



**CLASS III INTENSIVE CULTURAL
RESOURCES INVENTORY:
HISTORIC STRUCTURES
INVENTORY AND EVALUATION**

Big Stone South to Ellendale 345 kV Transmission
Line Project

**Dickey County, North Dakota to the South Dakota
Border**

April 28, 2015

**Class III Intensive Cultural Resources Inventory:
Historic Structures Inventory and Evaluation for the Big Stone South
to Ellendale 345 kV Transmission Line Project,
Dickey County, North Dakota to South Dakota Border Segment**

Prepared for:

**Montana-Dakota Utilities Co.
Bismarck, North Dakota**

and

**Otter Tail Power Company
Fergus Falls, Minnesota**

Prepared by:



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April 2015

Tables that list site locations, Figure 2, 3, 7, 8, and Appendix B contain sensitive information and have been redacted from this version of the report.

Abstract

Montana-Dakota Utilities Co. and Otter Tail Power Company (jointly, the Owners) are proposing to construct, own, and operate a single-circuit, 345 kV transmission line (Project), approximately 160 to 170 miles long, extending from the new Ellendale 345kV Substation near Ellendale, North Dakota, to the Big Stone South Substation near Big Stone City, South Dakota. The North Dakota portion of the Project (North Dakota Facility) consists of the new Ellendale 345kV Substation and tie lines, modification to the existing Ellendale 230 kV Substation, and an approximately 10-mile-long 345 kV transmission line between the substation and the North Dakota-South Dakota border. The North Dakota Facility includes a 150-foot-wide transmission line right-of-way (ROW).

The Owners submitted a Certificate of Corridor Compatibility and Route Permit application to the North Dakota Public Service Commission (PSC), pursuant to North Dakota Century Code Chapter 49-22 in October 2013 and was approved on July 10, 2014. The approval process for the Certificate of Corridor Compatibility and Route Permit included comments from the North Dakota State Historic Preservation Office (SHPO). In a letter dated July 9, 2013, SHPO requested a Class III Intensive Cultural Resources Inventory, including a historic structures inventory, be completed for the North Dakota Facility. This report documents the results of a historic structures inventory and evaluation. A separate report will be submitted that includes the results of the archaeological and traditional cultural property (TCP) inventory, anticipated submittal will be summer 2015.

The goal of the historic structures inventory and evaluation is to identify built resources (buildings, structures, objects, and districts) within the Study Area that are listed in or are eligible for listing in the National Register of Historic Places (NRHP), analyze effects of the Project on those resources, and recommend how to minimize any effects.

Fieldwork took place October 16, 2014 and did not locate any historic period buildings, structures, or sites that are eligible for listing in the NRHP. The surveyors inventoried the Study Area from the ROW to confirm the pre-field research data about the locations of buildings requiring inventory and to locate any additional historic period buildings or structures. No sites previously determined eligible or listed in the NRHP are present in the Study Area. The Project will have no effect on historic period properties.

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1.0 Introduction

In October 2014, HDR Engineering Inc. (HDR) on behalf of Montana-Dakota Utilities Co. and Otter Tail Power Company (jointly, the Owners), completed a historic structures inventory and evaluation for the North Dakota portion of the Big Stone South to Ellendale 345 kilovolt (kV) Transmission Line Project (Project). The Project consists of a new 345 kV substation (Ellendale 345kV Substation) and an approximately 160 to 170-mile-long 345 kV transmission line between the new Ellendale 345kV Substation in Dickey County, North Dakota, and the Big Stone South Substation near Big Stone City in Grant County, South Dakota. The North Dakota portion of the Project (North Dakota Facility) consists of the new Ellendale 345kV Substation and tie line, modifications of the existing Ellendale 230kV Substation, and an approximately 10-mile-long 345 kV transmission line between the Ellendale 345kV Substation and the North Dakota-South Dakota border (Figure 1). The North Dakota Facility includes a 150-foot-wide transmission line right-of-way (ROW).

The Owners submitted a Certificate of Corridor Compatibility and Route Permit application to the North Dakota Public Service Commission (PSC), pursuant to North Dakota Century Code Chapter 49-22 in October 2013. The PSC issued a Certificate of Corridor Compatibility and a Route Permit on July 10, 2014. The approval process for the Certificate of Corridor Compatibility and Route Permit included comments from the North Dakota State Historic Preservation Office (SHPO). In a letter dated July 9, 2013, SHPO requested a Class III Intensive Cultural Resources Inventory, including a historic structures inventory, be completed for the North Dakota Facility. This report documents the results of the Class III Intensive Cultural Resources Inventory for historic structures. A separate report will be submitted that documents the results of the archaeological and traditional cultural property (TCP) inventory, anticipated submittal in the summer 2015.

Federal funding is not anticipated for the Project. However, the North Dakota Facility will require permits to transect lands under United State Fish and Wildlife Service (USFWS) jurisdiction and impacts to United States Army Corps of Engineers (USACE) jurisdictional wetlands. As such, compliance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, pertains to areas that are subject to federal permits. Section 106 requires federal agencies to consider the effects of their undertakings on properties listed, or eligible for listing, on the National Register of Historic Places (NRHP). The survey and reporting requirements for these federal permits will be determined by the responsible federal agency.

Goal of this historic structures inventory and evaluation:

- Identify built resources (buildings, structures, objects, and districts) within the Study Area (defined as a 0.5 mile buffer around the transmission line ROW centerline) that are listed in or are eligible for listing in the National Register of Historic Places (NRHP),
- Analyze effects of the Project on those resources,

- Provide documentation to assist in the determination of whether Project construction would have an adverse effect (visual or direct) on historic properties,
- Discuss options on how to minimize any effects.

Prior to the survey, HDR staff conducted a site file search at the SHPO office for the Study Area. The file search results located no sites within the Study Area that were previously recommended as eligible for listing in the NRHP. Architectural historian Kevin (Lex) Palmer of HDR carried out work for this Project. As the architectural history Principal Investigator (PI), Mr. Palmer conducted research, survey fieldwork, evaluations, analysis, and report preparation, aided by Michelle Porwoll, a professional archaeologist also with HDR. Fieldwork took place October 16, 2014 and did not locate any historic period buildings, structures, or sites that are eligible for listing in the NRHP. The surveyors inventoried the Study Area from the ROW to confirm the pre-field research data about the locations of buildings requiring inventory and to locate any additional historic period buildings.

