

farms that have been owned by the same family for 100 years or more. It is not based upon the same criteria for evaluation and significance as the NRHP. The Hoosier Homestead Program was established in 1976 to recognize the contributions those family farms have made to the economic, cultural, and social advancement of Indiana. Indiana farms may also qualify for the Centennial Award (100 years of single family ownership), the Sesquicentennial Award (150 years of ownership), or the Bicentennial Award (200 years of ownership).

2.5 Conclusions

The project architectural historians inventoried 253 properties as part of this study. Most of the properties inventoried dated from the period 1900-1970. One property in the APE, the Kingsbury-Doak Farmhouse (IHSSI 089-352-95007) was previously listed in the NRHP. One additional property in the APE, the Cutler Farm, is recommended as eligible for listing in the NRHP for historic significance. Two hundred and fifty of the properties, including 29 properties previously surveyed in the IHSSI, are not recommended eligible for listing in the NRHP due to a lack of architectural or historical distinction and in some cases, significant alterations resulting in a lack of integrity.

A list of all surveyed properties in the APE is presented in Appendix D. The individual findings of eligibility follow in Appendix E. Maps depicting all surveyed properties, including NRHP-listed and NRHP-eligible properties, is presented in Appendix A.

3.0 Historic Context

This context focuses on the historical development of the proposed Illiana Corridor Tier Two project area from 1672 to 1970 by examining the historic patterns that have impacted the development of historical resources in Lake County, specifically the West Creek, Cedar Creek, and Eagle Creek townships.

Located in northwestern Indiana, the 497 square mile Lake County is bounded by Illinois to the west, Lake Michigan to the north, and the Kankakee River to the south (see Figure 1-1). The county shares an eastern border with neighboring Porter County. Due to Lake County's physical proximity and economic ties to Chicago, the northern third of the county is heavily industrialized, while the southern portion of the county remains primarily rural. In more recent years, suburban development has become increasingly prevalent in the center of the county. Today, Lake County is divided into ten townships, including townships are St. John, Ross, and Hobart; Hanover, Center, and Winfield; West Creek, Cedar Creek, and Eagle Creek. The three southern townships, West Creek, Cedar Creek, and Eagle Creek—the focus of the project area—are named for their geographical position and the creeks that run through them.¹

¹ Historic Landmarks Foundation of Indiana, 1996, XV

Lake County's diverse topography and geographic features of prairies, rivers, marshes, and forests, proved to be difficult for early settlers in the region. The southern third of the county consists of the Kankakee River and its expansive marshlands, later drained and cultivated for farming, while the central third of the county is primarily rolling prairie. Though the soil of the prairie is extremely fertile and most conducive to farming, the thick grasses and deep roots made cultivation of the land difficult for early settlers. Less conducive for farming due to its proximity to Lake Michigan, the northern third of the county has sandy soil and marshes.²

The following historic context demonstrates the historical development of the project area in Lake County and describes the representative types of extant built resources surveyed in the project area. This context provides a background for their evaluation and analysis by describing the area's larger patterns of development and consequently, the evolution of the built environment.

3.1 Pre-Statehood History

Though the British, French, and Euro-American settlers vied for control over northwestern Indiana during the eighteenth century, the abundant region was first settled by the Potawatomi Indian tribe. Trails throughout Lake County indicate that Indian tribes from other regions traveled through the area, but the Potawatomis were the first to permanently settle in the Lake County region. By the time the first foreign settlers arrived in 1672, the Great Lakes region—including Lake County—belonged to the territory of New France. Catholic missionaries Father Allouez and Father D'Ablon of France visited Indian villages, but they made no attempts to settle permanently or establish a mission.³ Father Jacques Marquette, who camped along the shores of Lake Michigan in 1675, followed the two priests.

The year 1679 marked the beginning of a four-year period, during which the French explorer LaSalle and company frequently visited the Lake County region. LaSalle's fur trading interests led him to search for opportunities throughout the Great Lakes and Mississippi River regions. However, it is probable that he thoroughly investigated the Lake and Kankakee regions while he traveled along the southern shore of Lake Michigan during the winter of 1681-82. News of LaSalle's activity in the region, particularly his voyage along the Mississippi River, made acquiring land in the west a priority of the English government, but it would be half a century before the British met their objective.⁴ In 1690, the French established the first permanent settlement in the Lake region at Vincennes.

Initially, the French settlers experienced success with trade in the region, largely due to their understanding of local American Indian culture. Struggles with Britain followed

² Ibid

³ Howat, 1915, 30

⁴ Ibid, 31

this period of prosperity for the French settlers.⁵ From 1744 to 1763, France and Britain fought for control over the colonies and land in the west—as the French-settled region was referred to during that time—and some of this struggle occurred along the rivers in Indiana. Ultimately, Britain successfully defeated France, gaining control of some of the French forts, including the settlement in Vincennes. Britain then issued the Proclamation of 1763, their attempt to discourage settlement in the newly acquired Midwest territory. Settlers drawn to the region’s rich natural resources ignored the proclamation, causing upset among the American Indians.⁶

British control was short-lived, due to conflict among the settlers, American Indians, and the British. Tensions continued to rise as the colonists occupied the west and American Indian tribes—including the Potawatomis in the Lake County region—became actively engaged in assisting the British.⁷ The British government responded by issuing the Quebec Act in 1774, which relinquished control of the majority of the Midwest territory to the Canadian government in an attempt to protect the rights of the American Indians. Undeterred, settlers continued to move into the region as the Revolutionary War began in 1775.⁸ Establishing a presence in the west remained a priority for Britain and England during the war. After the colonists’ victory, Americans began to settle the Midwest in larger numbers, but the British still maintained control over several forts. Following the Treaty of Paris in 1783, the territory east of the Mississippi and south of the Great Lakes was transferred to the newly independent United States.⁹

3.1.1 Territorial Government

Issues of border warfare continued to plague the region and continued settlement necessitated the establishment of a formalized government to create order among the settlers, American Indians, and the British. The Land Ordinance of 1785 prompted Congress to develop a land survey system that required the overlaid survey of a rectangular grid on the land. Surveyors divided the land into six-mile square townships and further divided the townships into thirty-six one-mile sections. The three southern townships in the project area—West Creek, Cedar Creek, and Eagle Creek—would later be divided from the South Township established by the surveyors. Generally, surveyors adhered to the system, providing the topography of the land did not cause roads to run counter to the grid. This issue was commonly encountered in southwestern Indiana, where the hilly terrain forced roads to follow winding streams. Land grants distributed prior to the survey—either by the French government, or for service in the Revolutionary War—also deviated from the grid. Not only did the survey facilitate a sense of order in the west, but it also established basic guidelines for the sale of land in the region and ensured that land titles would be protected.¹⁰

⁵ Historic Landmarks Foundation of Indiana, 1996, XVIII

⁶ FHWA, November 21, 2005, 9

⁷ Howat, 1915, 41

⁸ FHWA, November 21, 2005, 9

⁹ Howat, 1915, 42

¹⁰ FHWA, November 21, 2005, 10

Following the Land Ordinance of 1785, the government passed the Northwest Ordinance of 1787 to further establish governance of the land northwest of the Ohio River.¹¹ This region came to be known as the Northwest Territory and General Arthur St. Claire was appointed its governor the same year. St. Claire's appointment and the settlers' continued disregard for established settler boundaries reawakened conflict in the region. Despite this friction, population in the territory continued to increase. Congress divided the territory into the Ohio Territory and Indiana Territory in 1800, with Vincennes serving as the first capitol of Indiana. Though settlers were drawn to the resource-rich lands of the Indiana Territory, life in the region continued to be difficult and sometimes dangerous. Squatters often cleared and improved land, waiting for it to become available for purchase, but some became discouraged and moved on. Usually, improvements consisted of temporary log structures for housing humans or animals.¹² Additionally, the American Indians continued to pose a threat to American settlement in the territories. Several treaties during the era addressed this issue. In 1807, a land office was established at Vincennes, drawing more settlers to the region.¹³ In 1816, Indiana was admitted to the United States and by 1820, fifty counties were established.

3.1.2 Lake County History

When the first pioneers arrived in Lake County in 1834, the Potawatomi tribe was the most prominent group in the region, despite having sold all of their land to the United States government by this time. A small number of hunters and trappers also lived in the region. Prior to the arrival of the first pioneers, the United States government purchased a ten-mile section of land in northern Lake County from the tribe in 1828. After an 1832 treaty with the tribe, the government acquired the remainder of the land in northwestern Indiana. Though some members of the tribe relocated as a result of the treaties, settling in Michigan and along the Mississippi River, many of these skilled hunters, trappers, and fisherman remained in Lake County. Generally, early relations between the pioneers and the Potawatomis were amicable. The tribe frequented the Kankakee Marshlands, an area they found most conducive for hunting and trapping, and two large Potawatomi camps were located within the town of Lowell.

The early pioneers were drawn to Lake County's resource-filled lands, which they soon realized were capable of supporting both agricultural and trading economies. Due to the topography of the land, early settlement primarily occurred in the central portion of the county. In 1834, United States surveyors established the Lines of Lake County, laying out the county's congressional townships and sections.¹⁴ Though Lake County was not officially organized until 1837, this made it possible for pioneers to the region to legally record the location of their settlement. In 1838, the Potawatomis were forcibly removed from the land and public land sales began in 1839. The settlement of Liverpool served as the first County seat which was moved to the more centrally located Crown

¹¹ Ibid, October 19, 2005, 32

¹² Ibid, November 21, 2005, 10

¹³ Ibid, October 19, 2005, 33

¹⁴ Howat, 1915, 35-36

Point in 1840. Government business was conducted in a hewn-log building, owned by Crown Point's founder, Solon Robinson.¹⁵

Lake County's first homesteaders faced hardships—clearing the land for agricultural production was difficult—and in the beginning farmed at a subsistence level. In 1837, settler John Wood opened a saw mill in Ross Township. This mill, along with a gristmill owned by Wood, were the only operating mills in Lake County and neighboring Porter County during this period. Early population centers began to form around small settlements at Merrillville (1848), Hobart (1849), St. John (ca. 1840), and Cedar Lake (ca. 1839).

