



#### **AUTHORIZED SURGEONS**

Dr. A. L. Kylo, 5719 Tower Ave., Superior  
Dr. W. H. Schnell, 28 Columbia Bldg., Superior  
Dr. F. C. Sarazin, 28 Columbia Bldg., Superior  
Dr. C. H. Christiansen, Superior  
Dr. G. C. MacRae, 925 Med. Arts Bldg., Duluth  
Dr. C. M. Smith, 1115 Med. Arts Bldg., Duluth  
Dr. O. E. Heimark, 2004 W. Superior St., Duluth  
Dr. C. L. Haney, 2004 W. Superior St., Duluth  
Dr. F. N. Knapp, Oculist and Aurist, 815 Med. Arts Bldg.,  
Duluth  
Dr. M. F. Fellows, Oculist and Aurist, 815 Med. Arts Bldg.,  
Duluth  
Dr. J. M. Robinson, Oculist and Aurist, Providence Bldg.,  
Duluth  
Dr. J. W. Holderman, 503 Med. Arts Bldg., Duluth

#### **Location Stretchers**

East End Passenger Station  
Central Avenue Freight Station  
Superior Freight Station  
Rices Point Switch Shanty, Duluth  
Dock 6, Duluth  
Duluth Union Depot  
Tool Car, Duluth  
West Duluth Passenger Station

# **NORTHERN PACIFIC RAILWAY COMPANY**

## **Duluth and Superior Terminals**

# **TIME TABLE 177**

**In Effect at 12:01 A. M. Central  
or 90th Meridian Time.**

**Sunday, April 8, 1934**

**For the Government of Employes only. The Company reserves the right to vary therefrom at pleasure. Be positive that you have the Current Time Table and destroy all previous numbers. Read carefully the Special Instructions and always carry for reference a copy of TRANSPORTATION RULES.**

**W. C. SLOAN,  
General Manager.**

**G. H. JACOBUS,  
Superintendent.**

**F. R. BARTLES,  
Assistant General Manager.**

**P. H. McCAULEY,  
General Superintendent of  
Transportation.**

# 2 WESTWARD

# FIRST SUB-DIVISION

## FIRST CLASS

Water, Fuel, Scales, Turn Tables, Wyes and Yard Limits.	Car Capacity of Sidings.	Station Numbers.	FIRST CLASS								Distance from East D. M. & N. Jct.	Time Table No. 177				
			65	57	303	405	51	201	61	401		407	55	April 8, 1934		
			N. P. 65	N. P. 57	D. W. & P. 19	D. M. & N. 6	N. P. 52	D. M. & N. 1	N. P. 61	D. M. & N. 12		D. M. & N. 10	N. P. 55	Succeeding No. 176.		
			Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger		Passenger	Passenger	STATIONS		
													Telegraph Offices and Calls			
													..... EAST D. M. & N. JCT.....			
WCO TYX	Yard	WB 71	L 11.30 PM	L 7.30 PM		L 5.16 PM				L 7.55 AM	L 7.50 AM	0.0	..... EAST D. M. & N. JCT.....			
			11.33	A 7.33 PM		A 5.20 PM		L 2.35 PM	L 8.35 AM	L 8.30 AM	A 8.00 AM	A 7.55 AM	L 7.50 AM	0.9	DU..... DULUTH..... DN	
			f 11.35		L 7.04 PM		A 2.39 PM	8.38	8.33				A 7.53 AM	1.9	..... GARFIELD AVE.....	
		L 02	11.37		7.07				A 8.41 AM	8.36		2.2	..... 20TH AVE.....			
WYX		L 04 L 5	11.40		A 7.14 PM					8.40		3.8	..... SOO LINE CROSSING.....			
			s 11.44						s 8.43				4.4	..... D. W. & P. JCT.....		
			A 11.50 PM						A 8.45 AM				5.1	WU.. WEST DULUTH.. DN		
		LB 2										5.8	..... WEST DULUTH JCT.. P			
		LB 3										7.0	..... D. T. CROSSING.....			
		LB 5										8.1	..... RIVERSIDE.....			
		LB 8										8.5	..... SPIRIT LAKE.....			
			Daily	Daily	Ex. Sun.	Daily	Ex. Sun.	Daily	Ex. Sun.	Daily	Daily	10.7	..... MORGAN PARK.....			
			.20	.08	.10	.04	.04	.06	.15	.05	.05	12.4	..... BOAT CLUB.....			
			14.7	20.0	15.0	13.5	15.0	19.0	19.6	10.8	10.8	15.1	..... NEW DULUTH..... P			
													..... FOND DU LAC.....			
													Time Over Sub-Division			
													Average Speed Per Hour			

