

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Multiple Property Documentation Form**

This form is used for documenting multiple property groups relating to one or several historic contexts. See instructions in How to Complete the Multiple Property Documentation Form (National Register Bulletin 16B). Complete each item by entering the requested information. For additional space, use continuation sheets (Form 10-900-a). Use a typewriter, word processor, or computer to complete all items.

New Submission Amended Submission

A. Name of Multiple Property Listing

Public Schools for Iowa: Growth and Change, 1848-1955

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Country Schools of Iowa, 1848-1955
Town Schools of Iowa, 1848-1955
City Schools of Iowa, 1848-1955

C. Form Prepared by

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D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. (See continuation sheet for additional comments.)

Signature and title of certifying official	Date
_____	_____
State or Federal agency and bureau	

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Signature of the Keeper	Date of Action
_____	_____

Table of Contents for Written Narrative

Provide the following information on continuation sheets. Cite the letter and the title before each section of the narrative. Assign page numbers according to the instructions for continuation sheets in How to Complete the Multiple Property Documentation Form (National Register Bulletin 16B). Fill in page numbers for each section in the space below.

	Page Numbers
E. Statement of Historic Contexts	E-4-29
<i>(If more than one historic context is documented, present them in sequential order.)</i>	
INTRODUCTION.....	E-4
DEVELOPMENT OF IOWA SCHOOL SYSTEM.....	E-4
COUNTRY SCHOOLS	E-12
TOWN SCHOOLS.....	E-13
Nineteenth-Century Schools.....	E-13
Twentieth-Century Schools	E-15
CITY SCHOOLS	E-19
Nineteenth-Century Schools.....	E-19
Twentieth-Century Schools	E-19
SPECIAL EDUCATION IN IOWA PUBLIC SCHOOLS	E-28
CONCLUSION	E-29
 LIST OF FIGURES	
Trends in School Construction in Iowa.....	E-10
Redfield School.....	E-17
Redfield School.....	E-18
Greenfield School	E-21
Greenfield School	E-22
Greenfield School	E-23
 LIST OF PLATES	
First Graded School in Iowa	E-5
Larrabee School	E-15
 F. Associated Property Types	 F-30-41
<i>(Provide description, significance, and registration requirements.)</i>	
 G. Geographical Data	 G-42
 H. Summary of Identification and Evaluation Methods	 H-43-45
<i>(Discuss the methods used in developing the multiple property listing.)</i>	
Reconnaissance-Level Survey.....	H-43
Intensive-Level Survey.....	H-43
Contextual Research and Resource Evaluation	H-44
Recommendations for Future Survey Efforts	H-45

Public Schools for Iowa: Growth and Change: 1848-1966
Name of Multiple Property Listing)

Iowa
State

Page Numbers

I. Major Bibliographical References I-46-49

(List major written works and primary location of additional documentation: State Historic Preservation Office, other State agency, Federal agency, local government, university, or other, specifying repository.)

This project has been funded with the assistance of a matching grant-in-aid from the State Historical Society of Iowa, Community Programs Bureau, through the Department of the Interior, National Park Service, under provisions of the National Historic Preservation Act of 1966; the opinions expressed herein are not necessarily those of the Department of the Interior.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

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**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 4 Public Schools for Iowa: Growth and Change, 1848-1966

E. STATEMENT OF HISTORIC CONTEXTS

Introduction

This historical context explores the establishment of the school system in Iowa and the development of school architecture as related to three school types: country, town, and city. The United States Census now defines an area with a population fewer than 2,500 as rural and more than that number as urban in Iowa. The general definition of a town is a place with clustered buildings where people live and work. It is an essentially social entity. A city has a political definition: it is an incorporated municipality, usually with a mayor-city council form of government. Before 1972, the terms “city” and “town” were used interchangeably in the Iowa Code. After that year, the term “town” was no longer used, and a city was defined as any incorporated municipality without regard to size (State Law Library of Iowa 2002). For the purposes of this report, a rural school will be defined in its traditional way as a one-room country school. Town schools will be those in cities under 25,000 in population as of today; and city schools will be those in any larger municipality.

The one-room schoolhouse, once an integral part of the Iowa landscape, was a multi-functional building. Classes for different grade levels, music, and recreation all took place within the confines of this single room. In Henry Barnard’s *School Architecture*, written in 1849, there were plans for one-room schools that seated as many as eighty students. In Iowa’s towns and cities, children of different age groups were separated into two or more rooms. In larger schools, each floor was divided into four rooms, separated by a cross-shaped hall. Classrooms and recitation rooms were on the upper floors, while the privies and cloakrooms, along with certain specialized rooms such as chemistry laboratories, were in the basement.

School consolidation is also described in Barnard:

A union of two or more districts for the purpose of maintaining in each a school for the younger children, and in the center of the associated districts a school for the older children or all, or, what would be better, a consolidation of two or more districts into one, for these and all other school purposes, would do away with the almost insuperable difficulties which now exist in country districts, in the way of comfortable and attractive school-houses, as well as thoroughly governed and instructed schools (Barnard 1849:114).

Eventually, the movement to consolidate schools led to growth in the physical size of schools and school districts that was accompanied by increased specialization in instruction. These changes are illustrated in the development of Iowa schools and in the changing designs of Iowa school buildings.

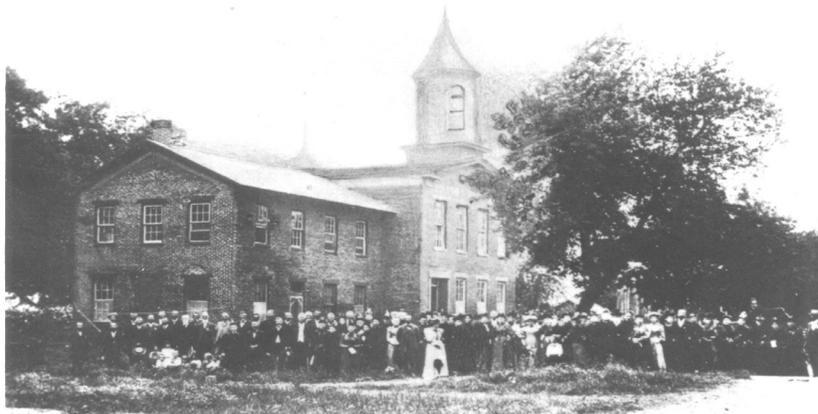
Development of the Iowa School System

Education went hand in hand with the settlement of Iowa. From 1834 to 1838 it was subject to the educational laws of the Michigan Territory, of which Iowa was then a part. The first school conducted in Iowa was in Lee County. The first schoolhouse was constructed in Dubuque circa 1833. When Iowa Territory was organized in 1838, there

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 5 Public Schools for Iowa: Growth and Change, 1848-1966



"OLD UNION SCHOOL" AND FORMER PUPILS AND TEACHERS. THE FIRST GRADED SCHOOL IN IOWA

First Graded School in Iowa

State Historical Society Archives

were between 40 and 50 established schools (Aurner 1912 I:5). In 1848, the first state constitution made provision for a "system of common schools" with a Superintendent of Public Instruction as the system head.

An 1849 statute established the parameters for high schools in Iowa. Under this law the city of Muscatine constructed a building in 1851 in which algebra, geometry, astronomy, physiology, history, natural philosophy, and bookkeeping were taught (Aurner 1912 III: 174). In 1856, Dubuque made plans for a high school, which would offer courses beyond grammar school, and prepare students for college.

The state constitution was revised in 1857. In 1858, the legislature passed an education bill that made the civil township the official school district. A school township district included up to nine sub-districts, each containing an area of four square miles, with the school building in the center. County superintendents were elected to supervise the township schools and were in charge of every aspect of the school including hiring teachers, setting teachers' wages, and choosing curriculum. The Iowa State Board of Education supervised the local districts.

In 1872, refinements to the 1858 law allowed sub-districts to become their own independent school districts. These changes transferred control of country schools from the township to rural neighborhoods. As long as a country school had at least ten students (Neymeyer 2000:5), it could remain in an independent sub-district governed by its own board of trustees, and for a time at least, education came under the immediate control of the local residents. The effect of the 1872 modification is clear; the number of independent districts in Iowa jumped from 400 in 1872 to 1,270 in 1873 (Iowa Department of Public Instruction 1881-82:14-15).

The same 1858 education law that established the township as the official school district also allowed towns with more than 1,000 residents (a number later lowered to 300) to become independent districts. By 1870, 334 independent districts were reported in that year's Biennial Report of the Superintendent of Public Instruction (Iowa

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 6 Public Schools for Iowa: Growth and Change, 1848-1966

Department of Public Instruction 1870:6). Larger cities such as Burlington produced a plan for graded schools and a high school as early as 1864. The Des Moines high school enrolled its first students in the same year. Before the concept of graded schools was accepted in the 1860s, small town schools resembled country schools, having a wide age-range of students in a two or four room school.

There were several advantages for small towns that became independent districts. Independent districts were free to establish as many schools as the local board of directors deemed necessary to serve the educational needs of the community, including both graded elementary and high schools (Legislative Service Bureau 1897:951). Independent districts were able to develop their own curricula and hire their own teachers. If the farmers sent their children into the town for their education, the families paid tuition but for the most part were not permitted to take part in discussions of curriculum or other board issues. Most importantly, small towns with independent school districts had access to more liberal taxing and bonding limits with which to build and maintain schools (Reynolds 1999:64).

Schools in Iowa were funded with proceeds gathered by the state from sale of public lands and intestate estates escheated to the state—the permanent school fund. Furthermore the state decreed that proceeds from the sale of the sixteenth township of every county go towards the permanent school fund. A temporary school fund was also set up by Iowa legislators using proceeds from penal fines and fines imposed on Iowa men for non-performance of military duty. Money from both funds was divided equally amongst the 99 counties and distributed to each county's auditor twice a year. The fund was available to all schools in a county. However, the amount collected was too small to support many independent districts, so Iowa legislators allowed independent districts to levy taxes and issue bonds to finance school construction, teacher's salaries, textbooks, and maintenance. Again a tax ceiling was imposed on independent districts.

The 1858 school law that established independent districts also contained a provision for the creation of county high schools. Counties had to have a population of greater than 2,000 and one-third of the electors in the county had to approve the new school. State law set a limit on the amount of tax increase imposed for construction of the school, not more than 5 mills/dollar, and for payment of teacher's wages, not more than 2 mills/dollar (Legislative Service Bureau 1859). Dubuque and Johnson counties attempted to organize high schools under this provision, but Dubuque was unable to decide on a location before this provision was repealed. Some township high schools were organized under the 1858 law. Examples are Monticello and Fairfax in Linn County, and Bradford in Chickasaw County. During the same period, some of the independent schools also included high schools.

In Bonaparte, the local independent school district purchased an unsuccessful private academy building in 1871 for use as a public school building. In 1887, the school had four departments: 1) primary, enrollment 51: "the little ones are kept busy with pencils, sticks, rings and other kindergarten goods, so that the time never lags, and the first days are made very pleasant ones"; 2) intermediate, enrollment 53: "work is being done in language and in the development of the special senses"; 3) grammar, enrollment 40: "thorough work is being done in the common branches of this department, preparatory to the high school"; 4) high school: enrollment 38. High school courses included algebra, philosophy, physiology, zoology, botany, bookkeeping, civil government and rhetoric (Horstman 1987: np). By 1873 there were over 400 graded schools in the state.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 7 Public Schools for Iowa: Growth and Change, 1848-1966

In 1870, revised statutes gave the initiative for high schools to the voting public; any town of 2,000 inhabitants could petition a vote to establish a high school. The Guthrie County High School in Panora was organized under this law. It opened in 1876 with two teachers and 50 pupils who came from 14 of the 16 townships (Aurner 1912 III:198).

In 1888, 130 independent districts had high schools (Aurner 1912 III:236). By the mid-1890s most Iowa cities including Boone, Burlington, Cedar Rapids, Cherokee, Clinton, Council Bluffs, Davenport, Des Moines (with three school districts), Dubuque, Fort Madison, Iowa City, Keokuk, Marion, Marshalltown, Muscatine, Oskaloosa, Ottumwa, Perry, Red Oak, and Sioux City operated a number of graded schools and one or two high schools (Iowa Department of Public Instruction 1895:13-27).

The Progressive Era in the United States (1890–1920) brought great changes in how people viewed the role of public schools. Progressives believed that the great technological developments that were underway in the United States would foster great material progress for citizens throughout the country. In Germany at the turn of the century, the consolidation and organization of schools and industrial firms was mapped out by efficiency experts. The Progressives used that model to devise a new system of schools to be run by professional educators. In the new system, elementary schools focused on the basics; and high school became a mandatory institution designed to “prepare the youth for entry into twentieth-century society on competitive terms” (Reynolds 1999:48).

With increasing industrialization and an urban population that was growing as a result of immigration and the movement of rural people into towns, different jobs skills and more education were needed. Thus, at the end of the nineteenth century, high schools were no longer college preparatory institutions. Instead, they were places where each student would have an equal opportunity to assume his ‘proper’ position in society, to be determined not by class or ethnic origin but by the natural abilities of the student and the needs of the economy and society (Reynolds 1999:49). This new high school, termed a “comprehensive high school” by educational historians, provided separate educational tracks—academic, commercial, and vocational—to prepare students for their place in society.