The arrival of the Michigan Central Railroad in 1850 brought major change to Lake County. The northern third of the county, adjacent to Lake Michigan and previously undeveloped due to a topography that did not support agriculture became linked to burgeoning Chicago industries. Now easily accessible from Chicago, industry began to grow in Lake County, drawing workers and impacting the physical development of the northern portion of the county. The region continued to rapidly develop through the 1920s, profoundly impacting its political, social, and educational aspects. The railroad also fostered agricultural economic growth, linking farmers to outside markets.¹⁶ Advancements in transportation technology transformed agricultural practice in Lake County from a subsistence level to a profitable business. In contrast to the county's northern third, the focus of the southern portion of the county, which is in the project area, has remained primarily rural. The three southern townships located in the project area, West Creek, Cedar Creek (including Lake Dalecarlia), and Eagle Creek, were divided from South Township in 1839.

3.1.2.1 West Creek Township

When the first settlers arrived in West Creek Township in the early 1830s, there were very few Potawatomis living in the area, a result of the Treaty of 1832. Located in the southwestern corner of Lake County, West Creek Township is named for the creek that runs approximately north-south through the township. The creek is the furthest west of the three creeks in southern Lake County that run into the Kankakee River. The early homesteaders, interested in the prospect of rich farmland, first resorted to hunting and trapping because of the topography of the land. The southern end of West Creek Township, approximately four to five miles, was entirely marsh, while the northern portion of the township was a large prairie. The first pioneers used large breaking plows, pulled by six or more oxen, to clear the prairie for planting. The prairie grass was used for hay. Timber growing along the creek provided a source of wood for the settlers and the marshlands were abundant with animals for hunting and trapping. West Creek Township was officially organized in 1839.

In 1838, the first general store was constructed, and the following year the first post office was completed. The early settlers did not construct any roads and were only able

¹⁵ Historic Landmarks Foundation of Indiana, 1996, XV

¹⁶ Historic Landmarks Foundation of Indiana, 1996, XV

to travel through the marshlands during dry periods and when the ground was frozen in the winter. In addition to trapping furs along the Kankakee River, the settlers began farming, and the construction of several mills contributed to the development of an agricultural economy. In 1868, a road running east to west just north of the Kankakee River was constructed. About ten years later, a second road running north to south was constructed and connected to the first road.¹⁷ During this period, ditches were dug in the township and the long process of draining the land for farming began.

Two events had a lasting effect on West Creek Township's economy. An extensive drainage system, constructed during the late nineteenth and early twentieth century, enabled farmers to cultivate large portions of swampland. In 1905, the railroad arrived in West Creek Township. The majority of extant historic resources in the township reflect the diversity of the farmsteads formed during this period.¹⁸

3.1.2.2 Cedar Creek Township

The central southern township in Lake County, Cedar Creek Township is the most populated of the three townships. Organized in 1839, settlers arrived in the area as early as 1835. The Kankakee River forms the southern boundary and the early pioneers in Cedar Creek Township faced the same hardships as the settlers in West Creek Township, until drainage efforts in the later nineteenth and early twentieth century converted the marshland into productive farmland.

Cedar Creek is an outlet of Cedar Lake, which flows into the Kankakee River at a powerful rate. Because of this, the creek has been altered numerous times by settlers since their arrival in the area. An early settler and founder of the town of Lowell, Melvin Halstead, realized the potential of the waters of Cedar Creek to power saw and grist mills. Halstead left his farm in West Creek Township in 1848, taking up residence in an abandoned cabin along the creek, with the goal of establishing a community there. The power of Cedar Creek is the primary reason for the location of the town of Lowell, which Halstead platted between 1852 and 1853.¹⁹

A dam was erected at Lowell, directing the water of Cedar Creek into a mill pond. An 1875 map indicates that the water flowing from the pond was further divided; one fork flowed toward a dam on Main Street in town and the other fork flowed into the swamplands of the Kankakee Marsh. During the 1920s, a dam constructed in the northwestern corner of the township again divided the creek, filling a manmade lake constructed by the Wonderland Development Corporation. The company developed the lake into the summer resort community Lake Dalecarlia. Because of this, recreation has played an important role in the history of Cedar Creek Township.

Like the surrounding townships in southern Lake County, agriculture played an important role in Cedar Creek Township. The arrival of the railroad and extensive

¹⁷ [Schmal](#), March 9, 2009

¹⁸ Ibid

¹⁹ [Schmal](#), July 11, 2007a

efforts to drain the southern half of the township had a profound impact on the township's economy. Both ushered in an agricultural economic boom in the late nineteenth and early twentieth century. The importance of agriculture is reflected in the number of farmsteads found in Cedar Creek Township.²⁰

Located in the project area, the T-plan school building at 16066 Hendricks Street in Cedar Creek Township is one of the early remaining district schools in Lake County and was constructed in 1900.

3.1.2.3 Lake Dalecarlia

In 1833, a gristmill was constructed at what has since become the southern tip of manmade Lake Dalecarlia and Cedar Creek was dammed to provide power to the mill. By 1885, the mill had been abandoned, but this land—later acquired for the Lake Dalecarlia development—continued to be used a productive farmland until the 1920s.

In 1927, Hammond resident and real estate developer David C. Hammer considered the idea of creating a lake and developing a resort community in the area. Hammer formed the Wonder Lakes Development Corporation the same year and purchased 3,100 acres of farmland. By September 1928, a temporary dam had been completed, while plans to construct a permanent concrete dam were underway. Eight miles of shoreline surrounded the lake when it was completed and several small islands were located throughout the lake.

Plans to construct an office for the development corporation at the lake were made in January 1929 and the first subdivision, Wonder Lakes Manor, opened that year. In March of 1929, a meeting was called to determine a new name for the lake and Dalecarlia was heavily favored. Many of the residents in the area were Swedish immigrants and Lake Dalecarlia was also the name of a lake in the Province of Dalarna in Sweden.²¹ The following year, the Lake Dalecarlia Country Club formed, but its name was later changed to the Lake Dalecarlia Property Owners Association in the 1950s.

With the rest of the nation facing economic turmoil after the stock market crash in 1929, the development corporation dramatically cut lot prices in the early 1930s. This strategy proved successful and the company was able to continue selling in spite of the Great Depression. In 1940, the Lake Dalecarlia Volunteer Fire Department was formed and the community received police protection from the Lake County Sheriff's Department. By 1954, some 450 people lived around the lake. Today, it remains a mix of permanent residences and summer homes.

3.1.2.4 Eagle Creek Township

Located in the southeast corner of Lake County, Eagle Creek Township was organized in 1839. According to legend, early settlers Luman Fowler and Jacob Hurlsburt gave the

²⁰ Historic Landmarks Foundation of Indiana, 1996, 410

²¹ [Schmal](#), January 29, 2002

creek its name after finding an eagle's nest in a tree along the banks. The diverse topography of Eagle Creek Township also proved to be difficult for the early pioneers. Settlers drawn to the township's rich soil faced the difficult challenges of draining the Kankakee marshlands in the southern portion of Eagle Creek Township and clearing the prairie in the northern portion. Two small self-supporting settlements were established in Eagle Creek Township during the 1830s. The first settlement occurred in 1835 in an area known as Southeast Grove, located within the project area, and the second in 1836 at Plum Grove.

Agriculture has played a dominant role in the development of the township. Typical of southern Lake County, the draining of swamplands along the Kankakee River in the southern portion of the county boosted the economy of Eagle Creek Township. This is evident in the large collection of late-nineteenth-century farmsteads in the township.

3.2 Transportation

When pioneers arrived in the state during the early nineteenth century, they traveled by way of the American Indian trails. The first roads were often government or private-funded turnpikes. The National Road, begun in Maryland in 1811, was completed in Indiana in 1834. The road opened Indiana, along with Ohio and Illinois, to settlement and connected the frontier to the east. Water was also used as a means of travel. The Erie Canal connected eastern and western markets, but became obsolete due to the development and efficiency of rail. The railroad played an important role in the economic and social development of many communities in Indiana. In time, the automobile would have the largest impact on these institutions and the development of rural and urban communities in the state.

The Land Ordinance Act of 1785 established Indiana's grid system, significantly impacting transportation in the state. The grid is most noticeable in Northern Indiana, due to the flat and even terrain. After 1816, when Indiana was admitted to the Union, that state's developmental years were geared toward internal improvement. Developments in transportation first took place in southern Indiana.

3.2.1 Roads and Canals

Transportation played an integral role in the development of Lake County. The earliest route in the county was the Great Sauk Trail, formed by American Indians passing through the region. After the pioneers began to operate sawmills in southern Lake County, they carried out the laborious process of building wooden roads. In order to travel over the soggy Kankakee Marshlands, settlers laid logs side-by-side and covered the logs with heavy, hardwood planks. Ditches were often constructed on either side of a road to promote drainage.²² The Michigan Road, linking the southern city of Madison to northern Michigan City, was completed in 1826. In 1832, a branch extending to Terre Haute was completed. These early roads were integral to progress and settlement in

²² Schmal, May 7, 2002

Indiana. After Indiana's Internal Improvement Bill passed in 1836, funding was appropriated for a network of canals. As a result, the Wabash and Erie canals were completed, but canal projects eventually bankrupted the state. As a result of the railroad, the network of canals was becoming obsolete while they were being constructed. During the early twentieth century, canal building resumed and a series of canals were constructed to connect inland industry with Chicago. These canals continue to be used today.

3.2.2 Railroads

The first rail lines reached Indiana in 1847 and soon became the dominant form of transportation. In 1850, the Central Michigan Railroad was the first line to extend into Lake County, but rail did not reach southern Lake County for another three decades. The Indianapolis, Delphi, and Chicago Railroad Co. formed in 1869. Four years later, a wealthy Lowell and Cedar Creek Township resident, Melvin A. Halsted, met with the officers of the railroad building company in Chicago. He proposed the construction of the railroad through the town of Lowell and entered into a contract with the company. Halsted invested a large sum of money in the project and was instrumental in bringing the railroad to southern Lake County. Upon his return to Lowell, Halsted encouraged other residents to invest in the railroad, but the project faced some opposition. Halsted was not discouraged; he obtained the right-of-way for the proposed line and assisted in the survey and selection of the route. Because the proposed project would impose a tax on Cedar Creek Township and West Creek Township residents, a vote was taken and it passed despite opposition. By the middle of August 1874, Halsted and a construction crew began grading the proposed route.

