

Process Utilities and Building Services

Mott MacDonald Ireland Limited



Mott MacDonald Ireland

Mott MacDonald Ireland is a wholly owned subsidiary of the Mott MacDonald Group and operates as a multi-disciplinary consultancy with capabilities in the areas of Civil/Structural Engineering, Utilities and Building Services, Power Generation, Transport, Specialist Industrial Architectural Services and Environmental Engineering.

The Process Utilities and Building Services department in Cork has wide ranging capabilities in many areas, an outline of which is provided below.

Medical

Services for Medical & Nursing Clinical skills, Therapies and Lecture facilities with all M&E services, including; IT, Comms, CCTV, Security, Access control, AV, Fire Safety systems, Residential facilities for the mild to severely physically and mentally impaired, and psychiatric ward. Medical gases, vacuum/suction, Anaesthetic gas scavenging systems, medical bed-head trunking.

Dairy and Food

Process and services for food and dairy installations in Ireland, UK, Russia, UAE and USA, for the manufacture of liquid milk, cheese, yoghurt, skim milk and whole milk powder (SMP and WMP), Butter, Whey, Casein, Grain Storage and Processing. Capability in industrial architecture, process and personnel flows, specialist building finishes and services including conventional and cleanroom ventilation, chilled water, Ice Banks, refrigeration, steam and condensate, energy recovery, USP/process water systems, process electrics, controls, SCADA, Waste Water treatment, etc.

PharmaChem

M&E services for Pharmaceutical and Chemical Manufacturing. Cleanroom design to FDA requirements, HVAC (Class 100 to 100,000 – HEPA filter units, fan filter units, smoke testing, room pressurisation), ambient cleanrooms & cold room clean rooms. Clean services such as Water for Injection (WFI), Clean Steam, Chilled Water (-2 deg.C – 6 deg.C), Steam & Condensate, Domestic water services, Laboratory Gases, Electrics, Controls, SCADA



Fermentation Skid



Skim Milk Powder Manufacturing

Building Services

M&E Building Services for Office, Commercial, Retail, Apartments, Schools (from primary to 3rd Level), Hospitals, Hotels (4-star), Crèches, Affordable Housing, Restaurants, Swimming Pools and Municipal Buildings.

Designs include: Sustainable systems such as wood pellet/wood chip boilers, geothermal heat pumps, solar power, external brise soleil, façade system design, natural and passive ventilation (e.g. Passivent), night time cooling, automated window opening control systems (e.g. WindowMaster), energy efficient systems using CHP (Absorption chillers where possible) and natural lighting (day light factor determination, automatic dimming & PIR lighting control). Familiar with BREEAM Assessment Method and BER (Building Energy Ratings – SBEM Calc. Method)

Mechanical Ventilation Systems

Under floor displacement with rotary wheel HEX, mixed mode (natural ventilation), constant volume, variable air volume, night time cooling, evaporative cooling, humidification, desiccant de-humidifiers, vacuum tank drying systems, fume extraction, smoke control.

Air Traffic Control

ATC for Dublin and Shannon Airports – including duplication of all services from ventilation to fuel supplies, power supplies and UPS systems, control room surrounded in a faraday cage, strict temperature and humidity controls monitoring and testing, security systems including access control and CCTV. Heathrow Terminal 5 – Baggage handling HVAC systems

Industrial

- Waste Recovery Depot, Greenstar
- Pectin Processing Plant, Citrico
- Photo-chemicals Manufacturing Plant for Kodak in Russia
- Absorbent paper manufacturing plant (uses 250m³/s of evaporative cooling air and spray humidification) Buckeye and Merfin

Tunnels

M&E design for Limerick Tunnel in Ireland, a 675m long immersed tube tunnel. Works include, tunnel ventilation design using the Saccardo Nozzle principal (no jet fans in tunnel), Fire protection, Drainage, Drainage sumps, ITS and SCADA, lighting and Power. Tunnel Safety Officer for Jack Lynch Tunnel in Cork.

3D CAD

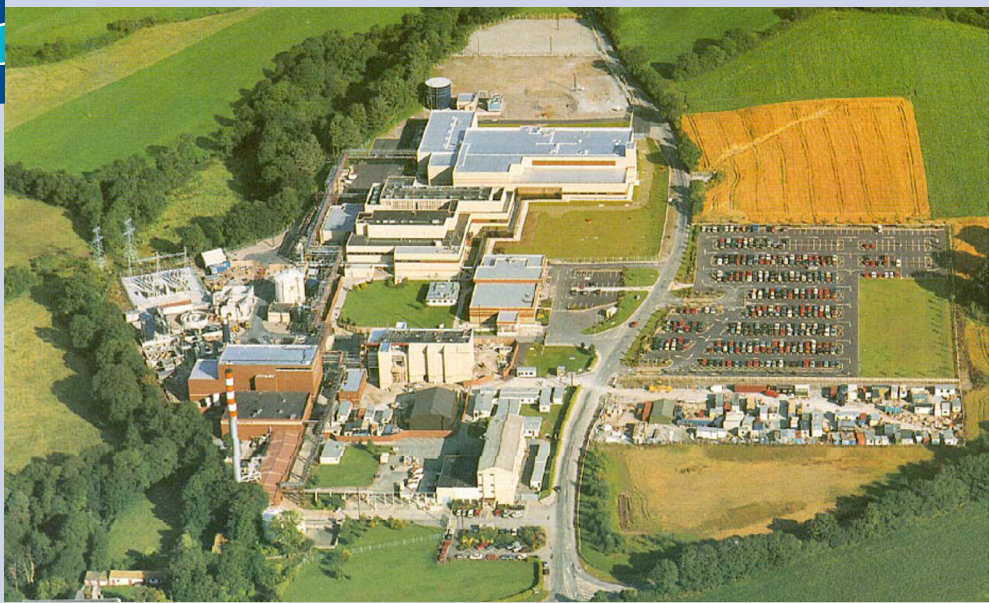
Full 3D CAD capability for all of the above, IES modelling, Cymap heating & cooling loads, building annual running costs.



Process Installation

A professional approach to all projects

Schering Plough, Brinny, County Cork



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