



**Health services
in the UK and Ireland**



Improving health outcomes through the power of design

THE HEALTH AND SOCIAL CARE SECTOR IS CHANGING. POPULATION GROWTH, INCREASED DEMAND FOR SPECIALIST SERVICES, ESCALATING COSTS OF PATIENT CARE, INCREASED REGULATORY FOCUS AND CHANGES TO BUILDING DESIGN IN RESPONSE TO THE CLIMATE CHANGE EMERGENCY AND NHS PRIORITIES ARE ALL CONTRIBUTING TO THE RAPIDLY CHANGING LANDSCAPE IN THE UK AND IRELAND.

Our team of healthcare buildings specialists not only understand the challenges of increased demand and financial pressure but also understand the opportunities arising from advances in technology and lessons learnt in building design during the pandemic. Our UK team work as part of a global network of healthcare specialists who collaborate and share best practice in healthcare design innovation.

We stay ahead of key issues in the healthcare sector, allowing us work with public and private healthcare specialists and social care providers. We work with these specialists to improve patient outcomes through designing, building and maintaining better integrated services.

We design places that are at the heart of a community's health—vital healing spaces that are safe, open, and honest. The principles of

place-making, sustainability, and change adaptation are hallmarks of our approach.

But, it's really our passion and progressive thinking that makes us a leader in healthcare planning and design. Our work in increasing efficiency, reducing costs, and facilitating connections among staff, patients, and families gives the discovery, caregiving, and healing process renewed energy, life, and direction.

Our dedicated UK healthcare buildings team works with over 4,000 building design professionals globally. Our teams are supported by our company-wide proprietary health research, experience in lean planning and design and expertise in alternative delivery systems. Through inspired design, we put our clients at the forefront of best practice, new technology, and new healthcare delivery.

Who we are

STANTEC IS A TOP TIER GLOBAL CONSULTANCY. WE HAVE BEEN WORKING WITH OUR CLIENTS AND COMMUNITIES IN THE UK FOR OVER 150 YEARS.

We have consistently been at the forefront of planning, design and delivery of infrastructure and development in the UK.

With offices across the UK, Stantec has a strong reputation for its work with public and private sector clients on a diverse range of high-profile infrastructure and development projects.



Stantec in the UK&I

1700

INFRASTRUCTURE, BUILDINGS,
WATER & ENERGY

40

PLANNING SERVICES

250

ENVIRONMENT &
SUSTAINABILITY SERVICES

200

CIVIL ENGINEERING

160

TRANSPORT PLANNING

95

BUILDING STRUCTURES and
UTILITY SERVICES

Who we are

COMMUNITIES ARE FUNDAMENTAL

Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind.

The Stantec community unites approximately 22,000 employees working in more than 350 locations across six continents. We collaborate across disciplines and industries to bring buildings, energy and resources, environmental, and infrastructure projects to life. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships.

Balancing these priorities results in projects that advance the quality of life in communities across the globe

OUR CORE VALUES

Our core values unite us as a firm: we put people first, we do what is right, we are better together, and we are driven to achieve. Our commitment to the health and safety of our people and to being ethical underpins our values and strengthens everything we do. We truly are better together; great things happen when smart people get together and are guided by their imagination and ambition to achieve real-world goals. We aim to support our clients at every stage of their energy transition.

Through global design, intuitive planning and local support, we put our clients at the forefront of best practice, technology innovation, and high-performance delivery.

LOCAL DELIVERY, GLOBAL EXPERTISE

At Stantec, we strive to exceed your expectations by fully comprehending your needs, interpreting them in creative and cost-effective ways, and by providing superb service and responsive follow-up regardless of location. How do we achieve this?

We start by leveraging the right staff at the right locations—driving lower-cost, higher quality, and more timely reporting to deliver best value services.

Our integrated team of subject matter experts will provide the best of both worlds: global knowledge and understanding coupled with a local appreciation for your unique needs, resources, and constraints—informing the project's agenda from the start and delivering the advantage of local solutions.



BUILDINGS

- Airports
- Civic
- Commercial
- Education
- Health
- Industrial
- Science & Technology
- Workplace

ENVIRONMENTAL SERVICES

- Buildings
- Community Development
- Mining
- Oil & Gas
- Power
- Transportation
- Water

WATER

- Conveyance
- Industrial Water
- Management & Technology Consulting
- Waste Management
- Wastewater Treatment
- Water Resources
- Water Treatment
- Wet Weather Flow & Urban Stormwater

ENERGY & RESOURCES

- Energy
- Mining, Minerals, and Metals

INFRASTRUCTURE

- Airports
- Bridges & Structures
- Land Development
- Municipal
- Parks & Open Spaces
- Ports & Marine Terminals
- Roadways
- Smart(ER) Mobility
- Transit & Rail
- Urban Places

Our services

WE'RE FINDING EFFICIENCIES AND OPPORTUNITIES THROUGH COMPUTATIONAL AND PARAMETRIC DESIGN. AND WE'RE DESIGNING SMART HEALTHCARE BUILDINGS THAT WILL LEAD TO SUSTAINABLE, RESILIENT, AND COST-EFFECTIVE FACILITIES.