In 1877, the firm Yeoman, Hegler, and Co., of Ohio began to lay narrow track between the towns of Delphi and Rensselaer, Indiana. After these forty miles of track were completed, the line was sold and the name subsequently changed to the Indianapolis, Delphi, and Chicago Air Line. The railroad was not completed through the town of Lowell until 1884; by 1884, over two hundred miles of track were used daily in Lake County. The railroad did not reach West Creek Township until 1905. After several additional name changes, the section of track passing through Lowell would become the Monon Line.²³

The arrival of the railroad drastically changed the agrarian industry in southern Lake County. While the majority of farmers in the three southern townships farmed at a subsistence level prior to the arrival of rail, they were now connected to faraway markets and industries. Farmers shipped surplus goods—corn, grains, livestock, and milk—to larger cities and factories. Until the early 1920s, the Monon line transported milk from a stop in Lowell to large cities like Chicago, and earned the name the “milk line.” Ultimately, the railroad had a tremendous effect on the vitality of the rural communities in West Creek, Cedar Creek, and Eagle Creek townships.

²³ Schmal, March 29, 2006

3.2.3 Automobiles

During the early twentieth century, the railroad was surpassed by the automobile, which would have the greatest impact on development and the way of life in Indiana. The state responded to the emergence of this form of transportation by constructing a 3,200 miles network of roads. The system connected communities with populations over 5,000. During the 1920s, the Lincoln Highway, the country's first coast-to-coast route, was constructed through northern Lake County, increasing commercial activity in smaller, relatively undeveloped towns.²⁴ The emphasis on the automobile also brought attention to road conditions in the county and improvements were made. Unnavigable gravel routes were adapted using macadam construction. Wooden bridges were also replaced with stronger metal-truss and concrete bridges that supported automobile traffic. Several bridges were constructed over irrigation ditches in the southern townships.²⁵

3.3 Agriculture in Indiana

Agriculture has played an integral role in the history of Indiana, contributing to the development of the state's economic, social, and educational systems. When Indiana was admitted to the United States in 1816, 95 percent of the population was engaged in food production.²⁶ Though the early settlers primarily engaged in subsistence level farming, advancements in technology and transportation would later lead to the diversification of crops and ultimately to farming as a business. Indiana's agricultural history can generally be divided into three periods: 1816-1860, 1861-1916, and 1917-1960.

3.3.1 1816-1860

As the early pioneers cleared and cultivated land for farming, Indiana's diverse topography—comprised of forests, prairies, rivers, and swamps—proved to be difficult. In order to clear forested land, settlers felled, piled, and burned trees. Before plowing the land, roots and stumps were removed from the ground. The process of cultivating the land could take several years. Additionally, Indiana's prairies proved to be equally difficult for pioneers to farm. The thick prairie grass roots extended more than a foot beneath the ground. Often, tools employed by the early settlers were rudimentary and the crude plows used in forested regions were widened and adapted to be used on the thick prairie grass roots.²⁷ After successfully cultivating the land, settlers began to grow corn at a subsistence level. Though Indians first grew corn, it would become the settlers' primary crop that they cultivated. The crop not only provided food for farmers, their families, and livestock, but it could also be used as method of exchange.

Early in the state's history, the relationship between education and agriculture was prominent. Developing an education system for the state, which would be free and

²⁴ Historic Landmarks Foundation of Indiana, 1996, XVIII

²⁵ Ibid, XXIV

²⁶ Thompson, 1966, iii

²⁷ Ibid, 4 and Historic Landmarks Foundation of Indiana, 1996, XXIII

attainable, was addressed in Indiana's Constitution of 1816. That state legislature was directed to take on the task, but soon realized that the state's early settlers—many of whom were living a "pioneer life"²⁸—could not afford the taxes to support a public school system. Additionally, the Constitution of 1816 proposed a state university. Though nearly all of the state's current accredited colleges were established between 1827 and 1860, most were private entities; only one state institution was founded prior to the beginning of the Civil War in 1861. An 1820 law chartered a state seminary. Located in Bloomington, the seminary's name changed to Indiana University in 1838. Though several colleges and a state university were established during this period, these early schools did not teach agriculture.²⁹

During the 1840s and 1850s, debates nationwide began to shed light on the changing attitudes toward agricultural practice. The idea that agriculture was a science, not only a laborious effort, was a relatively new concept. Vermont Congressman Justin Morrill proposed federal land grants to conduct agricultural research and education. This movement received further support from New York editor Horace Greeley, who spoke before Indiana residents at a Fayette County Fair. Greeley discredited the concept that, "farming is an affair of muscle only. The more urgent the proofs that no science of agriculture now exists, the more obvious it is true that one is urgently needed."³⁰

In response, the Indiana state legislature created the State Board of Agriculture in 1851. The board provided farmers with an impetus for agricultural advancement and self-improvement, by establishing rules for the organization of county agricultural societies. By February 1852, thirty county agricultural societies were established.³¹ County organizations not only exposed farmers to improved agricultural methods and techniques, they also created a sense of pride among farmers. The cultivation of this pride and improved farming methods led to wealth, educational opportunities, and a greater sense of independence among farmers.

Indiana State and County Fairs also served as a source for educational and entrepreneurial opportunities related to agricultural endeavors. The 1854 Hancock County Fair emphasized farmstead improvement methods, the need to import better livestock, and practice drainage to improve fields. Fairs also exposed farmers to the emergence of "book farming," in which essays were written on crops, drainage, machinery, and farmstead improvements.³² The Lake County Agricultural Society, Inc. has presented the Lake County Fair since 1852. The impact of early agricultural education led to the transformation of farming at a subsistence level to a business and means of supporting one's family. Changes in transportation supported this shift as well. Due to advancements in transportation during the 1850s, farmers were able to

²⁸ Thompson, 1966

²⁹ Ibid

³⁰ Thompson, 1966, 16

³¹ Ibid, 14

³² Ibid

supply other markets with surplus goods via railroads and canals beyond a subsistence level.

Developments in transportation dramatically changed agricultural practice and ushered in economic growth for many rural communities in Indiana. During the early 1840s and 1850s, short-line railroads began to develop in Indiana. Stemming from Indianapolis, the Central Railway system consisted of eight lines fanning out of the capitol city. Thirteen additional rail lines, running through Indiana from other states or smaller lines owned by local railroad companies, also operated in the state. These rail lines provided access to sixty-six Indiana counties. During this period, twenty-five counties were still without service, and projections for rail growth were made.

Advances in transportation and communication supported agricultural prosperity into the 1850s and 1860s. As railroad trackage increased, farmers were able to reach faraway markets. For example, surplus corn, which had primarily been used as livestock feed, could be sold in other counties and states. Corn-fed hogs, the first domestic animal to be sold in large numbers in the state, could be shipped by rail or water. The Mississippi River primarily served as a means for north-south commerce. The Erie and Wabash canals were also used as a means of shipping products and livestock. However, this method for transporting goods began to disappear by the end of the decade, as railroads expanded and increased in popularity. Attempts to expand the network of roadways statewide were made, but could not keep pace with the expansion of rail. As automobile traffic on roads increased, their conditions often worsened and they were not repaired.

“The Booming Fifties” in Indiana, the period between 1850 and 1860, were most marked by change. Over the ten year period, improved land acreage increased from five million acres in 1850 to over eight million acres by 1860, while the number of farms increased from 93,896 in 1850 to 131,826 in 1860. Improvements in the methods of agricultural practice were also vast. This prosperity continued to provide strong evidence for the need for agricultural education. In 1859, Indiana’s State Board of Agriculture lent support to Congressman Morrill’s proposal for federal land grants, and in 1862 the Morrill Act was passed by Congress. The act laid the foundation for grant colleges and universities with missions and mandates for teaching agriculture and mechanical arts nationwide. As a result of this, Indiana’s land grant university Purdue University was founded in 1869.

3.3.2 1861-1916

During the 1860s, the amount of cultivated land continued to increase. Due to technological improvements, farmers were able to drain marshes and clear forests with greater ease than ever before. By 1870, there were ten million acres of farmland and at the turn of the century, there were more than sixteen million acres of cultivated land.³³ While the transition from farming at subsistence levels to large-scale operations were happening, Indiana also entered its period of industrialization in the 1860s. At the

³³ Thompson, 1966, 19

beginning of the decade, only 6 percent of Indiana residents lived in cities and towns, but by 1920, 50 percent of the population was urban.

With the outbreak of the Civil War in 1861, farmers were faced with the difficult issue of providing food for civilians and the Union soldiers fighting in the war. When men in Indiana joined the Union cause, this responsibility transferred to the women at home. When the war began, Indiana farmers were raising more hogs than any other state in the nation and they were second in wheat production. Because of this, farms in Indiana contributed greatly to the Union, providing food for soldiers. Due to the demand for these goods, farmers experienced a spike in prices and responded by purchasing larger tracts of land and new equipment. This resulted in improved standards of living, including newer and larger homes and outbuildings, ushering in a less frugal lifestyle.

Positive strides toward increased agricultural production and efficiency continued to be made during this second period, but farmers were also faced with economic turmoil. As horses and mules replaced oxen and human power in the fields, agricultural productivity increased. New implements replaced the crude hand tools, including the steel moldboard plow, two-row cultivators, and the threshing machine. As a result, the average farmer worked three times as much land in 1900 as in 1850.³⁴ Despite advances in technology and an increase in the average farm size, population growth during this era was primarily urban, and prices for goods began to decline.

As the state's population shifted from primarily rural to urban during the 1860s and 1870s, farmers began to feel discriminated against on several fronts. Farmers felt their properties were not fairly assessed, forcing them to pay higher taxes. They also relied heavily on rail to transport goods to outside markets, but freight rates were not regulated and often were as high as the market could bear.³⁵ Due to this dependence on rail, farmers demanded cheaper prices for transporting freight. Unfortunately, they were sometimes persuaded to purchase stocks and bonds in rail, but instead lost money when those companies went bankrupt. Prices for goods continued to decline, spurring economic panic, followed by grassroots political action.

The Panic of 1873 resulted in economic depression. Dissatisfied farmers sought out and formed agricultural organizations that met their needs. The Patrons of Husbandry, commonly referred to as the Grange, operated as a non-partisan political party advocating for farmers rights and saw a dramatic spike in membership after the panic. The organization, founded in 1867, served a social, fraternal, and educational purpose. Ultimately, the Grange saw a decline in membership, because the organization lacked business experience and often undertook cooperative business ventures that failed.

