



NETHERLANDS INSTITUTE
FOR SAFETY *Nibra*

Fire Service Academy

Fire in “Rivierduinen”

Presumption of safety

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Fire “Rivierduinen”

- ‘Rivierduinen’ is a psychiatric nursery home.
- On 12 March 2011 at 21.37 hours fire broke out in a patient room of the ICE (Intensive Care Elderly).
- Five patients could not be evacuated. Two patients died in the building. Three were taken out of the building by the fire brigade. One of them died a few days later.

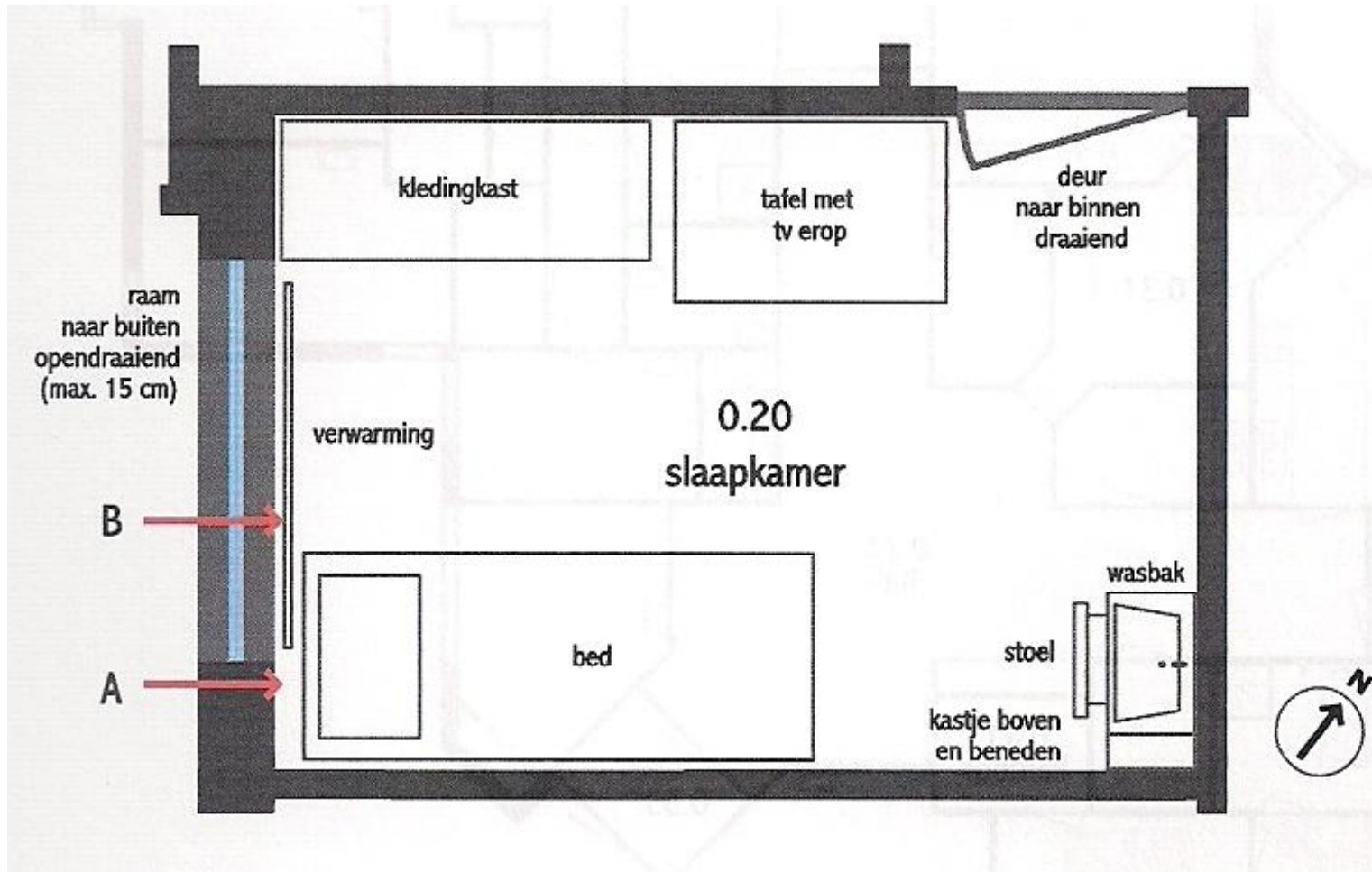
The building



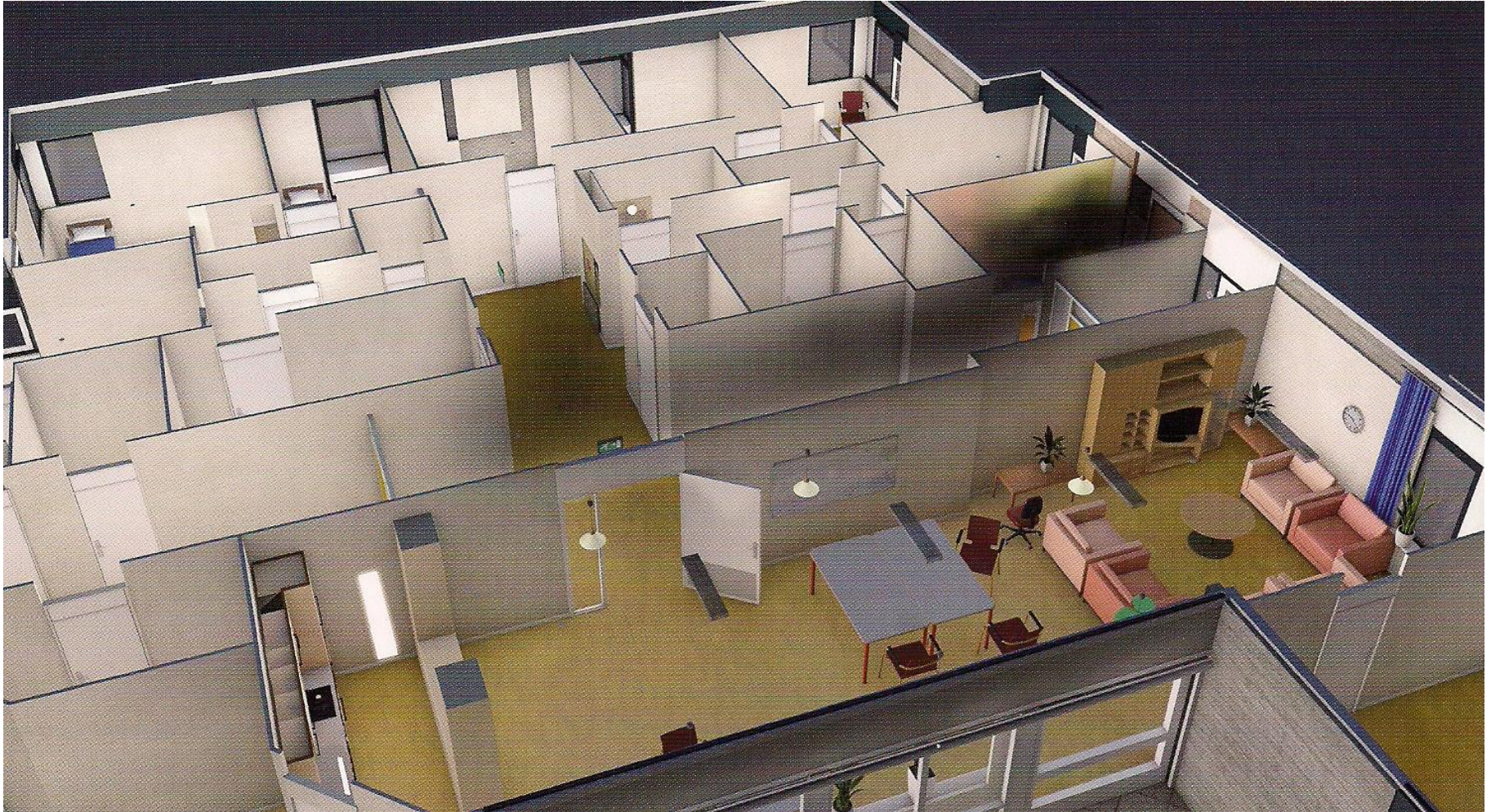
The building



The origin of the fire

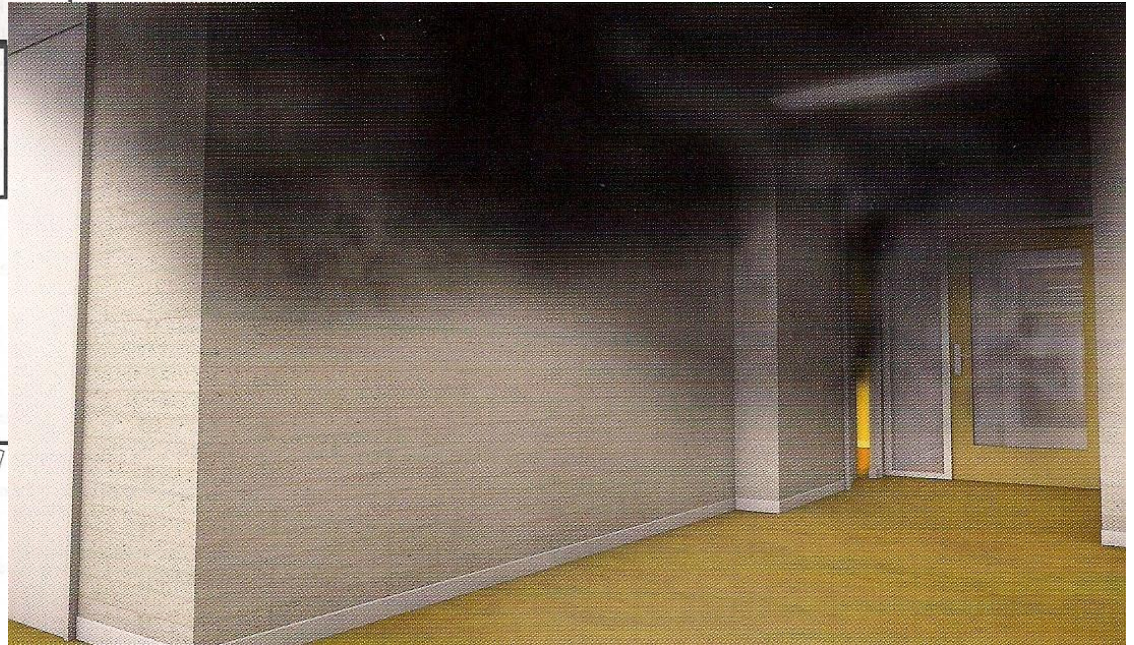
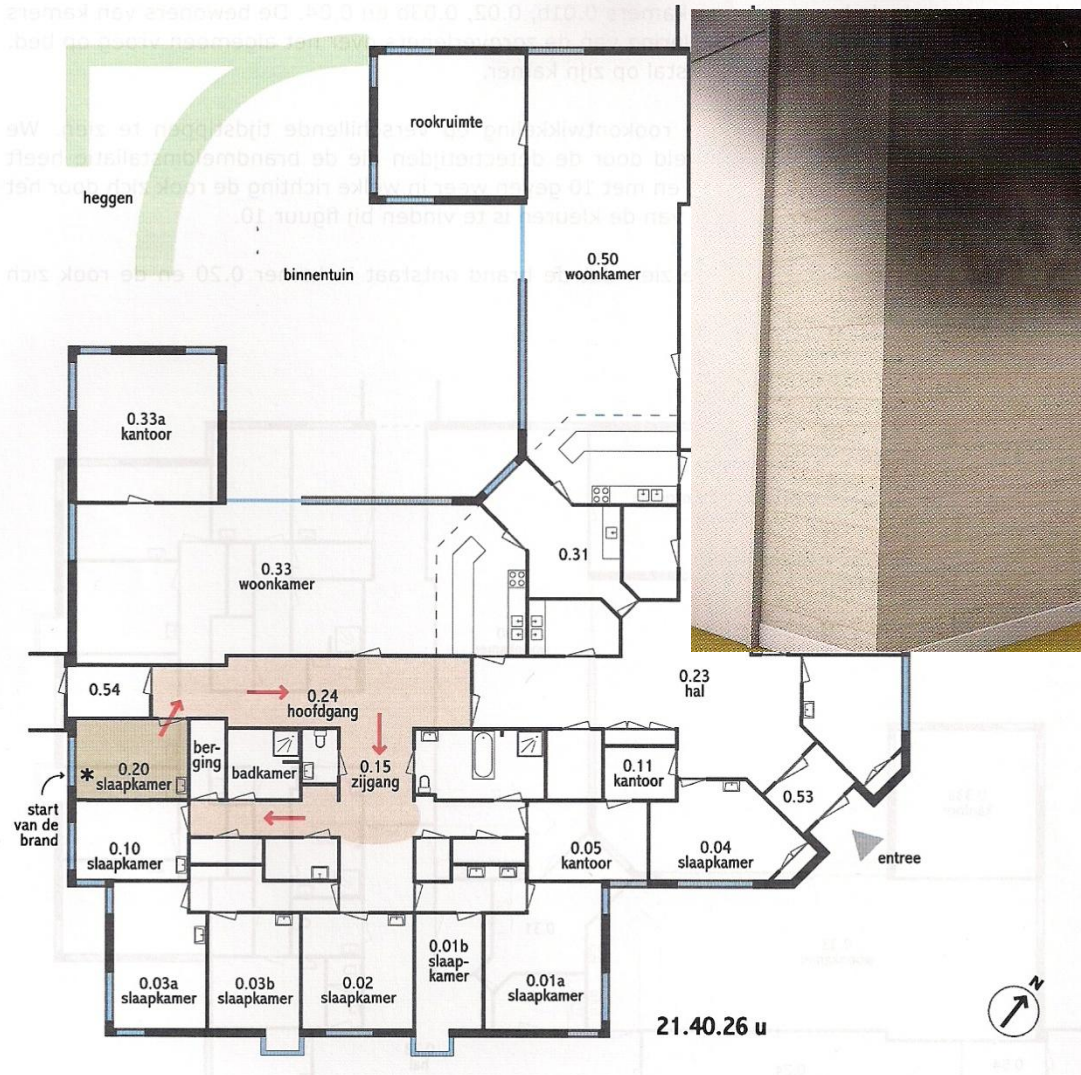


