



Case study building - Properties I Date: 28.06.2007
 Name: Rene Hummer



Registration code

Country

Period of construction

Standard

Diffusion of building type

Please note that the basic renovation unit (building or building part) that will be renovated should be described. The repetition of renovation units is acquired under "Building size".

Basic renovation unit

	<input checked="" type="radio"/> Detached
	<input type="radio"/> Attached
	<input type="radio"/> Integrated
	<input type="radio"/> Corner building

Building shape

	<input type="radio"/> Rectangular
	<input checked="" type="radio"/> Square
	<input type="radio"/> Structured
	<input type="radio"/> Irregular

Floor plan

	Floor plan layout
	Building structure
<input checked="" type="radio"/>	<input checked="" type="radio"/> Frame construction
<input type="radio"/>	<input type="radio"/> Panel construction
<input type="radio"/>	<input type="radio"/> Partially massive constr.
<input type="radio"/>	<input type="radio"/> Massive construction

Apartment access

	<input type="radio"/> Peripheral staircase, double flight
	<input type="radio"/> Peripheral staircase, single flight
	<input checked="" type="radio"/> Central staircase
	<input type="radio"/> Access gallery, internal stair
	<input type="radio"/> Access gallery, external stair(s)
<input type="checkbox"/>	<input type="checkbox"/> Elevator

Roof

	<input checked="" type="radio"/> Flat roof	<input checked="" type="radio"/> No attic / empty
	<input type="radio"/> Low slope roof	<input type="radio"/> Attic space
	<input type="radio"/> Gable roof	<input type="radio"/> Living space
	<input type="radio"/> Hipped roof	<input type="checkbox"/> Roof terrasse
	<input type="checkbox"/> Dormers	<input type="checkbox"/> Canopy
<input type="text" value="concrete construction"/>	Roof construction	
<input type="text"/>	Roofing material	

Basement

	<input type="radio"/> No basement
	<input type="radio"/> Partial basement
	<input checked="" type="radio"/> Full basement
<input type="checkbox"/>	<input type="checkbox"/> Basement partially underground
<input type="checkbox"/>	<input type="checkbox"/> Basement partially or fully heated
<input type="checkbox"/>	<input type="checkbox"/> Crawl space

Case study building - Properties II

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Building size

Number of blocks		1
Number of staircases per block		2
Number of floors		12
Typical room height		m 2,6
Length/width	L m 28,0	W m 31,0
Façade/volume ratio		0,2

Apartment size

	Number	Rooms	Bath	m2
Appartments	9	6,5	1	124
Appartments	9	4,5	1	76
Appartments	9	3,5	1	61
Total (all blocks)	27	15	3	261

Façades

Façade construction	in situ concrete
Façade finish	plaster

Windows

	% of façade	U-value	Sun-shading
South	30%	W/(m2K) 2,4	<input checked="" type="checkbox"/>
West	30%	W/(m2K) 2,4	<input checked="" type="checkbox"/>
North	30%	W/(m2K) 2,4	<input checked="" type="checkbox"/>
East	30%	W/(m2K) 2,4	<input checked="" type="checkbox"/>

Dominant window types

Front façade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Back façade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Floor slabs

Top floor slab	wowden beam slab
Standard floor slabs	hollow brick slab

Balconies

<input type="checkbox"/>	<input type="radio"/> none		<input checked="" type="radio"/> regular
<input type="checkbox"/>	<input checked="" type="radio"/> integrated		<input type="radio"/> irregular
<input type="checkbox"/>	<input type="radio"/> partially exposed	<input checked="" type="checkbox"/> thermal bridge	
<input type="checkbox"/>	<input type="radio"/> exposed	<input checked="" type="radio"/> "hanging"	
<input type="checkbox"/>	<input type="radio"/> full length	<input checked="" type="radio"/> supported	

Heating

- Central heating, radiator heating
- Central heating, floor heating
- Central air heating
- Individual apartment heating
- Individual room heating (electric)
- Individual room heating (oil / gas / wood / coal)

