

#### SPEED TABLE

| Time   | Miles  | Ti                         | me  | Miles  |
|--|--|----------------------------|---|--|
| Per mile   | Per  | Per                        | mile  | Per  |
| Minutes Secon  | 8 Hour   | Minutes                    | Seconds   | Hour   |
| 0 49<br>48<br>48<br>48<br>48<br>48<br>48<br>48<br>48<br>48<br>48<br>48<br>48<br>48 | 80<br>78.8<br>76.6<br>78.6<br>79.2<br>67.9<br>65.4<br>62.0<br>65.4<br>62.0<br>65.2<br>65.4<br>65.3<br>65.4<br>65.3<br>65.4<br>65.3<br>65.4<br>65.4<br>65.4<br>65.4<br>65.4<br>65.4<br>65.4<br>65.4 | 11111112222222228888845670 | 12<br>15<br>20<br>20<br>20<br>40<br>40<br>45<br>10<br>20<br>840<br>45<br>20<br>840<br>45<br>20<br>840<br>840<br>840<br>840<br>840<br>840<br>840<br>840<br>840<br>84 | 50<br>48<br>45<br>42<br>86<br>82<br>82<br>80<br>82<br>80<br>82<br>80<br>82<br>80<br>82<br>80<br>82<br>80<br>82<br>80<br>81<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82 |

# NORTHERN PACIFIC RAILWAY COMPANY

**Duluth and Superior Terminals** 

# TIME TABLE 255

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

**Sunday, March 15, 1959** 

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 OPERATING RULES.

W. L. WOOD, Superintendent.

D. A. THOMSON, General Manager E. S. ULYATT, Genéral Superintendent of Transportation.

| 2   | W                           | EST             | WARD         |                  | FII               | RST SU    | BDIVI              | SION              |           |                   |                                  |                             |
|---|-----------------------------|-----------------|--------------|------------------|-------------------|-----------|--------------------|-------------------|-----------|-------------------|----------------------------------|-----------------------------|
|   |                             |                 |              |                  | FIRST             | CLASS     |                    |                   |           |                   | Jot.                             | Time Table No. 255          |
| Water, Fuel, Scales,<br>Turn Tables, Wyes<br>and Yard Limits. |                             | i i             |              | 65               | 303               | 57        | 59                 | 49                | 55        | 35                | E.1.                             | March 15, 1959              |
| rd Light  | Our Oapsofty<br>of Sichner. | Station Mumbers |              |                  | D. W. & P.<br>619 |           | G. N.<br>19        | G. N.<br>28       |           | G. N.<br>85       | Distance from<br>East D. M. & I. | STATIONS                    |
| Y. Tr   | 0.5                         | - Ja            |              | Passenger        | Passenger         | Passenger | Passenger          | Passenger         | Passenger | Passenger         | 35                               | SIAIIONS                    |
| E Da  | රීම්                        | £               |              | Daily            | Daily<br>Ex. Sat. | Daily     | Daily              | Daily             | Daily     | Daily<br>Ex. Bun. | AM                               | Telegraph Offices and Calls |
|   |                             |                 |              |                  |                   |           |                    |                   |           |                   | 0.0                              | EAST D. M. & L. R. JCT      |
| OTW<br>XYZ  | Yard                        | WB<br>71        |              | L [1.]5m         |                   | L 6.05m   | ь 4.30рш           | t. 8.00.w         | L 7.45A   | L 7.15 M          | 6.9                              | DUPDN                       |
| X<br>X<br>X<br>X<br>X<br>X<br>X                               | <del></del>                 |                 |              | 11.18            | £ 8.03 PM         | 6.07₽     | A 4.32 PM          | A 8.02A           | 7.47 AM   | A 7.17AL          | 1.0                              | P                           |
| x   |                             | L02             |              | 11,22            | 8.06              |           |                    |                   |           |                   | 2.8                              | SOO LINE CROSSING.          |
| X   |                             |                 |              |                  |                   |           |                    |                   |           |                   | 3.6                              | 191                         |
| x   |                             |                 |              |                  | A 8.14mm          |           |                    |                   |           |                   |                                  |                             |
| x   |                             | 1.04            |              | <u>• 11.29</u>   |                   |           |                    |                   |           |                   | 5.1                              | WUWEST DULUTH PDN           |
| XY  |                             | L 8             |              | A 11.35m         |                   |           |                    |                   |           |                   |                                  | ( <del></del> 0.0           |
| x   |                             |                 |              |                  |                   | ļ         |                    |                   |           |                   | 0,7                              |                             |
| T   | RAIN                        | IS AN           | ID ENGINES U | SING D. T. RAILV | VAY WE            | ST OF 7   | 2ND AVI<br>ECIAL I | E. WEST<br>NSTRUC | WILL E    | E GOVE            | RNED                             | BY D. M. & I. R. RY.,       |
|   |                             | LBt             |              |                  |                   |           |                    |                   |           | <u> </u>          | 7.8                              | RIVERSIDE JCT               |
|   | 18                          | LB2             |              |                  |                   |           |                    |                   |           | <u> </u>          | 8.2                              | RIVERSIDE                   |
|   | 18                          | LB5             |              |                  |                   |           |                    |                   |           |                   | 13.5                             | NEW DULUTH                  |
|   |                             |                 |              | .20              | .11               | .02       | .02                | .02               | .02       | .09               | ]                                | Time Over Subdivision       |
|   |                             |                 |              | 15.0             | 14.9              | 30,0      | 20.0               | 80.0              | 80.0      | 80.0              |                                  | Average Speed Per Hour      |
|   |                             | l               |              |                  |                   | 1         | 1                  | 1                 | ł         |                   |                                  |                             |

EXCEPT ON DOUBLE TRACK, EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS, SEE RULE D-72.

SPECIAL INSTRUCTIONS PAGES 6, 7, 8, 9, 10 AND 11.

|                             |                                       |           |                   | I               | IRST :    | SUBDI             | VISION      | _                  |        |          |            | EASTW    | ARD     | 3_ |
|-----------------------------|---------------------------------------|-----------|-------------------|-----------------|-----------|-------------------|-------------|--------------------|--------|----------|------------|----------|---------|----|
| I <del>.</del>              | FIRST CLASS                           |           |                   |                 |           |                   |             |                    |        |          |            |          |         |    |
| 8,9                         | Time Table No. 255                    | 66        | 36                | 58              | 50        | 304               | 60          | 56                 |        |          |            |          |         |    |
| Distance from<br>New Duluth | March 15, 1959                        |           | G. N.             |                 | G. N.     | D. W. & P.<br>620 | G. N.<br>20 |                    |        |          |            |          |         |    |
| åΩ                          | STATIONS                              | Passenger | Passenger         | Passenger       | Passenger | Passenger         | Passenger   | Passenger          |        |          |            |          |         |    |
| QN<br>S                     | Telegraph Offices and Calls           | Daily     | Daily<br>Ex. Mon. | Daily           | Daily     | Daily<br>Ex. Sun. | Daily       | Daily              |        |          |            |          |         |    |
| 12.5                        | EAST D. M. & L. R. JCT                |           |                   |                 |           |                   |             |                    |        |          |            |          |         |    |
| 11,6                        | DUDULUTHPDN                           | A 4.40 AN | A 6.48 AM         | A 7.30M         | A 11.58m  |                   | а 7.45рш    | A 10.45PM          |        | <u> </u> | <u>.  </u> |          |         |    |
| 10.6                        | WEST D. M. A. I. R. JCT.              | 4.26      | 1. 6.43 AU        | L 7.254         | L [[.56#  | A 10.27A          | ь 7.43 №    | 10.43              |        |          |            |          |         |    |
| 9.7                         | WEST D. M. & J. R. JCT.               | 4.20      |                   |                 |           | 10.22             |             | 10.39              |        | ļ        | <u> </u>   |          |         |    |
| 8.9                         |                                       |           |                   |                 |           |                   |             |                    |        | <u> </u> |            |          |         |    |
| 8.0                         | ``     P                              | 4.15      |                   |                 |           | L 10.17M          |             | <u>10.34</u>       |        | <u> </u> | _          | <u> </u> |         |    |
| 7.4                         | WU WEST DULUTHPON C.WEST DULUTH JCT.P |           |                   |                 |           |                   |             | 10.32              |        | <u> </u> |            |          |         |    |
| 6.6                         | 0.8                                   | L 4.04AN  |                   |                 |           |                   |             | ь 10.30рм          |        | ļ        |            |          |         |    |
| 5.8                         | 72ND AVE. W                           |           |                   |                 |           |                   | ·           |                    |        |          |            |          |         |    |
|                             | TRAINS AND ENGINES                    | USING     | D. T. RA<br>T     | ILWAY<br>IMETAE | WEST O    | F 72ND<br>SPECIA  | AVE. W      | EST WIL<br>Ruction | L BE G | OVERNI   | ED BY D    | . M. & I | . R. RY | -, |
| 4.7                         | RIVERSIDE JCT                         |           |                   |                 |           |                   |             |                    |        |          | _          | ·        |         |    |
| 4.8                         | RIVERSIDE                             |           |                   |                 |           |                   |             |                    |        | ļ        | _          | -        |         |    |
| 0.0                         | NEW DULUTH                            |           |                   |                 |           |                   |             |                    |        | <b> </b> |            |          |         |    |
|                             | Time Over Bubdivision                 | .86       | .05               | .08             | .02       | .10               | .02         | .15                |        |          | _          |          |         |    |
|                             | Average Speed Per Hour                | 8.8       | 12.0              | 12.0            | 30.0      | 15,6              | 30.0        | 20.0               |        |          |            | 1        |         |    |

