Industry, Transportation, and Education:

The New South Development of Charlotte and Mecklenburg County

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Introduction

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Purpose

The primary objective of this report is to document and analyze the remaining, intact, early twentieth-century industrial and school buildings in Charlotte and Mecklenburg County and develop relevant contexts and registration requirements that will enable the Charlotte-Mecklenburg Historic Landmarks Commission and the North Carolina Historic Preservation Office to evaluate the individual significance of these building types.

Limits and Philosophy

The survey and this report focus on two specific building types: industrial buildings and schools. Several of these buildings have already been listed on the National Register of Historic Places. Nevertheless, the increase in rehabilitation projects involving buildings of these types has necessitated the creation of contexts and registration requirements to facilitate their evaluation for National Register eligibility. The period of study was from the earliest resources, dating to the late nineteenth century, until c.1945 reflecting the large number of schools and industrial buildings recorded during the survey of Modernist resources in Charlotte, 1945 - 1965 (prepared by these authors in 2000).

Developmental History

From Settlement to the Civil War

White settlers arrived in the Piedmont region of North Carolina beginning in the 1740s and Mecklenburg County was carved from Anson County in 1762. Charlotte, the settlement incorporated as the Mecklenburg county seat in 1768, was established primarily by Scots-Irish Presbyterians at the intersection of two Native American trade routes. These two routes were the Great Wagon Road leading from Pennsylvania and a trail that connected the backcountry of North and South Carolina with Charleston.

Mecklenburg County grew steadily during the late eighteenth century, reaching a population of nearly 10,500 by 1800. For the most part, this population consisted of modest yeoman farmers who typically did not own slaves. At this time, the largest slaveholder, James Walkup, held only twelve slaves. By 1850, there were seventeen planters holding more than thirty slaves each and by 1860, this number had grown to thirty planters. This was still a relatively small number in comparison with other North Carolina counties and the South in general.

In addition to the commerce associated with Mecklenburg County's farming and the normal activities of a county seat, Charlotte became the gold mining capital of the United States during the second quarter of the nineteenth century. This prompted the construction of a United States Mint in 1837. The mining industry was short-lived, slowing considerably after the California gold rush of 1849 and nearly ceasing with the Civil War. Yet, Charlotte had grown, in just sixty-two years, from a rural courthouse village of log houses to a commercial center important enough to become the home of a Federal Mint.

With the arrival of the Charlotte and South Carolina Railroad in 1851 and the North Carolina Railroad in 1856, Charlotte again found herself at the junction of important transportation routes. With Mecklenburg County's agricultural activity placing the county third in the state in cotton production, eleventh in corn, and twelfth in wheat by 1850, and with Charlotte's advantageous transportation, the city was ready to grow. Thus, Charlotte became a center of government, transportation, and financing for North and South Carolina planters and farmers before the Civil War.

At the end of the Civil War, Charlotte's rail lines remained operable, putting the city in an excellent position for economic expansion. In addition, because the average Mecklenburg farmer owned few slaves, he did not experience a significant loss of capital or work force. The postwar growth in the production of cotton in the county was astonishing. Only 6,112 bales of cotton were ginned in 1860, but by 1880, production had increased to 19,129 bales due to the introduction of the fertilizer, Peruvian guano. Mecklenburg County became the largest cotton producer in the state, with production peaking in 1910 at 27,466 bales ginned.

Under the slogan, "Bring the Mills to the Cotton," and driven by the New South theories of D.A. Tompkins and others, Charlotte became a center of a newly developing type of cotton venture in the South: the textile factory. This growth in Charlotte and across the region continued as Southern and New England textile manufacturers built in the rural South, taking advantage of inexpensive labor, a local supply of raw cotton, and electricity. In the Charlotte area, new textile factories used electricity produced by J.B. Duke's Southern Power Company, known as Duke Power after 1904. This combination of access to electricity and manufacturing based on a long history of good transportation set the stage for Charlotte and Mecklenburg County's growth in the early twentieth century.

Expansion of the area's economy was accompanied by a significant population increase. In 1860, Charlotte was North Carolina's sixth largest "urban place," with a population of 2,265. By 1900, Charlotte was home to 18,091 citizens, but only ten years later that number had grown to 34,014 an increase of eighty-two percent. That was the largest population increase Charlotte experienced in any decade of the twentieth century. Significantly, the city's population was no longer confined to the immediate downtown area. Numerous suburbs, including Dilworth, Western Heights, Crescent Heights, Plaza Midwood, John Nolen's Myers Park, and two African American subdivisions, Washington Heights and Douglassville, completed the city's first suburban ring. After a 1907 boundary expansion, the city encompassed 570 percent more area than it had with the earlier boundary, drawn in 1885. [3] By 1930, the city's population was 82,000.

It was during this post-bellum period of booming population and economic upswing that the first modern industries and schools of Mecklenburg County and Charlotte were constructed within the historical contexts of industry, transportation, and education.

Historical Contexts

Transportation

Transportation has historically played a tremendous role in the development of Charlotte and Mecklenburg. By 1875, six rail lines converged in Charlotte, more than in any other city between Washington, D.C. and Atlanta. In the first decades of the twentieth century, road improvements, coupled with the existing rail connections, allowed goods to move in and out of the city with ease. Better transportation allowed

the children of Mecklenburg County's growing population to get to consolidated schools on a regular basis. In short, transportation provided the means for Charlotte to become one of the leading New South cities.

At the national level, the late nineteenth century was marked by the consolidation of regional railroads by prominent investors like J.P. Morgan who created Southern Railways in 1894. This company controlled four of the six tracks passing through Charlotte and routed its important Washington-to-New Orleans mainline through the city. In 1900, Seaboard Air Line purchased the remaining existing tracks in Charlotte. This period of consolidation was followed by the construction of new tracks for Norfolk and Western and the local Piedmont and Northern Railroad in the early 1910s. This wealth of connections helped keep transportation prices low and fed the thriving distribution and industrial economy in Charlotte. [4]

With the rise of automobile and truck traffic during the mid and late 1910s, roadways regained their importance as a means of transportation. The General Assembly established the State Highway Commission in 1915. After the 1921 election of Charlotte-native Cameron Morrison, the state's first "Good Roads" governor, the General Assembly passed the Highway Act of 1921. This important piece of legislation expanded the powers of the highway commission and authorized a fifty million dollar bond issue that led to the construction of 6,000 miles of state maintained highways. The state's business leaders, such as Joseph Hyde Pratt and Harriet Morehead Berry were involved as well, arguing that better roads would make lower cost goods and social services, including schools, more accessible for the state's rural population. [6]

In the 1920s, the increased availability of the automobile and large transfer truck combined with the profound improvements in roads to bring about a major shift in transportation. While the railroad continued to be important for the shipment of industrial goods well into the twentieth century, improved roads gave industries another option for the transportation of raw materials and the distribution of finished products. By 1928, Charlotte was linked to the region's major cities by seven paved highways. One of the most important was Wilkinson Boulevard, the state's first fourlane highway. This highway paralleled the Southern Railroad and linked the textile and distribution-related concerns in Charlotte with the large textile mills of Gastonia. Streets with direct connections to these highways became significant industrial, storage, and transfer corridors, although rail connections continued to be important. West Morehead Street, for example, was extended in 1927 to connect downtown Charlotte with Wilkinson Boulevard. In addition, West Morehead paralleled the Piedmont and Northern Railroad, a 150-mile local line with the motto, "A Mill to the Mile." As a result, eight storage companies and eleven transfer or moving companies were located on West Morehead Street by the late 1920s. Other

arteries, such as Graham Street, Tryon Street, and Statesville Avenue radiated from downtown and were paralleled by railroads. Thus, these streets, too, became industrial and distribution corridors where industries clustered.

The benefits of improved transportation reached beyond industry to make school bus transportation possible for many of North Carolina's children. This step was important since providing transportation enabled school consolidation and made compulsory attendance laws enforceable and practical. In 1911, the General Assembly had empowered local school boards to use money from the general school fund to pay transportation costs, but few counties took advantage of this until roads were improved in the 1920s. Educators believed that children riding to school on warm, dry buses were healthier and would have an opportunity for more socialization. It was also thought that school buses would decrease the inequalities between rich and poor. By 1927, 2,500 school buses were operating in the southeastern United States.

In Charlotte, the combination of major thoroughfares such as Wilkinson Boulevard, and excellent rail links created an especially ripe environment for the city to become a major industrial and distribution hub. The Charlotte Chamber of Commerce recognized these factors in 1927 when they wrote:

With its splendid railway connections over eight lines and with an unsurpassed system of hard surface highways radiating in every direction Charlotte could not but be an important distributing center for the staple lines of merchandise, including dry goods, notions, food products, hardware and similar lines. [10]

Wilkinson Boulevard and its in-town link, West Morehead, are particularly important as examples of the type of road improvements undertaken between the two world wars wherein new roads were aligned with railroads facilitating the combination of truck and rail transportation. As highway transport increased during the late 1930s, demands for wide, smooth-paved roads also increased. Wilkinson Boulevard set the stage for multi-lane routes that would become standard after World War II when the trucking hubs would begin to dot the city along new interstate highways. [11]

Textile Mills

The first cotton mill in the United States was Slater Mill built in Pawtucket, Rhode Island in 1793. President Thomas Jefferson's trade embargo with the English in 1807 prevented the U.S. from sending raw materials to England for manufacture, which in turn, gave the industry an indirect boost by encouraging investors in the U.S. to create their own manufacturing facilities. [13]

North Carolina's first cotton mill was built near Lincolnton in 1813, and by 1840, there were twenty-five mills in the state, thirteen of which were located in the Piedmont region. Despite the gains between 1813 and 1840, such economic and commercial influences were slow to affect the agrarian south and most ante-bellum industry was confined to New England. As of 1873, there were only thirty-three mills in North Carolina, most manufacturing yarn to be woven in Northern mills, but by the 1880s, investors began discovering the South's post-war availability of inexpensive labor, land, and raw materials. These resources created the foundation for the turn-of-the-century industrialization in the South, North Carolina's Piedmont, and in Mecklenburg County. The success of Southern mill ventures was apparent by 1906, when one observer noted, "The traveler through some parts of North Carolina is seldom out of sight or hearing of a cotton mill. The tall chimneys rise beside the railroad in nearly every town." [15]

Location was the key to Mecklenburg County's industrial development. Locally grown cotton and the availability of water as a power source made the Piedmont region of North Carolina, in which Mecklenburg County is situated, well suited to the development of mills. By 1906, one quarter of the textile mills in the United States were located in North Carolina, mostly in the "central or west-central sections" where mills were the "thickest." Charlotte's advantage was intensified by its transportation connections which included the intersection of two important trade and migration routes as well as five major rail lines as of 1873.

The first successful cotton mill in Charlotte was built in 1880 by R.M. and D.W. Oates. Named the Charlotte Cotton Mill (MK 69), it housed 6,240 spindles and employed seventy people, most of them women. The mill itself was constructed in the style of the most up-to-date New England mills. Although only part of the Charlotte Cotton Mill exists today, it marks the start of Charlotte's textile revolution. By 1902, just twenty-two years after the establishment of the city's first successful cotton mill, three hundred mills had been built within one hundred miles of Charlotte, making this area home to more than one-half of the looms and spindles in the entire South. [19]

The most prominent and influential textile mill developer in the city and state was D. A. Tompkins. Tompkins, a South Carolinian, was educated at Rensselaer Polytechnic Institute in Troy, New York. After two years of employment with the Bethlehem (Pennsylvania) Iron Works, he began his thirty-one-year career in Charlotte as a sales representative of Westinghouse Engine Company, based in Pittsburgh. In 1883, he left Westinghouse to establish the D.A. Tompkins Company which specialized in designing and setting up mills. [20]

A classic "New South" entrepreneur, Tompkins wrote and spoke widely, encouraging industrialization, and helping establish textile and chemical engineering colleges in Raleigh and Clemson. At the time, the National Association of Manufacturers called him "the foremost citizen of the South." Another writer referred to him as the "best authority upon cotton manufacturing in the South." Tompkins entrepreneurial zest flows in an address made to the Southern Industrial League in Atlanta. He reasoned that because producing cotton makes money, manufacturing it into products would make even more money. Tompkins went on to say, "If we utilize the resources we now have, and put to work the idle labor now in every undeveloped section of the South, we may supply from cotton-growing states the cloth for the vast markets in different parts of the world." Over the course of his career, he pioneered the development of cottonseed oil as a profitable product while his company constructed over one hundred mills, plus fertilizer works, electric light plants, ginneries, and over two hundred cotton oil plants.

