LONG INTERNATIONAL

RONALD J. RIDER, M.B.A.

Mr. Rider is a Senior Principal with Long International. He has over 35 years of comprehensive construction experience and expertise from more than 120 projects in the areas of project management and dispute resolution. He excels in project estimating, critical path method (CPM) schedule analysis, CPM schedule recovery analysis, project cost and schedule control, project billing and payment analysis, change order pricing and resolution, contract administration, project closeout, and dispute resolution services. Mr. Rider is highly skilled in cost and labor hour variance modeling, impact identification and analysis, retrospective CPM schedule delay preparation and evaluation, concurrent delay assessments, project acceleration analysis, and damages verification and quantification. He is proficient in the use of various software programs including Primavera Project Planner (P3 v.3.1 and P6 v.21), Safran Project, Microsoft Project, Acumen Fuse, Schedule Analyzer Pro, Schedule Analyzer Forensics, Steelray Delay Analyzer 0.61.0, and Summation iBlaze software products.

Mr. Rider specializes in his ability to combine his project management capabilities along with problem solving competencies to produce effective dispute resolution services. Mr. Rider's experience includes petrochemical plants, oil refineries, offshore oil and gas facilities, LNG facilities, power plants, commercial buildings, highway and transit projects, hospitals and airport projects ranging in size from US$50,000 to US$5 billion.

EDUCATION

M.B.A., University of Colorado, 1995
B.S., Construction Management, Colorado State University, 1987

PROFESSIONAL AFFILIATIONS

AACE International (No. 34665)
Project Management Institute (No. 1996935)
American Institute of Constructors, Former Rocky Mountain Chapter President (No. 3804A)

TECHNICAL EXPERIENCE

Representative U.S. and international technical experience includes:

- Corporate strategy, leadership, and marketing
- Project estimating, quantity takeoffs, and project scope pricing
- Project planning, startup, and buyout
- Activity-based costing (ABC) for scope budgeting and cost control
- CPM schedule development and proactive monitoring
- Project billing and payment implementation
- Change order pricing and negotiations
- Requests for information (RFI) and change order process management
- Successful demonstration of project issues that may or may not affect the project schedule
- Installed quantity and progress verification and monitoring

- CPM recovery schedule preparation and implementation
- Contract administration and subcontractor management
- Effective resolution of project problems and unapproved changes
- Job cost and labor hour variance modeling and analysis
- Impact identification based on contemporaneous project records
- Document discovery, research, and computerized database coding
- Retrospective CPM schedule delay (As-Planned Impacted, As-Built But-For, Window, and Time-Impacted methodologies) analysis and delay quantification
- Impact correlation and allocation (RFIs, changes, late equipment, third-party interference, weather, strikes, etc.) to schedule activities and cost accounts
- Concurrent delay assessment
- Contractual entitlement evaluation
- Lost productivity quantification and analysis
- Extended project overhead and home office overhead cost quantification
- Acceleration cost isolation and analysis
- Calculation of project damages based on total cost, modified total cost, specific issue pricing, and measured mile methodologies
- Graphical and oral presentation of results, conclusions, and opinions
- Engineering and construction claim/expert report preparation, documentation, defense, and negotiated settlement
- Interrogatory preparation and response
- Arbitration proceedings and litigation support

PROJECT EXPERIENCE

Mr. Rider has extensive experience on a wide variety of project management and dispute resolution projects for owners, engineers, architects, general contractors, subcontractors, attorneys, and sureties on over 100 projects spanning 30 years. Representative projects include the following:

Oil Refinery, Petrochemical and Chemical Plants, LNG Facilities, Industrial, and Offshore Oil & Gas Production Facilities

- On behalf of an owner and EPC contractor constructing a very large LNG facility in the Middle East, was part of a team that performed a detailed schedule risk assessment of the contractor's monthly Level 3 schedule updates to determine if the contractor would achieve Provisional Acceptance on or before the 78-month contractual required work duration. The schedule risk assessment was based on contractor-provided contemporaneous project reports, schedule quality assessment, and interviews with key owner and contractor personnel in the Middle East. The size of the Level 3 schedules reviewed ranged from 3,800 to nearly 5,000 activities. Based on the information provided and 10,000 Monte Carlo iterations model, it was

found that the contractor would likely achieve Provisional Acceptance a total of 13 months beyond the 78-month contractually required work duration.

