

CANADIAN RAIL CANADIEN

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SEPTEMBER – OCTOBER 2022 | SEPTEMBRE – OCTOBRE 2022

- Digitizing the CPR Heckman Photograph Collection
- REM Update September 2022
- Stan's Photo Gallery - The CPR Nitrate Negative Project
- The Missing Link
- Business Car
- CRHA Communications

- Numérisation de la collection de photographies du CPR de Heckman
- Mise à jour REM - septembre 2022
- Les photos de Stan - Le projet d'archives de négatifs sur nitrate du CPR
- Le chaînon manquant
- Le patrimoine ferroviaire
- CRHA Communications



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TABLE OF CONTENTS – TABLE DES MATIÈRES

247 Digitizing the CPR Heckman Photograph Collection / Numérisation de la collection de photographies du CPR de Heckman by / par Ralph Beaumont and / et Matthew Whiteley

259 REM update September 2022 / Mise à jour REM - septembre 2022 by / par Ian G Macdonald

271 Stan's Photo Gallery - The CPR Nitrate Negative Project / Les photos de Stan - Le projet d'archives de négatifs sur nitrate du CPR by / par Stan J Smaill

288 The Missing Link / Le chaînon manquant by / par Barry Bigelow P. Eng.

296 Heritage Business Car / Le patrimoine ferroviaire

300 CRHA / ACHF Communications

Canadian Rail is continually in need of news, stories, historical data, photos, maps, and other material. Please send all submissions to : Peter Murphy, Ph8-80 Ch. Du Bord-Du-Lac Lakeshore, Pointe-Claire, QC, H9S 4H6 (psmurphy@videotron.ca). No payment can be made for a submission, but its author will be given credit for the material submitted, if published. The latter will be returned on request. Remember that "Knowledge is of little value unless it is shared with others".

Rail canadien a un besoin constant de nouvelles, d'articles, de données historiques, de photographies, de cartes et autres. Envoyez, s'il vous plaît, toute soumission à Peter Murphy, Ph8-80 Ch Du Bord-Du-Lac Lakeshore, Pointe-Claire, QC, H9S 4H6 (psmurphy@videotron.ca). Aucun paiement ne peut être fait pour une soumission, mais il sera donné crédit à l'auteur(e) pour celle-ci, si publiée. Le matériel soumis sera retourné sur demande. Rappelez-vous que « Les connaissances ont peu de valeur si elles ne sont pas partagées avec d'autres ».

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FRONT COVER: CPR photographer Joseph Heckman recorded the Forks of Credit station and trestle on September 15, 1898. This is one of almost 4,000 Heckman photos in the CRHA / Exporail Canadian Pacific Railway Limited fonds, that will soon be made available to researchers online.

PAGE COUVERTURE : Le 15 septembre 1898, le photographe du CPR Joseph Heckman a enregistré pour la postérité le pont sur chevalets et la gare de Forks of Credit. Cette photographie est l'une des quelque 4000 du fonds Canadian Pacific Railway Company des Archives CRHA / ACHF Exporail qui va être mise en ligne sous peu pour les recherchistes.

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Digitizing the CPR Heckman Photograph Collection

Digitizing the CPR Heckman Photograph Collection

By / Par Ralph Beaumont & Matthew Whiteley

French Translation / Traduction française : Jean-Maurice Boissard

Historic Heckman photos CRHA / ACHF Exporail Archives

Fonds Canadian Pacific Limited

Modern photos by Matthew Whiteley except where noted

Members of the CRHA and readers of Canadian Rail will be aware that the Canadian Pacific Railway donated their corporate archives to the CRHA in 2017. These are housed at Exporail in St Constant, Quebec. Among the thousands of photos are the Joseph Heckman Albums, assembled by Heckman during his time as engineering department photographer. Between 1898 and 1916 Heckman took more than 4,000 photos as an inventory of literally every bridge and station on the CPR mainline from Nova Scotia to Vancouver Island. Also included were the majority of secondary mainlines and branches in New Brunswick, Quebec, Ontario and British Columbia as they existed at that time.

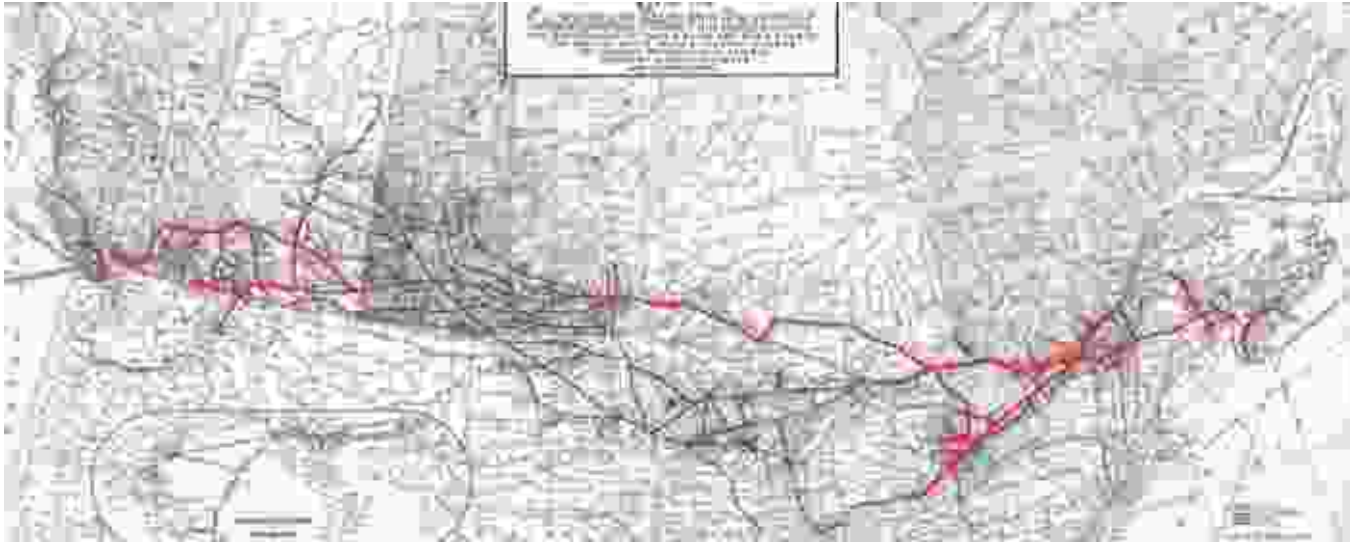
Even more significant is that Heckman's original Field Books still accompany the collection. The specifics of each photograph were meticulously recorded, giving not just the year but even the exact day that each photo was taken. Other information includes mileage, camera (compass) orientation in relation to the subject, and basic notes about each structure.

The photos are contact prints from the original 8"x10" glass plate negatives, mounted on card stock within 66 large format leather-bound albums. They reveal remarkable detail, but have



Joseph William Heckman joined the Canadian Pacific Railway's engineering department in 1888, and became the department's photographer in 1898. Library and Archives Canada, Topley Studio Photo, Ottawa 1893

Joseph William Heckman joined the Canadian Pacific Railway's engineering department in 1888, and became the department's photographer in 1898. Library and Archives Canada, Topley Studio Photo, Ottawa 1893



Between 1898 and 1916, Joseph Heckman travelled more than 7,000 route miles of the Canadian Pacific system, photographing bridges and stations literally coast-to-coast. Base Map CPR1930 – Heckman Route, Rod Clarke

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The Heckman photographs are preserved in 66 large format Albums, and Exporail's digitization project is making them available to researchers online. Ralph Beaumont

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become coloured with age. The albums themselves, handled daily for many decades by engineering department staff, had become fragile to the point that public access to them could no longer be given.

It was recognized that Heckman's work is among the premier photographic records of any contemporary North American railway, and a special project was initiated whereby the collection would be digitized and made available to researchers online. As announced in Canadian

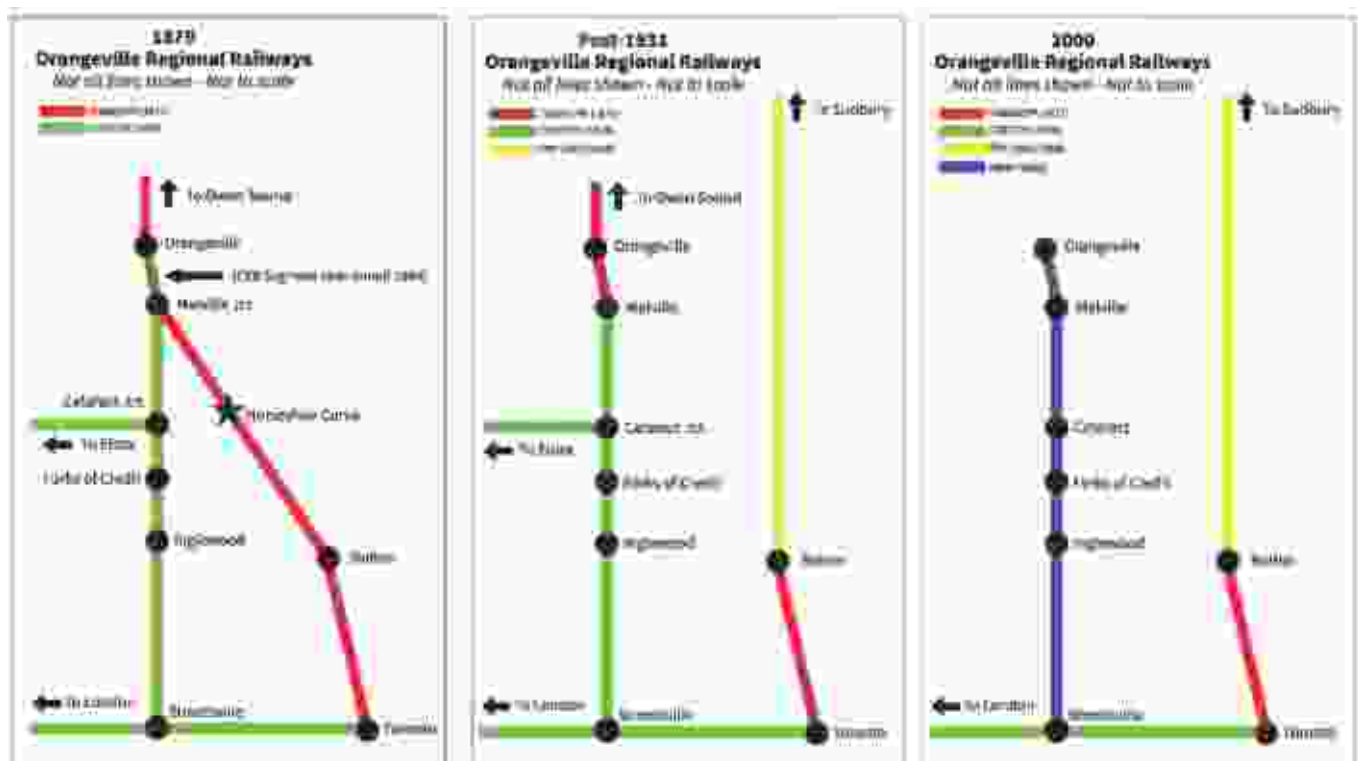
Rail - Vol. 596 (May-June 2020), a \$68,226 grant was received from Library and Archives Canada to fund the work. Digitization was undertaken by Exporail staff, and volunteer help matched Heckman's Field Book notes with each photo in the resulting spreadsheets.

Authors Ralph Beaumont and Matthew Whiteley saw this as an opportunity to illustrate how Heckman's photos could be used by researchers of railway and local history. They did this by preparing this brief 'Then and Now' series of Heckman photos that feature a sampling of late 19th Century stone arch culverts that still exist along one of their favourite Ontario lines.

Credit Valley Railway

The Credit Valley Railway (CVR) was chartered in 1871 to build a main line between Toronto and London, Ontario, with a branch up its namesake valley from Streetsville to the Town of Orangeville. The Orangeville line was officially opened to traffic on January 19, 1880. By 1883 it had come under the auspices of the Ontario & Quebec Railway (O&Q), and on January 1, 1884, the O&Q was leased to the CPR.

A predecessor narrow gauge line, the Toronto Grey & Bruce (TG&B), had also been built through the region. It extended from Toronto to Orangeville in 1871 and was completed to Owen Sound in 1873. The Grand



Evolution of the Canadian Pacific (Credit Valley and Toronto, Grey & Bruce Railways) North West of Toronto. NOTE: not all railways are shown

Evolution of the Canadian Pacific (Credit Valley and Toronto, Grey & Bruce Railways) North West of Toronto. NOTE: not all railways are shown

Trunk Railway acquired control of the TG&B and standard-gauged the track in 1881. By 1883, however, the TG&B had come under the control of the O&Q - thereby providing the CPR with two routes from Toronto to Orangeville. This TG&B route contained the famous 'Horseshoe Curve', a steep and twisting line up the Niagara Escarpment.

The CPR operated the two routes to Orangeville until the effects of the Great Depression were felt in 1931. In that year the problematic TG&B 'Horseshoe Curve' line from Bolton to the connection with the CVR line at Melville Junction was abandoned in favour of the CVR's less severe gradients.

The route north of Orangeville to Owen Sound was abandoned in 1995, but the town of Orangeville stepped in to purchase the line to Streetsville in 2000, at which time the shortline Orangeville-Brampton Railway was created. CANDO Contracting was engaged to operate the line on September 29, 2000, but on July 1, 2018, operation of the shortline was contracted to GIO Railways.

In late 2020 the Orangeville Brampton Rail Access Group, consisting of customers of the railway, announced their intentions to terminate the tripartite agreement between them, the Town of Orangeville and GIO Railways. The last train was operated on December 17, 2021, ending more than 140 years of rail service on the CVR line to Orangeville, with many photographers and rail enthusiasts in attendance.

The Credit Valley Stone Arch Culverts

In illustrating this article, we chose five beautiful stone arch culvert photos from the Heckman collection



The arched culvert keystones appear to be limestone. The majority of stone in the structures (as seen above the keystone) comprise a local red-tinged sandstone, the same material used in many prominent Toronto buildings. Ralph Beaumont

The arched culvert keystones appear to be limestone. The majority of stone in the structures (as seen above the keystone) comprise a local red-tinged sandstone, the same material used in many prominent Toronto buildings. -Ralph Beaumont

centering on the hamlet of Inglewood. There were major quarries in the immediate area and it is most logical to assume the culverts were made out of this local stone. There appear to be two types of stone used.

The first is a red-tinged 'Whirlpool Sandstone' for the main structures, with quarries and sidings right at Inglewood and Forks of Credit. The stone was of such high quality that it was also used in such prominent buildings as the Ontario Legislature and Toronto City Hall.

There also appears to be a lighter limestone used for the keystones, specifically dolomite from the Guelph-Lockport-Amabel Formations. There were, and still are, major quarries producing this rock in the Milton and Campbellville areas of the Niagara Escarpment. These communities are along the original CVR main line just west of Streetsville and this stone could have been transported north to the culvert construction sites. More locally, a face of this rock also appears near Forks of Credit where quarries and a substantial limekiln operation were located.

One thing the authors were unable to find were definitive dates for when the culverts were built. We know they're not original to the line, which reached Forks of Credit in September 1879, as wood trestles are recorded at these locations in an early Credit Valley Railway inventory. There are no inscriptions on the keystones or mantles to give a hint, and at this writing no CPR facility construction records could be found. The following brief newspaper article may provide a clue however:



The interior stonework in all the culverts visited appears to be in excellent condition. The floors were laid with stone slabs to prevent erosion by the constantly flowing water.

The interior stonework in all the culverts visited appears to be in excellent condition. The floors were laid with stone slabs to prevent erosion by the constantly flowing water.

Orangeville Sun

May 1, 1890

CREDIT FORKS: The CPR have a large gang of men putting in a switch to their new gravel pit at Cataract, and in a few days will start the filling in of the Credit Forks trestle.



On Thursday, September 15, 1898, Heckman's day started by photographing the north side of the four foot Stone Arch Culvert at Mile 24.2, just north of Forks of Credit, and ended with the five foot Stone Arch Culvert at Mile 14.5 below Cheltenham. The numbers on the left indicate he took 12 photos that day, and 139 cumulatively since beginning his Toronto/Owen Sound trip. - Joseph Heckman Field Book #1, Page 40. CRHA / ACHF Exporail Archives Fonds Canadian Pacific Limited

On Thursday, September 15, 1898, Heckman's day started by photographing the north side of the four foot Stone Arch Culvert at Mile 24.2, just north of Forks of Credit, and ended with the five foot Stone Arch Culvert at Mile 14.5 below Cheltenham. The numbers on the left indicate he took 12 photos that day, and 139 cumulatively since beginning his Toronto/Owen Sound trip. - Joseph Heckman Field Book #1, Page 40. CRHA / ACHF Exporail Archives Fonds Canadian Pacific Limited

If the approaches to the large Credit Forks trestle were being filled beginning in 1890, and Heckman's culvert photos were 1898, it is logical to conclude that the culverts were a part of those line upgrades and built within that time period. As will be seen, Heckman's photos show little vegetation on the culvert embankments, lending further evidence that they were constructed only a couple years before.

