

The Grand Trunk Pacific Railway 100th Anniversary

*prepared by Ken Newman, Regional District of
Kitimat-Stikine, March 2014*



2014 is the 100th anniversary of the arrival of the first passenger train from the east on what was in 1914 the newly constructed Grand Trunk Pacific Railway.

The first passenger train to travel through the Skeena Valley came in early April 1914 and arrived in Prince Rupert on April 9, 1914. Only a few days earlier on April 7, 1914, a ceremony was held and the last spike was driven in the last steel rail near Fort Fraser B.C. Who exactly drove the last spike is not entirely clear (more on this mystery later) however it is known for certain that on that day the tracks of Grand Trunk Pacific (GTP) Railway were finally joined. That first passenger train was largely a train of GTP officials and dignitaries but was in fact the first train to travel the entire GTP line from Winnipeg. The line, however, did not actually come into full commercial operation until August of 1914. The first commercial passenger train from the east did not arrive in Prince Rupert until early September, 1914.¹

Ten years earlier the president of the Grand Trunk Railway Charles M. Hays stood before the shareholders and announced his vision to complete a Canadian second transcontinental railway to a yet to be built west coast port city of Prince Rupert. This railway would be called the Grand Trunk Pacific Railway. Over the next ten years, the GTP would promote the advantage of a northern rail line and how it would open up opportunities for mining, agriculture and forestry, not to mention to the new port city of Prince Rupert and the advantage of shorter sailing distances to Asian markets. Then Prime Minister Wilfrid Laurier

¹ Kozma, Leslie, "The Truth About 7 April 1914", CN Lines, Vol. 17, No. 1, Issue 62, page 13

was also convinced of the idea of a second transcontinental railway and therefore assisted by having the Dominion Government of Canada provide financial guarantees during construction. The GTP expected to recover the costs of construction by profiting from the influx of settlers, the resulting freight shipments and the sale of prospective townsites along the line. Today, in northwest B.C. Smithers, South Hazelton and Prince Rupert are all communities resulting directly from the GTP.

Surveyors and engineers had chosen the Yellowhead route through the Rockies Mountains to Prince Rupert because it afforded the best grades. The GTP had set a high standard for the railway grade of four tenths of 1%, or 21.12 feet per mile and curves were to be 4 degrees or greater. This would make it the lowest grade railway through the Rocky Mountains in North America. The Mountain section of the GTP was the most difficult and expensive section of the railway that began in Winnipeg. The construction of the Mountain section began from two points. From the east it began at Wolf Creek, Alberta. From the west it began at Prince Rupert. The construction of the line began in Winnipeg in 1905, reaching Wolf Creek, near present day Edson, Alberta, in 1909. The construction of the line going east from Prince Rupert did not begin until May of 1908. The distance from Winnipeg to Wolf Creek was 916 miles while the Mountain section from Wolf Creek to Prince Rupert was 839 miles. The principal contractor for the construction of the Mountain section was Foley Brothers, Welch and Stewart Company.

Within the Mountain section the Skeena Valley portion of the railway was a distance of 180 miles from Prince Rupert to Hazelton. This portion of the railway was the most difficult and the most costly part of the Mountain section. The total cost to build the rail line from Winnipeg was \$109.8 million and of that the Mountain section cost \$78.2 million.² The

² Leonard, Frank, "A Thousand Blunders: The Grand Trunk Pacific Railway and Northern British Columbia" UBC Press, 1996., page 89

Skeena River from Hazelton to the Pacific Ocean falls 1,000 feet making it one of the most rapidly descending rivers on the west coast of North America. Such obstacles along the way included the steep mountain walls of the lower Skeena, Kitselas Canyon and the crossing of the Skeena west of Hazelton. The man in charge of this section of the construction was GTP engineer C.C. Van Arsdoll, nicknamed “four tenths Van” for his insistence that the grade not exceed four tenths of 1% in a mile, even during this difficult section. This high standard contributed to the challenges and costs of building a railway in this difficult environment.



