

= Follo Line =

The Follo Line (Norwegian : Follobanen) is a planned 22 @. @ 5 @- @ kilometer (14 @. @ 0 mi) high @- @ speed railway between Oslo and Ski , Norway . Running parallel to the Østfold Line , it will be engineered for 250 km / h (155 mph) . Terminal stations will be Oslo Central Station and Ski Station . Most of the line , 19 kilometres (12 mi) , will be in a single tunnel , which will be the longest railway tunnel in the country . Construction is estimated to start in 2014 , and may be completed by 2020 / 21 . The Follo Line will increase capacity from twelve to forty trains per hour along the South Corridor , and will allow express and regional trains to decrease travel time from Ski to Oslo from 22 to 11 minutes . The line is prospected to cost over 20 billion Norwegian krone (NOK) .

The project is a continuation of the Norwegian National Rail Administration 's plan to build four tracks along the three main corridors out of Oslo ; the Gardermoen Line was completed in 1998 , and the Asker Line has been completed in 2011 . Between 1989 and 1996 , the Østfold Line south of Ski to Moss was upgraded to double track and higher speeds . To take full advantage of this and allow the rest of the Østfold Line to be upgraded for high speeds , it is necessary to increase capacity through the bottleneck from Oslo to Ski . The first plans for the Follo Line were launched in 1995 , and also included an intermediate station at Vevelstad and Kolbotn . The new line is predicted to increase rush hour rail ridership 63 % , and increased freight on rail would remove 750 trucks daily from European Route E18 .

= = Background = =

The first railway in the Follo district was the Østfold Line of the Norwegian State Railways (NSB) that opened on 2 January 1879 , between Oslo East Station and Halden . Later the same year , the line was extended to the Swedish border , where it connected to the Norway / Väner Line . The importance of Ski Station increased on 24 November 1882 , when it became the station where the Eastern Østfold Line split , and went via Inner Østfold to Sarpsborg , where the two lines reconnected . Electrification of the section from Oslo to Kolbotn was completed on 18 January 1937 , and the section to Ski finished in 1939 ; the whole Østfold line was completed in 1940 . Between 1924 and 1939 , NSB built double track along the route between Ski and Oslo . From 1989 to 1996 , NSB upgraded the track to double track from Ski to Sandbuka , just north of Moss . This section is capable of speeds of 200 km / h (120 mph) , however the maximum is 160 km / h (99 mph) due to short distances between stops and limitations of the rolling stock .

In 1992 , the Norwegian Parliament decided to build the first high @- @ speed railway in Norway , from Oslo via the new Oslo Airport , Gardermoen to Eidsvoll . This line would run parallel to the Hoved Line , increasing the speed and capacity along the route . Fast express and regional trains could run along the new section , while slower commuter trains used the old tracks and could make many stops without disturbing other traffic . Projects were launched during the 1990s to create similar high @- @ speed bypasses from Oslo to Ski , and from Skøyen (west of Oslo) to Asker . Construction of the latter ? christened the Asker Line ? started in 2001 , and the first section from Asker to Sandvika opened in 2005 , while the second section is expected to open in 2011 .

The Østfold Line between Oslo and Ski remains the largest bottle @- @ neck on the Norwegian railway network . The line restrains the track to twelve trains per hour (six per direction) and hinders freight trains from using it during rush hour . The bottleneck occurs because there are up to four trains each hour making stops at all stations , and these stops delay all express and regional trains that follow . Travel time is 22 minutes for direct trains to Ski , and 31 minutes for commuter trains with a speed limit of 80 km / h (50 mph) along most of the line . Capacity on the upgraded double track from Ski to Moss cannot be fully utilized due to the limitations along the section from Ski to Oslo , and further growth in the number of freight trains along the South Corridor to Sweden and Continental Europe is impossible without reducing the number of passenger trains .

