Aluminum siding; exterior stairway on north elevation; porch gone.
234. C 208 Mill House. Ca. 1930. Side-gable bungalow; two-pile; gable-front porch; asbestos siding.

West Side South Trenton Street

235. N 209 Type B Mill House. Ca. 1901. Composition siding; enclosed porch.
236. C 211 Type C Mill House. Ca. 1901. Weatherboard siding; screened front porch.
237. C 213 Type B Mill House. Ca. 1901. Asbestos siding; chamfered porch posts; duplex.

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238. C 215 Type B Mill House. Ca. 1901. Especially intact example with weatherboard siding; chamfered porch posts; duplex version.
239. N 217 Mill House. Ca. 1930. Gable-front bungalow with brick and aluminum sidings; enclosed porch.
240. C 219 Type B Mill House. Ca. 1901. Weatherboard siding; screened porch with chamfered posts.
241. C 305 Type A Mill House. Ca. 1901. Especially intact example with weatherboard siding; chamfered porch posts.
242. C 307 Type C Mill House. Ca. 1920. Aluminum siding; square porch posts.

East Side South Trenton Street

243. C 308 Type C Mill House. Ca. 1920. Aluminum siding; enclosed porch.
244. C 306 Type A Mill House. Ca. 1901. Especially intact example with weatherboard siding; chamfered porch posts.

East Side South Riley Street

245. C 306(?) Type A Mill House. Ca. 1901. Asbestos sided; chamfered porch posts.

South Side West Franklin Boulevard

246. C 1155-1159 Commercial Building. Ca. 1930. Two-story, brick commercial building with standard rectangular form; six bays wide with flat parapet front façade and stepped parapet side elevations; simple rectangular window openings; three storefronts, each with single door flanked by plate-glass windows; door and staircase to upper story.

North Side West Second Avenue

247. C 1066 Type B Mill House. Ca. 1901. Aluminum sided; square porch posts; duplex version.
248. C 1002 Type B Mill House. Ca. 1901. Aluminum sided, chamfered porch posts, later gable-roofed wall dormers.
249. N 914 Type B Mill House. Ca. 1901, 1960s. Extensively altered mill house with brick veneer and asbestos siding; porch gone; replacement fixed windows.
250. C 910 Type B Mill House. Ca. 1901. Asbestos sided; metal porch posts.
251. C 906 Type B Mill House. Ca. 1901. Asbestos sided; metal entry canopy.
252. C 902 Type B Mill House. Ca. 1901. Asbestos sided; square porch posts.
253. N 812 Duplex. Ca. 1960. Double-pile; low-pitched gable roof; vinyl siding.

Vacant Lot

Vacant Lot

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254. C 802 Type B Mill House. Ca. 1901. Aluminum sided; porch enclosed with jalousie windows; brick porch apron.
255. N 706 Type B Mill House. Ca. 1901. Vinyl sided; enclosed porch; later full-width shed dormer.
256. C 702 Type B Mill House. Ca. 1901. Vinyl sided; square porch posts.
257. C 700 Grocery Store. Ca. 1920. Narrow one-story, frame, aluminum-sided store with stepped-parapet front façade; "West Second Street Grocery."

South Side West Second Avenue

258. C 615 Type A Mill House. Ca. 1901. Aluminum sided; square porch posts.
259. N 619 Mill House. Ca. 1901; 1950s. L-plan cottage; probably remodeled Type A Mill House; aluminum sided; metal porch posts; mid-20th-century wing.
260. C 701 Type A Mill House. Ca. 1901. Aluminum sided; metal porch posts.
- 260a. C Garage. Ca. 1930. Hip-roofed; aluminum sided.

Vacant Lot

261. C 801 Type A Mill House. Ca. 1901. Vinyl sided; metal porch posts; gabled entry bay.

Vacant Lot

262. C 807 Type C Mill House. Ca. 1920. Asbestos sided; screened porch.
263. C 811 Type C Mill House. Ca. 1920. Asbestos sided; enclosed porch.
264. C 901 Type C Mill House. Ca. 1920. Asbestos sided; screened porch.
265. C 905 Type C Mill House. Ca. 1920. Asbestos sided; metal porch posts.
266. C 909 Type C Mill House. Ca. 1920. Weatherboard sided; clipped-gable porch; metal posts.
267. C 913 Apartment House. Ca. 1910. Vinyl sided; two-story Colonial Revival building with hip-roofed main block and gable-roofed wings joined by one-story shed porch with classical columns.
268. N 1001 Liberty Baptist Church. Ca. 1960. Brick-veneered, Colonial Revival church with gable-front form, steeple, and columned front façade.
269. C 1005 Type A Mill House. Ca. 1901. Aluminum sided; engaged full-façade shed porch; metal porch posts.
270. C 1011 Type B Mill House. Ca. 1901. Asbestos sided; metal porch posts.
271. N 1013 House. Ca. 1960. Asbestos sided ranch house.

1100 Block W. Second Ave.—Loray Mill Complex (see Nos. 1-4)

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272. C 1207 Mill House. Ca. 1901. Hip-roofed, two-pile form with center gabled porch; square posts on brick piers; weatherboard and shingled exterior; possibly a supervisor's house.

North Side Phillips Street

273. C 1208 Type A Mill House. Ca. 1901. Especially intact example with weatherboard sided; square porch posts.

South Side Phillips Street

274. C 1207 Type A Mill House. Ca. 1901. Aluminum sided; partially enclosed porch.

North Side Cavney Street

275. C 1210 Type A Mill House. Ca. 1901. Vinyl sided; square porch posts.
276. C 1208 Type A Mill House. Ca. 1901. Especially intact example with weatherboard sided; square porch posts.

South Side Cavney Street

277. C 1207 Type A Mill House. Ca. 1901. Vinyl sided; metal porch posts.
278. C 1209 Mill House. Ca. 1930. Double-pile, side-gable bungalow; gable-front porch with square posts; weatherboard siding.

North Side West Third Avenue

279. C 1024 Type A Mill House. Ca. 1901. Asbestos sided; square porch posts, raised basement.
280. C 1026 Type A Mill House. Ca. 1901. Vinyl sided; square porch posts.
281. C 1004 Type A Mill House. Ca. 1901. Asbestos sided; square porch posts.
282. C 914 Type A Mill House. Ca. 1901. Asbestos sided; square porch posts.
283. C 910 Type A Mill House. Ca. 1901. Vinyl sided; square porch posts.

South Side West Third Avenue

284. C 909 Mill House. Ca. 1901. Two-story, one-pile, side-gable dwelling; porch gone; vinyl siding.
285. C 911 Mill House. Ca. 1901. Two-story, one-pile, side-gable dwelling; replacement gable-front porch; aluminum siding.
286. C 1003 Mill House. Ca. 1901. Two-story, one-pile, side-gable dwelling; hip-roofed porch with square posts; aluminum and asbestos sidings.
287. N 1007 House. Ca. 1960. Two-pile, side-gable dwelling; aluminum siding.
288. N 1009 House. Ca. 1960. Two-pile, side-gable dwelling; aluminum siding.

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289. C 1015 Type A Mill House. Ca. 1901. Aluminum siding, metal porch posts.
290. C 1019 Type A Mill House. Ca. 1901. Aluminum siding, metal porch posts.
291. C 1023 Type A Mill House. Ca. 1901. Asbestos siding, offset gable-front porch; side addition.
292. C 1129 Type A Mill House. Ca. 1901. Asphalt siding, metal porch posts.

North Side West Fourth Avenue

293. C 1126 Type A Mill House. Ca. 1901. Aluminum sided; square porch posts.
294. N 1124 Type A Mill House. Ca. 1901, 1960s. Extensively altered with aluminum and brick replacement sidings; side wing; metal porch posts.
295. C 1122 Type A Mill House. Ca. 1901. Aluminum sided; metal porch posts.
296. C 1120 Type C Mill House. Ca. 1920. Aluminum sided; metal porch posts.
297. C 1118 Mill House. Ca. 1930. Gable-front with offset, inset gabled porch with square posts; asbestos siding.
298. C 1116 Type A Mill House. Ca. 1901. Asbestos sided; metal porch posts; shed porch extended to shelter windows.
299. C 1114 Mill House. Ca. 1930. Gable-front with offset, inset gabled porch with metal posts; aluminum siding.
300. C 1112 Type A Mill House. Ca. 1901. Weatherboard sided; tall gable-front porch with square posts.
301. C 1110 Type C Mill House. Ca. 1920. Aluminum sided; square porch posts.

Vacant Lot

302. C 1106 Type A Mill House. Ca. 1901. Weatherboard sided; metal porch posts.
303. C 1104 Type A Mill House. Ca. 1901. Asbestos sided; full-façade engaged porch with metal posts.
304. C 1024 Type A Mill House. Ca. 1901. Asbestos sided; chamfered porch posts.
305. C 1020 Type A Mill House. Ca. 1901. Vinyl sided; metal porch posts.
306. C 1016 Type A Mill House. Ca. 1901. Vinyl sided; square porch posts.

Vacant Lot

307. N 1004-1006. House. Ca. 1960. One-story, two-pile duplex; composition siding.
308. N 1000. House. Ca. 1960. One-story, side-gable, brick veneer.

South Side West Fourth Avenue

309. N 1001 House. Ca. 1960. Two-pile, side-gable, aluminum siding.
310. N 1003 House. Ca. 1960. Flat-roofed, one-story, aluminum siding.

Vacant Lot

311. N 1011 House. Ca. 1960. One-story, side-gable; aluminum sided.

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312. C 1015 Type A Mill House. Ca. 1901. Aluminum sided; metal porch posts.
313. C 1019 Mill House. Ca. 1920. Aluminum sided; metal porch posts; low hip roof.
314. C 1023 Type A Mill House. Ca. 1901. Aluminum sided; metal porch posts.
314a Garage. Ca. 1930. Distinctive hip-roofed, weatherboard sided with multiple bays and doors with diagonal boards.
315. C 1105 Type A Mill House. Ca. 1901. Aluminum sided; square porch posts.
316. C 1107 Type A Mill House. Ca. 1901. Aluminum sided; metal porch posts.
317. C 1109 Type A Mill House. Ca. 1901. Aluminum sided; metal porch posts; attached garage.
318. C 1111 Mill House. Ca. 1930. Side-gable, two-pile cottage; center gable-front entry porch; asbestos sided.
319. C 1113 Type A Mill House. Ca. 1901. Asbestos sided; metal porch posts.
320. C 1115 Mill House. Ca. 1930. Gable-front with offset and enclosed gable-roofed porch; asbestos siding.
321. C 1117 Type C Mill House. Ca. 1920. Aluminum sided; metal porch posts; clipped-gable porch.
322. C 1119 Mill House. Ca. 1930. Gable-front with offset, gable-front porch; metal porch posts.
323. C 1121 Type C Mill House. Ca. 1920. Aluminum sided; metal porch posts.

