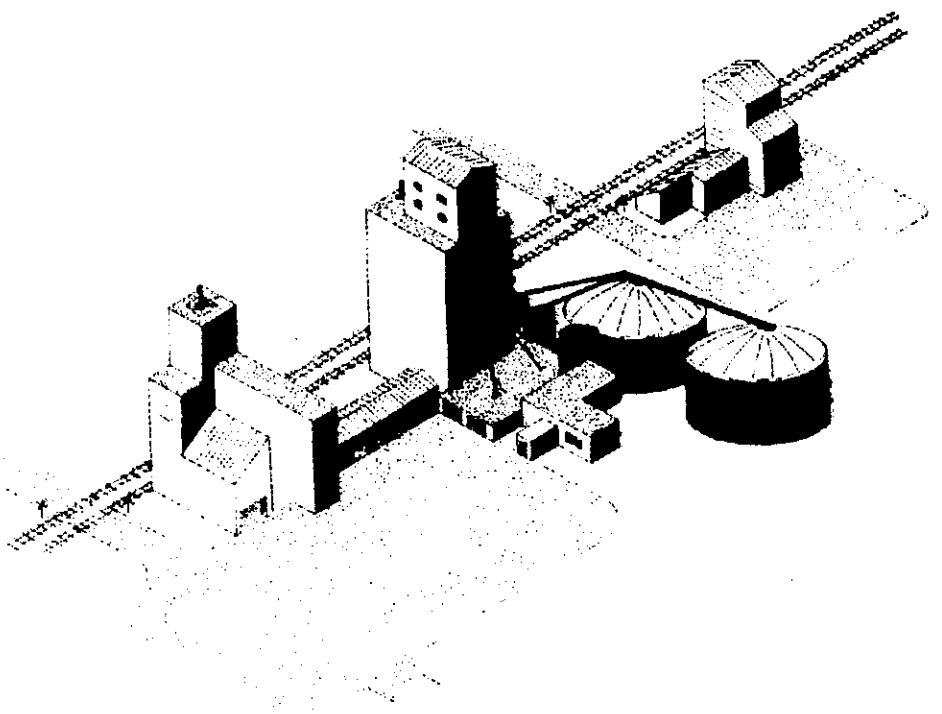
RAILPLAN SOUTH DAKOTA -1986-



SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
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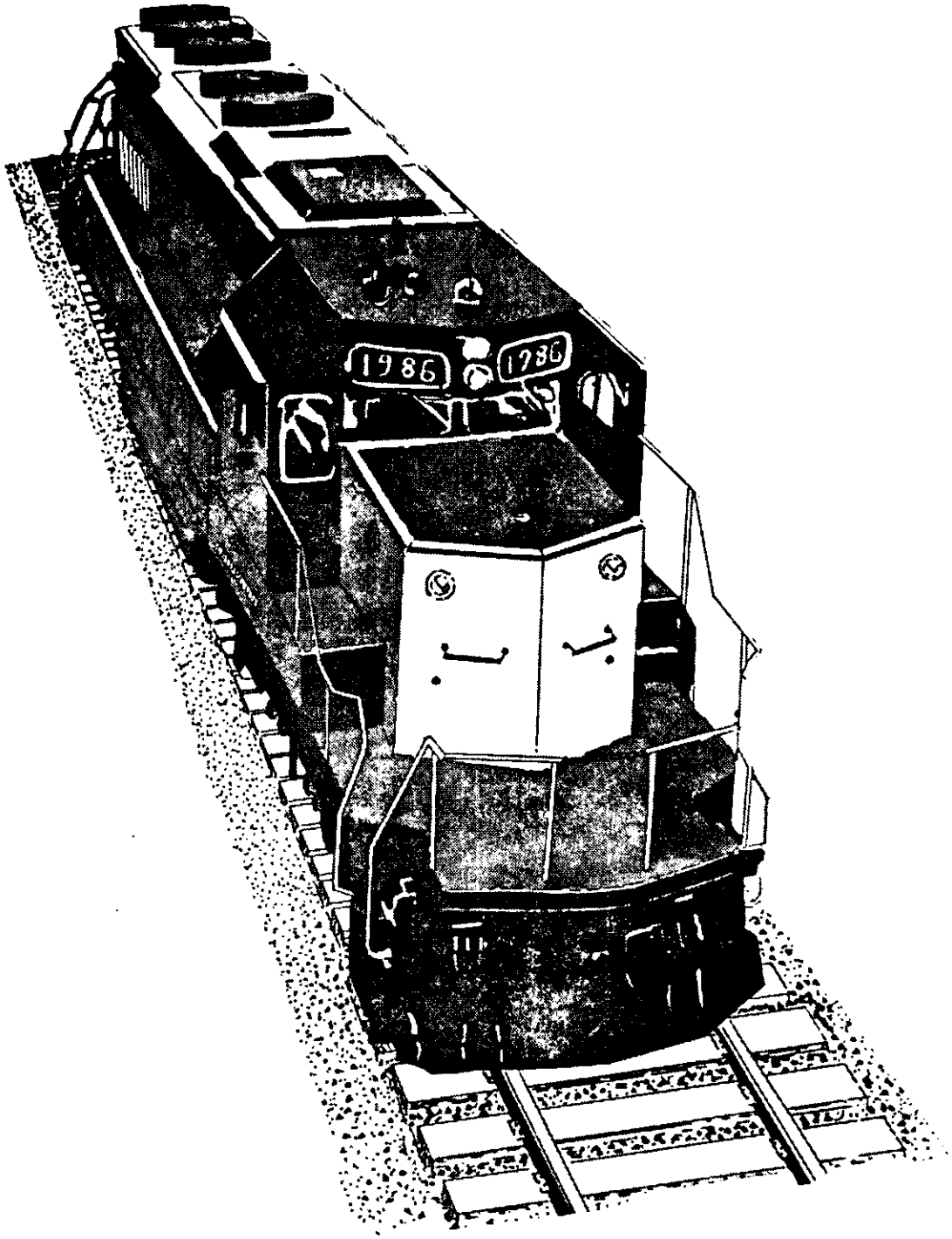
APRIL 1986

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION



CHAPTER I

CHAPTER I

INTRODUCTION

This document, RAILPLAN SOUTH DAKOTA 1986, is South Dakota's official rail planning document. This plan was prepared in 1985 using 1984 data. An updated plan will be prepared later in 1986 that will contain 1985 data and will document some currently unresolved issues. This plan is an update of the 1983 plan and its addendums and is designed to be a stand-alone document independent of prior work. This document has four purposes:

- Inform the public of the rail planning process
- Inform the public of the rail system characteristics
- Document plans for the expenditure of funds
- Maintain eligibility for federal funds

To accomplish these objectives, the plan is divided into four (4) major chapters plus the appendices.

Chapter II documents the organizational structure, planning process and goals and objectives for plans and projects. Also included are major past planning efforts, past projects and significant events affecting State rail transportation since the publication of the last rail plan.

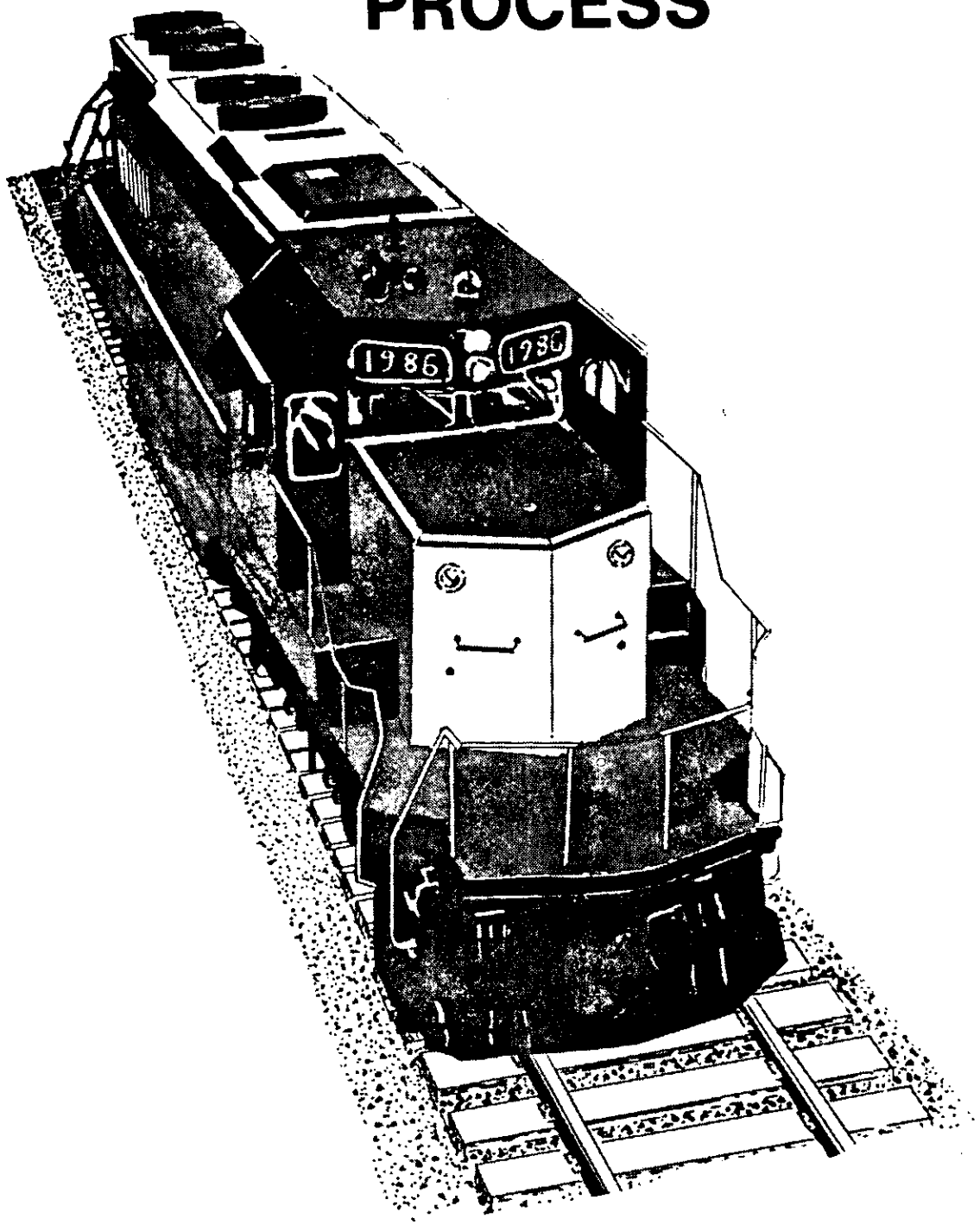
Chapter III highlights the rail system in place today and some of its characteristics. This chapter documents the rail carriers, miles in service, traffic levels, types of commodities carried and other pertinent information to assist the reader in understanding the rail network and its importance.

Chapter IV is designed to address future rail planning activities in South Dakota. It addresses past activities, future direction and methods of achieving the goals in place.

The appendices contain the official railroad map, a rail/highway map, detailed rail traffic characteristics, and a documentary of the State purchased lines.

This plan serves as a documentary of rail planning in South Dakota. It is designed to be a working document to acquaint the reader with past activities and projects, to provide sufficient information to explain the need for a rail system and to document proposed rail improvement projects.

TRANSPORTATION PLANNING PROCESS



CHAPTER II

CHAPTER II

TRANSPORTATION PLANNING PROCESS

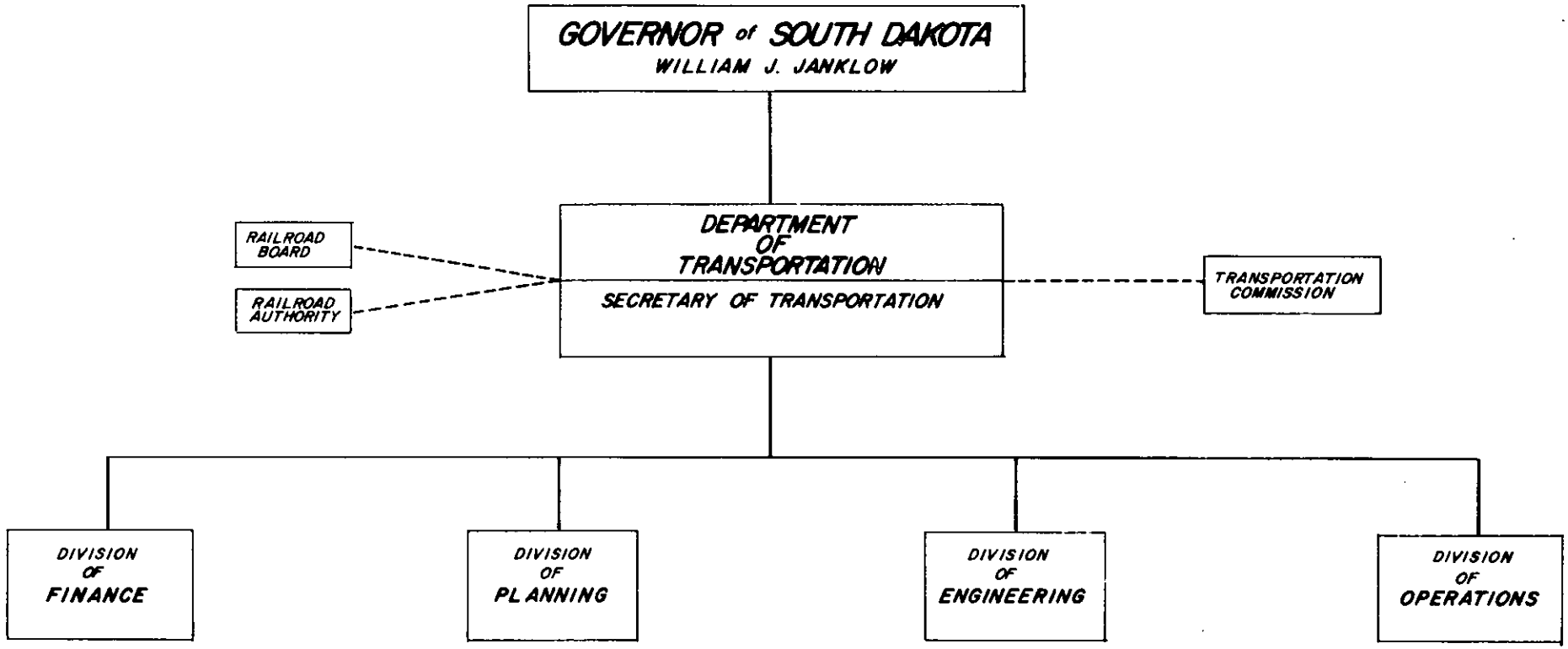
Rail planning in South Dakota developed in response to a variety of rail issues. Abandonments, bankruptcies, car shortages and load restrictions have all drastically changed the character of rail operations in the State. This chapter reviews the organizational structure for rail planning and the mechanics for the overall planning process. A brief description of the past planning effort has been included to document and add insight into state purchases and rail projects. The policies, objectives and goals outlined in this chapter add direction to rail planning, project implementation and the development of this plan.

ORGANIZATIONAL STRUCTURE

Rail planning in South Dakota is the responsibility of the South Dakota Department of Transportation (DOT). Figure II-1 shows the organizational structure of the South Dakota DOT. Rail planning is one of the functions of the Division of Planning within the DOT. This Division has planning responsibilities for all transportation modes in which the State is currently engaged. The Railroad Board provides public input and policy for the Division in matters relating to the management of State-owned railroad property. The South Dakota Railroad Authority is a public financing mechanism created to acquire and improve railroad facilities.

FIGURE II-1

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION



The Governor has designated the Department of Transportation as the State agency responsible for managing the rail planning process and assistance program. Federal funds for both planning and projects have been received pursuant to Section 5, Department of Transportation Act, as amended by the Railroad Revitalization and Regulatory Reform Act of 1976 and the Local Rail Service Assistance Act of 1978. The Department of Transportation also has statuatory authority to intervene in abandonment cases and other legal proceedings with railroad companies and the Interstate Commerce Commission.

OVERALL PLANNING PROCESS

One of the South Dakota Department of Transportation's (SDDOT) goals is to establish, construct and maintain a viable state transportation system, including both the public and private sectors, which provides a sufficient level of service for the movement of products and people in a safe, economical, timely and efficient manner based upon available resources. An accompanying goal is to actively work for transportation betterment in the identification and interpretation of transportation needs and to strive for public and legislative support to meet those needs. A major objective of the SDDOT is to integrate the various modes of transportation in order that they might safely, efficiently and economically supplement and complement each other in the movement of persons and goods.

The Division conducts research on basic railroad problems, plans and assists the development of rail transportation, maintains the State/Federal relationship on programs relating to rail transportation and assists the Department of Transportation or any public and private agency in coordinating railroad services with those of other transportation modes. The Division is responsible for

performing planning and analysis functions necessary to maintain an up-to-date State rail plan. This includes the collection, analysis, and evaluation of data pertaining to rail lines and services in South Dakota. Typically, such activities include:

- monitoring rail traffic and commodity flows;
- performing detailed line analyses on lines threatened by abandonment;
- monitoring changes in the status, condition, and service on rail lines;
- continually evaluating the importance of rail facilities to the State, in light of the current situation and expected developments;
- analyzing State Core operations.

In addition, the Division provides technical support to assist railroads and rail users.

Rail planning in South Dakota has long recognized the importance of public interaction. The Division will continue to keep the public informed and actively solicit their input. Rail planning grew out of public awareness of the rail crisis facing the State and the public's desire to solve the resulting transportation problems. Direct public participation in the rail planning process is generated through news releases, agency mailings, meetings and seminars. Division staff meets with shipper groups to inform the public and solicit input into the planning process.

Shipper surveys are conducted on lines selected for intensive study. These surveys provide information on the shippers' usage of rail, future needs for rail service and other related information. Various State departments and agencies

also provide input into the rail planning process. For additional information and points of views the Division maintains close contact with the rail planning staffs of neighboring states to insure coordination focused on planning activities, program development and project implementation.

All rail plans and addendums receive two final reviews before implementation. Public hearings are held on all plans and the internal A-95 review process is utilized to solicit additional comments. The hearings provide the State with the opportunity to describe the study rationale and findings and solicit public comment regarding the recommendations contained therein. Public hearings also provide the Division staff and local citizens with the opportunity to exchange ideas and discuss current issues.

Public participation is essential in order to be responsive to the needs and concerns of local rail users. Rail assistance projects, in particular, require the active involvement and commitment of those affected by the project(s). Therefore, public participation will continue to be a major component of the rail planning process in South Dakota.

Rail planning and project implementation are conducted under the established policies, objectives and goals.

RAIL SERVICE AND PLANNING POLICIES

The State's policies provide general statements of direction for rail service and planning for South Dakota.

- To coordinate the efforts of rail users, railroad companies, local governments, and the State to solve transportation problems in South Dakota.

- To encourage the continuation of financially solvent, privately owned and operated rail services in the State.

- To support essential rail services which are threatened by abandonment through the use of available public and private funds, where the public interest justifies such assistance.

- To foster the coordination and consolidation of rail services in the State where opportunities exist for improving the efficiency of rail operations.

- To strive to increase the public awareness of rail service issues as they affect the State and to facilitate public involvement in the on-going State rail planning process.

RAIL SERVICE AND PLANNING OBJECTIVES

The State's objectives define more specific courses of action relating to rail planning in the South Dakota DOT.

- To foster adequate, safe, efficient and economical transportation services for the movement of persons and goods in South Dakota.

- To integrate the State's transportation system with that of neighboring states and with the national transportation system in order to facilitate interstate and nationwide travel, while also considering state and local needs, desires, and the inherent social, economic, environmental, and land use impacts.

- To integrate the various carriers and modes of transportation in order that they might safely, efficiently and economically supplement and complement

each other in the movement of persons and goods, recognizing the inherent advantages of each mode.

- To provide and maintain essential rail services and facilities in South Dakota which serve the public interest but which cannot otherwise be profitably continued by private carriers.

- To provide a coordination medium for the available sources of rail users, railroad carriers, and governments (local, state and federal) for the purpose of maintaining essential transportation accessibility within South Dakota.

RAIL SERVICE AND PLANNING GOALS

Established, workable goals are necessary for the state rail planning process to outline courses of action and to define the desired future characteristics of the railroad system within the State of South Dakota.

- To identify the essential rail system for South Dakota which is needed to serve the State's current and potential agricultural, natural resource, industrial and energy-related activities.

- To retain a viable core rail system made up of essential lines which serve the primary traffic-producing areas of the State and which provide accessibility to State and national markets.

- To encourage the elimination of non-profitable rail lines which are nonessential and whose services could be more economically provided by an alternative rail line or transportation mode.

- To develop competitive transportation options for communities where the loss of current rail service will cause severe economic or socio-economic hardships.

- To promote increased use of rail service in those ways in which it is best suited.

- To promote financial stability and operational efficiency within the rail system serving South Dakota.

- To develop, maintain, and improve the institutional capability for implementing state railroad policy by legislation, funding program administration, and project implementation.

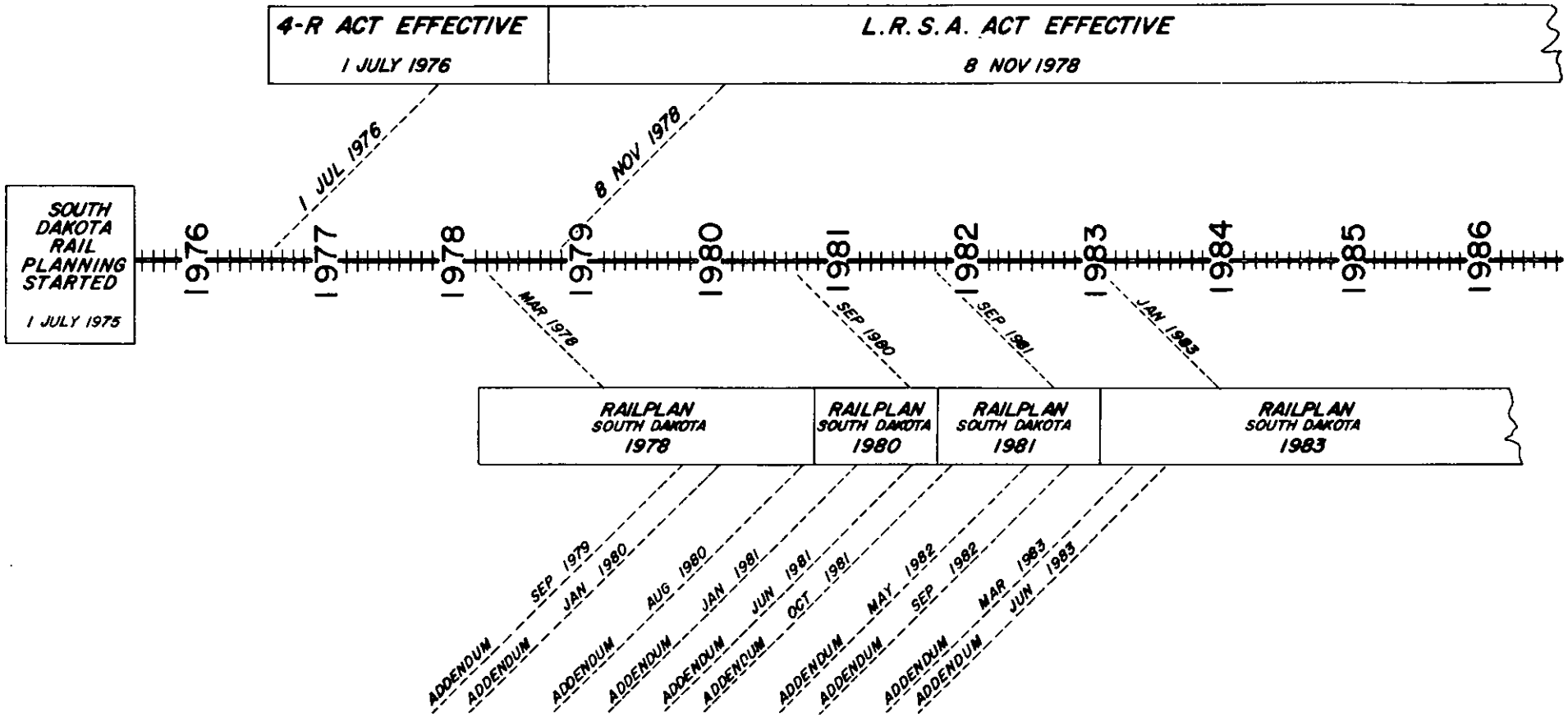
PAST PLANNING EFFORT

Several rail plans and addendums have been prepared as part of the rail planning process. These plans provide periodic documentation of changes in the South Dakota rail system, as well as the actions taken by the State, the carriers, the shippers, and the Interstate Commerce Commission. The addendums focused on critical transportation issues facing the State between rail plan publications. These issues arose from the problems of rail service discontinuance caused by the Milwaukee Road bankruptcy and other abandonment issues. Figure II-2 shows the rail plans and addendums that have been prepared to date.

Numerous benefit/cost studies were made part of the rail plans and addendums. The aim of these studies was to determine what transportation-related alternatives best served the public interest while maximizing the use of scarce funds. In some cases, the most appropriate alternative was the abandonment of rail service when another transport method was available. Each line analysis, therefore, did not

FIGURE II-2

SOUTH DAKOTA RAIL PLANNING PROCESS



lead to a proposed assistance project. Table II-1 illustrates rail lines on which a detailed analysis has been performed.

