



Mark C. Sanders, P.E.

PROFESSIONAL SUMMARY

Mr. Sanders has over 25 years of experience as an engineer and manager and has successfully managed projects in the electric utility; fossil, nuclear, and renewable generation; oil and gas; and transportation sectors. He is a recognized industry expert in project delivery and speaks frequently at conferences on topics including project development, scheduling, budgeting, and execution; project management; evaluation of issues related to delay, inefficiency, changed conditions, and extra work; and contract cost analysis.

Mr. Sanders is a licensed Professional Engineer in Delaware, Maryland, Pennsylvania, and Wisconsin. He holds certifications from AACE International as a Cost Professional, Planning and Scheduling Professional, and Forensic Claims Consultant. He is a certified Project Management Professional and Portfolio Management Professional. Mr. Sanders earned Bachelor's and Master's degrees in Civil Engineering from Villanova University. He earned a law degree from William Howard Taft University and is a licensed member of the State Bar of California.

PROFESSIONAL EXPERIENCE

Alpha 3 Consulting, LLC

2017 - Present

Mr. Sanders serves as Director of Projects, providing oversight of Alpha 3 project management and engineering teams to help clients to achieve safety, scope, budget, and schedule goals. Mr. Sanders is responsible for the effective oversight of cost, productivity, and quality to ensure successful execution. His responsibilities include development and execution of project management and controls programs, staffing, oversight, and management. Mr. Sanders also provides leadership and training to personnel and supports the implementation of company strategy. His projects have included gas pipelines, fossil plant upgrades, coal ash site remediation, and substation design. His recent projects have included:

- EXELON Substation Design Program Substation Engineering & Design for Five Mid-Atlantic Utilities
- o MWAA Dulles Corridor Metro Project Silver Line Expansion Evaluation of Subcontractor Claims
- NJ TRANSIT Portal North Bridge Temporary Facilities Design
- PANYNJ Port Street Corridor Improvements CPM Scheduling
- o SEPTA Norristown Line Schuylkill River Slope Revetment CPM Scheduling
- NJDOT Stickel Bridge Lift Elevator Replacement CPM Scheduling

Internationally, Mr. Sanders provides consulting through QDR International, LLC, analyzing claims and providing expert testimony on engineering and construction projects. He provides analysis and consulting services and prepares expert reports to support the resolution of contract claims through negotiation, mediation, arbitration, and litigation. His analyses have included issues associated with delays, disruptions, scope changes, and contract termination. His recent experience includes:

O Mr. Sanders provided analysis of claims and counterclaims related to the scope of work for the public-private partnership (PPP) concession for the Rutas de Lima project in Lima, Perú. The analysis included issues related to the condition of the existing infrastructure, work required to meet the minimum anticipated conditions required for the concession, contract requirements related to changes, and cost and schedule impacts related to the incorporation of approximately USD 250 million of extra work into the contract. Mr. Sanders provided expert testimony at a UN commercial arbitration to facilitate resolution of the dispute.

- Mr. Sanders provided an evaluation of claims related to the Design, Build, Finance, Operate, and Maintain (DBFOM) contract for the construction of a dam and water system for farmland irrigation and hydro-electric power generation in northwest Perú. The scope of services included the evaluation of contract risk and scope allocation, evaluation of the as-planned schedule, and analysis of performance against the schedule. particularly in relation to the progress of engineering activities, the turn-over of land for the project, and financing activities. An expert report was prepared analyzing 18 major areas of project costs, including those related to the construction and maintenance of the project's remote work camp, the value of engineering services performed, the value of construction work in progress, suspension costs, and field and home office overhead costs.
- o Mr. Sanders evaluated the loss of productivity claims of the contractor for the rehabilitation and improvement of 55 kilometers of highway between Ayacucho and Abancay, Perú. The issues evaluated included alleged loss of productivity associated with design changes, utility interferences, remediation of unsuitable subsurface soils, and landslides. The expert analysis was provided to the arbitration board to assist in their understanding of the responsibility analysis and quantification approaches used by the EPC contractor and the project owner.
- Mr. Sanders evaluated schedule impacts related to weather delays, quantity increases, and the impacts of the COVID-19 pandemic for the improvement of section 1 of the highway from Oyón to Ambo, Perú (Tramo 1: Oyón Desvió Cerro de Pasco). His work included evaluation of impacts related to weather, quantity increases, and the impacts of the COVID-19 pandemic. He provided development of a CPM schedule for the completion of the project after the pandemic.