D.A. Tompkins codified his ideas on mill buildings and development in a number of writings including textile industry textbooks. He recommended that a 10,000-spindle mill have five to ten acres for the mill site and about forty acres for houses, providing each house with room for a garden. [26] He advised mill investors to build "a factory one to four miles away from a city and let the company build and own the houses the employees live in."[27] This strategy avoided local property taxes, local governmental jurisdiction, and allowed mill owners to maintain social and economic control over their workers. [28] Tompkins also noted that in a remote location, with no existing stores, "the benefit of mercantile features may be enjoyed by the mill company."[29] Furthermore, lawyers who may attempt to interfere with the mill's operations or sue over injuries that operatives may sustain would also be kept at bay. [30] Tompkins believed downtown living would corrupt workers, as would indoor plumbing or housing more spacious than one room per operative. Futhermore, employees in a rural setting would be more apt to go to bed early, and therefore would be in better condition to work during the day. [31]

In Mecklenburg County, this advice was taken to heart, as evidenced by the construction of many of the earliest textile mills on the outskirts of downtown. Mills were also clustered along South Boulevard, a planned industrial corridor in the

suburban neighborhood of Dilworth. By the early twentieth century, most mills were being constructed with accompanying villages in North Charlotte or in rural locations in Mecklenburg County. Mills in the outlying towns of Cornelius, Huntersville, and Davidson were, like those in Charlotte, located on the edge of the town's central commercial district.

Thrift Mill and village (MK 1683-1684, NR) is one of Mecklenburg County's best preserved examples of a mill constructed in an independent location, far from the city or Mecklenburg's other towns. The mill was established in 1912 along the tracks of the Piedmont and Northern Railroad, an electric line that extended 150 miles west of Charlotte. Its slogan, "A Mill to the Mile," was true along most of its length. The Thrift Mill is a brick structure with a monitor roof running its length. Typical of the construction methods recommended by Tompkins, its weave department has a sawtooth roof for improved lighting, and its warehouse has brick fire walls and wooden walls on its front and back ends. The village, like so many in North Carolina, is situated next to the mill and consists of rows of small houses, all constructed from similar plans and all having small yards.

Like Thrift, most mill designs in Charlotte reflected state and regional trends, which were based on the recommendations of Tompkins and another New South industrialist, Stewart Cramer. These men and the mill designers they employed were often following the standards set forth by New England machinery manufacturers and insurance mutuals. The insurance companies had developed criteria for "slow burning construction." This meant that mills were brick, with walls not less that one and one-half brick (13") wide on the top level that increased in width by one-half a brick for each of the floors below. [34] An elevated water tank to supply sprinklers was to be at least fifteen feet above the highest part of the roof and have a capacity of no less than 10,000 gallons. [35] This structure was usually located in the mill's tower. Brick firewalls were prescribed to separate the main mill from the other main components: the picker room, the belt tower that housed the belts connecting the engine to the line shafts on each floor, and the stair or elevator tower. [36] Tompkins recommended 16" x 12" floor joists and three layers of flooring, including a layer of asbestos. [37]

Architectural elaboration was usually reserved for the mill's tower and at the cornice or around the windows. The uses of brick corbelling and arched window openings were popular decorative touches. Occasionally, designs utilized quoins or stucco. The tower most often incorporated Italianate details and cresting or a finial at the roof peak. D.A. Tompkins felt that the design was "not very attractive from an architectural standpoint," but was justified by increased safety and reduced insurance rates. [39]

Tompkins also had specific recommendations for the construction of warehouses. They should consist of a series of brick walls extending above the roofline, spaced about twenty-five feet apart. Heavy timbers spaced about eight feet apart should support the roof. The open ends of the building should be constructed of wood and have large doors. Wood construction was recommended so that the walls could be torn down quickly, facilitating the removal of stored material in the event of fire. [40]

These construction methods are exhibited in most of Charlotte's late nineteenth and early twentieth century textile mills and in the mills set up by the D.A. Tompkins Company. In 1889, the D.A. Tompkins Company established three Charlotte cotton mills: the Alpha, Ada, and Victor. In 1893, Tompkins himself built Atherton Mill as a model mill that demonstrated many of his progressive, fire resistive ideas. Although the Victor has been destroyed, Tompkins' other early mills still stand. A portion of the Ada (MK 2219) is located adjacent to I-277, on Seaboard Street. It is abandoned and in deteriorating condition, but retains many of its Italianate details such as its tower with a low-pitched pyramidal roof. The Alpha (MK 2503) is located on 12th Street and is still in use as an industrial building. It has a brick structure with a decorative tower and segmental arch windows. The Atherton mill (MK 1779), located on South Boulevard, has been rehabilitated for residential purposes. All of these buildings feature the brick construction and fire resistive features advocated by Tompkins.

Many other mills followed in the wake of the Charlotte Cotton Mill and Tompkins' early mills. Among them, Highland Park No. 3 (MK 1164, NR) (built in 1904) was the largest, housing 30,000 spindles, 1,000 looms, and employing 800 workers. [42] Stewart Cramer, who featured the complex in seventy-three pages of his four-volume book, Useful Information for Cotton Manufactures, designed this mill. Similar to Tompkins' mills, utilizing brick construction and a tower to conceal the elevated water tank, it was one of the state's first electrically driven mills and had a pneumatic system for blowing cotton from the warehouse directly into the mill.[1] Cramer, a native of Thomasville, North Carolina, was educated at the United States Naval Academy and the Columbia University School of Mines. Cramer worked as chief engineer and manager for D.A. Tompkins from about 1893 until 1895 when he established himself in Charlotte as a representative for three Massachusetts textile machinery companies. He eventually began his own company and acquired over sixty patents for the improvement of textile mill machinery and mill air conditioning, while *Useful Information* became the standard reference for mill design. The Parks-Cramer Company (MK 1766), built in 1919 near Tompkins' Atherton mill on South Boulevard, was the final incarnation of the company Cramer founded to produce humidifying and air conditioning equipment for mills. Additionally, Cramer purchased the Gaston County May Mill and its village, Mayworth, and turned the community into the model mill village of Cramerton. Cramer and his engineering firm designed or equipped nearly one-third of the new mills in the south between 1895 and 1915, one notable example being the Cannon mill in Kannapolis, northwest of Charlotte. [2]

Another mill developer was E. A. Smith who occasionally worked with Tompkins. He built the Chadwick (built in 1901) and the Hoskins (MK 1163, NR) (built in 1903) mills in Mecklenburg County. By 1907, he headed a firm that controlled those two mills, plus the Calvine (formerly the Alpha), the Dover in Pineville, and the Louise (MK 1857), in Charlotte between Louise Avenue and Hawthorne Lane. The Chadwick has been demolished, the Hoskins has been rehabilitated for residential use, and the Louise is extant, in a deteriorating condition. The Hoskins is rectangular and three-stories in height with a brick exterior and large, segmental arch windows. The Louise is a two-story, U-shaped complex built in 1897. Its tower, originally trimmed with iron cresting has been demolished. The Louise has low pitched gable roofs with exposed roof beams. All windows have been bricked. Upper story window openings feature segmental arches while doorways, lower level windows, and loading bays have round arch openings. The Louise is particularly significant as one of only five nineteenth-century textile mills remaining in the county.

The last textile mill to open was also the last to close. C.W. Johnston built the Johnston Manufacturing Company (MK 2092, NR) in 1916; it closed in 1975. Today, the Johnston has been rehabilitated as residential units and is a contributing structure in the North Charlotte National Register Historic District. The Johnston Mill complex contains four brick buildings including the original mill with its office addition, an opener room, a cotton warehouse, and a machine shop. The main building is two stories tall with Flemish bond brick walls. The building has segmental arch windows and exposed beams under the eaves of the low-pitched gable roof. The front addition, c.1930 is also two stories, and has a two-story entrance tower with modest Art Moderne stylistic features.

The final decline of textile concerns in Charlotte occurred over a relatively short period. As late as 1960, textiles retained its position as Charlotte's number one industry. At that time, Charlotte was still home to thirty-seven plants with 5,800 employees. The closure of the Johnston marked the end of a defining period in Charlotte's history.

Found in the county and the city, textile mills were, by far, the most common type of factory in Mecklenburg County before World War II, and, accordingly, are the county's most common type of existing industrial building. By 1915, there were twenty-two textile mills in Mecklenburg County. Based on the Sanborn Maps in the late 1920s, there may have been as many as twenty-five operating in Charlotte during

that time. By 1945, the number of plants had risen to 40, employing over 12,000 people. Additionally in 1945, there were five hosiery plants producing an estimated four percent of the nation's silk hosiery. Countywide, seventeen mills were surveyed as part of this project and another three mills were previously surveyed, but have since been destroyed. The success of these mills provided the impetus for the establishment of other industries in Charlotte.

Other Factories and Industries

The economic activity stimulated by the textile mills generated capital that enabled commercial and industrial diversification in towns across the state. In addition, the strong national economy of the early 1900s fostered growth across the country. By the mid-1920s, a range of goods from Lance snack crackers to Model T Fords, were produced in Charlotte. In fact, a 1926 survey indicated that there were 141 companies in Charlotte producing eighty-one different products. An inspection of the 1929 Sanborn Maps and the 1935 City Directory reveals at least ninety industrial businesses producing everything from chemicals and window sash to ice cream and caskets (see Appendix A for a more complete list). In 1945, the Charlotte Chamber of Commerce reported there were as many as 243 non-textile industrial plants in the county producing products valued at \$50,000,000 per year. In particular, service industries, such as the trucking and banking industries, benefited from the strength of Charlotte's economy. Thus, when Charlotte's textile industry began to decline in the 1930s, the city already had a well-laid foundation for post-World War II economic prosperity that was not based on textiles.

Not surprisingly, many of the new businesses spurred by the textile industry were cotton-related industries. D.A. Tompkins boasted that Charlotte had seven machine shops, four of which "will design, construct, and equip a cotton mill complete for a given price." Taking the industry of cotton textile production literally from the ground up, the Cole Manufacturing Company produced the agricultural implements needed by cotton farmers to plant their crop. The Cole complex is located at the intersection of Central Avenue and a Seaboard rail line. Built in 1909, three brick buildings with arched openings and corbelled cornices are extant. The Cole complex originally consisted of these masonry buildings as well as a large frame building used as the foundry and four smaller outbuildings. Similarly, fertilizer production was also a prominent industry in Charlotte; there were five of these concerns in 1925; none are known to survive. [9]

Supplies, products, and storage for the textile mills themselves were also common. The 1925 City Directory indicates two card clothing manufacturers, eight

chemical producers, one fire extinguisher company, eight machinery manufacturers, four mill suppliers, and three cotton warehouses. Other concerns, such as the John B. Ross Bag Warehouse (MK 2222) (c. 1905) at the corner of Johnson Street and Seaboard Street stored wrapping materials. [10] The building, which was once part of larger complex, is a one-story, brick structure with three segmental arch loading bay openings. A lower, one-story wing is attached to the east side of the building. The property originally included an angled platform adjoining the railroad tracks that are still immediately in front of the building. The Ross Warehouse is an important and relatively rare example of the smaller sort of warehouse facility from the early twentieth century.

