NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE
Office of Archives and History
Department of Cultural Resources

NATIONAL REGISTER OF HISTORIC PLACES

Savona Mill
Charlotte, Mecklenburg County, MK2211, Listed 12/2/2014
Nomination by Richard Sidebottom and Jen Hembree
Photographs by Richard Sidebottom, April 2014

Façade view

Rear view
United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, How to Complete the National Register of Historic Places Registration Form. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property
Historic name: Savona Mill
Other names/site number: Savona Manufacturing Company, Alfred Cotton Mill, Old Dominion Box Company
Name of related multiple property listing: N/A
(Enter "N/A" if property is not part of a multiple property listing)

2. Location
Street & number: 528 South Turner Avenue
City or town: Charlotte State: NC County: Mecklenburg
Not For Publication: N/A Vicinity: N/A

3. State/Federal Agency Certification
As the designated authority under the National Historic Preservation Act, as amended,
I hereby certify that this X 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 X meets ___ does not meet the National Register Criteria.
I recommend that this property be considered significant at the following level(s) of significance:
___ national ___ statewide X local
Applicable National Register Criteria:
___A ___B X C ___D

Signature of certifying official/Title: __________________________ Date ________________
North Carolina Department of Cultural Resources
State or Federal agency/bureau or Tribal Government
In my opinion, the property ___ meets ___ does not meet the National Register criteria.

<table>
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<th>Signature of commenting official:</th>
<th>Date</th>
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Title: State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register
___ determined eligible for the National Register
___ determined not eligible for the National Register
___ removed from the National Register
___ other (explain:) _____________________

Signature of the Keeper Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

Private: X
Public – Local
Public – State
Public – Federal

Category of Property

(Check only one box.)

Building(s) X
District
Site
Savona Mill
Name of Property

Mecklenburg Co. NC
County and State

Structure

Object

Number of Resources within Property
(Do not include previously listed resources in the count)

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<th>Noncontributing</th>
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Number of contributing resources previously listed in the National Register **N/A**

6. Function or Use

Historic Functions
(Enter categories from instructions.)

____INDUSTRY/Manufacturing Facility____

____VACANT____

Current Functions
(Enter categories from instructions.)

____VACANT____

Sections 1-6 page 3
7. Description

Architectural Classification
(Enter categories from instructions.)

OTHER: Heavy Timber Mill Construction
OTHER: Reinforced Concrete Construction

Materials: (enter categories from instructions.)
Principal exterior materials of the property: BRICK, CONCRETE

Narrative Description
(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a summary paragraph that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Savona Mill is a series of four sections of different construction joined together in a linear arrangement along South Turner Avenue in the West End neighborhood of Charlotte in Mecklenburg County, North Carolina. The three historic sections of the building display three distinctive structural systems that correspond to changes in industrial design during the twentieth century. The Weave Mill, constructed 1915-1916, is a one-story rectangular brick building built of traditional heavy timber mill construction with segmental arched head windows, a low gable roof with exposed beam ends and a wood clerestory monitor roof. In 1921, the three-story rectangular brick Spinning Mill was connected to the north side of the Weave Mill using a combination of structural and finish materials including a poured concrete foundation, timber beams and floors, metal columns, and large rectangular steel windows. In 1951, the Old Dominion Box Company constructed the three-story Paper Warehouse addition at the north end of the Spinning Mill with a reinforced poured concrete frame, brick infill walls and steel sash windows. A non-historic one-story steel frame and metal siding addition built in 1996 connects to the south end of the Weave Mill via a concrete block and steel frame connector. The mill faces southeast to South Turner Avenue with the main pedestrian entrance located in the southernmost bay of the Spinning Mill. Railroad track and remnants of a trestle mark where a railroad spur from the Piedmont and Northern railroad entered the property near the intersection of State Street.
Narrative Description
The Savona Mill at 528 South Turner Avenue is a brick and concrete manufacturing building just north of the intersection of State Street and South Turner Avenue 2.5 miles northwest of downtown Charlotte, North Carolina. The building sits on 4.18 acres of land situated on a hillside sloping gently from South Turner Avenue to the southeast down to a railroad spur running along the northwest side of the building, where the entire height of the partial basement is revealed. The main elevation of the mill, hereafter referred to as the east elevation for simplicity, is setback from South Turner Avenue by approximately ten feet. Regularly spaced trees occupy the setback as well as a concrete retaining wall that creates an areaway along portions of the Weave Mill and Spinning Mill where a partial basement exists. A chain-link fence secures the property along South Turner Avenue, State Street, and a driveway at the north elevation of the building.

The property is just a portion of the historic acreage associated with the Savona Manufacturing Company and the Old Dominion Box Company but includes all of the extant manufacturing resources. Several brick and frame support buildings associated with the manufacturing operations were located on land between the mill and Stewart’s Creek, located approximately 600 feet northwest of the building. However, a previous owner subdivided that portion of the site into five parcels and demolished all of the ancillary buildings between 2000 and 2010. The demolished buildings included the bleaching and finishing building, boiler house, engine house, and several warehouses built by the Savona Manufacturing Company and a pulp mill constructed by the Old Dominion Box Company. Many of the houses in the surrounding blocks to the east and northeast of the mill were constructed by the Savona Manufacturing Company to house mill workers including those along State Street, Katonah Avenue, and South Bruns Avenue. The mill housing is now separated from the mill by a series of vacant lots and parking areas between Coxe Avenue and State Street, which once included the company office and a store. A modern one-story brick office building with concrete lattice panels just north of Coxe Avenue separates the mill from additional residential buildings to the north and east of the mill. Two additional modern one-story brick office buildings sit north of the mill property, dividing the property from single family houses along Rozzelle’s Ferry Road.

