

# SUITE thematic meeting Hamburg, 26-27 of May 2010

AN URBACT II PROJECT

City Property Department  
Tallinn, Estonia

## The energy saving policy in Tallinn

### The city role in promotion of energy saving policy

- Dissemination work
- Creation of “best practice” projects
- Energy agency

## The energy saving policy in Tallinn

### The city activities

- Energy saving and RES technologies in social housing
- Promotion of results
- Renovation subsidies
- Energy audit and energy labeling subsidies

## The energy saving policy in Tallinn

### The main problems

- Financial resources
- Political aspect
- Mental barriers

## Best practice Kauge str 4 social house



- Social aspect
- Social services
- RES and energy saving elements

## Kauge str 4 social house Technical description

- Area of the rooms 1041,3 m<sup>2</sup> (L shaped two storey building)
- The basement - stockroom, laundry area and rooms for laundry staff, sauna, conference room and technical room
- Wing A - sleeping places, kitchen areas, wash rooms and toilets. The supervision/guard room, hallway, lift, stair case are situated near the main entrance
- Wing B - accommodation for people with special needs (living rooms, sanitary junction, kitchen, resting area for staff, washrooms, stockroom for laundry)



## Kauge str 4 social house Implementation of RE technologies



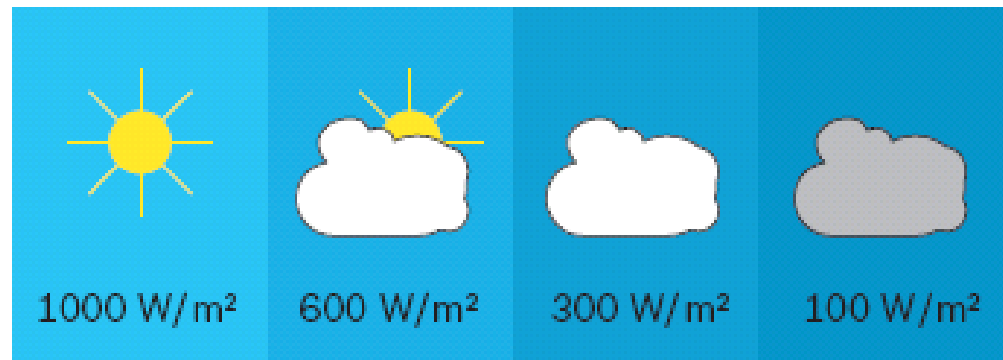
Thermal isolation  
Outside walls – 0,28 W/m<sup>2</sup>K  
Floor – 0,36 W/m<sup>2</sup>K  
Windows – 1,2 W/m<sup>2</sup>K  
Ceiling – 0,22 W/m<sup>2</sup>K

## Kauge str 4 social house Implementation of RE technologies



### Solar energy

18 solar collectors, total area 38 m<sup>2</sup>  
2 hot water storage tanks, 750 L x 2



## Kauge str 4 social house Air-water heating pump IVT OPTIMA 1700



## Kauge str 4 social house Ventilation system



S1/V1, S2/V2 ( in blow and out blow systems) heat exchanger according to efficiency 55% and 49%

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## Kauge str 4 social house Energy consumption/ efficiency

Energy consumption per year 210 MWh

Solar energy efficiency per year 35 MWh

Heating pump energy efficiency (Cop min = 2,0) 35 MWh

Energy saving 70/210 ca 30%

## Best practice Valga kindergarten



28 Solar collectors  
2 x 2000 L hot water storage tanks  
Heating pump units  
Ventilation system

The objective was to reduce the heating energy demand to 15 kWh/m<sup>2</sup> per year

