PERRY INTERNATIONAL, LTD.

JEFFREY D. PERRY

MANAGING DIRECTOR, DELAY & DISTRESSED PROJECT RECOVERY EXPERT

- Founder and Managing Director, Mr. Perry has 45 years of international project experience. He is a project director/manager, master planner, scheduler, and subject matter forensic scheduling and distressed project recovery expert. He is a master operator of Primavera P3 and P6 scheduling software and as a subject matter expert, has been building and maintaining project schedules and preparing and analyzing retrospective schedule delay analyses for 25 years.

- He is a subject matter expert for advanced retrospective modelling of delay including concurrent delay for technically complex and challenging projects. He has been retained as the principle non-testifying delay expert for arbitrations and jury trials seated in Australia, Canada, China (Hong Kong), Egypt, France, Indonesia, Kuwait, Malaysia, Qatar, Singapore, Switzerland, Thailand, United Arab Emirates, and the USA. Mr. Perry has been the appointed testifying schedule delay expert for litigated matters in Canada, Ecuador, Qatar, and the United States. He has been involved in disputes ranging in value from many millions of dollars to over four billion dollars. His quantifications and analysis of delay and their presentation in expert reports have covered project histories from as little as six months to over eight years. Mr. Perry has also prepared expert reports to resolve complex termination disputes including wrongful terminations and terminations for cause.

- He is the inventor of Period Analysis methodology, a state of the art industry standard retrospective delay analysis methodology for application with native CPM schedules, and is the inventor of Cascade methodology, a form of as-planned v as-built retrospective delay analysis methodology for application with materially deficient CPM schedules. He created the mathematical expressions for industry standard delay analysis methodologies in order to establish a hierarchy of methodologies based upon their precision of output results. He is an expert in the modelling of all forms of delay utilizing standard analysis methodologies, the melding of standard methodologies for modelling, and the creation and application of custom delay models when necessary to quantify critical path delay including concurrent delay.

- He has been involved in disputes ranging in value from many millions of dollars to over four billion dollars. His quantifications and analysis of delay and their presentation in expert reports have covered project histories from as little as six months to over eight years. Mr. Perry has also prepared expert reports to resolve complex disputes for wrongful termination and termination for cause.

- He has been the lead expert for ten distressed project recoveries, the most recent being a $4billion transit rail project in Toronto, Canada and the $1billion Grand Central Terminal Expansion project in New York City, USA.
- Since 2009, Mr. Perry has continued a 100% success rate for clients with project delay disputes having legal merit.
- Since 1994, Mr. Perry has continued a 100% success rate for recovery of distressed projects.

FIELD & TECHNICAL ENGINEERING EXPERIENCE

- Prior to his consulting career, Mr. Perry, gained 20 years of field experience within the construction industry on projects in the USA, Qatar, United Kingdom, and the US Territory of Guam in roles emanating from Heavy Construction Carpenter/Foreman to Project Superintendent, Construction Engineer, Construction Manager, Project Manager, and Project Director.
- As a Director of Special Projects for Engineering Science/Applied Physics Technologies, Mr. Perry has been the principle designer/inventor for the following new construction industry technologies:
  - Proprietary near edge epoxied anchor bolt system for reinforced concrete slabs. Applications include buildings for human occupation constructed throughout North America and the Caribbean.
  - Proprietary cold rolled structural steel building system for high live load applications in Seismic 5 zones and Category 5 hurricane zones. Applications include buildings for human occupation constructed throughout North America and the Caribbean.
  - Proprietary seismic structural support system for space frame structures with full cover glazing systems for application in building projects with dissimilar seismic loading behaviors in adjoining structures. Applications include hospitals and various public works buildings constructed in the State of California, USA.
  - Proprietary large skylight structure to resist and remain intact upon impact of high kinetic loads from large caliber, high velocity ballistic projectiles. Application was Supermax Prison in State of Colorado, USA.
  - Overhead structural utility support system for heavy pipe systems inside hardened aircraft shelters for nuclear blast protection. Applications include various military air force projects constructed in the Middle East and Asia.

- Conversion of declassified hardened nuclear blast proof aircraft shelter technology to public works rockfall and avalanche protective shelters for roadways and railroads. Six months after submitting his application and based upon Mr. Perry's design work, the State of California Department of Transportation, Division of Engineering Services waived the mandatory five year full scale field testing requirement and issued a Certificate of Full Corporate Deployment for State of California transportation projects. Subsequently, the US States of Oregon and Washington, the US Federal Highway Administration, and all US national and Canadian railroad systems adopted the system.

PROJECT EXPERIENCE

- Airports civilian – terminal buildings, runways, and airfields
- Airports military – hardened aircraft shelters and command centers for biological, chemical, nuclear warfare, and runways
- Bridges (suspension, fixed, elevated highway, causeway)
- Chemical manufacturing facilities
- Computer chip manufacturing facility
- Dams and flood control projects
- Embassies
- Gas field collection and processing facilities
- Highways (interstate)
- Hospitals
- Hospitality facilities (hotels, casinos, resorts)
- Incineration facilities
- Institutional buildings
- LNG facilities including onshore and offshore loading facilities
- Mines (open pit)
- Pharmaceutical manufacturing facilities
- Pipelines (gas, sewer, water)
- Ports (dry bulk and LNG) and Marina
- Power plants using coal, natural gas, hydro, incineration, and wind fuel sources
- Power transmission systems
- Rail (heavy, metro, and light rail, and metro station boxes above and underground)
- Software development
- Steel mills (hot rolled)
- Tanks (floating lid, spherical, subterranean, hardened)
- Tunnels (bored – EPBM and TBM, and drill & blast)
- Upstream and downstream gas processing facilities
- Wastewater treatment facilities