Through the end of the nineteenth century, agricultural practices that improved farmer's productivity, their products, and livestock continued to develop. Prior to 1870, farmers depleted crop soil without restoring nutrients and commercial fertilizers were used for

³⁴ Thompson, 1966, 19

³⁵ Ibid, 23

the first time that year. Results were disappointing, due to lack of knowledge about the product, and it was not until 1880 that fertilizer and spreading manure became common practice, with improved results.

Strides in agricultural education also had an important impact on farming practices and the use of fertilizer. Purdue University's W.C. Latta arrived in 1882 and was the first professor to develop and teach agricultural courses. Latta realized the necessity of sharing this information with local farmers and began to hold meetings in rural areas. In 1889, the legislature responded by appropriating five thousand dollars for agricultural adult education, which was first carried out through local organizations. By 1894, permanent agricultural organizations existed in every county in the state. Experiments with fertilizer began in the early 1880s at Purdue University. A bulletin published in 1885 instructed farmers of the benefits fertilizer would have on their crops in the future and that the effects would not be immediate. A second bulletin, published in 1891, explained that it would be more profitable for farmers to fertilize crops such as wheat and corn over oats. Between 1890 and 1900, farmers began to invest in commercial plant foods and liming soils. By 1910 this was general practice.

During this second period, Indiana farmers also experienced the benefits of investing in better quality livestock. This practice was advocated by various agricultural organizations that aimed to educate farmers about livestock breeds. Improved cow breeds were introduced during the 1870s. Because cows produced milk, which could also be made into butter, and cheese, they were essential to a family's livelihood and their milk provided a source of income for many farmers. Prior to 1900, almost every breed of hog was raised in the state and Indiana often led the nation in hog production. Farming organizations also encouraged farmers to keep detailed records of their livestock to understand which breeds were most profitable.

Despite the formation of farmer's advocacy groups in the preceding decades, the late 1880s were plagued by low prices for even larger crop yields. When a tariff was announced on manufactured goods in 1890, farmers responded in political upheaval and formed the Mutual Benefit Association and Farmers Alliance. The Panic of 1893 followed and prices for goods plummeted to all-time lows.³⁶ Economic conditions did not improve until the beginning of the twentieth century. Several factors—the end of free land in the west, the expansion of domestic and foreign markets, industrial development, and an influx of immigrants—influenced improving economic conditions. Many farmers were able to purchase stoves and washers and after 1900 many rural homes were electrified. While these improvements were significant compared to pioneer conditions, they paled in comparison to the living conditions of urban residents.³⁷

After 1900, agriculture primarily supported the transportation and manufacturing industries. Farm goods transported by rail to factories were necessary to producing the

³⁶ Thompson, 1966, 20

³⁷ Ibid

state's four leading industries at the time: meat, flour, meal, and liquor.³⁸ Until the beginning of World War I, farmers experienced a general era of prosperity. A growing network of improved roads helped farmers ship goods to urban areas and increased accessibility to rural areas while more vocational agriculture schools developed and living standards continued to improve. Land grant colleges nationwide developed extension departments, bringing research and educational opportunities to farmers and rural homemakers. Several prominent farmers in Indiana also recognized the need for programs that fit a county's individual needs, resulting in County Agricultural Agents, hired to live and work in every county in the state.

During the first and second decades of the 1900s, the higher standard of living in rural communities resulted largely from the application of science to agriculture. The result was a "startling" output per acre, animal, and worker.³⁹ Produce and food became less expensive for rural and urban residents, which also resulted in improved standards of living for urban residents. This dramatic increase in agricultural output initially benefited the nation during World War I. Farmers were able to supply food to the families at home, as well as members of the military, resulting in an increased demand for goods and an economic boom. This included responding to a demand for cheap, high-caloric, and safely transported canned food to feed the war's soldiers. With increasing profits, farmers purchased more land and sought out ways to improve farming methods and machinery. Because the spike in prices was temporary during the war, many farmers went into debt as prices for goods began to decline. This decline was also the unfortunate result of technological improvements that enabled farmers to produce more food than the American people could consume. This increase in production also spurred silo building for the storage of certain crops across Indiana. Between 1917 and 1918, some ten thousand silos were constructed in the state.

3.3.3 1917-1960

The beginning of Indiana's third period of agriculture is marked by the economic issues brought on by price inflation during World War I. After the war, prices continued to decline and economic conditions worsened. Prior to the 1920s, many farmers saw improved standards of living. By 1922, less than 22 percent of rural residents had running water, electricity, or any method of heating their homes aside from a coal or wood burning stoves. These conditions were less than optimal.⁴⁰ During the mid-1920s, marginal economic improvements were followed by immediate decline in 1929 with the onset of the Great Depression. Within three days of the stock market crash, the state's entire agricultural economy collapsed, causing widespread foreclosures and property tax delinquency.

Congress passed the Agricultural Adjustment Act in 1933. The act played an important role in the improvement of Indiana's agricultural economy and restoring confidence in

³⁸ Ibid, 21

³⁹ Ibid, 53

⁴⁰ Thompson, 1966, 66

farmers. After the installation of a wheat allotment program, foreclosures in the state virtually stopped, and creditors stopped pursuing their debtors. The Rural Electrification Administration, an enactment of the New Deal program, also had a profound impact on rural Indiana, with almost 24,000 farms receiving electricity. In 1935, the General Assembly passed the Indiana REMC (Rural Electric Membership Corporation) act to distribute electricity to rural areas. By 1965, 99 percent of the state's farms were electrified. Electricity ended isolation for farm families in rural communities and increased the productivity and efficiency of farmers.⁴¹

Despite the initial economic turmoil experienced during the state's third period of agriculture, later advancements led to a greater diversification of crops and efficiency. The end of the period saw the decline of the agricultural industry as a whole in the late 1960s. The mechanization of farming equipment had an important impact on this efficiency. After the earliest steam-powered tractor was introduced at the turn of the century, it was replaced with an all-purpose model in the 1920s. During the 1930s, the tractor was further improved with the addition of rubber wheels and a diesel engine. By the 1940s, tractors were powered by liquefied petroleum gas. Over time, the tractor replaced the need for horse labor on farms. After World War II, the used of mounted and semi-mounted mechanized and specialized equipment, such as cultivators, planters, corn pickers and mowers, became common practice on farms.

After the war, corn was no longer husked by hand, replaced by the mechanical picker and a new process of field shelling. The narrowing of planting rows increased the output of corn crops and the notion of crop rotation fell out of practice. With improvements in fertilizers, the practice of adding nitrogen to soil, and the use of hybrid seed, growing crops of corn in the same location for dozens of years became common practice during the 1950s and 1960s. In addition to the mechanized equipment developed for use in the field, automated feeding and milking systems for the care of livestock emerged. Knowledge about nutrition and the use of genetics for better breeding results also had a profound impact on livestock.

The culmination of the state's third period of agriculture occurred during the 1950s and 1960s. The period represented economic and social change for farmers, marked by diversification and efficiency. As mechanization and science improved crop and livestock varieties, farmers during this period engaged in well-rounded agricultural practice on a scale never before seen. By the late 1960s, there was a small decrease in the amount of farmland statewide. This was a result of burgeoning patterns of development, including state highways, the expansion of industrial areas, shopping centers, and suburban residential development.⁴² Within the APE, these new patterns of development took the form of farmland subdivision for newly constructed Ranch and other mid-twentieth century houses. Unlike their suburban counterparts, these rural Ranch houses were constructed in small clusters or by themselves along major roads or on large farmsteads. In some cases, these mid-twentieth century houses replaced the

⁴¹ Ibid, 68

⁴² Thompson, 1966, 71

original farmhouses as they fell into disrepair or became too expensive to maintain; in some instances, new Ranch houses co-existed with the original farmhouses on farmsteads as a sign of the farm's success.

3.3.4 Agriculture in Lake County

The impact agriculture had on economic, social, and educational systems statewide in Indiana, similarly influenced the development of these systems in Lake County. Though agriculture was the primary occupation of the early settlers, it was first practiced at a subsistence level due to the county's uneven terrain and an undeveloped transportation system. Beginning in the mid-nineteenth century, developments in technology and transportation brought about the transition from subsistence level agriculture to farming as a business. These developments, along with the influx of immigrants to the area, resulted in a significant amount of late nineteenth and early twentieth century farmsteads. Over time, an increasingly urbanizing society began to replace agriculture as the dominant way of life in Lake County.⁴³

The early pioneers arrived in Lake County with horses from the East. Often, horses were used for traveling short distances, and along with oxen, used for clearing and farming land. In addition to subsistence level farming, the county's early residents hunted and trapped animals for sustenance, trading, and clothing. In addition to wild turkeys and other birds, deer were plentiful initially in the region, but the population had greatly diminished by the mid-1880s. When the settlers arrived, prairie wolves were also abundant in Lake County. However, settlers considered them to be a dangerous nuisance and hunted them on horseback with dogs. As a result, the prairie wolf nearly became extinct.⁴⁴ Though the buffalo is featured on Indiana's seal and they were found in the west through the 1870s, Lake County settlers never encountered the animal because of a deep freeze in 1820. While clearing the prairie for planting, they often found bleached buffalo bones.⁴⁵

The settlers began by planting corn, a crop first grown by the American Indians, which allowed them to provide food for themselves, their livestock, and served as a means of exchange. Corn became the mainstay of their economy and crops diversified as the Lake County became more settled. Early mills enabled the settlers to build homes and other types of buildings. The first sawmill was constructed on the east bank of Cedar Creek in Cedar Creek Township in 1837. By 1847, at least five sawmills were in operation in southern Lake County.

Generally, the period between 1850 and 1900 is considered to be Indiana's golden age of agriculture, due to advancements in transportation, technology, and education. These advancements increased productivity and gave farmers the ability to reach faraway markets. However, Lake County's three southern townships—West Creek, Cedar

⁴³ Historic Landmarks Foundation of Indiana, 1996, XXIII

⁴⁴ Schmal, June 6, 2001

⁴⁵ Ibid, April 23, 2007

Creek, and Eagle Creek—did not experience an agricultural boom until the late nineteenth and early twentieth century due to the delayed arrival of the railroad, in comparison to other townships in Lake County, and the troublesome terrain in the three southern townships.

Cedar Creek Township resident and founder of the town of Lowell, Melvin Halstead, became interested in bringing the railroad to the town during the 1870s. Though Halstead met resistance from his neighbors, he invested a large sum of his own money, while encouraging other residents to invest in rail, and entered into a contract to build a section of railroad through Lowell. This section would later become part of the Monon Railroad and construction began in the summer of 1881.⁴⁶ The railroad did not reach West Creek Township until 1905.