EXCEPT ON DOUBLE TRACK, EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS, SEE RULE D-72.

SPECIAL INSTRUCTIONS PAGES 6, 7, 8, 9, 10 AND 11.

|                            | FIRST          | CLASS              |           |             |                   |                    | i                | Time Table No. 255<br>March 15, 1959 |  |
|----------------------------|----------------|--------------------|-----------|-------------|-------------------|--------------------|------------------|--------------------------------------|--|
|                            | 89             | 57                 | 59        | 49          | 35                | 55                 | 65               |                                      |  |
|                            | C&NW<br>510    |                    | G. N.     | G. N.<br>23 | G. N.<br>35       |                    |                  |                                      |  |
|                            | Passenger      | Passanger          | Passenger | Passenger   | Passenger         | Passenger          | Passenger        | STATIONS                             |  |
|                            | Daily          | Daily              | Daily     | Daily       | Daily<br>Ex. Sun. | Daily              | Daily            | Telegraph Offices and Calls          |  |
|                            |                | L 6.07PM           | L 4.32 FM | L 8.02 AM   | L 7.17AB          | L 7.47AM           |                  | QARFIELD AVEP                        |  |
|                            |                | 6.09               | 4.34      | 8.04        | 7.19              | 7:49               |                  | RICES POINTP                         |  |
|                            | L 8.07 PM      | 6.10               | 4.36      | 8.06        | 7.21              | 7.51               |                  | BRIDGE SWITCH                        |  |
|                            | 8.10           | 6.13               | 4.40      | 8.10        | А 7.24            | 7.54               |                  | ELEVATOR STATION                     |  |
|                            | A 8.13 PM      | 6.15               | 4.42      | 8.12        |                   | 7.56               |                  | C&NW CONN                            |  |
| BETWEEN C&NW CO<br>WILL BE | NNECTION AND I | BELKNAI<br>S. T. & | P STREE   | T TRAIL     | IS AND I          | ENGINES<br>D SPECI | USING<br>AL INST | L. S. T. & T. RAILWAY<br>RUCTIONS.   |  |
|                            |                | s 6.16             | s 4.45    | s 8.15      | Ls 7.40           | s 7.59             | L 11.51pm        | BYSUPERIOR U. DPD                    |  |
|                            |                | 6.18               | 4.46      | 8.16        | 7.41              | 8.00               | 11.53            | SELKNAP STP                          |  |
|                            |                | A 6.26 PM          | A 4.53 PM | A 8.23 AM   | A 7.48AL          | As 8.08 AM         | As   2.02 AM     | AJCENTRAL AVE.PDN                    |  |
|                            | .06            | .19                | .21       | .21         | .15               | .21                | .11              | Time Over Subdivision                |  |
|                            | 18.9           | 23.8               | 21.1      | 21.1        | 25.6              | 21.1               | 22.8             | Average Speed Per Hour               |  |

SINGLE TRACK OPERATION OVER MINNESOTA DRAW ON ST. LOUIS RIVER BRIDGE, BETWEEN BRIDGE SWITCH AND ELEVATOR STATION—INTERLOCKED. FIRST CLASS TRAINS USE L. S. T. & T. RAILWAY BETWEEN C&NW CONNECTION AND BELKNAP STREET.

|          |                        |           |                               |   | SECO              | ND SU              | BDIVI     | SION        |                  |                    | EASTWARD                           |
|----------|------------------------|-----------|-------------------------------|---|-------------------|--------------------|-----------|-------------|------------------|--------------------|------------------------------------|
|          |                        |           |                               | Time Table No. 255                                |                   |                    |           |             |                  |                    |                                    |
| 1 10 m   |                        |           |                               | March 15, 1959                                    | 66                | 36                 | 58        | 94          | 50               | 60                 |                                    |
| Tient    | T diff                 | (emp      | from                          |   |                   | G. N.<br>30        |           | C&NW<br>511 | G. N.<br>24      | G. N.<br>20        |                                    |
| Tank     | Car Cape<br>of Bidings | tion ji   | Distance from<br>Central Ave. | STATIONS  | Passenger         | Passenger          | Passenger | Passenger   | Passenger        | Passenger          |                                    |
| i d      | Qg                     | Statk     | ದೆಕ                           | Telegraph Offices and Calls                       | Daily             | Daily<br>Ex. Mon.  | Daily     | Daily       | Daily            | Daily              |                                    |
| X        |                        |           | 7.4                           | P   |                   | A 6.43 AM          | A 7.25 M  |             | A 11.56 M        | <u>л. 7.4</u> 3 ры |                                    |
| XYZ<br>X | Yard                   | L 1       | 6.7                           | P   |                   | 6.40               | 7.23      |             | 11.54            | 7.41               |                                    |
| X        |                        |           | 6.1                           | BRIDGE SWITCH                                     |                   | 6.38               | 7.22      | A 7.43 M    | 11.52            | 7.39               |                                    |
| X        |                        |           | 5.2                           | ELEVATOR STATION                                  |                   | 6.35               | 7.18      | 7.39        | 11.47            | 7.34               |                                    |
| X        |                        |           | 4.8                           |   |                   | 6.32               | 7.15      | il 7.37an   | 11.45            | 7.31               |                                    |
|          |                        | BE.       | TWE                           | EN C&NW CONNECTION AND B<br>WILL BE GOVERNED BY L | ELKNAP<br>S. T. & | STREET<br>T. RY. T | TRAIN     | S AND E     | NGINES<br>SPECIA | USING<br>AL INST   | L. S. T. & T. RAILWAY<br>RUCTIONS. |
| X        |                        | W B<br>67 | 4.5                           | BYPDN   | 1                 | • 6.30             | s 7.14    |             | a 11.43          | <b>5</b> 7.30      |                                    |
| x        |                        |           | 8.7                           | gg ( BELKNAP ST P)                                | 3.39              | 6.25               | 7.10      |             | 11.40            | 7.24               |                                    |
| XY       | Yard                   | 67        | 0.0                           | BELKNAP STP                                       | L 3.30A           | L 6.20 M           | Lf 7.05 M |             | L 11.33.m        | L 7.19m            |                                    |
|          |                        |           |                               | Time Over Subdivision                             | .11               | .23                | .20       | .08         | .28              | .24                |                                    |
|          |                        |           |                               | Average Speed Pet Hour                            | 22.8              | 19.8               | 22.2      | 16.0        | 19.8             | 18.5               |                                    |

EXCEPT ON DOUBLE TRACK, EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS, SEE RULE D-72.

