

PJ Materials Consultants Limited

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Specialist Consulting Services for Concrete Floors and Slabs-on-Grade



**Deterioration Cause Evaluation
Investigation and Testing
Construction & Protection Advice
Development of Restoration Strategies**



Specialist Consulting Services for Concrete Floors and Slabs-on-Grade



Paul Jeffs
President

Paul Jeffs is a member of the American Concrete Institute and the Canadian National Research Council's Working Party on Repointing Mortars. He is a past director of the Concrete Restoration Association of Ontario and served as a member of the Technical Advisory Committee to the Ontario Ministry of Housing for the deterioration and repair of existing parking structures. He has also served as a member of the Canadian Standards Association's Technical Committee for Parking Structures (Advisory Committee) and Concrete Admixtures.

Paul is a member of the Canadian Society for Civil Engineering's Technical Committee on the Restoration of Canadian Infrastructure and Co-Chairman of the sub-committee working on repair and protection materials. He was a member of the Ontario Ministry of Transportation's Technical Advisory Committee which assists in the development of provincial standards specifications for concrete restoration.

Paul is a lecturer for the Continuing Technical Education Division of Dalhousie University and has presented for many organizations, such as the National Capital Commission, the Canadian Dam Association, the Department of National Defense and the Canadian Society for Civil Engineering. He provides training courses and technical seminars on such topics as Restoration, Reconstruction & Maintenance of Masonry Structures; Restoration & Conservation of Heritage Structures & Older Buildings, Modern Concrete Materials & Practices, Concrete Repair & Protection; and, Designing, Specifying & Constructing Concrete Slabs on Grade. He has been a guest lecturer at universities, he has authored and presented papers at many conferences and is a regular presenter of technical training courses in the Middle East.

Prior to forming PJ Materials Consultants in 1989, Paul Jeffs was employed for over 25 years within the construction industry around the world. For the last eighteen years of this time he was employed by a multi-national group headquartered in the United Kingdom. In 1976 he transferred from England to the Arabian Gulf, living for three years in Bahrain and Iran. During this time he was involved in many projects throughout the Arabian Gulf, including Saudi Arabia, Kuwait, United Arab Emirates and Qatar. In 1979 he moved to Japan and established a regional base from where he became involved in projects throughout South East Asia, including the Philippines, the Republic of Korea, Hong Kong, Taiwan, Indonesia, Singapore and Malaysia. Prior to emigrating to Canada in 1982, he was involved in construction projects in South Africa and India.

SPECIALIST CONSULTING SERVICES

Concrete Floors and Slabs-on-Grade

PJ Materials Consultants Limited provide consulting services for the special problems associated with the design, construction, restoration and protection of concrete floors and slabs-on-grade. Techniques, materials and practices vary widely and the key factors that produce satisfactory performance are not always well understood within the industry.

The quality of the concrete, the construction of the subgrade and the use of vapour retarders can all have major impacts on the development of such deficiencies as cracking and crazing, curling and warping, poor wear and abrasion resistance, as well as failures of coatings and toppings.

The performance of shake-on-hardener treatments can depend on such factors as the size of the workforce, the ambient conditions during the application, the timing of the operations, as well as other considerations such as the consistency of the fresh concrete.

The preparation of the concrete substrate, ambient conditions, application techniques and service exposure conditions all have an effect on the performance of coatings, toppings and other surface treatments.

The achievement of adequate flatness and levelness will largely depend on the effectiveness of the construction practice techniques, although other factors can cause problems.

The selection of finishing techniques and surface treatments, as well as service environment and maintenance practices, all have an impact on how slippery a concrete floor slab will be in service.



PJ Materials Consultants Limited have considerable experience in investigating these and other problems associated with concrete floors and slabs-on-grade. When problems arise, the identification of potential cause by on-site investigation and the use of reliable testing techniques are typically key factors that can often resolve dispute between opposing parties.

PJ Materials Consultants Limited is a totally independent consulting organization and is not affiliated with any manufacturer, supplier or contractor.

Consulting Services

● Investigation & Analysis

Troubleshooting
Cause Investigation
On-site Testing
Laboratory Analysis



● Recommendations

Materials
Methods
Applications



● Project Management

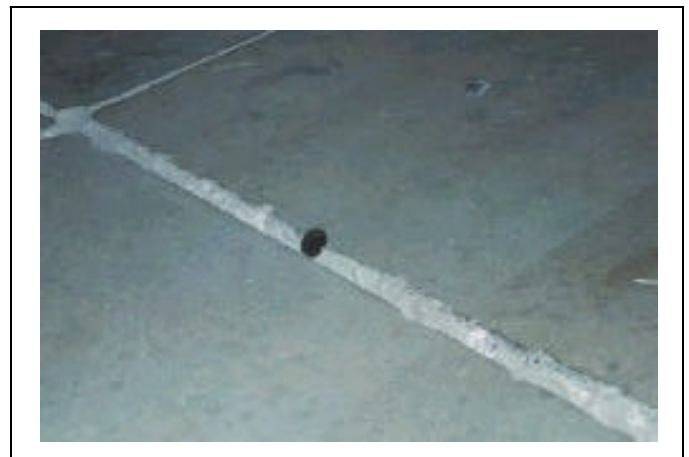
Budget Review
Specifications & Bid Documents
Contract Documents
Inspection & Testing