The difficulty of draining the marshland in southern Lake County also factored into the late nineteenth and early twentieth century agrarian boom. The southern boundary of Lake County—also the southern boundary of the West Creek, Cedar Creek, and Eagle Creek townships—is formed by the Kankakee River. Due to this, several miles of marshland unsuitable for farming formed the southern end of each township. Under the State Act of 1852, money obtained from the sale of swampland was supposed to be used for draining the land. Ditches were dug as early as 1854, but the majority of the money was used by politicians for other purposes and the ditches had little impact on the Kankakee Marshland. Residents frequently discussed the issue and attempted to dig a network of ditches during the 1860s and 1870s, but little had been accomplished by 1884. During the late nineteenth and early twentieth century, the Kankakee River was dredged and residents continued to dig ditches with teams of horses and the draining proved successful. With this newly cultivated land, many farms were established during the early twentieth century in the West Creek, Cedar Creek, and Eagle Creek townships.

As sophisticated machinery replaced rudimentary farming techniques in Lake County, the amount of labor required on farms decreased and levels of productivity increased. Prior to the advent and affordability of the tractor, farmers used teams of horses to pull equipment in the fields. The horses were usually nondescript breeds and they could be dangerous and unpredictable. Often, when farmers first purchased a tractor, they modified the horse-drawn equipment—such as hay rakes and manure spreaders—to fit the new machinery, but they could be destroyed when pulled by the tractor. By the early 1900s, few farmers in Lake County owned tractors, but they had become more popular and advanced by the 1930s. However, due to the Great Depression, many farmers resorted to using horses during the 1930s. By this time, the cultivator—used to remove weeds and prevent their return—had grown in size and two rows could be worked at the same time. It was also not uncommon for farmers to share machinery with each other or rent it from a supply store. For instance, the corn shredder was only

⁴⁶ Ibid, July 11, 2007b

needed for a day or two of work, but the machine was very expensive, and some farmers would share a single machine during harvest time.

Farmers with large dairy cow herds began using automated milking and watering machines during the 1920s. Canned milk was transported to other cities via the Monon Railroad, known as the “milk run,” which stopped daily in the town of Lowell through the 1920s. After this, dairies in the county began to pick up milk directly from farms by truck. Prior to being transported, milk was distributed into large, metal milk cans on the farm and stored in a milk house. A windmill pushed water into a cooling tank and the cooled water ran into stock tanks containing the cans of milk. Eventually, farmers began to specialize in livestock, either focusing on hogs and chickens or solely on cows. While technology and agrarian education had transformed and diversified farming, the trend toward specialization began in the 1920s because it had become too expensive for farmers to raise a combination of animals.

In addition to the introduction of machinery that streamlined farming processes, planting and fertilization techniques also brought about increased productivity. Prior to chemical fertilizer, farmers used horses to spread manure in fields. Though the use of chemical fertilizer was common statewide by the 1880s, many Lake County farmers were skeptical. Farmers in the county used crop rotation to avoid depleting soil nutrients and many did not implement the use of commercial fertilizers until the 1920s. It was not until several decades later, during the 1960s, when most farmers stopped practicing crop rotation and began to grow continuous crops of corn.

3.4 Farms and Associated Features

Each farm contains a collection of built structures and landscape features that include its natural features; spatial organization; circulation networks; boundary demarcations; vegetation; buildings, structures, or permanent objects; sites, and a setting. Farm sizes varied depending on the farm type, with livestock and cash grain farms tending to be larger.

3.4.1 Farmsteads

The farmstead complex served as the farm’s operations headquarters, consisting of the farm buildings and work areas grouped around a farmyard accessed by a main driveway. Often protected by windbreaks or woodlots, most farmsteads developed as a tight cluster of buildings and structures that were spaced far enough apart to prevent the spread of fire, but close enough to reduce travel time between buildings. The farmhouse was typically sited away from livestock buildings and served as a work center for the farm. The farmstead’s buildings were further arranged by function to reduce labor. In the Midwest, farms tended to be square to the road and hogs were housed to the east of the rest of the farmstead due to prevailing westerly winds. The buildings were typically laid out either in the same orientation to compass directions, in

a courtyard arrangement, or in a free-form arrangement where the buildings follow the contour of a slope.⁴⁷

Within the farm, the farmstead was located either at its center at the end of a long driveway and close to the fields or close to the main public road for convenience purposes. Much consideration was also given to the arrangement of buildings within the farmstead complex and was largely dependent upon the direction the farmstead and house faced. A south or southeast-facing farmstead was the most common with a windbreak on the north and west sides while the other directions were less preferred due to prevailing winds and needed windbreaks.⁴⁸

Farmstead arrangements changed as agricultural technology changed and tractors replaced horses in the 1920s and 1930s. Different types of buildings were required as well as alterations to field divisions, pastures, fences, and storage facilities. In the early 1950s, emphasis shifted from the farmhouse as the work center of the farmstead to the farmhouse as a domestic refuge. Newly constructed farmhouses during this period reflected this shift with farmhouses built more distinctly separate from the agricultural outbuildings.

3.4.1.1 Farmyards

Within the farmstead, the farmyard functioned as the central common area into which the main driveway usually led. It was surfaced with dirt or gravel and patches of grass and was separate from the nearby ornamental lawns of the farmhouse. The farmyard was a work area with agricultural outbuildings for crop storage, animal husbandry, and implement storage grouped on one side and the domestic buildings grouped on the other side. The domestic areas usually extended outward from the farmhouse's back entrance and into the farmyard, which served as an outdoor work center for household chores. At the farmyard's edges were the windmill, electrical distribution pole, and elevated fuel tanks; the vegetable garden, orchard, and poultry house were also nearby.⁴⁹

3.4.2 Barns

As the most discernible and recognizable features of the rural landscape, barns have played an important role in the lives of rural residents. Barns were not only used as workspaces, but they provided space for dance halls, social events, and religious meetings. Various ethnic groups introduced different types of barns to the United States, but certain utilitarian features are commonly found on all buildings. Due to this ethnic influence, traditional building techniques dictated barn construction methods and forms. When Germans arrived in the United States, along with other central and Northern European immigrants, they erected log structures, while those from England

⁴⁷ MnDOT, June 2005, 6.176

⁴⁸ Ibid, 6.178

⁴⁹ MnDOT, June 2005, 6.187

already had an established frame building tradition.⁵⁰ Most barns are rectangular in form, though circular and geometric forms emerged during the twentieth century. Some round barns are present in Lake County, but none are located within the project area. From the seventeenth century to the early twentieth century, barns did not drastically change; however, twentieth century barns displayed new forms, features, and materials as a result of mass production techniques and technological advances.⁵¹

Agrarian culture was ingrained in early farmers. Often they constructed barns from memory, instinctively knowing what they should look like.⁵² During the nineteenth century, various ethnic groups living in rural locations in the United States began to come into contact with each other. As they shared ideas, and agrarian practice became increasingly scientific, ethnic distinction in barn design became less apparent. Early barn types were constructed using traditional building methods. Settlement era barns were typically single-pen barns of log construction. These were replaced by timber frame barns constructed of locally-felled logs hewn square with a broadax or at a nearby sawmill. These barns often sat on stone foundations and were assembled with mortise and tenon joints fastened with wooden pegs. By the end of the nineteenth century, traditional barn types were replaced by barn designs, such as plank and balloon frame barns, promoted in agricultural journals, land grant college programs, and later by the United States Department of Agriculture. Plank and balloon frame barns maximized storage capacity, used milled standard-sized sawn boards and machine-made nails, were faster to build, and required less wood than timber frame barns. Post-World War II, barn building techniques dramatically changed and traditional building techniques were superseded by the construction of pole barns and prefabricated structures, which were more cost-effective for farmers. These were commonly constructed of treated wood posts and corrugated steel, respectively, and clad in corrugated sheet metal.⁵³

The following are the most common barns found in Lake County and the project area.

3.4.2.1 English Barns

The most widespread and enduring style in the United States, the English barn arrived in New England and the Chesapeake Bay area via settlers from England. After rising to prominence as the most popular barn type in the colonies, the style spread to the Midwest with few modifications. The English barn was constructed from the 1770s through the early 1900s. Constructed of timber framing, the rectangular plan barn often had a centered double-door entry located on the long side of the barn. The exterior of the barn was clad with vertical siding. Some early examples featured a steeped pitched gable roof. Generally, the English barn was one story in height with a hayloft for storage. Ventilation openings were often located on the gable end of the barn. In the Midwest, a gable-end shed was a common addition to the building. The English barn

⁵⁰ Noble, 1995, 4

⁵¹ Ibid, 3

⁵² Ibid, 9

⁵³ Historic Landmarks Foundation of Indiana, 1996, XXIV

had a three-bay configuration; the central bay contained a threshing area and the side bays provided space for grain storage. The English barn had few windows.⁵⁴

3.4.2.2 Midwest Three-portal Barn

Constructed throughout the nineteenth and twentieth centuries, the Midwest three-portal barn was derived from the transverse-farm barn and is one of the most common forms in the Midwest. Constructed of a transverse frame, the three-portal barn contains a central aisle and enclosed side aisles. The interior of the barn featured a central aisle and enclosed side aisles. These enclosed aisles provided space for stabling animals and for feed storage. An additional aisle to the three-portal barn was a common addition, resulting in a broken roof line. In some instances, the early gable roof on a Midwest-three portal barn was replaced with a gambrel roof. During the twentieth century, three-portal barns were constructed with a gambrel roof that spread over the building's side aisles. Traditionally, the Midwest three-portal barn had a large hay hood and large gable-ended doors.⁵⁵

3.4.2.3 Transverse-frame Barns

The transverse-frame barn evolved from a basic single-crib log structure and was constructed from the late nineteenth through mid-twentieth century. The single-crib barn was one square or rectangular crib of log construction with a gable roof. It was used for grain storage and stabling animals. The single-crib barn evolved into the double-crib and four-crib barns as farmers needed additional space. These barn types used the single-crib barn as a basic unit and added additional cribs to create the double- or four-crib barns. The four-crib barn had cribs at each corner with a common roof and intersecting aisles forming a cross. The transverse-frame barn evolved from the four-crib barn, but is of frame construction and has a closed-off cross aisle with stalls or cribs built along the wall. The transverse-frame barn entrances are located at each gable end so that wagons could be driven through the barn. Each side of the barn was lined by storage cribs or stables.