Weave Mill, Mill No. 1 (1915-1916)
The one-story brick Weave Mill is the original building constructed on this site and put into operation in 1916.1 The structure is laid in 7:1 common bond with flemish headers and stretches twenty-two bays along South Turner Avenue with a low-pitch gable roof with exposed rafter tails. A five-foot-high wood clerestory monitor with nearly flat gable roof and exposed rafter tails projects above the main roof for all but the southernmost bay of the Weave Mill. The large

segmental arch window openings that define each bay along the main façade have lintels of five soldier courses of brick and concrete sills. Nearly all of the original paired nine-over-six wooden window sashes with pivoting six-light transoms survive behind the plywood currently covering them although most of the glass panes are now missing. The original pivoting fifteen-light wood sashes at the clerestory are likewise intact behind translucent plexi-glass.

Historic loading door openings along the main façade consist of lower lintels and lower sills but both are now altered. A loading door in the south end bay has been filled with concrete block while the opening in the third bay from the north end of the Weave Mill has been partially filled with brick to create a window. The northern end bay of the Weave Mill holds a doorway with a paneled wood door with six window lights but the door opening is now covered with plywood and a modern flat canopy roof supported with metal pipe columns. The door is accessible from Turner Avenue by a short concrete bridge crossing the areaway immediately in front of the building. Short window openings with arch heads sit within the areaway to light the partial basement in the five northernmost bays.

The south end of the Weave Mill has an additional one-story frame bay now covered with synthetic siding. A large portion of the brick south wall was removed when this frame addition was added in the later part of the twentieth century. An exterior doorway at the east end of the addition provides access directly into the Weave Mill.

The non-historic concrete and steel addition at the south end of the mill is built on a poured concrete foundation. The walls of the building have a concrete block base and vertical steel paneling above. The irregularly-shaped addition has both loading doors and a pedestrian door facing south to State Street. It is joined to the Weave Mill by a concrete block connector with flat metal roof. The connector has a loading dock and a pedestrian door facing east to a driveway and South Turner Avenue.

A concrete loading platform lines the west side of the Weave Mill with a two-bay rectangular brick restroom wing projecting onto the platform just south of the center of the elevation. Two non-historic “lean-to” structures have been erected along the loading platform just north of the restroom wing, one with failing concrete block walls and one with a lower roof and metal wall. Window openings along the west elevation are covered with plywood but most still contain the original paired nine-over-six wooden sash windows with pivoting six-light transoms. Two window openings on the west side of the Weave Mill were lowered to create doors, one in the second bay from the south end and one near the center of the building, four bays north of the restroom wing. The only historic loading door with a lower lintel occupies the fourth bay from the north end of the building, but the opening has been widened which has further required a partial brick infill with brick of the neighboring window opening.

The interior of the Weave Mill is largely open with regularly spaced original wood columns supporting an exposed timber beam ceiling. Slightly more than half of the original wood columns are still in place. Many wood columns have been replaced with circular steel columns of the same dimension which fit appropriately into the existing metal capitals. In the easternmost row of columns two modern steel columns have been inserted to reinforce the structure. The
building is five structural bays wide (east to west) with a wood frame monitor roof structure above the center bay. The monitor is lined with 15-light mechanically operated pivoting clerestory windows. Although covered with plywood most of the original wood window sashes are intact within the segmental arched openings. Each opening holds paired 9/6 wood sash windows with a six-light tilting transom above. A poured concrete floor was likely added in place of a wooden floor during the period of significance. The last four bays at the north end of the building cover a partial basement and retain the earlier wood flooring in most of this area. A freight elevator in the northwest corner of the building and a frame partition in the northeast corner of the building are the only structures obscuring the otherwise open floor plan.

Four doorways in the Weave Mill lead directly to the exterior of the building, one at the north end bay along at the east, another in the one-story frame addition at the southeast corner of the plan and two along the west side of the building leading directly to the loading concrete loading dock. Another door on the west side of the building leads into the south side of the one-story concrete block shed enclosure on the loading dock. The interior of the shed enclosure has concrete block walls that are simply painted white. A solid stud partition defines the north side of the space, dividing it from the north space of the enclosure, which is accessible from the exterior of the building. Two original arch head doorways near the center of the west wall lead to the one story restroom wing. The north door of the two has lettering painted above it reading “Men” and leads to the north side of the restrooms while the south door has faint lettering reading “Ladies” and leads to south side of the wing. Both sides of the restroom wing have brick walls that have been painted and contain deteriorated modern toilet fixtures. Doorways from the Weave Mill connect to the Spinning Mill at the north and the non-historic warehouse at the south. The entrance to the non-historic addition is an altered window opening that has been cut down and enlarged with steel posts and a lintel inserted to frame the loading door.

**Spinning Mill, Mill No. 2 (1921-1922)**

The three-story with a partial basement brick Spinning Mill and nearly flat gable roof is fully engaged with the north side of the Weave Mill and stretches twenty-three bays along South Turner Avenue. The brick walls are laid in 6:1 common bond and are pierced by regularly spaced rectangular window openings with concrete sills. Each window opening holds a fixed 35-light steel window with six-light tilt sections at both the top and bottom of the window frames. Nearly all of the window openings are covered or partially covered with plywood. The building is covered with a nearly flat gable roof with overhanging eaves and exposed rafter tails. A doorway at the south end bay of the east elevation provides direct access to the Spinning Mill. A one-story enclosed porch or office structure, built ca. 1960 with a flat roof and round steel columns covers the south five bays of the Spinning Mill and holds a double door to directly access a stairway in the southeast corner of the structure.