With the culmination of the Milwaukee Road embargo in 1980, South Dakota was confronted with the loss of over 50% of its total operating rail mileage. Despite the widely recognized fact that some rail lines in the State were not needed, the loss of service resulting from the embargo went far beyond the elimination of unnecessary lines. In an effort to provide a knowledgable approach to the rail problem, the State analyzed each individual operating rail line in the State. This analysis led to the identification of a minimum set of lines constituting a core system of essential lines. That core system concept is identified in Figure II-3.

This core system concept was the basis for State purchases and rehabilitation projects and is designed to preserve essential rail service. While some core system lines have remained in the private sector, other lines for which a private solution could not be found were purchased by the State. Service has been restored to all State-owned core system lines by the State of South Dakota through an operating agreement with the Burlington Northern Railroad.

A select group of non-core lines were also purchased that were recognized to have either a future potential or a high level of local interest. These lines have had service restored with the exception of one which is currently rail banked. Lines purchased by the State are shown in Appendix C.

All lines that have shown an urgent need and would benefit from assistance efforts have been analyzed. Table II-2 lists all past projects which have received financial assistance through State funding and/or through the Local Rail Service Assistance Act administered by the Federal Railroad Administration.

TABLE II-1

DOCUMENTATION OF PAST RAIL PLANNING AND PROJECT ASSISTANCE

RAIL PLANNING DOCUMENT	SCOPE OF STUDY	PROJECT ACTION
RAILPLAN SOUTH DAKOTA 1978	Branch Line Analysis of 25 Lines	No Project
Addendum-September, 1979	Blunt to Onida	No Project
Addendum-January, 1980	Jonathan, MN to Miles City, MT	Project Completed
Addendum-August, 1980	Miles City, MT to Gascoyne, ND	Project Completed
RAILPLAN SOUTH DAKOTA 1980	Milbank to Sisseton	No Project
	Andover to Brampton, ND	Project Completed
	Roscoe to Linton	No Project
	Aberdeen Siding	No Project
	Aberdeen to Rutland	No Project
	Madison to Sioux Falls	Project Completed
	Wentworth Siding	No Project
	Redfield to Aberdeen	No Project
	Pierre to Huron	No Project
	Blunt to Gettysburg	No Project
	Rapid City to Colony,WY	No Project
	Wolsey Transfer Track	No Project
	Miles City, MT to Gascoyne, ND	No Project
	Vienna Siding	No Project
Addendum-January, 1981	Blunt to Gettysburg	No Project
	Watertown to Clark	No Project
Addendum-June, 1981	State-Owned Core System	No Project
SECTION 505 APPLICATION	Ortonville, MN to Terry, MT	Project Underway
RAILPLAN SOUTH DAKOTA 1981		
Addendum-October 1981	State-Owned Core System	Project Completed
Addendum-May, 1982	Milbank to Sisseton	No Project
	Pierre to Huron	Project Completed
Addendum-September, 1982	Milbank to Sisseton	Project Completed
RAILPLAN SOUTH DAKOTA 1983		
Addendum-March, 1983	Canton to East Wye Switch	Project Completed
	Mitchell to Aberdeen	Project Completed
	Blunt to Onida	Project Completed
	Pierre to Rapid City	No Project
	Custer to Deadwood	No Project

FIGURE II-3

SOUTH DAKOTA'S CORE SYSTEM CONCEPT

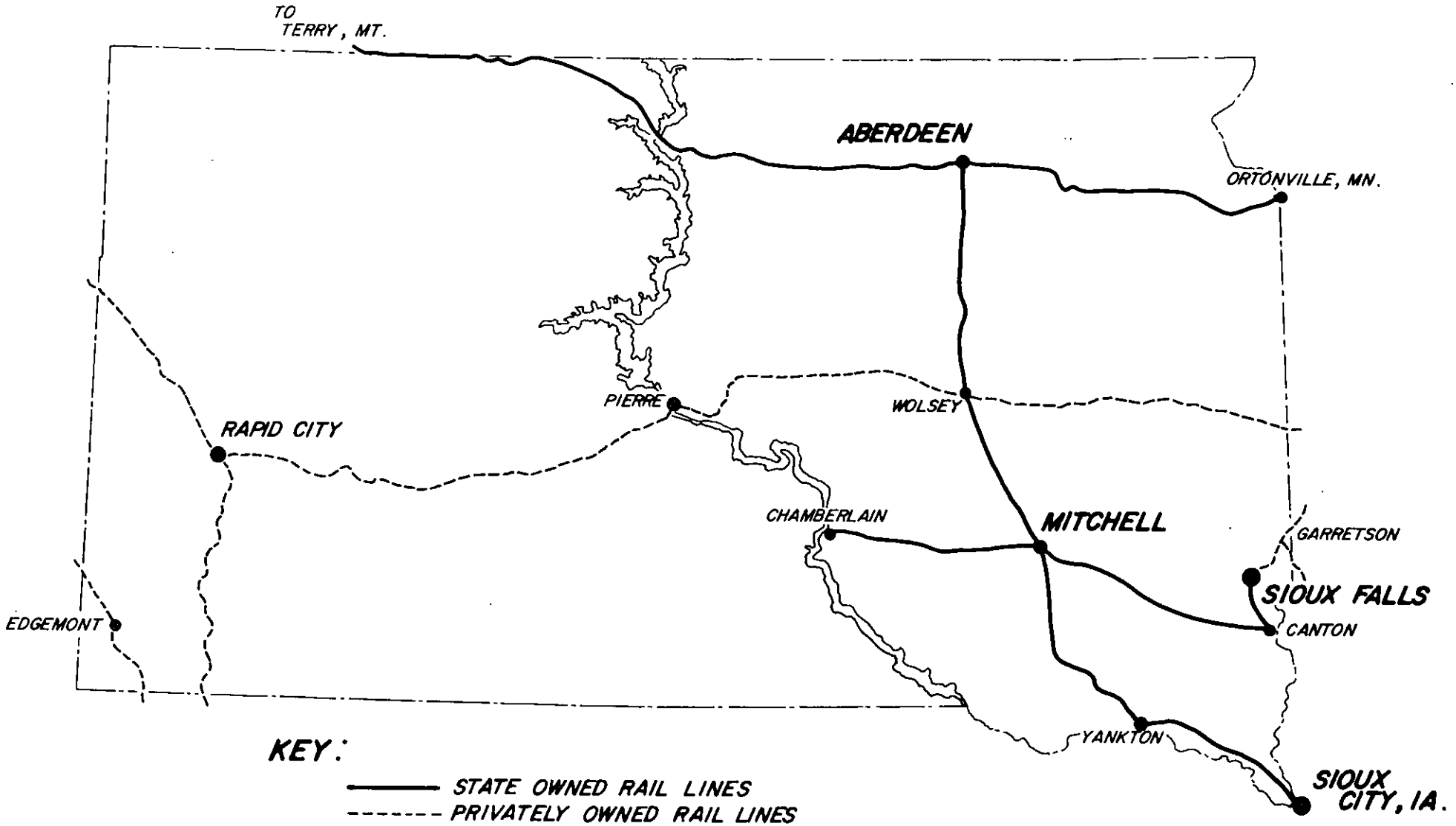


TABLE II-2

RAIL IMPROVEMENT PROJECTS
USING SOUTH DAKOTA AND/OR FEDERAL FUNDS
(ESTIMATED COSTS)

RAIL SEGMENT	RAIL LINE OWNER	YEAR IMPLEMENTED	TYPE OF IMPROVEMENT*	TOTAL COST	STATE PARTICIPATION**	PROJECT STATUS
Big Stone-Gascoyne	MILW	1979	1-2-3	$ 2,227,000	$1,781,000	Completed
Miles City-Gascoyne	MILW	1980	1-2-3-6	2,477,000	1,982,000	Completed
Sioux Falls-Madison	BN	1981	1-2-3-4-6	5,670,000	1,760,000	Completed
Core System***	SD	1981	1	2,794,297	2,794,297	Completed
West Jct.-Canton	SD	1981	1-2-3-4-5-6	879,100	879,100	Completed
Sioux City-Mitchell	SD	1981	1-2-3-5-6	6,382,035	6,382,035	Completed
Mitchell-Canton	SD	1982	1-2-3-5-6	2,016,512	2,016,512	Completed
Huron-Pierre	C&NW	1982	1-2-3-4-6	4,474,015	3,376,198	Completed
Britton Spur	SD	1982	1-2-3-4-5-6	896,776	717,421	Completed
Ortonville-Terry	SD	1982	1-2-3-4-5-6	30,000,000	-0-	In Process
Canton-East Wye Switch and Hawarden to Beresford	SD	1983	1-2-3	812,136	212,136	Completed
Milbank-Sisseton	DAK.R.	1983	1-2-3-6	933,813	655,699	Completed
Aberdeen-Wolsey	SD	1983	1	1,961,000	1,961,000	Completed
Blunt-Onida	C&NW	1984	1-2-3-4-5-6	2,271,506	498,781	Completed
Mitchell-Tulare	SD	1984	1-6	1,865,000	1,865,000	Completed

* Major Components of Improvement
1 - Ties
2 - Ballast
3 - Surfacing
4 - Rail
5 - Crossings
6 - Anchors

** Includes Federal 803 and/or State Funds

*** Directed Service Project

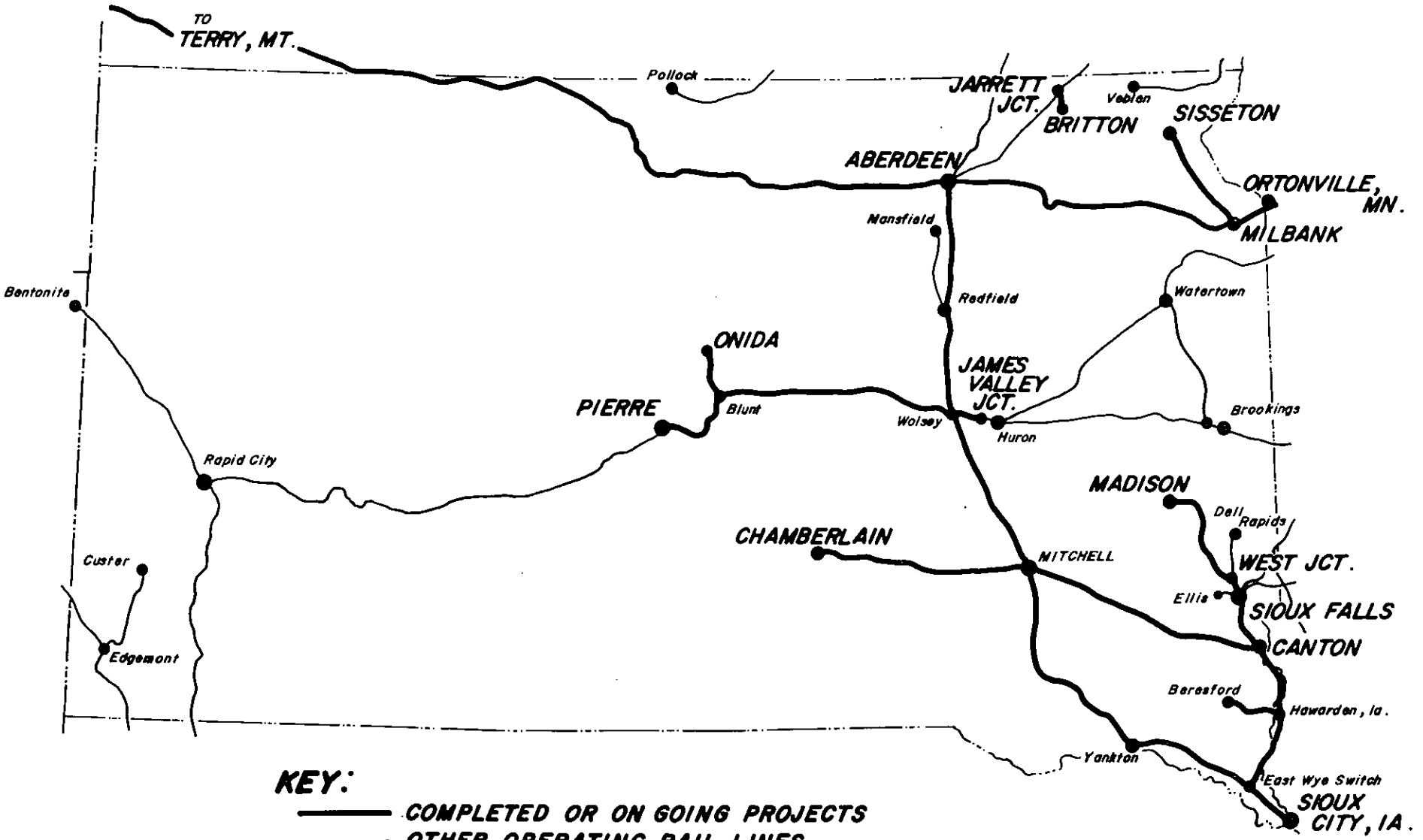
All past projects using federal funds were funded by grants with the exception of the Ortonville to Terry project. This $30 million upgrading project is funded through a loan agreement between the State of South Dakota and the Federal Railroad Administration through the 505 Program. The Burlington Northern is responsible for repaying the loan through the lease and operating agreement with the State.

A map showing the locations of the rail lines that have received financial assistance is shown on Figure II-4. The projects have supported the State's core system concept. In some cases, the need for a project outside of the core system, combined with local support, has expanded the State's efforts beyond the core system.

This document, Railplan South Dakota 1986, is the fifth rail plan developed by the State. A significant number of studies that were made addendums to the rail plans documented individual rail line analyses to guide assistance efforts. Although rehabilitation funding levels have been reduced, the rail system continues to be monitored for opportunities to improve the level of service it provides to the shipping public.

FIGURE II - 4

RAIL LINES WHICH HAVE RECEIVED REHABILITATION ASSISTANCE THROUGH STATE AND/OR FEDERAL PROGRAM(S)



SIGNIFICANT EVENTS SINCE RAILPLAN SOUTH DAKOTA 1983

Several significant events that affect the rail system in South Dakota have occurred since the publication of the last rail plan:

- ABANDONMENTS - There were 98.8 miles of railroad approved for abandonment in South Dakota since the last rail plan. The ICC denied the abandonment of the 165 mile Fort Pierre to Rapid City line.

- LINES RETURNED TO SERVICE - The Napa to Platte line was returned to service in 1985.

- NEW COMPANIES - The Dakota Southern Railway Company was formed to provide service on the Napa to Platte rail line that went into service in 1985.

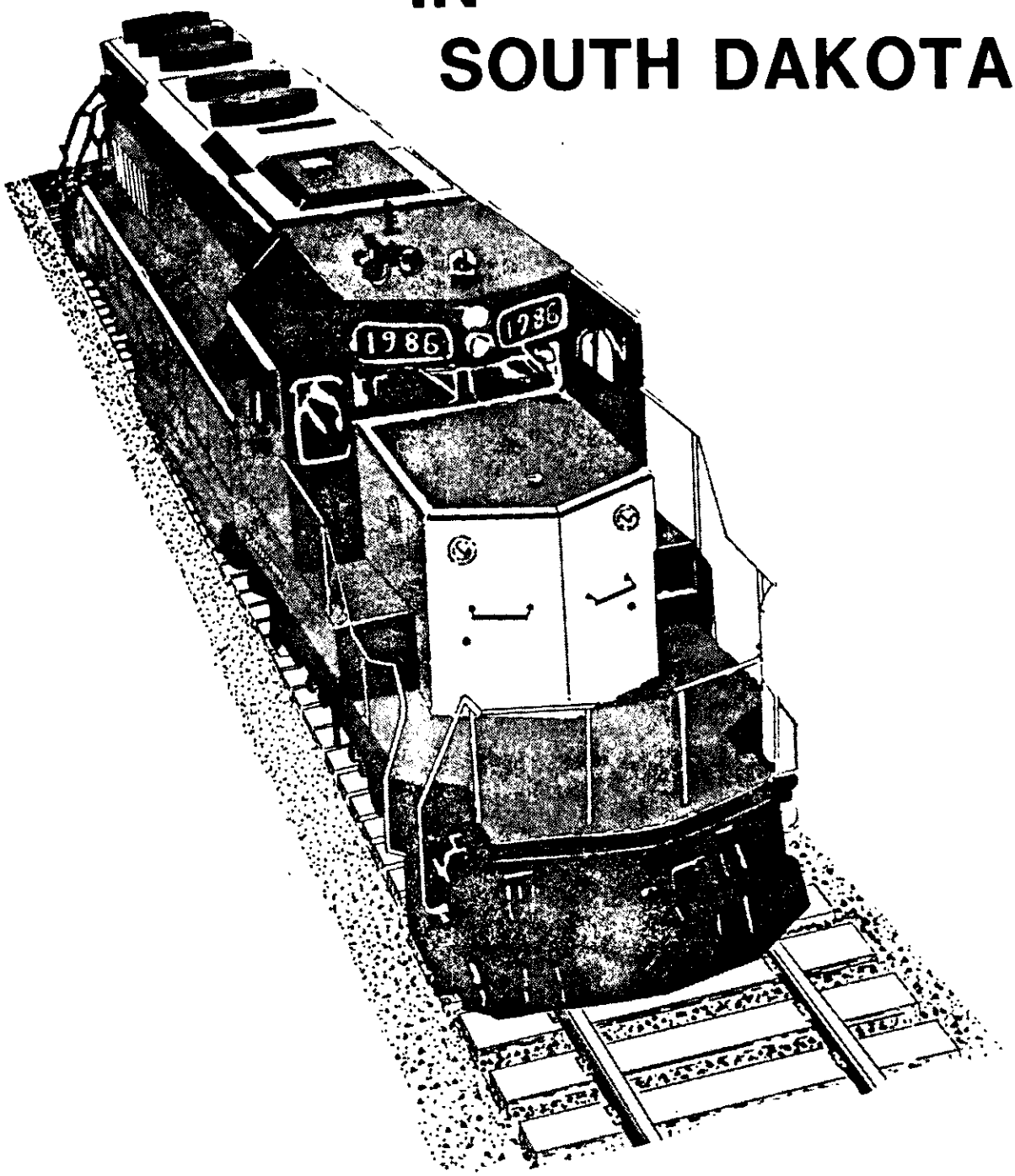
- REHABILITATION PROJECTS - Rail improvement projects utilizing state and/or federal funds were implemented on 87 miles of railroad in 1984 and 1985. In addition, the 480 mile Ortonville to Terry project that began in 1982 using Section 505 loan funds continued on into 1984 and 1985.

- MILWAUKEE ROAD - The Milwaukee Road, once the largest carrier in South Dakota, no longer owns any track in the State but operates over 10.4 miles of BN track between Ortonville and Milbank. The railroad company was purchased by the Soo Line Railroad in 1985.

- STATE SALE OF RAIL LINE - The State sold the Sioux Falls to Trent local option line to the L. G. Everist Company. That company formed the D & I Railroad to haul crushed rock from the Dell Rapids quarry. The Dell Rapids to Trent portion was salvaged.

The events listed above illustrate the changes in rail operations in South Dakota during the past two years. Many have been positive changes which have led to improved rail service characteristics or facilities. The following chapter describes the current rail facilities, as well as some of its characteristics.

THE RAIL SYSTEM IN SOUTH DAKOTA



CHAPTER III

CHAPTER III

THE RAIL SYSTEM IN SOUTH DAKOTA

A thorough understanding of the rail system in South Dakota is necessary to wisely plan for future transportation decisions. The railroads have eliminated many miles of light density lines in the past few years. This track reduction has consolidated the traffic volume on fewer miles of railroad. However, many miles of operating lines still remain that have a low traffic density and are in poor physical condition.

It is inevitable that additional lines will be abandoned, therefore, careful monitoring is necessary to insure that lines important for the movement of the State's products remain intact. An ongoing program is important to promote the improvement of remaining necessary lines. The following information in this chapter explains the rail system, its usage, and its characteristics to promote an orderly rail planning program.

RAIL MILEAGE

A total of 4,420.5 miles of railroad were constructed in South Dakota, with the last track being laid in 1948. Since 1909, rail abandonments have resulted in the loss of service on over 75% of the maximum system. South Dakota, in cooperation with private companies, has been successful in restoring service on over 900 miles of abandoned rail lines in this State. Operating trackage in the State currently totals 1,983.7 miles.

The current rail system is shown on Figure III-1, as well as those lines which have received abandonment approval since October 1978. Table III-1 shows the current rail mileage and the carriers currently providing service.

FIGURE III - 1

SOUTH DAKOTA RAIL LINE ABANDONMENTS

OCTOBER 1978 THROUGH DECEMBER 1985

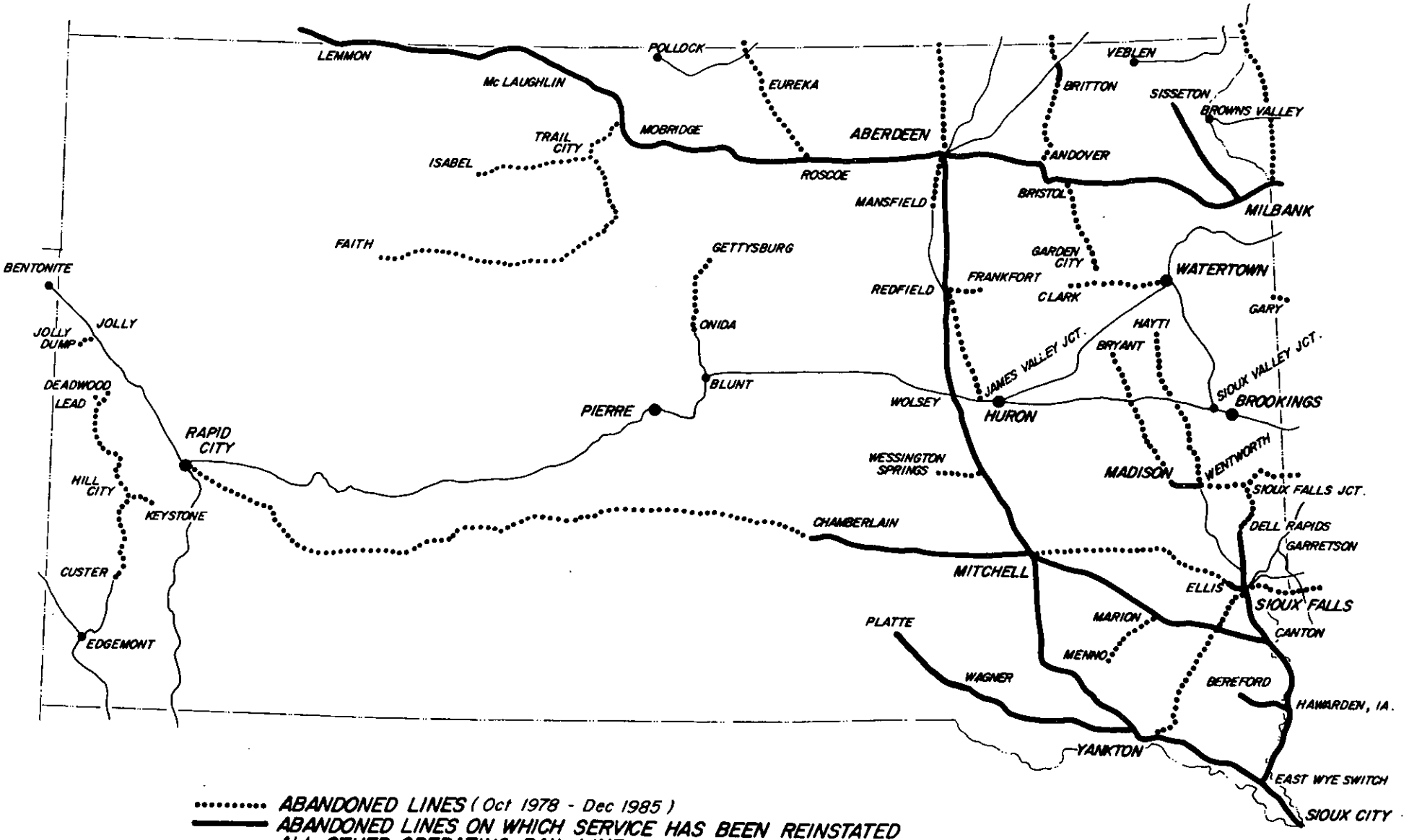


TABLE III-1

CURRENT MILEAGE OPERATED BY CARRIER

SOUTH DAKOTA

Railroad	Miles Owned	Other Miles Served	Trackage Rights	Total Miles Served in SD
Burlington Northern	333.6	765.5	13.3	1,099.1
Chicago & North Western	682.0	--	74.0	682.0
Soo Line/Milw	66.3	--	10.4	66.3
Dakota Rail	37.1	--	--	37.1
D & I	16.8	--	52.2	16.8
Dakota Southern	--	82.4	--	82.4
Total	1,135.8	847.9	149.9	1,983.7

A history of South Dakota's Railroad system is illustrated in Table B-1 in Appendix B. As is apparent from this Table, nearly 47% of all rail abandonments in South Dakota have occurred in the three year period from 1980-1982 when 1571 miles were abandoned. This represents 36% of the total rail miles constructed in the State.

Table B-2 in Appendix B lists the line segments and mileages abandoned from January 1, 1980 to the present. The Milwaukee bankruptcy directly accounted for 1,550 miles abandoned since 1979.