- On behalf of the owner, performed a detailed schedule delay analysis for substantial delays caused by the late completion and incomplete turnover of mechanically complete systems by the predecessor EPC contractor. The delays directly and indirectly impacted the successor pre-commissioning, commissioning, and startup (PCS) phase of a large and complex greenfield and brownfield refinery project in Columbia. The scope of the schedule delay analysis included a critique of the EPC contractor's compliance with industry best practices in the preparation and updating of the PCS baseline CPM schedule and subsequent monthly CPM updates. Reviewed detailed project records pertaining to delay issues such as monthly reports, system turnover documents, outstanding punch list information and spreadsheet data, and added work change orders needed to complete systems that were falsely claimed at 100 percent complete by the EPC contractor. In support of identifying, quantifying, and allocating delay to the responsible party, prepared a detailed multi-window As-Built But-For Schedule Analysis to determine the amount of compensable delay time that the owner was entitled to receive but for EPC contractor delay during the PCS phase of construction.
- On behalf of a contractor, prepared a detailed expert report regarding schedule delay issues in the construction of a soybean processing plant in Nebraska. The facility was plagued by design-related changes not contemplated in the original FEED. The expert report focused on analysis and addressing alleged contractor schedule quality deficiencies that, according to the opposing schedule delay expert, delayed contractor performance. Any such schedule deficiencies were found to be minor issues that did not hinder the contractor's scheduling functions. The actual overriding cause of delay was the magnitude of design changes. The assignment included an online deposition. The project settled before the need for expert testimony.
- Assisted in the preparation and submission of a mechanical contractor's $20 million claim for delay and disruption due to additional work, labor disputes, and loss of productivity on a coker facility at the Cerro Negro Oil Upgrading Refinery Project in Venezuela. Researched project records to identify and quantify predecessor delay events that were the reasons for delay to the mechanical contractor. Assisted counsel in the preparation of its briefs and technical support in preparation for expert witness testimony at ICC arbitration hearings in Geneva, Switzerland.
- On behalf of the owner, participated in the preliminary analysis and evaluations of delay and disruption claims by an EPC contractor on a large LNG project in the southeastern United States. Evaluated multiple EPC contractor delay claim submissions and reports that included calculation of delay costs. These independent evaluations were used by the owner in pre-mediation discussions and negotiations.
- Performed an independent third-party review and assessment of an owner's overarching schedule integration program for an oil sands project near Fort McMurray, Alberta. The owner requested an analysis of the overall health of the project relative to overall schedule management, proper interface between individual project areas, and accurate forecasting of completion dates for key areas such as mining, ore preparation, extraction and tailings, secondary extraction, utilities, and infrastructure.
- On behalf of the owner, sought to recover delay and disruption costs paid to an EPC contractor on a reimbursable EPCM contract on a mineral processing plant in Canada. Critiqued the contractor's compliance with industry practices concerning the preparation and updating of the project baseline CPM schedule and schedule updates. Prepared a windows-based schedule delay analysis using a time impact methodology for determination of the contractor's entitlement to a time extension and an As-Built But-For Delay Analysis to determine the contractor's entitlement to retain the time-related costs that were paid to it by the owner.

- On behalf of the owner, sought to recover delay and disruption costs paid to an EPC contractor and its subcontractors on a large LNG plant in Australia. Critiqued the contractor's compliance with industry practices in the preparation and updating of the project baseline CPM schedule and schedule updates. Prepared a windows-based schedule delay analysis to quantify delays on the critical and near-critical paths for the overall completion of the project including key intermediate contractual milestones tied to liquidated damages. Identified and analyzed critical path activities that caused delay and slippage to the completion of key subcontractor work packages such as site development, accommodation camp, main civil works, mechanical equipment, and pipe installation works. Provided review and preparation of rebuttal reports to the positions and opinions of opposition expert reports.
- On behalf of the owner, prepared an expert report containing a detailed multi-window schedule delay analysis for alleged delays and impacts during the engineering, procurement, and construction of a new cement manufacturing plant located near Tampa, Florida. The analysis included assessment and opinions relative to alleged impacts from late and deficient owner-provided equipment, out-of-sequence delivery of owner-provided equipment, extra work by the owner, and poor contractor performance, and concurrent delay caused by contractor-caused problems.
- Provided dispute resolution services in support of a chemical company who was defending against $150 million in impact claims made by a European EPC contractor on Polyethylene Terephthalate (PET) plants in Spain, the Netherlands, and Argentina. Participated in the document discovery, research, organization, and coding of over 500,000 project records into an Internet-based document repository. Assisted in answering interrogatories and prepared questions for fact witness depositions. Scrutinized the entitlement of alleged critical path schedule delays due to late and continuous changes, technology changes, late turnover package approvals, weather impacts, and slow agency reviews potentially affecting 5,000 schedule activities. Developed a comprehensive delay allocation model to quantify as well as document critical path and concurrent delays affecting the schedules. Correlated issues to schedule activities. Employed retrospective CPM schedule delay analysis methodology to correctly calculate entitled delay for compensable costs as well as consider concurrent delays due to approved change orders, fact-based project issues, and weather impacts as supported by project records. Utilized retrospective CPM schedule delay analysis methodology to correctly calculate entitled time extension and proper assessment of liquidated damages. Based on the findings, the contractor's claims were grossly overstated and unsupported. Consequently, the owner enjoyed a favorable settlement at a small fraction of the total dispute.
- Defended an owner of a refinery project in Trinidad from $25 million in alleged delay and disruption damages claimed by a Canadian EPC contractor. Evaluated the contractor's entitlement to alleged delays caused by the owner's change orders. Assessed concurrent delays caused by contractor-caused delays to engineering, procurement, and construction phases of the project. Prepared retrospective CPM schedule analyses to quantify alleged delays to the critical path of each monthly update of the project schedule. Critiqued opposing expert's report regarding project facts and alleged critical path delays, which was instrumental in a favorable settlement for the owner.
- On behalf of the owner, analyzed and assessed the reasonableness of an EPC contractor's schedules as part of an assessment of a $138 million delay and disruption claim involving a gas plant project in Saudi Arabia. Performed a detailed CPM retrospective schedule analysis on 36 monthly windows using a Time Impact Analysis (TIA) for both owner-caused and contractor-caused impacts. Also performed an As-Built But-For Schedule Analysis for each of the 36 monthly windows for analyzing concurrency as well as compensable delay. The work involved correction of the contractor's baseline and schedule updates, assessment of impacts allegedly due to change orders, welding defects, late drawing deliveries by the owner, and contractor performance problems. The dispute was resolved prior to arbitration.