NOTABLE PROJECT APPOINTMENTS

- Harbor Bridge Replacement Project in Corpus Christi, Texas. Largest bridge project in continental United States.
- Champlain Bridge Project in Montreal, Quebec, Canada. Largest bridge project in North America.
- Grand Central Station in New York City, New York, USA.
- CHUM Hospital in Montreal, Quebec, Canada. Largest hospital project in Canada.
- Seattle Tunnel Project (Alaskan Way Viaduct). World's largest bored tunnel project.
- Xiaolangdi Multipurpose Dam and Power Project in China. One the largest rock dams in the world.

DISTRESSED PROJECT RECOVERY APPOINTMENTS

As Project Advisor for distressed project recoveries, Mr. Perry has completed ten appointments:

- Nepal — Hydroelectric Power Project
- Philippines — Hydroelectric Power Project
- Guam — International Airport Project
- Qatar — International Airport Project
- Qatar — Hospital Project
- Qatar — Waste Water Treatment Plant
- Indonesia — High-Rise Luxury Hotel & Residence
- Canada — Metro Rail Project
- USA — Grand Central Terminal Station Expansion Project In New York City
- Thailand — Chemical Manufacturing Facility

EXPERT EXPERIENCE – INDUSTRIAL PROJECTS

Chemical Facility

Thailand – On behalf of the Contractor in international arbitration, prepared a schedule delay analysis and extension of time claim for works pertaining to the engineering, procurement, and construction of a chemical manufacturing facility. The Contractor alleged that Owner interference and design changes resulted in delay and increased costs of performance.

Electronics Facility

USA – On behalf of the Owner in international arbitration, prepared an independent schedule delay analysis pertaining to the construction of a computer chip manufacturing plant. The Owner alleged that Contractor lack of performance resulted in late-to-market delivery of products resulting in significant loss of business and revenue. The Contractor alleged that late release of proprietary designs pertaining to changes to manufacturing processes resulted in schedule delay beyond its control. The dispute focused on construction of clean rooms with utility services and specialty equipment.

Mines

Jordan – On behalf of the Contractor in international arbitration, prepared an independent schedule delay analysis pertaining to the engineering, procurement, and construction of a brine-sourced magnesia complex near the Dead Sea. The Owner alleged that the Contractor performed deficient site investigation and project engineering, which resulted in the Contractor not providing a specification compliant facility. The Owner further alleged production capacity of the facility did not meet the Contract requirements. The Contractor alleged that Owner deficient designs and changes increased the scope of work and diminished the operating characteristics of the facility, resulting in delay, disruption, and increased costs of performance, and that full operating production could not be achieved due to inadequate supply of sea water.

Brazil – On behalf of a Tribunal hearing a dispute over construction of a mineral processing complex, prepared an independent delay analysis pertaining to the earthworks. The Owner alleged delay was due the Contractor's lack of performance and misunderstanding of the scope of work at time of Tender. The Contractor alleged that late release of site access and deficient earthwork designs increased the Contractor's scope of work, resulting in delay and increased costs of performance.

Oil & Gas Facilities

Australia – On behalf of the Subcontractor in international arbitration, prepared an independent schedule delay analysis pertaining to the procurement and installation of cryogenic piping insulation for an LNG production facility. The Contractor claimed that delayed installation of piping works by others and changes to piping valve chambers increased the scope of work and delayed installation of insulation works.

Australia – On behalf of the testifying schedule delay expert for the Contractor of the LNG storage tanks located on the Gorgon project, prepared an independent assessment and expert report of the main contractor schedules and resource allocations and resource restrictions. The Contractor alleged bed restrictions imposed by the main contractor impacted progress resulting in delay and increased costs of performance.

China – Lead forensic scheduling expert and advisor to the Board of a global energy company on a mega gas field development project. Responsible for preparation of expert report regarding the performance of the company and its contracting force over 5+ years of progress, assist with recovery of US$3+ billion of increased costs of performance, and advise on strategic planning and implementation of a turnaround program to complete outstanding Works ($6 billion) on time and budget.

Egypt – On behalf of the Owner in international arbitration regarding construction of a natural gas processing facility, prepared an independent schedule delay analysis and review of the Contractor's claim and schedule delay analysis. The Contractor's scope of construction works included well heads, field piping, process plant, and distribution systems. The Owner alleged Contractor delay due to the lack of performance, sabotage to the Works, and quality control issues. The Contractor alleged that Owner interference, design changes, late release of site access to cleared minefields for drilling operations, and unreasonable withholding of progress payments resulted in delay, disruption and increased costs of performance.

Indonesia – On behalf of the Contractor in mediation, prepared a schedule delay analysis pertaining to the structural works on a petrochemical processing facility. The Contractor alleged that late and numerous design changes impacted critical path structural works and follow-on installation of equipment and utility services.

China – On behalf of the Contractor in international arbitration, prepared an independent schedule delay analysis pertaining to the engineering, procurement, and construction of a Syngas production facility. The Owner alleged that Contractor delay due to lack of performance, and the Contractor alleged delay due to the nominated Subcontractor's lack of performance and Engineer/Owner interference.