HDR prepared this technical report in accordance with the recommendations contained in the applicable portions of SHPO's *Guidelines Manual for Cultural Resource Inventory Projects* (2012). The survey methods were coordinated with the SHPO in advance of the survey fieldwork. This report presents the historical contexts, background research, objectives, methods, fieldwork results, and management recommendations for the historic building inventory. Appendix A contains a table of identified building properties and Appendix B (redacted) contains the North Dakota Historic Sites Survey Intensive forms. None of the identified properties are recommended as eligible for listing in the NRHP.

2.0 Project Description

The North Dakota Facility is approximately 10 miles long and is located entirely in Dickey County, North Dakota (Table 1 and Figures 2 and 3). The North Dakota Facility will consist of the following five major components:

1. Approximately 10 miles of new, high-voltage (345 kV), three-phase, single circuit AC electric transmission line from the new Ellendale 345kV Substation to the North Dakota-South Dakota state border. The transmission line mostly parallels existing field breaks in Ellendale and Van Meter townships, Dickey County, North Dakota.
2. A new Ellendale 345kV Substation will be constructed and owned by the Owners, about 1.5 miles west of Ellendale, North Dakota, along the west side of 87th Avenue SE in Section 9, Ellendale Township (Township 129N, Range 63W), Dickey County, and across the street from the existing Ellendale 230 kV Substation, which is located in Section 10 of Ellendale Township.

The footprint of the substation will be approximately 11.3 acres. Construction of the new Ellendale 345kV Substation will involve the installation of two 345 kV circuit breakers, one 345 kV line termination structure, five 345 kV disconnect switches, one 345 kV/230 kV 300/400/500 Mega Volt Ampere (MVA) Auto-Transformer, a 345 kV Shunt Line Reactor, eight 230 kV circuit breakers, twenty-one 230 kV disconnect switches, four 230 kV line termination structures, associated arresters, Capacitive Voltage Transformers (CVTs), bus work, and protective relaying and controls required to support the circuit breakers. The existing Merricourt, Tatanka, and Hankinson 230 kV lines will be relocated to terminate in this substation, as will the Ellendale 230kV tie line described below. All construction will occur within the land purchased for the substation.

3. The existing Merricourt-Ellendale 230kV transmission line will be modified to terminate at the new Ellendale 345kV Substation with part of the existing line being used as a 230 kV tie line between the new Ellendale 345kV Substation and existing Ellendale 230 kV Substation within the existing ROW of the Merricourt-Ellendale 230 kV transmission line.
4. Buswork within the existing Ellendale 230kV Substation will be modified by removing the Merricourt, Tatanka, and Hankinson 230 kV lines and leaving only the Ellendale 345kV Substation 230 kV tie line. All work will occur within the existing substation's fenced boundary.
5. One temporary laydown area (approximately 40 acres) may be required in North Dakota for equipment storage before transportation to the construction sites. It is anticipated that the laydown area, if needed, would be located near the Ellendale 345kV Substation on land that is currently cultivated. The exact locations of laydown areas for the Project have not been determined at this time.

Table 1. North Dakota Facility Right-of-Way Legal Description

County	Township Name	Township	Range	Sections
Dickey	Ellendale	129N	63W	9-10, 15, 22-24
	Van Meter	129N	62W	19-20, 29, 32

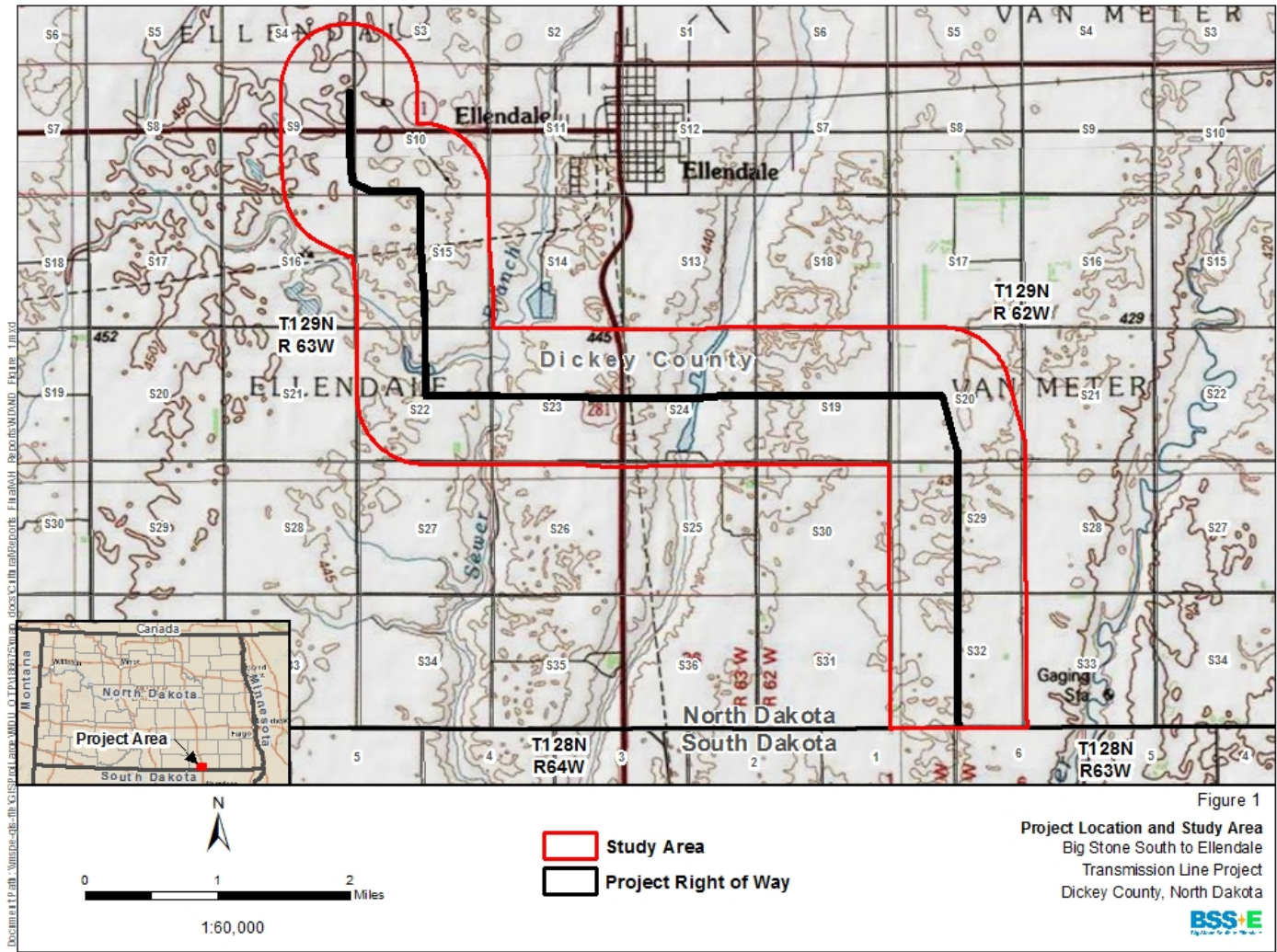


Figure 1. Project Location and Study Area.