North Side West Fifth Avenue

324. C 1118 Type C Mill House. Ca. 1920. Aluminum sided; metal porch posts.
324a C Garage. Ca. 1920 Aluminum sided; hip roof; four vehicle.
325. C 1116 Mill House. Ca. 1930. Clipped-gable, two-pile cottage; asbestos siding; center, gable-front porch with fanlight.
326. C 1114 Type C Mill House. Ca. 1920. Aluminum sided; metal porch posts.
327. C 1112 Type C Mill House. Ca. 1920. Asbestos sided; metal porch posts.
328. C 1110 Type C Mill House. Ca. 1920. Aluminum sided; metal porch posts.
329. C 1106 Mill House. Ca. 1920. Gable-front, two-pile cottage; asbestos siding; enclosed offset gable-front porch with fanlight.
330. N 1104 House. Ca. 1960. L-plan; weatherboard; one story; square porch posts.
331. C 1024 Type A Mill House. Ca. 1901. Especially intact example with weatherboard sided; chamfered porch posts.
332. C 1022 Type C Mill House. Ca. 1920. Weatherboard sided; enclosed porch and added entry porch with metal posts.
333. C 1020 Type A Mill House. Ca. 1901. Weatherboard sided; metal porch posts.
334. C 1018 Type C Mill House. Ca. 1920. Aluminum sided; screened porch.

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335. N 1010 House. Ca. 1960. Gable-front, two-pile; vinyl sided; replaced Type C Mill House.
336. C 1004 Type C Mill House. Ca. 1920. Especially intact example with weatherboard sided; square porch posts; clipped-gable porch roof.
337. C 1002 Type C Mill House. Ca. 1920. Vinyl sided; screened porch.
338. C 912 Type C Mill House. Ca. 1920. Asbestos sided; screened porch.
339. C 910 Type C Mill House. Ca. 1920. Especially intact example with weatherboard sided; square porch posts.
340. C 908 Type C Mill House. Ca. 1920. Weatherboard sided; metal porch posts.
341. C 906 Type C Mill House. Ca. 1920. Especially intact example with weatherboard sided; square porch posts.
342. C 904 Mill House. Ca. 1930. Aluminum sided; side-gable, two-pile cottage with gable-front porch; square porch posts.

South Side West Fifth Avenue

343. C 901 Type C Mill House. Ca. 1930. Aluminum sided; enclosed porch.
344. C 903 Mill House. Ca. 1930. Side-gable, two-pile, one-and-one-half-story bungalow; weatherboard sided; gable-front porch.
345. C 905 Type C Mill House. Ca. 1930. Aluminum sided; enclosed porch; side addition.
346. C 907 Apartment House. Ca. 1930. Similar in basic design to No. 267; two-story, two-pile; hip-roofed main block and gable-roofed wings; asphalt-shingled; Colonial Revival entrance with banks of windows; blind fanlights.
347. C 911 Mill House. Ca. 1930. Side-gable, two-pile, one-and-one-half-story bungalow; aluminum sided; gable-front porch with metal posts.
348. C 913 Mill House. Ca. 1930. Gable-front, two-pile bungalow; aluminum sided; gable-front porch with metal posts.
349. C 1001 Type C Mill House. Ca. 1920. Asbestos sided; square porch posts.
350. C 1003 Type C Mill House. Ca. 1920. Weatherboard sided; metal porch posts.
351. C 1019 Type A Mill House. Ca. 1901. Aluminum sided; metal porch posts.
352. C 1021 Type C Mill House. Ca. 1930. Aluminum sided; enclosed clipped-gable porch.
353. C 1023 Type A Mill House. Ca. 1901. Aluminum sided; metal porch posts.
354. C 1103 Type C Mill House. Ca. 1930. Asbestos sided; metal porch posts.
355. C 1105 Type C Mill House. Ca. 1930. Weatherboard sided; metal porch posts.
356. C 1107 Type C Mill House. Ca. 1930. Aluminum sided; enclosed porch.

Vacant Lot

357. C 1111 Mill House. Ca. 1930. Two-pile, clipped-gable; gable-front porch; aluminum sided.

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358. C 1113 Type C Mill House. Ca. 1930. Aluminum sided; enclosed porch.
359. C 1115 Mill House. Ca. 1930. Two-pile, side-gable; gable-front porch; aluminum sided.
360. C 1121 Type A Mill House. Ca. 1901. Aluminum sided; gable-front entry porch.
361. C 1123 Type A Mill House. Ca. 1901. Aluminum sided; square porch posts.
362. N 1125 House. Ca. 1960. Vinyl sided; side-gable; two-pile.
363. C 1127 Type C Mill House. Ca. 1930. Asbestos sided; metal porch posts; attached carport.
364. C 1129 Type C Mill House. Ca. 1930. Asbestos sided; metal porch posts.
365. C 1131 Type C Mill House. Ca. 1930. Aluminum sided; attached carport.

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366. C 1116 Type C Mill House. Ca. 1930. Asbestos sided; later enclosed gable-front entry; replacement windows.
367. C 1114 Type A Mill House. Ca. 1901. Weatherboard sided; metal porch posts.
368. C 1110 Type A Mill House. Ca. 1901. Weatherboard sided; metal porch posts.
369. C 1108 Type C Mill House. Ca. 1930. Aluminum sided; enclosed porch; added shed entry porch.
370. N 1106 Type C Mill House. Ca. 1930. Aluminum sided; enclosed porch; appears to have fire damage.
371. C 1104 Type C Mill House. Ca. 1930. Vinyl sided; metal porch posts.
372. C 1022 Type C Mill House. Ca. 1920. Vinyl sided; enclosed porch, later entry porch.
373. C 1020 Type C Mill House. Ca. 1920. Aluminum sided; clipped-gable porch with square posts.
374. N 1018 Type C Mill House. Ca. 1920, 1960-1980s; Extensively altered Type C Mill House; deck across front façade; aluminum sided; enclosed porch.

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375. C 914 Type C Mill House. Ca. 1920. Asbestos sided; screened porch.
376. C 912 Type C Mill House. Ca. 1920. Asbestos sided; square porch posts.
377. C 910 Type C Mill House. Ca. 1920. Vinyl sided; clipped-gable porch.
378. C 908 Type C Mill House. Ca. 1920. Vinyl sided; enclosed porch with recessed entry.
379. C 906 Type C Mill House. Ca. 1920. Weatherboard sided; metal porch posts.
380. C 904 Mill House. Ca. 1930. Two-pile; hip-roofed; engaged porch with square posts.
381. N 902 Mill House. Ca. 1940. Aluminum sided; cross-gable cottage with gable-front entry.

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- 382. C 905 Type C Mill House. Ca. 1920. Weatherboard sided; metal porch posts.
- 383. C 907 Mill House. 1930s. Gable-front bungalow facing what was Hill Street; weatherboard sided; offset gable-front porch with square posts.
- 384. C 909 Type C Mill House. 1930s. Aluminum sided; engaged porch.
- 385. C 911 Type C Mill House. Ca. 1920. Aluminum sided; brick piers.
- 386. C 913 Type C Mill House. Ca. 1920. Especially intact clipped-gable entry porch; wood columns on brick piers.
- 387. C 1019 Type C Mill House. Ca. 1930. Aluminum sided; metal porch posts.
- 388. C 1021 Mill House. Ca. 1930. Gable-front bungalow; aluminum sided; enclosed gable-front porch.
- 389. C 1023 Type C Mill House. Ca. 1930. Aluminum sided; metal porch posts.
- 390. C 1025 Type C Mill House. Ca. 1930. Asbestos sided; square porch posts.

North Side West Sixth Avenue B

- 391. C 1010 Mill House. Ca. 1930. Side-gable, double-pile bungalow with gable-front entry porch.
- 392. C 1008 Type C Mill House. Ca. 1930. Aluminum sided; metal porch posts.
- 393. C 1006 Type C Mill House. Ca. 1930. Aluminum sided; metal porch posts.

Vacant Lot

- 394. C 904 Type B Mill House. Ca. 1920. Aluminum sided; clipped-gable porch with replacement turned porch posts.
- 395. C 902 Type B Mill House. Ca. 1920. Asbestos sided; metal porch posts.

South Side West Sixth Avenue B

- 396. C 901 Type C Mill House. Ca. 1930. Asbestos sided; new turned porch posts.
- 397. C 903 Mill House. Ca. 1920. Two-pile, side-gable cottage; gable-front center entry porch with square posts; asbestos siding; two interior chimneys.
- 398. C 905 Type C Mill House. Ca. 1930. Weatherboard sided; new turned porch posts and railing.

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STATEMENT OF SIGNIFICANCE

Loray Mill Historic District, consisting of the Loray Mill and its surrounding village, is a nationally significant example of textile mill construction and technological innovation in the South during the early twentieth century. The Loray Mill Historic District's significance stems from both the design and technology of the mill, and the links between textile industry development and labor history. It fulfills National Register of Historic Places Criterion C in the area of industrial architecture. Lockwood, Greene Engineers of Boston, Massachusetts, a nationally-prominent engineering firm, designed the original mill and village structures in 1901. Stuart Cramer, a pioneer in the development of air conditioning, installed an early experimental system at Loray Mill in 1908. After acquisition by Jenckes Spinning Company of Pawtucket, Rhode Island, the mill and village were expanded in 1921 and 1922. At this time, Loray Mill was converted from production of cloth sheeting to tire fabric, an important new product needed by the growing automobile industry.

Loray Mill Historic District also fulfills National Register of Historic Places Criterion A in the areas of social and industrial history. The most important incident at Loray was the famous Communist Party-led 1929 strike, a seminal event in early twentieth century labor history. The Loray strike was linked to the "stretch out" and other labor cost-saving practices resulting from the efficiency studies commissioned by the Manville-Jenckes Company in 1927-28. The strike and the trials for the murder of Police Chief Orville Aderholt and striking mill worker Ella Mae Wiggins attracted international attention. These events centered around Loray Mill represent an extraordinary episode in the history of the labor movement in the United States. Although some features of the mill and surrounding worker housing have been altered, the Loray Mill Historic District retains a high level of historic integrity. The main period of significance for Loray Mill is 1901 to 1935, which encompasses the years of construction and expansion for the mill and village, the 1929 strike, and purchase by Firestone in 1935.