The spread of smoke and fire





Situation after 1
minute



Situation after 3 minutes



Situation after 5 minutes





The occurrence of the nurses / fire wardens

- Looked at the indicator of fire alarm system
- Opened door of the burning room (small fire)
- Brought patient to the living room
- Attemp to extinguish the fire (2/3 min.)
- Sent another patient back to his room
- Stopped extinguishing attemp (3/4 min.)
- Evacuated three patients from living room
- Evacuated patients from other wing

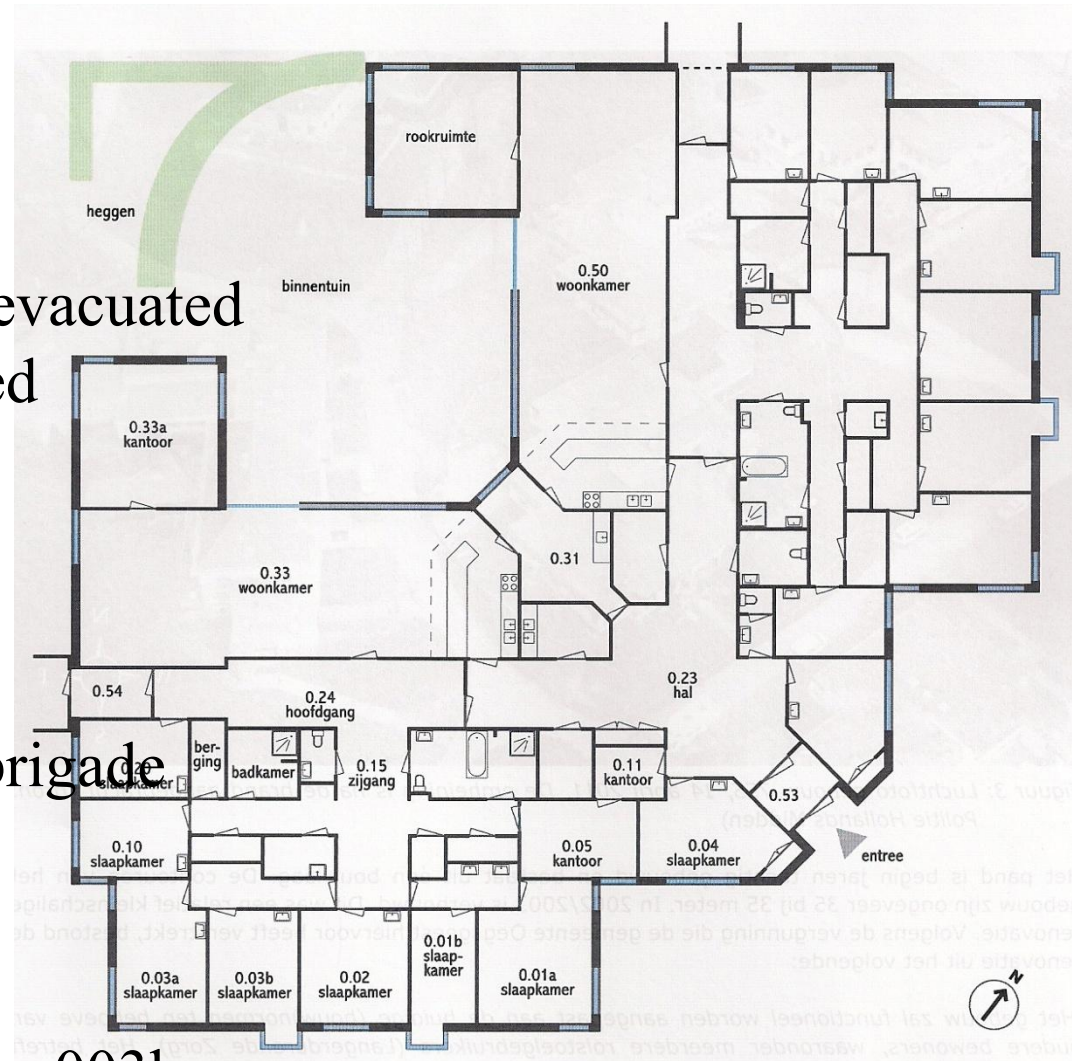
8 patients

Actions fire wardens

- 1 from 020 via living room evacuated