Figure containing sensitive material has been redacted.

Figure containing sensitive material has been redacted.

3.0 Research Design and Methods

HDR conducted historical research at the North Dakota State Historical Society. HDR used the information to develop a historic context and learn basic information about the surveyed resources (dates of construction, use, and ownership). Additional research was performed online at the North Dakota Historical Society website and other sites. These sources were used in the preparation of the Study Area historic context.

Prior to the field effort, HDR gathered information from General Land Office (GLO) survey maps, notes, and historic maps of the Study Area. HDR used this information to develop an understanding of the Study Area land use history and buildings in need of inventory. This helped determine which buildings and structures in the Study Area dated to 1964 or earlier.

HDR performed a Project site record search for recorded buildings and structures within the Study Area (0.5 mile on either side of the proposed transmission line ROW) on September 24, 2014 at the SHPO office. This search indicated that no previously recorded architectural sites exist within the Study Area.

The 2014 North Dakota State Historical Society publication *Farms in North Dakota: A Historic Context* provided guidance for the evaluation of the agricultural and rural properties. If farmsteads in the Study Area no longer had a historic period farmhouse, barn, or other significant features, they were considered ineligible for the NRHP. Prefabricated metal storage buildings have been widely adopted on agricultural properties. Examples of this are Quonset-style buildings, and metal grain and seed bins. Very large seed bins and metal-clad agricultural buildings were considered modern intrusions that affect the site integrity of setting and feeling. To be considered NRHP-eligible, buildings must retain overall integrity through retention of historic materials and features, exhibit few or reversible modifications, and have additions that are historic in their own right or do not detract from the historic integrity of the structure. Using the above methods, the buildings and structures within the Study Area were visually inspected from the right of way for their eligibility for listing in the NRHP.

3.1 Survey Methodology

HDR staff consulted with the SHPO on the survey approach that combined archival research with the professional judgment of the architectural history PI in the field to assess the buildings and structures on each parcel for their age and integrity. Using this approach, the PI made a reasoned judgment regarding the potential for historic significance of these buildings and structures. The PI determined in the field if a site (on an individual or district basis) was potentially eligible under NRHP Criterion C, and would then conduct additional research on any sites for their eligibility under NRHP Criteria A and C. The seven aspects of integrity were also assessed, with integrity of design, setting, materials, workmanship, and association the key considerations. Buildings and structures within the Study Area that were less than fifty years old (1964 or later) or historic period sites that appeared to be ineligible under Criterion C were documented with an

overview digital image and placed into a table within the survey and evaluation report. This information is presented in Appendix A. The architectural history PI was assigned documentation of historic period railroad grades for this Project. Two abandoned railroad lines in the Study Area are historical archaeological features due to a lack of associated buildings, tracks, or ties. These features are recommended as ineligible for listing in the NRHP due to loss of integrity and they have been included in this report.

The HDR surveyors did not have permission to enter the sites, or to enter adjacent locations to the ROW, and consequently collected the survey data from the ROW. The survey team visited ten locations within the Study Area: two modern age sites, five historic period building clusters, one site with historic and modern age buildings, and two abandoned historic period railroad grades.

The Study Area exhibits a mixture of 1990s and 2000s single-family residences that are inter-dispersed with modern and historic-age agricultural properties. The primary agricultural activity is corn and soybean farming. A small number of early twentieth-century farmsteads and a larger number of modern (less than fifty years of age) buildings and structures characterize the Study Area built environment. Farm complexes and single family residential buildings in the Study Area either had historic-age buildings and structures that were modified or modern intrusions such as numerous modern metal-clad machine sheds and large metal seed bins, or lacked architectural merit. HDR prepared this technical report in accordance with the recommendations contained in the SHPO's *Guidelines Manual for Cultural Resources Inventory Projects* (2012).

4.0 Historical Contexts

4.1 North Dakota Historical Context

This North Dakota historic overview has been adapted from *The Early History of North Dakota: Essential Outlines of American History* (Lounsberry 1919), *Out Where the West Begins: Early and Romantic History of North Dakota* (Trinka 1920), and the chapter “North Dakota History: Overview and Summary” from the *North Dakota Blue Book* (Remele 1998).

4.1.1 Fur Trade / Contact Period (1738-1823)

Euro-American settlement of present-day North Dakota was initiated by early explorers and fur traders, first by the French, then English, and followed by Americans. Before the 1803 Louisiana Purchase and American involvement, French fur traders established a fort at Pembina and near the Knife River. Pierre Gaultier de la Verendrye led one of the first known Euro-American expeditions into present-day North Dakota. This French explorer and fur trader visited the Mandan villages in 1738 near present-day Bismarck. By the 1790s, the Canadian North West Company and Hudson’s Bay Company erected trading posts along the Red River and in the northeastern corner of the state. Euro-American interest in this part of the country increased with the U.S. purchase of the Louisiana Territory in 1803. The Lewis and Clark expedition organized to explore and report on this new territory, and in 1804, they passed through North Dakota. During their time in North Dakota, Lewis and Clark visited Mandan, Hidatsa, and Arahami villages along the Missouri River, and wintered in Fort Mandan, which they built six miles below the mouth of the Knife River. The following year, the expedition made its way through the rest of North Dakota on its way into present-day Montana. Their efforts resulted in increased fur trade, which would be further encouraged by the establishment of American military forts.