SINGLE TRACK OPERATION OVER MINNESOTA DRAW ON ST. LOUIS RIVER BRIDGE, BETWEEN BRIDGE SWITCH AND ELEVATOR
STATION—INTERLOCKED. FIRST CLASS TRAINS USE L. S. T. & T. RAILWAY BETWEEN C&NW CONNECTION AND BELKNAP STREET SPECIAL INSTRUCTIONS PAGES 6, 7, 8, 9, 10 AND 11.

|  |                             | ÷                |          |            |                   |                         |                   |                                   |  |                                    |              |                   |                                       |                 |          |
|--|-----------------------------|------------------|----------|------------|-------------------|-------------------------|-------------------|-----------------------------------|--|------------------------------------|--------------|-------------------|---------------------------------------|-----------------|----------|
| W  | EST                         | W.               | RD       |            |                   |                         | TH                | IIR                               | D SUBDIVISION                                      |                                    | <del>,</del> |                   | EAST                                  | WARD            | 6        |
| ,  |                             |                  |          | FI         | RST CLA           | 55                      |                   |                                   | Grassy Point Line                                  |                                    |              | FII               | RST CLA                               | 55              |          |
| 42.  |                             | į                |          | 65         | 317               | 313                     | 311               | ړ                                 | Time Table No. 255                                 | , Jot.                             | 66           | 318               | 312                                   | 314             |          |
| Water, Food, Scales<br>Turn Tables, Wyes<br>and Yard Limits.                     | Į.                          | Station Numbers  |          |            | Boo Line          | Soo Line<br>63          | Soo Line          | Distance from<br>West Duluth Jot. | March 15, 1959                                     | Distance from<br>L. S. T. & T. By. |              | Soo Line          | Soo Line                              | Soo Line        |          |
| 4.5<br>4.5<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0 | Car Capsolty<br>of Sidings. | 200              |          | Passenger  | Pamenger          | Passenger               | Passenger         | 100                               | STATIONS   | T. &                               | Passenger    | Pessenger         | 64<br>Passenger                       | 62<br>Passenger | •        |
| MA S   | 2.8                         | Stat             |          | Daily      | Daily<br>Ex. Sat. | Daily                   | Daily<br>Ex. Sun. | 蒜                                 | Telegraph Offices and Calls                        | D<br>F<br>B<br>B                   | Daily        | Daily<br>Ex. Sun. | Daily<br>Ex. Sun.                     | Daily           |          |
| ХÝ   |                             | Lő               |          | E 11.35 PM | <del></del>       |                         |                   | 0.0                               | WEST DULUTH JCTP                                   | 8.8                                | A 4.04M      |                   |                                       |                 | J        |
| <u> </u>   |                             | _                |          | 11.38      |                   | <del></del>             |                   | 0.8                               | ZENITH FURNACE                                     | 8.0                                | 4.02         |                   |                                       |                 |          |
| x  |                             |                  |          | 11.40pm    | L 9.52 PM         | L 3.12 PM               | L 9.12A           | 1.3                               | BERWIND JCTP)                                      | 2.2                                | 3.59         | ▲ 10.05 AN        | A 2.49P                               | A 11.28AN       |          |
|  |                             |                  |          |            |                   |                         |                   | 1.8                               | GRASSY POINT                                       | 1.5                                |              |                   |                                       |                 |          |
|  |                             |                  |          | A 11.50mm  | А 9.59гм          | <b>а</b> 3.19р <b>и</b> | A 9.19 AM         | 8.8                               | L. S. T. A T. RYJCT.                               | 0.0                                | L 3.50AM     | i. 9.58ah         | L 2.42 PM                             | IL     .2   AN  |          |
|  |                             | TF               | RAINS A  | ND ENG     | INES US           | ING L. S                | T. & T            | . RA                              | ILWAY WEST OF L. S. T. &<br>ABLE AND SPECIAL INSTR | T.                                 | RY. JCT.     | WILL B            | E GOVE                                | RNED            |          |
|  |                             |                  |          | .15        | .07               | .07                     | .07               | i .                               | Time Over Subdivision                              | 1                                  | .14          | .07               | .07                                   | .07             |          |
|  |                             |                  |          | 13.2       | 18.9              | 18.9                    | 18.9              | <del> </del>                      | Average Speed Per Hour                             | -                                  | 14.1         | 18.9              | 18.9                                  | 18.9            |          |
|  |                             |                  |          |            | 15.0              | 254                     | 20.5              | İ                                 |  |                                    |              | 1 2017            |                                       |                 |          |
| w  | EST                         |                  |          |            |                   |                         |                   |                                   | ARE SUPERIOR TO WEST EE RULE D-72. TH SUBDIVISION  |                                    |              |                   | · · · · · · · · · · · · · · · · · · · | EASTW           | <u>-</u> |
| Water, Freel, Scales,<br>Turn Tables, Wyes<br>and Yard Limits,                   | ity                         | Station Numbers, |          |            |                   | -                       |                   | from                              | Time Table No. 255<br>March 15, 1959               | rom<br>70.                         |              |                   |                                       |                 |          |
| 27 p   | Capa<br>dings               | N go             |          |            | <b> </b>          |                         |                   | Distance f                        | STATIONS   | Distance from<br>Central Ave.      |              |                   |                                       |                 |          |
| W T was  | Car Capacity<br>of Sidings, | Btat             |          |            |                   |                         |                   | Dist                              | Telegraph Offices and Caffe                        | Colst                              |              |                   | •                                     |                 |          |
| x  | Yard                        | 61               |          |            |                   |                         |                   | 0.0                               | ALLOUEZ  | 8.6                                |              |                   |                                       |                 |          |
| XY   | Yard                        | 63               |          |            |                   |                         |                   | 1.5                               | EAST ENDP  | 4.1                                |              |                   |                                       |                 |          |
| X  | Yard                        | 65               | <b> </b> |            | <u> </u>          |                         |                   | 1.7                               | NEWTON AVENUE                                      | 3.9                                |              |                   |                                       |                 |          |
|  | Yard                        |                  |          |            |                   |                         |                   | 3.1                               | HILL AVEP  | 2.5                                | <u> </u>     |                   | <u> </u>                              |                 |          |
| X  |                             |                  | ļ        |            |                   |                         |                   | 4.5                               | SOO LINE CROSSING.                                 | 1.1                                | <b></b>      |                   |                                       | .               |          |
| XY   | Yard                        | 87               | <u> </u> |            |                   |                         | <u></u>           | 5.6                               | AJCENTRAL AVE. PDN)                                | 0.0                                | ļ            |                   |                                       |                 |          |
| <b> </b>   | <u> </u>                    |                  |          |            |                   |                         |                   |                                   | Time Over Subdivision                              |                                    |              | <u> </u>          | ļ                                     | .               |          |
|  |                             |                  | 1        | [          |                   |                         |                   | 1                                 | Average Speed Per Hour                             |                                    |              |                   |                                       |                 | i        |
|  |                             |                  |          |            |                   |                         | ,                 |                                   |  |                                    | 1            |                   |                                       |                 |          |
| <u> </u>   | EX                          | CEP'             | T ON DO  | UBLE 1     | RACK,             | EASTWA                  | RD TRA            | INS                               | ARE SUPERIOR TO WEST                               | WAF                                | D TRAI       | NS OF 1           | HE SAN                                | E CLAS          | 5,       |

SPECIAL INSTRUCTIONS PAGES 6, 7, 8, 9, 10 AND 11.

1.

