



CTU in Prague
Faculty of Civil Engineering
Department of Building Structures

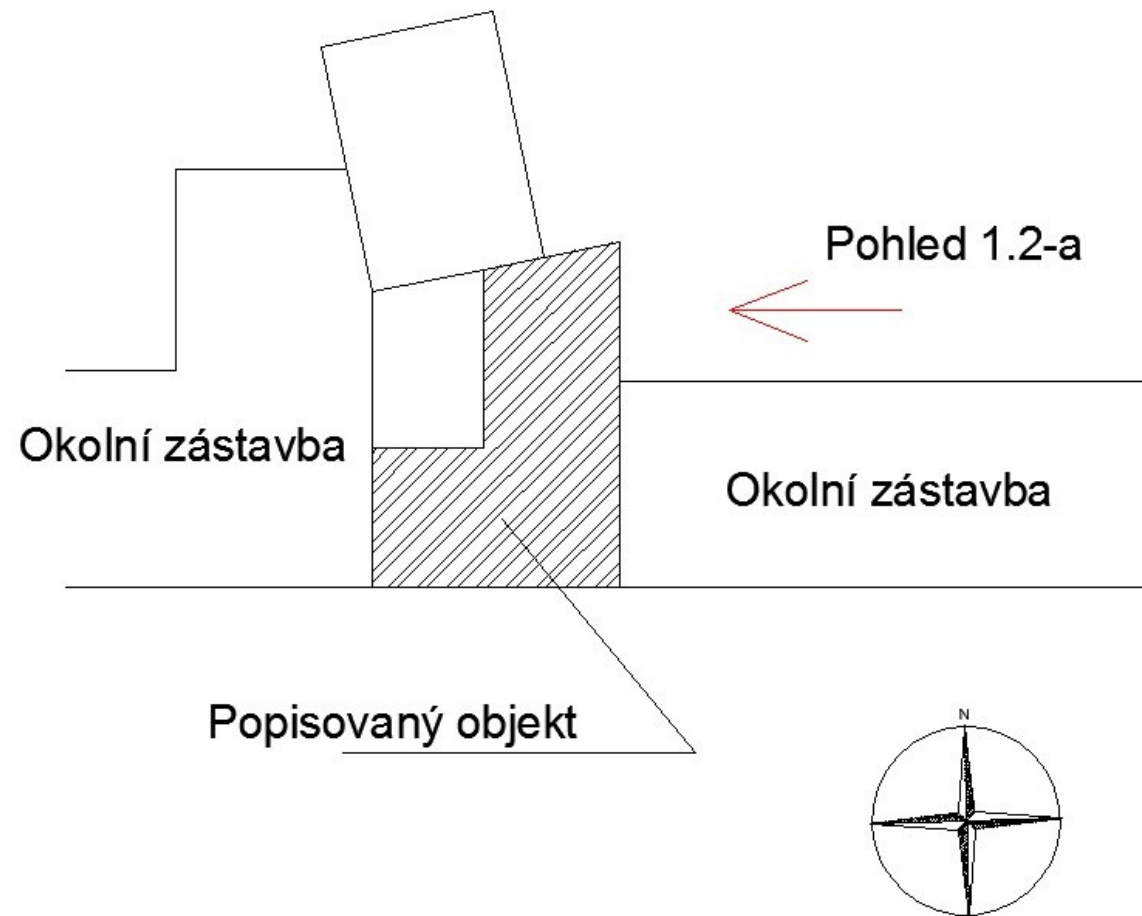
Restoration of load-bearing structures

Residential house - Havlíčkova 7, Pilsen

Presentation was created with the kind support of Ministry of Education Grant FRVŠ
2960/2011.

