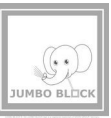


JUMBO BLOCK® Presentation

Solutions for a resilient water supply

December 2023





CONTENTS



About us

Team

Product presentation

JUMBO BLOCK ®, comparable with in-situ concrete
Like in-situ concrete, only faster
The JUMBO BLOCK ®
Modular construction
Statics
Flexible solution

Opportunities

Planning freedom

Examples Municipalities

Rainwater retention
Retention space despite buildings
Industry and chemicals
Agriculture

Smart solution

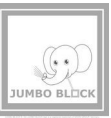
Water level data and IoT with IOTA technology

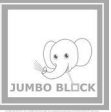
Environmental & nature conservation

Sustainability and environmental impact
Adaptation to climate change

Summary

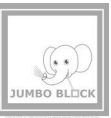






JUMBO BLOCK ® is comparable to in-situ concrete.

- Reinforced concrete !
- High load capacity!
- High resilience !
- Longevity !

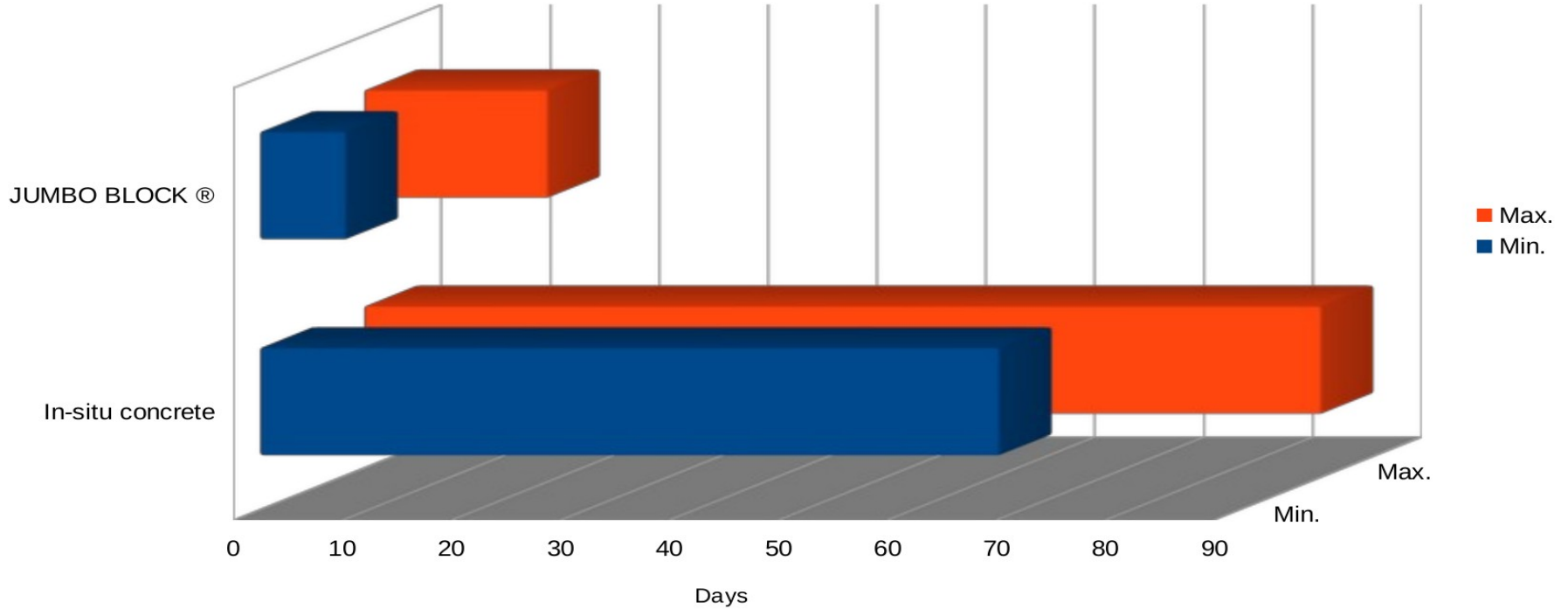


TIME SAVINGS



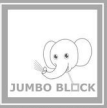
CONSTRUCTION TIME IN-SITU CONCRETE VS JUMBO BLOCK ®

Comparable water storage 1362 m³ / 98 JUMBO BLOCK ®



Example from a project



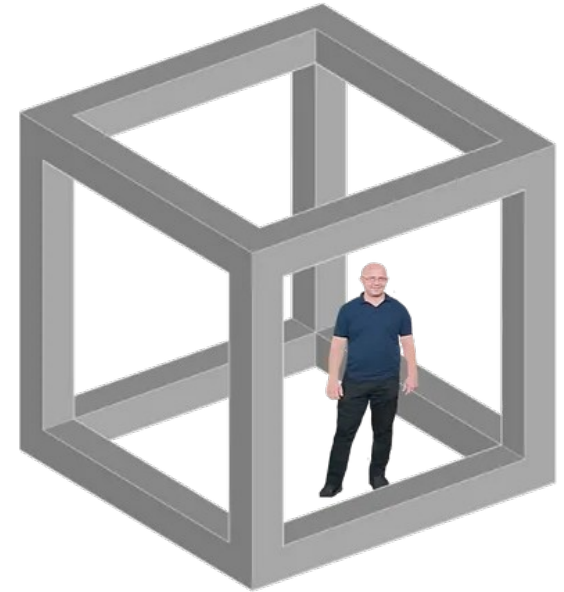


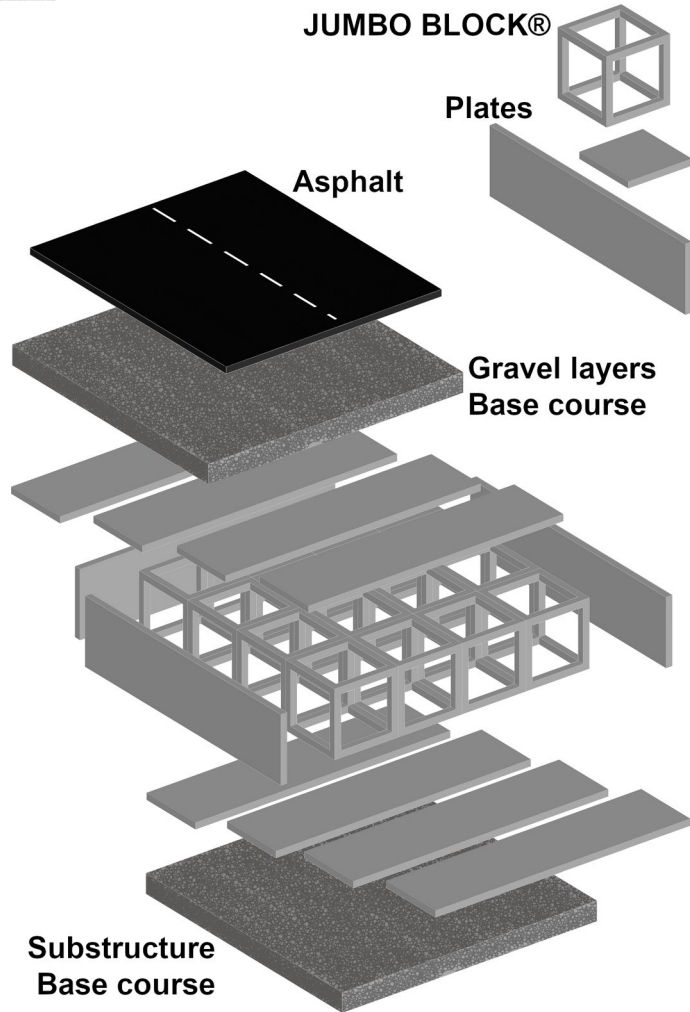
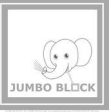
Metrics



Mold making Metal Synergy doo

- Load capacity SLW 60
- Block edge length
2.5 mx 2.5 mx 2.5 m
- Material
Mainly green concrete
(CO2-reduced concrete)
- Capacity
13.9 m³ of water/block
- Volume on area
2,224 litres/m² water columnn





JUMBO BLOCK ® Installation example

- Asphalt surface
- Gravel layers (base course)
- JUMBO BLOCK ® hollow block
- Plates for sealing (min. 2.5 x 2.5 m)

- In case of water storage plates at the bottom
- For water storage waterproofing, geo-building materials or foils for water-polluting substances
- In case of infiltration no sealing and open soil