Heckman's Credit Valley Photographs

From late July to mid-September 1898, Heckman photographed the old 'Bruce' mainline around the Horseshoe Curve to Owen Sound (the former CVR line south of Orangeville was the last photographed by Heckman in this area). Going by the negative numbers in his Field Book, Heckman was travelling southbound from Orangeville to Streetsville, but the culverts will be presented in this article by their mileages ascending chronologically.

Heckman's 'motive power' for his photographic expeditions comprised up to four burly section men who powered a hand car along their section of railway. These men are usually included in the photographs, perhaps to lend scale. Heckman had a special seat attached to the front of the car, and this conveyance allowed him to stop at each significant bridge or point of interest he would be photographing.

According to his Field Book, all the photos in this article were taken on Thursday, September 15, 1898. Heckman had covered the Elora branch the previous day from Elora to Cataract and Orangeville, and on the following day completed the line from Cheltenham to Streetsville.

Finding the Culverts Today

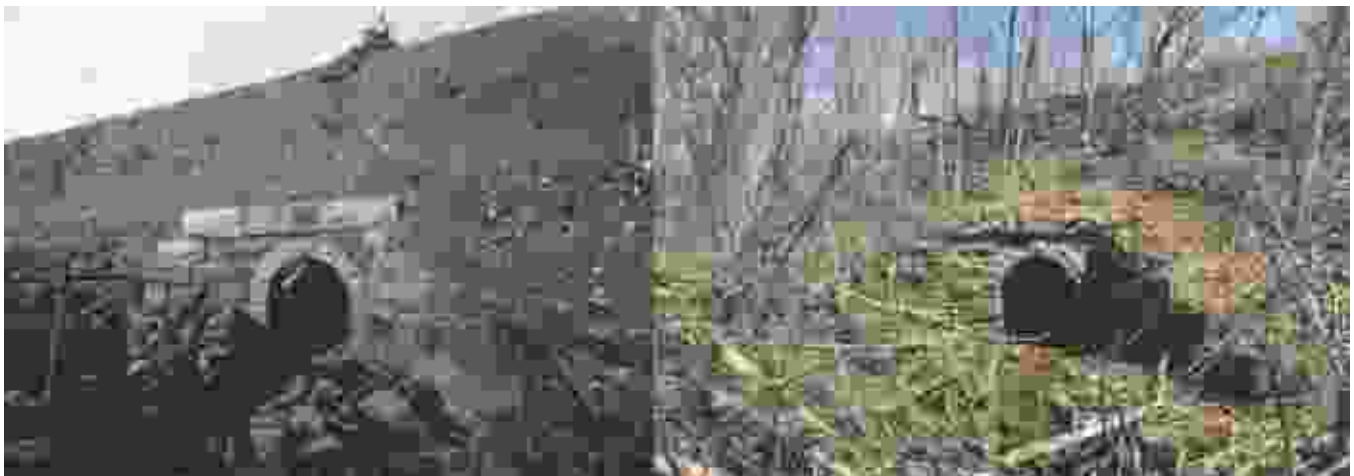
Next was an on-the-ground search to match Heckman's photos with the culverts as they appear today. One thing that caused some confusion is that the mileages in Heckman's notes from 1898 do not necessarily correspond with the mileages as they existed at later dates or even today. Fortunately a schematic of the line as it appeared in the 1910s was found, and this helped confirm that the culverts photographed by Heckman are correctly matched with the modern day photos.



This 1926 topographic map shows the main stations and culverts photographed by Heckman on September 15, 1898. Many local railfans will recognize 'Graffiti Bridge'. For some reason Heckman did not photograph this bridge, but did photograph a small box culvert located there.

This 1926 topographic map shows the main stations and culverts photographed by Heckman on September 15, 1898. Many local railfans will recognize 'Graffiti Bridge'. For some reason Heckman did not photograph this bridge, but did photograph a small box culvert located there.

Culvert Mile 17.6 Heckman Album Photo 2365



Heckman's notes indicate this is a 5' stone arch culvert, photographed from the SSW side. It is rather unusual in that only the right wingwall is of cut stone, while the left is loosely stacked rubble. This apparently wasn't a problem as it still exists that way 120 years later.

Culvert Mile 18.7**Heckman Album Photo 2369**

Most of Heckman's photos were taken in landscape (horizontal) format, but this one is in portrait (vertical) orientation. The hand car, and section men who provided the 'motive power', are prominent in the photo. Of note in the modern photo is that the left wing wall failed at some point and has been replaced with concrete. The stream bed downstream also experienced significant erosion and a concrete apron was constructed to control this.

Culvert Mile 21 1/8**Heckman Album Photo 2372**

It's not known why Heckman named this mileage as 21 1/8 instead of using the railway's usual decimal system. This structure had an asymmetrical extension on its left face, probably due to the stability of the embankment coupled with the constraint of keeping the structure within the railway's property limits. The modern photo was difficult to obtain due to the vegetation growth that now surrounds the structure.



Cover reprise - compare this 1898 Heckman photograph of the Forks of Credit station to the 1952 photograph below. At that time Robert (Bob) Sandusky photographed his parents as they waited for the Owen Sound passenger train at Forks of Credit. He captured the trim station, as well as the Forks bridge, from almost the same angle as Joseph Heckman had more than a half Century before. CRHA / ACHF Exporail Archives, fonds Canadian Pacific Limited above; Robert Sandusky below

Cover reprise - compare this 1898 Heckman photograph of the Forks of Credit station to the 1952 photograph below. At that time Robert (Bob) Sandusky photographed his parents as they waited for the Owen Sound passenger train at Forks of Credit. He captured the trim station, as well as the Forks bridge, from almost the same angle as Joseph Heckman had more than a half Century before. CRHA / ACHF Exporail Archives, fonds Canadian Pacific Limited above; Robert Sandusky below



Culvert Mile 21.5
Heckman Album Photo 2373



Larger watercourses are named in Heckman's notes, but small streams such as these are only recorded by their mileage number. This culvert has not fared well compared to the others. Its wing walls have been squeezed inward by the encroaching embankment, and a significant number of stone blocks have been pushed into the stream.

Culvert Mile 24.2
Heckman Album Photo 2378



This small 4' arch culvert is among the most interesting of the group, due to its exiting the embankment on an angle that required additional stonework. Although the area was wide open in Heckman's era, the site is now a shady nook in the cool cedar forest just above the Credit River near the Forks of Credit station.

Forks of Credit Trestle and Station Mile 23.9 Heckman Albunt Photo 2377

While this article mainly concentrates on Heckman's culvert photos, researchers of his work know that bridges and especially stations are prominent as well. He often combined two subjects into one photo if he could, and here the Forks of Credit trestle is on the left and the station is on the right. When first constructed it was the longest wood trestle in the province, but by the time of this photo it can be seen that the trestle approaches have been filled. A 1914 schematic shows that the central wood portion had been replaced by concrete piers and three girder spans,

but no date stamp can be found in the concrete work, so for the present its exact date of construction is unknown.

The station at Forks of Credit sported an ornate platform canopy, in a departure from other stations on this line. The main portion of the little station lasted well into the 1960s, although by the end of passenger service in 1970 only the smaller north portion of the building remained.

The July 1968 photo shows one of the CPR's Budd "Dayliners" on the bridge, about to pull into the Forks of Credit station on its way to Owen Sound. Even back then, Heckman's photo angle couldn't be exactly duplicated due to all the tree growth, and today it is almost impossible to see the trestle until you are right upon it.



Kenneth Beaumont Photo

Researching the Heckman Collection Today

These photos, depicting humble culverts along the old Credit Valley Railway line, are just a sampling of the resources available within the Heckman CPR Photograph Collection. They are a go-to source for researchers of local history interested in photos of their community railway station, or for modellers looking to replicate features such as these culverts on their layouts.

Each of the Heckman Albums will be covered by a spreadsheet, with the section of railway noted in each Album's title. Individual photo entries will contain Heckman's photo number and a typed summary of Heckman's notes. The applicable Field Book page numbers are also included should researchers wish to refer to Heckman's original hand written notes.

Most of the photos can be found in a thumbnail (low resolution) version on our online database: Archives.exporail.org - But not the spreadsheets. The CRHA / ACHF Exporail archives are in the process of changing their database, when this is completed more information will be available to the public.

Bibliography:

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REM update September 2022 *Mise à jour REM - septembre 2022*

By / *Par* Ian G. MacDonald

French Translation / *Traduction française* : Jacques Loisele

Progress to October 2022

Progress in all components of the REM has been rapid in the months following preparation of the article which appeared in Canadian Rail 606. Some of that progress is described below.

On the South Shore branch, the track, catenary and field components (sensors, etc) for the automated control systems were completed and an important milestone was reached on the evening of July 27 when REM cars made their first test run from Brossard to Central station over the Samuel-De Champlain bridge. By mid-August the three stations on the South Shore, and those at Île-des-Soeurs and Central Station (REM) were largely complete. Thus, by late summer the Brossard to Central Station segment was almost ready for the extensive testing required before entering into service. The station Griffintown-Bernard-

Progression jusqu'en octobre 2022

Les progrès dans toutes les composantes du REM ont été rapides au cours des mois qui ont suivi la préparation de l'article paru dans le numéro 606 de Rail canadien (janvier-février 2022). Certains de ces progrès sont décrits ci-dessous.

Sur l'antenne de la Rive-Sud, les travaux de voie et de caténaire sont terminés; les composants de terrain (capteurs, etc.) des systèmes de contrôle automatisés sont installés et une étape importante a été franchie dans la soirée du 27 juillet lorsque les voitures du REM effectuèrent leur premier essai entre Brossard et la gare Centrale en passant par le pont Samuel-De Champlain.

À la mi-août, la construction des trois stations de la Rive-Sud, de celles de l'Île-des-Sœurs et de la gare Centrale (REM) était en grande partie terminée. Ainsi, à la fin de l'été,



Track and catenary leading to Central Station, summer, 2022. REM | Voie et caténaire menant à la gare Centrale, été 2022. REM



First run over the new Samuel-De-Champlain bridge and on to Central Station on July 27, 2022. Thierry DuBois, REM

Premier passage sur le nouveau pont Samuel-De Champlain en route vers la gare Centrale le 27 juillet 2022. Thierry DuBois, REM

Landry, not initially part of the plan, will be completed later.

In mid-July, the tunnel boring machine (TBM) 'Alice' completed boring, excavating and lining the 2.5 km, long, 7.4 m diameter tunnel into the airport. At the time of writing there had not been a decision made to extend the tunnel an additional 700m to the present VIA station and STM bus terminal in Dorval. While several groups recommend the extension, such an extension was never part of the REM project. As TBMs must be dismantled on-site when their tasks have been completed, the need for a decision on the potential extension would seem to be urgent. TBM Alice was named after Alice Evelyn Wilson (1881-1964), Canadian geologist and paleontologist.

le tronçon de Brossard à la gare Centrale était presque prêt pour les essais exhaustifs requis avant le début du service régulier. La station Griffintown-Bernard-Landry, qui ne faisait pas partie du plan initial, sera complétée plus tard.

À la mi-juillet, le tunnelier « Alice » a terminé le forage, l'excavation et le revêtement du tunnel de 2,5 km de long et de 7,4 m de diamètre qui mène à l'aéroport. Au moment d'écrire ces lignes, aucune décision n'avait été prise pour prolonger le tunnel de 700 m supplémentaires jusqu'à l'actuelle station VIA et au terminal d'autobus de la STM à Dorval. Bien que plusieurs groupes recommandent l'extension, elle n'a jamais fait partie du projet REM. Comme les tunneliers doivent être démantelés sur place



North mouth of the tunnel leading to Montreal's Trudeau International Airport (YUL). Ian MacDonald

Embouchure nord du tunnel menant à l'aéroport international Trudeau de Montréal (YUL). Ian MacDonald

During July, launching gantry Marie completed the elevated platform from the airport junction on the Anse-à-l'Orme branch to the airport tunnel and late in August gantry Anne completed the elevated section west of Pierrefonds-Roxboro. Both gantries have been dismantled and removed from the REM sites. Having been leased rather than owned by NouvLR presumably Rizzani de Eccher will eventually use the two gantries elsewhere.

By October, 96% of the trackage on the Anse-à-l'Orme branch and 25 % of the trackage of the Deux-Montagnes branch had been completed. Wherever the track is at ground level substantial right-of-way fencing is being installed. Installation of the central supports for the overhead catenary has begun on the Anse-à-l'Orme branch.

By October, 108 cars of the 212 car fleet had been received, sufficient to operate full service on the South Shore branch.

une fois leurs tâches terminées, la nécessité d'une décision sur l'extension potentielle semble être urgente. Le tunnelier « Alice » a été nommé d'après Alice Evelyn Wilson (1881-1964), géologue et paléontologue canadienne.

Au cours du mois de juillet, le portique de lancement « Marie » a achevé la plate-forme surélevée depuis la jonction de l'aéroport sur l'antenne d'Anse-à-l'Orme jusqu'au tunnel de l'aéroport. Fin août, le portique « Anne » a achevé la section surélevée à l'ouest de la gare Pierrefonds-Roxboro. Les deux portiques ont été démontés et retirés des sites REM. Ayant été loués plutôt qu'achetés par NouvLR, on peut supposer que la compagnie Rizzani de Eccher utilisera éventuellement les deux portiques ailleurs.

En octobre, les travaux de voie de l'antenne Anse-à-l'Orme sont réalisés à 96 % et à 25 % sur celle de Deux-Montagnes. Partout où la voie ferrée se trouve au niveau du



Interior view of the airport tunnel, ready for the installation of railway infrastructure. REM

Vue intérieure du tunnel de l'aéroport, prêt pour l'installation de l'infrastructure ferroviaire. REM

The June 2022 announcement

However, on June 20, 2022, new target dates for commissioning (entering into regular service) all the REM route segments were announced.

The new commissioning dates for the segments beyond Central Station were necessitated by continuing challenges in rehabilitating the Mount Royal tunnel. Restoration of the tunnel is taking longer than foreseen and it is now expected that pre-commissioning tests involving the tunnel will only be undertaken in 2024. The added complexity of the work in the tunnel will have resulted in substantial additional costs; at the time of writing there has not been any public indication of the magnitude of those costs or of how they will be financed.

To minimize the impact of the added time for tunnel rehabilitation on the commissioning dates for all services requiring the Mount Royal tunnel a major revision to the sequencing of the complex pre-commissioning testing program for the system beyond the tunnel, and the tunnel itself, was outlined in the June announcement.

Until June 2022, REM had planned to commission the Brossard – Central Station segment in the summer of

sol, d'importantes clôtures d'emprise sont installées. L'installation des supports centraux de la caténaire a commencé sur la branche de l'Anse-à-l'Orme.

En octobre, 108 des 212 voitures du parc avaient été reçues, ce qui suffit pour assurer un service complet sur la branche de la Rive-Sud.

L'annonce de juin 2022

Le 20 juin 2022, de nouvelles dates cibles pour la mise en service régulier de tous les segments de la ligne REM ont été annoncées.

Ce nouvel échéancier concernant les lignes au nord de la gare Centrale fut rendu nécessaire en raison des nombreuses difficultés rencontrées dans la remise en état du tunnel du Mont-Royal. La restauration du tunnel prend plus de temps que prévu de sorte que les essais préalables à la mise en service du tunnel ne devraient être entrepris qu'en 2024. La complexité accrue des travaux dans le tunnel aura entraîné des coûts supplémentaires substantiels; au moment de la rédaction du présent document, aucune déclaration publique n'a été faite quant à l'ampleur de ces coûts ou à la manière dont ils seront financés.

Mount Royal Tunnel rehabilitation

The REM project team has provided additional details about two technical challenges that arose during the rehabilitation of the Mount Royal tunnel.

In 2020 during excavation of the platform areas deep underground at the future Édouard-Montpetit station there was an un-anticipated explosion. Work was immediately halted. It was determined that a hot drill-bit had contacted explosive residue left in the bedrock at the time of the tunnel's creation in 1912 / 1913. No injuries occurred but given the possibility that more such residue might be present, stringent new work methods were developed and after several months of delay, work resumed in November 2020. The new work procedures required that all drilling be done using remotely controlled robotic drills. While a much slower process, the safety of workers was maximized.

The tunnel rehabilitation required 60,000 drill holes to permit the installation of rock stabilization anchor bolts in some areas, to attach the catenary to the tunnel arch and to permit the installation of various components of the communication, electrical and lighting systems. By mid-2022, most of the drilling had been completed.