The south elevation of the Spinning Mill is covered on the first and part of the second level by the Weave Mill and the monitor roof. There are no window openings on the second level of the south elevation. The third level has ten window openings evenly placed across the building width, each with the same 35-light steel windows with two six-pane tilting sections found
throughout the rest of the Spinning Mill section of the complex. Like the east elevation each window bay is marked with an exposed rafter tail under the overhanging eave at the roofline.

The west elevation of the building overlooks Stewart Creek and the now open area that once held ancillary mill buildings. An overhanging eave with exposed rafter tails has a modern gutter system and downspouts attached at the roofline. The twenty-three bays of the west elevation are clearly marked by window and loading door openings. Each window opening holds the same 35-light steel window found throughout the Spinning Mill. Only three bays, just south of the center of the Spinning Mill, do not conform to the rest of the building as a simple rectangular restroom tower with a nearly flat roof projects from this portion of the elevation. The restroom tower has two smaller window openings on each of its sides with a 16-light steel window with 8-pane tilt sections in each opening. Like the remaining window openings on the west elevation the restroom tower windows have concrete sills. The restroom tower interrupts what is otherwise a continuous concrete loading platform along the first level of the Spinning Mill, built on tall poured concrete piers and extending approximately ten feet from the west wall. Some of the window openings along the first level have been altered. A loading doorway with a roll down metal door in the north end bay was created by retaining the upper portion of the window sash, inserting a concrete header in the middle of the window and cutting the sill down to the loading dock level. Another former window opening, three bays north of the restroom tower, has been cut down to the loading dock level, partially infilled with brick at the head and is covered with rubber strips and plywood. The last altered window opening is just south of the restroom tower and like the others was converted into a loading doorway. It retains the top portion of the steel window sash now covered with plywood, has a metal header inserted at the head of the door and holds an older wood roll-up garage door. At the basement level an historic loading door in the third bay south of the restroom tower connects to a concrete ramp on the interior. The loading door is now covered with plywood and rubber strips.

The interior of the Spinning Mill is mostly open floor space divided by a regular system of iron columns supporting exposed heavy timber beams with chamfered edges. The beams support exposed wood ceilings and narrow board hardwood flooring on the first through third floors. The columns in the partial basement at the south end of the building are noticeably wider to support the weight of the building above. The floor at the basement level is poured concrete and includes a ramp from the center of the space down to a loading door at the west side of the building. The bathrooms on each level are accessible by two doorways on each level, one for men and one for women. The bathrooms have full height ceilings, painted brick walls and modern deteriorated toilet fixtures.

The first level includes a masonry wall at the northwest corner of the building that originally functioned as the Picker House. The east wall of this area extends the full height of the floor. A former loading opening at the center of the east wall is now filled with concrete block and a raised frame observation office and stair are placed in the north corner. The entire length of the south wall of the Picker House is now open to a height of approximately ten feet. Modern steel columns and steel beams support the upper eight to ten feet of the masonry wall at the ceiling. A frame office enclosure and mezzanine in the southeast corner of the Spinning Mill constructed ca. 1950 has beadboard walls and observation windows looking over the manufacturing area.
Two lower frame enclosures with plywood veneer and ceilings built ca. 1970 line the west wall of the first level. A rectangular break room of the same date sits in front of the restroom entrances just south of the center of the building. A similar plywood veneer office enclosure is attached to the west wall and the Picker House partitions.

The second level is similar to the first with a masonry wall at the northwest corner of the building. Original segmental arch openings on both the east and south walls of the masonry partition remain open. A large frame partition wall along the southeast quadrant of the second floor encloses a series of ca. 1970 offices with modern wood and glass partitions and dropped acoustical tile ceilings. Additional frame partitions at the southwest corner of the floor plan, built ca. 1970, create a storage room and offices with modern plywood veneer partitions and dropped acoustical tile ceilings. Three wood stairs along the south wall of the Spinning Mill with beadboard railings and walls appear to be contemporary with the ca. 1950 office enclosure on the first level. The first is a narrow stair leading south in a straight run down from the second level to the mezzanine offices at the southeast corner of the first level. Another narrow stair leads east in a long straight run down along the south wall to the first floor. The third stair is wider and leads east along the south wall up to a stair landing and again to the third floor. The third floor of the Spinning Mill is entirely open with no partitions.

**Paper Warehouse Addition (1951)**

The three-story reinforced concrete framed and brick addition at the north end of the building was constructed in 1951 by the Old Dominon Box Company. The structure is fully engaged to the north end of the Spinning Mill and its construction encapsulated many of the original 35-light windows on the north elevation of the Spinning Mill between the two structures. Poured concrete structural columns and flooring are expressed on the exterior of the building with 5:1 common bond brick walls between. A flat roof covers the building.

There are six structural bays along the east elevation of the Paper Warehouse, each one holds two window openings with the exception of the end bay at the north. An external metal stair provides access to doors at the second and third level of the building. Since the basement level at the northeast corner of the building is partially covered by the higher grade of the land, the end bay here is entirely formed with poured concrete. Throughout the building window openings hold 21-light steel windows each with two operable six-pane tilting sections. Most of the windows are intact with broken panes and plywood covering them.