ARCHITECTURE AND INTERIOR DESIGN

Design matters. Patients get clues about the quality of their medical care from the feel and experience of their surroundings. We design places that create transformative experiences for patients, families, and care-givers.

Our Health Architecture Research and Benchmarking group is focused on finding new ways to positively impact lives through design. We incorporate evidence-based design principles in all of our projects to ensure that our designs also support improved health outcomes.

ENGINEERING AND BUILDING SYSTEMS

More than half of a new building's cost of construction is related to its building systems. HVAC, plumbing, electrical and information/ communication systems must provide the infrastructure for operations on opening day and well into the future of a healthcare building. Life cycle operational costs are a significant expenditure once

the building opens. Our designs address stewardship of resources on all levels: we provide effective and sustainable solutions that balance capital expenditures with operational costs over the life of a building.

SUSTAINABILITY

Stantec support the Government's vision to deliver a 'net zero' National Health Service. Climate change will have a significant impact on health outcomes as the healthcare industry responds to the impact that increased flooding, changing temperatures and increased spread for infectious diseases will have on public health.

Reducing emissions from healthcare estates and facilities has a vital role to play in tackling climate change. This means minimising energy use, conserving water resources, and considering sustainability relative to material choices, construction processes, and operational effectiveness.

As designers, performance is at the heart of what we do. We're dedicated to helping clients realize the full potential of their projects in terms of life cycle cost, energy efficiency, carbon reduction, and human health and wellness.

Informed by data and grounded in the market, we design environments to support human resilience, health, and wellness while delivering value through life cycle cost analysis and reducing consumption of energy and carbon. We consult and design at every scale of built, natural, and organizational environment. Whether clients are exploring the value of sustainable buildings or moving forward with a green project, our team can guide them through the process.

Our integrated approach considers climate and site, performance modeling, passive and net-zero design, WELL Building criteria, LEED® certification, and post-occupancy assessment. Why?

Because we know increased daylight in hospitals reduces medical errors. Because we understand the economic and environmental benefits of reducing energy usage to net zero.

Because we believe green roofs and greywater systems are leading the way to the next generation of sustainable buildings. And, because, we know we're making a difference, one project at a time—for ours and future generations.

RESEARCH

Not only have we worked on some of the most ground breaking healthcare research projects in the UK, but we drive forward innovation and invest significantly in research every year. Exploration of new ideas through design is embedded in our DNA and demonstrated by investment in ideas such as the Green Patient Lab/ Patient Room, Net Zero Lab Exemplar, and Ambulatory Practice of the Future.

These ideas find life in our projects around the globe, evidenced by two of North America's largest net-zero energy facilities completed in the last few years.

DIGITAL TRANSFORMATION

In our Buildings practice, we are helping clients realise their projects by harnessing the power of data-rich, model-based workflows. We're letting clients experience their health and social care facilities before they're built through immersive design and visualisation technologies.

We're finding efficiencies and opportunities through computational and parametric design. And we're designing smart healthcare buildings that will lead to sustainable, resilient, and cost-effective facilities.