Increasing numbers of explorers and fur traders would reach the area in the following years. The establishment, operation, and adaptation of gathering the hides of fur-bearing mammals in exchange for other goods and materials characterize this period. This exchange linked the Northern Plains to a worldwide economic and political system. Increased demand for furs by Europeans led to the establishment of settlements or forts in strategic locations throughout the Northern Plains. These areas of centered interaction allowed furs to be procured in an orderly fashion and transported to markets in Europe as quickly as possible. One of the earliest settlements in North Dakota was a colony set up by non-native settlers from Winnipeg in 1812 at the confluence of the Pembina River and the Red River near present-day Pembina. The Metis, a group of people of mixed European and Native American ancestry, also occupied the Red River Valley. The Metis were active in the fur trade in the region, and they carried furs and merchandise by oxcart between Winnipeg, Manitoba (Canada) and St. Paul, Minnesota.

With the American presence, the primary fur trading forts in present-day western North Dakota were at Mandan (south of Bismarck), Pembina, and the American Fur Company's Fort Union near present-day Williston. Stephen H. Long's expedition of 1823 mapped the area to become the border between Canada and the U.S. along the 49th Parallel because of the fur trade activity.

The U.S. governed present-day North Dakota initially as part of the Missouri Territory. It became part of the Dakota Territory in 1861, when President James Buchanan signed an act that established the territory, named for the Sioux (Dakota/Lakota) that occupied the area. The territory, which encompassed lands from the Rocky Mountains east to the Red River, includes much of present-day North Dakota, Montana, and Wyoming. These administrative changes brought a permanency to the Study Area, which engendered the establishment of transportation systems.

4.1.2 North Dakota Railroad Development (1852-1883)

This section and the subsequent railroad history context are based on the Schmidt and Vermeer "Railroads in North Dakota, 1872-1956." The biggest influence on the early settlement of North Dakota was the construction of railroads, which affected settlement patterns, agriculture, and architecture. Prior to the arrival of railroads, merchandise came up the Missouri River by steamboat from St. Louis to Yankton where settlers could buy manufactured articles. The railroads are responsible for enabling rural settlement, helping foster wheat growing and milling, and shipment of building materials into North Dakota.

A transcontinental trade route was a long-standing goal of commercial interests and explorers. Eastern merchants sought a transcontinental railroad as early as the 1830s and 1840s and promoted their interests in a public relations campaign in the eastern newspapers. In 1852, these efforts were rewarded when Congress authorized five surveys of potential routes to the Pacific Ocean in 1852. The following year, Major Isaac Ingalls Stevens led a U.S. Army expedition of a potential northern route, from St. Paul, Minnesota to the Puget Sound. After years of debate, Congress was deadlocked as to which route to charter, but the onset of the Civil War ended the discussion. The Union, better equipped and wealthier than the Confederacy, opted for Stevens' northern route and chartered the Northern Pacific Railway in 1864. Northern Pacific received a fifty million-acre land grant along the proposed route from Duluth, Minnesota to the Puget Sound because Congress believed that without transportation, the unsettled lands were worthless. The line west of the Missouri to the goldfields of Montana passed through the area that became Dickinson, North Dakota.

The Northern Pacific had immense tasks in front of it to construct a transcontinental railroad and limited funds to underwrite those tasks, like many of the railroad companies organized to capitalize on westward expansion immediately following the Civil War. The Northern Pacific executives approached financier Jay Cooke in 1869 to help cover expenses, and he advanced \$500,000 for materials and construction costs. With Cooke's funding, railroad tracks by mid-1873 extended from Duluth, Minnesota to the east side of the Missouri River in the Dakota Territory. The Whistler Expedition of 1871 had surveyed west of the Missouri River including the site of present-day

Dickinson, North Dakota, listing it as the Pleasant Valley Siding. However, the severe decline in the international market for silver in 1873 had widespread effects, including the failure of Jay Cooke's two banks and the bankruptcy of numerous railroad companies, including the Northern Pacific. Work stoppage on the Northern Pacific line lasted through the end of the decade.

Investors reorganized the Northern Pacific in 1879, and construction picked up west of the Missouri River at Mandan, North Dakota. By mid-1879, fifty miles of track existed and grading reached the Green River, approximately ten miles east of Dickinson, North Dakota. Construction of the railroad in the area was not without incident, however. To prevent skirmishes with the Sioux, the U.S. Army established Camp Houston at the tiny settlement of Dickinson in 1880 to protect the railroad crews. Further west, from 1879 to 1883, the Army encamped at the Little Missouri at Cantonment to protect the railroad workers. In 1883, the Northern Pacific completed the rail tracks through the Dakota Territory. In 1872, the Dakota Territory had two railroad stations. The growth of these transportation systems is demonstrated by the existence of 432 railroad stations by 1888.

4.1.3 Military Confrontation (1862-1870)

This period between 1862 and 1870 is characterized by an increasing federal presence in the form of a chain of military outposts. An unfulfilled treaty between the federal government and the Dakota tribe led to a violent uprising in Minnesota in 1862. This in turn led to major military expeditions by the United States government between 1863 and 1865. Dakota resistance was diminished by battles at Whitestone Hill and Killdeer Mountain in 1863, and battles in the Badlands in 1864. However, strained relations between federal entities and Dakota populations existed well into the 1890s, and to some extent still exist today. Known site types from this period include forts, posts, armories, battlefields, trails, roads, bridges, fords, mail stations, cemeteries, villages, camps, campsites, dumps, defensive work corrals, barns, storage areas, and dwellings and residences.

4.1.4 American Settlement / Statehood (1861-1889)

The American Settlement period ran from 1861 through North Dakota's statehood on November 2, 1889. The settlement of present-day North Dakota was a direct tie to the creation of railroads and railroad lines across the state. In 1862, gold was discovered in present day Montana and Idaho, leading to waves of settlers traveling west across present-day North Dakota. In 1864, the Northern Pacific Railroad Company was granted rights to build a railroad through the territory, and in 1871, an expedition with a military escort was sent to scout and survey potential routes. In 1872, the Northern Pacific extended as far as Bismarck, and by the end of the 1870s, railroad links from the east brought homesteaders, including many Norwegian and German immigrants, into the state (State Historical Society of North Dakota, 2014: 14, 45). Russian-German immigrants in particular favored settling in present-day Dickey County. Throughout the 1870s and 1880s, towns and settlements developed in order to serve the homesteaders, frontier citizens, and railroad crews working in the territory.