## SPECIAL INSTRUCTIONS

# ALL SUBDIVISIONS.

| APE PODDIAISIONS   | •   |
|--|---|
| Speed Restrictions—  | •   |
| Maximum Speeds Permitted:<br>Passenger trains  | 75 MPH.   |
| Freight and mixed trains   | . 50 MPH.   |
| The above speeds are subject to the restrictions of maxim  | um speeds   |
| in miles per hour as shown by sones under each subdivision   | )il.<br>ndiestions  |
| Where automatic block and interlocking rules and signal i<br>require movement at restricted speed, such movement mus   | t be made   |
| prepared to stop short of train, obstruction or switch no<br>lined and be on lookout for broken rail or anything the   | t properly  |
| lined and be on lookout for broken rail or anything the<br>quire the speed of a train to be reduced, but a speed of  | t may re-   |
| must not be exceeded.  |   |
| The definition of Restricted Speed, as designated on pag<br>1945 Edition of the Consolidated Code of Operating I   | e 8 of the  |
| 1945 Edition of the Consolidated Code of Operating 1   | tures, will   |
| continue to apply except where automatic block and in<br>rules and signals govern as specified above.  |   |
| Reduce speed limits, within the zones listed, are designed advance-warning signs (diagonally upwards), Reduce sequere with clipped corners) and Resume speed signs (ve   | gnated by   |
| (square with clipped corners) and Resume speed signs (ve   | rtical).  |
| The Advance-warning signs are, except as otherwise special   | ea, locatea   |
| approximately 3000 feet in advance of the Reduce speed<br>the numerals on both signs indicate in miles per hour the  | merimum   |
| speed permitted from the Reduce speed sign to another Re-  | duce speed  |
| limit, or to a sign indicating a higher speed, or to a Resume<br>If speeds authorized by sones or by Reduce speed signs  | speed sign.   |
| than that prescribed below for certain trains or engines,  | ire greater<br>meh trains   |
| or engines must not exceed the prescribed speeds.  Locations where reduced speeds are required, but not in   |   |
| Locations where reduced speeds are required, but not in  | dicated by  |
| signs, are listed under the zones of maximum speeds per each subdivision.  | mered to:   |
| All trains and engines, except as otherwise specified:   |   |
| Through crossovers, turnouts and gantlets,   | 15 MOU  |
| except where fixed signals provide otherwise   |   |
| locomotive cranes and similar equipment.  Handling 4-wheel scale test cars { Main Line   | .30 MPH.  |
| Handling 4-wheel scale test cars   Main Line   | .35 MPH.  |
| and cools took oon 254   Dannah Lines  | 25 MPH  |
| and scale test car 254 \ Branch Lines  Picking up train orders from operators  | .25 MPH.<br>.30 MPH.  |
| Engines— Handling  | Running   |
| Engines— Handling trains   | Running   |
| Engines— Handling Classes— trains All A and Q (except on passenger   | Running<br>light.<br>.60 MPH  |
| Engines— Handling Classes— trains All A and Q (except on passenger   | Running<br>light.<br>.60 MPH  |
| Engines— Handling Classes— trains All A and Q (except on passenger   | Running light. 60 MPH 50 MPH. 35 MPH.   |
| Engines— Handling trains Classes— trains All A and Q (except on passenger.  trains where higher speed is authorized). 60 MPH. Z6, Z-7 and Z-8  | Running light. 60 MPH 50 MPH. 35 MPH. 45 MPH.   |
| Engines— Handling trains  Classes— Handling trains  All A and Q (except on passenger   | Running light. 60 MPH 50 MPH. 35 MPH. 45 MPH.   |
| Engines—— Handling trains  Classes—— trains  All A and Q (except on passenger  trains where higher speed is authorised). 60 MPH.  Z6, Z-7 and Z-8. 60 MPH.  Y, Y-1. 40 MPH.  S-4, T, T-1, W to W-5 inc., Y-2. 50 MPH.  Steam switch engines, without engine trucks, under all conditions. 15 MPH.  All other steam engines, backing up. 30 MPH.  | Running light. 60 MPH 50 MPH. 35 MPH. 45 MPH.   |
| Engines— Handling trains  Classes— trains  All A and Q (except on passenger. 60 MPH.  26, Z-7 and Z-8. 60 MPH.  Y, Y-1. 40 MPH.  S-4, T, T-1, W to W-5 inc., Y-2. 50 MPH.  Steam switch engines, without engine trucks, under all conditions. 15 MPH.  All other steam engines, backing up. 30 MPH.  (This restriction does not apply when engines are used not on bead end of train.)   | Running light. 60 MPH 50 MPH. 35 MPH. 45 MPH.   |
| Engines— Handling trains  Classes— trains  All A and Q (except on passenger  | Runing light. 60 MPH 50 MPH 35 MPH. 45 MPH. 45 MPH.   |
| Engines— Handling trains  Classes— trains  All A and Q (except on passenger. 60 MPH.  26, Z-7 and Z-8. 60 MPH.  Y, Y-1. 40 MPH.  S-4, T, T-1, W to W-5 inc., Y-2. 50 MPH.  Steam switch engines, without engine trucks, under all conditions. 15 MPH.  All other steam engines, backing up. 30 MPH.  (This restriction does not apply when engines are used not on bead end of train.)  Diesel-electric engines:  No. 98. 35 MPH.  No. 99. 560 MPH.  | Running light. 60 MPH 50 MPH. 35 MPH. 45 MPH.   |
| Engines— Handling trains  Classes— trains  All A and Q (except on passenger  | Runing light. 60 MPH 50 MPH 35 MPH 46 MPH 15 MPH 30 MPH 30 MPH as helpers 50 MPH 40 MPH   |
| Engines— Handling Classes— trains All A and Q (except on passenger. trains where higher speed is authorised) 60 MPH. Z6, Z-7 and Z-8 60 MPH. Y, Y-1 40 MPH. S-4, T, T-1, W to W-5 inc., Y-2 50 MPH. Steam switch engines, without engine trucks, under all conditions 15 MPH. All other steam engines, backing up 30 MPH. (This restriction does not apply when engines are used not on bead end of train.) Diesel-electric engines: No. 98 35 MPH. No. 100 40 MPH. 100 series 66 MPH.   | Runing light. 60 MPH 50 MPH. 35 MPH. 45 MPH. 15 MPH. 30 MPH. 30 MPH. 30 MPH. 40 MPH.  |
| Engines—   | Runing light. 60 MPH. 50 MPH. 35 MPH. 46 MPH. 30 MPH. 30 MPH. 30 MPH. 40 MPH. 60 MPH. 60 MPH.   |
| Engines— Handling Classes— Classes— trains All A and Q (except on passenger  | Runing light. 60 MPH 50 MPH 35 MPH. 46 MPH. 15 MPH. 30 MPH. 30 MPH. 40 MPH. 60 MPH. 60 MPH.   |
| Engines— Handling trains  Classes— trains  All A and Q (except on passenger.  trains where higher speed is authorised). 60 MPH.  Z6, Z-7 and Z-8. 60 MPH.  Y, Y-1. 40 MPH.  S-4, T, T-1, W to W-5 inc., Y-2. 50 MPH.  Steam switch engines, without engine trucks, under all conditions. 15 MPH.  All other steam engines, backing up. 30 MPH.  (This restriction does not apply when engines are used not on bead end of train.)  Diesel-electric engines:  No. 98. 35 MPH.  No. 99. 50 MPH.  No. 100. 40 MPH.  100 series. 60 MPH.  100 series. 50 MPH.  Nos. 500, 501 and 552-569, incl. 65 MPH.  Nos. 525. 60 MPH.  Nos. 550-551 75 MPH.  700 series. 45 MPH.  | Runing light. 60 MPH. 35 MPH. 35 MPH. 30 MPH. 30 MPH. 30 MPH. 30 MPH. 60 MPH. 60 MPH. 60 MPH. 60 MPH. 60 MPH.   |
| Engines—   | Runing light. 60 MPH. 35 MPH. 35 MPH. 30 MPH. 30 MPH. 30 MPH. 30 MPH. 40 MPH. 60 MPH. 65 MPH. 65 MPH. 65 MPH. 65 MPH. 660 MPH.  |
| Engines—   | Runing light. 60 MPH. 35 MPH. 35 MPH. 30 MPH. 30 MPH. 30 MPH. 30 MPH. 60 MPH. 60 MPH. 60 MPH. 60 MPH. 60 MPH.   |
| Engines—   | Runing light. 60 MPH. 35 MPH. 35 MPH. 30 MPH. 30 MPH. 30 MPH. 30 MPH. 60 MPH. 60 MPH. 65 MPH. 65 MPH. 65 MPH. 65 MPH. 65 MPH.   |
| Engines— Handling trains All A and Q (except on passenger  | Runing light. 60 MPH. 50 MPH. 35 MPH. 46 MPH. 15 MPH. 30 MPH. 48 helpers  35 MPH. 40 MPH. 60 MPH. 60 MPH. 65 MPH. 65 MPH. 65 MPH. 65 MPH. 65 MPH.   |
| Engines—   | Runing light. 60 MPH. 50 MPH. 35 MPH. 48 MPH. 10 MPH. 30 MPH. 30 MPH. 40 MPH. 40 MPH. 40 MPH. 60 MPH.   |
| Engines—   | Runing light. 60 MPH. 35 MPH. 35 MPH. 48 MPH. 30 MPH. 30 MPH. 30 MPH. 60 MPH. 60 MPH. 60 MPH. 60 MPH. 65 MPH. 65 MPH. 65 MPH. 65 MPH. 65 MPH.   |
| Engines—   | Runing light. 60 MPH. 50 MPH. 35 MPH. 48 MPH. 15 MPH. 30 MPH. 48 MPH. 40 MPH. 40 MPH. 40 MPH. 60 MPH. 60 MPH. 65 MPH. |
| Engines— Handling Classes— trains All A and Q (except on passenger. 60 MPH. Z6, Z-7 and Z-8. 60 MPH. Y, Y-1. 40 MPH. S-4, T, T-1, W to W-5 inc., Y-2. 50 MPH. Steam switch engines, without engine trucks, under all conditions. 15 MPH. All other steam engines, backing up. 30 MPH. (This restriction does not apply when engines are used not on bead end of train.)  Diesel-electric engines: No. 98. 35 MPH. No. 99. 50 MPH. No. 100. 40 MPH. 100 series. 60 MPH. 400 and 600 series. 60 MPH. No. 525. 60 MPH. No. 525. 60 MPH. No. 525. 60 MPH. Nos. 550-551 75 MPH. 700 series. 45 MPH. Nos. 550-860 series. 45 MPH. Nos. 800-803. 60 MPH. Nos. 800-803. 60 MPH. S60-80 series. 65 MPH. S60-80 series. 65 MPH. Diesel-electric and Gas-electric Motor Cars in service or Be Cars B-30, B-40 and B-41. | Runing light. 60 MPH. 50 MPH. 35 MPH. 48 MPH. 15 MPH. 30 MPH. 48 MPH. 40 MPH. 40 MPH. 40 MPH. 60 MPH. 60 MPH. 65 MPH.         |
| Engines— Handling Classes— trains All A and Q (except on passenger. 60 MPH. Z6, Z-7 and Z-8. 60 MPH. Y, Y-1. 40 MPH. S-4, T, T-1, W to W-5 inc., Y-2. 50 MPH. Steam switch engines, without engine trucks, under all conditions. 15 MPH. All other steam engines, backing up. 30 MPH. (This restriction does not apply when engines are used not on bead end of train.)  Diesel-electric engines: No. 98. 35 MPH. No. 99. 50 MPH. No. 100. 40 MPH. 100 series. 60 MPH. 400 and 600 series. 60 MPH. No. 525. 60 MPH. No. 525. 60 MPH. No. 525. 60 MPH. Nos. 550-551 75 MPH. 700 series. 45 MPH. Nos. 550-860 series. 45 MPH. Nos. 800-803. 60 MPH. Nos. 800-803. 60 MPH. S60-80 series. 65 MPH. S60-80 series. 65 MPH. Diesel-electric and Gas-electric Motor Cars in service or Be Cars B-30, B-40 and B-41. | Runing light. 60 MPH. 50 MPH. 35 MPH. 48 MPH. 15 MPH. 30 MPH. 48 MPH. 40 MPH. 40 MPH. 40 MPH. 60 MPH. 60 MPH. 65 MPH.         |
| Engines—   | Runing light. 60 MPH. 50 MPH. 35 MPH. 48 MPH. 15 MPH. 30 MPH. 35 MPH. 40 MPH. 40 MPH. 60 MPH. 65 MPH. 65 MPH. 65 MPH. 65 MPH. 55 MPH. 55 MPH. 55 MPH. 55 MPH. 55 MPH. 55 MPH.                                 |