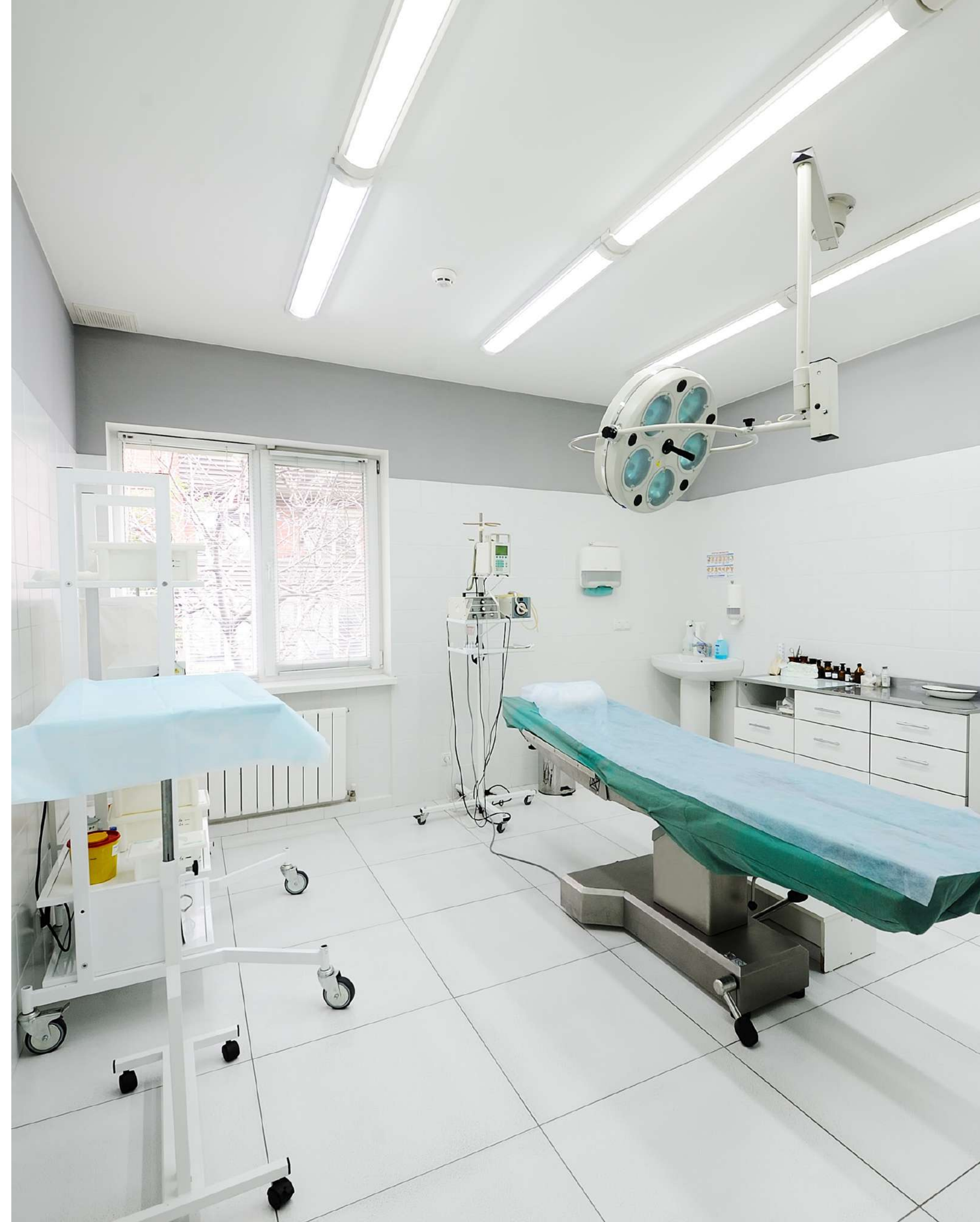
MASTER PLANNING

At Stantec, we take a collaborative best practice approach to master planning and urban design that draws in expertise from across our global healthcare design team. Our healthcare specialists are embedded in the sector and have a deep understanding of how the physical infrastructure supports the public and private health systems.

Historically, master planning has focused on building expansion in acute care hospital campuses.

In today's world, we must focus on people centric placemaking with a respect for our local communities, understanding of their demographic challenges and how effective healthcare design can help provide solutions and help improve patient outcomes both now and in the future. We look beyond the building and take a holistic approach to accessibility, patient centric facility design, support services and campus transport planning for staff, patients and visitors. Our masterplans include analysis, recommendations and proposals that take into account healthcare demographics and local trends, economy, accommodation, transportation, healthcare facilities and land use.

We are proud of our experience in working with some of the world's most state of the art hospital campuses, providing sustainable, innovative and financially efficient solutions, which are aligned to our clients healthcare strategy.





NET ZERO HEALTHCARE STRATEGIES

Stantec are involved with the Climate Emergency declared by many of our private and public sector client bodies by developing energy and sustainability strategies that exceed the immediate challenge by also forecasting future legislation and energy infrastructure maturity.

We have developed the first net zero carbon development for University College London and also assist the UK Government through the Catapult MEP programme aimed at decarbonising existing hospitals and setting deliverable design solutions and road maps to allow the zero carbon targets to be achieved. We have now been involved in the evaluation of 4 large hospitals in the UK and the development of zero carbon strategies.

Our design approach on all our major acute hospital projects embraces sustainable design principles at its core to create an energy efficient, low carbon, comfortable facility promoting the health and wellbeing of patients and staff.

Design development follows a hierarchy of energy saving and low carbon design principles, minimising energy demand through passive measures, use of high efficiency systems with heat recovery and adopting a low carbon primary energy strategy. The comfort of patients and staff is a key aspect of delivering a sustainable design ensuring good daylighting factors, high air quality standards and thermal comfort throughout the seasons.

In the development of their design strategies we use dynamic simulation modelling to assess the energy and carbon emission performance of the developing building and MEP services designs, providing information to evaluate and select optimised solutions. This includes the consideration of; massing and orientation, fenestration, passive energy conservation measures, envelope insulation and infiltration, natural and mechanical ventilation together with the MEP servicing strategies and primary energy strategy including low and zero carbon generating technologies.

Life cycle cost analysis techniques are used to inform the optioneering studies based on the performance outputs of the dynamic simulation modelling. Capital cost, operational costs, maintenance and life cycle replacement are factored into the analysis and considered against carbon emission reduction performance. This process allows informed decision making on the selection of features and technologies to be integrated within the final design.