Description of the object

- ▶ drawing of the situation



Description of defects

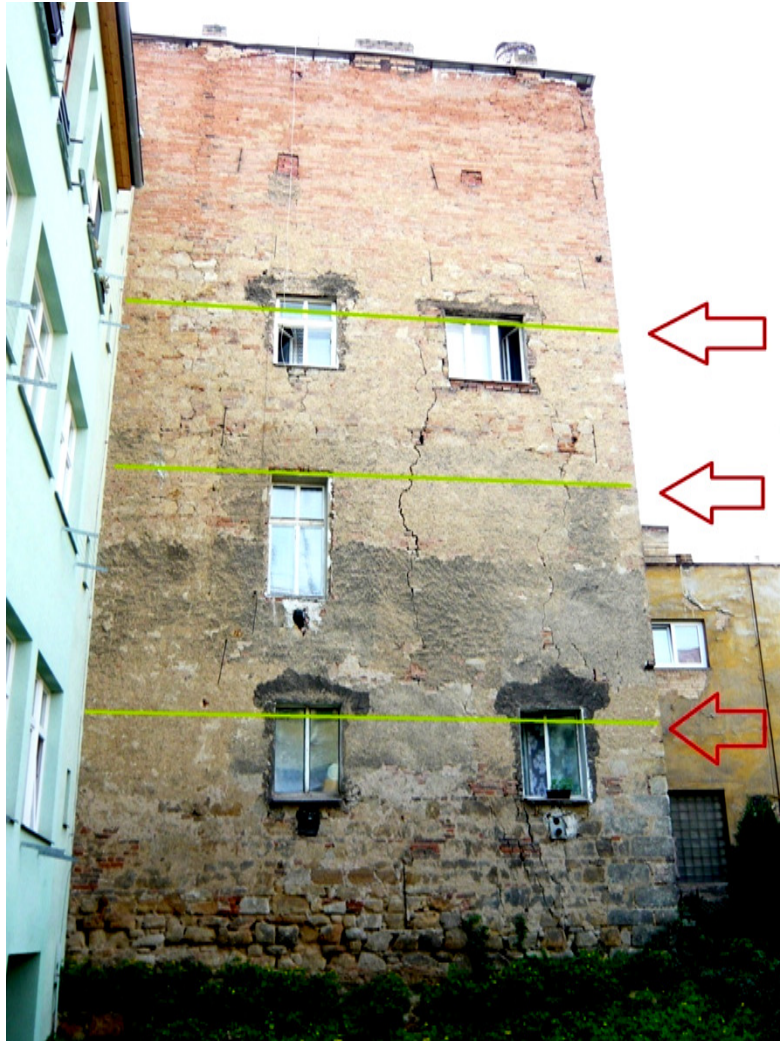
- ▶ significant vertical cracks in the facade