HISTORICAL BACKGROUND AND SIGNIFICANCE

Textile Manufacturing in Gaston County

The Loray Mill Historic District was a largely undeveloped area on the western edge of Gastonia, North Carolina until 1901 when the mill and the village of worker housing were built. Known as the "million dollar mill," Loray Mill was much larger than other Gaston County mills. A tradition of small water-powered spinning mills in the Piedmont region of North Carolina shaped industrial development in the county; many small mills owned and operated by local interests provided a link to the regional textile industry and the national economy. Loray Mill was both uncommonly large and influential within the local textile economy, and representative of new trends in Southern textile mill development at the turn of the century. In 1900 the typical 5,000 to 10,000 spindle Gaston County mill was capitalized for approximately \$125,000, compared to \$1.25 million for Loray.¹ By 1905, the five-story Loray Mill structure housed approximately 57,000 spindles and 1,800 looms. The next largest mill in Gaston County, McAden Mills, had 15,000 spindles and 320 looms in a complex of several mill buildings constructed incrementally starting in 1881.²

¹*Davison's Textile Blue Book*. (New York: Davison Publishing Company), 1899-1900, 1903-04.

²*Davison's Textile Blue Book*. (New York: Davison Publishing Company), 1905.

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Gaston County, North Carolina is located just northwest of Charlotte in the southern portion of the North Carolina Piedmont. Gaston County was created by an act of legislature in 1846, and the first textile manufacture in the county started two years later. By 1935, Gaston County had more mills than any other American county, and Gastonia was known as “the City of Spindles.”³ The geologic fall line of the Southern Piedmont attracted the first local textile mill construction in the antebellum period, utilizing the natural water power of the Catawba and South Fork rivers. The Mountain Island Mill was built on the banks of the Catawba River in 1848 by Thomas Tate of Greensboro. Woodlawn (or “Pinhook”) Mill opened in 1852 along the South Fork River. It was built by the Lineberger family and contained 600 spindles operated by young women operatives. The mill was a wooden structure on a stone foundation, equipped with machinery from Philadelphia and England. Engravings show a three-and-one-half story mill, seven bays long and three bays wide with a small cupola perched at one gable end in the tradition of New England mills. Stowe’s Factory, built by Jasper Stowe and his father and brothers, also was located on the South Fork River. According to local histories, by 1854, all three mills operated approximately 4,500 spindles total. Like many antebellum Southern mills, these in Gaston County were small spinning mills serving a local market for yarn and coarse fabric.⁴

After the Civil War, the South began to embrace the possibilities of a more diverse regional economy, shifting from the traditional reliance on agriculture. Like the antebellum mills, those built during the decades immediately following the Civil War were scattered in rural locations with access to water power, such as the Spencer Mountain Mill and Mount Holly Mill, both built in 1874. In 1872 the first railroad was built through Gaston County, a key impetus to the growth of the textile industry. The 1880 Census counted six cotton mills in Gaston County employing 350 workers. By the end of the 1880s there were eleven textile mills in the county. At this point Gaston County was more well-known for whiskey-making stills than textile mills, but liquor production was gradually replaced in the late nineteenth century by the textile industry until Gaston County became legally dry in 1903.⁵

The Gastonia Cotton Manufacturing Company, built in 1887, was the first mill in the town of Gastonia, and the first steam-powered mill in Gaston County. Gastonia was already one of the largest towns in the county and the construction of seven textile mills during the 1890s began to consolidate its dominance as a local textile manufacturing center. By the 1890s, advances in steam power freed textile mills from dependence on riverside locations and allowed concentration along developed railroad lines. As indicated by the Gastonia Manufacturing Company’s construction in 1887, Gastonia was well-situated for steam-powered mill development. The town was located at the crossing of the Atlanta and Charlotte Airline Railroad and the Chester and Lenoir Narrow Gauge Railroad. Gastonia grew from “a

³John A. Salmond. *Gastonia 1929: The Story of the Loray Mill Strike*. (Chapel Hill and London: University of North Carolina Press, 1995), 10-11.

⁴Minnie Stowe Puett. *History of Gaston County*. (Charlotte, N.C.: Laney-Smith, Inc. 1998, original published 1939), 183, 185; Robert F. Cope and Manly Wade Wellman. *The County of Gaston: Two Centuries of a North Carolina Region*. Baltimore: Gateway Press, Inc., 1977), 70, 72-73; For a detailed chronological account of the founding of each mill in Gaston County up to 1935, see Joseph H. Separk. *Gastonia and Gaston County North Carolina: Past, Present and Future*. Kingsport, Tennessee: Kingsport Press, Inc., 1936.

⁵Separk, 160-161; Samuel Huntington Hobbs. *Gaston County: Economic and Social*. (Raleigh: Edwards & Broughton Printing Company, 1920), 7, 9-10; Cope and Wellman, 114; Kim Withers Brengle. *The Architectural Heritage of Gaston County North Carolina*. (Gastonia, N.C.: Commercial Printers, Inc., 1982), 15.

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small depot town of 236 in 1880 to a thriving industrial center boasting eleven mills and a population of 5,759 in 1910.”⁶ The 1900 Census gave Gaston County’s population as 27,903, an increase from 10,139 in 1890. Gastonia was the most populous town in the county with 4,610 people, followed by McAdenville with 1,144.⁷

Gaston County’s textile industry was also well known for the production of “combed” yarns. Arlington Cotton Mills in Gastonia, constructed by George W. Ragan in 1900-01, produced the South’s first combed yarns, a finer quality and more expensive product. Typically Southern mills produced coarser, heavier types of yarn and cloth. Success at Arlington Cotton Mills inspired other local mills and combed yarns became the dominant product of Gaston County mills.⁸ In fact, “by 1920, Gaston County’s ninety functioning mills were producing 80 percent of all the fine combed yarn made in America.”⁹

Mill villages were a distinctive element in the built environment of the Southern Piedmont starting in the second half of the nineteenth century; even as late as the 1980s nearly 5,000 mill houses still remained in Gaston County.¹⁰ This unique landscape of mill villages emerged as Southern mills constructed worker housing to attract labor. Adapting the traditions of New England textile mills, Southern mills generally built villages of small, free-standing wooden cottages to house their workers. In 1930, sociologist Jennings J. Rhyne described a typical Southern scene:

The observer approaches what appears in the distance to be a town of considerable size when suddenly around the bend in road or over the hill he comes upon compact rows of small houses of more or less similar architectural design. They run in rows on either side of a street, then branch out into side ways on hill or level. He is impressed already with the large brick structure that seems to stand in the center of things. Standing beside the structure at an elevation of perhaps 100 to 150 feet is a circular steel tank painted black on which is written “Southern Cotton Mills.”¹¹

In the late nineteenth century, a variety of house types were constructed for mill workers, often based on Southern vernacular forms such as the side gable, double pen, or hall and parlor plan. Amenities varied widely in different mill villages, but normally houses were lined up on individual lots along grid plan dirt streets. Often some common pasture

⁶Brengle, 15.

⁷Cope and Wellman, 141.

⁸Brengle, 15.

⁹Salmond, 11.

¹⁰Brengle, 18.

¹¹Jennings J. Rhyne. *Some Southern Cotton Mill Workers and Their Villages*. (Chapel Hill: University of North Carolina Press, 1930), n.p..

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land or garden space would be provided by the company to encourage keeping livestock and growing vegetables to supplement low wages. The first generation of Southern mill workers came from farming and welcomed the steady wages and basic services provided by the mill company. Opportunities to garden and raise chickens helped ease the transition from farm to factory. Mill owners had tight control over their labor force since living in the mill village often required adherence to rules and regulations dictated by the company.¹² The Loray Mill village was a distinct neighborhood just outside the city limits of Gastonia owned and controlled by the mill company. Company ownership of public and private spaces in the mill village was a source of difficulty and tension during the 1929 strike.

Construction of Loray Mill

The word Loray comes from a combination of the names of the mill's two primary organizers, John Love and George Gray. George Gray was an experienced textile mill manager with a long history of involvement with Gaston County mills. He began his career sweeping floors at the Woodlawn Mill, and at age nineteen was superintendent of the Lineberger mill. While he was superintendent of the McAden Mills in 1887, he was called upon to help plan Gastonia's first mill, the Gastonia Cotton Manufacturing Company. In the planning for Loray Mill, Gray was in charge of production and Love handled finance and promotion.¹³

When planning was under way for the Loray Mill in 1900, Gaston County had approximately 27,903 residents, \$5,166,129 of taxable property and thirty textile mills. Loray Mills, the seventh in Gastonia, was chartered on February 19, 1900 with authorization to raise \$1 million of capital. The incorporators were George A. Gray, John F. Love, Frost Torrence, Dr. J. M. Sloan, and W. T. Rankin. Loray was closer in scale to some of the large mills in Georgia or Alabama than other Gaston County and North Carolina mills. The Arlington Cotton Mill in Gastonia is a useful comparison. Chartered less than a month before Loray on January 29, 1900, Arlington Cotton Mill had \$130,000 of capital. According to *Davison's Textile Blue Book*, Arlington Cotton Mill housed 1,505 spindles to make 40 to 60-weight yarns. Loray Mill represented a shift in the small-scale, local pattern of textile mill development in Gaston County prevalent during the late nineteenth century. Love and Robert F. Herrick, a Boston attorney, sought investment from both local and Northern sources, but it is unclear how much of the authorized \$1 million was actually raised. It is estimated that \$350,000 to \$400,000 was raised locally; the amount of Northern investment is unknown.¹⁴

In late 1899, Lockwood, Greene Engineers of Boston, Massachusetts was hired to design Loray Mill.

¹²For information about the society and labor patterns of the Southern mill village see Douglas Flamming. *Creating the Modern South: Millhands and Managers in Dalton, Georgia, 1884-1984*. Chapel Hill: University of North Carolina Press, 1992; or Jacquelyn Dowd Hall, James Leloudis, Robert Korstad, Mary Murphy, Lu Ann Jones, and Christopher B. Daly. *Like a Family: The Making of a Southern Cotton Mill World*. Chapel Hill: University of North Carolina Press, 1987. A good secondary source on the design of early twentieth century mill villages is Margaret Crawford. *Building the Workingman's Paradise: The Design of American Company Towns*. New York: Verso, 1995.

¹³Cope and Wellman 126; Ragan, 145.

¹⁴Hobbs, 10; Separk 166-167; *Davison's Textile Blue Book*. New York: Davison Publishing Company, 1903-04; Robert Allison Ragan. *The Textile Heritage of Gaston County, N.C.: 1848-2000*. Unpublished manuscript proofs, 65-66.

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Correspondence from the Whitin Machine Company to Stuart Cramer, their Southern agent based in Charlotte, indicated that Gray and Love chose Lockwood, Greene because of the need to raise capital in New York. They were concerned about being able to tell potential investors that Loray Mill would be a completely up-to-date structure designed by one of the leading mill engineers in the country.¹⁵ Lockwood, Greene was a major mill engineering firm designing industrial structures throughout the United States.

