

Great Northern Railway Historical Society
Metadata for GN Station Locations
By Division, Subdivision & Mileage
Year: 1950
Developer: Jim Chinquist

Background:

The GNRHS Archives Committee decided that it was desirable to designate all station locations by the respective Great Northern (GN) Railway division, subdivision and mileage in the Year 1950. It is generally understood that the 1950s era of GN operations has been highly modeled, and there would be much interest by the Society's membership in knowing where a station location lies on the GN System. John Thomas created a starting dataset in Microsoft Excel by pulling all unique GN station locations from the Authority for Expenditures (AFE) dataset.

After the end of World War II, upper GN management realized that the entire system needed modernization to continue as a major competitor in the railroad transportation industry. The funding initiative to fully dieselize the GN and obtain new streamlined passenger equipment was approved by the GN Directors. The GN ordered enough Empire Builder streamlined passenger 12-car consists to replace the standard heavyweight consists in 1947. That allowed faster schedules for the Empire Builder between Chicago, IL and Seattle, WA. That gave the GN's Empire Builder a great temporary advantage over the Northern Pacific (NP) Railway's competitive passenger train, the North Coast Limited, which was still operating with heavyweight passenger equipment. The Empire Builder's former standard heavyweight passenger consists were reassigned to the Oriental Limited. That 1947 modernization of the GN's Empire Builder would be followed with upgraded consists in both 1951 and 1955. Each 1955 Empire Builder consist included four Great Domes (three short-dome coaches and one full-dome/lounge for first class sleeping car passengers). There was great pride in keeping the Empire Builder a very classy passenger train that would be most appealing to the traveling public. The Empire Builder even ran through a car washer in mid-trip to clean any dirty windows. The GN's track infrastructure also needed improvements. Primary passenger and freight main line routes between St. Paul, MN and Seattle, WA were designated for priority upgrades. Those routes were targeted for quick relays with newer, heavier welded rail and crushed rock ballast. There were many route changes incorporated west of Minot, ND to reduce curvature and allow increased operating speeds. The iron ore routes in Northern Minnesota were also given high priority for upgrades. Secondary main lines and branch lines were given a lower priority for upgrades, utilizing gravel for ballast. The old primary main line rails were reused to relay the secondary main lines. Then the old secondary main line rails were reused to relay the branch lines. That systematic approach was followed to reuse track material, reducing the total cost of upgrading the GN's track infrastructure over the system. Faster train operations due to better equipment and improved infrastructure were necessary to keep the GN highly competitive.

The signaling system on the GN also needed upgrading. The Year 1950 predates the implementation of Centralized Traffic Control (CTC) signaling on the GN. The signaling, where it existed, was Automatic Block Signals (ABS). Any route that did not have ABS signaling was designated "dark territory." ABS signaling did not govern train movements or confer authority to proceed; it simply indicated the status of the track ahead. On double track running "current of traffic", ABS protected the rear of trains from following trains; on single track it also protected opposing traffic between sidings. Division Employee Time Tables and train order dispatching governed all GN train movements on all GN lines. Division dispatchers gave train orders to station operators via telegraph or telephone lines to relay to the appropriate train engineers and conductors upon arrival. For trains that did not need to stop, the station operators "hooped" the train orders up to the respective engineers and conductors on the fly. The implementation of CTC signaling along some of the primary main lines gave dispatchers direct control of train movements without train orders, further streamlining train operations between Saint Paul, MN and Seattle, WA.

It was mandatory that any GN employee or gang working out on the system had to carry a current division employee time table and obtain a daily train line-up from the dispatcher for the respective subdivision. It was also mandatory that the dispatcher be swiftly notified of any condition that affected either the safe movement of trains or the safety of employees in carrying out their duties. The GN motto "Safety First" was an operating slogan.

This Microsoft Excel spreadsheet represents a Year 1950 snapshot of the GN system by division, subdivision and mileage. It is also a desire of the Archives Committee to develop similar files for later snapshots of the GN system depicting the installation of CTC signaling and line changes to improve train operating speeds.

References:

01. "Great Northern Railway Co. and Affiliated Roads Official List of Officers, Agents and Stations No. 111" (corrected to April 1, 1954)
02. "Great Northern Railway Track Laying Record between 1862 and 1940"
03. "Great Northern Railway Company Twin Cities Terminal Willmar Division Time Table 279" (effective January 1, 1950)
04. "Great Northern Railway Company Willmar Division Time Table 69" (effective January 1, 1950)
05. "Great Northern Railway Company Mesabi Division Time Table 58" (effective January 1, 1950)
06. "Great Northern Railway Company Dakota Division Time Table 84" (effective January 1, 1950)
07. "Great Northern Railway Company Minot Division Time Table 65" (effective January 1, 1950)
08. "Great Northern Railway Company Butte Division Time Table 66" (effective January 1, 1950)
09. "Great Northern Railway Company Kalispell Division Time Table 66" (effective January 1, 1950)
10. "Great Northern Railway Company Spokane Division Time Table 76" (effective January 1, 1950)
11. "Great Northern Railway Company Cascade Division Time Table 50" (effective December 4, 1949)
12. "Great Northern Railway Company Klamath Division Time Table 10" (effective January 1, 1950)

Future Plan:

Thanks to Bob Kelly, I have received photocopies of the division employee time tables for the 1957 and 1967 time periods. 1957 would reflect many of the GN System infrastructure upgrades after WWII, and would predate the elimination of passenger train service on GN branch lines due to the loss of the mail contracts in 1958. 1967 would reflect all GN System upgrades and the loss of all branch line passenger service. GN System infrastructure upgrades generally ceased after that for two reasons: the implementation of the Big Sky Blue paint scheme and the anticipation of the BN Merger.

Acknowledgements:

The development of this 1950 Excel dataset was achieved by the contributions of the following people providing the listed references above or other supplemental references:

John Thomas, Stu Holmquist, John Robinson, Dr. James H. Larson, Greg Childree and Bob Kelly