3.4.2.4 Dairy Barns

By the end of the nineteenth century, trends emerged that began to influence barn construction methods besides tradition. The use of dimensional lumber replaced timber. This lighter framing system allowed farmers to building larger loft spaces, enclosed by gambrel roofs. During this time, agricultural experimentation stations began to have an impact on barn designs. These stations promoted efficiency, sanitation, and construction techniques. These designs influenced many early twentieth century dairy barns.⁵⁶ Dairy barns are often characterized by rows of small windows, gable-end doors, dormers, and roof ventilators.

In Lake County, the predominant dairy or livestock barn form is the Wisconsin dairy barn, which is distinguished by a narrow width to length ratio and a gambrel roof. Its

⁵⁴ Noble, 1995, 77

⁵⁵ Ibid, 74

⁵⁶ Historic Landmarks Foundation of Indiana, 1996, XXIV

name is derived from its origins in the state of Wisconsin where its design was developed by the Agricultural Experiment Station of the University of Wisconsin. It was constructed from approximately 1890 to the 1930s. Other dairy barn forms include the English barn, basement barn, German barn, and round roof barn, although these are less commonly found in Lake County. The Wisconsin dairy barn was typically aligned north and south to allow for maximum lighting and located close enough to other dairy farming structures for efficient operation, but far enough away to reduce the danger of spreading fire. The dairy barn was also typically located southeast of the house, or west or southwest of the house but at a greater distance to alleviate odors at the farmhouse given prevailing wind patterns. Typically two stories in Lake County, the dairy barn's primary entrance, consisting of double doors, was located in the gambrel end; sometimes, it was located on the long sides of the barns. The dairy barn also had a low main floor ceiling, two rows of stanchions, multiple closely spaced windows on the long side of the barn, a large hay mow with gambrel end hay door and hay hood, roof dormers, and roof ventilators. The gambrel roof shape was the most popular for increasing hay storage capacity in the barn's hay mow, which was sometimes divided into two areas to store hay and straw. The roof ventilators were essential to properly ventilate the dairy barn to prevent the spread of bovine tuberculosis and other diseases to humans. Farmers also frequently located silos near the dairy barns or directly attached them to the barn to easily feed cattle over the winter because the silos were used to store green crops, or silage. Inside the dairy barn, the cows were confined to individual stalls, sometimes shared by the farm's horses. All dairy barns had a dedicated space where raw milk was handled. This space could be incorporated into the barn's original design, as an addition to the barn, or as an entirely separate building. These were called milk rooms or milk houses. Strict milk sanitation laws required the milk house to be completely separated from the stable area if it was not detached. Many dairy barns also had feed rooms where feed was chopped, ground, mixed, and stored. These were located on the main level or in the hay mow. Feed was originally prepared by hand but as cattle herds grew larger, technology improved, and labor became more expensive, farmers turned to mechanized feed handling to improve productivity and cut costs.

3.4.3 Agricultural Outbuildings

Outbuildings supported operations on the farm and were often smaller than the farmhouse and the farm's barns. They are usually devoted to a specific use, ranging from agricultural to domestic functions, and were integral in the preparation and storage of food for human consumption. The arrangement of outbuildings on farmsteads varies by location. In the Midwest, outbuildings frequently have the same alignment—to the cardinal compass points—a result of the rectangular land survey system. These buildings were often used in the preparation and storage of food.⁵⁷

⁵⁷ Noble, 1995, 135

3.4.3.1 Summer Kitchen

Some summer kitchens began as early dwellings that were converted when a new main house on a farmstead was constructed. Though separate from the house, the summer kitchen is closely situated to the main home, and was built specifically for use as a summer kitchen. The simple building is rectangular in plan with a gable roof. Early versions contained a fireplace and chimney, which were later converted to a stove and a pipe. More elaborate summer kitchens may have contained an open cupola with a dinner bell located on the ridgeline of the roof.⁵⁸

3.4.3.2 Smokehouse

The small wooden-frame smokehouse is used for smoking meats as a means of food preservation. The building has no windows and a small door in the building's gable end. Beneath the eaves in the gable are small flue openings. Smokehouse walls can be log, timber, brick, or stone.

3.4.3.3 Privy

These wooden outhouses are generally small and tall. Privies were separated from the house on a farmstead, but located close enough to be easily accessed. A roof ventilator and decorative cutouts on the building's door are common features. The rear wall of the building may have contained a hinged portion at the bottom for easier cleaning.⁵⁹

3.4.3.4 Milk House

Milk was stored in a springhouse until government regulations and standards resulted in requirements for better methods for cooling and storing milk. This brought about the emergence of milk houses, rectangular buildings with gable roofs. Located near dairy barns, they sometimes appear to be appendages of the barns. However, the barn and milk house are separated for sanitary reasons. Milk houses are well insulated, have no ventilation, and may be constructed of concrete or tile blocks to facilitate cooling.⁶⁰

3.4.3.5 Corncrib

The corncrib allowed farmers to dry newly harvested ears of corn over time to reduce mold and mildew. Widely spaced narrow slats form the walls of the corncrib and the structure is narrow to ensure air circulation. The more narrow the building, the more efficient the drying process of moist corn. Early corncribs were small structures, constructed of split logs and later versions are clad in narrow slats. The building usually rests on stone or log piers.⁶¹ A more elaborate version of the building, the drive-in corncrib is actually a barn, with a large central opening for a vehicle. Corn is stored in the side aisles of the building.⁶²

⁵⁸ Ibid, 146

⁵⁹ Ibid, 139

⁶⁰ Noble, 1995, 140

⁶¹ Ibid, 155

⁶² Ibid, 157

3.4.3.6 Silo

Silos were built in two forms, vertical (or tower) and horizontal. The first modern silos were pit silos, which were constructed in the mid-to-late 1870s, and characterized by a fully or partly excavated hole lined with straw, stone, or another material that was horizontal in form. Covered silos were first constructed in North America during the early 1880s. The first vertical silos were square structures built of wood or stone. During the late 1880s, the upright and tower silos emerged. The round and circular versions still used today developed during the late 1890s. The circular silo form was preferred because it allowed for greater corn storage, eliminated air space, and reduced spoilage. Silos are often located adjacent to the barn or at the gable end of the building. The earliest silos had gable roofs, until the low dome or hemispherical roof emerged.⁶³ During the early twentieth century, silos constructed from poured concrete and surrounded by a ladder of metal rings became popular.⁶⁴

3.4.4 Agricultural Landscape Features

In addition to its built structures, farms also comprised numerous landscape features. These included, but were not limited to, fences, fields, pastures, and stockyards.

3.4.4.1 Fences

Fences were not widely used until the late nineteenth century. They were used to define property boundaries and subdivide farm land as well as to manage livestock by keeping them out of gardens and cultivated fields, off railroad tracks, within stockyards, and within pastures and harvested fields where they could forage. The type of fence used depended on its function and the type of livestock contained. Ornamental fences were used to enclose the farmhouse lawn, garden, or cemetery.

3.4.4.2 Fields and Pastures

Fields were plots of land that were often tilled. Their size and shapes were largely influenced by topography, drainage, soil type, and farming methods. A pasture is grazed land that was either permanent by making use of untillable land, or impermanent rotational land. Nearly all fields and pastures were fenced for livestock and their number and sized largely depended upon the farm's crop rotation. Drainage systems were also sometimes employed to irrigate fields. Field divisions also changed with mechanization and other advances in agricultural technology as tractors were able to till more land with less labor. As machines grew larger throughout the early to mid-twentieth century, fields grew larger and fewer field divisions were used. Field patterns are fairly persistent through time and can sometimes be discerned through the location of existing fence lines along which trees and shrubs grow and preserved by the location of farm lanes, woodlots, streams, or other natural features.⁶⁵

⁶³ Ibid, 157

⁶⁴ Ibid, 161

⁶⁵ MnDOT, June 2005, 6.207

3.4.4.3 Ornamental Plantings and Landscaping

Beginning in the late nineteenth century, many farmers began to beautify their farmstead with ornamental plantings and lawns, particularly around the farmhouse. Ornamental gardens were popular during the Victorian era in rural areas, characterized by manicured lawns, colorful flower beds, trees lining the driveway to the yard and framing the view of the house, and borders and hedges used to separate the farmstead grounds into distinct areas. Landscaping helped separate the business and service areas of the farm from the public and private spaces by hiding the rougher and unattractive elements of the farm workspace and enhancing the appearance of the farmhouse. The farmhouse's service area at the back door was often screened from public view by hedges, trees, and screen plantings. Near the private areas of the farmhouse, usually the rear or side elevations, where the family socialized and entertained, landscaping consisted of flowers, shrubs, and small trees on an open lawn with shade. Outdoor furniture and landscaping accessories were also used, such as birdhouses, birdbaths, rock gardens, ponds, arbors, fireplaces, or rose gardens. Landscaping at the public entrance of the farmstead was intended to lead the visitor to the farmhouse entrance. Deciduous or evergreen trees were often planted in allées along the driveway leading to the farmyard.⁶⁶

3.4.4.4 Farm Roads, Lanes, and Paths

From the main public road, the farm had a main driveway leading to the farmstead. The driveway typically approached the house from one side, passed by the service door at the back of the farmhouse, and led to the garage. It also sometimes included a turn-around area and parking near the main entrance of the house. Within the farm and between the farmstead buildings, narrow unimproved lanes led from the farmstead out to the farm's fields and pastures as well as between fields and pastures. These lanes sometimes developed informally through the continued use of a customary path. Lanes were used to move livestock and equipment around the farm in everyday operations and were sometimes improved by small bridges or other small structures. Fields and pastures were arranged in a way to minimize the amount of land used for roads and lanes. Livestock tracks were narrow well-worn paths made by animals from the barns to the pastures.⁶⁷

3.4.5 Rural Historic Landscapes

A rural historic landscape is a geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possess a significant concentration, linkage, or continuity of areas of land, use, vegetation, buildings and structures, roads and waterways, and natural features.⁶⁸ These rural landscapes reflect the day-to-day occupational activities of people engaged in traditional work such as mining, fishing, and various types of agriculture. Small landscapes with no buildings or structures are classified as sites, but most landscapes

⁶⁶ Ibid, 6.319

⁶⁷ MnDOT, June 2005, 6.405

⁶⁸ NPS, 1997, 2

comprise extensive acreage and contain a number of buildings, sites, and structures classified as historic districts. Rural historic landscapes are listed in the NRHP as sites or historic districts.