By 1896 Lockwood, Greene had designed four of the six largest mills in the South. These mills were the Pelzer Manufacturing Company (107,026 spindles), the Spartan Mills (72,160 spindles), the Piedmont Manufacturing Company (58,000 spindles), and the Pacolet Manufacturing Company (55,924 spindles), all located in South Carolina. Between 1885 and 1901, Lockwood, Greene engineers designed sixty-five textile mills, all located in the South. Forty were built in South Carolina, nine in Georgia, seven in Alabama, two in North Carolina (one was the Loray Mill, designed during 1900), and one each in Texas, Louisiana, and Tennessee. Lockwood, Greene opened their first branch office in Greenville, South Carolina in 1899. Joseph E. Sirriner, a local civil engineer, was put in charge of the office. The design work was still done in the main Boston office, but the Greenville office was intended to "provide a Southern headquarters closer to the large volume of work for the benefit of clients and to provide field supervision." Sirriner, who later went on to have his own successful mill engineering firm, started his career with Lockwood, Greene in 1895 doing surveys. Park A. Dallis, an engineer from Georgia, was employed by the Lockwood, Greene Greenville office when he supervised construction of Loray Mill. The building contractor was Flynt Building and Construction Company of Palmer, Massachusetts.¹⁶

The Loray Mill job was an important foray into North Carolina for Lockwood, Greene. According to a corporate history of Lockwood, Greene, the influence of local mill engineer Daniel A. Tompkins kept the New England firm from getting fully established in North Carolina, particularly in comparison to their extensive work in South Carolina, Georgia, and Alabama.¹⁷ Tompkins set up an office in Charlotte in 1884 and in 1894 became the Southern agent for the Whitin Machine Company based in Whitinsville, Massachusetts. Tompkins published his influential treatise *Cotton Mills, Commercial Features* in 1899.

Another important North Carolina mill engineer was Stuart Cramer, who began his career as a manager for Tompkins in 1894, and then took over as the Whitin agent from 1895 to 1919. Cramer built the model textile mill

¹⁵Letter from Whitin to S. W. Cramer, 22 November 1899, Whitin Machine Company Collection, Baker Library, Harvard University Graduate School of Business. Whitin recounts a conversation with Love on November 21, 1899, and his efforts to steer Love toward choosing Charles A. Makepeace of Providence, Rhode Island as the mill engineer.

¹⁶Betsy W. Bahr. "New England Mill Engineering: Rationalization and Reform in Textile Mill Design, 1790-1920," (Ph.D. Dissertation, University of Delaware, 1987), 231-232; Samuel E. Lincoln. *Lockwood, Greene: History of an Engineering Business, 1832-1958*. (Brattleboro, VT: Stephen Greene Press, 1960), 157-158, 174, 184, 155. Park Dallis would later start his own firm based in Atlanta and design several mills in Troup County, Georgia. Ragan, *Textile Heritage*, 67.

¹⁷Lincoln, 171.

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village of Cramerton (originally Mays Mills) in Gaston County in 1906. He was also well known for his publications and his experiments with early air conditioning systems in textile mills. Some major New England mill engineering firms working in the South were Charles Makepeace & Company and Charles T. Main. Professional mill engineers, although their training varied, provided important technical expertise as integration of production and building became more complex and crucial to efficient mill management at the turn of the century.¹⁸

The design for Loray was a fine example of slow-burning mill architecture at the turn of the century. Since no architecture is truly fireproof, particularly given the highly flammable contents of a cotton mill, slow-burning architecture was intended to minimize and contain fire damage using readily available building materials such as heavy timber and brick. Concerns about the economic impact of mill fires led the Factory Mutual Fire Insurance Companies, under the leadership of Edward Atkinson, to sponsor experiments on the best construction and fire safety techniques during the 1880s. Textile companies that followed the recommendations regarding fire safety and slow-burning construction received lower premiums. This approach was revolutionary in contrast to the usual *laissez-faire* attitude of fire insurance companies, as described by Edward Atkinson in 1889:

Until within a very recent period the management of an insurance company issuing policies of indemnity against loss by fire has consisted mainly in taking risks as they might happen to be, a more or less careful inspection having been made into the condition of the property before issuing a policy, for the purpose of estimating the rate of premium to be charged rather than with a view to improving such conditions.¹⁹

The more proactive stance taken by the Factory Mutual Fire Insurance Companies starting in the 1880s had a major impact on the form and structure of mill architecture.

Slow-burning construction, as promoted by the Factory Mutual companies, typically utilized a heavy timber interior frame and brick walls. Concealed spaces, particularly attics or inside floors and walls, were eliminated, minimizing the opportunities for fire to spread. Fire insurance companies also encouraged isolating areas particularly prone to fire such as the picker room. Stairs and elevators were often separated from the bulk of the mill by brick towers, limiting the possible vertical spread of fire. A popular builder's handbook described mill construction as "so disposing the timber and plank in heavy solid masses as to expose the least number of corners or ignitable projections to fire, to the end also that when fire occurs it may be most readily reached by water from sprinklers or hose." It was also important to separate "every floor from every other floor by incombustible stops...so that a fire shall be retarded in passing from floor to floor."²⁰ Thick floors constructed of three layers of planking were laid directly on the supporting beams to eliminate gaps and spaces between joists that could encourage the spread of fire. Instead of tall, narrow structures with attic spaces under gable roofs, typified by New England mills earlier in the nineteenth century, by the

¹⁸Lincoln 172; Bahr, 206-235.

¹⁹Edward Atkinson. "Slow-Burning Construction," *Century Magazine* (February 1889): 566.

²⁰Quoted in Frank Eugene Kidder, *The Architect's and Builder's Pocketbook*, (New York: John Wiley & Sons, 1908), 687-88.

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1890s mills were typically lower and wider in form with nearly flat roofs. The change in mill form was dramatic and slow-burning construction became synonymous with mill architecture. Lockwood, Greene was highly experienced at designing state-of-the-art mills to insurance company standards when they received the Loray Mill job.²¹

Power systems were evolving by the 1890s as well with the first electric powered mill in Columbia, South Carolina in 1893 and more sophisticated steam power systems. In 1899, mill engineer Stephen Greene succinctly described the impact of the shift from water to steam power on mill design:

With the advent of the automatic cut-off steam engine with which the name of Corliss is indissolubly connected, the field was opened for a still further modification of mill design. It was no longer necessary to select a site by the river bank where the topography was more characteristic for its beauty than for its utility; but a spot could be chosen where a mill could be built much more economically, and where the requisites of light and ventilation could be met in a much more satisfactory manner.²²

The 2,500 horsepower cross-compound and condensing steam engine installed at Loray was one of the largest in the South. The drive wheel was twenty-two feet in diameter and carried fifty-five ropes and cables. It was manufactured by the C & G Cooper Company of Mount Vernon, Ohio. Less than fifteen years after the first steam-powered mill was built in Gaston County, Loray Mill represented the new scale and efficiency of a modern steam-powered production facility.²³

The original plans for Loray Mill provide a good overview of the mill's design.²⁴ Loray Mill was originally a 130- by 527-foot rectangular structure, five stories high plus a partial basement. A heavy timber frame was enclosed by thick brick exterior walls with tall arched windows. Large windows were desirable to allow natural light into the production spaces on the interior. Thick wooden floors laid tightly over the beams below eliminated hidden spaces between joists where fire could spread undetected. The floors were constructed of a top layer of one-inch maple, an intermediate layer of one-inch native pine and a four-inch layer of hard pine plank resting directly on the beams. Loray had a low-pitched roof (1/2 inch per foot) directly over the production area on the fifth floor. A tar and gravel exterior roof surface provided further fireproofing.

²¹See Bahr, "New England Mill Engineering," Lindy Biggs, *The Rational Factory: Architecture, Technology, and Work in America's Age of Mass Production*. Baltimore: Johns Hopkins University Press, 1996; and Sara Wermiel, "The Development of Fireproof Construction in Great Britain and the United States in the Nineteenth Century," *Construction History* 9 (1993): 3-26. Useful primary sources include Edward Atkinson, "Slow-Burning Construction," *Century Magazine* (February 1889): 566-579; and Charles J. H. Woodbury (Inspector for Factory Mutual Fire Insurance Cos.), *Fire Protection of Mills and Construction of Mill Floors* (New York, 1895 (3rd ed.)).

²²Stephen Greene, "The Influence of Motive Power on the Design of Cotton Mill," *Cassier's Magazine* 16 (July 1899): 204.

²³Ragan, *Textile Heritage*, 67.

²⁴Original drawings by Lockwood, Greene for the Loray Mill are located in the Lockwood, Greene Collection recently donated to the National Museum of American History, Smithsonian Institution, Washington, D.C..

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A combination stair and water tank tower extended from the north elevation of the mill twelve bays in from the east end. Separating the vertical circulation of the stairs from the bulk of the mill provided uninterrupted space for manufacturing and isolated the possible spread of fire between floors. The tower was the most decorative aspect of the mill, featuring simplified Romanesque Revival detailing such as a hipped roof with decorative brackets along the cornice line, sets of three round arch windows on each elevation of the tower's uppermost floor, and plain stone and brick belt courses. The hipped roof has been removed, but the rest of the tower remains intact.

Behind the tower within the main body of the mill were a dust chimney or vertical ventilation shaft, the elevator shafts, and the ropeway. The ropeway space was open from the first to fifth floors to accommodate the huge ropes and pulleys that moved the main shafting and belting for each production floor.²⁵ The machinery on each floor would then be operated using secondary belting and shafting hung overhead throughout the mill. Metal-clad automatic sliding fire doors could seal off portions of the mill to contain a fire before it could spread through a floor or into the vertical spaces of the stair tower or ropeway. Mounted on a slightly inclined track, automatic fire doors were held open by weighted pulleys. Rising temperatures would melt a fusible link, releasing the weight and causing the door to slide shut.²⁶ Except for a secondary set of elevators at the west end of the mill, all the vertical circulation was contained in the tower/ropeway area.

The rope drive was powered by engines located in an engine house extending from the south elevation of the mill behind the tower and ropeway. The engine house was part of a series of adjacent one and two-story ells extending from the south elevation of the mill. Although similar to the rest of the mill, the service ell structures did have some structural steel beams and trusses. The boiler house was attached to the south end of the engine house and situated parallel to the mill proper. The boiler house had six boilers plus space for two more to be installed later. The boiler stack was attached to the economizer on the west side of the boiler house. The service ell of Loray Mill also included a pump room and stoker room on the east side of the boiler house, and a fan room attached to the main mill and the northwest side of the engine room.