Even mill safety fostered industry. The Grinnell Company (MK 2643), also known as the General Fire Extinguisher Company, manufactured, sold, and distributed automatic sprinklers, steam and plumbing supplies, pipe valves and fittings, all of which helped protect mills from fire. This building was built around 1910 and maintains details similar to textile mills and other industrial buildings of that period. The original section of the building is two stories, brick and has a low-pitched gable roof, exposed rafters, and multi-light windows. There is an early twentieth century, one-story, brick extension on the north end with a loading dock parallel to the railroad tracks. This extension has also received a mid-to-late twentieth century, brick addition. On the southern end of the building is a ca.1950, Art Moderne style addition that has stucco sheathing, glass block windows, and a rounded corner on the two-story office section. Although the integrity of this building is only fair, it is significant as a building that represents the varied industries that sprang from the textile mills. Mill safety was an important issue and the sprinkler systems produced here were significant to the textile industry.

Creative manufacturers followed Tompkins lead and utilized waste materials, such as cottonseed, left after textile production, to create other products. The Southern Cotton Seed Oil Company (no longer extant) produced Snowdrift Hogless Cooking Fat, and other companies used waste cotton to make mattress and upholstery stuffing. At the turn of the twentieth century, a substantial complex, the North Carolina Cotton Oil Company, was located at the corner of Smith and 9th Streets, but it has since been demolished. In 1925, there were six cotton seed oil manufacturers, one batting and wadding manufacturer, and seven mattress producers.

With a myriad of railroad spurs entering the area, a cluster of industrial operations located in the blocks created by Smith, and Johnson streets. In the early twentieth century, a lumberyard was in the area. Also near-by was the John B. Ross Bag Warehouse, mentioned above, as well as the demolished N.C. Cotton Oil Company. Located at 10 and Smith streets, near the site of the NC Cotton Oil Company, is the Interstate Mill (MK 2224), a flour and roller mill. The complex dates

from ca. 1900 and consists of several buildings, including a five-story brick building and prominent, concrete grain elevators visible from I-277. Next to Interstate Mills, and directly adjacent to the Southern Railroad tracks is People's Ice and Coal plant (MK 2223), which dates from ca. 1905. Just across the street from the Interstate Mills, and nearly under I-277 is D.A. Tompkins' Ada textile mill. This area is only one of many groupings of industry. Other concentrations can be found on South Cedar, West Morehead Street, South Boulevard, South Tryon, and South Mint/South Graham streets in the southwest quadrant of the city. The Piedmont and Northern and two branches of the Southern Railroad framed these areas.

Many of the mills and factories along South Cedar Street have been demolished, although survivors include a variety of 1920s warehouses and small industrial buildings. None of the buildings were textile manufacturers, but the Armature Winding Company (MK 2209) and the Southern Spindle and Flyer Company (MK 2207) produced textile equipment. Armature was founded in 1907 and moved to a new facility in 1915 before moving to this site in 1925. The company manufactured electric motors, transformers for Duke Power, transformer cooling fans, carbon brushes for GE, and a variety of other electrical products. The company merged with Power Products Manufacturing Company in 1975, and that company still operates in this facility. Adjacent to the Piedmont and Northern Railroad, and the planned community of McNinchville, local architect Fred L. Bonfoey, designed the Armature Winding Company's buildings. [14]

The complex's primary building is a one-story brick and steel structure with a low-pitch gable roof. The large windows are multi-pane with metal frames. The building also has exposed beams. The second building, originally a warehouse for silk and cotton products, was also constructed in 1924. This building is brick and has a raised monitor roof with clerestory windows. The original large, multi-light windows have been replaced with much smaller units on one side, and a storefront has been added on one side.

Southern Spindle and Flyer produced spindles and rollers for textile mills. The company's circa 1928 building is five-bays wide on its front facade, but extends almost the full depth of the lot (roughly 200 feet). All of the decorative treatment is reserved for the facade, which has a decoratively capped parapet with small steps at the center. Beneath the parapet is a cornice supported by brackets. The central entry has sidelights and transom beneath a shed canopy supported by decorative brackets. Multi-light windows flank the entry. The front portion of the building housed an office. The remainder of the building was the machine shop.

The two buildings at the Queen City Foundry (MK 2205) are the only South Cedar Street buildings not constructed from brick. The foundry began operations at

this location in 1928 and remained here until at least 1985. Although the current complex dates from after 1946, likely around 1950, the buildings represent the continued importance of industry to Charlotte's economy. The larger building, the foundry, has a double monitor roof, metal frame windows, and is clad in metal. The interior features the exposed metal structure. The smaller building is a simple, gable-roof building sheathed in metal. By the late 1990s, the buildings had been rehabilitated to house offices for various professionals, including architects and interior designers.

This property retains a good level of integrity and is significant as an example of a small foundry. The larger, Charlotte Pipe Foundry on Clarkson Street may retain older buildings, but these are nearly encased by late twentieth century construction, making Queen City Foundry the more intact example of this type.

The industrial buildings along West Morehead Street are also brick structures, but, unlike the one-story Cedar Street buildings, these are generally two, three, or four-stories in height and served as storage or transfer facilities. Typical is the 1927 Union Storage and Warehouse Company (MK 2214, NL). The brick building has a cast concrete base and molded band between the second and third floors. The parapet is capped in cast concrete. Below the cornice are recessed panels set in the brickwork. The windows have metal frames. The facade of the building is six bays wide with the two corner bays projecting slightly to create a corner tower effect. The top of each "tower" has a stepped parapet and decorative cast concrete panel with garlands. The entry in one of the towers has a classical cast concrete surround with heavy cornice supported by small consoles.

Another industrial concentration that retains many of its original buildings exists along South Mint and South Graham streets. The extant buildings are brick and most date from the late 1920s and into the 1930s. Companies located in this area did not manufacture textiles, but like the 1928 Sykes Brothers Company (MK 2213), they were often related to the cotton industry. Sykes Brothers moved into its new building in 1929. The firm produced card cloth, a rough material used to card cotton fibers during the textile manufacturing process. The building is a one-story brick structure with neoclassical stylistic influences. A molded cast stone cornice is located below the parapet, which is capped by a simple stone cap. Above the cornice is a stone signboard bearing the company name. Below the cornice is a narrow molded stone band. Quoins trim the corners of the brick building. The narrow end of the building faces the street and is five bays wide with large, multi-light windows. The windowsills are stone and the base of the building is also stone. The central entry has a simple stone pediment, transom, and double-leaf door.

Not only was Charlotte home to mills and textile-related industries, the city had begun to develop as a distribution center by the 1920s. By that time, over 700 traveling salesmen were making Charlotte their home base. Products were transferred in and out of the city via the railroads and the burgeoning trucking industry. In 1927 the Chamber of Commerce publication, "Charlotte, N.C.: Diversified Industrial and Commercial Center," promoted this new feature in the city's economy, noting, "The location of Charlotte and its railway and highway connections conspire to make it a distribution center of considerable importance." This publication went on to report that 350 national businesses had made Charlotte "an integral part of their distribution systems." By 1945, the Chamber was able to report that 350 national businesses made Charlotte "an integral part of their distribution systems." The reasons behind this success included the city's geographic location, its access to diverse industries throughout the Piedmont including agriculture and furniture, and the city's status as a center of the Carolinas' textile industry. [18]

As part of this new trend, Ford Motor Company located a parts distributorship in Charlotte during the 1910s. In 1925, Ford opened an assembly plant on Statesville Road that produced three hundred Model Ts per day. [19] In 1927, the Chamber of Commerce reported that Charlotte "is one of the largest distribution centers for automobiles in the country."[20] The Ford Motor Company (MK 2206) complex consists of several buildings and a water tower. The facade of the main building incorporates art deco details such as a wide frieze with chevrons and diamonds executed in yellow brick. Pilasters and the parapet cap are accented by cast stone. Today, this complex, at 1830 Statesville Avenue, is part of an Eckerd Drug warehouse facility.

Although many factories had their own warehouses on site, warehousing became an important industry unto itself as goods moved in and out of the county. In the small, agricultural community of Croft in Mecklenburg County, several gabled warehouses (MK 1337, NL) were used to store fertilizer near the rail line. These structures still stand and are part of the Croft National Register Historic District.

Within the city of Charlotte, nine examples of warehouses were surveyed. These warehouses run the gamut in terms of construction from the one-story brick building of W.C. Newell Company warehouse (MK 2208), which is built around 1926 using the "slow-burn" model to the very large, Great A&P Tea Company warehouse (MK 2256) with its concrete frame and brick infill dating to 1928. An earlier example is the c.1915 McNeil Paper Company Warehouse (MK 1859) located downtown at 305 E. 8Street. Oriented to railroad tracks that are now disused, this warehouse stored paper so that orders could be promptly filled and loaded onto boxcars. The building is a one-story, five-bay, brick structure with a stepped parapet and segmental arch windows and doors. The windows have been filled with glass block. The most

elaborate warehouse remaining in the city is located along the same rail corridor as the McNeil building. The Phillip Carey Building (MK 45) was built around 1907. The Carey company, the first tenant, made roofing materials that were stored here. The building has an unusual degree of architectural interest for a warehouse. The building is two-stories with extensive brick corbelling, round-head and segmental arched windows and a stepped parapet.

Union Storage and Warehouse, described above, and Carolina Transfer and Storage (MK 1852, NR) date from the 1920s and are located on West Morehead Street, one of Charlotte's main industrial corridors. These buildings display the concrete frame with brick curtain wall construction method that became popular by the late 1920s. Constructed of reinforced concrete with brick curtain walls, the interior of the building features reinforced concrete girders, floor slabs, and large mushroom columns, so named for their wide, disc-like capital that flared smoothly from the round column. The slabs, girders and columns were designed to work together to allow for wide open storage spaces without numerous posts. When combined with metal frame windows and metal stairs, the construction method also made a virtually fire-proof building. The popularity of this technology is indicated in the 1951 Sanborn map which shows that fourteen buildings in Charlotte (including warehouses, schools, automobile showrooms, and even apartment buildings) were built in this manner. All but six are believed to be destroyed or have lost integrity. These six include Carolina Transfer and Storage, Union Storage and Warehouse, Coca-Cola Bottling, Grinnell Company offices, the Crane Building, and the Great A&P Tea Company warehouse; all located on or in the vicinity of West Morehead Street. [21] Generally these warehouses were oriented to the street and the Piedmont and Northern railroad line, thus accommodating the movement of goods to and from the newest mode of transportation, the transfer truck, and the older railroads. Carolina Transfer and Storage, for example, had truck and rail loading bays on three sides, giving its customers access to both forms of transportation.

During this period of transportation changes, the precursor of today's trucking facilities developed. The trucking industry had begun in Charlotte with Frederickson Trucking in 1919 and by 1950 included sixty local carrier terminals. These terminals were designed exclusively for use by transfer trucks, with no substantial storage area, usually had two-story office buildings and long, one-story loading docks at the rear of the office. This would become the standard arrangement for truck terminals after World War II since they were designed to accommodate larger, modern trucks. Charlotte's earliest known truck terminal is the ca. 1940 Transportation Incorporated (MK 2218) complex at the corner of Clarkson and Post streets. This property consists of a two-story, brick office building with one-over-one windows and a sign panel near the top of the facade. The office is only one room, or

two small rooms, deep. To the rear extends a wooden, gabled loading dock with spaces for many trucks. During the late 1930s and into the mid 1940s, several trucking facilities (at least eight by 1945) developed in a two or three block area along Clarkson Street, north of West Morehead Street. Of these, Transportation Incorporated is the only one that remains. [23]

As Charlotte grew, and as it became easier for people to travel there, the city became a hub for the distribution and storage of motion pictures. The city's transportation links attracted movie distributors who needed a regional shipping, storage, and screening base. The various studios grouped their facilities together on South Church Street to compete for business with local theater owners who periodically visited the city to preview movies and make booking decisions. Fox opened its facility in 1921, followed by Goldwyn and Paramount in 1923 and Columbia and United Artists in 1926. Chamber of Commerce officials reported in 1929 that all national film companies maintained facilities in Charlotte, transacting an annual aggregate volume of business valued at roughly \$2,250,000. [24] None of the film exchange buildings appear to be extant.