Around 1879, a population boom occurred that had direct ties to the development of organized, highly mechanized, and large bonanza farms. These bonanza farms had a dramatic effect on the landscape. For the first time, large sections of land could be cultivated and farmed. On November 2, 1889, President Benjamin Harrison approved the admission of North Dakota to the United States. The new state was a Republican stronghold, with the state government dealing with issues concerning large amounts of resources and wealth extracted from the state with no reinvestment. This eventually led to the Democratic Party winning elections and in turn reinvesting wealth and resources back into the state. Known site types from this period include towns, colonies, settlements, reservations, businesses, residences, farms, courthouses, city halls, township halls, government office buildings, office jails, police and sheriff's offices, fire stations, maintenance shops, storage yards, buildings and facilities, dumps, warehouses, roads, highways, streets, alleys, bridges, water and sewer treatment facilities, and homes of prominent local political leaders.

4.1.5 Late Nineteenth and Early Twentieth Century (1890-1920)

North Dakota agriculture boomed during the financial recovery following the Economic Panic of 1893, Dakota. Settlers took advantage of the Enlarged Homestead Act and farmers planted “fence row to fence row,” supplying Europe with food during World War I. The boom was short lived, and the intensive agricultural activity set up the basis for the ensuing 1930s Dust Bowl conditions (State Historical Society of North Dakota, 2014:31). The railroads played a role in this phenomenon by encouraging heavy wheat production from immigrant farmers.

In 1916, North Dakota railroad construction reached its greatest extent with a total of 6,100 miles of track. Seven major companies operated in the state, along with several smaller regional companies. These included the Northern Pacific; the Great Northern; the Minneapolis, St. Paul and Sault Ste. Marie (Soo); the Chicago, Milwaukee and St. Paul (Milwaukee); the Midland Continental; the Farmers Grain and Shipping Company; and the Chicago and North Western. Most lines also provided passenger service, although the shipment of agricultural produce and raw materials dominated. The main commodity in North Dakota continued to be wheat, with nearly 159 million bushels produced in 1915. Agricultural commodities shipped from North Dakota also included flax, corn, and cattle. The railroad also shipped coal mined in the western part of the state.

4.1.6 The Great Depression (1929-1940)

During the Great Depression, a failing national economy, heavy debt, low prices for agricultural goods, crop failures, and dust storms resulted in series of farm forecloses, bank failures, and residence and business abandonment. The railroads also suffered from this economic fallout. The mid-twentieth century presented several challenges for the railroad companies in North Dakota. Between 1920 and 1960, railroads lost most of their passenger and half of their freight service to competition with automobiles, trucks, and airplanes. North Dakota wheat production decreased dramatically during the 1930s Dust Bowl with production falling to nineteen million bushels in 1936

from a high of 159 million bushels in 1915. Railroad companies abandoned low-profit branch lines. By 1940, trackage in North Dakota dropped to around 5,200 miles.

Known site types from this period include abandoned farms, banks, businesses buildings, city parks, civic improvements, relief facilities, Works Progress Administration projects, and Civilian Conservation Corps camps and project sites.

4.1.7 Post World War II Period (1945-1965)

From 1945-1965, a postwar economy drove the development of large industrial facilities in order to change raw materials into products for local and national consumption. Large construction projects – such as dams and reservoirs – allowed access to water resources throughout the year in a predictable manner. Discovery of natural resources such as oil and coal allowed the development of these industries in the state. Additionally, the Cold War (1946-1989) generated strategic placement of military bases. The Air Force established two large bases at Grand Forks and Minot in 1960.

This was also a time of change for North Dakota railroads. With the United States' entry into the World War II in 1941, the railroads across the nation experienced temporarily improved profitability because of the military demand for trains. Civilian demand also increased due to automobile fuel rationing. This changed after the war, and North Dakota railroads continued their decline because of increased competition from other modes of transportation.

Known site types from this period include Air Force installations, armories, storage areas, dwellings and residences, brick plants, concrete plants, blotting plants, meat-packing plants, food processing plants, assembly plants, factories, foundries, saw mills, gristmills, gravel, potash and uranium mines, tipples, mines, mine entrances, loading and transportation facilities, storage yards, railroad spurs, office buildings, camps, oil wells, gas wells, petroleum product refineries, tank batteries, pipelines, and pumping stations.

4.2 Dickey County Historical Context

The Dickey County history overview has been adapted from *A History of Dickey County, North Dakota* (Black 1930), the State Historical Society of North Dakota State Historic Sites (SHSND 2013) and the *Soil Survey of Dickey County, North Dakota* (United States Department of Agriculture 1993).

4.2.1 Dickey County History

The first known non-native exploration group to pass through Dickey County was the Nicollet-Fremont party. In the summer of 1839, the party was sent to explore the tributaries of the upper Mississippi basin, traveling from Pierre, South Dakota to the James River, near Aberdeen, South Dakota. From Aberdeen, the group continued north, following the west bank of the James River and entered present-day Dickey County.

In 1862 and 1863, General Henry H. Sibley and General Alfred Sully crossed Dickey County. The two generals pursued bands of Dakota tribe members moving west, outside of Minnesota into the Dakota Territory. On September 3, 1863, General Sully's troops attacked a camp of Yanktonai, Dakota, Lakota, and Blackfeet. The subsequent battle at Whitestone Hill led to the death and capture of numerous Native American men, women, and children, while casualties on the military side were relatively light.

In 1864, Captain James L. Fisk received permission from the federal government to escort gold seekers to the Rocky Mountains. Although Captain Fisk had made two successful trips in 1862 and 1863, he attempted a short cut in 1864, striking across the plains of Minnesota from the newly established Fort Rice. Sitting Bull and the Lakota Sioux attacked the group near Ives, in Bowman County, North Dakota. Nine hundred U.S. soldiers marched to retrieve the expedition members to the safety of Fort Rice where they disbanded.

In July 1864, Captain L.S. Burton attempted to determine if the James River area would provide a suitable location to establish a new army fort. Burton's party marched north following the east bank of the James River reaching the area near the Nicollet-Fremont camp of 1839. As timber resources in the area were limited, they determined that a fort could not be established in the James River locale. The group continued to Kettle Lake in Marshall County, South Dakota and laid out plans for Fort Wadsworth, (or Fort Sisseton as it was also known) which became an important military post.

