

# Raw strength, refined strategy

Industrial



wsp





# Innovative engineering for a growing industry

Rooted in more than 40 years of experience in the industrial sector, WSP understands its client needs and motives, a fundamental quality to developing effective, long lasting and future-focused solutions. Our professionals are accustomed to complex optimization and upgrade projects taking into account the constraints and challenges of in-plant construction while maintaining production activities with a minimum of interruptions.

To conduct industrial projects, whether a new construction or a major modernization, planning is essential to ensure a successful delivery where costs are met and risks mitigated. WSP leverages its extensive experience to plan and implement projects efficiently, with a focus on environment, safety, quality, schedules and costs. We guide our clients on their journey, from initial conceptual development through to final project delivery.

Our expertise covers a vast range of industrial sectors: Oil and Gas, Petrochemical, Manufacturing, Light and Heavy industrial, Pharmaceutical, Biotechnology, Food and Beverages, Consumer Products, Process Energy, Metal, Bulk and Liquid Storage and many more. Our strength is our ability to adapt to our client culture and local markets. We provide our clients with the same personalized services as a specialist firm while, at the same time, leveraging our worldwide expertise to undertake the most complex projects and assist our clients in realizing their ambitions.





# Our project experience

## GREENFIELD CEMENT PLANT

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Port-Daniel-Gascon, QC  
Client: McInnis Cement

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McInnis Cement implemented a state-of-the-art cement plant in Port-Daniel-Gascon, QC, with an estimated annual production capacity of 2,200,000 tons per year. The Port-Daniel cement plant project sits on a deposit estimated to contain over 450 million tons of high-quality limestone. WSP was mandated by McInnis Cement, in the first stages of the project, to take part in the definition of the project leading to a closer collaboration including services ranging from engineering studies, high-level planning and estimation, detailed engineering, procurement and project and construction management.

From the end of 2015 to date, WSP also provided many outsourced resources to provide services in mainly cost control, procurement, expediting, field support and engineering.



## VERTICAL KILN NATURAL GAS CONVERSION 02

Havelock, NB  
Client: Graymont

The Vertical Furnace Natural Gas Conversion Project at the Graymont Plant, located in New-Brunswick, entails the addition of a combustion alternative, being natural gas. The goal of this project is to operate the furnace using various energy sources, such as natural gas, light oil and “bunker C6”.

As part of this project, WSP was responsible for the automation of the entire kiln, from detailed design to final operators training. The services provided included design engineering, preparation of control panels layout and wiring drawings, as well as their assembly and supply, design and programming of control systems and operator interfaces, start-up, commissioning and training of operators and maintenance technicians.

## CAPITAL EXPANSION AND IMPROVEMENT PROJECTS

Johnstown, ON  
Client: Greenfield Specialty Alcohols

GreenField is one of North America’s leading green fuels suppliers and has several sites in Canada. Operational since 2008, WSP has provided engineering and construction services to assist with ongoing capital expansion and improvement projects at the 250 million litre per year ethanol plant located in Johnstown Ontario. Amongst others, WSP provided services for: Feasibility and Costing studies for capital expansion, and improvement projects; Preliminary design, trade-off studies, and add value exercises on many capital and improvement projects; Multi-discipline detailed design and specialty services such as arc flash studies, NFPA reviews, etc.; Construction Tendering, Procurement assistance & oversight; Project construction management, Project management services, Commissioning assistance and Project closeout assistance and documentation.

## NEW TISSUE CONVERTING MILL 04

Portland, Oregon, USA  
Client: Sunset Consulting  
(Cascades Paper)

The Tissue converting Mill was built in the vicinity of Portland, OR. The plant has been built in two phases. Phase 1 included new light industrial building with a total area of 250,000 ft<sup>2</sup> including 10,000 ft<sup>2</sup> of office space on a single floor.

The building has foundations on shallow strip and pad footings with an anticipated bearing capacity of 3,000 psi and consists of a structural steel frame built on a 40 ft. x 40 ft. grid. The factory building incorporates a loading dock with 12 units. Main electrical services incorporate 4 MW capacity switchgear.

WSP provided engineering services for conceptual study, cost estimation, detailed engineering, and construction, commissioning and start-up support.

*Through the success  
of complex projects,  
WSP continuously cultivates  
trusting relationships  
with its clients.*

**Our teams deliver  
optimal quality services  
in a vast range  
of industrial sectors.**









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## PRACTICE AREAS

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Aerospace

Agrifood

Biomass

Bio-Industrial

Construction Products

Consumer Products

Industrial Chemical

Manufacturing

Metals

Mineral Processing

Pharmaceuticals and Biotechnologies

Pulp and Paper

Petrochemical and Refining

Thermal Power Generation

Wood Industry

## SERVICES

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Pre-feasibility and Feasibility Studies

Preliminary and Detailed Engineering

EPCM Project Execution

Project Management

Project Controls (Planning, Costs Estimation, Accounting, Reporting)

Procurement (Contract Management, Expediting & Logistics)

Construction Management

Pre-Operational Verifications

Commissioning and start-up

Training

Process optimization and development of advanced control strategies

Process Safety Management

Process Hazard analysis

Technical audits and due diligence

Capital Program Management

Assets Integrity Management

Turn around planning and execution

Machine Guarding

WSP brings together a wealth of industrial experience, harnessing the technical and strategic skills of industry specialists in Canada, the United Kingdom, Europe, Asia, the Middle East, Africa and the United States. Operating in more than 25 regional offices, we develop creative, comprehensive and sustainable engineering solutions for our industrial clients.

Safety in design is a pillar of WSP engineering process. Health and safety of our client's facilities operation staff are always considered throughout the conception. Risks analysis and design reviews allow WSP to accompany its clients in a proactive way making sure that every possible situation has been evaluated and that mitigation measures have been developed.

WSP has successfully completed thousands of projects across the globe, providing multiple services across all major market sectors. Our team's wide-ranging experience, backed by a commitment to technical excellence and innovation, ensures that we offer the right planning, design and delivery strategy to achieve our client's optimal results.



WSP™ is one of the world's leading professional services consulting firms. We are dedicated to our local communities and propelled by international brainpower. We are technical experts and strategic advisors including engineers, technicians, scientists, project managers, planners, surveyors and environmental specialists, as well as other design and program management professionals. We design and deliver lasting solutions in the Buildings, Transportation, Infrastructure, Oil & Gas, Environment, Geomatics, Mining, Power and Industrial sectors as well as project delivery and strategic consulting services. With over 7,500 talented people across Canada and 36,000 globally, we engineer projects that will help societies grow for generations to come.