Even food became a major business in the Queen City during the 1920s and 1930s. By 1935, there were eight soft drink bottlers: Big Boy, Coca-cola, Dr. Pepper, Pepsi, Cheerwine, Gary, Nehi, and Orange Crush. This number rose to thirteen by 1945. Two of these plants, Coca-cola and Nehi were surveyed during this project. Other "junk" food was produced in Charlotte in 1935 by three ice cream factories and one potato chip manufacturer (none of these plants are believed to still stand). On a more wholesome note, there were three flour or roller mills in Charlotte in that same year. [25] One of these, Interstate Mills (MK 2224), dating from 1917 still survives.

In 1900, Charlotte was home to only fifty-seven industrial plants. By 1910, that number was up to 108. As of 1930, there were 157 industrial facilities in the city. [26] In 1934, citing population, industrial, and financial statistics, Charlotte described itself as the center of a "rapidly developing section, the richest trading territory in the South." Consequently, the city's population grew from 7,000 in 1880 to 18,091 in 1900. In 1927, the city's industrial plants employed 16,000 workers and Charlotte had become the state's largest city by 1930. In 1945, the city was home to 106,000 people; the county home to an additional 50,000. [27] This increasing population resulted in a growing number of school-age children in need of better, larger school facilities.

Education^[28]

In 1880, the voters of Mecklenburg County established a public, graded school system, and two schools opened in Charlotte in 1882: one for white children in the barracks of the Carolina Military Institute and one for African American children in a tobacco barn. These efforts, however, did little to stem the tide of illiteracy sweeping across late nineteenth century North Carolina. In the 1880s, only one-third of the state's school age children attended school, and then only for a nine week term, usually in a poorly illuminated, poorly equipped, one-room building. Consequently, North Carolinians' ability to read deteriorated so that by the end of the century, the state, once lauded for its antebellum schools, was second only to South Carolina as having the worst literacy rate in the country. In the first years of the twentieth century, North Carolina spent an average of \$2.63 per child. At the same time, Massachusetts spent \$26.42 per child.

Mecklenburg County retains four nineteenth-century school buildings. The oldest is the Sugar Creek School (MK 1763). Residents of the Sugar Creek community constructed this building in 1837. The building is a small, one-room, brick structure with six-over-six windows and a chimney in the gable end. Sugar Creek Presbyterian Church, also located on the same property, has maintained the building.

The ca. 1890 Croft School (MK 1536) is part of the Croft National Register Historic District. Unlike many of its nineteenth century counterparts, the Croft School is a two-story, frame building with a high hip roof and weatherboard sheathing. The school has very modest Queen Anne stylistic references such as the turned posts on the front porch and the small gable over each of the two upper floor windows (which align with a door on the lower level).

The Rural Hill School (also Davidson School, MK 1462) on Rural Hill plantation also dates from the late nineteenth-century. The school served children in the community around the Davidson family plantation and is a small, frame, gable front, one-room building with six-over-six windows. The Charlotte-Mecklenburg Parks Department and the Landmarks Commission have worked together to maintain the building, which has been restored with desks and occasionally used as a living history classroom by the county's schools.

Lizard Hill School (MK 1702) was built in 1898 and was moved to its present site in the 1950s. Typical of nineteenth century schools, the building is a frame, gable-front structure. Although it has been removed from its original setting, it retains much of its earliest fabric, including bead board sheathing on the interior. Hunter Farms now uses the Lizard Hill School as a conference room at their plant in the Shopton community.

As North Carolina became increasingly embarrassed about its literacy rate and remarkably low education expenditures, educational needs caught the attention of lawmakers and the public. Legislators and influential politicians began to call for better public schools, prompted in part by New South advocates who called for the need for better-educated workers in the new industrialized economy. [33] D.A. Tompkins, for example, believed the South could supply the entire world with manufactured products if only the region would "follow [the North's] lead, and never rest till our people lead the world in education." [34]

Certainly these advocates of improved schools wanted to educate the general public, but their motives were not entirely philanthropic. In 1900, voters passed a state constitutional amendment, creating a literacy requirement for voting. This amendment was intended to reduce the numbers of African Americans eligible to vote, but because of the state's high illiteracy rate, many whites were in danger of losing the vote as well. Recognizing this potential, lawmakers included a "grandfather clause" reserving the right to vote for any man eligible to vote prior to 1867 or to lineal descendants of those voters. This, in effect, created a loophole for the state's illiterate white population, but this protection was set to expire on December 1, 1908. In order to retain the franchise, white men and boys had to learn to read and write. [35]

As a gubernatorial candidate, Charles B. Aycock is most famous for his proeducation campaign platform. He was, however, a firm supporter of African American disfranchisement. In a campaign address, Aycock promised an "era of good feeling" in which racial violence, such as the 1893 race riots in Wilmington, would no longer occur and all white men would be partners in the New South movement. Aycock's address continued:

Property and liberty from the mountain to the sea rest secure in respect of the law.But to do this, we must disfranchise the Negro. This movement comes from the people To do so is both desirable and necessary – desirable because it sets the white man free to move along faster than he can go when retarded by the slower movement of the Negro – necessary because we must have good order and peace while we work out the industrial, commercial, intellectual, and moral development of the State. [36]

Oddly, improving education and disfranchising African American voters went hand-in-hand, and by 1900, voters favored both.

With regard to education, however, not all North Carolinians were of a likemind. Religious members of the Populist Party, Baptists in particular, were formidable opponents to public control of education. They feared the removal of Christian education from the classroom. On a more practical note, they envisioned an exodus of

tuition-paying students from private, church-based schools to free or inexpensive public schools and universities. [37]

These white Baptists were joined by African Americans who had witnessed the advancement of white schools at the expense of their own schools and now feared further declines. A third group of opponents were rural whites that shunned centralized control and felt consolidation would put schools geographically out of reach and out of local control. These dissenters joined hands under the Fusion banner and actually won control of the General Assembly in 1894. [38]

Despite this opposition, the potential for white disfranchisement swayed voters in 1900, and they elected Charles Aycock governor. That same year, the cornerstone for Charlotte's North School (no longer extant) was laid and by 1904, the city was home to two white schools and one for African American students. [39] Regardless of Aycock's motives, his election marked the start of renewed interest in education. The result was improved education for both races, though at uneven rates.

In 1902, Governor Aycock appointed J.Y. Joyner as Superintendent of Public Instruction, a position he held until 1919. Aycock and Joyner led the state through a boom period in public education that laid the foundation for the changes that were to come in the 1920s. In 1901, the General Assembly made its first direct appropriation of tax funds for public schools, and in 1907, it passed "an act to stimulate high school instruction in public schools." This act provided \$45,000 annually to establish rural high schools, hitherto located only in cities or substantial towns.

Within four years, state and local governments constructed two hundred high schools in ninety-two of North Carolina's counties, including high schools in the Mecklenburg County towns of Huntersville and Matthews. [41] The Huntersville School was converted into a gym when the school expanded in 1925 and now appears to have been demolished. The Matthews School (MK 1185) was a two-story, brick building with three classrooms and an auditorium. It has received several additions over the years, the most significant being a two-story classroom block to the front of the building. Added in the mid-1920s, this classroom block also included a classical portico entrance for the school. [42]

In 1913, the Compulsory Attendance Act required all children between the ages of eight and twelve to attend school at least four months per year. New federal

funds in the 1910s provided vocational education, agricultural education, and home economics. The use of vocational education intensified after the Great Depression when as scientific agriculture and home economics came to be seen as necessary rather than luxuries. In Mecklenburg County, a popular design to facilitate agricultural programs was utilized at agricultural buildings at Huntersville (MK 1343) and Long Creek (MK 1507) schools in the late 1930s. These buildings are square with hip roofs, double-hung windows, and brick walls. The building has a full-height basement and a set of stairs leading up to a small, hip-roof entrance porch. In some cases, cast concrete or stone blocks were used to accent windows and doorways. This design was also employed for non-agricultural buildings at Oakhurst (MK 2229) and Cornelius (MK 1426) schools in the 1920s and 1930s.

In 1919, voters again amended the State Constitution, increasing the school term from four months to six. [43] North Carolina's government made great strides in public education in the early twentieth century: "the state built more than five thousand schoolhouses, professionalized teacher training, and developed an elaborate bureaucracy to administer the instruction of youth."[44] Educational leaders felt that "educational work in [the South] is . . . something more than the teaching of youth; it is the building of a new social order." [45] With the state's leaders showing an unprecedented interest in education, consolidation of schools began. Educators and politicians believed children received better training when grouped by age into grades. Thus, school buildings with more than one room were needed, meaning that communities had to come together to create a population capable of supporting larger, consolidated schools. Statewide, 3,400 school buildings were constructed in the state between 1900 and 1915. [46] Although Mecklenburg County has only the Matthews School from this earliest wave of consolidation, most of these buildings were traditional, small, frame structures of two or three rooms, only slightly larger than their predecessors.

Improved transportation made consolidation and compulsory attendance possible. Prior to 1911, North Carolina students were responsible for their own conveyance to school, with the exception of those pupils located on the very limited routes covered by a small number of wagons in Wake, Cumberland, and Rockingham counties. Each of these counties had purchased one or more wagons for school use in 1910.^[47]

In the prefatory note to a 1911 state-sponsored study concerning school transportation, J.Y. Joyner wrote, "Consolidation of districts has possibly not kept pace with some other phases of our education progress because it was necessarily limited to reasonable walking distance from the schoolhouse until the amendment of the school law in 1911 provided specifically for the transportation of pupils." The study, which examined the organization and methods of transportation used in school

systems across the nation, noted that all were utilizing wagons. It concluded with a list of advantages for providing transportation. The driver would prevent fights and the use of bad language while promoting good morals. The government could save money by taking the child to school everyday, as opposed to providing living quarters for the rural child at the urban school. The wagon would be a "socializing agency," providing time for positive social interaction of children of varying ages and socioeconomic backgrounds. Most importantly, transportation would bring to the country the city advantages of increased enrollment and attendance and reduced tardiness. [49] In reality, these wagons traveled over rutted, muddy, dirt roads. Reliable public transportation and the school consolidation it could facilitate, would have to wait for the Good Roads movement of the 1920s.

In the twenty years after Charles Aycock was elected governor of North Carolina, the state's educational system improved vastly. State and local leaders modernized and standardized school buildings while extending the school term. In 1921, with 8,925 students, Mecklenburg County schools had the largest enrollment of any county in the Carolinas. The system employed over two hundred teachers and utilized fourteen buildings, plus two rented spaces. Even greater changes, however, were on the horizon as transportation improved throughout the 1920s, facilitating further consolidation and enforcement of compulsory attendance laws.

The transportation problem was systemic in North Carolina in that it affected all counties. University of North Carolina professor, Edgar W. Knight, an authority on rural education, wrote in 1920, "Without good roads, the state can never develop for the rural children the kind of schools they need and deserve." Knight further observed.

