FAMILY AND WELLNESS SPA DE BAALJE
Aurich (Germany)

NEW BUILDING

Client: Stadt Aurich

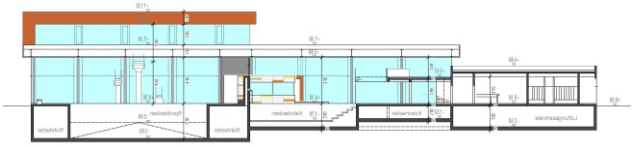
Architects: Blass Architekten, Euskirchen

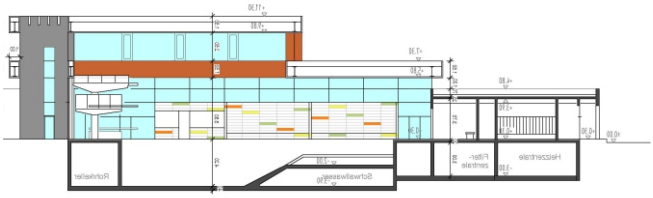
Our services: Full Structural design in cooperation with Dr. Krieger Architects / Engineers, Velbert (Germany)
- Establishing the basis
- Preliminary design
- Final design
- Approval documentation
- Execution drawings
- Preparation of contract award

Structural fire protection
Thermal building physics
Rough static calculation for the façade units

Brief description: New building of a generously sized spa with several indoor and outdoor pools, an indoor area with a competition pool and an infant pool
- swimming-pool hall with a steel structure
- wide-spanned castellated steel beams
- other functional areas with solid structures, flat slabs and reinforced concrete columns and masonry walling
- basement with utility rooms and surge tanks designed with White Tank waterproofing
- pile foundation with reinforced concrete piles
- free spanning reinforced concrete bottom plate
- large-surface glass façade with aluminium substructure

Completion: 2013





Pictures / Illustrations: Professor**Pfeifer**andPartner PartGmbB, Blass Architekten, Hermann Verbeek

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NEW BUILDING

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Architects: Blass Architekten, Euskirchen

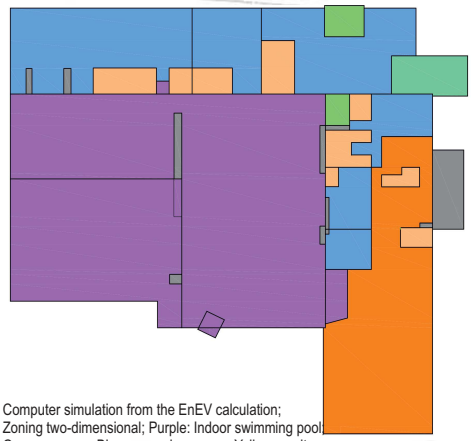
Our services:

Energy assessment in accordance with the German energy saving ordinance “EnEV 2009” thermal insulation and damp proofing certificates
- calculations according to multiple zone model as defined in EnEV with increased number of zones
- comparative views on technical fittings, e.g. lighting, heat pump using renewable energy, cogeneration unit
- monitoring adherence to renewable energy heating legislation
- consultation and calculation of minimising energy loss in regard to avoiding thermal bridges
- sssistance with putting together a concept for the limitation of condensation, e.g. around the architecturally necessary punching point through the building
- calculations on safeguarding against moisture considering the raised humidity level in the indoor pool
- giving advice in choice and installation of films, e.g. sealing of a transom facade in connection with the positioning and sequence
- giving advice on the design of the complicated roof and facade geometry regarding hygrothermics and air tightness
- devising implementational specifics. e.g. element connecting points
- compile a catalogue of elements
- proof of summer thermal insulation
- to some extent, technical monitoring of objects

Brief description: Construction of a new public swimming pool with numerous outdoor and indoor pools, supporting steel construction of the indoor pool with architecturally caused perforation of the heat transmitting building envelope, joining of different constructional elements made of wood, glass, brickwork, steel and reinforced concrete, challenging geometry

Completion: 2013

Projecting steel roof structure connected with ISO baskets
(Constructional solution for accumulation of condensation water of indoor condensation)



Computer simulation from the EnEV calculation;
Zoning two-dimensional; Purple: Indoor swimming pool;
Orange: sauna; Blue: secondary areas; Yellow: sanitary rooms;
Gray: technology; Green: seminar rooms / offices

Insulated facade

Pictures / Illustrations: Professor**Pfeifer**andPartner PartGmbB