Over 4 tonnes stability





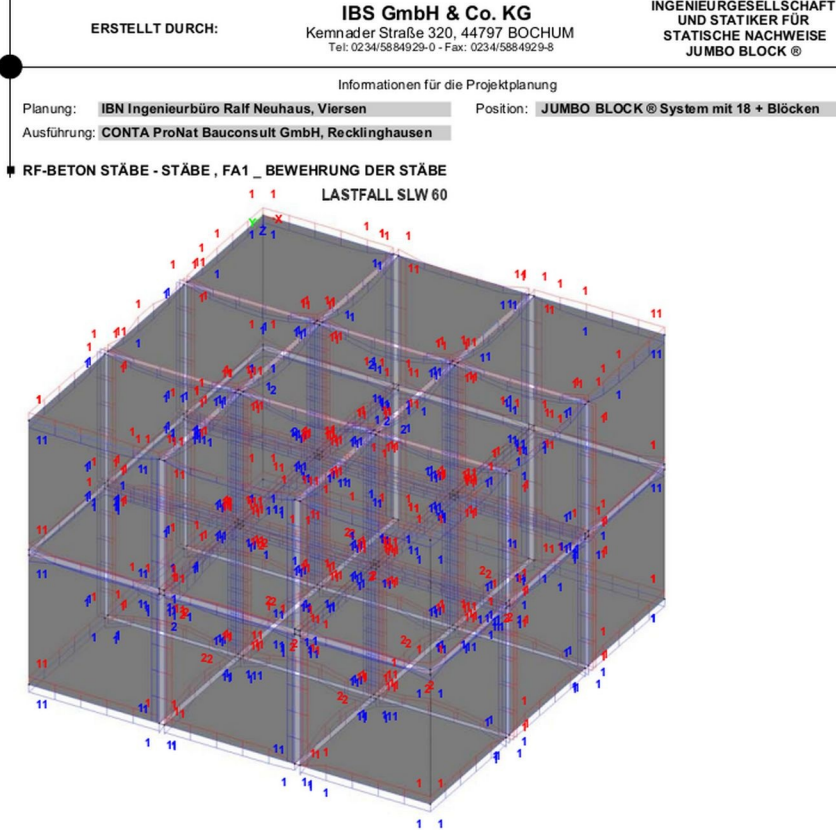
Impressive project references

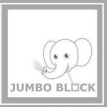
Frankfurt, Germany

- West Side Tower
- Henning Tower
- Residential development
Stresemannallee

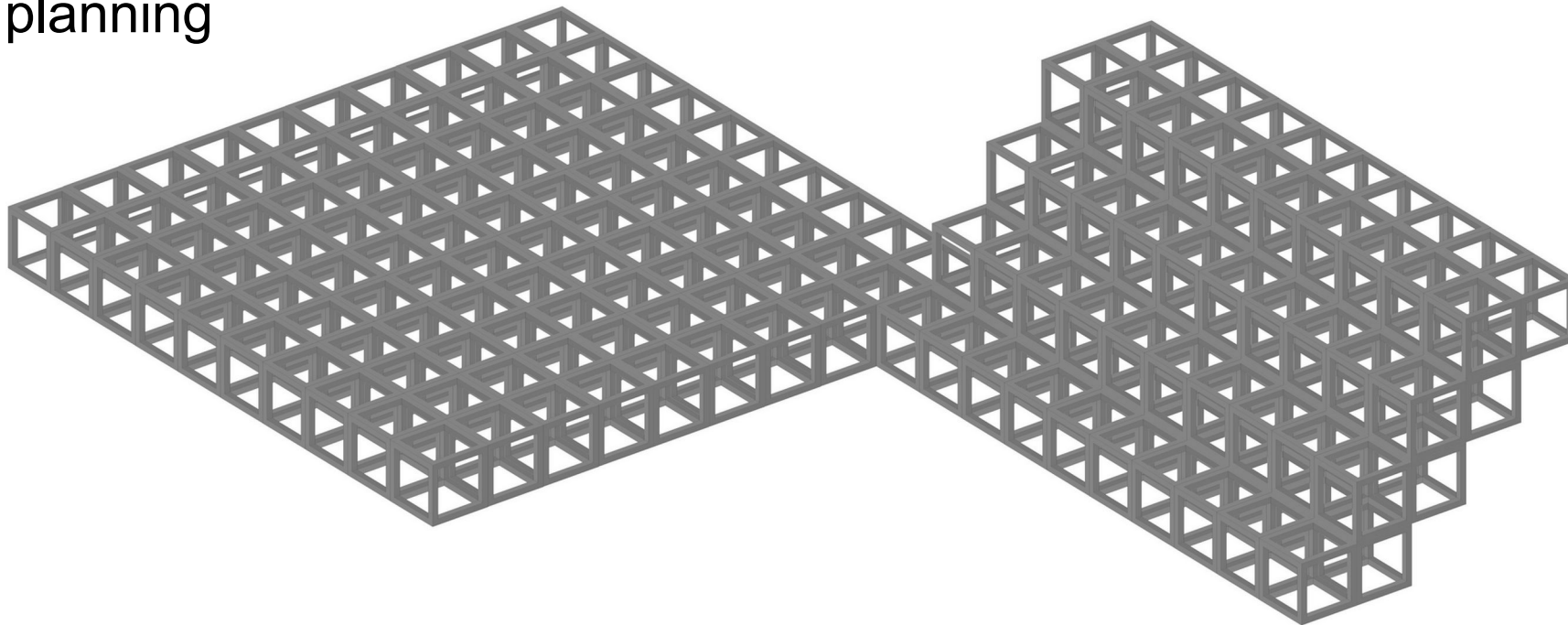