The first portion of the tunnel north from Central Station is beneath McGill College Avenue. That part of the tunnel is thus not far below street level. When constructed, the tunnel took the form of two parallel passages separated by a central wall, with each passage having an arched concrete roof. As constructed the tunnel did not have a waterproof membrane. Over many decades de-icing salt water seeped down into the structure from the street above, and the shape of the arches led the salt water to be concentrated onto the central wall. The central wall and related steel beams became dangerously corroded. REM decided to remove the central wall and original arches and create a new, single arched passage.

As for many sectors of the economy, the COVID epidemic also impacted the tunnel work, as supply chain reliability and scarcity of highly specialized technical personnel became issues.

Réhabilitation du tunnel du Mont-Royal

L'équipe du projet REM a fourni des détails supplémentaires sur deux défis techniques qui ont surgi lors de la réhabilitation du tunnel du Mont-Royal.

En 2020, au cours de l'excavation des zones très profondes des quais de la future station Édouard-Montpetit, une explosion imprévue s'est produite. Les travaux ont été immédiatement interrompus. Il a été déterminé qu'une mèche chaude était entrée en contact avec des résidus d'explosifs laissés dans le roc lors du percement du tunnel en 1912-1913. Personne ne fut blessé, mais étant donné la possibilité que d'autres résidus de ce type soient présents, de nouvelles méthodes de travail rigoureuses furent élaborées et, après plusieurs mois de retard, les travaux reprirent en novembre 2020. Les nouvelles consignes stipulaient que tous les forages devaient être effectués à l'aide de foreuses robotisées contrôlées à distance. Bien que le processus soit beaucoup plus lent, la sécurité des travailleurs fut maximisée.

La réhabilitation du tunnel a nécessité le forage de 60 000 trous pour permettre l'installation de boulons d'ancrage de stabilisation de la roche dans certaines zones, pour fixer la caténaire à l'arche du tunnel et pour permettre l'installation de divers composants des systèmes de communication, d'électricité et d'éclairage. En juillet 2022, la plupart des travaux de forage étaient terminés.

La première partie du tunnel au nord de la gare Centrale se trouve sous l'avenue McGill College. Cette partie du tunnel n'est donc pas très éloignée du niveau de la rue. Lors de sa construction, le tunnel se présentait sous forme de deux passages parallèles séparés par un mur central, chaque passage ayant un toit en béton arqué. À l'époque de sa construction, le tunnel n'était pas doté de membrane étanche. Au fil des décennies, de l'eau salée s'est infiltrée dans la structure depuis la rue, et la forme des arches a entraîné la concentration de l'eau salée sur le mur central. Ce mur et les poutres d'acier adjacentes se sont dangereusement corrodés. REM a décidé de supprimer le mur central et les arches d'origine et de créer un nouveau passage à arche unique.

Comme pour de nombreux secteurs de l'économie, l'épidémie de COVID a également eu des répercussions sur les travaux dans les tunnels, car la fiabilité de la chaîne d'approvisionnement et la rareté du personnel technique hautement spécialisé sont devenues des problèmes.

2022, to be followed by commissioning from Central Station to Du Ruisseau in fall 2023, to Anse-à-l'Orme and Sunnybrooke in spring 2024, to Deux-Montagnes in fall 2024, and to the airport in December 2024, assuming that the airport authority had completed construction of the airport station.

Afin de minimiser l'impact du temps supplémentaire pour la réhabilitation du tunnel sur les dates de mise en service des portions de ligne au nord du tunnel, une révision majeure de l'ordonnancement du programme complexe d'essais préalables à la mise en service du système au-delà du tunnel, et du tunnel lui-même, fut décrite dans l'annonce de juin.

Although the June announcement slightly adjusted the time frame for commissioning Brossard – Central Station to sometime in the fall rather than the summer of 2022, a subsequent announcement on October 21 delayed that commissioning to Spring, 2023.

The extended time needed for the tunnel work meant that the original testing sequence proceeding northward through the tunnel would no longer be the best course of action. Instead, the revised pre-commissioning testing program for the segments beyond Central Station will have the testing begin at, and proceed eastward from, Deux-Montagnes, ultimately covering all the branches and finally the Mount Royal tunnel. Then all segments beyond Central Station will be commissioned simultaneously by the end of 2024, although commissioning the Airport segment will still be dependent on the Airport Authority (Aéroports de Montréal) having the YUL- Montréal-Trudeau-Airport station ready. (See Testingside-bar)

Leading up to the commissioning, the test phase territories will be: (1) Saint-Eustache Maintenance Centre to Sainte-Dorothée, (2) Sainte-Dorothée to Côte-de-Liesse (Côte-de-Liesse station is just south of the CN Saint-Laurent subdivision), (3) the Anse-à-l'Orme branch, (4) finally Côte-de-Liesse to Central Station through the Mount Royal tunnel.

Jusqu'en juin 2022, REM avait prévu de mettre en service le tronçon Brossard - gare Centrale à l'été 2022, le tronçon de la gare Centrale à Du Ruisseau à l'automne 2023, à Anse-à-l'Orme et à Sunnybrooke au printemps 2024, à Deux-Montagnes à l'automne 2024, et à l'aéroport en décembre 2024, en supposant que l'administration aéroportuaire ait terminé la construction de la gare de l'aéroport.

Bien que l'annonce de juin mentionnait un léger ajustement de l'échéancier de mise en service du tronçon Brossard – gare Centrale : au cours de l'automne plutôt qu'à l'été 2022, une annonce subséquente faite le 21, octobre a reporté cette mise en service au printemps 2023.

Cependant, la prolongation du temps nécessaire pour les travaux dans le tunnel signifiait que la séquence d'essai initiale, qui consistait à traverser celui-ci vers le nord selon le calendrier initial, n'était plus considérée comme la meilleure option. Le programme révisé des essais préalables à la mise en service des tronçons situés au-delà de la gare Centrale débutera à Deux-Montagnes et se poursuivra vers l'est à partir de cette ville, pour couvrir toutes les antennes et finalement le tunnel du Mont-Royal. Ensuite, tous les tronçons au-delà de la gare Centrale seront mis en service simultanément d'ici la fin de 2024, bien que la mise en service de l'antenne de l'aéroport dépende toujours de la disponibilité de la station YUL-Aéroport-Montréal-Trudeau par l'Administration aéroportuaire (Aéroports de Montréal). (Voir l'encart sur les essais.)

Pre-commissioning Testing

As frequent reference has been made to pre-commissioning testing, an overview of the testing program follows.

Prior to commissioning any route segment of any mass transit system, extensive testing is required to ensure the reliability and safety of the operation. However, in the case of a fully automated system such as the REM, the capabilities to be met by the operating system are even more critical than for on-board operator / line-side signalled systems. The elements covered during pre-commissioning testing are numerous and the complete integrated system must be verified by an extremely complex and rigorous process.

Groupe PMM, the entity charged with REM operations and maintenance for the next 30 years, is in charge of the testing program which can be described as follows.

Simulation of 'normal' service days. Such 'live' simulations include the initialization of cars in a service centre, automated departure of cars from storage tracks to the main-line, and their subsequent return, and operation on the main line at headways varying between 2.5 and 10 minutes. As well, fleet management

Essais préalables à la mise en service

Comme il a souvent été question des essais préalables à la mise en service, voici un aperçu du programme d'essais.

Avant la mise en service de tout tronçon d'un système de transport en commun, des essais poussés sont nécessaires pour assurer la fiabilité et la sécurité de l'exploitation. Cependant, dans le cas d'un système entièrement automatisé tel que le REM, les capacités requises par le système d'exploitation sont encore plus critiques que pour les systèmes à opérateur embarqué et à signalisation en bord de ligne. Les éléments étudiés lors des essais préalables à la mise en service sont nombreux et le système intégré complet doit être vérifié par un processus extrêmement complexe et rigoureux.

Le groupe PMM, l'entité chargée de l'exploitation et de la maintenance du REM pour les 30 prochaines années, est responsable du programme de tests qui peut être détaillé comme suit :

Simulation de jours de service « normaux ».

Ces simulations « en direct » comprennent l'initialisation des voitures dans un centre de service, le départ automatisé des voitures des voies de garage vers la ligne principale et leur retour ultérieur, ainsi que l'exploitation sur la ligne principale à des intervalles variant de 2,5 à 10 minutes. De plus, des considérations de gestion de flotte

considerations such as the need to schedule routine maintenance and car cleaning will be taken into account.

Simulation of problem situations. During the test period, potential malfunctions are randomly initiated and appropriate responses tested and verified. Such disruptions can occur in stations (e.g. a passenger obstructing a platform door,) in the control centre (e.g. an unexpected absence of personnel in the centre,) or on a main-line (e.g. a disruption to the traction power, a car mechanical problem, etc.) Simulations related to fire situations and evacuations from elevated structures and tunnels also must be made. The management plan for dealing with all such situations, for on-going communications to customers and other authorities and for the resumption of service after a disruption must be verified.

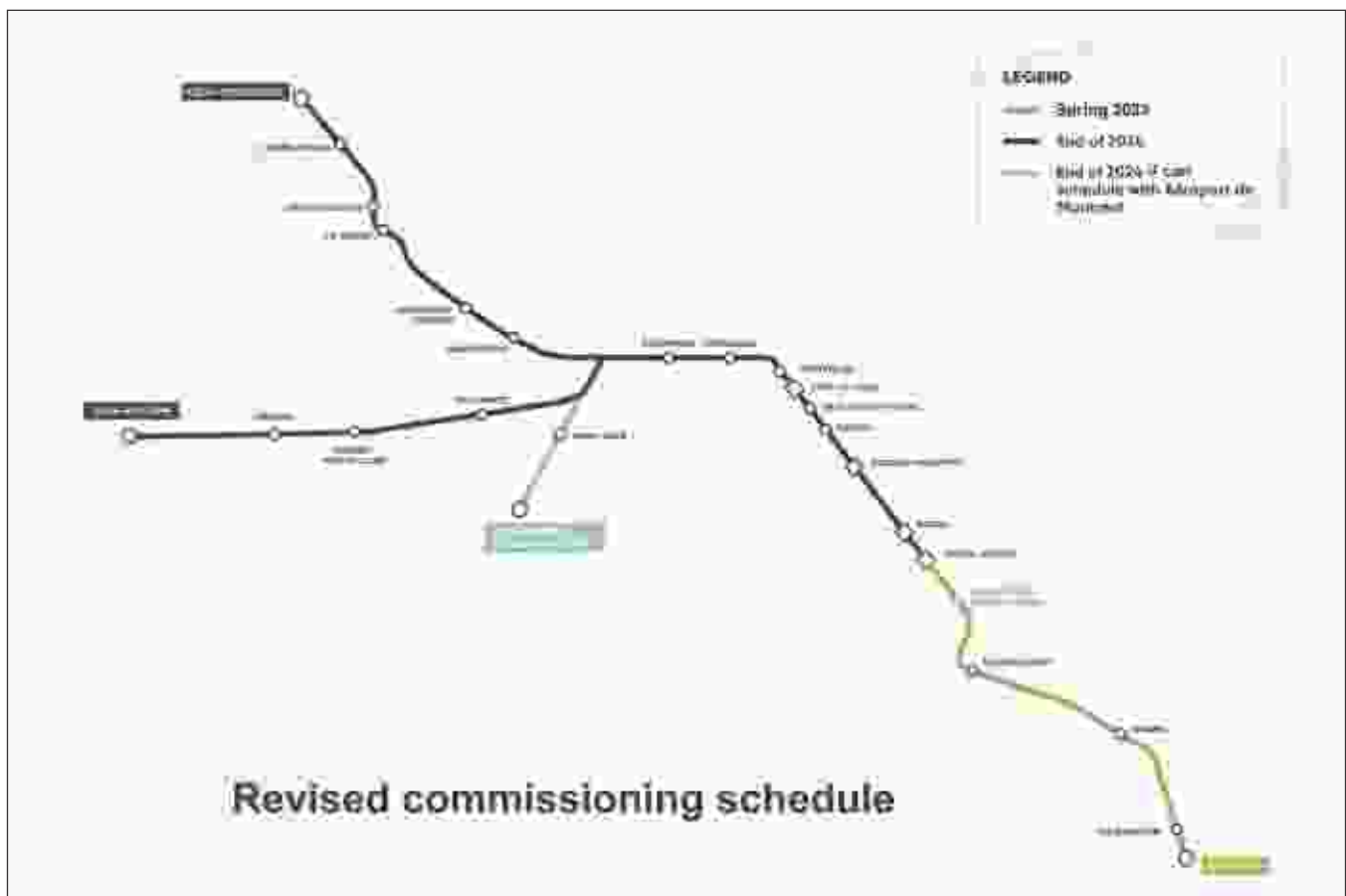
Full Scale testing. When all the infrastructure work has been completed and the above testing phases accomplished, the final test phase sees the complete commercial timetable operated without passengers during a continuous multi-week period. If all system elements continue to perform well and consistently, commissioning will be possible.

telles que le besoin de programmer l'entretien de routine et le nettoyage des voitures seront prises en compte.

Simulation de situations problématiques. Pendant la période de test, des dysfonctionnements potentiels sont déclenchés de manière aléatoire et les réponses appropriées sont testées et vérifiées. De telles perturbations peuvent se produire dans les gares, par exemple, un passager qui obstrue une porte de quai, dans le centre de contrôle, par exemple, une absence inattendue de personnel dans le centre, ou sur une ligne principale, par exemples, une perturbation de l'énergie de traction, un problème mécanique de voiture, etc. Le plan de gestion pour faire face à toutes ces situations, pour les communications permanentes avec les clients et les autres autorités et pour la reprise du service après une perturbation, doit être vérifié.

Essai pilote. Lorsque tous les travaux d'infrastructure sont terminés et que les phases de test ci-dessus sont accomplies, la phase de test finale consiste à faire fonctionner l'horaire commercial complet sans passagers pendant une période continue de plusieurs semaines. Si tous les éléments du système continuent à fonctionner correctement et de manière constante, la mise en service sera possible.

The map shows the revised commissioning schedule. / La carte montre le calendrier révisé de mise en service.



As the tunnel will be the last part of the network to be completed, the revised test sequence will necessitate moving rolling stock to the Saint-Eustache Maintenance Centre prior to the tunnel being available, and thus by road. The Saint-Eustache Maintenance Centre, which is west of the Deux-Montagnes station, will be the largest of the REM's three rolling stock facilities, with a capacity of 84 cars. Its long term vocation will be to serve as the system's heavy maintenance facility.

To permit the revised testing sequence, the infrastructure work on the segments north of the tunnel must continue rapidly. Construction of all stations on the west end of the Deux-Montagnes segment is well advanced. Canora, Ville-de-Mont-Royal, Montpellier and Du Ruisseau stations are also well advanced. On the Anse-à-l'Orme branch, the stations at Fairview-Pointe-Claire and Anse-à-l'Orme and their adjoining bus terminals are well advanced. Construction of the structures of the Kirkland and Des Sources stations started in September, 2022.

The new double track concrete deck on the bridges over the Rivière-des-Mille Îles was largely complete by the end of July.

Although much of the trackage had been laid on the lines north of the tunnel by October 2022, installation of the many field elements needed for the automated control system will extend into 2023 and perhaps early

Jusqu'à la mise en service, les territoires de la phase d'essai seront : (1) du Centre d'entretien de Saint-Eustache à Sainte-Dorothée, (2) de Sainte-Dorothée à Côte-de-Liesse (la gare de Côte-de-Liesse est située juste au sud de la subdivision Saint-Laurent du CN), (3) l'antenne d'Anse-à-l'Orme, (4) enfin de Côte-de-Liesse à la gare Centrale par le tunnel du Mont-Royal.

Comme le tunnel sera la dernière partie du réseau à être complétée, la séquence d'essai révisée nécessitera le déplacement du matériel roulant vers le Centre d'entretien de Saint-Eustache avant que le tunnel ne soit disponible, donc par la route. Le Centre d'entretien de Saint-Eustache, situé à l'ouest de la gare de Deux-Montagnes, sera le plus grand des trois complexes d'entretien de matériel roulant du REM. Sa capacité sera de 84 voitures et il aura pour vocation à long terme la maintenance majeure du système.

Pour permettre la séquence d'essais révisée, les travaux d'infrastructure sur les segments situés au nord du tunnel doivent se poursuivre rapidement. La construction de toutes les stations de l'extrémité ouest du segment Deux-Montagnes est bien avancée.

Les stations Canora, Ville-de-Mont-Royal, Montpellier et Du Ruisseau sont également bien avancées.