Our experience

ACUTE CARE

Our designers, planners and engineers are dedicated to creating the optimal patient, family and staff experience—integrating the most innovative technologies, applying evidence-based principles for safety and efficiency, and using environmental strategies to improve access to nature, light and less toxic materials in pursuit of health. We eagerly embrace the challenges of balancing privacy, noise control, and comfort for patients and families with care delivery.

CANCER CARE

Research shows that 1 in 2 people in the UK born after 1960 will be diagnosed with some form of cancer during their lifetime. With around 375,000 new cancer cases in the UK every year* demand for specialist cancer care is increasing. We design with community in mind because they are our communities too and our designers understand the importance of creating a calming patient environment that reflects the highest quality of care, to reduce fear and anxiety during a difficult time.

We design spaces that support compassionate care—comfortable, with varied seating options, soothing colour palettes, artwork, and access to views, daylight, and gardens. We provide spaces for interaction with fellow patients, as well as rooms with complete privacy. We know that choice and connection to nature make therapy a little less intimidating.

We also embed technological advances and the latest digital innovations into our designs. Our team is proud to have worked on some of the most advanced, state-of-the-art buildings dedicated to cancer care and research – from the Cancer Centre at Guy's Hospital to the London Cancer Centre.

PAEDIATRIC CARE

For many children and young people facing ongoing medical treatment, hospital becomes a second home. Children's healthcare facilities cater for a range of ages from babies to teenagers with a range of differing needs and requirements. We provide a safe space for younger patients and their families that include

age-appropriate interactive facilities in playrooms and meeting spaces to develop a sense of belonging and a more home-like atmosphere.

Our ethos for designing for young patients is creating calm, playful and natural environments that enhance mental wellbeing by offering hope, building confidence and providing a welcoming feel.

SENIOR CARE

The places we design invigorate the mind and body, nurture the human spirit, and inspire bonds with community. We're creating a legacy for our clients built on a simple idea—whole and complete healthcare that spans the continuum of care and age.

We've seen attitudes and expectations for healthy aging undergo a radical change. Simplicity, clarity and empathy lie at the heart of our solutions for the comprehensive care of seniors at all stages.

WOMEN'S HEALTH

Designing for women through every life stage is a unique opportunity to promote health. Women's needs are complex and vary over time, requiring highly specialised expertise and sensitivity.

Our planners, designers and engineers integrate efficiency and sustainability for performance and unsurpassed experiences. Whether undergoing clinical treatment, welcoming a newborn or having a wellness check, women are uplifted and empowered in our healthcare spaces.

MENTAL HEALTH

The Centre for Mental Health and partners have estimated that mental health services in England will need additional capacity for 10 million people, who may need new or additional mental health support over the next three to five years.*

When designing a new mental health facility, we create a fully tailored environment that responds to the unique needs for safety, privacy, and dignity of the facility's healthcare professionals and patients.

We keep spaces feeling as "normal" as possible to help break the stigma surrounding mental health issues, create spaces that are well integrated into the community and establish a safe environment for staff and service users.

MEDICAL RESEARCH AND ACADEMIA

Academic Medical Centers drive positive change in medicine, research, and education. Campus and facility planning and design must support the brand promise and identity of the enterprise, promote leading translational research, provide safer, healthier, and more efficient clinical care, promote wellness, and engage the patient with the clinician and investigator on a shared path to better health.





UK Projects

The London Clinic

How can a cancer hospital full of hi-tech equipment feel welcoming to patients? We worked closely with The London Clinic to challenge preconceived notions on the delivery of cancer treatment.

Together, we created a facility which supports the psychosocial well-being of patients as well as their medical treatment. On arrival, the patient enters a stylish reception area which feels more like a great hotel than a hospital.

Extensive use of natural materials, a palette of maple, walnut and stone, and uplifting artwork give the reception a sense of elegance. This attention to detail is carried through to the circulation, patient, and treatment areas.

The center provides the world's most advanced radiotherapy treatment systems including the CyberKnife® Robotic Radiosurgery System and Varian Trilogy IMRT technology.

Bespoke joinery, lighting, and integrated artworks minimize clutter and soften the linac chambers.

Cancer Centre at Guy's Hospital

The new Cancer Centre at Guy's has been designed to create uplifting, non-institutional healthcare environments which supports the activities within by consolidating cancer treatment in one building and making the experience easier and less stressful for patients. The Centre is made up of a number of stacked 'villages', each with its own distinct identity relating to a particular patient need or clinical function. By breaking down this 13-storey building in this way, the internal environment becomes human-scale and manageable for patients and their families. There are three Villages for treatment—Radiotherapy, Chemotherapy, and Outpatients—together with a Welcome Village at ground level containing communal facilities; and a Private Patients Unit on the upper four floors.