The rest of the Loray Mill complex included a detached office structure on the north side of the mill and a warehouse, reservoir, and railroad siding on the south side of the mill. The office was a one-and-a-half-story structure with a hipped roof located in front of the mill near the west end. The warehouses were a long, rectangular structure on the southwest corner of the lot. Firewalls divided the warehouse structure into eight areas. An elevated railroad siding at the west end of the cotton warehouse allowed delivery of cotton bales via a chute. The opening room was located in the east end of the warehouse. Separating the process of opening the cotton bales from the rest of the mill was a common practice because of the fire hazard of debris in the newly opened bales. A 208 by 258 foot reservoir holding 3.2 million gallons of water for firefighting was located adjacent to the east end of the warehouses behind the mill. The mill and office structures are currently extant, although substantial alterations have taken place inside the rope drive area of the mill. The huge drive wheel and engines were removed after the conversion to modern electric-driven machinery. The multistory ropedrive space was subdivided into offices, probably during the 1970s. The warehouses,

²⁵An early photograph of the interior of the engine room and ropedrive is located in the Industrial & Agricultural Photo Collection, Gaston County Museum of Art and History, Dallas, N.C..

²⁶Stuart W. Cramer. *Useful Information for Cotton Manufacturers, Volume 3*. Charlotte and Atlanta: Stuart W. Cramer, 1906.

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reservoir, and railroad tracks have been removed, although the railroad right-of-way is still partially visible.

Unlike the numerous Gaston County mills producing combed yarns, the Loray Mill was designed to produce cloth sheeting. Lockwood, Greene's original drawings also included detailed information about the planned layout of the production areas and machinery at Loray. These drawings provide a good overview of production at Loray Mill, although early financial difficulties and changes in 1904 indicate that these plans were not fully implemented. Existing sources do not specify what machinery was being used when the mill opened in 1902.

According to these plans, after the bales were opened in the opening room section of the warehouse behind the mill, the raw cotton began the manufacturing process in the picker room on the east end of the third or fourth floor. The plans specify machinery for both floors from the Kitson Machine Company, such as eight 36-inch openers, eight 45-inch breakers, eight 45-inch intermediate breakers, and eight 45-inch finishers. The cotton then moved to the larger, west section of the each floor for carding, slubbing, and roving. The repetition of these processes on the third and fourth floors probably indicates preparation for producing different products. These processes removed any remaining debris or knotted fibers from the cleaned cotton, smoothed and straightened the fibers, and prepared it for spinning. The equipment planned for the third and fourth floors, all from Whitin Machine Works in Whitinsville, Massachusetts, was 112 revolving top flat cards, 96 first drawing frames, 96 second drawing frames, 16 slubbers, and 24 roving frames:

Next the sliver, or loosely twisted ropes of cotton, went to the fifth floor for spinning (west section), and spooling and warping (east section). These processes created a strong thread nearly ready for weaving. The spinning room was planned with 132 warp frames and 104 filling frames from the Whitin Machine Works. The thread was transferred onto bobbins and warp beams for weaving in the spooling and warping room planned with 18 spoolers made by Whitin, and 24 warpers made by the Draper Company of Hopedale, Massachusetts. The loaded bobbins and warp beams then went to the slasher room in the east section of the second floor where the thread was soaked with sizing, a starch substance that would protect the fibers from the friction and heat generated by weaving.

The west section of the second and first floors were designed as weave rooms; because of the severe vibration of the looms, weaving was typically done on a mill's lower floors. Lockwood, Greene's plans for the second floor indicate 320 40-inch and 500 36-inch E-model Draper looms for the weave room. The first floor weave room was to have 360 30-inch and 500 36-inch E-model Draper looms. Finally the cloth was taken to the cloth room in the east section of the first floor for inspection and shipping.

The mill actually had fewer machines than planned when it opened in 1902 because of problems raising capital. Although the actual position and amount of machinery varied when the mill actually opened, Lockwood, Greene's machinery schematics illustrated cloth sheeting production as planned at Loray Mill, using equipment comparable to other large, progressive mills. The treasurer of Whitin Machine lamented his failure to persuade Love and Gray to use Whitin looms in a letter to his southern agent, Stuart Cramer: "All the large new mills in the South are putting in the Draper looms and that of course makes a very strong argument for them to do likewise."²⁷

Lockwood, Greene's contract also included the design of a mill village to house Loray Mill's workers. A series of grid plan streets with small wooden cottages on brick piers was built surrounding the mill. Although

²⁷Letter from Whitin to Cramer, 22 November 1899, Whitin Machine Company Collection, Baker Library, Harvard University Graduate School of Business, Boston, Massachusetts.

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connected to Gastonia, an established commercial center for the county, the Loray Mill village functioned as a rather isolated industrial neighborhood. Loray Mill village was located west of the city limits of Gastonia, and was not annexed until after threatening to incorporate as a separate town in 1911. Gradually churches, stores, a playground, athletic field, and community building were added to the mill village, but initially it was composed of only the mill and surrounding houses on small square lots. Although these lots were smaller than those intended to support extensive vegetable gardening in some other Southern mill villages, Loray Mill did encourage landscaping and gardening by offering a \$100 prize for the best yard.²⁸

Two main house types were built during this initial period of construction. A single-pile, one or one-and-a-half-story dwelling with a side gable roof and a rear ell (Type A) was built predominantly south and east of the mill. These small dwellings were typically three-bays wide with a shed-roof porch extending from the center bay, although there was some variation in the porch roof and size. A similar house type (Type B) was built primarily to the north and northeast of the mill. These dwellings were double-pile, one-and-a-half-story wooden cottages with side gable roofs. Square in plan, they had a full façade shed-roofed porch. Some of these larger dwellings were partitioned into duplexes housing two families. In addition to these two main types, several I-houses were located near the mill, perhaps to house supervisors.²⁹

Although construction was complete and the mill began production in January 1902, Loray Mill was not immediately successful. Gray and Love failed to raise all of the necessary money, and their main creditor, the Whitin Machine Company, gained control of the mill. According to local historian Robert Ragan:

Through him (Gen. Wm. Draper), the Whitin family of Whitin Machine Works, which supplied the spindles to the Loray, had invested \$100,000 only to be forced to follow up their investment with eventual control when Loray fell into financial difficulties and eventually failed. The Loray was reorganized in 1904, and General Draper and the other creditors put in Colonel Thomas E. Moore of Wellford, South Carolina, as president and treasurer, and his brother, Andrew E. Moore as assistant treasurer and manager.³⁰

Davison's textile industry directory for 1903-04 listed 25,000 spindles and 840 looms operated by 1,000 employees for Loray Mill, indicating that Loray was only partially equipped during its first few years.³¹

According to *Textile World Record*, in June 1904 the stockholders voted to increase Loray Mill's capital stock from 1.25 million to 1.5 million "for the purpose of installing additional machinery in the plant. They will add

²⁸See letter from J.M. Roberts to "Mother," (11 May 1913), Gaston County Museum of Art and History, Dallas, N.C..

²⁹Lincoln, 165; Cope and Wellman, 155.

³⁰Robert Allison Ragan. *The Ragans of Gastonia, 1790-1995*. (Charlotte, N.C.: R. A. Ragan & Company, 1995), 146.

³¹*Davison's Textile Blue Book*. New York: Davison Publishing Company, 1903-04.

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from 25,000 to 35,000 spindles and 600 to 1,000 looms.”³² By August 1904, Lockwood, Greene had prepared plans for the arrangement of new machinery at Loray. The basic process flow was the same as the original 1901 design, but the machinery planned for the first floor weaving room was never installed. Instead, 1904 plans indicate approximately 800 E Model Draper looms, ranging in size from sixty-inch to twenty-eight-inch. The other changes involved rearranging some of the shafting in the carding room on the west section of the third floor and installing different machinery than that specified on the 1901 plan. Equipment in the carding room included 90 45-inch revolving top flat cards, 66 deliveries of first drawing frames, and 66 deliveries of second drawing frames from Whitin Machine Works, and 8 slubbers, 16 intermediate frames, and 34 roving frames from Sacco & Pettee.³³ Textile industry directories also indicate the changes in Loray Mill’s machinery after reorganization. *Dockham’s* directory for 1905 lists 56,980 ring spindles and does not mention looms. *Davison’s* directory from 1907-08 lists 57,800 ring spindles and 1,660 looms.³⁴

Improved Technology at Loray Mill

Continued improvements at Loray Mill represented the leading innovations in textile industry technology. By the early twentieth century, when most of the new textile mill construction and innovation was taking place in the South, the developments at Loray were indicative of nationally important trends in improved cotton textile production. An early air-conditioning system designed by Charlotte mill engineer Stuart Cramer was installed at Loray Mill in 1908. Cramer was one of the pioneers of air conditioning, coining the phrase in a 1906 address before the American Cotton Manufacturers Association. According to *Air-conditioning America*, Cramer’s new term, “air conditioning,” illustrated his system’s use of atmospheric humidification in comparison with older methods of direct moistening by spraying mist or wetting floors. Artificial cooling emerged from the use of humidifying equipment in the textile industry. Cotton fibers could be spun and woven more easily, and with better results, when the atmospheric humidity was high and constant. Faster, hotter machines producing finer material heightened the importance of humidity control in textile mills and fueled the development of process air conditioning. During the first decade of the twentieth century, air conditioning systems encompassed temperature control, humidity control, air circulation, and air filter devices. In this period temperature control for human comfort was a secondary concern, but later commercial applications of air conditioning grew out of this experimentation in the textile industry.³⁵

³²“Mill News,” *Textile World Record* 27:3 (June 1904): 161.

³³See Loray Mill drawings in the Lockwood, Greene Collection, NMAH, Smithsonian Institution.

³⁴*Dockham’s American Trade Reports and Directory of the Textile Manufacture and Dry Goods Trade* Boston: C.A. Dockham and Company, 1905; *Davison’s Textile Blue Book*. New York: Davison Publishing Company, 1907-08. The spindle and loom figures listed in textile directories are often estimates; this information is unreliable for establishing exact machinery numbers, but very good for documenting large changes. A few images of child workers at Loray Mill in this period can be found in Record Group 102 Series LH - Lewis Hine Photographs for the National Child Labor Committee, 1908-1912, at the National Archives and Records Administration Still Picture Branch, College Park, M.D..