Sur l'antenne d'Anse-à-l'Orme, les stations de Fairview-Pointe-Claire et d'Anse-à-l'Orme ainsi que leurs terminaux d'autobus adjacents sont bien avancées. La



Aerial view of the Saint-Eustache Maintenance and Service Centre, August 2022. REM

Vue aérienne du Centre d'entretien et de service de Saint-Eustache, août 2022. REM



Grand Moulin Station, July 2022. Ian MacDonald | *La station Grand Moulin, juillet 2022. Ian MacDonald*



Aerial view of Ville-de-Mont-Royal station and environs, June 2022. REM

Vue aérienne de la station Ville-de-Mont-Royal et de ses environs, juin 2022. REM

2024. The field elements of the control system are fundamental to the automation and a sense of the invisible complexity of the system can be gained from some data for the Brossard to Central Station branch. On that segment of the REM there are 579 antennas, 425 surveillance cameras and 1,009 track sensors which will be sending vast amounts of data between REM cars and stations and the Network Control Centre.

As shown on the network map, there are two junctions beyond Bois-Franc. The first junction, known as West Junction, is where the Anse-à-l'Orme and airport branches diverge from the Deux-Montagnes line. The frequency of, and short headways between, trains serving these three routes branches will be such that a typical double track junction involving a diamond crossing would not be appropriate. Thus, West Junction, which is at ground level, incorporates a flyover. As well as avoiding a maintenance-intensive diamond and eliminating capacity-limiting conflicts between trains, that configuration will permit high speed movement through the junction. The other junction, between the Anse-à-l'Orme and airport branches is on the elevated structure, and will use a diamond.

Other developments

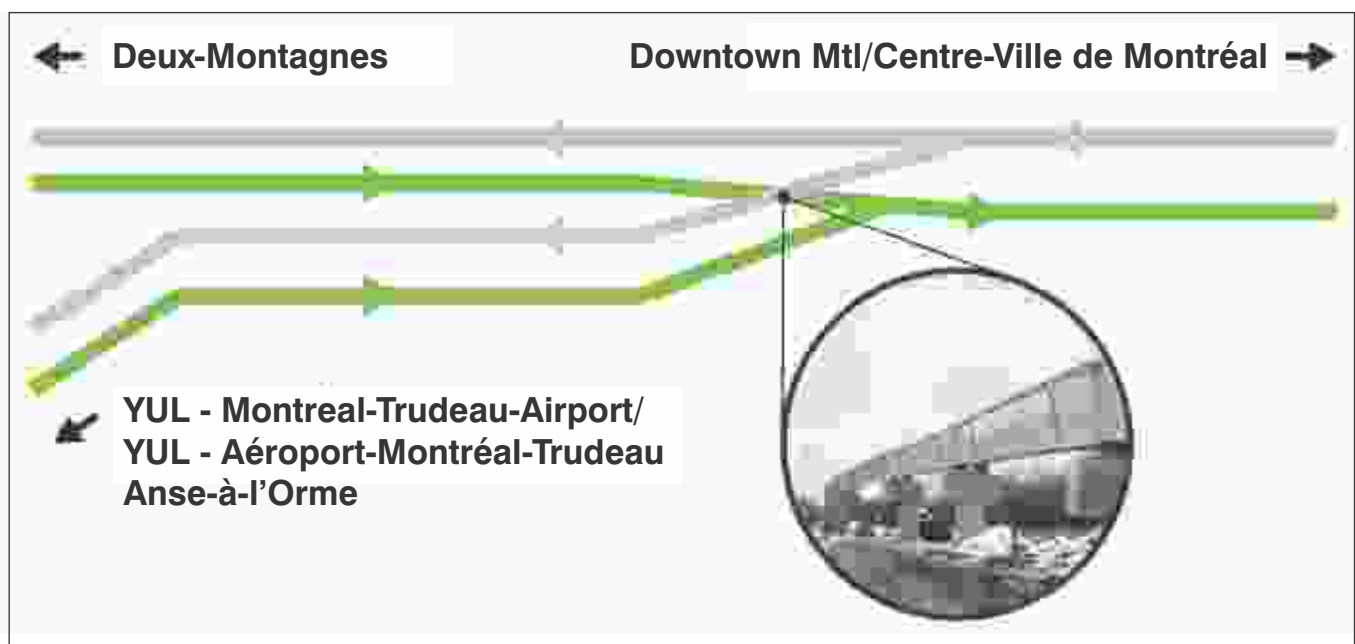
In July 2022 the first phase of the ARTM's massive revision of the fare system for the whole Montreal area was implemented; while generally well received the revision has generated some controversy about the cost of trips to Montreal Island from Laval and the South Shore. The ARTM's reconfiguration of the south shore bus network to access the REM stations has been completed and will be

construction des structures des stations Kirkland et Des Sources a commencé en septembre 2022.

Le nouveau tablier en béton de la double voie sur les ponts de la rivière des Mille Îles était en grande partie terminé à la fin du mois de juillet.

Bien que la plupart des voies étaient posées sur les lignes au nord du tunnel en octobre 2022, l'installation des nombreux éléments de terrain nécessaires au système de contrôle automatisé s'étendra jusqu'en 2023 et peut-être au début de 2024. Les éléments de terrain du système de contrôle sont fondamentaux pour l'automatisation et une idée de la complexité invisible du système peut être obtenue à partir de quelques données sur la branche de Brossard à Central Station. Sur ce segment du REM, 579 antennes, 425 caméras de surveillance et 1 009 capteurs de voie transmettront de très importantes quantités de données entre les voitures et les stations du REM et le centre de contrôle du réseau.

Comme le montre la carte du réseau, il y a deux jonctions au-delà de Bois-Franc. La première, appelée jonction de l'Ouest, est celle où les antennes d'Anse-à-l'Orme et de l'aéroport divergent de la ligne de Deux-Montagnes. La fréquence et la brièveté des intervalles entre les trains desservant ces trois branches de la ligne sont telles qu'une jonction typique à double voie comprenant un croisement en losange ne serait pas appropriée. C'est pourquoi la jonction de l'Ouest, qui se trouve au niveau du sol, comprend un passage supérieur. En plus d'éviter un croisement en losange qui nécessite beaucoup d'entretien et aussi d'éliminer les conflits entre les trains qui limiteraient la capacité de transport, cette configuration permettra une circulation à grande vitesse





Looking East towards the West Junction flyover in mid-September 2022. Ballasting is in progress. The right-of-way at this location will be four tracks wide. The two tracks on the left are the Deux-Montagnes branch. The two tracks leading to the Anse-a-l'Orme and Airport branches will occupy the right side of the right-of-way. Ian MacDonald

Vue vers l'est montrant le passage supérieur de la jonction de l'Ouest à la mi-septembre 2022. Le ballastage est en cours. L'emprise à cet endroit comprendra quatre voies. Les deux voies de gauche sont celles de l'antenne Deux-Montagnes. Les deux voies menant aux embranchements d'Anse-à-l'Orme et de l'aéroport occuperont le côté droit de l'emprise. Ian MacDonald

announced at least 30 days before the commissioning of the Southshore branch.

Public consultations to feed the planning for revising the network of STM bus services on the western part of Montreal Island took place in the fall of 2022. In anticipation of the 2024 opening of the Anse-à-l'Orme branch the eventual revised bus network will have to be made public sometime in late 2023 or early 2024.

In October, Municipal authorities announced that work would start on the design of a pedestrian and cycle overpass over Autoroute 40 near the Kirkland REM station. Details of the overpass remain to be seen, but this was a welcome acknowledgement of the need to facilitate access to REM stations from points south of Autoroute 40. It is to be hoped that other such crossings will be undertaken.

The new commissioning date for Brossard to Central Station

By early September, the Full Scale phase of testing on the Brossard to Central Station segment seemed imminent. On October 21 REM announced that all technical elements would probably have been able to support a December 1 commissioning date. However, REM management is adamant that commissioning only take

dans la jonction. L'autre jonction, entre les branches d'Anse-à-l'Orme et de l'aéroport, se trouve sur la structure élevée et comportera un croisement en losange.

Autres nouvelles

En juillet 2022, la première phase de la révision majeure du système tarifaire de l'ARTM pour l'ensemble de la région de Montréal a été mise en œuvre. Généralement bien accueillie, cette révision a toutefois suscité une certaine controverse quant au coût des voyages vers l'île de Montréal à partir de Laval et de la Rive-Sud. La reconfiguration par l'ARTM du réseau d'autobus de la rive sud pour accéder aux stations du REM est terminée et sera annoncée au moins 30 jours avant la mise en service de la branche Rive-Sud.

Les consultations publiques visant à orienter la planification de la révision du réseau des autobus de la STM dans l'ouest de l'île de Montréal ont eu lieu à l'automne 2022. En prévision de l'ouverture de l'antenne Anse-à-l'Orme en 2024, l'éventuel réseau d'autobus révisé devra être rendu public à la fin de 2023 ou au début de 2024.

En octobre, les autorités municipales ont annoncé le début des travaux de conception d'une passerelle pour piétons et cyclistes au-dessus de l'autoroute 40, près de la station REM de Kirkland. Les détails concernant cette passerelle restent à déterminer, mais il s'agit d'une reconnaissance bienvenue de la nécessité de faciliter l'accès aux stations du REM à partir de points situés au sud de l'autoroute 40. Il est à espérer que d'autres traversées de ce type seront entreprises.

La nouvelle date de mise en service de la gare de Brossard à la gare Centrale

Au début du mois de septembre, la phase d'essais à pleine échelle du segment Brossard à Gare Centrale semblait imminente. Le 21 octobre, REM a annoncé que tous les éléments techniques auraient probablement pu soutenir une date de mise en service le 1er décembre. Cependant, la direction du REM a insisté pour que la mise

place after the most stringent reliability conditions had been demonstrably met. From that perspective, starting up a completely new system at the start of a Montreal winter, including major revisions to the south shore bus network and bus routes currently crossing the Samuel-De Champlain bridge, was not advisable. Testing will carry on and commissioning is expected in the spring of 2023. The delay was a disappointment to many.

Looking forward, two issues

At some point, REM will have to provide an update on the total cost of the project. As well as the cost of the added work in the Mount Royal tunnel, inflation and supply chain issues have increased the cost and affected the availability of materials generally, and the longer overall project duration must be adding to the labour cost.

After commissioning, the extent to which the post pandemic workplace will encourage people to transition back from remote working to physical offices remains to be seen. So, inevitably, it will take some time for patronage levels to build up and for the travelling public to develop new travel patterns fully exploiting the new REM.

Acknowledgments

The author appreciated the informative newsletters and presentations issued by REM and particularly thanks Emmanuelle Rouillard-Moreau of the REM public affairs unit for obtaining the answers to several questions and for providing files for the two graphic figures and some of the photos.

en service n'ait lieu qu'après que les conditions de fiabilité les plus strictes aient été démontrées. De ce point de vue, le démarrage d'un système entièrement nouveau au début d'un hiver montréalais, incluant des révisions majeures du réseau d'autobus de la rive sud et des lignes d'autobus qui traversent actuellement le pont Samuel-De Champlain, n'était pas conseillé. Les essais se poursuivront et la mise en service est prévue au printemps 2023. Ce retard a été une déception pour beaucoup.

Deux questions se posent pour l'avenir

À un moment donné, le REM devra faire le point sur le coût total du projet. En plus du coût des travaux supplémentaires dans le tunnel du Mont-Royal, l'inflation et les problèmes de chaîne d'approvisionnement ont augmenté le coût et affecté la disponibilité des matériaux en général, et la durée globale plus longue du projet doit ajouter au coût de la main-d'œuvre.

Aussi, après la mise en service, il restera à voir dans quelle mesure le milieu de travail post-pandémie incitera les gens à revenir au bureau plutôt que de continuer le travail à distance. Inévitablement, il faudra un certain temps pour que les niveaux de fréquentation augmentent et que les voyageurs changent leurs habitudes de façon à exploiter pleinement le potentiel que leur offre le nouveau REM.

Remerciements

L'auteur a apprécié recevoir les bulletins d'information et les présentations du REM et remercie particulièrement Emmanuelle Rouillard-Moreau, de l'unité des affaires publiques du REM. En plus d'avoir répondu à plusieurs questions, elle a fourni les fichiers des deux figures graphiques et de certaines des photos.

Stan's Photo Gallery / Les photos de Stan

September - October / Septembre - Octobre

The CPR Nitrate Negative Project / Le projet d'archives de négatifs sur nitrate

French Version / Version française : Gilles Lazure

For this issue of Canadian Rail, it is our pleasure to present a selection of black and white photos scanned and printed from the Canadian Pacific collection of nitrate negatives now housed in the CRHA Archives at Exporail. The selection of these images was made by myself and Chantal Guérin, Exporail's very excellent archival technician. To my surprise, nitrate negatives were the norm in photography, used in all types of photography until the late 1930s, including movie film. The volatility of this type of film led to the development of so-called safety film, which arrested the deterioration of nitrate negatives and movie film. Exporail archivist, Mylene Bélanger will address this matter further in her portion of this photo gallery immediately after this introduction.

The subject matter in this gallery varies from trains and locomotives to stations, bridges and other infrastructure as well as some fantastic human interest shots of CPR employees on the job. There are even images depicting the famous Valentine tanks constructed at CPR's Angus Shops in Montreal for the military effort overseas in the Second World War.

I will cut my introduction short at this point and it is my pleasure to let CRHA archivist Mylene Bélanger continue this narrative explaining the scanning and production process employed to bring out the best in the CPR nitrate negatives collection at Exporail.

Note: Many of these images have no location information so there is much guesswork on my part in captioning them. Any corrections or updates are most welcome.

Dans ce numéro de Rail canadien, il me fait plaisir de présenter un choix de photographies en noir et blanc numérisées et imprimées à partir de la collection Canadian Pacific Railway Company de négatifs sur nitrate présentement conservés aux Archives de l'ACHF, à Exporail. Chantal Guérin, l'excellente technicienne en archivistique d'Exporail, et moi-même avons fait le choix de ces photos. À ma surprise, jusqu'à la fin des années 1930, les négatifs sur nitrate étaient la norme en photographie, étant utilisés pour tous les genres de photographie, incluant les longs-métrages sur grand écran. La volatilité de ce genre de film mena au développement de ce qui fut appelé le « safety film » (littéralement « pellicule sécuritaire ») qui mit fin à la dégradation des négatifs et des films sur nitrate. Mylène Bélanger, l'archiviste d'Exporail, va en dire plus long dans son encart de cette galerie de photos, faisant suite immédiatement à cette introduction.

Les sujets de cette galerie varient des trains et locomotives aux gares, ponts et autres infrastructures, aux extraordinaires photographies d'intérêt humain d'employés du CPR en plein travail. Il y a même des images des fameux chars d'assaut Valentine construits dans les ateliers Angus du CPR, à Montréal, pour les opérations militaires outre-mer au cours de la Seconde Guerre mondiale.

Je vais couper court ici à mon introduction et je suis heureux de laisser Mylène Bélanger, l'archiviste d'Exporail, continuer cet exposé qui décrit la numérisation et les processus de production qui ont été employés pour tirer le meilleur parti de la collection CPKC de négatifs sur nitrate à Exporail.

Note : Plusieurs de ces photos n'ont aucune information quant à l'endroit où elles ont été prises, ce qui a mené à beaucoup de suppositions de ma part lors de la composition de leurs légendes. Toutes corrections ou mises à jour seront des plus bienvenues.

The CRHA / Exporail's Archive Nitrate Negative Project Le projet d'archives de négatifs sur nitrate de l'ACHF / Exporail

By / Par Mylène Bélanger, archivist / archiviste

English version / Version anglaise : Peter Murphy

In the President's Report in CRHA Communications published in Canadian Rail No. 609, Robert Robertson wrote briefly of our nitrate negative project. I am pleased to elaborate on this major project that is now completed. With this sampling of images

Dans le rapport du président publié dans la section Communications du publié dans le dernier numéro du Canadian Rail no 609, Robert Robertson, notre président, a parlé brièvement de notre projet de négatifs sur nitrate. Je suis heureuse de vous parler de ce

Stan Smaill has selected from our nitrate negative collection for this issue's Photo Gallery, you will appreciate the need to ensure that this negative collection is preserved safely for future generations.

Our thanks to Library and Archives Canada (LAC) for their grants to this important project.

The Canadian Railroad Historical Association (CRHA), owner and manager of Exporail, has received an initial grant of \$45,302 from Library and Archives Canada (LAC) for the preservation, description and digital dissemination of nitrate negatives in 2017-2018. With this grant, made possible through the Documentary Heritage Communities Program (DHCP), we were able to add 3,116 new images to our online database!



Chantal Guerin, our archive technician, digitizing the nitrate negatives.

Notre technicienne procédant à la numérisation des négatifs de nitrate.

