South Dakota's Railroads

South Dakota State Historic Preservation Office

South Dakota's Railroads:
An Historic Context

Prepared for:

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"There seems to be a natural, pre-ordained fitness between the railway and the prairie; for the prairie is as eminently suited to the formation of railways, as railways are essential to the development of prairies. For hundreds of miles you have only to raise the turf, and lay your sleepers; for hundreds of miles you need neither grading nor bridging; no engineering; hardly any surveying. In one long, unwavering line your iron road passes over the level plain."

-- James Stirling, *Letters from the Slave States,* 1857.

1. INTRODUCTION

A. Purpose of this Document

This publication was originally prepared as part of a series of historic "context" documents discussing the types of historic resources found in South Dakota. Each document covered historic properties belonging to one or more broad categories, relating to the historic function of a property, its period of construction, or its style. The preparation of these contexts was sponsored by the South Dakota State Historic Preservation Office (SHPO) in Pierre, a program of the South Dakota State Historical Society.

Each of South Dakota's context documents was prepared with a multifaceted purpose in mind. First, the publication provides a broad historical background for the resource in question; this helps understand the importance of the resource type as a whole, and can provide background material for those evaluating the historical significance of individual properties. In addition, a series of "property types" are outlined for historic resources covered by the document. Property types are essentially subcategories: their use allows for more specific identification and evaluation of historic properties, allowing each to be compared against other, similar properties elsewhere in the state. For each property type, descriptive information is provided, as well as guidelines for evaluating the significance and "integrity" of individual resources within the type. (The term "integrity" refers to the presence or lack of modern changes to an historic property.)

This document is an historic context for South Dakota's railroads. Railway systems are inherently complex resources, consisting of broad assortments of railroad-owned buildings, structures, and objects, and including both linear and non-linear components. In addition, a wide variety of other commercial and industrial development typically exists along railroad lines, including grain elevators, warehouses, cattle pens, and other features. While this diversity serves as visual evidence of the richness of South Dakota's railway network as a cultural resource, it complicates the process of identification and categorization of specific railroad-related sites. For the purposes of this document, the term "railroad-related resource" has been defined to include all properties constructed, owned, and operated by the state's common-carrier railroad companies, and used by those companies in the course of providing transportation services to the state. This definition excludes, then, resources such as grain elevators, which were typically built on railroad property but were operated by others and primarily served a commercial (rather than transportation) function. Similarly, resource types such as urban streetcar systems (rare in South Dakota) and small-scale, privately-held mining, logging, and industrial rail systems (serving a single smelter, for example) are excluded, since the function and operation of such systems are often very different from those of common-carrier railway networks.

This context discusses South Dakota railroading beginning in 1872, the year the first railroad trackage was constructed in South Dakota. Nineteenth and early twentieth-century railway developments are the primary focus of this study, since nearly all of the state's major railroad construction occurred during those periods. Most of the state's railway-related resources that are eligible for the National Register of Historic Places also date from those eras.

(Information about the National Register program is provided later in this document.) A briefer overview of the state's late twentieth-century railroad history is also included to complete the story. The story of South Dakota's railroads since 1980 is a particularly dynamic one, and is continuing to rapidly evolve. Unquestionably, these current developments will be considered historically significant in the future. To explore these issues, it will be necessary to create expanded and updated editions of this context in the years to come.

B. Methodology

This context document is a primary product of three distinct research projects conducted between 1994 and 2007. Work on the development of a railroad context for the state of South Dakota was begun by Michael A. Bedeau, a staff professional formerly with the South Dakota State Historical Preservation Center, now the State Historic Preservation Office (SHPO). Mr. Bedeau conducted an exhaustive research effort aimed at identifying previously-published source material on South Dakota railroading. He also located and visited archival repositories containing the corporate records of major South Dakota railroads (listed in Section 3 of the Bibliography). Finally, railroad-related site forms in the SHPO files were reviewed, and in-state fieldwork was conducted to identify additional relevant properties. Together, these efforts created a comprehensive vertical file of source material on South Dakota railroading.

In 1995, Mr. Bedeau began synthesizing this material into a statewide "Railroad Transportation Context" document. This document included an historical narrative, a discussion of railroad property types, and information on evaluating the National Register significance of railway resources. Preparation of the context was interrupted by a 1995 state reorganization which relocated the SHPO office from Vermillion to Pierre, but Mr. Bedeau completed a draft document in 1996, under a contract with the Historic Preservation Information Service.

In December 1996, the SHPO issued a Request for Proposals for the development of a revised, final version of the railroad context document, as well as a reworking of the revised contextual materials in the form of a National Register Multiple Properties Documentation form for statewide railway resources. In early 1997, Renewable Technologies, Incorporated (RTI) received a contract to prepare those products.

RTI's work under the 1997 contract was performed by Mark Hufstetler, a member of the firm's professional staff. Hufstetler completed the initial published version of this context in 1997 and 1998, along with an accompanying National Register of Historic Places Multiple properties submittal. Both the context and submittal incorporated substantial portions of Mr. Bedeau's 1996 context document, with additions, corrections and revisions by Hufstetler.

This revised edition of the 1998 context document was prepared in 2006 and 2007, again by Hufstetler and RTI. The project included a complete review of the 1998 document, a brief update of the state's rail history, and revisions to the National Register property types information. A chronology of railroad construction and abandonment in South Dakota was also compiled. Perhaps the most significant component of the 2007 project was the completion of a comprehensive GIS-based all-time map of the state's rail network. The GIS data was provided to SHPO as a separate product, but a series of sample maps are included in this document.

2. THE IMPORTANCE OF RAILROADS TO SOUTH DAKOTA

The patterns of settlement, growth, business, and community in any region are heavily reliant on the transportation systems available to that region. In South Dakota, as with most of the Midwestern and Western United States, the railroad was by far the most important component of that transportation matrix. Since the construction of the state's first railway lines in the 1870s, South Dakota's railroads have played a predominant role in the economic and social history of the state. In most regions of South Dakota, the construction of a railroad was the signal for Euro-American settlement to begin, and the routing of a railway line directly correlated with local settlement patterns. Often, the railway companies influenced the settlement process still further by actively recruiting homesteaders to South Dakota, and by platting townsites to serve as community centers for the new arrivals. The result, throughout much of the state, was a pattern of cultural geography deliberately created by the railroad companies. This pattern remains evident today, in muted form, even though many of the railroads are now gone.

Even after the state's initial period of settlement had passed, the railroads served for decades as the primary provider of transportation services in South Dakota. Nearly every community in the state boasted one or more railway stations, which served as the town's most important link to the outside world. Railroad trains brought visitors and new residents into the town, and carried mail and newspapers in and out. The depot was the place to send and receive telegrams, ship and receive packages, and meet for informal conversation. Nearby, grain elevators and warehouses lined the railroad sidings, serving as way points for local agricultural products on their way to market. Through these and other services, all taken for granted during South Dakota's early years, the railway companies made themselves indispensable to nearly all of the state's residents.

The glory years of the American railroad network ended after World War II, as automobiles and trucks took their turn as the primary providers of transportation services in the United States. In the decades that followed, most of South Dakota's railway lines were abandoned, and today few of the state's residents would consider themselves dependent on the railroad. They still remain an important transportation mode for many commodities, however. At the same time, present-day changes in American travel habits cannot diminish the tremendous role played by the railroads in our history. As the railway network shrinks, however, the visible reminders of the industry's importance begin to disappear, as well. It is therefore vital that those interested in historic preservation understand the unquestioned significance of the railroad to South Dakota's history, and work to preserve the remaining physical reminders of the industry's fascinating past.

Figure 1. The barely-discernable rails of a Milwaukee Road branch line pass a lonely grain elevator at Hillsview, South Dakota (State Historic Preservation Office photo).

3. THE HISTORY OF RAILROADING IN SOUTH DAKOTA

A. Geographical Background[i]

In common with many cultural resource types, the characteristics of railroad systems are strongly influenced by the physical geography of their setting. In South Dakota, two distinct geographic factors were important in determining the patterns of railway development in the state: the physical geography of the state itself, and the physical location of South Dakota in relation to national urban, commercial, and transportation centers.

While much of South Dakota displays typical Midwestern geography and an economy historically dependent on agriculture, the state exhibits marked geographic variation from east to west. The Missouri River runs north-south across the approximate center of the state, and provides a rough line of demarcation. South Dakota's eastern half is relatively flat, moist, and fertile, and is largely utilized for growing wheat, corn, and similar crops. This is quintessential Midwestern "granger" country, where intensive agricultural development led to a concentrated, web-like network of railroad branch lines. West of the Missouri River, however, South Dakota's terrain becomes more uneven and arid, and less fertile. Much of this land is used for grazing, although "islands" of cultivation exist. This land-use pattern required only a relatively skeletal railroad network. The Black Hills, a range running north-south along the state's western boundary, are South Dakota's only significant mountain group and provide the sole major historic exception to the state's farm and ranch-based economy. Here, mining and logging activities helped create a strong industrial base which was less common elsewhere in the state, and which served as a local focal point for railway developers.[ii]

The period of initial Euro-American settlement in South Dakota ranged from the 1850s (in the southeast) to the 1910s (in the western plains). Nearly all of the state's initial settlement was directly or indirectly related to agriculture, primarily the establishment of thousands of

family farms on homestead allotments of 160 or 320 acres. Such settlement was intensive in much of the eastern half of the state, where virtually all the available land was taken up by small farms by the end of the nineteenth century. This created a cultural landscape consisting of heavy, yet dispersed farm settlement accompanied by a large number of relatively small community centers. This pattern was less prevalent in the west, however, where homestead settlement often coexisted with the open-range ranches which had preceded the farmers.[iii]

The pattern of growth and decline in South Dakota's Euro-American population reflects the changing economics of the state's rural settlement. South Dakota's population increased steadily from the 1850s until after World War I as the wave of homestead settlement worked its way across the state from east to west. South Dakota's population peaked by 1930, when the federal census counted 692,849 residents, over three-quarters of whom were rural. Although relatively small urban areas were beginning to evolve in the state by that time, its overall settlement pattern remained dispersed and comparatively uniform. The 1920s, though, saw the beginning of a long period of consolidation and decline among the state's small farms. This trend, still underway today, resulted in significant population declines in those counties still reliant on the family farm. Conversely, a few counties with emerging urban centers have seen substantial population growth since 1930. Between 1930 and 2000, the state's most populous county (Minnehaha) nearly tripled in population, and the population of Pennington County more than quadrupled. During the same period, however, many of South Dakota's rural counties have seen their populations decline by well over half. This broadening disparity between South Dakota's urban and rural regions is perhaps the most significant element in the state's recent historical geography, and it is typical of much of the agricultural Midwest.[iv]

All of the above trends are reflected in the evolution of South Dakota's railway network, as described in the following historic context. In addition, railway development in the state was further shaped by its broader geographic location: in particular, South Dakota's comparative isolation from major urban centers and primary transcontinental travel routes. Most transcontinental rail traffic through the upper Great Plains traveled either through North Dakota or Nebraska, rather than South Dakota. Simultaneously, the state's rural nature meant that relatively few manufactured goods were shipped either to or from the area. Together, these geographic circumstances meant that most of South Dakota's rail lines were relatively lightly trafficked, and relied largely on outbound agricultural shipments. This lack of traffic diversity made the state's rail network unusually vulnerable to long-term changes in the agricultural economy of the Midwest, and ultimately hastened the decline of the railroad industry in South Dakota.[v]

B. Establishment and Expansion: South Dakota Railroads in the Nineteenth Century

1. Beginnings (1851-1868)

Portions of what were to become South Dakota were first opened to Euro-American settlement in 1851, when land east of the Big Sioux River was ceded under the terms of the Treaty of Traverse de Sioux. Seven years later, a second treaty with the Yankton Sioux resulted in the opening to settlement in 1859 of a large portion of southeastern South Dakota, known as the Yankton Triangle. Despite this availability of land, however, settlement activity in the region remained sparse into the 1860s. In 1860 the non-Indian population of southern Dakota

consisted of approximately 1100 people. Most of these early residents were associated with trading posts or military garrisons concentrated in isolated settlements along the Missouri and Big Sioux Rivers. The lack of additional settlement in Dakota during the period could be attributed, in part, to the continued availability of land further east, as well as the nation's preoccupation with both the Civil War and the Sioux Uprising.[vi]

An additional significant limiting factor was access. Transportation in Dakota's early territorial period depended heavily on waterways, particularly the Missouri River. River traffic boomed during the 1860's, partly due to an increase in military transportation during the Indian uprisings beginning with the Santee Outbreak in 1862. An even greater influence, however, was the discovery of gold in Montana Territory. The fastest and safest way to move Montana-bound freight and passengers was by steamboat up the Missouri to Fort Benton, Montana, and then overland to the gold fields.[vii]

Wagon roads and other overland routes were a secondary means of transportation during this period. The most noteworthy was the military road built along the north bank of the Missouri River. It connected Sioux City, Iowa with Fort Randall, which was the principal military post in Dakota Territory during the 1860s and 70s. Wagon routes were also utilized by settlers coming to the territory from the east. The experience of a group of immigrants known as the New York Colony is typical. A large contingent of settlers from Upstate New York arranged to occupy adjacent parcels in Clay and Yankton Counties. During the summer of 1864 they traveled by rail to Marshalltown, Iowa – the closest railhead at the time. The colonists then proceeded the additional 300 miles to Dakota Territory by wagon.[viii]

These early transportation methods had several disadvantages, which limited their utility and helped maintain the region's inaccessibility to most white settlers. Neither mode was viable during a typical Midwestern winter or sufficiently reliable at most other times of the year. In addition, steamboats and overland wagons had limited carrying capacities. These inefficiencies resulted in high tariffs for both passenger and freight hauling. With these difficulties, it soon became readily apparent that the only means of transportation which would enable widespread settlement in Dakota was the steam railway.

The need for a railway into Dakota Territory was recognized as early as 1862, when the first Territorial Legislature chartered the Missouri and Niobrara Valley Railroad Company. The planned route ran west from the Big Sioux to Yankton, then into Nebraska and on to a connection with the proposed transcontinental railroad at South Pass, Wyoming. Despite repeated attempts, nothing came of the scheme; instead, railroad financier John I. Blair managed to complete the Sioux City & Pacific, which bypassed Dakota in its route linking the Big Sioux with the transcontinental railroad.[ix] Similar paper railroads were chartered locally throughout the 1860s. None of these entities, however, managed to actually construct a rail line and both transportation and settlement in Dakota stagnated.

2. The Little Dakota Boom and the First Railroads (1868-1873)

By the end of the 1860s conditions became more favorable for railroad development in Dakota Territory. The Civil War ended in 1865 and the Sioux Uprising was concluded by the Treaty of Fort Laramie in 1868. The completion of the Sioux City & Pacific in 1868 resulted in a large influx of new settlers into the Yankton cession and greater opportunities for farmers to transport their crops. By 1870 the population of Dakota Territory below the 46th parallel (the current North Dakota-South Dakota border) was 11,776 and showed every sign of increasing.[x]

John I. Blair of the Sioux City & Pacific turned his attention to Dakota Territory at this time. Blair sought to secure a Federal land grant to build a rail line from Sioux City to Yankton and then north up the James River to the Canadian border. In the 1850s and 60s such land grant arrangements had been the key incentive for building railroads into unpopulated regions. Some railroads reaped huge profits from these incentives. In what is now North Dakota, for example, the Northern Pacific Railroad received a grant of 25,600 acres of land for every mile of track constructed. By 1870, however, reports of shoddy construction, stock manipulation, and bribery scandals had soured both Congress and the public on federal supports for railroad development. Blair did not receive his grant and southern Dakotans were left on their own with regard to railroad construction.[xi]

One small land-grant railroad did exist within the boundaries of South Dakota. The Winona & St. Peter Railroad, a subsidiary of the Chicago and North Western, received a land grant to build a line west from New Ulm, Minnesota to Lake Kempeska, near what is now Watertown, South Dakota. Constructed in 1872 and 1873, the line included 34.48 miles of track in South Dakota. The railroad was of such tenuous construction, however, that trains operated only as far as the town of Gary on the state line. The federal land grant was apparently the only reason for construction into the state, since the area was virtually unpopulated at the time and few settlers were entering the region. The line remained unused until 1878.[xii]

Despite the unavailability of federal subsidy, the residents of South Dakota's Missouri River towns continued to pursue rail service. The 1868 completion of the Sioux City & Pacific had transformed Sioux City into a boomtown almost overnight, making it the dominant transfer point between rail and river traffic. Eager to divert this commerce, Yankton business interests chartered the Dakota Southern Railway Company in 1871 to connect Yankton with the existing railway network across Iowa. The question of the Dakota Southern's precise route proved quite controversial. Yankton interests, seeking to divert as much Missouri River traffic as possible, favored bypassing Sioux City for a direct connection with the Illinois Central at LeMars, Iowa. Clay and Union County partisans favored a southeastern route to Sioux City, thereby benefiting Vermillion and Elk Point. After much rhetoric, the Sioux City route was finally selected and construction began in June 1872. Rails were laid to Vermillion by the end of that summer and the entire line was finished by February 1873. The Dakota Southern was deeded to the Milwaukee Road in 1881.[xiii]

The benefits of the new railroad were immediate. Yankton became the principal port for upriver steamboat traffic and a primary jumping-off point during the Black Hills Gold Rush of

the 1870s. Unclaimed land in the area was quickly occupied and numerous immigrants poured through Yankton, while seeking claims further north and west. Yankton County paid a significant price for their railroad, however. The county issued $200,000 in bonds to finance the railway's construction, with the bonds to be repaid by a special 2% "railroad tax" on Yankton county property. This arrangement proved extremely controversial, and the county defaulted on the bonds after a court injunction suspended the railroad tax. Years of posturing and litigation between the county and the bondholders ensued, and the matter was not completely resolved until the last bond payments were finally made in 1919.[xiv]

Just as the Dakota Southern was being completed, though, a series of regional and national economic events brought railroad building in Dakota to an abrupt halt. The new Northern Pacific line into northern Dakota Territory played a large role in the dilemma. The Northern Pacific had come under the influence and control of Jay Cooke, a Philadelphia financier, in 1869. During the ensuing four years, Cooke led the railroad into a series of increasingly more desperate financial machinations, which ultimately led to the financial collapse of Cooke's banking empire (and the Northern Pacific itself) in 1873. These events precipitated the Panic of 1873, the beginning of a four-year nationwide economic depression.[xv] With little investment capital available, grand plans for railroad construction in South Dakota went on a forced hiatus.

3. Railway Expansion During the Great Dakota Boom (1878-1887)

Recovery from the Panic of 1873 was slow, but by 1878 conditions in Dakota Territory had begun to improve. Two railroad companies with extensive lines in Iowa and Minnesota began to take a renewed interest in the southern part of Dakota Territory. The Chicago & North Western (the C&NW, or the "North Western") and the Chicago, Milwaukee & St. Paul (the "Milwaukee Road") both had extensive, and in most cases directly competitive trackage in the upper Midwest. Both lines developed in the 1850s as short lines serving to connect rural markets with major cities, most notably Chicago. During the following years the two companies expanded their holdings and developed almost identical systems linking Chicago with Milwaukee, Minneapolis/St. Paul, and Omaha. Prior to the Panic of 1873 both railroads had built lines into northern Iowa and southern Minnesota. Continued intense competition spurred both companies to plan major expansions as economic conditions improved in the late 1870s.[xvi] For both railroads, the unsettled areas of southern Dakota Territory seemed ideal targets.

The massive Black Hills gold rush of the mid-1870s also attracted new interest in Dakota Territory. As the population in the Hills rapidly rose and the mines began to turn a profit, the demand for transportation grew. It was apparent that the first railroad to reach the Hills stood to make a significant return on both passenger and freight operations.[xvii]

In 1877, the North Western's managing director, Marvin Hughitt, made an extensive inspection trip to Dakota Territory. Hughitt personally reconnoitered the country from the line's western terminus at Tracy, Minnesota to the banks of the Missouri River opposite Fort Pierre. Hughitt concluded that conditions were ripe for expansion into this unsettled area. His convictions were not commonly held, however. The idea of building a railroad into wholly unoccupied territory without the benefit of a government subsidy or land grant seemed the height

of folly to many.[xviii] Indeed, many railroaders felt that the construction of any non-through line into the "Great American Desert" would be financially untenable.

Hughitt believed, however, that settlement and business would follow the railroad, generating sufficient revenue to justify the North Western's investment. He managed to convince the railroad's Board of Directors and construction west from Tracy to what is now Pierre began in the spring of 1878. The North Western began to build west along the old Winona & St. Peter land grant line, starting at Gary and aiming for the Missouri River settlement of Forest City. The Chicago, St. Paul, Minneapolis & Omaha Railway (the "Omaha Road"), a long-time North Western subsidiary, also built into South Dakota, reaching Sioux Falls in 1878 and continuing west toward the Missouri.[xix]

As soon as Hughitt's extension plans became public, the Milwaukee Road launched its own expansion program into southern Dakota Territory. Two east-west lines were begun, one running from Canton on the Big Sioux River to what is now Chamberlain on the east bank of the Missouri, and one from Ortonville, Minnesota across the northern part of the state. In addition, an extensive network of branch lines was begun, providing north-south connections and feeders for the east-west mains. The Milwaukee's ambitious construction effort soon made it the owner of the largest railroad network in South Dakota, a title it retained until 1980.[xx]

The Great Dakota Boom also saw the first development of railroad lines in the Black Hills. Unlike the eastern part of the territory, settlement in the Hills preceded the construction of railways there. During the 1870s gold rush, the Hills were physically isolated, some 200 miles from the nearest rail connections at Cheyenne, Wyoming and Sidney, Nebraska. Mining operations and towns alike were dependent on costly and unreliable overland freighting operations for both passenger and freight hauling. Both the Milwaukee and the North Western were eager to reach the Hills. Much of western South Dakota, however, remained part of the Great Sioux Reservation, and the railroads were unable to convince either the tribes or the federal government to build through reservation land. Consequently, while both railroads had reached the Missouri River by the early 1880s, they were unable to proceed further west.[xxi]

Residents of the Black Hills became increasingly frustrated with their lack of reliable transportation, and began working on local solutions to the problem. In 1879 the Homestake Mining Company, rapidly becoming the dominant economic force in the Hills, chartered the Black Hills and Fort Pierre Railroad (BH&FP) at Lead. The first BH&FP engine was hauled by ox team across the plains from the railhead at Bismarck. The line operated primarily to transport the vast amount of timber needed by Homestake's mining operation, never extending beyond the Black Hills. A second locally-financed line, the Deadwood Central, was a narrow-gauge route connecting the region's two metropolises, Lead and Deadwood. Together, these two companies marked the beginning of railroading in western South Dakota.[xxii]

It ultimately fell to two Nebraska railroad lines to connect the Black Hills with the rest of the world. In the early 1880s the North Western acquired the Fremont, Elkhorn & Missouri Valley Railroad (the "Elkhorn"), an eastern Nebraska short line. The North Western soon realized that the Elkhorn could reach the Hills by building west through Nebraska and then north, bypassing the Sioux reservation. The Elkhorn reached Buffalo Gap, South Dakota in 1885

before continuing north to Rapid City the following year. The line was finally completed to Deadwood in late 1890.[xxiii]

Figure 2. A Chicago & North Western passenger train prepares to begin its run from Deadwood to Rapid City (Chicago & North Western Historical Society Collection, Northern Illinois University Library).

The Chicago Burlington & Quincy (CB&Q, or the "Burlington"), had also actively expanded its Nebraska railway network. In 1889, the Burlington built through the far southwestern corner of South Dakota en route to Wyoming and Montana, and soon decided to use this route as its own gateway to the Black Hills. The Burlington constructed a branch line from Edgemont through the center of the Hills to Deadwood, arriving in January 1891 – just a month after the North Western. The Burlington quickly acquired both the BH&FP and the Deadwood Central, and soon possessed an extensive standard- and narrow-gauge network in the Hills.[xxiv]

Railway expansion in eastern South Dakota, meanwhile, continued apace. During the late nineteenth century, the Milwaukee and North Western lines in South Dakota were joined by branch routes constructed by several other major Midwestern railroads. Of these, the Great Northern Railway (through a predecessor firm) completed the largest effort by far. Entering South Dakota from the northeast, Great Northern trackage ultimately reached Aberdeen, Watertown, Huron, Sioux Falls, and Yankton. Among the state's other new railroads were the Illinois Central (to Sioux Falls), a subsidiary of the Rock Island (to Sioux Falls and Watertown), and the Minneapolis & St. Louis (to Watertown).[xxv] Numerous other lines were announced but never constructed, and still other routes were partially constructed before being abandoned when funding ran out. Included in the latter category were partially-built lines from Aberdeen to both Pierre and Bismarck. (Appendix 1 of this document includes a complete historical list of the state's common-carrier railroads.)[xxvi]

Despite these additional competitors, however, the Milwaukee and the North Western remained firmly in control of the state's railway game. Between them, the two companies controlled some 73% of South Dakota's nineteenth-century rail lines. Each operated two major east-west lines through eastern Dakota, supported by ever-growing networks of feeder branch lines. By the late 1880s the Milwaukee and the North Western had become extremely powerful economic and social forces in South Dakota, dominating many aspects of life in the state until well into the 20th Century.[xxvii] Figure 3 maps the extent of South Dakota's rail network in the statehood year of 1889.

Figure 3. Map of South Dakota's Railroad Network: 1889.

4. The Impact and Influence of the Railroad on Nineteenth-Century South Dakota

Marvin Hughitt's assertion that railroading in Dakota Territory would be economically viable proved to be prophetic. By the late 1870s a variety of conditions combined to make the territory an attractive destination for potential settlers. Available government land further east was becoming scarce, the Panic of 1873 caused the economic displacement of large numbers of potential settlers, and ideal climatic conditions in Dakota during the 1880's resulted in a series of bumper crops. From virtually the moment railroad construction began, South Dakota was inundated with eager home seekers. In 1870 the southern half of the Territory had 11,776 residents. By 1880, only two years into the boom, that number stood at 98,268 while five years later the population had mushroomed to 263,411. During the same period railroad mileage went from zero to 2,456.1 miles. The number of platted towns rose from 6 to 213.[xxviii]

The railroad companies did all in their power to encourage settlement along their new routes. Thousands of promotional brochures were printed extolling the virtues of Dakota

Territory, pridefully touting the region's climate, agricultural capacity and industrial potential. Literature was printed in numerous languages, and distributed across the eastern United States, Canada, and northern and central Europe. The railroads employed hundreds of immigration agents which fanned out across Europe and North America to recruit settlers. Special immigrant trains offered discount fares and allowed potential homesteaders to cheaply ship household possessions, livestock, and building materials to the new territory. Special exhibition railroad cars, loaded with Dakota Territory products and propaganda, were exhibited at fairs across the country in order to encourage prospective settlers.[xxix]

Figure 4. This early advertisement, by the Chicago & North Western Railway, typifies the settlement campaigns of South Dakota railroads during the late nineteenth century (South Dakota State Archives photo collection).

Many railroad companies supplemented these marketing and transportation programs with other efforts aimed at townsite development and land sales. Of the 285 town plats registered in Dakota Territory between 1878 and 1887, 142 were platted by railroad companies or their subsidiary townsite companies. In addition, many more were platted by individuals, such as C.H. Prior and John and Joseph Lawler of the Milwaukee and Albert Keep of the North Western, who were intimately connected with the railroad companies and acted as their agents. The practice of railway-sponsored townsite development helped focus additional residential and commercial development along the rail lines. In addition, the townsites were often very profitable in their own right. Railroads frequently acquired their future town locations at a bargain price prior to announcing plans for a rail line through the area. Prices usually increased dramatically once the location of the new line became public knowledge.[xxx]

Most railroad companies used standardized town plans which were duplicated dozens of times across the state, with only minor variations. The Milwaukee favored what has become

known as the 'T' town. The town was platted on one side of the tracks only, thereby reducing the number of grade crossings. The principal commercial street, usually called Main Street, was perpendicular to the tracks and terminated in front of the depot, forming a 'T'-shaped intersection with the street running parallel to the tracks. The North Western and several other lines also favored a commercial street perpendicular to the tracks but usually platted on both sides of the right-of-way.[xxxi] Street names also tended to reflect railroad company preferences. Both of the state's major railroads preferred numbered streets running parallel to the tracks. The Milwaukee tended to either number perpendicular avenues or name them after railroad officials and stockholders. Thus, names like Lawler, Kimball and Sanborn can be found in several towns in the state. The North Western, on the other hand, often named perpendicular streets after states. Town names were also the purview of the railroad. C.H. Prior of the Milwaukee was a native New Englander and named many towns he platted after locations in that region of the country – Ipswich, Andover, and Woonsocket are all examples. The North Western often chose names associated with Great Britain, as English capital helped finance the company. Thus the town of Beresford is named after Lord Beresford, an English investor. Companies also simply made up names with no apparent meaning at all.[xxxii]
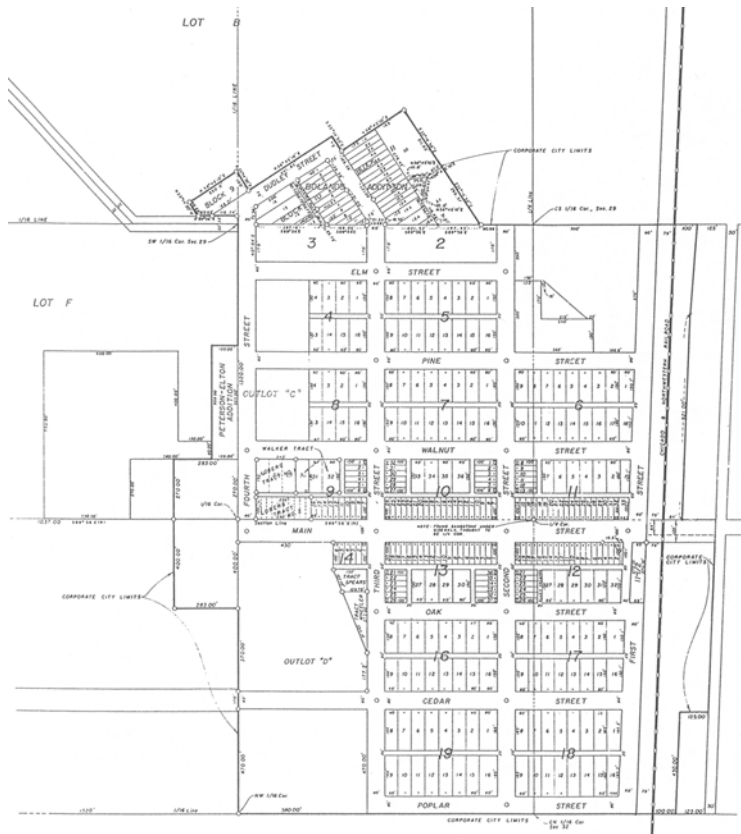
Figure 5. This contemporary plat of the small townsite of Buffalo Gap, in Custer County, clearly illustrates the "T"-town configuration. Buffalo Gap was platted in 1885 by a townsite subsidiary of the Fremont, Elkhorn & Missouri Valley Railroad (Custer County Register of Deeds).