Altran 2012 – 2017

As Program Director from April 2014 through April 2017, Mr. Sanders managed the delivery of Altran's Energy projects in North America with a staff of 50 office and field personnel, including 15 project managers. He was responsible for proposals, staffing, establishment of best practices, and the successful execution of Altran's projects. His team managed the work of approximately 200 engineers and delivered more than \$100 million of professional services over three years. Prior to assuming the role of Program Director in 2014, Mr. Sanders established and managed Altran's enterprise-wide project controls program. Mr. Sanders oversaw the effective utilization of resources across the company and supported the achievement of goals for each business line.

A few of his principal projects at Altran included the Independent Verification and Validation of the software for the 1E controls systems for eight nuclear reactors at the Fuqing, Fangjiashan, and Hainan nuclear power plants; substation engineering projects for clients including PSEG, PHI, and Iberdrola; and project controls and construction management services for a variety of projects at NRG coal and gas generation plants. Details follow for several sample projects in which he was personally involved:

- o Mr. Sanders served as the project manager for Altran's scope of conceptual and detailed physical design for the modernization of five substations in and around Rochester, NY. Services provided included engineering and design, scheduling, and estimating for the procurement, construction, and commissioning phases of all five substations, including owner's management costs, engineering costs, construction costs, and commissioning costs. The scopes of the substations included the replacement of oil circuit breakers with gas and vacuum circuit breakers, the replacement of outdoor air-insulated switchgear with indoor gas-insulated switchgear, oil containment for a variety of existing outdoor equipment, and associated civil and electrical work.
- Mr. Sanders oversaw project controls for Altran's independent validation and verification of the design and testing of 1E controls systems for eight reactors at the Fuqing, Fangjiashan, and Hainan

nuclear power plants in China. Mr. Sanders implemented CPM schedule development and updating, resource management, and project reporting for teams working in Atlanta, GA, San Francisco, CA, Cranbury, NJ, Foxboro, MA, and Beijing, China.

- o Mr. Sanders oversaw EPCM services for the expansion of an existing combined cycle plant to include a new 28 MW steam turbine for Eagle Point Power Generation. The project scope included a Siemens ST400 steam turbine generator, SPX condenser and cooling tower, step-up transformer, and associated balance of plant. Mr. Sanders assigned and hired project management, procurement, and construction management staff, defined Altran's procurement processes, and oversaw implementation of a recovery schedule to mitigate three months of delays to owner-procured equipment and complete the project safely, on schedule, and within the established budget contingency.
- O Mr. Sanders provided project controls for the demolition of the existing steam plant at NRG Energy's Werner Station in South Amboy, NJ. Mr. Sanders provided cost and schedule management, procurement, and recruitment and management of the owner's on-site project management staff. Mr. Sanders worked with the owner's environmental personnel and the contractor on permitting, planning, and execution to ensure compliance with asbestos, lead, and other hazmat abatement needs, storm water management requirements, and demolition permitting.
- o Mr. Sanders served as the Project Controls Manager for the \$42 million expansion of the waste-water treatment plant at the Conemaugh Generating Station in New Florence, PA. The project included construction of new chemical and biological treatment systems for the removal of boron, selenium, and other elements from the plant's scrubber waste-water stream. Mr. Sanders was responsible for the integration of separate schedules from the WWT EPC and its contractor; the controls system EPC and contractor; and the owner's scope contractors for installation of the primary electrical supply and upgrades to systems for treating the WWT influent stream. Mr. Sanders was also responsible for cost reporting, accounting, and purchase requisitions for the project. Mr. Sanders currently provides project controls consulting for upgrades to the FGD systems at Conemaugh.
- Mr. Sanders performed structural engineering reviews for projects including a backup generator for Calpine and substation modifications for Delmarva Power.

Alpha 3 Consulting, LLC 2007 – 2012

Mr. Sanders managed numerous power generation projects, managed client relationships, and provided oversight of a staff of seven project controls managers and construction managers on a wide variety of projects for Alpha 3, including the following:

o Mr. Sanders served as the Project Controls Manager for the installation of a \$350 million air quality control system at Mirant's Dickerson Generating Station (MD). Mirant recognized Mr. Sanders with an award as the Most Outstanding Project Team Member for his work at Dickerson. The EPC project scope included a B&W wet scrubber and associated slurry preparation, gypsum dewatering, material handling, and waste-water treatment systems. Mr. Sanders was responsible for the owner's overall budget and schedule controls for the project. His work included development of an integrated project schedule, resolution of contract interfaces, budget management, schedule management, purchase requisitions, and contract invoice reviews. Mr. Sanders developed and maintained the project risk/issue register and facilitated the project risk management meetings. Mr. Sanders also provided contract issue analysis for all three plants within Mirant's \$1.7 billion Mid-Atlantic Air Quality Control Systems Program, provided financial reviews for the closure of purchase orders and subcontracts,

provided analysis of disputed costs, and supported the overall negotiated settlement of the program's primary EPC contract.