*Construction of the Skeena Crossing Bridge, 1912*³

Tunnels were extensive, in the first 200 miles of the railway some thirteen tunnels were built totaling over 8,800 feet. A tunnel 1600 feet long was built at mile 44 on the lower Skeena to avoid excessive snow slides and three tunnels totaling in excess of 2200 feet in length, within one mile, were blasted out of the rock in Kitselas Canyon. The Kitselas Canyon tunnels were not completed until January 1912. The steel span bridge across the Skeena at mile 174, thirteen miles west of Hazelton (commonly known as Skeena Crossing) was a 930 foot span completed in March of 1912 and only 10 miles further a second bridge almost 900 feet long was constructed over Sealy Gulch. It is estimated that to build the first 100 miles of grade east of Prince Rupert cost \$80,000 a mile before any track was laid.

Construction on the Skeena portion of the line was carried out by the principal contractor Foley Brothers, Welch and Stewart (F. W & S)

³BC Archives photo E-02778

who in many cases sublet to other contractors. Construction camps to house workers were situated along the route approximately every two to five miles. To services the camps F. W & S employed sternwheeler steamers to ply the waters of the Skeena. They owned five sternwheelers that would travel the Skeena to the head of navigation at Hazelton. These vessels, prior to the arrival of the GTP, were the means of choice of getting supplies between the coast and the interior. Ironically the sternwheeler was being used the help build a railway that would end the sternwheeler era on the Skeena. Throughout construction, due to poor living conditions and low wages, workers were hard to retain and it was said that for every man arriving at camp to work one was leaving. Workers would often refer to F.W & S Company as Fool'em, Work'em and Starve'em.⁴

The first passenger train through from the east did not travel the line until April 1914, however, there was passenger service operating on the Skeena section by 1911. With the arrival of the tracks at Skeena Crossing in March of 1912 the GTP was offering passenger service from Prince Rupert to Hazelton with a ferry service across the Skeena. Even before this in 1911 passenger service was available for the first 100 miles to Kitselas, which at the time was called Vanarsdol and would later become the site of a station.



*A GTP Passenger Train on the Skeena in 1911*⁵

The GTP situated railway stations at approximately every 6 to 8 miles along the route from Winnipeg and it was no different on

⁴ Stevenson, Jane, “Making Tracks” Northword Magazine, February 2009

⁵ BC Archives Photo B-01477

the Skeena portion of the line. At its opening in April 1914, the line between Prince Rupert and Hazelton had 22 stations. Divisional points were also significant sites for railway operations. They not only had a station but also a roundhouse and rail yard for the maintenance and servicing of locomotives. Typically divisional points were 100 to 140 miles apart. The first divisional point east of Prince Rupert was located at the community of Pacific, formerly called Nicholl. The stations with only a few exceptions were of a standard design. By far the GTP's most common station type was the Design 'A' 100-152. At its opening in 1914 this was true for all the stations on the Skeena portion of the line with the exception of Pacific which being a divisional point had a larger 100-159 plan station. Sadly today, there are no examples of the stations left along the Skeena portion of the line with the exception for the Kwinitsa station which was moved to Prince Rupert's waterfront. The stations were all named and the names of these places remain today and in some cases are the names of those involved with the construction of the GTP. Places such as Dorreen, Salvus, Vanarsdol (later Kitselas) and Ritchie.



Terrace GTP Design 'A' Station 1914⁶

As noted earlier the GTP opened in the summer of 1914 for full commercial operations but the company was in financial trouble right from its opening. The first blow to the GTP came two years before it was completed when the railway's president and visionary Charles M. Hays, on a return trip from Britain to secure capital for the railway died with the sinking of the Titanic in April 1912. Eventually the high

⁶ BC Archives Photo E-00060

cost of construction, failed townsite land deals, competition, low traffic volumes and the start of world war one conspired against the success of the GTP. By 1918 the GTP was in negotiations with the federal government to take over not only the GTP but also the parent Grand Trunk Railway. The GTP was forced into receivership in 1919 and was eventually taken over by the government. By 1923 the government rolled several failed railways, including GTP's competitor the Canadian Northern Railway (CNoR), into one company and formed the Canadian National Railway (CNR).



GTP Superintendent's Train on the Skeena near the Exchamsiks River, 1914⁷

The Regional District of Kitimat-Stikine, as result of the historical significance the GTP had on the development of the region, recognized two GTP related sites. In 2013 the Regional District added sites within the former GTP railway communities of Dorreen and Pacific to its community heritage registry. Those sites were the GTP roundhouse at Pacific and the site of the former GTP station at Dorreen.

