



To be the best in our field demands consistently outstanding performance and client satisfaction.

We deliver.

NDY HEALTH

NDY Health has a considerable track record in acute health projects internationally throughout the United Kingdom, Australia and New Zealand. The NDY Health initiative reflects a group commitment to delivering exceptional engineering services to the highly specialised healthcare industry. NDY brings to healthcare qualified and skilled personnel with broad capabilities in electrical, mechanical, communications, fire protection, vertical transportation, public health, specialist lighting and ESD services. Each practitioner has a strong understanding of the discipline-specific functional imperatives that underpin a successful healthcare facility and design. NDY Health aims to become the point of reference for innovative patient-focused solutions on health, teaching and research laboratory projects.

PHILOSOPHY

As international multidisciplinary engineering consultants, NDY is committed to delivering cost effective and innovative engineering designs. By embracing evidence-based design techniques, NDY responds to client business objectives, contributing significantly to the creation and maintenance of health-friendly environments to benefit patient, staff and therefore healthcare providers. Scientific research focusing on evidence-based design outcomes has shown that public health, specialist lighting and ESD services. Each practitioner has a strong understanding of the discipline-specific functional imperatives that underpin a successful healthcare facility and design. NDY Health aims to become the point of reference for innovative patient-focused solutions on health, teaching and research laboratory projects.

SERVICES

- Engineering Disciplines
 - Mechanical
 - Electrical
 - Building Automation
 - Security
 - Fire Protection
 - Communications
 - Public Health
- Specialist Industry Sectors
 - Construction Quality: Equipment, Materials & Workmanship
 - Infrastructure: Rail, Roads, Tunnels
 - Information Technology
 - Power Quality: Power Performance, Protection & Safety
 - Tenancy, Interiors & Refurbishment
- We Deliver:
 - Feasibility Studies
 - Due Diligence Reports
 - Design Briefs
 - Performance Specifications
 - Design Documentation
 - Engineering Cost Plans
 - Procurement Frameworks
 - Construction Quality Reports
 - Inspection and Test Plans
 - Commissioning Programs
 - Energy Audits
 - Maintenance Management
 - Electronic On-line Documentation
 - Education Program

HEALTHCARE EXPERIENCE

- 2006** DH PET-CT PROCUREMENT £200M
- 2005** DH DIAGNOSTIC PROCUREMENT £2.2B
- DH ELECTIVES PROCUREMENT £3.1B
- EPWORTH HOSPITAL BOX HILL \$40M
- ST ANDREW'S WAR MEMORIAL HOSPITAL \$42M
- ST VINCENT'S HOSPITAL REDEVELOPMENT/REFURBISHMENT \$4M
- 2004** DH MOBILE MRI PROCUREMENT £74M
- DH MOBILE OPERATING THEATRES PROCUREMENT £120M
- HAMMERSMITH HOSPITAL IMAGING FACILITY £60M
- 2003** DH INDEPENDENT SECTOR TREATMENT CENTRES £500M
- DH MOBILE OPHTHALMIC SURGICAL FACILITIES £60M
- EPWORTH HOSPITAL RICHMOND \$22M
- 2002** ROYAL WOMEN'S HOSPITAL REDEVELOPMENT \$120M
- ROYAL BRISBANE HOSPITAL REDEVELOPMENT \$80M
- 2001** INNER & EASTERN HEALTH CARE NETWORK \$43M
- 2000** ROYAL BRISBANE HOSPITAL REDEVELOPMENT \$240M
- ST ANDREW'S WAR MEMORIAL HOSPITAL \$13M
- MATER HOSPITAL COLLOCATION AT REDLANDS HOSPITAL \$12M
- WESLEY HOSPITAL \$121M
- LOGAN HOSPITAL REDEVELOPMENT \$20M
- 1999** IPSWICH HOSPITAL REDEVELOPMENT \$55M
- SOUTH WEST HEALTH CAMPUS \$53M
- 1998** ROYAL MELBOURNE \$10M
- THE ALFRED HOSPITAL \$5.8M
- ST JOHN OF GOD MEDICAL CLINIC \$35M
- 1997** TOOWOOMBA HOSPITAL REDEVELOPMENT \$45M
- ST VINCENT'S HOSPITAL IN-PATIENT FACILITY \$160M

NDY HEALTH...

A HEALTH DESIGN CONSULTANCY HARNESSING INNOVATIVE DESIGN AND ENGINEERING EXPERTISE TO DELIVER CALMING HEALING HEALTHCARE ENVIRONMENTS.

NDY EXPERIENCE

ACCIDENT & EMERGENCY

AGED CARE

BREAST SCREENING

CATERING FACILITIES

CENTRAL ENERGY FACILITIES

CENTRAL STERILISATION UNITS

COMMUNITY & REHABILITATION

CONSULTING SUITES

CRITICAL CARE

DAY & RESPITE CARE

DAY SURGERIES

DIAGNOSTICS

ENDOSCOPY UNITS

HIGH DEPENDENCY

HYDROTHERAPY

INTENSIVE CARE

MATERNITY & OBSTETRICS

MOBILE MEDICINE

MORTUARIES

NUCLEAR MEDICINE

ONCOLOGY

OPERATING THEATRES

PAEDIATRIC

PALLIATIVE CARE

PATHOLOGY & LABORATORIES

PHARMACIES

RADIOLOGY

REPRODUCTIVE MEDICINE

SERVICES INFRASTRUCTURE

SURGICAL & MEDICAL WARDS

TELERADIOLOGY



DH CENTRAL CLINICAL PROCUREMENT PROGRAMME LONDON/MANCHESTER

NDY is engaged by the Department of Health Central Clinical Procurement Programme to provide building services advice across a range of government initiatives.