Ventilation

- None, natural ventilation only
- Exhaust air system, natural (stack ventilation)
- Exhaust air system, mechanical (bathrooms)
- Exhaust air system, mechanical (kitchen)
- Exhaust air, mechanical, bath and kitchen
- Mechanical ventilation (supply/exhaust airtr)

Hot water

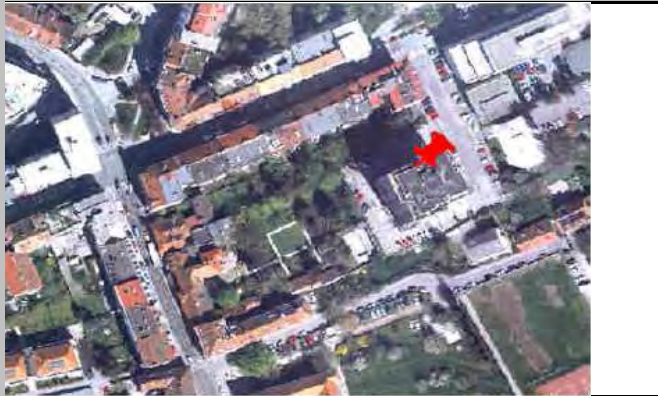
- Central hot water, single pipe system
- Central hot water, circulation pipe system
- Individual hot water tanks (electric)

- Individual boilers (electric)
- Individual boilers (gas)
- Central solar system



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Case study building - Urban context



Address

Rent

Orientation

No spec. orientation
 N-S
 NE-SW
 NW-SE
 E-W

Urban situation

Detached building in inhomogeneous neighbourhood
 Detached building in homogeneous neighbourhood
 Block development in homogeneous neighbourhood

View

Front / Back

Flat
 Slope
 Slope

Top view only
 Good view
 Green Garden view
 No view

Neighbourhood

Public transportation
 Shops, services, centre
 Play grounds, sport
 Schools

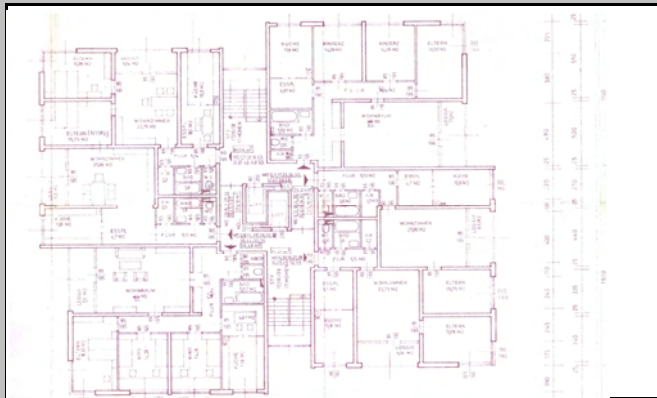
Environment

Quality of neighbourhood
 Air pollution, emissions
 Outdoor noise level



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Case study buildings - Renovation needs / options



General information on retrofit situation

Heat demand (via consumption) HWB=100 kWh/m²a

Façade options



Compact insulation



Blow in fibres



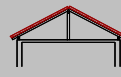
Ventilated insulation



Prefab module

- Living room extension possible ▼
- Kitchen extension possible ▼
- Bath room extension possible ▼
- New, separate balconies possible ▼
- New elevator (external) possible ▼
- New elevator (internal) possible ▼

Roof options and additions



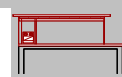
Roof panels



Flat roof panels



Attic space module



Attic space module

With canopy

Without canopy

Dormers

Access to attic / roof level

Roof terrasse

Actual state of building components

- Walls/ceilings used up ▼
- Floors used up ▼
- Windows used ▼
- Façade used up ▼
- Roof used up ▼

Actual state of installations

- Piping system used up ▼
- Electrical system well maintained ▼
- Ventilation used up ▼
- Kitchen used ▼
- Bathroom used ▼

Additional Renovation measures

- Kitchen no renovation ▼
- Bathroom no renovation ▼
- Staircase(s) no renovation ▼

- Living and bedrooms no renovation ▼
- Windows no renovation ▼
- Floorings new wood floors ▼