

NORTHERN PACIFIC RAILWAY COMPANY

Lake Superior Division

Special Instructions No. 3

In Effect at 12:01 A. M. Central Standard Time

Friday, January 1, 1965

These Instructions constitute a part of the Time Table currently in effect.

Employees whose duties are in any way affected by the Time Table must have a copy of The Current Special Instructions and Current Time Table with them on duty.

**W. L. WOOD,
Superintendent.**

**D. A. THOMSON,
General Manager.**

**E. S. ULYATT,
General Superintendent
of Transportation.**

ALL SUBDIVISIONS.

1. Speed Restrictions—	Maximum Speeds Permitted
Passenger trains	75 MPH.
Passenger trains within yard limits Duluth-Superior terminal	Restricted Speed
Freight and mixed trains	50 MPH.

The above speeds are subject to the restrictions of maximum speeds in miles per hour as shown by zones under each subdivision.

All trains and engines, except as otherwise specified:

Through crossovers, turnouts and gauntlets, except where fixed signals provide otherwise	15 MPH.				
Handling pile drivers 26-33 inclusive	40 MPH.				
Handling other pile drivers, wrecking cranes, locomotive cranes and similar equipment	30 MPH.				
Handling 4-wheel scale test cars and scale test car 254	<table> <tr> <td>{ Main Line</td><td>35 MPH.</td></tr> <tr> <td>{ Branch Lines</td><td>25 MPH.</td></tr> </table>	{ Main Line	35 MPH.	{ Branch Lines	25 MPH.
{ Main Line	35 MPH.				
{ Branch Lines	25 MPH.				
Handling air dump cars 89000 to 89059 series	35 MPH.				
Picking up train orders from operators	30 MPH.				
Handling dead diesel-electric engines other than NP and tenant lines	35 MPH.				
Handling ore cars loaded with ore, sand or gravel	40 MPH.				
Handling empty DMIR ore cars	45 MPH.				

	Handling trains	Running light
Diesel-electric engines		
No. 99	50 MPH.	50 MPH.
No. 100	40 MPH.	40 MPH.
100 series, except No. 100	60 MPH.	60 MPH.
200 and 300 series, except Nos. 244, 245, 260, 263 and 267	65 MPH.	65 MPH.
Nos. 244, 245, 260, 263 and 267	75 MPH.	65 MPH.
400, 600 and 700 series	45 MPH.	45 MPH.
500, 501 and 552-569, incl. except No. 556	65 MPH.	65 MPH.
No. 525	60 MPH.	60 MPH.
Nos. 550, 551 and 556	75 MPH.	65 MPH.
Nos. 800-803	60 MPH.	60 MPH.
850-860 series	65 MPH.	65 MPH.
900, 6000 and 7000 series	65 MPH.	65 MPH.
2500 series	70 MPH.	65 MPH.
5400 series	55 MPH.	55 MPH.
6500, 6600 and 6700 series	75 MPH.	65 MPH.

Diesel-electric motor cars in service or being towed:
Cars B-30, B-31, B-32, B-40, B-41 and B-42 75 MPH.

Diesel-Electric Engines Handled Dead in Train—Diesel-electric engines or units may be handled dead in trains. The speed of such trains must not exceed the authorized operating speed specified for such engines or units.

When handling diesel-electric single units, road-switcher engines and switch engines dead in a freight train, they shall be separated from the engine handling the train and each other by at least one freight car. This does not apply to diesel-electric road engines of two or more units coupled in multiple.

All diesel-electric engines or units handled dead in freight trains must be placed on head end of train within ten cars of road engine handling train, this to insure that brakes will release properly.

When handling diesel-electric units dead in train, bridge, speed and other restrictions must be observed, same as when in operating condition.

When road passenger diesel units are coupled in multiple with road freight or road switcher units, the road passenger units must be trailing to avoid danger of sliding wheels on the freight or road switcher units due to excessive brake cylinder pressure. The speed restrictions for freight and road switcher units must be observed to avoid damage to traction motors.

If the units of a consist are of different gear ratio, the engine must not be operated at speeds exceeding that of the unit having the lowest maximum permissible speed. Also, the overload short time rating of any unit in the consist must not be exceeded.

When two, Four-Unit diesel-electric engines are used to double-head freight trains, the leading engine only will apply power to start train, or to make backup movement with cars.

2. Heavy cars—Cars heavier than the following not permitted without authority of Superintendent:	
30 ft. or less in length	210,000 Lbs.
Over 30 ft. long:	
First Subdivision between Ashland and Allouez	280,000 lbs.
Second Subdivision between Staples and Central Ave.	270,000 lbs.
Third Subdivision	400,000 lbs.
All other Subdivisions except within Duluth-Superior terminal	210,000 lbs.
Within Duluth-Superior terminal	400,000 lbs.

3. Train inspection:

When temperature is below zero, or when snow, fog or other conditions prevent suitable running inspection, arrange to stop freight trains for train inspection at intervals not to exceed thirty-five (35) miles running. Train crews will avail themselves of service stops to make inspection of freight trains to avoid, when possible, the necessity for making a special stop in compliance with the above instructions.

4. Rule 3(C) of the Consolidated Code of Operating Rules is amended as follows: Employees governed by Time Service Rules must not wear wrist watches while on duty unless such watches are of an approved type.

5. Rule 7(A), fourth paragraph, Consolidated Code of Operating Rules, is modified as follows: When backing or pushing a train, engine or cars, in response to hand or light signals from a trainman, the disappearance from view of the trainman giving such signals, or of his light by which such signals are given, must be regarded as a stop signal except when movement is under control of a trainman on the leading car that is equipped with back-up air brake hose or pipe.

6. Rule 10(H)—When it is known in advance there will not be a flagman at yellow signal, per Rule 10(H), the following form of train order is authorized and will be issued when requested by foreman in charge:

ACCOUNT MEN AND EQUIPMENT ON (EASTWARD, WESTWARD OR MAIN) TRACK BETWEEN (MILEPOST LOCATIONS) BETWEEN (STATION) AND (STATION) FROM (TIME) UNTIL (TIME) ALL TRAINS ON (EASTWARD, WESTWARD OR MAIN) TRACK MUST APPROACH AND PROCEED THROUGH THIS TERRITORY AT RESTRICTED SPEED PREPARED TO STOP, MAINTAINING A CAREFUL LOOKOUT FOR HAND SIGNALS. RESTRICTED SPEED MUST NOT BE EXCEEDED UNLESS FOREMAN IN CHARGE VERBALLY AUTHORIZES A DIFFERENT SPEED.