# New projects

Best practice



*Know-how*

*Human resources*

2 projects funded by ERDF



*Mental impact*



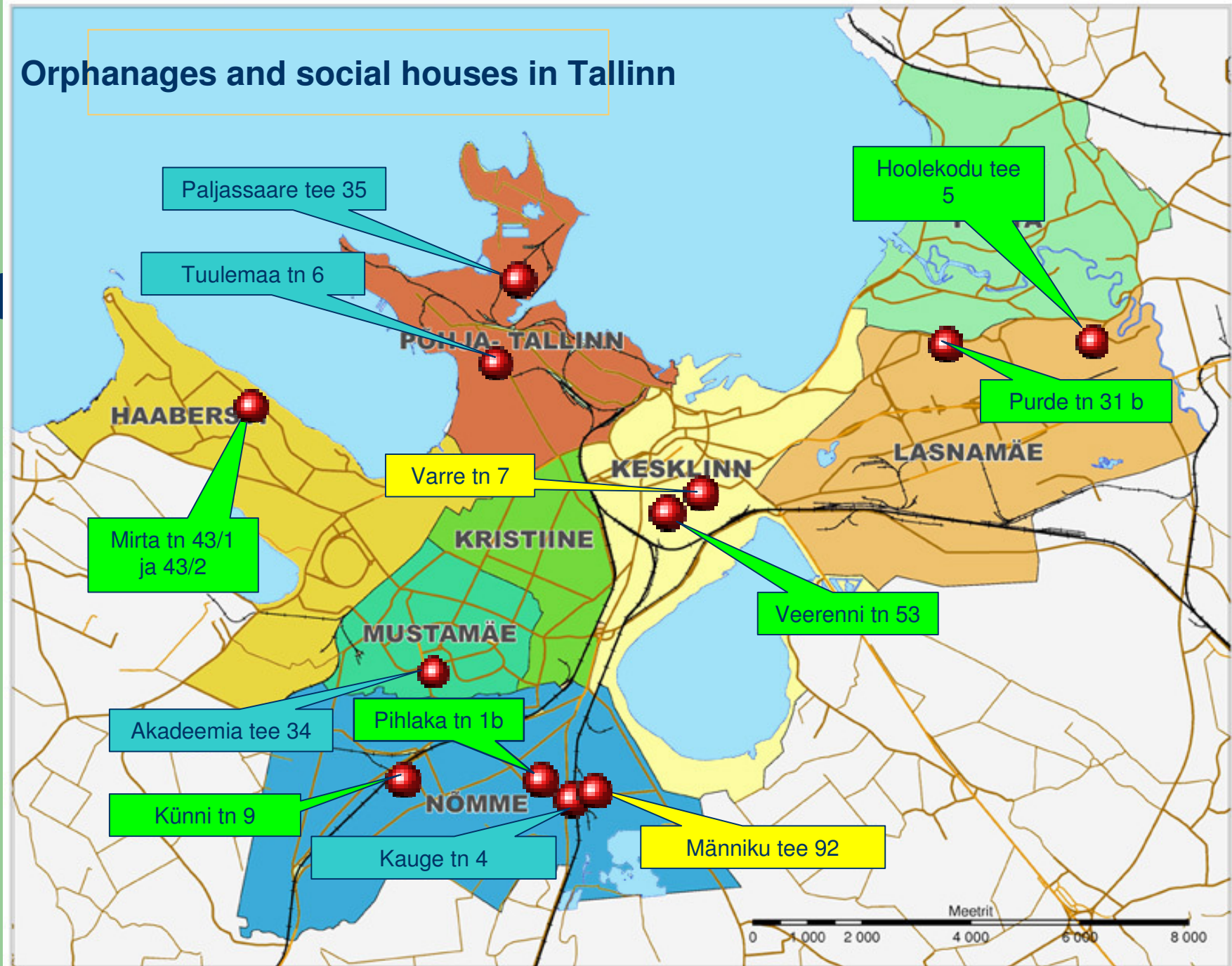
social houses



orphanages

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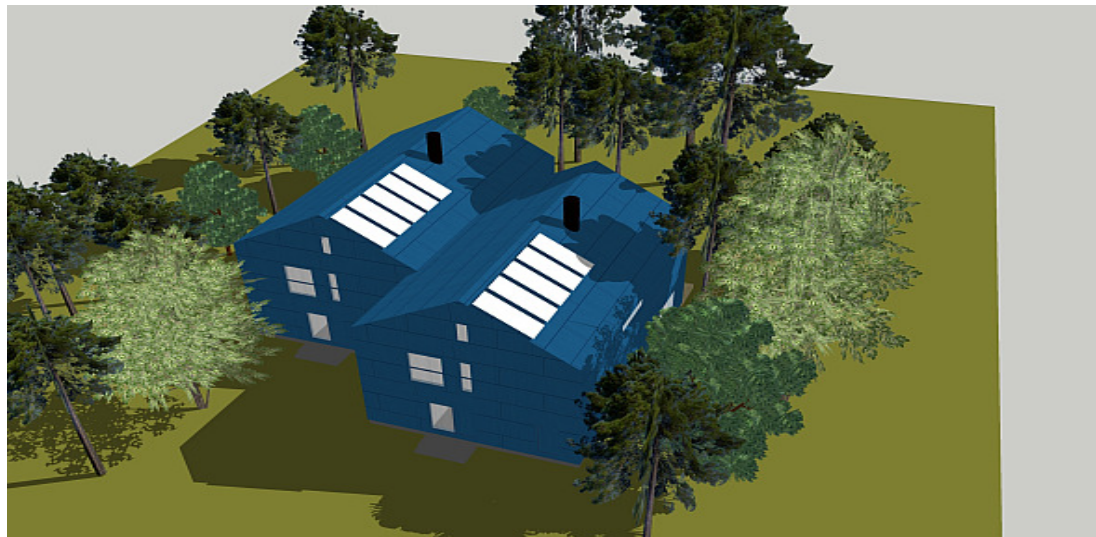
## Orphanages and social houses in Tallinn