At the north elevation, the Paper Warehouse is six structural bays wide, each with two window openings with 21-light windows. The slope of the ground at the northeast corner of the property partially covers the first level at this corner of the building. The two bays at the east side of the north elevation are entirely constructed of poured concrete and the height of concrete. The level of the concrete foundation steps down along the north wall as the slope descends to the west and only the four westernmost bays hold windows on the basement level. Gutters at the roofline channel water to galvanized metal downspouts. There are no door openings on the north elevation of the Paper Warehouse.
The west elevation of the Paper Warehouse is six structural bays wide with two window openings in each bay on the second and third floor that hold 21-light steel windows. A concrete loading dock runs along the first level of the west elevation. A single loading door in the southermmost structural bay provides access to the first level, although former loading doors, now infilled with brick, are evident in the other bays along the first level. A concrete block freight elevator addition is attached to the northernmost bay of the west elevation. Metal anchors and ghost marks between the first and second level along most of the west elevation indicate where a series of metal and frame roofs once attached to the building to cover the loading docks.

The interior of the Paper Warehouse addition is mostly open space with some frame and concrete partitions on the first level. Poured concrete ‘mushroom’ columns with circular splayed caps support the building and create a regular division of the interior space. The concrete columns and ceilings show the markings of the metal and plywood molds used to form the structural members. On the first floor, two sections of frame wall survive from a partition that once divided the entire first floor plan into east and west. Another frame partition in the southernmost bay of the building defines a loading area. A staircase and two freight elevators at the southwest corner of the floor plan open into both the Paper Warehouse and the Spinning Mill. Most walls and ceilings on the first level have been painted. On the second and third levels of the Paper Warehouse all columns, ceiling and walls are exposed concrete and exposed brick. Nearly all of the original steel sash windows survive and are visible from the interior. No partitions divided the second and third level of the Paper Warehouse.

**Metal Shed**

A non-contributing square metal shed, built ca. 1990, with a flat metal roof and open porches building sits elevated above the concrete loading lot approximately fifty feet west of the Paper Warehouse. The building sits in the extreme northwest corner of the current parcel of land.
8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

☐ 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 grave

☐ D. A cemetery

☐ E. A reconstructed building, object, or structure

☐ F. A commemorative property

☐ G. Less than 50 years old or achieving significance within the past 50 years
Savona Mill  Mecklenburg Co. NC
Name of Property  County and State

Areas of Significance
(Enter categories from instructions.)
ARCHITECTURE


Period of Significance
1916-1951


Significant Dates
1916, 1921, 1951


Significant Person
(Complete only if Criterion B is marked above.)
N/A


Cultural Affiliation
N/A


Architect/Builder
Lockwood Greene & Company
Biberstein, Richard C. (architect)
Franklin, R. F. (builder)
The Savona Mill meets National Register Criterion C as an excellent example of the evolution of industrial architecture with three distinct periods of construction techniques and materials utilized by industrial designers during the twentieth century. The Savona Mill at 528 South Turner Avenue in the West End neighborhood of Charlotte was constructed in 1916 as a heavy timber frame textile mill and was substantially enlarged in 1921 and 1951. The additions to the building were done to meet the manufacturing needs of the occupants in a manner that reflected the best practices of architectural design for manufacturing buildings. The property was owned and operated by the Savona Manufacturing Company from 1916 until 1934 during a time of great growth in Charlotte’s textile manufacturing history. All textile production ceased at the site in 1934 and the property was later occupied by the Old Dominion Box Company. The extant structures at the Savona Mill are excellent examples of three distinctive methods of industrial construction: heavy timber mill construction; combination iron and timber fireproof construction; and reinforced concrete framed construction with concrete mushroom columns. The building retains a relatively high degree of historic integrity of location, type, construction, size and significant features to convey its architectural significance. The period of significance for the property starts in 1916 when the first extant building (Weave Mill) was completed and extends through 1951, when the final contributing section (Paper Warehouse) was completed.

The first large-scale textile manufacturing operation in the city of Charlotte, the Charlotte Cotton Mills, was established by R.M. and D.W. Oates between 1880 and 1881. Although the industry started relatively late it took less than twenty years to gain prominence. By 1900, Mecklenburg County had the third highest number of textile mills in the state of North Carolina, with sixteen mills running 1,456 looms. The Savona Manufacturing Company was one of six additional manufacturers to open in Charlotte between 1900 and 1910 and initially was one of the smallest. The company was incorporated in 1908 by a group of New York-area businessmen headed by Charles C. Lima and concentrated on producing fine finished textiles using cotton damask weaving techniques. They began operation shortly after organizing by renting manufacturing space in a now-demolished building between South College Street and South Tryon Streets in downtown Charlotte. ²

By 1914, Savona Manufacturing Company was an established operation in the city and had started planning to expand to a property along the east side of Stewart’s Creek two miles northwest of their existing building in downtown Charlotte. The new site was located just northeast of the Piedmont and Northern Railway line which would afford a useful means for

delivery of unfinished materials and shipping of goods. The property provided plenty of land to build a purpose built structure to expand their current process and space for further expansion of their manufacturing process. In July of 1914 the Savona Manufacturing successfully petitioned the North Carolina Supreme Court, who ordered the railroad to build a spur to join their line to the new property.3

By spring of 1915, construction work was underway at the new property on South Turner Avenue. The new one-story brick Weave Mill, designed by Lockwood Greene Company, the foremost industrial designers of the era, increased the company’s space for manufacturing and allowed them to run their existing machinery in a structure specifically designed for their process.4 Like any manufacturing building, the Savona Mill was designed to provide the most efficient space for the production of finished goods for the owner in a safe manner.