- Defended an owner against a $75 million claim by a South Korean contractor on an oil terminal project in Asia, including assessment of CPM schedules for delay entitlement, change order impact, and associated damages. Performed a TIA schedule analysis study that included both owner-caused and contractor-caused impacts in order to calculate a basis for allocating alleged productivity costs.
- Analyzed a contractor's claims for delay and disruption allegedly resulting from work associated with removal of lead-containing paint from the process plant modules and platforms of an offshore oil production facility installed in the Gulf of Mexico. Assisted with the development of a detailed CPM-based, multi-window schedule analysis in defense of the claim.
- On behalf of the owner, performed a detailed windows schedule analysis in defense of a contractor's $87 million delay and disruption/loss of productivity claim resulting from alleged design changes to a semi-submersible hull and mooring system project, which was fabricated in Norway and installed in the Gulf of Mexico.
- Analyzed construction erection sequencing activities and prepared a CPM schedule delay analysis in support of an EPC contractor's delay analysis for an ICC arbitration case involving a chemical plant in Jordan.
- As part of ongoing project management services for the owner, performed analyses of the EPC contractor's CPM schedules for scope and logic problems associated with a major petrochemical facility off the coast of West Africa.
- Evaluated a claim by the operator of a chemical storage facility associated with delays and cost overruns caused by scope changes and hurricane impacts. Operator alleged that the cost of the facility significantly increased as a result of owner-caused changes and impacts from Hurricanes Katrina and Rita, and that the owner agreed to compensate the operator for the hurricane impacts. The owner alleged that the operator mismanaged the project, and that the delays and cost increases were primarily caused by other problems not related to the hurricanes.
- Analyzed the reasonableness of alleged contractor claims totaling $19 million related to change orders, delays, and disruptions associated with the construction of an MDI chemical plant in Texas.
- Analyzed alleged change order and delay claims totaling $85 million submitted by a South Korean EPC contractor on the construction of a 1,200-foot, compliant-piled tower offshore production facility fabricated in Texas and South Korea.
- Assessed a Korean contractor's $75 million delay and acceleration claim on an oil terminal project in Russia. Analyzed the contractor's CPM schedules, change orders, increased staffing claims, and the owner's counterclaims.
- Prepared a detailed CPM schedule delay analysis of a contractor's contemporaneous CPM schedule updates on an insulation manufacturing plant project in Canada.
- Provided schedule quality assurance services regarding a gas supply expansion project in Nigeria. Evaluated schedule metrics and appropriateness of the critical path of the baseline schedule.
- On behalf of the owner, performed an analysis of the quantum aspects of a contractor's $130 million delay and changed conditions claim involving the relocation of a $700 million natural gas processing plant project site in Algeria after construction had commenced because of the discovery of unfavorable soil conditions. The owner counterclaimed delay damages because the plant was completed late. Alleged issues involved increased quantities for earthworks and pipelines in the new site location, subcontract labor man-hours and costs, engineering and construction management man-hours and costs, and associated delay, productivity loss, and other costs, and whether the contractor has sufficient documentation to support its claims. The

owner alleged bid error by the contractor and inadequate and incorrect quantum calculations to support its claimed costs. Assessed the reasonableness of recorded project costs and supported the preparation of an expert report and rebuttal expert report, which were submitted in ICC arbitration in Paris, France. The owner received a favorable award.

- Analyzed EPC schedules for a $2.7 billion LNG facility in Angola. Verified the schedule work scope against contract requirements. Evaluated schedule metrics, reviewed schedule logic, and assessed the reasonableness of the critical path.
- Evaluated the owner's project management and cost and schedule control procedures for performing major capital projects in Trinidad. Prepared stage-gate project development procedures, and developed cost and schedule control procedures.