Railroads could also extract high prices from existing towns for providing service. Indeed, if a town did not meet the company's demands it could quickly find itself at a serious disadvantage. When the Milwaukee was surveying its line through Brown County in 1880, conventional wisdom held that the line would be routed through Columbia, which was the county seat. Columbia's town fathers, feeling that they were in a strong negotiating position, refused to provide the Milwaukee with land for a right of way and a depot free of charge. C. H.

Prior, then chief surveyor of the Milwaukee, resurveyed the main line to bypass Columbia and then platted a rival town (on a tract of land owned by his wife) some 12 miles from Columbia. This site became the City of Aberdeen, which was designated as a railroad division point, became the junction for several Milwaukee lines, and eventually grew to be the third largest city in the state. Columbia stagnated and lost the county seat to Aberdeen several years later.[xxxiii]

As South Dakota's new agricultural regions became settled, the railroads continued to play a dominant role in the daily lives of the new communities. Railways carried passengers, mail, incoming supplies and goods, and outbound farm products; most telegraph service was also provided using railway equipment. Most nineteenth-century Dakota towns were entirely dependent on the railroad to provide reliable contact with the outside world, and when train service was interrupted (such as during the harsh winter of 1881), real hardships often ensued.

Most South Dakota communities were served by only a single railroad, a circumstance which often resulted in unusually high transportation rates. This monopolistic control over transportation also meant that certain businesses could negotiate with the railroad for exclusive rights to serve a particular community. Railroads entered into such agreements with grain elevator operators, lumber companies, beer distributors and a host of other wholesalers. The Laird, Norton Lumber Company of Winona, Minnesota established a very close relationship with the North Western, and built a string of lumberyards along the railroad's lines in central South Dakota. The North Western offered Laird, Norton reduced shipping rates which allowed them to undercut any other lumberyard in the community. Once the competition was eliminated, Laird, Norton typically increased its prices substantially. If the local demand for lumber evaporated, the yard was often sold or shut down and new yards would be opened further along the North Western line.[xxxiv] While business practices such as this would be of questionable legality under present-day anti-trust laws, these activities went virtually unchallenged in nineteenth-century South Dakota.

Larger towns which were served by more than one line were in a much better position and could take advantage of the fierce competition between companies. Sioux Falls, served by no less than five separate companies, became a regional manufacturing center and the largest city in the state due in part to the availability of competitive transportation costs. The railroads also provided a large number of jobs, particularly at primary yard and maintenance facilities. It is not surprising that towns such as Huron, Aberdeen, and Mitchell, which all hosted major rail facilities, prospered and grew into regional service centers.

Throughout the nineteenth century, the railway companies also exerted a strong level of dominance over the territorial political apparatus and later the state government. Railroad lobbyists could and did influence the governor, the legislature, and representatives and policy makers in Washington. The railway interests played an integral role in all manner of state issues, but among the most dramatic were recurring controversies centered on the selection of a city to serve as territorial or state capital. In 1883, there was growing sentiment to move the territorial capitol from Yankton to a more central location. Alexander McKenzie, Dakota agent for the Northern Pacific, managed to exploit rivalries between towns in the southern half of the territory to move the capital to Bismarck, a prominent location on the Northern Pacific line.[xxxv]

The political and economic dominance of the railways in Dakota Territory quickly generated resentment among many of the region's settlers, but they lacked the political leverage to institute significant railway reform. In 1885, in response to early expressions of anti-railroad sentiment among farmers, the territorial legislature attempted to establish regulatory control over the railroads by creating a Railway Commission. While the commission was established, the railroad lobby succeeded in weakening its authority enough to render it mostly ineffectual.[xxxvi]

5. The Great Dakota Bust (1887-1900)

By the mid-1880s the railroad companies had transformed eastern South Dakota. Thousands of miles of line had been built, hundreds of towns established, and tens of thousands of people had flooded into the region. By 1887, however, the rosy outlook for Dakota Territory began to dim. As the area was settled, farmers brought large new tracts of land into agricultural production. Nearly all of this land was devoted to a single crop: wheat. The resultant overproduction caused steadily-declining wheat prices during the 1880s, making it more difficult for farmers to meet debt obligations they had assumed during the heat of the boom. In addition, the cyclical northern Plains climate entered a period of drought beginning in 1887, causing severe crop losses. The region's dry cycle continued without a break through the mid-1890s.[xxxvii] Despite the establishment of South Dakota as the thirty-ninth state in 1889, the area's boom appeared to be over.

Due in part to the drought and local economic hardships, railroad construction in South Dakota declined sharply after 1887. The pioneering routes into the Black Hills were a limited exception to this trend, and a few scattered branch lines continued to be built in the eastern part of the state. Those built were generally branch lines constructed by companies seeking to divert traffic from the Milwaukee and the North Western. The significant expansion of the Great Northern in eastern South Dakota was the most visible and notable of these efforts.[xxxviii]

Even this reduced level of activity, however, came to a halt in 1893. That May, a devastating financial panic swept Wall Street, and the United States and South Dakota entered a three-year period of severe economic depression. The South Dakota economy, already troubled by drought, was devastated. While the state's population had expanded from 98,268 in 1880 to 328,808 in 1890, the following five years saw a net increase of only 5,175 residents, to 333,983.[xxxix]

The economic events of the 1880s and 1890s also led to a significant transformation of the railway industry as a whole. The boom years of the 1880s fostered a period of intense competition and savage rate wars among railroad companies. This allowed shippers to bargain for highly favorable rates on competitive trunk lines. In contrast, rural shippers without options endured high tariffs which subsidized the competitive rate structures elsewhere. Nationally, the rate wars left railroads overextended, and thus subject to takeovers and manipulation by Wall Street financiers. The situation also prompted the 1887 establishment of the Interstate Commerce Commission (ICC), a federal agency designed to stabilize the railroad industry through the establishment of standardized shipping rates. While the ICC served to tone down rate wars and reduce price fixing, enforcement was limited. Federally-mandated tariffs also worked against weaker lines whose only advantage was to undercut the competition.[xl]

These events helped set the stage for an industry-wide consolidation. The Panic of 1893 had caused the financial ruin of many of America's major railways; by 1895 one-quarter of the nation's railway capitalization was in bankruptcy. This provided acquisition opportunities for those established capitalists who had weathered the panic. By 1900 the vast majority of American railroads were controlled by a few large corporate interests, working through interlocking directorates and well-known financiers such as J.P. Morgan. The two dominant companies in South Dakota were no exception. The Milwaukee came under the ownership of William Rockefeller and Henry Flagler, two of the nine trustees of the Standard Oil Trust. The North Western had long been connected with the Vanderbilt corporate empire, based on the powerful New York Central Railroad, and came firmly under the control of the Vanderbilts during the 1890s.[xli]

Anti-railroad sentiment in South Dakota, already present due to the high rates and monopolistic practices of the boom years, skyrocketed during the 1890s. The Populist Party, which grew out of the Farmers Alliance movement of the 1880s, quickly became a force in state politics after the 1893 panic. In the 1894 legislature Populist independents introduced a bill to grant rate-making authority to the ineffectual State Railroad Commission. The bill was narrowly defeated, but by 1896 the sentiment for state rate control was endorsed by both the Populists and the Republicans. Following a Populist victory in the 1896 elections, the State Railroad Commission was empowered to set maximum freight and passenger rates and to determine valuations on railroad property for tax purposes. The railways quickly challenged these new laws, however, and the State Supreme Court ruled them unconstitutional in 1901.[xlii]

Figure 6. Tracklaying crews working to complete the Milwaukee Road branch line to Wessington Springs, 1903 (South Dakota State Archives photo).

C. Peak and Decline: Twentieth-Century South Dakota Railroading

1. The West River Boom (1900-1920)

By the end of the 1890s both national economic conditions and the temperamental South Dakota climate had cycled again. The Spanish-American War and protectivist trade policies had revived America's economy while the late 1890s brought several years of better-than-average

rainfall to South Dakota. Under these circumstances, both the Milwaukee and the North Western returned their attention to the area between the Missouri River and the Black Hills. Throughout the late nineteenth century, much of South Dakota's "West River" region had been used by large open-range cattle companies rather than for family agriculture. This land use did not require the intensive rail network being constructed to the east; rather, the region saw large seasonal shipments of cattle to and from a few select railheads (in particular, Belle Fourche, and several smaller Missouri River terminals).[xliii]

The partitioning of the Great Sioux Reservation in 1889 set the stage for a dramatic transformation of the West River economy. This reduction in reservation boundaries left the land between the White and Cheyenne Rivers open for the development of direct rail lines from the Missouri to the Black Hills. While the 1893 depression temporarily shelved plans for West River construction, the return of favorable conditions at the turn of the century allowed the railroads to again consider extending new lines into the West River country.

As the twentieth century began, a new factor entered into the West River equation which helped further spur railway ambitions for expansion in the region. This change began with a new federal policy intended to break up reservation lands held in trust for the tribes into individual family allotments. Those lands not assigned to individual tribal members would then be sold to Euro-American home seekers for cultivation. Gregory County is a typical case study. In 1902 settlement on ceded lands in the county reached a level sufficient to convince the North Western to extend a branch line into the area. The arrival of the railroad, in turn, expanded settlement rates and resulted in a small land boom. This brought pressure on the government to open remaining unallotted Indian lands in the region. The eastern portion of the Rosebud reservation was opened by public lottery in the spring in 1904, precipitating a development rush reminiscent of the early 1880s.[xliv]

Over the course of the next decade most of the ceded and surplus Indian lands were opened to settlement and occupied. Both the North Western and the Milwaukee built lines connecting their Missouri River terminals with Rapid City. The Milwaukee also extended its line through the northern part of the state across the river, opening large tracts of the Cheyenne River and Standing Rock reservations as well as ceded land in the northwest corner of the state. The Minneapolis and St. Louis Railway also built an extension from Watertown west to the new Missouri River settlement of LeBeau. The planned extension of the Minneapolis & St. Louis line into the West River country never materialized, however, and the route proved short-lived.[xlv]

Figure 7. The first Chicago & North Western train into Fort Pierre symbolized that railroad's 1907 entry into the booming West River region (South Dakota State Archives photo collection).

It was amid this new boom climate that the Milwaukee committed to an ambitious but ultimately perilous expansion plan, resolving to extend their northern South Dakota line across the Missouri and through Montana, Idaho, and Washington to Puget Sound. The rationale for the Milwaukee's decision was complex, and included specific competitive factors as well as the nationwide optimism of the railway industry. For many years, much of the Milwaukee's income had been derived through the haulage of transcontinental traffic between Chicago and the Twin CitiesBfreight that was carried west of Minnesota by either the Great Northern or the Northern Pacific. By the turn of the century, both Northern railroads were controlled by James J Hill, in cooperation with J.P. Morgan. In 1901 Hill and Morgan also gained control of the Burlington, which provided the Northern lines with a direct connection to Chicago. The Milwaukee was consequently faced with a substantial loss of traffic and revenue.[xlvi]

Simultaneously, the northwestern states were enjoying a significant boom period and all estimates were that another connection to the region would be successful. Other Midwestern lines, including the North Western, were rumored to be planning new transcontinental routes. These factors combined to convince the Milwaukee to begin its transcontinental line in 1905. The project – extremely expensive by any standard – was completed in 1911; over the following decade the railroad invested additional millions in an electrification project for western portions of the line. For a variety of reasons the Milwaukee's transcontinental line never lived up to its economic potential, and the great cost of the route helped destabilize the entire railroad financially. Nevertheless, the project gave South Dakota its only real transcontinental rail route, and gave the state one true example of long-distance, heavy-duty railroading. In the early twentieth century, the Milwaukee route from the Twin Cities to Aberdeen was the state's only double-tracked railroad.[xlvii]

Figure 8. The new townsite of Kadoka was one of many that quickly sprang up following the 1907 construction of the Milwaukee's new Rapid City line (State Historic Preservation Office photo).

The West River land rush proved to be an unrealistic attempt to replicate the earlier boom of the 1880s. Again, the railroads played a major role, touting the newly-opened lands as a new agricultural Mecca. Scientific farming methods designed for a dry climate would supposedly ensure bumper crops of alfalfa and other products, while federal irrigation programs (as in the Belle Fourche Valley) would further aid in agricultural success. The cycle of the nineteenth century repeated itself, however, as economic conditions worsened and a drought struck the region in 1910 and 1911. The railroads worked diligently to support their new territories, including providing necessities to drought victims and helping find work for displaced farmers. Nevertheless, thousands of homesteaders abandoned their claims in the face of these hardships.[xlviii]

Public dissatisfaction with the railroads and resentment of their political influence continued to grow during the 1900s and 1910s. The railroads did indeed have a powerful voice in state government. Popular legend stated that representatives of the Milwaukee, the North Western and other major corporations wrote laws in the proverbial smoke-filled room at Pierre's Locke Hotel and then forwarded them to the capitol to be rubber-stamped by the legislature. Through the use of a variety of favors, including free passes and the distribution of "retainers" to local attorneys, the railroads also had substantial control over local political machines and the selection of legislators. Despite this level of influence, however, public pressure throughout the period finally resulted in legislative action. Legislation regulating railway rates was enacted in 1907 and 1909 only to be tied up in the courts. The rate structure and authority of the State Railroad Commission were finally ratified by the State Supreme Court in 1913. Assessments on railroad property also were raised by the legislature during this period.[xlix]

In 1904 the railroads once again became deeply involved in the question of where to establish the state capitol. The candidates were Pierre, which had been the capitol since 1889 and was the Missouri River terminal for the North Western; and Mitchell, which was a major division headquarters for the Milwaukee. The railroads dispensed hundreds of passes to voters allowing them to travel for free to their respective candidate towns. Special trains and extravagant entertainment were bankrolled by the railroads and various local interest groups throughout the campaign. Both railroads realized that the selection of their town would mean enhanced revenues and increased political influence. The people of South Dakota took advantage of the rivalry between these two companies to indulge in what was called "a grand

sixty day picnic," enjoying both the celebratory atmosphere and the railway-provided campaign perks.[1]

While the early years of the 1910s were difficult for South Dakotans, the outbreak of the First World War in 1914 did much to alleviate the state's economic distress. Prices for farm products rose dramatically, resulting in a significant expansion in the rural economy. Rainfall levels also improved in the later part of the decade. Farmers expanded their operations and borrowed heavily to update equipment and purchase or lease additional land. The railroads enjoyed substantial profits during the War, despite new regulations. Even when the rail industry was completely nationalized following American entry into the war in 1917, railroad companies turned consistent profits based on the enormous demand of a wartime economy.[li] In South Dakota, the ongoing prosperity of the state's railroads was reflected by continuing expansion. New railroad lines continued to rapidly appear in the state until 1910, and a lower level of construction continued intermittently thereafter. Figure 9, shows the South Dakota railway network in 1920, when it was near its zenith.[lii]
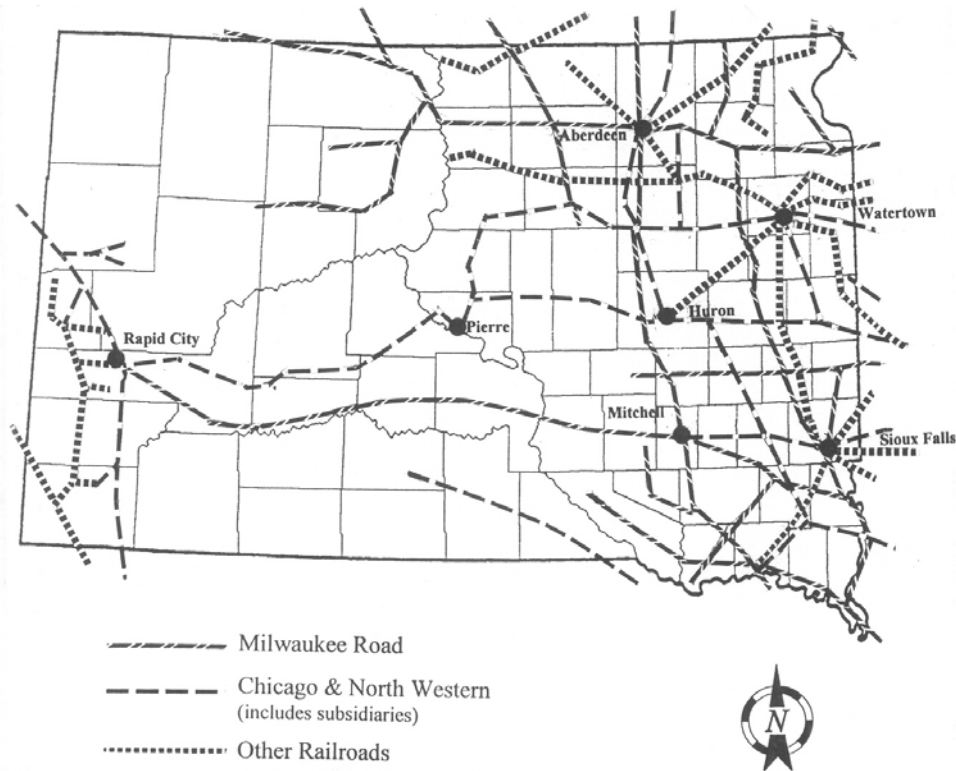
Figure 9. Map of South Dakota's Railroad Network: 1920.

2. The Farm Crisis and The Great Depression (1920-1941)

The 1920s are considered, in general, to have been a high-water mark in American railroading and a time of economic success. This prosperity did not, however, extend to the northern Great Plains or the railroads that served the area. Following the First World War, farm commodity prices plunged as wartime demand for farm products dried up. This was accompanied by a period of general deflation and a substantial severe reduction in land values.

As a result, many farmers who had borrowed against inflated land prices during the war found themselves unable to meet their obligations. The rural Midwest consequently fell into economic depression a full nine years before the rest of the country. In South Dakota, 175 banks had failed by 1924 and countless farmers had lost their land.[liii]

The 1920s also saw the beginnings of the first serious challenge to the railroad's monopoly on local passenger and freight transportation. The mass production of the automobile placed an independent means of travel at the disposal of many Americans. This resulted in a decline in passenger counts nationwide, beginning in the 1920s and continuing in subsequent decades. Development of all-weather roads and the growth of interstate trucking also began to make inroads into railroad freight profits. This impact, while initially minimal, also grew more severe as the twentieth century progressed.[liv]

The downturn in the rural economy and increased competition resulted in a loss of revenue for railroads which served rural communities. This was particularly true for the farm-dependent "Granger" railroads of the Midwest. The Milwaukee, in particular, was in a precarious position following World War I. The Midwestern agricultural decline, combined with the railroad's heavy debt load, was sufficient to push the Milwaukee into a two-year bankruptcy in 1925.[lv]

The stock market crash of October 1929 and the years of depression that followed caused a further strain on South Dakota's economic climate, including its railroads. To make local matters worse, the nation's financial crisis was accompanied by another turn in the variable Great Plains climate. The result was the Dust Bowl – a return of severe drought and the displacement of thousands of farmers and small-town residents. The population of South Dakota declined from a high of 692,849 in 1930 to 589,920 by 1945. Even more revealing is that the number of farms in the state fell from an all-time high of 101,224 in 1915 to 68,705 by 1945, a decrease of 30%. In the face of both a national depression and a severe reduction in the demand for transportation across the region, it is not surprising that the Milwaukee re-entered bankruptcy in 1935, this time joined by the North Western.[lvi] Many of the Midwest's other railroads suffered similar fates.

3. World War II and the Post-War Decline (1941-date)

During the last years of the 1930s the national economy and conditions in South Dakota began to recover. The return of hostilities in Europe, as in the First World War, created an improved demand for agricultural products. American entry into the conflict in 1941 placed enormous demands on the national transportation network. Severe limitations on gasoline consumption and auto traffic added to the enormous wartime demand for rail passenger and freight service.[lvii] Railroads played a crucial role in the war effort and emerged from the war in a much improved financial condition. In South Dakota, the Milwaukee's transcontinental line in particular played a significant role, serving as a major travel corridor for troop trains as well as wartime freight cargos. During much of the war, some 20,000 soldiers passed through Aberdeen each month on Milwaukee Road troop trains.[lviii]

Following the war's end in 1945, rail transportation remained a primary means of transportation in the nation. In addition, continuing advances in railway technology were

allowing more efficient operation. From the beginning, railroads had relied on steam locomotives to move their trains. Steam engines required vigilant maintenance, constant lubrication, and frequent fuel and water stops. Experiments with alternative locomotive designs had taken place for decades, and in the mid-1920s the first diesel locomotives began to enter service. Diesels required less maintenance, could travel farther between stops and used less fuel than steam locomotives. The industry's ultimate shift to diesel power began during the late 1930s and accelerated rapidly after the war. The first diesels were operating in South Dakota by the late 1940s, pulling passenger trains such as the Milwaukee's *Olympian Hiawatha* and *Arrow* and the North Western's *Dakota 400.* Steam continued to operate in South Dakota into the 1950s but had completely disappeared by 1960.[lix] The end of steam allowed for the removal of significant portions of the state's railway infrastructure. Coaling towers and water tanks were eliminated, and many of the state's roundhouses and service facilities were consolidated.

Other technological and economic changes during the period further affected the state's railway landscape. Increased use of telephone and radio communications eliminated the need for the railway telegraph. This, combined with lessening levels of local traffic, resulted in the closure of many small-town railway stations. Railway maintenance also became more mechanized, allowing for a significant reduction in the number of "section bases," where maintenance crews were stationed.

Despite these improved efficiencies, the railroad industry had entered a long period of decline by the late 1950s. The continued proliferation of the automobile, improvements in local roadways, and the creation of the interstate highway system all gave a huge boost to the trucking industry and helped doom many passenger train services. The nation's expanding airline industry also diverted passenger, freight, and mail traffic from the railroads. Most of the state's rail lines lost passenger service by the end of the 1950s, and the last railway-operated passenger train serving South Dakota was discontinued in 1969. Compounding these national trends, the region's farm economy continued to contract and consolidate during the 1960s and 1970s. By 1974, the number of farms in the state had declined to 43,500.[lx]

As the rural economy changed, the branch lines which had served rural communities became unprofitable. The 1960s and 1970s saw the beginning of a massive contraction in South Dakota's railway infrastructure and the wholesale abandonment of hundreds of miles of track. The first to go was the Minneapolis & St. Louis; the North Western absorbed the smaller railroad in 1960, and soon abandoned most of the former Minneapolis & St. Louis routes in the state. Numerous other lines were also abandoned during the period. In particular, the North Western undertook an aggressive abandonment program which reduced its trackage in the South Dakota radically between 1966 and 1980. The Milwaukee did not pursue line abandonment with the same vigor, but the railroad as a whole was on very shaky financial ground. The combined effects of increased competition and its unprofitable granger network returned the Milwaukee to bankruptcy in 1977. As part of the company's reorganization efforts, the Milwaukee's bankruptcy trustee announced that the railroad hoped to abandon all of its South Dakota trackage. With the possibility of this massive transportation loss hanging over the state, it ultimately became clear that governmental intervention would be needed in order to preserve a basic rail network in South Dakota.[lxi]

Figure 10. This late 1970s photograph of the Milwaukee Road's line through Trail City reflects the declining fortunes of most of South Dakota's branch lines during the period (State Historic Preservation Office photo).

By 1980, 60% of South Dakota's rail mileage had been abandoned, gravely reducing transportation options for the state's struggling communities. The Milwaukee bankruptcy and other developments suggested that the loss of most of the state's remaining trackage could be imminent. In response, the South Dakota state government intervened to preserve a core rail network in the state and prevent the total loss of rail services for many communities. The South Dakota Rail Authority was created in 1980, purchasing some 1254 miles of track and rail facilities, primarily lines that the Milwaukee had planned to abandon. In 1982 the former Milwaukee main line across northern South Dakota was also acquired. The Burlington Northern Railroad was contracted to provide service over key components of the state-owned network, and it later purchased outright much of the trackage it had been contracted to operate.[lxii] Now known as BNSF Railway, the company has become the state's largest rail operator.

Other former Milwaukee Road routes saw renewed life as independent shortlines. The largest of these – the Dakota Southern Railway, is licensed to operate a state-owned route from Mitchell through Chamberlain to Kadoka – a segment of the Milwaukee's former Rapid City line. The line has been largely moribund in recent years, though, and is now operable only east of Presho. A second former Milwaukee line, running from a point near Yankton to Platte, was also operated by the Dakota Southern between 1985 and 1987; idle for the past twenty years, a portion of that route is now planned for reopening to serve a new ethanol plant near Wagner. Several other small railroads have been established in far eastern South Dakota since 1980, operating segments of former Milwaukee, North Western or Great Northern trackage.[lxiii] These new shortlines, with their relatively low operating costs, were able to preserve service on lightly-trafficked lines that had been unprofitable for the larger railroads.

Meanwhile, the North Western's contraction in South Dakota continued. In 1985 the railroad announced its intention to abandon most of its main South Dakota line, from Brookings to Rapid City. Agricultural interests in the region protested vigorously and formed an investor group to purchase the line and operate it independently. This entity, the Dakota, Minnesota and Eastern Railroad (DM&E), purchased the entire North Western line from the Mississippi River to the Black Hills in 1986, along with three north-south branch lines. In January 1996 the DM&E also agreed to purchase the former North Western line running along the eastern edge of the Black hills. This transaction ended 122 years of North Western operations in South Dakota, and

firmly strengthened the Dakota, Minnesota & Eastern's position as a major Midwestern railroad.[lxiv]

A major DM&E announcement in 1997 changed the tone of railroad news in South Dakota from that of abandonment to one of potential growth. That year, the DM&E revealed plans to extend its route westward, constructing new trackage into the productive coal country of Wyoming's Powder River Basin. The DM&E plan featured a rehabilitation of most of the railroad's South Dakota main line, and the construction of an entirely new route from Wall, around the southern end of the Black Hills, and into Wyoming.[lxv] Struggles to obtain financing and regulatory approval for the project occupied the railroad for the next decade, and when a federal loan guarantee for the project was rejected in 2007 the DM&E began searching for an external business partner. This resulted in the company being acquired by the Canadian Pacific Railway in late 2007 – an acquisition that, as of this writing, is awaiting federal approval.

As a result of these events, the rail industry in South Dakota is radically different from what it was two decades ago. The state's once-massive branchline network is almost completely gone, and local railroading is now thoroughly dominated by the BNSF and the Dakota, Minnesota & Eastern – two corporate entities which did not even exist during the historic period. These companies have strengthened the state's surviving railroad system, and the future of most of the remaining network seems secure. (Figure 11 maps the state's currently-operating railroad routes.) Sadly, though, most of the facilities historically associated South Dakota's once-powerful and ubiquitous rail industry have disappeared, and many more are endangered. It is therefore important, given the vital role that rail transportation played in the shaping of South Dakota, that the tangible remains of these entities be identified, preserved and interpreted for the public.

Dakota, Minnesota & Eastern Railroad (DM&E)

Burlington Northern Santa Fe Railway (BNSF)

Other Railroads

Note: "BNSF" designation includes some lines operated by the railroad, but owned by the state of South Dakota. DM&E also operates trains over BNSF routes from the Huron area to Aberdeen and Watertown.
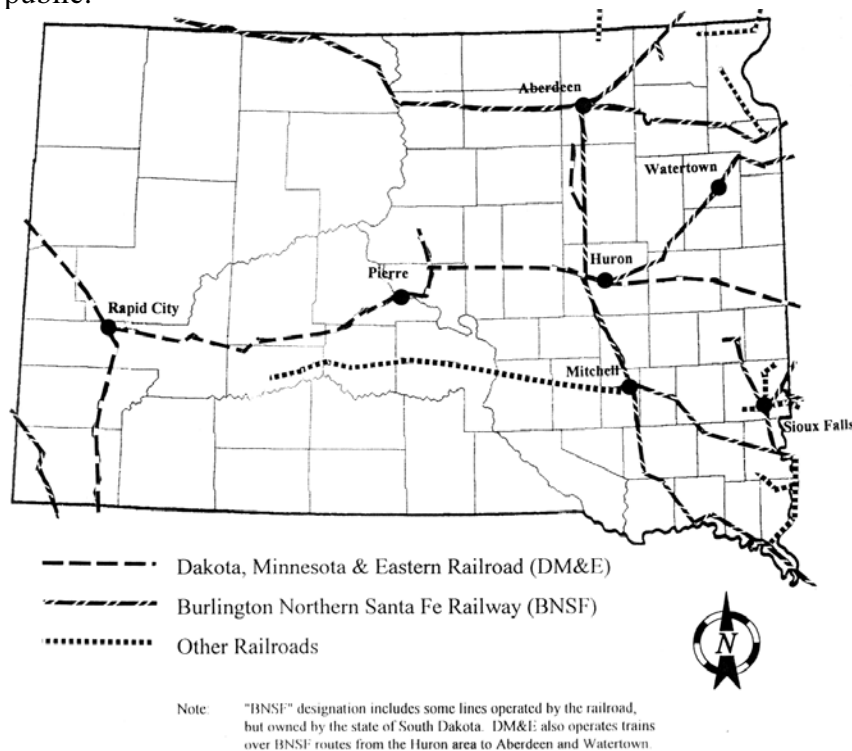
Figure 11. Map of South Dakota's Railroad Network: 1998.

4. RAILROAD RESOURCES AS HISTORIC SITES

A. The Geography and Landscape of the Railroad

The identification and evaluation of a railway-related property as an historic site is often more complex than that for other resource types, due in part to the unique nature of the railroad itself. One such factor is the complex interrelationship among various types of railroad features; railroads historically owned and maintained an amazing diversity of buildings, structures, and objects, all of which worked together to achieve the common goal of transportation. In addition, the boundaries of a railroad-related historic resource are often far more vague than those of most other resource types – for example, the route system of the Milwaukee Road, one of South Dakota's historic railroads, extended for over 10,000 miles from Indiana to Puget Sound. The following discussion introduces some of these problems, and suggests possible solutions.

A railroad is an inherently complex and interrelated set of buildings, structures, linear elements and archaeological features, all of which are part of a single system designed to transport persons and goods between points. Most of South Dakota's railway companies included hundreds of miles of trackage across the state, routes which formed integral components of large regional systems typically including thousands of miles of line. These attributes are of primary importance in defining the characteristic qualities of railroads, and hence their significance, but they also create unique challenges in historic site definition and site boundary delineation.

Because of the vast size and linear nature of most historic railroad undertakings, the ideal boundaries of certain railway-related sites could be very large, perhaps extending for hundreds of miles across one or more states. Given the logistical difficulties of defining and evaluating such a resource, however, the necessity exists for creating smaller, yet historically-appropriate, boundaries for many railroad sites. In addition to the geopolitical subdivisions commonly used for site delineation, other potential site boundaries are suggested by the nature of the railroad industry itself. These include the organizational units historically used by a railroad ("divisions" and "subdivisions"), a route's status as a main line or branch line, or even smaller areas (called "sections") assigned to an individual crew for maintenance purposes. When evaluating railway station sites or other urban resources, the full historic extent of an historic "yard limit" or platted station area may be an appropriate site boundary.

