ORGU

Before You Order an Engineering Design: What to Prepare

A client checklist — heating, ventilation, air conditioning, water, electrical, low-current and fire systems

The building

- [ ] Address and cadastral code
- [ ] Use: house, flat, office, hotel, restaurant, factory…
- [ ] Number of floors and total floor area (m²)
- [ ] New build or renovation of an existing building
- [ ] Construction or renovation stage and the expected start date

Drawings and files

- [ ] Architectural plans, sections and elevations (DWG, PDF or Revit/IFC)
- [ ] Structural drawings (if they already exist)
- [ ] Topographic survey and geotechnical report — for a private house or a new building
- [ ] Drawings or photos of existing systems — for a renovation

Which systems you need

- [ ] Heating: boiler, heat pump, radiators, underfloor heating
- [ ] Ventilation: heat recovery (MVHR), kitchen and bathroom extract
- [ ] Air conditioning: split, multi-split, VRF, chiller
- [ ] Water supply, drainage, stormwater; a septic tank if there is no sewer
- [ ] Power and lighting; low-current systems (network, CCTV, intercom)
- [ ] Fire systems: alarm, sprinklers, smoke extraction

Connections and technical conditions

- [ ] Technical conditions for gas, water and electricity connections (if you already have them)
- [ ] Allocated electrical capacity (kW) and number of phases
- [ ] Whether there is gas, a public sewer and mains water

Your requirements

- [ ] Budget guide and timescale
- [ ] Comfort: temperatures, noise, air quality
- [ ] Energy efficiency or certification (LEED, BREEAM)

- [ ] Preferred brands or equipment, if any
- [ ] Who the contractor will be and whether you need design supervision on site

Questions for your first meeting with the engineer

- [ ] What does the design include and in what format will you receive it (PDF, DWG, BIM model)?
- [ ] What are the stages and the timescale?
- [ ] Are the systems coordinated with each other?
- [ ] What does the design need for the building permit?
