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Progress on the Jungfraubahnen V-Bahn Project



Old and new – side by side. The last few days of the original Männlichen Gondelbahn with the new top station ready to take over. All photos: Glyn Jones

The replacement Gondelbahn Grindelwald Männlichen (GGM) is scheduled to open on 14th December 2019 as the first element of the Jungfraubahnen V-Bahn project, replacing the existing infrastructure which closed on 31st March 2019 at the end of the ski season. The original cableway was opened in 1978 and was then the longest in the world; it was still the third longest and the longest in Europe at its closure. Summer operation this year was replaced by a bus service from Grindelwald and of course access was still available by cable car from Wengen via the Luftseilbahn Wengen Männlichen (LWM).

The new cableway, manufactured by Garaventa, will reduce the journey time from the current 30 minutes to 19 minutes and double the capacity to 1800 persons per hour. It will consist of 109 gondolas, each with a capacity of 10 people and have 33 support columns. The existing infrastructure was dismantled during the summer. The cabins were quickly removed and transported to the car park at the base station at Grindelwald Grund. All 230 of them had been sold a year before to private buyers at a price of about CHF 1000 each and collection was on Wednesday 3rd April 2019. The majority of the cabins were still in their original colour of red, although some had been repainted in yellow, in recognition of the cableways sponsor, Riccola. Ten were painted orange - to represent the number of goals the Netherlands scored during the Euro 2008 football championships, which were jointly held in Switzerland and Austria. The Netherlands team had a connection with the area as they had trained in Interlaken. Some of the cabins were collected in quantity by articulated lorry, some by private car and trailer and

some on local farm machinery.

The new Berner Oberland Bahn (BOB) station at Rothenegg which will connect with the base station of the GGM and the *EigerExpress*, now spelt as one word, will be commissioned in December – presumably in time for the timetable change and the re-opening of the GGM. The new terminal, complete with shops, bistro and ski facilities, will only partially open this year and the multi-storey car park, with a capacity of 1,000 vehicles and grass roof, will not be ready until the end of 2020, along with the rest of the terminal facilities.

The EigerExpress, which will connect Grindelwald Grund with Eigergletscher is scheduled to open on 12th December, 2020. This tri-cable gondelbahn will have a capacity of 2,400 persons per hour, using 44 cabins, with 28 seats and a travel time of 15 minutes. Using tri-cable technology (two support cables and one running cable) combines all the advantages of both the gondola and the cable car. It can be run across great distances with a small number of support towers whilst still being very stable in the wind. As a result, only seven intermediate supports are needed for the EigerExpress and the impact on nature and the landscape is minimised. The tricable technology is significantly more expensive to install than the single cable used by the GGM, but the benefits, in terms of reduced landscape intervention and operational viability, justify the initial higher costs. The latest technology will also allow the EigerExpress cabins to stop completely for loading and unloading at the top and bottom station, which is essential when there are 28 passengers to embark in each cabin.



TOP: Grindelwald Grund construction site. The new base station of both the GGM and EigerExpess. *MIDDLE:* Salzegg and the bottom station of the temporary

materials cable car to Eigergletscher.

BOTTOM: Eigergletscher construction site – the upper end of the materials cable car. Only the Swiss could erect a tower crane in such an inhospitable place.

An additional materials cable car has had to be constructed between Salzegg (just below Kleine Scheidegg on the Grindelwald side) and Eigergletscher, to service the building site there. Much work has to be done at Eigergletscher in relocating and extending the two station platforms; extending the tunnel portal, as well as the construction of the upper station for the EigerExpress, and a new transformer house. A lot of tunnelling and excavation work can be seen. There will be two 40 metre long tunnels joining Eigergletscher Station with the EigerExpress terminal, these are required to separate arriving and departing visitors. The breakthrough for these was on the 15th March, 2019. As the EigerExpress has a capacity of 2,400 passengers per hour, presumably that is the number Eigergletscher Station must cater for, although I think it is anticipated the Jungfraujoch visitors will make the return journey via Kleine Scheidegg. It may or may not be the case as many of the tour groups are on a very tight time schedule. Another influence will be the pricing structure. Will the fare on the EigerExpress be more, or less than the cost of the comparable train ticket? The capacity of the Jungfrau railway will increase to 1,180 passengers per hour, consisting of 2 trains shuttling between Eigergletscher and the Jungfraujoch in a 60-minute circuit and three trains between Kleine Scheidegg and the Jungfraujoch in a 90-minute circuit. Presumably, these trains will also pick up and drop off the majority of their passengers at Eigergletscher, which will become a very busy place, in contrast to Kleine Scheidegg which will become very quiet.

Jungfraubahnen, as part of the concession process for the V-Bahn (the name comes from the "V shape" of the cables leaving the Grindelwald Grund base station to Männlichen and Eigergletscher), have had to guarantee that the service on the Wengernalpbahn (WAB) between Kleine Scheidegg and Grindelwald will continue to provide at least an hourly service, 365 days a year.

There is an information pavilion on the site at Grindelwald Grund which is open daily from 08:00 until 18:00 and includes a virtual reality ride on the *EigerExpress*. The website for the project in English is: **https://v-bahn.jungfrau.ch/en/** which includes 360 degree webcams of the worksites. Of course the reason for the *EigerExpress* is to speed up the journey time to the Jungfraujoch which it achieves by a 47 minute reduction from 2 hours 17 minutes to 1 hour 30 minutes for the journey time from Interlaken Ost to the Jungfraujoch.

Some facts and figures:

EigerExpress: height difference 1,391 metres with a total length of 6,483 metres.

Each of the four supporting cables weigh 532 tonnes and the 2 towing cables weigh 168 tonnes each.

GGM: height difference 1,288 metres with a total length of 6,100 metres.

The cable weighs 124 tonnes and the total cable length is 12,554 metres.

The total cost of the V-Bahn project is 470 million CHF. 🚺