

Integrated Services for Health Care Design

Novus understands health care design. Our guidance on air quality, sound, vibration, wind and climate considers the views of key stakeholders — the design team, owners, staff and patients — addressing comfort, functionality and regulatory requirements. Our principals have worked on private and public sector projects across Canada and the US for both new and upgrade construction. These include facilities for clinical, ambulatory, acute and long-term care, research and teaching.



SERVICES

- Acoustics
- Air Quality
- Sustainable Water Systems
- Vibration
- Wind and Climate

WHY NOVUS:

- Extensive experience with healthcare facility design throughout the world
- Direct access to senior consultants
- State-of-the-art tools and modeling for technical assessments
- Field testing and site assessment capabilities
- Seasoned experience with design development and building re-use projects

AIR QUALITY

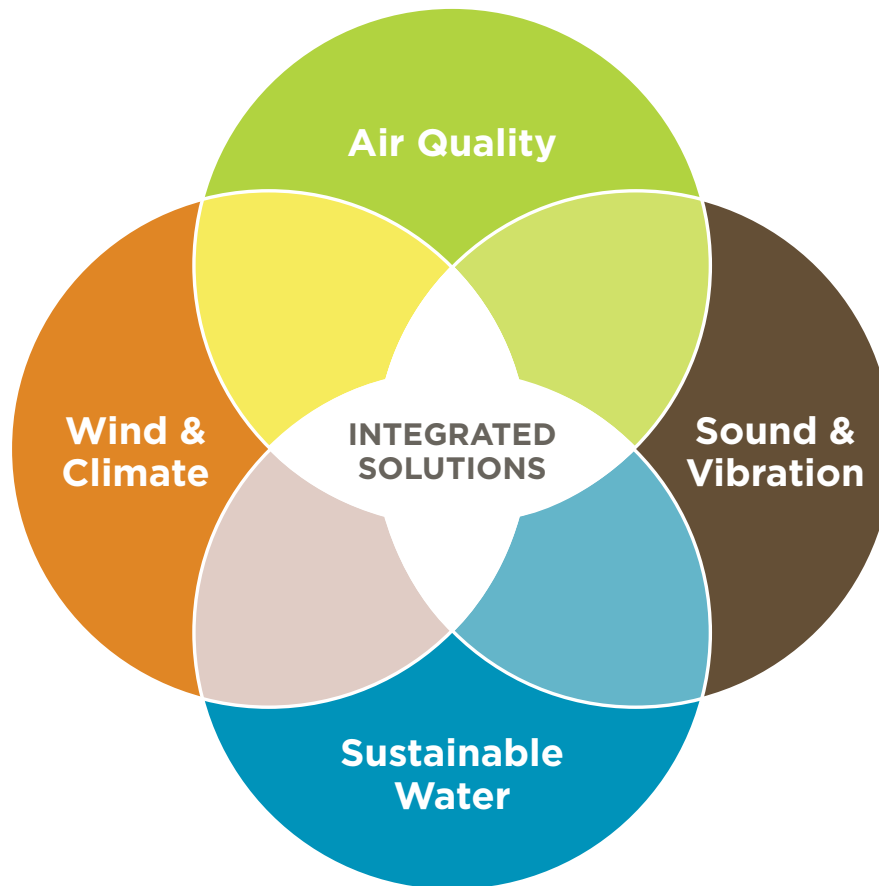
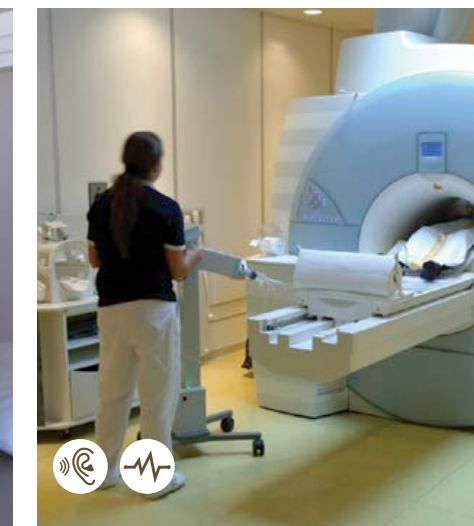
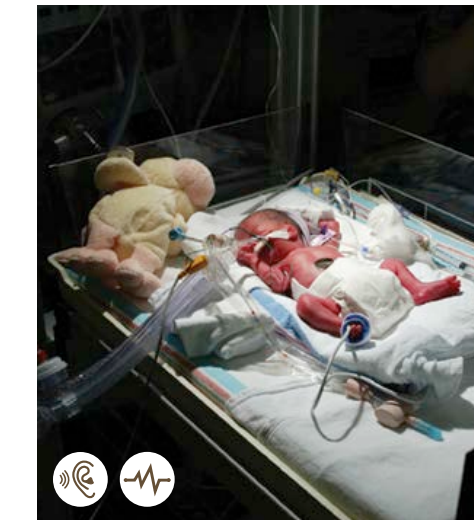
- Exhaust emissions and dispersion
- Contamination of building air supply (e.g., central energy plants, standby generators, kitchens, helipads, vehicles etc.)
- Optimization of exhaust and air intake designs
- Ventilation modeling
- Wind tunnel modeling
- Environmental approval