Rural historic landscapes, which include historic agricultural occupation or land use, contain substantial areas of vegetation, open space, or natural features that embody significant historical values. Buildings, structures, and designed landscapes may also be present. A rural historic landscape will typically retain the following characteristics that make a rural landscape historically significant: historic land uses and activities, patterns of spatial organization, response to the natural environment, cultural traditions, circulation networks, boundary demarcations, buildings and structures, clusters of buildings or other features, archaeological sites, and small-scale elements. These characteristics reflect the variety of activities that occurred on the property at one time or evolving functions over different periods of time.⁶⁹

3.5 Architecture

Many homes in rural Lake County are identifiable by form, rather than an academic style. Vernacular forms often originated in Europe and were brought to North America by the colonists. As a result, various foreign influences dominated American building during the nineteenth century. Many architects followed the theory that studying, even copying ancient and classical architectural movements, would eventually result in an original American vernacular.⁷⁰

In Lake County, stylistic motifs applied to vernacular forms were generally found in carpenter's guides and building manuals, and did not result from trained architects or builders. People from a wide array of backgrounds settled in Lake County. Primarily, settlers came from New England or emigrated from Europe in the late nineteenth and early twentieth century. With the arrival of the railroad, architectural styles or influences began to broaden. This exposed rural residents to other markets, new building materials, and building technologies. Because Lake County's greatest period of growth occurred during the early twentieth century, many buildings in the region are reflective of this era.⁷¹ However, historic resources within the project area are primarily vernacular in form and ornament. The following sections address the vernacular forms and architectural styles of resources in the project area.

3.5.1 Single-pen/Log Construction

For the early pioneers, a single-pen log home provided protection from the elements. Many families had left behind better living conditions and were now living more primitively as they made attempts to establish themselves in Lake County. The first permanent buildings constructed in Indiana, these log cabins were generally rectangular

⁶⁹ Ibid, 15

⁷⁰ Peat, 1962

⁷¹ Historic Landmarks Foundation of Indiana, 1996, XXVI

in plan and had small windows. Often, a chimney constructed of stone was located at a gable end. While these one-room log buildings may have appeared simplistic, a sophisticated notching system was used to construct them. The method of construction is described as a fusion of English techniques and horizontal hewn-log construction, but the technique is generally attributed to German and Scandinavian immigrants. Single-pen log homes were most popular during the first half of the nineteenth century. Eventually, larger frame and brick structures replaced the log constructed buildings. The earlier buildings were then abandoned or used as outbuildings on farms.⁷²

3.5.2 I-house

A linear house with gabled ends, the I-house is representative of the natural progression from a one-story house to a two-story house. With its origins in the English one-room house, the form was brought to the Middle Atlantic by the colonists. As colonists settled the west, the I-house form continued to transform, and became predominant in Illinois, Indiana, and Iowa. The form was not recognized as a distinct vernacular style until the 1930s, when it was given the name I-house, because of its presence in those states.

The I-house was constructed in Indiana from the nineteenth century through the early twentieth century. Commonly found in rural areas, the house's transition from a one-story to a two-story building is due to the growing and prospering agrarian economy during this era. The basic form of the I-house is defined as a two-story building, at least one room deep and two rooms wide, with a symmetrical facade. The house was commonly constructed of brick, clapboard, and stone. Though decorative materials were less common in rural areas like Lake County, details applied to the I-house usually ranged in architectural style, with influences from the Greek Revival, Italianate, and Gothic Revival styles being most common.⁷³

3.5.3 Gable-front

In contrast to the linear-plan I-house, the principal facade of the gable-front house is located at the gable end of the building. The rectangular plan house is often one-and-one-half stories in height. The gable-front house was constructed in Lake County as early as the mid-nineteenth century and continued to be built well into the twentieth century.

During the Greek Revival era in the United States from 1825 to 1860, the gable-front house emerged as the preferred building form. Because the principal facade of the building formed a triangle beneath the gable front, the facade mimics the classical pediment of a Greek temple. In cases where the facade is fully adorned in Greek Revival ornamentation, the gable-front house is instead referred to as a "Temple-Front." As settlers moving westward adopted the gable-front form, stylistic characteristics began to diminish.

⁷² Ibid, XVIII

⁷³ Historic Landmarks Foundation of Indiana, 1996, XX

Several variations of gable-front houses are found in Lake County. The gabled-ell is a gable-front house with a side extension, forming an L-shaped footprint and ranging from one to two stories in height; the ell is sometimes an addition built after the original gable-front house. This ell—or side extension—is often integral to and the same height as the gable-front section of the house. A gable-front house with a perpendicular rear portion is referred to as a T-plan house. Like the gabled-ell, the T-plan house ranges in height from one to two stories and the front and rear portions are the same height.⁷⁴ The gabled-ell and T-plan houses in rural areas are generally unornamented, particularly later examples after the Civil War.

3.5.3.1 Upright-and-wing

During the early nineteenth century, the gable-front house evolved into the upright-and-wing house out of a need for additional space. This form is predominantly found in the Great Lakes region. The wing, attached to the gable-front house, forms a “T” configuration. The gable-front section of the house is often two stories in height, while the wing is usually one or one-and-one-half stories in height. Generally, the front-facing facade of the wing is three bays wide and has an offset entry. Because this form emerged in popularity during the Greek Revival era, many upright-and-wing houses from the 1840s and 1850s feature heavy friezes, cornice returns, and classical entries. Later examples are generally unornamented. The upright-and-wing house is found throughout Lake County and persisted through the nineteenth century.⁷⁵

3.5.4 Pyramidal

In the late nineteenth century and well into the twentieth century, the pyramidal house became a common vernacular house type because it was less expensive to build than side-gabled houses due to its more complex roof framing that required fewer long-spanning rafters. The form is characterized by a nearly square plan with a steeply pitched equilateral hipped, or pyramidal, roof. The roof pitch and placement of porches often varied. In the rural Midwest, one-story pyramidal houses were less common than the two-story examples, which started to replace the traditional and less spacious I-house in rural areas from about 1905 to 1930. At the same time, the two-story pyramidal house also became popular in urban areas, taking the form of the American Foursquare. The American Foursquare is also sometimes classified as vernacular Prairie, cornbelt cube, or Midwest box for its rural location. It was frequently distinguished by Colonial Revival, Neoclassical, Prairie, Tudor, or Craftsman influenced stylistic detailing, unlike its rural counterparts, which remained relatively plain. The American Foursquare also typically had a low-pitched, hipped roof with attic dormers; wide, enclosed eaves; and a one-story porch spanning the width of the facade. The pyramidal house is found throughout the county in both the one-story and two-story forms.

⁷⁴ Ibid

⁷⁵ Historic Landmarks Foundation of Indiana, 1996, XX

3.5.5 Greek Revival

As the first and most prominent of several Romantic revival styles, the Greek Revival style dominated nineteenth century architecture in the United States from 1825 to 1860. After the War of 1812, Americans felt a new eagerness to artistically and culturally separate themselves from tyrannical Great Britain.⁷⁶ Therefore, Americans were drawn to the architecture of ancient Greece, the style they felt best represented their democratic values.

While Americans experienced what they considered to be an era of suffrage and political liberation, they gravitated toward the architecture of ancient Greece. They felt that the architecture of Greece was bold and the more delicate Federal style soon fell out of favor. In addition, several events drew attention to Greece. Between 1821 and 1830, archaeological discoveries were made in Greece and later, the country entered a war for independence. This attracted the interest and the sympathy of Americans. By the time the style's popularity began to diminish after the Civil War, Greek Revival-style buildings had been constructed in every settled region of the United States.

The Greek Revival style is characterized by minimal references to Greek temples, exhibited by wide entablature moldings, cornice returns, columns and pilasters, and doors with paneled jambs and classical surrounds. In Lake County, many Greek Revival houses are vernacular house types to which the architectural style has been applied. Many upright-and-wing house types in the county exhibit the Greek Revival style.⁷⁷

3.5.6 Italianate

The Italianate style was widely accepted in Lake County. The style appeared during the 1840s and remained popular throughout the county until the 1890s. The style was based on the domestic architecture of the Italian Renaissance, which emphasized the picturesque qualities of rural villas in Italy. However, Italianate style buildings are quite different in appearance than those designed during the Italian Renaissance.⁷⁸

During the early development of the Italianate, the style leaned toward informality, but over time adopted the balance and symmetry found in the Italian Renaissance.⁷⁹ It is commonly found throughout the United States and was often applied to rural homes. Wide projecting eaves supported by ornate brackets, and tall, narrow windows characterize the Italianate style. More ornate homes in Lake County feature cupolas, window hood molding, quoins at the elevation corners, and wooden front porches. While Italianate homes are traditionally square or L-shaped in plan, in southern Lake County, Italianate features were often applied to the I-house type. Until the Panic of

⁷⁶ Ibid, XXVI

⁷⁷ Historic Landmarks Foundation of Indiana, 1996, XXVII

⁷⁸ Ibid, XXVIII

⁷⁹ Peat, 1962, 5

1873, Italianate homes were constructed using brick or wood frame methods. Due to this economic downturn, builders opted for wood frame construction instead of brick.⁸⁰

3.5.7 Queen Anne

Emerging in England during the 1870s, the highly ornate and exuberant Queen Anne style is the informal combination of eighteenth century English architecture with earlier medieval motifs. After spreading across the United States, the style lost much of its eighteenth century character in favor of a late medieval English appearance. It was constructed between 1880 and 1910. American contributions to the Queen Anne style include the abundant use of wood ornament and the use of wood shingles for building exteriors instead of clay tile. The Queen Anne style is characterized by asymmetrical massing, irregular fenestration patterns, corner towers, projecting bays, and a diversity of exterior wall treatments, textures, and colors. The style is most frequently applied to domestic architecture, including some homes in rural Lake County.⁸¹

3.5.8 Folk Victorian

The Folk Victorian style was common throughout the United States from ca. 1870 to 1910. It was spread by the growth of the railroad system, which made heavy woodworking machinery that produced inexpensive pre-cut Victorian-era trim available at local trade centers. Builders attached the pre-cut pieces onto traditional, often modest vernacular house types and homeowners updated older vernacular houses with applied pieces or new porches that reflected the era's popular ornamental architectural styles. The style is defined by simple Victorian-era influenced decorative detailing on vernacular house types, most frequently with Italianate or Queen Anne inspired details applied to the porch, cornice line, and gables, when present. Most have Queen Anne spindlework detailing and lace-like spandrels.