The second step of this project was the packaging and freezing of the nitrate negatives in order to ensure their preservation and eliminate the risk of fire! Indeed, cellulose nitrate negatives can be dangerous because the elements that make them up are unstable and can therefore be subject to spontaneous combustion! In addition, the gases released during their normal degradation attack the surrounding archival documents. So there are two reasons to be concerned about this type of negative film!

Following this first project, we discovered more nitrate negatives in our archives and collections. As a result, we applied to the LAC's DHCP once again and were awarded a second grant in the amount of \$41,598 for the year 2019-2020. With this second grant, we proceeded with a huge project to identify - from a total of

projet majeur qui est maintenant terminé. De plus, Stan Smaill a sélectionné un échantillon d'images numérisées de notre collection de négatifs sur nitrate pour former la galerie de photos de ce numéro. Avec ce seul échantillon, vous comprendrez la nécessité de veiller à ce que cette collection de négatifs soit préservée en toute sécurité pour les générations futures.

Nous tenons à remercier Bibliothèque et Archives Canada (BAC) pour les subventions accordées afin de permettre la réalisation de cet important projet.

L'Association canadienne d'histoire ferroviaire, propriétaire et gestionnaire d'Exporail, a reçu une première aide financière de 45 302 \$ de la part de Bibliothèque et Archives Canada (BAC) pour la préservation, la description et la diffusion numérique de

négatifs sur nitrate en 2017-2018. Grâce à cette subvention rendue possible grâce au Programme pour les collectivités du patrimoine documentaire (PCPD), nous avons été en mesure d'ajouter 3 116 nouvelles images sur notre base de données en ligne!

Le seconde étape de ce projet fut l'emballage et la congélation des négatifs au nitrate afin d'assurer leur préservation et oblitérer les risques d'incendie! En effet, les négatifs sur support de nitrate de cellulose peuvent s'avérer dangereux puisque les éléments le composant sont instables et donc, peuvent faire l'objet d'une combustion spontanée! De plus,

les gaz se dégagent lors de leur dégradation normale attaquent les documents d'archives avoisinants. Autant de raisons pour se préoccuper de ce type de support!

Suite à ce premier projet, nous avons découvert davantage de négatifs au nitrate dans nos fonds d'archives et collections. Nous avons donc profité encore une fois du PCPD de BAC et avons décroché une seconde subvention au montant de 41 598 \$ pour l'année 2019-2020. Avec cette seconde aide financière, nous avons procédé à un énorme projet visant à identifier - parmi un total d'environ 28 000 négatifs présents dans le fonds Canadian Pacific Railway Company - les négatifs sur support de nitrate et d'acétate, les décrire, les numériser et assurer leur préservation et conservation grâce à la méthode CMI

approximately 28,000 negatives in the Canadian Pacific Railway Company Fonds - the nitrate and acetate negatives, describe them, digitize them, and ensure their preservation and conservation through the CMI (freezing) method. In this way, the contents of the collection are now known and more easily accessible. In addition, this project has allowed the CRHA to increase its capacity to preserve this documentary heritage in a more sustainable manner through the freezing of targeted negatives.

At the end of this second project, we sorted 21,637 negatives out of an estimated 28,000 negatives in the Canadian Pacific Railway Company Fonds. A total of 5,812 negatives (out of an initial estimate of 4,450) were processed and packaged using the CMI method. Of those identified, all negatives were digitized and added to our online database. In addition, all of these negatives have been identified with a title and call number to facilitate research.



Here are some nitrate negatives from our collection ready to go into the freezer! They have been individually wrapped and boxed to optimize their long-term preservation.

Voici quelques négatifs au nitrate de notre collection prêts à aller au congélateur! Ils ont été emballés individuellement, puis mis en boîte pour optimiser leur conservation à long terme.

(congélation). De cette façon, le contenu du fonds est désormais connu et plus facilement accessible. De plus, ce projet a permis à l'ACHF d'accroître sa capacité à préserver ce patrimoine documentaire de façon plus durable par l'entremise de la congélation des négatifs ciblés.

Au terme de ce second projet, nous avons trié 21 637 négatifs sur un total de 28 000 négatifs estimés contenus dans le Fonds Canadian Pacific Railway Company. Un total de 5 812 négatifs (sur 4 450 estimés initialement) ont été traités et emballés selon la méthode CMI. Parmi les documents identifiés, tous les négatifs ont été numérisés et ajoutés à notre base de données accessible en ligne. De plus, tous ces négatifs ont été identifiés à l'aide d'un titre et d'une cote



Here are over 2,150 nitrate or acetate negatives from our collection, ready to go into the freezer! They were individually wrapped and then boxed to optimize their long-term preservation.

Voici plus de 2 150 négatifs au nitrate ou à l'acétate de notre collection, prêts à aller au congélateur ! Ils ont été emballés individuellement, puis mis en boîte pour optimiser leur conservation à long terme.

Do you have a large collection of negatives at home? So how do you determine the medium of these negatives?

Here are some quick clues to identify nitrate (which can pose security risks) and acetate (which can quickly disintegrate over time) negatives. Unfortunately, it's not always easy and the clues we share with you here are not always visible!

For nitrate negatives, you can find the indication 'Nitrate' on the border and the notches usually start with a "V" shape (see picture). Moreover, these identifiers were mainly used before 1938.

d'identification afin de faciliter la recherche.

Vous avez vous-même une grande collection de négatifs à la maison? Alors, comment déterminer le support de ces négatifs?

Voici quelques petits indices pour identifier des négatifs de nitrate (qui peuvent poser des risques de sécurité) et d'acétate (qui peuvent rapidement se désagréger avec le temps). Malheureusement, ce n'est pas toujours aisé et les indices que nous partageons ici avec vous ne sont pas toujours visibles!

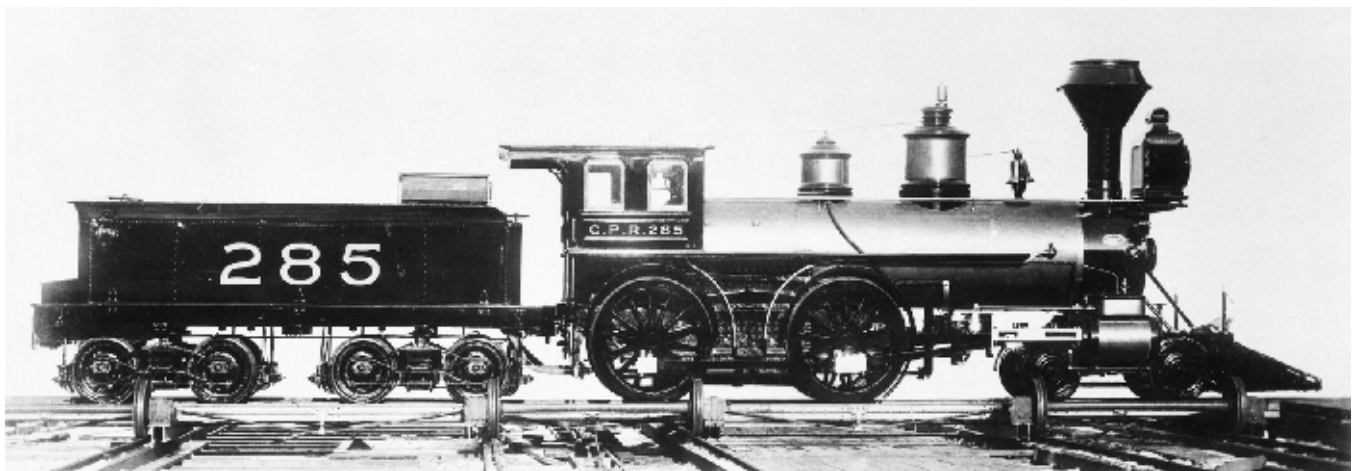
Pour les négatifs de nitrate, on peut retrouver l'indication « Nitrate » sur la bordure et les encoches commencent habituellement par une forme de « V » (voir la photo). De plus, ce type de support était utilisé principalement avant 1938.



In the case of acetate negatives, the inscription "Safety Film" or "Safety" is present on the border with square or "U" shaped notches (see photo).

Dans le cas des négatifs d'acétate, l'inscription « Safety Film » ou « Safety » est présente sur la bordure avec des encoches de forme carrée ou de « U » (voir la photo).

All photos from the CRHA / ACHF Archives, fonds Canadian Pacific Railway Company
Toutes les photos sont des Archives CRHA / ACHF Exporail, fonds Canadian Pacific Railway Company



First things first! A very historic image shows SA class 4-4-0 No. 285, the first locomotive built by the CPR in 1883 at the so-called 'New Shops' in Montreal. Engine No 285 is on the transfer table for its portrait and would serve the CPR until retirement in 1908. NS 196

Les premières choses en premier! Une photo très historique montre la 285, une 4-4-0 de la classe SA, la première locomotive construite par le CPR aux ateliers dénommés « New Shops » à Montréal, en 1883. La locomotive 285 est sur la table de transfert pour y être photographiée et elle va servir à la compagnie jusqu'à son retrait du service en 1908. NS 196



'All Aboard for the Pacific!' cried the conductor of the first through passenger train for Port Moody, BC when it left Montreal's Dalhousie Square station in 1886. A marvellous image from the CPR photo collection shows that first through train at Port Arthur, Ontario (today's Thunder Bay) on June 30, 1886. NS 9996

« Tous à bord pour le Pacifique! » cria le chef de train du premier convoi pour voyageurs directement à destination de Port Moody, Colombie-Britannique, lors de son départ de la gare Dalhousie Square de Montréal en 1886. Cette superbe photo de la collection de photos du CPR montre ce train à Port Arthur (devenu depuis Thunder Bay), Ontario, le 30 juin 1886. NS 9996



In a fantastic circa 1910 image, almost new CPR G1D 4-6-2 1112 is handling what might be an immigrant train with through baggage cars for the goods and chattels of settlers travelling in colonist cars to western Canada. Or, perhaps this is a harvest train accommodating seasonal workers bound for the Canadian prairie west and the wheat harvest. As to the location, might this be just west of Montreal West station before the relocation of the CPR main tracks west and north on a more northerly trajectory around Sortin Yard? NS 10896

Sur cette formidable photo d'autour 1910, la 1112, une 4-6-2 presque neuve de la classe G1d, tracte ce qui pourrait être un train d'immigrants avec des wagons pour les bagages et les effets des immigrants voyageant à bord de voitures pour colons vers l'ouest du Canada. Ou c'est peut-être un train pour les récoltes incluant des voitures pour les travailleurs saisonniers à destination des Prairies de l'ouest canadien et de la récolte de blé. Quant à la localisation, se pourrait-il qu'elle soit tout juste à l'ouest de la gare Montreal West avant que les voies principales du CPR soient relocalisées à l'ouest et au nord sur un tracé plus au nord de la cour Sortin? NS 10896



Carrying green flags to indicate a following section, CPR S2A 2-10-2 5813 has a westbound train of grain and perishables on the move, and is thought to be leaving Calgary, Alberta sometime in the mid to late 1930's. A five car block of wooden reefers is marshalled just ahead of the van. The CRHA collection at Exporail includes a beautifully restored example of one of these cars, CP 284845. NS 396196 and NS396296

Exhibant des fanions verts pour annoncer qu'une autre section va suivre, la 5813, une 2-10-2 de la classe S2a, déplace un train de céréales et de produits périssables et est estimée quitter Calgary, Alberta, quelque temps entre le milieu et la fin des années 1930. Un groupe de cinq wagons en bois réfrigérés est accouplé directement en avant du fourgon de queue. La collection de l'ACHF à Exporail comprend un exemplaire superbement restauré de l'un de ces wagons, le numéro 284845 du CPR. NS 396196 et NS 396296





In this image, CPR Extra 5188 West has a sizable train of four hatch refrigerator cars in tow. CPR 2-8-2 5188 was built at Montreal Locomotive Works in September 1913 as No. 5088 in class P1E. In September 1928, she was renumbered to 5188. The refrigerator cars shown here are adorned with the short-lived circular CPR herald suggesting that this photo was made circa 1930. In 1930, 2-8-2 5188 was assigned to McAdam, New Brunswick, so perhaps this photo is somewhere in the CPR Saint John, NB terminal area. NS 19496

Sur cette photo, la locomotive du convoi CPR Extra 5188 Ouest a, à sa suite, un impressionnant convoi de wagons réfrigérés à quatre trappes de toit. La 2-8-2 5188 du CPR a été construite aux Montreal Locomotive Works en septembre 1913 en tant que No 5088 de la classe P1e. Elle fut renumérotée 5188 en septembre 1928. Les wagons réfrigérés montrés ici sont décorés de l'emblème circulaire du CPR qui fut utilisé fort peu longtemps ce qui porte à croire que cette photo a été prise aux alentours de 1930. La 5188 fut affectée à McAdam, Nouveau-Brunswick en 1930, alors il se peut que le lieu de la photo soit quelque part aux environs du terminus du CPR à Saint John, N.-B. NS 19496

In the late 1890s, competition with the Canada Atlantic Railway for the lucrative passenger trade between Montreal and Ottawa, made the CPR realise that speed was the watchword. In 1899, to power the Montreal-Ottawa passenger trains operating over the newly constructed M&O Subdivision on the south shore of the Ottawa River, three ST4 class Vaucrain compound 4-4-2 Atlantic type locomotives were constructed at Montreal's Angus Shops. In this great action shot from about 1900, 4-4-2 209 is westbound at Westmount, Quebec. NS 108

À la fin des années 1890, la compétition avec le Canada Atlantic Railway pour le lucratif transport de voyageurs entre Montréal et Ottawa fit réaliser au CPR que la vitesse était le mot d'ordre. En 1899, trois locomotives 4-4-2 de type Atlantic, de classe ST4 et de modèle « Vaucrain compound » furent construites aux ateliers Angus de la compagnie pour tracter les trains Montréal-Ottawa qui allaient rouler sur la voie de la subdivision M & O nouvellement posée sur la rive sud de la rivière des Outaouais. La 4-4-2 209 est photographiée en direction ouest à Westmount, Québec, sur cette excellente photo d'action datant d'autour 1900. NS 108





In the first of two images at Ste. Marguerite, Quebec on the CPR Ste. Agathe Subdivision in Quebec's Laurentian mountains north of Montreal, a ski train from Montreal is in the capable charge of a CPR P1 class 2-8-2. P1 class 2-8-2's were regular power on ski trains to the 'CPR' Laurentians right up until the end of such service in 1959. NS 541696

In the second image, the skiers have de-trained at Ste. Marguerite station as the exhaust of their train climbing the grade is visible in the distance on a cold winter day in the 1940s. M. Peter Murphy, these shots are for you! NS 319596

Sur la première de deux photos prises à Sainte-Marguerite, Québec, sur la subdivision Sainte-Agathe dans la région des Laurentides au nord de Montréal, un train pour skieurs est à la compétente charge d'une locomotive de la classe P1 du CPR. Les 2-8-2 de cette classe tractèrent régulièrement les trains pour skieurs des « Laurentides du CPR » jusqu'à la fin de ce service en 1959. NS 541696

Sur la deuxième photo, les skieurs sont descendus du train à la gare de Sainte-Marguerite alors que la fumée de leur train gravant la pente est visible au loin par un froid jour d'hiver des années 1940. Peter Murphy, ces photos sont pour vous! NS 319596





Recalling the CPR experiment with the ST4 4-4-2 Atlantic type locomotives, during the regime of legendary CPR Chief of Motive Power Henry Blaine Bowen, five 3000 series streamstyled 4-4-4 Jubilee type locomotives in CPR class F2A were built by Montreal Locomotive Works in 1936.