⁷ BC Archives Photo D-06320

The Mystery of the Last Spike

Revisiting the circumstances of April 7, 1914, and the GTP last spike ceremony. Some question whether April 7th was intended to be the date in history to be remembered for the GTP. It is agreed that this was the date the tracks from the east actually first met the tracks from the west but it is speculated that this wasn't really to be the formal ceremony. It is documented that GTP management had talked about two events, one being the actual physical connection of the tracks and then later, when the final touches to the rail line were complete, a ceremonial highly publicized event with a golden spike would take place, in the same way as the last spike on the Canadian Pacific Railway (CPR) was done two decades earlier.

Part of the speculation is as a result of the number of conflicting accounts of who actually drove the last spike. It seems the facts suggest no one actually knows for sure who drove the last spike. Some credit, then, GTP President Edson Chamberlin but there are reports he was actually in Montreal when it happened. Still others think it might have been GTP Chief Engineer B.B. Kelliher or GTP vice president and general manager Morley Donaldson or GTP Superintendent McCall, finally, that it might have actually been the west construction foreman Peter Tityrn or east foreman Philip Egan who drove the last spike. There apparently were several spikes driven by various officials before the actual last spike and there are some photos of the event but they don't clearly identify who drove the LAST SPIKE. The fact that GTP president Chamberlin, the highest ranking GTP official, was not at the April 7th event would support the thought that April 7th was not to be the formal last spike ceremony.

The circumstances of the cost of construction, the threat of bankruptcy, world war and recession may have all conspired together to prevent the formal ceremony with a golden spike. The GTP was completed but likely not in the fashion it was dreamed of in 1903 by

Charles Hays. It finished more with a whimper than a bang. The location of the last spike is a little clearer, accounts talk about east of the Nechako River Crossing or near Fort Fraser or at Fort Fraser. All are actually true, the site was near the east end of the upper Nechako River crossing about one mile east of the Fort Fraser station. The first train across the track was pulled by engine No. 112 and arrived in Prince Rupert on April 9th at 1:15 in the afternoon.⁸



The first GTP Passenger Train arriving in Prince Rupert, April 9, 1914 pulled by engine No. 112⁹

Sources:

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⁸ Kozma, Leslie, "The Truth About 7 April 1914", CN Lines, Vol. 17, No. 1, Issue 62, page 11

⁹ BC Archives Photo D-08001

Grand Trunk Pacific Roundhouse at Pacific

Pacific was a town located approximately 35 km northeast of Terrace on the Grand Trunk Pacific (GTP) Railway at mile 119.4 from Prince Rupert. Prior to the arrival of the GTP it was locally known as Nicholl. Pacific became an important point on the GTP when the company decided to make Pacific the first divisional point east of Prince Rupert and locate a roundhouse and rail yard on a 30 hectare piece of land next to the Skeena River.



GTP Station Platform at Pacific, 1929¹⁰

In addition to the roundhouse, Pacific's railway infrastructure included a substantial passenger station (CNR Plan 100-159), freight and baggage sheds, water tank, oil tank, and coaling and sanding facilities. The selection of a railway divisional point often spurred additional economic activity which resulted in the growth of the associated community. Divisional points were typically only 110 to 140 miles apart due to the mechanical limitations of steam locomotives and rolling stock of the time. Early locomotives were smaller and slower and could only travel short distances before servicing was required.

Constructed in 1915, the roundhouse was built to the GTP standard plan (Plan 120-115) typical of its time. The roundhouse was a large quarter-circular-shaped building with tracks leading into 12 stalls, each with a below-grade maintenance pit used for the repair of locomotives and rolling stock. A large turntable in front of the roundhouse was used to align the locomotives

with the stalls and was connected to a railway wye, which in turn joined the mainline track.



GTP Roundhouse at Pacific, 1921¹¹

The contractor that built most of the buildings for the GTP was, Carter-Halls-Aldinger, from Winnipeg. It is not known for sure that they built the Pacific roundhouse but it is known that they did construct other GTP roundhouses in prairie towns such as Watrous and Biggar in Saskatchewan and Wainwright in Alberta.