- After Mirant and RRI merged to form GenOn, Mr. Sanders coordinated the design-build installation of bulk HCl systems for the WWT plants for the Maryland scrubber systems. Mr. Sanders was responsible for budget and schedule oversight, construction management staffing, and the bidding and procurement of owner's scope items including electrical and mechanical interface contracts and controls system integration.
- O Prior to his work in Maryland, Mr. Sanders provided outage planning and scheduling services and served as on-site Operations Coordinator for maintenance work at Mirant's Lovett Generating Station (NY). He was responsible for scheduling mechanical and electrical maintenance work and coordinating contract work with operations needs. As Operations Coordinator, Mr. Sanders conducted daily and weekly scheduling meetings with contractors and plant maintenance personnel to implement Mirant's work management system.

Sanders Engineering & Construction Services – Bensalem, PA

2004 - 2006

Prior to the incorporation of Alpha 3, Mr. Sanders provided independent cost engineering and management consulting services to project owners, engineers, and construction contractors. From 2004 through 2006, Mr. Sanders designed and executed the overall program controls system for the \$810 million Marquette Interchange Reconstruction Program in Milwaukee, WI. He continued to provide program review services on a part-time basis through 2008. He was a member of the Program Construction Management Consultant team (URS/Trauner/Cotter/Buveck). He was responsible for program schedule development, program cash flow analysis, the review and analysis of contractor CPM schedules from development through execution, and scheduling and coordination of WisDOT contractor work with seven third-party utilities. He was responsible for reporting project status and working with the program-level change management team to resolve delays, extra work, utility coordination, and coordination of adjacent major contracts across the program. Mr. Sanders was recognized by the Wisconsin Secretary of Transportation for his role in helping to complete the program three months ahead of schedule and \$10 million under budget.

Working for the Pacitti Group, Inc., Mr. Sanders provided analysis and consultation on claims involving delays and disruptions to the \$30 million mechanical erection contract for the installation of two Alstom GT24 units and related scope of work at the ANP Bellingham Power Plant (MA). Mr. Sanders provided analysis of the retention and performance of the completion contractor and the cost to complete the contract. Mr. Sanders also provided claims analysis and testimony related to the electrical and mechanical contracts on the \$50 million Vineland Veterans Home. Issues included delays, lost productivity, and resequencing of the power, lighting, HVAC, plumbing, and fire protection scopes of work.

Wagner Hohns Inglis, Inc. - Mt. Holly, NJ

2002 - 2003

As a Consultant, Mr. Sanders was responsible for construction contract administration, project controls, and construction contract close-out. He was responsible for estimating and negotiating change orders, analyzing time extension requests, and resolving contract claims. His principal projects were a \$90 million office building and \$26 million university science complex.

Trauner Consulting Services, Inc. – Philadelphia, PA

2000 - 2002

As a Consultant, Mr. Sanders was responsible for CPM scheduling, construction claims analysis, and development of technical specifications for a wide variety of projects. He developed and maintained CPM schedules for a \$40

million mechanical contract for the Washington D.C. Convention Center and for three \$10 million schools. He was responsible for schedule analysis on an \$85 million design/build bridge, an \$80 million high school, a \$45 million detention center, and a \$12 million landfill remediation. Mr. Sanders also developed structural specifications for the Pennsylvania Department of Transportation.

LSA Engineering, Inc. – Lancaster, PA

1999 - 1999

As an Engineer, Mr. Sanders designed steel framing systems, including loading analysis and design calculations for beam, column, and truss elements and connections. His responsibilities included review of structural and architectural plans; development of framing concepts; design of framing systems; development of design presentation packages; and oversight of drafting personnel.

Villanova University – Villanova, PA

1997 - 1998

While obtaining his master's degree, Mr. Sanders worked as a Research Assistant at Villanova University. His research included design, casting, instrumentation, and destructive testing of ferro-cement concrete beams and finite-element modeling of structures.