RAIL CARRIERS

Currently six (6) railroad companies provide freight service in South Dakota. Three (3) of these companies are Class I carriers and the remaining three (3) are short line operators.

The Burlington Northern (BN), see Figure III-2, operates more miles of track in the State than all other carriers combined. Its operating system is comprised of 333.6 miles of their own track and 765.5 miles of State-owned track. Table III-2 is a line by line listing of its trackage, showing the miles and the weight limit. Only one (1) line segment, totaling 68.5 miles, has a weight restriction such that it cannot accommodate the 100-ton hopper cars preferred for grain service. The BN's extensive service area, covering over 27,000 miles in 25 states and 2 Canadian Provinces, provides access to a large number of markets that are important to South Dakota industries.

The Chicago & North Western (C&NW), see Figure III-3, currently operates on 682.0 miles of its own track and has trackage rights on 74 miles of the State-owned system. Table III-3 is a line by line listing of C&NW trackage showing the miles operated and the weight limit. Its system in South Dakota has characteristics which permit fully loaded large hopper cars on only one of its line segments. All other segments have weight limits of less than 263,000 pounds. This characteristic severely limits the marketing of grain outside the C&NW system as the export markets require fully loaded hopper cars. The four (4) lines that have limits of 251,000 pounds can carry grain competitively with the higher weight limits. The C&NW system serves eleven (11) states in the Upper Midwest as a regional carrier, where boxcars and lighter loads are currently acceptable in many domestic markets.

The remaining four (4) rail carriers in the State are illustrated in Figure III-4. This information is presented in Table III-4 and shows the miles operated and the weight limit by line segment.

FIGURE III - 2

BURLINGTON NORTHERN
- SOUTH DAKOTA OPERATIONS -

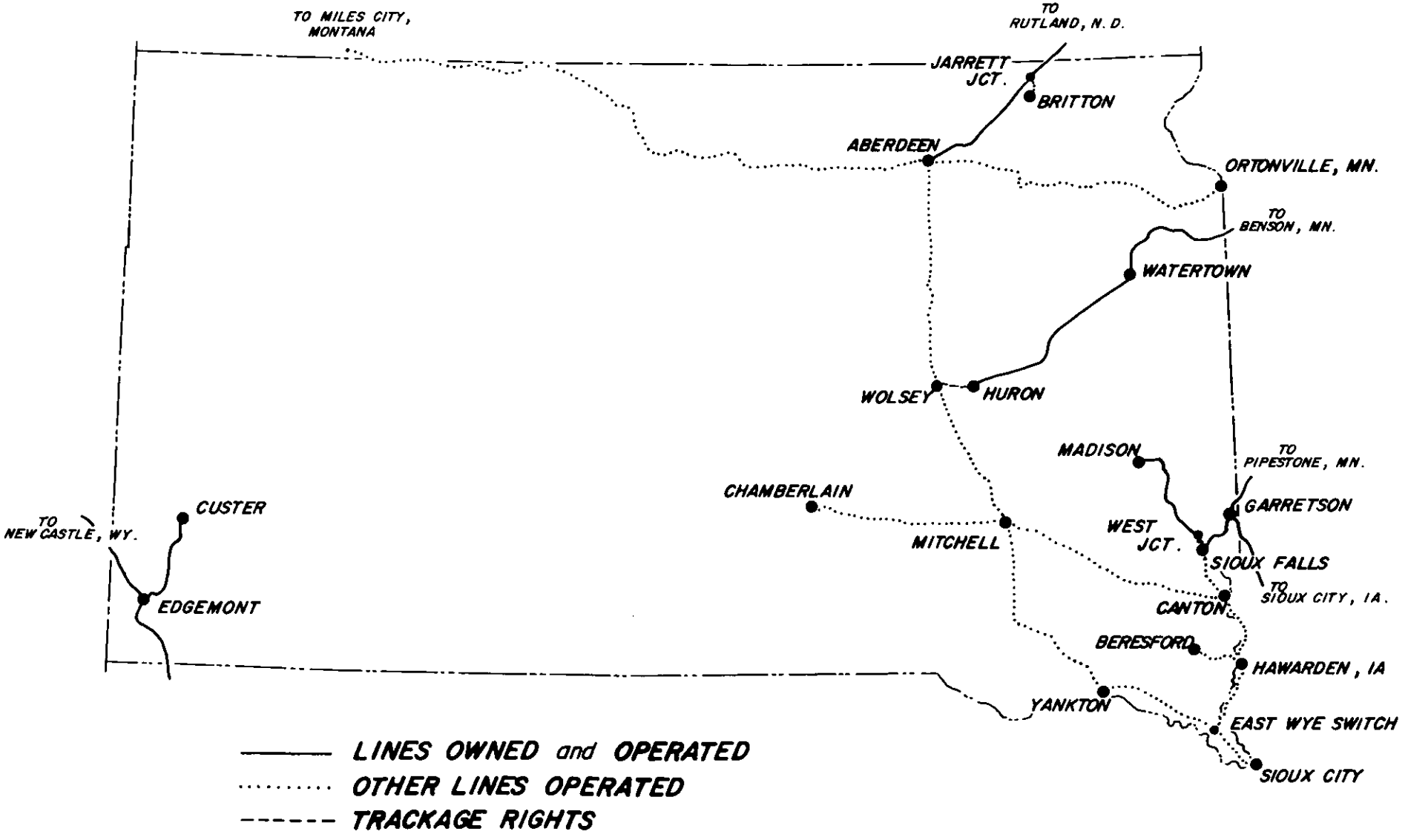


TABLE III-2
BURLINGTON NORTHERN
SOUTH DAKOTA OPERATIONS (1-1-86)

SEGMENT (BN Ownership) FROM	TO	TOTAL MILES	SD MILES	WEIGHT LIMIT (LBS)
Willmar, MN	Garretson	127.9	4.6	263,000
Garretson	Sioux City	94.3	8.1	263,000
Garretson	Sioux Falls	17.4	17.4	263,000
Sioux Falls	Madison	42.1	42.1	263,000
Benson, MN	Watertown	92.0	45.1	263,000
Watertown	Huron	69.9	69.9	263,000
Geneseo Jct.	Aberdeen	76.6	53.6	263,000
Aliance, NE	Edgemont	110.6	27.4	315,000
Edgemont	Gillette, WY	121.1	21.4	315,000
Deadwood Jct.	Custer	44.0	44.0	263,000
	TOTAL	795.9	333.6	

SEGMENT (SD Ownership) FROM	TO	TOTAL MILES	SD MILES	WEIGHT LIMIT (LBS)
Sioux Falls	Canton	20.8	20.8	263,000
Canton	Mitchell	79.2	79.2	263,000
Mitchell	Wolsey	54.6	54.6	263,000
Wolsey	Aberdeen	74.0	74.0	263,000
Mitchell	Yankton	74.9	74.9	263,000
Yankton	Sioux City	62.0	56.0	263,000
Mitchell	Chamberlain	68.5	68.5	220,000
Jarrett Jct.	Britton	5.0	5.0	263,000
Canton	East Wye Switch	49.7	14.1	263,000
Hawarden, IA	Beresford	16.9	16.2	263,000
Ortonville, MN	Aberdeen	110.7	110.7	263,000
Aberdeen	Mobridge	98.6	98.6	263,000
Mobridge	Terry, MT	270.6	89.8	263,000
Sioux Falls	West Jct.	3.1	3.1	263,000
	TOTAL	988.6	765.5	

TRACKAGE RIGHTS ON C&NW FROM	TO	TOTAL MILES	SD MILES	WEIGHT LIMIT (LBS)
Huron	Wolsey	13.3	13.3	263,000

FIGURE III - 3

CHICAGO AND NORTH WESTERN
- SOUTH DAKOTA OPERATIONS -

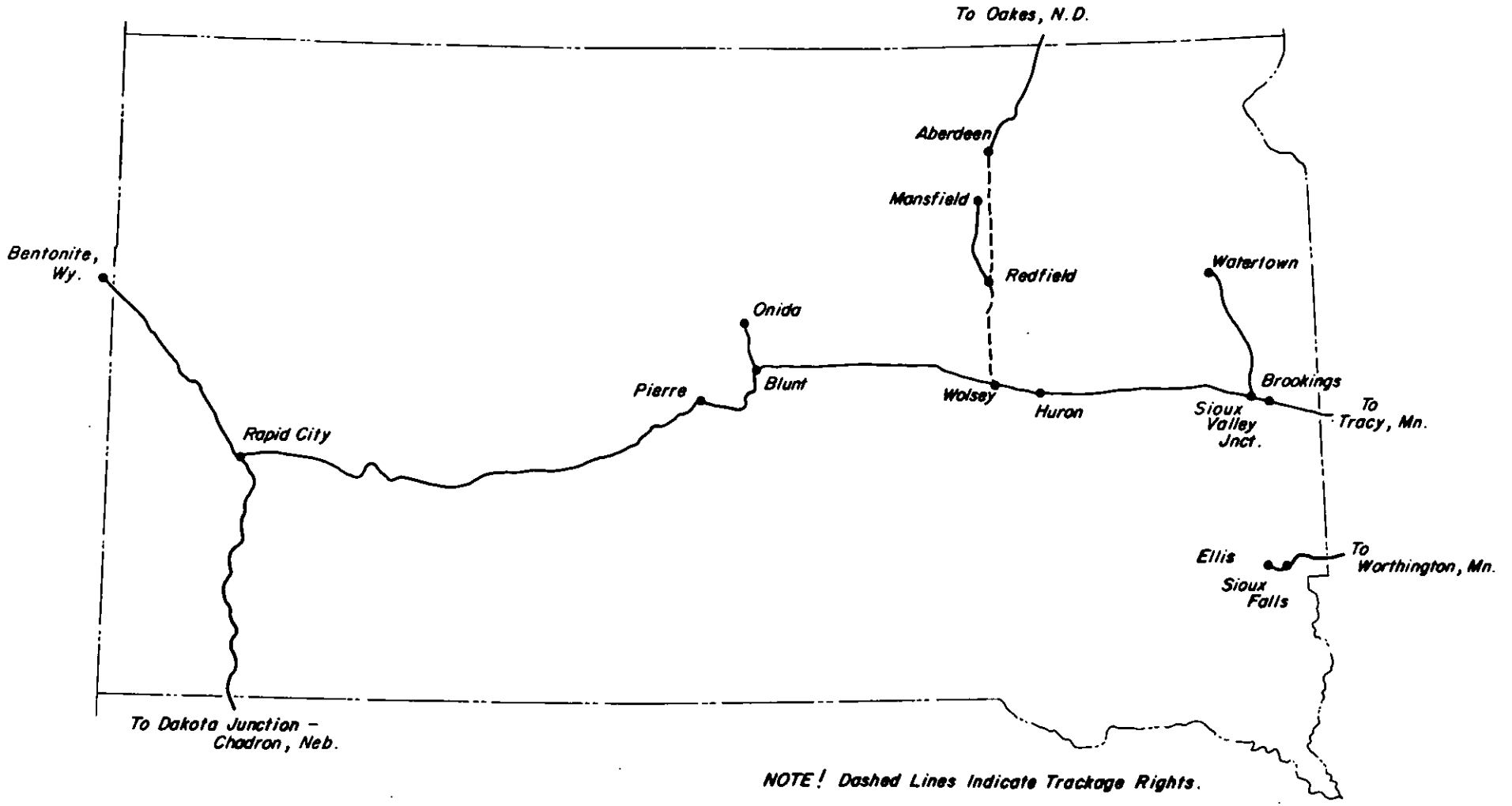


TABLE III-3

CHICAGO AND NORTH WESTERN TRANSPORTATION COMPANY
SOUTH DAKOTA OPERATIONS (1-1-86)

SEGMENT (C&NW OWNERSHIP)		TOTAL MILES	SD MILES	WEIGHT LIMIT (LBS)
From	To			
Tracy, MN	Wolsey	149.7	104.5	263,000
Wolsey	Ft.Pierre	108.3	108.3	251,000
Ft.Pierre	Rapid City	164.6	164.6	210,000
Redfield	Mansfield	26.3	26.3	210,000
Aberdeen	Oakes, ND	52.7	37.5	210,000
Chadron, NE	Rapid City	102.2	86.8	251,000
Rapid City	Bentonite, WY	77.6	71.0	251,000
Worthington, MN	Ellis	68.6	22.6	210,000
Sioux Valley Jct.	Watertown	44.2	44.2	210,000
Blunt	Onida	16.2	16.2	251,000
	TOTAL	810.4	682.0	

TRACKAGE RIGHTS ON SOUTH DAKOTA OWNED LINES				
Wolsey	Aberdeen	74.0	74.0	263,000

FIGURE III - 4

OTHER RAIL OPERATIONS

- SOUTH DAKOTA -

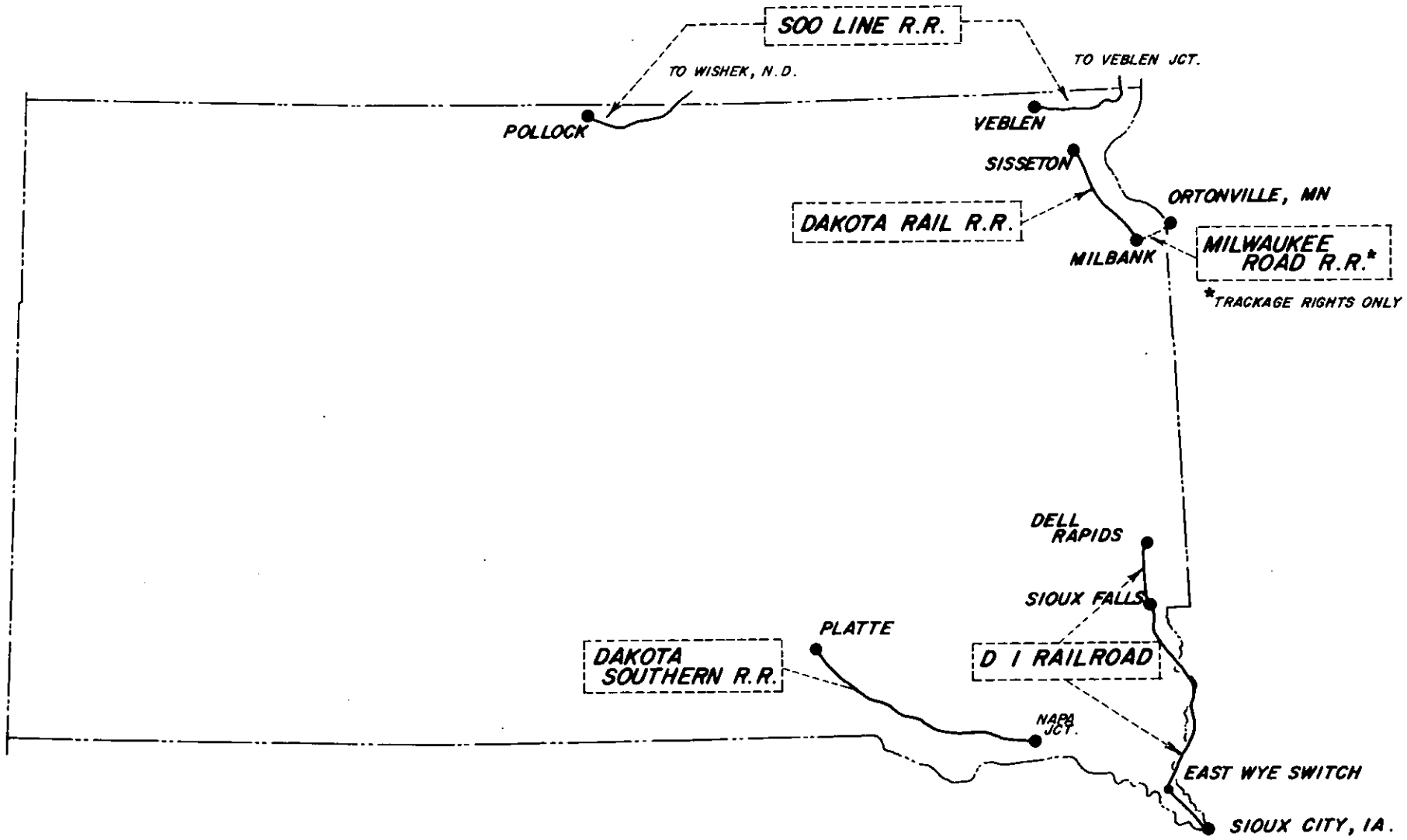


TABLE III - 4

OTHER RAIL OPERATIONS
-SOUTH DAKOTA-

SEGMENT FROM - TO	TOTAL MILES	SD MILES	WEIGHT LIMIT (LBS)
DAKOTA RAIL			
Milbank to Sisseton	37.1	37.1	220,000
SOO LINE/MILWAUKEE ROAD			
Veblen Jct. - Veblen	42.2	33.5	263,000
Wishek, ND - Pollock	69.9	32.8	263,000
Ortonville, MN - Milbank,SD (Trackage Rights on SD Owned Line)	10.4	10.4	263,000
D&I RAILROAD (Trackage Rights on SD Owned Line)			
Sioux Falls - Dell Rapids (West Jct.)	16.8	16.8	220,000
DAKOTA SOUTHERN (SD Owned Track)			
Napa to Platte	82.4	82.4	220,000

The Dakota Rail Railroad Company is a shortline railroad providing service on the former Milwaukee Road line from Milbank to Sisseton. The 37.1 mile branch line was purchased by local investors who are also responsible for operations of the line. The major traffic is barley which is interchanged with the Milwaukee Road/Soo Line at Milbank for destinations primarily in Minnesota and Wisconsin.

The Soo Line Railroad Company, a 7-state Upper Midwest carrier, operates two dead end branch lines that extend 66 miles into the State from its system in North Dakota, plus, through the Milwaukee Road, has trackage rights on about 10 miles of State-owned track to Milbank. Although these two branch lines may provide a local transportation need, their statewide value is limited. The two lines carried 2.7% of the total rail traffic in the State, 96% of which was originating grain.

The D & I Railroad was formed to haul rock, gravel and crushed stone quarried at Dell Rapids and Hawarden, Iowa. It has a limited common carriage certificate for certain types of rock products only. It operates on the line from Dell Rapids to Sioux City, Iowa. It operates on its own track (formerly Milwaukee Road) from Sioux Falls (West Jct.) to Dell Rapids and has trackage rights over the Burlington Northern operated State-owned line from West Jct. to Sioux City.

The Dakota Southern Railway Company was formed in 1985 to operate the former Milwaukee Road line from Napa to Platte. This line is currently owned by the State and is leased to the Napa to Platte Regional Rail Authority.

RAIL TRAFFIC

Rail traffic can be measured in several different ways. Common measurements of traffic are cars, tons and revenue, whereas the railroad commonly measures in gross tons per mile.

Figure III-5 graphically shows the percentage of rail carloadings by carrier for the year 1984. This figure shows that the Burlington Northern carried 58% of the State's products followed by 31% for the Chicago and North Western and 11% for the rest of the carriers.

The historical trend for carloadings for the years 1975-1984 is shown on Table B-3 in Appendix B. There exists a steady upward trend in the number of rail cars of commodities moved since 1982, but the 1984 traffic level still trails the highs that occurred in 1978 and 1979. This statistic is misleading, as the trend to larger rail cars allows today's jumbo hopper cars to move as much as 50 percent more per car than the box cars used in prior years.

Figure III-6 graphically shows the carloadings for the major rail commodities in South Dakota during the year 1984. The leading rail commodities were:

- o Coal (23% of the total traffic)
- o Farm products (46%, mainly grain)
- o Non metallic minerals (17%, mainly curshed rock)
- o Stone and clay (7%, mainly cement and bentonite)

Farm products accounted for 66% of the originating traffic, whereas coal dominated the terminating traffic with 77%. The four (4) major commodity groups represent 93% of the rail traffic in the State, based on number of cars.

FIGURE III - 5

PERCENTAGE OF RAIL CARLOADINGS BY CARRIER - 1984

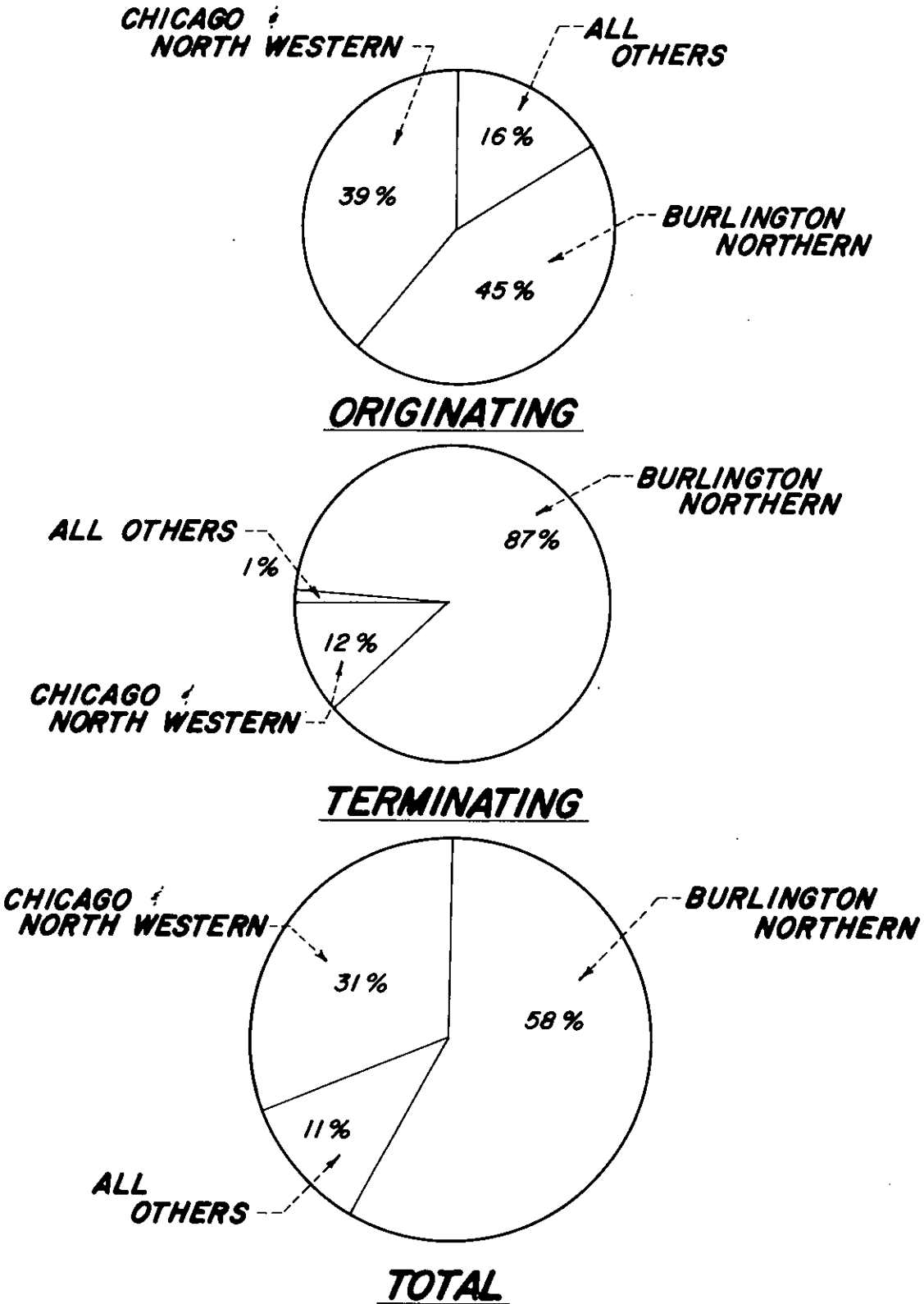
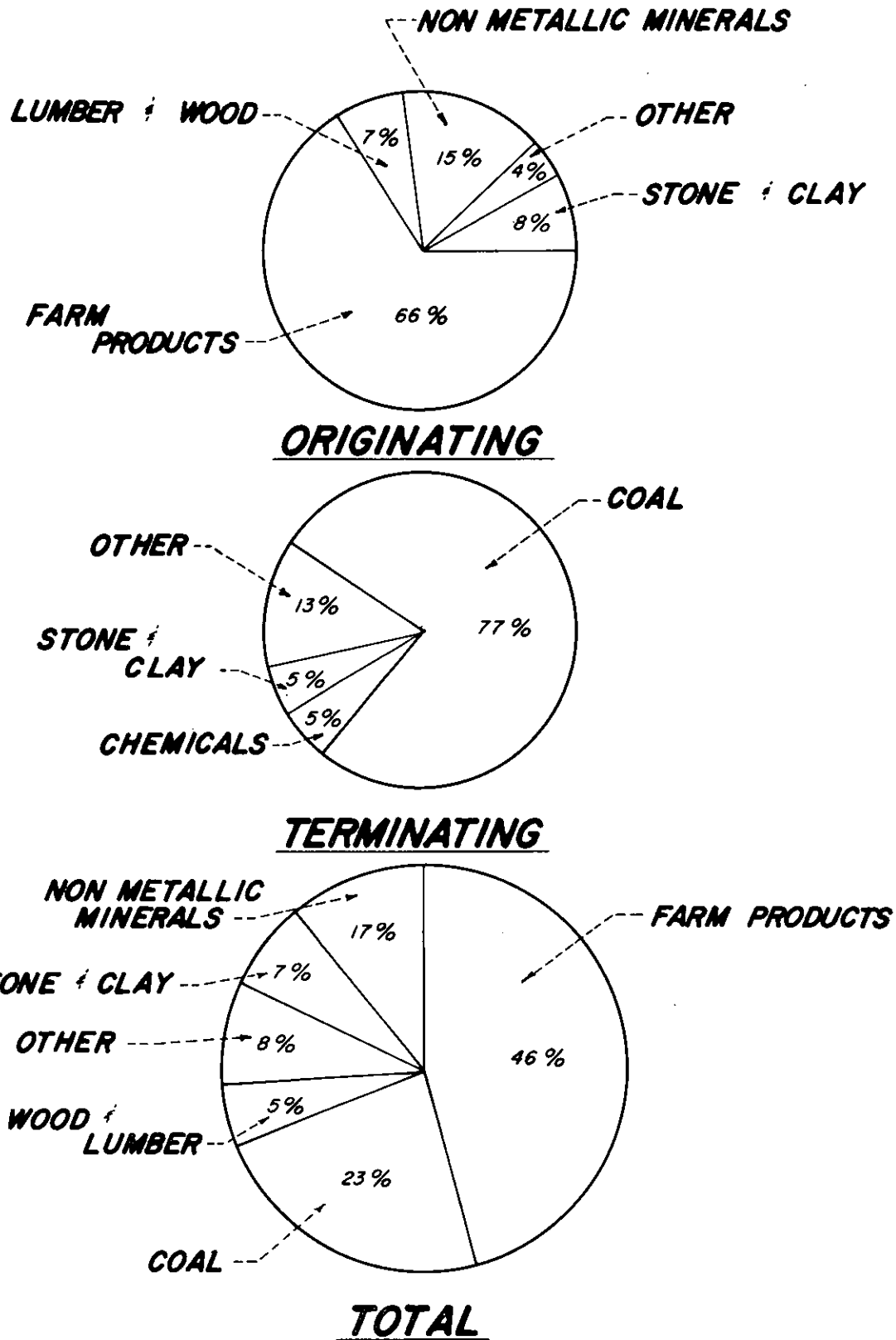


FIGURE III - 6

PERCENTAGE OF RAIL CARLOADINGS BY COMMODITY - 1984



A historical trend of rail tonnage for the years 1975-1984 is shown in Table B-4 in Appendix B. Even though the number of carloadings is down slightly from 1975, the tonnage carried on rail in the State is up over 35%. The tons terminating on rail is down about 23%, whereas the originating tonnage on rail is up over 86% since 1975.