With substantial relief from bad roads now in sight, however, and with fair promise that the movement will continue until it has spread widely throughout the state, the obstacle to transportation will sooner or later disappear, and the building of effective and creditable schools for the rural children of the state can be more rapidly and safely promoted. [51]

According to a 1925 Durham newspaper article, school consolidation "necessarily had to await the development of the system of transportation of school children, and that, in turn, has been developed along with the growth of the road system of the state." [52]

Educators saw consolidation as a way to eliminate the differences between rural schools, which were the state's poorest, most inadequate facilities, and the urban schools, often housed in newer buildings staffed with well-qualified teachers. Professor Knight noted that despite the fact that about eighty percent of North Carolina's 1918 population was rural, the Department of Public Instruction was spending about \$16.23 on each urban child, compared to only \$7.71 spent on each rural child. Knight concluded that, "North Carolina is failing singly to provide adequate education advantage for four-fifths of her children." He believed, as most educators of the time period, that consolidation would bring to the countryside modern facilities and better teachers, equivalent to those in the cities. According to Knight, "Consolidation means provision for enlarged educational opportunity." [55]

Consolidation reduced the state's one-room schools from 3,000 in 1920 to 1,200 in 1925. It brought high school education to the state's rural children, and, according to state Superintendent of Public Instruction, A.T. Allen, broadened communities, provided better facilities, and resulted in longer school terms as more children were exposed to the benefits of education. [56]

As consolidation accelerated, creating the need for new buildings, state officials standardized building plans and gained the right of approval for plans created at the local level. In 1923, the North Carolina Department of Public Instruction adopted a new school in the Davie County town of Coolemee as a model school. It was brick, one-story, and situated on eight acres, with a total of 24,323 square feet. Of that space, seventy-six percent was devoted to instructional areas, including a 1,000-seat auditorium, which doubled as a gymnasium. [57]

Because of their durability and fire resistiveness, brick, concrete, and stone emerged as the preferred construction materials. Standards for new buildings recommended prominent locations along highways with athletic facilities, flowerbeds, steam heat, indoor plumbing, standard lighting, drinking fountains, and an auditorium, which could be used by the community. ^[58] In 1920, State Superintendent of Public Instruction Eugene Clyde Brooks, wrote, "A school auditorium in the country is one of the best assets of a community." ^[59] Brooks continued:

The old log schoolhouse and the small frame houses heretofore used are rapidly disappearing and in their places the officials are erecting in the rural districts modern brick buildings . . . In place of the small poorly lighted, poorly equipped school houses may be found today eight, twelve, or sixteen room brick buildings with auditorium, located on the great highways that are now spanning the state. [60]

State legislation supported Brooks' statements, dictating that it "shall be the duty of the county board of education and board of trustees to encourage the use of the school buildings for civic or community meetings of all kinds that may be beneficial to the patrons of the community." [61]

During the 1920s, older schools were disappearing. One Cabarrus County writer reflected on the trend:

One after the other, modern brick buildings, equipped with steam heat, electricity, and running water, and such advantages as commodious libraries of well selected books, gymnasiums for physical education, radios, projection machines, and cafeterias, replaced the little white schoolhouses that had dotted the landscape. [62]

The state's brick, rural schools increased from 248 to 974, while the number of one-room schools decreased from 3,698 to 1,887 during the decade. The number of larger frame schools also declined from 7,138 to 4,569. [63]

In Mecklenburg County, the existing buildings reveal that some rural schools were still frame, despite state trends. Mallard Creek School (MK 1308) and Caldwell Station School (MK 1284)were small frame, rural schools for white children in agricultural communities in northern Mecklenburg County. The Mallard Creek building is particularly interesting as it clearly has a vernacular design. It is one-story with weatherboard sheathing. The most notable feature of its design is the extremely high hipped roof pierced by two chimneys. The building also has an open pier foundation and exposed rafter tails. Caldwell Station School, on the other hand is a modest, gabled building reminiscent of Rosenwald school designs.

The school building boom that occurred during the 1920s is clearly represented in the extant schools in Mecklenburg County. In 1945, the City of Charlotte had twenty-one white schools and eight for African Americans; a total of twenty-nine. Of these, eleven were surveyed and four are known to have lost their integrity by being engulfed with additions; the others are believed to have been destroyed. An additional seven schools were surveyed in the towns and small communities of Mecklenburg County; plus the six Rosenwald schools. This brings the total number of surveyed schools to twenty-nine (including one which has been recently razed). The vast

majority, seventeen, of the schools surveyed during this project were built during the 1920s, while seven were constructed in the 1930s.

Within the city of Charlotte, all of the extant schools are constructed of brick and concrete. The largest and most architecturally elaborate consolidation- era school in the city is Myers Park Elementary School (MK 2227) where the use of Tudor and Mediterranean Revival elements is indicative of the wealthy neighborhood the school continues to serve. The building is two-stories with a full-height basement and has a low-pitched, side gable roof. On each end of the original building are gable front ells with loggias and scalloped trim along the eaves. The central potion of the building has a shaped parapet and a projecting, stone entrance pavilion with spiral-carved columns, and an arched entry with carved fleur-de-lis panels. The cornice is stone with dentil molding. Stone panels with fleur-de-lis patterns are located between banks of metal frame windows. Post-World War II additions have been made on either end of the building.

Interior halls have simple, square pilasters. Some classrooms retain built-in cabinets and coat closets. The stairwells have rounded corners and stuccoed balustrades. The landing for the stair for each level is located on the loggias. To get from floor to floor, one goes up the stair then outside onto a loggia and reenters into one of the building's hallways. This school maintains very good integrity and is the most architecturally elaborate school surveyed.

More typical of urban school is the ca. 1925 Piedmont Junior High School (MK 2233). This school embodies many of the ideas advocated by school leaders in the 1920s. It is a large, two-story, brick school with a gymnasium and an auditorium. Exterior decoration includes decorative brick work, pilasters, stone trim, stone and brick banding, stone quoins, a stone cornice, and plaques with bulls eye motifs, shields, and other decorative figures. The main entrance is located in a corner on the front of the building and has a stone surround and a Tudor archway. This school is among the largest and best preserved Mecklenburg County schools.

Consolidation and school construction continued into the Depression. Eastover (MK 2228) and Lawyers Road (Midwood) (MK 2230) schools date from the 1930s and are nearly identical. Both were Works Progress Administration projects, featuring long, one-story rectangle main buildings with projecting porticos. Flat concrete panels are located above the windows that flank the main, double leaf entry. The buildings have single and paired double hung, nine-over-nine windows. The gyms are gable-front structures with quoins and arched windows. Both schools maintain high levels of integrity and represent the smaller scale, less elaborate architecture that became popular for schools during and after the Depression.

The construction of better school facilities in the 1920s and 1930s mainly benefitted white students. Yet, in 1921, the State Department of Education organized the Division of Negro Education. Between 1923 and 1929, the number of North Carolina public schools offering "recognized work" on the secondary level for African Americans students grew from twenty-six to 111. Four-year, accredited secondary schools grew from eight to fifty-four. [64]

Many of the African American schools constructed in North Carolina in the 1920s were built using the Rosenwald Fund. Established by Sears and Roebuck president, Julius Rosenwald, the fund provided plans for school buildings of various sizes to meet the community's specific needs, and required the local school district to pay for part of the construction. North Carolina's first Rosenwald School was built in Chowan County. The state eventually became home to 813 Rosenwald Schools, of which twenty-six were located in Mecklenburg County. [65]

All of Mecklenburg County's Rosenwald schools were located outside Charlotte in small, black, farming communities. Many of these communities have been obliterated, such as Billingsville, which is now Grier Heights subdivision where ranch houses surround the 1927 Billingsville Rosenwald School, the only brick Rosenwald school in Mecklenburg County. Of the original twenty-six Rosenwald schools in the county, nine remain standing, but three have lost their integrity. The extant schools include: Billingsville, Caldwell, Huntersville, McClintock, Rockwell, Newell, Smithville (which has lost integrity via new additions, sheathing, and windows), and Henderson Grove and Lawing (both of which have been transformed into residences). The six schools that retain a degree of integrity are representative of Rosenwald types three and four schools (having three or four teachers) and were built between 1920 and 1929. The buildings are frame (except Billingsville) and typically have side gable roofs and banks of four or more nine-over-nine double-hung sash windows. McClintock School exhibits a variation on this theme with a high hip roof reminiscent of that at Mallard Creek School. Entries are usually centered on the long facade, but Caldwell and Huntersville both have entries in the short end of the building. Originally sheathing was weatherboards, although many of the extant examples have been clad in vinyl siding. Decorative details were scare, but columns or other elaboration at the entry and exposed rafter tails were most common. Although in a very poor state due to fire and neglect, the Rockwell Rosenwald is highly significant as the only Rosenwald to maintain its original privy and woodshed; both simple frame structures. Current uses of the Rosenwald schools include a community center, store, and day care.

While African American schools underwent expansion and consolidation, the facilities themselves did not approach equality with the schools for white children. Wrote one observer:

One rarely sees a Negro school [in North Carolina] which is comparable to the schools for whites in the same community. Buildings for Negroes are, almost without exception, badly over crowded, and ground space is limited to three or four acres . . . Frequently the physical equipment, such as desks and laboratory apparatus, found in Negro schools is that which has been discarded by the neighboring white school. [66]

The Morgan School (MK 2234) in the Cherry Street neighborhood is the best example of an urban school constructed for African American children in the 1920s. The Morgan School is a two-story, brick building with brick panels on the facade of slightly projecting wings. The school has a flat roof, a stepped parapet above a stone cornice, and nine-over-nine windows. The entry is stone with a Tudor arch. On a rear corner of the building is a brick, one-story addition with metal frame windows. This appears to be a cafeteria. This building continues to be used as a school. This building is among the best preserved schools in Mecklenburg County. It is also significant as a rare example of a large, brick, African American school.

Traditional schools were not the only educational facilities being constructed during the second quarter of the twentieth century. The Palmer Fire School (MK 147) is located on East 7 Street and was built between 1938 and 1940. Known as one of the best fire training facilities in the country, the school was a regional training center for the state's firefighters. The building was a WPA project and was constructed of stone, most of which came from an abandoned tannery. Firefighters themselves helped build the school and landscape the five-acre site, which includes a six-story, brick training tower.

The school building boom illustrates that Charlotte and Mecklenburg County schools were growing in the same manner as school systems throughout the state. The fact that as late as 1944, a few one-room schools were still in use by both black and white children in Mecklenburg County also reveals that the county, and the state, were still largely rural and agrarian before the end of World War II. [67] Similarities between state and local trends are due to the fact that school control was becoming increasingly centralized in Raleigh. This evolution is evident in the county's extant, early twentieth-century school buildings, which were constructed to the prescribed state standards of location, design, and use.

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Methodology and Quality and Quantity of Resources

Library research, including an exploration of city directories, period Chamber of Commerce publications, and pertinent vertical files in the Spangler-Robinson Local History room of the Charlotte-Mecklenburg Public Library, was conducted throughout the survey. Other sources include Survey and Research reports prepared for local landmark designation and essays on Charlotte's developmental and textile history written by Dr. Dan L. Morrill and Dr. Thomas W. Hanchett. Prior countywide surveys and National Register nominations were also canvassed for information.

Charlotte's textile history is well researched, thus early in the process, the surveyors were able to compile a list of most of the mills that were surveyed. Information on other industries was scant. Some industries, such as the film industry, came to light, though none of the buildings associated with this business were extant.

In order to find undocumented industrial buildings, the surveyors canvassed the streets on which mills and factories were known to have been clustered. The numerous railroad corridors cris-crossing the county and city were explored since most factories were located near rail lines. Fifty-four industrial buildings were surveyed. Twenty-seven of the industrial facilities documented during this project were surveyed for the first time. An astounding number of mills have been demolished over the years, including four that had been previously surveyed. Breaking the surveyed properties down by type reveals that seventeen textile and hosiery mills were surveyed. Additionally, there were eight textile-related industrial buildings, nine warehouses, six food-related plants, and thirteen buildings representing a range of products from plumbing to school supplies.

Many of the remaining school buildings in Charlotte and Mecklenburg County were surveyed in the 1980s and therefore, were easy to identify. Many others were well-known to local historian and Charlotte-Mecklenburg Historic Landmarks Commission Director, Dr. Dan L. Morrill. Additional schools were discovered by utilizing a list of schools from the 1940 *Charlotte City Directory*. In all, twenty-eight schools were surveyed, split almost evenly between city and county. Of these, about eleven were surveyed for the first time and all but five of these are located inside Charlotte's present city limits. It is believed that these twenty-eight schools represent all of the remaining, pre-1945 schools in the county that maintain a degree of integrity. From the 1940 list, which contained thirty-two schools, eleven were surveyed, seven are known to be demolished, five have lost integrity, three are most likely destroyed, and six could not be located.

Overall, the integrity of the buildings surveyed was good. Because of the ever-expanding nature of both schools and industry, buildings to which additions had not been made were exceptionally rare. The most common alteration to both building types was the replacement of windows or the filling of window openings with brick or concrete block. Neglect was another major problem for these buildings. Because of their size and the market pressures for continual modernization, many of these structures have been empty and unused for many years.