| Main Line—With main and side rods removed: All A and Q and classes Z-6, Z-7 and Z-8   |
|---|
| With main rods removed and side rods in place: All A and Q and classes Z-6, Z-7 and Z-8   |
| Branch Lines—With either or both main and side rods removed:  |
| All A and Q classes   |
| All other classes   |
| On bridges—With either or both main and side rods removed;<br>Steam switch eagines, without engine trucks   |
| In the event the above speeds are in excess of 50% of the permissible speed for operating the engine in working order over any bridge carrying speed restrictions, speed on such bridges shall be 50% of the permissible speed for engine in working order. |
| Dead steam engines going to shops or being transferred from one   |

Dead steam engines going to shops or being transferred from one district to another with all rods up or in place, the piston rod parted from the crosshead and removed and the valve motion disconnected and blocked, may be moved in trains at not to exceed the permissible speed of freight trains operating in the territory over which the engines are to be moved, or the operating speed restriction for track or bridges for that class of engine, whichever is the lower.

Engines handled in this manner when coming from shops must not exceed the operating speeds specified for engines coming from shops under steam.

Diesel-electric engines may be handled dead in trains at not to exceed the authorised operating speed specified for such engines. Bridge or other restrictions must be observed for these engines the same as when in operating condition.

2. Single and Double Headers; operation—track and bridges—general. Where there are no governing restrictions specified for double headers in the special instructions for each subdivision, they will be governed by the most restrictive instructions applicable to a single engine when of the same class and to the heavier engine when of different classes.

Where double header restrictions are specified, double headers of different classes of engines will be governed by the restrictions applicable to double headers of the heavier class.

When necessary to doublehead a diesel-electric engine with a steam engine, except in case of emergency, the steam engine must be placed behind the diesel engine.

When passenger Diesel-electric units, Series 6500, 6600 or 6700, are used in multiple with road freights and switch units, passenger units are to be trailing to avoid danger of sliding wheels on freight units. When handling diesel-electric single unit road switcher or switch engines dead in freight trains, they shall be separated from the road engine and each other by at least one freight car. This does not apply to diesel-electric engines of two or more units.

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

To avoid possibility of fire or damage to traction motors, dieselelectric engines must not be permitted to pass over or to stand on einder pits containing live fire or hot cinders.

Under no circumstances should diesel-electric engines pass through water which is deep enough to touch the bottom of the traction motor frame. When passing through water, movement must always be at very slow speed (2 to 3 MPH).

Where multiple-unit diesel-electric engines are used in freight service, both the fireman and the head brakeman shall not be absent at the same time from the leading cab while the train is under way on main track between stations.

When two or more Diesel units are coupled in multiple unit operation, the number of the leading unit only will be displayed in accordance with the provision of Rule 24 and used in train orders as prescribed by Rule 208.

Wrecking cranes—250 tons, 45 to 48 inc. must not be coupled directly to engine or tender of engines Classes A-2 to A-5 inc. or Z-5 to Z-8 inc., but must be separated from them by at least two cars of not over 169,000 pounds total weight, for movement over bridges.

Use of warning headlight (Mars or Cyralite) on engines so equipped: The warning headlight can be displayed either white or red, in either stationary or oscillating position, at the same time the standard headlight is used.

The warning white headlight may be used in a stationary position as a substitute headlight in case of failure of the standard headlight, but will normally be used in an oscillating light during the time full display of standard headlight is required.

display of standard headight is required.

The warning oscillating red headight will be used when head end protection is required, either by day or by night, by engineer control, if the train becomes disabled or if stopped suddenly due to unusual occurrence with the possibility of an adjacent track being obstructed, or if it overruns the clearance point at a meeting or waiting point, or at the end of double track or at a junction, or in any other emergency situation, independent of the standard headlight.

The correction of an approaching treet, finding the oscillating red.

situation, independent of the standard headlight.

The engineer of an approaching train, finding the oscillating red headlight displayed, must stop and then be governed by conditions existing. If on an adjacent track which he finds unobstructed and safe for operation, may proceed at restricted speed until the standing train displaying the oscillating red headlight has been passed. The warning red headlight will be displayed in stationary position in addition to the standard white headlight when a train is occupying the main track at a meeting point with an opposing train until the headlight of the opposing train has been dimmed, per Rule 17(b), after which the red headlight will be extinguished, and the standard white headlight turned on dim until the opposing train is into clear on siding.

The use of the warning red headlight does not in any manner relieve the train or enginemen of responsibility for compliance with the provisions of Rules 99 and 102.

An oscillating rear end red light on Great Northern passenger trains using Northern Pacific tracks between Duluth and Central Avenue, is used except-

When train is standing at the initial and terminal stations.
When switching is to be performed from rear end of train.
When train is on siding to be passed by another train.
When operating in double track or in territory where another train is approaching from the rear on an adjacent track, but not until the flagman has definitely ascertained that the approaching train is unpring on the adjacent track. train is running on the adjacent track.