Indonesia – On behalf of the Contractor in international arbitration, prepared an independent schedule delay analysis and assessment of the status of the Works at the time of project suspension. The Contractor's scope of work included engineering, procurement, and construction of an LNG ship off-loading, production, and storage facility at which time included the world's largest spherical storage tanks. Construction of the facility was indefinitely suspended during the steel erection phase due to a currency crisis in Indonesia. The Contractor alleged in its claim exchange rate loss, delay, prolongation costs, and unpaid works.

Oman – On behalf the Contractor in international arbitration, prepared an independent schedule delay analysis pertaining to the engineering, procurement, and construction of an LNG ship off-loading facility. The Contractor alleged that on-shore unforeseen ground water infiltration into excavated subterranean works exceeded anticipated inflow rates, and unforeseen unstable geological conditions increased on-shore subterranean retaining wall works, resulting in delay and increased costs of performance.

USA – On behalf the EPC Contractor for a gasoline additive production facility, prepared an independent assessment and repair of a dysfunctional schedule that put the contractor into default of the contract and provided project advisory services to the project management executive team.

Pharmaceutical Facilities

Singapore – On behalf of the Owner in international arbitration, prepared an independent schedule delay analysis pertaining to the construction of a bulk pharmaceutical manufacturing facility. The Owner alleged that Contractor lack of performance resulted in late to market delivery of products resulting in significant loss of business and revenue. The Contractor alleged late release of proprietary designs pertaining to changes to manufacturing processes resulted in schedule delay beyond its control.

Singapore – On behalf of the Contractor in international arbitration, prepared an independent schedule delay analysis pertaining to the construction of a bulk pharmaceutical manufacturing facility. The Owner alleged that Contractor lack of performance and failure to deliver a completed project on time resulted in late to market delivery of products resulting in significant loss of business and revenue. The Contractor alleged changes to equipment layout and utility services resulted in schedule delay beyond its control.

USA - On behalf of the Engineer in international arbitration, prepared an independent schedule delay analysis pertaining to the construction of a bulk pharmaceutical manufacturing facility. The Owner alleged the Engineer's design was deficient resulting

in delay to construction of the Works. The Engineer alleged numerous changes to proprietary designs pertaining to upgrading of manufacturing processes resulted in schedule delay beyond its control.

Steel Mills

USA – On behalf of the Engineer in international arbitration, participated in a schedule delay analysis pertaining to the procurement and construction of a state-of-the-art steel mill. The Owner alleged that the Engineer's design resulted in Contractor delay to the project completion date and a plant that did not meet specified operating parameters. The Contractor alleged late release of foundation and building designs resulted in schedule delay beyond its control. The Engineer alleged that the Contractor's proprietary steel mill equipment did not meet the Contract requirements and the Contractor's ways and means resulted in delay to the project completion date.

USA – On behalf of the Contractor in dispute with the Owner, prepared a schedule delay analysis pertaining to engineering, procurement and construction of the worlds' most powerful state-of-the-art steel coil mill for specialty high strength metals. The Owner alleged that the Contractor's late delivery of machinery and equipment caused the Contractor to accelerate the Works to mitigate delay. The Contractor alleged the Owner's construction and start-up teams, and numerous change orders, adversely impacted the Works.

EXPERT EXPERIENCE – POWER PROJECTS

Co-Generation

Australia – On behalf of the Contractor in international arbitration, prepared an independent schedule delay analysis pertaining to the design, procurement, and construction of a state-of-the-art 180MW Gas Fired Cogeneration Power Plant. The Owner alleged schedule delay and loss of business revenue due to Contractor lack of performance and system faults. The Contractor alleged that Owner-performed works and the inability of the public utility company to provide adequate timeframes to commission the power plant and deliver electricity to the power grid impacted the project completion date.

Qatar – On behalf of the Contractor in international arbitration, prepared an independent schedule delay analysis pertaining to the design, procurement and construction of a state-of-the-art 600MW Gas Fired Cogeneration Power Plant. The Owner alleged schedule delay and loss of business revenue due to Contractor lack of performance and system faults. The Contractor alleged

that Owner-performed works and the inability of the public utility company to provide adequate timeframes to commission the power plant and deliver electricity to the power grid impacted the project completion date.

USA – On behalf of the Owner of the 800MW Fore River Gas-Fired Combined Cycle Power Plant in arbitration, prepared an independent schedule delay analysis. The Contractor alleged delays and extensive cost overruns due to the Owner as a result of public opposition to the project, resulting in work stoppages, union labor disputes, lack of Nominated Contractor coordination by the Owner, and late release of design information resulting in re-sequencing of Works. The Owner alleged delay due to the Contractor's ways and means.

Fossil Fuel

Indonesia – On behalf of the Owner of the 1230MW Paiton Coal-Fired Power Plant in arbitration, prepared an independent schedule delay analysis. The project was impacted by an unforeseen landslide which impacted the discharge water channel works and substation works. The Contractor alleged significant delay due to this event. The Owner alleged that the delay was concurrent with Contractor responsible delays.