Power Plant Projects

- Provided dispute resolution services to a general contractor in support of $50 million in impacts against a turbine/generator manufacturer on a new power plant project in Texas. Worked directly with the general contractor's field and office staff to research contemporaneous project records in support of project issues and impacts. Analyzed the delays stemming from hundreds of late change orders, late, and inadequate responses to RFIs, wet and muddy conditions, a filter house fire, late and incomplete delivery of materials and equipment by the turbine/generator manufacturer. Utilized retrospective CPM schedule delay analysis methodology to successfully demonstrate and quantify impacts to the critical path for a 2,500-activity schedule. Applied retrospective CPM schedule delay analysis methodology to correctly calculate entitled time extension as well as prove constructive project acceleration. An amicable settlement for the contractor was achieved.
- Engaged in dispute resolution services for a general contractor in defense of $2.5 million in assessed liquidated damages by the owner of a power plant project in Colorado. Evaluated contemporaneous project records to identify project impacts. Identified and quantified critical path delays and lost productivity impacts caused by the late delivery of equipment and materials, late responses to RFIs, and last-minute changes by the owner's turbine/generator supplier. Used retrospective CPM schedule delay analysis methodology to demonstrate delays caused by the identified impacts. CPM schedule delay analysis successfully supported the general contractor's defense against owner's assessment of liquidated damages against general contractor. Ultimately, the general contractor and owner reached a negotiated settlement.
- Prepared a schedule analysis and claim on the assembly of turbine generators on a hydroelectric power plant project. Participated in mediation to resolve the dispute.
- Analyzed the reasonableness of EPC contractor claims totaling $40 million regarding a lump-sum contract to design and build a gas-fired power plant in Illinois. Assessed the EPC contractor's contemporaneous project schedules and delay analyses in support of its entitlement to a time extension and delay damages.
- Analyzed delays and loss of productivity impacts caused by late delivery of equipment by the turbine/generator manufacturer on a new power plant project in Colorado. The schedule analysis also supported the contractor's defense of liquidated damages assessed by the owner because of delays caused by the turbine/generator manufacturer.

Commercial, Educational, Medical and Industrial Buildings, Airports, Correctional Facilities, Highways, Subway, Wastewater Treatment Plants, and Convention Centers

- On behalf of a bridge contractor, prepared a detailed expert report regarding schedule delay issues in the construction of drill column piers as the supporting components for several highway bridges in southern New Mexico. The expert report focused on analysis and addressing alleged drilling pad preparation and rebar construction delay claimed by the bridge contractor's pier drilling subcontractor. Analysis included detailed analysis of the bridge contractor's monthly P6 schedules during the fall of 2020 and spring of 2021. It was found that the pier drilling subcontractor's poor project performance was the cause of project delay. The assignment included an online deposition. The parties settled the dispute amicably, before expert testimony.
- Furnished litigation support services for the $100 million John Wayne Airport expansion project in Orange County, California. Assisted in the creation of as-built CPM schedules to analyze and quantify project delay and acceleration issues. Used retrospective CPM schedule analysis methodology to determine the amount of schedule slippage. Evaluated concurrent delays relative to impacts to the critical path. Reviewed project documentation and change orders to determine the validity of delays as well as evaluate the causal linkage to schedule impacts and damages. Created color graphics for arbitration.
- Provided project management and control services for the contractor providing fire alarm and voice paging systems work on Concourses A, B, and C, the airport office building, and the terminal complex at the Denver International Airport. Assisted client in cost control monitoring, schedule interfaces, change negotiations, and problem resolutions on a $12 million contract. Prepared financial and schedule analyses for the project and interfaced with the project management team for monthly pay applications and resolution of issues. Assisted in the client's successful settlement of $6 million of outstanding changes with the owner due to unexpected changed conditions and third-party contractor interference.
- On behalf of Denver Public Schools, provided CPM schedule and cost analysis and dispute resolution services to defend against unsubstantiated general contractor claims that exceeded $3 million. Participated in the DPS dispute resolution team that was successful in negotiating a settlement of all general contractor claims at a significantly reduced amount.
- Provided scheduling and dispute resolution services for an electrical subcontractor on the Alaska Native Medical Center in Anchorage, Alaska. Furnished CPM schedule assistance to the onsite project management team for the completion of remaining electrical work. Assembled productivity data based on certified payroll information to demonstrate productivity loss due to project problems. Assisted the general contractor in CPM schedule delay analysis to demonstrate cause/effect impacts caused by the third-party agency. Evaluated and quantified the impacts from over a 1,000 late RFIs, hundreds of design changes, winter weather impacts, and impacts from other contractors. Assisted in the development of a $5 million claim for the recovery of schedule delays and increased costs caused by numerous design problems.
- Prepared an expert report regarding the construction manager's entitlement to payment for extended overhead costs associated with the construction of a detention facility in Colorado.
- Prepared an electrical subcontractor's claim for delays, extra work, and loss of productivity on the installation of fire alarm, security, and communications systems for a Federal Bureau of Prisons project in Beaumont, Texas. The contractor's increased costs resulted from delays, changes, field work orders, rework, loss of productivity, and acceleration to the Division 17 installation work. Prepared an expert report and assisted counsel in the defense of the opposing expert's deposition, which resulted in a successful settlement of the dispute.