The field recorders did not utilize map coding. Much of what was found was surveyed. Only those buildings that had experienced a total loss of integrity were not recorded. Schools were particularly vulnerable to integrity loss. Five schools: Central High on Elizabeth Avenue, H. Harding High on Irwin Street, Hoskins-Gossett School near South Linwood, Charlotte Technical High on Louise, and West Charlotte Negro High on Beatties Ford were all deemed to have lost integrity because of the scale and manner of additions that had, in some cases, encircled the buildings. H. Harding High School is case in point. The additions here are so extensive that only the rear cornice reveals any substantial historic fabric. Other schools, such as the Wilmore School on West Boulevard was given the benefit of the doubt and surveyed despite a rather large, one-story, circa 1960 addition on its facade. While extensive additions were typically not a problem among the industrial buildings, loss of windows and replacement sheathing that completely obscured any historic fabric did occur. For example, two warehouses, one off North Church Street, and one off North Tryon Street were not surveyed because they had been altered beyond recognition with modern sheathing, new openings, and small additions.

Several of the industrial buildings that would qualify for listing on the National Register of Historic Places have already been listed. Specifically, sixteen of the fifty-four industrial buildings that were surveyed are already listed in the National Register. However, twenty-two industrial properties are being recommended for listing on the North Carolina Study List, either individually or as part of a proposed district. These include the Ford Motor Company complex on Statesville Avenue and the Savona Mill at the corner of Turner and State streets. Conversely, only four of the school buildings eligible for the Register have been listed. Of the twenty-seven schools surveyed, sixteen appear to be eligible in addition to those already listed. Schools particularly deserving of National Register designation are the Rosenwald schools that retain their integrity, Mallard Creek School, and the Palmer Fire School.

Associated Property Types

Property Type 1: Pre-1900 Schools

Property Type 2: Early Twentieth Century Schools

Property Type 3: Post World War I Consolidation-Era Schools

Property Type 4: Historically African American Schools

Property Type 5: Textile Mills

Property Type 6: Pre-World War II Industrial Buildings

Property Type 7: Warehouses

Property Type 8: Pre-World War II Trucking Facilities

Property Type 1: Pre-1900 Schools

The earliest public and private schools buildings in Mecklenburg County were modest one- and two-room frame or log buildings. While a law passed in 1839 creating public schools in North Carolina, most schools built in Mecklenburg County in the nineteenth century probably functioned as private institutions constructed and supported by plantations or large farms or in some cases, individual communities. Only four remain in Mecklenburg County. The oldest is the tiny, brick Sugar Creek School (MK 1763) dating from 1837. Two circa 1890 schools exist; the two-story, frame Croft School (MK 1536) and the one-room Rural Hill School (aka Davidson School, MK 1462) on Rural Hill plantation. Finally, Lizard Hill School (MK 1702) was built in 1898 and is well-preserved, but was moved to its present site in the 1950s.

National Register and Study List Properties

This list includes schools individually listed in the National Register or listed as contributing resources in a National Register historic district and schools that are on the Study List as potentially eligible for listing in the National Register. A building with an asterisk (*) is a contributing building in a National Register historic district.

Croft School [NR] (MK 1536), Croft*

Matthews School [SL] (MK1185), Matthews

Palmer Fire School [SL] (MK147), Charlotte

Significance

Nineteenth-century schools are historically significant as centers of community develop-

ment and representatives of local educational history in Mecklenburg County. These buildings possess importance in the areas of education and social history. Schools built before 1900 are rare, and in some cases, endangered resources in Mecklenburg County. The architecture of these buildings tends to be quite simple, but may have significance as it exemplifies traditional or vernacular school forms and local construction techniques.

Registration Requirements

To be considered eligible for listing in the National Register, pre-1900 schools should retain their integrity of location, setting, feeling, association, design, workmanship and materials. However, because of their rarity, the threshold for measures of integrity should not be so high as to eliminate the schools' potential eligibility. The most important components of integrity for nineteenth-century schools should be location, form and materials. Replacement siding and some replacement of window sash should not preclude a property's eligibility.

Property Type 2: Early Twentieth Century Schools

In conjunction with Governor Charles Aycock's campaign to improve education for all of North Carolina's children, the number of public schools constructed in Mecklenburg County increased in the early twentieth century. Early twentieth-century schools varied in size and shape, but most, like their nineteenth-century counterparts, were modest buildings. Typically, they were one- or two-room

frame buildings with gable or hip roofs. Some followed plans issued by the Department of Public Instruction.

The only school in Mecklenburg County dating from this period is the Matthews School constructed in 1907. It, however, has been greatly altered and is a better representative of the consolidation era of the 1920s when significant additions were made.

National Register and Study List Properties

No Mecklenburg County schools from this period are individually listed in the National Register or listed as contributing resources in a National Register historic district. In addition, no schools are on the Study List as potentially eligible for listing in the National Register.

Significance

Early twentieth-century schools are historically significant as centers of community development and representatives of local educational history in Mecklenburg County. These buildings might possess significance in the areas of architecture, social history, and education. Today, there is only one example of a school built between 1900 and World War I in Mecklenburg County.

Registration Requirements

To be considered eligible for listing in the National Register, early twentieth-century schools should retain their integrity of location, setting, feeling, association, design, workmanship and materials. However, because of their rarity, the threshold for measures of integrity should not be so high as to eliminate a schools' potential eligibility if it has undergone some change. The most important components of integrity for early twentieth-century schools should be location, form and materials. Replacement siding and some replacement of window sash should not preclude a property's eligibility.

Property Type 3: Post World War I Consolidation-Era Schools

After World War I, a movement began in North Carolina to consolidate small rural schools into larger centrally-located institutions. This consolidation effort was part of a nationwide program to improve education and save local tax dollars. In North Carolina, which led the nation in building rural consolidation schools, the movement affected African Americans much less than white students. In general, African Americans continued to attend small, separate schools in rural areas. Consolidation could occur only because of simultaneous improvements in transportation that allowed students to reach schools that were more distant. Another major development in education in the 1920s came with the establishment of rural public high schools, which offered eighth and ninth grades. Early in the next decade, rural high schools instituted tenth and eleventh grades. Although there remained a few one- and two-room schools in Mecklenburg County into the 1940s, by the late 1930s the majority had been abandoned for larger consolidation schools.

Obviously, consolidation schools in Mecklenburg County were larger than schools built before the movement. They were generally rectangular buildings with rear or front wings composed in high academic styles, such as Neoclassical and Tudor Revival, or influenced by these styles. Many of these schools built in the late 1910s through the 1930s continue to function as schools.

The most impressive collection of consolidation era school buildings stands in Charlotte. The Queen City grew rapidly in the late 1920s and as a result, Charlotte's schools became overcrowded. Of particular note is the Tudor and Mediterranean Revival Myers Park Elementary School. Other intact examples of multi-story, brick, consolidation-era schools include Elizabeth Elementary School, and the Parks-Hutchinson School on North Graham Street. Piedmont Junior High School is also an impressive free classical and Tudor Revival school building.

In rural Mecklenburg County, the trend of building brick schools is not illustrated by the extant schools. Mallard Creek School (MK 1308) and Caldwell Station School (MK 1284)were small frame, rural schools for white children in agricultural communities in northern Mecklenburg County. Both are one-story and of frame construction. Mallard Creek has a hip roof while Caldwell Station has a gable roof.

This list includes schools individually listed in the National Register or listed as contribiyting resources in a National Register historic district and schools that are on the Study List as potentially eligible for listing in the National Register. A property marked with an asterisk (*) is contributing resources in a National Register historic district.

Elizabeth Elementary School [NR] (MK 1028), Charlotte*

Myers Park Elementary School [NR] (MK 2227), Charlotte*

Significance

Consolidation schools document a major development in the history of public education in Mecklenburg County and North Carolina. They stand as tangible reminders of the advancements made in education following World War I, but also document the development of community life, particularly advancing suburban development, and therefore possess significance in the area of social history. Consolidation schools might also possess architectural significance as many, such as the Myers Park school were architect-designed or display representative standardized plans that were a significant part of school architecture, such as at Lawyers Road (MK 2230) and Eastover (MK 2228) schools.

Registration Requirements

Schools from the inter-war period in Mecklenburg County are often endangered by demolition or obscuring additions as the needs of modern schools change and expand. As symbols of the consolidation of small, often dispersed schools, these buildings represent community life and development. Urban examples are more numerous, while rural consolidation schools are extremely rare in Mecklenburg County. Because of the rarity of this property type, standards for architectural integrity should not be so high as to eliminate most from being eligible for the National Register. Along with original location and setting, a school's original form, fenestration and exterior materials should be maintained. Alterations to the interior, as long as they do not compromise the schools overall original plan, should not render a building ineligible for listing. Modern improvements meant to ensure safety and which allow for the continued use of a historic school building should not affect its eligibility, unless those changes overwhelmingly alter its historic character.

Property Type 4: Historically African American Schools

Few African Americans in nineteenth-century Mecklenburg County attended school; the few schools that may have been in existence do not survive. The post-World War I era saw improvements in African American education in rural Mecklenburg County with the establishment of the Rosenwald Fund which provided grants and building plans to school boards and local communities. More Rosenwald schools were built in North Carolina than any other state and in Mecklenburg County twenty-six were constructed. Nine remain standing in the county, but three have lost their integrity. The extant schools include: Billingsville (MK 2235), Caldwell (MK 1461), Huntersville (MK 1345), McClintock (MK 1447), Rockwell (MK1316), Newell (MK 1278), Smithville (which has lost integrity via new additions, sheathing, and windows), and Henderson Grove and Lawing (both of which have been transformed into a residences). The six schools that retain a degree of integrity are frame (except Billingsville which is brick) and typically have side gable roofs, although hip roofs are represented as well. The schools have banks of four or more nine-over-nine double-hung sash windows. Originally sheathing was weatherboards, although many of the extant examples have been clad in vinyl siding. Decorative details were scare, but columns or other elaboration at the entry and exposed rafter tails were most common.

The Morgan School (MK 2234) in the Cherry Street neighborhood is the best example of an urban school constructed for African American students in the 1920s (West Charlotte Negro High having lost its integrity). The Morgan School is a two-story, brick building with brick panels on the facade of slightly projecting wings. The school has a flat roof, a stepped parapet above a stone cornice, and nine-over-nine windows. The entry is stone with a Tudor arch. On a rear corner of the building is a brick, one-story addition with metal frame windows. This appears to be a cafeteria. This building continues to be used as a school. This building is among the best preserved schools in Mecklenburg County. It is also significant as a rare example of a large, brick, African American school.

National Register and Study List Properties

This list includes schools individually listed in the National Register and schools on the Study List as potentially eligible for listing in the National Register.

Significance

Historically African American schools are significant in the area of education, social history, and ethnic heritage. Some of these buildings are architecturally significant as notable examples of institutional architecture in Mecklenburg County or as representatives of the standard Rosenwald school types. These schools document the important role education played in the lives of Mecklenburg County's African Americans in the twentieth century.

Registration Requirements

Historically African American schools are a rare building type in Mecklenburg County. In order for historically African American schools to meet the criteria for listing in the National Register, they must remain in their original location within their original setting. Because of their rarity, some changes, such as the application of synthetic siding, replacement of original window sash and modest additions, should not automatically exclude historically African American schools from eligibility.

Property Type 5: Textile Mills

Charlotte's textile mill buildings were similar to those found throughout the South. Early twentieth-century textile mills generally consisted of a large mill building with rooms for spinning, weaving, and/or carding, a powerhouse, a storage or warehouse facility, and an office. New England machinery companies, insurance companies, and industrialists such as D.A. Tompkins and Stewart Cramer exerted great influence over their design and layout. Their recommendations included the load-bearing brick walls and towers that distinguish textile mills across the South. Architecturally, many mills in Charlotte had Italianate references. They had deep eaves, low-pitched gabled roofs, exposed beams or raftertails, round or segmental arch windows and door openings, and a square tower with a hip, pyramidal, or flat roof often exhibiting brick corbelling or other decorative work. Windows were double or triple-hung sash windows. Later mills, such as the 1935 (with 1938 and 1939 additions) Hudson Silk Hosiery Mill (MK1732) featured Art Moderne and Art Deco styling. Textile mills in Charlotte range in height from one-story, such as the Atherton Mill (MK 1799), to several stories, such as the Savona (MK 2211).