Notably, the new Cancer Centre is the first in the UK to wholly locate its radiotherapy treatment facilities above ground floor level—a key design decision following patient feedback. This decision integrates radiotherapy as part of the normal life of the building and allows both patients and staff to benefit from views and natural light. Stantec provided healthcare architecture

and interior design services to Guy's and St Thomas' NHS Foundation Trust as part of a design team led by Laing O'Rourke and comprising architect Rogers Stirk Harbour + Partners and engineer Arup. The consultants worked closely with Laing O'Rourke during the design phase to develop fully coordinated Revit models in accordance with the BIM Execution Plan to facilitate Design for Manufacture and Assembly (DfMA). Key components produced by DfMA included "smart walls" and lattice slabs within the interior fit-out packages, installed off-site with integrated service conduits, insulation and pre-cut openings coordinated with all design disciplines and trades.

These were manufactured on LOR's in-house "Explore" manufacturing factory facility, cut and assembled by robotic arms, transported and craned in position on-site simultaneously with super-structure construction. This achieved significant savings in design coordination, off-site controlled quality testing and delivery programme and cost savings.





Addenbrooke's Hospital Biomedical Campus

When Cambridge University Hospitals NHS Foundation Trust wanted to undertake a major expansion of Addenbrooke's Hospital in Cambridge to deliver the largest biomedical campus in Europe, they reached out to us for help. Our job? To prepare a planning strategy for the release of green belt land, and to prepare the outline masterplan.

We obtained planning consents for a range of developments related to the expansion, including an Energy Innovation Centre (EIC), which converts waste into energy. The goal? Cutting energy costs in half for Addenbrooke's Hospital's biomedical campus.

In 2016, we were commissioned by Cambridgeshire County Council to provide an evidence base in support of site promotion for further expansion, demonstrating deliverability for a new site south of the biomedical campus. A key concern of the planning authority and residents was surface water flood risk and the potential impact on the nearby Nine Wells Nature Reserve.

We carried out extensive overland flow modelling and a ground conditions baseline study, demonstrating that surface water and groundwater from the proposed site is unlikely to have an impact on the reserve.

Since expanding, the hospital has become a national centre for specialist treatment, a comprehensive biomedical research centre, and a major teaching hospital.

Central Manchester Hospital and Research Centre

Manchester, England, is a city in transition. But as it changes, its industrial Victorian past remains woven into its modern urban tapestry. This evolution can be seen in Central Manchester Hospitals and Research Centre (CMHRC). Through bold and original design, the hospital campus honors the past, meets the needs of today's patient, and is leading Manchester into the future. CMHRC represents one of Stantec's most challenging and rewarding healthcare projects. When the designers first visited the campus, they found a series of separate hospitals that had suffered from a century's worth of piecemeal developments. A major factor in the success of this scheme was Stantec's strong master plan, which has restored clarity to the site. Others saw old buildings. We saw a city's rich history and a chance to preserve the heritage that has shaped, and continues to shape, the community. In designing the new hospital campus plan, we turned many of the surrounding Victorian buildings into non-clinical support spaces. These modern spaces—including an education center, library, cafe, and staff housing—celebrate the past and help patients and visitors feel comfortable, uplifted, and inspired.

The ambitious scheme co-locates four new hospitals – adult, eye, women's, and children's—under a single unifying roof. Each hospital has its own entrance, sky lit reception, and outpatient facilities. Additionally, there are two mental health centres, eight ancillary buildings, and the retention of a historic Grade II listed Victorian frontage. The campus is organised by a central landscaped boulevard—one of the largest green spaces in Manchester. Manchester continues its tradition of medical advancements with the inclusion of a state-of-the-art research centre. It is favourably located on the upper floors of the main hospital's building to promote bench-to-bedside research.

Central Manchester Hospitals have always been a comforting beacon of care for those in need. Now, its commitment can be seen and felt through a new layout that quite literally, puts community first. Shared diagnostic and research spaces support each hospital's patient spaces. Reception areas are light, airy and welcoming. Each entrance faces the main hospital "boulevard" and green space, creating a strong sense of community.





Clinical Services accommodation at Morryston Hospital

Morryston Hospital is one of the largest general Medicare facilities in Wales with a total of 750 beds. Founded in the mid-1900s, the pre-existing campus housed its clinical departments in dispersed locations. When the hospital desired to consolidate its task force under one roof, they called on our architecture and interior design teams for assistance.

The Clinical Services Accommodation Building aggregates Morryston's administrative staff into brand new purpose-built work space. Not only does the building provide a more efficient and collaborative work environment for 500 staff, but it frees up space in the hospital for clinical expansion. Now, two clinics—one for diabetes and the other for occupational health—are located on the ground floor for easy public access.

The challenge? The budget was tight, and we had to think creatively about how to integrate this small clinical component into a non-clinical building. Evolving from the analysis of space needs, flexibility considerations, and positioning,

we designed the new office space to tight space standards that maximizes daylight and offers expansive views without compromising ergonomics and environmental quality.

The plan form is a 'U'—two flanking wings and a central linking wing—around a central landscaped courtyard.