Minnesota Territory officials first initiated attempts to organize Dickey County in 1850. At that time the area was included as part of Wahnatah County, one of the nine counties claimed by the Minnesota Territory. Wahnatah County never organized however, and in 1851, Pembina County became created to include all of eastern North Dakota as well as a portion of South Dakota east of the Missouri River. When Minnesota became part of the Union on May 11, 1858, all of the eastern Dakota remained without a government. Following the creation of the Dakota Territory in 1861, portions of what is now Dickey County were included in multiple county boundaries. On March

7, 1881, Dickey County was created, taking twenty-one townships from LaMoure County, three from Ransom County, and a small strip of land on each side of the 46th parallel, which had not been included in any county.

As of 1881, no settlers were living within Dickey County borders; however, approximately seven miles of the Chicago Milwaukee & St. Paul Railway (Milwaukee Road) traversed the new county. The rail line terminated in Section 26 of Township 130, Range 63, and a town likely would be located at the end of the rail line. Soon settlers began claiming land around the railroad with concentrations near the rail terminus. In the late fall of 1881 four men filed claims on the four quarters known as the “center of Ellendale.” This center was created approximately three miles southeast of the terminus and consists of only a few shanties (Ellendale Book Committee, 1982:311).

By 1882, Dickey County experienced a great influx of settlers as eastern newspapers and railroad companies advertised homesteading opportunities in the new territory. The first emigrant train arrived in Ellendale, North Dakota in April 1882 (Ellendale Book Committee, 2007:79). Towns and settlements were created adjacent to waterways such as the James and Maple Rivers, and followed the expansion of the Milwaukee Road. By 1883, multiple stagecoach lines extended out of Ellendale, North Dakota to the northeast connecting to Hudson; to the north connecting to Keystone; and to the west connecting to Fort Yates, Bismarck, and Ashley. In 1889, the Dakota Territory was divided into two new states: North Dakota and South Dakota.

Ellendale officially incorporated in 1889, and became part of the new state of North Dakota. The town site was based on an early 1880s plat established by the Milwaukee Road, which local residents quickly expanded (Ellendale Book Committee, 1982: 312).

Townships became established in Dickey County and the Study Area that included the Van Meter and Ellendale Townships. The Van Meter Township is named after John H. Van Meter, the first Euro-American to settle there. Van Meter and his brother established two claims in Sections 5 and 8, on May 12, 1882. The township remained sparsely populated, and aside from farming, had two transportation routes through it. The Milwaukee Road railroad existed in this township until its abandonment in 1980. The north-south U.S. Highway 281 (known as the Sunshine Highway) was paved by 1941 and continues to be used in the present day (Ellendale Book Committee, 2007: 79).

The Ellendale Township is within the confines of the City of Ellendale, and consequently had a higher degree of development associated with the town site. The township became the first surveyed township in Dickey County plotted under the financial backing of C.H. Pryor of the Milwaukee Road. The new township was quickly settled compared to others in the locale, due to its proximity to the railroad station (Ellendale Book Committee, 2007: 79).

The early 1890s brought severe drought to the region and many in Dickey County sold their claims and moved on. Figure 4 below shows the sparse population in the Study Area in the mid-1890s. The county population was 5,573 in 1890 and reached an all-time high in 1930 at 10,877. Due to drought conditions and the ensuing 1930s Great Depression, the county witnessed a steady population decline.

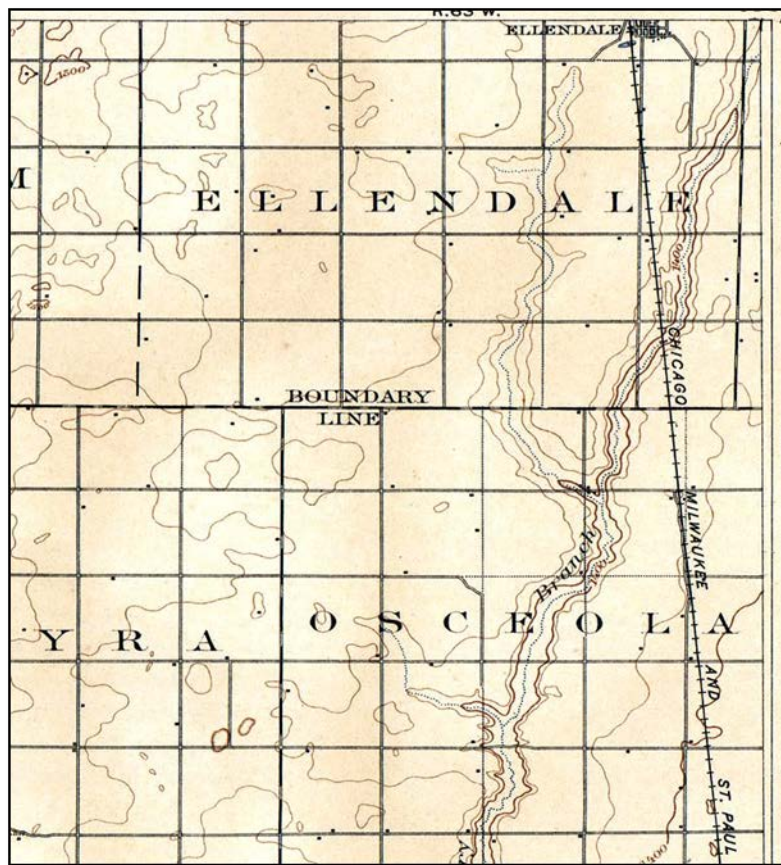


Figure 2. This 1895 Ellendale USGS map shows the Study Area with sparse occupation.

Dickey County's economy followed common historic trends seen across North Dakota—trends revolved around agriculture with crops grown by immigrant Scandinavian or Germans, and native-born Americans. German-Russian immigrants focused on the western portion of Dickey County (Ellendale Book Committee, 2007:190). Grain crops such as wheat, oats, and barley dominated farming. The largest Dickey County agricultural operations during the historic period took place northeast of Ellendale in the Kent Township. George Baldwin of Wisconsin held numerous large agricultural operations in the Midwest, and established eight Baldwin farms in east-central Dickey County that raised hogs, cattle, dairy cows, horses, and sheep. These operations did well from the late 1890s into the 1930s. Few of the various ranch buildings existed by the early 2000's (Ellendale Book Committee, 2007:192-193).

Today the primary economic enterprise in Dickey County is farming. The principal crop consists of spring wheat, although corn, sunflower, millet, hay, and flax are also grown. Livestock is raised primarily in the western quarter of the county in more undulating landscape. Approximately 73 percent of the county is devoted to cropland or pasture area, while the remaining 19 percent is range.

