Dansk Forening for Tunnel- og Undergrundsarbejder Danish Society for Tunnels and Underground Works



Nordic Tunnel News n°03 – September/October 2024

Sweden - The West Link in Gothenburg. On the 16th of October, the Swedish Transport Authority, TRAFIKVERKET, published an invitation to tender for the construction of lot E11 Stora Hamnkanalen, part of the Haga sub-section on the West Link line (Västlänken) in Gothenburg. Works within lot E11 mainly include: a short double-track tunnel section to be built partly as rock tunnel (16 m) and partly in cut-and-cover (54 m), temporary support structures and deep shafts. The construction works are planned to start in April 2025 and should be completed in June 2029. The estimated value of the contract is 280 million SEK. Works on the West Link started in 2018; the new line has a total length of 8 km with just over 6 km running in tunnel under central Gothenburg. Three new underground stations are built at Korsvägen, Haga and Gothenburg Central. The entire line is currently estimated to open in 2030.



Norway - Prequalification for the E134 Røldal and Seljestad. On the 11th of October, the Norwegian Public Roads Administration published the list of contractors invited to submit bids for the E134 highway project between Røldal and Seljestad. The project is announced as a turnkey contract that includes the design and construction of the 12.4 km long Røldal tunnel, 2.9 km of access roads, a pedestrian and cycle path of approx. 0.7 km as well as various constructions on the road network. The contract has a value of 2.5 billion NOK excl. VAT. The prequalified companies are: AF GRUPPEN NORGE AS; HÆHRE ENTREPRENØR AS; JV METROSTAV NORGE AS/ BERTELSEN & GARPESTAD AS; and JV LEONHARD NILSEN & SØNNER AS/OBRASCON HUARTE LAIN SA. Initially, six contractors wanted to participate in the competition, however the Italian company ITINERA was rejected due to a ruling in the Oslo district court and the JV IMPLENIA NORGE /TT ANLEGG has withdrawn from the competition. The four bidders have until 31 January 2025 to submit a final offer, and the contract should be awarded in March 2025.

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Norway - E39 Lyngdal West-Kvinesdal. On the 9th of October, the Norwegian State owned company, NYE VEIER, announced that a project proposal for the new E39 Lyngdal West-Kvinesdal has been submitted to the Lyngdal and Kvinesdal municipalities. The new 4-lane E39 will be 24 km long including three twintube tunnels: Refstihei, Høylandsdalen, Teistesdal as well as a single tube tunnel near Øyesletta. NYE VEIER has elaborated the project proposal together with engineering company SWECO NORGE AS. The two municipalites are expected to approve the project in November 2024.



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Denmark - Immersion vessel for the Fehmarnbelt project. On the 26th of September, a special immersion vessel arrived at the Fehmarnbelt tunnel's construction site at Rødbyhavn on Lolland. The Immersion Pontoon, that in fact consists of two vessels, that can be assembled and disassembled, was delivered to the tunnel contractor, Femern Link Contractors (FLC) after a long journey from the Crist shipyard in Gdynia in Poland. The vessels; Ivy 1 and Ivy 2 have been specifically designed to support the tunnel elements during their journey from the work harbour. When the 217 m long elements leave the factory, they are light enough to float. However, prior to the immersion process, several thousand tonnes of additional ballast concrete will be added to make the elements heavy enough to be immersed in the dredged tunnel trench on the seabed. From here the tunnel element will only be supported by the two Immersion Pontoons, which will serve as the tunnel element's 'bathing wings'. The Immersion Pontoon has two main functions: to support the elements and to control the immersion process. The vessel contains winches with over 200 km of steel wire and a control room from where the immersion process will be managed. Additional technical equipment will be installed over the coming months. The vessel will then be thoroughly tested at sea before the immersion of the first tunnel element can get underway.



Denmark - Consultancy procurement for the 3rd Limfjord Crossing. On the 18th of September, the Danish Road Directorate (VEJDIREKTORATET) published a procurement for client consultancy services for the 3rd Limfjord Crossing. The project involves the construction of approximately 20 km of a four-lane highway west of Aalborg via Egholm, connecting to the E45 North Jutland Motorway and the E39 Hirtshals highway to the north. The procurement concerns client consultancy related to the design of the fjord crossing including: an immersed tunnel with installations under the southern branch of the Limfjord, low bridges over the northern branch (Nørredyb), land reclamation south of Egholm, as well as larger bridges connected to the land infrastructure. The contract value is expected to be between DKK 200,000,000 and 300,000,000, excluding VAT.

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Norway - Cooperation agreement on the Stad ship tunnel. On the 18th of September, the Coastal Administration (KYSTVERKET) and the Public Roads Administration (VEGVESEN) signed a cooperation agreement on the Stad ship tunnel. The Norwegian Coastal Administration is to be considered a one-time client when it comes to such a large project as the ship tunnel, and it is therefore not appropriate to build up a large project organization internally according to Einar Vik Arset, director at the Coastal Administration. The Public Roads Administration has available capacity and extensive experience from large tunnelling projects and has an entire organization that can contribute to the project. Director of development in the Public Roads Administration, Kjell Inge Davik, stated that the Stad ship tunnel is a spectacular project with great interest for the construction industy. The cooperation agreement primarily regulates the cooperation between the administrations in the tender phase and up until the signing of the contract. Later, it is intended that the agreement can be extended to the construction phase. The project documentation is now in the final phase and the invitation to tender is expected to be published in December 2024.



Photo:Kystverket

Denmark - Contract award for the M5 transport system. On the 16th of September, METROSELSKABET assigned the consultant that will assist with preliminary designs of the transport system for the planned metro line M5 in Copenhagen. The JV SYSTRA / RAMBØLL, with GOTTLIEB PALUDAN ARCHITECTS as subconsultant, will assist with the development of the basic design of the transport system, the control center and maintenance depot. The consortium will define the technical specifications for trains, infrastructure and related subsystems as well as providing strategic advice for future operations and maintenance. The alignment of the M5, which is yet to be determined, will ensure metro connection to existing urban areas and to new districts in the Eastern harbour area.

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Norway - Start of the Arna-Stanghelle joint project. On the 11th of September, Finance Minister Vedum and Transport Minister Nygård announced that the Arna-Stanghelle joint project will receive funds in the proposal for next year's state budget, which could pave the way for the announcement of the first construction contract in 2025. Bane NOR and the Public Roads Administration, are jointly planning to build a new railway and highway, from Arna outside Bergen to Stanghelle, in Vaksdal municipality. Due to the western topography with mountains and deep fjords, the railway and highway will mainly be built underground. The new E16 will be built as a 4-lane highway from Arna to Trengereid through the Tunesfjell twin-tube tunnel (8.8 km), and continue towards Stanghelle as a 2-lane road through the Raudnipa (10.1 km) and Berrfjell (8.9 km) tunnels. The double-track railway line includes the 18.7 Arna tunnel and the 7.8 km long Vaksdals tunnel. Altogether almost 80 km of tunnels are to be built in what will be Norway's largest tunnel project of all time. The construction period is expected to be approximately 12 to 14 years.



Illustration: Vegvesen