PUBLICATIONS

- 1. "Bad news should travel fast: a collaborative view of contract notice provisions," International Bar Association, Construction Law International, Vol 18, No 3, October 2023
- 2. "The Theory of Delay: Timing and Basis for Identifying and Measuring Delay," 2023 AACE International Transactions, CDR-4138
- 3. "Demonstrating Entitlement to Cumulative Impact Claims in Construction," Recommended Practice 130R-23, AACE International, 2023 (Contributing Author)
- 4. "The Theory of Delay," 2020 AACE International Transactions, CDR-3415
- 5. "Building Cost Engineering Competence for Public Projects," 2020 AACE International Transactions, TCM-3439 (Co-Author)
- 6. "Identifying the As-Built Critical Path Using Recommended Practice 29R-03," 2019 AACE International Transactions, CDR-3162, republished in Cost Engineering, March/April 2020 (Co-Author)
- 7. "Comparison of the AACE International and ASCE Forensic Scheduling Consensus Documents," 2018 AACE International Transactions, CDR.2845, republished in Cost Engineering, March/April 2019
- 8. "Proposing a Better Definition of Critical Path," 2018 AACE International Transactions, PS.2842, (Co-Author)
- 9. "Schedule Delay Analysis, Standard ANSI/ASCE/CI 67-17," American Society of Civil Engineers, August 2017, (Contributing Author)
- "RP29R-03 MIP 3.5 Observational / Dynamic / Modified or Recreated," 2017 AACE International Transactions, CDR.2662 (Co-Author), republished in The AACE International Source, December 2018, pp. 23-29
- 11. "Guidance for Scheduling Maintenance in Fossil Power Generation," Electric Power Research Institute Product No. 3002006569, Palo Alto, CA, 2015, (Principal Investigator and Author)
- 12. "Revisiting Planned Outage Execution Practices," Electric Power 2015 Conference Proceedings, April 2015, (Co-Author)
- 13. "What the Fossil Plant Owner Wants from the EPC," 2013 AACE International Transactions, OWN.1426

- 14. "The Great Debate: Is CPM Past Its Prime?" 2013 AACE International Transactions, PS.1361 (Co-Author), republished in Cost Engineering January/February 2014
- 15. "Forensic Schedule Analysis: Example Implementations, Part 3," 2012 AACE International Transactions, CDR.870, republished in Cost Engineering, November/December 2013
- 16. "Great Debate 2012: Implementation Considerations between Enterprise Scheduling or Stand-Alone Scheduling," 2012 AACE International Transactions, PS.1015 (Co-Author), republished in Cost Engineering, January/February 2013, pp. 40-45
- 17. "Forensic Schedule Analysis: Example Implementations, Part 2," 2011 AACE International Transactions, CDR.492; republished in Cost Engineering, January 2012, pp. 25-53
- 18. "The Great Debate: Planning and Scheduling from Substantial to Final Completion," 2009 AACE International Transactions, PS.14 (Co-Author), republished in Cost Engineering, October 2010, pp. 9-11
- 19. "Forensic Schedule Analysis: Example Implementation," 2008 AACE International Transactions, CDR.11, re-published in the International Cost Engineering Council's International Cost Management Journal (ICMJ), Volume 8, 2008
- 20. "Forensic Schedule Analysis," Recommended Practice 29R-03, AACE International, 2007 (Contributing Author)
- 21. "Transparent CPM," 2005 AACE International Transactions, PS.08
- 22. "Estimating Lost Labor Productivity in Construction Claims," Recommended Practice 25R-03, AACE International, 2004 (Contributing Author)
- 23. "Systematic Contract Change Review," 2004 AACE International Transactions, PM.19
- 24. "Assessing Methodologies for Quantifying Lost Productivity," 2003 AACE International Transactions, CDR.18 (Co-Author)
- 25. "Comparison of T-Beam Deflection Analysis Using the ACI Effective Stiffness Procedure and Finite Element Analysis," Master's Thesis, Villanova University, 1999

EDUCATION, CERTIFICATIONS & LICENSES

Juris Doctor, William Howard Taft University Law School	2021
Master of Civil Engineering, Villanova University	1998
Bachelor of Civil Engineering, Villanova University	1997

Registered Professional Engineer in Delaware, Maryland, Pennsylvania, and Wisconsin Admitted to the State Bar of California

Association for the Advancement of Cost Engineering, International (AACE International)