Spain – On behalf of the Owner of the 1200MW Gas-Fired Combined Cycle Gas Turbine Generation (CCGT) Power Plant in arbitration, prepared an independent schedule delay analysis. The Owner alleged that Contractor lack of performance resulted in delay to the project completion and loss of business revenue. The Contractor alleged that the differing site conditions which impacted its critical path cooling water system works were the Owner's responsibility. The cooling water works consisted of a 5km tunnel drawing cold water from the sea to an underground heat transfer exchange and pumping facility where heated water from the power station would then be discharged in an open evaporation channel leading back to the sea. As a second assignment for the Owner, prepared a project recovery baseline schedule for submission to the project Lender and Contractor, and provided on site project support to prepare monthly updates and project progress reviews for the Owner and Lender, and project controls training to the Owner and Contractor planning departments.

USA – On behalf of the Contractor in mediation over the installation of a state-of-the-art fly ash recovery system, prepared an independent schedule delay analysis and expert report. The Owner alleged that delay was due to Contractor lack of performance. The Contractor alleged that late design changes and delivery of Owner provided materials delayed the Works.

Hydroelectric

Nepal – On behalf of the Insurance Company for the Project Owner/Contractor, prepared an independent schedule delay analysis for two claims pertaining to delays on the run-of-river 45MW Bhote-Koshi Hydroelectric Project. During construction, the Owner filed one claim for cost of replacement and schedule delay to construction of the diversion dam and power house that were destroyed by flood when an ice/rock dam in upstream China failed. On a second assignment, the Owner filed a second claim for schedule delay due to its munitions facility exploding when workers inside the facility failed to heed safety protocols and subsequently dispersed unexploded ordinance over a 2-mile mountainous perimeter, thus requiring the Nepalese Army to be called in to manually clear the terrain of ordinance and certify the area safe for work to resume. On a third assignment for the Owner, prepared an assessment of a claim submitted by the Contractor for tunnel works, who alleged delay and cost overruns due to unforeseen geological conditions that resulted in over-cut of drill and blast tunnel excavation works, which subsequently increased the amount of excavated material to be removed and increased the amount of shotcrete and rock anchors to be installed.

Kenya – On behalf of the Contractor in international arbitration, prepared an independent schedule delay analysis pertaining to the construction of the 60MW Sondu-Miriu Hydroelectric Project. The Contractor alleged schedule delay and increased cost of performance due to the Engineer's decisions regarding concrete quality for the tunnel works, cracks in the concrete lining of tunnels, and additional base camp works and manpower. The Contractor alleged that excavated rock from Owner-designated borrow pits was deficient to achieve the required compression test strengths, tunnel lining cracks were due to deficient Engineer's design for tunnel lining expansion and contraction, and additional works for the Base Camp were due to increased manpower required by the Engineer to recover delay. The Engineer alleged that the Contractor failed to control the moisture content of crushed rock and failed to produce concrete to specification, which resulted in removal of sections of tunnel lining, and that the Contractor failed to install expansion joints per specification requirements that required extensive repair of tunnel lining works. As a result, the Engineer attributed the delays to the Contractor and, therefore, contended that the additional manpower and expansion of the Base Camp to overcome the delays were the Contractor's responsibility.

Nepal – On behalf of the Contractor for the 72MW Middle Marsyangdi Dam and Power Project, prepared a schedule delay analysis and participated in negotiations with the Engineer for extensions of time. Also prepared a revised baseline schedule and project recovery program including a review of the Contractor's means and methods to construct the project to an accelerated timeframe to recover delay. The Contractor alleged that unforeseen geological conditions delayed drill and blast tunnel works and underground power house works; unforeseen landslide conditions resulted in re-alignment and re-design of

the tunnels; and unforeseen geological conditions impacted construction of temporary river diversion works for dam construction.

Philippines – On behalf of the Owner of the 140MW Casecnan Multipurpose Irrigation and Power Project, prepared a revised baseline project schedule and project recovery program to complete the project following extensive delays to the tunnel works. The first tunnel boring contractor had been terminated for lack of progress. The second tunnel boring contractor had inadvertently under drilled the tunnel diameter to the point that the tunnel boring machine ("TBM") became embedded in the rock mass and could not advance or reverse. Unfortunately, the TBM became stuck under a mountain where a pilot shaft could not be drilled to dislodge it. This problem resulted in seven months of hand-drilling around the TBM to dislodge it and subsequent delay to the project completion date.

Indonesia – On behalf of the Contractor of the 210MW Musi Hydroelectric Power Project in mediation with the Government of Indonesia, prepared independent schedule delay analysis and participated in negotiations with the Engineer. Contractor claimed that late release of site access due to protracted land ownership disputes and unforeseen geological conditions impacted construction of the underground power house, surge tank, and tunnels. The project was built in a known area of volcanic activity and highwater tables. During construction, extremely hot water jetted from rock fissures in the excavated sidewalls of the underground powerhouse and tunnels, resulting in work stoppages, flooding, and extensive measures to be implemented to secure the worksite fit to continue the Works. In addition, the Contractor claimed rock conditions to be different than anticipated, resulting in excessive overbreak and material removal/disposal during excavation, excessive shotcrete works, and extensive additional rock anchoring. The Contractor claimed the additional works and subsequent delays to be the Owner's responsibility. The Owner claimed the Contractor was, under its lump sum contract, responsible for the additional Works.

Indonesia – On behalf of the Contractor of the 1008MW Cirata Dam and Hydroelectric Power Project in mediation with the Government of Indonesia, prepared an independent schedule delay analysis and participated in negotiations with the Engineer. Contractor claimed late release of site access due to protracted land ownership disputes and unforeseen geological conditions impacted construction of the underground power house, surge tank, tunnels, and substation. The Contractor also claimed rock conditions to be different than anticipated resulting in excessive overbreak and material removal/disposal during excavation, excessive shotcrete works, and extensive additional rock anchoring. The Contractor claimed the additional works and subsequent delays to be the Owner's responsibility. The Owner claimed the Contractor was, under its lump sum contract, responsible for the additional Works.