Offenbach, Germany

- Hafengold residential
development



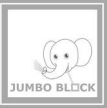


Easy planning



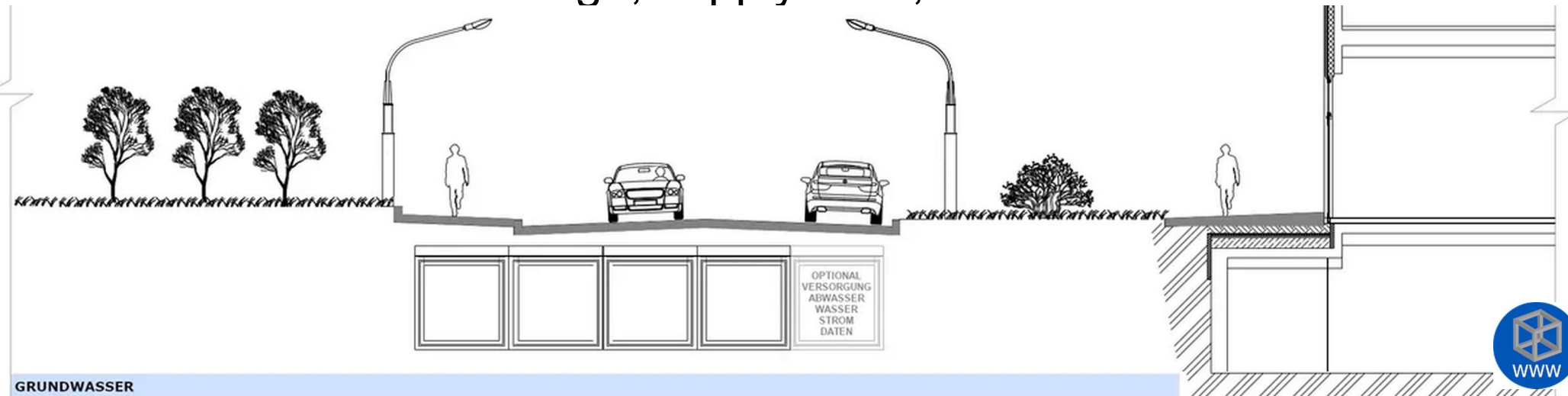
- Block: 2.5 * 2.5 * 2.5m (width * length * height)
- Plates: 2.5 * 2.5 - 10.0 * 0.125 - 0.25m (width * length * thickness)