SUSTAINABLE WATER SYSTEMS

- Cost savings through integrated water management
- Pollution prevention
- Water and energy process mapping
- Rain water harvesting and water re-use
- Green roofs, urban agriculture and wellness landscapes

WIND & CLIMATE

- Wind comfort of patients, staff and visitors at outdoor amenity spaces and healing gardens
- Snow drifting
- Effects of global climate change on the environmental performance of the building



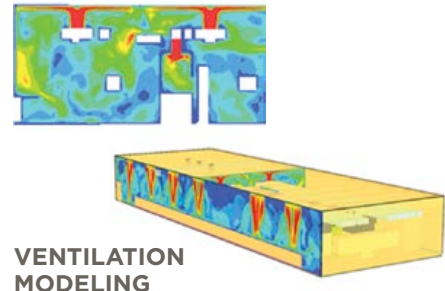
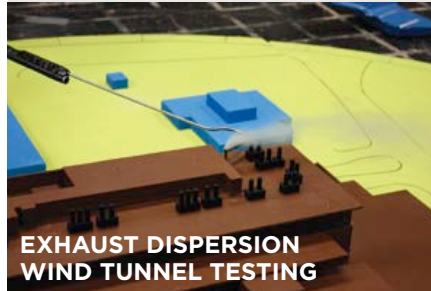
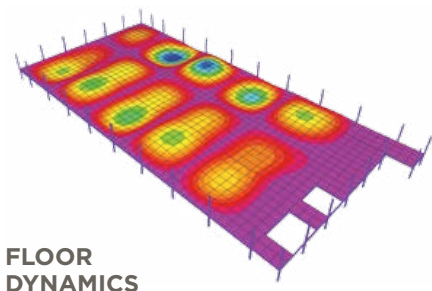
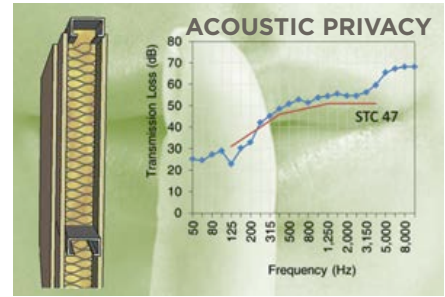
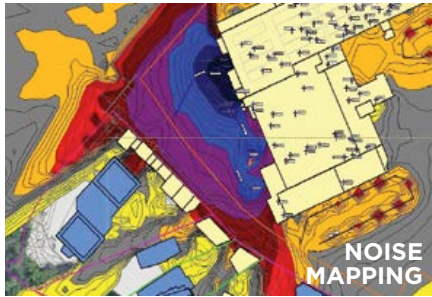
SOUND

- Architectural acoustics to promote patient comfort, rest, recovery, staff productivity and retention
- Building systems noise control
- Sound isolation and speech privacy
- Noise impacts on the building and environmental permitting

VIBRATION

- Environmental vibration impacts
- Building systems vibration control (e.g., physical plant, loading dock and helipad)
- Floor dynamics vibration
- Construction vibration
- Assessment and control of vibration for diagnostic imaging and other vibration sensitive spaces

State-of-the-art tools



Our consultants have contributed to the design of hundreds of facilities, including: Children's Memorial Hospital – Chicago, IL • Baystate Medical Centre – Springfield, MA • Thomas Jefferson University Hospital – Philadelphia, PA • Kaiser Permanente – Downey, CA • SickKids Hospital – Toronto, ON • Massachusetts General Hospital – Boston, MA • Children's Hospital of Philadelphia – Philadelphia, PA • Children's Hospital of Alabama – Birmingham, AB • Bayhealth Medical Center – Dover, DE • Queen's Hospital – New York, NY • Medical College of Wisconsin Children's Research Institute – Milwaukee, WI • University of North Carolina Imaging Research Building – Chapel Hill, NC • Duke University Cancer Centre – Durham, NC • Mt. Sinai Hospital – New York, NY • Johns Hopkins Bayview Medical Center

Qualified and experienced Consultants that **listen** and provide **practical solutions**.

– Baltimore, MD • Loma Linda Rehabilitation Center – Loma Linda, CA • New Orleans VA Replacement Hospital – New Orleans, LA • University of Michigan Kellogg Eye Center – Ann Arbor, MI • Texas Tech University Health Sciences Center – El Paso, TX • McGill University Bellini Cancer Pavilion – Montreal, PQ • Overlake Hospital Medical Center – Bellevue, WA • St. Joseph Mercy Hospital – Ann Arbor, MI • Princess Margaret Hospital – Toronto, ON • Brigham & Women's Hospital – Boston, MA • Yale University School of Medicine Anlyan Research Building – New Haven, CT • Arkansas Children's Hospital – Little Rock, AK • Centre Hospitalier de l'Université de Montréal (CHUM)–Montreal, PQ • Humber River Regional Hospital P3 Bid – Toronto, ON • Piedmont Newnam Hospital – Newnam, GA • Rehabilitation Institute of Chicago – Chicago, IL • Queen Elizabeth Hospital – Toronto, ON • Women's College Hospital – Toronto, ON



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Harmonizing the built and natural environments