Table B-5 in Appendix B shows some interesting facts about rail traffic during the period from 1975-1984. This table shows that although the operating rail miles have decreased over the years, the cars per mile of track and the tons per mile have demonstrated healthy growth. Also, the tons per car increased from 65 in 1975 to 83 tons per car in 1984, which is attributed to the abandonment of branch lines that could be served only by box cars, the trend to large covered hopper cars, and also to rail improvement projects that now permit the use of modern hopper cars.

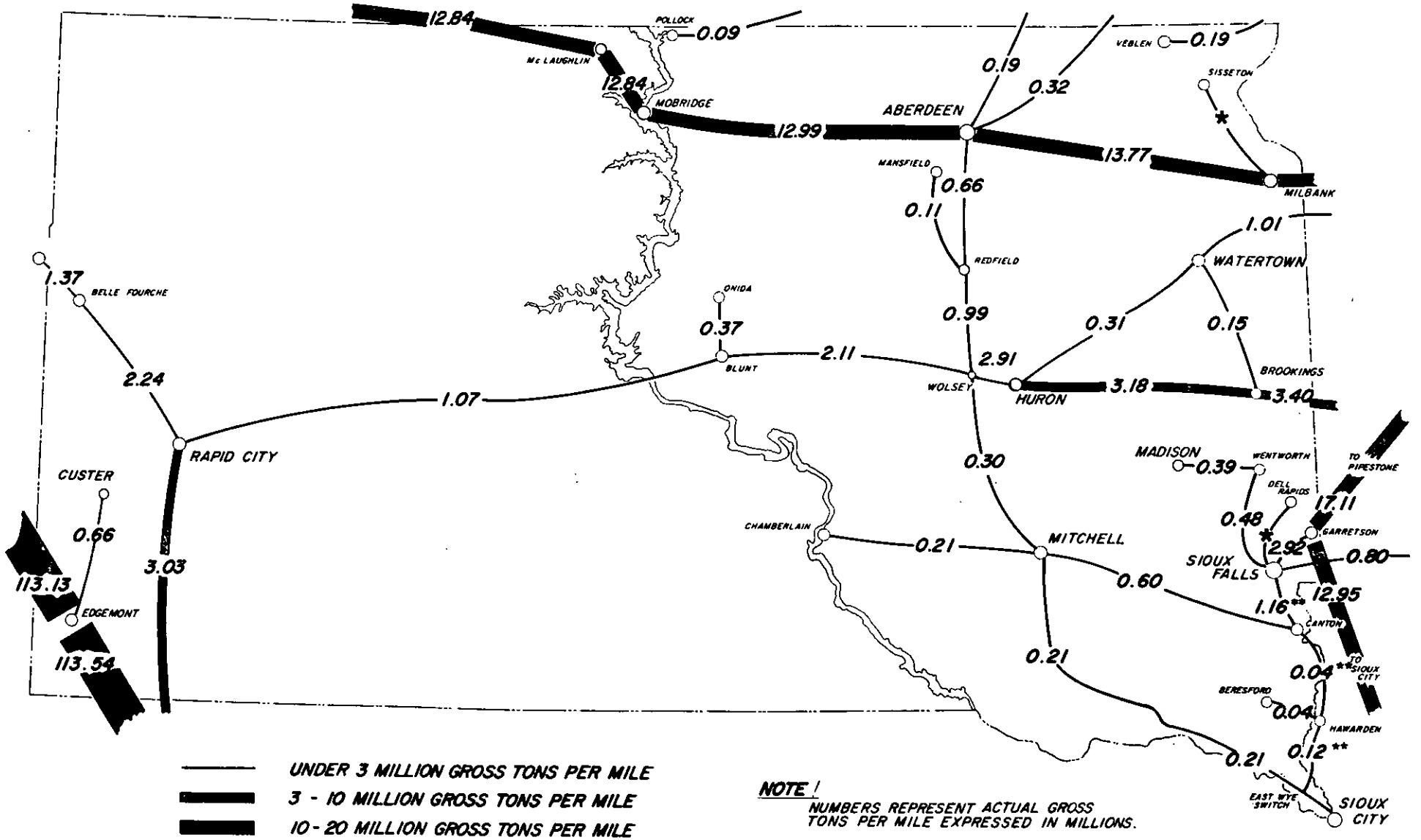
Table B-6 in Appendix B lists gross operating revenues for Class I railroads on their South Dakota operations for the years 1980 through 1984. Gross revenues on South Dakota operations for the Soo Line and the Chicago and North Western have remained relatively stable while revenues for the Burlington Northern have more than doubled in this time period. This increase is largely the result of their assuming operations on the remaining Milwaukee Road trackage in this State during this period.

A common measurement of rail line health by a railroad company is freight density. This measurement is quantified in millions of gross tons per mile of track operated. Figure III-7 is a traffic density composite of all operating lines in the State for the year 1984.

FIGURE III - 7

RAIL FREIGHT TRAFFIC DENSITY

- 1984 -



UNDER 3 MILLION GROSS TONS PER MILE

3 - 10 MILLION GROSS TONS PER MILE

10 - 20 MILLION GROSS TONS PER MILE

OVER 20 MILLION GROSS TONS PER MILE

NOTE !

NUMBERS REPRESENT ACTUAL GROSS TONS PER MILE EXPRESSED IN MILLIONS.

* TONNAGE LESS THAN ONE MILLION GROSS TONS PER MILE, BUT EXACT NUMBER NOT DETERMINED.

** TONNAGE FOR JUST B.N. (BURLINGTON NORTHERN) TRAFFIC.

As this Figure shows, only five (5) rail lines in the State carry over 3 million gross tons per mile. The railroads, as a general rule, indicate that a line must carry at least 3 million gross tons per mile to be capable of providing an adequate return on investment while justifying necessary maintenance. This rule would not necessarily apply to branch lines as their condition and needs are different than through routes. However, any branch line generating less than 1 million gross tons per mile may not be contributing sufficient revenue to the railroad to support necessary maintenance or capital improvement. As is apparent from Figure III-7, many branch lines in the State are below the 1 million gross tons per mile benchmark and are a concern of the State and shippers. Although much of the core system falls in the below 1 million bench mark, it is analyzed in greater detail in Appendix C where it is shown that this traffic has been increasing over the last few years.

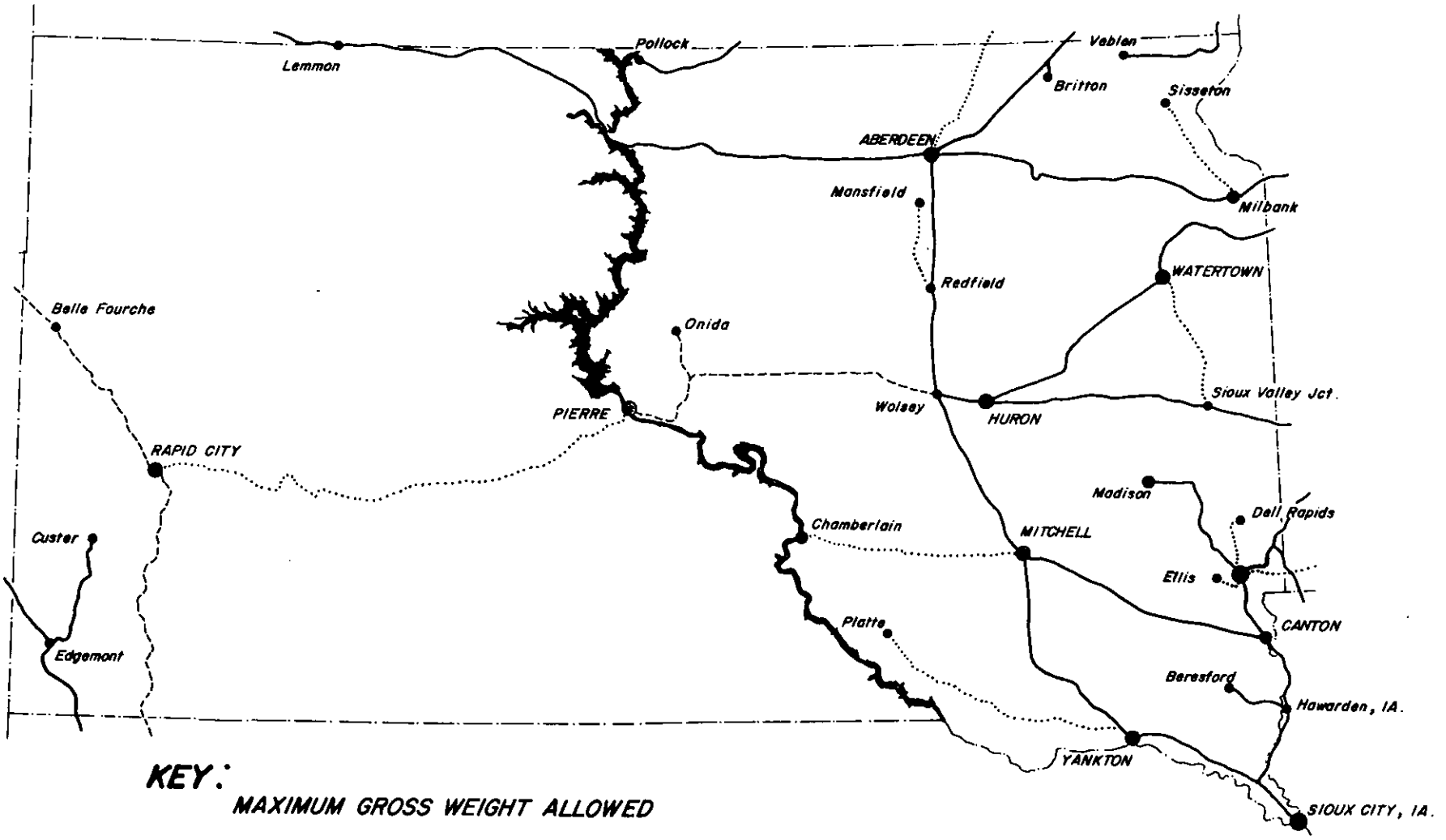
OTHER RAIL CHARACTERISTICS

Rail volume is an indicator of rail usage. However, many factors influence traffic, income and abandonment decisions. An examination of other rail characteristics besides those previously mentioned is necessary to understand and analyze rail transportation in South Dakota.

Figure III-8 illustrates the maximum load limits for each operating rail line in the State. A line should have the capability to carry 263,000 pounds or more to get maximum utilization of the covered hopper car. Any line rated less than 263,000 pounds will most generally result in inefficiencies (less than full loads) or must rely on smaller cars, such as boxcars or smaller hoppers, to move freight. Grain sold to export terminals, if transported by rail, must be moved in the large hopper cars.

FIGURE III - 8

1986
SOUTH DAKOTA OPERATING SYSTEM
MAXIMUM ALLOWABLE LOAD LIMITS



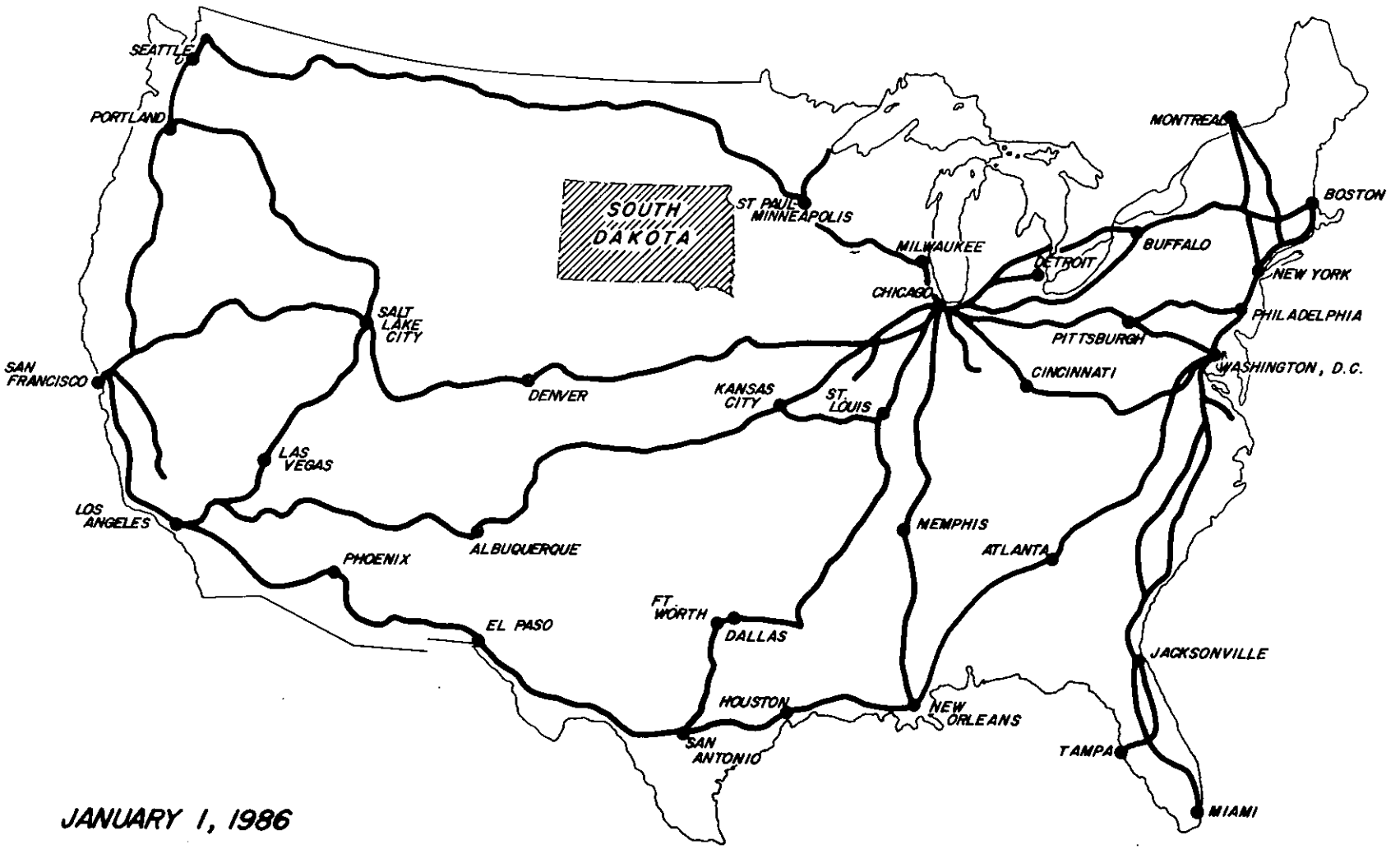
KEY:

MAXIMUM GROSS WEIGHT ALLOWED

——— 263,000 LBS.
------ 251,000 LBS
..... 220,000 LBS or LESS

FIGURE III - 9

AMTRAK'S NATIONWIDE RAIL PASSENGER SYSTEM



JANUARY 1, 1986

As Figure III-8 shows, not all of the lines in the State are capable of supporting fully loaded hopper cars. This circumstance restricts the competitive ability of the carrier for that particular line. The State and shippers recognize that these lines, in order to remain a part of the rail system, must be upgraded for grain transportation. Several of the C&NW lines are rated at 251,000 pounds. These lines can support the large cars with slight underloadings and can be competitive for the movement of most freight.

Since South Dakota does not have rail passenger service, the rail network must rely solely on freight traffic for its support. The AMTRAK passenger system is shown on Figure III-9. Because of the small population of the State, AMTRAK service will probably not be extended to serve South Dakota in the foreseeable future.

POTENTIAL ABANDONMENT CANDIDATES

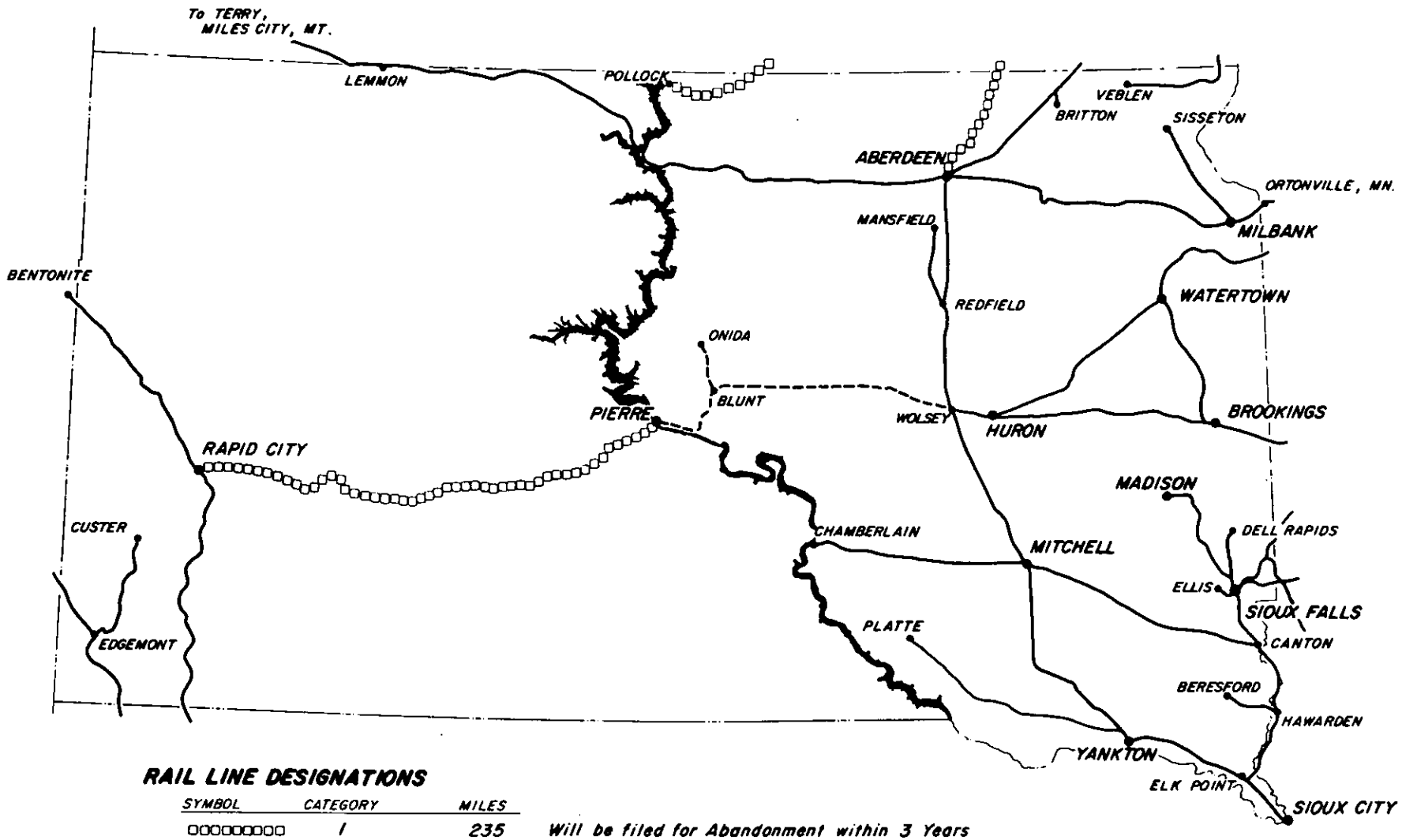
Each year the Class I railroads must classify each line in their system into one of five categories and make a System Diagram Map available to the States in which they operate. These categories represent how the railroad views its lines in terms of possible abandonment candidates. The classifications are:

- Category 1 -- A line which the carrier anticipates will be filed for abandonment or discontinuance within 3-years following the placement in this category.

- Category 2 -- A line potentially subject to abandonment which the carrier has under study and believes may be the subject of a future abandonment application.

FIGURE III - 10

SOUTH DAKOTA
SYSTEM DIAGRAM MAP FOR OPERATING LINES



RAIL LINE DESIGNATIONS

SYMBOL	CATEGORY	MILES	
□□□□□□□□□	1	235	Will be filed for Abandonment within 3 Years
- - - - - - -	2	125	Potentially Subject to Abandonment
.....	3	0	Application for Abandonment is pending
	4	—	Operated Under Subsidy
———	5	1,624	All Other Lines
	TOTAL	1,984	

JANUARY 1, 1986

TABLE III-5

RAIL LINE CLASSIFICATIONS
FOR RAIL OPERATIONS IN SOUTH DAKOTA

(JANUARY, 1986)

CLASS I RAILROAD	CATEGORY 1 MILES	%	CATEGORY 2 MILES	%	CATEGORY 3 MILES	%	CATEGORY 5 MILES	%	TOTAL MILES
Chicago & North Western	202.1	30%	124.5	18%	0.0	---	355.4	52%	682.0
Burlington Northern	0.0	---	0.0	---	0.0	---	1,099.1*	100%	1,099.1*
Soo Line	32.8	49%	0.0	---	0.0	---	33.5	51%	66.3
	234.9	13%	124.5	7%	0.0	---	1,488.0	80%	1,847.4
Additional miles in service by other than Class I Railroad =									136.3
Total Miles with Rail Service in South Dakota =									1,983.7

*BN owned 333.6
SD owned 765.5
1,099.1

CATEGORY	DESCRIPTION
1	Anticipates will be filed for abandonment within 3 years
2	Potentially subject to abandonment
3	Abandonment application is pending
5	Other rail lines

- Category 3 -- A line for which an abandonment or discontinuance application is pending before the Interstate Commerce Commission.

- Category 4 -- A line which is being operated under subsidy through the Regional Rail Reorganization Act of 1973 as amended.

- Category 5 -- All other lines owned and operated.

Figure III-10 is a composite of all carrier's System Diagram Maps (System Classifications) that serve the State.

Table III-5 is a tabular listing of the System Diagram Classifications. This table shows that 16% of the statewide mileage is in Categories I, II, and III. Other lines in the State have characteristics, whether it is low traffic or physical deficiencies, which may place them in a questionable situation. These may, at some future time, be placed in an abandonment situation and be in one of these three (3) categories.

Because South Dakota is a rural state, the production and transportation of agriculture products are major concerns of the producers and state government. Three (3) significant occurrences have recently or are expected to have a positive influence on the agriculture economy of this State. These events are the introduction and expansion of unit grain train movements, the expansion of the export grain market at the Pacific Northwest ports, and the implementation of the twin 42-foot grain trailer program. These events individually and collectively are responsible for helping agriculture producers and elevators be more competitive by lowering total transportation costs and opening up competitive markets.