Another reason for the interest in high schools was the acknowledged need for qualified country school teachers. In 1870, “out of 12,500 teachers in this State only a few more than 750 had attended any training school” (Aurner 1912 III:105). In 1853, a private normal school (teacher training school) had been established in Troy, Iowa, and others were established in various cities. In an experimental plan put into effect in Woodbine in 1887, the public high school and normal school were combined, providing teacher training and classes in industrial and commercial subjects. Students outside the school district were charged tuition to attend. The Woodbine experiment proved successful—so much so that the school was expanded twice, in 1887 and 1891. Enrollment registers from 1891-1892 show students from fourteen counties in Iowa and from other states such as Nebraska, Ohio, and Wyoming were attending the Woodbine school. By the 1890s, a four-year normal-training course was offered.

By 1911, the need for teachers was so great that the Iowa General Assembly passed a law that established teacher-training courses in high schools. A high school that had ten students enrolled in the normal course would receive \$500 in funding from the state. County and township high schools were given preference over city high schools (Iowa Department of Public Instruction 1912:53-54). By 1920, 191 high schools in 98 different counties had a normal training course—13 of those were consolidated schools (Iowa Department of Public Instruction 1920:21, 56).

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 8 Public Schools for Iowa: Growth and Change, 1848-1966

Rural schools became a focus of the Progressive Era movement as part of a more generalized concern about bringing rural residents the benefits of urban living. Professional educators expressed their concern about the “Rural School Problem,” much of which was focused on local control of schools and the quality of education. In 1896 the Educational Council of the National Education Association appointed a committee, headed by Iowa Superintendent of Public Instruction Henry Sabin, to conduct a study of rural schools in the United States. The study found that “compared with the apparent efficiency and standardization of the urban schools, the rural schools...were individualistic, inefficient and chaotic...” (Reynolds 1999:54-55) Progressives believed that consolidation of rural schools would produce a “rural school that would teach country children sound values and vocational skills. The result was to be a standardized, modernized ‘community’ in which leadership came from the professionals” (Tyack 1974:23). Aurner praised the “more progressive communities [which] did not wait for the enactment of any statutes,” and “the state experiments in consolidation” that “were demonstrating its feasibility” (Aurner 1912 II:143).

According to George S. May, the farmer, with his “suspicion of the city” (May 1956:38), was the main opponent of consolidation. Proponents of consolidation worked to change this attitude by emphasizing the superiority of the consolidated school over the one-room country school, a superiority that was worth any increase in taxes (May 1956:41). In a recent study on school consolidation, David R. Reynolds states that rural school consolidation “produced more conflict than any other educational issue placed before Iowa voters in the twentieth century” (Reynolds 1999:85). He delineated six “major” issues in the farmers’ concerns about consolidation.

1. The imposition of consolidation upon districts that did not want or need it.
2. The loss of local control of schools, especially in the hiring of teachers.
3. Higher property taxes, up to a fourfold increase in some areas, as a result of consolidation.
4. Disproportionately higher taxes on the rural residents in a consolidated district.
5. The busing of small children to school.
6. Whether or not the country school was “beyond redemption.”

Despite rural communities’ strong resistance to consolidation, Iowa legislators drafted laws to entice rural districts into consolidation. In 1897, an Iowa transportation bill was passed that allowed public expenditure for the transportation of schoolchildren. One school district in Winnebago County immediately took advantage of the new law, closing down three rural schools and transporting the pupils to a new consolidated township school that had been approved by city voters in Buffalo Center but had not yet been utilized by outlying districts (Truesdell 1965:281).

Although some school districts took advantage of the transportation bill, the movement was slow getting started. Legislators continued to push for consolidation by passing a consolidation law in 1906. The law mandated that a

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 9 Public Schools for Iowa: Growth and Change, 1848-1966

school district include no fewer than sixteen square miles; and electors in both urban and rural areas had to approve a larger district in separate votes. By 1910, there were only ten consolidated schools including Albion (Marshall County), Buffalo Center (Winnebago), Crawfordsville (Washington), Fernald (Story), Lake Center (Hamilton), Lincoln Township (unknown county), Floyd Township (Dickinson), Marathon (Buena Vista), McIntire (Mitchell), and Webb (Clay) (Truesdell 1965:287).

In 1913, another law further encouraged the rural school consolidation movement by direct state funding for consolidated schools. Districts could receive aid for schools if they met grounds and building requirements, had acceptable public transportation for students, hired certified teachers, maintained an agriculture experiment plot, and owned the proper equipment to teach agriculture, home economics and manual training. Schools received money for equipment and instruction according to the number of rooms in the buildings—a two-room school received \$250 for equipment and \$200 for instruction, three-roomed schools brought in \$350 for equipment and \$500 for instruction, and four rooms got the school board \$500 for equipment and \$750 for instruction (Truesdell 1965:291).

The consolidation movement had a lesser but important impact on city school administrations. In 1900, there were 20 independent school districts in Des Moines, each with its own educational and administrative system. In 1907, all of the independent districts were consolidated into the Independent Community School District of Des Moines, and by 1910, the new consolidated district boasted three high schools—West, East, and North—and 46 elementary schools.

The rise of industrialization and the subsequent mass migration from rural to urban areas left many children roaming cities unattended or working in factories. Progressives saw this as a great threat to the American family. Many saw compulsory education—mandating that children ages 7-14 attend school—as the solution to the problem (Urban and Wagoner 2000:172-174). By 1890, compulsory laws had been passed in twenty-seven states. In 1907, the Iowa legislature passed a compulsory education law (Legislative Service Bureau 1907:675). By 1918, all 48 states had compulsory education laws.

Passing of the compulsory education law in 1907 undoubtedly led to increased construction of schools across Iowa. By 1910 there was a dramatic increase in the number of town high schools from 66 in 624 towns to 554 in 795 towns. Nearly seventy percent of Iowa towns with a graded school had a high school in 1910—compared to only 8% in 1901 (Iowa Department of Public Instruction 1910:108-133). The shift of the high school from an institution for college preparation to a place where each student would have an equal opportunity to assume his ‘proper’ position in society, to be determined not by class or ethnic origin but by the natural abilities of the student and the needs of the economy and society may have contributed to this dramatic increase (Reynolds 1999:49).

The introduction of agricultural subjects in high schools in the early twentieth century may also have contributed to the rising number of town high schools. In 1904, 57 of Iowa’s 99 counties had schools that included agricultural subjects in their curriculum; and all of the schools in Keokuk and Wright Counties were teaching agricultural subjects at various grade levels (Iowa Department of Public Instruction 1904:33-34). By 1910 agriculture and agricultural botany classes were included in a model high school program advocated by the Superintendent of Public Instruction (Iowa Department of Public Instruction 1910:26). However, it was the Smith-Hughes Act that had a

**United States Department of the Interior
National Park Service**

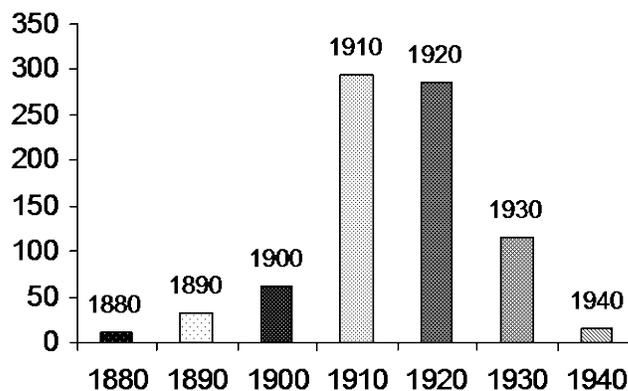
**National Register of Historic Places
Continuation Sheet**

Section number E Page 10 Public Schools for Iowa: Growth and Change, 1848-1966

major impact on agricultural education. The federal act, also called the National Vocational Education Act, was passed in 1917 to improve education in agriculture, industrial arts, manual arts, and home economics. It provided funding through matching grants for teacher training, teacher salaries, and research in vocational arts (Denny 1976:7). By 1920, thirty-two high schools in the state were providing year-round courses in agriculture (Iowa Department of Public Instruction 1920:66). The increased instruction of agricultural subjects may have made high schools more palatable to farmers—their children could learn the latest agricultural techniques and would be less likely to abandon the family farm.

As a result of the Progressive movement, the 1920s were a time of accelerated school building in Iowa and throughout the country. Although World War I postponed many building plans, a population surge after the war resulted in the construction of many new schools. Indeed, a new type of school became a common fixture in most cities by the 1920s—the junior high or middle school. The junior high school was created to help ease the transition from the common schooling of an elementary school to the specialized subjects of a comprehensive high school and to accommodate the “special developmental needs of early adolescence” (Urban and Wagoner 2000:239). Subjects offered in junior high schools included general subjects as well as manual training, domestic science, specialized music, art, and physical education.

Trends in School Construction in Iowa



Data taken from School Facilities Survey
conducted in 1994 by Iowa Department of Education

In 1935, there were 4,879 school districts in the state, ranging in size from 80 acres to 72 square miles (Williams 1936:8). Of these, 2,812 were rural, either school-township or rural independent districts. There were 410 consolidated districts and 646 city, town, or village districts.

With the onset of the Depression in the early 1930s, construction projects throughout the country declined. The Public Works Administration (PWA) was initiated in 1933 under President Franklin Delano Roosevelt to increase

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 11 Public Schools for Iowa: Growth and Change, 1848-1966

the nation's employment and purchasing power by funding public works projects. Under the PWA, the Federal government lent state and local governments money for substantial building projects to be performed by skilled tradespeople following architectural designs. From 1933 to 1939, 110 school buildings or additions were completed in Iowa under the PWA. Many of the PWA funded additions included gymnasiums, which were in increasing demand as basketball gained popularity and as physical education became part of the curriculum.

For Iowa cities with substantial increases in population, the economic program provided opportunity for construction of new schools. In 1939, the Davenport school system built six new elementary schools, incorporating elements suggested for platoon systems, with the help of PWA funding enhanced by local taxes. These schools, which incorporated community rooms and other features, were seen as community centers as much as schools and incorporated the latest in educational trends in their design, for example kindergarten rooms with fireplaces, ceramic fountains, and child-sized balcony playrooms. Davenport's Jefferson School has a fireplace with an elaborate wood mantel, as well as a wood paneled auditorium.

World War II imposed temporary restrictions on construction, including that of schools. With the dramatic increase in school-age population in the early 1950s, school systems were forced to build larger and larger buildings to accommodate the new generations. School construction in Iowa followed the national trend towards sprawling one-story buildings. Such schools employed lighter construction techniques, which were less expensive and less labor intensive than earlier methods.

Some school districts built large new school facilities on the outskirts of town. Other districts with tighter budgetary constraints added onto existing school buildings to accommodate increases in school-age population and changes in educational trends. Nineteenth century school buildings were often abandoned, being too small and too poorly ventilated and lighted to be rehabilitated for continued use. In the 1950s, school districts added new gymnasiums to accommodate burgeoning crowds at basketball games. Existing high school gymnasiums were located in the basement of the school and were too small, having only a few rows or a few set of bleachers. Nineteenth-century school buildings had no gym facilities at all. Once a school in the local athletic conference constructed a new gym, the pressure increased on other schools to follow suit. The trend toward continual use of existing school facilities continues today with many school districts unable to justify the construction of multi-million dollar school facilities as they are most often funded through increases in tax levies or bond issues that are voted on by local taxpayers.

Major educational changes that occurred during the 1950s included growth in school district size, changes in curriculum, and a focus on teacher competence. During this period the average district size increased from fewer than 16 square miles in 1951-1952 to 97 square miles in 1963-1964. Between 1954 and 1960, the number of school districts in the state decreased from 4,417 to 1,575, mainly as a result of the closing of country schools, but also owing to the closing of "small, inefficient high schools" (Wright 1960: 6). Small high schools, with an enrollment of under 200, were considered to be one of the biggest problems with the educational system in the state—a problem that persists in Iowa today.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 12 Public Schools for Iowa: Growth and Change, 1848-1966

Country Schools

(Adapted from One-Room Country Schools of Iowa)

To any traveler through pre-World War II rural Iowa, the country school was a familiar sight. Solitary, yet reassuring, it marked the center of neighborhoods, gave identity to the community, and displayed commitment to the education of future generations. Unpretentious, like the common farm families it served, the country school represented the essence of rural Iowa.

The country school resembled the country church in style: a long narrow rectangle, with windows on one or both sides, front entrance and a gable roof. The typical nineteenth-century dimensions for a country school were 18 feet wide and 28 feet long. For the most part, this American vernacular style utilized commercial materials: dimension lumber, bricks, concrete block, wood shingles, and local limestone, although some log schools remained in use for many years, and a few stone schools were constructed.

While there were plan books available, most country schools were designed and built by local craftsmen. The typical building procedure was to lay a foundation of stone and mortar and the chimney, frame up the building, add the clapboard siding, sheet the roof and shingle it, and perhaps add a bell tower or a flag spar. The work was done by craftsmen and crew, but often local people contributed labor in order to reduce the cost. The cost of a school building in 1900 was between \$600 and \$800.

The country school was typically located at the crossroads of a four-section area. Because of this central location, no child would have to walk more than two miles in any direction. Occasionally local politics, large families, or changing demographics dictated another location. Some schools were constructed on skids to accommodate moves to other locations.