- 2 from living room evacuated
- 1 from 002 rescued through window by fire warden

Actions fire brigade

- 1 from 004 rescued by fire brigade
- 1 from 001b rescued by fire brigade, died later
- 1 found dead in 010
- 1 found dead in front of room 003b

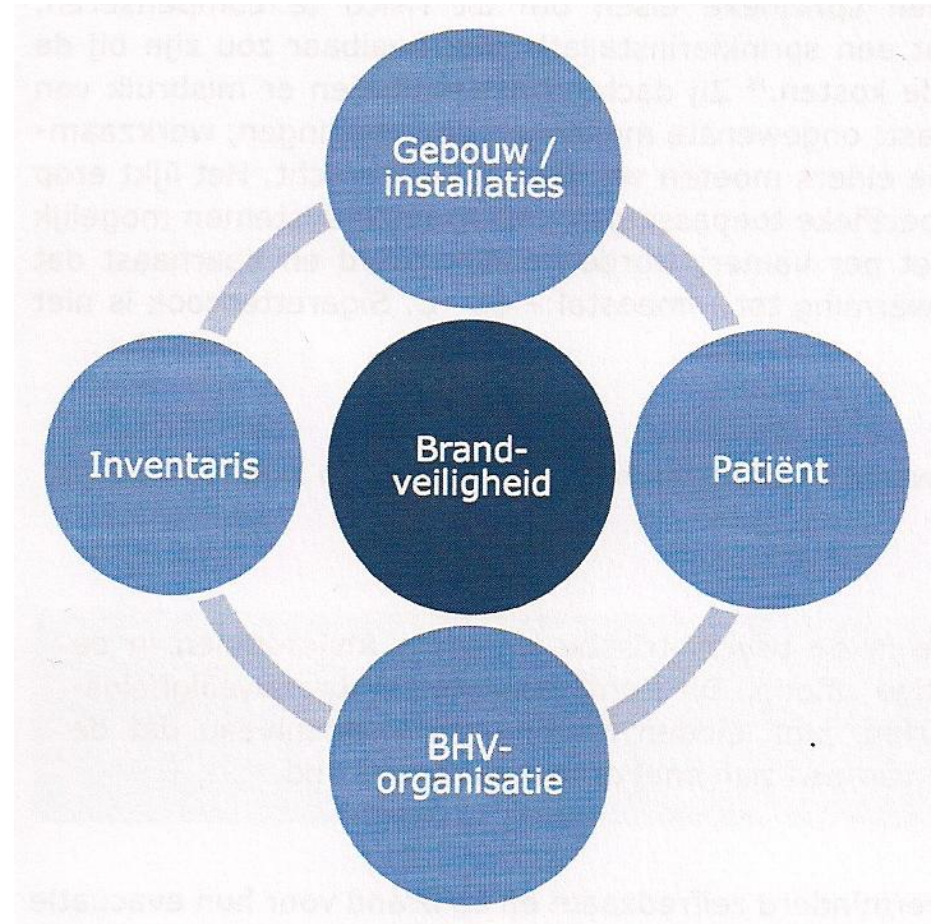


Conclusion

- “Rivierduinen” satisfy the requirements established in the laws and regulations regarding fire safety
- “Rivierduinen” approached fire safety not integral: they didn’t approached fire safty with regarding to the psychological conditions of the patients during fire *and* didn’t saw the fire safety measures in coherence.