- Certified Cost Professional (CCP)
- Certified Planning and Scheduling Professional (PSP)
- Certified Forensic Claims Consultant (CFCC)

Project Management Institute (PMI)

- Certified Project Management Professional (PMP)
- Certified Portfolio Management Professional (PfMP)

Construction Specifications Institute

- Certified Construction Documents Technologist (CDT)

COURSES TAUGHT

Project Controls Academy

- Change Management, 2022
- Commercial Claims Support, 2022
- Forensic Schedule Analysis, 2022

EPCM Project Academy

- Forensic Schedule Analysis, 2018-2020
- Estimating Lost Productivity, 2019-2020
- Planning and Scheduling, 2019-2020

MEMBERSHIPS, POSITIONS & AWARDS

AACE International

- Board of Directors, Secretary, 2021-Current
- Certification Board, Member, 2019-2021

Altran Business Club, Admitted 2015

Altran Senior Leadership Program, Admitted/Completed 2014

American Bar Association

- Forum on Construction Law, 2022-Current

American Society of Civil Engineers

- Construction Institute, Various Years, Current
- Structural Engineering Institute, Various Years
- Schedule Delay Analysis Committee, 2014-Current

Mirant Maryland Air Quality Control System Dickerson Project, Most Valuable Team Member, 2010 Marquette Interchange Project, Recognition from Wisconsin Secretary of Transportation, 2008 Chi Epsilon, Civil Engineering Honor Society, Admitted 1997

Start Year	Client	Client Type	Project Type	Description	Responsibilities
2023	Consorcio Besalco- Stracon – Ramiro Piazze Concha, Contract Administrator	EPC	Public, Inland Waterway	Quebrada El León – Design, permitting, and construction for \$120M in waterway improvements to enhance flood protection and resiliency for 50,000 inhabitants in northwest Perú	Delay analysis, preparation of expert report for decision by binding dispute adjudication board
2023	J. Fletcher Creamer & Sons – Randy Mabie, Project Manager	Contractor General	Private, Power Transmission	Champlain Hudson Power Express, Package 7B – civil works for 7.5-miles of HVDC transmission cable installation for Segment 12, including traffic controls, earthwork, cable vault excavation and installation, and road and drainage restoration	Oversight/review of CPM schedule development and updating
2023	Conti Civil – Greg Kerrigan, Project Executive	Contractor General	Public, Port	PANYNJ Port Street Corridor Improvements – \$100M upgrades to the Port of Newark, including two bridge replacements, roadway reconstruction, drainage upgrades, and utility relocations	Oversight/review of CPM schedule development and updating; issue resolution and site meeting support
2023	Consorcio Besalco- Stracon – Astrid Eliana Villar García, Gerente Técnica	EPC	Public, Inland Waterway	Defensas Ribereñas Río Tumbes, Paquete 2 – \$500M design, permitting, and construction for improvements along 150km of the Tumbes River and its tributaries	Delay analysis, preparation of expert report for decision by binding dispute adjudication board
2022	Agate Construction – Chris Cooper, Project Manager	Contractor General	Public, Highway, Bridge	NJDOT Stickel Bridge Elevator Replacements – Procurement and installation of maintenance elevators for lift bridge	Oversight/review of CPM schedule development and updating
2022	J. Fletcher Creamer & Sons – Daniel Poidomani, Project Engineer	Contractor General	Public, Highway, Bridge	NJDOT Jones Bridge over Rt. 4 – \$24M replacement of existing highway bridge and relocation of four third-party utilities from existing bridge to new bridge; associated roadway and drainage work	Oversight/review of CPM schedule development and updating
2022	SNC Lavalin – Hagire Emrani, Senior Director, Project Controls	EPC	PPP, Transit	Training for change management, claims management, and forensic scheduling, with particular focus on PPP and alliance contracting frameworks in the transit sector	Develop and present 30 hours of training to project controls teams across Canada