Pakistan – On behalf of the Contractor of the 1450MW Ghazi Barotha Hydroelectric Project in arbitration with the Government of Pakistan, prepared an independent schedule delay analysis. The Contractor claimed that late release of site access due to protracted land ownership disputes delayed construction of river channel lining works and bridges, and subsequently delayed the project completion date. The Owner alleged that the Contractor was not impacted by these events and instead unable to perform in a timely and efficient manner.

China – On behalf of the Contractor of the 1836MW Xiaolangdi Multipurpose Dam and Power Project in arbitration with the Government of China, prepared an independent schedule delay analysis and participated in negotiations with the Engineer. The Contractor claimed that unforeseen geological conditions impacted construction of the underground power house, surge tank, and tunnels. During construction, extensive faulting was discovered, resulting in work stoppages, cave-ins, and extensive measures to be implemented to secure the worksite fit to continue the Works. In addition, the Contractor claimed geological conditions to be different from those conditions that were anticipated, resulting in excessive overbreak and material removal/disposal during excavation, excessive shotcrete works, and extensive additional rock anchoring. The Contractor claimed the additional works and subsequent delays to be the Owner's responsibility. The Owner claimed that the Contractor was, under its lump sum contract, responsible for the additional Works.

Ethiopia – On behalf of the Contractor in international arbitration with the Government of Ethiopia, prepared an independent delay analysis pertaining to the construction of the 1870MW Gilgel Gibe Hydroelectric Project. The Contractor alleged schedule delay due to a Force Majeure event and the outbreak of war with a neighbouring country.

USA – On behalf of the Contractor in litigation on the Holtwood 130MW Expansion Project, first prepared an independent assessment/validation of the Contractor's schedules submitted to the Owner and then prepared an independent delay calculation package of the Contractor's schedules.

Incineration

Singapore – On behalf of the Owner of the 2760 T/day Incineration Power Plant in arbitration, prepared an independent schedule delay analysis. The Owner alleged that Contractor delays were due to lack of performance. The Contractor alleged that design changes to the foundations and superstructure works resulted in critical path delay.

Singapore – On behalf of the Contractor of 4320 T/day Incineration Power Plant in arbitration, prepared an independent schedule delay analysis. The Contractor alleged that Owner design changes to the power plant control system resulted in critical

path delay to piping and control valve installation works and follow-on commissioning activities. The Owner alleged concurrent delays resulted from the lack of Contractor performance as a result of shop drawing, labor, plant, and procurement issues.

Transmission System

Canada – On behalf of the Contractor in dispute with the Project Owner, prepared an independent schedule delay analysis pertaining to the design, procurement, and construction of two converter stations for the 500 kilovolt (kV) direct current (DC) Eastern Alberta Transmission Line (EATL) in Alberta, Canada. The Contractor alleged unforeseen ground conditions and adverse winter weather delayed the Works.

Wind System

Canada – On behalf of the Owner/Builder of the largest wind farm in North America in arbitration, prepared an independent schedule delay analysis and other ancillary schedule and time related reports pertaining to the construction of a CA$1billion wind farm and transmission line facility located in northern Ontario, Canada. The 300 MW Project consisted of 87 wind towers sending power across a 230Kv transmission line 104 km to the Ontario power grid. At about 30% complete, the Project was impacted by a forest fire during the peak summer working season resulting in a prolonged closure of the windfarm component of the Project. Upon resumption of windfarm work before the onset of winter, the Owner instructed its contracting team to accelerate the balance of work in order to avoid a default under its Power Purchase Agreement with the Ontario Power Authority. The Owner filed a claim for the increased costs to accelerate the Works arising due to the loss in what was at the time the single largest insurance claim in the history of the renewable energy industry.

USA – On behalf of the Owner/Builder of a large wind farm in dispute over delay, prepared an independent concurrent delay analysis and entitlement assessment of contractor claims pertaining to the upgrading of a wind farm located in Texas. The 271 MW Project consisted of 118 wind towers.

EXPERT EXPERIENCE – INFRASTRUCTURE PROJECTS

Flood Control Dams

USA – On behalf of the Contractor for seismic upgrading of an existing dam located in California in arbitration, prepared an independent schedule delay analysis and expert report. Contractor alleged unforeseen ground conditions adversely impacted the Works.

Philippines – On behalf of the Contractor, prepared a schedule delay analysis and extension of time claim for works pertaining to an irrigation and flood control project. This project included a dam and ancillary spillway and flood control structures and devices. The Contractor's claim was based on late and partial release of site access due to land ownership disputes, delays due to rebel factions operating in the immediate vicinity of the project and interfering in the Works, and unforeseen geological conditions which impacted earthworks. Due to these events, the earthworks were pushed into the monsoon season at which time earthworks could not be performed, resulting in an unforeseen suspension of the Works.

Metro Rail Systems

England – On behalf of a Government Agency in international arbitration, prepared an independent schedule delay analysis and review of the contractor's schedule delay analysis and USD $1 billion claim for works pertaining to the engineering, procurement, and construction of a railroad signal control upgrade project. The Contractor claimed in arbitration that delayed access to work areas and numerous design changes resulted in delay, disruption, and increased costs of performance.

