Sportanlage Ehestorfer Weg
Picture: Bezirklicher Sportstättenbau, Hamburg

SUSTAINABLE SPORTS FACILITY PLANNING

IN HAMBURG - 2021

Bezirksamt Hamburg – Mitte
Fachamt Bezirklicher Sportstättenbau

Hamburg

Online-Meeting, 15.03.2022

INTRODUCTION

Torge Hauschild

Bezirksamt Hamburg-Mitte
(Hamburg-Central District Office)

Fachamt Bezirklicher Sportstättenbau
(District Sports Facilities Construction Office)

The District Sports Facilities Construction Office assumes the role of a central planning, construction and maintenance service provider for Hamburg's public/district sports infrastructure.

At present, a team of 15 employees looks after the approximately 150 public/district sports facilities with about 215 pitches (varies) and approx. 360ha of land area in all aspects of outdoor sports facilities and sports field buildings.

Picture: Bezirklicher Sportstättenbau, Hamburg

Hamburg

„GROWING CITY“

As in many other urban communities or "growing cities" like Hamburg, basically only the existing places are maintained and hardly any new ones are built.

Existing pitches need to be refurbished / modernised because there will be an urgent need in the near future.

So our main goal is to create pitches that are
- reliably available all year round
- to enable an expansion of sports activities (and some other activities, for that matter)

With this goal in mind, there is - from our point of view - currently no other option than the use of artificial turf.

Picture: Bezirklicher Sportstättenbau, Hamburg

DEVELOPMENT

9th Hamburg Sports Report (2021)

Dekadenziel 1

SPORTmachtSTADT – Stadtteilentwicklung durch Sport und Bewegung

Decade Strategy, Decade-goal 1

Großspielfelder	Einheit	2013	2015	2017	2018	2019	2020
Anzahl	St	218	218	221	220	218	217
Ansatz Nutzungsstunden Vereinssport	h	271.500	280.500	302.000	310.000	310.500	313.500

Type of pitch

Artificial turf

Number
Percent

Großspielfelder – Typologie	Einheit	2013	2015	2017	2018	2019	2020
Kunststoffrasen							
Anzahl	St	**37**	**51**	**77**	**88**	**93**	**98**
Anteil an der Gesamtzahl der Großspielfelder in Prozent	%	16,97	23,39	34,84	40,00	42,66	45,16
Ansatz Nutzungsstunden / a (x 2.000)	h	74.000	102.000	154.000	176.000	186.000	196.000
Tennenbelag							
Anzahl	St	**107**	**95**	**76**	**68**	**62**	**58**
Anteil	%	49,08	43,58	34,39	30,91	28,44	26,73
Ansatz Nutzungsstunden / a (x1.500)	h	160.500	142.500	114.000	102.000	93.000	87.000
Naturrasen							
Anzahl	St	**74**	**72**	**68**	**64**	**63**	**61**
Anteil	%	33,94	33,03	30,77	29,09	28,90	28,11
Ansatz Nutzungsstunden / a (x500)	h	37.000	36.000	34.000	32.000	31.500	30.500

DEVELOPMENT – „NR. 100“

„Das ist einfach perfekt!“

Hamburgs 100. Kunstrasenplatz ist fertig

Pictue: Bezirklicher Sportstättenbau, Hamburg

STANDARD - ARTIFICIAL TURF WITHOUT SYNTHETIC INFILLS

In 2010 we developed and a building standard that is based on the following criteria and gives them equal consideration:

- (Multi)Functionality
- Economy
- Durability
- Maintenance costs
- Sustainability

For more than ten years now, the use of synthetic granulates (microplastics) has been consistently avoided.

Pictures: Bezirklicher Sportstättenbau, Hamburg

STANDARD - ARTIFICIAL TURF WITHOUT SYNTHETIC INFILLS

Between 2014 and 2018, a pilot project was set up by the District Sports Facilities Construction Department, which looked into the use of cork granulate as infill.

Since then, cork granulate has been used on public sports facilities where it is needed for functional reasons (rugby, American football, etc.).

Pictures: Bezirklicher Sportstättenbau, Hamburg

STANDARD - CIRCULAR ECONOMY / RECYCLING

In 2017, the first pitches in Hamburg were in need of renewal and, in the course of this, were fed into the first recycling processes available on the market, which have since been used as standard.

However, our ideal is to have a new surface made from an old one.