Foreman in charge of work must notify Chief Dispatcher in writing, furnishing location, time and date such protection is desired.

When train order is issued, foreman will be given copy of such order if practicable. If not practicable, he will be verbally advised when train order is in effect. Yellow flags must be placed one and one-half (1½) miles from outer work limits. When this train order is in effect, trains must approach and proceed through this territory at restricted speed, maintaining a careful lookout for signals and be prepared to stop at red signal. Restricted speed must not be exceeded unless foreman in charge of work verbally authorizes a different speed.

A green signal will be displayed to the right of each track at limit of restriction, but train may resume speed in advance of green signal when verbally authorized by foreman.

The above wording is a modification of Rule 10(H). The foreman may display a red signal any time he requires its use account impassable track and trains will be governed by Rule 10(G).

(Note): The last sentence in the order would allow use of radio if desired to increase speed through limits.

Consolidated Code Rules Nos. 205 and 206 are modified to permit use of rubber stamp and printed train order forms as follows: When rubber stamp and printed train order forms are used for issuance of train order form shown under this Item 5, Train Dispatchers, after recording form in train order book with stamp, are required to write and transmit only train order numbers, address, track designation, mile post locations, stations and time limits. In addition, date will be transmitted when necessary. Train order operators using printed form for such train orders are required to copy and repeat only that portion transmitted by the Train Dispatcher.

7. Flashing type lamps may be used as markers provided they are of the approved type. When this type of marker is used on rear of train, Rules 19 and D-19 are modified and Rule 19(E) of the Consolidated Code will not apply as indicated in the following.
- Rule 19. By night, marker lamps lighted, displaying red to the rear except when train is clear of main track in non-Automatic Block Signal territory, green will be displayed to the rear.

Rule D-19. By night, when train is turned out against the current of traffic, marker lamps lighted must display green to the rear on the side next to the main track on which the current of traffic is in the direction train is moving and red to the rear on the opposite side.

Rule 19(E). Does not apply in CTC or Automatic Block Signal Territory, and following train will be governed by signal indication.

8. Rule 200—Light will not be displayed on train order signals on the 8th and 9th Subdivisions, except at Blackduck. Trains will be governed by the day indication of these train order signals.
9. The second paragraph, Page 145, of the Consolidated Code of Operating Rules, which concerns the location of Advance-warning signs is cancelled. The following applies:

"Except on branch lines, and as otherwise provided in the Special Instructions, Advance-warning signs are, as far as feasible, located 5,280 feet in advance of the Reduce Speed signs. On branch lines, except as otherwise provided in the Special Instructions, Advance-warning signs are, as far as feasible, located approximately 3,000 feet in advance of the Reduce Speed sign. The numerals on both signs indicate in miles per hour the maximum speed permitted from the Reduce Speed sign to another Reduce Speed limit, or to a sign indicating a higher speed or to a Resume Speed sign."

10. Rule 519 of the 1959 edition of the Consolidated Code of Operating Rules will not apply on the Northern Pacific Railway. The following rule governs: "Unless otherwise provided, in automatic block signal territory, when a train or engine has been stopped by a signal governing movement through or over a spring switch, and signal continues to display the Stop-indication, after complying with Rule 104(B), movement may be made as provided by Rules 501(A)2 and S-509(B)."
11. Rule 607—Emergency Signals are not used at interlockings or drawbridges operated by the Northern Pacific Railway.
12. Cars will not be handled behind light-weight observation cars except in emergency or when so authorized by the Superintendent. In such cases passengers shall not be permitted to pass between such cars while train is in motion due to the unprotected opening.

Four-wheel scale test cars must be handled only in local freight trains. Exception:—If there is no local service available, these cars may be handled in dead freights which must be governed by speed restrictions for the handling of four-wheel scale test cars shown under Item 1. All scale test cars must be placed immediately ahead of caboose.

Air dump cars, series 89000-89059, will be handled only in work trains and local trains when available. If local trains not available, cars may be handled on the rear of other trains at a speed not to exceed 35 MPH.

All log flats in series 117002-117892 and certain company service and outfit cars in series 200000-207999 must not be handled in time freights or in trains where pusher service is used. When handled on other freight trains they must be placed on the rear end and the speed of such trains must not exceed 50 MPH.

INSTRUCTIONS FOR HANDLING PILE DRIVERS, CRANES, DERRICKS, SHOVELS, OR SIMILAR EQUIPMENT OF THE SWINGING OR PIVOTING TYPE, ARE AS FOLLOWS:

- When such equipment is moved on its own wheels, it shall be prepared and carded in accordance with current A.A.R. Loading Rules unless some condition exists which prevents those requirements being complied with.
- Such equipment that is geared for self-propulsion shall have the driving gears disconnected or removed.
- Such equipment that is Company-owned that requires speed to be restricted shall be covered by a message to the train crew stating the maximum speed permitted.
- The above named equipment with the exception of pile drivers 26 through 38 inclusive when properly prepared and carded may be moved at normal freight train speeds unless there is some condition that prevents it, and in that event

the maximum permitted speed shall be noted on the waybill. When not prepared and carded shall be handled at speeds not to exceed 30 MPH.

13. Precautions must be taken on double track to prevent accidents from swinging doors or other loose construction attached to cars or engines. Trains handling logs must stop when being met or passed by passenger trains.

14. Roller bearing failures on cars or engines equipped with roller bearing boxes may be due to lack of oil or grease. If the box is not blazing, the oil plug in the cover should be removed and heavy oil added and plug replaced. Oil must never be added to a box that is blazing. Grease lubricated roller bearing boxes have grease plugs locked with a metal strap which must be cut off with chisel before plug can be removed. In cases of a hot box, oil should be added and the plug replaced, train should proceed at reduced speed and care exercised until it is apparent the box is running cool.

15. Spring Switches. Instructions for operation of spring switches are posted at or near the spring switch and must be complied with. Unless otherwise specified, the normal position of spring switches is for main track.

When the target of a spring switch shows "red" to an approaching train or engine, a trailing point movement actuating the spring switch points must not be made.

Normal indication of siding signal is STOP. If siding signal does not clear on approach of train, movement must be governed by instructions posted at the switch.

16. Duluth-Superior Terminals—Yard Limits.

All tracks between yard limit signs located at:

East D. M. & I. R. Junction

Mile Post 145+1432, West of West Duluth Jct.