Canada – On behalf of the Contractor for the Eglinton Line in Toronto, spearheaded a program-wide recovery effort to mitigate 17 months of delay including re-building of the contractor's baseline schedule and leading workshops with the contractor's construction teams to identify ways and means to resequence work to meet contractual milestones.

Canada – On behalf of the Board for the Contractor for the Confederate Line in Ottawa in arbitration, prepared a schedule delay and productivity loss analysis and expert report to determine contractor culpability for delay at the time of a tunnel collapse.

Canada – On behalf of the Signal Control System Contractor for the City of Edmonton North LRT Line Extension project in arbitration, prepared a schedule delay analysis and expert report covering 8 years of project history including 5 years of delay. The Contractor alleged that Owner's interference in the design process resulted in delay and disruption to the Project.

Singapore – On behalf of the Contractor for project section C701 of the Northeast Line, prepared a schedule delay analysis and extension of time claim for works pertaining to engineering and construction of a railroad depot. The Contractor claimed that late release of design information and site access resulted in delay to its Works.

Singapore – On behalf of the Contractor for project section C712 of the Northeast Line, reviewed a schedule delay analysis prepared by the Contractor for its claim pertaining to the engineering and construction of a subway station and associated tunnels. The Contractor alleged that unforeseen geological conditions resulted in delay to its tunnel boring operations and subterranean station construction works.

Singapore – On behalf of the Contractor for project section C710 of the Northeast Line, prepared a schedule delay analysis and extension of time claim for works pertaining to the engineering, procurement, and construction of subway station and associated tunnels. The Contractor alleged that unforeseen geological conditions resulted in delay to its tunnel boring operations and subterranean station construction works.

USA - On behalf of the Contractor for construction of the Grand Central Terminal station expansion project in New York City, prepared a schedule to assess the true delay to the project completion date, prepared a recovery schedule, and initiated discrete construction management efforts to mitigate delay. In addition, led forensic schedule delay efforts for contractor claim to negotiate extension of time to multiple completion milestones on project with unlimited liquidated damages.

Pipeline

Canada – On behalf of the Contractor in international arbitration over delay on a 1200mm diameter water supply pipeline including valve vaults and other ancillary systems constructed over the length 5,135 meters using open excavation, jack and bore, and tunnel boring methodologies as specified by the contract, prepared schedule delay analysis and expert report. Contractor alleged unforeseen ground conditions, contract design deficiencies, and Engineer issued design changes impacted the Works.

Port

Philippines – On behalf of the Contractor, prepared a schedule delay analysis and extension of time claim for works pertaining to engineering, procurement, and construction of a new pier at the Port of Manila. The Contractor claimed that unforeseen

geological marine conditions resulted in deeper than anticipated piling works and, combined with subsequent design changes to pile heads, resulted in delay and increased costs of performance.

USA - On behalf of the Contractor in US Federal Court against the United States Department of Defense, prepared a schedule delay analysis and extension of time claim for works pertaining to reconstruction of a US Navy pier in South Carolina. The Contractor claimed that unforeseen geological marine conditions and Owner changes to the scope of work resulted in delay and increased costs of performance.

Roads

Philippines – On behalf of the Contractor, prepared evaluation of Contractor's schedule delay analysis and claims on works pertaining to the engineering, procurement, and construction of an elevated roadway. Contractor's claim was based upon late and partial release of site access due to land ownership disputes and a design change to relocate the roadway offshore from land to shallow sea.

Trinidad & Tobago – On behalf of the Government in arbitration following the termination of its contractor for a new-build highway system consisting of 46km of multi-lane roads with bridges and intersections, prepared an independent assessment of the Works and provide advice on condition surveys.

USA – On behalf of the Department of Transportation for the State of West Virginia, prepared an independent schedule delay analysis and evaluation of a contractor's schedule delay analysis and disruption claim for works pertaining to the construction of an interstate highway project. The Contractor alleged delay due to onerous State inspection protocols and subsequent re-work that resulted in suspension of work due to extending into the winter months when work could not be performed.

USA – On behalf of the EPC Contractor for the expansion of the First Coast Expressway in Jacksonville, Florida in arbitration against the State DOT, its designer, and prime subcontractor, prepared independent expert schedule delay analysis reports covering over four years of project construction. The project consisted of expanding existing two lanes in each direction to four lanes in each direction including the construction of numerous access ramps and bridges, relocation and installation of utilities, expansion of adjacent service roads, and toll collection facilities.

USA – On behalf of the EPC Contractor for the expansion of Interstate Highway I-295 in Jacksonville, Florida in arbitration against the State DOT, its designer, and a prime subcontractor, prepared independent expert schedule delay analyses reports covering over fours of project construction. The project consisted of expanding existing two lanes in each direction to four

lanes in each direction including the construction of numerous access ramps and bridges, relocation and installation of utilities, expansion of adjacent service roads, and toll collection facilities.

USA – On behalf of the Contractor for the expansion of the Sam Houston Tollway Southeast Highway project in Houston, Texas, prepared a schedule delay analysis and expert report covering over 2 years of project construction. The project consisted of expanding existing two lanes in each direction to four lanes in each direction including the construction of numerous access ramps and bridges, relocation and installation of utilities, expansion of adjacent service roads, and toll collection facilities. The Contractor alleged interference to its Work caused by an adjacent contractor resulted in over one year of delay to the project completion date.