National Register and Study List Properties

This list includes mills individually listed in the National Register or listed as contributing resources in a National Register historic district and mills that are on the Study List as potentially eligible for listing in the National Register. Properties marked with an asterisk (*) are contributing resources in a National Register historic district.

Highland Park No. 3 [NR] (MK 1164), Charlotte

Hoskins Mill [NR] (MK 1163), Charlotte

Johnston Mill [NR] (MK 2079), Charlotte*

Mecklenburg Mill [NR] (MK 1990 and 1660), Charlotte*

Nebel Knitting Mill [NR] (MK 1667), Charlotte

Thrift Mill [NR] (MK 1683), Thrift

Anchor Mill [SL] (MK 2216), Huntersville

Significance

Textile mills are significant as a major part of the history of the industrialization of the South that occurred between the Civil War and World War II, especially between 1880 and 1930. They are also significant for their illustration of the advancement and evolution in design and construction meant to lessen the chances of fire damage in a space infused with highly flammable cotton. Many also have architectural significance for the application of styles popular in the first half of the twentieth century and as representative examples of the standard "mill construction" or slow-burn construction technology. Some may have significance for association with prominent industrialists such as D.A. Tompkins and Stewart Cramer.

Textile mills, once common in Mecklenburg County, are becoming rare and are generally endangered by demolition because they are often viewed as "white elephants." As symbols of industrialization, these buildings represent an integral period in the history and social history of Mecklenburg County. Urban examples are more numerous and many are listed on the National Register, while rural examples, such as the Thrift Mill (MK 1683), are rare in Mecklenburg County. Because of the rarity of this property type and its importance to the history of the county, state, and region, standards for architectural integrity should not be so high as to eliminate most from being eligible for the National Register. Typical changes include the filling of windows with masonry and the demolition of auxiliary structures, such as powerhouses, reservoirs, and warehouses. Along with original location and setting, a textile mill's original form, fenestration and exterior materials should be maintained. Alterations to the interior, as long as they do not compromise the overall original plan or fire resistive features, should not render a building ineligible for listing. Modern improvements meant to ensure safety and that allow for the continued use of a textile mill as an industrial building, or that allow for its use in a new capacity, should not affect its eligibility, unless those changes overwhelmingly alter its historic character.

Property Type 6: Early Twentieth Century Manufacturing Facilities

Textiles were not the only products being produced in Mecklenburg County before World War II. Buildings associated with other industries also represent the industrialization of North Carolina and illustrate the economic impact of the boom in textile manufacturing. While many of these buildings served industries directly related to textiles, such as the production of card clothing (Joseph Sykes Brothers and Ashworth Brothers) others included several food-related industries. Indeed, a 1926 survey indicated that there were 141 companies in Charlotte producing eighty-one different products. An inspection of the 1929 Sanborn Maps and the 1935 City Directory reveals at least ninety industrial businesses producing everything from chemicals and window sash to ice cream and caskets and in 1945, the Charlotte Chamber of Commerce reported there were as many as 243 non-textile industrial plants in the county producing products valued at \$50,000,000 per year. Some of these facilities display a variety of Art Deco and Art Moderne decorations, such as the Coca-Cola Bottling plant on West Morehead Street and the Ford Motor Company on Statesville Avenue. Most, however, utilized standard industrial forms that were derived from the earlier Italianate-influenced mill designs. Early examples such as Interstate Mills (built around 1917) on Seaboard Street and the Cole Manufacturing Company (built in 1909) on Central Avenue, have clear Italianate references. Some later buildings, such as the Armature Winding complex (dating to 1925) have the simple forms of the earlier buildings, but lack any stylistic detail.

Another group of buildings including the Standard Oil of New Jersey (c.1916) and Joseph Sykes Brothers (c.1928) have clear classical references. Finally, a few buildings from the Depression era and immediately thereafter demonstrate a new, simpler mode of industrial architecture that was the precursor to the Modernist designs of the postwar era. One example of this sort of building is the Speas Vinegar Company (c.1938), which is a simple, two-story, brick building ornamented only with cast stone-capped brick pilasters, cast stone coping, and metal frame windows. Building technology was also diversifying rapidly between the 1910s and the 1940s. Construction methods moved away from the load-bearing masonry with timber trusses and posts, like that found at Cole Manufacturing Company, to more modern methods such as steel and reinforced concrete. The latter was especially important in warehouse buildings, but can also be observed in the mid-1920s additions at the Standard Oil complex. Yet, traditional construction methods persisted well into the 1930s. For instance, the Speas Vinegar plant, built in 1938, utilizes load-bearing brick (laid in the common bond) with interior columns, likely made of concrete.

National Register and Study List Properties

This list includes industrial buildings individually listed in the National Register or listed as contributing resources in a National Register historic district and industrial buildings that are on the Study List as potentially eligible for listing in the National Register. Properties marked with an asterisk (*) are contributing resources in a National Register historic district.

Carolina School Supply [NR] (MK 2655), Charlotte

Charlotte Coca Cola Bottling Company [NR] (MK 1819), Charlotte

Crane Company [NR] (MK 2247), Charlotte

Parks-Cramer Building [NR] (MK 1766), Charlotte

Textile Supply Company [NR] (MK 1835), Charlotte

D.A. Tompkins Machine Shop [NR] (MK 2656), Charlotte

Grinnell Fire Extinguisher Company [SL] (MK 2643), Charlotte

Significance

Early twentieth-century manufacturing facilities are significant as a major part of the history of the industrialization of the South that occurred between the Civil War and World War II. They are also important for their association, either directly or indirectly, with the economic and industrial boom generated by the textile industry in Mecklenburg County and in North Carolina and indicate the myriad of ways that the economies of New South cities such as Charlotte were diversifying. Many also have architectural significance for the application of styles popular in the first half of the twentieth century or as examples of important construction technologies and shifts in building practices from the early to mid-twentieth century.

Registration Requirements

Twentieth-century manufacturing facilities, once common in Mecklenburg County, are becoming rare and are generally endangered by demolition, particularly in the booming Uptown/Panthers stadium area where many of the industrial clusters once existed. As symbols of industrialization, these buildings represent an integral period in the history and social history of Mecklenburg County. Unlike textile producers who sometimes located their mills in rural areas, other manufacturers usually constructed facilities along major transportation routes, both rail and hard surface, within close proximity of the city. Because of the increasing rarity of this property type and its importance to the history of the county, standards for architectural integrity should not be so high as to eliminate most from being eligible for the National Register. Along with original location and setting, a manufacturing facility's original form, fenestration and exterior materials should be maintained. Alterations to the interior, as long as they do not compromise the overall original plan or fire resistive features, or the demolition of auxiliary structures should not render a building ineligible for listing. Modern improvements meant to ensure safety and that allow for the continued use of the facility as an industrial building, or that allow for its use in a new capacity, should not affect its eligibility, unless those changes overwhelmingly alter its historic character.

Property Type 7: Warehouses

With a growing industrial economy that relied heavily on the movement of products in and out of the city, warehousing became an industry unto itself in the early twentieth century. Today, warehouses are often unnoticed because they were and are wholly utilitarian with little or no ornamentation to catch the eye, or suggest a period of construction. For this very same reason, they often fall into disrepair or are demolished. In addition, as storage needs have changed, older warehouses have become obsolete. Most of the extant warehouses in Charlotte are brick although several display the concrete frame and brick infill type that became widely used in the late 1920s. Some warehouses, such as the small Croft fertilizer warehouses (MK 1337), are clad in various types of metal siding, and are believed to be frame beneath the metal. The brick warehouses follow the stylistic patterns of the factories from the time period. They often have low-pitched gable roofs and square head or segmental arch loading bays. Good examples include the Philip Carey Building (MK 45), John B. Ross Warehouse, and the W.C. Newell Co. Warehouse (MK2208). The concrete and brick warehouses are usually much larger than the load-bearing brick examples because the motive of this construction system was to provide larger, wider, open storage spaces. These examples also tend to be two or more stories in height. Wellpreserved warehouses of this sort include Carolina Transfer and Storage (MK 1852), The Great A&P Tea Company Warehouse (MK 2256), and Union Storage and Warehouse. Without fail, warehouses are located directly adjacent to transportation corridors. Early warehouses abutted rail lines; those in the 1920s and 1930s adjoin vehicular corridors and often rail lines as well. Most are one-story, though Carolina Transfer and Storage, the Great A&) Tea Company warehouse, and Union Storage and Warehouse are several stories in height. Most had double hung sash windows or large, multi-light metal-frame windows. The most common alteration to these buildings is the removal or alteration of the windows.

National Register and Study List Properties

This list includes warehouses individually listed in the National Register or listed as contributing resources in a National Register historic district and warehouses that are on the Study List as potentially eligible for listing in the National Register. Properties marked with an asterisk (*) are contributing resources in a National Register historic district.

Philip Carey Building [NR] (MK 45), Charlotte

Carolina Transport and Storage [NR] (MK 1852), Charlotte

Croft Warehouse [NR] (MK 1337), Croft*

Union Storage and Warehouse [NR] (MK 2214), Charlotte

Significance

Pre-World War II warehouses are significant as a major part of the history of the industrialization of the South that occurred between the Civil War and World War II. They are also important for their association, either directly or indirectly, with the economic and industrial boom generated by the textile industry in Mecklenburg County and in North Carolina. Warehouses represent the strong connection between transportation and the economic growth of New South cities such as Charlotte and indicate how the economy of Charlotte diversified from textiles to the production of other goods and finally to become a major distribution point for the nation after World War II. Their architectural significance lies in their fire resistive features, such as building materials of brick or concrete, and in their construction that developed in response to the need to store as many goods as possible.

Registration Requirements

Warehouses once common along Mecklenburg County's railroads and highways are becoming exceedingly rare and are generally endangered by demolition and neglect. As symbols of industrialization, these buildings represent an integral period in the history and social history of Mecklenburg County. Urban examples are more numerous and some are listed on the National Register, although the less elaborate, more utilitarian examples are being neglected and demolished. Rural examples, such as the Croft warehouses, are rare in Mecklenburg County. Because of the increasing rarity of this property type and its importance to the history of the county, state, and region, standards for architectural integrity should not be so high as to eliminate most from being eligible for the National Register. Along with original location and setting, a warehouse's original form, fenestration and exterior materials should be maintained. Alterations to the interior, as long as they do not compromise the overall original plan or fire resistive features, should not render a building ineligible for listing. Modern improvements meant to ensure safety and that allow for the continued use of a warehouse as a storage building, or that allow for its use in a new capacity, should not affect its eligibility, unless those changes overwhelmingly alter its historic character.

Property Type 8: Pre-World War Trucking Facilities

Directly related to warehouses are trucking facilities. Although many are extant and still in use from the post-World War II period, only one pre-war trucking terminal has been found in Charlotte. Many of the warehouses on W. Morehead Street had the capacity to load and unload goods from trucks, but they also warehoused goods. Only Transportation Incorporated on Clarkson Avenue survives as an example of a building used only to transfer goods. Trucking facilities consist of a one or two-story office building, usually constructed of brick. In the case of Transportation Incorporated, the building is two-stories and has double-hung sash windows. To the rear of the office extends a long loading platform sheltered by a gabled roof. At the Transportation Incorporated property, this section of the building is frame.

National Register and Study List Properties

At this time, no pre-World War II trucking facilities are listed in the National Register or the North Carolina State Study List.

Significance

Pre-World War II trucking facilities are significant as a major part of the history of the industrialization of the South that occurred between the Civil War and World War II and as part of the development toward the post-World War II distribution economy that developed in Charlotte. They are also important for their association with the Good Roads movement and the increased highway transportation that followed.

Registration Requirements

Pre-World War II trucking facilities were once common in Charlotte, with a concentration of at least eight properties existing in a two or three block area on Clarkson Street (just south of the Panthers stadium), north of West Morehead Street. Today, only one of these buildings survives. As symbols of new distribution practices brought about by better roads, these buildings represented an important period in the history of Mecklenburg County. Because of the rarity of this property type and its importance to the history of the county, state, and region, standards for architectural integrity should not be so high as to eliminate most from being eligible for the National Register. Along with original location and setting, the facility's original form, fenestration and exterior materials should be maintained. Alterations to the interior or the open loading dock on the rear of the building, as long as they do not compromise the overall original plan, should not render a building ineligible for listing. Modern improvements meant to ensure safety and that allow for the continued use of a trucking facility, or that allow for its use in a new capacity, should not affect its eligibility, unless those changes overwhelmingly alter its historic character.

