



**Synergistic Costeffective Measures:**

All elements are demountable, increasing the (partial) adaptability and subsequent residual value of the mixedfunction complex.

All used elements are prefabricated to minimize site costs.

The overall material variety is minimized to reduce the amount of needed cleaning agents, reducing cleaning costs.

① The floors are fully demountable without the need of (heavy) machines. As an effect, voids can easily be replaced to suit changing programmatic needs, without hindering the activities of other programmatic functions.

② The walls are full demountable without the need of (heavy) machines. As an effect, floorplans are easily adapted without hindering the daily activities of other functions.

③ All floors and walls are insulated to avoid temperature leakage to (temporarily) unused functions.

④ Overpressure ventilation blown from behind the books prevents dust from accumulating on the books. This avoids the tedious and costly labour of dusting all the books.

⑤ Loose castellated plates are used to allow flexible and adaptable floor heating patterns. As an effect, floorplans are easily adaptable, increasing the residual value of the complex.

⑥ Floor heating is used for its large radiant surface; allowing the use of ground temperature water for cooling and vacuum tube collector water for heating.

⑦ Loose reflective vinyl floor tiles are easily maintained with dry mechanical cleaning, significantly reducing cleaning costs.

⑧ Demountable stretch ceiling is used for acoustic reasons, as well as hiding fire curtains, vents and lighting.

It is also used in the museum of the complex, to create indirect lighting.

⑨ Fire curtains provide fire compartmentation, as well as (thermally) closing off parts of the building when needed.

⑩ The amount of elements and connections in the facade is minimized to decrease material, labour and maintenance costs.

⑪ Prefabricated timber window frames are easily assembled from inside out, reducing building site delay due to weather conditions.

With one gesture, the timber window frames determine both the interior and facade architecture. Minimizing the amount of necessary building elements.

⑫ Triple glazing together with ACP sandwich panels provides excellent insulation, as well as near airtight detailing.

⑬ Preglued natural stone veneer on an ACP sandwich panel reduces stone materials costs and provides fast and foolproof assembly.

⑭ The steel loadbearing structure is organized orthogonally, despite the hexagonal layout of the building. This saves high costs on structural connections without compromising the architecture.

⑮ Vacuum tube collectors on the roof are used to heat water throughout all seasons. The water is subsequently used to heat the floor.

⑯ Water tubes are cast in the retention walls of the underground parking garage. Water is subsequently cooled down to ground temperature, and used to cool the floors.

⑰ Heat exchangers (on the fourth floor) are used to reduce heating and cooling costs.

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