Mile Post 9+3632, West of Central Ave. on Second Subdivision

Mile Post 61+1331, East of Allouez on First Subdivision

will be operated as one yard.

- First class trains will observe Rule 93 the same as is required of second and inferior class, extra trains and engines. Second and inferior class, extra trains and engines may run ahead of first class trains which are five minutes or more late without train order authority, avoiding delay to such trains to the greatest practicable extent.
- Extra trains and engines may move in either direction on single track and with the current of traffic on double track without train order or double track clearance authority, except between 72nd Ave. West and New Duluth.
- The D. T. Ry. main track is the northmost track between the Hanna Coal Dock crossing and connection with Grassy Point main track. All switches leading from this track, when not in use, will be left lined for D. T. Ry.
- All trains and engines using D. T. Ry. main track from connection of Missabe coal dock to east end of Zenith Furnace Company's lead, on Grassy Point line, will move in both directions at restricted speed, expecting to find the D. T. Ry. main track occupied.
- D. T. Ry. connection, located at east end of Zenith Furnace Company's lead, Grassy Point line, will be considered a railroad crossing. Trains and engines using this connection will come to a full stop and make sure that track is clear before proceeding.

17. At Duluth—City ordinance prohibits blocking street crossings at 1st Ave. East and 5th Ave. West for more than 5 minutes; or of any other crossing for more than 10 minutes.

Engine whistle will not be used between 3rd Ave. East and 5th Ave. West, or between 14th Ave. West and 85th Ave. West (except 85th Ave. West) except as an alarm or warning, or to signal towerman, to call for semaphore signals, as a safety precaution in backing cars or engines, or as a signal in testing air brakes. No engine or train will run within the city without having bell ringing while in motion, and approaching any street or avenue.

Westbound freight trains made up in Bridge Yard departing via Third Subdivision will proceed onto Westward main track through Eighteenth Avenue Crossover. Switch tender at Garfield Ave. will line switches after departure of train.

18. Bulletin Stations—

Ashland—Soo Line Passenger Station.

- Duluth—Union Depot, Fifth Avenue Yard Office, Rices Point North and South End Yard Offices and Roundhouse, West Duluth Yard Office.
 Superior—Superior Yard Office, Soo Line Yard and Roundhouse. Great Northern Yard Office and Roundhouse.
 Carlton—Passenger Station.
 Ironton—Passenger Station.
 Brainerd—Passenger Station.
 North Bemidji—Yard Office and Roundhouse.
 International Falls—Passenger Station and Roundhouse.
 Staples—Passenger Station, Yard and Roundhouse.
 Minneapolis—Passenger Station.
 St. Paul—Miss. St. Yard and Roundhouse, CMST&P Yard and Roundhouse.
19. Standard Time Clocks—
 Duluth—Union Depot, Rices Point Yard Office and Roundhouse.
 Carlton—Passenger Station.
 Brainerd—Passenger Station.
 North Bemidji—Yard Office.
 International Falls—Passenger Station.
 Staples—Passenger Station Round House and Yard Office.
 White Bear Lake—Telegraph Office.
20. Watch Inspectors—
 Bemidji—Norden Jewelers
 Lindman's
 Brainerd—Bud's Repair Shop, 214 So. 7th Street.
 Carlton—Schrafters Jewelry.
 Cloquet—T. W. Alaspa.
 Duluth—Erwin Moen, 1908 W. Superior.
 Nold Jewelers, 414 N. Central.
 Security Co., Inc., 307 W. Superior St.
 Staples—Imgrund's Jewelry; C. E. LaBonte.
 Superior—Peters' Jewelry, 1220 Tower Ave.

FIRST SUBDIVISION. (MAIN LINE)

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|--|--------------------------|-----------|
| 1. Speed Restrictions— | Maximum Speeds Permitted | |
| Zone—Between | Freight | Passenger |
| Ashland and Central Ave..... | 35 MPH. | 40 MPH. |
| Exception: On all curves between MP 12 and Allouez | 25 MPH. | 25 MPH. |
| Trains handling loaded ore cars..... | 20 MPH. | |
| Trains handling ore loaded in other than ore cars | 25 MPH. | |
| All trains and engines, 7th Ave. West to 22nd Ave. West, between MP 0 and 2, Ashland | 10 MPH. | |
2. Bridge and Engine Restrictions:
 Wrecking cranes 45 to 48 inc. not permitted between Allouez and Ashland.
 Wrecking Cranes 45 to 48 inc. in Duluth-Superior terminal
 15 MPH. | |
- Bridge 0, Vaughn Avenue:
 Bridge 5, Fish River:
 Bridge 49, Middle River:
 All trains
 25 MPH. | |
- Bridge 37, Brule River:
 Multiple unit diesels
 25 MPH. | |
- Diesel Electric Engines, No.'s 2500-2514 incl. over Bridges 0, 5, 37, 48, 49 and 53
 20 MPH. | |
- Heavy Car Restrictions: Bridges 0, 5, 37, 48, 49 and 53: Cars less than 30 ft. long with total weight over 170,000 pounds must be separated from each other and engine with an empty car. Cars 30 ft. or longer with total weight over 169,000 pounds must be separated from engine with a car 40 ft. long with total weight under 169,000 pounds.
3. At Ashland—Normal position of main track switch just east of Seventh Ave., leading to the Soo Line, is for the Soo Line connection.
 At Ellis Ave., all trains must stop in advance of crossing, and will proceed only after crossing is protected by a member of the crew.
4. At Allouez—Track No. 2 must not be used by ore trains.
5. At East End—Normal position of switch at end of double track is for westward trains.

6. At Newton Ave.—Between C&NW connection at Newton Ave. and East End, the westward track will be used as single track by eastward trains and engines entering at Newton Ave. and by westward trains and engines. Other eastward movements will be made on eastward track.
7. At Hill Ave. Yard—Ore trains arriving will stop to clear east end of arriving tracks.
 Trains weighing ore on automatic scale will move at about 3 MPH. Semaphore over scale house is operated by weighmaster, and engineers will be governed by its indications:
 Green: Proper speed.
 Yellow: Reduce speed.
 Red: Stop.
8. At Central Ave.—Normal position of switch at junction of First and Second Subdivisions, in Great Northern interlocker, is for Second Subdivision.
9. Spring Switches—Central Ave.—Normal position of spring switch at end of double track is for eastward trains. Normal position of spring switch at wye connection between Second and First Subdivisions is for direct route to Pokegama. These switches are governed by interlocking signals equipped for switch key signal operation. If use of switch key does not give "restricting signal", proceed according to rule. Not equipped with facing point lock.
10. Register Stations—
 Central Ave.
 Ashland, Soo Line Station.
 Superior, Soo Line 21st Street Yard Office.
11. Register Exceptions—At Central Ave. trains register by form 608. Eastward ore trains from Second Subdivision will not register. A check of register on Form 602 may be issued by operator when authorized by train dispatcher, either instead of, or in addition to, train order check.
12. Clearance Exceptions—
 Ore trains from Second Subdivision will not require clearance at Central Ave.
 Soo Line trains originating at Newton Ave. secure clearance at Soo Line Stinson Avenue Yard Office.