Description of defects



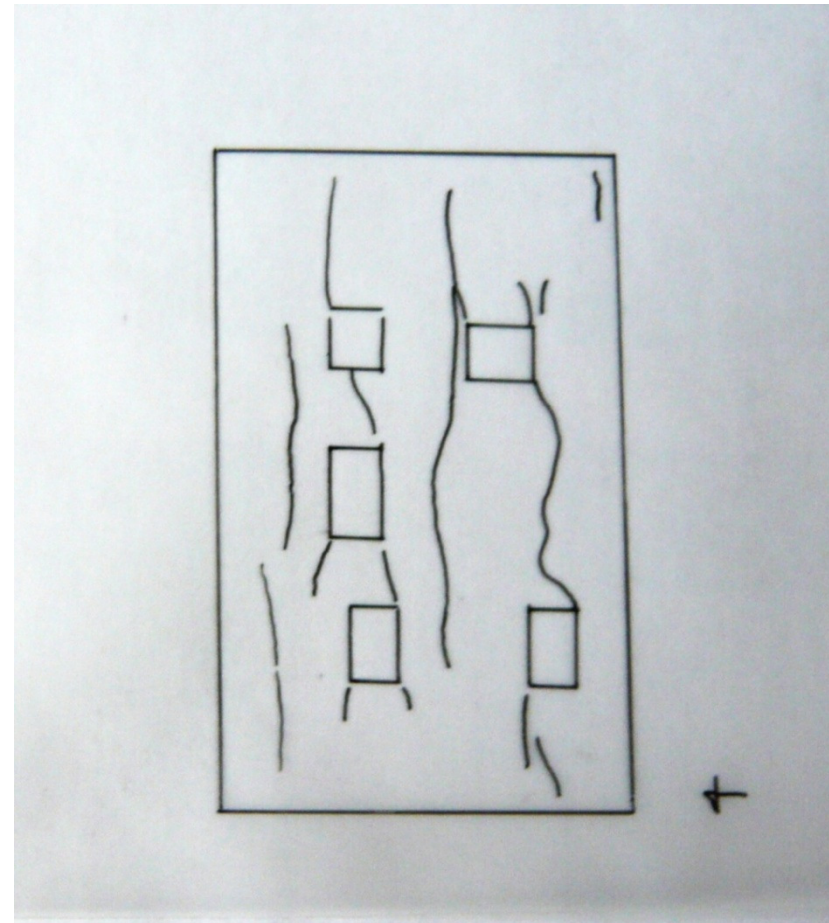
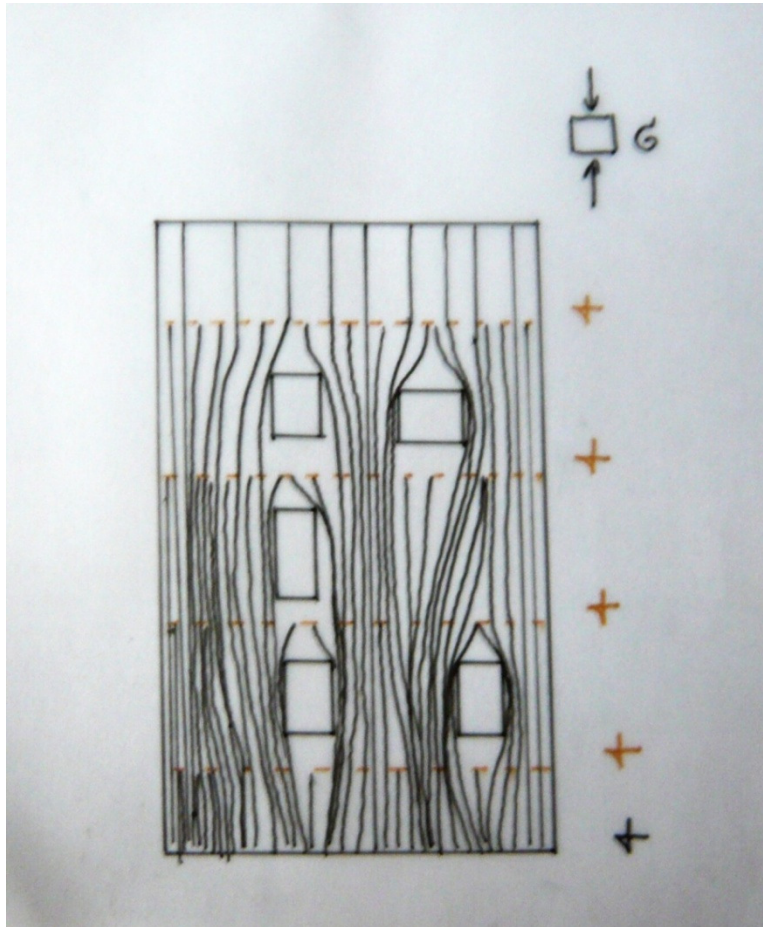
Analysis of defects



- ▶ Interrupted ironcramp anchors in combination with a reduction of cross-section by window openings

Analysis of defects

- Compression stress and cracks scheme



Restoration of defects

- ▶ Bracing of the building by steel draw rods



Analysis of defects

- ▶ Proposal of bracing by steel rods –
 - ▶ evacuation of current residents of the house and all excess load
 - ▶ reveal places where the original ironcramp anchors are interrupted, and their restoration by welding
 - ▶ re-activate the function of draw rod
 - ▶ brick window openings with connection to the original bricks
 - ▶ z vnější strany aplikovat systém helifix pro dodatečné zpevnění zdiva
 - ▶ repair sandstone masonry
 - ▶ make a thermal insulation and surface treatment

