

PCI PERSONNEL

BRUCE M. CUMMINS, PROFESSIONAL ENGINEER **PROJECT ENGINEER/MANAGER**

EDUCATION: Bachelor of Civil Engineering
Co-operative Plan, Georgia Tech
Atlanta, Georgia; 1979

**PROFESSIONAL
REGISTRATION:** Professional Engineer, Texas #73929

CAREER SUMMARY

Mr. Cummins currently serves as a Project Manager for Price Consulting, Inc. (PCI). He has technical and managerial responsibilities for various curtain wall, waterproofing, roofing, structural, and materials engineering evaluation and design projects, construction management, and construction monitoring.

Before joining PCI in 1995, Mr. Cummins worked as a structural and materials engineering consultant specializing in structural evaluation and restoration, curtain walls, waterproofing, and construction materials failure studies. Prior to that, Mr. Cummins worked as a structural engineer in a large structural steel fabrication facility. His responsibilities included the analysis and design of heavy steel structures, the modification and repair of existing structures, and the resolution of shop fabrication and field erection problems.

Mr. Cummins has conducted a number of structural evaluations and construction materials failure studies in large commercial, institutional, and industrial facilities. His project experience has included high-rise commercial buildings, retail malls, schools, hospitals, foundation analysis and repair, earthquake damage assessments, large retaining walls, and below-grade structures and tunnels. He has developed opinions regarding the cause or causes of construction and materials problems, and prepared recommendations for corrective action.

Recent design and construction management projects have included performing detailed engineering studies and evaluations of existing conditions, development of engineering recommendations, and preparation of design details, technical specifications, contract documents, construction schedules, and engineering opinions of cost. Mr. Cummins has provided on-site construction monitoring and review of field and laboratory construction materials testing.

SUB-SPECIALTY EXPERIENCE

Curtain Walls and Building Exterior Wall Systems

Mr. Cummins has performed studies of exterior wall and curtain wall systems including cast-in-place, precast, and glass-fiber reinforced concrete, masonry, stone, exterior insulation systems, and a variety of glazing systems. In these studies, he has documented the existing conditions of the curtain wall construction and materials, identified sources of water infiltration, and

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determined the cause or causes of curtain wall material failure. Based on the results of these studies, specific remedial repair recommendations, specifications, and details have been provided. Mr. Cummins has provided field construction monitoring for curtain wall repairs.

Structural Evaluation and Design

Mr. Cummins has extensive experience in structural steel design, fabrication, and erection including welded, bolted, and pinned steel structures. He has performed engineering studies to evaluate structural load capacity, distress, corrosion, movement, and foundation settlement in large structures, tanks, and vessels. He is familiar with the construction of cast-in-place, post-tensioned, and precast concrete structural and architectural elements. Mr. Cummins is also familiar with cementitious and polymer based repair materials for structural concrete. Projects have required the application of various non-destructive and destructive testing methods, including full-scale load testing when necessary. Mr. Cummins has developed repair recommendations, technical specifications, details, and contract documents for structural repairs. He has also provided construction monitoring services for new and remedial construction projects.

Damage Assessments

Mr. Cummins has performed numerous damage assessments of existing facilities to document the location and extent of observed damage or distress, and to determine the cause or causes of the damage. Mr. Cummins performed earthquake damage assessments in the Los Angeles, California area following the January 17, 1994 Northridge earthquake.

Distress/Failure Investigation

Mr. Cummins has performed numerous investigations of distressed or failed materials and materials systems. Investigation projects have included hot-rolled structural steel, cold-formed steel products, structural welding, precast and cast-in-place concrete, exterior wall systems, and waterproofing materials.

Roofing and Waterproofing

Mr. Cummins has provided consulting services on numerous above and below grade waterproofing projects, including basements, tunnels, plaza decks, and elevated structural decks. Studies typically include a survey of the existing structure or waterproofing system, documentation of the location and condition of major structural elements and waterproofing materials, and water testing in order to determine the cause or causes of water infiltration. Mr. Cummins has evaluated complete waterproofing systems and material compatibility problems. Mr. Cummins has also provided remedial repair recommendations, details, technical specifications, contract documents, and field construction monitoring for both remedial repair and new construction waterproofing projects.

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Sealants, Coatings, and Paints

Mr. Cummins has extensive experience with the evaluation, installation, and performance of sealant, coating, and paint products. He has performed condition studies, provided recommendations for repairs, and performed construction monitoring services during the installation of these types of products.