Textile mills were largely a standardized type of building by the time the Savona Mill was constructed in 1916. Throughout the late nineteenth century, architects and designers of textile mills balanced the need to provide large areas of production space, high ceilings, and the need for substantial light to operate the machinery with the necessity of creating a structurally sound building and reducing the risk of fire. These parameters were addressed over time through changes in design practices and the introduction of new building materials.5 Most textile mills in North Carolina took a standard form of construction with a rectangular form, brick walls, heavy timber framing, a low-pitched gable roof and large window openings. The heavy brick walls and timber post and beams of the structural system, referred to as “slow-burning” or “fire-resistive” construction protected a mill from complete loss in the case of fire. By the early twentieth century, the use of metal and concrete allowed for some evolution of the traditional heavy timber mill construction. Introduction of these stronger materials generally allowed for wider bays, higher ceilings and larger window areas in manufacturing buildings, while providing similar or better fireproofing result. While most types of manufacturing buildings saw increased efficiencies by incorporating metal and concrete, there was one notable exception where a true timber frame construction was advantageous, weaving mills.

Weaving mills continued to be designed as a single-story timber frame building to handle the incredible amount of vibration from the looms. The elasticity of wooden posts and columns helped absorb the lateral movement of machinery. One promoter suggested that positioning the weaving machinery in a single level building that could handle vibration might allowed for looms to operate at a speed twelve percent higher than by placing looms in multi-story buildings with other processes.6 As a single-story brick and heavy timber building, the Weave Mill at Savona Mill might not appear to include the most technologically advanced materials for an early twentieth century manufacturing building, but the use of a traditional wood framing system

5 Bradley, *The Works*, p. 133.
was considered the best practice in the industry at that time. And since the Savona Manufacturing Company was only weaving a specialized type of fabric at the time and not processing the cotton and spinning it to yarn, the efficiency provided by a more elastic framing system was particularly appropriate for their business.

In January of 1916, the company the Savona Manufacturing Company was busy removing all of their equipment from their rented space in the new one. The company owned and operated just over one hundred looms that produced damask cloth, a specialized of woven fabric for higher end goods. The increased floor space provided in their new facility gave them space for the additional of new looms to produce another more versatile fabric, Jacquard terry cloth.\footnote{America’s Textile Reporter: For the Combined Textile Industries, Volume 30, 1/13/1916.}

By 1919, the Savona Mill employed 175 workers, many of which lived in nearby housing constructed by the company. Tension between managers of the mill and the workers reached a flash point in June of 1919, when the company refused to allow the National Textile Worker’s organization to hold a conference at the property. The workers went on strike and the mill was closed for nearly six weeks before resuming operation in August.\footnote{Charlotte Daily Observer “Savona Mill Closed When Workers Strike” 6/21/19 and “Savona Mill Operating Again After Shut-down” 8/1/19.} Despite periodic labor unrest the Savona Manufacturing Company continued to grow.

In 1920 the company announced a plan to double the size of their operations on the property by building an addition and installing 30,000 spindles to spin their own yarn. Rather than simply weaving and finishing textile goods, the new facility would provide additional space for the company to process raw cotton into threads. By controlling the entire manufacturing process from raw material to finished product on one site, the company could better control their supplies and create a more efficient operation.\footnote{America’s Textile Reporter: For the Combined Textile Industries, Volume 34, 8/19/1920.}

The Savona Manufacturing Company hired the prominent North Carolina mill engineer and architect Richard C. Biberstein to design the Spinning Mill. R.F. Rankin from Mt. Holly was hired to construct both the three-story brick addition and worker’s houses nearby.\footnote{Charlotte Daily Observer “Savona Mill to Double Output” 3/7/20} The new construction was based on the same basic design parameters employed in the 1916 Weave Mill but it incorporated a combination of materials to provide a more open manufacturing space and to incorporate additional light into the space. The building is tied together with heavy timber beams and wood flooring spanning the floor area. However, the Spinning Mill rests on a poured concrete foundation and is supported by iron columns that diminish in width from the bottom of the structure to the top. Since thinner iron and steel members could provide the same or greater strength than timber, the use of metal posts and window sashes provided more space in the floor plan making work easier and more efficient for the workers.\footnote{Bradley, The Works, p. 131.}
Inclusion of the facilities to encompass the entire process of manufacturing cotton to finished textile presented additional planning hurdles and risks for the Savona Mill that are found within the design of the building. The most risk of fire in any textile mill was present at the beginning of the manufacturing line as raw cotton was ‘picked’ to remove lint and debris. This created a refined cotton prior to spinning and permitted the machinery to work in an efficient manner. However the static produced by the picking process and the presence of the combustible lint meant a constant risk of fire. By the later part of the nineteenth century most mills had the picking operations located in a separate building or picker house. But advances in building materials and fire separation techniques led to incorporation of this function back into mills after 1900. The Savona Spinning Mill includes brick fire walls on the first and second floors at the northwest corner of the plan to house these operations. On the first floor, much of the south wall of the picker area has been removed but a remnant at the ceiling and metal posts continue to define this specialized part of the spinning operations. Large arched openings with heavy metal fire doors exist on the second level. A “dust flue” is shown on the 1929 Sanborn fire insurance maps projecting from the north wall of the Spinning Mill. This feature, also called a lint chimney, was designed to draw the combustible lint or cotton dust away from the potential spark in the picker house. It partially exists today as one of the freight elevators between the Spinning Mill and Paper Warehouse to the north.

