## THE ROLE OF PUBLIC HEALTH ENGINEER

## Well-designed water and waste systems are essential to successful, healthy and sustainable buildings

As Public Health Engineers, we design systems for water supply and sanitation that help buildings work better for occupants, owners and the environment.

Public Health Engineers are perfectly positioned to address and help resolve water and energy related challenges.

In a rapidly changing world, we are faced with the challenge of supporting larger cities with increasingly scarce resources. For instance, water: all life is dependent on it but as global population levels continue to rise, this vital resource becomes ever more precious. As Public Health Engineers, we are perfectly positioned to address and help resolve such water and energy related challenges.

The design of sustainable water management systems helps save water and the energy associated with its use, from pumping to heating. From sustainable drainage systems (SuDS) to water reuse, our expertise in the field of Public Health Engineering helps clients to make better use of water and energy, and to make their buildings more resilient.



We, as professional engineers, tackle diverse challenges – from sustainable strategies to fire suppression systems, and from drainage in high-rise buildings to supplying ultra-pure water and piping specialist gases and fluids for healthcare, science and industry facilities.

As part of our day to day role, we coordinate our design approach with mechanical and electrical engineers, providing integrated building services while collaborating with structural engineers and architects to ensure our systems are seamlessly integrated into the final design. External to the building curtilage, we also collaborate with water and civil engineers to ensure that plumbing and infrastructure work together, in sympathy with the complete water cycle.

As a discipline, our skills cover the following technical fields within the built environment:

- Hot and cold water systems
- Water conservation solutions
- Solar thermal hot water systems
- Borehole water systems
- Above ground foul systems and rainwater systems
- Below ground, sustainable and pumped drainage
- Rainwater harvesting and greywater recycling
- Specialist drainage (laboratories)
- Fuel gas, medical gases and vacuum systems
- Water and oil leak detection systems
- BREEAM, LEED, Code for Sustainable homes and Ska Rating design integration
- Wet and dry riser systems, sprinklers, first aid hose reel systems, external fire hydrants
- Fire suppression (gaseous, water mist and foam)





The Society of Public Health Engineers is part of the Chartered Institution of Building Services Engineers, charity reg no 278104

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