3.5.9 Bungalow

The Bungalow style emerged during the early twentieth century in California. The name bungalow, originating in India, refers to a low house surrounded by galleries or porches. The style was popularized by architects Charles and Henry Greene, as their designs spread across the United States via pattern books and architectural magazines. By the 1930s, the bungalow had risen to prominence as the most popular domestic style in the country.

The bungalow was especially popular amongst the country's burgeoning middle class in rural and urban areas, because it was inexpensive to build, fashionable, and modest in scale. Because the style is rooted in the Arts and Crafts movement, the bungalow features simple details and massing, along with exposed rafters. A front porch is often located beneath the main roof on the facade of the house. Facade surfaces include wood, stucco, and stone. There are many examples of the Bungalow style in Lake County's

⁸⁰ Historic Landmarks Foundation of Indiana, 1996, XXVIII

⁸¹ Ibid, XXIX

rural and urban regions. Many bungalows are ornamented with Arts and Crafts or Craftsman-inspired details.

3.5.10 Ranch House

The Ranch house was a common and popular house type and style during the mid-twentieth century in suburban and rural areas. First gathering nationwide attention in California, high-style Ranch houses incorporated single-story forms with long and low profiles, attached garages, overhanging eaves, and an integration of indoor and outdoor living spaces. The style's popularity grew in the post-World War II era as the nation's need for affordable housing grew exponentially and Ranch house communities were omnipresent. Many examples abandoned the innovative details of high-style examples, and the Ranch house label has grown to include single-story houses that otherwise lack a discernible style; these more modest examples are also commonly called Ramblers.

In predominately rural regions, like the project area in Lake County, Ranch houses are often built in small clusters or by themselves along major roads or on large farmsteads. In some cases, affordable, adaptable, and modern Ranch house frequently replaced the original farmhouses as they fell into disrepair or became too expensive to maintain; in some instances, new Ranch houses co-existed with the original farmhouses on farmsteads. The suburban Ranch house was characterized by an emphasis on outdoor living and landscaping, which did not always translate to its rural counterparts; this may have been due to the existing relationships between the farmhouse and the outbuildings within the farm complex. The Ranch house also appealed to mid-twentieth century rural residents who were not engaged in agriculture.

3.6 Education

Indiana's Land Ordinance Act of 1785 allowed for the leasing of public land to schools, however, the free public schools system did not emerge as the dominant education system until the 1850s. When settlers established themselves in a frontier region in Indiana, a school was often one of the first institutions established in a rural community. These early schools—referred to as subscription schools—operated because families with children worked together to find a qualified teacher and paid a yearly fee per pupil to fund the schools. Typically, the school building served several purposes in a rural region and may have also been used as a meeting place or a church.

This method of school funding lasted through the late 1840s and into the 1850s when state-level educational reforms began to occur, first with an 1848 state referendum favoring free schools and in 1849 with the General Assembly passing a school law mandating a state and local tax-supported educational system for Indiana. This was further supported by a re-drafting of the Indiana Constitution in 1851, which called for a free common school system. Following this, a State Superintendent of Public Instruction and State Board of Education were established and local governments appropriated tax money to support township schools, replacing the need for subscription schools. As school boards became established, standards were set for teachers and curriculum. These changes to the educational system primarily occurred in urban areas as rural

townships felt the burden of additional local taxes and only limited state funds were used to fund rural schools. These funding limitations continued through the Civil War until the state's General Assembly passed several acts affirming and upholding the authority of rural school districts and municipalities to tax for educational purposes; the Supreme Court reaffirmed this authority in 1885. During this time, tax money was used to construct school buildings and libraries, and the standard one to two-room schoolhouse rose to prominence, as did the district school system, which was a decentralized network of schools. This model brought the schools close to, and within walking distance, of its pupils and were usually located on land donated by local farmers. This continued to dominate educational building design in rural areas through the late nineteenth and early twentieth century.

Population growth during this era, along with the development of transportation systems, diminished the need for schoolhouses to be located within walking distance of a student's home. Educational trends shifted toward school consolidation; schoolhouses were closed in favor of a larger school, usually located in the largest community within a township. Between 1890 and 1900, roughly 4,000 schoolhouses nationwide were abandoned. Once abandoned, these district schoolhouses were converted into residences, farm storage buildings, or churches.

Developing out of the vernacular building traditions of Anglo-American settlers, schoolhouses were originally constructed in the gable-front form. This dominant form was typified by a gable roof, rectangular plan, symmetrical proportions, uniform window distribution, and one classroom. Some gable-front schoolhouses also incorporated Greek Revival, Gothic Revival, or Italianate style exterior details. The earliest schoolhouses were constructed of round or hewn logs, followed by balloon frame construction with clapboard siding beginning in the 1850s. Later examples were constructed of solid masonry, such as brick, and were minimally elaborated. Masonry one-room schoolhouses were typical in Indiana. Earlier interiors consisted only of the classroom while later examples had cloakrooms or storage closets formed by internal partitions.

In the 1870s and 1880s, builders began experimenting with new schoolhouse forms, such as the T-plan, which changed the orientation of the schoolhouse. In the T-plan schoolhouse, the vestibule or cloakroom was treated as a separate unit and placed on the long side of the building. Two intersecting gabled blocks formed the T-plan with the vestibule being the smaller of the blocks. The T-plan one-room schoolhouse at 16066 Hendricks Street (Survey ID 163) is a typical example of the T-plan form clad in brick, although its main block has a steeply pitched hipped roof intersected by the gable-roofed vestibule.

In Lake County, a common example of this progression from the subscription school to the larger township school occurred in the Southeast Grove community in Eagle Creek Township. During the mid-1830s, the first settlers in Eagle Creek Township built a private log-constructed schoolhouse, northeast of the Southeast Grove Cemetery. A second log building was constructed in 1840, due to population growth in the Grove

community. In 1850, residents raised money to build an even larger frame building in Southeast Grove. This schoolhouse remained in use until 1865, when a larger building was erected just north of the second school building. This schoolhouse served the community until 1926 when Center School, the consolidated township school was built.⁸² There are only a few schoolhouses associated with the county's early public education system remaining in Lake County.

3.7 Ethnic/Heritage

During the nineteenth century, the influx of European immigrants to the United States had a profound effect on the development of the frontier in the Midwest, with the exception of Indiana. Several factors influenced the state's lack of appeal to immigrant populations. The lack of cheap land for purchase, slow development of urban centers, an exclusionary public policy, and minimal promotion of the Indiana territory to foreign immigrants were among these factors. Unlike Wisconsin, Illinois, and Ohio, the state had a very low percentage of immigrant residents during the first half of the nineteenth century.

By the mid-nineteenth century, the majority of Indiana's foreign-born population had settled in the southern counties along the Ohio River. Fleeing famine and political unrest in Germany, German immigrants constituted half of the foreign-born population during this time. The northern portion of the state was less populated. Between 1850 and 1880, an influx of immigrants settled in central and northern Indiana. In West Creek, Cedar Creek, and Eagle Creek townships, early residents included those of German, Irish, or Scottish ancestry. A burgeoning economy in northwestern Indiana, linked to industry in Chicago, continued to attract immigrants to the region through the early twentieth century. As the steel industry grew in northern Indiana, eastern and southern European immigrants arrived in large numbers. Immigrant populations had a profound impact on religious, educational, social organizations, as well as commercial enterprises throughout Indiana.⁸³ This influence was also apparent in architecture and farming practices.

3.8 Conclusion

Within the APE, Lake County's primarily rural tri-creek area developed much later than other parts of Indiana due to the presence of the Kankakee Marsh and the delayed arrival of the railroad. Early settlers engaged in subsistence farming and diverse agricultural activities. Successful efforts to drain the swampland for arable land and the establishment of the Monon Railroad in the 1880s led to the establishment of many farms during the early twentieth century in the West Creek, Cedar Creek, and Eagle Creek townships. This period also marked a transition to large scale farming operations supported by the railroad and proximity to larger markets, such as Chicago. Farms also began to specialize in livestock, particularly dairy and beef cattle farming, due to

⁸² Schmal, December 14, 2006

⁸³ Historic Landmarks Foundation of Indiana, 1996, XXXVII

improvements in agricultural education and technology. Although some development has occurred within the APE from the subdivision of large farm parcels, including the development of the Lake Dalecarlia resort community in the late 1920s and the development of small residential subdivisions in the mid-twentieth century, the area continues to remain rural. Within the APE, the built environment is characterized by large farms and farmsteads, vernacular house types, and mid-twentieth century housing, such as Ranch and split-level houses.

4.0 Survey and Research Personnel

Architectural historians who meet the Secretary of Interior’s Professional Qualifications Standards (36 CFR Part 61) completed the field investigations, historic context and property research, and prepared the determinations of NRHP eligibility in this report.

Table 4-1. Architectural Historians

| Name | Qualification | Primary Responsibilities |
|--|---|---|
| Stephanie S. Foell Senior Supervising Architectural and Landscape Historian Parsons Brinckerhoff | M.H.P., Historic Preservation B.S., History and Psychology 17 years of experience | Technical guidance and review |
| Aimee D. Paquin Architectural Historian Parsons Brinckerhoff | M.S., Historic Preservation B.A., History and American Studies 4 years of experience | Principal Investigator HPR Methodology and Historic Context Field Investigations Property Research Determinations of NRHP Eligibility |
| Guy Blanchard Architectural Historian Parsons Brinckerhoff | J.D., Law M.H.P., Historic Preservation B.A., Art History 2 years of experience | Field Investigations Determinations of NRHP Eligibility |
| Kelsey Britt Architectural Historian Parsons Brinckerhoff | B.A., Art History 1.5 years of experience | HPR Historic Context Field Investigations Property Research Determinations of NRHP Eligibility |
| Gregg Cornetski Lead Systems Analyst Parsons Brinckerhoff | M.S., Computer Science B.A., Foreign Affairs 12 years of experience | Area of Potential Effects Map USGS Map Determinations of NRHP Eligibility Locator Maps |
| Leah J. Konicki | M.Ed. Human Resource | Determinations of NRHP |