³⁵Pam Edwards, “Carrier Air Conditioning and the Textile Industry,” in Edwin J. Perkins, ed., *Essays in Economic and Business History*. (1994), 355; Gail Cooper. *Air-conditioning America: Engineers and the Controlled Environment, 1900-1960*. (Baltimore and London: The Johns Hopkins University Press, 1998), 19. See also Gail Cooper, “Custom Design, Engineering Guarantees, and

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In April 1908, Whitin wrote a letter to Stuart Cramer expressing his support for installing automatic regulators on the American Moistening Company humidifiers at Loray, saying he "would be glad to see it tried."³⁶ Cramer installed an air washer with automatic humidity control on the existing B. F. Sturtevant Company fan heating system at Loray Mill in 1908. Cramer's approach to air conditioning would clean, humidify, and distribute the air supply; precise temperature control was not developed until later. The automatic humidity regulators designed by Cramer were an important step toward monitoring and responding to the indoor conditions.

The equipment installed at Loray was probably based on Cramer's 1906 patent.³⁷ A series of bell-shaped canisters, similar to older humidification equipment, was hung above the machinery against the outside walls. Earlier humidification equipment would have been hung above the machinery throughout the mill, distributing a fine mist that would settle on the machinery and eventually cause rust. Placement of Cramer's apparatus against the outside wall allowed it to ventilate the mill by drawing air from both the outside and the factory space. The air was drawn through a fine water spray and then through a cloth filter to both clean and humidify. The air washer was probably installed in the existing fan room attached to the south elevation of the mill.³⁸

The Cramer equipment installed at Loray was just one example of air conditioning experimentation in Gaston County. In 1907 when building the Mays Mills in Gaston County, later known as Cramerton, Cramer also used his patented air conditioning system. Another early air conditioning system was installed at Chronicle Mills in Belmont, Gaston County in 1906 by Cramer's main competitor, Willis Carrier. Working with the Buffalo Forge Company in Buffalo, New York, Carrier later became well known for developing the industrial and commercial application of air conditioning. The system consisted of a central station spray-type air conditioning apparatus in connection with a Sturtevant Company fan heating system. Although the apparatus did not work properly at Chronicle Mills, Carrier learned important lessons that he applied to future equipment. Based on the problems at Chronicle, he installed the first counter-flow device to push more moisture into the air at Lowell Cotton Mill in Gaston County in 1907.³⁹ Within the context of these other nationally significant experiments, Loray Mill was an important site for the development of industrial process air conditioning taking place in Gaston County.

The power system at Loray Mill was also upgraded during its first decade of operation. By 1907, two additional boilers had been added in the location designated by the original boiler house plans. A total of eight boilers powered the engines for the massive rope drive. In 1909, electric motive power was added in a modification of the

Unpatentable Data: The Air Conditioning Industry," *Technology and Culture* 35 (July 1994), 506-536.

³⁶Letter from Whitin to Cramer, 7 April 1908, Whitin Machine Company Collection, Baker Library, Harvard University Graduate School of Business.

³⁷S. W. Cramer. "Humidifying and Air Conditioning Apparatus, Application Filed April 18, 1906" U. S. Patent No. 852,823 (7 May 1907).

³⁸Ingel, 136; Gail Cooper, "'Manufactured Weather': A History of Air Conditioning in the United States, 1902-1955," Ph.D. Dissertation, History Department, (University of California, Santa Barbara, 1987), 47.

³⁹Margaret Ingels. *Willis Haviland Carrier: Father of Air Conditioning*. (Garden City, New York: Country Life Press, 1952), 132-136, 27-29; Cooper, *Air-conditioning America*, 22-23.

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original steam system. Loray had electric lighting from the start, but electric power for production was less common at this time. The first fully electric-powered mill was built in Columbia, South Carolina in 1893, but high costs led many mill owners to favor steam well into the 1920s.

Prosperity and Expansion

Expansion of the Southern textile industry continued through the early years of the twentieth century. The demand for cloth for military uniforms during World War I fueled a boom which lasted into the 1920s. Gaston County's textile industry continued to grow dramatically, peaking at construction of eight new mills in 1916 in spite of a devastating flood. According to a 1920 study, in Gaston County "the expanse of the cotton mill since 1912 has been great. During the period of the World War there have been as many as four mills under construction at a time in Gastonia alone. Five are now in the process of erection within county limits."⁴⁰ Many new mills were constructed in Gaston County, and many existing mills were expanded, including Loray.

By 1920, Gaston County had more cotton mills than any other county in the United States. By 1920 there were "more than ninety mills in Gaston County, 'representing one-seventh of the textile capital of the state; operating upwards of 1,000,000 spindles, one-sixth of all the spindles in operation in the state, and one-fifteenth of the looms; consuming one-fifth of the raw material consumed annually in North Carolina, and furnishing employment to thousands of Gaston's 52,000 inhabitants."⁴¹ In the early twentieth century, groupings of mills became more common, with four major groups controlling half of the mills in Gaston County by 1925. The November 1923 *Southern Textile Bulletin* included profiles of several Gaston County mill companies, including the Lineberger group of mills, all located in Belmont, the Armstrong group operating primarily in Gastonia, and the Gray-Separk group operating in Gastonia.⁴²

The 1920s were an important period of change for Loray Mill as well, culminating in the famous 1929 strike. In 1919 the mill was purchased by the Jenckes Spinning Company based in Pawtucket, Rhode Island. The High Shoals Mill in High Shoals, Gaston County was also acquired by Jenckes Spinning at this time. Jenckes embarked on an ambitious enlargement and improvement campaign in the mill and mill village while converting Loray from cloth to tire fabric yarn production. Sociologist Samuel Hobbs described the changes at Loray Mill in early 1920:

⁴⁰Samuel Huntington Hobbs. *Gaston County: Economic and Social*. (Raleigh: Edwards & Broughton Printing Company, 1920), 11.

⁴¹Hobbs, 11.

⁴²Hobbs, 6; Brengle, 15-16. The Lineberger group of mills, all located in Belmont, included Chronicle Mills, Imperial Yarn Mills, Majestic Manufacturing Company, Climax Spinning Company, Sterling Spinning Company, Crescent Spinning Company, Acme Spinning Company, Perfection Spinning Company, Linford Mills, and National Yarn Mills. The Armstrong group mills were the Armstrong Cotton Mills, Clara Manufacturing Company, Winget Yarn Mills, Victory Yarn Mills, Dunn Manufacturing Company, Mutual Cotton Mills, Seminole Cotton Mills, Piedmont Spinning Company, and Monarch Cotton Mills. Gray-Separk group operated Arrow Mills, Flint Manufacturing Company, Arlington Cotton Mills, Gray Manufacturing Company, Myrtle Mills, Parkdale Mills, and Arkray Mills, all in Gastonia.

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Capitalized at \$1,500,000 the Loray was a giant enterprise in the textile industry. It is a much larger concern now. It has recently been converted into a yarn mill alone, manufacturing automobile tire fabrics. Within the last few months the weaving has been discontinued and the looms sold. The 57,000 spindles are being increased to 90,000. Under the old regime 550 people were employed. There are now 850 employed and when the installations of machinery are complete the number will be 1,400.⁴³

Instead of producing cloth sheeting, Loray Mill began to produce tire fabric, a growing segment of the textile industry given the rising popularity of the automobile. Eliminating most of the weaving part of the process freed more space in the mill for spinning, as indicated by the increase to 90,000 spindles. Despite a 1919-20 boom in the price of tire fabric to \$1.50 per pound, a post-World War I slump in the Northern textile industry made the South's cheaper production costs particularly desirable. To offset the waning profitability of their Northern mills, many New England mill companies looked to the South when expanding manufacturing operations.⁴⁴

In 1921 Jenckes Spinning hired Robert & Company engineers from Atlanta, Georgia, to design an addition on the west end of the original mill. The five-story addition extended 107 feet from the west end of the mill and three bays beyond the north elevation of the 1901 structure. The southwest corner of the addition was angled to avoid interfering with the railroad siding. The 1921 section was built with a temporary wooden north wall. Another section was added at this temporary wall in 1922, creating an 259-foot by 107-foot addition perpendicular to the 1901 mill. The exterior of the addition also had brick walls and arched window openings; in this instance both the windows and intervening piers were slightly wider than the 1901 section. The addition included a full basement that was above grade on the south elevation and partially below grade on the north.⁴⁵

With the change to tire fabric production and the addition, the process flow through Loray Mill was also altered. The 1922 Sanborn Map indicates that twisting was added to the spooling and warping processes on the fourth floor. (Twisting made stronger thread necessary in the production of tire fabric.) A larger portion of the mill was devoted to spinning, with that machinery occupying the entire fifth and third floors. The limited weaving that remained was moved to the basement of the 1901 mill and the addition. The cloth room was moved from the east end of the original first floor to the first floor of the addition.⁴⁶ Interior photographs from this period show small electric motors mounted on the ceiling at the end of each row of machinery in the beam twisting room. Attached to the machinery via a short section of belting and shafting, these motors were more efficient and consistent than the original ropeway system. The motors were used to expand and enhance the capacity of the original steam-powered belt-and-shafting

⁴³Hobbs, 22.

⁴⁴Lincoln, 553, 477.

⁴⁵Copies of Robert & Company Plans and elevations for the 1921/1922 addition were obtained from the Firestone Company and Rogers & Associates, Inc., Rock Hill, South Carolina.

⁴⁶Sanborn Map Company. "Gastonia, North Carolina," (New York: Sanborn Map Company), 1922.

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system without the expense of complicated changes.⁴⁷

Jenckes Spinning also expanded the housing and services in the mill village. A broad movement to improve mill village housing and amenities grew out of the national labor reform efforts of the 1910s. During this period, popular bungalow-inspired house types replaced the Southern vernacular forms of the late nineteenth century for mill village housing. In 1920, Samuel Hobbs described the expansion of the mill village:

The owners of the Loray Mills are spending, all told, somewhere around a million dollars in improvements and enlargements in and around their plant. Of this total more than half is going into new buildings, including 150 of the best constructed, most convenient and withal most attractive bungalows for their operatives that can be found in any manufacturing town in the country. These houses of four, five, and six rooms, are costing \$2,000 and up and are not lacking in modern conveniences. In the 150 homes are to be found several types of architecture. In addition to these homes for operatives, two large dormitories, one for men and the other for women, with a large cafeteria between, are being erected at a cost of considerably more than \$100,000.⁴⁸

A common house type built in the southwestern section of the village during the early 1920s expansion at Loray Mill was a hipped-roof dwelling with a off-set, gable-front porch. Other small one-story, side-gable, and front-gable bungalows were located throughout the Loray Mill village. The substantial brick dormitories were located just a block in front of the northeast side of the mill on West Franklin Street, the main commercial thoroughfare. Mill villages were an important component of Gastonia, with nearly thirty mill villages in or near the city limits by the mid-1920s. The expanded Loray Mill village was one of the largest, with a population of 5,000 by the mid-1920s.⁴⁹

Southern Textile Bulletin also provided a portrait of Loray Mill village in 1923 that emphasized the employee welfare efforts of the company. Loray Mill was described as "not only the largest in Gastonia, but their buildings and equipment rank with the best in the South. The equipment consists of 107,504 spindles and 273 looms."⁵⁰ A community center, day care, schools, playground, swimming pool, laundry, and churches were some of the services provided, and controlled, by the mill company. The booster tone of the *Southern Textile Bulletin* was evident in this glowing description of the conditions and workers at Loray:

The mill buildings are kept immaculately clean inside and out, many flowers, shrubs and vines enhance the appearance on the outside, while the interior is most sanitary and comfortable, making the work much more attractive and instilling a certain pride in the operatives which makes

⁴⁷Photograph 1990.27.8, Gaston County Museum of Art and History, Dallas, N.C..