Causes, determine the severe outcome

- Patients
- Inventory
- Fire wardens
- Building



Patients

- Bedridden versus self-reliant
- Self-reliant versus psychological conditions during fire

Inventory

- Flammability furniture
- Flammability mattresses

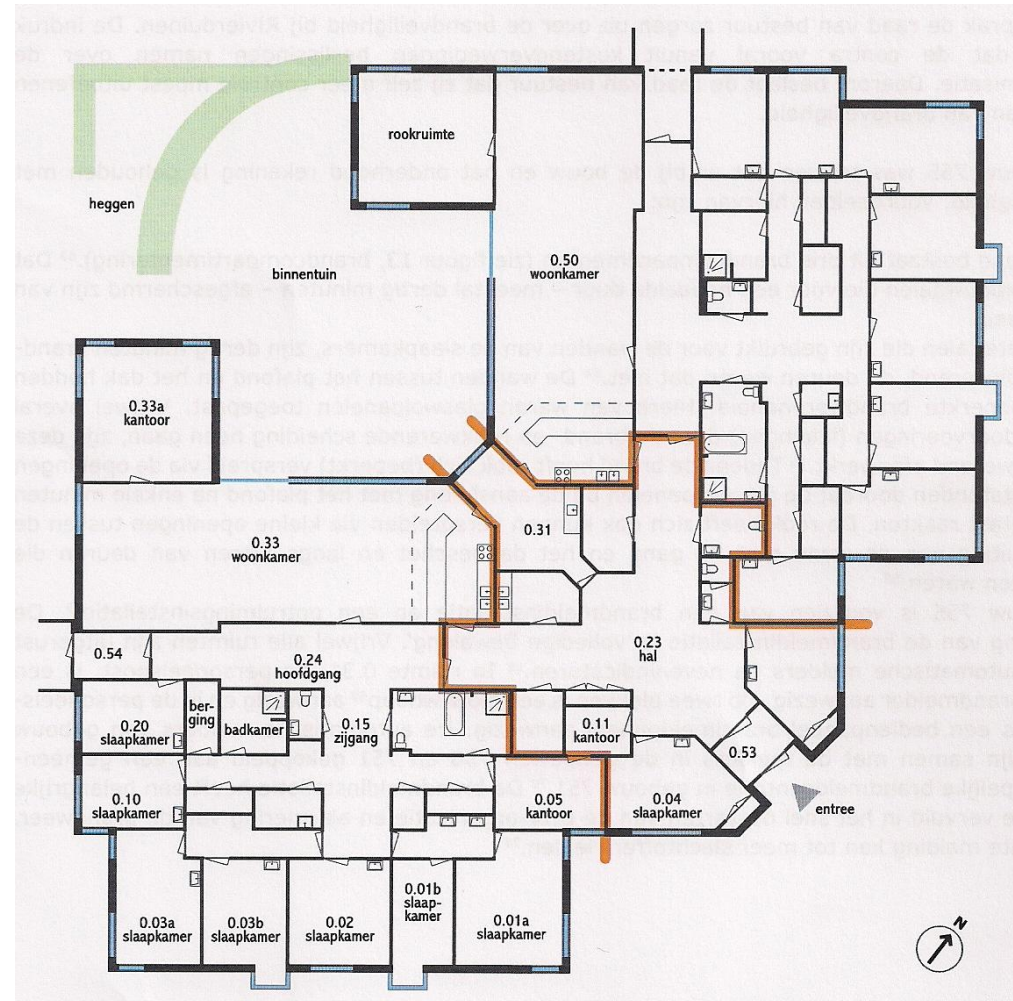


Fire wardens

- Fire alarm system gave misleading information
- Fire wardens didn't took fire extinguisher with them
- The door of the burning room was not closed
- The fire hose was not used properly
- The patients were not evacuated accordingly
- The fire wardens panicked
- There was (therefore) no statement about which patients were still in the building

Building

- Self-closing doors
- Sprinkler system



Lessons learned