4.2.2 Dickey County Railroads

The Chicago, Milwaukee, St. Paul and Pacific Railroad (Milwaukee Road), and Great Northern Railroad developed in Dickey County during the late nineteenth century. The Milwaukee Road became the first line established in Dickey County when workers completed the line to Ellendale in 1881. Figure 5 below shows the train depot in the 1910s. The line was extended northwest from Ellendale to Edgeley in 1886, and it connected to a Northern Pacific line there the following year.

The residents of the new agricultural communities such as Ellendale located around the railroad sidings rapidly duplicated the social and economic amenities of their previous homes including churches and schools. Commonly, new towns were laid out in a north-south direction across the railroad tracks. Ranching communities were farther apart and developed as trade centers with fewer amenities. Agricultural communities became collecting points for grain, livestock, and other farm produce and were completely dependent on the railroads.



Figure 3. This 1910s image shows the Ellendale Milwaukee Road train depot.

Courtesy of Institute for Regional Studies, NDSU, Fargo (2000.158.20).

The Great Northern Railway acquired a variety of railroads, including the Dakota and Great Northern Railway Company. In 1905, the Great Northern supplied construction monies for the Dakota and Great Northern as a way to undercut competition from the Soo Line. This resulted in the establishment of 14 miles of line from Ellendale southwest to Forbes. Figure 6 below shows the Great Northern line location in the 1950s.

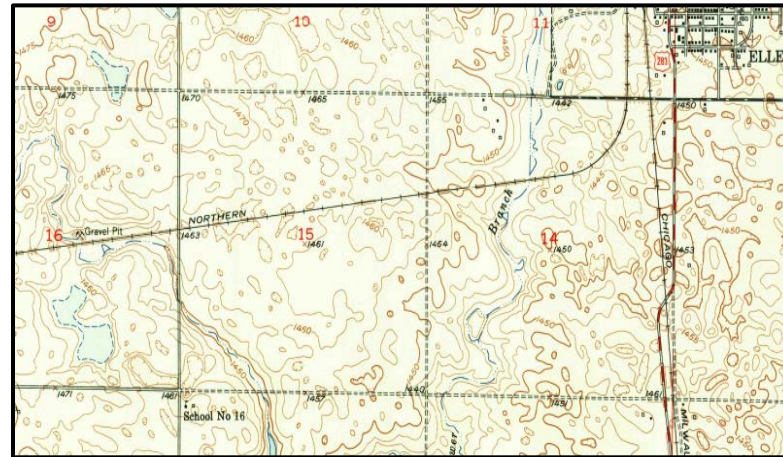


Figure 4. This 1953 USGS Ellendale 7.5' map depicts the Great Northern Railway corridor in Section 15 within the Study Area, constructed in 1905.

Interstate highway construction in the 1950s put a greater strain on the railroad companies in the state resulting in both the Milwaukee Road and Great Northern Railway lines being abandoned in Dickey County. In the 1970s, railroads consolidated with only BNSF and Canadian Pacific serving the state today. For the Study Area, railroads ceased operating at a later point. The Milwaukee Road that crossed the Van Meter Township halted business and removed the tracks in 1980, leaving only the bed behind. This also took place with the Great Northern Railway, which abandoned the Forbes to Ellendale segment in 1981, also leaving behind only the railroad bed (Ellendale Book Committee, 2007:79). These linear features no longer have ballast, ties, and tracks, and only the railroad bed is extant.

5.0 Survey Results

Eight building clusters with buildings and structures and two railroad grade sites in the Study Area were visually inspected for their historic significance (see Appendix A table and Figures 2 and 3 [redacted]). Appendix A lists details the eight building clusters with buildings and structures. Of these, two were clearly not of historic age (fifty years or older). Of those that were of historic age, most had lost integrity, having undergone extensive unsympathetic alterations (major additions to the original structure, synthetic siding, replacement windows and doors in altered openings, etc.), which eliminated them from consideration as historic properties. A second common trend was the loss of contributing buildings at a site such as residences or barns. Some sites had a vacant house or a barn and the remainder of the buildings had been demolished. The third pattern involved the introduction of large, recently built, prefabricated metal storage buildings into a historic building complex. The SHPO file search did not identify any previously recorded sites or listed historic properties within one mile of the Study Area. Two abandoned railroad grades were documented as sites 32DI111 and 32DI111, which are discussed below. The NRHP eligibility of two documented sites in the Study Area is presented in chapter 6 following the NRHP evaluation criteria.

5.1 Site 32DI111

The Great Northern Railway acquired a variety of railroads, including the Dakota and Great Northern Railway Company. In 1905, the Great Northern supplied construction monies for the Dakota and Great Northern as a way to undercut competition from the Soo Line. This resulted in the establishment of 14 miles of line from Ellendale southwest to Forbes in Dickey County.

Site 32DI111 is a remnant portion of the Dakota and Great Northern Railway line established in 1905, and abandoned in 1981. This mile-long segment consists only of the earthen railroad bed grade, no ties or rails are extant. The earthen grade is now a mound approximately 12 feet wide. There are also segments located to the east and west. HDR only documented this portion located in the Study Area.

Figure containing sensitive material has been redacted.

5.2 Site 32DI111

The Chicago, Milwaukee, St. Paul and Pacific Railroad (Milwaukee Road) became the first railroad line established in Dickey County when workers completed the line to Ellendale in 1881. The line was extended northwest from Ellendale to Edgeley in 1886, and it connected to a Northern Pacific line there the following year. The Milwaukee Road that crossed the Van Meter and Ellendale Townships halted business and removed the tracks in 1980, leaving only the bed behind (Ellendale Book Committee, 2007:79). The earthen grade is now a mound approximately 11 feet wide and this segment is one mile long. There are also segments located to the north and south. HDR only documented this portion located in the Study Area.

Figure containing sensitive material has been redacted.

6.0 Regulatory Framework for NRHP Eligibility Evaluation

National Park Service (NPS) regulations and guidance documents (including NRHP Bulletins) outline the process for evaluating sites for NRHP eligibility. According to the NPS, the categories of sites that may be eligible for the NRHP are buildings, structures, sites, objects, or historic districts. Sites are evaluated for NRHP eligibility using the NRHP evaluation criteria, as listed in 36 CFR 60.4. To be listed in or eligible for the NRHP, a property should be fifty years or older, possess historic significance based on its related historic context, and retain historic integrity expressive of that significance. The property must meet at least one of the four following criteria:

Criterion A: The resource is associated with events that have made a significant contribution to the broad pattern of history.