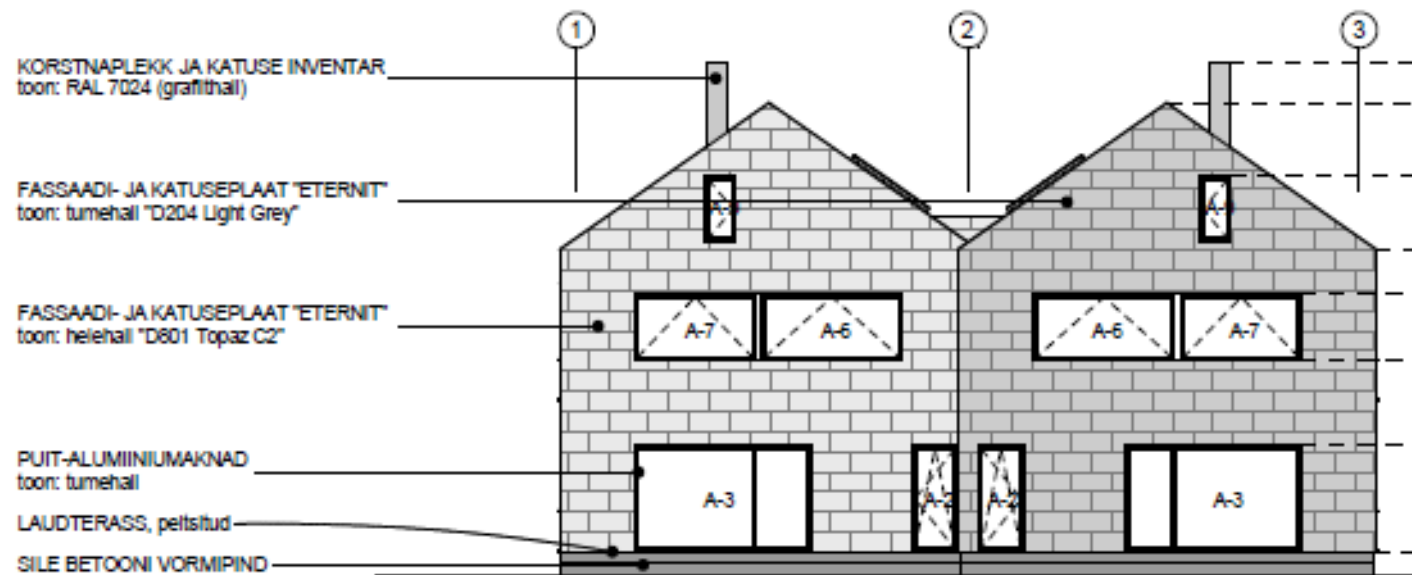