AUTOMATIC BLOCK

DOUBLE TRACK

**EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION.  
SPECIAL INSTRUCTIONS PAGES 8 AND 9.**

WESTWARD

FIRST SUB-DIVISION

3

									SECOND CLASS		Distance from East D. M. & N. Jct.	Time Table No. 177 April 8, 1934 Succeeding No. 176.
									627	623		
									N. P. 627	N. P. 623	Daily	Daily
									Freight	Freight		
									Daily	Daily	STATIONS	
											Telegraph Offices and Calls	
											0.0	..... EAST D. M. & N. JCT.....
											0.9	..... DULUTH..... DN
									L 7.35 PM	L 5.30 PM	0.9	..... GARFIELD AVE.....
									7.39	A 5.33 PM	1.9	..... 20TH AVE.....
									7.40		2.2	..... WEST D. M. & N. JCT... 0.8
									7.42		2.8	..... SOO LINE CROSSING... 0.8
											3.6	..... D. W. & P. JCT..... 0.8
									7.48		4.4	..... WEST DULUTH... DN 0.7
									7.51		5.1	..... WEST DULUTH JCT... P 0.7
									A 7.55 PM		5.8	..... D. T. CROSSING... 1.2
											7.0	..... RIVERSIDE..... 0.4
											8.1	..... SPIRIT LAKE..... 1.2
											8.5	..... MORGAN PARK..... 1.0
											9.7	..... BOAT CLUB..... 1.7
											10.7	..... NEW DULUTH..... P 2.7
											12.4	..... FOND DU LAC.....
											15.1	
									Daily	Daily		Time Over Sub-Division
									.20	.03		Average Speed Per Hour
									14.7	20.0		

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION.  
SPECIAL INSTRUCTIONS PAGES 8 AND 9.

Water, Fuel, Stables, Turf, Fables, Wyes and Yard Limits.		Car Capacity of Sidings.		Station Numbers.		Distance from Fond du Lac.		Time Table No. 177														
								FIRST CLASS														
April 8, 1934 Succeeding No. 176								66	304	400	58	52	62	204	404	402	56					
STATIONS								N. P. 66	D. W. & P. 20	D. M. & N. 5	N. P. 58	N. P. 51	N. P. 62	D. M. & N. 2	D. M. & N. 9	D. M. & N. 11	N. P. 56					
Telegraph Offices and Calls								Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger					
								Daily	Ex. Mon.	Daily	Daily	Ex. Sun.	Ex. Sun.	Daily	Daily	Daily	Daily					
WCO TYX	Yard	WB 71	15.1	EAST D. M. & N. JCT.....																		
			14.2	DU.....	DULUTH.....DN	A	6.30 AM								A	5.05 PM	A	5.30 PM				
			13.2	GARFIELD AVE.....			6.25	A	8.13 AM													
			L 2	12.9	20TH AVE.....		s	6.22														
			L02	12.8	WEST D. M. & N. JCT..			6.19		8.09												
			WY X		L04	11.5	SOO LINE CROSSING.															
						10.7	D. W. & P. JCT.....			6.14	L	8.03 AM										
						10.0	WU WEST DULUTH DN		s	6.12												
						L 5	9.3	WEST DULUTH JCT..P		L	6.03 AM											
						8.1	D. T. CROSSING.....															
LB2	LB3	LB5	7.0	RIVERSIDE.....																		
			6.6	SPIRIT LAKE.....																		
			5.4	MORGAN PARK.....																		
			4.4	BOAT CLUB.....																		
			2.7	NEW DULUTH.....P																		
LB8		0.0	FOND DU LAC.....																			
								Daily	Ex. Mon.	Daily	Daily	Ex. Sun.	Ex. Sun.	Daily	Daily	Daily	Daily					
Time Over Sub-Division								.27	.10	.04	.03	.08	.15	.06	.05	.05	.03					
Average Speed Per Hour								10.9	15.0	13.5	20.0	20.0	19.6	19.0	10.8	10.8	20.0					

**EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION.  
SPECIAL INSTRUCTIONS PAGES 8 AND 9.**

FIRST SUB-DIVISION

EASTWARD 5

Distance from Fond du Lac.	Time Table No. 177 April 8, 1934 Succeeding No. 176	SECOND CLASS																		
		624	626	628																
		N. P. 624	C. M. St. P. & P. 626	N. P. 628																
		Freight Daily	Freight Daily	Freight Daily																
	<b>STATIONS</b>																			
	<b>Telegraph Offices and Calls</b>																			
15.1	..... EAST D. M. & N. JCT..... 0.9																			
14.2	DU..... DULUTH..... DN 1.0			A 4.30 AM																
13.2	..... GARFIELD AVE..... 0.3			4.20																
12.9	..... 20TH AVE..... 0.6	A 1.50 AM	A 4.05 AM	4.15																
12.3	..... WEST D. M. & N. JCT.. 0.8	1.43	3.58	4.08																
11.5	..... SOO LINE CROSSING. 0.8																			
10.7	..... D. W. & P. JCT..... 0.7	1.37	3.48	4.02																
10.0	WU WEST DULUTH DN 0.7	1.35	3.45	4.00																
9.3	..... WEST DULUTH JCT..P 1.2	L 1.30 AM	L 3.40 AM	L 3.55 AM																
8.1	..... D. T. CROSSING..... 1.1																			
7.0	..... RIVERSIDE..... 0.4																			
6.6	..... SPIRIT LAKE..... 1.2																			
5.4	..... MORGAN PARK..... 1.0																			
4.4	..... BOAT CLUB..... 1.7																			
2.7	..... NEW DULUTH..... P 2.7																			
0.0	..... FOND DU LAC.....																			
		Daily	Daily	Daily																
	Time Over Sub-Division	.20	.25	.35																
	Average Speed Per Hour	10.8	8.6	8.4																

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION.  
SPECIAL INSTRUCTIONS PAGES 8 AND 9.

**6 WESTWARD**

**SECOND SUB-DIVISION**

SECOND CLASS		FIRST CLASS										Time Table No. 177		
625	623	35	89	57	93	19	51	23	33	55	65	April 8, 1934		
C. M. St. P. & P. 625	N. P. 623	G. N. 35	Omaha 510	N. P. 57	Omaha 512	G. N. 19	N. P. 52	G. N. 23	G. N. 33	N. P. 55	N. P. 65	Succeeding No. 176.		
Freight	Freight	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	STATIONS		
Daily	Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily	Daily	Telegraph Offices and Calls		
L 5.33 PM	5.34			L 7.33 PM				L 2.39 PM		L 7.53 AM		..... GARFIELD AVE....	Distance from Central Ave.	
L 7.40 PM	5.36			7.35				2.41		7.55		..... RICES POINT.....		Double Track
7.45	5.39	L 9.07 PM	L 9.05 PM	7.36	L 5.05 PM	L 4.07 PM	2.43	L 8.32 AM	L 8.22 AM	7.57		..... BRIDGE SWITCH.....		
7.49	5.41	9.10	9.08	7.39	5.08	4.10	2.46	8.35	8.25	8.00		..... ELEVATOR STATION.....		
7.51		9.12	A 9.10 PM	7.41	A 5.10 PM	4.12	2.48	8.37	8.27	8.02		..... OMAHA CONN.....		
		s 9.15		s 7.42		s 4.15	s 2.49	s 8.40	s 8.30	s 8.05	L 12.06 AM	..... BY SUPERIOR U. D.... D	7.3	
8.00	5.52	9.16		7.44		4.16	2.50	8.41	8.31	8.06	12.08	..... BELKNAP STREET...	6.5	
A 8.30 PM	A 6.30 PM	A s 9.25 PM		A s 7.55 PM		A 4.24 PM	A s 3.00 PM	A s 8.49 AM	A 8.39 AM	A s 8.14 AM	A s 12.20 AM	..... A.J. CENTRAL AVE... DN	6.0	
Daily	Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily	Daily		.....	5.1
.50	.57	.18	.05	.22	.05	.17	.21	.17	.17	.21	.14		.....	4.4
7.8	7.7	20.0	19.1	19.9	19.1	21.1	20.8	21.1	21.1	20.8	17.1		.....	4.1
													Time Over Sub-Division	3.7
													Average Speed Per Hour	0.0

**EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION. DOUBLE TRACK BETWEEN BELKNAP STREET AND CENTRAL AVENUE, EXCEPT OVER MINNESOTA DRAW ON ST. LOUIS RIVER BRIDGE WHICH IS GOVERNED BY INTERLOCKING SIGNAL.**

**SECOND SUB-DIVISION**

**EASTWARD**

Water, Fuel, Scales, Turn Tables, Wyes and Yard Limits.	Car Capacity of Sidings.	Station Numbers.	Distance from Garfield Ave.	Time Table No. 177		FIRST CLASS										
				April 8, 1934		66	94	36	58	96	52	24	34	20	56	
				Succeeding No. 176.		N. P. 66	Omaha 511	G. N. 36	N. P. 58	Omaha 503	N. P. 51	G. N. 24	G. N. 34	G. N. 20	N. P. 56	
				STATIONS		Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	
				Telegraph Offices and Calls		Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily	Daily	
WCO	Yard	L 1	0.0	..... GARFIELD AVE....	Double Track				A 8.37 AM		A 12.22 PM				A 11.27 PM	
TYX			0.8	..... RICES POINT.....					8.34		12.18					11.25
			1.3	..... BRIDGE SWITCH.....			A 7.47 AM	A 7.53 AM	8.32	A 12.06 PM	12.16	A 1.43 PM	A 4.23 PM	A 8.23 PM		11.24
			2.2	..... ELEVATOR STATION.....			7.43	7.49	8.29	12.02 PM	12.13	1.39	4.19	8.19		11.21
			2.9	..... OMAHA CONN.....			L 7.41 AM	7.47	8.26	L 11.59 AM	12.10	1.37	4.16	8.16		11.19
X		WB 67	3.2	..... BY SUPERIOR U. D.... D	Automatic Block	A s 5.40 AM		s 7.45	s 8.24		s 12.09	s 1.35	4.15	s 8.15	s 11.18	
			3.6	..... BELKNAP STREET...			5.38		7.41	8.21		12.07 PM	1.31	4.11	8.11	11.15
WYX	Yard	67	7.3	..... A.J. CENTRAL AVE... DN			L s 5.29 AM		L s 7.33 AM	L 8.13 AM		L 11.59 AM	L 1.23 PM	L 4.03 PM	L 8.04 PM	L 11.05 PM
						Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily	Daily	
				Time Over Sub-Division		.11	.06	.20	.24	.07	.23	.20	.20	.19	.22	
				Average Speed Per Hour		22.8	18.7	18.0	18.2	18.7	19.0	18.0	18.0	18.9	19.9	

**EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION. DOUBLE TRACK BETWEEN BELKNAP STREET AND CENTRAL AVENUE, EXCEPT OVER MINNESOTA DRAW ON ST. LOUIS RIVER BRIDGE WHICH IS GOVERNED BY INTERLOCKING SIGNAL.**