Despite the existing double track all the way from Oslo to Moss , a further upgrade southwards will not be able to increase capacity past the current single train per hour to Fredrikstad , Sarpsborg and

Halden . The most optimistic plans involve finishing the first upgrades of track south of Moss simultaneously with the Follo Line . The Rail Administration and Ministry of Transport is working on proposals for a high @-@ speed railway between Oslo and Gothenburg in Sweden . This line would most likely use the Follo Line for the initial distance from Oslo .

= = Route = =

The initial plan from 1995 involved two intermediate stations , at Vevelstad and Kolbotn . The plans also suggested building the line in two phases , first between Ski and Kolbotn , and then from Kolbotn to Oslo . In 2008 , the National Rail Administration announced two possible plans for the right @-@ of @-@ way ? both predominantly in tunnel . The one proposal included Kolbotn , the other did not . Both excluded Vevelstad as a station on the new line , since the station could not develop as a hub , and would still keep services along the existing commuter line . A report from Det Norske Veritas published in 2008 , and ordered by the Rail Administration , concluded that neither a station at Vevelstad or at Kolbotn could support the extra cost of construction . A direct line with no intermediate stops is estimated to cost NOK 11 billion , while a line via Kolbotn would cost 13 @.@ 5 billion . The report also argued that the intermediate stops would decrease capacity and increase travel time for all passengers departing south of Ski and traveling north . The exclusion of Kolbotn would also increase the importance of Ski as a regional public transport hub . In 2009 , the Rail Administration abandoned the plans to build the line via Kolbotn , stating that it was more important to secure a fast connection to Ski . At the same time , they promised to upgrade the existing station at Kolbotn .

The rail line is planned for at least 250 km / h (160 mph) , although faster speeds are being considered . The earliest possible construction start is 2014 , which could allow completion by 2020 / 21 . Ski Station will also be upgraded as part of the project , and will be expanded to six tracks . Plans to connect the Eastern Østfold Line to the slower line were considered where the Eastern Østfold Line diverges from the Østfold Line at Ski . However this has changed so the local trains from Eastern Østfold can travel to Oslo faster along the new tracks .

Just south of Oslo Central Station , each of the two tracks will diverge , and follow different routes . The inbound track will hook up with the Østfold Line at Sjursøya , while the outbound track will diverge at Loenga . An additional connection to the Østfold Line will be made at Nordstrand . The Østfold Line connects to the Hoved Line and Loenga ? Alnabru Line before reaching Oslo Central Station (Oslo S) . If the Kolbotn @-@ alternative for the Follo Line is chosen , the Østfold Line will be rebuilt to follow a similar path to the Kolbotn station , which will require a new station building to accommodate the two lines . For this alternate route the two lines will enter the Kolbotn station at two levels , with the Follo Line running in a tunnel below , and the Østfold Line running at @-@ grade above .

= = Impact = =

The Follo Line will allow the capacity in the South Corridor from Oslo to increase from about twelve to forty trains per hour . Local and freight trains will use the Østfold Line , while regional and express trains will use the Follo Line . Travel time will be reduced from 22 to 11 minutes . With a new line , there will be 11 @,@ 000 more public transport trips through the corridor ; this includes a 67 % increase during rush @-@ hour and 43 % the rest of the day . This allows a reduction of 5 @,@ 800 car trips per day and reduces carbon dioxide emissions of 5 @,@ 474 tonnes . Rush hour capacity would be eight trains per hour to Kolbotn , with four continuing to Ski along the old line . The new line would be served by four trains to Moss , two to Mysen and two to Halden . There would be half the frequency during off @-@ peak hours .

The Østfold Line is the railway that connects Norway to Continental Europe , and 80 % of all land @-@ based , international freight transport goes through Østfold . Until the Follo Line opens , there cannot be a capacity increase on international freight trains to Norway . The Rail Administration has set a goal of tripling the amount of rail freight by 2040 , which for the South Corridor is equal to the

removal of 750 trucks per day from European Route E18 . The Follo Line will also allow freight trains to pass during rush hour .