- Prepared a CPM schedule analysis of alleged contractor claims associated with construction upgrades to the London Underground Subway system in support of an ICC arbitration.
- Furnished CPM scheduling services for an electrical subcontractor involved with the $66 million McCormick Place Convention Center Expansion Project in Chicago, Illinois. Worked with the subcontractor's field staff to develop and monitor a resource loaded completion schedule that tracked the remaining electrical activities. Updated schedules with job cost and certified payroll information. Correctly calculated the critical path on the electrical work and analyzed impacts from other contractors. Performed productivity studies and provided resource and cost projections used for cash flow and cost-to-complete purposes. Assisted the onsite project management team in the successful closeout of the project.
- Performed CPM scheduling, pay application, and dispute resolution services for the owner of the E-470 Public Toll Road Project in Denver, Colorado. Tracked and monitored the general contractor's 5,500 activity CPM schedule that was cost and resource loaded. Provided effective pay application payment services by verifying and approving work performed by the general contractor. Performed various special studies regarding disputed pay items as well as the calculations of projected future value of interest for disputed work. Successfully worked with the contractor's schedulers to develop an effective procedure for schedule updates and changes.
- Managed project controls and provided cost and CPM scheduling services for the City of Las Vegas Traffic and Communication Project. Assisted the project staff in developing and monitoring resource-loaded completion schedules for the remaining work. Performed retrospective CPM schedule analysis to prove change order impacts to the critical path of the project. Used ABC techniques to appropriately allocate extended corporate and project overhead costs due to a six-month suspension period. Performed productivity studies and provided resource and cost projects used for cash flow and cost-to-complete purposes. Successfully performed change order pricing and negotiations ($750,000) with the owner for numerous design impacts.
- Provided litigation support services for a $3 million real estate development project in Cincinnati, Ohio. Created as-planned and as-built CPM schedules for delay and acceleration evaluations. Performed extensive analysis on weather delays, muddy conditions, and work access issues. Utilized retrospective CPM schedule analysis methodology to determine the amount of schedule slippage monthly. Used monthly pay applications and project photographs to verify project status and schedule progress. Created schedule delay visuals and spreadsheets for court room graphics, which were instrumental in a successful ruling by the arbitrator in favor of the client.
- Provided dispute resolution services for a $100 million Stanford University Hospital Modernization Project in Palo Alto, California. Performed document discovery and reviewed 200,000 project documents. Utilized R:Base to create a 40,000-row document database and cost allocation model. Developed a job cost/variance model used to compute compensable client damages. Determined the validity and entitlement for $6 million outstanding change orders. Assisted in the development of graphic work products for mediation and assisted in the successful mediated settlement of all outstanding claim issues.
- Provided litigation support services on the $75 million Kaiser Hospital Complex in Riverside, California. Performed detailed quantity takeoffs for earthwork, concrete foundations structures and slabs, metal deck, drywall, chemical fireproofing, marblecrete, glass curtain walls, and storefront. Created a 900 activity as-bid CPM schedule to determine a reasonable project schedule. Developed a 1,100 activity as-built CPM schedule and analyzed actual manpower distribution to evaluate lost productivity issues.
- Performed a retrospective CPM schedule delay analysis to determine schedule delays to the critical path as well as project acceleration on the City of Columbus Wastewater Treatment Plant Project "88." Participated in document research and discovery of 160,000 project documents. Created an as-built CPM

schedule with over 1,600 activities in order to evaluate alleged delays and impacts. Determined the validity of 141 alleged contractor claim issues with a value over $7 million. Scrutinized the cause and effect relationship between alleged impact issues and schedule delays. Assisted in damage calculations and manpower distribution analysis. Based on the teams' analysis of the facts, the City of Columbus successfully negotiated an equitable settlement of claims.

- Served as Lead Project Manager for dispute resolution services on the Federal Reserve Bank of Richmond in Charlotte, North Carolina. Analyzed contemporaneous contract documents and project records to determine entitlement regarding project issues. Performed a detailed CPM schedule analysis to determine schedule delay and acceleration. Analyzed and quantified cost data in support of the contractor's damages. Prepared a detailed equitable contract adjustment work product that resulted in a successful negotiated settlement.
- Provided litigation support services for the Dade County Public Schools in Miami, Florida in defense of a general contractor's claims. Worked directly with Dade County's counsel and consultants in the analysis and presentation of schedule delays and impacts on four elementary schools. Analyzed and quantified the impacts from change orders, RFIs and other alleged design problems potentially affecting the general contractor's schedule. Created convincing color schedule graphics used in jury trial.

PROFESSIONAL EXPERIENCE

Long International, Inc.
Denver, Colorado Area (September 1996 to Present)

As a Senior Principal with Long International, Mr. Rider provides clients with CPM schedule delay and acceleration analysis, job cost variance modeling, change order impact analysis, issue identification, correlation of impacts to schedule activities, claims preparation and negotiations, and damages quantification. He has been involved in cause/effect linkage and productivity analysis, along with proactive CPM scheduling services, cost control and monitoring, process improvements, and training of client personnel in CPM scheduling.