**SPECIAL INSTRUCTIONS PAGES 8 AND 9.**

**WESTWARD**

**THIRD SUB-DIVISION**

**EASTWARD 7**

Water, Fuel, Scales, Turn Tables, Wyes and Yard Limits.	Car Capacity of Sidings.	Station Numbers.	Second Class	FIRST CLASS					Distance from West Duluth Jct.	Time Table No. 177					Distance from Superior U. D.	FIRST CLASS					Second Class
			311	65	309	317	313	April 8, 1934					310	66		318	314	312			
			Soo Line 163	N. P. 65	D. S. S. & A. 8	Soo Line 18	Soo Line 63	Succeeding No. 176					D. S. S. & A. 7	N. P. 66		Soo Line 17	Soo Line 62	Soo Line 162			
			Mixed Ex. Sun.	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	STATIONS					Passenger Daily	Passenger Daily		Passenger Daily	Passenger Daily	Mixed Ex. Sun.			
Telegraph Offices and Calls																					
WYX		L5	L 11.50 PM					0.0	..... WEST DULUTH JCT..... P	3.6	A 6.03 AM										
			11.53					0.6	..... ZENITH FURNACE.....	3.0	6.01										
		L	7.14 AM	11.55 PM	L 8.17 PM	L 5.38 PM	L 1.14 PM	1.3	DW&P.. BERWIND JCT.....	2.3	A 5.16 AM	5.58	A 7.51 AM	A 5.51 PM	A 5.05 PM						
								1.8	{ GRASSY POINT DRAWBRIDGE }	1.8											
		A	7.22 AM	12.05 AM	A 8.27 PM	A 5.47 PM	A 1.20 PM	3.3	..... L. S. T. & T. RY. JCT..	0.3	L 5.08 AM	5.49	L 7.44 AM	L 5.44 PM	L 4.57 PM						
		WB 67		A s 12.06 AM				3.6	..... SUPERIOR U. D..... D	0.0		L 5.40 AM									
			Ex. Sun.	Daily	Daily	Daily	Daily				Daily	Daily	Daily	Daily	Ex. Sun.						
			.08	.16	.10	.09	.06		Time Over Subdivision		.08	.23	.07	.07	.08						
			15.0	13.5	12.0	13.3	20.0		Average Speed Per Hour		15.0	9.4	17.1	17.1	15.0						

**EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION.**

**WESTWARD**

**FOURTH SUB-DIVISION**

**EASTWARD**

Water, Fuel, Scales, Turn Tables, Wyes and Yard Limits.	Car Capacity of Sidings.	Station Numbers.	FIRST CLASS					Distance from East End.	Time Table No. 177					Distance from Central Ave.	FIRST CLASS						
									51	April 8, 1934					52						
									Passenger	Succeeding No. 176					Passenger						
									Ex. Sun.	STATIONS					Ex. Sun.						
Telegraph Offices and Calls																					
WOY X	Yard	63					L 11.50 AM	0.0	Pass. Station EAST END.....	4.0	A s 3.10 PM										
	Yard	65					11.54	1.8	C. St. P. M. & O. Crossing	2.2	3.06										
WYX	Yard	67					A s 11.59 AM	4.0	HILL AVE.....	1.1											
									SOO LINE CROSSING..	0.0	L 3.00 PM										
							Ex. Sun.		AJ..... CENTRAL AVE...DN		Ex. Sun.										
							.09				.10										
							26.7		Time Over Subdivision												
									Average Speed Per Hour		24.0										

**EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION.  
SPECIAL INSTRUCTIONS PAGES 8 AND 9.**

## SPECIAL INSTRUCTIONS

### FIRST SUBDIVISION

1. **At Fifth Avenue West**—Main track switch will be kept set for Union Depot.
2. **At Garfield Avenue**—Junction switches will be kept set for First Sub-Division.  
Trains stop not less than two hundred (200) feet from Junction Switch and crossover used by D. W. & P. and not proceed until track is known to be clear.
3. **At Nineteenth Avenue West**—Trains using the Dick tracks must not block crossing.
4. **At Twenty-first Avenue West**—Telephone at crossover—Eastward trains call yard (3 rings) for route when necessary.
5. **At West D. M. & N. Junction Interlocking**—Trains will call for route as follows:  
Martins track to D. M. & N. yard—THREE SHORT.  
D. M. & N. yard to Martins track—THREE SHORT.  
Martins track to Westward main—THREE SHORT—ONE LONG.  
Martins track to D. T. Main—FOUR SHORT.  
D. T. main to Martins track—FOUR SHORT.  
Westward main to D. M. & N. yard—ONE LONG AND ONE SHORT.  
D. M. & N. yard to Eastward main—ONE LONG AND ONE SHORT.  
Through Main Line Movements—ONE LONG.
6. **At West Duluth Junction**—Switch at West end wye will be kept set and locked for first sub-division.  
Switch engines will use West leg of wye and Fond du Lac main line but will not leave cars on these tracks.  
Automatic Power Switch at end double track, operated automatically by electric switch machine. When necessary to operate switch by hand, first throw lever marked, "POWER LEVER," then throw lever marked, "HAND THROW LEVER." Both levers must be returned to normal position and locked after completing movement. Normal position of Power Switch for Westward trains. Trains setting out on Fond du Lac and other tracks must be sure switches are lined for such movement.
7. **At Fond du Lac**—Trains will call upper Power Plant (Douglas 50), from New Duluth and secure permission to use track between Fond du Lac and Power Plant.
8. **Yard Limits**—Between D. M. & N. connection at Fifth Avenue East and St. Louis River bridge and from Garfield Avenue to Grassy Point bridge and to the main line (Third Sub-division) yard board West of West Duluth Junction.
9. **Bridge and Engine Restrictions**—West Duluth Junction to Fond du Lac—engines heavier than class L-7 not permitted.  
Bridge 4, six (6) miles per hour.  
All bridges Fond du Lac to Power Plant, eight (8) miles per hour.
10. **Derail Switches**—Fond du Lac.
11. **Register Stations**—Duluth Union Depot for first class, passenger extras, and trains arriving at or departing from Fifth Avenue Yard. Rices Point Yard office for second class and inferior trains, except passenger extras and trains arriving at or departing from Fifth Avenue Yard.  
West Duluth.
12. **Register Exceptions**—At West Duluth trains register by ticket, form 608, and Eastward trains will not require clearance if train order signal is in clear position.

### SECOND SUBDIVISION

1. **At Garfield Avenue**—Junction switches will be kept set for First Sub-Division.  
Trains will stop not less than two hundred (200) feet from Junction switch and crossover used by D. W. & P. and not proceed until track is known to be clear.
2. **Indication of Spring Switch, Round House lead, 900 feet South of coal deck:**  
Yellow—Straight Track  
Green—Turnout

3. **Rules Governing Movement of Trains over St. Louis River Bridge**—Interlocking signals govern use of tracks between Bridge Switch and Elevator Station.  
Single track over Minnesota Draw.  
The three-arm semaphore on Eastward track West of Minnesota Draw indicates position of double track switch, position of draw and route:  
Top Arm—Northern Pacific  
Middle Arm—Great Northern  
Bottom Arm—C. St. P. M. & O.  
The two-arm semaphore on Westward track East of Elevator Station indicates route:  
Top Arm—Straight main line  
Bottom Arm—Great Northern Freight Track  
All trains will stop before entering onto Wisconsin draw.  
All Eastward trains will stop before entering onto Minnesota draw. Westward trains entering onto Minnesota draw will be governed by signal at the approach and, if proceed signal is received, will not be required to stop.
4. **At Superior**—Trains using tracks of L. S. T. & T. Railway between Omaha connection and Belknap Street will be governed by L. S. T. & T. time table rules and regulations.
5. **At Central Avenue**—Westward trains and engines have right to use Eastward main track between West lead from yard and Junction with Fourth (Terminal) Sub-Division without protection. All Eastward trains will approach and pass through this territory at restricted speed, expecting to find track occupied.
6. **Speed Restrictions:**  
At Minnesota and Wisconsin Drawbridges—twenty (20) miles per hour.  
At Superior—all trains and engines will run at restricted speed between West yard limit board and Omaha connection, including L. S. T. & T. tracks between Belknap Street and Omaha connection, expecting to find track occupied, and will not exceed ten (10) miles per hour over switches at Belknap Street.
7. **Derail Switches:**  
At approach to Minnesota Draw from Duluth.  
At Elevator Station.  
At Superior—just East of N. P. freight house.
8. **Register Stations:**  
Rices Point for second class and inferior trains, except passenger extras.  
Superior Union Depot for first class trains and passenger extras.  
Central Avenue.
9. **Register Exceptions**—At Central Avenue trains register by ticket, form 608, and Eastward trains will not require clearance if train order signal is in clear position.