Flexibly-planned workspace is located in the flanking wings while shared facilities are located in the central wing. This configuration was found beneficial as it allowed some independence for team identity at the same time as encouraging collaboration and social interaction.



The Tunbridge Wells Hospital at Pembury

Tunbridge Wells Hospital comprises an acute hospital and a new women and children's centre. With 100 percent of its patient accommodation provided in single rooms, the new hospital far exceeds the NHS recommended minimum of 50 percent.

The decision to take this approach was driven by concern for patient safety and infection control. Its success was down to great team work. Stantec worked closely with the trust, National Patient Safety Agency, research groups and the contractor to develop the design, drawing on its own experience in the U.S. where single room hospitals are more common.

Rooms are designed for maximum patient safety and comfort. Naturally ventilated, they all have landscape views and en-suite bathrooms, which are placed near the head of the bed to facilitate easy access and reduce the risk of falls.

The hospital benefits from a scenic countryside locale. The design makes the most of its locale by arranging patient accommodation into a series of finger wards. This has the effect of drawing the countryside deep into the hospital site and maximising natural light, views and gardens throughout the hospital. The result is a bright, healthy and safe building.



Great North Children's Hospital

When the existing Victorian-era buildings were no longer suitable for the hospital's modern healthcare delivery, we provided a new scheme that involved replacing the buildings with 70,000 square meters of modern tertiary care facilities. We designed a series of buildings tailored to specific ranges of activity—wards and outpatient, high-tech diagnostic and treatment, clinical offices, administration and education—representing a scale and character compatible with the urban fabric of their surroundings. Our masterplan knit the medical campus with its community. Although the hospital was favorably located next to the university, city center, and main

city park, it had always been an island, separated by a high iron fence. Our new scheme ended this isolation both literally and figuratively. By creating a landscaped public street through the campus, as well as a sky-lit multi-level mall through the center of the hospital, we have made the hospital more accessible and strengthened its ties with the community.

The importance of the hospital in the context of its community was emphasized by the Chairman Sir Miles Irving's remarks at the start of construction: "Although this facility is being built for treating patients, it will have a much wider impact—that is its contribution to the social and economic recovery of its community and the northeast of England."



Leeds Cancer Centre

St James's University Hospital in Leeds, affectionately known to all as Jimmy's, is welcoming a new building and a new department to its campus. As part of the Leeds Teaching Hospital's NHS Trust, the new institute will build on an international reputation for high quality cancer treatment and research pioneering.

So how do you fit the facility you want to build on a challenging spot?

The location for the new Institute of Oncology is a sloped, 12,000 square metre site, but our client needed a much larger facility. The site was prominent, with great light and fantastic views of the city. The

solution was a 12 storey landmark that takes advantage of elevation to codify the building. Three copper-clad patient wings sit above glazed ambulatory floors and the masonry base of the radiotherapy department. The high-tech treatment block is a distinctive graphite, and it's separated from the patient wings by a light-filled gallery that runs the length of the building.

The Leeds Cancer Centre offers a wide range of cancer and clinical services including 12 linear accelerators, five simulator rooms, brachytherapy suites, chemotherapy, haematology, imaging, palliative care, an ITU and HDU department, a teenage cancer unit, a patient hotel, and outpatient clinics.



Great Ormond's Street Children's Hospital

Great Ormond Street Hospital is one of the world's best known and respected children's hospitals. Stantec designed a new hospital wing which enhances their reputation for excellence.

When Octav Botnar Wing opened it won praise for its architecture while patients, families and staff spoke about comfortable home like spaces and an improved workplace. No mean feat. This is a building that not only looks good but also works. From the outside, the building feels part of the Bloomsbury neighbourhood. Glass, zinc and brick assert its landmark status while its proportions reflect the adjoining

Victorian terraces. The streetscape is animated by the building's integral artworks, which offer points of interest and helps to reduce the stress of arrival.

However, the major strength of the building is how it works internally. The floor plan is shaped like a giant E creating two building height courtyards. They provide plenty of natural light deep into the plan and house colourful artworks, which act as reference points at all levels. Well-proportioned patient areas are sited at the periphery to maximise daylight and views. Family zones and play areas help to give families a sense of normality and privacy.



Victoria Hospital, Fife, UK

Stantec worked on the new 50,000m² Fife Hospital bringing together three hospitals under one roof with the re-alignment of services across Victoria Hospital and Park Hospital, Kirkcaldy, and Queen Margaret Hospital, Dunfermline.

The new facility includes 11 Operating Theatres, Radiology Theatre, Catheter Lab Theatre, Endoscopy Cleanroom, Diagnostic Suite with CT Scanner and X-ray, Infectious Diseases Ward with 10 single HBN 4 style Isolation Rooms, an Emergency Care Centre, 508 beds within 20 wards, surgical and medical assessment units,

a maternity unit, a women and children's unit, day intervention, critical care, coronary care and renal and dialysis facilities.