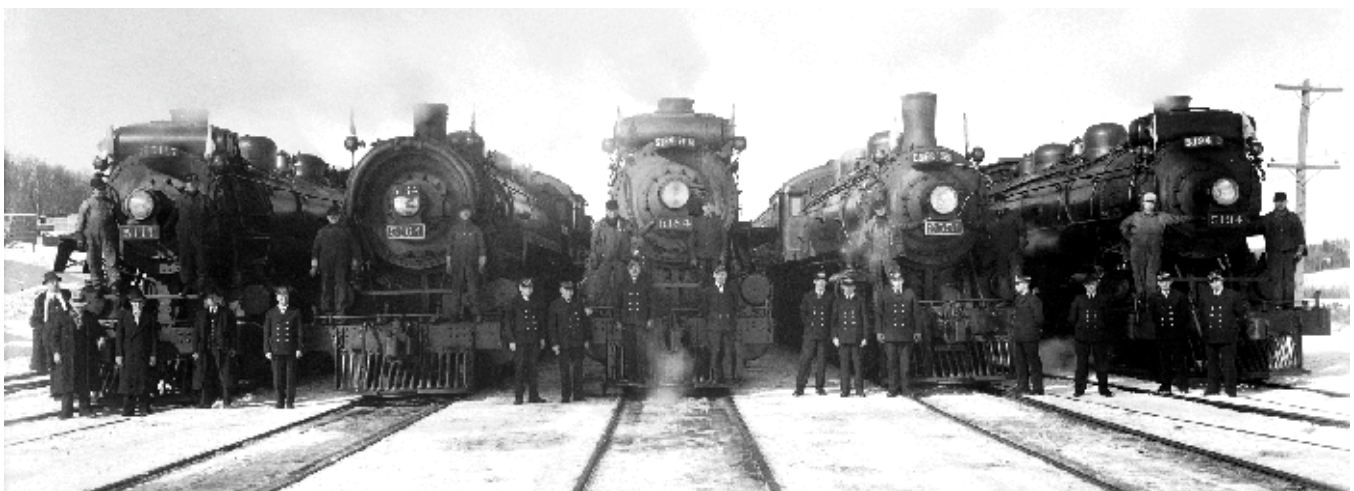
These locomotives were designed to haul short, streamlined passenger trains in city- pair corridors such as Montreal and Quebec City, Toronto and Windsor, Ontario and between Calgary and Edmonton, Alberta. This photo shows F2A class 4-4-4 3001 and her train on the Glen Yard turning loop at Westmount, Quebec near Montreal in 1936. NS11383

En rappel de l'expérimentation du CPR avec les locomotives 4-4-4 de type Jubilee; durant les années en poste d'Henry Blaine Bowen, le légendaire Chef de la force motrice et du matériel roulant du CPR, cinq locomotives carénées 4-4-4 Jubilee de la classe F2a et de la série 3000 furent construites aux Montreal Locomotive Works en 1936.

Ces locomotives furent conçues pour tracter de courts convois de voitures carénées pour voyageurs le long de corridors de villes jumelées telles que Montréal-Québec, au Québec, Toronto-Windsor en Ontario et Calgary-Edmonton, en Alberta. Cette photo montre la 3001 de la classe F2a et son train sur la boucle de changement de direction à la cour Glen, à Westmount, près de Montréal, Québec, en 1936. NS11383

Four Mikados and a Pacific! The human element version of a famous CPR publicity shot shows five ski trains and their crews, stabled in the yard at Ste. Agathe, Quebec sometime in the early to mid 1940s. Close examination of the motive power reveals Coffin feedwater heater equipped P1E class 2-8-2 5164. G2S 4-6-2 2552 is lone amongst the Mikados and will later serve on CPR's Dominion Atlantic Railway in Nova Scotia from 1947 until retirement in 1956. NS 77496

Quatre Mikados et une Pacific! La version avec élément humain de la fameuse photo de publicité du CPR montre cinq trains pour skieurs, avec leurs équipes, stationnés dans la cour de Sainte-Agathe, Québec, quelque temps entre le début et le milieu des années 1940. Un examen plus approfondi de la force motrice fait découvrir la 5164, une 2-8-2 Mikado de la classe P1e équipée d'un réchauffeur d'eau de type Coffin. La 4-6-2 2552 de la classe G2s est la seule Pacific parmi les Mikados et va servir plus tard sur le Dominion Atlantic Railway du CPR en Nouvelle-Écosse de 1947 jusqu'à son retrait du service en 1956. NS 77496



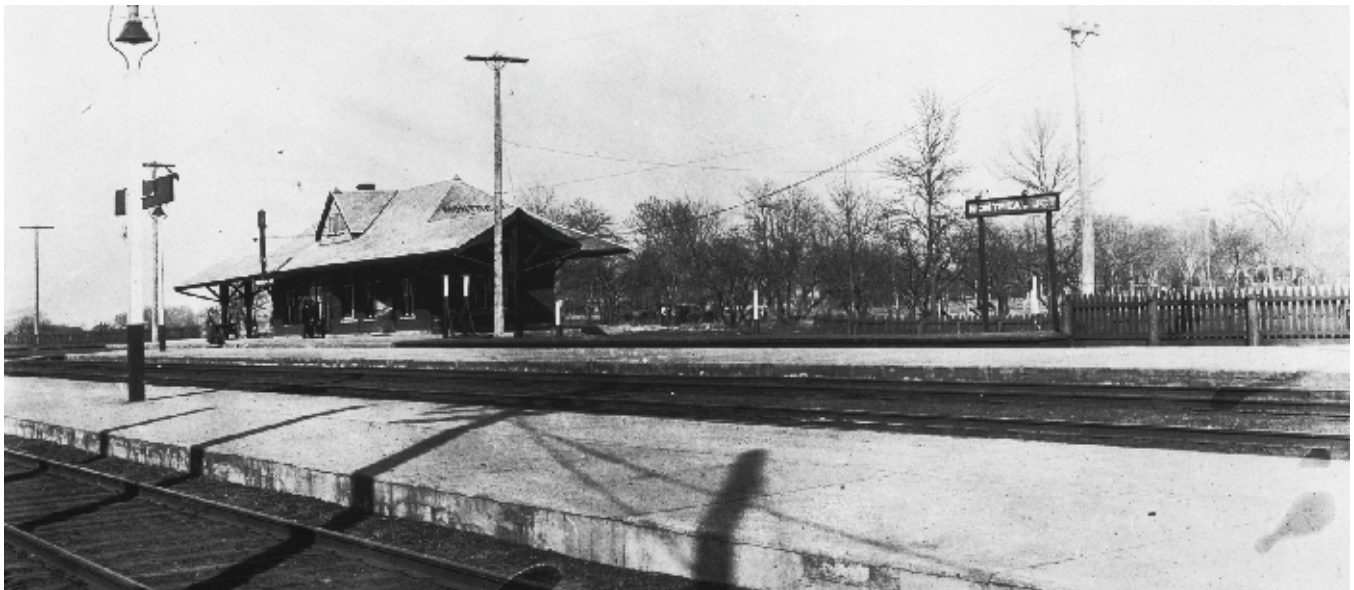


Railroading is more than just trains and engines. Infrastructure, such as stations, were often the subject of company photographs. Perhaps the most iconic CPR station is none other than Montreal's Windsor Street station seen here in a view from the early 1900's. Construction of the 'Mud Hut', the so-called baggage and express handling facility is well underway and no less than nine delivery wagons are evident - all horse powered! NS 775096

Le domaine ferroviaire est plus que des trains et des locomotives. L'infrastructure, telle que les gares, est souvent le sujet de photographies de la compagnie. La gare la plus iconique du CPR est peut-être nulle autre que la gare Windsor à Montréal vue ici sur une photo du début des années 1900. La construction de la « Mud Hut », comme l'était surnommé le bâtiment qui allait servir aux bagages et à la manipulation des colis express, est fort avancée et non moins de neuf véhicules de livraison sont apparents, tous tirés par des chevaux. NS 775079

Your Photo Gallery Editor's hometown CPR station circa 1910, as built! The location is Montreal West and the station name sign reads 'Montreal Junction'. At one time, apparently consideration was given to naming this location Ballantyne Junction after a prominent Montreal West family, which included two mayors. Thus, the telegraph call letters for this station were 'BN' and remained as such despite the change of name in 1914 to Montreal West. NS 19496

La gare du CPR dans la ville de résidence de votre éditeur photo telle que construite autour de 1910! L'endroit est Montreal West et l'inscription sur la gare se lit « Montreal Junction ». À un certain moment, il fut apparemment considéré de nommer cette agglomération Ballantyne Junction en l'honneur d'une éminente famille de Montreal West qui inclut deux maires. Les lettres d'appel télégraphique de la gare étaient alors « BN » et elles demeurèrent telles lors du changement de nom à Montreal West en 1914. NS 19496





Railway infrastructure also includes bridges. In fact, a forthcoming Canadian Rail Photo Gallery is entitled 'Trains On Bridges'. Watch for it!

In the first of two images, a 1912 view shows the CPR bridge over the South Saskatchewan River near Outlook, Saskatchewan under construction. What is not often known today is that the under slung box span trusses are repurposed from the original single track CPR bridge across the St. Lawrence River between LaSalle, and Kahnawake, Quebec built in 1887. When the CPR Adirondack Subdivision was double-tracked in 1898, a new bridge structure was erected and is still in service today. NS 22596

In the second image, taken from the edge of the embankment of the Adirondack Subdivision right of way, we see the second, double-tracked bridge over the St. Lawrence as well as the original Honoré Mercier bridge built in the early 1930s for vehicular traffic to replace a ferry service. This view is from the south shore of the St. Lawrence river and faces north toward Montreal. NS 215096

L'infrastructure des chemins de fer inclut aussi les ponts. En fait, une prochaine galerie de photos de Rail canadien a pour titre « Trains sur ponts ». Surveillez sa parution!

Sur la première de deux photos, une vue de 1912 illustre le pont du CPR au-dessus de la rivière South Saskatchewan, près de Outlook, Saskatchewan, durant sa construction. Ce qui souvent est moins connu de nos jours est que la structure en forme de boîte soutenant le tablier de ce pont a été réutilisée du premier pont à voie simple du CPR construit au-dessus du fleuve Saint-Laurent, entre LaSalle et Kahnawake, Québec, en 1887. Lorsque la voie de la subdivision Adirondack fut doublée en 1898, une nouvelle structure de pont fut érigée et est encore en utilisation de nos jours. NS 22596

Sur la seconde photo prise du bord de l'emprise de la voie de la subdivision Adirondack, nous voyons le deuxième pont à voie double érigé au-dessus du Saint-Laurent ainsi que le pont Honoré Mercier originel construit au début des années 1930 pour remplacer le service de traversiers. Cette vue est de la rive sud du fleuve et regarde vers le nord en direction de Montréal. NS 215096





Perhaps the 'find' in this lot of photos made from the CPR nitrate negatives is this view of Mile End station circa 1900 in the CPR Montreal Terminals. Legend suggests that the Mile End name for this district is because the station is located approximately one mile from the waterfront in Montreal's Old Port area. NS 19596

La meilleure trouvaille dans tout ce lot de photos sur nitrate du Canadien Pacifique est peut-être cette photo, d'autour de 1900, de la gare Mile End, faisant partie dans l'ensemble des gares du CPR à Montréal. La petite histoire suggère que le nom de cette gare tient au fait qu'elle est située approximativement à un mille de la rive où se trouve le Vieux Port de Montréal. NS 19596

The CPR infrastructure around Montreal includes many interesting stations and bridges, not the least of which is the gauntlet track at the Bordeaux bridge over the Rivière des Prairies. When the Park Avenue Subdivision was double tracked in 1911, an interlocked gauntlet track was employed as an economy measure. The gauntlet occupies where two main tracks are interwoven on a single right of way over the bridge. This gauntlet track is still in use - one of the oldest and indeed only example of its kind in Canada. NS 249196

Les infrastructures du CPR autour de la région de Montréal comprenaient plusieurs gares et ponts d'intérêt dont le pont à voies interposées de Bordeaux, au-dessus de la rivière des Prairies, n'était pas le moindre. Lorsque la voie de la subdivision Park Avenue fut doublée en 1911, les rails des voies doubles furent interposés sur le pont par mesure d'économie. Le rétrécissement où les rails des deux voies principales sont interposés en un seul passage de voie prend ainsi sur le pont le même espace qu'aurait occupé l'emprise d'une voie simple. Cet agencement de voies spécial, un des plus vieux et de fait le seul du genre encore existant au Canada, est encore en service. NS 249196





Communications were a big part of the Canadian Pacific business model right from the company's beginnings. For both train operations and for the public, the telegraph was an essential technology employed until the early 1970s in some locations.

In the first view, thought to be in a large, perhaps temporary telegraph office in Montreal or Toronto, four telegraphers, three supervisors and a messenger pose for the camera sometime in the late thirties or early forties. NS 263796

In the second view, four ladies appear to be transcribing messages received by telegraph using an early version of the teletype machine developed by Canadian Pacific Telecommunications and used by the Canadian military during the Second World War. In the background, one can see at least two telegraph sounder boxes which doubtless were made by the famous J H Bunnell company! NS 462296

Les communications constituèrent une grande partie du modèle d'affaires du Canadien Pacifique dès les débuts de la compagnie. Le télégraphe fut une technologie essentielle à la fois pour l'exploitation des trains et pour les communications privées, employée en certains endroits jusqu'au début des années 1970.

Sur la première photo, quelque temps en fin des années 1930 ou début des années 1940, quatre télégraphistes, trois superviseurs et un messenger posent dans ce que l'on pense être un grand bureau de télégraphie à Montréal ou Toronto. NS 263796

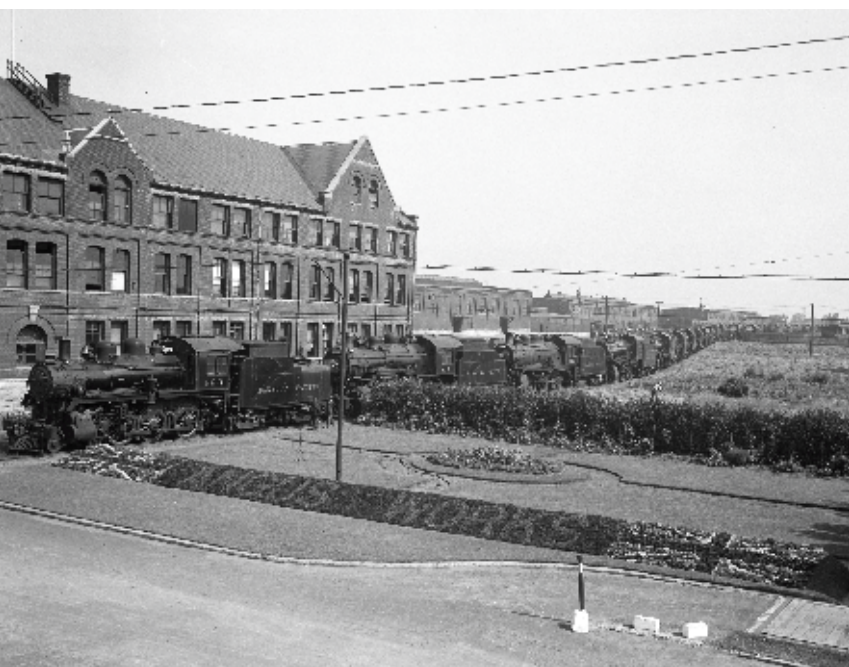
Sur la seconde, quatre dames semblent être en train de transcrire des messages télégraphiques reçus au moyen d'un des premiers modèles de télétypes conçus par Canadian Pacific Telecommunications et utilisés par les forces militaires canadiennes durant la Seconde Guerre mondiale. À l'arrière-plan, on peut apercevoir au moins deux échosondeurs télégraphiques fabriqués par la fameuse compagnie J.H. Bunnell! NS 462296





It is September 1942, Canada is at war and the passenger train is the main mode of travel anywhere in North America if you can get a coach seat or sleeping car space! The information desk in the concourse in Montreal's Windsor Station has a public timetable rack with timetables from no less than thirty-three different carriers, all vying for a share of the North American passenger train business. Of the railways depicted in this photo, only the Union Pacific survives as a railway company in its original name. NS339696

Septembre 1942. Le Canada est en guerre et le train pour voyageurs est le principal mode de transport partout en Amérique du Nord si vous pouvez obtenir un siège en voiture-coach ou une couchette en voiture-lits! Le comptoir d'information dans le grand hall de la gare Windsor, à Montréal, comporte un étalage d'indicateurs de non moins de trente-trois transporteurs différents, tous en concurrence pour une partie du trafic voyageurs nord-américain. De toutes les compagnies ferroviaires apparaissant sur cette photo, seule l'Union Pacific survit avec son nom d'origine. NS339696



Depression Days. Canadian railways suffered an intense downturn in traffic during the Great Depression during the 1930s. In a striking photo from that time, a seemingly endless line of stored serviceable CPR steam locomotives, most of them class D 4-6-0's repose in storage with their stacks capped outside the main offices of Montreal's Angus Shops. Despite the austerity of the times, the grounds and floral arrangements, which feature the Union Jack, are maintained to the usual high standard of CPR gardens everywhere across the system. NS 222196

Jours de la Dépression. Les chemins de fer canadiens connurent une importante baisse de trafic au cours de la Grande Dépression des années 1930. Sur une saisissante photo prise alors, une ligne apparemment sans fin de locomotives à vapeur en état de servir du CPR, la plupart des 4-6-0 de la classe D, sont entreposées, avec leurs cheminées bouchées, à l'extérieur des bureaux principaux des ateliers Angus de Montréal. Malgré le caractère austère de cette époque, les terrains et leurs agencements floraux mettant en vedette l'Union Jack, étaient entretenus à la norme de qualité élevée que le CPR promulguait dans ses jardins partout à travers son réseau. NS222196



The famous Valentine tanks were built at the CPR Angus Shops in Montreal during the Second World War as one of the Canadian contributions to the war effort.