The 1921 expansion extended beyond the Spinning Mill and included ancillary buildings at the complex. A dyeing and finishing house allowed this part of the process, previously housed in the Weave Mill, to move just west of the main mill buildings and expanded to match the increased production of the mill. Additionally a steam plant was added west of the main mill building to provide auxiliary power for the complex.

By 1925, the facility expansion at the property increased production and the value of the business. Savona Manufacturing Company stock rose five times from the initial 1908 value to $500,000. The mill employed 550 workers, had 18,000 spindles on 950 looms and provided housing for 100 families.

The Savona Manufacturing Company continued operation at the mill until 1931 when the property was leased by the Alfred Cotton Mills. Although the lease record appears in the Mecklenburg County deed records which the city directory confirms, no records have been located concerning the Alfred Cotton Mills. City directories list the facility as vacant in 1934. In 1935, the Old Dominion Box Company was operating from the complex which they eventually purchased and operated as their Charlotte branch until the 1980s.

Old Dominion Box Company started in Lynchburg, Virginia, in 1905 to provide boxes for its parent company, Craddock Terry Shoes. The company quickly grew to provide boxes and packaging for all types of retailers. In a 1955 history of their business, the company credited much of their growth to the presence of the textile industry in the Southeast. They opened new

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14 Industrial Development and Manufacturer’s Record, volume 79, p. 110.
15 Thompson, Agricultural Mecklenburg, p. 141.
plants in Asheboro in 1926 and in Winston-Salem, Burlington and Charlotte in 1929. The
Charlotte branch was initially described as a “set-up operation” or an assembly plant and for its
first six years was housed at another property. In 1935, the year they began operating from the
former Savona Mill, the Old Dominion Box Company purchased a corrugator for the property
and began producing boxes at the site. The company continued to open and operate plants
throughout Virginia and North Carolina but concentrated much of their production at the
Charlotte facility in the 1950s.16

In 1951, the Old Dominion Box Company expanded their manufacturing at the Savona Mill site
with a large addition at the north end of the former mill building. A Sanborn Map from 1953
shows that the three-story brick Paper Warehouse was constructed two years prior of fireproof
construction. The new addition followed typical industrial planning practice by simply
connecting in a linear fashion to the north end of the existing building.17 However, the newer
reinforced concrete construction techniques presented a more utilitarian appearance with both
reinforced concrete and brick visible on the exterior. The construction materials employed in the
Paper Warehouse stand in contrast to the earlier textile mill structures to the south but are the
product of the same set of parameters from the industrial engineer. The Paper Warehouse was
built for strength to house industrial operations, space for manufacturing and business efficiency,
and above all fireproof for safety and protection of the combustible inventory.

Reinforced concrete construction was not employed on a large scale for industrial buildings until
after 1900, though the technology was developed in the late-nineteenth century in an effort to
fireproof iron structural systems.18 Although the advantage of fireproofing buildings with
reinforced concrete was well-established by the 1920s, the complexity of the building process
kept cost of this construction high until that time. To produce each column, beam and floor level
metal reinforcing rods are bent and welded together in the shape of each element. A metal or
wood form is then constructed to hold the poured the concrete in place. As pieces of the structure
are cast and harden, additional forms are built until all components are tied together into a single
system. Evidence of this process survives in the Paper Warehouse. Wood grain from the forms
used to cast floors is visible throughout the ceilings and the fasteners and metal plate edges used
to cast the columns remain visible as well.

The mushroom columns found in the Paper Warehouse are a particularly good example of this
important innovation in reinforced concrete construction. The first mushroom column system
was developed in 1908 by Minneapolis engineer, C.A.P Turner. His system included flared
capitals at the head of each concrete column that allowed the concrete floor slabs above to rest
entirely on the capitals below, eliminating the need for large beams and girders. This
advancement was further refined by industrial designers in the 1910s and 1920s most notably in
the drop slab system. This innovation extended the reach of each column by casting a wider
rectangular slab atop a conical column on which the floor slab above would bear.19 In the Paper

16 Old Dominion Box Company: Our First Fifty Years, 1905-1955, pp 1-3.
18 Bradley, The Works, p. 156.
19 Mattson and Alexander, “(Former) Union Storage and Warehouse Company
Warehouse at the former Savona Mill this system is well preserved with the circular flared head of the mushroom column supporting a much wider rectangular pad just below the cast floor slab above. This permitted a wider and higher space for storing and moving materials.

By 1955 the Charlotte branch was by far the largest of seven facilities operated by the Old Dominion Box Company. More than 500 people were employed on the property at South Turner Avenue, representing nearly half of the company’s entire workforce. During the 1950s the company was one of the largest suppliers of boxes in the region and was regarded as a model industrial operation in the 1950s promotional film “Boxes, Cartons, and Cases!” by Industry on Parade. The company boasted that “just about everything but a ton of coal comes in a container, and any time the coal industry decides to package every lump, our box makers are ready to oblige.” Old Dominion Box Company consolidated operation in other branches in the 1990s and ceased production at the South Turner Avenue property, which has remained vacant since that time.