Strategy, Inc.
Denver, Colorado (May 1997 to May 1999)

As a Claims Consultant, Mr. Rider provided claims analysis and dispute resolution services for large and small capital projects. Specific responsibilities included job cost analysis, CPM schedule delay analysis, quantity take-off analysis, change order analysis, claims negotiations, and damage calculations. Notable projects included dispute resolution services for the Deer Island Wastewater Treatment Plant in Boston, Massachusetts and the Veterans Affairs Medical Center in Sepulveda, California.

Fischbach and Moore, Inc.
Englewood, Colorado (April 1996 to May 1997)

Mr. Rider served as a Senior Project Controls Engineer. He provided project control services in the areas of CPM scheduling, project cost and quantity control, problem identification, dispute resolution and training assistance. Other duties included project cost reporting, interfacing with customers, change order pricing and negotiations, management audits, process improvements, and computer application implementation.

Advanced Analytical Solutions, Inc.
Englewood, Colorado (June 1992 to March 1996)

As a Senior Consultant, Mr. Rider assisted clients involved in large and small capital projects in the form of project execution, CPM schedule development and delay analysis, cost control and monitoring, cost evaluations, problem solving, dispute resolution, computer applications, management and project audits, and project turnarounds.

Kellogg Corporation
Littleton, Colorado (February 1989 to May 1992)

Mr. Rider served as a Senior Technical Staff member. He provided clients with dispute resolution services in the areas of CPM schedule analysis and damages quantification. He also specialized in job cost variance modeling, retrospective CPM schedule delay analysis, change order impact analysis, quantity take-off analysis, productivity analysis, document research and discovery, and litigation support. In addition, Mr. Rider prepared fact-based written work products for client negotiations, mediations, and arbitrations, and served as a team liaison with clients.

Walter Knestrick Contractors, Inc.
Nashville, Tennessee (October 1987 to January 1989)

As a Project Manager, Mr. Rider was involved in eight projects with a total contract value over $8 million. He estimated various offices, warehouses, commercial, and industrial construction projects. Moreover, Mr. Rider prepared CPM schedules and job cost tracking reports upon award of a project contract. He obtained building and use-of-occupancy permits from city agencies. He was also responsible for monthly invoicing, writing subcontract agreements, and material procurement. He priced and negotiated change orders and resolved problems in the field. Mr. Rider further coordinated communications and meetings among the owner, architect, general superintendent, and subcontractors.

The City of Englewood Engineering Department
Englewood, Colorado (Summers 1985, 1986 and 1987)

Mr. Rider directed inspection specifications for the City of Englewood's Paving District Nos. 30, 31, and 32. He performed asphalt, concrete, and soil material testing. Moreover, he created as-built quantities and monthly pay estimate spreadsheet models. In addition, Mr. Rider acted as a liaison between homeowners and the City of Englewood to facilitate homeowner cost assessments as well as coordinate communication between the general contractor and the city. He was responsible for daily reports and legal documentation.

PUBLICATIONS AND SPEAKING ENGAGEMENTS

"The Collapsed As-Built Windows Schedule Analysis Method," with Andrew Avalon, P.E., PSP, AACE International Annual Meeting, Orlando, FL, June 2017.

"Labor Strikes – Contractor's Recovery of Delays and Damages," *Long International, Inc.*, May 2017.

"The Owner's Duty to Coordinate and Cooperate on Multi-Prime Construction Projects," *Long International, Inc.*, March 2017.

"Considerations for Identifying and Analyzing the Critical Path," *Long International, Inc.*, December 2014.

"The Schedule Basis Memorandum: Key Supporting Documentation for a CPM Schedule Analysis," *Long International, Inc.*, September 2014.

"Implementing Time Impact Analyses on Large, Complex EPC Projects," with Richard J. Long, P.E., and Rod C. Carter, PSP, *Long International, Inc.*, July 2014.

"Verification of As-Built Dates – The Often Neglected but Needed Step for Schedule Delay Analysis," *Long International, Inc.*, May 2014.

"Forensic Schedule Assurance Review: A Vital Step Before Starting a Detailed Schedule Analysis," *Long International, Inc.*, June 2013.

"Analysis of Concurrent / Pacing Delay," with Richard J. Long, P.E., *Long International, Inc.*, August 2012.

"Schedule and Delay Analysis Methodologies," with Richard J. Long, P.E., and Andrew Avalon, P.E., PSP, *Long International, Inc.*, July 2012.

"Schedule and Delay Analysis Methodologies," with Richard J. Long, P.E., and Andrew Avalon, P.E., PSP, Long International, AACE International's Professional Practice Guide to Forensic Schedule Analysis, Chapter 11: Method Implementation Protocol – Modeled/Subtractive/Single Simulation, 2008.

"Schedule Delay Analysis Methodologies," Construction SuperConference, with Richard Long, P.E. and Andrew Avalon, P.E., PSP, San Francisco, CA, December 2007.

"Construction Claims Prevention Training Seminar," National Electrical Contractors Association, May 2006.

"Analysis of Concurrent-Pacing Delay," Presentation and Discussion at the AACE International's National Meeting, New Orleans, LA, June 2005.