Abandoned railroad lines are frequently evaluated in terms of those segments which retain integrity; that is, an historic site is assumed to correspond to the length of a contiguous segment of unaltered grade. While this is often appropriate, analyses should also consider the fact that the evaluated segment is generally one small component of a far longer whole. Interpreting such a resource in its larger context will provide a far clearer demonstration of its broader significance.

Similarly, when possible, a railway-related building, structure or archaeological feature should be evaluated as part of a linear whole, rather than individually. While this is often not feasible, a wider geographical analysis can frequently provide a clearer understanding of the resource's function and significance. In South Dakota, however, many surviving railway-related properties now exist in isolation, with few remaining visible links to the former railroad lines they once served. Such resources may certainly still possess significance, and most site

evaluations will probably be at this level. In order to achieve the most complete possible understanding of the resource, however, it remains important to consider the resource within a broader context.

B. Identifying and Categorizing Railroad Resources

National Register guidelines define the term "property type" as "a grouping of individual properties characterized by common physical and/or associative attributes."[lxvi] This broad guideline allows for a variety of categorization methods, depending on the nature of the resources involved. Possible classification methods for railway-related properties are especially varied, due both to the wide variety of buildings, structures, and sites involved as well as the often complex interrelationships among those resources. Previous broad-based railroad contexts have utilized both physical and associative methods of categorization.

Historically, railroads have also categorized their facilities using both physical and associative hierarchical schemes. The latter approach creates broad classifications corresponding to the railroad departments which typically used a resource: for example, Station Services, Operations, and Maintenance-of-Way.[lxvii] In some situations, use of this classification method can help clarify the working relationships among various individual resources, but it also displays inherent problems. Many railroad-related resources are historically tied to more than one associative category; for example, a depot building might house a station agent while simultaneously serving as a base for a maintenance crew. In addition, traditional associative classifications have evolved over time, as technology and railway operating practices changed.

For these reasons, the property types utilized in this document categorize railway-related resources according to their physical attributes. Three broad property types have been developed, representing railway buildings, structural features, and sites. Within each type, several subtypes provide additional descriptive classification and detail. Integrity guidelines and registration requirements for each major type follow the subtype descriptions.

In accordance with National Register guidelines, the property types described in this document are intended to categorize only resources of a significant size and scale, with the potential for individual National Register eligibility. (Some descriptive information on minor features is also provided when appropriate, however.) Resource types which are believed to be no longer extant, or which are unique or unusually rare, are also excluded, as are resources which might exist on railroad property but were not railroad-owned or directly used for railroad operation.

C. Significance and Integrity Issues

A primary purpose of this document is to assist historians and others in determining whether individual railway-related resources are eligible for the National Register of Historic Places ("National Register," or NRHP). The National Register is a federally-sponsored listing of historic buildings, structures, sites, and objects deemed historically significant and worthy of preservation. Determining the National Register eligibility of a resource is usually the first step in a governmental agency's planning process for that resource, and it is consequently very important. Eligibility for the National Register is governed by a published series of broad

federal guidelines. National Register Bulletin 15, "How to Apply the National Register Criteria for Evaluation," states that eligibility for the National Register requires that a property be significant in American history, architecture, archeology, engineering or culture. This significance is evaluated through the requirement that the resource meet one or more of the four National Register Criteria:

A. be associated with events that have made a significant contribution to the broad patterns of our history; or

B. be associated with the lives of persons significant in our past;

C. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that posses high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. have yielded, or may be likely to yield, information important in prehistory or history.

In addition, a resource must retain an acceptable level of *integrity* for National Register eligibility. The National Register program recognizes seven "aspects" of integrity: location, design, setting, materials, workmanship, feeling, and association.

This section discusses, in broad terms, guidelines for evaluating the significance of historic railway resources under each of the National Register criteria. When necessary, more specific registration requirements are provided later, with the discussions of individual property types.

National Register Criterion A: Under Criterion A, a resource may be eligible for the National Register through its association with one or more historic themes. Applicable areas of significance for railway properties as defined in National Register Bulletin 16 may include:

- *Transportation:* Virtually every railway property in South Dakota found eligible for National Register listing is associated with the "broad pattern" of transportation in the state. Throughout the late nineteenth and early twentieth centuries, railroads were the dominant carriers of freight, passengers, and mail in most of South Dakota. This gave the industry as a whole vast importance to the state, and individual components of the network an equal level of local significance. Such a pivotal role in the state's transportation history is unique to the railways, and is characteristic of nearly every railroad development in the state. Most of the resource types covered by this context were specifically engineered to perform the task of transportation; railroad grades and trackage, by their linear nature, are particularly evocative of the transportation theme. Other resource types, such as depot buildings and freight houses, played ancillary but necessary roles to the primary business of movement.

- *Exploration/Settlement:* Many, if not most, of South Dakota's railroad routes played pivotal roles in the settlement of the region through which they were constructed. In

much of the state, the construction of rail lines preceded the first Euro-American settlement, and the railroads' arrival was the direct impetus for the beginning of that settlement. Railway companies further encouraged the settlement process through advertising campaigns, the platting of townsites, and other incentives. These programs gave the railroads tremendous influence over the pattern and pace of development in the state, and much of South Dakota's current cultural geography is consequently directly tied to the early activities of the state's railroads.

- *Commerce/Trade:* Certain railway-owned properties in South Dakota may be associated with patterns of local commercial history. Railroad freight houses, for example, were historically important to local business activities. Other, similar properties along railroad rights-of-way, however, were almost always privately owned and operated, and are therefore outside the scope of this document.

- *Other areas:* In addition to the primary themes discussed above, selected railway properties could also achieve significance in any of a number of other areas. Railway features intimately associated with the development or use of important agricultural or industrial areas could, for example, be documented as significant under those themes. Similarly, a facility or piece of railway equipment historically used for tourism could be significant under the area of recreation.

National Register Criterion B: Under Criterion B, a property may be eligible for the National Register if it is strongly associated with the life of a historically significant person. Since most railroads were essentially corporate (rather than individual) undertakings, few railway-related resources will likely possess Criterion B eligibility. While some railroad lines may reflect the skill of a railroad's locating engineer, National Register guidelines state that such properties should be nominated under Criterion C. Important commissions of noteworthy architects are treated similarly.[lxviii]

It is conceivable, however, that exceptions to this generalization exist. A railway property might have played a pivotal role in the career of an important politician or other civic leader who, perhaps, advocated its construction. Nationally, the histories of a few railroad companies are strongly tied to their charismatic or powerful leaders. Some properties along the Great Northern main line (outside of South Dakota), for example, have been considered significant for their association with James J. Hill, the company's powerful one-time president.

At least one South Dakota railroad property has been found eligible for the National Register under Criterion B. This is a former railroad surveyor's shanty occupied by the family of noted author Laura Ingalls Wilder during the winter of 1879-80. The building was immortalized in Wilder's novel, *By the Shores of Silver Lake,* and is considered significant for its association with Wilder, rather than for its railroad legacy.

National Register Criterion C: Under Criterion C, a railway property may be eligible for the National Register if it embodies "the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, possesses high artistic value, or represents a significant and distinguishable entity whose components may lack individual distinction."

Applicable areas of significance for railway properties as defined in National Register Bulletin 16 include engineering and architecture.

- *Engineering:* Many railway design and construction efforts ranked among the major civil engineering projects of their time. Others, while not technically sophisticated or innovative, were still large-scale construction projects employing representative technologies and designs characteristic of their period. Properties representing either quality have the potential to meet the significance requirements of Criterion C. In South Dakota – as elsewhere – railways were among the most prevalent of historic construction projects, and today rank among the state's oldest surviving engineering resources.

   Most of South Dakota's geography presents only minimal obstacles to railway location and engineering. With the notable exception of the Black Hills, the terrain is generally level, and slopes are gentle. Consequently, most South Dakota railway resources with engineering significance are noteworthy as representative examples of a once-ubiquitous structural or design form. Such properties could include segments of railway trackage or grade, bridges, tunnels, turntables, and other non-architectural components of the railway landscape.

   A few examples of unusual or exceptional railway engineering do exist in the state. The former Chicago & North Western railroad bridge spanning the Missouri River near Pierre, for example, is easily one of the best examples of bridge engineering in the state.

Figure 12. A retouched 1907 view of the first passenger train crossing the Chicago & North Western's Missouri River Bridge at Pierre (South Dakota State Archives photo).

- *Architecture:* As with engineering resources, architectural properties eligible under Criterion C may be eligible either for a significant, noteworthy design or as a representative example of a type. Examples of both are among the scattered survivors of the thousands of railway-constructed buildings which once dotted South Dakota.

   Most of the buildings constructed by South Dakota's railroads were simply-built, with little architectural detail. Standardized building plans were typically used; this helped

give most railroad buildings a readily-identifiable appearance that was characteristic of the industry. This quality was further enhanced by the near-ubiquity of vernacular railroad buildings in early twentieth-century South Dakota. Regardless of its size, nearly every community in the state boasted a railway depot, section house, and assortment of other railroad buildings. In their design, location, construction, and use, these resources formed an unusually significant class of period South Dakota buildings. Especially in view of their relatively low survival rate, well-preserved examples of these buildings may be significant as examples of a characteristic building form.

In addition, a smaller number of South Dakota railroad buildings are significant as products of a distinguished architect or as well-crafted examples of a particular architectural style. Nearly all of these buildings are probably large-city passenger stations. The former Chicago, Rock Island & Pacific depot in Sioux Falls, for example, was designed by locally-significant architect Wallace Dow. The Minneapolis & St. Louis depot in Aberdeen displays a well-crafted Classical design, and the Great Northern's Aberdeen station is an unusual implementation of Tudor Revival design elements.

Figure 13. The former Minneapolis & St. Louis station building in Aberdeen (State Historic Preservation Office photo).

As with Criterion A, both individual resources and districts may be nominated under this criterion. Railroad property types expected to be eligible as districts, defined in Criterion C as "significant and distinguishable entities whose components lack individual distinction" could include a collection of structures or features which comprise a yard or maintenance facility, a section base, or even an interconnected set of resources joined together by a discernible right-of-way and other landscape features.

National Register Criterion D: Under Criterion D, a railway-related property may be eligible for the National Register if it has the potential to yield important historical or archaeological information. This information should not be available through other sources, such as historical documentation, and the archaeological integrity of the site should be retained.

While it is conceivable that an active segment of railway line or a standing building could be found to have potential significance in the field of historic archaeology, nearly all properties

with Criterion D significance are likely to be either segments of abandoned railroad grade or the sites of former buildings, structures, or work camps. Railroad grades, in particular, remain visually evident throughout much of South Dakota. Since all are believed to have utilized straightforward, industry-standard design and construction techniques, they are probably not eligible under Criterion D unless they display a design anomaly suggesting the presence of significant and unusual subsurface data.

The former locations of railroad buildings and the sites of concentrated railway worker activity have greater potential for Criterion D eligibility. Since the locations of most railroad facilities were relatively well documented, such resources may often be located and identified through a review of the historical record as well as by any artifactual evidence discovered on the surface of a site. A variety of possible research questions could be addressed at railway archaeological sites. An archaeological excavation at a work site such as an enginehouse, for example, could provide data on period railway technologies as well as on employee working conditions of the era. Several recent archaeological studies relating to railroad sites have examined the way of life, living conditions, and ethnic makeup at temporary occupation sites such as railroad camps and permanent occupancy sites such as section bases.[lxix] The role of technological change and adaptation to varying conditions is also an area which might benefit from archaeological consideration.

In addition to significance under one of the above criteria, a National Register-eligible property must retain integrity, a term which is defined as "the ability of a property to convey its significance."[lxx] Seven "aspects" of integrity are recognized by the National Register program: location, design, setting, materials, workmanship, feeling and association. In evaluating a property, it is important to first determine which aspects of integrity are most important in conveying the significance of that resource. Those aspects should receive additional weight during the evaluation process, and other integrity aspects not relevant to a particular site may be disregarded.

Certain railway properties can present unique issues relating to integrity. On heavily-trafficked lines, for example, many railroad features have been subjected to near-continuous maintenance and renewal throughout their period of use. This is most evident in the track structure itself. Since such maintenance is a characteristic feature of the resource, it should not be deemed an unacceptable lessening of integrity.   Industry maintenance practices should also be considered when evaluating other railway-related resource types, as should the technological and operational evolution of the industry itself. Evolutionary changes to a property resulting from these changing policies may form a part of its significance and not substantially lessen its integrity.

Finally, the number of railway-related resources in South Dakota has declined dramatically since the middle of the twentieth century. The increasing scarcity of certain railroad property types may require flexibility in integrity assessments to ensure inclusive representation of South Dakota railway resources on the National Register.

Additional brief comments on individual aspects of integrity are provided below. When necessary, more specific guidelines are provided later, with the discussions of individual property types.

Location: In general, an eligible railroad resource should remain at its historic location. However, some resource types – particularly wood-framed railway buildings – almost never survive at their original locations and may consequently remain eligible under Criterion C (as examples of an architectural type) following a move. Individually-significant architectural properties may also qualify under this exception. It should also be noted that some railroad buildings and structures were designed to be portable, to allow their reuse elsewhere if the structural needs at a specific location changed.

Design: In addition to evaluating the design integrity of individual railway properties, in some situations the arrangement of features on a railroad property must also be considered. Many railroad sites historically included diverse, interrelated groupings of buildings and structures, and for these locations integrity of site design (as reflected in the arrangement of individual features) is also important.

Setting: There is no one typical "setting" for a railway property in South Dakota. While the setting of most railway line segments suggests vastness and openness, urban railway sites often represent a complex interdependent relationship among a variety of resource types: transport, industrial, commercial and others. All elements of this landscape should be considered in an evaluation of setting.

Materials and Workmanship: In most railway construction projects, the choice of materials and level of workmanship reflected a corporate standard, rather than individual or site-specific judgment. These standards evolved over time, and this evolution is often reflected in the resource.

Feeling and Association: Railway properties and landscapes typically evoke distinct and characteristic feelings and associations, products of both the design and the function of the resource. In most railway sites, these qualities are directly related to the property's setting, as outlined above. The integrity of feeling in many railroad sites is further strengthened by the visible interrelationship of the various railway features which share a single site.

5. "PROPERTY TYPES" FOR RAILROAD RESOURCES

Based on the discussions in the previous chapter, a series of property types and subtypes appropriate for the evaluation of South Dakota's railway resources is provided below. Each is discussed individually, with descriptive information as well as recommendations for evaluating the National Register significance of individual properties.

A. "Railway Service and Operations Buildings" Property Type

1. Description: This property type includes all buildings constructed, owned, and used by South Dakota railroad companies to help meet their operational needs. It includes the following subtypes:

A: Depots and terminal buildings: The most visible railroad-related resource in most communities was the depot or station building.[lxxi] Depots were a prime focus of community life throughout the historic period, and in many cities the depot was among the most prominent and visible buildings in town. It was the site of mail delivery, telegraph service, and package express service during the state's pioneer years. Simultaneously, the depot functioned as both a formal and informal community center. It was the site of political stump speeches and formal welcoming and departing ceremonies, as well as thousands of personal greetings and good-byes.

The depot was the gateway to and from the outside world. As such, it provided the first impression of a community for arriving passengers. Consequently, the nature and appearance of the depot was of great importance to a community. The size and condition of the station and its grounds reflected directly on the prosperity and prospects of the town. To have station service was vital, and to have a substantial and well-kept depot was highly desirable. The railway companies themselves also took an interest in the appearance of their depots, since each depot was a local symbol of corporate identity. The uniform color schemes found on most wooden depots served as one reflection of this image, as did the standardized designs of many of the depots themselves.[lxxii]

In South Dakota and its neighboring states, many rail lines were constructed in advance of the population or economic resources needed to ultimately support the endeavor. As such, depot designs often tended to differ from their eastern counterparts. An emphasis was placed on inexpensive standardized structures, typically of wooden balloon-frame construction. These standardized plans were created in a variety of sizes and with a variety of specialized features in order to meet the demands of a particular community as readily and inexpensively as possible.[lxxiii]

While South Dakota's historic depots displayed an eclectic variety of sizes and styles, most can be easily categorized into one of two types: passenger terminals and combination depots. Each is discussed separately below.

A-1: Passenger terminals: This subtype includes South Dakota's largest passenger depots, buildings constructed in the state's major cities to serve passenger trains and house railway offices. In general, they are distinguished from the "combination depots" subtype (below) by their larger size, masonry construction, lack of freight handling facilities, and inclusion of additional office space. These buildings are typically architect-designed, and were constructed using plans specifically commissioned for the location. Many of these plans resulted in local architectural landmarks intended, in part, as symbolic reflections of a railway's local importance.

Most of South Dakota's large passenger terminals date from the early years of the twentieth century, and reflect the region's homestead boom years as well as the historic pinnacle of railroad dominance in transportation. As a community's population grew and the demand for rail services increased, railway companies would often replace early, wood-framed combination depots with larger, separate masonry structures for passenger and freight handling.[lxxiv] This sequence occurred in many of the larger towns in the state.

Physically, terminal buildings share many spaces in common with combination depots, although there are distinct differences. Few passenger terminals provide space for the handling of freight; rather, a separate freight house (below) would exist nearby. A typical terminal building would include a large agent's office and ticket counter, separate men's and ladies' waiting areas and toilets, and a baggage room. Terminals located in division-point towns generally provided additional railroad office space. Other functions could include trainmen's facilities, an express office, a telegraph office, a newsstand, and a restaurant.[lxxv]

Because buildings in this subtype are typically architecturally distinctive and constructed of masonry, their survival rate is surprisingly high, especially when compared with other railway-related buildings. Community recognition of the significance of these buildings is also common, and this has further aided in their retention. Most of the South Dakota examples have already been listed in the National Register, and the other survivors are probably eligible for listing.

A number of distinctive passenger terminals were constructed in South Dakota. Among the earliest were the Illinois Central and Rock Island depots in Sioux Falls. Both were terminal depots located at the end of branch lines, and both were designed by the locally-significant Sioux Falls architect Wallace Dow. Each building displays elements of the Romanesque Revival style popular in the 1880s, and makes use of locally-quarried quartzite building stone.[lxxvi]

Figure 14. A view of the Rock Island's handsome Sioux Falls depot (State Historic Preservation Office photo).

A more typical example of the subtype can be found in the brick passenger depot constructed by the Milwaukee Road in Mitchell. Mitchell was a division point on the Milwaukee line and was the major junction point for its lines in South Dakota. The city was also the site of a major yard and maintenance facility. The depot was designed by the Milwaukee Road Bridge and Building Department architect J.U. Nettlestrom, featuring a plan that

incorporated several elements of the then-popular Classical Revival architectural style, including a prominent pent entry gable and modillioned cornice. While not extravagant in either scale or architectural detail, such a building was a reflection of the community's status – and of the railroad's significant influence there. Typifying the frugal nature of "granger" roads, the earlier Mitchell combination depot was utilized for many more years as a freight depot and office building.

Figure 15. The main entrance to the Milwaukee Road station in Mitchell, photographed in 1974 (State Historic Preservation Office photo).

Few South Dakota towns had the traffic volume to warrant a Union Depot (one jointly-operated by two or more railroad companies). One exception, resulting from site constraints rather than traffic volume, was the tiny Union Depot at Hot Springs in the Black Hills. Both the North Western and the Burlington built lines into Hot Springs in the 1890s. Due to the topography of Hot Springs, located in the narrow Fall River Canyon, the railroads decided to conserve space and construct a single sandstone depot to serve both companies. This building continues to be advertised as the smallest Union Depot in the country.

Numerous other well-preserved examples of this subtype also exist, including the Milwaukee Road depot in Aberdeen, the largest in the state. Others include the C&NW depots in Brookings and Redfield, the M&StL depot in Watertown, and the Great Northern depot in Aberdeen.

Figure 16. The Milwaukee Road terminal in Aberdeen is the largest railway station in the state, providing substantial space for both railroad offices and passenger services (State Historic Preservation Office photo).

Figure 17. The Chicago & North Western station in Redfield is a fine example of a mid-sized masonry depot building (State Historic Preservation Office photo).

A-2: Combination depots: This subtype includes all other South Dakota depots intended to house station agents and host passenger trains. Buildings in this subtype are typically smaller than those in the Passenger Terminals subtype, and nearly all are wood-framed with wood exterior siding. Most were constructed using one of a series of standardized plans adopted by

each railroad; these plans provided for similarly-designed depot buildings in a variety of sizes, depending on the size of the community to be served and the expected traffic volume there.
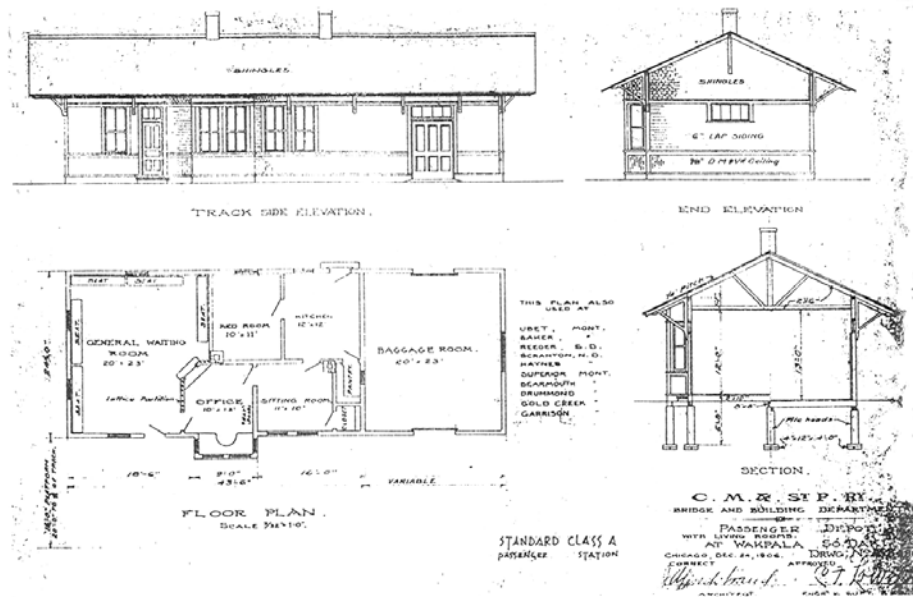
Figure 18. Example of a standardized Milwaukee Road depot plan (author's collection).
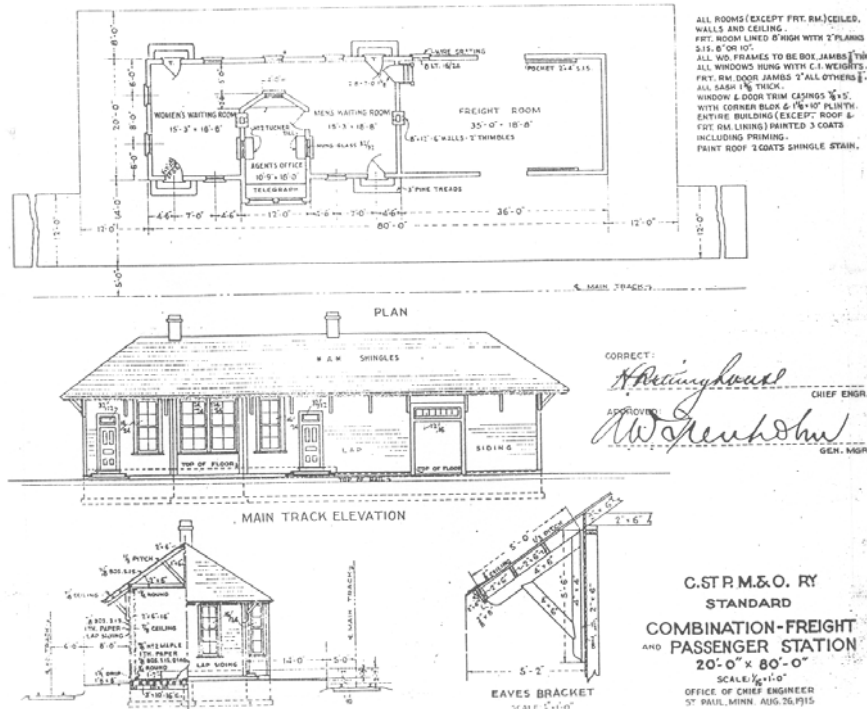
Figure 19. Standardized depot design from the Chicago, St. Paul, Minneapolis & Omaha Railway (Chicago & North Western Historical Society Collection, Northern Illinois University Library).

Most combination depots shared a characteristic layout, with a center office area flanked by a freight room and a passenger waiting room. In the smallest examples, space was

saved by consigning the agent's space to a corner of the passenger waiting area (an example is the former Milwaukee Depot at Utica). The office space in nearly all combination depots is characterized by a telegrapher's desk located in a large bay window on the track side of the building. This feature allowed the agent to view the platform and track without having to go outside.

Figure 20. A trackside view of the Milwaukee Road's combination depot in Kadoka (State Historic Preservation Office photo).

As a town grew, its original combination depot would often be enlarged or replaced by a larger facility. Such an expanded building might include segregated waiting rooms for men and women (sometimes designated as the "smoking room" and the "general waiting room"), as well as indoor toilet rooms. If demand or railroad operational needs warranted, an expanded combination depot might also contain a lunch room. Segregated facilities for baggage, freight and express services might also be created.[lxxvii] (The former Milwaukee Road depot in Canton is an excellent example of such a building.) One addition particular to colder climates was a "warm room." As most freight rooms were unheated, special heated rooms were sometimes built to handle cold sensitive freight, particularly kegs of beer.[lxxviii]

In the early years of many small South Dakota communities, rental housing was typically at a premium, creating a hardship for many railroad employees. To meet this need, many combination depots incorporated living quarters for agents and their families. Prior to 1900 these depots were usually two-story structures with public and office space below, and living quarters above. After the turn of the century, some railroads returned to a single story design that incorporated living quarters into either the center of the building adjoining the agent's office, at or at the end of the building adjoining the freight room. Some two story depots had their second story living quarters removed after sufficient residential space was available elsewhere in town.[lxxix] A few of the many South Dakota depots that included living quarters

were the North Western facilities at Gettysburg and Alcester, and the Milwaukee depot at Kennebec.
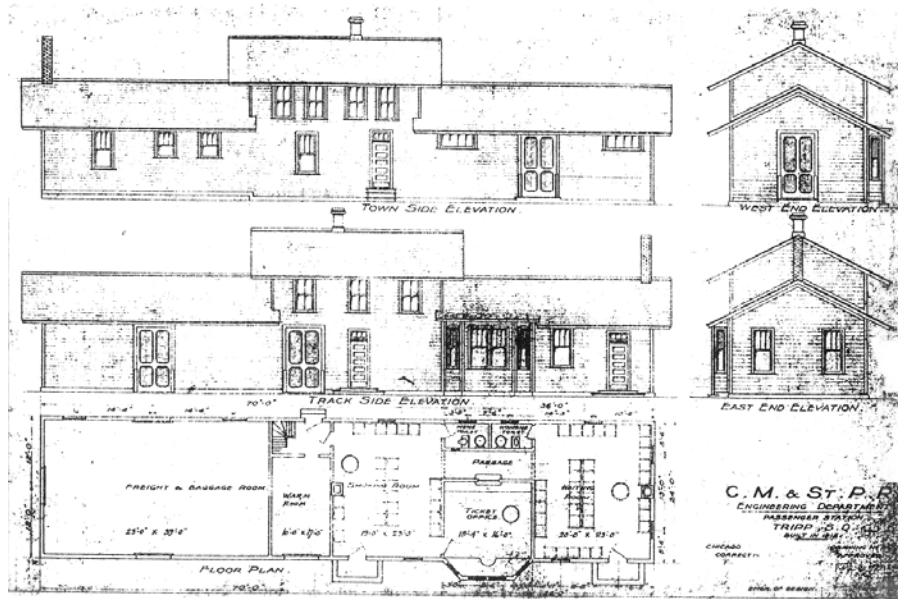
Figure 21. Milwaukee Road combination depot with second-story living quarters (author's collection).

While nearly all combination depot building plans were the product of a particular railroad's Building or Engineering departments, there are a few South Dakota exceptions. The most notable is the standard depot plan designed for the South Dakota Central Railway Company by Sioux Falls architect Wallace L. Dow. (This line later became part of the Great Northern.) This depot design has many standard combination depot features, including second-story living quarters. It utilizes a combination of simple architectural devices such as a variety of wall cladding, a complex roof shape and an unique gambrel dormer to create a much more sophisticated version of the combination depot. The last remaining example of this type, originally located at Wentworth, South Dakota, is now at the Prairie Village Museum near Madison (Figure 22).

Figure 22. The former Wentworth depot of the South Dakota Central Railway, following its move to the Prairie Village Museum near Madison (State Historic Preservation Office photo).

The massive abandonment and technological changes in South Dakota railroading during the late twentieth century rendered nearly all of the state's combination depots obsolete. Most were destroyed, and many of the survivors were moved from their historic locations. Consequently, it is rare to find a combination depot on its original site in South Dakota, and relocated combination depots may be considered National Register-eligible. Under criteria consideration "b."

Figure 23. The Milwaukee Road's Kennebec depot is a quintessential implementation of a standardized wood-framed depot design (State Historic Preservation Office photo).

A minor variation of the combination depot subtype is the "flag depot," typically a small one-room shack (or discarded freight-car body). Such facilities, which served only as a basic shelter for waiting passengers or crew, may have existed in isolated locations of rural South Dakota, or may have served temporary duty as a railroad line was being constructed. No such buildings have been identified as surviving in South Dakota today, although relocated examples may still exist.

B: Freight houses: This subtype includes railroad-buildings intended to serve as transfer points for freight being loaded on or off of railroad cars. In large part, these buildings were intended to handle l.c.l. ("less-than-carload") freight, although larger shipments could also be accommodated. Freight houses were generally constructed only in larger communities, which generated a relatively high volume of freight traffic; in smaller towns, the freight room in a combination depot would usually suffice. Freight houses often appeared in the same communities that boasted passenger terminal buildings.

As with most non-public railroad buildings, freight houses in South Dakota tended to be functional and Spartan in design. The size of the freight house was dependent on the expected traffic demand at the given location. Architectural engineer Walter Berg noted that "With regard to local freight houses at way stations, it can be said that the design almost universally adopted is of a single story frame structure, surrounded by high freight platforms on several or all sides."[lxxx] A typical South Dakota example of such a building was the former Milwaukee freight house at Canton. The raised loading platform, large freight door, and gable roof are all hallmarks of this building type.