Engineer of an approaching train finding such rear end oscillating red light displayed must immediately stop and, if running on an adjacent track, will not proceed until it has been ascertained that track is clear, and will then proceed at restricted speed until train has been passed.

- Rule 6(A) is modified to include the following variations of the letter "W" which indicate:
  - "W" (full-faced type) -Water facilities for both steam and Diesel
  - power.

     Water facilities for steam power only.

     Water facilities for Diesel power only. "W" (capital type)
    "w" (small type)
- Rule 19, Figs. 2 to 9, inclusive, and Rule 19 (B) of the Consolidated Code of Operating Rules and General Instructions, revised 1945, are supplemented as follows:
  - "When the rear unit of a train is equipped with built-in electric markers, or electric signal lamps, they must be lighted by day and by night to be considered as markers, and the requirement for showing green to the front or direction of movement and green to the side will not apply.

"Train crews arriving at terminals must not extinguish the built-in markers, or electric signal lamps used as markers, until the train has been delivered to connecting crew or is plear of the main track and the switch is closed."

- 6. Rule D-97 applies on this division.
- Rule 606: Emergency Signals are not used at inter-lockings or draw-bridges operated by the Northern Pacific Railway.
- Cars will not be handled behind light-weight observation. Lears except in emergency or when so authorised 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. Gas-electric or diesel-electric motor cars, when handled dead in freight trains, must be behind caboose.

4-wheel scale test cars must be handled only in local freight trains. All scale test cars must be placed immediately ahead of caboose.

# 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 their own wheels they 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.
- Equipment 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.
- Such equipment when not prepared and carded shall be handled at speeds not to exceed 30 miles per hour.
- 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.

Open cars loaded with material which may shift, such as poles, pipe, timbers, etc., shall not be placed immediately next to diesel-electric engines nor to cabooses in trains.

- 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.
- Engines and cars equipped with roller bearings shall not be allowed to stand alone without brakes being applied.

Roller bearing failures on cars or locomotives 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 atrap which must be cut off with chisel before plug can be removed. In case 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.

When operating R-24, B-16, or Budd R. D. C. Car in Automatic Block Signal territory, or on crossing protected by electric signals, engine must be moved at least one car length after making station step where sand was used.

- Electric Switch Locks—Two types in service—To operate either type, unlock and open the door.
  - On locks stenciled "FORCE DROP LOCK", turn lock handle to the plate reading "MOVE LEVER HERE AND WAIT FOR UNLOCK", then follow instructions in sections (a) (b) (c) (d).

On other electric locks, follow instructions in sections (a) (b) (c) (d) after door is opened.

- (a) If indicator shows proceed or "UNLOCKED": Turn lock handle to left until it rests on stop block. Line switch in usual manner and movement may be made at once
- (b) If indicator shows stop or "LOCKED" and no conflicting train movement is evident.

Unlock time release box (if provided) and push the button to start time release. After time release has completed operation, indicator will normally show proceed or "UNLOCKED".

- Turn lock handle to left until it rests on stop block.
- Line switch in usual manner and movement may be made at
- After final movement over switch is made: Restore and lock switch in normal position. Turn electric lock handle to right until it rests on stop block.

Close and look doors of time release box (if provided) and electric lock.

Exception—If indicator fails to show proceed or "UNLOCK-ED" after time release (if provided) has completed operation, and if electric lock is provided with emergency release located at left of indicator:

> Remove wire seal and operate emergency release lever. Wait three (3) minutes after operating emergency release lever, then line switch for movement in usual manner. Immediately notify train dispatcher so he may call signal maintainer to reset emergency release, as signals will remain at stop until repairs are made.

Spring Switches-12. 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.

Signal operation at spring switches equipped for switch key operation
—The normal indication of main track signal is Proceed. The normal
indication of siding signal is Stop. To clear the siding signal when
train is ready to enter main track, insert switch key in control box and
turn to right. If route is clear the siding signal will immediately clear. If siding signal does not clear by switch key operation, open release box and push the button which will put the time release mechanism into operation. After time release has operated, the siding signal will clear if there is no conflicting train movement.

Will clear it there is no connecting train movement.

The release box door must be left open until leading wheels of train on the siding have passed the siding signal, then close and lock the release box door. If the siding signal has been cleared and train on the siding is not ready to depart, if necessary to clear signals for a main track movement, open the release box door and push the button which will start the time release mechanism. After the time release mechanism has destated to operate close and lock the release box door. mechanism has started to operate, close and lock the release box door. When a train, light engine or any piece of equipment moves through a spring switch in such a manner as to throw the points, the conductor or a member of the crew shall observe if the signal governing movements in the opposite direction moves to the approach or the proceed position. If it remains in the stop position and there are no other train movements in evidence that would cause it to remain in that position, the dispatcher shall be notified from the nearest open telegraph office that the signal remained in the stop position and also, when practicable, the first opposing train cautioned.

- 13. 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.

18. Bulletin Stations

Union Depot, Fifth Avenue Yard Office, Rices Point North and South End Yard Offices and Roundhouse, West Duluth Yard Office, Soc Line Passenger

Superior Yard Office, Soo Line Yard and Round-Superior.

19. Standard Time Clocks-Duluth-Union Depot, Rices Point Yard Office and Round House.

Watch Inspectors—Duluth— 20.

uth— Kanter Jewelers, 325 W. Superior Erwin Moen, 1908 W. Superior Nold Jewelers, 414 N. Central H. W. Schmidt, 25 West Superior St. Security Company, Inc., 307 W. Superior St.

erior— Peters' Jawelry, 1126 Tower Ave. Howatt Jawelers, 1425 Tower Ave.

#### FIRST SUBDIVISION

| Speed Restrictions— Maxim                | um Speeds | Permitted   |
|--|-----------|-------------|
| Zone-Between:                            |           | Passenger   |
| First class trains, within yard limits   | Restri    | sted Speed. |
| Rest D M & F R Jet. and West Duluth Jet. | 30        | 30          |
| Over 21st Avenue West Crossing           | 15        | 15          |
| West Duluth Jot., and New Duluth         | 15        | 15          |

Bridge and Engine Restrictions—Between Duluth and West Duluth Junction—Engines classes A-2 to A-5 inc. and Z-6 to Z-8 inc., not permitted. heavier than Class Q-4 not permitted.

At Riverside—Steam Engines heavier than Classes L-9 and L-10 not permitted on tracks 1, 3 and 4 at Barnes-Duluth Plant.

Door over tracks entering shop huilding will not clear man on top

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 Vard departing vis

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

Train No. 66 is assigned Track No. 1 at Duluth Union Depot. Train No. 56 is assigned Track 5 and shall stop clear of crossover between Tracks 4 and 5 to permit return of engine to roundhouse via crossover and Track 4. Train No. 55 is assigned Track 2.

At Garfield Avenue-Normal position of junction switches will be for First Subdivision. Trains will stop not less than two hundred (200) feet from June-tion switches and not proceed until route is clear.

At Nineteenth Avenue West-Trains using the Dick tracks must not block crossing.

At Twenty-first Avenue West—Telephone at crossover-ward trains call yard (3 rings) for route when necessary.

7. At West D. M. & I. R. Jet. Interlocking-Trains will call for route as follows:

Martins track to D. M. & I. B. yard. D. M. & I. R. yard to Martins track. Martins track to westward main. Martins track to D. T. main. D. T. main to Martins track. Westward main to D. M. & I. R. yard. D. M. & I. R. yard to eastward main. Eastward main to Martin's track. Through main track movements. 000 . . . 000

0000 0000

- 0 - 0 ---000

At West Duluth—Train No. 65 will stop to clear Central Avenue crossing. Train No. 66 will stop with head car immediately opposite East end of station platform, thus avoiding blocking of Central Avenue crossing.

At West Duluth Jct.—Switch at west end wye will be kept set and locked for First Subdivision.

Yard engines will use west leg of wye and Fond du Lac line but will not leave ears on these tracks. Switch at end of double track is dual control. Normal position is for

the westward track.

the westward track.
To secure a restricting proceed interlocking indication, as per Rule 601-F, Figure (8), 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 Approx West Avenue West.

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 Card or Branch Train Order Card at West Duluth.

Branch Train Order Card at West Duluth.