"Analysis of Concurrent-Pacing Delay," Lorman Construction Claims Seminar Presentation, Houston, TX, February 2005.

"Improving Project Control," American Institute of Constructors – National Forum, April 1995.

"Project Documentation," American Subcontractors Association, March 1994.

"Multi-Prime Projects," *KC-News*, March 1991.

"Strikes – Recoverability of Damages," *KC-News*, September 1989.

EXPERT REPORT PREPARATION

2023–2024 On behalf of a contractor, prepared a detailed expert report regarding schedule delay issues in the construction of a soybean processing plant in Nebraska. The facility was plagued by design-related changes not contemplated in the original FEED. The expert report focused on analysis and addressing alleged contractor schedule quality deficiencies that, according to the opposing schedule delay expert, delayed contractor performance. Any such schedule deficiencies were found to be minor issues that did not hinder the contractor's scheduling functions. The actual overriding cause of delay was the magnitude of design changes. The assignment included an online deposition. The project settled before the need for expert testimony.

2022–2023 On behalf of a bridge contractor, prepared a detailed expert report regarding schedule delay issues in the construction of drill column piers as the supporting components for several highway bridges in southern New Mexico. The expert report focused on analysis and

addressing alleged drilling pad preparation and rebar construction delay claimed by the bridge contractor's pier drilling subcontractor. Analysis included detailed analysis of the bridge contractor's monthly P6 schedules during the fall of 2020 and spring of 2021. It was found that the pier drilling subcontractor's poor project performance was the cause of project delay. The assignment included an online deposition. The parties settled the dispute amicably, before expert testimony.

2019–2021 As a member of a Schedule Delay Analysis Team, assisted with the preparation of several expert and rebuttal reports, on behalf of the owner, that analyzed impacting delay issues that delayed and disrupted the completion of a large and complex LNG project in Australia. The expert reports encompassed detailed, multi-window retrospective CPM-based schedule analyses that quantified the reasons for slippage to the EPC's performance as well as the performance of key subcontractor work packages such as site development, main civil works, accommodation camp, mechanical equipment, and pipe installation works. Other impacting issues included alleged differing site conditions, late area access, problems with piling, late delivery of process modules, subcontractor-to-subcontractor interface delays, weather impacts, and work area flooding. Performed detailed schedule delay analysis based on contemporaneous schedule updates for the main lower-tier subcontractors (LTSC) for the civil and mechanical works.

2017–2019 As a member of a Schedule Delay Analysis Team, assisted with the preparation of an expert report, on behalf of the owner, that analyzed impacting delay issued that caused delay to the completion of PCS works during the completion of the Cartagena Refinery Project located in Cartagena, Columbia. The expert report included a detailed, multi-window retrospective CPM-based schedule analysis that quantified the impacts from late contractor performance.

2017–2018 As a member of a Schedule Delay Analysis Team, assisted with the development of an expert report, on behalf of the owner, that identified, determined, and allocated schedule delay that impacted the construction of a hydrometallurgical nickel refinery plant in Newfoundland, Canada. The expert reported included a detailed, multi-window retrospective CPM-based schedule analysis which included both a TIA to determine an extension of time and compensable delay for an EPC contractor.

2016 As the Lead Schedule Delay Expert, on behalf of the general contractor, prepared an expert report analyzing disruption and delay impacting issues on the High-Grade Mill Project near Victor, Colorado. The expert report included a detailed evaluation and quantification of impacts that caused considerable delay to the completion of the project. Utilized TIA, based on multiple analysis windows, to determine an extension of time, measure acceleration and compensable delay for the general contractor. The disputing parties reached resolution of all claim issues prior to arbitration.

2015 As part of a Cost Analysis Team, on behalf of the owner, assisted with the preparation of an expert report in response to supplier individual claims against the owner totaling over $150 million during the construction of a nuclear power plant located in Finland. The expert reported included evaluation of 24 specific supplier claims with opinions, based on quantifiable analysis, as to whether the supplier claims were fully supported and without calculation deficiencies.

2014–2015 As the Lead Cost and Schedule Delay Expert, on behalf of a key general contractor partner, prepared an expert report that analyzed impacting issues on the construction of the Regional Training Institute Facility located at Fort Carson, Colorado. The expert report included detailed cost variance and quantification and determination of lost overhead cost and profit recovery due to bid error, buyout busts, scope gaps, and mishandling of change orders. All outstanding issues were settled by both parties at mediation.

2013–2014 As the Lead Cost and Schedule Delay Expert, on behalf of an electrical subcontractor, prepared an expert report for the delayed and disrupted Alex G. Spanos Heart Center Project in Sacramento, California. The expert report included detailed cost variance, lost productivity quantification, and delayed CPM-based analysis on the electrical subcontractor's work due to hundreds of approved and outstanding change orders, seismic design support problems, OSHPD changes and IOR inspection issues, and delayed and extended predecessor trades. The disputing parties reached settlement of all issues at mediation.