In larger communities where higher traffic levels demanded a more substantial structure, railroads often built masonry freight houses. Many of these buildings employed arched or flat truss roofs in order to provide maximum interior space. As with the smaller freight houses these buildings were characterized by a series of large freight doors opening to a trackside loading dock, and a similar row of doors on the opposite elevation for vehicle loading.[lxxxi]

As with other resources in this property type, the survival of historic freight houses is directly tied to construction method. Small wood-frame examples have largely been destroyed or removed from the right-of way. Larger masonry structures are highly adaptable and less easily moved or demolished, and several such buildings remain. Among the survivors is the former Milwaukee freight house in Sioux Falls. Built in 1894, the structure is the oldest surviving freight house in the state, and is noteworthy for its rough ashlar quartzite stone construction. A more recent representative of this type is the Milwaukee freight house at Rapid City built in 1923. It is a very typical example featuring brick masonry construction, a flat roof, and many freight doors.[lxxxii]
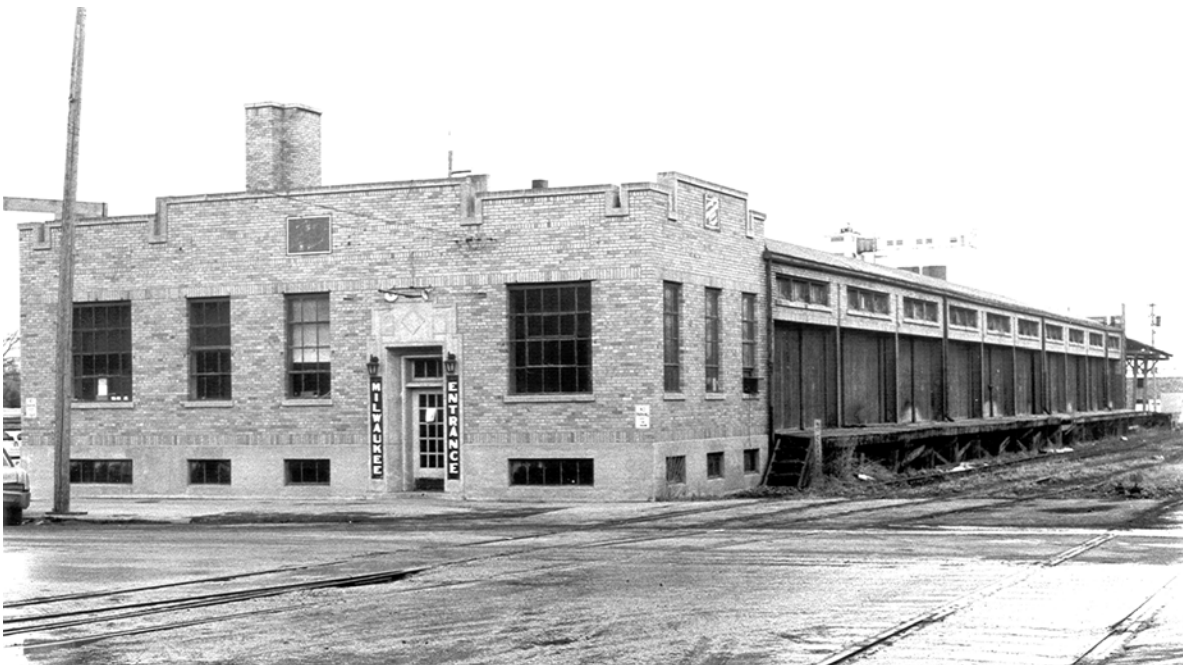
Figure 24. A view of the Milwaukee Road freight house in Rapid City (State Historic Preservation Office photo).

C: Roundhouses and engine houses: This subtype includes buildings designed to shelter railroad locomotives and other rolling stock, and to house activities related to the repair and service of locomotives. Roundhouses were large arc-shaped buildings typically located in large railway terminals and in division points (at approximate 100-mile intervals along most railroad lines). The service tracks in each turntable bay (or "stall") typically led to a turntable located at the center of the arc. Engine houses performed functions similar to those of roundhouses, but on a significantly smaller scale. Most engine houses contained only one or two servicing bays, housed in a relatively small, wood-framed building. An arrangement of track switches, rather than a turntable, was used to access the engine house tracks. Engine houses were commonly used on short-line railroads or on branch lines of larger railways, where the level of traffic did not justify a full-fledged roundhouse.

Whatever its size or configuration, the roundhouse or engine house was almost always the focal point of activity at a railroad maintenance facility or yard. The facility often served as the job site for substantial numbers of workers, and was the starting and ending point for most locomotive journeys. The roundhouse area often featured a complex web of railroad trackwork. A variety of ancillary, related structures, including water tanks, oil houses, coaling and fueling stations, and sand houses, could be located nearby.[lxxxiii]

Although large roundhouses could be built of wood, brick, or even stone, brick construction was favored by many railroads, in part because it reduced the risk of fire. A variety of roof shapes were utilized, including gabled, clerestory, and sawtooth; the latter configurations allowed for bands of high window openings to bring in additional light. Large open interior spaces were characteristic of the roundhouse, and heavy wood-post interior supports were usually needed. Most roundhouse stalls were supplied with a large smokestack with a moveable hood to remove engine smoke and soot. Large windows in the outer wall and glazed stall windows brought in natural light. Flooring varied from packed earth, wood planks or blocks, asphalt, brick or concrete. Roundhouses usually included at least one engine pit, essentially a long narrow trench over which an engine could be driven. This facilitated maintenance and repair work on a locomotive's undercarriage. Boiler washout facilities, used to clean mineral deposits and other debris from locomotive boilers, were often included in the roundhouse or located nearby.[lxxxiv]
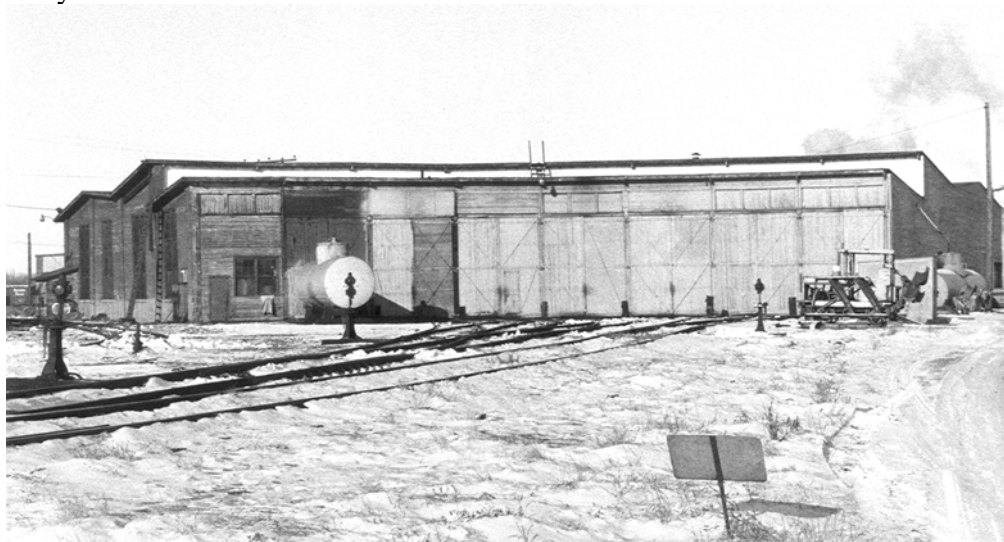
Figure 25. The Milwaukee Road roundhouse in Aberdeen, on a snowy 1970s day (State Historic Preservation Office photo).

Rail access to individual roundhouse stalls was almost always gained via the use of a turntable. This device was essentially a large platform mounted on a rotating pivot and resting in a circular pit. Once a locomotive was driven onto the turntable, the platform would be rotated until the turntable track aligned with the desired stall track. Originally, turntables were hand-powered, and some in South Dakota were never converted to electrical operation. The turntable concept helps explain the arc-shaped plan of most roundhouses, since this arrangement maximized the number of stalls served by a single turntable. The largest roundhouses, which could contain forty or more stalls, could form a near-complete circle around the turntable.

Figure 26. The turntable servicing the Milwaukee Road's Mitchell roundhouse (State Historic Preservation Office photo).

Most engine houses were far smaller than roundhouses, although they shared some of the same design elements. Both wood-frame and brick construction were utilized in these buildings and a simple shed roof was typical. Most smaller engine houses were approached using a series of switches rather than a turntable. In South Dakota, these buildings did not generally have attached shop space or other heavy repair facilities.[lxxxv] The two-stall Burlington engine house at Deadwood typifies this building type.

Few roundhouses or engine houses remain in South Dakota today. Diesel locomotives, which supplanted steam power in the 1950s, required fewer local repair and maintenance facilities, and the design of most roundhouses was ill-suited to diesel maintenance. The state's best remaining example of this subtype is the former North Western roundhouse in Huron. While many of the original stalls have been removed, the surviving portions of the building still

serve as the primary locomotive maintenance base for the Dakota, Minnesota & Eastern Railroad. Elsewhere, some other roundhouse sites still retain a turntable, without the accompanying building.

D: Railway-owned housing: This subtype includes buildings constructed and maintained by the railroad (in its right-of-way) to house railroad employees and their families. Most of these buildings were constructed to house members of railroad "section crews" (employees who performed maintenance work on designated sections of railway line). A few housed station agents, although most agent housing was provided in depot buildings (see above). Almost all of these houses were small, unadorned, and inexpensively built. All were probably wood-framed and sided. As with combination depots, standardized plans were nearly always used; foursquare and saltbox designs were by far the most common.

The section house was the primary housing unit at an isolated section base and provided living accommodations for the section gang. In some instances the company would provide a separate residence for the section foreman (or "boss"), and his family and a bunkhouse for the section gang. In such an arrangement, the section boss' wife would sometimes act as cook and housekeeper for the entire section crew. In cases were railroads supplied a free-standing station agent's house, it was often slightly larger and more ornate than a section house, but of a similar overall design. Other, less-frequent uses of railway housing included bunkhouse-style buildings for yard employees in larger towns.[lxxxvi]
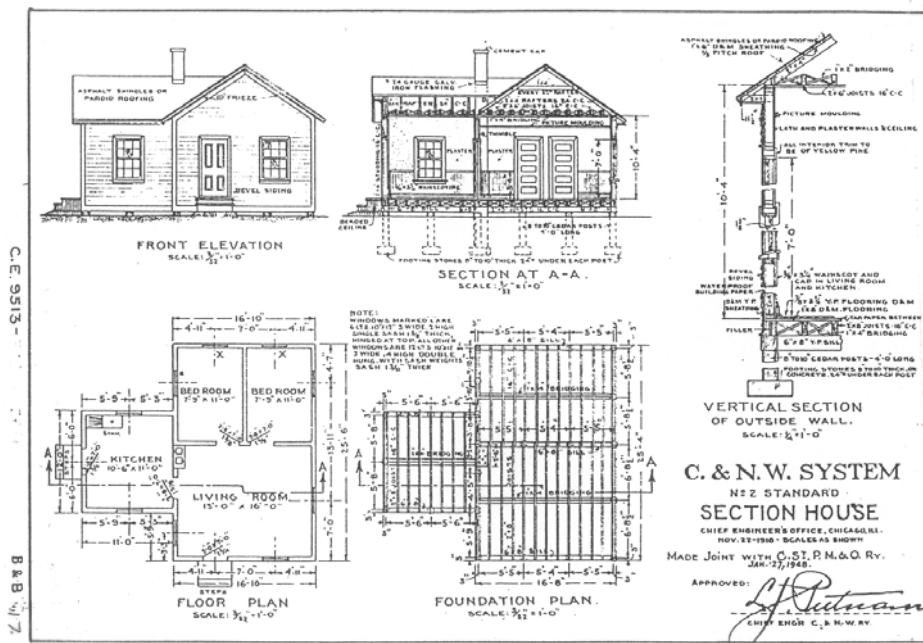
Figure 27. Standardized section house design from the Chicago & North Western Railway (Chicago & North Western Historical Society Collection, Northern Illinois University Library).

Prior cultural resource inventories have not positively identified surviving examples of railway-owned housing in South Dakota, but it is likely that several such buildings remain at their original locations. Others have been moved, but still survive. Because of the vernacular

design and residential use of these buildings, they may not often be readily identifiable as railroad-related resources.

E: Other associated buildings: The following paragraphs briefly discuss miscellaneous railway building and structure types which may still exist in South Dakota. Most of these resources are small, ancillary features which are ordinarily not of a sufficient scale to be independently evaluated for National Register eligibility. They may, however, be identified as contributing elements of larger historic sites, and in some cases rare or unusual examples may merit independent National Register listing. Other resources described below are larger in scale, but were uncommon in South Dakota; they are mentioned for the sake of completeness, although historic examples of the type may not remain in the state.

Coaling and Fueling Stations: Coal was the dominant fuel for locomotives during the nineteenth and early twentieth centuries, and many railroad division points and line stations included facilities for filling locomotive tenders with coal. The size and operation of these structures varied greatly; the largest featured large enclosed hoppers positioned directly over a service track. These facilities became obsolete after steam locomotive use ended in the 1950s, and no surviving examples have been identified in South Dakota. Coal stations were supplanted by diesel fuel stations, which are present in the state in rudimentary form, usually consisting only of storage tanks and fueling hoses.

Ashpits: The burning of coal for fuel created waste byproducts including coal ash and "clinkers." These materials were disposed of in ashpits usually located near coaling stations, water stations, yards or roundhouses. An ashpit consisted of a long narrow trench over which an engine could be driven. Waste was then dumped out of the engine firebox and into the pit. These pits were usually built of fireproof brick, stone or concrete with rails attached at both sides of the pit.[lxxxvii] As with many other historic railroad resources, ashpits became obsolete following dieselization. While no remaining examples have been identified, their permanent nature of construction suggests that some may still exist.

Water Stations and Storage Facilities: Another essential element for steam locomotion was a ready supply of water. Water stations consequently existed at regular intervals along most railway lines (approximately ten to twenty miles apart). Additional water storage facilities were placed at yards. In some parts of the country, including South Dakota, mineral deposits in local water supplies also dictated the need for water softening equipment to be used in yard water systems. Lack of a local water supply occasionally even dictated that the railroad import water in large tank cars.[lxxxviii]

Most water stations consisted of a large wooden tank with a moveable spout elevated on wooden piers. These tanks were usually located near station stops so that the train could be watered while passengers and goods were being transferred. Yard tanks were simply larger versions of the line tanks which fed into a stand pipe and yard delivery system.[lxxxix] As with other facilities related to the use of steam locomotive, most trackside water systems were rendered obsolete when the switch to diesel locomotives was complete. Some larger yards probably still retain railway-constructed water systems, however. Reservoirs and other water storage facilities originally constructed by the railroads also almost certainly survive.
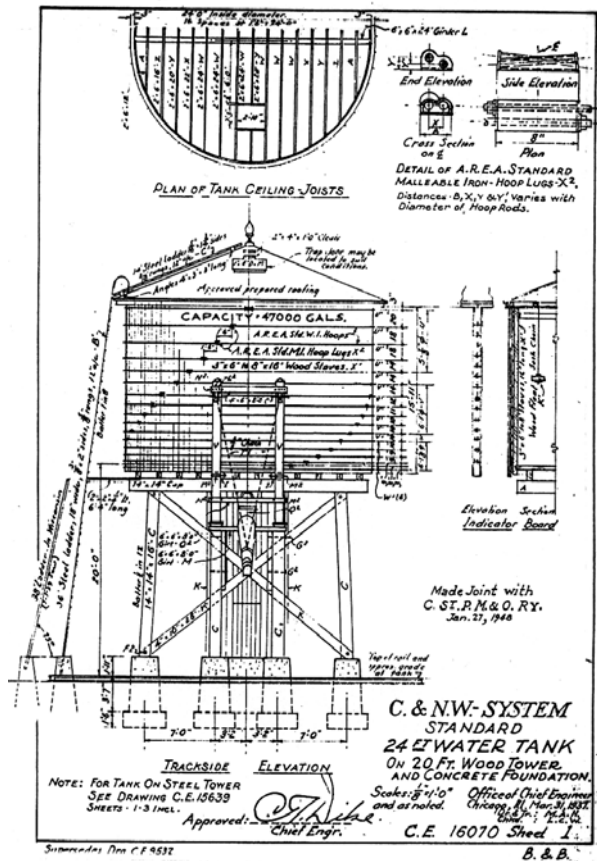
Figure 28. Standard Chicago & North Western water tank design (Chicago & North Western Historical Society Collection, Northern Illinois University Library).

Oil Houses: Various grades of oil were used by steam era railroads for lubrication and, prior to electrical service, illumination. Separate structures were built to store this oil, because of the product's flammable nature. Oil houses were usually small, utilitarian one story buildings.[xc] At large facilities, they were sometimes of masonry construction, but in the Midwest standardized rectangular frame structures with a gable roof predominated. Most of these buildings display an exterior cladding of corrugated metal rather than wood, again for fire protection.

Sand Houses: Sand is used to provide improved locomotive traction on slippery rails or steep grades. Sand is carried by each locomotive and is poured via a set of sand tubes onto the rails when needed. As such, a supply of dry sand is needed wherever locomotives are changed of supplied prior to a run. Sand houses are small, utilitarian buildings of standardized plan; most are rectangular, one story structures with a gable roof and no decorative detailing. Frame construction is usual but brick examples also exist.[xci] Sand continues to be used by diesel locomotives, and several sand houses have been identified in South Dakota. A standard example is the former Milwaukee sand house at Madison.

Ice Houses: Ice was used by the railroads in the days prior to electrical refrigeration for use in passenger cars and to cool perishable freight carried in insulated refrigeration cars. A supply of ice was usually kept in ice houses located at major division points and other sites where these cars were serviced. Ice houses were often two story structures with a large freight door on the first floor and an ice hatch or loading door on the second floor. Smaller examples

tended to be rectangular, wood-framed buildings with a gable roof and a prominent roof ventilator. Larger facilities maintained these general characteristics but were built in stone or brick.[xcii] Advances in mechanical cooling systems obviated the need for ice houses by the middle of this century, and no surviving railroad ice houses have been identified in South Dakota.

Car Shop Buildings: The car shop provided an enclosed space for conducting maintenance and repairs of a company's rolling stock. These buildings were found at major division points and yards with a high volume of traffic. Most car shops were rectangular, one-story buildings with sufficient vertical clearance for a rail car. Large doors along one or both of the building's narrow ends allowed stub tracks to enter the building. Locally, most such buildings were wood, with a gable roof punctuated by ventilators at regular intervals.[xciii]

No surviving car shop buildings have yet been identified in South Dakota. At several locations in the state, car maintenance and repair work was done out-of-doors on what were known as Repair in Place (or RIP) tracks.

Tool houses: The maintenance of railroad trackage and equipment required a wide variety of specialized tools, many of unusual design or oversized scale. Most railroad companies designated special sheds to be used for the storage of maintenance equipment. Tool sheds were typically found at both yards and section bases. As with other small utilitarian railroad structures, tool houses were standardized rectangular one story buildings with a gable roof and no decorative detailing. Frame construction is usual but brick examples also exist.[xciv] Tool sheds continue to be used in modern rail operations and several examples remain in South Dakota.

Figure 29. Tool sheds in the Milwaukee Road yards in Mitchell (State Historic Preservation Office photo).

Handcar Houses: During the historic era, the primary means for railroad workers and line inspectors to travel along the rail line was the handcar. Handcars were usually stored in a separate shed at section bases and yards. These buildings were also standardized, rectangular

one-story buildings with a gable roof and no decorative detailing. A number of these buildings probably survive in the state.

Figure 30. A small handcar house at Ipswich, on the Milwaukee Road main line (State Historic Preservation Office photo).

Telephone Boxes: Once the telephone became a standard fixture along a rail line, companies installed telephone call boxes at frequent intervals along the line. Approximately the size of a telephone booth, they closely resemble the earlier watchman's shanty and are often located near junctions, yards and stations, and other important points.

Platforms, Platform Sheds and Shelters: Most railroad operations involve the transfer of people and materials to and from rolling stock. To facilitate this process, an assortment of ground-level and elevated platforms and shelters were devised. Passenger platforms were generally at or near ground level. Platforms at smaller stations were generally of wooden boards, while larger depots featured brick or concrete platforms. Elevated passenger platforms and freestanding passenger shelters, which are common in more densely populated regions, were not used in South Dakota.

Freestanding freight platforms were common at most larger stations and yards. These were of wooden construction, elevated to the height of a freight car door, and terminated in a ramp to accommodate hand trucks and other freight-moving devices. Similar freight platforms were integrated into freight houses, warehouses, and many lineside industries. Specialized

platforms for handling specific types of freight, such as milk cans, were developed and built as demand dictated.

Coal and Wood Sheds: Throughout the historic period, both coal and wood were used to provide heat for early railroad buildings. As such, small, vernacular coal sheds were found near most buildings intended for human occupancy. While such buildings have been functionally obsolete for decades, it is likely that some examples survive in South Dakota.

Privies: Prior to the widespread introduction of indoor plumbing, the privy was a ubiquitous accessory to railroad depots and other major buildings. These structures, as with other small rail buildings, tended to be of standardized and traditional design. Privies continued to be used at many rural station stops, section bases and yards well into this century. It is highly likely that they were also used for refuse disposal and, as such, privy sites are potentially-significant archaeological resources.

2: Significance: In general, railway service and operations buildings may be significant under National Register Criteria "A" and/or "C." Each criterion is discussed separately below.

Criterion "A": Railway-related buildings in South Dakota may be historically significant as surviving representations of the activities of the railroad industry in the state, and of its historical pattern of development and operation. In common with much of America's western agricultural frontier, South Dakota's initial Euro-American settlement was heavily related to the development of railroads across the state, and until the mid-twentieth century the region was heavily dependent on railroads for the shipment of inbound and outbound freight, passengers, mail, and express. Surviving railroad buildings in South Dakota are among the most visible and poignant reminders of the industry's former importance.

Many surviving railroad buildings may also be historically significant for other, site-specific reasons. Many depots, for example, served as informal community centers throughout their lives, and roundhouses may be important reminders of the economic forces that provided employment and livelihood for a community.

Criterion "C": Railway-related buildings in South Dakota may be architecturally significant as examples of late nineteenth or early twentieth-century industrial or commercial building design in the Midwest. Few of the state's railroad buildings displayed a high level of design sophistication, and examples of nationally-popular high-style architecture are scarce among these buildings. Nevertheless, the building styles employed are clear reflections of the railroad industry of the time, and of period construction methods. In particular, the use of standardized railway-wide blueprints for many building types is characteristic of the industry.

3: Registration Requirements: The requirements for listing South Dakota's railway-related buildings on the National Register of Historic Places are briefly outlined below, grouped according to the applicable criteria.

Criterion "A": A railway-related building in South Dakota will be eligible for the National Register of Historic Places under Criterion "A" if it exhibits an association with the historical pattern of railway development or operation in the state, or if it served an important

local civic commercial, or economic role. This association may be demonstrated through the building's use by a railroad for a substantial length of time during the historic period, and/or by being a component of an important local railway-centered industrial or business district. Eligible properties must also meet the integrity guidelines outlined below.

Criterion "C":   A railway-related building in South Dakota will be eligible for the National Register of Historic Places under Criterion "C" if it is a representative example of railroad-standard building forms, or if it is an example of exceptional period architecture. To be eligible under this criterion, the nominated property must display strong and largely unaltered characteristics of the building forms and styles that were utilized by South Dakota railroads during the historic period, with only a minimal loss of integrity. Integrity standards for a Criterion "C" property should be higher than those for other criteria, unless the property being considered is a rare surviving example of an important type. In judging eligibility under Criterion "C," a property's level of architectural integrity should be compared against that of other South Dakota examples of the building form.

4: Integrity: To be eligible for the National Register of Historic Places, a railroad-related building in South Dakota must generally retain integrity of *location* and *setting.* An exception to this standard is made for wood-framed depot and section house buildings, almost none of which survive in their original locations. Since relatively few South Dakota railroad lines remain operational, integrity of setting will not be lost through the removal of trackage and associated features, but some visual indication of the former railroad geography of the site (such as grade) should remain apparent. The buildings should also retain integrity of *design, materials,* and *workmanship* such that the historic massing, detailing, and use of the building remain readily apparent. A substantial addition to a building, or the removal of a major historic building component would disqualify the building from listing. Primary components of the historic fenestration pattern must remain evident, and significant portions of the building's original exterior siding must remain visible, unless the replacement siding dates from the historic period. Normally, a property will retain integrity of *feeling* and *association* if the remaining five areas of integrity survive.

B: "Railway Structural and Engineering Features" Property Type:

1: Description: This property type includes all major non-building resources (structures and objects) constructed, owned, and used by South Dakota railroad companies to help meet their operational needs. It includes the following subtypes:

A: Bridges: This subtype includes all railway-owned bridges constructed with the primary purpose of carrying railroad tracks across a watercourse, roadway, or other obstacle. Both historically and today, bridges are a relatively common engineering element on most railway lines. In South Dakota, most railway bridges are timber-pile trestles, used to cross relatively minor watercourses. Larger crossings were accomplished with steel or concrete stringers or girders; such designs were sometimes also used to replace earlier timber trestles. Bridge locations requiring larger clear-span crossings featured through truss designs. Through truss railroad bridges, while relatively uncommon in South Dakota, are among the best examples of bridge engineering in the state.

In South Dakota (as elsewhere), the earliest railroad bridges were almost exclusively timber trestles. A trestle is simply a timber bridge deck supported by many timber bents or capped pilings sunk into the ground and stream bed. These structures were easier and cheaper to build than concrete or steel bridges, and could in some circumstances be used to span obstacles of substantial size. Timber bridges were, however, more maintenance-intensive than structures made from more durable materials.[xcv] A great many examples of this straightforward bridge design survive in South Dakota today.

Figure 31. A typical example, from the Milwaukee Road, of a small timber trestle (State Historic Preservation Office photo).

As rail traffic on a particular line increased, wooden trestles would often be replaced with more permanent structures. By the time this process began in South Dakota steel truss bridges on stone or concrete piers were in common use by railroads nationwide. Both single and multi-span bridges were built utilizing this technique.[xcvi] A single-span example, reputedly dating from 1878, still spans the Big Sioux River on the former Chicago & North Western line just east of Brandon. The massive former North Western bridge over the Missouri River near Pierre dates from 1907. Still in use a century later, it is perhaps the state's finest example of bridge engineering.

Steel girder bridges were also utilized in South Dakota. This bridge type consists of two solid steel girders which span the gap between the piers.[xcvii] This bridge type eliminated the elaborate steelwork and overhead obstructions of truss bridges, and was less expensive to erect. A good surviving example can be found spanning the Vermillion River on the former Milwaukee line just west of the town of Vermillion.

Figure 32. This deck girder bridge on the Milwaukee Road west of Aberdeen displays the arched concrete approaches that were characteristic of that railroad's larger bridges (State Historic Preservation Office photo).

Soon after the turn of the century, reinforced concrete began to be used in bridge construction, particularly for small spans.[xcviii] The Chicago, Rock Island & Pacific line in Lincoln County southeast of Sioux Falls received new concrete trestles and culverts in 1898 and 1899, and many others exist on the state's heavily-traveled lines.

In general, a relatively high number of period railroad bridges remain in South Dakota; nearly all of the survivors are on those historic lines which remain in active use.

B: Tunnels: This subtype includes all railway tunnels in the state.   Because of the state's geography, few railway tunnels exist in South Dakota, but at least four are known to survive in the Black Hills area (three on the former Burlington line to Deadwood and one on the former North Western). In addition to the presence of the tunnel bore itself, railway tunnels are further described by the type of lining present in the tunnel, as well as the portal design. In South Dakota, these are typically utilitarian, of timber construction. Because of their inherent nature, evidence of a former railroad tunnel is durable, and this is a rare example of a railway resource type in South Dakota where all examples historically constructed appear to survive today.

C: Railway line segments: This subtype includes intact segments of railway trackage (and the ancillary features associated with it), as well as segments of abandoned or never-completed railway grade. Most of South Dakota's historic railroad routes are now abandoned, and visual evidence of these line segments is now largely limited to the linear berm of the former railroad subgrade. In addition to the subgrade, and the trackwork of extant lines, railway line segments may also display a number of ancillary features, including fences, telegraph lines, culverts, and highway crossings. Normally, such items would be recorded as elements of the railway line itself, since they lack the scale and significance to be classed as individual resources. Larger-scale architectural and engineering features (such as bridges), however, may be recorded either individually or as components of a longer railway line.

Undoubtedly the most important – and most often overlooked – railroad resource is the actual railway line itself and the various improvements in it. A railroad right-of-way is generally a strip of land (typically 100 feet wide) which includes the railroad berm and track. The track components of a railroad line have remained surprisingly constant over time, although materials, techniques, and standards have evolved. In several instances of very early railroad construction, for example, ties and rails were laid directly on ungraded or minimally graded right-of-way. Some branch lines still reflect these minimal standards for track construction.

As the region's rail industry matured, construction assumed a more permanent character. These lines consisted of a raised grade or berm allowing for adequate drainage, ties supported by a ballast of gravel, slag, cinders and/or crushed rock, and heavier rails for added longevity. Maintaining an even grade also became important, necessitating the excavation of cuts and the creation of fills. This general approach to building rail lines held true for the entire period of rail expansion in South Dakota. In many instances traffic demand never warranted further upgrading of track beyond simple maintenance. With the exception of portions of the Milwaukee main line to Puget Sound, extensive double-tracking of South Dakota lines never took place, as it did elsewhere.

Other improvements of a linear nature are often found within the right-of-way. Company-owned telegraph and telephone lines were long the primary means of communication for railroads. As such telegraph poles and lines often run along the right-of-way. Rights-of-way were generally fenced on both sides to prevent access by livestock. Snow fences were also utilized along some routes in an effort to prevent snowdrifts from blocking traffic.
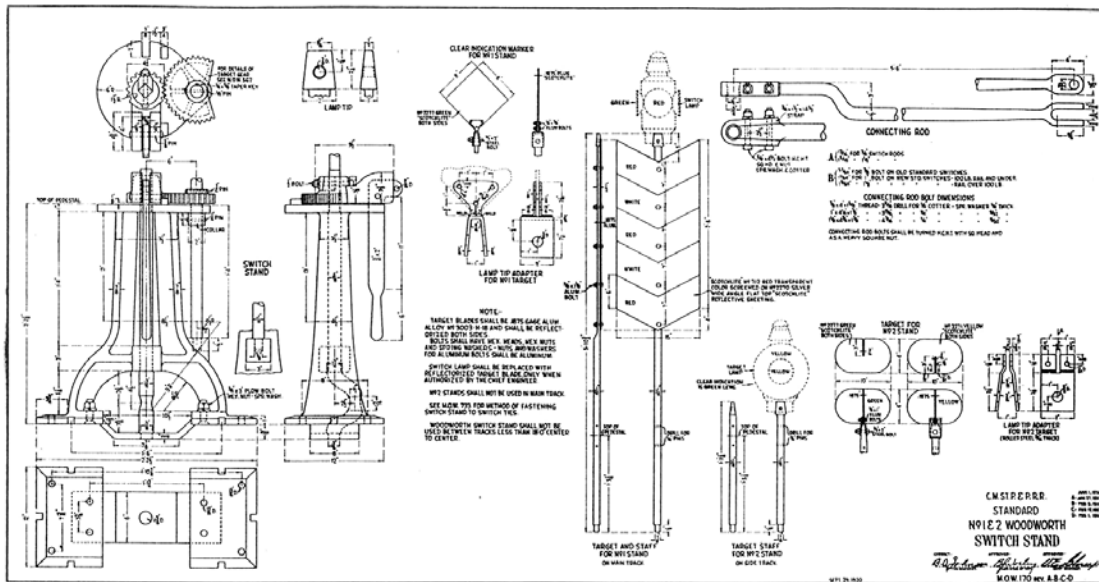
Figure 33. Standard Milwaukee Road track switch stand (author's collection).