Transfers operating between 72nd Avenue West and New Duluth will be given train orders at West Duluth Passenger Station, covering Westward movement from 72nd Avenue West to Riverside Junction 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 Junction to 72nd Avenue West in bill box, secured by a switch lock, located on station building West in bill box, secured by a switch lock, located on station building at New Duluth.

Yard Limits—Between yard limit sign at East D. M. & I. R. Jot., Fifth Ave. East, and Lake Superior Division yard limit sign west of 11. West Duluth Jct.

Spring Switches—West Duluth Jet., at junction of First and Third (Terminal) Subdivisions, normal position for Third (Terminal) Sub-(Termina) publication main track,

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. West Duluth.

Register Exceptions—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.

At West Duluth trains register by form 608. A check of register on form 602 may be issued by operator when authorised by train dispatcher, either instead of, or in addition to, train order check.

Clearance Exceptions—Trains originating at East D. M. & I. R. Jot., Garfield Ave., 20th Ave. West, West D. M. & I. R. Jot., D. W. & P. Jot., West Duluth Jct. and New Duluth will not require elearance.

#### SECONDSUBDIVISION

Maximum Speeds Permitted 1. Speed Restrictions-Freight Passenger Zone Between: Restricted Speed. and C&NW Conn..... 15 MPH.

At Garfield Avenue-Normal position of junction switches will be for First Subdivision Trains will stop not less than two hundred (200) feet from junction switches and not proceed until route is clear.

4. At Rices Point—Spring switch not equipped with either spring switch target or facing point look is located 900 feet south of coal dock on roundhouse lead. 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;

switch off outside lead for lead to C Yard..... 

At Rices Point interiocking—Westward dwarf signal is located between Hump (A Yard) Lead and Load (B Yard) Lead at west end of yard. Top light governs movements to westward track and crossover to eastward track; bottom light governs 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 west. 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:

| THE WITH CONT. FOR TOTAL OFFICE  |         |     |
|----------------------------------|---------|-----|
| For through main track movements |         |     |
| Eastward track to westward track | . o &   | 00  |
| Eastward track to yard           |         |     |
| Yard to westward track           | . იიი & | 00  |
| Yard to eastward track           | . 000 đ | . 0 |
| Westward track to eastward track | . oo &  |     |
| Westward track to yard           | . oo &  | 000 |

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

Bridge—Interlocking signals govern use of tracks.
Single track over Minnesota Draw.
The three-light Home signal on eastward track west of Minnesota Draw indicates position of double track switch, position of draw and route:

Top Light—C&NW Middle Light—Great Northern Bottom Light—Northern Pacific

The two-light Home signal on westward track east of Elevator Sta-

The two-light Home signal on westward track east of Elevator Station indicates route:

Top Light—Straight main track.

Bottom Light—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. Maximum length of trains permitted over Minnesota and Wisconsin Draw spans during period of open navigation; is 1355 feet which is equivalent to twentyperiod of open navigation is 1355 feet which is equivalent to twenty-six (26) average freight cars, road engine, caboose and one helper

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" and car limit restrictions will not apply.

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

for more than 10 minutes, except in case of unavoidable breakdown. Spring Switches.—Superior, at west end of Brewery Lead, normal position for main track. To clear Brewery Lead signal when main track signal is displaying proceed indication, open release box and push the button, which will put time release mechanism into operation. After time release has operated, Brewery Lead signal will clear. Release box door must be left open until leading wheels of train on Brewery Lead have passed Brewery Lead signal, then close and lock the release box door. If Brewery Lead signal has been cleared and train on Brewery Lead is not ready to depart, if necessary to clear signal for a main track movement, close the release box door.

- At Central Avenue—No. 1 track will be used as siding. When helper on Westward trains takes water, road engine will pull train up to clear interlocking, and wait for helper to take water and recouple to train. When setting out or picking up, trains must not block 58th Street, and Tower Avenue crossings.
- Yard Limits—From Garfield Ave. to yard limit sign west of 28th Street, Superior, and from yard limit sign east of Central Ave. to the yard limit sign just east of Soo Line crossing on Terminal Fourth Subdivision, and yard limit sign west of Central Ave. on Second Subdivision of Lake Superior Division.
- Derall Switches-At approach to Minnesota Draw from Duluth. At Elevator Station. At Superior-Winter St. just opposite freight house.
- Register Stations: 12. Rices Point for second class and inferior trains, except passenger Central Avenue.
- Register Exceptions-At Central Avenue trains register by form 608. A check of register on form 602 may be issued by operator when authorised by train dispatcher, either instead of, or in addition to, train order check.
- Clearance Exceptions:

Trains originating at 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

| 1. | Speed Restrictions-                     | Maximum Speeds | Permitted  |
|----|---|----------------|------------|
|    | Zones-Between:                          | Freight        | Passenger  |
|    | First class trains, within yard limits  | Restric        | ted Speed. |
|    | West Duluth Jot. and Zenith Furnace.    | 30             | 80         |
|    | Zenith Furnace and L. S. T. & T. Jot    | 40             | 40         |
|    | At West Duluth Jot., around east leg of | f wyo          |            |
|    | and passing Zenith Furnace Plant        | Restric        | ted Speed  |

- At West Duluth Jct.—Normal position of switches on east leg of wye is for Third (Terminal) Subdivision main track.
- 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.)
To and from Mike's Lead to Main track.

5. Clearance Exceptions:

Trains originating at West Duluth Jot., Berwind Jet. and L. S. T. & T. Ry. Jot. will not require clearance.

- Spring Switches—West Duluth Jot., at junction of First and Third (Terminal) Subdivisions, normal position for Third (Terminal) Subdivision main track.
- 7. Deralls-Winter St. just opposite freight house.
- Yerd Limits—Between West Duluth Jot. and yard limit sign east of Grassy Point drawbridge, and between yard limit sign east of L. S. T. & T. Ry. Jot. and Superior.

#### FOURTH SUBDIVISION

1. Speed Restrictions— Maximum Speeds Permitted All Trains and Engines Zone-Between: 

2. Bridge and Engine Restrictions:

Steam Engines Class W or heavier, over trestle approach to 

- 3. At Allouez -Frank No. 2 must not be used by ore trains.
- At East End-Normal position of switch at end of double track is for westward trains. The approach signal of interlocking at Newton Ave. is an automatic block signal located on single track and governs the single track to end of double track and the westward track to Newton Ave. interlocking.
- 5. At Newton Ave.—No crossover between eastward and westward main tracks. 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 any trained track. eastward track.
- 6. At Hill Avenue 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.

- 7. At See Line Crossing—When using Soo Line tracks, Northern Pacific crews must have in their possession and be governed by current Soo Line Duluth and Superior Terminal Division Time Table, a supply of which is maintained at Rices Point Yard office and roundhouse.
- At Central Ave.—Normal position of switch at junction of Fourth and Second (Terminal) Subdivisions, in Great Northern inter-locker, is for Second (Terminal) 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 Fourth (Ter-minal) Subdivisions is for direct route to Pokegama. These switches are gowerned by interlocking signals equipped for switch key signal operation. If use of switch key does not give "restricting signal", proceed according to rule.
- Yard Limits—Tracks between yard limit signs west of East End and east of Alloues, and between yard limit sign east of Central Avenue on Second (Terminal) Subdivision and yard limit sign just east of Soo Line crossing on Fourth (Terminal) Subdivision.
- 11. Register Stations:

Central Ave. Soo Line 21st St. Yard Office, Superior, for D. S. S. & A. Ry.

- 12. Register Exceptions—At Central Ave. trains register by form 608, Eastward ore trains from Lake Superior Second Subdivision will not register. A check of register on Form 602 may be issued by operator when authorised by train dispatcher, either instead of, or in addition to, train order check.
- Clearance Exceptions—Trains originating at Alloues, East End or Hill Ave. will not require clearance. Ore trains from Lake Superior Second Subdivision will not require

clearance at Central Ave.