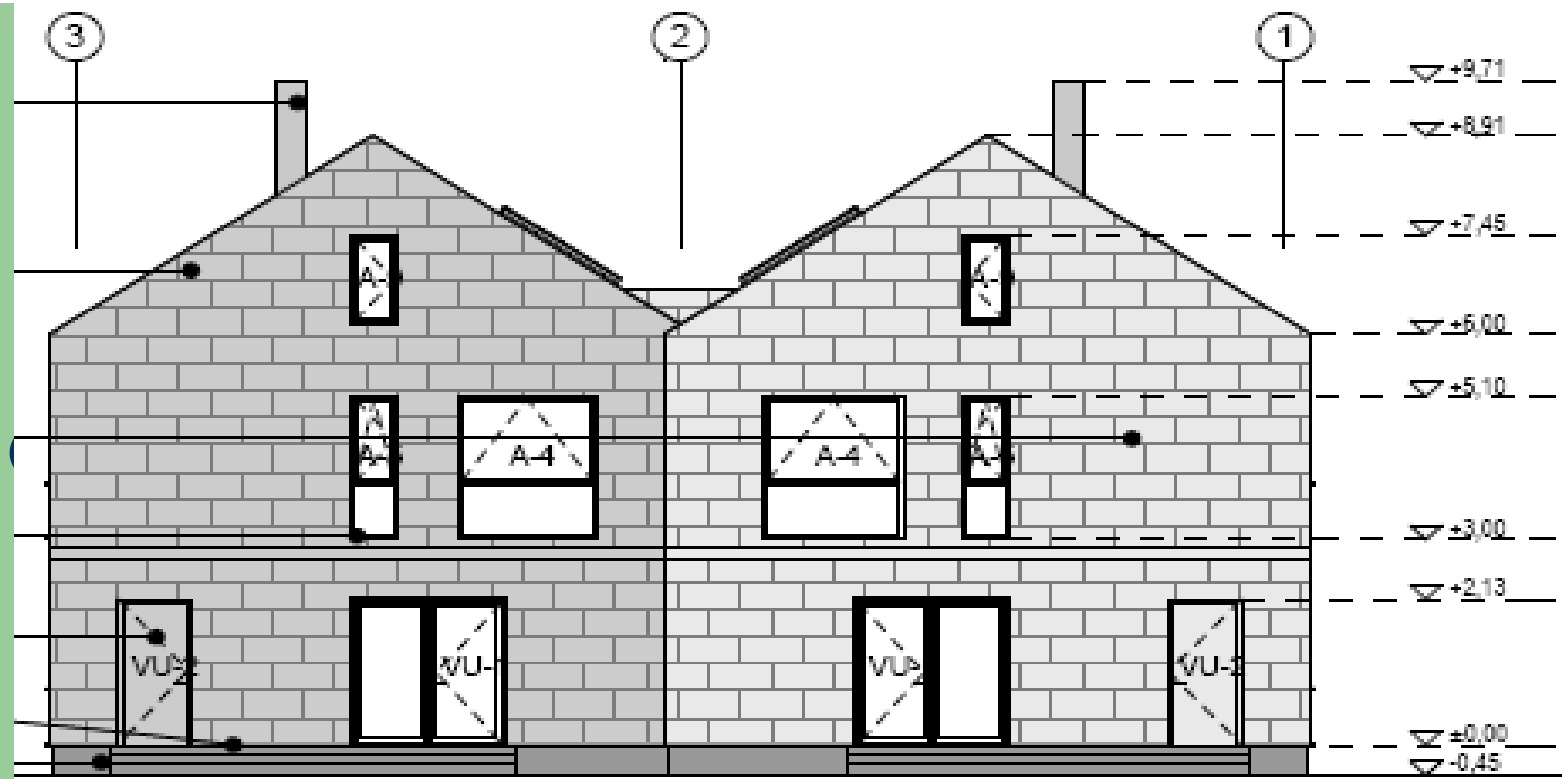