UNIT GRAIN TRAIN FACILITIES AND SHIPMENTS

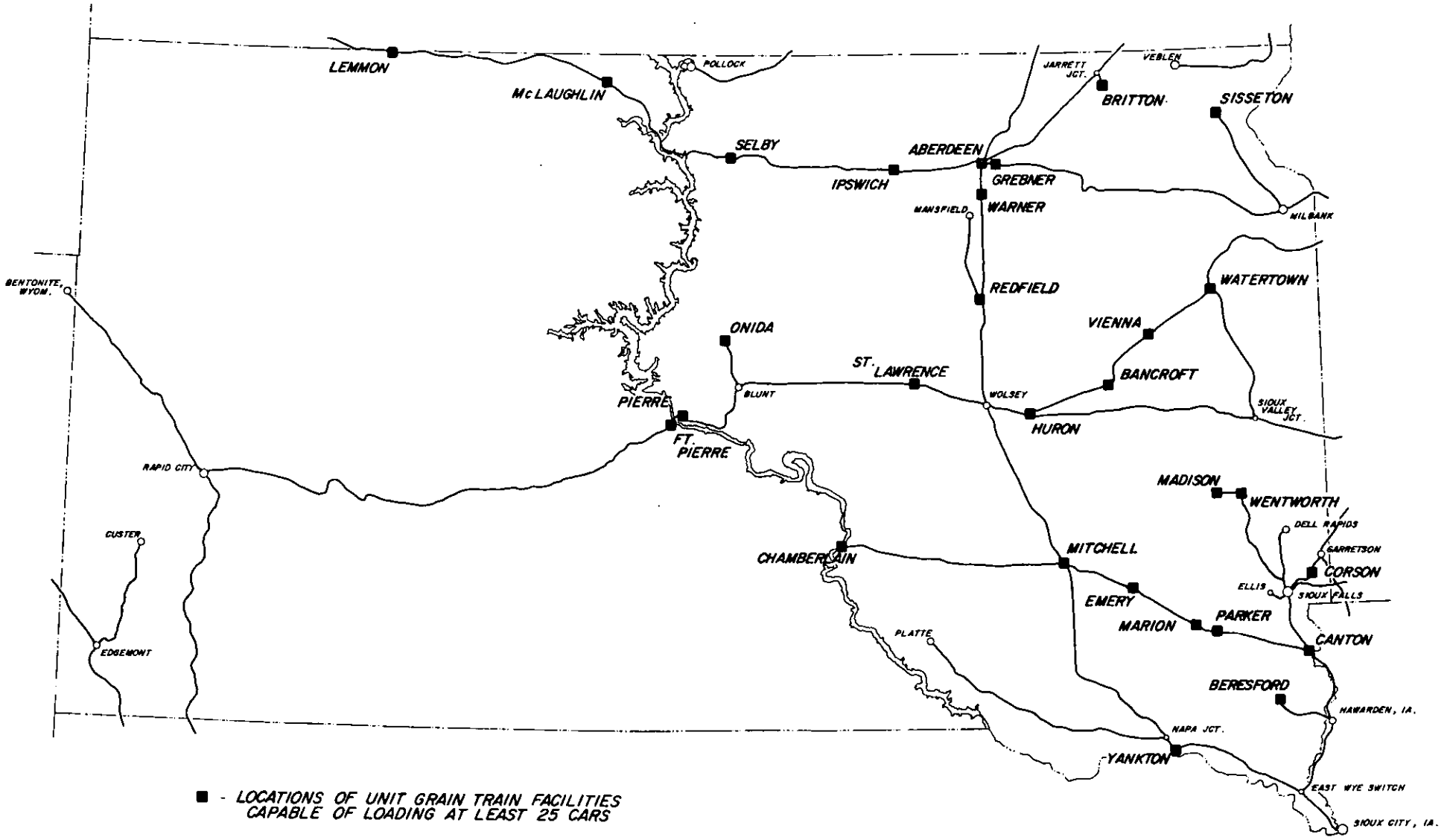
Grain marketing within South Dakota historically consisted of producers selling their products to small local elevators that, in turn, sold and transported this grain to distant markets in relatively small quantities. Railroads moved most of the grain until the introduction and wide spread use of large trucks. In the mid-1970's, attempting to regain lost market share, railroads encouraged multiple car shipments of grain. This unit train concept was slow to gain popularity in South Dakota due to a lack of elevator storage capacity, the predominance of old elevator structures with slow loading capability, a lack of adequate siding capacity and rates, that, at first, were not significantly lower than truck rates. Rising gasoline prices and rail rate reductions shifted the transportation cost advantage to the railroads for long distance shipments. Subsequently, private industry began building new elevators and making changes to existing elevators to take advantage of unit train rates. See Figure III-11 for the locations of existing unit train loading facilities. Unit trains are largely responsible for reversing the railroads long standing loss of market share to trucks in grain transportation. We are now experiencing a greater utilization of trucks for short hauls to unit train terminals as opposed to long haul trips to out-of-state markets. This is contributing much needed revenue to rail lines and better prices for grain to the producer through lower transportation costs.

TWIN 42-FOOT TRAILER PROGRAM

Through the rail planning process during the last decade it became apparent that service could not be maintained on all existing rail lines. The economics were not present to justify retaining all trackage, and, consequently, many rail lines were abandoned leaving numerous grain elevators without rail service. In an effort to maintain economic vitality and stability in communities affected by

FIGURE III - 11

UNIT TRAIN LOADING FACILITIES CAPABLE OF LOADING 25 OR MORE CARS



■ - LOCATIONS OF UNIT GRAIN TRAIN FACILITIES CAPABLE OF LOADING AT LEAST 25 CARS

○ - OTHER LOCATIONS

railroad abandonment, the South Dakota Transportation Commission authorized the operation of twin 42-foot grain trailers. Even though the twin 42-foot trailers exceed the Department's previous size restrictions, those restrictions were modified for the specific purpose of transporting grain from licensed elevators not served by rail transportation to grain elevators within South Dakota with unit train loading capabilities. [1] In 1985, 134 communities were identified as having licensed grain elevators not served by rail transportation, and 29 communities were identified as having unit train loading facilities.

Vehicles operating under the Twin 42 Program must comply with the following restrictions.

* The vehicle combination must be a truck-tractor-semitrailer-semitrailer or truck tractor-semitrailer-trailer combination.
* Each semitrailer or trailer may not exceed 42 feet and the overall length of the vehicle combination may not exceed 110 feet.
* The maximum gross weight of the vehicle combination is 129,000 pounds and the vehicle combination must comply with the state's axle and bridge weight laws.
* The truck must be commercially licensed for the weight it carries and possess special double "X" plates.
* The vehicle operator must use the routes specified on the permit and the permit is legal only for the trip specified.

Due to the large turning radius required by twin 42's, no permits between specified points are issued until all necessary intersection modifications have been completed to allow safe turning movements. The Transportation Commission set aside $500,000 for intersection modifications in both 1985 and 1986.

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[1] A unit train is a train consisting of at least 25 cars transporting a single commodity using special multiple-car tariff rates.

On April 25, 1985, grain elevators not served by rail transportation were requested to indicate if they were interested in participating in the department's Twin 42 Program. The Department of Transportation received requests for approval of 89 different routes from 55 shipping elevators and 22 unit train facilities. The following routes have been approved for the operation of Twin 42 foot grain trailers as of December 1985.

1. Eagle Butte to Onida
2. Isabel to Onida
3. Draper to Fort Pierre
4. Reliance to Emery
5. Ridgeview to Selby
6. Volin to Yankton
7. Davis to Canton
8. Viborg to Canton
9. Davis to Corson
10. Clark to Redfield
11. Salem to Emery
12. Howard to Emery

Figure III-12 illustrates the location of these routes.

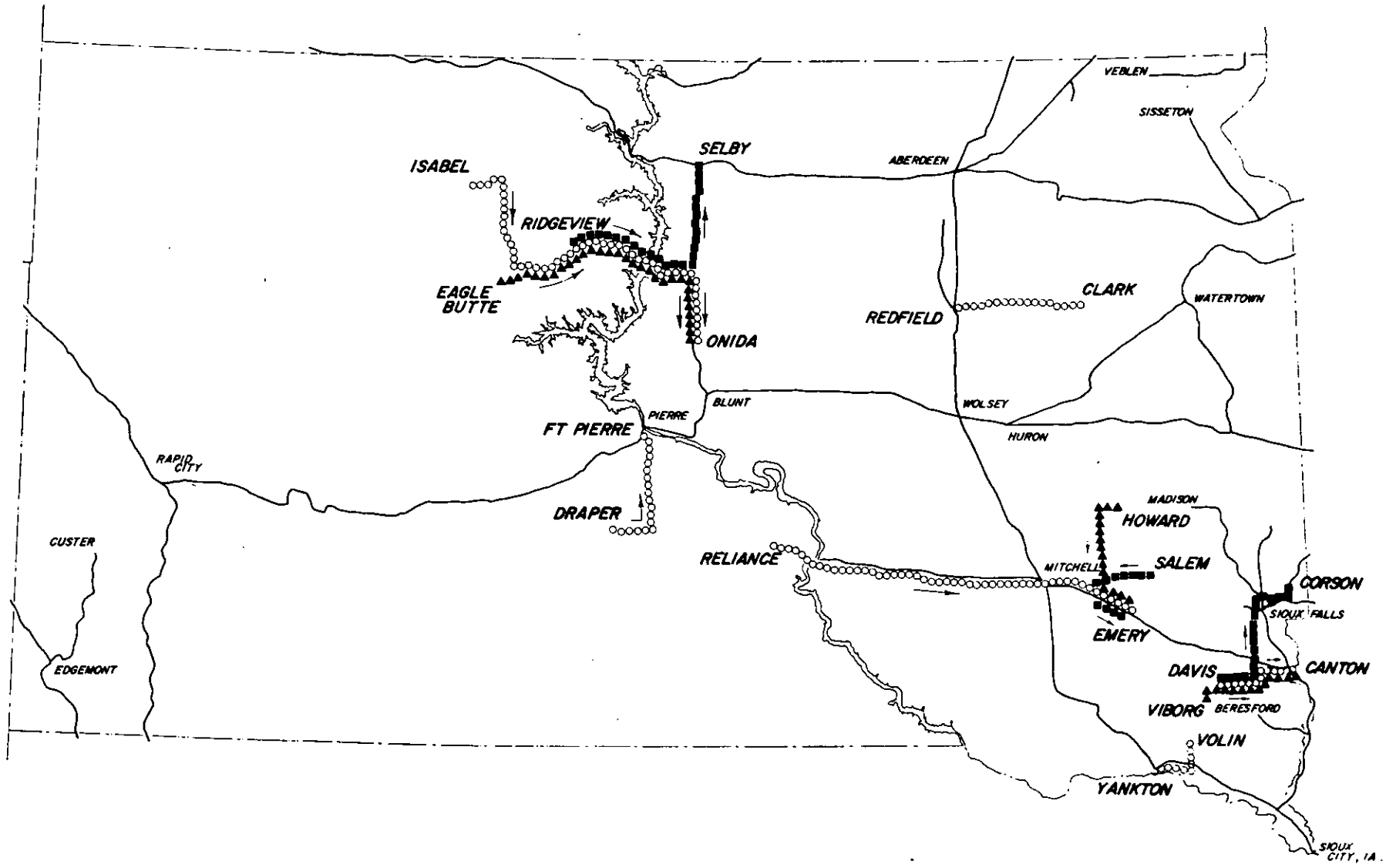
PACIFIC NORTHWEST EXPORT GRAIN MARKETS

South Dakota grain that left the State historically moved easterly to Minneapolis, Duluth, Omaha, Mississippi River points and other similar markets. South Dakota was at a competitive disadvantage because its products had to be transported greater distances at higher costs than products being shipped to the same markets from other states. The majority of the grain for export traditionally had to reach the ports at Duluth, the Gulf, or the East Coast.

The last decade has seen an increase in the use of Pacific ports for export grain. This has occurred mainly due to increased trade with China, The Soviet Union and Pacific Rim countries that can be reached more economically from these ports than from other U.S. ports. This increased trade is an advantage to producers in South Dakota because it requires a shorter transportation move than for producers in

FIGURE III - 12

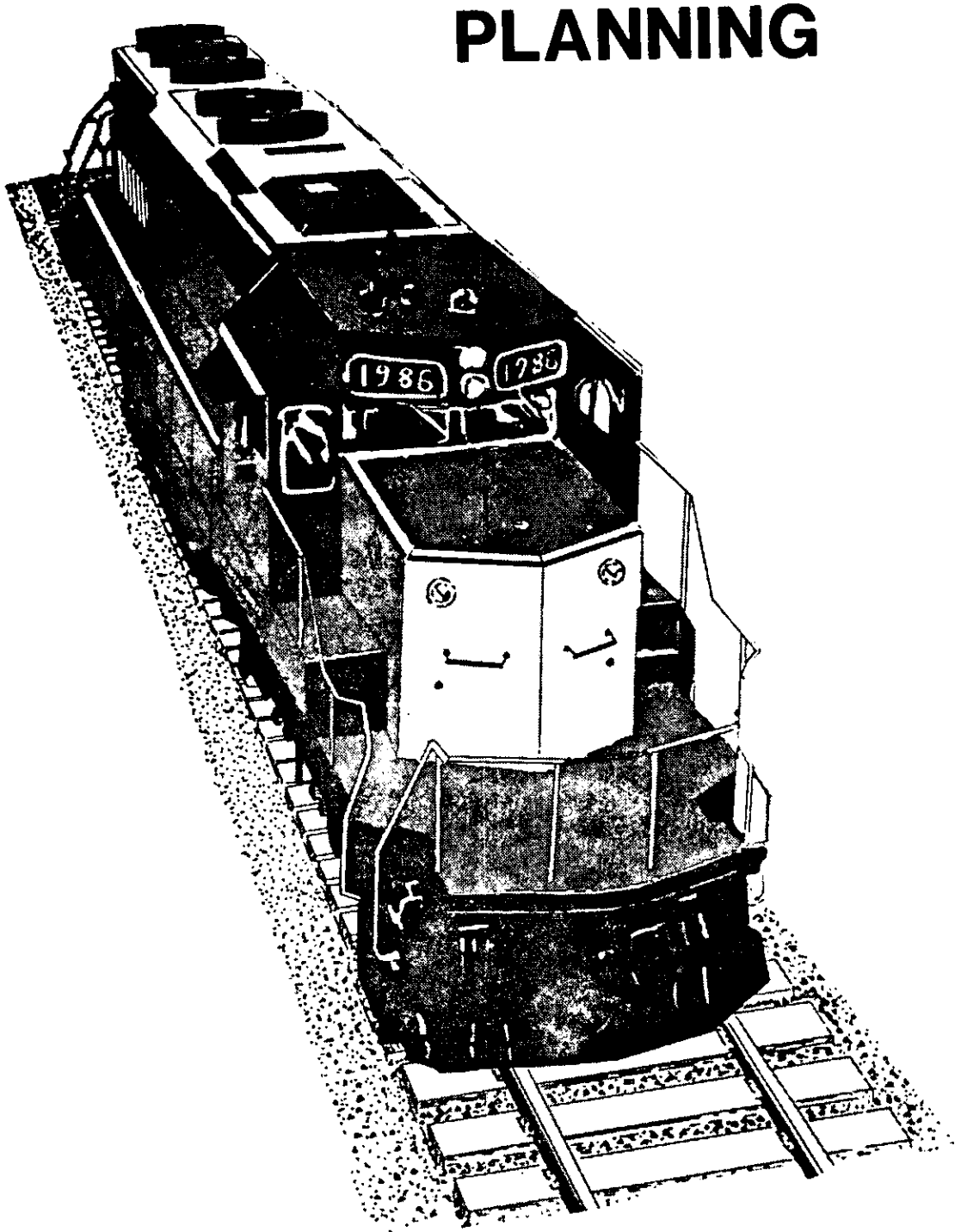
ROUTES APPROVED BY THE TWIN - 42 FOOT TRAILER PROGRAM



other major grain producing states resulting in lower tariffs for South Dakota producers. Grain moves to these ports in large hopper cars, usually in unit trains. This market also gives South Dakota producers and elevators one more choice in marketing their products.

The following chapter discusses future rail planning issues and outlines rail lines that have physical deficiencies that make them a concern to the State. The discussion outlines some of the problems and issues associated with each rail line.

FUTURE RAIL PLANNING



CHAPTER IV

CHAPTER IV

FUTURE RAIL PLANNING

Rail planning in South Dakota has been, and will continue to be, an ongoing process. Through this and past rail plans, South Dakota rail planning and project implementation have been well documented. The task facing South Dakota now is to preserve and improve the essential rail system by utilizing available state resources in conjunction with assistance from the carriers and the shippers to maintain rail service where it is needed.

CONTINUING PLANNING

The rail network in South Dakota will continue to be monitored for trends in rail traffic. Proposed abandonments will be analyzed to determine if feasible alternatives exist that would avoid or mitigate projected impacts.

The core system concept for South Dakota, developed in 1980, guided the State in its purchase and assistance programs and will continue to be a guide in the future. As has been documented in previous plans, this system represents the rail transportation network of statewide significance. It acts as a collector system in a transportation dependent area and serves as a connector to the Nation's rail network. The goal is to preserve this essential system of rail lines.

Important parts of the ongoing rail planning process will be assessments of endangered rail lines and studies of transportation alternatives. The Division of Planning, in an attempt to guide future planning activity, has placed each rail line in the State into one of three categories to reflect the stability of each line. These categories are:

- Immediate danger of abandonment (threatened)

- o Potential future candidate for abandonment (weak), and
- o No immediate danger of abandonment (secure).

Future rail planning will be concentrated on those lines in the most immediate danger of being abandoned. A preliminary analysis will be performed to determine if a detailed analysis is justified to study the transportation alternatives on a given rail line.

Figure IV-1 identifies the lines in the above three categories and Table IV-1 is a line by line listing.

Four rail lines are currently "threatened" and in the most immediate danger of abandonment. The first three of these are included in a larger system of lines that the C&NW is proposing to sell as a regional railroad to the L.B. Foster Company. If this sale is consumated, the future of these lines will be more secure. The "threatened" lines are:

1. Ft. Pierre to Rapid City - This C&NW line is the last line operating between the western and the eastern half of the State. Its length, weight restriction and poor condition, coupled with a low traffic level, makes this a "threatened" line. This line was filed for abandonment in 1983, but the ICC did not permit the abandonment. Since that time the overhead traffic has been taken off the line which further weakens its financial position.

2. Aberdeen to Oakes, ND - The majority of the remaining traffic on this C&NW line is cement from Rapid City and originating grain. The line is probably marginal at best, and a decrease in either of these commodities will further weaken the line. This line was filed for abandonment in

FIGURE IV - 1

RAIL LINE STABILITY

THE STATE'S VIEW

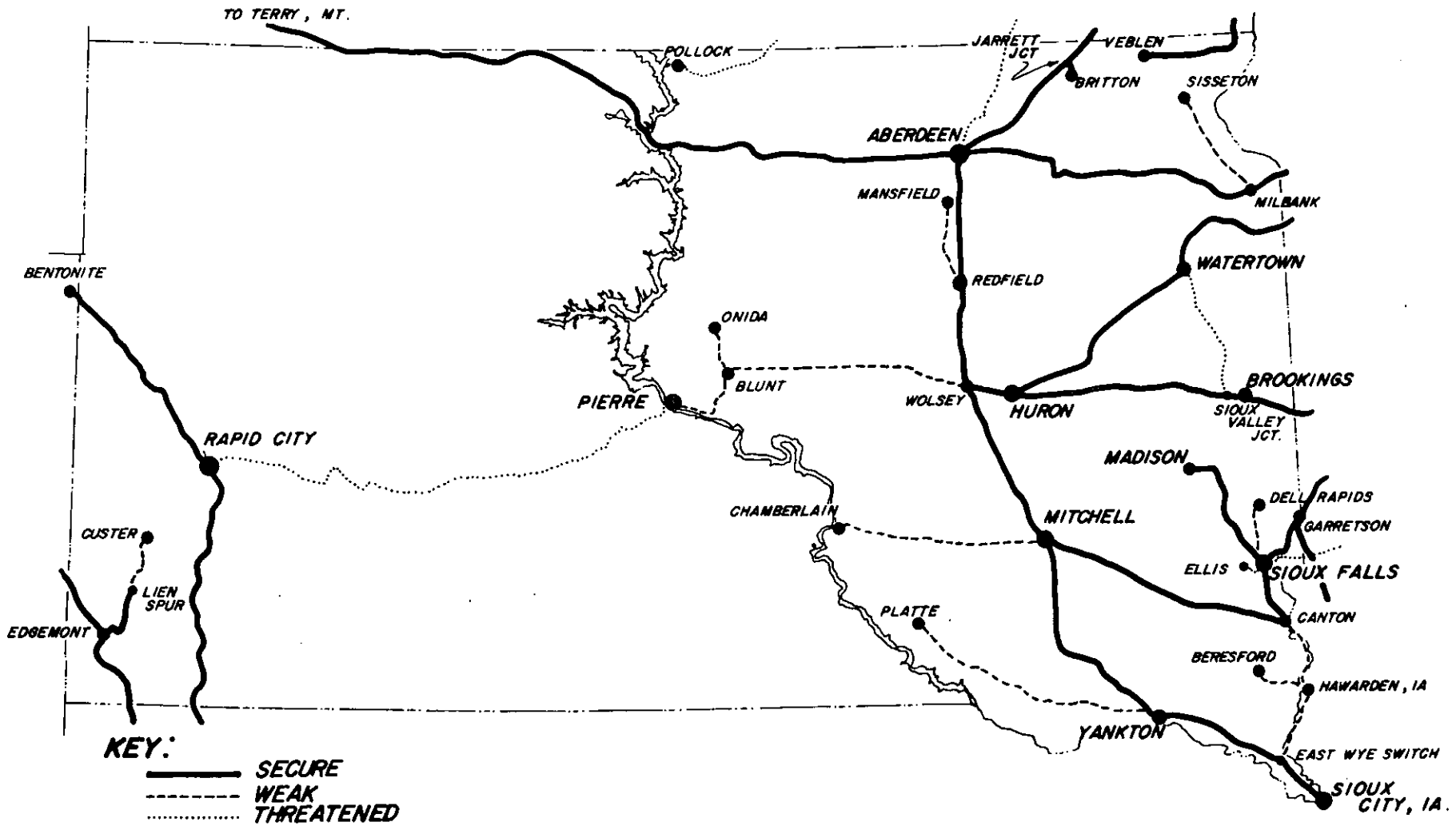


TABLE IV-1
RAIL LINE STABILITY
THE STATE'S VIEW

THREATENED

1. Ft.Pierre to Rapid City (C&NW)
2. Aberdeen to Oakes, ND (C&NW)
3. Sioux Valley Jct. to Wtrn. (C&NW)
4. Worthington, MN to Ellis (C&NW)
5. Wishek, ND to Pollock, SD (Soo)

TOTAL THREATENED MILES=301.7

WEAK

1. Blunt to Onida (C&NW)
2. Wolsey to Ft.Pierre (C&NW)
3. Lien Spur to Custer (BN)
4. West Jct. to Dell Rapids (DI)
5. Canton to East Wye Switch (SD)
6. Hawarden to Beresford (SD)
7. Mitchell to Chamberlain (SD)
8. Redfield to Mansfield (C&NW)
9. Milbank to Sisseton (PRIVATE)
10. Napa to Platte (SD)

TOTAL WEAK MILES=408.4

SECURE

1. Ortonville, MN to Terry, MT (SD)
2. Aberdeen to Wolsey (SD)
3. Wolsey to Mitchell (SD)
4. Mitchell to Sioux City (SD)
5. Mitchell to Canton (SD)
6. Canton to Sioux Falls (SD)
7. Britton to BN Jct. (SD)
8. Sioux Falls to West Jct. (SD)
9. Aberdeen to Geneseo Jct. (BN)
10. Benson, MN to Watertown (BN)
11. Watertown to Huron (BN)
12. Willmar, MN to Garretson (BN)
13. Garretson to Sioux City (BN)
14. Garretson to Sioux Falls (BN)
15. Sioux Falls to Madison (BN)
16. Alliance, NE to Gillette, WY (BN)
17. Edgemont to Lien Spur (BN)
18. Tracy,MN to Wolsey (C&NW)
19. Chadron, NE to Rapid City (C&NW)
20. Rapid City to Colony, WY (C&NW)
21. Veblen Jct., ND to Veblen (SOO)

TOTAL SECURE MILES = 1,273.6

1985, but the railroad later withdrew the application and continues to provide service.

3. Sioux Valley Jct. to Watertown - The future of this Chicago & North Western line hinges on traffic levels. Carloadings have been decreasing steadily and the last major traffic source for the line is cement from Rapid City. The future of the Ft. Pierre to Rapid City line will influence the outcome of this line.

4. Worthington, MN to Ellis, SD - This line serves as C&NW's access to Sioux Falls. Although the traffic at Sioux Falls may be attractive, the line is in poor physical condition. A substantial amount of the revenue traffic is cement from Rapid City. C&NW obtains ballast from a quarry near Ellis.

5. Wishek, ND to Pollock, SD - This Soo Line branch line has been classified as "threatened" because of the very low traffic volume. More than one-half of this line lies in North Dakota.

Rail lines that are "Weak" and in a position for possible abandonment are as follows:

1. Blunt to Onida - This dead-end C&NW branch line connects with the Ft. Pierre to Wolsey line. This rail line was completely rehabilitated in 1984 and is now in very good condition. Traffic is demonstrating good growth and shippers can now participate in the export markets and unit train movements because they can utilize large covered hopper cars. The line contributes substantially to the health of the Wolsey to Ft. Pierre line, but cannot be classified as secure at this time because of the status of the Wolsey to Ft. Pierre line.

