



Client: HOFOR A/S
Engineering office: COWI A/S
Main contractor: JV NCC / Smet Group
Machine: AVND 2500
Tubes: Berding Beton
ID-OD: 2.500 - 3.000 mm
Length: 580 m
Execution period: 2016

After 3 months of drilling in the Danish ground (a tunnel of 580 meters long, inner diameter of 2,5m), drilling machine Estrid has finished her task. According to project manager Kasper Juel-Berg of HOFOR, this is a very important step in order to cope with the climate changes in Østerbro (a district in Copenhagen).



HOFOR, Copenhagen's main energy and water supplier, has, together with the contractors NCC and Smet-Tunnelling (a division of Smet Group), arranged that the rainwater, falling on Østerbro, is buffered and diverted to the sea, instead of flooding the streets and buildings, during heavy rainfall. In addition, some local connections were made to divert all the water in the surroundings to the tunnel and also a smaller tunnel DN1600 was drilled to Carl Nielsens Allé.

From the summer of 2016 onwards, the tunnel is operational and the risk of flooding in Østerbro during heavy rainfall is reduced significantly. Before the drilling started, geological investigations were executed, but one can never know what you may find in

the ground and how the drilling will proceed. Project manager Youri Demeulemeester of Smet Group, explains that on her way, Estrid encountered hard and polluted soil, but with the right measures she has overcome all obstacles. The tunnel in Østerbro is the first rainwater tunnel of HOFOR. The tunnels are the highway of climate adaptation; they can divert a large amount of rainwater away from the city in a short time span.

Only within 20 to 30 years, the climate adaptation of Copenhagen will be realized, but for now, smaller initiatives such as cloud-burst chambers in the roads, have shown their usefulness.