### THIRD SUBDIVISION

1. **At West Duluth Junction**—Trains will run at restricted speed around East leg of wye and passing Zenith Furnace Plant, looking out for switch engines working on main track.  
Switches on East leg of wye will be kept set for Third (terminal) Sub-division main track.
2. **At Grassy Point Drawbridge**—A torpedo machine is located just inside of Home Signal and is operated in connection with derail. Explosion of one torpedo indicates that derail is set and train must be stopped immediately to prevent derailment.
3. **Speed Restrictions**—Grassy Point Bridge twenty (20) miles per hour.
4. **Register Station**—Superior Union Depot for first class trains and passenger extras.



## FOURTH SUBDIVISION

9

1. **At East End**—Switch at end of double track will be kept set for Westward trains.  
The distant semaphore of interlocking is an automatic signal governing single track to end of double track and Westward track to Passenger Station.
2. **At Central Avenue**—End of double track at East leg of wye—switch will be kept set for Eastward trains.  
Switch at Junction of Fourth and Second (Terminal) Sub-divisions will be kept set for Second Sub-division.  
East leg of wye is on sharp curve and single track—trains will use this track, expecting to find it occupied and at not to exceed twenty (20) miles per hour, and in foggy or stormy weather will protect by flag.
3. **Speed Restrictions**—Over trestle approach to ore dock—engines classes W or W-3 fifteen (15) miles per hour.
4. **Register Station**—Central Avenue.

## ALL SUBDIVISIONS

1. **Speed Restrictions**—  
Fifteen (15) miles per hour through crossovers, turnouts and gauntlets.
2. When necessary to use a side track for main track, in addition to setting and locking switches for the siding, flagman with proper flagging material must be stationed to fully protect approaching trains per rules, until movement over main track is resumed. When conductors find it necessary to leave switches set for siding, they must fully protect approaching trains until relieved by trackmen, or other employees, fully competent and equipped to do so.
3. Before occupied outfit cars are switched or handled, air brakes must be cut in.
4. **Spring Switches**—  
Maximum speed for all facing point and trailing point movements through switch, fifteen (15) miles per hour.  
Trailing movements on the track for which the switch is normally lined may be made at normal speed.  
Trains trailing through or stopping on a spring switch must not back up or take slack until points have been thrown by hand.  
Flying switches over or through spring switches are prohibited.  
When operated by hand, lever must be moved slowly, keeping a steady pressure on the handle until the switch is thrown and the handle is in the notch on the switch stand provided for it.  
When signal governing block in which spring switch is located is at stop, or where automatic block signals do not govern account trains running against current of traffic, facing point movements must not be made over switch until points have been examined.  
Sand must not be used over points of spring switches.
5. Derail switches will be set in derail position when not in use.
6. Trains pulling into side tracks or leaving the main line at Junction points must pull entirely into clear of the insulated joints before stopping to pick up the man attending switch.
7. Always observe position of switch points after throwing switch, and see that the switch lever is pushed firmly into the notch before leaving switch.
8. Second class and inferior trains may run ahead of delayed first class trains between West Duluth Junction and Duluth, Superior and Rice's Point, West Duluth Junction and Superior, Superior and East End, without orders.
9. All inferior to first class trains may run ahead of each other without orders.
10. Clearance Form A will not be required at Rice's Point Yard, Superior Freight Station or Superior Union Depot.
11. Extra trains, work extras and switch engines do not require train orders for movement between West Duluth Junction and Duluth, between Central Avenue and Rice's Point, between Central Avenue and East End, nor between West Duluth Jct. and Superior.