2. Wolsey to Ft. Pierre - The traffic on this line is relatively low, but is increasing and does include some overhead traffic generated on the "threatened" Ft. Pierre to Rapid City line. Although the State has participated in a rehabilitation project on the line, it is still in need of additional repairs to achieve a solid future standing. Traffic levels must also be improved to contribute to the line's viability.

3. Lien Spur to Custer - Low traffic levels along with poor track conditions make this a "weak" link. The main commodities moved on this line are feldspar and feldspar products.

4. West Jct. to Dell Rapids - This line is owned by the L. G. Everist Company and is operated by the D & I Railroad. This line is not in service as a common carriage line and operates exclusively for the movement of quarried rock from Dell Rapids. This line is classified as weak because of the light weight rail on the line.

5. Canton to East Wye Switch - This State-owned line has been designated as a local option line. Due to its service characteristics, traffic volumes and other lines in the area, it has been classified as "weak". To remain in service, local traffic must improve. This line is also used by the D & I Railroad for movements of rock to Sioux City and beyond.

6. Hawarden to Beresford - This is also a local option line and connects with the Canton to East Wye Switch line at Hawarden. Its future rests with improved traffic levels.

7. Mitchell to Chamberlain - This is the weakest segment of the State-owned core sytem. The weight of rail prohibits the use of jumbo hopper cars and the track condition limits the speed. Other factors making this a

weak line include the expense of operating and maintaining the line and competition from a parallel Interstate highway.

8. Redfield to Mansfield - The C&NW has not indicated that they plan to abandon this line, but it is in poor physical condition. Although the line generates a substantial level of traffic, it is doubtful it could remain in service for an extended period of time without substantial rehabilitation. It parallels the State-owned system for its entire length, which is never more than five miles away.

9. Milbank to Sisseton - This privately-owned line is operated by Dakota Rail, a short line. It is classified as "weak" because of its poor physical condition. The State participated in a tie and ballast project on this line, but the very light and badly worn rail still needs to be replaced. Traffic from this line is currently interchanged with the Milwaukee Road at Milbank. Much of the feasibility of this line rests with the Milwaukee Road's position in the barley market and their continued access to Milbank.

10. Napa to Platte - This is a State-owned local option line currently operated by the Dakota Southern Railroad. The line was put back in service in 1985 after being out of service for nearly five years. The uncertain traffic base and poor physical condition make this a weak line.

The remaining lines in the State have been classified as "secure". This classification means that the lines are not in immediate danger of abandonment. Track conditions and traffic levels are such that they remain attractive to the operator.

All rail lines will be monitored through the continuing planning process. Those lines that are most threatened with abandonment will receive more intense analysis, as well as those lines studied for possible assistance projects. The State will continue to work with shippers and shipper groups to assist them in rail related matters. The State will also strive to integrate both rail and highway planning so that future analyses will properly consider both modes.

RAIL IMPROVEMENTS SINCE LAST RAIL PLAN

The State will continue to promote projects to improve rail facilities. Two projects were implemented in 1984. These projects were on the Blunt to Onida and the Mitchell to Tulare rail lines and are vital improvements to key rail lines in the State. The State applied for FY 1985 federal funds to support a ballast and surfacing project on the Aberdeen to Mitchell line. These funds were awarded late in 1985 and the project will be initiated in 1986. Figure IV-2 graphically shows the location of completed rail line improvement projects.

PROPOSED RAIL IMPROVEMENTS

Rail lines, in order to be eligible for federal funds, must meet certain tests. Two major tests are that the line must have a favorable benefit/cost ratio, and carry less than 3 million gross tons per mile. Figure IV-3 illustrates operating lines that are currently eligible because of low traffic volumes. The federal program has been scaled down, which makes the project selection process difficult because most project needs are larger than available funds. Only five (5) operating lines in the State are <u>not</u> eligible for funding because of their traffic level. Due to the large financial needs on operating lines (larger than the resources available), assistance will not be provided on those lines which are not

FIGURE IV-2

RAIL IMPROVEMENT PROJECTS
USING STATE AND/OR FEDERAL FUNDS

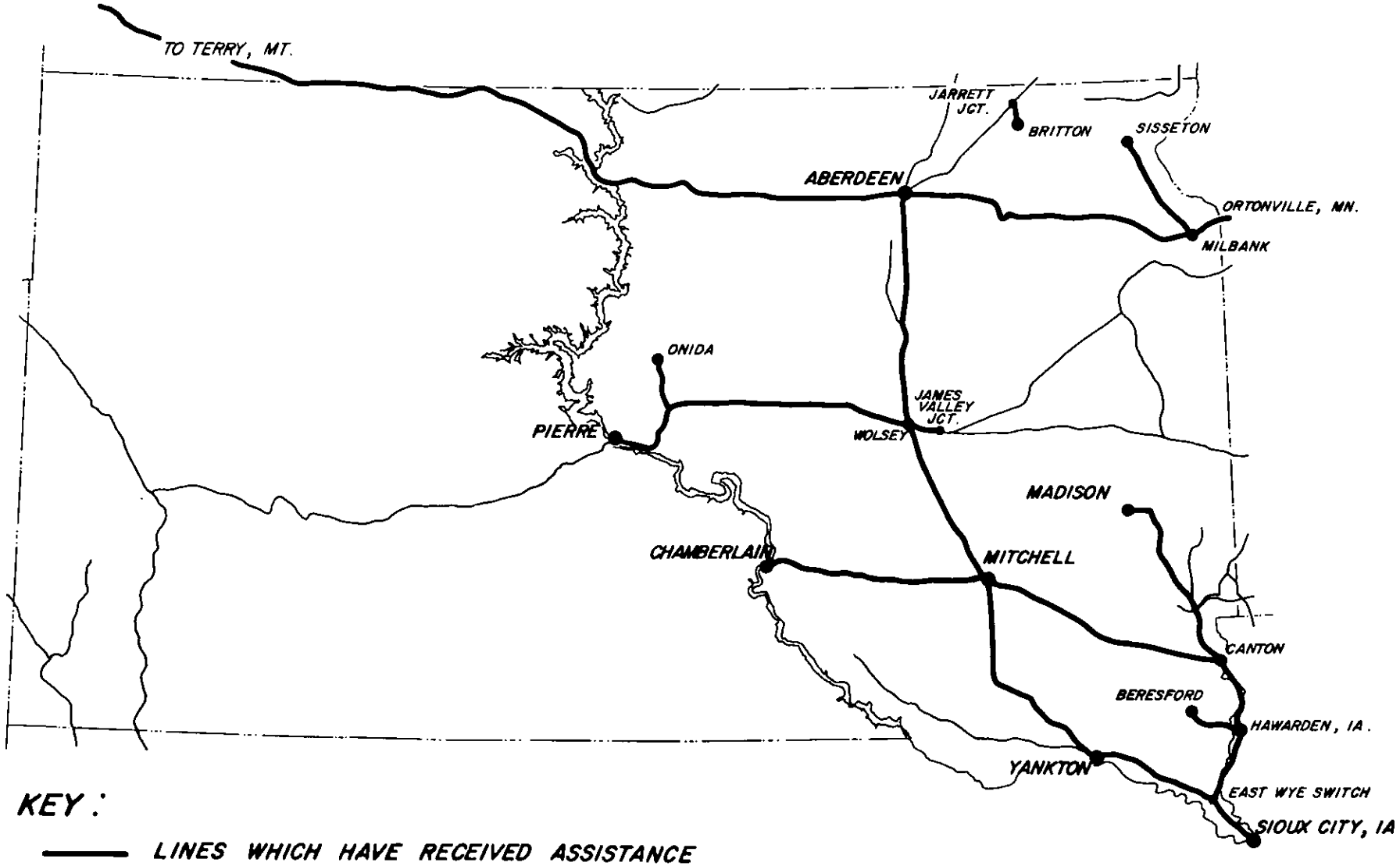
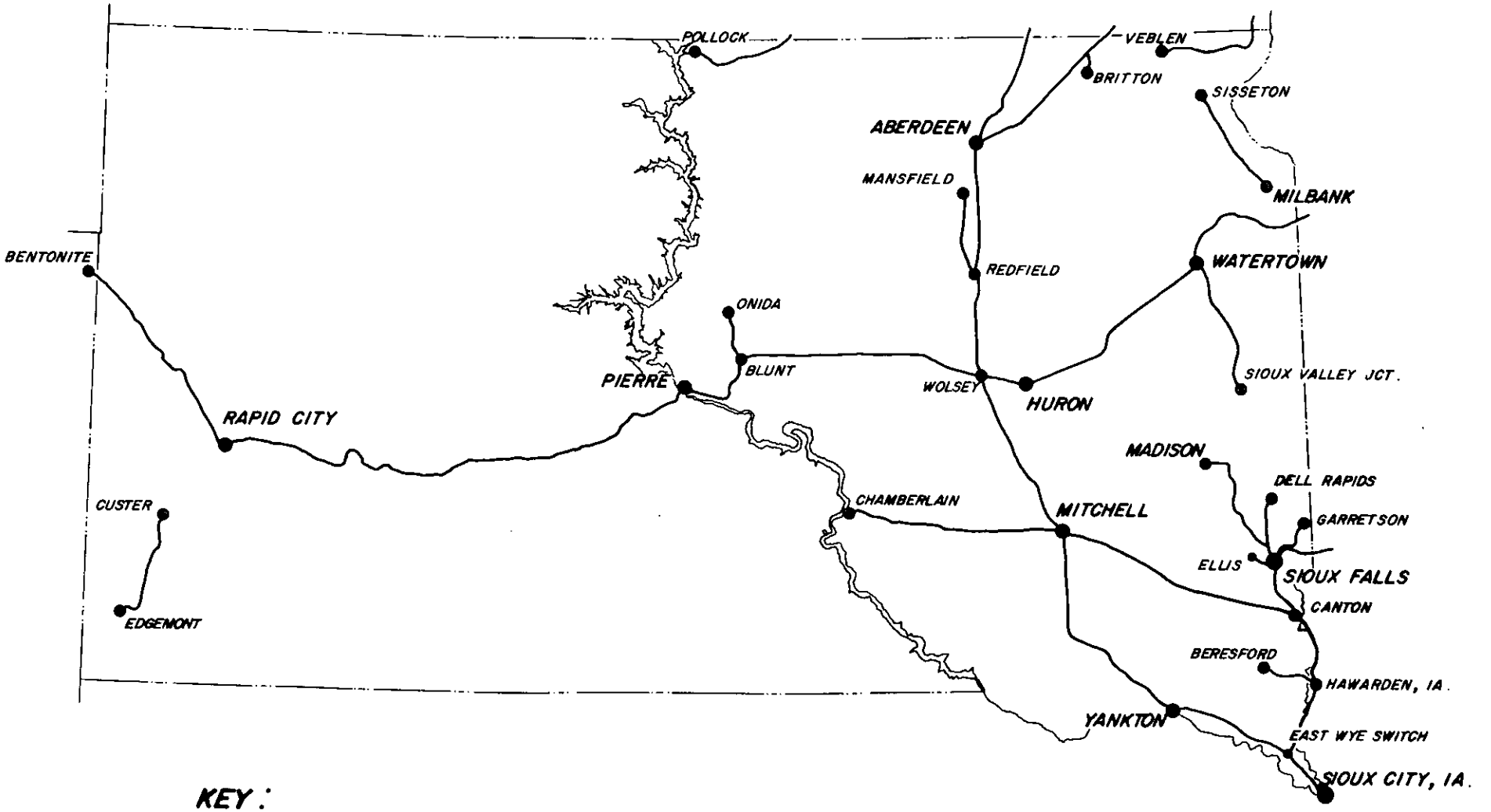


FIGURE IV- 3

1984
OPERATING RAIL LINES CARRYING LESS THAN 3 MILLION GROSS TONS PER MILE*

(* ONE OF THE ELIGIBILITY REQUIREMENTS FOR FEDERALLY FUNDED PROJECTS)



KEY:

——— RAIL LINES CARRYING **LESS THAN** 3 MILLION GROSS TONS PER MILE.

currently operating. The screening criteria used to select future projects for financial assistance are as follows:

A. Lines that are a part of South Dakota's core rail system concept.

B. Lines whose abandonment could have significant impacts on the affected shippers and communities.

C. Light density lines threatened by physical deterioration or requiring rehabilitation to permit cost efficient operations.

D. Light density lines providing access to the regional and national railroad network.

E. Project locations where significant shipper interest in improving or maintaining local rail operations is demonstrated.

F. Lines with benefit cost ratios greater than one (1).

Those lines previously listed as weak or threatened will be considered first for financial assistance, although any rail line that has previously received financial assistance will be given a low priority for additional funds. Rail lines listed as secure can be considered for assistance if they meet the above criteria. Additionally, any project selected must have an identified source of funds to match the federal share of the project.

OTHER ISSUES

Several other important issues are noteworthy in addition to the assistance projects. Prior funding assistance for both planning and projects was made available through federal legislation. Recent federal budget cuts have left the

current program with an unknown amount of funding available to South Dakota for the next fiscal year. The State has, in the past, raised funds for acquisition and rehabilitation, but it is very doubtful that additional State funds will become available.

The Department of Transportation will strive to lease additional property to shippers and others along the State-owned lines. This will generate additional funds and, more importantly, it will improve utilization of rail property that had been idle. This will, in turn, assist in weed control and enable effective management of the State-owned property.

The State will assist shippers or shipper groups to efficiently utilize rail facilities. This may include the location of new businesses or the expansion of existing structures. Any improvements in rail utilization will take into consideration the highway network and its access to the rail area.

The State-owned rail system will be monitored to determine current usage, rehabilitation needs and other transportation alternatives. Based upon the evaluation, recommendations may be made for changes to the system to better serve the public interest. Overall, the State-owned core system appears to be working well, and traffic is still developing. The State is currently negotiating a new lease with the Burlington Northern for continued operation of the core system.

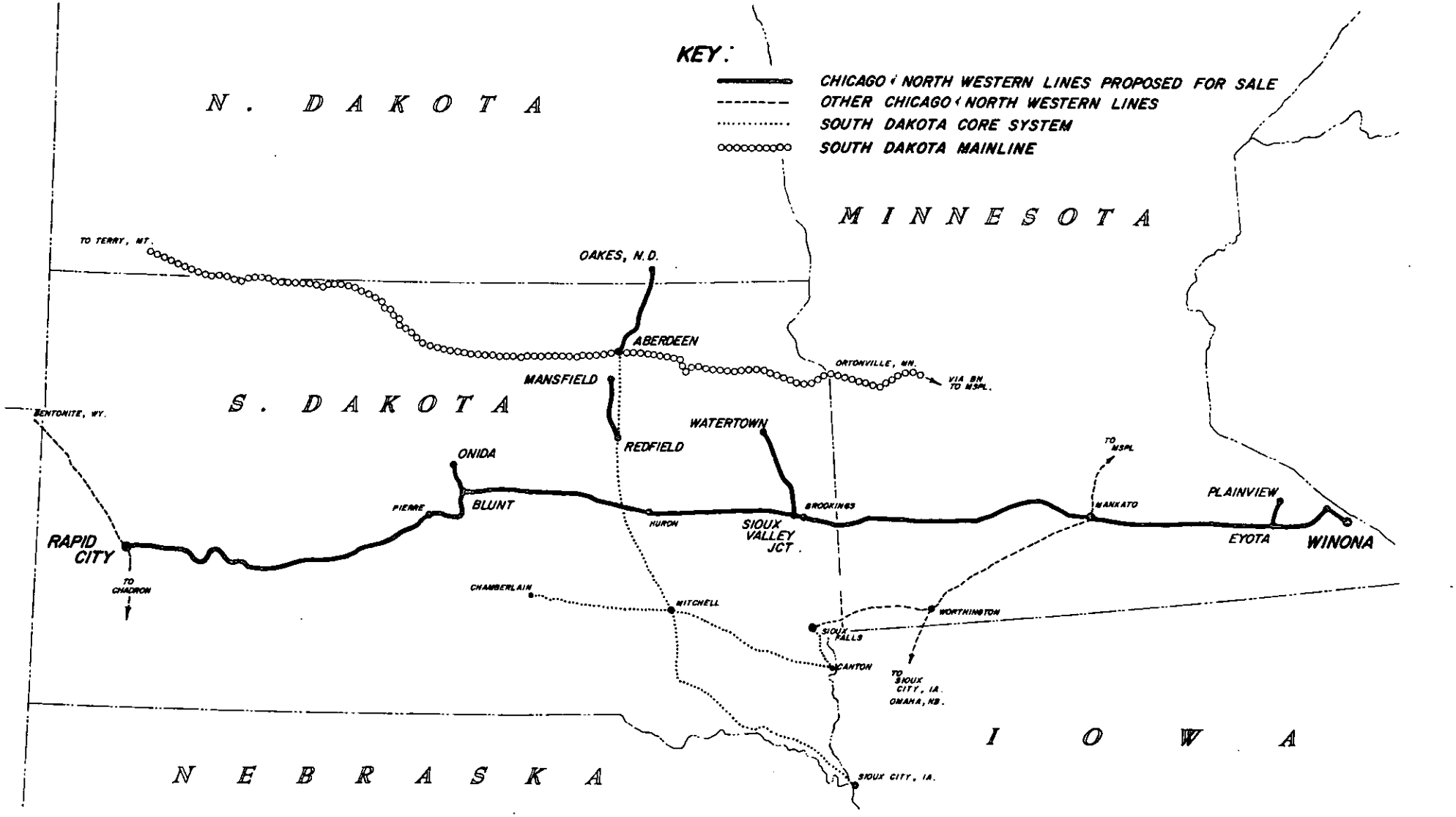
In November, 1985, the Chicago and North Western Transportation Company announced that they were negotiating with the L. B. Foster Company to sell most of their track in South Dakota as well as some in North Dakota and Minnesota. The lines being considered include Winona, MN to Rapid City, Blunt to Onida, Aberdeen to Oakes, ND, Redfield to Mansfield and Sioux Valley Junction to Watertown. Figure IV-4 shows these lines in relation to other lines in the area. The total package

includes 770 miles of track and 104 miles of trackage rights. The L. B. Foster Company bought exclusive bargaining rights and hopes to reach a purchase agreement by January 31, 1986. If successful in the purchase, L. B. Foster would like to upgrade the track to 25 MPH standards over the next five years. These lines, if operated by a short line railroad, may be healthier financially than if operated by the C&NW. It is anticipated that traffic on the Rapid City to Winona line will increase because C&NW has agreed to return to the line all overhead traffic that it diverted to other lines in its system. Also, because it could operate outside union rules, operating costs could decrease. Although each line must succeed or fail on its own merits, these lines have a good chance of being profitable and remaining in operation. The future of the Ft. Pierre to Rapid City line seems particularly dependent on the L. B. Foster plan.

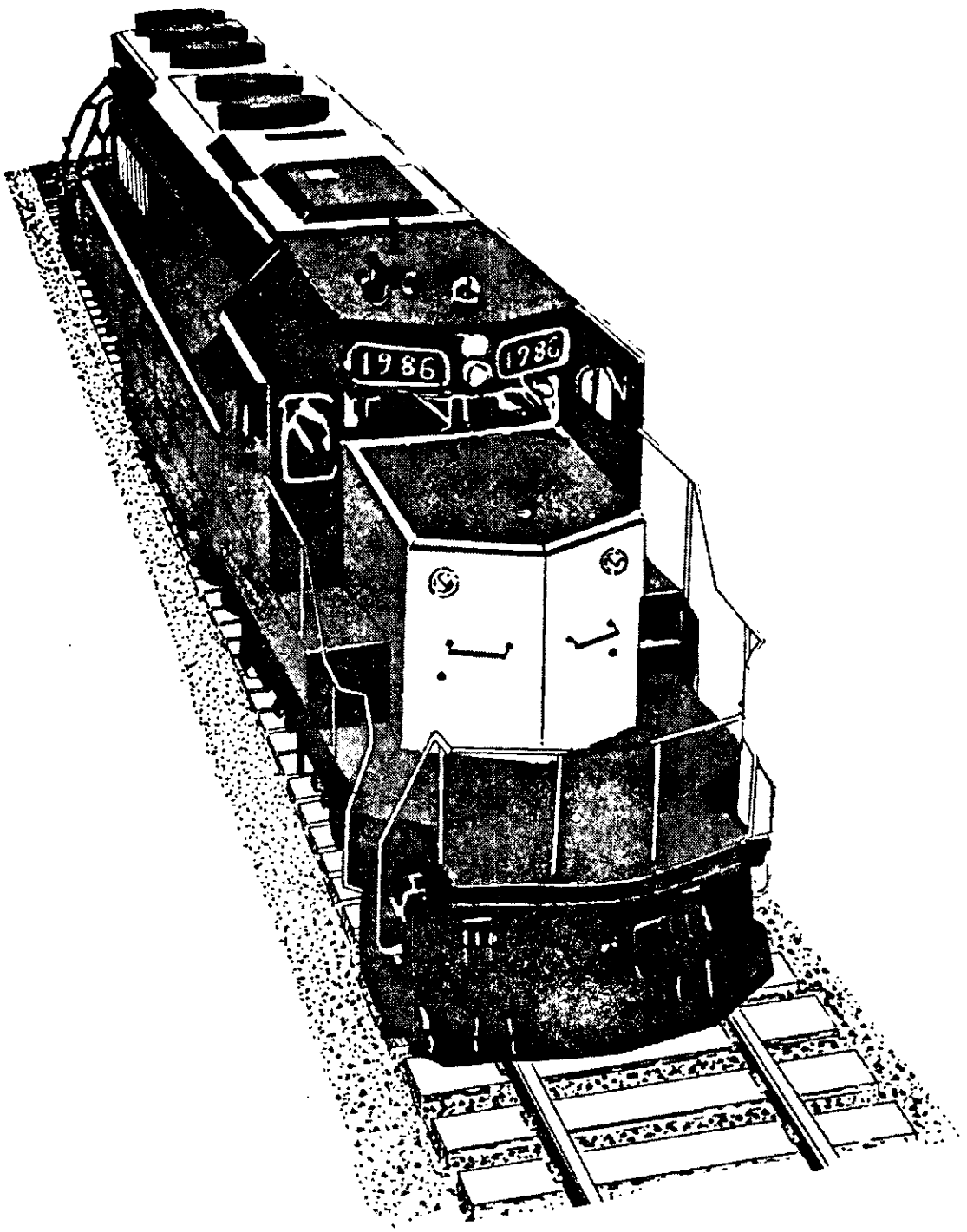
A brief summary of rail planning and assistance follows in Chapter V.

FIGURE IV-4

CHICAGO AND NORTH WESTERN SALE PROPOSAL



SUMMARY



CHAPTER V

CHAPTER V

SUMMARY

The rail system in South Dakota has undergone significant changes in the last seven years. These changes have resulted in the "core system concept", the purchase of selected abandoned lines by the State, the rehabilitation of selected lines, and the reinstatement of rail operations on a limited number of abandoned lines.

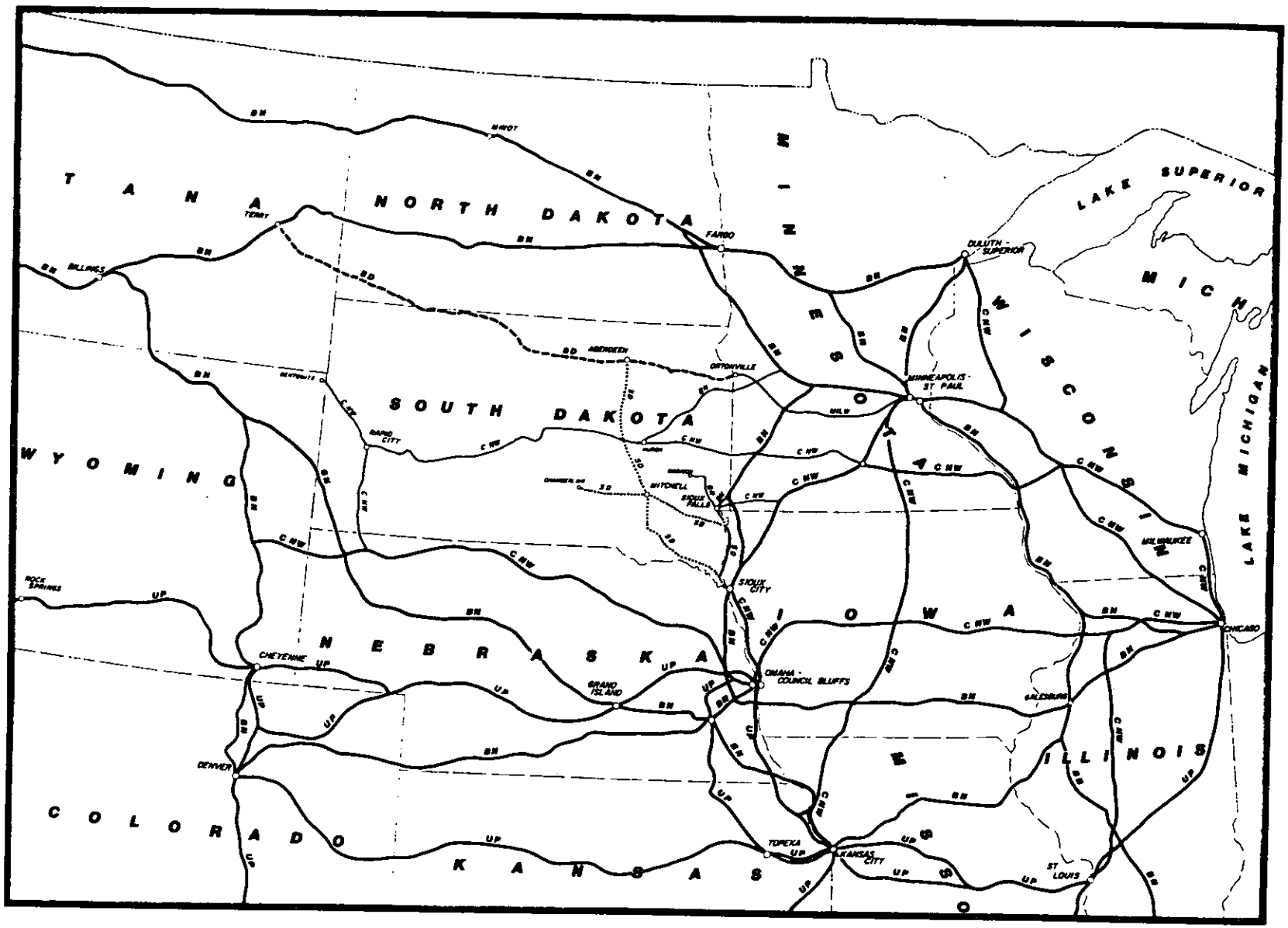
The cause for the high level of involvement in rail activity by the State of South Dakota was primarily the Milwaukee Road bankruptcy. Of the 1,670 rail miles abandoned in the State since 1980, 1,310 miles resulted directly from the Milwaukee Road bankruptcy.