Suspension Bridge

Canada – On behalf of the EPC Contractor for the largest suspension bridge in North America at the time being the new build CAD $2billion Champlain Bridge project in Montreal, prepared a schedule delay analysis and claim appraisal for submission to the Government of Canada. Due to unforeseen truck weight restrictions placed on the bridges and arterial roads of Montreal after award of the Contract, the Contractor claimed a change in law which rendered unworkable his Price and Schedule to perform the Works.

USA – On behalf of the EPC Contractor for the largest suspension bridge in the Unites States of America at the time being the new build USD $1billion US181 Harbor Bridge Project in Texas, prepared a schedule delay analysis and claim submission to the Texas Department of Transportation. One of the largest suspension bridge projects in North America, this project had been impacted by early issues with access to public acquired land, underground utility issues, and subsequent redesign of access ramps.

Tunnel - Road

USA – On behalf of the EPC Contractor for the largest bored tunnel in the world at the time, prepared an independent schedule delay analysis and expert report. The Contractor's work was impacted by unforeseen ground conditions and design changes to the twin deck bored tunnel design.

Waste Water Treatment Facility

Pakistan – Review of the Contractor's schedule and delay claims for construction of a waste water treatment facility. The Contractor alleged in its claim issues related to late release of site access due to land disputes and local tribal warfare and increased security risks, which resulted in delay and increased costs of performance.

Qatar – On behalf of the Contractor of 33km of deep sewer tunnels in dispute, prepared a schedule delay analysis and claim submission. In addition to suspension to over 75% of the Works in the first ten months, the Contractor employed 13 Tunnel Boring Machines and encountered unforeseen excessive groundwater. The Employer insisted on maintaining the original Project Completion Date thus forcing the Contractor to constructively accelerate, but did not want to pay for the acceleration efforts.

Qatar – On behalf of the main contractor of a waste water treatment facility in delay, prepared a peer view of the Contractor's schedule, and means and methods for implementation of a project recovery program.

Kuwait – On behalf of the Contractor of an effluent treatment facility for an oil refinery in dispute, prepared a schedule delay analysis to receive an extension of time of four years. The facility was impacted by numerous design changes and performance specifications requiring operational technology not developed beyond the laboratory to meet newly imposed environmental regulations.

USA – On behalf of the contractor of a wastewater pipeline and pumping facility project terminated by the Owner for delay and in litigation before jury trial in North Carolina, prepared an independent schedule delay analysis and expert report. The Contractor alleged wrongful termination arising due to delay caused by deficient design documents and uncompensated Owner changes to the Work.

USA – On behalf of the main contractor of a wastewater treatment facility in delay and in litigation against an electrical subcontractor terminated for cause, prepared an independent schedule delay analysis and expert report in defense of claims brought by the electrical subcontractor.

EXPERT EXPERIENCE – COMMERCIAL, FEDERAL & INSTUTIONAL BUILDING PROJECTS

Airport

Guam – On behalf of the Construction Manager and Airport Authority, reviewed cost estimates of the main Contractor's claims for extension of time and increased costs on the construction of Phase 1 expansion works for the Guam International Airport project. Under a second assignment on behalf of the Airport Authority, reviewed the main Contractor's claims in international arbitration for delay and increased costs of performance on the construction of Phase 2 expansion works for the Guam International Airport project.

Malaysia – On behalf of the Contractor for the main terminal building of the new-build Kuala Lumpur International Airport, prepared a schedule delay analysis for an extension of time for delay to foundation works, prepared a revised baseline schedule, and provided on-site master schedule maintenance and project controls supervision for the remainder of the main terminal building contract duration to project completion.

Thailand – Prepared a contractor tender baseline schedule for the new main terminal building at an airport in Bangkok.

Qatar – On behalf of the Contractor for the main terminal building at the Hamad International Airport, a US $4 billion project, prepared a revised baseline schedule under consulting contract. Then, employed as Planning Manager, restored the Contractor's planning department to functionality, and guided recovery of critical path works to mitigate 16 months of delay within four months. Recruited and trained the Contractor's planning department staff. Responsible for Contractor's Planning Department, updating and submission of Contractor's schedule, and interfacing with Engineer and subcontractor planning departments. Prepared follow-on reviews of Contractor and subcontractor delay analyses for extension of time claims.

Qatar – On behalf of the mechanical subcontractor for the main terminal building of the Hamad International Airport, prepared a forensic schedule delay analysis to quantify the subcontractor's entitlement for extension of time and recovery of increased costs of performance.

Qatar – On behalf of the special structural systems subcontractor for the Emiri terminal building at the Hamad International Airport, was retained as a Commercial Manager to prepare and submit outstanding claims to the main contractor.

USA – On behalf of the baggage handling system subcontractor for the Philadelphia International Airport terminal building expansion program in arbitration, prepared an independent schedule delay analysis.

USA – On behalf of the contractor for the NASA Wallops Island runaway / apron renovation program in arbitration, prepared an independent schedule delay analysis.

Educational

USA – On behalf of a masonry subcontractor for a private collegiate school project in arbitration, prepared a schedule delay analysis. The Subcontractor alleged that late building works and design changes impacted masonry works and, as a consequence, was wrongfully terminated. The Main Contractor alleged that Subcontractor lack of performance due to manpower, plant, and financial issues resulted in delay to the project leading to a failure to perform the masonry works under the Subcontract.