SECOND SUBDIVISION. (MAIN LINE)

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|--|--------------------------|-----------|
| 1. Speed Restrictions— | Maximum Speeds Permitted | |
| Zone—Between | Freight | Passenger |
| East D. M. & I. R. Jct., and Garfield Ave. | 30 MPH. | 30 MPH. |
| Garfield Ave. and Central Ave..... | 40 MPH. | 55 MPH. |
| At Superior—Over switches at Belknap St. and C&NW Conn. all trains | 15 MPH. | |
| Central Ave. and Anton..... | 50 MPH. | 65 MPH. |
| Anton and State Line Both Tracks,.... | 50 MPH. | 60 MPH. |
| Against the current of traffic | 49 MPH. | 59 MPH. |
| State Line and MP 20 | 30 MPH. | 30 MPH. |
| MP 20 and MP 28 (Carlton) | 50 MPH. | 65 MPH. |
| MP 28 and MP 148 (Staples) | 45 MPH. | 55 MPH. |
| At Brainerd, over public crossings all trains | 10 MPH. | |
- First class trains—
 Between east switch of north siding (east of car shop) and St. Paul Division connection at 8th St.
 20 MPH. | |
- Between St. Paul Division connection and 8th Subdivision Jct. there is no superiority of trains. All trains and engines must move within these limits at Restricted Speed.
- At Aitkin, through village
 30 MPH. | |
- At Carlton, over double-slip switch within interlocking; through movements via Second Subdivision
 30 MPH. | |
- Other movements
 15 MPH. | |
2. Bridge and Engine Restrictions—
 Bridge 2, St. Louis Bay
 20 MPH. | |
- NP cranes 45 to 48 incl. or other wrecking cranes 250 tons or heavier, over bridges.....
 15 MPH. | |
- Bridge 9 just west of Central Ave.
 20 MPH. | |
- Avoid using automatic brakes on bridge, except in emergency.

3. **At Garfield Ave.**—Normal position of junction switches will be for Third Subdivision.

Trains will stop not less than two hundred (200) feet from junction switches and not proceed until route is clear.

Unless otherwise instructed, Westward freight trains made up in Bridge Yard, departing via Second Subdivision, will use Second Subdivision Eastward main track from connection just East of Garfield Ave. to the Minnesota Drawbridge.

Before this movement may be started, Switchtender at Garfield Ave. will contact Drawbridge Operator; if Drawbridge Operator OK's the movement, train may proceed on Eastward main track, and when Drawbridge Operator gives the approval it will be understood that Drawbridge Operator will not permit any Eastward train on Eastward track until freight train has passed Minnesota Drawbridge.

4. **At Rices Point**—Spring switch not equipped with either spring switch target or facing point lock is located on roundhouse lead about 1200 feet south of sand tower. Target indication—

Yellow—Straight track.

Green—Roundhouse lead.

Normal position of switches designated below is as follows:

South End Rices Point Yard,

switch from B to C yard lead

(top switch)when lined for B yard lead;

No. 26 and 31 crossovers on Hump

(A Yard)when lined for Hump (A Yard) lead;

No. 26 and 31 crossovers on Load

(B Yard) leadwhen lined for Load (B Yard) lead.

North End Rices Point Yard,

switch off outside lead for

lead to C Yardwhen lined for Load (B Yard) lead;

Crossover switch on inside leadwhen lined for inside lead;

Crossover switch off outside leadwhen lined for outside lead.

Roundhouse, hand throw switches No. 2 and No. 4 from the outgoing roundhouse trackswhen lined for lead.

Crossover switches from yard tracks to main track must be set for yard tracks when not in use, except where otherwise provided.

5. **At Rices Point Interlocking**—Westward dwarf signal located between Hump (A Yard) Lead and Load (B Yard) Lead at West end of Yard governs movements to Westward track and crossover to Eastward track and movements to West end of Hump (A Yard) Lead. Normal position of east switch of crossover from Hump (A Yard) Lead to westward track is for westward track, and must be kept lined and locked in this position when not in use.

Push-button on mast of eastward home signal. If home signal indicates Stop, push-button should be operated, and movement governed by signal indication.

Trains will call for route as follows:

For through main track movements	—
Eastward track to westward track	o & oo
Eastward track to yard	o & ooo
Yard to westward track	ooo & oo
Yard to eastward track	ooo & o
Westward track to eastward track	oo & o
Westward track to yard	oo & ooo

6. **Between Bridge Switch and Elevator Station, St. Louis River Bridge**—

Interlocking home signal on Eastward track West of Minnesota Draw governs movements to Northern Pacific track and to C&NW track.

Interlocking home signal on Westward track East of Elevator Station governs movements to Straight Main track and to Great Northern freight track.

Westward trains entering onto Minnesota Draw and Eastward trains entering onto Wisconsin Draw will be governed by signal at the approach and, if proceed signal is received, will not be required to stop. During period of open navigation on St. Louis River, westward trains will stop before entering onto Wisconsin Draw and eastward trains will stop before entering onto Minnesota Draw.

During closed season of navigation it will not be necessary for trains or engines to stop at either side of drawbridge when signals indicate "Proceed."

7. **At Superior**—City ordinance prohibits blocking any street crossing for more than 10 minutes, except in case of unavoidable breakdown.

8. **At Central Ave.**—No. 1 track will be used as siding. When setting out or picking up, trains must not block 58th Street, and Tower Avenue crossings.

9. **At Anton and State Line**—Time of all trains applies at end of double track.

10. **At Carlton**—

Interlocking—Trains will call for route as follows:

Second to Second "East & West": oo & oo.

Second to Third "East & West": oo & ooo.

Second to Loop Track "West": oo & oooo.

Second to 5th Subdivision "East": oo & oooo.

Third to Third "East and West": ooo & ooo.

Third to Second "East and West": ooo & oo.

Third to Loop Track "West": ooo & oooo.