The Phase 2 Diagnostics programme is worth £2.2B and focuses on mobile diagnostics including MRI, PET/CT, DEXA and endoscopy. NDY carried out over 500 infrastructure evaluations for the establishment of viable sites and has been involved in evaluating Independent Sector submissions.

The Phase 2 Electives programme is worth £3.1B and delivers a range of surgical procedures from both mobile and fixed facilities around the country. NDY have undertaken building audits for existing facilities that may be transferred to the Independent Sector, and are monitoring activities from mobilisation to service delivery.



DH INDEPENDENT SECTOR TREATMENT CENTRES LONDON/MANCHESTER

NDY was selected to work collaboratively with the Department of Health's National Implementation Team (NIT) to provide strategic building services advice, in support of their intensive programme to deliver Treatment Centres throughout England on both existing NHS sites and green field sites.

Over 50 new treatment centre facilities are being procured to deliver surgical and diagnostic procedures with a total construction value in excess of £500M.

The challenge of integrating the centre into an existing NHS hospital and maintaining continuity of service and operation required NDY to analyse the infrastructure to determine reliability of the existing systems along with value for money. In some instances this resulted in stand alone treatment centres without any cross connection into the existing infrastructure.



DH MOBILE MRI DIAGNOSTIC PROCUREMENT LONDON

The National Health Service, as part of the governments plan to provide patient choice, awarded a five year national contract worth £74M to an independent provider to supply 130,000 scans per annum from 12 mobile MRI scanners around England.

Modern construction and logistical methods allow these units to be transferred from one site to another and set up within a matter of hours providing the correct available infrastructure.

NDY undertook feasibility studies and oversaw upgrades to existing NHS infrastructure at over 180 sites around the country.

The NDY involvement was from tender evaluation, deal closure advice, project mobilisation, due diligence of site infrastructure and design of required site upgrades through to service delivery.



HAMMERSMITH HOSPITAL IMAGING FACILITY LONDON

NDY provided design for this complex facility at Hammersmith Hospital, including cyclotrons, NMR, PET-CT and MRI machines.

The 13MeV cyclotron is used for research purposes and the clinical production of radio pharmaceuticals or "tracers" labelled with isotopes of carbon, oxygen, nitrogen and fluorine, the basic elements of biological substrates used in Positron Emission Tomography (PET) imagery.

Two 3 tesla Magnetic Resonance Imaging (MRI) scanners were installed to carry out research using uninterrupted power supply systems combined with standby emergency power generation.

NDY's knowledge in reticulated gaseous nitrogen, liquid nitrogen and compressed air systems required the 400 MHz Nuclear Magnetic Resonance (NMR) instrumentation to allow 'spinning' and close temperature control at source was utilised on the project.



ST VINCENT'S HOSPITAL REDEVELOPMENT MELBOURNE

As part of the redevelopment of St Vincent's Hospital in Melbourne, NDY was involved in the design and construction of the \$160M in-patient facility. Specifically:

- upgrading electrical, mechanical, hydraulic and fire services to rejuvenate the Healy Wing, including a new substation, main switchboard, air-cooled chillers, calorifiers and fire services;
- designing services including lighting control and dimming systems, interfacing with audio-visual systems and medical gases for the medical surgical training facility, which incorporates a conference room, lecture theatre, laboratory, mock theatres and patient simulator; and
- designing services for 800m² of new consulting suites for both private and public hospitals.



ROYAL BRISBANE HOSPITAL (RBH) REDEVELOPMENT BRISBANE

NDY has undertaken auditing, master planning and design of building services including:

- Biological Research Facility
- Central Energy Services Building
- Pharmacy & Stores
- Royal Children's - Health Services Building
- RBH Psychiatric Centre & Discharge Unit
- Royal Children's Medical Block
- Site-wide Communications & Technology systems

RBH is the most important health services complex in the state of Queensland and the largest in terms of bed numbers in Australia.

In 2005 NDY was commissioned to undertake a campus-wide quantitative assessment of security risk exposures.

A range of risk control options including CCTV, public duress/intercom stations, mobile duress systems, electronic access control systems and patient tagging systems were evaluated which as a consequence of the assessment.



TOOWOOMBA HOSPITAL REDEVELOPMENT BRISBANE

Redevelopment of Toowoomba Hospital included electrical, mechanical, fire, security, lift and communications services for a new Acute Building and Health Village.

The Acute Building contains six new operating theatres, intensive care, high dependency unit, outpatients, medical imaging, breast screening, CSSD, medical records, accident and emergency, and administration.

The Health Village provides a single storey construction to suit Oral Health, Public and Sexual Health, Primary Health and Private Practice.

A second fire hydrant supply has been included as well as a ring main supply system. The existing above ground steam reticulation system has begun to be phased out with the provision of new gas fired steam boilers to suit CSSD and the existing Pathology and Medical Building steam needs.



ST JOHN OF GOD HOSPITAL SUBIACO PERTH

The St John of God Hospital redevelopment comprises substantial expansion and refurbishment of existing accommodation, including:

- expansion of the theatre suite and comprehensive Cancer Care Centre
- an ambulatory care centre comprising day procedure unit and consulting facilities
- a landmark chapel
- multi-level car parking

The engineering solutions have been designed and modelled in 3D using the NDY Automated Building System platform. Key benefits such as flythrough visualizations helped clarify constructability and maintainability issues within the theatre suite complex HVAC systems.