

Building Services Design Guidelines

A summary of the major building services design tasks is given below. It is hoped that the information will guide the IDDP students to develop the design solutions in a systematic and effective manner.

1. **Analysis of Site Environment**

- Investigate site access and circulation
- Examine surrounding buildings and neighbourhood settings
- Study climatic conditions, ventilation, air quality and noise impacts
- Identify the locations of utility connections (electricity, water, drainage, town gas, telecom)

2. **Study of Client Requirements**

- Identify client requirements and major project goals
- Evaluate any constraints and limitations
- Study design requirements and criteria (for building services systems)
- Identify the scope of building services provisions
- Indicate any feasibility or further studies required

3. **Key Building Services Systems**

- Design objectives and design criteria
- Relevant local regulations and design practices
- System description and design features (specific to this project)
- Possible design options and system selection

4. **Conceptual Design and Outline Proposals**

- Conceptual diagrams and simplified schematics
- Load estimation (rough) and possible zoning
- Arrangement of utility connections (obtain authority approval, if needed)
- Planning of major plant rooms and services distribution

5. **Scheme Design and Construction Method**

- Identify plant room locations and building services space requirements
- Coordinate with architectural and structural designs
- Determine the main routings of the services distribution
- Consider construction method and cost implications

6. **Teamwork and Coordination**

- Collaboration and interaction with other disciplines
- Feedbacks of other IDDP team member(s) on critical design issues
- Economic analysis of design options

7. **Innovation and Creativity**

- Technical analysis of important design issues (e.g. safety, energy efficiency, sustainability)
- Proposal of innovative and sustainable design features