As noted throughout this document, most of South Dakota's former railroad right-of-way has been abandoned. Many such lines have had tracks removed and in some instances ownership has reverted to the adjoining landowners. In the case of the former Burlington line from Edgemont to Lead a recreational trail is being constructed along the old right-of-way.

Significant stretches of both operating abandoned right-of-way remain, however, and the linear character of these resources provides a strong visual reminder of the railroad industry's reason for being.

D: *Minor associated features:* The following paragraphs briefly discuss some of the many miscellaneous non-architectural minor railway feature types primarily associated with railway line segments. In general, these resources are small, ancillary features which are ordinarily not of a sufficient scale to be independently evaluated for National Register eligibility. They may, however, be identified as contributing elements of larger historic sites.

Culverts: Nearly all culverts are used to carry small watercourses under railroad right-of-way berms. A culvert is simply a masonry, tile, metal or concrete tube which is buried in the berm. Wooden box culverts were also widely used in early construction, particularly in arid regions.

Signaling Devices: One of the most critical requirements of railroad operations is the need to communicate with and control the movements of trains along the line. The earliest signals were used by station agents in order to flag a train to stop for passengers and goods. Initially these signals were merely a flag or ball which was hoisted up a halyard located on a pole at trackside. A lit lantern was used at night.

By the mid-nineteenth century the telegraph was in wide use by railroads, allowing centralized dispatchers to communicate directly with station agents. Dispatchers could wire "train orders" directly to the appropriate station, which would transmit them to the train crew.[xcix] Telegraph usage had become an industry standard by the time most South Dakota lines were built. Signals, though, remained hand operated by station agents.

Once electricity became readily available, electric signaling lights were incorporated into station semaphore signals. A series of colored lenses were built into the semaphore arm which would change the color of the accompanying electric light any time the arm changed position. Semaphore-style signals of this type remain in use at the crossing of the former Milwaukee Road and former North Western lines just outside of Wolsey, South Dakota.

Most lines in South Dakota never developed the traffic requirements to justify more advanced or modernized signaling systems. Several, however, received automatic block signal systems during the mid-twentieth century. These signals are electronically controlled and are designed to allow only one train into a particular block of track at any one time. Various electronic signal systems are in use today on the former Milwaukee main line across the state, as well the former Burlington route through Edgemont.

Figure 34. An electric color-light signal, switchman's shanty, and telephone box, along the Milwaukee Road in Walworth County (State Historic Preservation Office photo).

Interlocking Towers: These buildings were placed at points where busy rail lines intersected. Operators who staffed these towers controlled the movement of trains through the junction by operating switches and signal lights controlled by levers mounted in the tower. Due to the light traffic density of most South Dakota rail lines, interlocking towers were rare, and none are known to exist today.

At crossings where traffic density did not demand the use of an interlocking, a switchman or watchman could be stationed in a small ground-level shanty. The shanty would be placed in close proximity to the junction or crossing, often adjacent to the signals and switch mechanism. These were very simply-built vernacular wood structures. A surviving example is reportedly located at Java Junction on the former Milwaukee line in Walworth County.

Grade Crossings: Grade crossings are the locations where roadways cross railroad lines. They are characterized by areas of timber or asphalt infill between the rails, accompanied by signage and/or signaling, fencing, and railway cattle guards. Initially, grade crossings were seldom marked or controlled. As concerns for safety increased, warning signs were erected and at busy crossings gates operated by watchmen were constructed. Once electricity became readily available a variety of automatic crossing guards and warning devices came into use. These features remain common across South Dakota today.

Figure 35. A desolate rural grade crossing in Dewey County, as photographed in February 1942 (South Dakota State Archives photo collection).
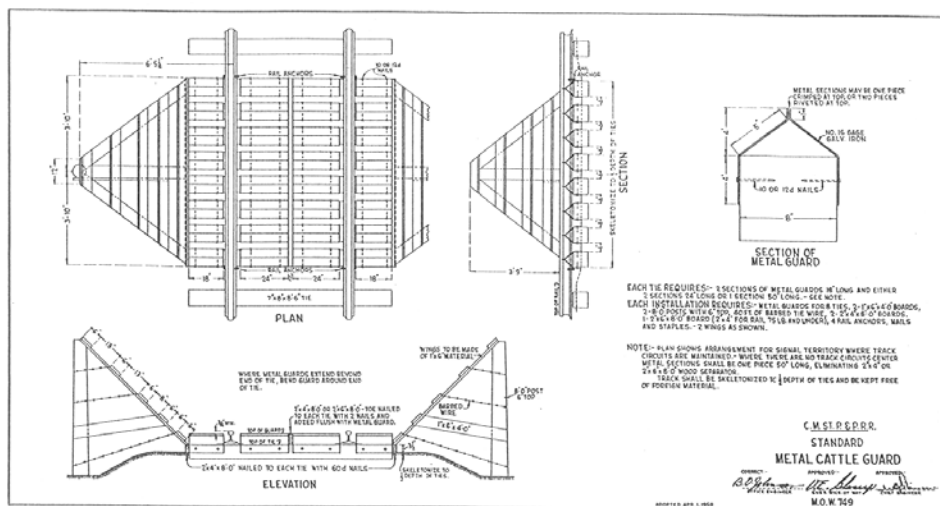
Figure 36. Standard Milwaukee Road cattle guard (author's collection).

2: Significance: In general, railway-related structural features in South Dakota may be significant for their association with the history of a region (Criterion "A") or as a representation of the transportation technology or engineering of a period (Criterion "C"). These associations are described more fully below:

Criterion "A": The construction of virtually any railroad is a complex, expensive undertaking. The railways built into and through South Dakota were easily among the largest construction projects undertaken in the state during the historic period. Consequently, the construction of one of the state's important rail lines is, in itself, an act of sufficient magnitude to give the line significance.

Most railroad lines, however, produced far more dramatic historical impacts. The construction of each of these lines was an event leading to striking changes in the region served

by the new route. As a direct consequence of local railway construction, agricultural settlement and production dramatically increased, townsites were platted, and the level of business activity rose. In addition, the geographical pattern of this new settlement and activity was directly and consciously guided by the railroad companies through the companies' choice of route and of townsite locations.

The high level of railroad influence on the state's economy and lifestyle continued for decades after the completion of the lines. Until well after World War I, the railroads served as the primary means for the carriage of passengers, freight, and mail to and from South Dakota. In particular, the state's agricultural economy remained almost completely dependent on the railroads to carry its products to market. While many of the railroad's roles have diminished or ceased in recent years, South Dakota's railways remain an important factor in the state's economy.

Criterion "C": South Dakota's railway-related structural resources may be significant under National Register Criterion "C" as examples of early twentieth-century railway design, engineering, and architecture. In common with other major industries of the period, America's railway companies developed and implemented a largely-standardized series of engineering and architectural plans for the construction and maintenance of company facilities; these designs reflected the technical capabilities of the day and the economics of the industry. Unlike most other industries, however, railroad engineering was highly visible to the public, and its near-universal presence made it an unusually important component of the cultural landscape. The remaining railroad-related features in South Dakota reflect this period of industrial design.

3: Registration Requirements: The registration requirements for this property type depend on whether the recourse being considered is *linear* (such as a railroad line or grade), or *non-linear* (such as a bridge or tunnel). The two types are described separately below.

Linear resources: To be eligible for listing on the National Register of Historic Places under Criterion "A," a railroad line or grade in South Dakota must have served during the historic period as part of an important means of access to the state, or as an important travel or commerce route within the state. The route being evaluated must follow an historic alignment closely enough so as to strongly suggest the historic landscape which existed during the period of significance. Railway line segments must either be of sufficient length to continue to visually convey the linear nature of the property, or include (and visually relate to) a significant non-linear historic feature such as a bridge, a trackside industry, grain elevator, or similar resource.

The visual character of a railway segment is defined by a variety of qualities and interactions, related both to the railway itself and its surrounding geography, thus making it difficult to quantify in numeric terms. In general, any railway segment where the track structure survives is likely to meet this requirement. For abandoned grades (and never-completed grades), a segment of undisturbed grade should be long enough that an observer standing near one end of the segment would not notice significant right-of-way breaks or obstructions when looking towards the opposite end of the segment. Alternately, other historic elements that tend to reinforce that linearity should remain present, such as right-of-way fencing, telegraph poles, or snow fencing. Note that when evaluating a segment of railway grade which was never

completed, that a shorter segment may retain eligibility if it represents the full extent to which that segment was originally completed.

To be eligible under Criterion "C," the resource, in its current form, must continue to reflect significant elements of period railroad engineering; it may do this through the visible retention of historic qualities of design, routing, and materials. The linear nature of the property must also remain evident, as described in the previous paragraph. In addition, eligibility under either criterion requires adherence to the eligibility guidelines described below.

Non-linear resources: To be eligible for listing on the National Register of Historic Places under Criterion "A," a railway-related structural feature in South Dakota must have served during the historic period as a component of an important means of access to the state, or as an important travel or commerce route within the state. To be eligible under Criterion "C," the resource, in its current form, must continue to reflect significant elements of period railroad engineering; it may do this through the visible retention of historic qualities of design, materials, and workmanship. In addition, eligibility under either criterion requires adherence to the eligibility guidelines described below.

4: Integrity: To be eligible for the National Register of Historic Places, all features described under this property type must retain integrity of *location,* with the exception of short realignments undertaken as part of routine maintenance and upgrading projects. All properties should retain integrity of *setting* to the extent that the cultural landscape along the right-of-way has not undergone dramatic change since the close of the historic period, although the existence of non-historic buildings along the route will not damage the integrity of the route itself. The integrity of *design, materials,* and *workmanship* is difficult to judge for railways, since active lines are maintained annually, and occasionally receive full reconstruction. Because of this, a railroad line's original materials need not survive, although the current materials should be visually comparable to the material used during historic times. (The introduction of replacement, small-scale components made of modern materials – such as concrete ties, for example – will slightly lessen integrity of materials, but not disqualify a feature from eligibility.) These areas of integrity will also be diminished if major historic structures along the route (such as bridges) have been replaced with modern structures. Note that the act of abandonment of a railway line segment (and the removal of its rails and ties) will not in itself diminish its integrity below the level needed for eligibility. Normally, a railroad property will retain integrity of *feeling* and *association* if the remaining five areas of integrity survive.

C: "Railway Yards and Operational Complexes" Property Type:

1: Description: In contrast to the property types above, which identify and evaluate individual railway-related resources, this property type is intended to evaluate the locations of current or former railroad operational bases comprised of a variety of individual features. (Most of these individual features, when located in isolation from other railroad features, will fall into one of the property types or subtypes outlined above.) This property type will typically identify a district or site, rather than a building, structure, or object. Most if not all sites evaluated for criterion D eligibility will also fall into this property type.

A: Railway yards and operating terminals: This subtype includes the current or former locations of South Dakota's largest railway yards. In contrast to community station sites (below), which emphasize features used by shippers and the traveling public, operating terminals are characterized by resource types used for railroad operation and maintenance activities. (Depots and similar resources may still be present in this subtype, however.) Resource types present in a railway operating terminal may include:

- multi-track yards for freight car classification and storage;
- an engine house, or roundhouse and turntable;
- other locomotive and freight car maintenance facilities;
- facilities to fuel and water locomotives; and
- a variety of smaller maintenance and storage buildings and structures.

Railroad yards were complex sites often characterized by a high, near-constant level of activity, filling a diverse yet interrelated series of roles. The significance of the site type stems, in large part, from this interrelationship, since it provides a broader picture of overall railroad operational patterns. Other than the yard trackage itself, however, most major resource types present in a major railroad yard have been listed individually in the property types above.

The trackage pattern in a railway yard consists of one or more main (or "through") tracks, and a series of yard or stub tracks. The yard tracks were used to assemble trains, transfer cars from one train to another and to store cars which were not immediately needed. These tracks were typically arranged in a "ladder" pattern along one side of the through tracks. (Stations and related facilities were located on the other side of the yard ladder.) Stub tracks were also built to provide access to lineside industries or freighting facilities and to connect yards with maintenance and storage buildings such as engine houses and car shops.

Most major railway yards in South Dakota were located in "division point" towns, located at approximate 100-mile intervals along major rail lines. Others were located at important railway junctions. Good examples of this property type still remain in Huron, Aberdeen, Rapid City, and elsewhere, but most terminal sites have lost much of their historic fabric.

Figure 37. A 1970s view of the Milwaukee Road yards in Mitchell (State Historic Preservation Office photo).

B: Community station sites: This subtype includes the current or former locations of smaller railway station complexes. While such sites may have once included small-scale railroad operating or maintenance facilities (such as a water tower, for example), they primarily serve as the location where the railroad transacted business with a local community. A typical station site might consist of a depot building, a railway track segment with a passing siding and/or industrial spurs, and a variety of ancillary features such as a privy, signs, railway crossings, and fences. In some cases, railway-owned housing may have been present. Most community station sites will also be in proximity to one or more grain elevators, stockyards, or other privately-owned shipping facilities.

In common with larger railway yards, community station sites achieve additional significance because of the interrelationship of the resources present. They are often also noteworthy for their geographical, social, and economic relationship with the town they served. As noted throughout this document, railway stations and their surrounding facilities played long-term, pivotal roles in the history and day-to-day life of nearly every South Dakota community.

Community station sites once existed in virtually every South Dakota town located in proximity to a rail line. Most of these sites remain at least somewhat evident today, even in cases where the rail line has been abandoned. Relatively few, however, retain all their historic features; several that do are located along the former Milwaukee Road line into Rapid City. (Figure 38, on the following page, maps the features at a representative community station site.)
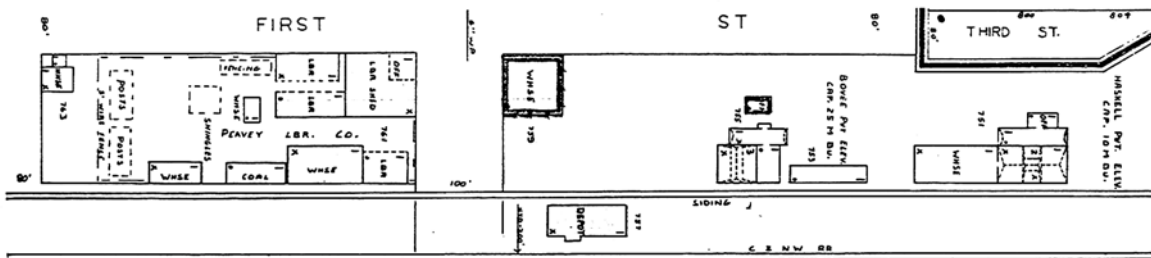
Figure 38. Plat of the railway station area at Conde, South Dakota, 1959 (South Dakota State Archives).

2: Significance: Historic railroad yards and station sites in South Dakota will normally be significant under National Register Criteria "A" or "C," although certain townsites may also be eligible under Criterion "D" as well. Each of these criteria is discussed separately below:

Criterion "A": Historic railroad yards and station sites in South Dakota may be eligible for the National Register of Historic Places under Criterion "A" as reflections of the growth and operational patterns of the railroad industry in the state and, more importantly, of the interrelationship of the state's railroads with the communities they served. More than any single resource, these groupings of buildings, structures, and objects represent the complex and massive nature of the railroad undertaking, and demonstrate how the railroads served and influenced the towns and regions through which they passed.

Criterion "C": South Dakota's historic rail yards and station sites may be eligible for the National Register as examples of period railroad engineering and planning. As with individual building types, the arrangement and scale of yard and station plats were standardized by most railroads, and are thus reflective of industry practice. In addition, the arrangement of major yards and the types of resources present there are indicative of transportation technology of their period.

Criterion "D": Because of the concentration of activity and historic development at many historic railroad yards and station sites, these locations have a relatively high potential for eligibility under Criterion "D." In some cases, the overall layout of the site itself may be capable of providing historical information, but it is more likely that Criterion "D" significance will be achieved through the presence of artifactual remains. Tools and equipment at a site may provide information on period technology, or the evolution of that technology. Domestic artifactual remains may provide clues to the lifestyles of period railroad workers.

Figure 39. The footings of a former water tower along the Milwaukee line through Interior suggest the possibility of a Criterion "D" site in the area (State Historic Preservation Office photo).

3: Registration Requirements: To be eligible for listing under Criterion "A" or "C," a railway yard or station site must reflect the broad historical patterns of railway organization, operation, and design in the historic period in South Dakota. This requirement is met if the facility played an important local role in historic railroad operations, or if the town is a characteristic local example of railroad station or yard design. Criterion "D" eligibility should be determined through archaeological testing based on a site-specific research design. In addition, the site must meet the integrity requirements outlined below.

4: Integrity: By its nature, resources in this property type will retain integrity of *location.* A station or yard site must retain integrity of *setting* in order to be eligible for the National Register of Historic Places. Integrity of setting is lost with the addition of significant non-historic features to the site. Integrity of *design* must also be maintained. Integrity of design

is lost if significant changes have been made to the planned arrangement of the site since the end of the period of significance. Integrity of design may also be diminished (but not lost) if the historic use of the site has been significantly altered. (Note that an abandoned rail yard or station site may still retain integrity, even given the removal of most of its features, since the significance of this property type is derived in part from geographical interrelationships.) Integrity of *materials* and *workmanship* are generally not applicable to a station or yard site as a whole, although they will apply to individual resources (as described in the first two property types). Normally, a station or yard site will retain integrity of *feeling* and *association* if the other aspects of integrity survive.

D: "Railway Rolling Stock" Property Type:

1: Description: This property type includes all railroad rolling stock, including locomotives, freight and passenger cars, snowplows, and maintenance-of-way equipment. Most of the equipment likely to be evaluated under this subtype will no longer be in active use, but will be on public display in a South Dakota museum. Additional historic rolling stock may exist on operating tourist railroads (such as the Black Hills Central) or shortlines.

Rolling stock was obviously vital to the railroad's operation, and such pieces of equipment are particularly recognizable reminders of the historic railroad industry. These resource types have been recognized by the National Register as potentially eligible for listing. Many steam locomotives and cars, particularly cabooses, were donated to municipalities for static display as they were phased out of service.

At least one piece of railroad rolling stock in South Dakota has previously been listed on the National Register. The chapel car "Emmanuel", which is owned and displayed at the Prairie Village Museum near Madison, is a passenger car that was designed to act as a rolling church. It was moved from town to town along rail lines, and services were held inside the car at each stop. This helped provide worship opportunities for those communities without resident clergy or church buildings.[c]

2: Significance: Historic rolling stock associated with a South Dakota railroad will normally be significant under National Register Criterion "C," usually as representative examples of their type. Eligibility under National Register Criterion "A" may also be appropriate for many items. Each of these criteria is discussed separately below:

Criterion "A": Historic railroad rolling stock in South Dakota may be eligible for the National Register of Historic Places under Criterion "A" as reflections of the historic patterns of railway construction and operation in the state. As the key "tools" of the overall railway enterprise and its various historic functions, rolling stock can be highly reflective of the historic importance of the railway industry.

Criterion "C": Railroad rolling stock historically used in South Dakota may be eligible for the National Register as examples of period railroad design and engineering. Nearly all railroad rolling stock is standardized across the industry in North America, and has been since the mid nineteenth century. Most historic equipment is thus reflective of the broader transportation technology of their period. A far smaller number of rolling stock types were

locally built, or designed for specific, site-based uses – equipment used on some logging railroads, for example. Such equipment could be eligible as a representation of a design solution to a specific local need.

3: Registration Requirements: To be eligible for listing under Criterion "A" or "C," a example of railway rolling stock must reflect the broad historical patterns of railway organization, operation, and design in the historic period in South Dakota. This requirement is met if the equipment played an important or representative role in historic railroad operations, or if it is a characteristic example of railroad design

4: Integrity: Because of the inherently portable nature of nearly all railway rolling stock, integrity of *location* usually does not need to be retained for this property type. Simultaneously, integrity of *setting* is seldom retained for preserved railway equipment, since by necessity such equipment is typically removed from an active railway line. Integrity of *design* must be maintained. Integrity of design is lost if significant changes have been made to the equipment since the end of the period of significance. Integrity of *materials* and *workmanship* must also be maintained, through the retention of original car cladding and other key components, such as historic wheels and trucks. Normally, railroad rolling stock will retain integrity of *feeling* and *association* if integrity of design, materials, and workmanship survive.

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The following list includes independent, common-carrier railroad companies which have operated within the state of South Dakota. It does not include streetcar lines or "paper" subsidiaries of major railroads. Railroad acronyms and nicknames in common usage are included. Railways currently (2007) operating in South Dakota are indicated by a dagger (†) preceding their name.

A separate list at the end of this appendix includes railroads that were never completed or operated, but constructed segments of grade that are known to still exist in the state.

A. Completed Railroads:

†**Black Hills Central Railroad:** The Black Hills Central owns the former Chicago, Burlington & Quincy Railroad branch between Hill City and Keystone, operating it during the summer seasons as a tourist railroad.

Black Hills & Fort Pierre Railroad (BH&FP): This was a short line railroad, initially backed by the Homestake Mining Company, which constructed approximately 71 miles of track in the northern Black Hills between 1881 and 1910. The railroad was later acquired by the Chicago, Burlington & Quincy, and all former BH&FP trackage was subsequently abandoned.

Buffalo Ridge Railroad: The Buffalo Ridge operated a former Chicago & North Western line from Sioux Falls to Worthington, Minnesota between approximately 1988 and 1992. Portions of the line were later operated by the Nobles Rock Railroad, until it declared bankruptcy in 2000. Today, the route is owned by the Buffalo Ridge Railroad Authority, but only the Minnesota portion of the line is regularly operated (by the Minnesota Southern Railway).

Burlington Northern Railroad (BN): The Burlington Northern was the product of a 1970 merger of four major railroads, including the Great Northern. One of the largest railroads in the country, the BN was the dominant railroad in much of the upper Midwest and Northwest. In South Dakota, the railroad inherited the former Great Northern lines to Aberdeen, Huron, and Sioux Falls, as well as the former Chicago, Burlington & Quincy routes in the southwestern part of the state. In addition, between 1980 and 1982 the BN obtained the right to operate several state-owned (former Milwaukee Road) lines. These included the former Milwaukee main line across northern South Dakota, a route from Aberdeen through Mitchell and Yankton into Iowa, and a line from Mitchell to Canton. The BN became part of the larger Burlington Northern Santa Fe Railway in 1995.

†**Burlington Northern Santa Fe Railway (BNSF):** The Burlington Northern Santa Fe Railway was created by the 1995 merger of the Burlington Northern Railroad and the Atchison, Topeka & Santa Fe Railway. The company's corporate name was officially shortened to "BNSF" in 2005. The BNSF continues to operate former BN routes in South Dakota (see

above), and now owns most of the former Milwaukee Road lines acquired by the state in the early 1980s.

[†]**Canadian Pacific Railway (CP):** The Canadian Pacific Railway is a major Canadian transcontinental railroad. Since the early twentieth century, the CP has also held a controlling interest in the Minneapolis, St. Paul & Sault St. Marie (the "Soo Line"). In the 1990s the operation and corporate structure of the Soo Line were gradually integrated into that of the CP. The only remaining former Soo Line trackage in South Dakota is the branch to Rosholt (in Roberts County); this is now operated by CP. The CP greatly expanded its presence in South Dakota in 2007, when it purchased the Dakota, Minnesota & Eastern.

Chicago & North Western Railway (C&NW): The Chicago & North Western (the "North Western") was a major Midwestern railroad, operating several important routes radiating north and west from Chicago. During the late nineteenth and early twentieth centuries, the North Western constructed or acquired an extensive network of routes in South Dakota, giving it a presence in the state second only to that of the Milwaukee. Among these lines were a primary east-west route through Brookings and Pierre to Rapid City; a secondary east-west line through Watertown, Redfield, and Gettysburg; a north-south line running through Huron and Aberdeen; a north-south route running just east of the Black Hills; and a number of branch lines. At its peak, the railroad operated the second-largest railroad network in South Dakota, with over 1,300 miles of trackage in the state.

The North Western abandoned much of its South Dakota network in the 1960s and 1970s. Most of the state's remaining North Western trackage was sold to the new Dakota, Minnesota & Eastern Railroad in 1986 (see below). The North Western itself was incorporated into the far larger Union Pacific Railroad in 1995. By that time, the North Western's only South Dakota trackage was a route from Nebraska through Rapid City and into Wyoming; the Union Pacific quickly sold that line to the Dakota, Minnesota & Eastern.

Chicago, Burlington & Quincy Railroad (CB&Q): The "Burlington" was among the largest and most prosperous Midwestern railroads, with important routes from Chicago to the Twin Cities, Colorado, and Montana. One of these lines (constructed 1889) includes about 50 miles of trackage in far southwestern South Dakota. From the town of Edgemont on this line, the Burlington constructed a route through the Black Hills to Deadwood, as well as several branches in the region. The company was merged into the larger Burlington Northern Railroad in 1970, and the last of the railroad's Black Hills routes were abandoned during the 1980s. The former Burlington main line through Edgemont is now operated by BNSF, and in 2007 is easily the most-used railway line in South Dakota.

Chicago, Milwaukee, St. Paul & Pacific Railroad (CMStP&P): This railroad operated under the name "Chicago, Milwaukee & St. Paul" until 1927; it is better known by its long-standing nickname, "the Milwaukee Road." During the historic period, the Milwaukee was one of America's longest railroads, operating over 10,000 miles of track. Primary routes included lines from Chicago to Kansas City, Omaha, the Twin Cities, and other

points in the upper Midwest. In 1909 the Milwaukee also completed a transcontinental main line from St. Paul to Seattle/Tacoma, Washington; this route traversed northern South Dakota from east to west, passing through Aberdeen and Mobridge. In addition, the Milwaukee operated a very extensive network of secondary routes in the state, constructed between 1872 and 1910. These routes included an east-west line through Canton and Mitchell to Rapid City; an east-west line through Madison to Wessington Springs; a north-south line through Aberdeen, Mitchell, and Yankton; a north-south line through Sioux Falls, and a large network of shorter branches. At its peak, the Milwaukee operated some 1,800 miles of trackage in South Dakota, more than any other railroad.

Significant abandonment of Milwaukee Road routes in the state began during the 1970s. In 1980, the bankrupt railroad ended service on all its remaining South Dakota routes, with the exception of its east-west main line. Most of these discontinued lines were purchased by the State of South Dakota; the state, in turn, contracted with the Burlington Northern for the continued operation of many of the purchased routes. In 1982, the Milwaukee main line was also acquired by the state, and its operation contracted to Burlington Northern. (The BN and its successor BNSF later purchased these lines outright.) The Milwaukee Road itself was acquired by the Soo Line in 1985.

Chicago, Rock Island & Pacific Railroad (CRI&P): The "Rock Island" was a major Midwestern railroad, operating some 8000 miles of track from Chicago to the Twin Cities, Colorado, and the Southwest. Its South Dakota routes consisted of branch lines into the state from the east, terminating at Sioux Falls and Watertown. These routes were constructed between 1884 and 1886 by an affiliate company, the Burlington, Cedar Rapids & Northern; they were abandoned by 1972.

Chicago, St. Paul, Minneapolis & Omaha Railway (CStPM&O): This railway, known as the "Omaha Road," was an affiliate of the Chicago & North Western since 1882. It operated routes between its namesake cities, and in South Dakota constructed a line from Minnesota through Sioux Falls to Mitchell. By the twentieth century the Omaha Road was largely integrated into the North Western system, and the Omaha Road name had largely vanished by the 1950s. The two companies were not formally merged until 1972.

†**Dakota & Iowa Railroad:** This is a modern shortline, operating former Milwaukee Road trackage from Dell Rapids south through Sioux Falls and into Iowa. The company primarily serves a large quarry operation near Dell Rapids.

†**Dakota, Minnesota, & Eastern Railroad (DM&E):** The DM&E was established in 1986 to purchase the Chicago & North Western's main line across the state, from Rapid City eastward through Pierre, Huron, and Brookings. The railroad also acquired North Western branches leading north from the main line to Onida, the Aberdeen area, and Watertown. In 1996 the railroad also purchased a former North Western line running northward from Nebraska through Rapid City and Belle Fourche. The railroad has also announced plans to reconstruct much of its South Dakota main line as part of a plan to serve the Powder River Basin coalfields of Wyoming. This project, not yet begun, would include the construction of a new route running southwest from Wall around the southern flank of the Black Hills.

The DM&E continues to operate most of this network -- over 500 miles of line -- although some segments of branch line trackage have been abandoned. The company was acquired by the Canadian Pacific in 2007, although at this writing it continues to operate independently.

†**Dakota, Missouri Valley and Western Railroad (DMV&W):** This modern shortline railroad primarily operates former Soo Line trackage in North Dakota. In South Dakota, the company operates the former Great Northern line from Geneseo, North Dakota to Aberdeen.

†**Dakota Southern Railway:** The Dakota Southern is a modern shortline railroad, currently authorized to operate 187 miles of state-owned trackage from Mitchell through Chamberlain to Kadoka. (This is a segment of the former Milwaukee main line to Rapid City.) Nearly all of this trackage was idle from 2000 to 2007, when the railroad reopened the line as far west as Presho. The Presho to Kadoka line remains out of service, and has been severed by highway construction.

During the 1980s, the Dakota Southern also briefly operated former Milwaukee lines from Milbank to Sisseton, and from Napa (near Yankton) to Platte. The Sisseton Milbank Railroad now operates the former route, and rehabilitation work on the eastern portion of the Platte line is beginning in 2007, with the Dakota Southern again planned to be the operator.

Figure 40. A 1970s view of the Milwaukee Road depot in Chamberlain, now the headquarters building of the Dakota Southern (State Historic Preservation Office photo).

Deadwood Central Railroad: The Deadwood Central was a narrow-gauge shortline, which constructed approximately 26 miles of trackage in the northern Black Hills between 1889 and 1902. The railroad was later acquired by the Chicago, Burlington & Quincy, and all former Deadwood Central trackage was subsequently abandoned.

†Ellis & Eastern Railroad: This is a modern shortline railroad, operating approximately 15 miles of former Chicago & North Western trackage between Ellis and Brandon, in Minnehaha County. The line is owned by a local construction company, and serves quarries operated by that company.

Fairmont & Veblen Railway: The Fairmont & Veblen was an historic shortline, which constructed a line between Fairmount, North Dakota and Grenville (Day County) in 1913-14. The railroad was acquired by the Soo Line soon thereafter. The F&V line remains intact as far as the town of Veblen, with parts operated by the Canadian Pacific and the Sunflour Railroad.