Additional Context
Richard C. Biberstein
In 1887, Richard C. Biberstein arrived in Charlotte to work for the Mecklenburg Iron Works first as a draftsman and then designing new buildings and engineering systems. Born in Fredericksburg, Texas, in 1859, Biberstein was the son of Herman R. von Biberstein an engineer who surveyed parts of Texas during the 1840s. He graduated in 1882 from the Worcester Polytechnic Institute in Massachusetts, and worked for U.S. Electric Light Company in Newark, New Jersey, Western Manufacturing Company in Richmond, Indiana and Atlas Engine Works in Indianapolis, before settling in Charlotte.

Biberstein worked with the textile equipment supplier Charlotte Machine Company for about five years before joining Stuart W. Cramer in 1902, a local architect and engineer of mill buildings. During his three years of employment with Cramer the firm was responsible for design and construction of Highland Park Mill #3 (1903-1904), one of the largest textile facilities in the Charlotte area. By the time he ventured out on his own records indicate that he was project captain for at least two dozen mills in the southeast.

In 1905, Biberstein began his own architectural and engineering firm which evolved into a series of partnerships that became Biberstein, Bowles, Meacham and Reid, a firm which still operates today. Over nearly three decades Biberstein’s firm designed many dozens of textile mill properties with most concentrated in the Charlotte and Gaston County areas. The Savona Mill’s three-story Spinning Mill addition built by Biberstein in 1921 was completed at the height of the

Old Dominion Box Company: Our First Fifty Years, 1905-1955, p 8.
Richard C. Biberstein, North Carolina Architects
architect’s career. The design drew upon modern mill technology and fireproofing techniques and includes features found in similar textile projects that he designed in the early 1920s.

Industrial Buildings in Charlotte Context
Following the Civil War, the City of Charlotte and Mecklenburg County began to experience a transition from an economy based largely on agriculture to one that relied heavily on manufacturing. The change was the result of a number of factors that turned much of agricultural Mecklenburg County into a metropolitan area by the 1920s. By 1880, Mecklenburg County was the highest producer of cotton in the state of North Carolina and its county seat saw a boom in population and investments. Charlotte’s population increased from 2,265 in 1860 just before the start of the Civil War to 18,091 in 1900 and again to 34,014 by 1910. Much of this growth was driven by the arrival of textile manufacturing in the region and investors looking to revive the southern economy behind the slogan “Bring the Mills to the Cotton.” The city’s access to transportation, both rail and roadways, development of reliable electricity and the vast and inexpensive pool of laborers motivated many entrepreneurs, including D.A. Tompkins, to invest in industrial enterprises.  

Following construction of the Charlotte Cotton Mills (1880-1881), the first large-scale textile operation in the city of Charlotte the textile industry expanded rapidly. By 1900, Mecklenburg County had sixteen mills running 1,456 looms and by 1910 had over 5,000 looms producing all types of textile products. By the end of the nineteenth century most mill buildings were a standardized type of construction with heavy timber framing, also called slow-burning construction, that allowed for a certain level of fire resistance. Heavy brick walls with massive timber beams, girders and columns, a low-pitched gable roof and heavy brick partitions with fire doors prevented fire from spreading and limited the amount of potential damage to the structures. Monitor roofs and large window openings, often with arched heads, provided the maximum amount of light possible to enter the production floor.

Nearly all of the recorded textile mills in the Charlotte area exhibit this traditional heavy timber construction, or slow burning construction, adapted throughout the course of the nineteenth century. This may be in large part due to D.A. Tompkins, the well-known Charlotte industrialist who advocated strongly for this type of building system as he developed numerous textile operations in the area. He and other entrepreneurs borrowed these building practices from the well-established textile companies of the Northeast. Tompkins was the most influential industrialist in Charlotte and developed three mills starting in 1889: Ada Mill, Alpha Mill and Atherton Mill. All three of these complexes employed brick walls and heavy timber framing. Other well-documented examples of heavy timber construction include Louise Mill (1897 and 1901, NR listed in 2013), Hoskins Cotton Mill (1904, NR listed in 1988), Highland Park Mill #3 (1903, NR listed in 1988), Mecklenburg Mill (1904, NR listed in North Charlotte HD 1990)

Hanchett, Charlotte’s Textile Heritage.
As building technology changed and structural systems evolved textile designers began incorporating newer materials into their structure to provide additional space, light and manufacturing efficiencies. As a result some mills constructed after 1900 include the use of columns, beams and window sashes among other elements constructed of iron and steel. In Charlotte textile mills this most often is seen in alterations to mill buildings or in small additions to earlier heavy timber frame mills. At the Highland Park Mill #3, changes to the property in the 1920s introduced steel sash windows to the main mill building and included construction of a new Dye House with a combination of traditional and modern materials. One exception to the small scale addition of these combination construction systems is the Spinning Mill addition to the Savona Mill in 1921. This three-story expansion is one of the only major construction project to employ metal columns and a concrete foundation with earlier, tradition timber frame construction.

While textile facilities ushered in the industrial progress of Charlotte during the late nineteenth and early twentieth centuries, there was a great number of manufacturing and industrial companies operating in the region. By 1935 the City Directory showed at least ninety different types of industrial businesses within their listings. One of the more prolific building forms to emerge as a product of this diversity and the interconnected transportation routes was the industrial warehouse. Blocks of downtown Charlotte that were located next to railroad corridors became home to warehouse districts in the late nineteenth century. These earlier warehouses often took a similar form and type of construction to the textile mills of the area. One well-documented example is the Philip Carey Building (1908, NR listed in 1984) which has heavy timber framing, a rectangular plan and thick brick walls.

