

# PROJECT REPORT



## AMAGER RESSOURCE CENTER, COPENHAGEN



### PROJECT DATA

**Area:** total ca. 16.000 m<sup>2</sup>, of which are pathways, 3.000 m<sup>2</sup> planted areas and 10.000 m<sup>2</sup> ski slope  
**Construction Year:** 2018/2019

#### Architects:

BIG, Copenhagen

#### Landscape Architects:

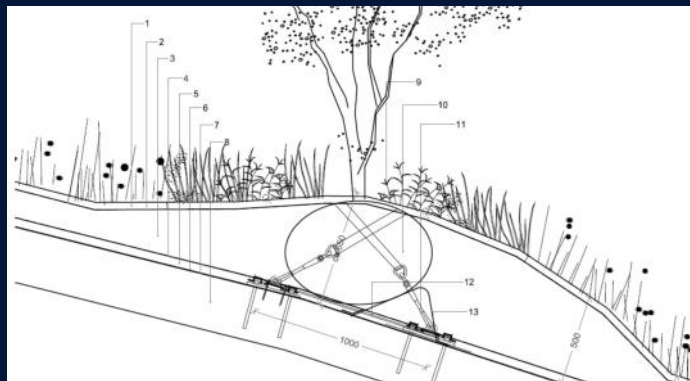
SLA, Copenhagen

#### Contractor:

Malmos A/S, Roskilde

#### System Build-up:

Special solutions with Elastodrain® EL 200 and Protectodrain® PD 250



### SYSTEM BUILD-UP

1. Wildflower meadow as pre-cultivated vegetation mat and drip irrigation
2. Anti-Erosion-Net
3. System substrate
4. Filter sheet
5. Protection and drainage sheet (EL 202)
- 6-8. Root resistant sealed concrete roof deck
9. Woodland perennials and drip irrigation
10. Root ball
11. Subsurface anchorage
- 12-13. Reinforcement steel mesh fastened to the roof deck

### CONCEPTION

In October 2019, Copenhagen gained a new attraction: A ski slope in the city! The waste incineration plant “Amager Resource Centre” provides electricity for 30.000 and heating for 72.000 households with the roof of the building accommodating a vegetated ski slope of 450 m. Visitors do not ski on snow, but green synthetic mats with real grass growing through the mats. Four lifts bring visitors comfortably to a platform 87 m up high, where they can enjoy a panoramic view of Copenhagen. Alternatively, one can take a pathway surrounded by lush greenery along the slope. The slope flattens towards the

bottom of the building allowing beginners to also approach the sport. Numerous shear barriers were anchored in the concrete roof structure to stabilize the system build-up and prevent sliding. Exceeding water is also being diverted towards the edges of the roof. The root balls of the trees, weighing up to 2,5 tons each, are supported by customized mesh structures. The substrate is embedded into two layers of geogrids, connected by nearly 500.000 pieces of cable binders. The operator of “Copenhill”, as the plant is also called, expects to welcome approximately 300.000 visitors a year.



Protectodrain® and Elastodrain® mats ensure the safe drainage of exceeding water on the entire surface.



The root balls of the shrubs are supported by specially shaped reinforcement steel meshes.



The substrate underneath the plastic mats lies embedded between two layers of geogrids.

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