Pacific did enjoy a short period of success after the GTP arrived. The land was subdivided and a townsite was created. It had a school, store, post office, a hotel and community hall but the population never boomed. With increasing advances in locomotive technology from steam to diesel, railway operations became centralized, and as a result the Pacific roundhouse was demolished to its foundations in 1959. The divisional point was transferred to Terrace, and eventually all maintenance was relocated to Prince George, BC and Edmonton, Alberta.

Today there is not much to see at Pacific. Very few buildings remain and the only remains of the roundhouse is the moss covered foundation and a pile of red bricks. There was a brief interest in reviving Pacific in the 1970s when a former Regional District planner, with an interest in ghost towns, envisioned a self-sufficient community of people living in Pacific. Though many people were attracted to the idea of Pacific and did buy lots the idea never did take off and Pacific was not revived.

¹⁰ BC Archives Photo E-06672

¹¹ BC Archives Photo I-58669

Dorreen Grand Trunk Pacific Station

Dorreen is an isolated community located about 48 km northeast of Terrace. Named as a result of the Grand Trunk Pacific (GTP) Railway, after a former GTP engineer Ernest J. Dorreen. The GTP located a station at this site, at Mile 125.5 from Prince Rupert.

The Dorreen railway station was constructed in 1913 according to the GTP Standard Design A plan (CNR Plan 100-152), the most common station design used by the GTP in western Canada. The station's hipped roof with wide bellcast overhang, turret, and large banks of windows all contributed to the formal and aesthetic qualities of this standardized building type. The traditional location for GTP stations was on the north side of the railway tracks in order to take advantage of southern exposures. However, in Dorreen the tracks run north/south necessitating the siting of the station on the east side of the tracks. Its central location in Dorreen was typical of GTP standardized planning. The station included a waiting room, agent's office, a freight or crew bunk area and living space for the agent and his family. The station was demolished by the CNR in 1971.

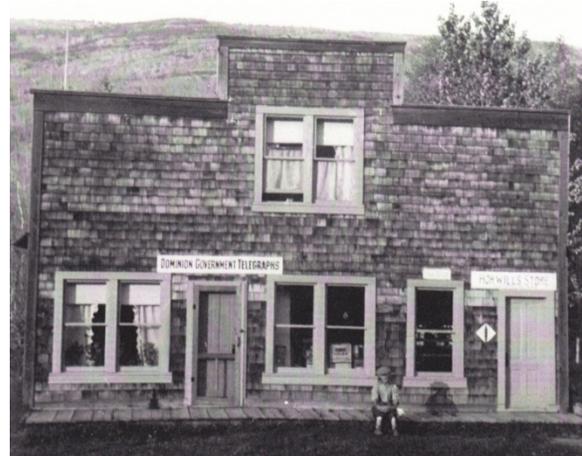


*GTP at Dorreen, c. 1940*¹²

District Lot 2500 generally accepted as the community of Dorreen, was preempted by Charles Carpenter in 1911. With the arrival of the GTP the community began to grow and the District Lot was subdivided into 5 and 10 acre

¹² D. Horwill Collection

lots. The community grew with not only the arrival of the railway but also as a result of local prospecting and mining operations. The town boosted a general store, community hall and school. The general store was built by Thomas McCubbin in 1920, who also operated a store in nearby Pacific. The store was later sold to William and Florence Horwill in about 1935. The store also acting as the post office, mining records office, an office of the justice of the peace and a telegraph office. It operated until its closure in 1960.



*Dorreen General Store, c. 1940*¹³

The community's population rarely exceeded 50 even with the opening of a mine on Knuass Mtn in 1949. The mine operated by Dorreen Mines Ltd only lasted until 1953. In addition to the railway and the mining, Dorreen was also an agricultural community and families such as the Horwills grew commercial gardens and shipped their produce by train to Prince Rupert.

Today, there are only a few permanent and part time residents of Dorreen, the general store and a number of original buildings remain. The original train station is long gone but the residents maintain a small building near the site of the original station that acts as their station.

To learn more about the GTP communities of Dorreen and Pacific visit the heritage section of the Regional District of Kitimat-Stikine website at www.rdks.bc.ca.

¹³ D. Horwill Collection