School sites were normally in a corner of a section, in order to minimize disruption on the neighboring farm. The sites were one acre in size, fenced off from the farmland, with trees along the property line. Except for the earliest schools, when land was purchased from speculators or the government, the land was purchased from, or donated by, the farmer. If the site was abandoned, the land reverted to the original owner. Wells were considered too expensive, and water was carried daily from the closest farmstead. Playground equipment became popular after 1900, usually a set including a swing, a bar, and a slide. Various outdoor games were played, and baseball was popular. Separate privies for boys and girls were set in the corners at the back of the lot, and woodsheds were near the school. While popular folklore pictured the "little red schoolhouse," the vast majority of Iowa schoolhouses were painted white, partly to reflect the sun and partly because of tradition.

Until 1920, nearly all Iowa country schools had gable roofs. In the 1920s hipped-roofed structures, with inset porches, began to appear, with a corresponding increase in width to about 32 feet. A few flat-roofed, cube-style "International" schools were built in the early 1940s. Bell towers were uncommon. Those schools that had bell towers were usually in more prosperous communities. The internal stepped-brick chimney was centered on the roof ridge. Coal or wood-burning stoves sat toward the back of the classroom with the stovepipe running the length of the

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 13 Public Schools for Iowa: Growth and Change, 1848-1966

room to the chimney behind the teacher's desk. When furnaces were added in the 1920s, basements were dug and the chimney was sometimes moved to the side of the building.

By the 1890s cloakrooms or entryways were part of the standard design of country schools. In the nineteenth century there was usually a bank of three double-hung sash windows on the 28-foot sides of the school building. Around the turn of the century there was some controversy regarding the placement of the windows. It was believed that lighting should come from one direction only, and the preferred window placement was on the west side of the building (Gulliford 1996:193-196). Before electricity, schools had kerosene lamps attached to the walls. In the 1920s, when electricity began to appear in rural areas, some districts were willing to pay the additional cost to bring a line to the school. In the 1930s the rural electrification movement brought electric lights to the remaining schools.

The greatest contrast among country schools was in classroom equipment. Here the district's prosperity, or lack thereof, and a commitment to providing quality education were most evident. There was usually a built-in bookcase to house a library. Student desks, singles or doubles, and a recitation bench varied somewhat from building to building, but it was the size and design of the teacher's desk, the presence of a pump organ or piano, wall maps, globes, and curtains that distinguished schools from one another. Blackboards ranged from painted wood to slate. While the austere exterior symbolized the practical, the interior reflected the community's concern for the children.

The consolidation movement was the beginning of the end of the country school. Consolidation proceeded slowly at first and advanced more rapidly when state funding to consolidated districts became available. Consolidation has ultimately succeeded; in 1972 there were only 472 school districts in the state, and no public one-room schools (Sage 1974:330).

Town Schools

Nineteenth-Century Schools

Nineteenth-century school style resembled church architecture. In general the schools had a square, boxy shape, with a prominent bell tower that was based on the church steeple. The location was often on a high promontory overlooking the town. An excellent example of this is the Vernon School, situated on a hill overlooking the town and river, and the College Squares sites in Ottumwa and Bonaparte.

The Vernon School, constructed in 1868 and designed by Riley Cass, in the Italianate style, is a two-story building that has a cruciform plan, and an 80-foot tall bell tower. The foundation is stone, and the walls are brick. There is an entrance hall with doors into the two schoolrooms, and there are stairs to the upper floor. There is one large classroom and one smaller recitation room on the first floor. Upstairs, there is one large classroom that was used for the high school. The floors are wide boards. The upper walls are plaster with a 3-foot wood wainscot below. There are large nine-over-six light, double-hung windows. The ceilings on both floors are 16-feet high. During the period when stoves were used to heat the classrooms, there was a basement coal room under the entrance hall. The school was electrified in 1950. Separate privies for boys and girls are outside.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 14 Public Schools for Iowa: Growth and Change, 1848-1966

Nineteenth-century schools have been described as being very unpleasant. They were cold in the winter, hot in the summer, and had inadequate lighting and ventilation. Children complained of headaches from lack of fresh air. During the Progressive Era, with the development of new technologies, educators focused on school design solutions that addressed these problems.

In 1886, Governor William L. Larrabee gave an address to the State Teachers Association on The Ideal School. Regarding physical characteristics he stated:

The acquisition of knowledge should be made as pleasant as possible to the pupil. . . .The air which the child breathes should not be allowed to become vitiated. Fresh air should be constantly admitted to the school-room...The room should be properly heated. . . .The light should be regulated by blinds or curtains, and children's eyes should not be taxed by too bright nor by too dim light. . . .Children should be frequently given an opportunity to exercise their bodies, their arms, their legs, their fingers and their feet...all modern improvements for heating and ventilating should be introduced, and school apparatuses and furniture should be complete and modern (Larrabee 1886).

Larrabee built a school for his town that would fix all the problems encountered in nineteenth-century schools. No expense was spared; the total cost was about \$150,000. Governor Larrabee died, however, before the school was completed. His wife gave an address on its opening:

When Mr. Larrabee was a little boy he lived in Connecticut, and the schoolhouse was not much larger than this stage [about 10 feet wide and 25 feet long]. The stove was in the center of the room and the seats were around the outside. He had the headache almost every day, and he thought the air in the room was not good. When our children attended school they had eye trouble and headache from the same cause, and he realized the ventilation of the schoolrooms was imperfect. And Mr. Larrabee thought the children of Clermont were entitled to the best to be had, as he loved Clermont and her people. We studied hygiene, school architecture, particularly heating and ventilating, talked with leading educators and the result is that this building is as perfect as it could be made and we hope it will prove an example to other communities. It is built for time, it is fireproof... (Clermont Historical Society 1987:62).

The school opened in 1912. The architect was Charles A. Dieman from Cedar Rapids, Iowa. The school was constructed of stone, brick, concrete, steel, and marble. The only wood in the school was the stage floor. There was marble wainscoting in the halls. The first floor consisted of four classrooms, a recitation room, and a principal's office. The second floor had a large high-school room, a recitation room, the auditorium, and a museum and art room, in which Larrabee family memorabilia were displayed, was open to the public. The basement contained the manual training and domestic science rooms, the lunchroom, and the washroom. Each classroom had a separate ventilation duct; fresh air was circulated from the attic.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 15 Public Schools for Iowa: Growth and Change, 1848-1966



Larrabee School

Montauk Archives

Although the school was fireproof and had good lighting and ventilation, the design of the building and the interior layout was similar to that of the schools depicted in Barnard's 1849 publication. There was a center entry door, and the cross-shaped hall separated the four classrooms. The lunchroom and washroom were in the basement. In contrast, the Bonaparte School, which was built three years later, had bathrooms on the main floors, which permitted "adequate ventilation and plenty of light and sunshine, thus securing ideal sanitation, by eliminating the disagreeable odor usually prevalent in Schools where the sanitariums are located in an out-of-the-way corner in the basement" (Horstman 1987).

Twentieth-Century Schools

At the national level, three architects, John J. Donovan, Dwight Perkins, and William B. Ittner, emerged from the Progressive Era as leaders in innovative school design. They "were disciples of the city beautiful idea, and felt that architects should design a building so that it would enhance its surroundings," and believed that the architect should work closely with professional educators to design a workable school (Meiborg 1970:41). Their influence extended nationwide during the 1920s and 1930s. The most striking innovation was in the school layout. Traditional schools were massive, square buildings. The "modern school," in contrast had an open plan, in an I, L, or U shape, with a main entrance that was the architectural focal point of the building.

Ittner applied his universal principles to schools for small towns as well as cities. The main distinction between the two was that of size. A municipality with a population of under 8,000 needed only one building housing all grades,

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 16 Public Schools for Iowa: Growth and Change, 1848-1966

which could share facilities. For towns with populations between 8,000 and 15,000, two school buildings were needed. He believed that junior and senior high schools should be combined in one building if the total enrollment did not exceed 1,000. In cities with more than 15,000 inhabitants, three separate buildings were needed (Meiborg 1970:48). The design and layout of all schools was similar.

In a small school, there were more combined-use rooms, particularly the auditorium and gymnasium, when there were “not sufficient numbers to insure a reasonably continuous use of both auditorium and gymnasium as distinct quarters” (Ittner 1922:25). In this situation, the gymnasium was constructed with brick walls and either a concrete or wood floor for basketball, with permanent or moveable bleachers on one long wall, and the stage on the opposite wall, usually set several feet above the gym floor. Other multiple-use possibilities included a combined gymnasium/cafeteria, study hall/library, physics/chemistry classroom and laboratory, and a biology/agriculture classroom.

The Bonaparte School was constructed in Bonaparte, Iowa, in 1915. The school was designed by Underhill and Dean of Kansas City in a basic I-shape, 135 feet in length and 62 feet in depth. The first floor contained classrooms for the grade school, the second for the high school, and the basement had rooms used by both. There was a combined assembly room/study hall/library on the second floor. The public was also allowed to use the library. A 1915 newspaper article about the new school noted that the plan “was the endeavor to depart from the conventional grade school building” (Horstman 1987:np). However, the school did have the traditional bell tower.

Clermont High School, constructed in 1924, is a good example of a modern, town high school. The two-story building has a combined gymnasium/auditorium located on the first floor, with classrooms, study hall, and adjoining library on the upper floor.

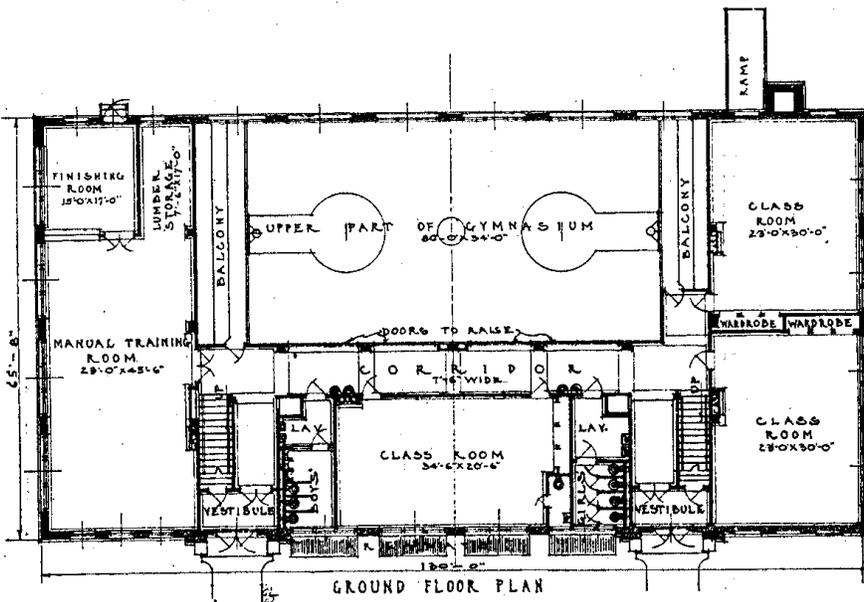
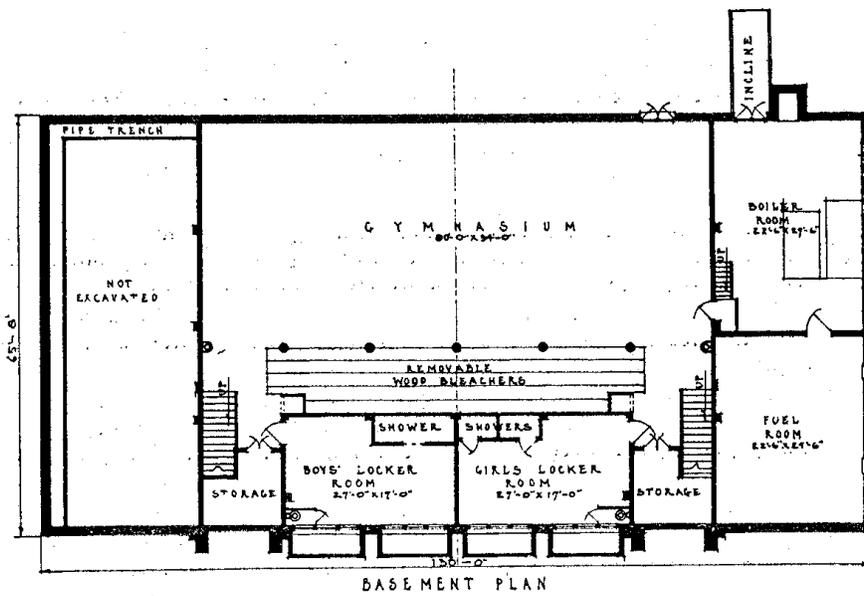
Although some consolidated schools were constructed in the country, most were located in small towns, and for the purposes of this study such schools will be considered town schools. An example, the Redfield Consolidated School District, was organized in 1920. It comprised twenty-eight sections, with a high school enrollment of 109 and an elementary enrollment of 246. Seven motor buses transported 164 children to and from school. The Redfield school building stood three stories and had a basement that housed the gymnasium and lockers in addition to the boiler room. The first floor consisted of the upper part of the gymnasium, classrooms, and the manual training room. The domestic science room, the lunch room, and additional classrooms comprised the second floor. The combined study hall/auditorium, with a stage/library, was located on the third floor, along with the science laboratory and recitation rooms (see pages 17-18). Smaller schools had the typical combined auditorium/gymnasium. In addition, consolidated schools had a community room, as the school was meant to be the focal point of the area, with picnics and other social events held at the school or on the school grounds (Brown 1922).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number E Page 17