Hope Hospital, Salford

This project included redeveloping and providing new buildings for Hope Hospital, Salford to create a new acute hospital building, an education building and multi-storey car park as part of a phased development including provision of a significant new facility on an existing live hospital site with new buildings to complement the existing estate, combining the retained buildings within an overall site master plan that provided modern medical facilities for patients.

The facilities also included an education centre, an emergency assessment unit, a critical care unit, a high dependency unit, an intestinal failure unit, new renal, urology units, wards, diagnostic units, and mortuary. The energy strategy for this development incorporated a district heating network which utilised waste heat energy from the adjacent clinical waste incineration plant. The incinerator flue discharge is routed via a waste heat boiler and provides the "lead boiler" primary steam heat supply via the Estate Energy Centre to the district heating network.

The Blackburn Royal Infirmary Project



Blackburn Royal Infirmary, UK

involved the combination of services onto a single site which were previously provided in two separate hospital sites, thus eliminating the need for some 16,000 ambulance transfers each year.

The construction involved a 45,000m² extension to Queens Park Hospital incorporating facilities to cater for 299 In-patient beds, 12 In-patient and Day-care Theatres and a refurbishment of 7,500m² of the old facilities to provide a total of 668 beds.

Also provided was an Accident and Emergency Department to cater for over 70,000 attendances and an expanded Outpatient Department.



South West Acute Hospital, Northern Ireland

Stantec provided master planning, architectural design, medical planning and interior design services at the South West Acute Hospital in Co. Fermanagh. Stantec's sustainable design makes the most of the surrounding landscape with spectacular views of nearby Wolfe Lough. The lower floors of the entrance blocks are clad in local Donegal shale and the top floors consist of timber and glass. Unlike most hospitals with deep floor plans, the building mass has been broken down and thinned by designing a group of four smaller blocks connected by glass links. These smaller blocks are further connected by a linear garden, a full-length circulation

spine that organises the building. Intensive clinical services including the emergency department, operating suites, imaging and labs, are in front. Designated centres for women and children and outpatient services are on the ground floor with single-patient bedrooms – a first in Northern Ireland. South West Acute Hospital also serves as a real boon to Enniskillen - sustaining opportunities for new jobs, small business start-ups and social interaction while providing higher quality healthcare - activities that serve to strengthen the fabric and health of the community. The hospital is winner of 11 design and sustainability awards.



New Victoria Wing at Great North Children's Hospital

The New Victoria Wing and Great North Children's Hospital are located adjacent to the University of Newcastle Medical School and form part of the Royal Victoria Infirmary urban campus. The masterplan knits the medical campus to its community. Although the hospital was favourably located next to the University, city centre and main city park, it had always been an island, separated by a high iron fence. The new scheme ended this isolation both symbolically and actually. It has opened up the campus by creating a landscaped public street through it, as well as by creating a parallel, sky-lit multi-level mall through the centre of the hospital – both

of which serve to strengthen the ties of the hospital to its community and enable easy access to its services. Stantec developed a series of buildings, each tailored to a specific range of activity: wards and outpatient, high-tech diagnostic and treatment, clinical offices, administration and education. They are of a scale and character that are compatible with the urban fabric of their surroundings. The distinct curved copper form of the children's hospital acts as a welcoming gateway building to the campus. It is based on an innovative ward design and has a high proportion of single rooms.



Li Ka Shing Centre, CRUK Cambridge Institute

Cancer Research UK formed a partnership with the University of Cambridge to create the Cambridge Institute. They brought together 20 diverse research groups and core facilities whilst capitalising on the synergy of the Cambridge area. Their new home is the Li Ka Shing Centre - a flagship facility for translational research located on Addenbrooke's medical campus. The design supports multi-disciplinary collaboration between research groups and clinicians. Four generous open lab spaces were conceived as studios and linked together by a series of meeting room and write-up areas. There is a rich public zone at ground level— including exhibition hall, dining

area and lecture theatre— which creates a town square for the institute. These areas provide opportunities for scientists and clinicians to meet up informally and generate spontaneous discussions. The architectural inspiration came from Corpus Christi College in the nearby historic quarter of University of Cambridge. The emotional tone is set in glass and gleaming brilliant concrete and an elegantly proportioned courtyard projects a sense of optimism and contemplation. This is a building which inspires discovery.

Global Projects

The New Mississauga Hospital – a new vertical hospital in the City

The new Mississauga Hospital is a critical part of Trillium Health Partners' (THP) plan to build a new kind of health care that serves their growing and diverse community for the decades ahead. The project will be the largest hospital project in Canadian history and a significant part of THP's long-term health infrastructure renewal plan. Located in Mississauga Ontario, the project will be delivered through Infrastructure Ontario's Public-Private Partnership (P3) model which has continued to evolve, incorporating, adapting and refining fundamental principles of public infrastructure project delivery. The new model enhances collaboration and development of an exemplar design prior to confirming a development partner and features a new way of making that selection. This session will focus on reviewing the clinical and design opportunities being addressed by the project while integrating knowledge gained through the new Progressive Development model.