In the first view, spectators examine a just outshopped Valentine tank under the watchful eye of the ever-present CPR constable at Montreal's Angus Shops. NS294496

In the second view, sixty Valentine tanks built at Angus Shops await shipment to the front lines. The Canadian War Museum in Ottawa has one of the only remaining examples of an Angus built Valentine tank. NS461796

Les réputés chars d'assaut Valentine furent manufacturés aux ateliers Angus du CPR, à Montréal, au cours de la Seconde Guerre mondiale en tant qu'une des contributions canadiennes à l'effort de guerre.

Sur la première photo, des spectateurs examinent un char tout juste sorti des ateliers sous l'œil attentif du policier omniprésent du CPR aux ateliers Angus de Montréal. NS294496

Sur la seconde, soixante chars Valentine construits aux ateliers Angus attendent d'être envoyés au front. Le Musée canadien de la guerre, à Ottawa, possède l'un des derniers exemplaires d'un char Valentine d'origine Angus. NS461796



An intriguing view taken at the passenger service commissary at the Glen Yard at Westmount, Quebec, shows the silverware required to stock a single CPR dining car. The date of this photo is not known but there certainly is a small fortune in dining car collectibles in this photo! NS 1279096

Une photo insolite prise à l'intendance du service voyageurs à la cour Glen de Westmount, Québec, montre l'argenterie requise pour équiper une seule voiture-restaurant du CPR. La date de la photo n'est pas connue, mais il y a sûrement une petite fortune d'objets de collection de voiture-restaurant sur celle-ci! NS 1279096

Digby, Nova Scotia on the storied Dominion Atlantic Railway is the locale for this wonderful photo. The SS Princess Helene has arrived from Saint John, New Brunswick across the Bay of Fundy and a Dominion Atlantic passenger train is shifting its consist at the quayside station prior to departing for Halifax. NS 209796

Le lieu où a été prise cette belle photo est Digby, Nouvelle-Écosse, sur le réseau du renommé chemin de fer Dominion Atlantic. Le SS Princess Helene est arrivé de Saint John, Nouveau-Brunswick, de l'autre côté de la baie de Fundy, et un train pour voyageurs du Dominion Atlantic fait des manœuvres à la gare située près du débarcadère avant de partir pour Halifax, N.-É. NS 209796



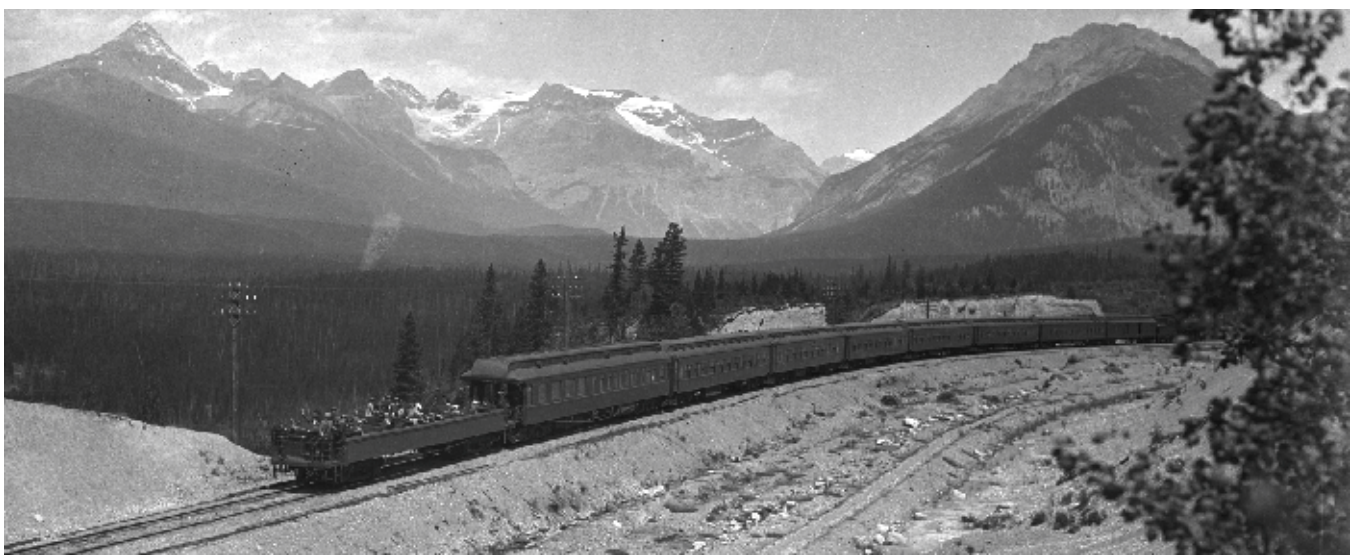


A lone wooden coach occupies the wharf tracks at Penticton, British Columbia as the CPR steamboat Sicamous reposes dockside, perhaps sometime in the 1930's. The CPR once operated a vast network of marine services in the lake district of the British Columbia interior where vessels like Minto, Moyie and Sicamous were household names to the people that used them as part of their daily lives until the 1950s. Fittingly, today, Sicamous is a permanent fixture at the dock in Penticton, preserved as a floating museum of area social history. NS 1212696

À Penticton, Colombie-Britannique, une voiture-coach en bois occupe seule les voies du débarcadère alors que le vapeur Sicamous est accosté, quelque temps peut-être dans les années 1930. Le CPR a déjà exploité un vaste réseau de services maritimes dans le district des lacs à l'intérieur de la province où les noms de navires tels que le Minto, le Moyie et le Sicamous étaient connus, dans toutes les demeures, des gens qui les utilisaient au cours de leurs activités quotidiennes jusqu'aux années 1950. De nos jours, de façon appropriée, le Sicamous est amarré en permanence à Penticton, préservé en tant que musée maritime faisant partie de l'histoire de la société locale. NS 1212696

We close this Photo Gallery with a wonderful view of a nine car CPR passenger train in the Emerald Lake Valley near Field, British Columbia, perhaps in the 1920s. Of interest is the open observation car trailing the train's consist. This car is an example of the first CPR open observation cars which had no stairwells. The only public access to or from a car such as this was from the vestibule and platform of the car coupled immediately ahead, in this case an open platform observation car. NS 1070596

Nous terminons cette galerie de photos avec ce merveilleux aperçu d'un train pour voyageurs de neuf voitures dans la vallée du lac Emerald, près de Field, Colombie-Britannique, peut-être dans les années 1920. La voiture d'observation en plein air à la queue du convoi est d'intérêt particulier. Elle est un exemplaire des premières voitures d'observation en plein air du CPR qui n'avaient pas de marches d'accès. Pour les voyageurs, le seul moyen d'accéder à une telle voiture était à partir du vestibule et de la plateforme de la voiture la précédant, dans ce cas-ci une voiture-coach à plateforme ouverte. NS 1070596



The Missing Link / Le chaînon manquant

By/Par Barry Biglow P. Eng. with / avec Douglas N W Smith

All photos by Barry Biglow / Toutes les photos sont de Barry Biglow

French Version / Version française : Gilles Lazure

Amtrak has celebrated its fiftieth anniversary. At the time Amtrak was created, rail passenger links existed between several major Canadian cities in Canada and the United States namely Montreal, Toronto, Vancouver and Winnipeg. All of these links have been reinstated save the one to Winnipeg, which remains a missing link.

At one time, the passenger business between Winnipeg and Minneapolis-St Paul (the Twin Cities) was served by three different railways: the Soo Line-Canadian Pacific (SL), Great Northern (GN) and Northern Pacific (NPR). The latter two operated from Emerson, on the international border to Winnipeg, over the tracks of the Canadian Northern Railway and its successor, the Canadian National Railway.

Initially all three railways operated overnight schedules between Winnipeg and the Twin Cities. This proved too much for the market. Before World War I the NPR replaced its overnight train with a new day train, dubbed the *Manitoba Limited*, whose consist included a cafe-parlor-observation car operated by the Pullman Company.

While the Pullman car was a casualty of the Great Depression of the 1930s, the NPR continued to operate the daylight train through the Second World War. By the early 1950s, with passenger traffic was falling off, the NPR terminated the through train. Instead a through Twin Cities-Winnipeg deluxe air-conditioned reclining seat coach operated between the Twin Cities and Manitoba Junction on the *Mainstreeter*, the NPR's secondary transcontinental train. At Manitoba Junction the coach was switched into a connecting train that originated in Fargo, North Dakota and ran through to Winnipeg,

Business continued to decline in the face of the expansion of the Interstate Highway network. However, many small towns and villages along the Manitoba Junction - Emerson portion of the line in Minnesota, relied upon the train for public transport, mail and express services. In the spring of 1962, the NPR acquired two Rail Diesel Cars (RDCs) from the Western Pacific Railroad, which had recently terminated its Oakland, California-Salt Lake City secondary trains.

The NPR was quite familiar with self-propelled rail



Amtrak a célébré son cinquantième anniversaire d'existence. Au moment de sa création, des liaisons ferroviaires pour voyageurs en partance des États-Unis existaient vers plusieurs grandes villes au Canada, nommément Montréal, Toronto, Vancouver et Winnipeg. Toutes ces liaisons ont été recréées à l'exception de celle vers Winnipeg qui demeure un chaînon manquant.

À une certaine époque, le trafic voyageurs entre Winnipeg et Minneapolis-St Paul (les « Twin Cities ») était desservi par trois chemins de fer différents : le Soo Line-Canadian Pacific (SL), le Great Northern (GN) et le Northern Pacific (NPR). Les deux derniers opéraient à partir d'Emerson, localisée sur la frontière internationale, vers Winnipeg, sur les rails du Canadian Northern Railway et de son successeur, les Chemins de fer nationaux du Canada.

Au début, toutes les trois compagnies exploitaient des trains de nuit entre Winnipeg et les Twin Cities. Ceci s'avéra de trop pour ce marché. Avant que la Première Guerre mondiale ne débute, le NPR remplaça son train de nuit avec un nouveau train de jour, dénommé le *Manitoba Limited*, dont la composition incluait une voiture café-parloir d'observation opérée par la compagnie Pullman.

Alors que la voiture Pullman fut victime de la Grande Dépression des années 1930, le NPR continua d'exploiter le train de jour à travers la Deuxième Guerre mondiale. Au début des années 1950, alors que le trafic voyageurs déclinait, le NPR interrompit le service direct de train de jour. À sa place, une luxueuse voiture-coach climatisée avec sièges inclinables à destination de Winnipeg fit partie du *Mainstreeter*, le deuxième train transcontinental du NPR, exploité entre les Twin Cities et Manitoba Junction. À ce dernier endroit, la voiture-coach était transférée à un train de correspondance en provenance de Fargo, Dakota du Nord, et qui roulait jusqu'à Winnipeg.

Le trafic continua de diminuer devant l'expansion du réseau américain d'autoroutes, les « Interstate Highways ». Cependant, plusieurs villes modestes et villages le long de la portion Manitoba Junction-Emerson de la ligne au Minnesota, dépendaient du train pour le transport des voyageurs, du courrier et des messageries

cars, having acquired the third oil - electric unit ever built by the Electro Motive corporation (EMC) in January 1925. These units proved to be a reliable and cost efficient means to provide service to many of the thinly populated branch lines the railway had into the wheat belt. By January 1930, when the NPR acquired its last such unit from EMC, it fielded a total of 19 of these cars, some of them operated into the early 1960s. In the mid 1950s, it acquired three RDCs for use on the Duluth - Staples, Wisconsin and Spokane - Lewiston, Washington branches.

The NPR renumbered the two ex-Western Pacific cars B-31 and B-32. These cars would operate between Fargo and Winnipeg via Manitoba Junction and had accommodation for passengers, express, mail bags and baggage.

Box lunches were available during the stop at Grafton, North Dakota. The units, which the NPR numbered B-31 and B-32, replaced the conventional locomotive hauled consists in June 1962. The RDCs rolled across the open prairie for only seven years before their trains were discontinued. This left the Great Northern to operate the last train service between Winnipeg and the Twin cities. It was terminated when Amtrak took over most American passenger routes in April 1971.

By RDC to Grand Forks circa 1962

Shortly after the RDCs took over, author Biglow photographed as well as travelled on them from Winnipeg to Grand Forks.

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Northern Pacific RDC B-31 sits in Winnipeg's Union Station awaiting departure.

Le RDC B-31 du Northern Pacific en attente de son départ à la gare Union de Winnipeg.

The trip started from the CN's Winnipeg Union Station on Main Street. The tracks through the station are on a viaduct and are covered by an umbrella trainshed. Leaving the station the RDC route, roughly parallel to the Red River, ran through the Fort Rouge yard area. The tracks then crossed the Pembina highway, the main highway south, on an overpass.

Le périple a débuté à la gare Union de Winnipeg du CN, sur Main Street. Les voies traversant la gare sont sur un viaduc et sont couvertes par un abri contre les intempéries. À la sortie de la gare, le trajet du RDC, approximativement parallèle à celui de la rivière Rouge, traverse l'emplacement de la cour de triage Fort Rouge. Les voies croisent ensuite, sur un viaduc, l'autoroute Pembina, la route principale vers le sud.



Northern Pacific RDC crossing the Pembina highway in Winnipeg.

Un RDC du Northern Pacific traversant l'autoroute Pembina à Winnipeg.

Portage Junction is reached just after the overpass. Here the CN main line heads west to Portage La Prairie, while the Red River line turns south to Emerson. Portage Junction was a register station.

Portage Junction est atteinte tout juste après ce viaduc. La voie principale du CN s'y dirige vers l'ouest et Portage La Prairie, tandis que la ligne de la rivière Rouge y tourne vers le sud et Emerson. La gare Portage Junction en est une d'enregistrement de passage.



The Northern Pacific conductor has registered at Portage Junction and gives the all clear for the train to proceed south.

Le conducteur du Northern Pacific a enregistré la présence du train à Portage Junction et donne le signal de voie libre pour que celui-ci continue vers le sud.

Having registered, the RDC crosses a small trestle near the vicinity of the University of Manitoba going south.

Après avoir enregistré sa présence, le RDC traverse, en direction sud, un petit pont sur chevalets aux environs de l'Université du Manitoba.

The RDC crosses the trestle near the University of Manitoba.

Le RDC traverse le pont sur chevalets près de l'Université du Manitoba.



A classic meet is then made south of Morris when the conductor opens the switch to permit the RDC to access the siding, he re-sets the switch behind the train, the RDC proceeds slowly to the end of the siding. When the GN overnight train has passed, the switch sequence is again performed, we are now back on the main line. By now the RDC is well into the flat farm country. It should be noted that the grade is slightly uphill since the Red River flows north but you have to go miles to gain any significant elevation hence the yearly flood concerns at Winnipeg.

Un croisement classique est alors effectué au sud de Morris alors que le conducteur ouvre un aiguillage pour permettre au RDC de s'engager sur une voie d'évitement et referme l'aiguillage derrière le train; ce dernier roule alors lentement vers l'autre extrémité de la voie d'évitement. Suite au passage du train du GN et à l'accomplissement de la même séquence d'opération de l'aiguillage, nous sommes de nouveau sur la voie principale. Le RDC est dès lors bien en terres agricoles plates. Il doit être noté que la pente est légèrement ascendante puisque la rivière Rouge coule vers le nord, mais vous devez parcourir bien des kilomètres avant de monter de façon appréciable, ce qui explique les craintes annuelles d'inondation à Winnipeg.



Back on the main line southbound, NP conductor aligning the siding switch for the main-line after the Great Northern Twin Cities to Winnipeg overnight train has passed.

De retour sur la voie principale en direction sud, le conducteur du Northern Pacific réaligne l'aiguillage en direction de celle-ci suite au dépassement du train de nuit du Great Northern entre Twin Cities et Winnipeg.

After customs formalities were completed at the US border, the train continued to Grand Forks, North Dakota. The author left the train there, while the RDC proceeded over a trestle and bridge to East Grand Forks on its southward journey.

Les formalités à la frontière avec les États-Unis étant complétées, le train a continué vers Grand Forks, Dakota du Nord. L'auteur a descendu du train à cet endroit, tandis que le RDC, poursuivant son trajet vers le sud, s'est engagé sur un pont vers East Grand Forks.

Unloading mail at Grand Forks, North Dakota.

Déchargement de courrier à Grand Forks, Dakota du Nord.





Passengers being exchanged at Grand Forks. | Échange de voyageurs à Grand Forks.



Northern Pacific RDC B-31 heads south from Grand Forks en route to Manitoba Junction and Fargo, North Dakota.

Le RDC B-31 du Northern Pacific roule vers le sud à partir de Grand Forks en route vers Manitoba Junction et Fargo, Dakota du Nord.

The author had four hours for dining and shopping before boarding the northbound RDC for the uneventful trip home.