Pictures: Bezirklicher Sportstättenbau, Hamburg

RESPONSIBILITY

As already mentioned, the necessity of constructing an increasing number of pitches with artificial turf brings along the responsibility to take an active role in developing more sustainable systems – or at least to give an impulse to the market.

Because of this – and because we are a beneficiary of a national funding program – we organized an “Innovational Conference for Urban Sport Facility Construction” (“Innovationskonferenz Urbaner Sportstättenbau 2020”) for these topics.

The conference took place in Hamburg in September 2020 (participants: engineers, planners, constructors, industry (research and development), science, evaluation, administration).

Right now we are working on the first projects that will transfer the results of the conference to the construction site.

Pictures: Hochschule Osnabrück (ILOS, Fotos), Bezirklicher Sportstättenbau, Hamburg

SUSTAINABILITY - OUTLOOK / DEVELOPING A NEW STANDARD

Award of contract / procurement via an evaluation matrix on sustainability aspects:

- Economic efficiency / price (40%)
- Sustainability criteria (60%)
  - Proportion of recycled plastics (evidence via certificates)
  - Suitability of the new system for future recycling (number of plastic groups used in the system)
  - Durability and resistance of the synthetic turf (LiSport test)

We have informed the market about this and are receiving initial feedback. In spring 2022, the first tender will be carried out on this basis.

Pictures: Bezirklicher Sportstättenbau, Hamburg

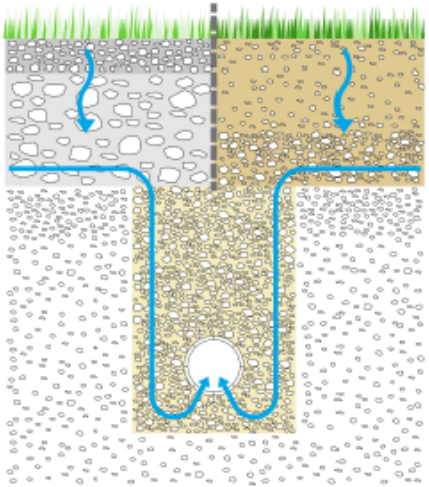
SUSTAINABILITY - „SPONGE-CITY“

Development of a sustainable construction method for the drainage of sports fields

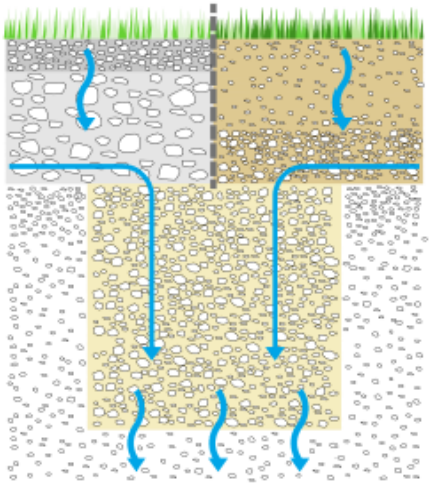
in cooperation with the State Office for the Environment, Agriculture and Geology of the Free State of Saxony

LANDESAMT FÜR UMWELT, LANDWIRTSCHAFT UND GEOLOGIE | Freistaat SACHSEN

Standardised construction



Construction method with infiltration



Effects

- Improvement of the local water balance
- Preservation of soil function
- Relief of the sewage system
- Reduction of construction and operating costs of sports facilities

Pictures: Tom Kirsten, Landesamt für Umwelt, Landesamt für Umwelt, Landwirtschaft und Geologie des Freistaates Sachsen

SUSTAINABILITY - „SPONGE-CITY“

Rainwater retention on sports facilities

Relieving the burden on the urban sewer system by using (suitable) sports areas.

The suitability is based on the height of the sports facility and the seepage capacity of the subsoil.

Example:

Sports facility **“Möllner Landstraße”**

Shown in the picture:

Sports facility in normal conditions

Picture::Bezirklicher Sportstättenbau / Naumann Lanndschaft

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Example:

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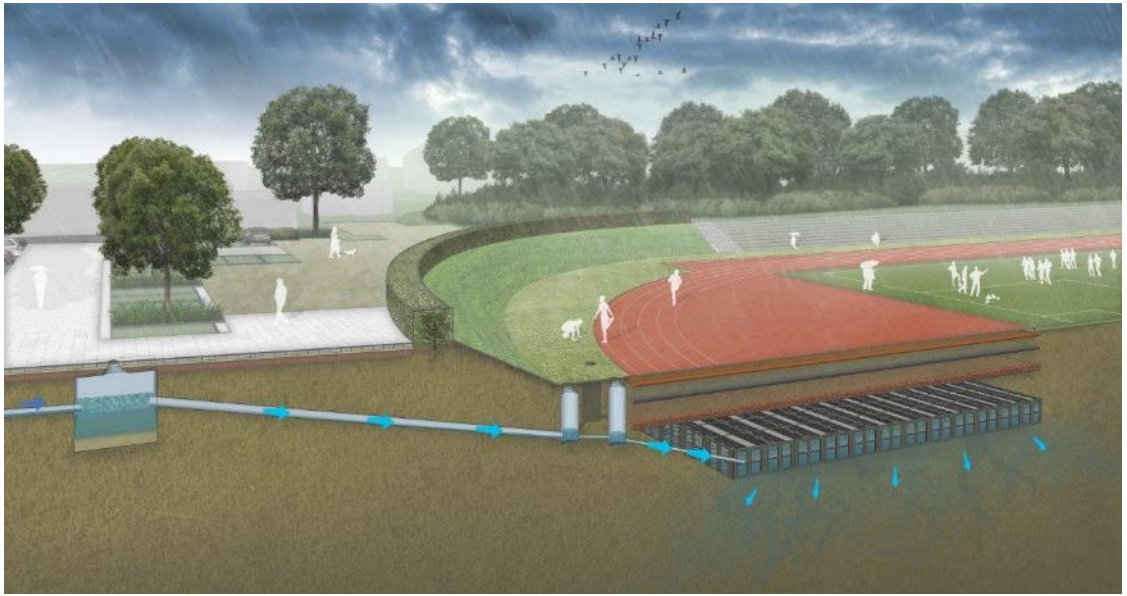
Shown in the picture:

Sports facility during prolonged rain



Picture::Bezirklicher Sportstättenbau / Naumann Lanndschaft

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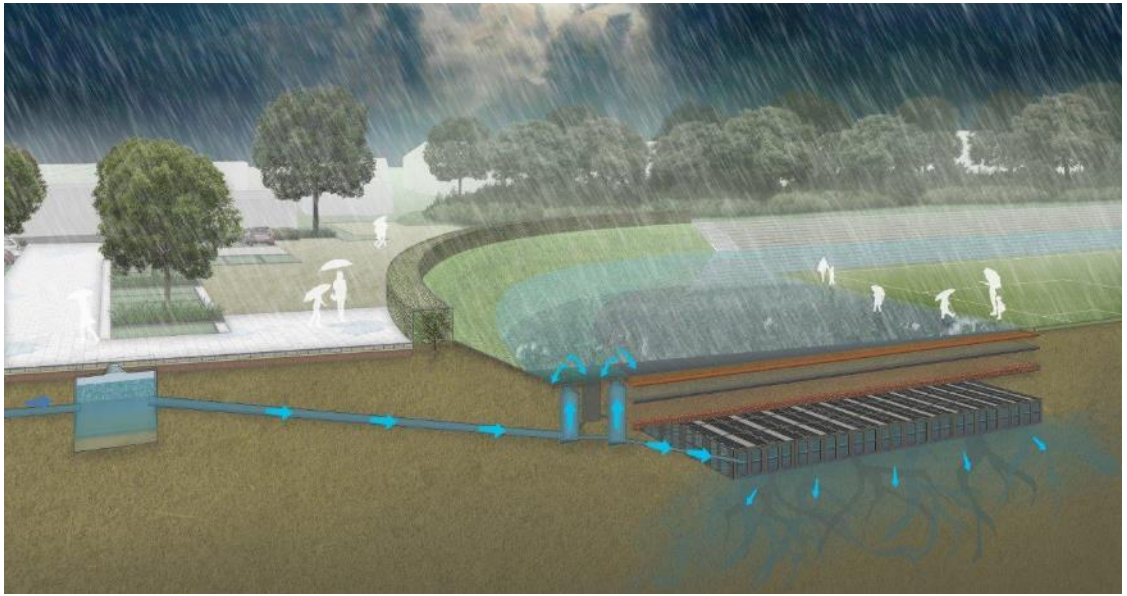
Shown in the picture:

Sports facility during heavy rain event



Picture::Bezirklicher Sportstättenbau / Naumann Lanndschaft

Sportanlage Ehestorfer Weg
Bildrechte: Bezirklicher Sportstättenbau, Hamburg

THANK YOU FOR YOUR ATTENTION !

Bezirksamt Hamburg – Mitte
Fachamt Bezirklicher Sportstättenbau

Hamburg