Forest City & Sioux City Railway: This was an historic shortline railroad, which constructed a 19-mile route between Gettysburg and Forest City (Potter County) in 1890. Financial support was provided by the Chicago & North Western. The line was later reorganized as the "Forest City & Gettysburg Railroad." Never very successful, the railroad was abandoned in 1911.

Fremont, Elkhorn & Missouri Valley Railroad (FE&MV): This railroad (known informally as "the Elkhorn") constructed a route northward from Nebraska to Rapid City and the northern Black Hills between 1885 and 1890. The Elkhorn was purchased by the Chicago & North Western in 1903. While some former Elkhorn branches have been abandoned, most of the route is in use today by the Dakota, Minnesota & Eastern.

Great Northern Railway (GN): The Great Northern was a major transcontinental railroad, with its primary route running between the Twin Cities and Seattle. Between 1887 and 1893, the Great Northern constructed three lines into South Dakota from the northeast, leading to Aberdeen; Watertown and Huron; and Sioux Falls and Yankton. The railroad also acquired and operated the former South Dakota Central line (see below). The Great Northern became part of the Burlington Northern Railroad in 1970; Burlington Northern, in turn, was incorporated into the Burlington Northern Santa Fe in 1995. Most of the Yankton and South Dakota Central routes have been abandoned, but the remaining lines continue in use, by BNSF and others.

Illinois Central Railroad (IC): The Illinois Central was a major Midwestern railroad, operating important routes from Chicago to New Orleans and Omaha. The railroad operated 15 miles of trackage in South Dakota, from the Minnesota border to Sioux Falls. This route, constructed in 1887, was abandoned in 1980.

Minneapolis & St. Louis Railway (M&StL): The Minneapolis & St. Louis was an historic railroad operating routes running south and west from Minneapolis. The railroad built a route from the Minnesota border to Watertown in 1884, and extended the line through Aberdeen to Leola in 1906. A line was also constructed to the Missouri River at LeBeau (Walworth County) in 1907, part of a never-completed plan to extend the railroad west of the Missouri. At its peak, the railroad operated 289 miles of trackage in South Dakota. The Chicago & North Western acquired the M&StL in 1960. All former M&StL lines in the state were abandoned by 1977.

Minneapolis, St. Paul, & Saul St. Marie Railway (MStP&SStM): This railroad was popularly known as the "Soo Line," and the Soo Line name was later made official. The Soo built and operated an extensive network of routes in the upper Midwest, most radiating from the Twin Cities. The railroad operated only two short branches into South Dakota, from the North Dakota border to Pollock (Campbell County), and from the border to Veblen and Grenville. Only the line to Veblen remains today. The Soo has long been affiliated with the Canadian Pacific Railway, and is now operated as a unit of that railroad.

Mound City & Eastern Railway: The Mound City & Eastern was incorporated with the intent of constructing a railroad that would connect the town of Mound City with the national railroad network. Only a portion of the planned route was completed, between the McPherson County towns of Leola and Long Lake, although other segments of partially-completed grade also exist east of Forest City. The Mound City & Eastern operated from 1929 to 1940.

Nobles Rock Railroad: In the late 1990s, this entity briefly held operating authority on two segments of publicly owned railroad in South Dakota: the former Milwaukee Road line from Mitchell to Kadoka, and the Buffalo Range line east of Sioux Falls. The venture was spectacularly unsuccessful, and declared bankruptcy in 2000.

Rapid City, Black Hills & Western Railroad: This railroad, known variously as the "Rapid Canyon Line" or the "Crouch Line," completed a 34-mile route between Rapid City and Mystic (Pennington County) in 1906. The railroad was abandoned in 1947.

Figure 41. A railcar belonging to the Rapid City, Black Hills & Western travels along its scenic route through Rapid Canyon (South Dakota State Archives photo collection).

Red River Valley & Western Railroad: This is a modern shortline railroad operating extensive trackage in North Dakota. The railroad's network also briefly included a

former C&NW line extending as far south as Hecla, South Dakota (Brown County), but the company's South Dakota trackage was abandoned in 2001.

St. Paul, Minneapolis & Manitoba Railway: This was the name of the Great Northern Railway prior to 1890 (see above). The company's nickname was "the Manitoba."

[†]**Sisseton Milbank Railroad:** This is a modern shortline railroad operating a former Milwaukee Road branch line between its namesake cities (Grant and Roberts Counties).

Soo Line Railroad: This was the nickname (and later corporate name) of the Minneapolis, St. Paul & Sault St. Marie Railroad (see above).

South Dakota Central Railway: The South Dakota Central was an historic shortline which constructed a 103-mile route between Sioux Falls and Watertown between 1904 and 1907. The railroad was acquired by the Great Northern in 1916, and the GN continued to operate the line. The southern portion of the railroad (between Sioux Falls and Wentworth) remains in use by the Burlington Northern Santa Fe, the corporate successor to the Great Northern. The remainder of the line was abandoned in the 1970s and 1980s.

[†]**Sunflour Railroad:** This modern shortline railroad acquired the former Soo Line trackage between Rosholt and Veblen in 2000. The line remains intact in 2007, but is not in operation.

B. Railroads partially constructed, but never completed:

Aberdeen, Bismarck & North Western Railway (AB&NW): This company constructed a railroad grade between Aberdeen and Bismarck, North Dakota in the mid 1880s, but no track was laid. It was acquired by the Minneapolis, St. Paul & Sault Ste. Marie ("Soo Line") in 1888, and the Soo later finished the line between Ashley, North Dakota and Bismarck, but the South Dakota portion of the line was never completed. The Mound City & Eastern probably utilized part of this old grade when it constructed its line between Leola and Long Lake in 1929.

Aberdeen, Fergus Falls & Pierre Railroad (AFF&P): This railroad was incorporated in 1886 to construct a line running northeast from Pierre, through Aberdeen, and on to southeastern North Dakota. The company was acquired by the Great Northern later that year, its line only partially constructed. The line east from Aberdeen was later completed and operated by the GN, but the partially-constructed grade between Aberdeen and Pierre was never finished.

Forest City & Western Railroad (FC&W): The FC&W was incorporated in 1883 to construct a line from Forest City (on the Missouri River) through Hoven to Bowdle, where a connection would be made with the main line of the Milwaukee Road. Though the line was never completed, substantial segments of grade were constructed southwest of Hoven in Potter County.

Mound City & Eastern Railway: The Mound City & Eastern is described in Section "A," above. Significant segments of uncompleted MC&E grade remain evident in Campbell County today.

This appendix lists the dates of construction and abandonment of common-carrier railroad lines in South Dakota, compiled largely from secondary sources. Many of the construction and abandonment dates (with corrections) are from the Rick Mills volume, *Railroading in the Land of Infinite Variety: A History of South Dakota's Railroads*. A comprehensive chronology for the Milwaukee may be found in August Derlith's classic volume, *The Milwaukee Road: Its First Hundred Years.* Other documents consulted include current and past editions of the official state *Rail Plans* for North and South Dakota.

This list is intended to be comprehensive, though minor omissions may exist. Railroad abandonment dates should be considered approximate, due to the nature of the regulatory process governing those abandonments. (Often, the operation of a line would end well before official abandonment proceedings were completed.)

1872

Construction
Milwaukee Road	Sioux City (Iowa) – Vermillion
Chicago & North Western	Marshall (Minnesota) – Gary

1873

Construction
Milwaukee Road	Vermillion – Yankton
Chicago & North Western	Gary – Watertown

1878

Construction
Milwaukee Road	Beloit (Iowa) – Elk Point
Omaha Road	Minnesota border – Sioux Falls

1879

Construction
Milwaukee Road	Beloit (Iowa) – Sioux Falls
	Iowa border – Canton – Running Water
Chicago & North Western	Tracy (Minnesota) – Volga
Omaha Road	Sioux Falls – Salem

1880

Construction
Milwaukee Road	Big Stone City – Webster
	Pipestone – Madison

Chicago & North Western	Marion – Chamberlain Volga – Pierre Sioux Valley Junction – Watertown

1881

Construction

Milwaukee Road	Mitchell – Aberdeen Webster – Aberdeen Madison – Woonsocket Egan – Sioux Falls
Chicago & North Western	Watertown – Clark Huron – Ordway

1882

Construction

Milwaukee Road	Scotland – Yankton Aberdeen – Ellendale (North Dakota) Milbank – Wilmot
Chicago & North Western	Clark – Redfield Hawarden (Iowa) – Iroquois
Black Hills & Fort Pierre	Lead – Bucks

1883

Construction

Milwaukee Road	Aberdeen – Ipswitch
Chicago & North Western	Ordway – Columbia

1884

Construction

Milwaukee Road	Ortonville (Minnesota) – Fargo (North Dakota)
Chicago & North Western	Centerville – Yankton
Minneapolis & St. Louis	Madison (Minnesota) – Watertown
Chicago, Rock Island & Pacific	Pipestone (Minnesota) – Watertown

1885

Construction

Fremont, Elkhorn & Missouri Valley	Chadron (Nebraska) – Buffalo Gap

1886

Construction

Milwaukee Road	Scotland – Mitchell Ipswitch – Bowdle Tripp – Armour Andover – Brampton (North Dakota)
Chicago & North Western	Redfield – Faulkton

	Doland – Verdon
	Columbia – Oakes (North Dakota)
Fremont, Elkhorn & Missouri Valley	Buffalo Gap – Rapid City
Chicago, Rock Island & Pacific	Iowa state line – Sioux Falls

1887

Construction

Milwaukee Road	Madison – Bristol
	Roscoe – Eureka
	Roscoe – Orient
Chicago & North Western	Faulkton – Gettysburg
	Verdon – Groton
Fremont, Elkhorn & Missouri Valley	Rapid City – Whitewood
Omaha Road	Salem – Mitchell
Great Northern	Benson (Minnesota) – Watertown
Illinois Central	Hills (Minnesota) – Sioux Falls

1888

Construction

| Great Northern | Watertown – Huron |
| | Pipestone (Minnesota) – Sioux Falls |

1889

Construction

Great Northern	Rutland (North Dakota) – Aberdeen
Chicago, Burlington & Quincy	Alliance (Nebraska) – Newcastle (Wyoming)
Deadwood Central	Deadwood – Englewood
	Pluma – Lead

1890

Construction

Fremont, Elkhorn & Missouri Valley	Whitewood – Belle Fourche
	Whitewood – Deadwood
	Buffalo Gap – Hot Springs
Chicago, Burlington & Quincy	Edgemont – Hill City
Black Hills & Fort Pierre	Bucks – Mowatt
Forest City & Sioux City	Forest City – Gettysburg

1891

Construction

Great Northern	Garretson – Manley (Minnesota)
Chicago, Burlington & Quincy	Hill City – Deadwood
	Minnekahta – Hot Springs
Fremont, Elkhorn & Missouri Valley	mine trackage near Deadwood/Lead
Black Hills & Fort Pierre	Mowatt – Piedmont
Deadwood Central	mine trackage near Lead

Construction

Milwaukee Road	Wilmot – Sisseton
Great Northern	Sioux Falls – Yankton
Chicago, Burlington & Quincy	Englewood – Spearfish
Rapid City, Black Hills & Western	Rapid City – Dark Canyon

1898

Construction

Black Hills & Fort Pierre	Bucks – Este

1899

Construction

Fremont, Elkhorn & Missouri Valley	Belle Fourche – Aladdin (Wyoming)

1900

Construction

Milwaukee Road	Napa – Platte
	Bowdle – Evarts
Chicago & North Western	Minnesota state line – Astoria
Chicago, Burlington & Quincy	Hill City – Keystone

1901

Construction

Soo Line	Ashley (North Dakota) – Pollock

1902

Construction

Milwaukee Road	Eureka – Linton (North Dakota)
Chicago & North Western	Norfolk (Nebraska) – Bonesteel
Fremont, Elkhorn & Missouri Valley	Gayville – Lead
Black Hills & Fort Pierre	Piedmont – Stage Barn
Deadwood Central	Galena Junction – Galena

1903

Construction

Milwaukee Road	Woonsocket – Wessington Springs

Corporate Changes

Fremont, Elkhorn & Missouri Valley	to Chicago & North Western

1904

Construction
    South Dakota Central   Sioux Falls – Colton

1905

Construction
    Milwaukee Road   Armour – Stickney
    South Dakota Central   Colton -- Rutland

1906

Construction
    Milwaukee Road   Chamberlain – Murdo
                                          Madison – Colton
                                          Glenham – Missouri River (Mobridge)
    Chicago & North Western   Fort Pierre – Philip
                                          Rapid City – Wasta
    Minneapolis & St. Louis   Watertown – Aberdeen – Leola
    Rapid City, Black Hills & Western   Dark Canyon – Mystic

1907

Construction
    Milwaukee Road   Murdo – Rapid City
                                          Colton – Renner
                                        Missouri River – North Dakota border
    Chicago & North Western   Pierre – Fort Pierre
                                          Philip – Wasta
                                        Bonesteel – Dallas
    South Dakota Central   Rutland – Watertown
    Minneapolis & St. Louis   Conde – LeBeau
    Black Hills & Fort Pierre   Este – Merritt

1909

Abandonments
    Milwaukee Road   Evarts Junction – Evarts

1910

Construction
    Milwaukee Road   Trail City – Faith
                                          Moreau Junction – Isabel
                                          McLaughlin – New England (North Dakota)
    Chicago & North Western   Blunt – Gettysburg
                                          Belle Fourche – Newell
                                          Dallas – Colome
    Black Hills & Fort Pierre   Este – Stage Barn

Abandonments
    Black Hills & Fort Pierre   Bucks – Calcite

1911

Construction
Chicago & North Western   Colome – Winner

Abandonments
Forest City & Sioux City   Forest City – Gettysburg

1913

Construction
Fairmount & Veblen   Fairmount (North Dakota) – Veblen

1914

Construction
Fairmount & Veblen   Veblen – Grenville

1915

Corporate Changes
Fairmount & Veblen   (circa) to Soo Line

1916

Corporate Changes
South Dakota Central   to Great Northern

1924

Abandonments
Minneapolis & St. Louis   Akaska – LeBeau
Deadwood Central   Pluma – Lead

1926

Abandonments
Chicago & North Western   Belle Fourche – Aladdin (Wyoming)

1927

Construction
Chicago & North Western   Braden – Vale
                                           Jolly – Jolly Dump

Abandonments
Deadwood Central   Galena – Galena Junction

1928

Abandonments
    Chicago & North Western   Deadwood – Lead

1929

Construction
    Chicago & North Western   Winner – Wood
    Mound City & Eastern   Leola – Long Lake

1930

Abandonments
    Milwaukee Road   Springfield – Running Water
    Black Hills & Fort Pierre   Englewood – Calcite

1934

Abandonments
    Chicago, Burlington & Quincy   Englewood – Spearfish

1935

Abandonments
    Chicago & North Western   Yankton – Mission Hill
    Great Northern   Mission Hill – Volin
    Chicago, Burlington & Quincy   near Chester – near Huntimer

1936

Abandonments
    Milwaukee Road   Madison – near Chester
                                    Near Huntimer – near Colton
                                    Scotland – Tyndall

1938

Abandonments
    Milwaukee Road   Menno – Scotland

1939

Abandonments
    Chicago & North Western   Buffalo Gap – Hot Springs

1940

Abandonments
Minneapolis & St. Louis	Conde – Akaska
Mound City & Eastern	Leola – Long Lake

1941

Abandonments
Milwaukee Road	Renner – Wentworth

1943

Abandonments
Chicago, Burlington & Quincy	Englewood – Trojan

1947

Abandonments
Rapid City, Black Hills & Western	Rapid City – Mystic

1948

Construction
Chicago & North Western	Belle Fourche – Bentonite (Wyoming)

1953

Abandonments
Chicago, Rock Island & Pacific	Clear Lake – Watertown

1955

Abandonments
Chicago & North Western	Gary – Watertown

1960

Corporate Changes
Minneapolis & St. Louis	to Chicago & North Western

1965

Abandonments
Milwaukee Road	Kingsburg – Springfield

1966

Abandonments
Chicago & North Western	Belle Fourche – Newell
	Nisland -- Vale

1967

Abandonments
Chicago, Rock Island & Pacific	Minnesota state line – Clear Lake

1968

Abandonments
Chicago & North Western	Revillo – Strandburg
	Stratford – Aberdeen – Leola

1969

Abandonments
Milwaukee Road	Menno – Scotland
Chicago & North Western	Watertown – Strandburg
	Doland – Frankfurt
	Winner – Wood
	Volin – Wakonda

1970

Abandonments
Chicago & North Western	Whitewood – Deadwood
	Minnesota state line – Astoria
	Doland – Groton
	Redfield – Gettysburg

Corporate Changes
Great Northern	to Burlington Northern
Chicago, Burlington & Quincy	to Burlington Northern

1971

Abandonments
Milwaukee Road	Tyndall – Kingsburg
Chicago & North Western	Centerville – Wakonda
	Minnesota state line – Revillo
Soo Line	Veblen – Grenville

1972

Abandonments

Milwaukee Road	Tripp – Stickney
	Madison – Woonsocket
Burlington Northern	Hayti – Watertown
Chicago, Rock Island & Pacific	Iowa state line – Sioux Falls

Corporate Changes

Illinois Central	to Illinois Central Gulf
Omaha Road	to Chicago & North Western

1974

Abandonments

Milwaukee Road	Garden City – Bryant

1976

Abandonments

Burlington Northern	trackage near Yankton

1977

Abandonments

Milwaukee Road	Roscoe – Orient
Chicago & North Western	Watertown – Stratford
	Doland – Clark
Burlington Northern	Minnekahta – Hot Springs

1978

Abandonments

Milwaukee Road	Marion Junction – Menno
Chicago & North Western	Norfolk (Nebraska) – Winner
	Wren (Iowa) – Iroquois

1979

Abandonments

Milwaukee Road	Trail City – Faith
	Woonsocket – Wessington Springs
	Bristol – Garden City
	Moreau Junction – Isabel
	Jackson (Minnesota) – Egan
Chicago & North Western	Jolly – Jolly Dump
	James Valley Jct. – Redfield
	Mansfield – Aberdeen

1980

Abandonments

Milwaukee Road	Aberdeen – Edgeley (North Dakota)
	Ortonville (Minnesota) – Fargo (North Dakota)

		Dell Rapids – Sioux Valley Jct.
		Madison – Bryant
		Egan – Wentworth
		Mason City (Iowa) – Canton
		Roscoe – Eureka
		Andover – Britton
		North of Britton – Brampton (North Dakota)
	Chicago & North Western	Tracy (Minnesota) – Gary
		Ellis – Mitchell
		Redfield – Frankfurt
	Burlington Northern	Wentworth – Hayti
	Illinois Central Gulf	Cherokee (Iowa) – Sioux Falls

Line Transfers
Milwaukee Road to
    State of South Dakota

		Mitchell – Rapid City
		Mitchell – Wolsey – Aberdeen
		Sioux City (Iowa) – Mitchell
		Sioux City (Iowa) – Canton – Sioux Falls
		Canton – Mitchell
		Napa – Platte
		Sioux Falls – Dell Rapids
		Wentworth – Madison

Milwaukee Road to
    Burlington Northern   Eureka – Linton (North Dakota)
                                              trackage near Britton

1981

Abandonments

| Chicago & North Western | Watertown – Clark |
| Burlington Northern | Sioux Falls – Yankton |

Line Transfers
Burlington Northern to
    Black Hills Central   Hill City – Keystone

1982

Abandonments

| Milwaukee Road | McLaughlin – New England (North Dakota) |
| Chicago & North Western | Onida – Gettysburg |

Line Transfers
Milwaukee Road to
    State of South Dakota   Ortonville (Minnesota) – Terry (Montana)
                                              Milbank – Sisseton

1983

Abandonments

| Burlington Northern | Custer – Deadwood |
| | Kirk – Lead |

Abandonments
Burlington Northern   Zeeland (North Dakota) – Eureka

1986

Abandonments
Burlington Northern   Edgemont – Custer

Line Transfers
Chicago & North Western to
  Dakota, Minnesota & Eastern Winona (Minnesota) – Rapid City
             Sioux Valley Jct. – Watertown
             Blunt – Onida
             Redfield – Mansfield
             Aberdeen – Oakes (North Dakota)

1987

Abandonments
Soo Line   Ashley (North Dakota) – Pollock

1988

Line Transfers
Chicago & North Western to
  Public ownership   Agate (Minnesota) – Ellis

1993

Abandonments
Dakota, Minnesota & Eastern Sioux Valley Jct. – Watertown
             Aberdeen – Hecla

Line Transfers
Dakota, Minnesota & Eastern to
  RRV&W   Hecla – Oakes (North Dakota)

1995

Corporate Changes
Burlington Northern   to Burlington Northern Santa Fe
Chicago & North Western   to Union Pacific

1996

Line Transfers
Union Pacific to

Dakota, Minnesota & Eastern   Chadron (Nebraska) – Colony (Wyoming)

2000

Line Transfers
    Soo Line to Sunflour   Rosholt – Veblen

2001

Abandonments
    RRV&W   Hecla – Oakes (North Dakota)

Line Transfers
    Burlington Northern Santa Fe to
        State of South Dakota   Aberdeen – North Dakota line
                                     trackage near Britton

2005

Corporate Changes
    Burlington Northern Santa Fe   name changed to BNSF Railway

2007

Corporate Changes
    Dakota, Minnesota & Eastern   to Canadian Pacific

APPENDIX 3:
List of Extant South Dakota Railroad Depots

The following table provides a list of railroad depots and related buildings that are believed to currently survive in South Dakota, based primarily on recent field observation by the authors. The list is believed to be substantially complete, though it is likely that a small number of additional, yet-unknowing buildings may also exist. Listed buildings may have also been razed since they were last visited.

Original Location	Railroad	Current Location	Moved?	Current Use
Aberdeen	C&NW	Aberdeen	N	Business
Aberdeen	CM&StP	Aberdeen	N	Museum
Aberdeen	GN	Aberdeen	N	Business
Aberdeen	M&StL	Aberdeen	N	Business
Albee	GN	Albee	Y	Vacant
Appleby	CRI&P	Tracy, MN	Y	Museum
Astoria	C&NW	Astoria	N	
Badger	GN	Badger	Y	Museum
Baltic	CM&StP	Baltic	Y	Storage
Bath	CM&StP	Bath	Y	Residence
Belle Fourche	C&NW	Belle Fourche	N	Railroad
Beresford	C&NW	Beresford	N	Community center
Bowdle	CM&StP	Bowdle	Y	Storage
Bristol	CM&StP	Webster	Y	Museum
Britton	CM&StP	Britton	Y	Storage
Brookings	C&NW	Brookings	N	Business
Canton	CM&StP	Canton	Y	Museum
Chelsea	M&StL	Chelsea	N	Storage
Clark	C&NW	Clark	Y	Museum
Colton	GN	Colton	Y	Vacant
Columbia	C&NW	Columbia	Y	Garage
Corsica	CM&StP	Corsica	Y	Storage
Cresbard	M&StL	Cresbard	Y	Business
Deadwood	C&NW	Deadwood	N	Visitor Information
Deadwood	CB&Q	Deadwood	Y	Bank
DeSmet	C&NW	DeSmet	N	Museum
Dimock	CM&StP	Mitchell	Y	Museum
Draper	CM&StP	Murdo	Y	Museum
Faith	CM&StP	Faith	N	
Flandreau	CM&StP	Flandreau	Y	Museum
Garretson	GN	Garretson	Y	Storage
Gettysburg	C&NW	1880's Town	Y	Museum
Greenway	CM&StP	Greenway	Y	
Hazel	GN	Hazel	Y	Storage
Hecla	C&NW	Hecla	Y	
Hill City	BHC	Hill City	N	Railroad

Hot Springs	C&NW/CB&Q	Hot Springs	N	Visitor Information
Howard	CM&StP	Howard	Y	Only portion of depot remains.
Huron	C&NW	Huron	N	Business
Huron	C&NW	Huron	N	
Huron	GN	Huron	N	Business
Huron	GN	Huron	N	
Irene	GN	Irene	Y	Business
Janius	CM&StP	Madison	Y	Museum
Java	CM&StP	Java	N	Vacant
Kadoka	CM&StP	Kadoka	N	Museum
Kennebec	CM&StP	White River	Y	
Lane	CM&StP	1880's Town	Y	Restaurant
Leola	M&StL	Leola	N	Museum
Madison	CM&StP	Madison	N	Chamber of Commerce
Madison	CM&StP	Madison	N	Business
Marion	CM&StP	Parker	Y	Museum
McLaughlin	CM&StP	McLaughlin	N	Railroad
Melham	GN	Milbank	Y	Museum
Midland	C&NW	Midland	Y	Museum
Milbank	CM&StP	Milbank	Y	Residence
Miller	C&NW	Miller	Y	Museum
Miranda	C&NW	Ipswitch	Y	Residence
Mitchell	CM&StP	Mitchell	N	Restaurant
Murdo	CM&StP	Murdo	N	Railroad
Nahon	M&StL	Aberdeen	Y	Museum
Northville	M&StL	Northville	Y	Storage
Oacoma	CM&StP	Oacoma	Y	
Ortley	CM&StP	Ortley	Y	
Osceola	GN	Osceola	Y	Storage
Philip	C&NW	Philip	Y	Residence
Pollock	MStP&SSM	Pollock	Y	Hunting Lodge
Rapid City	CM&StP	Rapid City	N	Restaurant
Rapid City	CM&StP	Rapid City	N	Restaurant
Redfield	C&NW	Redfield	N	Community center
Reliance	CM&StP	Winner	Y	Business
Rosholt	MStP&SSM	Rosholt	Y	Museum
Rudolph	C&NW	Aberdeen	Y	Museum
Rutland	GN	Sioux Falls	Y	Museum
Saint Onge	C&NW	Saint Onge	Y	Residence
Sinai	GN	Nunda	Y	Storage
Selby	CM&StP	Selby	Y	Storage
Sioux Falls	C&NW	Sioux Falls	N	Vacant
Sioux Falls	CM&StP	Sioux Falls	N	
Sioux Falls	CRI&P	Sioux Falls	N	Business
Sioux Falls	GN	Sioux Falls	N	Railroad
Sioux Falls	GN	Sioux Falls	N	Business
Sioux Falls	IC	Sioux Falls	N	Government offices
Sioux Falls	IC	Sioux Falls	N	Vacant
Stickney	CM&StP	Stickney	N	Business
Timber Lake	CM&StP	Timber Lake	N	

Unityville	C&NW	Unityville	Y	Vacant
Utica	CM&StP	Menno	Y	Museum
Veblen	MStP&SSM	Hankinson, ND	Y	Residence
Vermillion	CM&StP	Vermillion	N	Railroad
Viborg	GN	Viborg	Y	Relocated to farm south of town.
Vienna	GN	Vienna	Y	Community center
Vivian	CM&StP	Vivian	N	Vacant
Volin	GN	Volin	Y	Storage
Watertown	M&StL	Watertown	N	Vacant
Wentworth	CM&StP/GN	Madison	Y	Museum
Wessington Springs	CM&StP	Wessington Springs	N	Vacant
White Lake	CM&StP	White Lake	Y	Barn
Willow Lake	GN	Willow Lake	N	Railroad
Winner	C&NW	Winner	Y	Museum
Woonsocket	CM&StP	Woonsocket	Y	Museum
Yankton	CM&StP	Yankton	N	Business
Yankton	GN	Yankton	Y	Museum

APPENDIX 4:
Period Maps of South Dakota Railroads

- South Dakota Railroads, by Decade
- Major South Dakota Railroad Companies

SOUTH DAKOTA RAILROADS - 1880

Legend

- BH FP
- C NW
- CB Q
- CRI P
- CSPM O
- D C
- FC G
- GN
- ICG
- M CE
- M STL
- MILW
- MSP SSM
- RCBH W

N
W E
S

0   25   50 Miles

RAILROAD ABBREVIATIONS

BH FP ..... Black Hills & Fort Pierre
C NW ...... Chicago & North Western
CB Q ...... Chicago Burlington & Quincy
CRI P ..... Chicago Rock Island & Pacific
CSPM O .... Chicago St. Paul Minneapolis & Omaha
D C .... Deadwood Central
FC G ...... Forest City & Gettysburg

GN .... Great Northern
ICG .... Illinois Central Gulf
M C E ..... Mound City & Eastern
M STL ..... Minneapolis & St. Louis
MILW ...... Milwaukee Road
MSP SSM ... Minneapolis St. Paul & Sault Ste Marie
RCBH W .... Rapid City Black Hills & Western

Cities:
SISSETON, MILBANK, WATERTOWN, ASTORIA, BROOKINGS, MADISON, SALEM, SIOUX FALLS, CANTON, BERESFORD, PARKER, BRITTON, GRENVILLE, BRADLEY, ELROD, YANKTON, SCOTLAND, TYNDALL, ABERDEEN, CONDE, REDFIELD, HURON, STICKNEY, WESSINGTON SPRINGS, CHAMBERLAIN, MITCHELL, PLATTE, LEOLA, ROSCOE, FAULKTON, ORIENT, LONG LAKE, BOWDLE, GETTYSBURG, ONIDA, BLUNT, PRESHO, WINNER, MCLAUGHLIN, LEBEAU, FOREST CITY, PIERRE, WOOD, ISABEL, KADOKA, FAITH, BELLE FOURCHE, SPEARFISH, DEADWOOD, RAPID CITY, KEYSTONE, HOT SPRINGS, EDGEMONT

SOUTH DAKOTA RAILROADS - 1890

RAILROAD ABBREVIATIONS

BH FP ..... Black Hills & Fort Pierre
C NW ...... Chicago & North Western
CB Q ...... Chicago Burlington & Quincy
CRI P ..... Chicago Rock Island & Pacific
CSPM O .... Chicago St. Paul Minneapolis & Omaha
D C .... Deadwood Central
FC G ...... Forest City & Gettysburg

GN .... Great Northern
ICG .... Illinois Central Gulf
M C E ...... Mound City & Eastern
M STL ...... Minneapolis & St. Louis
MILW .... Milwaukee Road
MSP SSM .... Minneapolis St. Paul & Sault Ste Marie
RCBH W ..... Rapid City Black Hills & Western

Legend

BH FP
C NW
CB Q
CRI P
CSPM O
D C
FC G
GN
ICG
M C E
M STL
MILW
MSP SSM
RCBH W

SOUTH DAKOTA RAILROADS - 1900

RAILROAD ABBREVIATIONS

BH FP ..... Black Hills & Fort Pierre
C NW ..... Chicago & North Western
CB Q ..... Chicago Burlington & Quincy
CRI P .... Chicago Rock Island & Pacific
CSPM O ... Chicago St. Paul Minneapolis & Omaha
D C ...... Deadwood Central
FC G ..... Forest City & Gettysburg

GN .... Great Northern
ICG .... Illinois Central Gulf
M C E ...... Mound City & Eastern
M STL ...... Minneapolis & St. Louis
MILW .... Milwaukee Road
MSP SSM .... Minneapolis St. Paul & Sault Ste Marie
RCBH W ..... Rapid City Black Hills & Western