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LIMIT OF LOAD MEASUREMENT

prerning Structure—1st Sub-division,

| Lake Ave. vladuct. Clearance en   |              |                     |               |                     |                |                           |                |                     |                |                |               |
|---|--------------|---------------------|---------------|---------------------|----------------|---------------------------|----------------|---------------------|----------------|----------------|---------------|
| balance of sub-division Max. 22'-6' obtains for all   |              |                     |               | HEIGH               | IT ABOY        | HEIGHT ABOVE TOP OF RAIL  | OF BAII        | _                   |                |                |               |
| 2nd Sub-aiv., St. Louis Bay Bridge No. 2<br>restricts height of load at 12'-0" wide                     | 1 ft<br>Wide | 2 ft.<br>Wide       | 3 ft.<br>Wide | 4 ft.<br>Wide       | 5 ft.<br>Wide  | 6 ft.<br>Wide             | 7 ft.<br>Wide  | 7 ft. 6 in.<br>Wide | 8 ft.<br>Wide  | Max.<br>Height | Mex.<br>Width |
| 1st Sub-division, Duluth to New Duluth  | 18, 6,,      | 18' 6"              | 18' 6"        | 18' 6"              | 18' 6"         | 18' 6"                    | 18, 6,,        | 18' 6"              | 18, 6"         | 18' 6"         | 12' 0"        |
| 2nd Sub-division, Garfield Ave. to Central Ava.   | 30, 6,,      | 20′ 6″              | 20' 6"        | 20′ 6″              | 20' 6"         | 20' 6"                    | 20′ 6″         | 20' 6"              | 20' 6"         | 20' 6"         | 12' 0"        |
| 3rd Bub-division, W. Duluth Jet. to Superior UD   | 20, 0,       | 20' 6"              | 20' 6"        | 20' 6"              | 20, 6,,,       | 20' 6"                    | 20, 6,,        | 20, 6,,             | 20, 6,,        | 20, 6,,        | 12, 0,,       |
| 4th Sub-division, Alloues to Central Ave  | 20, 6"       | 20′ 6″              | 20' 6"        | 20' 6"              | 20' 8"         | 20' 6"                    | 20' 6"         | 20' 6"              | 20' 6"         | 20' 6"         | 12' 0'        |
| Generning Structure - 1st Sub-division,   |              |                     |               | LIMIT               | DF LOA         | LIMIT OF LOAD MEASUREMENT | JREMEN         | <u>F</u>            |                |                |               |
| balance of sub-division Max. 20'-6" obtains for all   |              | -                   |               | HEIGH               | IT ABOY        | HEIGHT ABOVE TOP OF RAIL  | OF RAII        |                     |                |                |               |
| widths of leads listed Znd Sub-div., St. Louis Bay Bridge No. 2 restricts height of load at 12'-0" wide |              | 8 ft. 6 in.<br>Wide | 9 ft.<br>Wide | 9 ft. 6 in.<br>Wide | 10 ft.<br>Wide | 10ft. 6in.<br>Wide        | 11 ft.<br>Wide | 11ft.6in.<br>Wide   | 12 ft.<br>Wide | Max.<br>Height | Max.<br>Width |
| 1st Sub-division, Duluth to New Duluth  | , i          | 18' 6"              | 18' 6"        | 18′ 6″              | 18' 6"         | 18' 6"                    | 18, 6,,        | 18' 6"              | 18' 6"         | 18' 6"         | 12' 0"        |
| 2nd Sub-division, Garfield Ave. to Central Ave.   | :            | 20' 6"              | 20' 6"        | 20' 6"              | 20' 6"         | 20' 6"                    | 20' 6"         | 20' 4"              | 20, 3"         | 20' 6"         | 12, 0,,       |
| 3rd Sub-division, W. Duluth Jet. to Superior U. D.  |              | 20′ 6″              | 20′ 6″        | 20' 6"              | 20' 6"         | 20' 6"                    | 20, 6,,        | 20' 6"              | 20' 6"         | 20′ 6″         | 12' 0"        |
| 4th Sub-division, Alloues to Central Ave  |              | 20' 6"              | 20′ 6″        | 20' 6"              | 20, 6"         | 20' 6"                    | 20' 6"         | 20' 6"              | 20' 6"         | 20' 6"         | 12, 0,,       |
|   |              |                     |               |                     |                |                           |                |                     |                |                |               |

#### **AUTHORIZED SURGEONS**

Dr. B. I. Derauf, Chief Surgeon..... Dr. A. McEwan, Dr. Donald Derauf, Dr. C. J. Hedlund, Dr. H. S. Proud.

clearance

Heights and widths in table allow 6 inches

centers.

cars with 42'

3

measurements based on

Limit of load

Associate Surgeons, N. P. B. A. Hospital 1515 Charles Ave., St. Paul.

#### **SPECIALISTS**

St. Paul-Dr. L. G. Edwards, Eye, Ear, Nose & Throat, 1039 Lowry Bidg.
Dr. R. H. Monahan (Oculist), 1023 Lowry Bidg.
Dr. L. T. Simons, Eye, Ear, Nose & Throat, 1039 Lowry Bidg.

Dr. E. L. Bauer (Ear, Nose & Throat), 621 Lowry Bldg.
Minneapolis—
Dr. R. C. Horns, Oculist,
1137 Medical Arts Bldg.

Dr. M. F. Feliows, Oculist & Aurist, 1209 Medical Arts Bldg.

Superior— Dr. T. J. Doyle, Eye, Ear, Nose & Throat, 1507 Tower Avenue
Dr. R. T. Thompson, Eye, Ear, Nose & Throat, 1507 Tower Ave.

#### **SURGEONS**

Duluth-Dr. C. L. Haney, 2004 West Superior St Dr. C. L. Haney, 2004 West Superior St. Dr. Noei Tosseland, 900 Medical Arts Bldg. Dr. C. M. Smith, 416 Medical Arts Bldg. Dr. A. J. Spang, 1930 W. Superior St. Dr. J. S. Spang, 1930 W. Superior St. Dr. Wm. M. Spang, 1930 W. Superior St. Dr. R. J. Deutsch, 1930 W. Superior St.

Superior—
Dr. J. W. McGill, 1225 Tower Ave.
Dr. Victor E. Ekblad, 1507 Tower Ave.

C. M. ST. P. & P. RY. SURGEONS Dr. Cyril M. Smith, 416 Medical Arts Bldg., Duluth LOCATION OF STRETCHERS

East End Station. Central Avenue Station. Superior Freight Station. Duluth-Fifth Avenue Yard Office, Union Depot, Store Room, Tool Car, Car Shops, Roundhouse, West Duluth Station. Superior Ore Dock.

### NOTE

N. P. B. A. physicians and surgeons, when called upon, will attend to all cases of sickness and accident to employees, passengers and others. In a case of illness, or of injury unrelated to railway operation to other than N. P. B. A. members, surgeon should endeavor to collect a reasonable fee for service from person attended. If unable to collect, Chief Surgeon should be notified.

Where injuries, to other than N. P. B. A. members, are directly related to railway operation, charge for service should be sent to the General Claim Agent of the railway company.

In case of emergency, proper aid should be procured until arrival of local surgeon, when case must be placed in his hands.

#### RAILROAD CROSSINGS AND INTERLOCKINGS.

#### First Sub-division

West D. M. & I. R. Jot., Interlocking. See Line Crossing, Automatic Interlocking. D. W. & P. Jot., Interlocking. West Duluth Jot., Automatic Interlocking. Morgan Park Minnesota; Steel Co. Crossing.

#### Second Sub-division

Rices Point, Interlocking.
Bridge Switch, Interlocking.
St. Louis River Drawbridge;
Minnesota Draw, Interlocking.
Wisconsin Draw, Interlocking.
Elevator Station, Interlocking.
Superior, Winter St., near C&NW Connection.

#### Third Sub-division

Zenith Furnace—D. M. & I. R. Ry. Crossing.
Berwind Jct., Interlocking, junction with Soo Line and D. W. & P.
Grassy Point Drawbridge, Interlocking.
G. N. Ry. Crossing.
L. S. T. & T. Ry. Jct.

#### Fourth Sub-division

Alloues—N. W. C. Crossing, Interlocking. Newton Avenue—C&NW Crossing, Interlocking. Soo Line Crossing, Interlocking.

#### S. A. ANDERSON, Asst. Superintendent.

J. F. PETERSON, Trainmaster.

> J. J. AUGE, Trainmaster.

> > C. E. JOHNSON, Trainmaster-Roadmaster.

> > > E. J. WIGG, Chief Dispatcher.