⁴⁸Hobbs, 22.

⁴⁹Brengle, 21. The dormitory buildings are no longer extant.

⁵⁰"Loray Mills of Jenckes Spinning Company," *Southern Textile Bulletin* 25:13 (22 November 1923): 134.

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for neatness in everything. The operatives employed are among the best to be found in any cotton manufacturing plant. Keen and alert, progressive and ambitious. A high rate of wage is paid in appreciation of their skillful work and the operatives are contented and happy.⁵¹

Of course the social reality of the Loray Mill village in the 1920s was much more complex than these complimentary reports suggest. After a period of high wages and improving living conditions for workers during World War I, the textile industry began to experience a drop in prices. Tighter economic conditions squeezed workers between the wage-cutting efforts of management and efficiency experts who sped up the pace of work in the textile factory. Called the "stretch-out" by workers, this new management practice reshaped the world of Loray Mill workers during the 1920s.

Stretch-Out and Strike

In 1923 Jenckes Spinning Company merged with the Manville Company, also of Rhode Island, to form a corporation operating seven mills in Rhode Island and two in Gaston County. Loray Mill was officially reorganized as a unit of Manville-Jenckes Company on November 3, 1924. In spite of a general downturn in the textile industry, the Loray Mill continued to be profitable, consistently running two shifts from 1923 to 1928 when many other mills had seasonal layoffs. However, the Manville-Jenckes Company was struggling overall.⁵²

In 1927 Manville-Jenckes hired the Barnes Textile Service to study their mills and recommend cost saving measures. Barnes Textile Service promoted the idea that "the most controllable element of costs in textiles is labor."⁵³ At the Manville-Jenckes mills, Barnes representatives "ma[d]e careful time studies, ma[d]e definite recommendations for the extension of jobs, observe[d] mechanical conditions which were incorrect, and encourage[d] the management to make the changes necessary to secure maximum production and minimum cost."⁵⁴ Manville-Jenckes hired a new superintendent for the Loray Mill, G. A. Johnstone, to implement the recommendations. Johnstone "went about his work with enthusiasm, dramatically raising workloads, replacing skilled with cheaper labor, and redistributing or abolishing tasks."⁵⁵ The labor savings after one year of efficiency studies and stretch-out measures by the Barnes Textile Service were most dramatic at Loray. Changes suggested by Barnes reduced the labor force at Loray from 3,500 to 2,200 by the end of 1928, while production levels remained constant. Labor savings estimates for Loray from April 1927 to April 1928 were \$621,193.00, over half the total savings of \$1,100,857.00 for eight Manville-Jenckes divisions. In a letter later widely circulated by unionists during the strike, F. L. Jenckes congratulated Johnstone on his

⁵¹"Loray Mills of Jenckes Spinning Company," 135.

⁵²Liston Pope, *Millhands and Preachers: A Study of Gastonia*. (New Haven: Yale University Press, 1942), 224-225; Separk, 167.

⁵³"Management Control of Labor Cost," Barnes Textile Service Collection, Osborne Library, American Textile History Museum, Lowell, Massachusetts.

⁵⁴Letter from Barnes Textile Service to F. L. Jenckes, (21 May 1928), Barnes Textile Service Collection.

⁵⁵Salmond, 14.

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payroll cuts, admitting he had been doubtful, but was now confident that Johnstone could cut twice as much, or \$1 million.⁵⁶ However, Johnstone was transferred in August 1928, causing celebration among the workers at Loray Mill. Some of his more stringent measures were relaxed, but mill workers still found themselves working more time for less money.

The causes of the 1929 strike were complex, but contemporary observers and historians generally agree that the stretch-out and other labor control efforts such as fencing in the mill and locking the doors during work hours contributed to the discontent of Loray Mill's workers. Liston Pope's thorough study of the Loray Mill strike, *Millhands and Preachers*, blamed the combination of impersonal management and unreasonable demands:

Trouble was avoided so long as labor management, though impersonal, was fairly lax, allowing the worker some autonomy as to speed of operation, employing a generous supply of supplementary workers, and allowing fairly moderate standards of production per worker. The installation of a stretch-out in 1927-28, coupled with further disorganization of the community, carried previous tendencies in the village to their logical conclusion and imposed on disciplinary agencies such as the welfare program a strain greater than they could bear.⁵⁷

Labor unrest was evident at Loray Mill in the months leading up to the strike. On March 5, 1928, the entire weave room walked out in protest of wage cuts. Their spokesman gave a statement asking for "simple justice" given the deteriorating working conditions and wages. Previously a weaver could earn \$30 to \$35 a week for running six to eight looms, but with the stretch-out they were paid \$15 to \$18 a week for running ten to twelve looms. These unorganized workers soon quietly went back into the mill.⁵⁸

Union organizing activity was sporadic, but not unprecedented in North Carolina. In 1919 organizing drives by the United Textile Workers of America (UTWA), an American Federation of Labor affiliate, inspired a number of strikes, including one at Loray Mill shortly after acquisition by Jenckes Spinning Company. Workers were turning to collective bargaining in response to wage cuts in the immediate post-war period. In 1921 UTWA led 9,000 North Carolina textile workers in a strike against mills in Concord and Kannapolis. The strikes ultimately failed and the UTWA abandoned its efforts to organize Southern workers due to financial limitations.⁵⁹

In the spring of 1929, the Communist Party-affiliated National Textile Workers Union (NTWU) targeted Loray Mill for a Southern textile organizing drive. Initial efforts by NTWU organizer Fred Beal in Charlotte indicated that local textile workers were wary after the failure of the UTWA's efforts a decade earlier, but desperate for relief from the stretch-out working conditions. When company police began firing Loray Mill workers sympathetic to Beal's

⁵⁶Tom Tippet mentions this incident in *When Southern Labor Stirs*. (New York: Jonathan Cape & Harrison Smith, 1931), 94.

⁵⁷Pope, 227-228.

⁵⁸Quoted in Pope, 233.

⁵⁹F. Ray Marshall. *Labor in the South*. (Cambridge, M.A.: Harvard University Press, 1967), 84-85.

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unionization efforts, the NTWU called for a strike vote among its new members on April 1, 1929. Their demands included replacing piecework pay with a standard wage scale; a forty-hour, five-day week with a minimum weekly wage of \$20; equal pay for equal work for women and youth; abolition of the stretch-out; sanitary housing; reduction of rent and light charges for housing; and recognition of the union. Manville-Jenckes immediately rejected these demands, refusing to negotiate with any union. The larger Gastonia community, particularly represented by the *Gastonia Gazette*, supported the mill company and expressed violent hostility toward the Communist ideology of the union leaders.⁶⁰

Loray Mill closed briefly, and reopened with non-striking and replacement workers. North Carolina Governor Gardner deployed the National Guard to Gastonia to protect the mill and stop picketing by the strikers on April 5th, four days after the strike began. Numerous small skirmishes occurred between the guardsmen and the strikers. Then in the early morning hours of April 18th, a mob of masked men attacked and demolished the wooden structure being used as strike headquarters while the soldiers failed to intervene. The National Guard units were recalled on April 20th, and the mill created a security force of deputized locals antagonistic to the strike, known as the Committee of 100. Hostility between the strikers and mill supporters continued to grow despite removal of the National Guard.

In mid-May Manville-Jencks evicted the strikers from mill village housing, a blow to the struggling union. The union tried to offset this move by creating a tent city to house striking workers and their families, and building a new union headquarters building. The atmosphere in the Loray Mill village grew more tense as the union wrote a letter to Governor Gardner informing him of their intention to defend the new union building. On the evening of June 7th, Gastonia Police Chief Orville Aderholt and four officers came to the union headquarters after a violent confrontation between mill security and parading strikers earlier that day. When the police failed to produce a search warrant as demanded by the union guards, a scuffle ensued. It is not clear who fired first, but gunshots were exchanged by the police and unionists, fatally wounding Chief Aderholt.

This violent incident made an already high-profile strike even more infamous. Outraged opponents of the strike demanded justice. Fred Beal and fifteen other strike leaders were tried for murder during the summer of 1929 in Charlotte. Already widely reported in the national and international radical press, the Loray Mill strike became a cause célèbre. The Communist International Labor Defense in New York City raised funds and held demonstrations, and the *Daily Worker* and *Labor Defender* reported extensively on the events of the trial. This sensational trial also generated sympathy for the strikers from a broad range of liberal observers. The American Civil Liberties Union stepped forward to provide defense council for the strikers. Publications as varied as the *Nation*, *New Republic*, *The Survey*, *Outlook*, the *Charlotte Observer*, *Raleigh News and Observer*, and the *New York Times* reported on the trial in a manner sympathetic to the strikers. The drama of this labor conflict continued when a mistrial was declared on September 9th;

⁶⁰For an excellent account of the Loray Mill strike see John A. Salmond. *Gastonia 1929: The Story of the Loray Mill Strike*. Chapel Hill and London: University of North Carolina Press, 1995. Also, an useful summary of the strike events appears in Brent Glass. *The Textile Industry in North Carolina, A History*. (Raleigh, N.C.: North Carolina Department of Archives and History, 1992), 69-73. A valuable contemporary analysis, in addition to Liston Pope's study, is Tom Tippet. *When Southern Labor Stirs*. New York: Jonathan Cape & Harrison Smith, 1931.

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one of the jurors had suffered a mental breakdown during the proceedings.⁶¹

After the mistrial, violence again erupted in Gastonia. On September 14th a truckload of strikers from nearby Bessemer City was met on their way to a union meeting in Gastonia by an armed mob. Ella May Wiggins, a union supporter, a mother of five, and talented folk singer, was killed by gunfire. She became a martyr for the union cause, again bringing the Loray Mill strike into the national spotlight. Five men stood trial for her murder, but were never convicted. The second Aderholt trial convicted Beal and six codefendants. The strike effort was abandoned by the end of September 1929, but strike-related events made Gastonia “the most notorious and best-documented textile community in North Carolina.”⁶² Even after the extensive national and international coverage of the strike and related trials, Loray became the subject of numerous economic and sociological reports, and the events of the strike inspired many novels. The strike was arguably the most important event that ever occurred in Gastonia, but remained a difficult memory for the local community for many decades.