Public Schools for Iowa: Growth and Change, 1848-1966

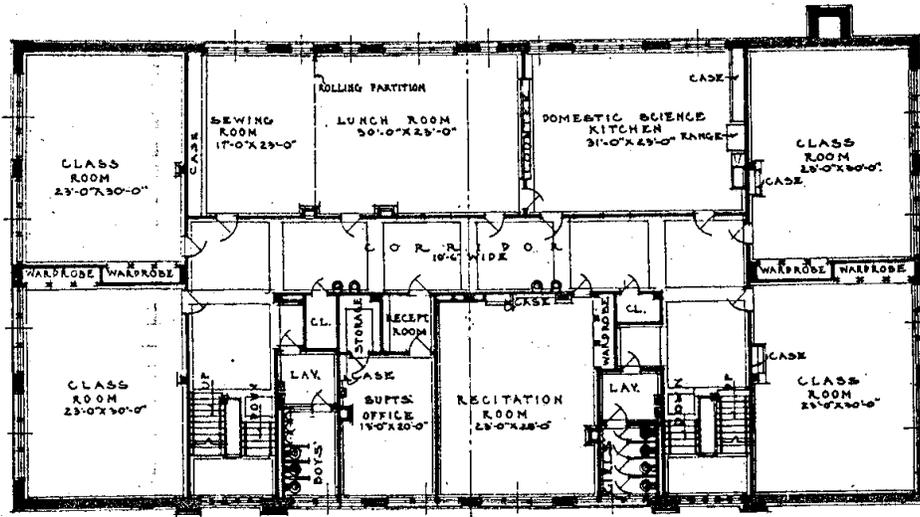


United States Department of the Interior
National Park Service

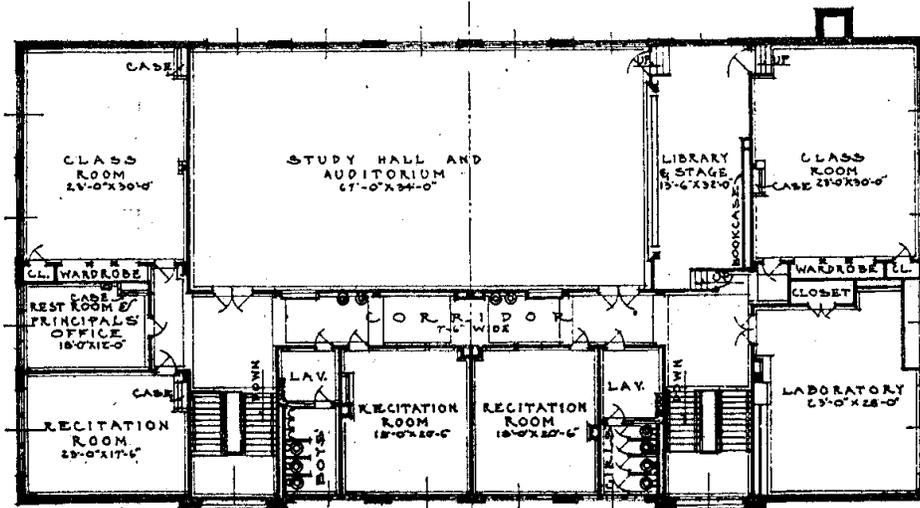
National Register of Historic Places
Continuation Sheet

Section number E Page 18

Public Schools for Iowa: Growth and Change, 1848-1966



FIRST FLOOR PLAN



SECOND FLOOR PLAN

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 19 Public Schools for Iowa: Growth and Change, 1848-1966

City Schools

Nineteenth-Century Schools

Early Iowa city schools resembled their rural counterparts: students of varying ages attended class in a one-room building. As cities expanded, public school systems were developed with graded elementary schools and high schools. Cities adopted the concepts of high schools earlier than towns due to the increased urban demand for an industrial and commercial workforce. Some of the earliest high schools were housed in downtown buildings, such as the Wahkonsa Hotel in Sioux City. Des Moines and Burlington established high schools as early as the mid-1860s. Other districts provided space in public buildings to accommodate high school grades. By the 1890s, most of Iowa's cities had a number of graded schools and one or two high schools. Suburbs and neighborhoods that were established around the city center were set off as separate school districts. By 1900, Des Moines had 20 independent school districts—each with its own graded and high schools.

In the nineteenth century high school attendance was not mandatory, and was often reserved for those students planning to attend college. Curriculum in the higher grades focused on the classics such as Latin, physics, and chemistry and other more practical subjects such as typing or banking. There was often a large recitation room for group lessons.

Twentieth-Century Schools

By 1920, the issues of fireproofing, heating, sanitation, ventilation, and adequate lighting, which had been the major concerns of the Progressive Era, had been addressed. Architects were also concerned with design, and attempted to rid schools of the “schoolhouse look.” The 1920s were a time of school building in Iowa and throughout the country. World War I had postponed many building plans, and there was also a population surge that resulted in many new schools.

In 1915, St. Louis architect William B. Ittner, “probably the most influential figure in the modern development of school design” designed the high school in Greenfield, Ohio, considered to be a “typical example of the modern high school” (Reitzes 1989:271). The school was longer than it was deep, with a central hallway. The auditorium and gymnasium were in separate wings to the rear.

Two publications, John J. Donovan's *School Architecture: Principles and Practices*, published in 1921, and “High School Buildings and Grounds,” Bulletin 23 of the Bureau of Education, Department of the Interior, written by William B. Ittner and printed in 1922, illustrated then-prevalent trends and beliefs regarding school design and construction, and how design was influenced by the educational methods of the time. Salient points were:

1. Setting: the school site should be on fairly level ground, set back from the street so that the students were not bothered by traffic noise, with adequate space for sports and recreational activities. Schools should be centrally located away from industrial or any hazardous areas.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 20 Public Schools for Iowa: Growth and Change, 1848-1966

2. Corridors: The design should make it easy and quick for students to enter and exit the school, and reach their classrooms in optimum time.
3. Kindergartens: Kindergarten was considered to be a transition from the family to school, a place where children spent most of their time playing. Donovan advocated homey, comfortable kindergarten rooms with fireplaces, curtained windows, plants, with space for pets, gardens, and a private playground outside. Music and art activities should take place in the kindergarten room, rather than in a separate room.
4. Elementary grades: The standard classroom had a large block of windows on one wall, with blackboards and corkboards on the interior walls. There were bookcases, and a teacher's wardrobe, and each room had a fresh air intake and exhaust vents. Specialized education, such as music, took place in a separate room.
5. Physical Education: Donovan believed that the public would demand good physical education in elementary schools, as well as high schools. Thus, elementary schools should be furnished with gymnasiums, at the minimum.
6. Specialized Study: In elementary grades, rooms for music, art, and science should be provided.
7. Assembly Hall or Auditorium: This should be easily accessible, and used by both school and community, which would bring both closer together.

Junior High Schools, either two or three grades, were considered so new that it was difficult to devise a standard course of study. In general, there needed to be regular classrooms, specialized music, art, and science rooms, and separate gymnasiums and auditoriums.

William B. Ittner, in "High School Buildings and Grounds," firmly stated that his universal principles should be adapted to local conditions, not imposed on a site or school situation. Furthermore, there should be a strong connection between the building plan and operating plan of schools. His principles and designs emphasized safety, adequate lighting, good sanitation, practical economy and architectural beauty.

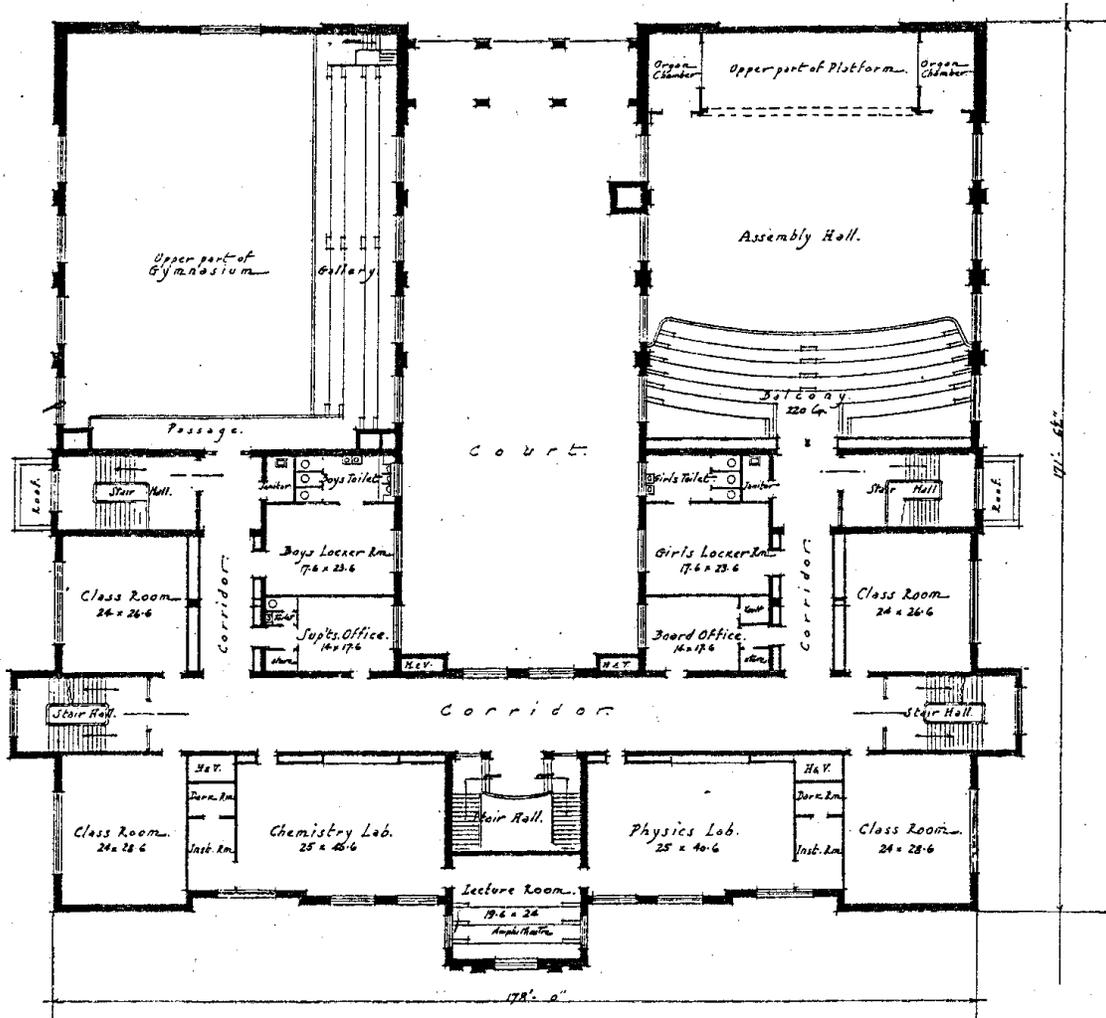
Ittner believed that the best schools were two stories tall with no basement, and that three stories with no basement was better than a school with two stories and a basement. The heating and plumbing plant should be in a separate building. He did not think there were any educational advantages to one-story schools. In cold climates "the numerous exits, the large exposed areas, the long run of water pipes and heat ducts, together with the excessive corridor space make the one story building more costly and more difficult to administer, and this without any outstanding educational advantages." (Ittner 1922:6).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number E Page 21

Public Schools for Iowa: Growth and Change, 1848-1966



· FIRST · FLOOR · PLAN ·

Mr. William B. Ittner, Architect.

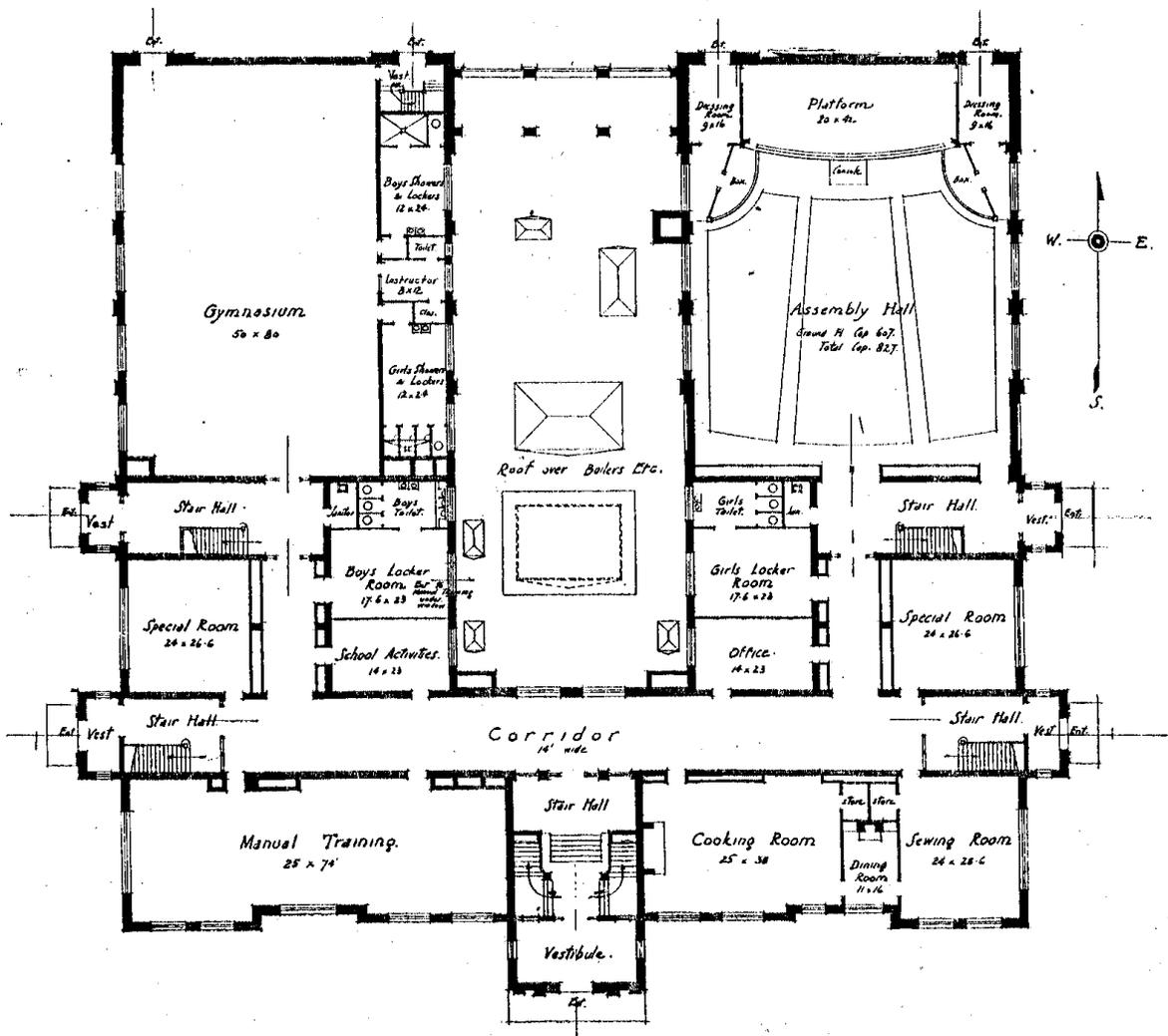
Page 652 FIG. 591. — HIGH SCHOOL, FIRST FLOOR PLAN, GREENFIELD, OHIO.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number E Page 22

Public Schools for Iowa: Growth and Change, 1848-1966



· GROUND · FLOOR · PLAN ·

Mr. William B. Ittner, Architect.

