

## RESIDENTIAL BLOCK "KIRCHENHANG" NEAR THE LUTHERAN CHURCH Hamburg (Germany)

## **NEW BUILDING**

Client: Evangelisch-Lutherischer General Association Harburg

Architects: Johann Daniel Lawaetz Foundation, Hamburg

nps tchoban voss, Hamburg

Our services: Full structural design

Establishing the basis Preliminary design Final design Approval documentation

Approval documentation
Execution drawings
Preparation of contract award
Thermal building physics
Sound insulation

Brief description: Construction of a new residential block in a

listed historical park with 23 apartments, common rooms and 19 car parking spaces

- 4-storey solid construction with three storeys above the ground and a subterranean level (partial)

- L-shaped plan with dimensions of approx. 47 x 13 m and 14 x 13 m

- stiffening through reinforced concrete slabs

and brick walls

- cantilevered balconies

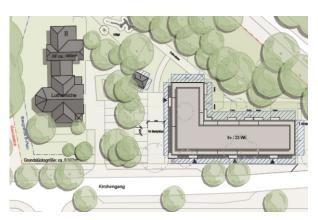
- timber shed roof

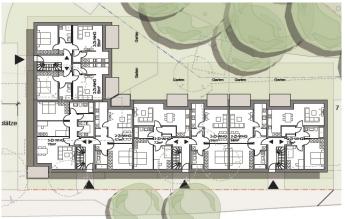
- shallow foundations with load-bearing base plate

- upper layers of ground removed to allow load

transfer

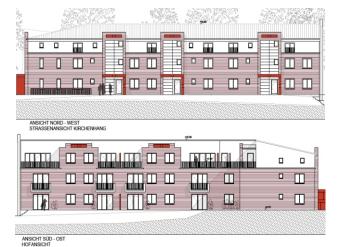
Completion: 2016

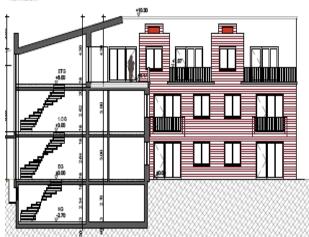












Pictures / Illiustrations: Professor Pfeifer and Partner Part GmbB, nps tchoban voss, Evangelisch-Lutherischer Gesamtverband Johann; Daniel Lawaetz-Stiftung

ProfessorPfeiferandPartner PartGmbB Structural engineering Building physics Fire protection Structural assessment PfeiferINTERPLAN is a registered trade mark



## RESIDENTIAL BLOCK "KIRCHENHANG" NEAR THE **LUTHER CHURCH** Hamburg (Germany)

## **NEW BUILDING**

Client: Evangelisch-Lutherischer Gesamtverband

Hamburg

Construction

Completion:

Johann Daniel Lawaetz-Stiftung, Hamburg management:

Architects: nps tchoban voss, Hamburg

Our services:

Energy performance according to the energy-saving ordinance (EnEV) from 2014 thermal insulation, damp-proofing, sound proofing declaration

- compliance with the tighter requirements of the climate protection ordinance in Hamburg

- assessment according to DIN 4701

- monitoring the compliance of the renewable energy act, achieving the stipulations by, amongst others, installing a

combined heat and power plant (CHP)

- proof of conformity of summer heat insulation with special regard to the existing preserved tree population
- proof of conformity of sound proofing based on the tighter

VDI 4100 requirements

- guidance in the choice of building materials with regard to

fulfilling all construction physical requirements.

**Brief description:** Construction of a new housing block in a listed historical

park with old trees, 4-storey solid construction,

including separating walls made out of heavy limestone 2017



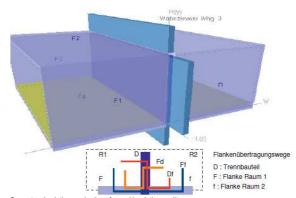






Considerations to the eventual aircraft noise

Position plan for the building acoustics calculations



Computer simulation, evaluation of sound insulation into account the sound propagation over the planks





Computer simulation, EnEV calculation