The perspectives of both design team and client will be shared in exploring whether the new model is supporting the design and delivery objectives.

The new hospital will be a full replacement of the existing hospital and will redefine a new urban centre focused on health in this part of the city. The 280,000 sq m acute hospital will near triple the size of the current site capacity in the form of a 23 storey tower, orchestrating an overall masterplan which enhances community cohesion, embraces future transportation systems and integrates open green spaces with the public realm. This will be a vertical Hospital in the City and design has been enriched by collaboration between THP, the City of Mississauga and other third party stakeholders. The design process employs a new model within Infrastructure Ontario's PPP programme, the Progressive Development Model, which strikes a new collaborative approach to

ensure the increased levels of flexibility, digital enablement, health + wellness, and inclusiveness are achieved as part of a 'whole hospital' design which emphasizes the patient experience. This session will explore the intersection of the design opportunity with the novel Progressive Development Model in revealing new approaches of collaboration between hospital, design team, third party stakeholders and contractor – a new evolution of PPP procurement which is responsive to the myriad market issues posing challenges to large scale hospital development. The new Mississauga Hospital will allow Trillium Health Partners to increase flexibility to respond to future health care challenges, feature modern hospital facilities and technology, and reflect the latest standards in infection prevention and control. The hospital will continue to deliver highly specialized care through our regional programs, such as the regional centre for cancer care, advanced cardiac surgery, and geriatric mental health services among others.



PROJECT FEATURES INCLUDE:

- At 24 storeys, the new Mississauga Hospital will almost triple the size of the hospital's current capacity, and will be approximately 2.8 million square feet.
- The new hospital will be over 950 beds.
- The number of operating rooms will increase to 23, up from 14 today.
- Over 80% of the rooms will be private rooms.
- A new and expanded Emergency Department (ED) – creating one of the largest EDs in the province – reducing wait times and improving the patient experience.
- The new hospital will also include advanced diagnostic imaging facilities and a new pharmacy and clinical laboratory.



Toronto General Hospital

Over the course of five years, Stantec helped renew and revitalise Toronto General Hospital through a series of three separately tendered projects with the objective to advance the Centre's world-class reputation for cardiac care, research and teaching through a renewed focus on cardiovascular imaging, intervention, and innovation.

The equipment intensive renovation was planned to improve the overall flow and efficiency within the Centre. Our team designed and managed three separately tendered projects for the redevelopment of Toronto General Hospital.

Throughout the course of the projects, our team worked with the hospital to set up an interdisciplinary team that met consistently throughout the project to gather scope of work information in a timely manner to maintain the project schedule.

This interdisciplinary team included representatives from the clinical team, hospital leadership, representatives from impacted departments and operational staff.

The scope of work undertaken by Stantec included renovations to the Peter Munk Cardiac Centre, design of a new hybrid MPOR within the PMCC 3 and Transitional Research.

As Prime Consultant over the duration of these projects, our team developed two vascular interventional rooms, two 256 slice CTs, four cardiac catheterisation labs and associated support spaces, including control rooms, patient spaces, waiting, change, consult, and equipment rooms. They also led on renovation of the 32- bed cardiovascular intensive care unit.



VA Puget Mental Health and Research Building

In the past 15 years, veteran suicide rates have been on the rise, making veteran mental health a national concern. The U.S. Department of Veterans Affairs (VA) in Seattle, Washington, had a vision—to create a space that focused on elevating and delivering care to the men and women who have served the country. From this vision came the Mental Health & Research building.

To make this important project come to life, the VA hired us for architecture, interior design, and mechanical and electrical engineering services. Our project design reflects the needs of veterans as well as the VA's strong commitment to resiliency,

energy stewardship, and healthy spaces through sustainable design strategies. In addition to patient rooms and laboratories, the building features a peaceful indoor rock garden, group counselling spaces, a landscaped plaza, and other quiet places.

In 2019, the Mental Health & Research Building opened for business. In addition to providing valuable mental health and addiction services to a previously unserved community, the facility contains research labs where scientists and medical professionals can learn more about how to better treat mental health problems.



Lutherwood Children's Mental Health Hospital

Just as a building is designed to be resilient to the elements, a person must also have strength in the face of adversity. When inspirational design and healthcare expertise come together, as they do at the Lutherwood Children's Mental Health Centre in Waterloo, Ontario, resilience of the human spirit can be achieved.

We undertook a visioning approach to truly understand the needs of our client, their clients, and the broader community before designing a creative solution. The central heart of the new facility is a catalyst for connection and self-discovery—the perfect

place for 12 to 17 year-olds to start their journeys toward wellness.

By normalizing the environment and arranging spaces for respite and healing, our integrated team created a safe haven for youth and helped plan a new foundation of optimism for their future.

At Lutherwood, resilience is truly intrinsic.



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* Cancer research UK

* <https://www.nhsconfed.org/articles/increase-demand-mental-health-support-being-felt-across-system>