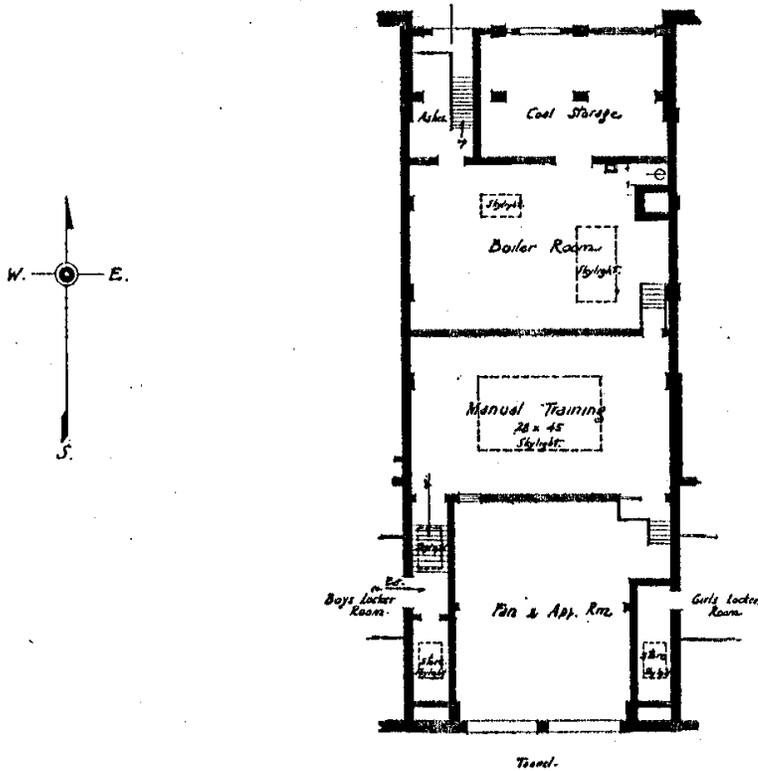
FIG. 590. — HIGH SCHOOL, GROUND FLOOR PLAN, GREENFIELD, OHIO.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number E Page 23

Public Schools for Iowa: Growth and Change, 1848-1966



· BASEMENT · FLOOR · PLAN ·
SCALE : 1/8" INCH · EQUALS · 1 · FOOT ·

· SKETCH · PLAN ·
· HIGH · SCHOOL · AT · GREENFIELD · OHIO ·
· FOR · MR · E · L · MC · CLAIN ·

· WM · B · ITTNER · ARCHITECT ·
ST LOUIS MISSOURI DEC 1918 ·

FIG. 589.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 24 Public Schools for Iowa: Growth and Change, 1848-1966

Ittner, who had been a practicing architect since 1897, did not believe that school architecture had progressed significantly. Wishing to avoid uniformity in style, he believed that school buildings could be designed with “architectural individuality which will make them stand out preeminently as the best, most thoroughly planned, designed, and executed structures in the community” (Ittner 1922:7). Ittner’s ideas can be summarized as follows:

1. Location and setting: There should be sufficient space for expansion, and for athletic facilities, located behind the main building. The school should be landscaped, with a “planted foreground.” While a level site was needed for the most part, “differences in grade, which might appear disadvantageous, often furnish the opportunity for a commanding setting of the building” (Ittner 1922:8). The site should be in a quiet area. As high schoolers were capable of walking a certain distance, a good site not necessarily close to the residential areas was preferable to a closer but less suitable site.
2. Classrooms: A normal class size should not exceed 30 students; the rooms should be at least 22 to 24 feet in width, and the windows should reach to the ceiling.
3. Specialized classrooms: These rooms should be grouped together, but with no specific area within a school stated. Biology and Agriculture, which were often put together, should be on the first floor for easy outside access. The Home Economics rooms should be “located where the conditions of light, ventilation, and sanitation are conducive to good work and exemplify good American standards of living” (Ittner 1922:28). Workshops were best located outside the main walls of the building on the ground floor, and connected with corridors; this would be quieter for the rest of the school, and there would be easy access to supplies. Both the shop area and the commercial rooms should be large spaces capable of subdivision. The Music room should be constructed like a small auditorium, with a sloping floor and small stage, and a capacity of 100-200 students.
4. Study rooms: These should have a central location, with convenient access to stairways, and be located in proximity to the library.
5. Library: The main reading room should accommodate 10% of the student population at one time, and also have a central location. Depending on the size of the school, workrooms and conference rooms can be added.
6. Physical Education: Two gymnasiums, one for girls and one for boys, were best for the full development of physical education and recreation programs. These should be at least 50 feet x 80 feet in dimension, but 60 feet x 90 feet was better. The windows should be 7-8 feet from the floor. The minimum size for a swimming pool was 21 feet x 60 feet with adequate sanitation. A sunlit pool was preferable. Moveable bleachers provided space for spectators at athletic events. Also, the “use of second floor corridors with double windows opening into the gymnasiums” provided extra space (Ittner 1922:12,14).

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 25 Public Schools for Iowa: Growth and Change, 1848-1966

7. Auditorium: This should have a central location on the first or main floor, which encourage community use. A large auditorium that could seat the entire student body was unnecessary.
8. Cafeteria: This should have a seating capacity of one-fifth to one-half of the total number of pupils enrolled; its location should be on the ground floor, preferably near the Home Economics rooms.

Ottumwa High School, constructed in 1923, was a large city high school. The first Ottumwa high school, constructed in 1900, had been overcrowded for years, but bond issues for a new school failed to pass in 1915. World War I delayed any further push for a new school, but in 1919 the high school lost accreditation from the North Central Association of Secondary Schools and Colleges because of overcrowding and poor facilities. In the same year Ottumwa voters approved a \$700,000 bond for a new high school. The finished school, which opened in 1923, cost close to \$1 million. The fall enrollment in 1923 was 1,387 students.

The site chosen for the 1923 high school was on College Square, the site of the first public school in Ottumwa, constructed in 1865. College Square was on a promontory overlooking the Des Moines River and the downtown commercial district. The school has an excellent vantage point of the city, and is a noticeable local landmark.

Ottumwa High School was designed by Croft and Boerner from Minneapolis, Minnesota. It was a four-story building, with two perpendicular classroom wings, and a center wing that housed the auditorium and gymnasium. Potential expansion was to be accommodated by building two more wings that would form a hollow square, with the auditorium and gymnasium in the center. The utility building was separate from the school and was connected by tunnels.

The entrance into the school is at the connecting point of the three wings, with the entrance to the auditorium directly across the hall from the entry doors. The entry hall has terrazzo floors, with pilasters decorated with an acorn and oak leaf motif. The auditorium was built large enough to accommodate the student body, and had a separate film projector room.

The Physical Education department included a gymnasium, an indoor track, and a swimming pool that was located in the basement. The water was filtered twice daily and chlorinated. There were no outdoor sports or recreational facilities on the site.

The classrooms were grouped together by subject. The Industrial Arts and Home Economic departments were located in the basement. The shop area was in one large room. There were various rooms for cooking and sewing instruction, and the department contained a model-house suite, complete with fireplace. The science rooms were grouped on the third floor. The biology room opened out into a greenhouse, located over the roof of the gymnasium. The library, with large study rooms on either side, was located above the main entrance. The cafeteria was on the ground floor. There was a separate room for normal school training.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 26 Public Schools for Iowa: Growth and Change, 1848-1966

The platoon school idea was another Progressive Era development in education. The program innovator, William Wirt of Gary, Indiana, was a disciple of John Dewey. While the consolidation movement was seeking to bring rural students more inline with urban students, this plan for a platoon system was formulated to bring the rural ideals of family, work, and productivity to urban students, thereby enriching their lives and solving the urban social problems of the time (Case 1931). Although these goals were the basis for the platoon system, most of the platoon school literature focused on the practical aspects of the system for increasing school efficiency.

In the platoon system, students were divided into two sections or platoons. While one group was taught “fundamental” subjects in the classroom, the other group was taught “activity” subjects in specialized rooms such as the auditorium and gymnasium. The groups alternately utilized the same space, thereby increasing school efficiency: one school could house twice as many students.

Shattuck O. Hartwell, Superintendent of Schools in Muskegon, Michigan, delineated five basic principles of the platoon plan:

1. Shops, gymnasiums, and an auditorium are added to the school building, with playgrounds and gardens outside.
2. Through administrative readjustments, all special rooms as well as classrooms are in use throughout the day.
3. Several classes are accommodated simultaneously in auditoriums and gymnasiums.
4. Groups of children attend school on different schedules.
5. Libraries, churches, the YMCA, and other groups are allied with the schools to the extent of part-time care for some children (Hartwell 1916:14,15).

The entire school system of Gary, Indiana, followed the platoon plan. By the 1910s, the plan received national attention. In 1911, the first platoon school outside of Gary was developed at the Roosevelt School in Kalamazoo, Michigan; by 1915, eight schools in that city were under the plan. In 1914, the City of New York hired Wirt to introduce his system into the New York City school system. Opposition defeated the system there, but it was successfully implemented in over 200 other cities during the 1920s, reaching its peak of popularity around 1925. In that year, The National Association for the Study of the Platoon or Work-Study-Play School Organization was formed to publicize the platoon system.

The increased building capacity that the platoon system created was a strong reason for its popularity. Schools that switched from a conventional plan to the platoon system experienced an increase in building capacity ranging from 5 to 35 percent (Case 1931:231). Using the platoon system, cities that were experiencing a drastic increase in school population could construct fewer schools and hire less personnel.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 27 Public Schools for Iowa: Growth and Change, 1848-1966

Although some schools, such as Emerson Hough Elementary in Newton, Iowa, were built specifically as platoon schools, Case noted that “new buildings are not necessary to the successful operation of platoon schools,” and that 70 percent of platoon schools operated in old buildings (Case 1931:68). Regular classrooms could be used for specialty subjects. Certain aspects of Wirt’s platoon plan were adopted by many schools. In Davenport, Iowa, elementary schools were constructed in 1939, each with an auditorium, gymnasium, and special science, music and art rooms. Upper level students spent half of the day in the classroom and half in the special rooms.

With the onslaught of the Depression in the early 1930s, construction throughout the country declined. The Public Works Administration (PWA) was initiated in 1933 under President Herbert Hoover to increase employment and purchasing power through the construction of useful public works in various states. The Federal Government lent state and local governments the money for these projects. The program oversaw substantial building projects performed by skilled tradespeople following architectural designs. In Iowa from 1933 to 1939, 110 school buildings or additions were completed under the PWA program.

Many of the schools constructed in the early 1930s resembled those of the previous decade. However, the 1930s also brought the Moderne style, characterized by flat roofs, the absence of traditional architectural ornament, and use of curved walls. New building materials, such as metal window frames and glass block were also used (Shank 1979:148). The Moderne style gradually gained precedence in the later years of the decade.

Atlantic High School, designed by Keffer and Jones of Des Moines, Iowa was a school that was funded by the PWA. It was constructed in 1937 as a combined junior and senior high school. Land was purchased on the south side of town, on a gentle slope, with a depression on the east. The school was situated on the crest of the rise, and the football stadium/track was set into the depression. Professionally landscaped grounds in the front of the school have not changed.

Built in the Moderne style, the school is designed in a U shape, with the auditorium and one wing of classrooms on one end of the U, and the gymnasium on the other. The school has a basement and two stories. The cafeteria, Home Economics rooms, Industrial Arts rooms, and Normal Training room were in the basement. The science rooms were grouped together on one end of the third floor. The junior high school rooms were located along the hall next to the auditorium. The hall floors are terrazzo; classrooms have hardwood floors and oak trim around the windows and doors. The exterior is brown brick with stone trim.