The elimination of key segments from the State's rail network created the need for the involvement of some entity dealing with transportation. Since the private sector expressed no willingness to purchase these important lines, the State was forced to intervene. South Dakota purchased and currently owns 1,292 miles of trackage, 1,072 miles of which are currently being operated. An agreement was signed with the Burlington Northern Railroad Company to provide service on most of this trackage. The BN has allowed this State-owned trackage to become a fully functional part of the national rail network. Figure V-I illustrates how the State-owned trackage fits into the BN system and the regional rail network.

During the last decade, the rail industry has undergone several significant changes that have affected South Dakota. Shifting markets, specifically for grain, have altered traffic patterns to the extent that current rail shipping in South Dakota is significantly different than it was ten years ago. The dominance

FIGURE V-1

SOUTH DAKOTA'S INTERFACE WITH THE REGIONAL RAIL NETWORK



MAIN LINE RAILROADS OF IMPORTANCE TO SOUTH DAKOTA

SOUTH DAKOTA OWNED - BURLINGTON NORTHERN LEASED

SOUTH DAKOTA OWNED CORE SYSTEM - BURLINGTON NORTHERN OPERATED

LOCAL CONNECTOR LINES TO MAIN LINES

of covered hopper cars for grain has almost eliminated the use of boxcars for grain shipping. These larger and heavier cars create additional strain on the track structure. If the line does not have adequate structural support, or if the rail is too light, the trackage is obsolete for the use of modern equipment.

While these changes have been occurring, competing modes have been aggressively pursuing the total available traffic. Trucks, through their flexible routes, schedules, and rates, have been able to secure a larger portion of the short haul (up to 600 miles) traffic, especially for manufactured goods. Barges enjoy a massive capacity for bulk commodities while using public waterways at a low cost.

Because of this strong competition, railroads have been forced to improve service by applying state-of-the-art technology and new concepts such as unit trains. Recent energy considerations have improved the industry's competitive position, due to the relatively large capacity and fuel efficiency of railroads.

Railroads that did not adjust to these economic considerations most often experienced a gradual loss of traffic, a lower level of service, deferred track maintenance, and a decline in their revenue/cost ratio. Depending on the ability of the carrier to recognize and react to these factors, it has often meant an internal subsidization of weak lines. However, until very recently, regulation has restricted railroads from rationalizing their systems and reacting quickly to changing competition. It was this very inability to recognize and correct this problem that led to the bankruptcy of the Milwaukee Road.

SOUTH DAKOTA: PAST INVOLVEMENT--FUTURE PLANS

The goal of South Dakota's rail planning program is to provide long-term transportation solutions for its citizens. South Dakota has and will continue to

support justified rail improvement projects on important lines. Privately-owned lines that are important to the State are an ongoing concern. If assistance is necessary to keep these lines operating in the private sector, the State will consider all potential alternatives, including financial participation in rehabilitation. The State will work to minimize the abandonment impacts of lines for which no economic solution can be found. Solutions may include various combinations of the rail and highway modes.

As part of the long-term solution, the State-owned system will be returned to the private sector when it is most beneficial. The Core System lines have a far better chance for survival now than when owned by the Milwaukee Road for the following reasons:

- o better track condition
- o less regulation in the industry
- o system sized according to potential traffic levels
- o better market access
- o located near the middle of the strong BN system.

South Dakota will continue to assist rail carriers in modernizing their operation in the State. The rail industry has been upgrading its system nationwide through improvements in equipment, trackage, and service. New marketing efforts focused at contract rates and multiple car movements have helped to secure a more dependable traffic base. Flexibility through deregulation has enabled carriers to better respond to changing market conditions.

As the economy continues to change, the rail system must parallel these changes. Issues that will face South Dakota in the immediate future include:

o Disposal of State-owned property - South Dakota may ultimately dispose of non-operating rail property for which there is no justification for future service. Operating lines may be returned to the private sector if the best interests of the State are protected.

o Low Volume C&NW Lines - This Chicago & North Western has announced that it is negotiating to sell most of its trackage in South Dakota to another company. This may secure the future for these lines which, hopefully, will be profitable for the new owner.

o Grain Terminals - The number of grain terminals in South Dakota has grown rapidly during the past five years. This concept has significantly altered the highway and rail traffic patterns. There has been a significant move from long haul trucking of grain to markets outside of the state to short hauls to grain terminals in South Dakota. Rail shipping is being concentrated at these terminals which is improving rail efficiencies.

o Twin 42-Foot Trailer Program - The South Dakota Department of Transportation has initiated a twin 42-foot grain trailer program to assist in maintaining economic stability in communities that have lost rail service. This program allows elevators on abandoned lines to ship grain to unit grain train facilities within the state by using a tractor pulling two 42-foot trailers. This concept improves the economics of truck transportation in light of loss of rail service and helps support South Dakota's rail lines.

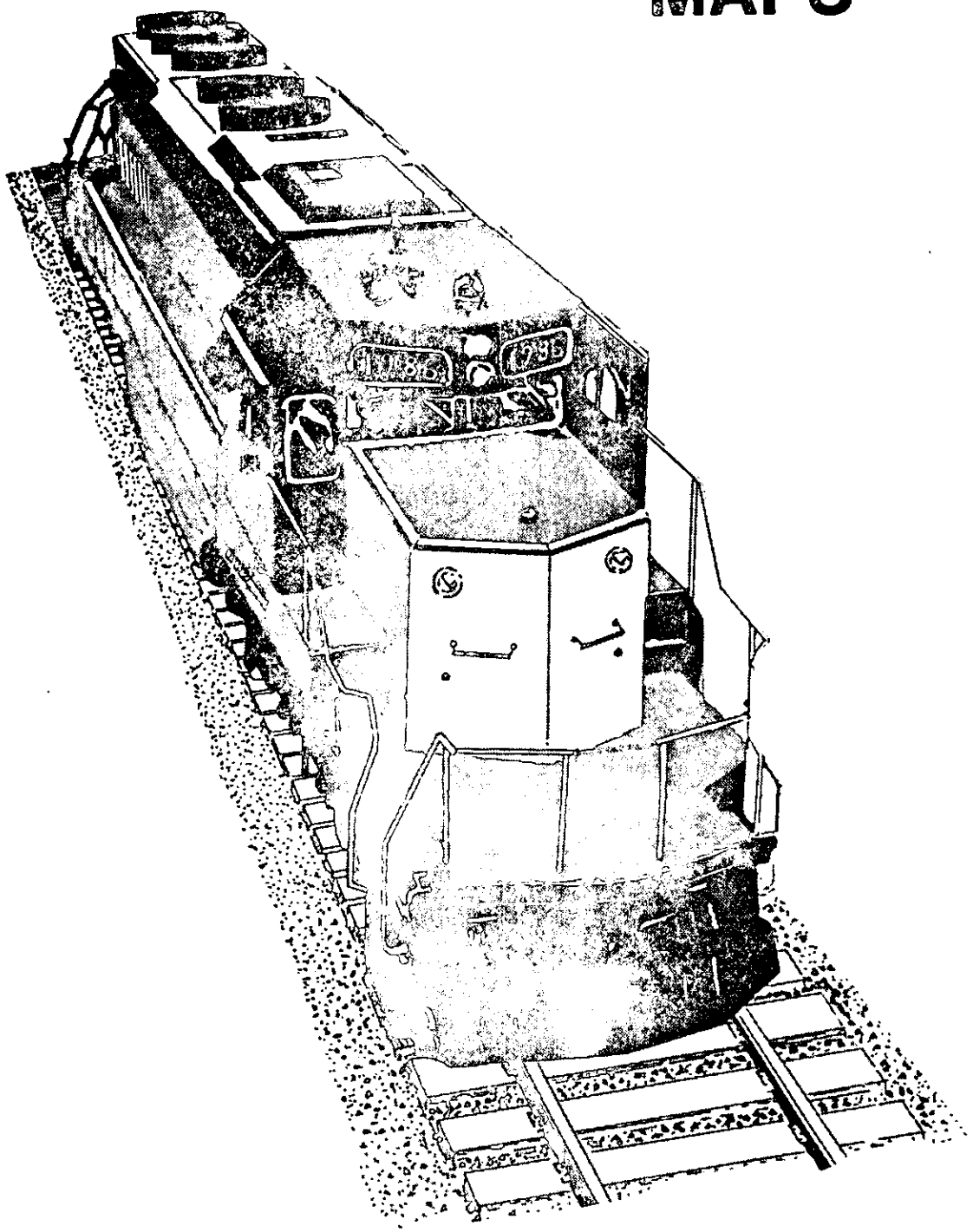
o Modal Relationship - As the railroad network becomes more permanently structured through the 1980's, the highway system must properly interact with it to provide a complete freight network. Suitably strong roads for access to grain

subterminals and the improvement of rail/highway crossings are two primary concerns.

South Dakota continues to work to insure that these transportation changes meet the need of the users, the carriers, and the general public.

APPENDICES

MAPS



APPENDIX A

SOUTH DAKOTA

NORTH DAKOTA

MONTANA

WYOMING

NEBRASKA

MINNESOTA

IOWA

LEGEND

INTERSTATE HIGHWAY
U S NUMBERED HIGHWAY
STATE NUMBERED HIGHWAY
NUMBERED HIGHWAYS
RAILROAD LINES
COUNTY SEAT
OTHER PLACES
URBAN AREA

RAILROAD ABBREVIATIONS

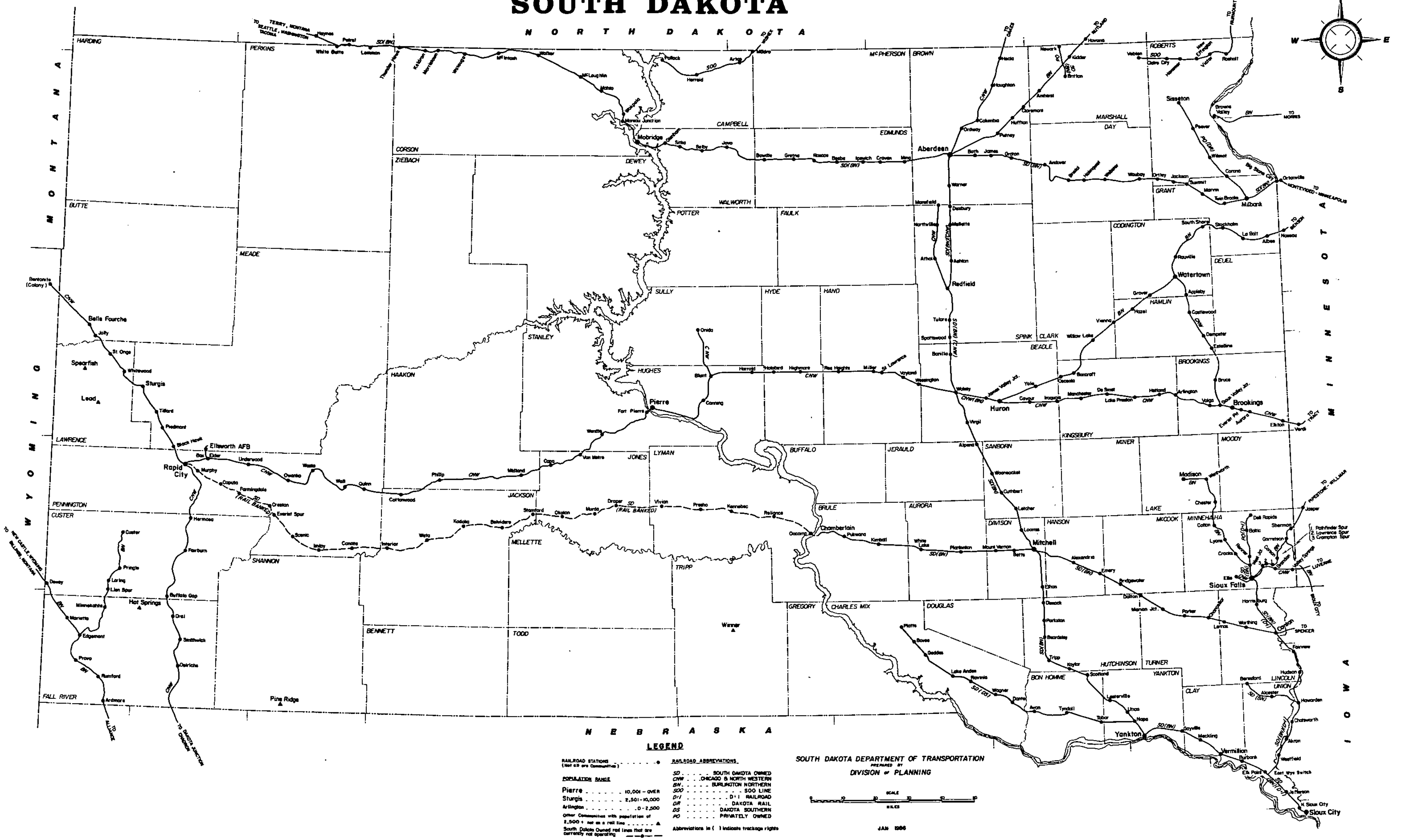
SD — SOUTH DAKOTA OWNED
CNW — CHICAGO & NORTHWESTERN
BN — BURLINGTON NORTHERN
SOO — SOO LINE
DAKR — DAKOTA RAIL
DS — DAKOTA SOUTHERN
D+I — D+I RAILROAD

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
PREPARED BY
DIVISION OF PLANNING

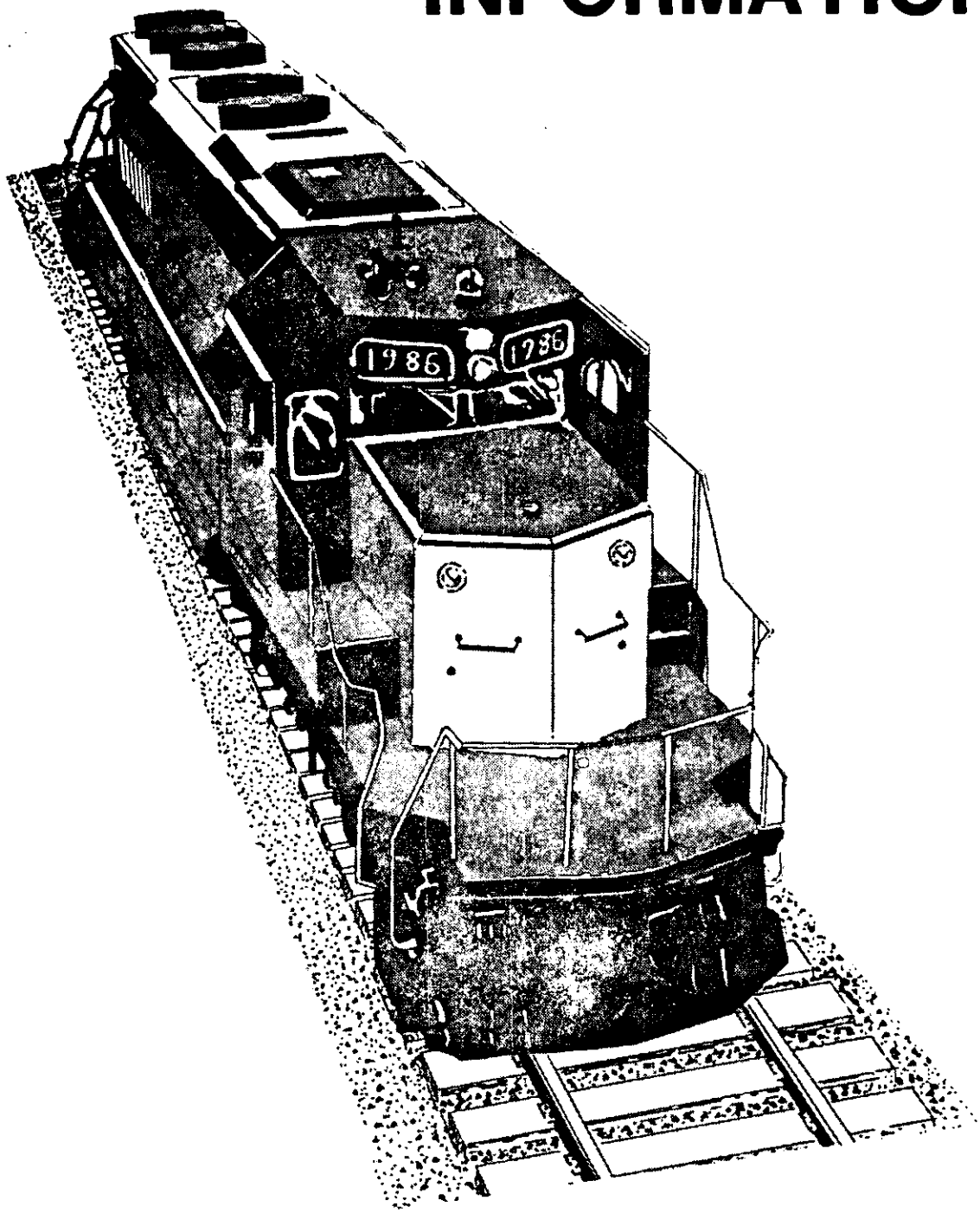
SCALE
0 10 20 30
MILES

JAN 1986

OFFICIAL RAILROAD MAP
SOUTH DAKOTA



SOUTH DAKOTA RAIL SYSTEM INFORMATION



APPENDIX B

APPENDIX B

SOUTH DAKOTA RAIL SYSTEM INFORMATION

This Appendix contains a selection of tables and figures depicting South Dakota rail traffic and operating characteristics. This data not only supports that found in the body of this report, but affords the reader with the tools to analyze certain rail characteristics in greater detail.

A following table illustrates the history of rail abandonments and operating miles in South Dakota. Also, a line-by-line listing of rail abandonments since 1980 to the present is also shown. A historical perspective of rail traffic (carloadings and tons) is presented in several tables to assist the reader in understanding the rail usage.

TABLE B-1

HISTORICAL RECORD OF
SOUTH DAKOTA'S RAILROAD SYSTEM

Maximum rail miles constructed up to 1964 = 4,420.5
Maximum rail miles abandoned up to 1964 = 516.4
Miles operated at end of 1964 = 3,904.1

YEAR	MILES ABANDONED	MILES REINSTATED	MILES OPERATIONAL AT END OF YEAR
1964	-0-	-0-	3,904.1
1965	5.3	-0-	3,898.8
1966	35.4	-0-	3,863.4
1967	47.7	-0-	3,815.7
1968	60.1	-0-	3,755.6
1969	65.5	-0-	3,690.1
1970	128.5	-0-	3,561.6
1971	67.0	-0-	3,494.6
1972	122.9	-0-	3,371.7
1973	-0-	-0-	3,371.7
1974	26.0	-0-	3,345.7
1975	-0-	-0-	3,345.7
1976	4.1	-0-	3,341.6
1977	143.0	-0-	3,198.6
1978	210.2	-0-	2,988.4
1979	256.5	9.0	2,740.9
1980	1,089.0	108.3	1,760.2
1981	96.4	385.5	2,049.3
1982	386.2	341.2	2,004.3
1983	72.1	-0-	1,932.2
1984	14.9	-0-	1,917.3
1985	14.8	82.4	1,984.9
1985	1.2	(operating adjustment)	1,983.7

TABLE B-2
RAILROAD ABANDONMENTS
1980 - 1985

RAIL LINE	CARRIER	YEAR APPROVED	SD MILES
Wentworth to Hayti	BN	1980	49.2
Gary, SD to Tracy, MN	CNW	1980	1.0
Ellis to Mitchell	CNW	1980	65.2
Redfield to Frankfort	CNW	1980	9.7
Andover to Brampton, ND	MILW	1980	38.6
Roscoe to Linton, ND	MILW	1980	40.7
Aberdeen to Edgeley, ND	MILW	1980	31.8
Ortonville, MN to Fargo, ND	MILW	1980	1.3
Madison to Bryant	MILW	1980	47.3
Napa to Platte	MILW	1980	82.9
Mitchell to Rapid City	MILW	1980	286.0
East Wye Switch to Mitchell	MILW	1980	116.5
East Wye Switch to Canton	MILW	1980	15.3
Canton to Mitchell	MILW	1980	78.1
Sioux Falls to Sioux Falls Jct.	MILW	1980	32.3
Egan to Madison	MILW	1980	26.0
Mitchell to Wolsey	MILW	1980	54.6
Wolsey to Aberdeen	MILW	1980	74.0
Mason City, IA to Canton, SD	MILW	1980	3.0
Sioux City to East Wye Switch	MILW	1980	14.7
Canton to Sioux Falls	MILW	1980	20.8
Watertown to Clark	CNW	1981	29.5
Yankton to Irene	BN	1981	17.1
Hill City to Keystone	BN	1981	8.8
Sioux Falls to Irene	BN	1981	41.0

TABLE B-2
RAILROAD ABANDONMENTS
1980 - 1985

RAIL LINE	CARRIER	YEAR APPROVED	SD MILES
Onida to Gettysburg	CNW	1982	24.4
Mansfield to Aberdeen	CNW	1982	15.9
Milbank to Sisseton	MILW	1982	37.1
McLaughlin to New England	MILW	1982	9.7
Ortonville to Miles City, MT	MILW	1982	299.1
Custer to Deadwood	BN	1983	65.7
Kirk to Lead	BN	1983	3.4
Cherokee, IA to Sioux Falls	ICG	1984	14.9
Zeeland, ND to Eureka	BN	1985	14.8

TABLE B-3
NUMBER OF CARLOADS OF COMMODITIES
ORIGINATING AND TERMINATING BY RAIL
IN SOUTH DAKOTA

YEAR	ORIGINATING	TERMINATING	TOTAL
1975	54,008	50,848	104,856
1976	43,310	53,920	97,230
1977	43,642	52,094	95,736
1978	51,801	56,702	108,503
1979	54,907	53,728	108,633
1980	57,792	44,118	101,910
1981	39,982	40,704	80,686
1982	53,545	32,981	86,526
1983	59,709	32,185	91,894
1984	72,855	31,506	104,361

TABLE B-4
NUMBER OF TONS OF COMMODITIES
ORIGINATING AND TERMINATING BY RAIL
IN SOUTH DAKOTA

YEAR	ORIGINATING	TERMINATING	TOTAL
1975	3,200,393	3,581,209	6,781,602
1976	2,585,077	4,021,064	6,606,141
1977	2,685,104	3,782,114	6,467,218
1978	3,226,926	4,291,986	7,518,912
1979	3,491,230	4,093,838	7,585,068
1980	3,844,499	3,504,109	7,348,608
1981	2,839,555	3,314,108	6,153,663
1982	3,952,971	2,719,128	6,672,099
1983	4,792,697	2,763,628	7,556,325
1984	5,960,556	2,748,124	8,708,680

TABLE B-5
RAIL FREIGHT OPERATING STATISTICS
SOUTH DAKOTA

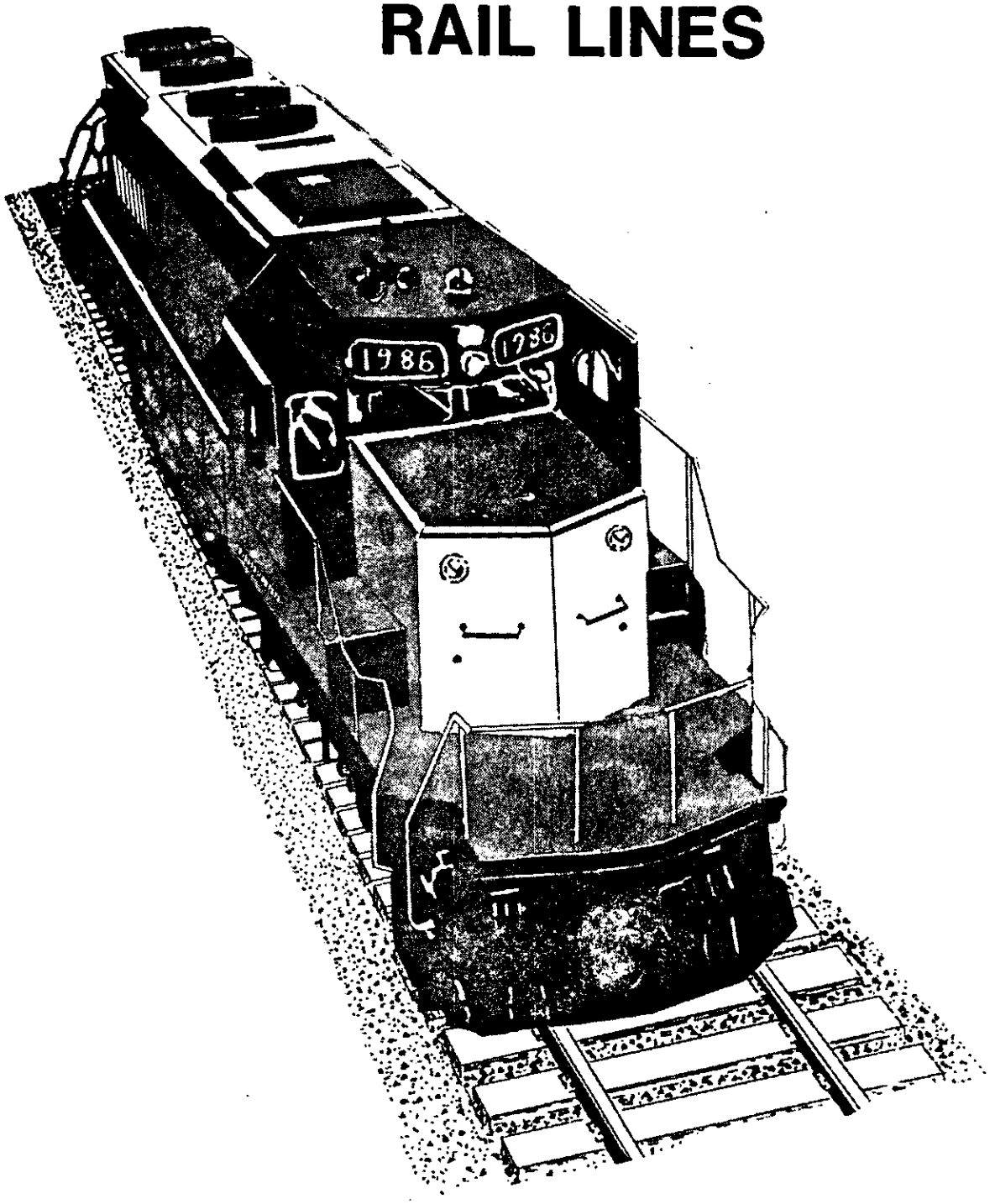
YEAR	MILES IN OPERATION	CARS PER MILE	TONS PER MILE	TONS PER CAR
1975	3,346	31	2,027	65
1976	3,342	29	1,977	68
1977	3,199	30	2,022	68
1978	2,988	36	2,516	69
1979	2,741	40	2,767	70
1980	1,760	58	4,175	72
1981	2,049	39	3,003	76
1982	2,004	43	3,329	77
1983	1,932	48	3,911	82
1984	1,917	54	4,543	83

TABLE B-6
CLASS I RAILROADS GROSS OPERATING REVENUES
FROM SOUTH DAKOTA OPERATIONS
(000 DOLLARS)

RAILROAD	1980	1981	1982	1983	1984
Burlington Northern	$36,942	$35,233	$48,897	$67,311	$ 79,923
Chicago and North Western	19,098	18,304	14,828	18,611	20,114
Milwaukee Road	21,074	18,539	*	*	*
Soo Line	176	172	142	133	161
Total	$77,290	$72,248	$63,867	$86,055	$100,198

* S.D. revenue not known. The Milwaukee Road had 1st quarter operating revenue in 1982 on North Main Line and some revenue at Milbank in 1983 and 1984.