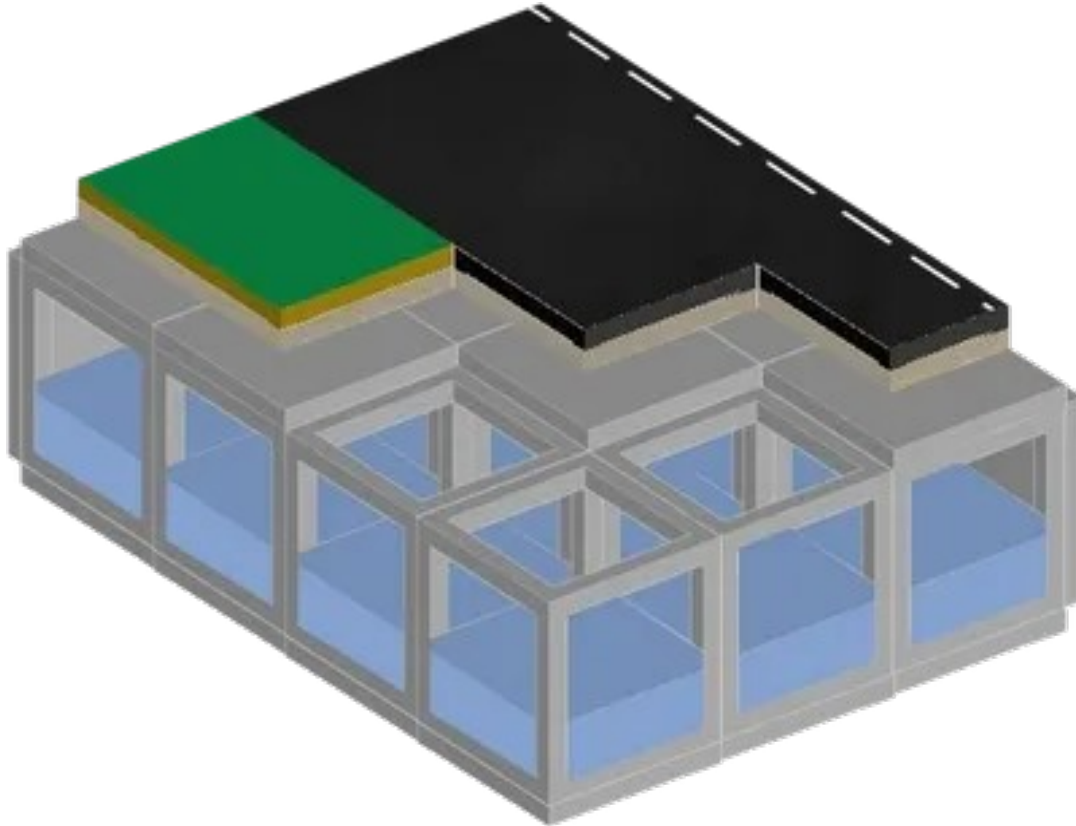




Planning freedom

- Can be built over and is roadworthy
- Up to 80% reduction in construction time
- Reduces road works
- Installation of sewerage, supply lines, etc.

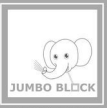




Rainwater retention Inner-city retention

- Under streets
- Under squares
- Under buildings
- under open spaces
- ...





RETENTION SPACE DESPITE DEVELOPMENT



FLOOD PROTECTION THROUGH RETENTION

Prevention of flooding

Planning area: 55 x 65 m
Building area: 2 x 326.6 m²
Lanes: 2 x 4.5 m, 4 x 3.75 m

Substructure of the road
48 Jumbo Block Standard (13.9 m³/block)
116 Jumbo Block XL (27.6 m³/block)
82 heavy duty plates
seal

Available retention volume: 3868.8 m³
Expandable

Flood height: 0.0 m



FLOODING WITHOUT RETENTION

Planning area: 55 x 65 m
Building area: 2 x 326.6 m²
Lanes: 2 x 4.5 m, 4 x 3.75 m