[1] William Huffman, "Highland Park Manufacturing Company Mill No. 3," nomination to the National Register of Historic Places, 1988, section 8, 1-2.

- [3] "Mill Town," Charlotte Observer, 1, 9-10.
- [4]. Textile Mills Employ 5,800," *Charlotte News*, 2 February 1960, no page number recorded.
- [5] Huffman, section 8, 1.
- [6] Charlotte Chamber of Commerce, "Charlotte, N.C.: Distribution Center in War and Peace, c.1945."
 - Hanchett, Sorting Out, 94-5.
 - [8] Charlotte Chamber, "Charlotte, N.C., c.1945."
 - [9] Charlotte City Directory, 1925.
- [10] Charlotte City Directory, 1925 and Sanborn Insurance Map, Charlotte (New York: Sanborn Insurance Company, 1911).
- 11. Andrea Meyer, "Survey and Research Report on the Grinnell Company Building." Student report for Dr. Dan Morrill, UNC-Charlotte, 1998, fall semester, pages not numbered.
 - [12] Hanchett, Sorting Out, 90.
 - [13] Sanborn Insurance Map, Charlotte (New York: Sanborn Insurance Company, 1900).
- [14] Craig Fleming, "Survey and Research Report on the Armature Winding Company, 1998," unpublished student report for Dr. Dan L. Morrill, UNC-Charlotte.
 - [15] Hanchett, "Growth of Charlotte."

^[2] Huffman, section 8, 1; Nora M. Black and Dan L. Morrill, "John and Idella Mayes House," survey and research report prepared for the Charlotte-Mecklenburg Historic Landmarks Commission, 1993; and Frances P. Alexander and Richard L. Mattson, "Parks-Cramer Company," Survey and Research Report for the Charlotte-Mecklenburg Historic Landmarks Commission, 1993.

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[16] Charlotte Chamber of Commerce, "Charlotte, NC., 1927."
        [17] Charlotte Chamber of Commerce. "Charlotte, NC, c.1945."
        [18] Charlotte Chamber of Commerce, "Charlotte, NC, 1927."
        [19] Hanchett, "Growth of Charlotte."
        [20] Chamber of Commerce, "Charlotte, NC, 1927."
        [21] Mattson, Alexander, and Associates, Inc., "Crane Company Building National Register Nomination,
2001," North Carolina State Historic Preservation Office.
        [22] "Charlotte One of the Big Trucking Centers in the Nation," 28 February 1950, I and photocopy of article
in vertical file, "Trucking," at Spangler-Robinson Local History Room, Charlotte-Meklenburg Public Library.
        [23] Charlotte City Directory, 1945 and Charlotte Sanborn Map, 1946.
        [24] Hanchett, Sorting Out, 194.
        [25] Charlotte City Directory, 1935 and 1945.
        [26] Charlotte City Directory, 1934.
        [27] Ibid; and Charlotte Chamber of Commerce, "Charlotte, NC, 1927" and Charlotte Chamber of Commerce,
"Charlotte, NC: Distribution Center in War and Peace, 1945."
        [28] Please see Appendix C for complete list of schools surveyed during this project.
        [29] LeGette Blythe and Charles Raven Brockmann, Hornet's Nest: The Story of Charlotte and Mecklenburg
County (Charlotte: McNally, 1961), 220, 222.
        [30] Keane, 3-4.
        [31] Ibid., and North Carolina Department of Public Instruction (NCDPI), The History of Education in North
Carolina (Raleigh: North Carolina Department of Public Instruction, 1994), 9.
            Wake County Public Schools, Biennial Report: Wake County Public Schools (Raleigh, NC: Wake
County Public Schools, 1907), 11.
        [33] Keane, 4.
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[36] R.D.W. Connor and Clarence Hamilton Poe, *Life and Speeches of Charles Brantley Aycock* (Garden City, NY: Doubleday, Page and Company, 1912), 218-219.

[34] D.A. Tompkins quoted in Winston, 157.

[35] Keane, 4-5.

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[37] This controversy is discussed in detail in James Leloudis, "'A More Certain Means of Grace': Pedagogy,
   Self, and Society in North Carolina, 1880-1920" (Ph.D. diss., University of North Carolina at Chapel Hill, 1989),
   Chapter 4, "Voices of Dissent," 179-235.
     [38] Ibid.
            [39] Blythe Brockmann, 220, 222.
            [40] NCDPI, 12; and Kelly Lally, The Historic Architecture of Wake County, North Carolina (Raleigh: Wake
   County Government, 1994), 214.
            [41]Lally, 214.
            [42] Blythe and Brockmann, 220, 222.
            <sup>[43]</sup>NCDPI, 12-13.
            [44] Leloudis, 1.
            [45] Walter Hines Page, Rebuilding of Old Commonwealths, Being Essays Towards the Training of the
   Forgotten Man in the Southern State (New York: Doubleday, Page, and Company, 1902), 150-151.
            [46] Keane, 7.
            [47]L.C. Brogden, State Superintendent of Rural Elementary Education, Consolidation of Schools and Public
   Transportation of Pupils (Raleigh: Office, Superintendent of Public Instruction, 1911), Education Bulletin XVII, 7.
            [48] Ibid
            <sup>[49]</sup> Ibid., 76-78.
            [50] Facts concerning the size of Mecklenburg County's school system in 1921 are from an newspaper article
   dated 13 February 1921 in the vertical file, "C. Schools, Public - 1959," maintained in the Charlotte-Mecklenburg
   County Public Library, Main Branch.
   [51] Edgar W. Knight, "The Consolidation of Rural Schools," University of North Carolina Extension Leaflets,
February 1920, Vol. III, No. 6, 6-7.
            [52] "Greater Schools Changing State," Durham Morning Herald, September 10, 1925.
            [53]Knight, 10.
            <sup>[54]</sup>Ibid., 12.
            [55]<sub>Thid</sub>
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[56]. Greater Schools Changing State," Durham Morning Herald, September 10, 1925.

[57] Keane, 7.

[58] Ibid.

^[59]Ibid.

[60] Biennial Report of the Superintendent of Public Instruction, 1920-1921, 19, quoted in Keane, 8.

[61] Public Laws of North Carolina, 1923, chapter 136, Article 5, section 71, page 331.

[62] Mary Frixx Kidd, "The History of Education in Cabarrus County," *North Carolina Education*, December 1943, 199, quoted in Keane, 18.

^[63]Keane, 16.

[64] Hollis Moody Long, *Public Secondary Education for Negroes in North Carolina* (New York: Bureau of Publications, Teachers College, Columbia University, 1932), 104.

[65] Thomas W. Hanchett, "Rosenwald Schools in Mecklenburg County, N.C.," report available from the Charlotte-Mecklenburg Historic Landmarks Commission, 1987, 1.

[66]Long, 105.

[67] Blythe and Brockmann, 220, 222.

^[11] Thomas W. Hanchett, *Charlotte and Its Neighborhoods* (Charlotte: Urban Institute of the University of North Carolina at Charlotte, 1986) and Richard Mattson "Historic and Architectural Resources of Rural Mecklenburg County, North Carolina, 1990" National Register Multiple Property Documentation Form, State Historic Preservation Office, Raleigh as summarized in Sherry J. Joines and Dr. Dan L. Morrill, "Historic Rural Resources in Mecklenburg County, North Carolina," (Charlotte: Charlotte-Mecklenburg Historic Landmarks Commission, 1997).

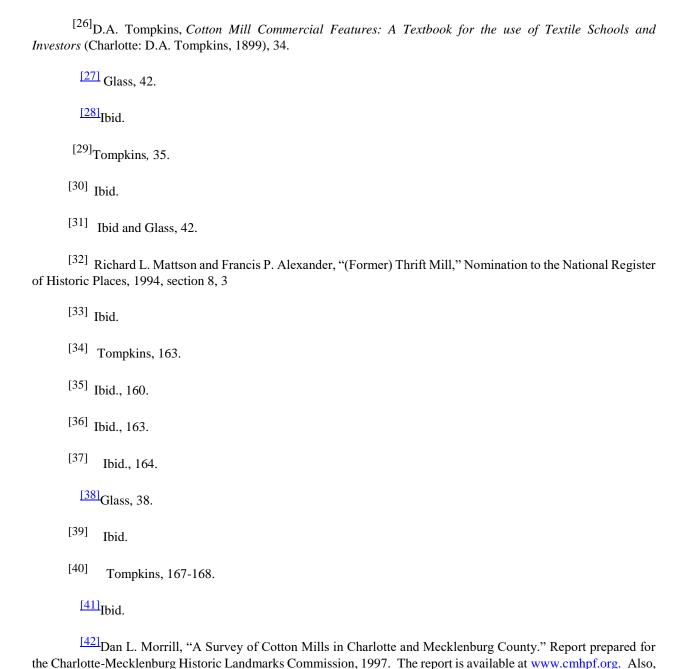
David Goldfield, *Promised Land: The South After 1945*, quoted in Mary Norton Kratt, *Charlotte: Spirit of the New South* (Winston-Salem, NC: John F. Blair, 1992), 82.

^[3] Thomas W. Hanchett, "The Growth of Charlotte: A History." Report is available at www.cmhpf.org.

^[4] Thomas W. Hanchett, *Sorting Out the New South City: Race Class, and Urban Development in Charlotte,* 1875-1975 (Chapel Hill: The University of North Carolina Press, 1998), 90.

^[5] Beth Keane, "The Development of North Carolina's Public School System Through 1940," unpublished report available at the North Carolina Historic Preservation Office, Raleigh, NC, 10.

- [6] Robert E. Ireland. *Entering the Auto Age: The Early Automobile in North Carolina, 1900-1930* (Raleigh: Division of Archives and History, North Carolina Department of Cultural Resources, 1990), 127.
- [7] Brent D. Glass, *Textile Industry in North Carolina* (Raleigh, NC: Division of Archives and History, 1992), 57-58.
 - [8] Keane, 10-11.
 - [9] Ireland, 127.
- [10] Charlotte Chamber of Commerce, "Charlotte, NC: Diversified Industrial and Commercial Center" (Charlotte: privately published, 1927).
 - [11] Sarah A. Woodard and Sherry Joines Wyatt, "Motorized Landscape: The Development of Modernism in Charlotte, 1945 1965," Multiple Property Documentation Form, N.C. Historic Preservation Office, 2000; and Kratt, 217.
 - [12] Please see Appendix B for a complete list of industrial properties surveyed during this project.
 - [13] Thomas W. Hanchett, "Charlotte's Textile Heritage: An Introduction." Report is available at www.cmhpf.org.
 - [14] Ibid.
 - [15] Holland Thompson, From the Cotton Field to the Cotton Mill: A Study of the Industrial Transformation in North Carolina (New York: The Macmillan Company, 1906), 74.
 - [16] Hanchett, "Charlotte's Textile Heritage."
 - [17] Thompson, 76
 - [18] Hanchett, "The Growth of Charlotte."
 - [19] Joines and Morrill, 9.
 - [20] Howard Bunyan Clay, "Daniel Augustus Tompkins: An American Bourbon," (Ph.D. diss., University of North Carolina, Chapel Hill, 1950), 25 and 103.
 - [21] Hanchett, "The Growth of Charlotte."
 - [22] Billy Arthur, "Builder of a New South," *The State* (February 1992) 14.
 - [23] Thompson, 88.
 - [24] D. A. Tompkins, address quoted in George Tayloe Winston, *A Builder of the New South, Being the Story of the Life and Works of Daniel Augustus Tompkins* (Garden City, NY: Doubleday, Page and Company, 1920), 127.
 - [25] Hanchett, "The Growth of Charlotte."



"Mill Town: Charlotte's Cotton Mill Past Lives in Remaining Buildings," Charlotte Observer, 25 May 1986, 1, 9-10.