● Specialist Services

Expert Testimony
Dispute Resolution
Insurance Investigation

● Also Specializing in:-

Construction Materials Technology
Concrete Repair & Protection
Durable Concrete Mix Design
Restoration of Masonry Structures
Restoration of Heritage Structures
Special Materials Technology
Specialist Grouting Applications



Structural Review, Analysis & Engineering and
Specialist Computer-aided Testing and Monitoring
Services can be supplied through associated companies

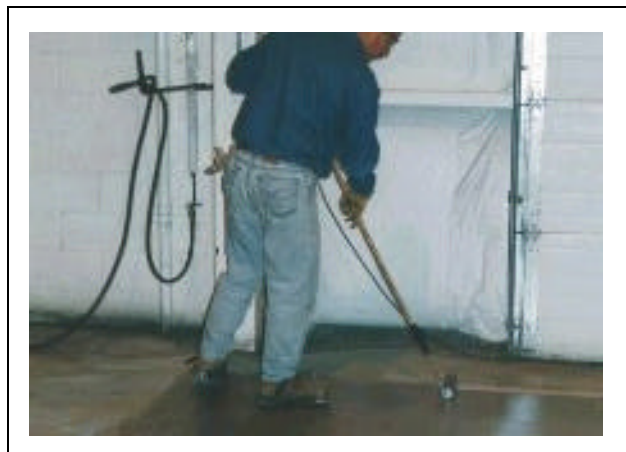
Technical Training



- **Technical Training Courses**
- **Technical Workshops and Seminars**
- **In-House Presentations**
- **On-Site Training**

Special seminars and training courses, which feature the design, specification, construction, protection and restoration of concrete and masonry structures, are provided across Canada in association with the Continuing Education Division of Dalhousie University and throughout the Middle East with Promis Project Management Engineering Systems, Dubai, United Arab Emirates. Courses in other countries are available by arrangement.

For information regarding the latest courses please visit our website at www.pjmc.net and click on "What's New".



- **Customized Courses**
- **Conference Presentations**
- **Corporate Seminars**

All topics are represented using digital projection and customized manuals are provided to all attendees.



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Partial List of Clients

PJ Materials Consultants are proud to have provided consulting services to the following companies and organizations

CN Rail, Toronto	Windsor Mold Company, Ontario
City of Toronto,	Collins & Aikman, Ingersoll, Ont
Region of Peel, Brampton, Ontario	Carlton Group, Sarnia, Ont
Royal Bank, Montreal	Place DesJardins, Montreal
Public Works Canada, Hull, Quebec	Marathon Realty, Toronto
Toronto Real Estate Board, Don Mills	Westcoast Energy, Fort St John, B.C.
Toronto District Heating Corporation	E.S. Fox Ltd., Niagara, Ont
Consultants BPR, Quebec	Dubrick Property, Kitchener, Ont
M.S. Yolles & Partners, Toronto	Graham Construction, Saskatoon
Inzola Const'n (1976) Ltd., Brampton	Laskey Properties, London, Ont
County of Lambton, Ontario	N.B. Dept of Transportation, NB
Atlas Specialty Steel, Welland, Ontario	Mount Allison University, NB
Strait Crossing Inc., P.E.I.	Autoport Ltd., Halifax
Kimberley-Clark, Terrace Bay	Canadian Coast Guard, NF
National Capital Commission, Ottawa, Ont	Harbour Station, Saint John, NB
Ellis-Don Construction, London, Ont	Sze Straka, Waterloo, Ont
Unit Part Company, Oklahoma City	Design Alaska, Fairbanks, Alaska
Beaverbrook Art Gallery, Fredericton, NB	Saint Louis Church, Waterloo, Ont
Duschenes & Fish Architects, Montreal	Arthur Arseneau Architect, Sackville, NB
Omers Realty Management Corporation	Architecture 2000, Moncton, NB
Avenor Inc., Gatineau, Quebec	Stackpole Limited, Stratford, Ont
Regional Municipality of Ottawa-Carleton, Ont	Professional Arts Building, Moncton, NB
Grand River Conservation Authority, Ontario	SaskWater, Saskatchewan
Beaverbrook Art Gallery, New Brunswick	McCormick Rankin, Kingston, Ontario
Kuwait Petroleum Company, Kuwait	Qatar Liquefied Gas Company

For examples of past projects, please
visit our web site on www.pjmc.net
and click on "Case Studies"