Jefferson Elementary School in Creston, Iowa, constructed in 1937, is one of the best examples of the Moderne-style school. It has a curved wall on the east side and is constructed of light brown brick, a typical Moderne-style material. The original metal windows are still in place. While the exterior has the aforementioned Moderne features, the interior is consistent with the designs of Ittner and Donovan. There is a central hall with classrooms on one side, the combined community room/gymnasium with stage on the opposite side, and the kindergarten room on the end. The second floor contains four classrooms. The curved wall is in the kindergarten room, which has several child-sized features, and a cloakroom with a curved interior wall.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 28 Public Schools for Iowa: Growth and Change, 1848-1966

In 1939, the Davenport school system constructed six new elementary schools incorporating elements suggested for platoon systems, with the help of PWA funding. These schools are more elaborately designed and have more luxurious interior features than other PWA schools. The kindergarten rooms have fireplaces, ceramic fountains, and child-sized balcony playrooms. The Jefferson School fireplace has an elaborate wood mantel, and the auditorium has wood paneling.

While Iowa schools built during the 1930s tended toward the Moderne style by the end of the decade, all schools did not follow this pattern. In 1938, for example, the Iowa City High School was built in the Colonial style, using red brick. Several of the Davenport elementary schools built in the late 1930s displayed Tudor and Gothic Revival influenced styles.

Within a few years after World War II there was another boom in school construction. The post-war “baby boom” caused a dramatic increase in school-age population at the beginning of the 1950s, and new construction technology drove school design. New schools followed the national trend towards constructing sprawling, one-story buildings. Over 90 percent of the school buildings constructed in Iowa in the 1950s were one story in height, and “designed to fit the terrain” (Meiborg 1970:132).

Previously held beliefs about the inefficiency of one-story schoolhouses were discarded. It was felt that more space could be used for instruction in a one-story building, and that it was easier to empty such buildings in case of fire. Campus plans, in which there were multiple connected buildings, and finger plans, in which individual rooms were connected to a center hall, were the most popular school designs in the 1950s. Large sites were chosen for new construction. Lighter construction techniques could be used, which were less expensive and less time consuming than traditional techniques.

Keokuk High School, with a modified campus plan, was constructed in 1950. Prior to the design stage, school officials asked teachers what they wanted in the new school, and with the architects, Perkins and Will of Chicago, the school officials visited other schools in the area in order to gather ideas for the new school’s design. The completed school consisted of four major buildings: a four-story academic wing, an industrial arts wing, an administration/cafeteria wing, and the field house. The academic wing was constructed in such a manner that all the classrooms face north and have natural, indirect lighting. The light and airy corridors are open to the south. The classrooms are separated by non-load bearing concrete-block partitions that can be moved to change the size of classrooms. The industrial arts wing is a low rectangular block, with plastic bubble skylights. It is connected to the academic wing by a closed passageway (Cochran 1951).

The L-shaped administration wing is located between the academic wing and the field house. Visitors may enter without disturbing the students. The field house contains an indoor track and a three-court basketball floor in the center. On the balcony is the girls’ gymnasium, which has bleachers that can be used to seat spectators for sporting events (Cochran 1951).

Special Education in Iowa Public Schools

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 29 Public Schools for Iowa: Growth and Change, 1848-1966

The first attempt to meet the needs of handicapped children in Iowa was in 1851 with the passage of a law that provided \$100 in state aid for the care of a “deaf, dumb, or blind person between the ages of ten and 30 years (Legislative Service Bureau 1851:186). At that time, only private facilities provided care for such people, but by 1860, the government provided funding for state institutions for the blind and for the deaf and dumb. These schools were true institutions that required the students to remain in residence. The College of the Blind was located in Vinton and the Institution for the Deaf and Dumb was located in Council Bluffs. By the end of the nineteenth century, several more institutions were established. In 1897, the Industrial Home for the Blind was established in Knoxville to provide for the instruction of the “adult blind of the state in some suitable trade or vocation” (Legislative Service Bureau 1897:925). In the same year, the Institution for Feeble-Minded Children was established in Glenwood.

The education of deaf, dumb, or blind students continued to be supported solely through state institutions until 1927, when the state enacted a law that authorized public schools to hire one or more teachers for deaf children if any resided in the school district. The state provided funds of twenty dollars per month for the education of each deaf student. This act followed the national trend of “day classes” that provided education to handicapped students within the public school system. Educators believed that the isolation of handicapped children in institutions had a tremendous negative impact on their emotional well-being. In 1911, more than 100 city school systems across the country had established special schools or classes for handicapped children (Winzer 1993:315). It wasn’t until 1931 that Iowa established its first, and perhaps only, day school—the David W. Smouse Opportunity School (Smouse) in Des Moines. However, unlike early twentieth-century day schools that focused on educating children with only one type of handicap, Smouse was designed to educate children with all types of disabilities and handicaps.

In 1946, the Division of Special Education was created for “the promotion, direction and supervision of special education for handicapped children in schools under the supervision and control of the Department of Public Instruction” (Legislative Service Bureau 1946:712). This was the first time that all handicapped children were provided an education by the state. According to the law, these children were defined as “Children under 21 years of age who are crippled or have defective sight or are hard of hearing or have an impediment in speech or heart disease or tuberculosis, or who by reason of physical defects cannot attend regular public school classes with normal children” (Legislative Service Bureau 1946:712). The law specifically left out those children who were blind and/or deaf, as state institutions were already provided for their education.

Conclusion

The history of education and schoolhouse design in Iowa has followed national trends of standardization and technological development. While different theories to improve the quality of education have come and gone, the constant focus of local officials and educators was on the children and what was best for them. While the development of new building styles and technological advances in sanitation, heating, and ventilation led to a tendency to reject the designs of the past, from the beginnings of the one-room country school to the construction of ultramodern buildings in the 1950s, the word “community” was always associated with any new school plan or design. Fond memories of the country school emphasized the feeling of community that came from the school. Early twentieth-century consolidated high schools were meant to be community centers. In the 1940s, city elementary

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number E Page 30 Public Schools for Iowa: Growth and Change, 1848-1966

schools were constructed with community rooms. This feeling of community associated with school is a constant in the history of the schoolhouse in Iowa.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 31 Public Schools for Iowa: Growth and Change, 1848-1966

F. Associated Property Types

1. One-Room Country Schools

Description

The earliest one-room country schools were log construction. One-room country schools built in the mid- to late-nineteenth century were most commonly gable-front wood frame structures with windows on one or both sides, and a centered front entrance with transom. An open porch or enclosed entry hall is a common variation of this basic form. Often shed additions were constructed onto rear elevations to house a cloakroom or wood storage bin. Less commonly found are nineteenth century brick and stone one-room schools—though concentrations of stone schools can be found in eastern Iowa owing to the abundance of limestone. Some one-room schools in the more prosperous communities had embellishments such as cupolas, decorative trim, and round arch windows. Most one-room country schools were designed and built by local craftsmen. The typical building procedure was to lay a foundation of stone and mortar and the chimney, frame up the building, add the clapboard siding, sheet the roof and shingle it, and perhaps add a bell tower or a flag spar. The work was generally done by craftsmen and crew, but often local people contributed labor in order to reduce the cost. The cost of a school building in 1900 ran between \$600 and \$800.

Around 1920, country schools began to take on a more boxy shape similar to that of one-story pyramidal roof folk housing of the period. Most of these schools had basement levels and were frame structures with poured concrete or concrete block foundations—though some schools were built in the 1930s with brick and structural tile. This type of one-room school continued to be built into the 1930s. Indeed, many of the older gable-front schools were replaced with these hipped and pyramidal roof structures with the aid of the WPA. Beginning in the 1940s, some International style schools were constructed. These one-story schools most often had stucco walls and flat roofs. In the 1920s, when electricity began to appear in rural areas, some districts were willing to pay the additional cost to bring a line to the school. By the 1930s the rural electrification movement brought electric lights to all country schools.

See Section E, page 12 for a more detailed description of country schools in Iowa.

Significance

William H. Drier, Professor Emeritus of Education at the University of Northern Iowa, speculates that as much as 75% of Iowa's population in the late nineteenth and early twentieth centuries was educated in a country school (Sherman 1998:8). The importance of the country school to the history of Iowa cannot be overstated. The country school marked the center of rural neighborhoods in Iowa, giving each community an identity. As early as 1872, rural residents controlled the education of their children—from helping to build the school to hiring and housing school teachers and setting the curriculum. Despite consolidation efforts that begun in the 1890s, Iowans held on tight to their country schools until as late as the 1950s.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 32 Public Schools for Iowa: Growth and Change, 1848-1966

Over the past few decades, one-room country schools have rapidly disappeared from the rural landscape of Iowa. In 1901 there were 12,623 country school buildings in Iowa; in a survey conducted in 1996, the Iowa State Education Association found only 2,911 still standing—a loss of nearly 77% (Sherman 1998:65).

Schools may be eligible under **Criterion A** for their association with the development of a rural educational system in Iowa. Since many country schools were used for community activities during their use as a school and sometimes after the school was closed, they can also be eligible under this criterion for their importance as social centers for rural communities in Iowa. Many rural schools were constructed with WPA funds—these examples would be significant for their association with that economic program.

Schools that were directly and significantly associated with individuals who played an important role in the development of rural education in Iowa or in important social or political events that may have occurred at the school may be eligible under **Criterion B**.

Schools may be eligible under **Criterion C** as examples of a distinctive building type—the one-room country schoolhouse—because of their universal form. Many schools in more prosperous districts exhibited stylistic embellishments such as round arched doorways, round arch windows, and cupolas. Extant examples of these schools are especially rare and should be considered significant under this criterion. Nineteenth century stone and brick country schools are also relatively rare—buildings with high integrity would be of particular architectural significance. A small number of international style country schools were built in Iowa—intact examples of such schools would also have architectural significance.

Sites of former schoolhouses that have not been physically disturbed may yield important archaeological information about the school's construction and activities and therefore may be eligible under **Criterion D**. This is especially true for school house sites from the settlement period—of which little is known architecturally.

Registration Requirements

A country school should retain its original **location** to be eligible; historically, siting of the school was often carefully considered—in relation to other township schools and in relation to the immediate surroundings. Although location is an important part of a country school's integrity, moving a country school from a rural setting to a similar rural setting within the same historic jurisdiction may not disqualify it from consideration. The new site should be similar to the original site, if possible.

The **design** of a school, including its massing, form, fenestration pattern, ornament, and plan, should remain intact. As many country schools have been long abandoned, it is not crucial that all aspects of the school's design be retained to qualify. The overall massing and form of the school must be retained. Although original fenestration pattern should be present, the presence of original window sash is not crucial to maintaining design integrity. Ornamental features such as cupolas, decorative window and door molding should be present to convey the architectural style and period of the school. The integrity of a school's interior layout is important to its integrity of

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 33 Public Schools for Iowa: Growth and Change, 1848-1966

design. The school must at least retain the original one-room configuration of the classroom. Interior features such as stoves, blackboards, built-in cabinetry and shelves should also be intact.

The presence of original exterior **materials** is paramount to a country school's integrity. The indigenous materials with which many schools were built create an inexorable link to their sense of place—such as the predominance of stone in eastern Iowa. Exterior materials should not be covered up in any way to retain integrity. Interior woodwork should remain intact to retain integrity of material and design. However, overall materials, such as plaster, are not important elements to a country school's character.

Country schools will qualify under this study must have a direct **association** with the Iowa public school system. The school must have been built and funded by the public. Many early schools started as private or religious academies. These types of schools would not qualify under this context.

Schools that are eligible under Criterion C should have integrity of design, materials, and workmanship or those features that characterize the school type, architectural period, or method of construction. Properties do not necessarily require integrity of association/feeling, location, or setting to be eligible under Criterion C. Schools that are eligible under Criterion A or B should have integrity of materials, feeling/association and should retain some aspects of design and workmanship—enough integrity to convey the period of significance.

2. Town Schools

a) Nineteenth Century Town Schools

Description

Early town schools built during the settlement period were one-story, one-room structures, much the same as their rural counterparts. As towns grew, these small structures were often replaced by more substantial two- to three-story brick or frame schools located near the center of town. Larger, more prosperous towns built large brick or stone structures. In general these schools followed the stylistic trends of the period such as Italianate, Queen Anne, and Romanesque and had a square, boxy shape, with a prominent bell tower. One of the more prominent school architects in Iowa was the firm of W. R. Parsons & Son. William R. Parsons and his son Cyrus Howard Parsons designed public buildings such as courthouses and schools throughout Iowa in the late 1900s.

At the end of the nineteenth century, a variety of changes occurred in the educational system of Iowa that affected town schools. By the 1880s, educators in Iowa advocated the separation of all students into grades—a system that required a great deal more space than the conventional two or four room school. About the same time the high school was becoming more popular in smaller towns—partly due to an increasing need for Normal schools designed to train one-room country schoolteachers. Towns often coped with these educational changes by building an additional school that was attached to the existing school to house the high school grades. However, many small towns continued to use a single building for all grades, housing the high school in the upper floor of the building. By

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 34 Public Schools for Iowa: Growth and Change, 1848-1966

the end of the century, large multi-story frame schools built earlier in the century were becoming worn down and being replaced with large brick or stone structures.