Third to 5th Subdivision "East": ooo & oooo.

Fifth to Second "West": oooo & oo.

Fifth to Third "West": oooo & oo.

Fifth to Loop Track: oooo & oooo.

Loop Track to Second "East": oooo & oo.

Loop Track to Third "East": oooo & oo.

Loop Track to 5th Subdivision "West": oooo & oooo.

Lower yard lead to Second Subdiv. "East and West": —o.

No. 9 Lead through Interlocking "East and West": —.

Push button system controlling operation of lower arm of Second Subdivision Home Signal, Carlton Interlocking, has been installed to govern follow-up westward movements to either Second or Third Subdivisions. All follow-up movements will be governed by lower arm of Second Subdivision Home Signal as well as return movements to train after setting out in Carlton Yard from Second Subdivision Main Track.

11. **At McGregor**—

At Interlocking—Trains will call for route as follows:

For Northern Pacific and Soo Line main tracks: —

From Northern Pacific and Soo Line to West wye: —o

Between Interchange Track and West wye: oooo

To eastward siding: oo—

12. **At Aitkin**—Cemetery road crossing one mile west of this point must not be blocked in excess of ten (10) minutes, except in case of emergency, when it must be opened as soon as possible.

13. **At Brainerd**—St. Paul Division trains must stop before fouling Lake Superior Division main track.

Trains No. 11 and 12 use inside track at passenger station. Connection with 8th Subdivision is governed by automatic block signals.

City ordinance provides that crossings must not be blocked more than five (5) minutes by standing trains or cars. Shop crossings must not be blocked when employees are going to work at 7:00 AM and 1:00 PM. Westward trains stop clear of shop crossing 300 feet east of Thirteenth Street, and eastward trains either move a sufficient distance to clear City crossings or stop clear of First Street crossing, to make setouts or pickups. Trains must not block Oak Street Crossing near milk plant and must promptly clear crossings when coupling up in South Yard for movement.

14. **At Staples, St. Paul Division instructions govern.**

15. **Sidings**—

McGregor, siding east of passenger station is westward siding.

Siding west of passenger station is eastward siding.

Aitkin, north siding is westward; south siding is eastward.

Brainerd, No. 1 Track in New Yard is Siding.

16. **Signal Overlap**—

Kimberly & Woodbury—Trains holding main track to meet an opposing train taking siding will stop before reaching signal overlap sign, about middle of siding, to avoid giving approaching train two stop signals.

17. **Spring Switches**—Superior, at west end of Brewery Lead, normal position for main track. Not equipped with facing point lock.

Anton, at end of double track, normal position for westward track, equipped with facing point lock.

Carlton, east switch of north siding equipped with facing point lock. Not equipped for switch key operation.

Woodbury, east switch of siding with facing point lock, equipped for switch key operation.

Kimberly, west switch of siding with facing point lock, equipped for switch key operation.

Deerwood, at junction of Second and Fourth Subdivisions, one and three-fourths miles east of passenger station, normal position for Second Subdivision main track, equipped with facing point lock.

Indications displayed by two-position color light signal controlling spring switch indicate only if points of the spring switch are in proper adjustment.

18. **Retaining Valves—Sawyer to Pokegama.**
Eastward freight trains having tonnage less than 70 tons per brake are not required to use retaining valves.
Eastward freight trains having tonnage exceeding 70 tons per brake, before passing Sawyer, shall have retaining valves positioned in slow blow-down position (45° above horizontal) on one-fifth of the total number of cars in train, commencing at the head end, when engine does not have dynamic brake in effective operation on all units or engine is not equipped with brake pipe maintaining feature in operating condition.
Eastward freight trains having tonnage exceeding 70 tons per brake are not required to use retaining valves when engine has dynamic brake in effective operation on all units or engine is equipped with brake pipe maintaining feature in operating condition.
All retaining valves will be turned down where first stop is made, at either Pokegama, Central Avenue or Hill Avenue.
On eastward freight trains from Sawyer to Superior (Central Ave. or Hill Yard), the feed valve shall be adjusted to 90 pounds brake pipe pressure prior to departure Sawyer, except on trains which have less than 50 tons per brake.
19. **Derail Switches—**At approach to Minnesota Draw from Duluth. At Superior—Winter St. just opposite freight house.
20. **Register Stations—**
Duluth Union Depot for trains arriving at or departing from Fifth Ave. Yard or Union Depot, Rice's Point Yard Office for other trains.
Central Ave.
Carlton, Staples.
Brainerd—For trains originating or terminating at Brainerd.
21. **Register Exceptions—**At Central Ave. and Carlton trains register by Form 608.
At Central Avenue when no telegrapher on duty all regular trains, except Great Northern trains and Northern Pacific Train No. 66, unless otherwise instructed, will register in train register located in switchmen's room east of depot office.
A check of register on Form 602 may be issued by operator when authorized by train dispatcher, either instead of, or in addition to, train order check, at Central Ave. and Carlton.
22. **At Duluth first class trains arriving may register by Form 608,** using tube at foot of east stairway for delivery to operator in "DU" office.
23. **Clearance Exceptions—**At Carlton, all trains secure clearance. Trains originating at East D.M.I.R. Jct. Garfield Ave., Rices Point (Yard), Bridge Switch, Elevator Station, C&NW Conn. and Belknap St. will not require clearance.
At Central Ave. eastward trains will not require clearance if train order signal is in the proceed position. Westward Great Northern trains enroute to Great Northern tracks, at the Interlocking, not governed by train order signal.

THIRD SUBDIVISION. (MAIN LINE)

1. Speed Restrictions—	Maximum Speeds Permitted	
	Freight	Passenger
Garfield Ave. and West Duluth Jct.	30 MPH.	30 MPH.
Over 21st Ave. West Crossing.....	15 MPH.	15 MPH.
West Duluth Jct. and MP 143 (between Short Line Park and West Duluth Jct.)	50 MPH.	60 MPH.
MP 143 and MP 135 (Brownell).....	25 MPH.	45 MPH.
MP 135 and MP 129 (West end Carlton yard)	50 MPH.	60 MPH.

Curve 129 between 1585 feet and 3227 feet east of MP 129	35 MPH.	35 MPH.
MP 129 and MP 11 (White Bear Lake)	50 MPH.	75 MPH.
At Carlton, over double slip switch within interlocking; through movements via Third Subdivision.....	30 MPH.	
Other movements	15 MPH.	
At Rush City thru city limits passenger trains.....	50 MPH.	

