medium-rise timber office building
in low-to-no carbon district in Helsinki, Finland

façade construction
The U value of all facades is planned to be below 0.8. The general façade (floors 2-6) is a unitised system hung floor by floor on timber frame prefabricated frame elements.

façade panels
- wood casing and cladding (arch wood, planed on all sides)
- metal fireproof (glass panel that is tested for weather protection)
- mineral insulation (mineral wood)
- stenplated timber framework
- bounding plastering (e.g. Stonebord)
- internal cladding and surfaces

windows
- double glazing (windows glazing in inner and outer frames (total of 4 glass layers))
- sun protection (venetian blind system, manually controlled between inner and outer window construction)
- coloured safety glass cladding

The outer, coloured glass cladding is flush to the wood cladding. The panels are mounted in front of the insulating wall panels.

composite wood and concrete construction

ground floor
The ceiling of the ground floor consists of a precast permanent and cast-in-concrete floor. The precast formwork contains cast-in-conduit installations, as well as active cooling circuit and connections. The ceiling of the basement floor out of 27cm hollow core reinforced concrete.

upper floors (3-6)
The upper floors consist of a timber column and beam framework composed of 265mm column and beam units of differing widths. This frame takes up the floor construction made up of prefabricated wood cassettes with a construction height of 650mm.

technical installations
The high level distribution of services in these floors is defined by the timber structure and floor cassettes. The changes of each cassette are planned to generate a gap to the neighboring element. These gaps are designed to provide space for passive chilled beams and technical installations. The system is provided to be flexible for the optional floor layouts.

photovoltaic roof
The saw-toothed roofs of the entire ensemble enable natural daylight and multiply the surface for a large photovoltaic system.