For the larger labor movement, organizing the Southern textile industry continued to be key to widespread unionization in the region and also exceedingly difficult. According to labor historian Robert Zieger, “in the late twenties and during the early New Deal, millworkers conducted some of the most dramatic and extensive strikes in American labor history,” including the strikes at Loray Mill, and Marion, North Carolina, in 1929, Dan River Mills in South Carolina in 1930-31, and the Great General Strike of 1934.⁶³ The 1934 strike led by the UTWA included mills in Alabama, South and North Carolina, and Georgia. Some estimates indicate that up to 450,000 textile workers were affected by the strike. In between Gastonia and Greenville, South Carolina, 300 mills were closed by “flying squadrons” of union organizers traveling quickly by car. These small groups of union organizers spread the strike to other mills with the cooperation of both established and new union members.⁶⁴ However, it was not until the 1950s that unions made any lasting progress in the Southern textile industry. These later gains, although limited, built upon the events of key strikes like the one at Loray Mill. The Loray Mill strike signified an uneasy step away from paternalism in the Southern textile industry before a modern conception of industrial management prevailed.

Loray Mill Up to the Present

The subsequent history of Loray Mill has been much less dramatic than the events of 1929, consisting mostly of the production of tire cord and fabric for several decades. A large one-story weave shed had been built adjacent to the southwest end of the mill by March 1930. Manville-Jenckes Company had continued financial difficulties during the Depression, and in 1935 they sold Loray Mill to Firestone. Loray Mill reincorporated on April 1, 1935 as a division of

⁶¹Salmond, 109.

⁶²Glass, 73. For contemporary accounts of the Loray strike see “Smash the Murder Frame-Up Defend Gastonia Strikers!” *Labor Defender* (July 1929) and Edgar W. Knight, “The Lesson of Gastonia,” *Outlook*, in the Gaston County Museum of Art and History, Dallas, N.C..

⁶³Robert H. Zieger, “Textile Workers and Historians,” in Robert H. Zieger, ed., *Organized Labor in the Twentieth-Century South*. (Knoxville: University of Tennessee Press, 1991), 42, 45.

⁶⁴Marshall, 167.

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Firestone Cotton Mills, Inc., continuing to produce tire fabric with 117,904 spindles, 65 fabric looms, and 611 automatic looms. In 1935, the monthly production at Loray Mill was 300,000 pounds of tire fabric; by the end of World War II in 1945 that figure had increased to approximately 3.5 million pounds.⁶⁵

Production at the Loray Mill during the post-World War II era also reflected the gradual shift to synthetic fibers in tire fabric production. In 1960, Loray Mill was still spinning cotton thread used in the production of both tire fabric and cotton duck, but purchasing rayon and nylon yarn as well. By 1990, the Loray Mill was using polyester and other synthetics to produce tire and industrial fabrics. More recent textile industry directories do not list machinery, but in 1960 *Davison's Textile Blue Book* described the Loray division of Firestone Textiles as having 332 cards, 384 looms, 45,008 ring spindles, and 84,784 twist spindles.⁶⁶

Between 1935 and 1941, Firestone began selling the mill houses to the workers because of the rising cost of maintaining the mill village. The Depression began the decline of a decades long tradition of paternalism for many textile companies. The trend toward private ownership of mill housing accelerated in the post-World War II years.⁶⁷ Employment levels remained relatively steady during the 1950s and 1960s at approximately 2,000 employees, although many workers now lived outside the mill village. A downturn in the economy and the textile industry combined with new more efficient machinery decreased the number of textile workers throughout the industry starting in the 1970s. In Gaston County the percentage of textile workers declined from 53% of the workforce in 1950 to 41% in 1970.⁶⁸ In 1970, Firestone employed 1,600 workers at its Loray division; this number had decreased to 800 by 1990.⁶⁹

Throughout these decades there were some continued efforts to unionize the Loray Mill, although all labor organizing in Gaston County was seen by the local community through the lens of the Communist Party-led strike of 1929. In 1946-47, the CIO-affiliated (Congress of Industrial Organizations) Textile Workers Union of America (TWUA) attempted to unionize Firestone Textiles' Loray Mill. TWUA focused on Loray, Cannon Mills in Kannapolis, and Hanes Mills in Winston-Salem as three key sites for unionizing the Southern textile industry. A 1976 follow-up study to Liston Pope's *Millhands and Preachers, Spindles and Spires*, described the importance of Loray Mill to the

⁶⁵John R. Earle, Dean D. Knudsen, and Donald W. Shriver, Jr. *Spindles and Spires: A Re-Study of Religion and Social Change in Gastonia*. (Atlanta: John Knox Press, 1976), 73.

⁶⁶*Davison's Textile Blue Book*. Ridgewood, N.J.: Davison Publishing Company, 1960; *Davison's Textile Blue Book*. Ridgewood, N.J.: Davison Publishing Company, 1990.

⁶⁷Seppark, 159; Sanborn Map Company, "Gastonia, North Carolina," (New York: Sanborn Map Company), 1930; Harriet Herring. *Passing of the Mill Village*. (Chapel Hill: University of North Carolina Press, 1949), 129.

⁶⁸Earle et. al., 82.

⁶⁹*Davison's Textile Blue Book*. Ridgewood, N.J.: Davison Publishing Company, 1950; *Davison's Textile Blue Book*. Ridgewood, N.J.: Davison Publishing Company, 1960; *Davison's Textile Blue Book*. Ridgewood, N.J.: Davison Publishing Company, 1970; *Davison's Textile Blue Book*. Ridgewood, N.J.: Davison Publishing Company, 1990. The directory is not always clear whether the figures listed are for just the Loray plant, or included other Firestone Textile facilities. The 1980 directory does specify that 2,540 workers were employed in all the Firestone plants including Loray, and mills in Bennettsville, South Carolina, Bowling Green, Kentucky, and Woodstock, Ontario. Clearly the overall number employed is decreasing by the 1990s even if the Loray numbers are not always precise.

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organizing efforts:

Economically and ideologically, the Firestone plant was important for turning the ripple of local unionism into a wave. As in 1929, this company was still the largest one-plant employer in the county. Its workers in 1946 numbered some 2,100; its weekly payroll was the highest in the county. . . . If *this* (emphasis original) plant could be organized seventeen years after the trauma of 1929 without a strike and without violence, the distinction between unionism and Communism might at last penetrate the public mind in Gastonia.⁷⁰

The TWUA was unsuccessful in organizing Loray Mill in 1947, failing to get enough worker response to hold an election. Another major drive to organize this Firestone plant was launched by TWUA in 1955. This time an election was held, but the workers voted against union representation.⁷¹

Loray Mill represents a focal point of the traditional animosity toward labor unions in the Southern textile industry. In the post-World War II period, management countered the efforts of labor organizers in more subtle ways such as voluntarily offering modest wage hikes or fringe benefits like recreational programs and health care plans. A large national firm like Firestone was well situated to embrace the modern approach to personnel management that emerged in the 1950s, partially as a measure to counteract the national growth of unions. Although the old paternalism of mill-owned village housing was over, Firestone courted worker loyalty in Gastonia through an expansion of its company recreational programs in the 1950s. Union membership in Gaston County textile mills remained low, but the events of 1929 still loomed large in the battle over the textile industry in the South, seen as key to a nationally unified labor movement.⁷²

Today, the distinct boundaries of the Loray Mill village are still quite clear. The mill, now vacant, still dominates the landscape. There have been a few alterations to the exterior of the structure, including replacement of the tower's hipped roof with a flat one, and demolition of the boiler stack. However, the mill retains a high level of integrity. Many of the windows have been bricked in to save on cooling costs as at most Southern textile mills. Loray Mill's original window openings remain apparent. Most of the former mill houses in the surrounding neighborhood have been renovated and altered to varying degrees, but the uniformity of small wooden cottages on grid-plan streets retains the unique character of a mill village.

Firestone moved most of its operation at Loray Mill to a new plant in Kings Mountain, North Carolina in 1993. The mill was threatened with demolition until Firestone donated it to Preservation North Carolina in 1998. Preservation North Carolina is currently working with developers on plans for converting the mill into a mixed-use

⁷⁰Earle et. al., 184.

⁷¹Earle et. al., 184, 191.

⁷²Earle et. al., 86-87, 190, 178.

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project including condominiums, shops, offices, and restaurants.⁷³

Sections 8 and 9 prepared by: Lisa Pfueller Davidson, Historic American Engineering Record

⁷³Timothy Roberts and Sharon E. White, "A Symbol of Struggle, Stability," *Charlotte Observer* (23 February 1997): 4L; Preservation North Carolina, "1998 Annual Report," *North Carolina Preservation* (Summer 1999); Tony Mecia, "\$100,000 Donation Could Get Gastonia Mill Project Going," *Charlotte Observer* (8 February 2000).

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UTM References	Zone	Easting	Northing
A	17	481600	3901820
B	17	482420	3901960
C	17	482540	3901480
D	17	482040	3901080
E	17	481560	3901320

Verbal Boundary Description: The boundary is indicated by the solid line on the accompanying site map, "Loray Mill Historic District," based on the City of Gastonia property map.

Boundary Justification: The boundary for the Loray Mill Historic District encompasses the greatest concentration of intact architectural resources associated with the historical development of the Loray Mill.

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Section number Photographs

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The following information pertains to each of the photographs:

Name of Property: Loray Mill Historic District
Location: Gastonia, North Carolina
County: Gaston
Name of Photographer: Mattson, Alexander, and Associates, Inc.
Location of Negatives: Survey and Planning Branch
North Carolina Division of Archives and History
109 E. Jones Street
Raleigh, North Carolina 27601-2807
Date of Photographs: June 2000

Photographs:

1. Loray Mill, Front (North) and East Elevations, Looking Southwest from W. Second Ave.
2. Mill Houses, Looking North, 200 Block South Dalton St.
3. Mill Houses, Looking South, 200 Block South Vance St.
4. Mill House, Looking West, 313 South King St.
5. Mill Houses, Looking West, 1000 Block West Third Ave.
6. Mill Houses, Rear Views, Looking South, 300 Blocks South Hill and South Highland Sts.
7. Mill Village, Overall View, Looking East from Loray Mill
8. Mill Houses, Looking North, 200 Block South Highland St.
9. Mill House, Looking West, 605 South Dalton St.
10. Community Building, Looking West, 300 Block South Ransom Street
11. Apartment Building, Looking South, 913 West Second Ave.
12. Loray Mill, Office, Looking Southeast
13. Loray Mill, Rear (South) Elevation, Looking Northwest