Criterion B: The resource is associated with the lives of people significant in the past.

Criterion C: The resource embodies distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic value; or represents a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: The resource has yielded, or may be likely to yield, information important in prehistory or history.

For a property to be eligible for the NRHP, it must qualify under one or more of the NRHP evaluation criteria (criteria A–D) and possess historic integrity, which conveys or expresses its historic significance. Historic integrity refers to the authenticity of a resource’s historic identity as evidenced by the survival of physical characteristics it possessed in the past and its capacity to convey information about the basis for which the property is significant. Integrity occurs as authenticity of location, design, setting, materials, workmanship, feeling, and association. In addition to being significant under one or more NRHP criteria, a property must possess integrity in a majority of these areas. Location refers to the place where an event occurred or a property was originally built. Design considers elements such as plan, form, and style of a property. Setting is the physical environment of the property. Materials refer to the physical elements used to construct the property. Workmanship refers to the craftsmanship of the creators of a property. Feeling is the ability of the property to convey its historic time and place. Association refers to the link between the property and a historically significant event or person.

Sites or structures that may not be considered individually significant may be considered eligible for listing in the NRHP as part of a historic district. According to National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation*, a historic district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects that are historically or aesthetically united by plan or physical development (U.S. Department of the Interior 1997). The

district represents a significant and distinguishable entity whose components may otherwise lack individual distinction.

A property meeting one or more special requirements or criteria considerations may be eligible for the NRHP even if not usually considered for listing in the NRHP. National Register Bulletin 15 explains:

Certain kinds of sites are not usually considered for listing in the National Register: religious sites, moved sites, birthplaces or graves, cemeteries, reconstructed sites, commemorative sites, and sites achieving significance within the past fifty years. These sites can be eligible for listing, however, if they meet special requirements, called criteria considerations, in addition to meeting the regular requirements (that is, being eligible under one or more of the four criteria A–D and possessing integrity). The criteria considerations need to be applied only to individual sites. Components of eligible districts do not have to meet the special requirements unless they make up the majority of the district or are the focal point of the district.

National Register Bulletin 15 guidance outlines seven criteria considerations that allow exceptions or elaborations on the reasons for which a property may be considered for NRHP eligibility:

Ordinarily cemeteries, birthplaces, or graves of historical figures, sites owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, sites primarily commemorative in nature, and sites that have achieved significance within the past fifty years shall not be considered eligible for the National Register. However, such sites will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- a. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- b. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- c. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his or her productive life; or
- d. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, from association with historic events; or
- e. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- f. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or,

- g. A property achieving significance within the past 50 years if it is of exceptional importance.

6.1 Sites Recommended as Not Eligible for the NHRP

None of the eight building clusters and the two railroad grade sites are recommended as eligible for listing in the National Register (Appendix A). The two railroad grade sites' NRHP significance is evaluated below.

6.1.1 Site 32DI111

This segment of the former Great Northern Railway is not recommended as eligible for listing in the NRHP under Criterion A. The railway corridor site is representative of early twentieth-century North Dakota railroad construction and North Dakota settlement factors. However, due to several physical integrity factors, which have removed features associated with the period of significance, it does not appear eligible for listing in the NRHP.

This Forbes to Ellendale segment of the former Great Northern line was abandoned in 1981, and the ballast, ties, and rails were removed. There are no obvious extant grade separation structures, and no support buildings like grain elevators. The grade has been plowed repeatedly in this segment, and is a cornfield. The segment has been cut by 87th Avenue SE on the west, and 88th Avenue SE on the east, and there are no longer any extant vehicular crossings. The segment retains its integrity of location. The segment has lost integrity of design, materials, and workmanship. The bed is still evident in aerial imagery; however, it was not visually evident during the field inventory.

6.1.2 Site 32DI111

This segment of the former Milwaukee Road is not recommended as eligible for listing in the NRHP under Criterion A. The railway corridor site is representative of early twentieth-century North Dakota railroad construction and North Dakota settlement factors. However, due to several physical integrity factors, which have removed features associated with the period of significance, it does not appear eligible for listing in the NRHP.

This segment of the former Milwaukee Road was abandoned in 1980, and the ballast, ties, and rails were removed. There are no obvious extant grade separation structures, and no support buildings like grain elevators. The segment retains its integrity of location. The segment has lost integrity of design, materials, and workmanship. The bed is still evident in aerial imagery; however, it was not visually evident during the field inventory.

7.0 Recommended Determination of Effect

The two documented railroad grades (Sites 32DI111 and 32DI111) and eight building clusters are recommended as ineligible for listing in the NRHP. Therefore, there are no anticipated direct or visual effects associated with the proposed undertaking. HDR recommends a finding of No Effect for the North Dakota Facility component of the Project with regard to historic period properties.

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Appendix A
Identified Building Property Clusters
Exact Locations Redacted

Identified Building Properties within the Study Area

HDR ID Number	Street address	Construction Date and Description	Image
D-1a	[REDACTED]	Modern single-family residence (east)	
D-1b	[REDACTED]	Abandoned Craftsman style residence and granary (west)	
D-2	[REDACTED]	15 modern steel grain bins, 2 modern seed bins, large modern machine shed, heavily modified Foursquare residence with attached modern garage on west elevation, four modern metal sheds, historic period metal-clad cattle feed barn	
D-3	[REDACTED]	Historic period Plain Residential house, historic period barn, modern storage building	

HDR ID Number	Street address	Construction Date and Description	Image
D-4	[REDACTED]	2000s era single-family residence, modern metal machine shed	
D-6	[REDACTED]	Former historic period schoolhouse. Appears to be School No. 16 depicted on the USGS 7.5' 1953 Ellendale South map, and was relocated south from Section 22 to this location. The site has been compromised; there is no associated privy or schoolteacher's residence. The building is abandoned, missing all fenestration, and is open to the weather.	
D-7	[REDACTED]	Abandoned historic period feed barn, skeletal frame only	

HDR ID Number	Street address	Construction Date and Description	Image
D-8	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	2000s era manufactured residence, historic period granary, two historic period gambrel roof barns. Complex not cohesive early twentieth century farmstead	

Appendix B

Site Forms

Site Forms containing sensitive information have been redacted.