SOUTH DAKOTA RAILROADS - 1910

Legend

- BH FP
- C NW
- CB Q
- CRI P
- CSPM O
- D C
- FC G
- GN
- ICG
- M C E
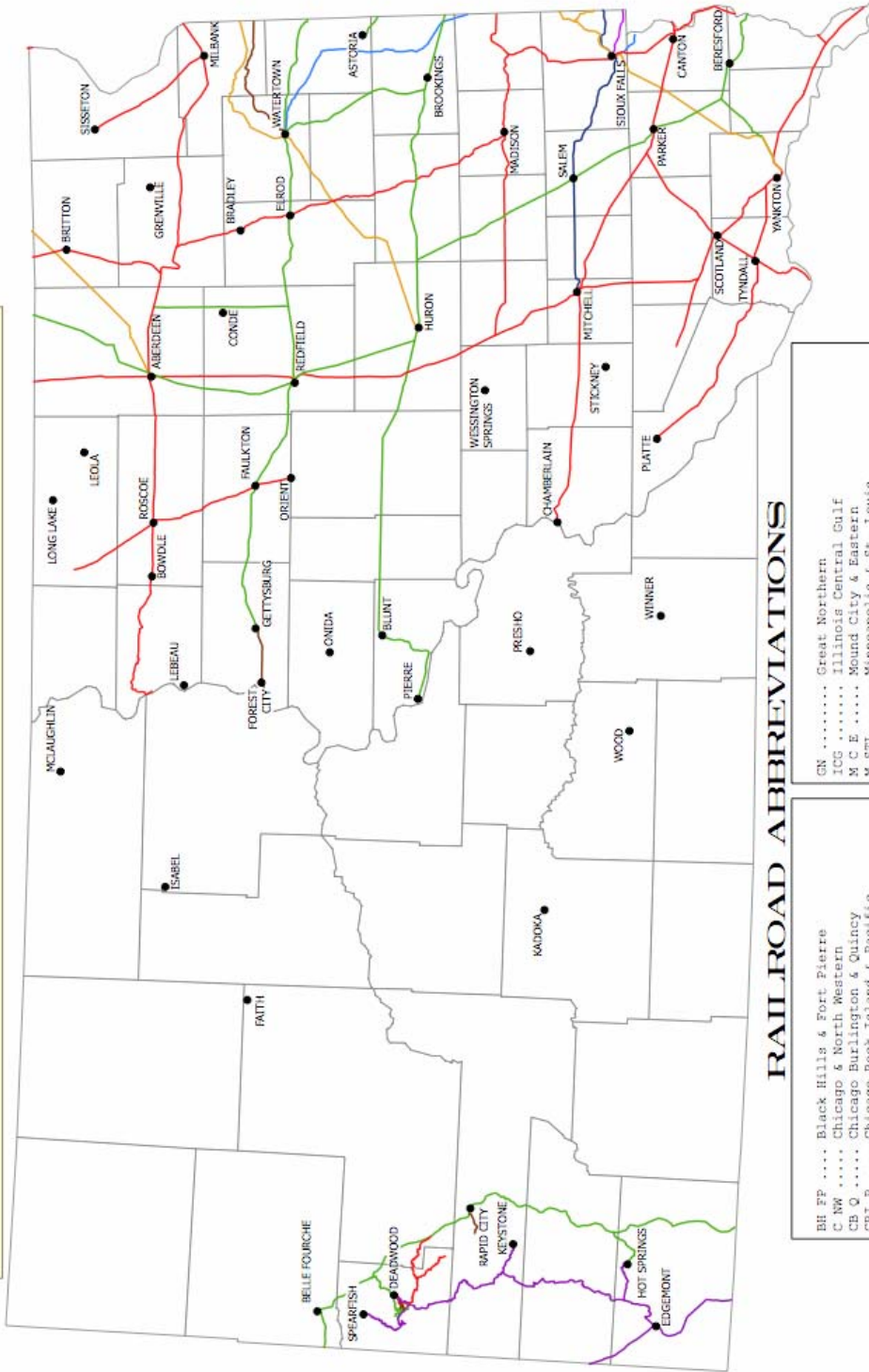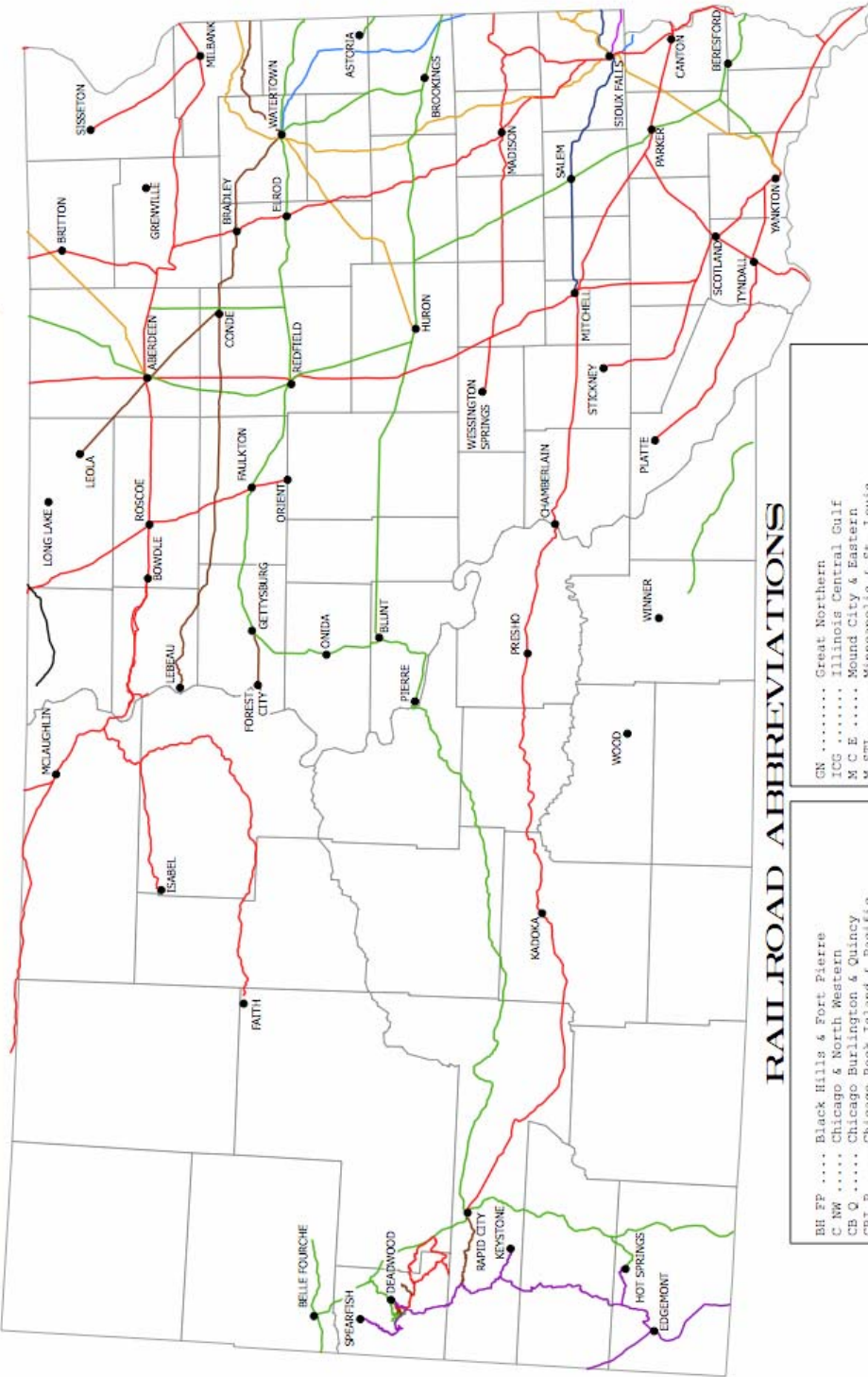- M STL
- MILW
- MSP SSM
- RCBH W

N
W E
S

0   25   50 Miles

RAILROAD ABBREVIATIONS

BH FP ..... Black Hills & Fort Pierre
C NW ...... Chicago & North Western
CB Q ...... Chicago Burlington & Quincy
CRI P ..... Chicago Rock Island & Pacific
CSPM O .... Chicago St. Paul Minneapolis & Omaha
D C .... Deadwood Central
FC G ...... Forest City & Gettysburg

GN .... Great Northern
ICG .... Illinois Central Gulf
M C E ..... Mound City & Eastern
M STL ..... Minneapolis & St. Louis
MILW ...... Milwaukee Road
MSP SSM ... Minneapolis St. Paul & Sault Ste Marie
RCBH W .... Rapid City Black Hills & Western

City labels

SISSETON, MILBANK, ASTORIA, WATERTOWN, BROOKINGS, SIOUX FALLS, CANTON, BERESFORD, MADISON, SALEM, PARKER, BRITTON, GRENVILLE, BRADLEY, ELROD, CONDE, REDFIELD, HURON, MITCHELL, SCOTLAND, TYNDALL, YANKTON, ABERDEEN, LEOLA, ROSCOE, FAULKTON, ORIENT, WESSINGTON SPRINGS, STICKNEY, PLATTE, LONG LAKE, BOWDLE, GETTYSBURG, ONEIDA, BLUNT, CHAMBERLAIN, WINNER, LEBEAU, FOREST CITY, PIERRE, PRESHO, MCLAUGHLIN, WOOD, ISABEL, KADOKA, FAITH, BELLE FOURCHE, DEADWOOD, RAPID CITY, KEYSTONE, SPEARFISH, HOT SPRINGS, EDGEMONT

MILWAUKEE ROAD IN SOUTH DAKOTA
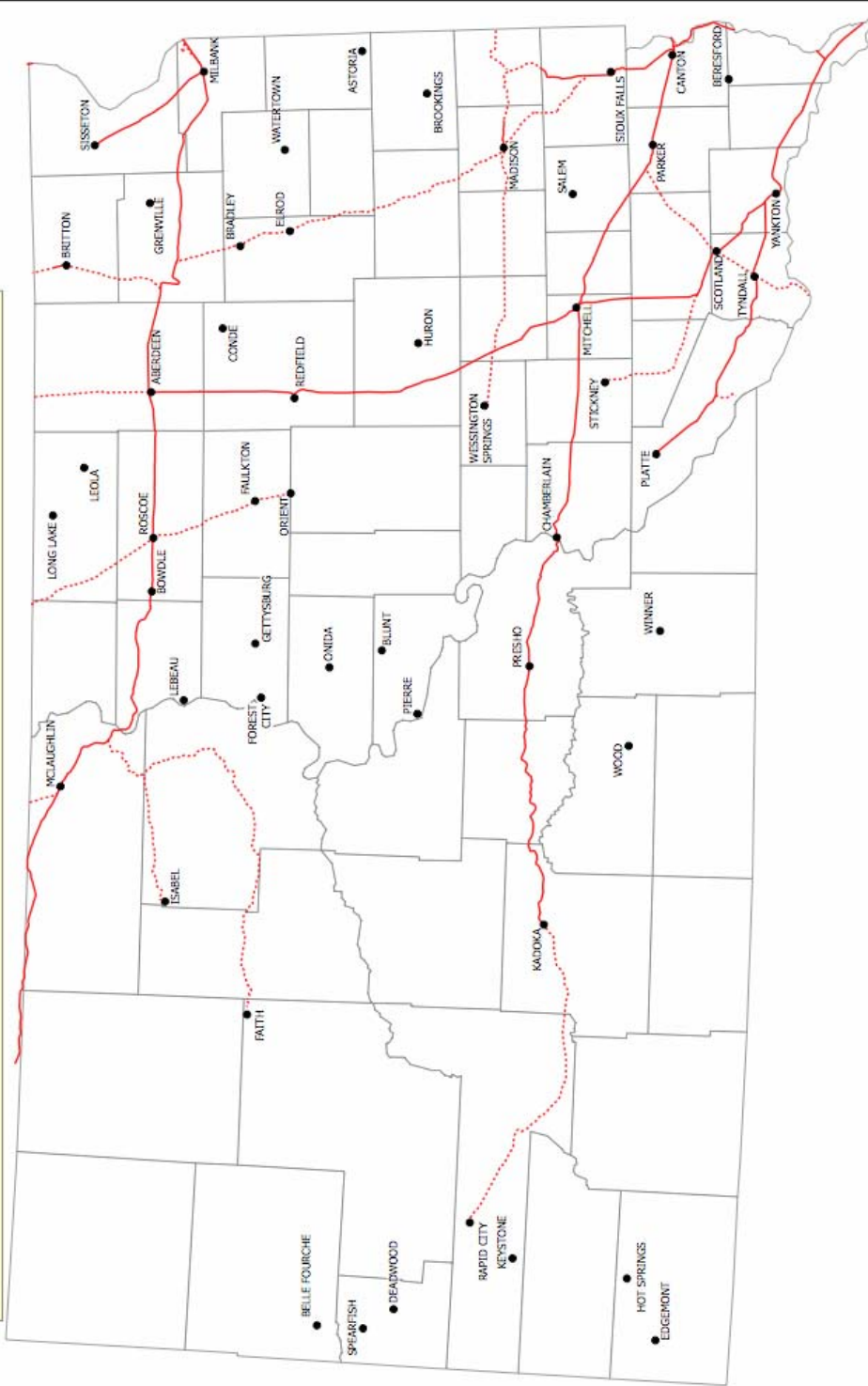
2007 Status
.... ABANDONED
——— INTACT
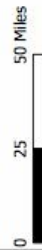
CHICAGO & NORTH WESTERN IN SOUTH DAKOTA

2007 Status

- C NW ABANDONED
- C NW INTACT
- CSPM O ABANDONED
- CSPM O INTACT

N E S W

0   25   50 Miles

MILBANK

SISSETON

ASTORIA

WATERTOWN

BROOKINGS

CANTON

BERESFORD

SIOUX FALLS

MADISON

SALEM

PARKER

BRITTON

GRENVILLE

BRADLEY

ELROD

YANKTON

SCOTLAND

TYNDALL

HURON

MITCHELL

ABERDEEN

CONDE

REDFIELD

WESSINGTON SPRINGS

STICKNEY

LEOLA

ROSCOE

FAULKTON

ORIENT

CHAMBERLAIN

PLATTE

LONG LAKE

BOWDLE

GETTYSBURG

ONEIDA

BLUNT

PRESHO

WINNER

LEBEAU

FOREST CITY

PIERRE

MCLAUGHLIN

WOOD

ISABEL

KADOKA

FAITH

RAPID CITY

KEYSTONE

HOT SPRINGS

EDGEMONT

BELLE FOURCHE

DEADWOOD

SPEARFISH

GREAT NORTHERN IN SOUTH DAKOTA

2007 Status

- ABANDONED
- INTACT
- NEVER COMPLETED

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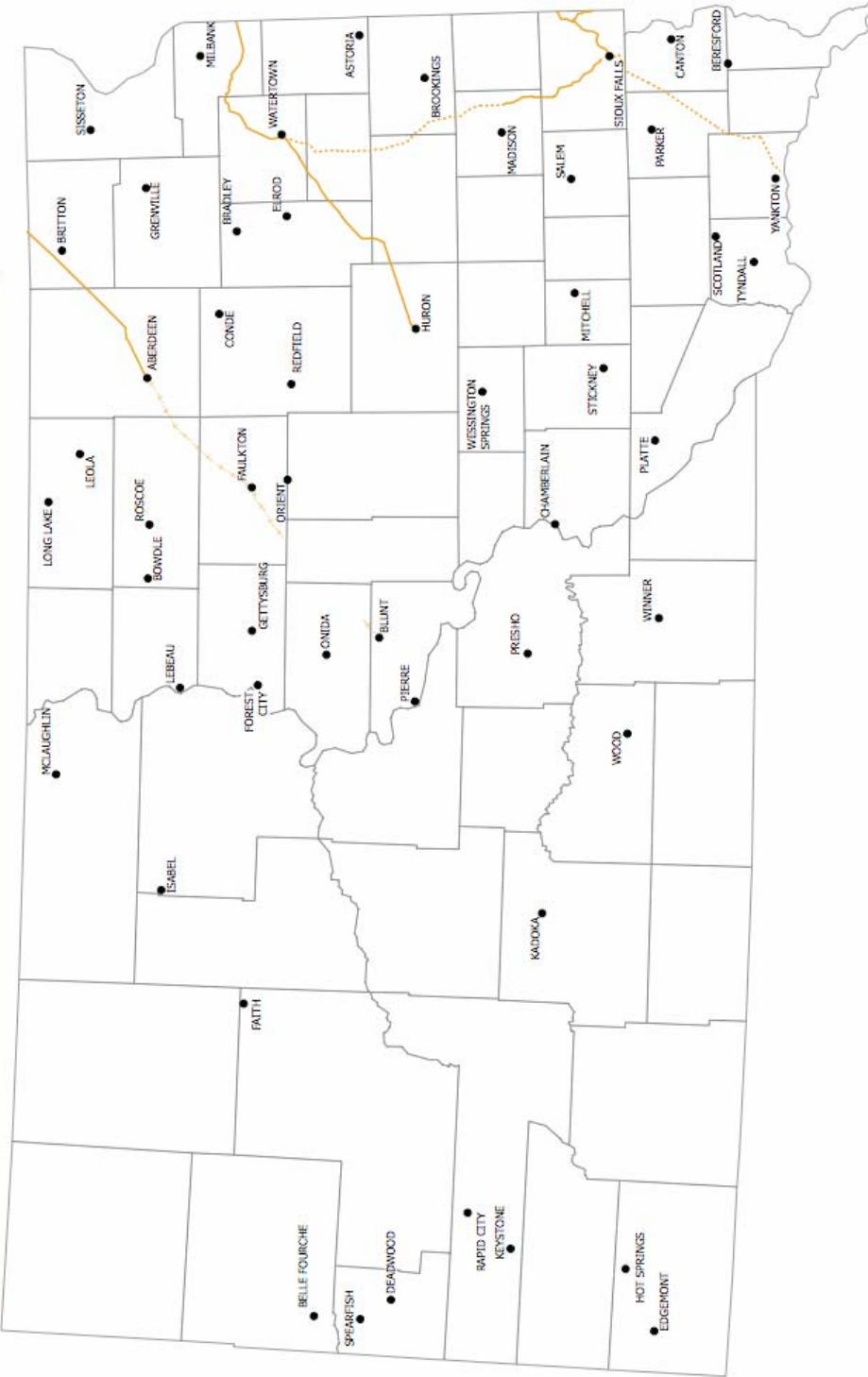
MINNEAPOLIS & ST. LOUIS IN SOUTH DAKOTA
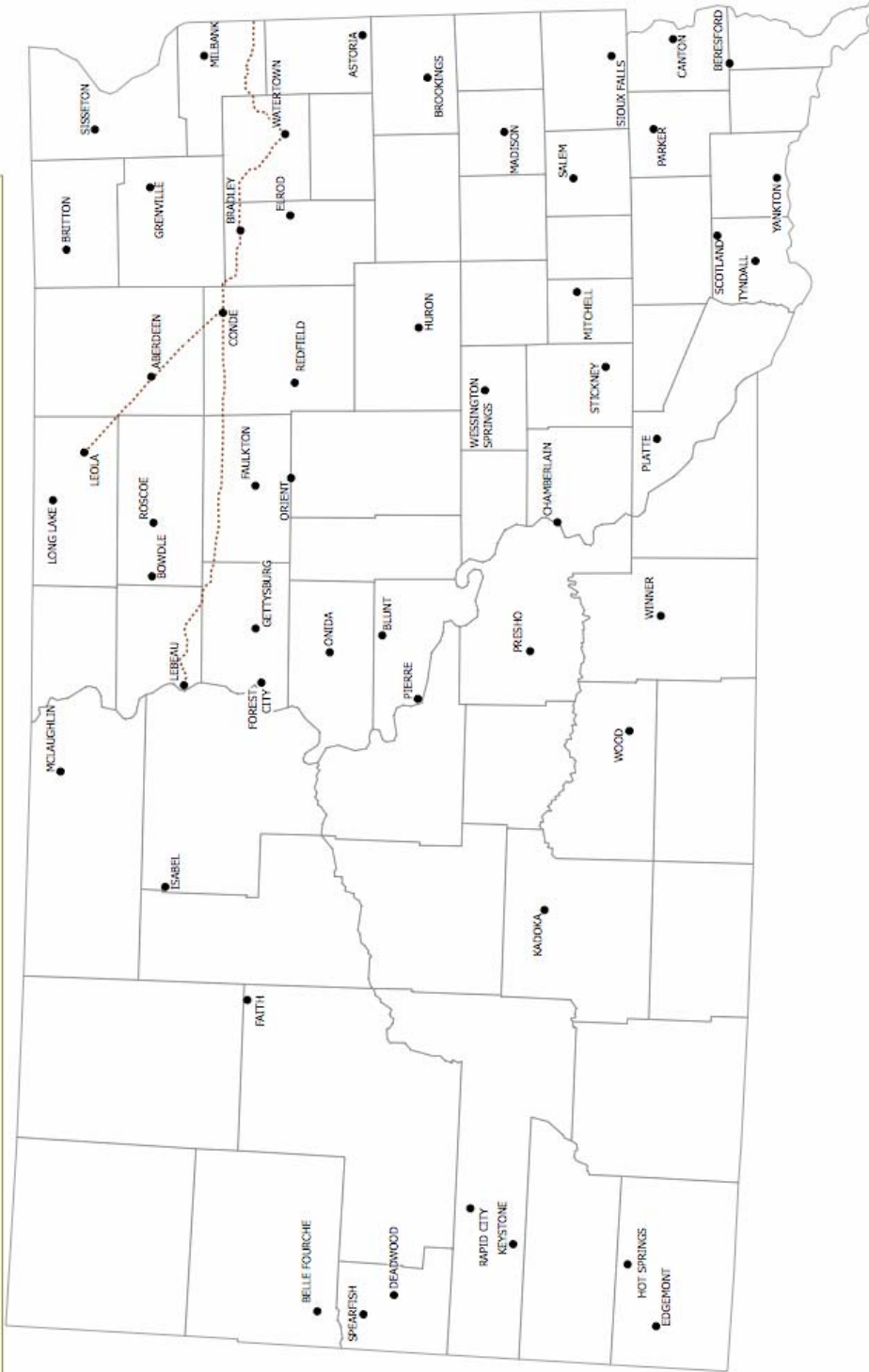
2007 Status
.... ABANDONED

A. Railroad-related terms:

A.A.R.	Acronym for the "Association of American Railroads," the national trade association representing the railroad industry in the United States.
Abutment	The foundation piers at the ends of a bridge, supporting the bridge superstructure and typically also serving as a retaining wall for the stream embankment or roadbed.
Alco	Popular name of the American Locomotive Company. Alco was one of America's two largest producers of steam locomotives (the other was the Baldwin Locomotive Works), and also manufactured diesel-electric locomotives until the late 1960s..
Articulated Locomotive	A locomotive with two separate sets of wheels and cylinders, each of which pivots on separate frames. Most articulated locomotives were steam; few operated in South Dakota.
Ash Pan	A container located below a steam locomotive's firebox, which collects the ashes produced by the burning coal or other fuel.
Ash Pit	A pit, located below track level in a locomotive servicing area, which is used for receiving residue coal ash and cinders from a steam locomotive's firebox and ash pan. Most ash pits were lined with brick or concrete. Also called "cinder pit."
Aspect	Most railway semaphores (see below) and signal lights have the ability to display several different positions or colors (for example, red and green). An "aspect" is the term for any one such possible color or position.
Automatic Block Signal (ABS)	A system of trackside signals activated by the movement of trains over or past a mechanical or electronic detecting device.
Auxiliary Tender	A second tender attached to the primary tender of a locomotive; the additional fuel and water capacity thus provided allowed for longer non-stop runs. (Not commonly used in South Dakota.)
Bad Order Car	Term for a railroad car which has been taken out of service for repair. The yard track used to store such cars is sometimes called a "bad order track."
Ballast	Material placed on a railroad roadbed to hold the ties in place, and to aid in uniform drainage. Crushed rock (from a quarry) is used on routes with the heaviest traffic. Gravel ("pit-run ballast") is also frequently used, and cinders were often used as ballast during the

	steam locomotive years. Lightly-used branch lines (including many in South Dakota) often had little or no ballast.
Ballast Tamper	A mechanical device used to tamp down ballast during track installation and maintenance work.
Balloon Track	A reverse loop of track, occasionally constructed in yards or at the ends of branch lines to allow a locomotive to be turned around.
Bent	An intermediate support pier of a trestle, typically consisting of a row of vertical timber piles, with cross-bracing and a horizontal cap.
Big Hole	Railroaders' slang for the rapid (emergency) stopping of a train.
Big Hook	Slang term for a wrecking crane, mounted on a railroad car.
Bill of Lading	A printed form providing a record of a railway freight shipment, including a description of the cargo, its point of origin and destination, and shipping charges.
Blind Siding	A railroad siding without telephone or telegraph connections to the dispatcher; this potentially limited the siding's usefulness. The advent of radio communications largely eliminated this situation.
Block	On railroad lines equipped with signals, a "block" is generally the segment of track between two signal placements. Traffic control systems (manual or automatic) work by authorizing trains to occupy specific blocks.
Block Signals	A light or semaphore signal or series of signals, which control the movement of trains through a block. Automatic block signals ("ABS") are most common.
Board	A fixed signal indication (such as "red board").
Bolster	The crosswise member of the frame of a railroad car at the truck (body bolster) or the crosswise piece at the center of a truck (truck bolster).
Boom Car	A car coupled next to a wrecking crane or derrick, used to support the crane boom in transit.
Boomer	Railroaders' slang term for an experienced railroad worker who moves from railroad to railroad in search of (usually) temporary employment.
Brakeman	A member of a train crew, who acts as an assistant to the conductor. Historically, a brakeman's duties included setting the manual brakes on individual freight cars while descending a grade.
Branch Line	A secondary railway line, usually diverging from a main line and extending to a terminus at a town or industrial site.

Buggy Track	In a yard, a caboose holding or storage track.
Bull	Slang term for a railroad police officer.
Bunker	A bin, usually elevated above track level, used for storing and dispensing coal for steam locomotives.
Cab	The section of a locomotive containing its operating controls.
Caboose	A railway car, formerly placed at the rear of all freight trains, serving as an office for the conductor. Most cabooses contained sleeping and cooking facilities, and a cupola for observing the train in motion.
Call Board	Bulletin board where crew assignments were posted.
Car Barn	Generally, a storage building for trolley and interurban cars.
Class 1 Railroad	For industry reporting purposes, railroads in the United States are categorized according to size. Class I railroads are the largest; most companies operating in South Dakota were in this category.
Classification Lamps	Lights (or flags) mounted on the front of a locomotive to indicate the status of the train. White lamps (or flags), for example, indicate an "Extra" train, not shown on printed schedules.
Classification Yard	A freight yard where trains are made up or broken up by moving cars from track to track with a switcher locomotive, or by means of a hump.
Clerestory Roof	A shallow, windowed, clerestory running along the length of the center of the roof was characteristic of most pre-1940 passenger cars. This design allowed additional natural light ton enter the car.
Coaling Station	A structure for storing coal and transferring it into steam locomotive tenders.
Conductor	The ranking crew member on a freight or passenger train, in charge of the train's movement and operation, and responsible for the safety and care of the equipment and cargo. The conductor also supervises the train's other crew members.
Consist	A term referring to the aggregation of cars which make up a particular train.
Continuous Rail	Rail lengths which have been welded together to form a very long single rail, allowing the virtual elimination of rail joints. Also known as Continuous Welded Rail (CWR) or Ribbon rail.
Coupler	A device at the ends of a car or locomotive used to connect that car to other cars or locomotives.

Crossing at Grade (also Grade Crossing)	An intersection between a roadway and a railroad line, both at the same level.
Crossing	An intersection between two railway tracks on the same level.
Crossover	An arrangement of trackwork and switches to enable trains to cross from one parallel track to another.
Crummy	One of many slang terms for a caboose. Others include "buggy" "hack," and "shanty."
CTC (Centralized Traffic Control)	A system of train dispatching using remotely-controlled signals and track switches, allowing one central location to control train movement over substantial distances of track.
Culvert	A passageway (typically a metal or concrete pipe) beneath a track grade, to allow for water drainage.
Cut	(1) A string of railroad cars, coupled together; or (2) an excavated section through a hill so the tracks can remain as level as possible.
Deadhead	(1) An empty car; or (2) a passenger (or off-duty crew member) riding free on a pass; or (3) a locomotive traveling without cars.
Depot	A building used as a station for passengers and freight; the term is typically used for relatively small facilities.
Derail	A device placed over the rail near the beginning of a siding or spur, to derail a car that would otherwise inadvertently roll from the siding and out onto the main line.
Dispatcher	An employee who coordinates all train movements in his assigned area (usually one division). He/she is authorized to issue specific orders to keep trains moving.
Division	An operating sub-unit of a railroad, managed by a "superintendent."
Doodlebug	Slang term for a rail motor car.
Double-header	A train pulled by two locomotives, each with its own crew.
Draft Gear	The mechanism connecting the coupler to the frame of the car.
Drag	A slow freight.
Drawbar	The steel bar that semi-permanently couples a steam engine to its tender.
Drovers' Caboose	A type of caboose once used on some trains carrying livestock. The caboose contained a small passenger compartment for use by the cattlemen who ware aboard to accompany their stock.

Dual Gauge	Track laid with three or more rails, to accommodate both standard and narrow-gauge equipment.
EMD	Acronym for the Electro-Motive Division of General Motors. EMD is one of two current major manufacturers of diesel-electric locomotives in the United States (the other is General Electric).
Engine	Term sometimes used as a substitute for "locomotive."
Enginehouse	A building in which locomotives are serviced. See also, "Roundhouse."
Engineer	The crew member responsible for the physical operation of a freight or passenger train and for monitoring the locomotive's running condition.
Extra	A train not shown or authorized on published schedules.
Firebox	The combustion chamber on a steam locomotive for generating heat which is used to convert water into steam in the engine's boiler.
Fireman	The crew member on a steam locomotive whose job it is to keep the locomotive's fire and steam up.
Flag	(1) To protect the rear of a halted train by having a brakeman walk back along the track with a flag or lantern; or (2) to have someone not part of a train crew cause a train to stop (by waving a flag or one's arms).
Flange	A protruding lip on the inside edge of a railroad car wheel, which guides the wheel and keeps the wheelset on the track.
Flimsy	Railroaders' slang for a written train order, derived from the thin paper the orders were customarily typed on.
FM	Acronym for Fairbanks-Morse, a one-time manufacturer of diesel-electric locomotives.
Gandy Dancer	Slang term for a member of a track section (maintenance) crew.
Gas-electric	Type of self-propelled car powered by a gasoline engine driving a generator, which supplied current to motors on the axles. Such cars were commonly used for branchline passenger service beginning in the 1920s.
Gauge (track)	The distance between the rails, measured between the inside edges of the running rails.
Geep	Slang term for a series of EMD diesel-electric locomotives, including models GP-7 and GP-9. (GP stands for General Purpose.) These locomotives, well-suited for light-density branch lines, were very common in South Dakota beginning in the 1950s.