2. **Bridge and Engine Restrictions—**
NP cranes 45 to 48 incl. or other wrecking cranes 250 tons or heavier, over bridges.....15 MPH.
3. **At Garfield Ave.—**Normal position of junction switches will be for Third Subdivision.
Trains will stop not less than two hundred (200) feet from Junction switches and not proceed until route is clear.
4. **At Nineteenth Ave. West—**Trains using the Dick tracks must not block crossing.
5. **At Twenty-first Ave. West—**Telephone at crossover—Eastward trains call yard (3 rings) for route when necessary.
6. **At West D. M. & I. R. Jct. Interlocking—**Trains will call for route as follows:
o o o Martins track to D. M. & I. R. yard.
o o o D. M. & I. R. yard to Martins track.
o o o— Martins track to westward main.
o o o o Martins track to D. T. main.
o o o o D. T. main to Martins track
— o Westward main to D. M. & I. R. yard.
— o D. M. & I. R. yard to eastward main.
— o o o Eastward Main to Martin's track.
— — Through main track movements.
7. **At West Duluth Jct.—**
Yard engines will use west leg of wye and Fond du Lac line but will not leave cars on these tracks.
Switch at end of double track is dual control. Normal position is for the westward track.
To secure a restricting proceed interlocking indication, as per Rule 601-F, Figure (3), at the Westward Dwarf Signal, covering reverse movements on eastward track, engines or trains moving eastward through the dual control switch must, before reversing direction, clear the track circuit, the east end of which is located just east of the switch leading to the new Western Brass Company near 61st Ave. West.
8. **At Carlton—**Second Subdivision Instructions govern.
9. **At Carlton—**Advance-warning sign of 45 MPH. governing eastward movements, located at the Great Northern Tower, is only 1200 feet in advance of the Reduce Speed sign account junction with the Second Subdivision.
10. **At Hinckley—**Cars must not be left on No. 1 yard track.
Trains must not block highway crossing one-half mile west of passenger station, and South First Street Crossing more than five (5) minutes.
Foot crossing east of passenger station must not be blocked with cars.
At Interlocking—trains will call for route as follows:
For Through Main Track Movement: —
For Movement from Main Track to Sidings: —o
For Movement from Sidings to Main Track: o—
For Movement between yard and eastward siding: oo
11. **At White Bear Lake—**
NP Ry and C&NW Ry Joint Terminal instructions govern.
White Bear Lake will not be considered an initial station for through trains moving TO or FROM Lake Superior Third Subdivision TO or FROM Joint Terminal First Subdivision.
12. **Sidings—**
Hinckley, siding east of Grind Stone River is westward siding; siding west of G. N. crossing is eastward siding.
13. **Signal Overlap—**
At Sturgeon Lake—Westward trains holding main track to meet an eastward train will stop before reaching signal overlap sign west of passenger station, to avoid giving approaching train three stop signals.

At Forest Lake—Eastward trains holding main track to meet a westward train will stop before reaching signal overlap sign east of passenger station, to avoid giving approaching train three stop signals.

14. **Spring Switches**—West Duluth Jct., at junction of Third and Sixth Subdivisions, normal position for Sixth Subdivision main track. Not equipped with facing point lock.
Pine City, west switch of siding, with facing point lock equipped for switch key signal operation.
15. **Retaining Valves**—On freight trains retaining valves must be used on grades Brownell to MP 143. Handles to be turned up to low pressure (horizontal) position, beginning at head end of train, as follows:
Trains of 8000 tons or over—20 retainers.
Trains of 6000 tons or over—16 retainers.
Trains of 4000 tons or over—10 retainers.
Trains of less than 4000 tons—No retainers unless requested by engineman.
All retaining valves will be turned down between MP 143 and West Duluth Jct.
16. **Register Stations**—
Carlton.
17. **Register Exceptions**—
At Carlton trains register by Form 608.
A check of register on Form 602 may be issued by operator when authorized by train dispatcher, either instead of or in addition to train order check, at Carlton.
18. **Clearance Exceptions**—
Trains originating at Garfield Ave., West DM&IR Jct., DW&P Jct., and West Duluth Jct. will not require clearance.
At Carlton: all trains secure clearance.

FOURTH SUBDIVISION. (CUYUNA NORTHERN BRANCH)

1. **Speed Restrictions**—
Zone—Between
Deerwood and Ironton40 MPH.
2. **Bridge and Engine Restrictions**—
Engines not permitted on Middleton Coal Dock Trestle, and over Under-Track unloading pocket on Coke Track at Hanna Mine.
3. **At Deerwood**—Eastward trains use junction switch one and three-fourths miles east of passenger station; westward trains use crossover west of passenger station, unless otherwise authorized by train order.
Train order signal does not govern Fourth Subdivision trains.
4. **At Ironton**—Track must not be used beyond point 2400 feet west of Trommald Jct.
5. **Spring Switches**—
Deerwood, at junction of Second and Fourth Subdivision main tracks, one and three fourths miles east of passenger station, normal position for Second Subdivision main track, equipped with facing point lock.
6. **Register Stations**—Ironton and Deerwood.
7. **Register Exceptions**—At Deerwood, when operator on duty, trains will register by Form 608.

FIFTH SUBDIVISION. (CLOQUET BRANCH)

1. **Speed Restrictions**—
Zone—Between
Cloquet and MP 4 (west of Scanlon)15 MPH.
MP 4 and Carlton30 MPH.
Carlton, over double-slip switches through the
Interlocking15 MPH.

2. **Bridge and Engine Restrictions**—
NP cranes 45 to 48 incl. or other wrecking cranes
250 tons or heavier, over bridge 6.....15 MPH.
3. **At Carlton**—Second Subdivision instructions govern.
4. **At Cloquet**—D.&N.E. engines may use main track between D.&N.E. connection at Broadway St. 200 feet east of passenger station and west end of yard.
Trains and yard engines must stop at the Northwest Paper Mill crossing (East Cloquet), and protect crossing by flagman.
Movements over Arch Street crossing, West of passenger station, must be protected by flagman.
Derails located near East end of Great Northern tracks No. 1 and No. 2, are not provided with derail signs.
5. **Register Stations**—Carlton and Cloquet.
6. **Clearance Exceptions**—
At Cloquet trains will not require clearance.