SOUTH DAKOTA STATE PURCHASED RAIL LINES



APPENDIX C

APPENDIX C

SOUTH DAKOTA STATE PURCHASED RAIL LINES

The ownership, operation, and maintenance of railroad facilities have classically been a private sector enterprise. However, because of mounting problems in the rail industry, federal legislation dating back to 1973 was enacted to help the private sector revitalize and stabilize the nation's rail system. In recent years the federal government and some state governments have become directly involved in railroad assistance.

South Dakota was one of the states that became directly involved because of the loss of critical rail service resulting from abandonment or bankruptcy. This appendix addresses the following topics relative to the South Dakota ownership of rail lines.

- Need and Justification for State Ownership
- The Elements of the Acquisition
- Core System
- Local Option Lines - Operating
- Local Option Lines - Nonoperating
- Main Line
- Rehabilitation Accomplishments and Needs
- Current Status of the State-Owned System
- Objectives for the State-Owned System
- Core System Traffic Analysis

NEED AND JUSTIFICATION FOR STATE OWNERSHIP

Even prior to the publication of South Dakota's first rail plan, the potential impact of rail abandonments on the State's economy was recognized. The bankruptcy proceedings of the Milwaukee Road necessitated a further definition of these impacts.

The Milwaukee Road, then owner of 48% of the trackage within the State, filed a petition for bankruptcy on December 19, 1977. The railroad's objective was to determine if the company could be reorganized into a smaller, profitable system. In order to accomplish this, many miles of light density lines that did not contribute substantially to the health of the company were to be embargoed and/or abandoned.

An embargo request by the Milwaukee Road was approved in March 1980 and the railroad ceased to operate all trackage in South Dakota except for the Northern Main line, the New England branch line and the Sisseton branch line. Concurrent with the embargo proceedings, South Dakota conducted an extensive analysis to identify, select, and acquire elements of trackage that would preserve an essential rail system within the State.

The Milwaukee Road's economic condition declined further, resulting in its filing to abandon the New England and Sisseton branch lines in March 1981. Subsequently, in May 1981, the Milwaukee Road filed to abandon the Northern Main line between Ortonville, Minnesota and Miles City, Montana. The latter action left an uncertain future for significant volumes of coal and other commodities moving on the line.

These latest abandonment applications, in addition to the impact of the embargo, greatly accelerated the already alarming economic impact facing South Dakota shippers. Further, the loss of the main line between Gascoyne, North Dakota and Big Stone City, South Dakota would have resulted in the closing of the Big Stone and Ortonville power plants.

The most significant justification for continued rail service in critical areas of the State is a simple matter of economics. In general, agriculture, South Dakota's principal industry, needs an efficient bulk carrier to transport crop production. These commodities, when moving long distances, are typically more cost-effective to move by railroad than by truck. With reliable rail service, profitable markets become more regularly accessible and the price offered by grain elevators to farmers can rise.

A healthy and efficient transportation system in South Dakota is a necessary catalyst for the State's growth and prosperity. South Dakota's objective was to establish a transportation system whereby trucks maximize the benefits they can provide for short hauls and trains provide bulk transportation for long hauls.

As rail lines were shut down due to the embargo or abandonment, no Class I carrier indicated a willingness to own and operate critical lines. The State was faced with the very real possibility of having large areas without rail service and, as a result, elected to solve its own rail transportation problems for the benefit of its citizens.

In their 1980 session, the State Legislature carefully reviewed the rail situation, declared that certain rail service was necessary for the well-being of the State, and authorized the purchase of specific abandoned rail lines.

THE ELEMENTS OF THE ACQUISITION

The 1980 Legislature provided authority to purchase up to 1,254 miles of rail facilities. It also stipulated that the total purchase price could not exceed $25 million.

To provide the mechanics for a purchase program, the 1980 Legislature created the South Dakota Railroad Authority to "plan, establish, acquire, develop, construct, purchase, enlarge, maintain, equip and protect railroad facilities deemed necessary to the State." On October 24, 1980, the Railroad Authority approved a purchase agreement for 760.5 miles of Milwaukee property, including real property totalling approximately 13,830 acres, for the sum of $18,750,000. The Railroad Authority later approved the purchase of additional line segments in 1980 and 1981.

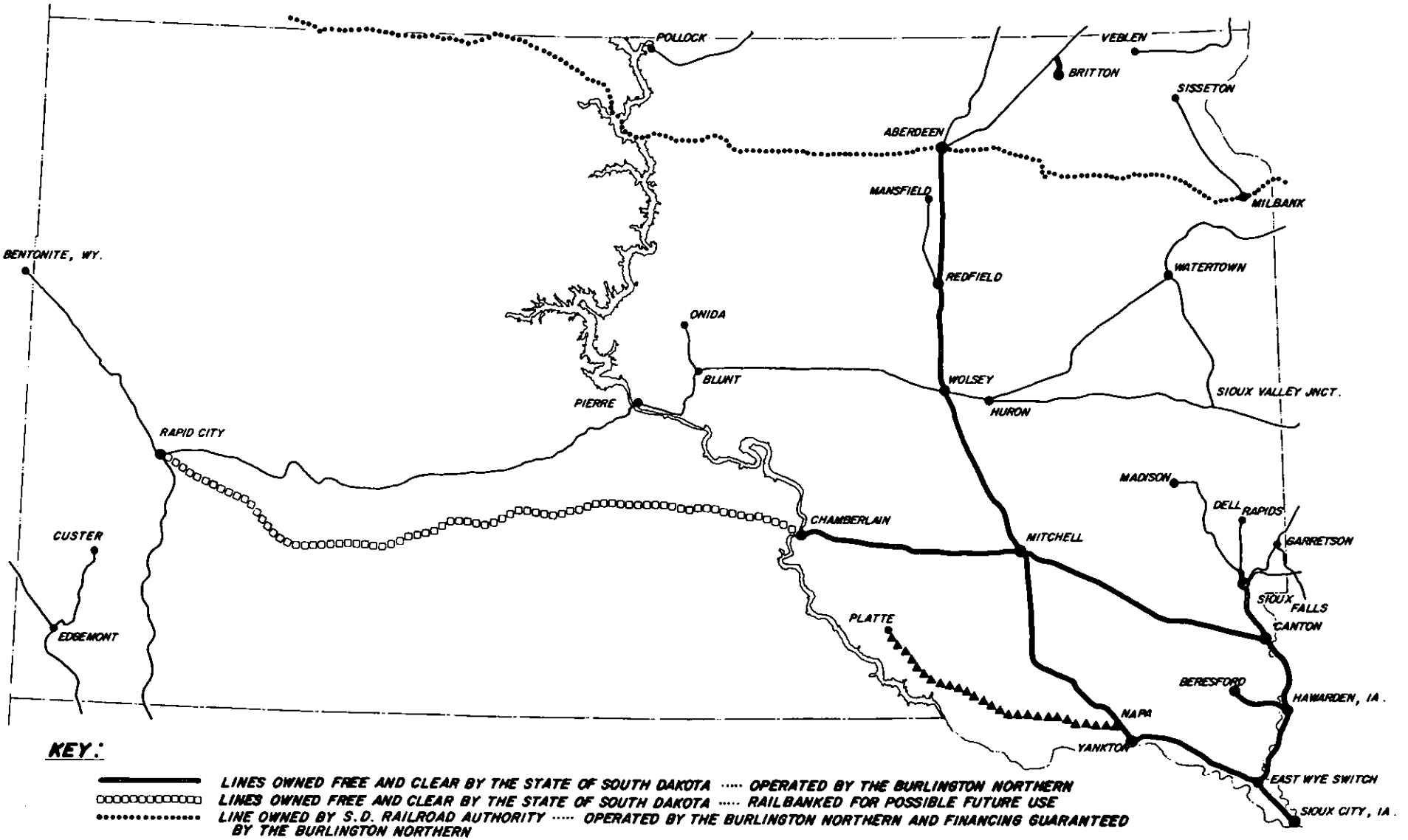
On September 24, 1981, in Special Session the Legislature authorized the Railroad Authority to issue bonds and/or notes to finance the purchase of the Milwaukee Main Line from Ortonville, MN to Terry, MT (Main Line) and to take steps necessary to permit continued service on the line by private enterprise. The Railroad Authority, on April 15, 1982, approved the Purchase Agreement for the Main Line. Figure C-1 graphically shows the lines that were purchased by the State and Table C-1 lists these lines.

The rail purchase program that was implemented by the State of South Dakota was carefully conceived to solve its transportation problems in a just manner. Purchases were either financed and paid for at the time of purchase or were purchased by bonds that will be repaid by the Burlington Northern with no capital outlay or debt incurred by the citizens of this State. The purchase program was

FIGURE C - 1

STATE OF SOUTH DAKOTA

MAP HIGHLIGHTED TO SHOW STATE OWNED RAIL LINES



KEY:

- LINES OWNED FREE AND CLEAR BY THE STATE OF SOUTH DAKOTA ····· OPERATED BY THE BURLINGTON NORTHERN
- LINES OWNED FREE AND CLEAR BY THE STATE OF SOUTH DAKOTA ····· RAILBANKED FOR POSSIBLE FUTURE USE
- LINE OWNED BY S.D. RAILROAD AUTHORITY ····· OPERATED BY THE BURLINGTON NORTHERN AND FINANCING GUARANTEED BY THE BURLINGTON NORTHERN
- LINES OWNED FREE AND CLEAR BY STATE OF SOUTH DAKOTA ····· OPERATED BY A SHORT LINE RAILROAD
- PRIVATE SECTOR RAIL LINES

TABLE C-1

CATEGORIES OF STATE OWNED RAIL LINES

CORE SYSTEM		
1. Sioux Falls to Canton		20.8 miles
2. Canton to Mitchell		79.2 miles
3. Mitchell to Aberdeen		128.6 miles
4. Mitchell to Sioux City		136.9 miles
5. Mitchell to Chamberlain		68.5 miles
6. Sioux Falls to West Jct.		3.1 miles
	TOTAL	437.1 miles
NORTH MAIN LINE		
1. State Line to Aberdeen		110.7 miles
2. Aberdeen to Mobridge		98.6 miles
3. Mobridge to Terry, MT		270.6 miles
	TOTAL	479.9 miles
LOCAL OPTION LINES (Operating)		
1. Britton to Jarrett Jct.		5.0 miles
2. Canton to East Wye Switch		49.7 miles
3. Hawarden, IA to Beresford		16.9 miles
4. Napa to Platte		82.4 miles
	TOTAL	154.0 miles
NON OPERATING LINES		
1. Chamberlain to Rapid City		219.7 miles
	TOTAL	219.7 miles
	GRAND TOTAL	1,290.7 miles

SOUTH DAKOTA OWNED TRACK LOCATED IN:

South Dakota		1,067.6 miles
North Dakota		102.5 miles
Montana		78.3 miles
Iowa		42.3 miles
	GRAND TOTAL	1,290.7 miles

designed to be a short term financial obligation by the State that would provide a transportation benefit now and for future generations.

Rail purchases fell into three (3) main categories of lines.

- Core System
- Local Option Lines
  - Operating
  - Nonoperating
- Main Line

CORE SYSTEM

The primary category of trackage in the original purchase was identified as being an essential part of the State's transportation system. This "core system" is located in the eastern half of the State. It consists of lines from Aberdeen south through Mitchell and on to Sioux City, Iowa and from Sioux Falls to Chamberlain via Canton.

An agreement was reached with the Burlington Northern to operate the system without a subsidy. The State, as partner to the operating agreement, pledged to provide rehabilitation assistance in order to bring the system up to Class I standards supporting 10 MPH speeds prior to Burlington Northern operations. The Burlington Northern began operating an initial segment of the core system on July 6, 1981 and by November 1981, the entire core system was operational. The State, since this time, has provided rehabilitation assistance to upgrade all core system segments except the Mitchell to Chamberlain line, to Class II standards supporting 25 MPH speeds.

LOCAL OPTION LINES - OPERATING

The initial purchase of local option lines contained five segments that were to be operated. Since the purchase, one segment has been sold and a nonoperating segment was put back into service. The five (5) mile industrial spur to Britton from the Burlington Northern line was put back into service in June 1982. This former Milwaukee Road line was completely rehabilitated and an operating agreement was entered into with the Burlington Northern.

The State-owned line from Sioux Falls to Trent has been sold to the L. G. Everist Company which moves its quarried rock on the line from Dell Rapids to Sioux Falls. They have since scrapped and sold the Dell Rapids to Trent portion of this segment. The D & I Railroad, a company owned by the L. G. Everist Co., provides the service to move the quarried rock on this line.

The Canton to East Wye Switch segment and the Hawarden to Beresford line are local option lines that are being served by the Burlington Northern Railroad.

The Napa to Platte line was leased to the Napa to Platte Regional Rail Authority and was put back into service in 1985 after being idle since it was embargoed by the Milwaukee Road in 1979. Local service is being provided by the Dakota Southern Railway Company, a short line railroad.

LOCAL OPTION LINES - NONOPERATING

The only remaining nonoperating line extends 219.7 miles from Chamberlain to Rapid City. This segment was purchased because of strong local interest and the State's view that the corridor needed to be held intact during the rail restructuring process.

This line has light rail and generally is in poor physical condition. The cost to put it back into service and rehabilitate it would be extremely high.

MAIN LINE

On February 22, 1982, the Railroad Authority approved a lease and operating agreement with the Burlington Northern for operations on the Main Line. Under the terms of the agreement, the BN was made responsible for retiring all bonds issued by the Railroad Authority related to the purchase of the Main Line. The Burlington Northern started serving the line on April 20, 1982.

REHABILITATION ACCOMPLISHMENTS AND NEEDS

As part of the operating agreement with the BN, the State agreed to provide rehabilitation assistance for the core system to bring the track up to Class II, 25 MPH condition. The Mitchell to Chamberlain line is excluded from this rehabilitation clause because of very high costs due to the need for rail replacement. The objective of the rehabilitation plan was not only to improve operating efficiencies, but to put the track structure in a condition that would support unit grain train movements. State assisted rehabilitation on the core started in the fall of 1981 and, with the exception of the Mitchell to Chamberlain line, the entire core system is now in Class II condition.

Rehabilitation assistance on the local option lines is largely the responsibility of the shippers or local units of government served by the rail line. The State did provide some federal funds to assist in the upgrading of the Britton spur, which was completed in 1982. The State also participated in upgrading the Canton to East Wye Switch and Hawarden to Beresford lines.

CURRENT STATUS OF THE STATE-OWNED SYSTEM

The Burlington Northern is currently providing service on State-owned rail lines for which it has an operating agreement. The continuing upgrading of the core system enhances the ability of this system to support unit grain trains. The Mitchell to Chamberlain line is the weakest link of the core system. Because of the light rail it has a very large rehabilitation cost that currently cannot be justified by its traffic volume. The BN is maintaining the line, but the State currently doesn't have funds for its rehabilitation. This line will not be included in the new Burlington Northern operating agreement. Future transportation needs on this line are being studied and solutions sought. The operating local option lines generally are light density and need traffic growth to be viable. These lines will continue to need rehabilitation assistance. The Northern Main Line is being operated, maintained and upgraded by the Burlington Northern. Its rehabilitation needs are being met and service is being provided to meet demand.

OBJECTIVES FOR THE STATE-OWNED SYSTEM

The Main Line fits well into the current Burlington Northern system. It has been upgraded to efficiently and safely handle traffic. The BN is responsible for retiring the bonds used by the State to purchase the line and also for repaying the federal loan for its rehabilitation. Upon retirement of the bonds and loan the BN has the option to purchase the line for a nominal sum. It should not require any further action by the State of South Dakota for continued rail service.

The core system, with the exception of the Mitchell to Chamberlain line also fits well into the BN system. For certain overhead movements, this system can reduce

the distance traveled by several hundred miles. When upgrading is completed it should be a viable system and one that the BN may eventually want to purchase. A State objective is to put rail lines back into private ownership if transportation needs are met and assured.

The local option lines will be monitored closely. The State will assist, if possible, those operating lines if strong local support is present. If service on those lines is not utilized, then they should not be operated.

The nonoperating Chamberlain to Rapid City line, because of high start up and rehabilitation needs, undoubtedly will not be reactivated under current conditions. The State would reconsider this decision if changing conditions warrant rail service on this line.

During the interim period, the State will strive to lease more land to private individuals. This will not only maximize revenue to the State, but will also help improve the appearance of the property. The decision at the present time is <u>not</u> to sell off additional property needed for rail operations until transportation has been stabilized.

CORE SYSTEM TRAFFIC ANALYSIS

The State, prior to any rail line purchases, conducted on extensive analysis of the lines that eventually made up the core system. Rail traffic volumes were analyzed and future traffic was projected. Rail traffic for the year 1979 was used as the base year for data analysis. Based on a shipper survey, projections were made for the year 1986.

Figure C-2 graphically shows the number of rail carloads originating and terminating on the core system by individual line segments. This same data is

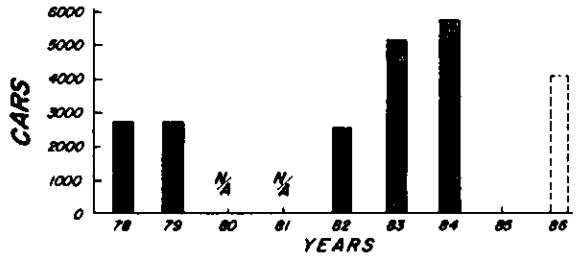
FIGURE C-2

SOUTH DAKOTA

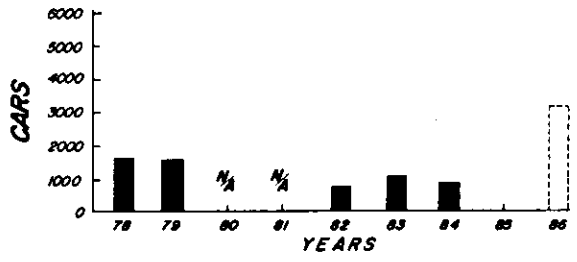
CORE SYSTEM RAIL TRAFFIC

■ - EXISTING RAIL TRAFFIC ⬚ - PROPOSED RAIL TRAFFIC

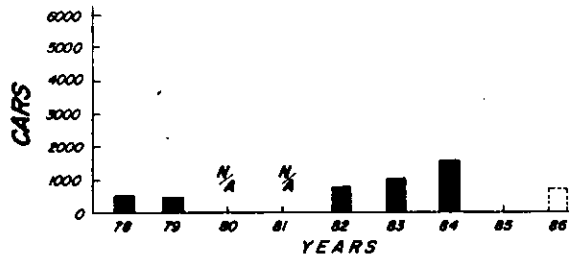
MITCHELL TO CANTON SEGMENT
(INCLUDING MITCHELL)



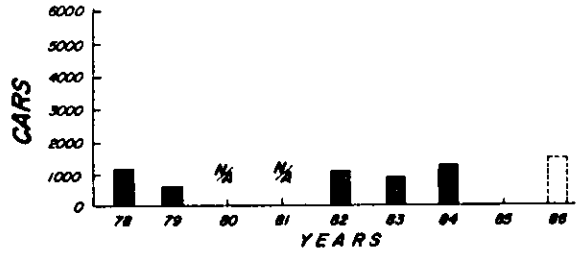
MITCHELL TO SIOUX CITY SEGMENT



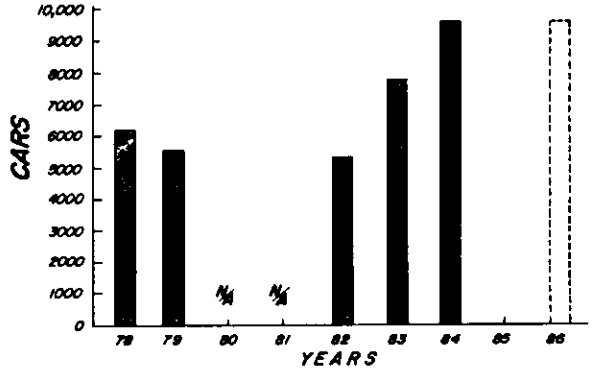
MITCHELL TO ABERDEEN SEGMENT



MITCHELL TO CHAMBERLAIN SEGMENT



TOTAL CORE TRAFFIC (ALL SEGMENTS)



documented in Table C-2. Overall the core system, using 1984 traffic, equals the 1986 projection. Looking at individual line segments, however, it can be observed that the Mitchell to Canton and Mitchell to Aberdeen segments are currently over their projections while the remaining two segments are under their projections.

Table C-3 documents rail tonnage on the core by line segment. This data shows that three of the four line segments are currently over the 1986 projections. While the 1984 carloadings are currently about equal to the 1986 projection, the current tons moved are 9% over the projection for the core system as a whole.

Overall the traffic that is currently moving on the core rail lines is meeting the State's expectations even though some individual segments are responding differently than projected.

TABLE C-2
STATE CORE SYSTEM RAIL TRAFFIC
CARLOADS OF FREIGHT

Segment	1979	1984	1986 *
Canton to Mitchell	2,727	5,718	4,079
Mitchell to Sioux City	1,470	874	3,144
Mitchell to Aberdeen	571	1,654	793
Mitchell to Chamberlain	696	1,329	1,549
Total	5,464	9,575	9,565

TABLE C-3
STATE CORE SYSTEM RAIL TRAFFIC
TONS OF FREIGHT

Segment	1979	1984	1986 *
Canton to Mitchell	189,455	547,469	362,500
Mitchell to Sioux City	101,577	82,010	277,000
Mitchell to Aberdeen	32,907	149,039	73,900
Mitchell to Chamberlain	37,688	95,364	88,700
Total	361,627	873,882	802,100

*Projection made in 1980