As automobile transportation became more accessible later warehouses in Charlotte were sited along roadways or might take advantage of both rail and road access. Warehouses in the Charlotte area were among the first structures to rely on improvements in reinforced concrete construction as a fire-proofing method. Well-documented examples of this construction include the (former) Carolina Transfer and Storage Company Building (1927, NR listed in 1999) and the (former) Union Storage and Warehouse Company Building (1927, NR listed in 2000). The Paper Warehouses at the Savona Mill property that were constructed by the Old Dominion Box Company fits into this context as a particularly good example of reinforced concrete construction.

28 Woodard and Wyatt, Industry, Transportation and Education: The New South Development of Charlotte and Mecklenburg County, p. 11.
9. Major Bibliographical References

**Bibliography** (Cite the books, articles, and other sources used in preparing this form.)

Charlotte Daily Observer


Savona Mill                                      Mecklenburg Co. NC
Name of Property                   County and State

2009 on North Carolina State University website:

___________________________________________________________________________

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 #___________
____ recorded by Historic American Landscape Survey #___________

Primary location of additional data:

____ State Historic Preservation Office
____ Other State agency
____ Federal agency
____ Local government
____ University
____ Other
    Name of repository: _____________________________________________

Historic Resources Survey Number (if assigned): __MK2211_________

10. Geographical Data

Acreage of Property __4.18______________

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates
Datum if other than WGS84: ________________________
(enter coordinates to 6 decimal places)
1. Latitude:  Longitude: 
2. Latitude:  Longitude: 
3. Latitude:  Longitude: 
4. Latitude:  Longitude: 

Sections 9-end  page 22
Savona Mill
Name of Property

Mecklenburg Co. NC
County and State

Or

UTM References
Datum (indicated on USGS map):

☐ NAD 1927  or  ☒ NAD 1983

1. Zone:  17S  Easting:  512080  Northing:  3899815
2. Zone:  Easting:  Northing:
3. Zone:  Easting:  Northing:
4. Zone:  Easting:  Northing:

Verbal Boundary Description (Describe the boundaries of the property.)

The boundary for the National Register listing follows the current property boundaries for Tax Parcel 07111417 at 528 South Turner Avenue, as shown on the attached tax map.

Boundary Justification (Explain why the boundaries were selected.)

The boundary includes all extant manufacturing buildings associated with the Savona Mill and Old Dominion Box Company. While the historic property encompassed the adjacent property to the west, all structures on that parcel have been demolished.

11. Form Prepared By

name/title:  Richard Sidebottom and Jen Hembree  
organization:  MacRostie Historic Advisors
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city or town:  Charleston  state:  SC  zip code:  29405
e-mail  rsidebottom@mac-ha.com
telephone:  (202) 483-2020 ext 7014
date:  July 2014
Additional Documentation

Submit the following items with the completed form:

- **Maps:** A USGS map or equivalent (7.5 or 15 minute series) indicating the property's location.

- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)
Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn’t need to be labeled on every photograph.

Photo Log

Name of Property:  Savona Mill
City or Vicinity:  Charlotte
County:  Mecklenburg
State:  North Carolina
Photographer:  Richard Sidebottom
Date Photographed:  April 24, 2014

The above information is common to all photographs.

Photo 1 of 23:  East elevation, looking northeast along South Turner Avenue.
Photo 2 of 23:  East elevation Weave Mill, looking north.
Photo 3 of 23:  East elevation Spinning Mill with Weave Mill to left, looking north.
Photo 4 of 23:  East elevation Spinning Mill with Paper Warehouse addition to left, looking northwest.
Photo 5 of 23:  Northeast corner Paper Warehouse, looking southwest.
Photo 6 of 23:  Northwest corner Paper Warehouse, looking southeast.
Photo 7 of 23:  West elevation Spinning Mill, looking southeast.
Photo 8 of 23:  West elevation Spinning Mill with Weave Mill to right, looking northeast.
Photo 9 of 23:  West elevation Weave Mill, looking northeast.
Photo 10 of 23:  East elevation of South Warehouse addition, looking west across South Turner Avenue.
Photo 11 of 23:  Former railroad spur and South elevation of South Warehouse addition to
right, looking north.

Photo 12 of 23: Shed at northwest corner of property, looking north.
Photo 13 of 23: Weave Mill interior, looking north at center of building.
Photo 14 of 23: Weave Mill interior, looking north along east wall.
Photo 15 of 23: South Warehouse addition interior, looking northwest to connector with Weave Mill.
Photo 16 of 23: Spinning Mill partial basement, looking west along loading ramp.
Photo 17 of 23: Weave Mill partial basement, looking west.
Photo 18 of 23: Paper Warehouse first floor, looking northeast.
Photo 19 of 23: Spinning Mill first floor, looking southeast.
Photo 20 of 23: Spinning Mill second floor, looking southeast.
Photo 21 of 23: Paper Warehouse second floor, looking north along west wall.
Photo 22 of 23: Spinning Mill third floor, looking north.
Photo 23 of 23: Paper Warehouse third floor, looking south.
SAVONA MILL
S. Turner Avenue, Charlotte
Mecklenburg County, North Carolina
FIRST FLOOR PLAN

Weave Mill completed 1916
Spinning Mill completed 1922
Paper Warehouse completed 1951
Non-historic Warehouse Addition completed 1996

Metal Shed
SAVONA MILL
S. Turner Avenue, Charlotte
Mecklenburg County, North Carolina
FIRST FLOOR PLAN

Weave Mill completed 1916
Spinning Mill completed 1922
Paper Warehouse completed 1951
Non-historic Warehouse Addition completed 1996