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2022	Skanska/Traylor Bros. Joint Venture – Keith Barfoot, Electrical Project Manager; Anthony Cintorrino, Construction Manager	Contractor General	Public, Railway, Bridge	Portal North Bridge – \$1.7B replacement of an existing swing bridge with a high-level fixed span; 2.5-mile total project length for rail traffic through the northeast corridor	Project management for temporary electrical scope
2021	MWAA – Thomas Crone, Program Director	Owner, Public	Public, Transit	MWAA (WMATA) Silverline, Phase II – D/B construction of \$3B, 11.5-mile transit extension and six new stations from Reston, VA to Dulles Airport	Evaluation of subcontractor claims, preparation of seven separate expert reports on major subcontracts; preparation of presentations for DRB sessions
2021	Agate Construction – Chris Cooper, Project Manager	Contractor General	Public, Transit	SEPTA Norristown Slope Stabilization – construction of a river revetment system along the Schuylkill River to protect rail facilities after impacts from Hurricane Ida	CPM schedule development and updating
2020	Metropolitan Municipality of Lima – Sarita Vilchez Castellanos, Gerente, Management of Promotion of Private Investment, Ken Figueroa, Foley Hoag	Owner, Public	Public, Highway	Vías Nuevas de Lima – \$750M, 30-year, PPP concession for the restoration, reconstruction, and operation of toll roads in Lima, Perú	Analysis of delays, cost overruns, scope changes, and contract amendments; preparation of expert reports, expert testimony at UN commercial arbitration
2020	Consorcio Vial Ambo – Romina Segura, Estudio Echecopar	Contractor General	Public, Highway	Oyón-Ambo Highway, Tramo I – construction of 50km of highway in central Perú	Evaluation of delays related to extra work and the COVID-19 pandemic; and preparation of time extension request; replanning after resumption of work

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2019	Concesionaria Chavimochic – Luis Cruzado, Gerente de Obra	EPC	PPP, Water Resources	Chavimochic, Phase III – \$150M construction of a dam and irrigation systems for a 25-year, cofinanced, PPP, build-operate-transfer water resource concession to improve irrigation in 78,310ha in the La Libertad region of Perú	Analysis of termination, demobilization, and cost of work completed to support negotiations between the government and the international construction consortium
2019	J&T Brothers – John Vaida, Project Manager	Contractor Mason	Residential	Renaissance Square, Evesham, NJ – Masonry construction for residential apartment complex	Delay analysis and letter report to negotiate and resolve contract dispute between mason and GC
2019	Centro de Análisis y Resolución de Conflictos de la Pontificia Universidad Católica del Perú (CAPUC)	DRB	Public, Highway	Ayacucho-Abancay Highway, Tramo III – Construction of 55km of highway in south-central Perú	Independent assessment of the partisan expert reports offered by the parties to evaluate methodologies applied, find areas of agreement, and make recommendations directly to the DRB as a neutral expert; preparation of expert report
2017	Sargent & Lundy – Victor Suchodolski, Chairman, President & Chief Executive Officer, Thomas Foley, Senior Vice President & Director of Electric Grid Infrastructure Services, Marty Dore, Senior Vice President & Director	Engineer	Private, Power Substations	Substation engineering program – engineering and design for electric utility substation capital programs for clients including Exelon, First Energy, PSE&G, and Xcel; contracting for specialty services including environmental permitting, geotechnical engineering, and fire protection engineering	Engineering management, contract negotiations, subcontract negotiations
2015	Electric Power Research Institute	Non- Profit	Research	Outage Scheduling Guidance – Research and publication of EPRI's guidance for fossil plant outage scheduling	Principal researcher and author, meeting with EPRI owner members, reviewing best practices, writing, and editing industry consensus document

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2014	Rockland Capital – Jim Maiz, Co-Managing Partner	Owner, Private	Private, Power Gen	Eagle Point Power Generation Energy Recovery Project – EPCM conversion of a 2x1 combined- cycle gas plant with two GE Frame 7EA STGs to a 2x1x1 with the addition of a second condensing steam turbine	Management and project oversight, procurement strategy development and management; risk management
2013	Iberdrola USA – Jorge Juan Nieto Ramos, Director of T&D	Owner, Private	Private, Electric Utility	Substation Upgrade Program—Engineering design for upgrades to five substations in and around Rochester, NY	Negotiated restoration of contract relationship after prior termination; management of completion of deliverables; closure of contract
2012	NRG – Robert Patrick, Vice President, Head of Development, Engineering and Construction	Owner, Private	Landfill, Coal Combustion Residuals	Maryland Ash Management Program – Design and construction for the capping of coal ash storage facilities at three coal-fired power plants in Maryland; design and construction of associated runoff and water treatment facilities	Program management, design and construction contract review, oversight of project management teams
2012	NRG – Mike Bradberry, Senior Project Manager	Owner, Private	Private, Power Gen	Conemaugh Power Plant WWT Expansion—EPC of a first-of-its-kind WWT plant for the removal of boron and selenium from a scrubber waste stream	Project controls program development, integration of EPC contract scope with separate electrical and controls scopes by owner; cost and schedule management
2011	Mirant (now NRG) – Various plant managers	Owner, Private	Private, Power Gen	Fossil Plant Fleet Outages – Boiler reheat tube replacements, generator overhauls, including rotor removal and rewinding, and various balance of plant capital and maintenance work at both coalfired, simple-cycle, and combined-cycle power plants	Scheduling and outage management support across the Mirant Fleet