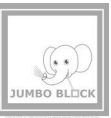
Available retention volume: 0 m³

Flood height with comparable volume: 1.02 m

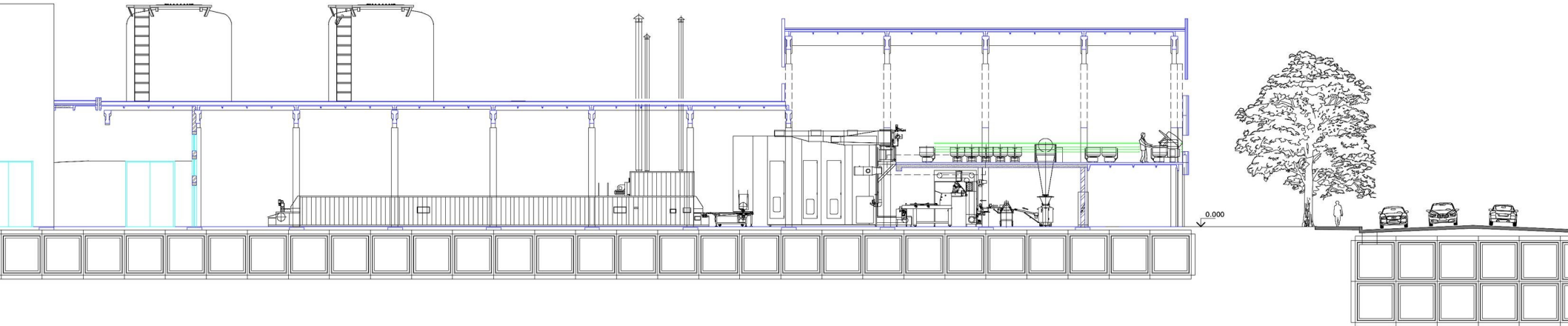


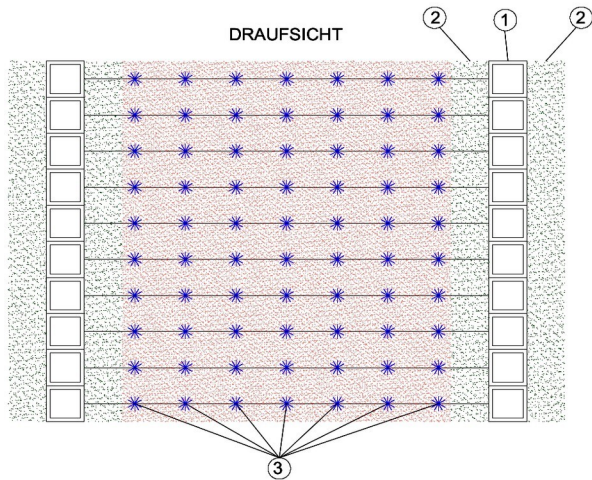
Movie: [YouTube](#)





Fire water storage, Infiltration and water storage

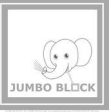




Solution to soil erosion
and water scarcity

Example in the form of underground irrigation.

Any form of withdrawal
and distribution is possible!



Water level data and IoT with IOTA technology



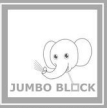
1. Water level monitoring
2. Data Analysis and forecasts
3. Automated control
4. Intelligent maintenance
5. Transparency and trust
6. Benefits for municipalities and infrastructure operators

Transmission, for example via Long Range Wide Area Network (LoRaWAN)



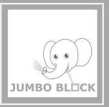


- Sustainable material usage through recycling and reuse
- Environmentally friendly recyclability
- CO2-reduced green concrete
- Avoidance of plastics
- Protection of the soil ecosystem
- Preference for environmentally friendly geosynthetic sealants
- Energy-saving IoT systems
- Up to 80% reduction in construction time
- Long life cycle



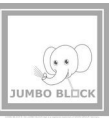
ADAPTATION TO CLIMATE CHANGE

- Rainwater retention
- Water storage, and infiltration
- Reduction and avoidance of surface sealing
- Increase in groundwater level
- Irrigation and emergency watering of sensitive ecosystems



Prevent water scarcity and flooding!

- Freely configurable
- Easy and quick to install
- Up to 80% reduction in construction time
- Environmentally friendly
- Recyclable, reusable
- High life cycle
- Sealing with geoconstruction materials
- Inexpensive



Thank you for your attention.

It has been a great pleasure
for us to share this
presentation with you.

We hope you enjoyed it.





Imprint

JUMBO BLOCK ®
ZANNI GROUP
BrauhoF 12
44866 Bochum

Phone: +49 2327 4178 191
Fax: +49 2327 4178 192

Email: jumboblock@jumboblock.de
Web: jumboblock.app

Managing director/owner: Andreas Zanni eK
Register court: District court of Bochum
Commercial register number: HRA 7687
VAT ID: DE340292357