2012 Served as the Lead Schedule Delay Expert for the preparation and submission of an expert report, on behalf of the owner, for alleged delays and impacts during the engineering, procurement, and construction of a new 2,800 ton per day cement manufacturing plant located in Brooksville, Florida. The expert reported included assessment and opinions relative to alleged impacts from late and deficient owner-provided equipment, out-of-sequence delivery of owner-provided equipment, and extra work. After submission of the expert report, the disputing parties reached an overall settlement of disputed issues prior to arbitration.

2007–2009 As a member of a Schedule Delay Analysis Team, assisted in the preparation of an expert report, on behalf of the owner, to defend against unsupported schedule delays claims by an EPC contractor during the construction of large gas plant in Saudi Arabia. The expert report included a detailed 36-month window retrospective schedule delay analysis using both the TIA to determine extension of time entitlement and the As-Built But-For Analysis to determine compensable delay. The expert report provided opinions of alleged owner-caused change orders, slow owner approvals, less-than-optimal contractor performance, and concurrent contractor-caused concurrent delay. The dispute was resolved prior to arbitration.

2007–2009 As a member of a Schedule Delay Analysis Team, assisted with the preparation of an expert report that analyzed impacting issues during the construction of a semi-submersible hull anchored in the Gulf of Mexico. The expert report included a detailed CPM-based schedule delay analysis that quantified potential owner-caused impacts and changed as alleged by the fabricator located in western Norway.

2006 As a member of a Schedule Delay Analysis Team, assisted with preparation of an expert report to refute over-priced delay claims by a South Korean contractor for an oil terminal storage facility near Sakhaline Island, Russia. The expert report included a detailed TIA to accurately quantify alleged late owner-provided assessments to key areas as well as contractor-caused performance problems. The export report was used as a basis for successful resolution of issues between the owner and contractor prior to mediation.

2005–2006 As Lead Schedule Delay Expert, prepared an expert report on behalf of Denver Public Schools that analyzed unproven general contractor claim issues and extended overhead costs for a new middle school. The expert report included a retrospective schedule analysis that included an

assessment of both owner-caused and contractor-caused impacts. The expert report was used by DPS to successfully negotiate a reasonable settlement with the general contractor.

2005–2006 As part of a Schedule Delay Analysis Team, aided in the preparation of an expert report for alleged contractor claims on the London Underground Loop Project in support of an ICC arbitration.

2005 As a member of a Schedule Delay Analysis Team, assisted with preparation of an expert report, for the owner, on the Benguela Belize Compliant Tower Project off the western coast of Africa. The expert report included deep retrospective CPM-based schedule delay analysis of alleged owner change orders, late owner approvals, and EPC performance deficiencies. The schedule delay analysis detailed in the expert report was used by the owner to reasonable settle all alleged EPC claims.

2004 As a member of a Schedule Delay Analysis Team, assisted with the preparation of an expert report for alleged delay and disruption associated with the removal of lead-based paint from process modules and platforms for an offshore oil production facility in the Gulf of Mexico. The expert report included a retrospective, multi-month schedule delay analysis over a period of several years. The expert report was a key contributing document that provided a reasonable basis for settlement of disputed issues.

2002–2003 As a member of a Schedule Delay Analysis Team, assisted with the preparation of an expert report, on behalf of the owner, that analyzed delay issues during the engineering and construction of several PET plants in Europe and South America. The expert report included multi-month, retrospective As-Built But-For Delay Analysis to quantify compensable delay originating from alleged owner change orders, late turnover package approvals, weather impacts, slow agency reviews, and contractor-responsible concurrent delays. The expert report was used by the owner to evaluate grossly overstated EPC claims more accurately. The owner enjoyed a favorable resolution at a fraction of the total dispute.

2001–2002 As a member of a Schedule Delay Analysis Team, supported the preparation of an expert report, on behalf of the general contractor, on the Hays Power Plant Project in southern Texas. The expert report included a detailed retrospective schedule delay analysis spanning a two-year period. The schedule delay analysis determined a reasonable extension of time as well as demonstrated constructive acceleration stemming from issues related to owner change orders, late RFIs, late and deficient delivery of owner-supplied equipment and materials, and weather impacts. The general contractor and owner reached a negotiated settlement at mediation.

1999 As a member of a Schedule Delay Analysis Team, assisted in the preparation of an expert report, and subsequent rebuttal report, for the owner, on the Petrogen Hydrocracker Upgrade Project in Trinidad. The expert report included a detailed multi-window retrospective CPM schedule delay analysis that evaluated and quantified impacts from alleged delays caused by the owner. The parties achieved settlement of all issues prior to arbitration following the submission of expert and rebuttal reports.

1995–1996 As a member of a Schedule Delay Analysis Team, assisted in the preparation of an expert report on the Alaskan Native Medical Center for the electrical subcontractor. The expert report included a detailed CPM-based retrospective schedule delay analysis that

demonstrated cause/effect impacts from subsequent RFIs, design changes, weather impacts, and interface impacts for other subcontractors. After submission of the expert report, the parties reached an amicable settlement.