## Orphanages

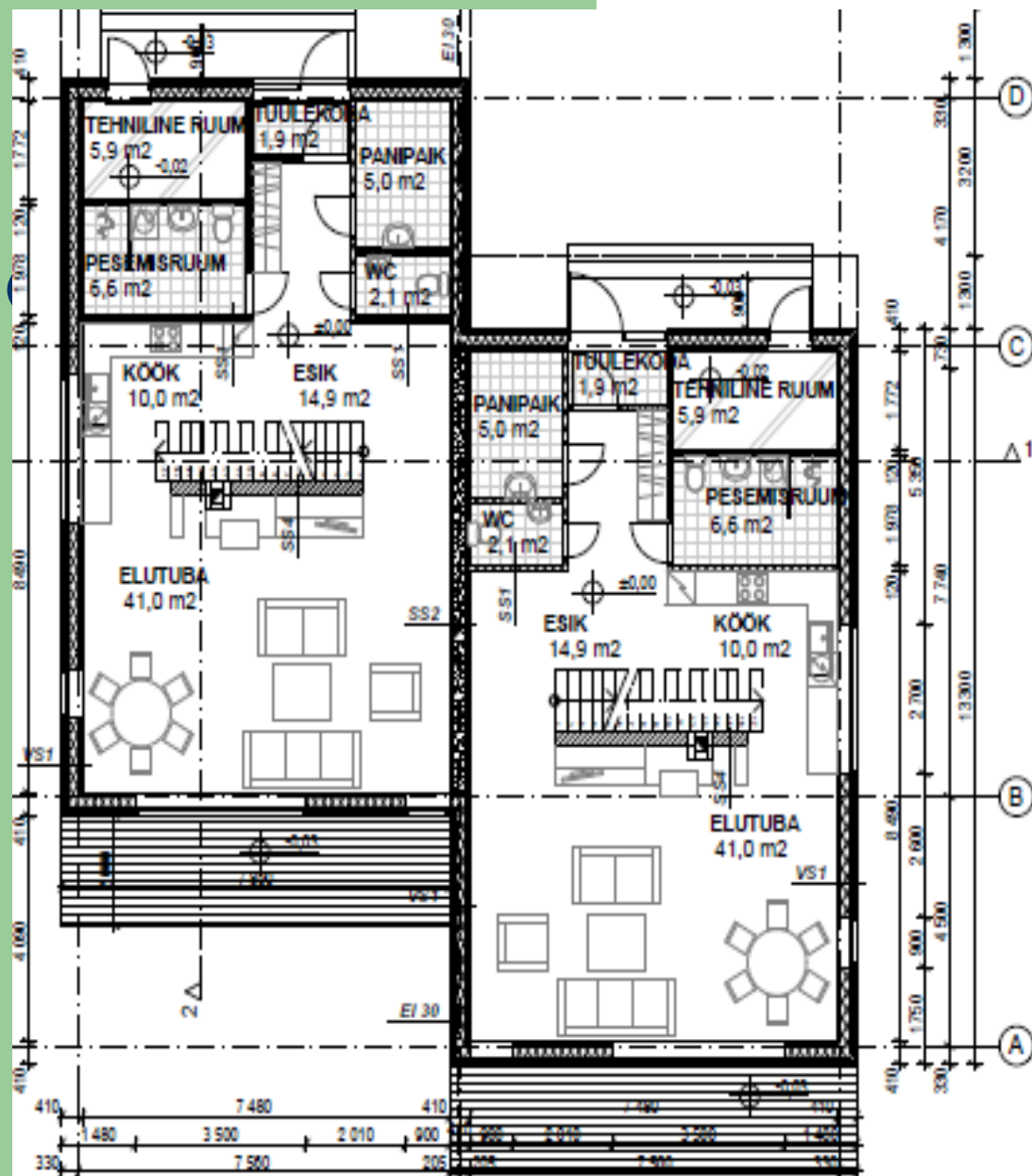
- General project
- Pihlaka tn 1b, Veerenni tn 53, Purde tn 31b ja Hooldekodu tee 5 relative projects