SIXTH SUBDIVISION. (GRASSY POINT LINE)

1. **Speed Restrictions**—
Maximum Speeds Permitted
Freight Passenger
West Duluth Jct. and Zenith Furnace 30 MPH. 30 MPH.
Zenith Furnace and L. S. T. & T. Ry. Jct. 40 MPH. 40 MPH.
At West Duluth Jct., around east leg of
wy and passing Zenith Furnace PlantRestricted Speed
West Duluth Jct., and New Duluth 15 MPH. 15 MPH.
2. **Bridge and Engine Restrictions**—
NP cranes 45 to 48 incl. or other wrecking cranes
250 tons or heavier, over bridges.....15 MPH.

At Riverside—
Door over tracks entering shop building will not clear man on top of car.
3. **At West Duluth Jct.**—Normal position of switches on east leg of wye is for Sixth Subdivision main track. Third Subdivision special instructions govern.
4. **Between West Duluth Jct. and Riverside**—Between 72nd Ave. West and Riverside Jct., trains will run via D. T. Railway, and will be governed by D. M. & I. R. Railway Time Table and Special Instructions. Trains will secure D. M. & I. R. Clearance and train orders at Duluth Union Depot.
Transfers operating between 72nd Ave. West and New Duluth will be given train orders at Duluth Union Depot, covering Westward movement from 72nd Avenue West to Riverside Jct. via "DT" Line. On arrival at New Duluth, Conductor will call the Northern Pacific Chief Dispatcher at Duluth, advising estimated time the Transfer will be ready to depart New Duluth on return trip. To facilitate calling, a Northwestern Bell Telephone has been installed in a telephone booth, secured by switch lock, on the station building. This telephone booth must be kept locked at all times. Before departing New Duluth on return trip, Conductors will pick up orders covering return movement from Riverside Jct. to 72nd Ave. West in bill box, secured by a switch lock, located on station building at New Duluth.
5. **At Berwind Jct. Interlocking**—
Trains will call for route as follows:
— o To and from D. W. & P.
— oo To and from Soo Line.
— Straight track (N. P.).
oooo To and from Mike's Lead to Main track.
6. **Clearance Exceptions**—
Trains originating at West Duluth Jct., Berwind Jct. L. S. T. & T. Ry. Jct. and New Duluth will not require clearance.
7. **Derails**—Winter St. just opposite freight house.

SEVENTH SUBDIVISION. (BULLHEAD LAKE BRANCH)

1. **Speed Restrictions**—
Maximum Speeds Permitted
Zone—Between
Funkley and Kelliher 15 MPH.

2. **Bridge and Engine Restrictions—**
NP cranes 45 to 48 incl. or other wrecking cranes
250 tons or heavier.....Not permitted.

3. **Register Stations—**
Funkley Kelliher
4. **Register exceptions:**
At Funkley: Trains will register only when so directed by train order.
5. **Clearance Exceptions—**
At Funkley: Westward trains will not require clearance.

EIGHTH SUBDIVISION.

(INTERNATIONAL FALLS BRANCH) (BRAINERD TO NORTH BEMIDJI)

1. **Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted	
	Freight	Passenger
Brainerd and North Bemidji.....	40 MPH.	50 MPH.
At Bemidji—Over public crossings at,		
Carpenter Ave.		80 MPH.
Mill Park		20 MPH.
Skelly Oil		20 MPH.
Other public crossings		15 MPH.

2. **Bridge and Engine Restrictions—**
NP cranes 45 to 48 incl. or other wrecking cranes
250 tons or heavier.....Not permitted
Bridge 59.1 over Leech Lake, all trains15 MPH.
Diesel Electric Engines—2500 thru 2514 restricted to 20 MPH.
over Bridge 94 at Bemidji.
Bridge 94 over Mississippi River (east of Bemidji psgr. station).
Trains handling cars less than 30 ft. long with total weight
exceeding 169,000 pounds when coupled in group or next to
engine. Trains handling cars 30 ft. or longer with total weight
exceeding 169,000 pounds when coupled next to engine..20 MPH.
If such short cars are not coupled in groups and if any such car
is not coupled next to engine the above restriction does not apply.

3. **At Brainerd—**Connection with 2nd Subdivision is governed by
automatic block signals.
The signal governing movements from the 8th to the 2nd Sub-
division displays interlocking indication Rule 601A1 and will
not display a proceed indication until the junction switch is
properly lined and there are no conflicting train or engine move-
ments in the Automatic Block Signal territory.
Train order signal does not govern Eighth Subdivision trains.
Second Subdivision instructions govern.

4. **At Bemidji—**The wye switch on the Bemidji Branch will be in
normal position when lined for the east leg of the wye.
Within yard limit at Bemidji Tower, Bemidji, and North Be-
midji, trains 11 and 12 will observe Operating Rule 98 the same
as required of second class and inferior trains.
Tracks between yard limit sign east of Bemidji Tower, Bemidji,
and yard limit sign west of North Bemidji, operated as one yard.

5. **Bemidji Automatic Interlocking**
East leg of wye track switch equipped with an electric lock.
Trains making westward movement via east leg of wye must
stop within 100 feet east of westward home signal before
lining switch.

6. **Register Stations—**
Brainerd North Bemidji

7. **Register Exceptions—**Eastward trains secure from the tele-
graph office at Brainerd by telephone check of register covering
first class trains.

NINTH SUBDIVISION.

(INTERNATIONAL FALLS BRANCH)

(NORTH BEMIDJI TO INTERNATIONAL FALLS)

1. **Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted	
	Freight	Passenger
North Bemidji and International Falls.....	35 MPH.	45 MPH.
Over public crossing 200 ft. west of MP 97, between North Bemidji and Lavinia		30 MPH.

2. **Bridge and Engine Restrictions—**
Diesel Electric Engines—2500 thru 2514 not allowed on Bridges
166 and 185.
NP cranes 45 to 48 incl. or other wrecking cranes
250 tons or heavier.....Not permitted
Bridge 166 Big Fork River and Bridge 185, Little Fork River:
All trains10 MPH.
Heavy car restrictions Bridges 166 and 185:
Cars less than 40 ft. long with total weight exceeding 169,000
pounds must be separated from each other and from engine by
two cars 40 feet long with total weight not over 169,000 pounds.
Cars 40 ft. or longer with total weight exceeding 169,000 pounds
must be separated from engine by one car 40 ft. long with total
weight under 169,000 pounds.

3. **At North Bemidji—**Eighth Subdivision Instructions govern. See
Item 5—8th Subdivision.

4. **At Big Falls—**Track serving the National Pole & Treating Com-
pany must not be used beyond 1,510 feet from Highway No. 71
crossing. National Pole & Treating Company tracks may be used
for switching cars to or from temporary pulpwood platform.