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2009	PSE&G – Lauren Curcio-Thomas, Managing Director, Transmission Substation Construction & Maintenance	Owner, Private	Private, Electric Utility	Substation Capital Program—Upgrades, expansions, and replacements of transformers, breakers, and associated equipment throughout PSE&G's assets, focused in the southern division	Program management, engineering resource management, budget oversight, revenue reporting, equipment procurement processes; risk management; corporate reporting
2008	China National Nuclear Corporation	Owner, Public	Public, Power Gen	CPR-1000 Fleet Projects at Fuqing, Fangjiashan, and Hainan – Validation & verification of the 1E safety controls systems for eight nuclear units in China; controls systems developed and supplied by Invensys for provision to CNPE, CNNC's state engineering company; V&V services by Altran	Project controls consulting, including CPM schedule development, resource loading and leveling for the validation and verification scope; negotiation for contract scope expansions and extensions; presentations to end-client for program status updates; internal corporate reporting for V&V vendor
2007	Mirant (now NRG) – Robert Patrick, Vice President, Head of Development, Engineering and Construction	Owner, Private	Private, Power Gen.	Mirant Air-Quality Control Systems Program – Analysis of EPC claims on \$1.7B scrubber program	On-site project controls management for the Dickerson flue-gas desulfurization project from 2007 through 2009; negotiated resolution of one \$24M change order for disputed site work; support for overall \$300M in claim resolution including interrogatory responses; procurement and management of civil and permitting scope completion through 2011
2007	Tamburro Bros. Const., Inc. – Steve Horner	Contractor General	Public, Local, K-12	Cumberland County College – New University College building	Preparation of initial CPM schedule and updates

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2006	Allied Painting – Jim Cannon	Contractor Painting	Public, Highway	Painting of ten NJDOT Bridges on I-76 including one over Conrail facilities; and painting of a lift bridge for NYDOT	Evaluate claim issues based on inability to access NJDOT work due to lack of agreement with Conrail and inability to access NYDOT work due to restrictions on working in waterway (above and beyond those outlined in the contract); prepare contract modification/completion letter for NJDOT
2006	Kitchen King – Terry Barth	Contractor Cabinetry	Private, Residential,	Design, supply, and installation of \$40,000 kitchen cabinetry in Millstone Township, NJ	Evaluate contract requirements against delivered and installed products; evaluate
	Anthony Locascio – Cabinetry Gold, Albanese & Barletti (Counsel)		issues identified by owner and owner's consultants with regard to quality of design and installation as compared to industry standards and contract requirements; provide deposition testimony as expert witness		
2006	Hanson PLC (U.S. Brick)	Supplier	Private, Resid.	Newstead Condominium—Water infiltration and delamination of thin brick façade (U.S. Brick	Review causes of failure; develop estimate for replacement of façade;
	RFBC (counsel) – Linda Bennett			Systems)	review warranty issues and assess manufacturer's responsibility for replacement costs; expert report preparation
2006	Concetta's, Inc. – Lorenzo Morgera	Owner, Private	Private, Commercial Renovation	Renovation of mixed-use (commercial/residential) properties at 46 and 48 W. Main St. in Freehold, NJ; project value ~\$200,000	Evaluate performance of general contractor and cost of performance;
	Anthony Locascio – Gold, Albanese & Barletti (Counsel)			ns, project value ~\$200,000	termination issues; completion cost issues; testified at deposition
2006	Tamburro Bros. Const., Inc. – Steve Horner	Contractor General	Public, Local, K-12	Egg Harbor Intermediate School – Additions and renovations	Preparation of initial CPM schedule and supervision of updating

