



Wildlife parks

Sustainable enclosure solutions with steel sheet piles

ArcelorMittal



Amphitheatre at Doué-la-Fontaine Biopark

Unique steel sheet piles enclosures

Steel sheet piles make an important contribution to the circular economy. They are reusable and 100% recyclable.

They are also quick to install, requiring little space or equipment. As such, the construction phase also contributes to achieving a lower environmental impact. Thanks to their flexibility, sheet piles can be ideally adapted to all kinds of geometries. The appearance of untreated sheet piles also allows them to be well-integrated into the landscaped areas, such as wildlife parks.

Steel sheet piles were chosen to create original spaces for some of the animals at the Doué-la-Fontaine Biopark and the Sainte-Croix Animal Park in France.

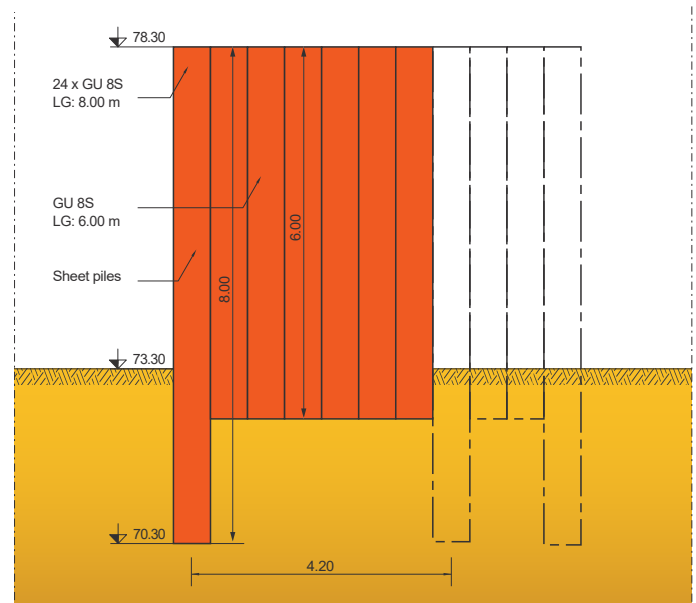
Doué-la-Fontaine Biopark

Near the city of Saumur in France, more than 1,300 animals live in an exceptional natural setting at the Doué-la-Fontaine Biopark, which is dedicated to the protection of endangered species.

Aerial view of the amphitheatre at Doué-la-Fontaine Biopark



Staggered sheet pile wall



Designed by the Biopark's director, François Gay, the 'EURASIA - The ghosts of the Himalayas' project gave rise in 2017 to a unique landscape formed by hexagons carved out of the rock, offering climbing opportunities for the park's mountain species.

Work to install the various steel sheet pile structures began in September 2016 and was carried out by the Verchéenne company based near the site. The project's original concept required many hours of study on the installation methodology. For the 80-by-64-metre elliptical amphitheatre, a curved modular guide was specially designed and constructed, allowing the sheet piles to be installed with a staggered combination technique: alternating long sheet piles interspaced with shorter sheet piles. The GU 8S profiles in S 355 GP grade, in lengths ranging from 6 to 12 m, were installed by vibratory hammer.

Black bear enclosure at Sainte-Croix Animal Park



Black bear enclosure at Sainte-Croix Animal Park

Located in Lorraine, the Sainte-Croix Animal Park welcomes more than 350,000 visitors annually. Over the past 40 years, Sainte-Croix has become a benchmark in France and Europe for the presentation of European fauna and endangered species from around the world. More than 1,500 animals from 100 species live in semi-liberty in a 120-hectare green setting.

As part of the park's extension, a new area known as 'New World' was built with EcoSheetPile™ steel sheet piles, made from 100% recycled steel. This new area is home to North American species and 28 residential lodges covering an area of 8 hectares, as well as a new enclosure for bears, coyotes, and American bison.

The 'New World' section is part of a sustainable tourism approach, both in terms of its design and its future operation. In particular, the site's power grid is 100% eco-responsible and powered with 100% renewable electricity. Solar panels on the roofs of the lodges provide hot water for the accommodations. This approach is fully in line with the Zero Waste policy that Sainte-Croix has been pursuing since 2016: sorting waste, educating the public to get everyone actively involved as citizens, and working towards obtaining the European Ecolabel. The use of sheet piles made from 100% recycled steel supports this eco-responsible vision.

310 t of PU 22⁻¹⁰ sheet piles in S 355 GP grade and lengths of 6.3 to 12 m were installed by using a ABI SM 12/16 B and a MRZV 30VV vibratory hammers.

Durmeyer was responsible for the seven-weeks long pile-driving work. The new site opened its doors in 2019.

"New World" extension of the Sainte-Croix Animal Park



Black Bear Enclosure