The last few years of the nineteenth century marked the beginning of the consolidation movement in Iowa. The few consolidated schools constructed tended to be two-story vernacular brick structures that were more rectangular in shape than the box-shaped town schools.

See Section E, page 13 for a more detailed description of nineteenth-century town schools in Iowa.

b) Twentieth-Century Town Schools

Description

The beginning of the twentieth century again brought tremendous change to town schools in Iowa. The Progressive era sparked the consolidation movement and effected radical changes in the design of school buildings. The multi-story, box-shaped nineteenth-century school that Progressives viewed as being dark and unhealthy for children was replaced by a rectangular plan building with a single, double-loaded corridor that would admit natural light into every classroom. These newly designed schools also included large spaces for gymnasiums and auditoriums—an improvement suggested by Progressives, who advocated physical exercise as part of a child's education. Industrial progress of the era allowed for more adequate heating and ventilation systems in school buildings.

Most progressive era schools continued to be architect-designed structures. The architectural style of these schools often depended upon the budget of the school system. Larger municipalities could afford to build schools in the latest styles—the most common being Tudor and Late Gothic Revivals. However, the design of most town schools was driven more from necessity than from style—being plain brick buildings that derived their “style” from embellishments on the main entrance and/or along the cornice. Consolidated schools, which were slowly becoming more common, tended to adopt the plain style of smaller town schools.

As the twentieth century progressed, small towns in Iowa continued to utilize one building for all grades. However, larger Iowa towns increasingly began to construct stand-alone high schools. By the 1920s, design of high schools was influenced by a national trend toward the “modern” school—an open plan building in an I, L, or U shape, with a main entrance that was the architectural focal point of the building. The main proponent of this type of school, architect William B. Ittner, proposed that towns with populations between 8,000 and 15,000 should have a combined junior and senior high school with a combined gymnasium/auditorium space. Most Iowa towns followed this plan.

In the 1930s, the PWA and the WPA funded school projects throughout Iowa. The Public Works Administration (PWA) provided funds for the construction of 110 school buildings and additions in Iowa. These schools tended to be higher style buildings as the program was designed to employ architects and workers skilled in construction related fields. WPA funded schools buildings, however, were often built in less elaborate styles such as Moderne—as the style was easily constructed by unskilled laborers. Gymnasiums were also added to existing school buildings using PWA and WPA funds.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 35 Public Schools for Iowa: Growth and Change, 1848-1966

After a lull in school construction in the 1940s, the Post-War increase in school-age population in the 1950s sparked construction of new schools. Design of these schools was often driven by the latest in construction technology. Furthermore, schools followed the national trend towards sprawling, one-story buildings. Over 90 percent of the school buildings constructed in Iowa in the 1950s were one story in height, and “designed to fit the terrain” (Meiborg 1970:132). Though some towns could afford to construct new schools in the 1950s, school districts with tighter budgets constructed additions onto existing facilities.

See Section E, page 15 for a more detailed description of twentieth-century town schools in Iowa.

Significance

Nineteenth century town schools were the first concerted effort to establish an urban educational system in Iowa. However, because town schools often went beyond the basic education offered in one-room country schools—offering instruction in commercial subjects, science, and teacher training—they frequently served the needs of rural children seeking an education in the higher grades—especially those interested in teacher training. Consolidation of rural schools in the twentieth century meant that towns throughout the state became educational centers for entire rural communities. Town schools were often the most prominent buildings in communities and were built in the highest style that school district budgets would allow.

Schools may be eligible under **Criterion A** for their association with the development of a town’s educational system. Nineteenth century schools were often the first substantial building built in a town for educational purposes. These schools are relatively rare as they were often replaced during the Progressive Era or later in the 20th century. Schools may have significance because of their association with the consolidation movement in Iowa or as a Normal School. Extant nineteenth-century and early twentieth-century consolidated schools are rare and would be of particular historical significance. Schools constructed with PWA or WPA funds would also be significant under this criterion for their association with those economic programs. Many twentieth-century town schools exist today—having been expanded throughout the century to accommodate growth instead of replaced with a more modern school. Additions to schools often signaled significant developments in the local educational system, such as large increases in school-age population or major curriculum changes. Schools often added gymnasiums to accommodate increasing crowds at school basketball games.

Schools that were directly and significantly associated with individuals who played an important role in the development of a town’s educational system or in important social or political events that occurred at the school may be eligible under **Criterion B**.

Schools may be eligible under **Criterion C** as an example of a school building built in a particular architectural style. Town schools almost always reflected popular architectural styles of their time and were often the most prominent buildings in town. Many schools were also built by prominent architects such as W. R. Parsons & Son, who designed numerous Iowa schools in the late nineteenth century, and thus may also be eligible under this

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 36 Public Schools for Iowa: Growth and Change, 1848-1966

criterion as the work of a master. Wood frame examples of nineteenth-century town schools are exceptionally rare and should be considered significant under this criterion.

Sites of nineteenth-century town schools that have not been physically disturbed may yield important archaeological information about the school's construction and activities and therefore may be eligible under **Criterion D**. However, most sites of earlier schools are likely to have been disturbed, as their successors were often built at the same location.

Registration Requirements

A town school should retain its original **location** to be eligible. Historically, siting of these schools was carefully considered. Schools were often the most prominent building in town and often placed in the center of town or on a major thoroughfare. Although location is an important part of a town school's integrity, moving a school to another similar location within the same town may not disqualify it from consideration.

The **design** of a town school, including its massing, form, fenestration pattern, and ornament, should remain intact. Most town schools were relatively high style structures and should retain their original massing, ornament, and window openings. Although original fenestration pattern should be present, the presence of original window sash is not crucial to maintaining design integrity. Ornamental features should be present to convey the architectural style and period of the school. The integrity of a school's interior layout is an important part of its integrity of design. Town schools should retain original interior finishes including wood trim, blackboards, built-in cabinetry and shelving in public spaces such as hallways, auditoriums, and gymnasiums and classrooms. In general, those interior features that define the overall historic character of the school should be retained. Though the overall massing and form of the school should be retained, additions to the original structure can be present. Schools with additions on the secondary and/or rear façades can retain integrity of design as long as the additions do not substantially diminish the historic materials, features, and spatial relationships that characterize the school. Additions should be clearly differentiated from the original building but should be compatible with the materials, features, size, scale, proportion and massing of the original building.

Since many town schools were expanded to accommodate growth, additions are fairly commonplace and are often an important part of the building's history. Additions that are associated with important educational or historical trends, such as a library or gymnasium, should be considered significant to the history of the school, even if the date of addition's construction extends a few years beyond the 50-year cutoff date. For example, a gymnasium with glue-laminated roof trusses was added to the Thornton Consolidated School in 1955 to accommodate growing crowds at basketball games. The period of significance for the Thornton Consolidated School should extend to 1955 as the addition reflects an important aspect of the building's history, even though the addition falls two years short of being 50 years of age. It also should be extended because of the use of an emerging construction technology—glue laminated trusses.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 37 Public Schools for Iowa: Growth and Change, 1848-1966

The presence of original exterior **materials** is paramount to a town school's integrity. Many schools were built in popular architectural styles of the period and exterior materials are an important part of these styles. Exterior materials should not be covered up in any way to retain integrity.

Town schools that will qualify under this study must have a direct **association** with the Iowa public school system. The school must have been built and funded by the public. Many early independent schools started as private or religious academies. These types of schools would not qualify under this study.

Schools that are eligible under Criterion C should have integrity of design, materials, and workmanship including features that characterize the school type, architectural period, or method of construction. Properties do not necessarily require integrity of association, feeling, location, or setting to be eligible under Criterion C. Schools that are eligible under Criterion A or B should have integrity of materials, feeling, association and should retain aspects of design and workmanship—to convey the period of significance. Though Ventura Consolidated School has large historic and non-historic additions and dramatically downsized non-historic windows, the school still retains its integrity of materials, location, association, and feeling. The school also retains some aspects of design integrity including form, ornament and plan.

3. City Schools

a) Nineteenth-Century City Schools

Description

City schools developed in much the same way that town schools did. A one to two room school building was usually constructed during the early settlement period of a community. As the population increased, a more substantial graded school was constructed. The architecture of these nineteenth century city schools resembled that of town schools—large box-shaped structures that followed the latest architectural styles such as Queen Anne, Italianate, and Romanesque Revival. They were two-or three-story structures, with corner turrets and crenellated square-tower entrances. Much like town schools, a city school was often the most prominent building in the city or neighborhood.

See Section E, page 19 for a more detailed description of nineteenth-century city schools in Iowa.

b) Twentieth-Century City Schools

Description

The Progressive era effected radical changes in the design of school buildings and in the administration of city school districts. Early in the twentieth century, existing city graded and high schools were replaced by buildings that had more rectangular plans with single, double-loaded corridors that would admit natural light into every classroom. These schools, such as Greenwood Elementary and East High School in Des Moines, were constructed in then-

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number F Page 38 Public Schools for Iowa: Growth and Change, 1848-1966

popular architectural styles such as Beaux Arts and Neo-Classical Revival. Early twentieth-century high schools incorporated large spaces for gymnasiums and auditoriums.

By the 1920s, nationally known school architects William B. Ittner and John J. Donovan, had developed the “**modern**” school—an I, L, U, or H-shaped building with an architecturally distinctive entrance. The shape of the modern school was designed to provide light into all areas of the building. Auditoriums and gymnasiums were to be located in the rear wings. The modern school was situated on a large site to be away from traffic and to provide space for sports and recreational activities. In Iowa cities, the modern school plan was utilized for junior high and high schools. These large buildings were most often built in the Late Gothic Revival and Tudor Revival styles with elaborately styled public spaces such as lobbies, hallways, and auditoriums. Theodore Roosevelt High School and Abraham Lincoln High School, both designed by Proudfoot, Bird, and Rawson, are excellent examples of the 1920s “modern” high school.

Around the same time, Iowa city school districts were facing staggering enrollment increases. Iowa’s largest cities—Des Moines, Cedar Rapids, Sioux City, and Davenport—dealt with the increase by adopting the 6-3-3 system of school organization. The 6-3-3 system utilized a six-grade elementary school, a three-grade **junior high school**, and a three-grade high school, easing high enrollment levels of the communities’ high schools. The junior high school, which was developed to ease students’ transition from elementary school to high school, was physically different from the conventional high school in that it contained smaller gymnasium and auditorium spaces and less elaborate interiors.

The **Platoon School** educational system, which had been developed for elementary-level grades in 1910s, became popular in Iowa in the 1920s. An elementary school that utilized the platoon system divided each grade into two “ platoons” that each spent one-half of the day learning fundamental subjects and the other half learning specialty subjects such as art. Elementary school buildings designed specifically for the platoon system were very similar to conventional elementary schools—the only difference being the presence of an auditorium and gymnasium.

In the late 1930s, many Iowa cities that experienced a dramatic increase in population took advantage of the Public Works Administration (PWA) program to build new schools or add onto existing facilities. The cities of Davenport, Atlantic, and Sioux City took advantage of these funds to construct elementary and high schools respectively. **PWA schools** tended to be higher style buildings as the program was designed to employ architects and workers skilled in construction related fields. Several Davenport elementary schools built with PWA funds, such as Madison, Lincoln, Washington, Monroe, and Jefferson, contained elaborate interior spaces.

The dramatic increase in school-age population in the early 1950s left landlocked city schools with few choices for expansion. Because of fiscal constraints, city schools utilized existing buildings as much as possible by converting large junior high school and high school buildings into elementary schools or by constructing additions. Campus plans that featured multiple connected buildings and finger plans became the most popular school designs in this period.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 39 Public Schools for Iowa: Growth and Change, 1848-1966

Most city schools were designed by regionally prominent architects including the Des Moines architectural firms of Hallett & Rawson; Proudfoot, Bird & Rawson; Keffer & Jones; and Tinsley, McBroom and Higgins. Other midwest architects that designed city schools in Iowa include the Minneapolis firms of Grahn & Rathurst and Croft & Boerner and the Chicago firm of Smith & Childs. Nationally known architects John L. Hamilton and William B. Ittner also designed several city schools in Iowa including the Iowa City High School and North High School in Fort Dodge, respectively.

See Section E, page 19 for a more detailed description of twentieth-century city schools in Iowa.

Significance

City schools exemplified the latest in educational trends and technology in the state. The demand for a workforce trained in the commercial and industrial trades necessitated the emergence of the high school early in the history of Iowa's cities. As city school systems grew, new types of schools such as junior high schools and platoon schools were instituted. City schools followed the latest architectural styles and often the latest school planning trends.

Schools may be eligible under **Criterion A** for their association with the development of a city's educational system. Platoon schools are eligible under this criterion for their association with the Platoon school movement. These schools have particular significance as there were only 22 such schools constructed in the state. City schools constructed with PWA funds would also be significant under this criterion for their association with that economic program. Additions to schools often signaled significant changes in the educational system, such as large increases in population or major curriculum changes. Schools often added gymnasiums to accommodate increasing crowds at school basketball games.

A school that was directly and significantly associated with an individual who played an important role in the development of a town's educational system or with important social or political events that occurred at the school may be eligible under **Criterion B**.

A school may be eligible under **Criterion C** as an example of a school built in a particular architectural style. A city school may also be eligible under this criterion as an example of a particular type of school, such as a 1920s "modern" high school or junior high school. City schools were often built by prominent architects and thus may also be eligible under this criterion as the work of a master.