12. A Brakeman or Flagman must be stationed on the rear car of all trains, at all times, and be provided with proper flagging equipment. In case train is stopped on main track, Flagman must go back immediately with stop signals a sufficient distance to insure full protection to his train. Conductors and switch foremen will be held responsible for the strict observance of this rule.
13. To insure personal safety, Telegraphers having train orders or messages to deliver to passing trains, will stand to the right hand side of the train and avoid standing between tracks when possible to do so.
14. At points where there are close clearances, trainmen will work on the opposite side of train from them; and, if necessary, the fireman will receive the signals and communicate them to the enginman.
15. All trains must move within yard limits prepared to stop unless the main track is seen or known to be clear.
16. The D. T. main track is the northmost track between the Boston 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 same.
17. All train crews, switch crews and light engines using D. T. main track from connection of Missabe coal dock with this track to east end of Zenith Furnace Company's lead, on Grassy Point line, will move in both directions under full control, expecting to find the D. T. main track occupied.
18. D. T. connection, located at east end of Zenith Furnace Company's lead, Grassy Point line, will be considered a railroad crossing. Trains using this connection will make usual stop and make sure that track is clear before proceeding.
19. **Bulletin Stations**—  
Rice's Point Yard Office.  
Rice's Point Roundhouse.  
Duluth Union Depot.
20. **Standard Time Clocks**—  
Rice's Point Yard Office.  
Duluth Union Depot.
21. **Watch Inspectors**—  
Duluth, Garon Bros.  
Duluth, L. Pederson.  
West Duluth, W. F. Hurst.  
Superior, L. J. Howatt.

## RAILROAD CROSSINGS AND INTERLOCKINGS.

### First Sub-division

West D. M. & N. Junction, Interlocked.  
Soo Line Crossing, Interlocked.  
D. W. & P. Junction, Interlocked.  
West Duluth Junction, Automatic Interlocking.  
Morgan Park.  
Minnesota Steel Co. Crossing.

### Second Sub-division

Between Bridge Switch and Elevator Station.  
Minnesota Draw, Interlocked.  
Wisconsin Draw, Interlocked.

### Third Sub-division

Berwind Junction.  
Soo Line and D. W. & P. Junctions, Interlocked.  
Grassy Point Draw, Interlocked.

### Fourth Sub-division

East End.  
C. St. P. M. & O. Crossing, Interlocked.  
Soo Line Crossing, Interlocked.

## MAXIMUM CLEARANCES.

	LIMIT OF LOAD MEASUREMENT										
	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. Height	Max. Width
1st Sub-division, Duluth to Fond du Lac.....	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	11' 6"
2nd Sub-division, Garfield Ave. to Central Ave.	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	11' 6"
3rd Sub-division, W. Duluth Jet. to Superior U. D.	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	11' 6"
4th Sub-division, East End to Central Ave. . . .	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	11' 6"

	LIMIT OF LOAD MEASUREMENT										
	HEIGHT ABOVE TOP OF RAIL										
		8 ft. 6 in. Wide	9 ft. Wide	9 ft. 6 in. Wide	10 ft. Wide	10 ft. 2 in. Wide	10 ft. 6 in. Wide	11 ft. Wide	11 ft. 6 in. Wide	Max. Height	Max. Width
1st Sub-division, Duluth to Fond du Lac.....	.....	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	11' 6"
2nd Sub-division, Garfield Ave. to Central Ave.	.....	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	11' 6"
3rd Sub-division, W. Duluth Jet. to Superior U. D.	.....	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	11' 6"
4th Sub-division, East End to Central Ave. . . .	.....	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	21' 0"	11' 6"

## SPEED TABLE.

Time per Mile			Miles per Hour	Time per Mile			Miles per Hour	Time per Mile			Miles per Hour
Min.	Sec.			Min.	Sec.			Min.	Sec.		
1	..	60		1	20	45		2	50	21.2	
1	1	59		1	25	42.3		3	..	20	
1	2	58		1	30	40		3	9	19	
1	3	57.1		1	40	36		3	20	18	
1	4	56.2		1	45	34.3		3	31	17	
1	5	55.3		1	50	32.7		3	45	16	
1	6	54.5		2	..	30		4	..	15	
1	7	53.7		2	10	27.6		5	..	12	
1	8	52.9		2	15	26.6		6	..	10	
1	9	52.1		2	20	25.7		7	30	8	
1	10	51.4		2	30	24		10	..		
1	12	50		2	40	22.5					
1	15	48		2	45	21.8					

G. N. SLADE,  
Asst. Supt.C. T. SPONSEL,  
Asst. Supt.H. J. COUNCILMAN,  
Trainmaster.GEORGE STEINER,  
Chief Dispatcher.