When holiday loadings (like Christmas) became too large or an RDC broke down, a conventional train was substituted.

L'auteur a eu quatre heures pour manger et faire des emplettes avant de remonter à bord du RDC en direction nord pour un retour à la maison sans histoires.

Lorsque le trafic aux fêtes (comme celle de Noël) devenait trop considérable ou lorsqu'un RDC tombait en panne, un train conventionnel lui était substitué.



Northern Pacific conventional train, with a GP locomotive and heavyweight cars, substitute at Portage Junction.

Remplaçant le RDC, un train conventionnel du Northern Pacific, formé d'une locomotive de modèle GP (« Geep ») et de voitures de poids lourd, est à Portage Junction.

Reference:

Lines of Country, Christopher Andrae, Boston Mills Press 1997

RDC: The Budd Rail Diesel Car, Donald Duke and Edmund Keilty, Golden West Books, 1990

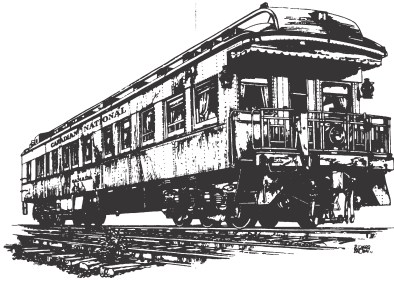
Interurbans Without Wires, Edmund Keilty, Interurbans, 1979

Ouvrages de référence :

Lines of Country, Christopher Andrae, Boston Mills Press 1997

RDC: The Budd Rail Diesel Car, Donald Duke et Edmund Keilty, Golden West Books, 1990

Interurbans Without Wires, Edmund Keilty, Interurbans, 1979



Heritage Business Car

Edited by Peter Murphy

Mail Received



Donated by David Jenkins

From Douglas N W Smith in Brockville, Ontario



Some time ago I purchased a quantity of railroad subject slides from a hobby shop in Calgary, most were unidentified including these two. The slides showed CNR steamer 5115 which obviously had been in some sort of wreck. It turns out that they are photos of the clean-up of the NAR Carbondale wreck described in the last issue of Canadian Rail.

VIA Rail Canada adds buffer cars on the rear of stainless steel equipped trains

An independent consultant's inspection requested by VIA Rail Canada management has prompted the company to immediately assign non-revenue buffer cars at the rear of all trains that utilize HEP-1 and HEP-2 stainless steel equipment manufactured more than 60 years ago.

The action was taken unilaterally by VIA as a safety precaution, pending further examination by the Transportation Safety Board of Canada and a series of more in-depth tests. There have been isolated instances over the last several decades where cars built by the Budd Co. and other U.S. manufacturers, primarily in the 1950s, have occasionally displayed structural defects during periodic heavy overhauls.

The coaches, sleeping cars, dining cars, and dome-lounges are currently mainstays on the Toronto-Vancouver, British Columbia, Canadian, as well as Winnipeg-Churchill, Manitoba, and northern Quebec remote-service trains. Six consists operating in the Quebec-Montreal-Ottawa-Toronto-Windsor corridor also have this equipment, as does VIA's Montreal-Halifax, Nova Scotia, Ocean.

The HEP-1 cars debuted on Canadian Pacific's transcontinental Canadian and Dominion in 1955; the HEP-2 designation was applied to other stainless steel cars acquired from Amtrak and other U.S. roads that were modernized by VIA in the early 1990s. (Trains News Wire)

CN acquires 122 General Electric ES44AC units from Citirail leasing



Kenneth Goslett

Canadian National was late to adopt alternating current (ac) traction for its diesel locomotive fleet. In 1995 competitor Canadian Pacific switched exclusively to ac traction for its high horsepower road units. CN felt that the extra cost of the a.c. equipment, at the time about \$500,000 per unit, was not justified given that CN's mainline crossing of the western mountains was relatively low grade. Not until 2012 did CN begin acquiring ac traction diesel units. But once the company found out how much these units would pull there was no looking back.

During 2021 CN added second hand ac traction units to its roster in the form of seventy-five General Electric ES44AC units that had been part of financial company Citirail's locomotive lease fleet. Locomotive leasing dried up as American railroads stored hundreds of locomotives as a cost saving measure brought about by a change in operating practices. Citirail was looking for a buyer and CN was interested if the price was right. After negotiations CN got the deal it wanted and the seventy-five Citirail units became CN 3913 - 3987. The units retained their Citirail silver paint with blue and yellow nose stripes.

For 2022 CN made a similar deal with Citirail for another forty-seven ES44AC units. With insufficient space

in the 3900 series the new acquisitions are becoming CN 2750 - 2796. These too are silver/blue/yellow as illustrated by 2786 shown here on an eastbound freight at Dorval, Quebec on July 20, 2022. With 122 ex-Citirail units on the roster, enthusiasts will be seeing them often on CN freight trains. (Kenneth Goslett)

New Life for Historic Niagara Falls and St. Catharines, Ontario Stations



(Niagara Regional Public Library)

Concluding negotiations that started in 2019, the Niagara Region in September 2022 announced the pending acquisition of the VIA Rail stations at St. Catharines and Niagara Falls, along with the surrounding station lands, as part of a significant redevelopment of the two station sites. Following approval from Parks Canada for the disposition of these heritage railway stations, the two parties are positioned to immediately transfer station ownership.

This implements a critical piece of the Region's GO Station Development Strategy and when complete, will see new multi-modal bus-meets-train connections at the two heritage station sites, and ensures a firm foundation is set for planned increases of GO train service to Niagara with the eventual goal of all-day GO service.

The Region committed \$40 million as part of its station development strategy back in 2016 to be a catalyst for GO expansion and has been advancing numerous station-enabling projects across the two station sites along with the Cities of St. Catharines and Niagara Falls. Both structures will receive modernized interiors and amenities and will become multi-modal facilities serving GO bus operations.

At present the stations see two trains each way per day; the VIA - Amtrak Maple Leaf linking Toronto and New York City and a GO weekday commuter service. In October In August 2022 the provincial government announced that the two round trips provided by GO on summer weekends and holidays would operate year-round.

The two stations are on the original line of the Great Western Railway which opened between Niagara Falls and Hamilton in 1853. The original wooden stations were replaced as passenger travel expanded. The present Niagara Falls structure was built in 1879 and was a sprawling Victorian Gothic brick structure that dominates Bridge Street. The eastern wing was truncated by CN in 1967. The St Catharines station was built in 1917 and was one of the last stations to be opened by the GTR before it was absorbed into the CNR.

New Track and Overhead Catenary System (OCS) at Fort Edmonton Park



Chris Ashdown

As part of the \$200 million Fort Edmonton Park utility upgrade and enhancement project, the entire streetcar track and overhead electrical system used by the Edmonton Radial Railway Society (ERRS) was replaced. The underground utilities in the park, installed in the 1970s, were located underneath the existing streetcar track. The track was built in the early 1980s and was poorly constructed using used materials. For years, the track suffered from poor drainage, gauge problems, and poor switches, sometimes leading to derailments.

It was determined that the least expensive option for utilities along the main roads in the park was to remove and replace the existing streetcar track, including the trolley wire inside the streetcar barn. The new track was designed with specifications calling for 115 lb. rail, 25 meter minimum radius in the two loops and full track drainage. The 115 lb rail was chosen as a less expensive option to lighter rail as it is standard on Edmonton's LRT system.

In addition, the overhead catenary system was completely replaced. Designed by Platinum Engineering Limited of Calgary, the new overhead catenary system is based on an LRT type system that calls for tensioned

overhead wire. Unfortunately, the project team decided to have a modern system installed, ignoring our recommendations for a more historic appearance. The total cost of the new track, track drainage and catenary was covered by the utility upgrade project.



Peter Murphy

The track was installed by PNR RailWorks Inc. and the catenary by Epcor. The result is a totally new track and trolley wire for the five, and soon seven, Edmonton Radial Railway Society streetcars operating at the park. The track is in excellent condition with full drainage, including the yard. The new system was turned over to the Edmonton Radial Railway Society on June 6, 2021 with regular service starting July 9, 2021.



Peter Murphy

Two views of Saskatoon, Saskatchewan sweeper / line car 200 whose restoration is nearing completion in the Edmonton Radial Railway shops. (Chris Ashdown, President ERRS)

New attraction at Kelly's Kaboose in Savona, British Columbia



Brian Kelly

In November 2020 Kelly's Kaboose, a railway store and museum in Savona, BC received an early Christmas present - a caboose that the Prince George Railway and Forestry Museum was de-accessioning because of duplicate pieces of rolling stock in their collection.

The caboose was in good shape, but needed some TLC. As it was late in the year it was tarped-up until the following spring. A decision was made to restore it to its original 1955 PGE appearance. The correct paint codes and logo templates were acquired from the West Coast Railway Association in Squamish who had restored an identical one.

The first task was to replace the leaking roof and some exterior panels. A first coat of paint was applied, but, due to supply issues, additional paint for a second coat could not be had until the summer of 2022. With help from close friend and rail enthusiast Rick Bennett, the second coat and emblems were applied. All that remains is repainting the yellow handrails and lower steps.

the caboose is now a highlight of our store and certainly an attraction for Savona. Be sure to visit us if you're ever out this way. (Brian Kelly)

Amtrak trains between Vancouver and Seattle restart after over two years



The first northbound train 516 was photographed at mile 144 New Westminster Subdivision on September 26, 2022. Andy Cassidy

The first northbound train 516 was photographed at mile 144 New Westminster Subdivision on September 26, 2022. Andy Cassidy

Amtrak restarted the Seattle to Vancouver service on September 26, 2022. The service restarted after a prolonged pandemic hiatus since March 2020, initially due to health safety and travel restrictions, and then a severe labour shortage in specialized Amtrak workers.

Amtrak originally stated it would not be able to restart services to Vancouver until December 2022, but it later determined it was able to address the minimum labour requirements for the service much earlier than originally anticipated. The service is limited to a single daily roundtrip service, down from the pre-pandemic service of two daily roundtrips.

The Canada-bound train leaves Seattle's King Station at 7:45 am and arrives at Vancouver's Pacific Central Station at 11:45 am. For return, the US-bound train leaves Pacific Central Station at 5:45 pm and arrives at Seattle's King Street Station at 10:10 pm.

A second daily trip will be added in the future when Amtrak's staffing and equipment allow for the return of full pre-pandemic service levels. (The Daily Hive)

North Conway Scenic Railroad ex CNR 7040 back in service



Brian Kelly

Built in the Grand Trunk's Pointe St Charles shops in 1921, the 1795 (renumbered by the CNR to 7470) is steaming more than a century later. Acquired by Dwight Smith in 1958, he used the 7470 to launch service on the North Conway Scenic Railroad in 1974. After a four year overhaul, the steamer resumed revenue service in July 2022. (Douglas NW Smith)

1932 | 2022

CRHA
90
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Anniversary | Anniversaire

Version française : Lorence Toutant

In the early 1970s, a team of dedicated volunteers proceeded to create the initial stub-end streetcar line at Exporail using the material donated by CN from its Fort William, Ontario shuttle tram line. Here Edmund (Ed) Lambert installs a trolley wire support shoe while John Doyle looks on. The first tram operated on Thursday, September 21, 1972 with MTC Chairman Lucien L'Allier at the controls. Mr. L'Allier was an engineer and he was responsible for supervising the building of the initial Montreal Metro system. He retired two years after opening Exporail's streetcar line. The trolley system survived until 2022 when worn out sections were replaced by REM professionals.

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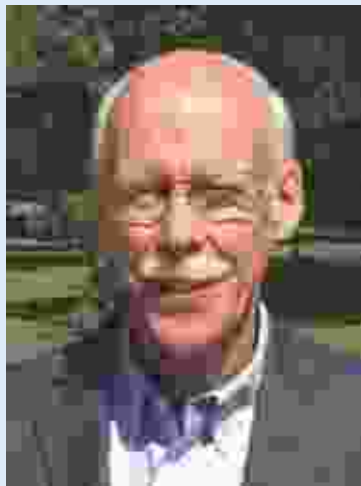
COMMUNICATIONS

President's Report

Rapport du Président

Most of you know that the CRHA has archives where we preserve and protect documents relating to Canadian railway history. But many of you will not realize that our archives is the largest collection of railway-related documents in Canada. Here is a brief tour of what is held here at the Exporail facility:

- The largest collection of books and periodicals in the country on the topic of railways, with over 12,000 items. This collection merited a chapter in an academic book on remarkable Quebec libraries published (in French) a couple of years ago.



Robbie Robinson

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- The archives of the Canadian Pacific Railway Company, which were donated to us in 2014. These archives are arguably the second most important private archives in Canada, after those of the Hudson's Bay Company. We have even succeeded in getting the CP collection listed on UNESCO's Memory of the World Register. The CRHA employs a full-time archival technician to work on the cataloguing and digitization of images of this collection alone.
- Over one million images
- Roughly 4,500 hours of audio-visual material
- More than 200,000 maps, plans and posters
- In total, 1.6 linear kilometres of document files

The archives are in the charge of Mylène Bélanger, who has managed our archives for five years. Under her guidance there has been great progress in digitizing and disseminating our holdings on various on-line platforms, including our website, as the objective is to make our railway heritage as accessible as possible. Flickr has several albums of photos of CP railway hotels, for example. She directs volunteers who scan photos and documents and perform other tasks, as well as permanent and contract staff.

We apply regularly for subsidies from Library & Archives Canada (LAC) and Bibliothèque et Archives nationales du Québec (BAnQ) to allow us to hire archival technicians on contract to catalogue and digitize specific collections.

One particularly challenging project was to isolate the old nitrate negatives in the CP collection. These negatives decay with time, give off gases which can degrade other media in the archives, and have even been known to spontaneously combust. Over 10,000 of these negatives have been identified, digitally scanned, and then placed in individual envelopes, wrapped in special foil and stored in freezers. This work was funded by LAC to the tune of over \$80,000.

The CRHA Archives are accredited as a private archives by BAnQ, who rigorously ensure that we meet their standards. As a result of this we qualify for regular

Welcome to our new employees

We have experienced some departures within the Exporail administrative team and we are now living in a time of great change. It is with great pleasure and pride that I announce the arrival of two new employees, welcome aboard!

Marie-Anne Durocher has been hired as Room Rentals, Site Rentals and Gift Shop Manager. Marie-Anne has already worked at Exporail when she replaced Mylène Bélanger, our archivist, during her maternity leave. She has also done a few contracts for Exporail and was also a volunteer at the archives. She also worked at the Colby-Curtis Museum in Stanstead as a conservation assistant. She is versatile and has also worked in education, communications and has a keen interest in providing first class customer service. Marie-Anne can be reached at locations@exporail.org and at telephone extension 221.

The position of Operations and Volunteer Manager is now occupied by Sylvain Bissonnette. Sylvain has been passionate about trains since the age of 14. After a military and police career spanning more than 40 years and as a volunteer at the Fusiliers Mont-Royal and Montreal Police museum, he is pleased to join the Exporail team. He will tell you that it is a dream come true for him to start this new career and to follow his passions. Come and meet him on site! I invite you to contact Sylvain by email at operations@exporail.org or by phone at extension 222.

Welcome to our new employees

Nous avons fait face à des départs au sein de l'équipe administrative d'Exporail et nous vivons maintenant une époque de grands changements. C'est avec plaisir et une grande fierté que je vous annonce l'arrivée de deux nouveaux employés dans l'équipe!

Marie-Anne Durocher a été embauchée à titre de responsable des locations de salles, de site et gestion de la boutique. Marie-Anne a déjà travaillé à Exporail alors qu'elle a remplacé Mylène Bélanger, notre archiviste lors de son congé de maternité. Elle a aussi réalisé quelques contrats pour Exporail et agissait aussi en tant que bénévole aux archives. Elle aussi travaillé au musée Colby-Curtis à Stanstead comme adjointe à la conservation. Polyvalente, elle a touché également à l'éducation, aux communications et a un souci aigu de la prestation d'un excellent service à la clientèle. Vous pouvez rejoindre Marie-Anne à l'adresse: locations@exporail.org et au poste 221.

Le poste de Coordonnateur, gestion des opérations et des bénévoles a été comblé par Sylvain Bissonnette. Sylvain est passionné de trains depuis l'âge de 14 ans. Après une carrière militaire et policière sur plus de 40 ans et en tant que bénévole aux musées Les Fusiliers Mont-Royal et celui de la police de Montréal, il est heureux de se joindre à l'équipe d'Exporail. Il vous dira que c'est ainsi un rêve pour lui qui se concrétise de tourner une nouvelle page professionnelle et de suivre ses passions. Venez le rencontrer sur place! Je vous invite à communiquer avec Sylvain par courriel à l'adresse operations@exporail.org ou par téléphone au poste 222.