Goat	Slang term for a small locomotive, such as a yard engine.
Grade	The rate of elevation change of a track's surface over a given distance, usually expressed as a percentage.
Head-end Cars	Express, mail, and baggage cars, usually operated directly behind the locomotives in a passenger train consist.
Helper	A locomotive temporarily added to a train (generally at the front or rear) to assist the train up a grade.
Herald	Term for the railroad trademark or logo as applied to the company's locomotives and cars.
Highball	To run a train at speed, or a sign or signal to authorize this; derived from an early form of railroad signal featuring a ball which was hoisted up a pole.
High Iron	Slang term for a railway main track; so called because the rail used on this track is generally heavier than that used for sidings or yards.
Hostler	A railway yard worker who performs a variety of tasks including moving locomotives about the yard or into and out of the servicing area.
Interchange	A junction point among two or more railroads, where cars may be transferred from one line to the other.
Interlocking	A manually controlled mechanical or electrical system to control switches and signals at a siding or junction, once used at busy locations to ensure smooth train movement and prevent collisions.
Intermodal	A term used to describe the carrying of non-rail transportation equipment--such as highway truck trailers and overseas shipping containers--on freight trains. The transport of truck trailers on trains is called "piggyback" service.
Interurban	A streetcar/trolley-style car used for (generally) passenger service between cities and towns, as opposed to streetcar service within a town. The term is also applied to such transportation systems and service in general.
"In-the-hole"	Railroaders' slang term indicating that a train is in a siding waiting for another train to pass.
Kingpin	The pivot on which a freight or passenger car truck swivels.
Knuckle Coupler	The couplers currently used on the ends of railroad cars and locomotives in North America; when viewed from above, the couplers resemble hands with the fingers bent to grip one another.

Ladder Track	A track connecting a number of parallel sidings or stubs in a yard or terminal.
LCL	Acronym for "less-than-carload lot": any freight shipment too small to fill an entire car.
Low Iron	Slang term for yard or siding tracks, as opposed to "high iron" (see above).
Main Line	Term describing a through line of railroad trackage, typically hosting longer-distance trains and a greater traffic density than branch lines. Sometimes informally called "main iron."
Maintenance-of-Way Equipment	Generic term for the machinery and rolling stock used to keep track and roadbed in good operating condition.
Manifest	A listing describing or invoicing a particular shipment of goods or materiel.
Markers	Lamps or flags displayed on the rear of a train to indicate that the complete train has passed, or to serve as a warning to following trains.
Narrow Gauge	Term for railroad track having a rail gauge of less than the North American standard of 4 feet, 8-1/2 inches--typically mining, industrial, and scenic railways using a gauge of either 3 feet or 2 feet.
OS	Used as a shorthand term to report that a train has passed a station or other location. Literally means "entered on the sheet."
Passing Siding	A siding used to allow trains to pass one another, in the same or opposite direction.
Pier	Term for an intermediate support substructure in a multi-span bridge. (Also see "bent.")
Pilot Truck	The truck located in front of a steam locomotive's drive wheels which, in addition to providing support, helps guide the engine into curves and turnouts. A two-wheel pilot truck is called a "Pony Truck."
Pullman	The Pullman Company operated most railway sleeping and parlor cars in the United States through the late 1960s. The cars operated by the company were called Pullmans, and the term is now commonly applied to railway sleeping cars in general.
Red Ball	Informal term for a fast freight train.
Red Board	Railroaders' slang for a "stop" signal.
Reefer	Slang term for a refrigerated railway freight car.

Restricted Track	A track section where train speeds are reduced by orders, often temporarily.
Right-of-Way	Term describing the linear parcel of railroad-owned land containing the track, roadbed, stations, and other features.
Rip Track	A yard track where equipment is stored while awaiting repairs, or where minor car repairs are performed.
Roadbed	The graded surface (usually raised) upon which railroad track is laid.
Road Engine	A locomotive used regularly for mainline passenger or freight service.
Rolling Stock	Plural term for non-powered railway cars (freight or passenger) intended to be pulled by a locomotive.
Roundhouse	A building (usually arc-shaped) designed to house locomotives during servicing. The roundhouse customarily faced a turntable which was used to direct a locomotive to and from the appropriate roundhouse track.
RPO	Acronym for "Railway Post Office." RPO cars, once common on passenger trains, were used to sort United States mail in transit.
Running Board	The narrow walkway alongside the boiler of a steam engine.
Schedule	The portion of a timetable describing the movement of regularly scheduled freight or passenger trains.
Second Section	A train (usually passenger) run with the same number or name as a preceding train on the same day. A second section was typically used to accommodate a temporary increase in business on a specific route.
Section Hand	A worker who maintains or repairs track. A crew of section hands working together is called a "section gang."
Semaphore	A trackside signal which uses a movable arm to convey track occupancy information to the train crew.
Service Track	A yard track equipped with facilities to provide locomotives coal, water, sand, or other services.
Shoo-fly	A temporary track laid around an obstruction (such as a wreck or washout) while the primary track is under repair or being replaced.
Short Line	Generic term for a small railroad.
Siding	A length of track accessed from the mainline by means of a turnout. A dead-end siding connected to the mainline by a turnout at one end only is called a "spur." A siding connected by turnouts at both ends

is called a "passing siding."

Spotting	Placing cars in a desired location, as in a yard or industrial spur; also called shifting.
Spur	A divergent track (siding) having only one point of entry; the term is also sometimes applied to short branch lines.
Standard Gauge	In the United States and numerous other countries, track measuring 4 feet, 8-1/2 inches between the inside edges of the running rails; this is the most common track gauge in use today.
Station	A named point along a railroad line, typically provided with a siding, depot, or other facilities for train use. Also, a trackside building housing facilities for railway passengers or freight. The term "station" is sometimes used interchangeably with "depot," although relatively large buildings are more likely to be called stations.
Switcher (also Shifter)	An engine primarily used to move and position cars on different tracks, such as in a yard.
Tangent	Straight track.
Tender	The car immediately behind a steam locomotive, used to store the water and fuel (wood, coal, or oil) needed for the locomotive's operation.
Terminal	Principal point of origination or termination of trains for one or more railroads; generally located in or near major cities. The terminal could include a station building, turnouts, towers, associated buildings, and other equipment.
Throat	The entrance tracks to a terminal or yard.
Tie	The heavy wood or concrete cross pieces to which the rails are spiked.
Tie Plate	The steel shoes in which the rails sit when they are spiked to wooden ties.
Timetable	A printed schedule of regular train movements.
Ton-mile	One ton of freight transported one mile. This unit of measurement is used when describing the relative amount of traffic a particular railroad line receives.
Traction	A generic term used to connote electric trolley, streetcar, and interurban lines and equipment.
Tractive Effort	A measurement of the pulling force which a locomotive can generate under specific, controlled conditions.

Trailing Truck	A two- or four-wheeled truck located behind a steam locomotive's driver wheels which helps support the rear of the engine.
Train Order	A written order on a form which gives directions for train movements that are not on the schedule. Train orders are usually issued by the dispatcher.
Trestle	A type of bridge consisting of longitudinal stringers (or a deck) supported by a series of bents (see above). Most trestles are wooden, although concrete trestles also exist.
Truss Bridge	A bridge type where the span is supported by paired truss assemblages of various designs. Most truss bridges are of steel; the trusses may be either above track level ("through truss") or below track level ("deck truss").
Trolley	Generic name given to a streetcar which receives its power from overhead electric lines. Also, the name of the pole-like device used to collect and transfer electricity from the overhead lines into the streetcar itself.
Trucks	On railroad rolling stock, the assembly consisting of the wheels, axles, brakes and related components.
Turntable	A large, pivoted circular apparatus which rotates in a pit and is used to turn locomotives or rolling stock around. Usually seen in association with a roundhouse.
Unit Train	A consist of freight cars, usually dedicated to carrying a single commodity between specific end points, which after loading, travels as an unbroken unit to its destination and then returns empty to its point of origin.
USRA	Acronym for the United States Railway Administration, a federal agency established during World War I to manage and coordinate the nation's railroad industry.
Varnish	Slang term for a passenger train; the term comes from the highly varnished exteriors of early wooden passenger cars.
Vestibule	The enclosed area at the end of a passenger car where the side doors are located, as well as the passageway to adjacent cars.
Water Column	A standpipe adjacent to the track and connected to a water supply for filling steam locomotive tenders.
Waybill	A freight car handling order identifying the shipper, receiver, routing, and contents of the car.
Way Car	A freight car carrying local shipments.

Way Freight	A freight train making all local stops for which shipments are carried.
Whyte Classification System	The numbering system used to describe various types of steam engines by their wheel arrangement. The system uses three numbers: one for the number of wheels on the pilot; one for the number of drive wheels; and one for the number of wheels on the trailing truck. For example 2-8-4 indicates two pilot wheels; eight drive wheels; and four trailing-truck wheels.
Wye (sometimes given as "Y")	A track configuration comprised of three switches and three long legs of track which enables an entire train to turn around as a unit.
Yardmaster	Railroad employee in charge of yard operations.

Cultural Resource Management terms:

39MD416	This is an example of the Smithsonian trinomial numbering system for archaeological and historic sites. These numbers have three parts. In this sample, the number 39 is the designation for the state of South Dakota. MD indicates the site is in Meade County. The rest is a number that is specific to this site alone and indicates that it is the 416th site recorded in the county.
Adverse effect	Harm to historic properties, directly or indirectly caused by a federal agency's actions.
Advisory Council on Historic Preservation (ACHP)	Often simply called "Advisory Council." An independent Federal agency composed of 19 members, charged with advising the President and Congress on historic preservation matters and administering the provisions of Section 106 of the National Historic Preservation Act.
Agency	The federal agency or designated agency with authority over a specific undertaking, including any state or local government agency which has been delegated legal authority for compliance with Section 106 and Section 110(f) in accordance with the law.
Archaeological site	The physical remains of some past human behavior.
Archaeological Resources Inventory or Electronic Systems (ARIES) Forms	Computerized forms developed by the State Archaeological Research Center (SARC) of South Dakota for archaeologists to use when recording cultural resources in that state.
Area of Potential Effect	The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist.
Artifact	Any portable object made or used by people. The term is usually used in reference to items found in or removed from archaeological sites.
Building	A building, such as a house, barn, church, hotel, or similar construction created to shelter any form of human activity. "Building" may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or house and barn.
Context, Historic	This is a term that is important in preservation planning. Historic contexts provide a means by which multiple cultural resources can be related to one another and their relative significance understood. Contexts must relate resources with respect to a common theme, place, and time period. They are an important tool used to evaluate resources and provide a framework in which management decisions

can be made and understood.

Criteria, National Register	The criteria established by the Secretary of the Interior for use in evaluating whether properties qualify for listing in the National Register of Historic Places. These are defined by regulation at 36 CFR 60.
Cultural geography	Cultural geography concerns the interaction between human activity and the environment, with respect to (1) how the landscape influences, limits, or promotes the development of cultural environments or activities, and (2) how human activity alters the surrounding environment, thus changing the nature of that interaction.
Cultural property	This term is often used synonymously with cultural resource and does not impart meaning with regard to eligibility for inclusion on the National Register of Historic Places.
Cultural resource	Cultural resources are nonrenewable entities that are representative of a culture or contain information about that culture. Cultural resources include objects, features, structures, buildings, sites, and districts, but are not limited to these. Although considerations of significance and integrity can prevent a cultural resource's inclusion on the National Register of Historic Places, lack of significance or integrity does not alter its identity as a cultural resource.
Determination of Eligibility (DOE)	A decision by the State Historic Preservation Officer (state level) or the Keeper of the National Register (formal determination) that a property meets the National Register of Historic Places criteria, although the property might not actually be listed in the National Register.
District	A district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.
Eligible property	Any historic or prehistoric district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. This includes artifacts, records, and remains that are related to and located within such properties.
Historic Artifact Cataloging System (HCAS)	Computerized system used to inventory and catalog artifacts in the state of South Dakota.
Historic	Pertaining to the period for which written records may be available.
Integrity	With respect to the inclusion of properties on the National Register of Historic Places, a resource is said to retain integrity if the data in the property remain sufficiently intact to yield information important to expressing its historic or prehistoric significance. Aspects of integrity are listed in Appendix 1. The relative importance of each aspect of integrity is dependent upon an understanding of the

	resource significance and the features that define that significance.
Landscape, cultural	This is a term with specific meaning with respect to the National Register of Historic Places. A cultural landscape is a geographic area that has been influenced by or reflects human activity, was the setting for an important event, or is associated with an important person. Cultural landscapes include both cultural and natural resources.
Landscape, Rural Historic	This is a term that has specific meaning with respect to the National Register of Historic Places. A rural historic landscape is a geographically limited area that has been used or modified by people and that has a significant concentration of historic landscape features. Landscape features may include areas of land use, buildings vegetation, roads, waterways, or natural features. Rural historic landscapes are said to possess tangible characteristics associated with historic land use; often the natural environment has shaped its character.
Mitigation	The amelioration of losses to historic properties through the completion of pre-planned actions intended to preserve or recover significant, relevant historical data, or through other means.
National Historic Landmark	A historic property that the Secretary of the Interior has designated a National Historic Landmark. Section 800.10 of the Advisory Council regulations specify some special protections for National Historic Landmarks under the Section 106 review process.
National Historic Preservation Act	The basic legislation of the nation's historic preservation program. The Act established the Advisory Council and the Section 106 review process (16 U.S.C. 470).
National Register of Historic Places	A register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture, maintained by the Secretary of the Interior under authority of Section 2(b) of the Historic Sites Act of 1935 and Section 101(a)(1) of the National Historic Preservation Act. (See Appendix 1)
No Adverse Effect	A term used to evaluate the effect an undertaking will have on a cultural resource. A determination of "no adverse effect" states that the undertaking will not result in degradation of the property's significant historic features. If an archaeological property is significant only for its research potential, a "no adverse effect" determination may also be obtained through the completion of professional research to recover the significant historic information contained in the site.
No Historic Properties Affected	A term used to evaluate the effect an undertaking will have on a cultural resource. A determination of "no historic properties affected" indicates that either there are no historic properties within a project area, or that the undertaking will not impact the area's historic sites.

Object	The term "object" is used to distinguish from buildings and structures those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed. Although it may be by nature or design movable, an object is associated with a specific setting or environment, such as statuary in a designed landscape.
Property type	A grouping of individual properties based on a set of shared physical or associative characteristics. Physical characteristics may relate to structural forms, architectural styles, building materials, or site type. Associative characteristics may relate to the nature of associated events or activities, to associations with a specific individual or group of individuals, or to the category of information about which a property may yield information.
Reconnaissance survey	A nonsystematic examination of all or part of an area accomplished in sufficient detail to make generalizations about the types and distributions of cultural resources that may be present.
Research design	A statement of proposed identification, documentation, investigation, or other treatment of a cultural resource, that identifies the project's goals, methods, and techniques; expected results; and the relationship of the expected results to other proposed activities or treatments.
Section 106 process	A review process established under Section 106 of the National Historic Preservation Act and administered by the Advisory Council on Historic Preservation under its regulations at 36 CFR 800. During this process, agencies afford the Council an opportunity to comment on any agency activity or undertaking that may effect cultural properties, and must take such Council comment into account.
Section 110(f)	This section of the National Historic Preservation Act requires that federal agency heads, to the maximum extent possible, undertake necessary planning and actions to minimize harm to National Historic Landmarks that may be harmfully effected by agency undertakings. Section 110(f) responsibilities are separate from those of Section 106, but are satisfied through compliance with the Council's regulations at 39 CFR 800.
Significance	A quality attributable to cultural properties and which is used to judge the value of the property for inclusion in the National Register of Historic Places. This quality is usually judged within a historic context in terms of the properties' research value, and cultural importance to contemporary populations.
Site	A site is the location of a significant event, a prehistoric/historic occupation/activity, or a building or structure (whether standing, ruined, or vanished), where the location possesses historic, cultural, or archaeological value regardless of the value of any existing

structure. Examples include village sites, rock shelters, battlefields, and ruins of historic buildings and structures.

Smithsonian trinomial number	See example under "39MD416."
State Historic Preservation Officer (SHPO)	The official in each state or territory who (among other duties) consults with federal agencies during Section 106 review. The SHPO administers the national historic preservation program at the state level, reviews National Register of Historic Places nominations, and maintains file data on cultural properties that have been identified but not yet nominated. Agencies seek the views of appropriate SHPOs while identifying cultural properties and assessing the effects of an undertaking on cultural properties. Agencies also consult with the SHPO when developing Memoranda of Agreements. SHPOs are designated by the Governor of their respective state or territory. The SHPO for South Dakota is the Director of the South Dakota State Historical Society.
Structure	The term "structure" is used to distinguish from buildings those functional constructions made usually for purposes other than creating shelter. Examples include dams, tunnels, roadways, and bridges.
Survey/inventory	Terms used for systematic techniques used to identify and record the presence of cultural resources. When the survey area has been identified, and existing records of known site locations have been reviewed, a crew surveys the area to identify cultural resources. An archaeological survey is carried out as a systematic search by beginning at one edge, spacing the crew apart at specified intervals, and then walking across the area in parallel transects, maintaining the transect intervals. After a previously unknown site or isolated artifact is found, its location is recorded, the site is mapped, the character of the features and artifacts present are described, and the site is photographed. This type of survey is much more formal and rigorous than a reconnaissance survey.
Survey, pedestrian	The standard survey practice of having the surveyor on foot while searching for cultural resources. Pedestrian surveys force a relatively slow pace that enhances discovery of resources that are potentially difficult to see.
Testing	In archaeology, limited excavation of a site, directed at determining vertical and horizontal deposit extent, identification of site deposits, and/or research potential of the site. A single such excavation is called a "test unit." Testing in the context of historic preservation normally is designed to gather information about cultural resources sufficient to evaluate them against criteria of significance within specific historic contexts for possible inclusion in the National Register of Historic Places.
Theme	This is a term that has importance in preservation planning with

respect to defining historic contexts. Often called cultural theme, cultural association, or cultural affiliation, the term refers to the cultural focus or idea that together with the issues of time and place guides the characterization of the historic context.

Transect

A transect is a linear or curvilinear path followed by each member of a survey crew in looking for cultural resources. The character of the transect is determined by the shape of the survey area and the character of the terrain with relatively flat, rectangular areas surveyed in linear patterns and oddly shaped areas or areas of variable terrain, surveyed in curvilinear patterns.

Undertaking

Under the National Historic Preservation Act, a federal activity is subject to Section 106 requirements. The term "undertaking" is intended to include any project, activity, or program--and any of its elements--that has the potential to have an effect on a cultural property and that is under the direct or indirect jurisdiction of a federal agency or is licensed or assisted by a federal agency. Included are construction, rehabilitation, repair projects, demolition, planning, licenses, permits, loan guarantees, grants, federal property transfers, and many other federal activities.

ENDNOTES

i.   Portions of this section were adapted from Mark Hufstetler and Lon Johnson, "County Courthouses of South Dakota," National Register of Historic Places Multiple Property Documentation form prepared by Renewable Technologies, Incorporated for the South Dakota State Historical Preservation Center, 1992.

ii.   For an introduction to South Dakota's geography, see Chapter 1 of Herbert S. Schell, *History of South Dakota,* 3rd ed. (Lincoln: University of Nebraska Press, 1975).

iii.   For a discussion of South Dakota's rural-based initial settlement, see Schell, *History of South Dakota,* Chapters 12 and 22. Also see Paula M. Nelson, *After the West Was Won: Homesteaders and Town-Builders in Western South Dakota, 1900-1917* (Iowa City: University of Iowa Press, 1986).

iv.   Population statistics and comparisons for this document were drawn from tabular material in the published in the fifteenth (1930) through the twenty-first (1990) *Census of the United States,* published by the U.S. Department of Commerce, Bureau of the Census.

v.   For a good introduction to the historical geography of railroading, see James E. Vance, *Tne North American Railroad: Its Origin, Evolution, and Geography* (Baltimore: Johns Hopkins University Press, 1995).

vi.   James Fredric Hamburg, *The Influence of Railroads Upon the Process and Patterns of Settlement in South Dakota* (New York: Arno Press, 1981), 2; Schell, *History of South Dakota*, 69-72.

vii.   Schell, *History of South Dakota*, 80-81.

viii.   Ibid., 79-81.

ix.   Ibid., 82-83.

x.   Schell, *History of South Dakota*, 88-89; Hamburg, *The Influence of Railroads,* 4, 55.

xi.   Schell, *History of South Dakota*, 110-111.

xii.   Hamburg, *The Influence of Railroads,* 63.

xiii.   Schell, *History of South Dakota*, 111-112; August Derleth, *The Milwaukee Road: Its First Hundred Years* (New York: Creative Age Press, 1948), 284.

xiv.   Ibid., 113-114.

xv.   Albro Martin, *Railroads Triumphant: The Growth, Rejection & Rebirth of a Vital American Force* (New York: Oxford University Press, 1992), 289-290; Dee Brown, *Hear That Lonesome Whistle Blow: Railroads in the West* (New York: Holt, Rinehart & Winston, 1977), 210-214.

xvi.   Charles W. Bohi and H. Roger Grant, "Country Railroad Stations of the Milwaukee Road and the Chicago & North Western in South Dakota," *South Dakota History* 9 (Winter 1978): 1-2.

xvii.   Robert J. Casey, *Pioneer Railroad: The Story of the Chicago and North Western System* (New York: McGraw, Hill & Co., 1949), 165.

xviii. Ibid., 159-161.

xix. Doane Robinson, *South Dakota, Sui Generis* (Chicago and New York: The American Historical Society, 1930), 384; Hamburg, *The Influence of Railroads,* 106.

xx. Hamburg, *The Influence of Railroads,* 106.

xxi. Schell, *History of South Dakota.*

xxii. Rick Mills, *Railroading in the Land of Infinite Variety: A History of South Dakota's Railroads* (Hermosa, South Dakota: Battle Creek Publishing Company, 1990), 15-17.

xxiii. Ibid.

xxiv. Richard C. Overton, *Burlington Route: A History of the Burlington Lines, 1849-1949* (New York: Alfred A. Knopf, 1965), 227-230; Mills, *Railroading in the Land of Infinite Variety,* 17-18; Rick Mills, *Making the Grade: A Century of Black Hills Railroading* ([Hermosa, South Dakota: the author], 1985), 75. The "Chronology" provided on pp. xxv-xxviii of Overton is also useful.

xxv. Bohi and Grant, "Country Railroad Stations," 1-2. Mills, *Railroading in the Land of Infinite Variety,* 232-236.

xxvi . Brown County Museum and Historical Society., *Brown County History* (Aberdeen, South Dakota: North Plains Press, 1980), 383-387.

xxvii. Ibid.

xxviii. Hamburg, *The Influence of Railroads,* 4.

xxix. Ibid., 181-189. For a good case study of this marketing effort (not in South Dakota) see Sig Mickelson, *The Northern Pacific Railroad and the Selling of the West* (Sioux Falls, South Dakota: The Center for Western Studies, 1993).

xxx. Hamburg, *The Influence of Railroads,* 96, 174.

xxxi. John C. Hudson, "Towns of the Western Railroads," *Great Plains Quarterly* 2 (1982): 41-54.

xxxii. For additional information on the origins of South Dakota town names, see Virginia Driving Hawk Sneve, ed. *South Dakota Geographic Names* (Sioux Falls, South Dakota: Brevet Press, 1973).

xxxiii. Don Artz, *The Town in the Frog Pond: Stories of Builders, Buildings and Business in Aberdeen's Commercial Historic District* (Aberdeen, South Dakota: Memories, Inc., 1991), 4; Schell, *History of South Dakota,* 163.

xxxiv. For a good case study of this practice, see John N. Vogel, *Great Lakes Lumber on the Great Plains: The Laird, Norton Lumber Company in South Dakota* (Iowa City: University of Iowa Press, 1992).

xxxv. Schell, *History of South Dakota,* 208-211.

xxxvi. Ibid., 225.

xxxvii. Ibid., 223-224, 343-344.

xxxviii. Hamburg, *The Influence of Railroads,* 181.

xxxix. Ibid., 191-192.

xl.   Gabriel Kolko, *Railroads and Regulations 1877-1916* (Princeton, New Jersey: Princeton University Press, 1965), 57-63.

xli.   Kolko, *Railroads and Regulations*, 64-65; Derleth, *The Milwaukee Road,* 149; Casey, *Pioneer Railroad,* 216.

xlii.   Schell, *History of South Dakota*, 230-240.

xliii.   Schell, *History of South Dakota*, 250-252.

xliv.   Ibid., 251-253.

xlv.   Ibid., 253.

xlvi.   Derleth, *The Milwaukee Road,* 163-179.

xlvii.   Ibid. A former Burlington line between Nebraska and Montana--which includes a small amount of South Dakota trackage in the extreme southwestern corner of the state--also forms part of a transcontinental route, and is today the most heavily-used trackage in the state.

xlviii. Schell, *History of South Dakota,* 257-258. For additional information about the West River land rush, also see Hamburg, *The Influence of Railroads.*

xlix.   Schell, *History of South Dakota*, 258-262.

l.   Casey, *Pioneer Railroad,* 180.

li.   Allyson Brooks and Steph Jacon, *Homesteading and Agricultural Development Context* (Vermillion, South Dakota: South Dakota State Historical Preservation Center, 1994), 25-26; Kolko, *Railroads and Regulations,* 226-228.

lii.   For a chronology of railway construction and abandonment in South Dakota, see AThe South Dakota Railroad Industry Yesterday and Today, Volume 3" ([Pierre]: South Dakota Department of Transportation, Division of Railroads, 1976), 2-9. Similar information is provided in Mills, *Railroading in the Land of Infinite Variety.*

liii.   Schell, *History of South Dakota*, 277-278.

liv.   Hamburg, *The Influence of Railroads,* 403.

lv.   Derleth, *The Milwaukee Road,* 194.

lvi.   Hamburg, *The Influence of Railroads,* 4; Casey, *Pioneer Railroad,* 256.

lvii.   Schell, *History of South Dakota,* 297, 300-301.

lviii.   See, for example, Helen J. Bergh, "Troop Trains and Pheasant Sandwiches: The Aberdeen Canteen in World War II," *South Dakota History* 23 (Summer 1993): 133-141.

lix.   Mills, *Railroading in the Land of Infinite Variety,* 114.

lx.   Ibid.; Schell, *History of South Dakota*, 356.

lxi.   Mills, *Railroading in the Land of Infinite Variety,* 114.

lxii.   Ibid., 167; also see *What Does South Dakota Do Now About Railroads?* (Huron, South Dakota: Ag Unity Organization, 1980).

lxiii.   Mills, *Railroading in the Land of Infinite Variety,* 169-170.

lxiv.   Ibid.

lxv.   Steve Glischinski, "Coming: A Third Powder River Basin Player," *Trains* 62 (February 2002): 10-11.

lxvi.   U.S. Department of the Interior, National Park Service, *National Register Bulletin 16B: Guidelines for Completing National Register of Historic Places Forms: How to Complete the National Register Multiple Property Documentation Form* ([Washington]: U.S. Department of the Interior, National Park Service, 1991), 14.

lxvii.   See, for example, Walter Gilman Berg, *Buildings and Structures of American Railroads: A Reference Book for Railroad Managers, Superintendents, Master Mechanics, Engineers, Architects, and Students* (New York: J. Wiley & Sons, 1893), iii.

lxviii. In addition to National Register Bulletins 15 and 16, see: U.S. Department of the Interior, National Park Service, *National Register Bulletin 32, Guidelines for Evaluating and Documenting Properties Associated with Significant Persons* ([Washington]: U.S. Department of the Interior, National Park Service, 1989).

lxix.   For examples of railway-related archaeological investigations, see Dale Martin and Mitzi Rossillon, "The Value of Railroad Section Bases for Characterizing Archaeological Remains of Historic Ethnic Domiciles," paper presented at the 26th Annual Meeting of the Society for Historical Archaeology, Kansas City, Missouri, January 1993. Also see Barbara J. Hickman, "Necessities of Life or Knickknacks for the Home: Japanese Domestic and Export Ceramics at Historic Railroad Sites in Southwestern Wyoming," paper presented at the Fifteenth Plains Anthropological Conference, Lincoln, Nebraska, 1992.

lxx.   *National Register Bulletin 15,* 44.

lxxi.   The terms "depot" and "station" are often used interchangeably, and the differences between the two terms remain the subject of some discussion. A common characterization is that the term "depot" refers to the building itself, while "station" is a broader term referring to the location at which railroad facilities are constructed.

lxxii.   H. Roger Grant and Charles W. Bohi, *The Country Railroad Station in America* (Sioux Falls,

South Dakota: The Center for Western Studies, Augustana College, 1988), 3.

lxxiii.   Grant and Bohi, *The Country Railroad Station in America,* 69.

lxxiv.   Berg, *Buildings and Structures of American Railroads,* 278-279.

lxxv.   Ibid.

lxxvi.   For additional information on these stations, and those in the following paragraphs, see the National Register of Historic Places nomination form for the building, on file at the South Dakota State Historic Preservation Center, Pierre.

lxxvii.   Berg, *Buildings and Structures of American Railroads,* 278-279.

lxxviii. Grant and Bohi, *The Country Railroad Station in America,* 70.

lxxix.   Berg, *Buildings and Structures of American Railroads,* 278-279. Also see H. Roger Grant, *Living in the Depot: The Two-story Railroad Station* (Iowa City: University of Iowa Press, 1993).

lxxx.   Ibid., 202.

lxxxi.   Ibid.

lxxxii. For additional information on these buildings, see the National Register of Historic Places nomination forms, on file at the South Dakota State Historic Preservation Center, Pierre.

lxxxiii. Berg, *Buildings and Structures of American Railroads,* 166-167.

lxxxiv. Ibid.

lxxxv.   Ibid., 167.

lxxxvi. Ibid., 122-124.

lxxxvii. Ibid., 51.

lxxxviii. Ibid., 113.

lxxxix. Ibid., 113-114.

xc.   Ibid., 81.

xci.   Ibid., 71-73.

xcii.   Ibid., 60-69.

xciii.   Ibid., 46-49.

xciv.   Ibid., 72-73.

xcv.   For an introduction to the evolution of bridge design in Midwestern railroads, see Mark

Hufstetler, "Determination of Eligibility for Burlington Northern Railroad Company Bridge Number 739.1, Near Wyola, Montana," unpublished report prepared by Renewable Technologies, Incorporated for EA Science, Engineering, and Technology, Inc., 1992, 5-8.

xcvi.   Ibid.

xcvii.   Ibid.

xcviii. Ibid., 2.

xcix.   Stewart Holbrook, *The Story of American Railroads* (New York: Crown Publishers, [1947]), 278.

c.   For additional information on this car, see the National Register of Historic Places nomination form for it, on file at the South Dakota State Historic Preservation Center, Pierre.

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