Sites of nineteenth-century city schools that have not been physically disturbed may yield important archaeological information about the school's construction and activities and therefore may be eligible under **Criterion D**. However, most sites of earlier schools are likely to have been disturbed, as their successors were often built at the same location.

Registration Requirements

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 40 Public Schools for Iowa: Growth and Change, 1848-1966

A city school should retain its original **location** to be eligible. Historically, siting of these schools was carefully considered. Before urban district consolidation in the first decades of the twentieth century, schools were placed near the center of the neighborhood. After consolidation, schools were spaced throughout the city according to the maximum distance a student should walk to school. Although location is an important part of a school's integrity, moving a school to another similar location within the same school district may not disqualify it from consideration.

For some city schools, **setting** is important aspect of a school's integrity. City high schools built in the 1920s were often designed with landscaped grounds featuring ponds and wooded areas. A grove of trees, a pond, and walking trails were part of the landscape of the Theodore Roosevelt High School, which was built in 1922 to serve the growing suburban population on the west side of Des Moines. Though elimination of such landscape features may not disqualify a school from consideration, they should be retained whenever possible.

The **design** of a city school, including its massing, form, fenestration pattern, ornament, and plan, should remain intact. Schools should retain their original massing, ornament, and window openings. Although original fenestration pattern should be present, the presence of original window sash is not crucial to maintaining design integrity. Ornamental features should be present to convey the architectural style and period of the school. The integrity of a school's interior layout is important to its integrity of design. Some interior spaces are an integral part of some schools such as the highly decorated lobbies, auditoriums and gymnasiums of the 1920s "modern" high school espoused by William Ittner. City schools should retain original interior finishes including wood trim, blackboards, built-in cabinetry and shelving in public spaces such as hallways, auditoriums, and gymnasiums and classrooms. In general, those interior features that define the overall historic character of the school should be retained. Though the overall massing and form of the school should be retained, additions to the original structure can be present. Schools with additions on the secondary and/or rear façades can retain integrity of design as long as the additions do not diminish the historic materials, features, and ornamentation that characterize the school. Additions should be clearly differentiated from the original building but should be compatible with the materials, features, size, scale, proportion and massing of the original building.

Since many city schools were expanded to accommodate growth, additions are fairly commonplace and are often an important part of the building's history. Additions that are associated with important educational or historical trends, such as a library or gymnasium, should be considered significant to the history of the school, even if the date of addition's construction extends up to five years beyond the 50-year cutoff date. For example, a second story was added to each wing of the 1940 Monroe Elementary School in 1955 to accommodate a rapid increase in enrollment in Davenport. The period of significance for the Monroe School should extend to 1955 as the addition reflects an important aspect of the building's history, even though the addition falls two years short of being 50 years of age.

The presence of original exterior **materials** is paramount to a city school's integrity. Many schools were built in the latest architectural styles of the period. The exterior materials are an important part of the building's design and architectural style and should not be covered up in any way to retain integrity.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 41 Public Schools for Iowa: Growth and Change, 1848-1966

City schools will qualify under this context must have a direct **association** with the Iowa public school system. The school must have been built and funded by the public. Many early independent schools started as private or religious academies. These types of schools would not qualify under this study.

Schools that are eligible under Criterion C, such as Greenwood Elementary School in Des Moines, should have integrity of design, materials, and association, and feeling or those features that characterize the school type, architectural period, or method of construction. Though Greenwood Elementary School has a large addition on its rear façade, the two most prominent elevations have the materials, form, fenestration pattern, and ornament of the original building sufficient to retain the building's integrity of design. Schools that are eligible under Criterion A or B should have integrity of materials, feeling, and association and should retain some aspects of design and workmanship—enough to convey the period of significance. East High School in Des Moines is a Classical Revival style school with historic and non-historic additions on three facades. Despite these additions, the school retains its integrity of materials, location, association, and feeling. The school also retains some aspects of design integrity including style, form, ornament and plan. Indeed despite the additions, East High School is also eligible under Criterion C as an excellent example of a high school built in the Neo-Classical style retaining the majority of the features that illustrate its style such as fenestration pattern, texture of materials, and ornamentation.

4. Special Education—Opportunity Schools

Description

An opportunity school was a type of day school that segregated handicapped children from the mainstream educational system without taking them from their homes and/or communities. The school building was specifically designed for the education of handicapped children and had interior features such as a central ramp for physically handicapped students, sight-impaired classrooms with canted blackboards, a gymnasium with corrective exercise equipment, and a pool for physical therapy. These special interior features did influence the shape of the school buildings; but rarely did it influence the style, which often followed the latest architectural trends of the period.

Significance

Opportunity schools may be eligible under **Criterion A** for their association with the development of a public educational system for handicapped children. The school must be a part of a local school district. Institutions that separated students from their homes are not considered as part of the public educational system.

Opportunity schools that were directly and significantly associated with individuals who played an important role in the development of special education in the public schools or in important social or political events that occurred at the school may be eligible under **Criterion B**.

An opportunity school may be eligible under **Criterion C** as an example of a school building built to accommodate a particular type of student with special needs. Because of the specialized interior spaces and interior space planning of these schools, most were designed by prominent architects and as such may also be eligible under this criterion as

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 42 Public Schools for Iowa: Growth and Change, 1848-1966

the work of a master. Additions to these schools are commonplace and their impact on the architectural significance of a school should be carefully considered. Additions should not obscure the main façade or other prominent facades of the original building. They should be clearly distinguishable from the original building.

Registration Requirements

An opportunity school should retain its original **location** to be eligible. Historically, siting of these schools was carefully considered—being centrally located within the district. Often school districts would obtain large blocks of land arranging several school buildings within one block. Although location is an important part of a school's integrity, moving a school to another similar location within the same school district may not disqualify it from consideration.

The **design** of a school, including its massing, form, fenestration pattern, ornament, and plan, should remain intact. Schools should retain their original massing, ornament, and window openings to maintain integrity of design. Although original fenestration pattern should be present, the presence of original window sash is not crucial to maintaining design integrity. Ornamental features should be present to convey the architectural style and period of the school. The integrity of a school's interior layout is crucial to its integrity of design as these schools had interiors specially designed for handicapped children such as ramps, classrooms with canted blackboards, and therapeutic pools. Though the overall massing and form of the school should be retained, additions to the original structure can be present. Schools with additions on the secondary and/or rear façades can retain integrity of design as long as the additions do not diminish the historic materials, features, and spatial relationships that characterize the school. Additions should be clearly differentiated from the original building. They should be compatible with the materials, features, size, scale, proportion and massing of the original building.

Opportunity schools expanded to accommodate growth or changing educational needs, so additions are fairly commonplace and are often an important part of the building's history. Additions that are associated with important educational or historical trends, such as an acute care facility, should be considered significant to the history of the school, even if the date of addition's construction extends up to five years beyond the 50-year cutoff date.

The presence of original exterior **materials** is paramount to a school's integrity—many schools being built in the latest architectural styles of the period. The exterior materials are an important part of the building's design and architectural style. Exterior materials should not be covered up in any way to retain integrity.

Opportunity schools will qualify under this study must have a direct **association** with the Iowa public school system. The school must have been built and funded by the public.

Schools that are eligible under Criterion C should have integrity of design, materials, association, and feeling including those features that characterize the school type, architectural period, or method of construction. Schools that are eligible under Criterion A or B should have integrity of materials, feeling/association and should retain some aspects of design and workmanship—enough to convey the period of significance.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 43 Public Schools for Iowa: Growth and Change, 1848-1966

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number G Page 44 Public Schools for Iowa: Growth and Change, 1848-1966

G. Geographical Data

The geographic area encompasses the entire state of Iowa.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number H Page 45 Public Schools for Iowa: Growth and Change, 1848-1966

H. Summary of Evaluation and Identification Methods

The Multiple Property Documentation Form for public schools in Iowa is based on historical research and a combined reconnaissance and intensive level survey. The reconnaissance survey was based on information from a questionnaire sent to schools in 1994 by C. Milton Wilson of the Bureau of Administration and School Improvement Services, Iowa Department of Education.

The Department of Education questionnaire was sent out to every school district in Iowa to ascertain the extent of active public school facilities in the state. To the State Historical Society of Iowa, the most important information contained on the questionnaire was the date of construction for school buildings. This information, along with the name and location of each facility, presented the most complete information available to the multiple property documentation study about active historic school facilities in Iowa. However, the Department of Education survey is by no means a fully complete accounting of all historic public school facilities in Iowa for two reasons: 1) not all respondents provided the construction date of their facility and 2) the 1994 survey included only those buildings in use as schools at that time. Information on the overall content of the survey, number of surveys sent out, and number of responses received could not be obtained from the Department of Education.

Reconnaissance-Level Survey

The reconnaissance-level survey was based on the results of the 1994 survey conducted by C. Milton Wilson at the Iowa Department of Education. Any school reported in the survey with a construction date of 1940 or earlier was included in the reconnaissance-level survey—amounting to 805 town and city schools across 99 counties. Before fieldwork began, the schools in the Wilson survey were incorporated into a database that served to organize and direct the reconnaissance field effort. Two field surveyors took notes on the basic information of each structure: name, address, location using UTM coordinates, Iowa Site Inventory number, and digital color photographs. UTM locational data, consisting of a point at the entrance to the structure, was taken for all sites using Trimble Pathfinder Pro XL equipment. All of the information was incorporated into an Access database. Photo sheets of each school incorporated basic data and hard copy prints of each digital photograph. The digital photos are stored on CD-rom with accompanying photo catalog sheets.

Intensive-Level Survey

The results of the reconnaissance survey were used to select a large group of approximately 80 schools. The main criterion for this initial selection was the integrity of design, materials, association, and feeling of each school. The initial group of 80 was then reduced to 60 schools that would have an even geographic distribution throughout the state, represent a broad range of school types (i.e. elementary schools, consolidated schools, high schools, etc.) and would have the greatest potential to yield historical information. During a meeting with the State Historical Society of Iowa project coordinator, Lowell Soike, and other members of the Historical Society staff, 50 schools were selected for intensive survey and National Register evaluation.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number H Page 46 Public Schools for Iowa: Growth and Change, 1848-1966

Basic information on the form, materials, interior layout, and construction history of each structure was gathered during the intensive-level survey. An Iowa Site Inventory Form was completed for each structure with accompanying maps, site plans, drawings, and original 5" x 7" black-and-white photographs and color slides.

Contextual Research and Resource Evaluation

Before the project was undertaken, project coordinator Lowell Soike developed a research guide. Information was to be compiled on the following topics:

- 1) Chronology of Iowa laws concerning
 - a) Primary and secondary public school education
 - b) School buildings and grounds
 - c) Districting, redistricting, and consolidation
- 2) Iowa school architecture
 - a) Design influences, Iowa architects, types of school layouts
 - b) Introduction of school facilities such as gymnasiums, pools, band rooms, theatre/stage, science labs
- 3) Leading individuals in Iowa public school development
- 4) Grammar/elementary school movement in Iowa
- 5) High school movement in Iowa
- 6) Platoon school movement in Iowa
- 7) Junior high school movement in Iowa
- 8) Middle school movement in Iowa
- 9) Consolidation school movement in Iowa

The above topics were researched using a wide variety of sources. Research was initiated immediately while the reconnaissance level survey was being planned and conducted. As the research progressed, other topics such as special education in Iowa were incorporated into the research outline.

Overall contextual research began with the perusal of the general published works on the topic, such as Aurner's *History of Education in Iowa*, and Meiborg's dissertation, *A Fifty-Year Period in the Evolution of Schoolhouse Design and Construction in Iowa: 1919-1969*. Nationally published material on school planning and design, Barnard's *School Architecture*, Dressler's *American Schoolhouses*, and Donovan's *School Architecture*, and others illustrated the national trends in school design and change. Journal research began with the Education Index, which contains information on all aspects of education and school building. *Midland Schools*, *American School Board Journal* and *Nation's Schools* were particularly informative on the subject of school architecture. Publications of the Iowa Department of Public Instruction and the University of Iowa Department of Education contain articles on the issues of concern in Iowa education, and much statistical information on the growth of schools and school districts. The best sources of information on Iowa schools were the schools themselves: the design, layout, construction materials, and changes through time. The schools consistently illustrate the attitudes toward schoolhouse design at

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number H Page 47 Public Schools for Iowa: Growth and Change, 1848-1966

the time of their construction, and the changes in those attitudes up to the present time. Of these, 30 were selected for nomination with this MPD.

Recommendations for Future Survey Efforts

There are undoubtedly public schools that were not included in C. Milton Wilson's inventory for the Iowa Department of Education. Wilson's survey was of public school buildings that were in use as schools at that time. Those schools not included in the survey would include structures that, at the time of Wilson's survey, had already been abandoned and sold by school districts.

Private schools and institutions were not a part of this survey effort, but are an important component of the history of education in Iowa. These schools should be the next survey priority in order to create a complete picture of education in Iowa. The rise of such educational facilities can be chronicled through research in the Iowa Educational Directory, which was published from the late 1800s to present.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 1 Page 48 Public Schools for Iowa: Growth and Change, 1848-1966

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**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 1 Page 49 Public Schools for Iowa: Growth and Change, 1848-1966

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**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 1 Page 50 Public Schools for Iowa: Growth and Change, 1848-1966

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**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 1 Page 51 Public Schools for Iowa: Growth and Change, 1848-1966

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**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 1 Page 52 Public Schools for Iowa: Growth and Change, 1848-1966

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