5. **At International Falls—**On K and S tracks all movements across
Sixth Street must be protected.
Within Yard Limits Trains 11 and 12 will observe Operating
Rule 98 the same as is required of second class and inferior
trains.

6. **Register Stations—**
North Bemidji, International Falls.

7. **Register Exceptions:**
At Funkley: Trains will register only when so directed by train
order.

8. **Clearance Exceptions—**
At Funkley:
Trains originating will not require clearance.

TONNAGE RATINGS PER DIESEL UNIT

Lake Superior Division		Unit Numbers								
Subdivision	District	99-106 400-427 700-724 750 800-803	107-177	500-551 6500-6513 6550-6552 6600-6601	244-245 6000-6005 6051-6052 6700 Series	5400-5410 500-501 552-569 6007-6020 6050	525 850-863 900 Series	200-300 and 7000 Series Except 244-245	2500 Series	
First—Eastward	Central Ave. to Iron River.....	790	950	1050	1360	1680	2200	2100	3300	
	Iron River to Ashland.....	960	1140	1260	1640	2020	2650	2525	3950	
	Ashland to Central Ave.....	790	950	1050	1360	1680	2200	2100	3300	
First Westward	Staples to Brainerd.....	4070	4850	5380	7000	8610	11300	10750	16470	
	Brainerd to Deerwood.....	1660	1970	2190	2850	3500	4600	4380	6950	
Second Eastward	Deerwood to Central Ave.....	2160	2570	2860	3710	4570	6000	5710	8630	
	Duluth to Sawyer.....	1020	1230	1360	1760	2180	2660	2730	3300	
Second Westward	Sawyer to Brainerd.....	1440	1720	1900	2480	3050	4000	3810	5800	
	Brainerd to Staples.....	1620	1930	2140	2790	3430	4500	4280	5800	
Third Eastward	White Bear Lake to Hinckley.....	1260	1500	1670	2170	2670	3500	3330	5280	
	Hinckley to Groningen.....	1120	1330	1480	1920	2360	3100	2950	4640	
	Groningen to Carlton.....	1620	1930	2140	2790	3430	4500	4280	5710	
	Carlton to Duluth.....	1440	1720	1900	2480	3050	4000	3810	4980	

TONNAGE RATINGS PER DIESEL UNIT

Lake Superior Division		Unit Numbers								
Subdivision	District	99-106 400-427 700-724 750 800-803	107-177	500-551 6500-6513 6550-6552 6600-6601	244-245 6000-6005 6051-6052 6700 Series	5400-5410 500-501 552-569 6007-6020 6050	525 850-863 900 Series	200-300 and 7000 Series Except 244-245	2500 Series	
Third Westward	Duluth to Carlton.....	790	950	1050	1360	1680	2050	2100	3300	
	Carlton to Hineckley.....	1530	1820	2020	2630	3240	4250	4050	4980	
	Hineckley to White Bear Lake.....	1800	2150	2380	3100	3810	5000	4760	6950	
Eighth Eastward	No. Bemidji to Brainerd.....	1070	1270	1410	1840	2260	2970	2830	4190	
	No. Bemidji to Hackensack.....	1070	1270	1410	1840	2260	2970	2830	4190	
Eighth Westward	Brainerd to No. Bemidji.....	750	890	990	1280	1580	2070	1970	3300	
	International Falls to Funkley.....	1010	1200	1330	1730	2130	2800	2670	3280	
Ninth Eastward	Funkley to No. Bemidji.....	1850	2200	2440	3170	3910	5130	4880	6000	
	No. Bemidji to Northome.....	950	1130	1260	1630	2010	2640	2510	4640	
Ninth Westward	Northome to International Falls.....	1850	2200	2440	3170	3910	5130	4880	6000	

This rating is made to govern ruling grades only, and will in no manner interfere with handling additional tonnage where grades will permit.

MAXIMUM CLEARANCES.

	LIMIT OF LOAD MEASUREMENT.											Governing Structure
	Height Above Top of Rail.											
	1 ft. Wide	2 ft. Wide	3 ft. Wide	4 ft. Wide	5 ft. Wide	6 ft. Wide	7 ft. Wide	7 ft. 6 in. Wide	8 ft. Wide	Max. Hgt.	Max. Wth.	
1st Sub-division, Ashland to Central Ave. . . .	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	
2nd Sub-division, Garfield Ave. to Staples . . .	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	St. Louis Bay Bridge
2nd Sub-division, Garfield Ave. to East D. M. & I. R. Jct.	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	12' 0"	Lake Ave. Viaduct
3rd Sub-division, Garfield Ave. to White Bear Lake.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Br. 131, St. Louis River
4th Sub-division, Deerwood to Ironton Depot	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	
5th Sub-division, Carlton to Cloquet.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	
6th Sub-division, L. S. T. & T. Ry. Jct. to New Duluth.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	
8th and 9th Sub-divisions { Brainerd to Big Falls.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	

Note:—Limit of load measurements based on 52' cars with 42' truck centers. Heights and widths in table allow 6 inches clearance. Table is based on open car loading equally divided on either side of center line of car.

MAXIMUM CLEARANCES.

LIMIT OF LOAD MEASUREMENT.												Governing Structure
Height Above Top of Rail.												
8 ft. 6 in. Wide	9 ft. Wide	9 ft. 6 in. Wide	10 ft. Wide	10 ft. 6 in. Wide	11 ft. Wide	11 ft. 6 in. Wide	12 ft. Wide	Max. Hgt.	Max. Wth.			
1st Sub-division, Ashland to Central Ave. . . .	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	St. Louis Bay Bridge	
2nd Sub-division, Garfield Ave. to Staples. . .	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"		
2nd Sub-division, Garfield Ave. to East D. M. & I. R. Jct.	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	18' 6"	12' 0"		Lake Ave. Viaduct
3rd Sub-division, Garfield Ave. to White Bear Lake.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"		
4th Sub-division, Deerwood to Ironton Depot	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Br. 131, St. Louis River	
5th Sub-division, Carlton to Cloquet.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"		
6th Sub-division L. S. T. & T. Ry. Jct. to New Duluth.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"		
8th and 9th Sub-divisions { Brainerd to Big Falls.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Big Fork and Little Fork River Bridges	

Note:—Limit of load measurements based on 52' cars with 42' truck centers. Heights and widths in table allow 6 inches clearance. Table is based on open car loading equally divided on either side of center line of car.