Qatar – On behalf of the contractor for two private secondary Boys and Girls schools in dispute, prepared a schedule delay analysis and claim for extension of time and recovery of increased costs of performance.

Embassy

USA - On behalf of the Contractor renovating the Embassy of Spain in Washington D.C.in arbitration, prepared a schedule delay analysis and expert report. The Contractor alleged that differing site conditions adversely impacted the earthworks and civil works, and consequently the project completion date.

Ecuador - On behalf of the Contractor renovating the United States Embassy in Ecuador in dispute before the US Federal Board of Appeals, prepared a schedule delay analysis and expert report. The Contractor alleged that delays due to late access and instructed variations to the Work adversely impacted the project completion date beyond the Contracting Officer's granted entitlements for extension of time.

Hospital

Qatar – On behalf of the control systems subcontractor on the largest hospital project in the Middle East, the USD$8 billion new-build Sidra Medical and Research Center in Doha, the 600-bed hospital project was in delay. Retained to lead a distressed project schedule recovery effort including the development and implementation of field progress reporting tools for construction and commissioning works.

Canada – On behalf of the Consortium design/build contractor for the largest hospital project in North America, the USD 2.5 billion Centre Hospitalier de l'Université de Montréal ("CHUM"), the 772-bed hospital project was in delay. Retained to prepare

a schedule delay analysis and assisted with preparation of key time impact claims, and spearheaded production of a new baseline recovery schedule.

USA – On behalf the renovation Contractor for a Veterans Administration hospital project in North Carolina in litigation against the federal government, provided an independent schedule delay analysis and expert report. The contractor alleged delay due to lack of access, late delivery of information to perform the work, interference by the Owner's agent.

Hospitality

USA – On behalf of the Architect of the Kauai Hyatt Regency Hotel in Hawaii in arbitration, prepared an independent schedule delay analysis to determine the status of the project at the time it was under construction when a Category 5 hurricane hit the island. The Owner alleged the roof design was insufficient to sustain expected hurricane season conditions, and that the delay to the project completion date resulting from flooding and wind damage was due to the Architect's deficient design to protect the property from said conditions. The Architect's defence rested on the status of the partially installed roof works at the time, and the status of the exterior building works at the time that the hurricane season arrived.

USA – On behalf of the Contractor of the Regent Las Vegas Resort in Nevada, prepared a schedule delay analysis. The Contractor claimed critical path delay to exterior building works was due to late design changes to use alternative exterior finish materials.

United Arab Emirates – On behalf of the Contractor of the Meydan Racecourse and Hotel Complex in arbitration, prepared a schedule delay analysis. The Contractor claimed delay due to design changes to structural concrete works. The building frame was a combination post tension and cast-in-place concrete design. The roof of the building changed several times during the course of construction, affecting load paths and structural elements in this multi-story building. In addition, numerous floor changes to accommodate changing architectural design elements for interior layouts were introduced, which prevented floor areas from being cast.

Indonesia – On behalf of the Contractor of the Kempinski Hotel in Jakarta, prepared a project recovery assessment. The building was a combination hotel, retail, and condominium complex with full service hotel laundry and kitchen facilities, and an underground parking garage. In addition, the Owner added floors to the building during construction. As delays and project costs increased, the Owner sold the highest floor condominiums ahead of the scheduled completion date, placing the Contractor

in a default situation. Following a site study of the Works and delivery schedule for sold properties, an alternative construction sequence and schedule was proposed to the Contractor to deliver sold units on time and complete the project.

Indonesia – On behalf of the golf course Contractor of the Royal Grading Golf Course and Country Club in settlement negotiations, prepared a schedule delay analysis. The Contractor claimed the bund wall for a holding pond of toxic waste located on an adjoining property failed and leached onto the project site, resulting in partial suspension of the golf course works. In addition, the Contractor claimed that numerous design changes to the layout of the golf course, pathways, and bridges resulted in schedule extensions with incomplete works subsequently being suspended by monsoon seasons.

Singapore – On behalf of the Contractor of the marina works for the Singapore Yacht Club in arbitration, prepared a schedule delay analysis and participated in negotiations with the Engineer. The Contractor claimed delay due to late design changes to the marina layout to accommodate different watercraft than originally planned. The Owner denied the Contractor's claim, alleging design changes were timely and the delay was due to late production of specialty float materials imported from the USA, and slow installation of the Works.

Military

USA – On behalf of the Contractor for the refurbishment of a control center for a nuclear missile base in Alaska, prepared a schedule delay analysis for appeal before the US Army Corp of Engineers. The Contractor alleged deficient design documents and specifications caused delay and increased costs of performance.

EXPERT EXPERIENCE – TECHNOLOGY PROJECTS

Software Development

USA – On behalf of the Contractor for a computer software development project in arbitration, prepared a schedule delay analysis. The Contractor, a contract software developer for specialty applications, alleged delay and cost overruns due to continuous Owner changes. The Owner alleged that mismanagement and lack of performance by the Contractor resulted in the Owner missing product launch-to-market dates and follow-on delivery schedules for products.

EDUCATION

Professional degree programs majoring in Construction Science and Building Construction (1976 – 1982). United States of America colleges and universities attended - Radford University, Virginia; Northern Virginia Community College, Virginia; New River Community College, Virginia; Thomas Nelson Community College, Virginia; North Lake Community College, Texas; and Virginia Polytechnic Institute and State University, Virginia.