**Pihlaka tn 1b**



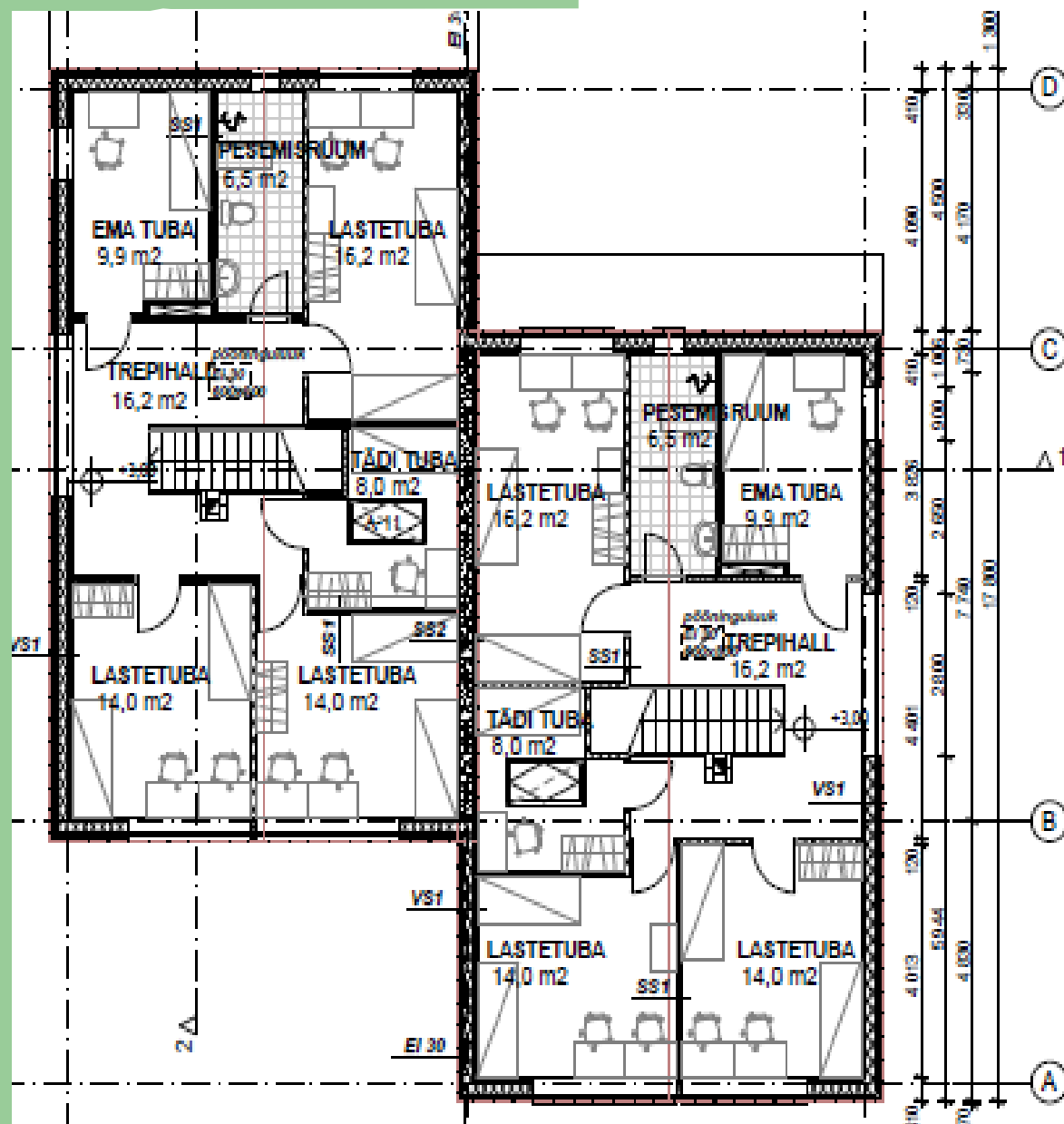


# Pihlaka tn 1b



RUUMIDE SPETSIFIKATSIOON		
KORRUS	RUUMI NIMI	PINDALA (m²)
1	ELUTUBA	41,0
1	ELUTUBA	41,0
1	ESIK	14,9
1	ESIK	14,9
1	KÖÖK	10,0
1	KÖÖK	10,0
1	PANIPAIK	5,0
1	PANIPAIK	5,0
1	PESEMISRUUM	6,6
1	PESEMISRUUM	6,6
1	TEHNILINE RUUM	5,9
1	TEHNILINE RUUM	5,9
1	TUULEKODA	1,9
1	TUULEKODA	1,9
1	WC	2,1
1	WC	2,1
		174,8 m²

# Pihlaka tn 1b



RUUMIDE SPETSIFIKATSIOON		
KORRUS	RUUMI NIMI	PINDALA (m <sup>2</sup> )
2	EMA TUBA	9,9
2	EMA TUBA	9,9
2	LASTETUBA	14,0
2	LASTETUBA	14,0
2	LASTETUBA	14,0
2	LASTETUBA	14,0
2	LASTETUBA	16,2
2	LASTETUBA	16,2
2	PESEMISRUUM	6,5
2	PESEMISRUUM	6,5
2	TREPIHALL	16,2
2	TREPIHALL	16,2
2	TÄDI TUBA	8,0
2	TÄDI TUBA	8,0
		169,6 m <sup>2</sup>
		344,4 m <sup>2</sup>



# Social houses Varre tn 7

## Vision



The progress – detail planning



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