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2006	Tamburro Bros. Const., Inc. – Steve Horner	Contractor General	Public, Local, K-12	Egg Harbor Davenport and Slaybaugh Schools – Two new schools totaling \$25M on existing district properties	Preparation of initial CPM schedules and supervision of updating and preparation of plans for recovery of initial permitting delays and slower-than-expected progress; claims avoidance; preparation of methodology for weekly progress reporting; execution and supervision of weekly progress reporting
2006	Mirant Power	Owner, Private	Private, Power	Mirant Lovett Plant—Initial turnaround planning	Prepare overview schedules for long-term management and planning of shutdown work; review shutdown management processes and develop management process improvements
2006	Haddonfield Mews Condominium Association	Owner, Private	Private, Residential	Haddonfield Mews Siding and Roof Replacement—\$1M replacement of cedar siding and roofs with new siding and a standing seam metal roof	Prepare overview schedule, miscellaneous project issues
2005	Tamburro Bros. Const., Inc. – Steve Horner	Contractor General	Public, Local, K-12	Mary Bray Elementary School, Mt. Ephraim, NJ – Consulting and preparation of recovery plan for completion of expansion to elementary school in time for use of classroom space by 2005-2006 school year	Consulting with project manager and preparation of recovery plan acceptable to owner; claim avoidance
2005	Warren Lightning Rod	Contractor Electrical	Public, Federal	TSA Office Building – Installation of lightning protection systems on office building occupied by TSA	Preparation of initial CPM schedule and updates
2005	PBP Realty –	Developer	Private,	Paris Business Products—\$4 million office and	Delay analysis; evaluate
	Andy Cohen, Counsel, Gerstein & Grayson, LLP	Private	Industrial Building/ Warehouse	warehouse building in Westampton Township, Burlington County, NJ; cast-on-site, tilt-up concrete wall panels; standing-seam metal roof	incentive/disincentive contract payment issue; draft letter report

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2004	Pivnick Realty –	Owner,	Private,	Whispering Waters – \$500k renovation of housing	Review termination issues; draft letter
	David Pivnick, President	Private (public funding)	Housing, Renovation	with Dept. of Agriculture funding in Salem, NJ	report with opinions and recommendations
2004	W. H. Streit, Inc	Contractor	Private,	Case Wharf Revetment – construction of a	Disruption and productivity analysis
	Jim Streit, President	Marine	Marine	\$450,000 underwater revetment, consisting of 300 sand-filled geo-bags	based on applied manpower and equipment hours v. units placed; preparation of request for equitable adjustment to contract; preparation of materials for mediation; mediation consultation.
2004	Scalfo Electric –	Contractor	Municipal	Vineland Veterans Home – \$5.5 million electrical contract and \$10 million total mechanical contracts on a multi-prime project including demolition, renovation, and new construction; \$50 million total project value.	Perform delay and lost productivity analysis to evaluate impacts to electrical and HVAC contractor and two key subcontractors; resource-loaded baseline schedules and performed usage and escalation analyses using planned v. earned v. actual manhours.; prepared expert reports; testified at trial in state court; later provided additional expert support during final settlement discussions
	Richard Grouser, President	Electrical, Contractor			
	Falasca Mechanical –	Mech.			
	Mark van Leuven, Project Manager				
2004	Nelson & Associates –	Owner,	Private,	226 Walnut St construction of ~\$1.2 million in	Analysis of contract and working
	John Nelson, R.A.	Private, Interiors Architect	Interiors	interior work for the conversion of an insurance company office into an architect's office within an historically significant structure (façade only subject to preservation); issues included cost overruns on the electrical work; work was performed without a written contract	condition issues, cost analysis, expert report preparation, preparation of materials for mediation, mediation consultation.

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2004	Boston Power Group – Art Castelli	Contractor Mech.	Private, Power	American National Power, Bellingham, MA Plant - \$24M mechanical erection contract for the construction of a power plant including two Alstom GT24 units (gas fired turbines with in-line steam turbines)	Evaluation of bid; evaluation of claim; preparation of counter-claim; preparation of estimate to complete outstanding scope of work; analysis of issues including validity of lump-sum estimate, recovery of time-and-materials costs, delays, disruptions, and termination; expert report development; brief preparation; live support during arbitration
2004	A&K Excavating –	Contractor	Public, Local,	Manasquan Reservoir Environmental Center –	Delay analysis, issue analysis, cost
	Shawn Mowery, President	General	Municipal	Construction of an environmental education center, including serpentine concrete walls; issues included the specification of an architectural (versus structural) standing-seam (galvalume) roof system	analysis, expert report preparation
2004	WisDOT –	Owner,	Public, State,	Marquette Interchange Reconstruction—\$810	Development of mobilization, ADR, and
	James Forseth, Program Management Supervisor; Barbara Mikolaczyk Financial Management Supervisor; Jerry Zogg, Chief Specifications Engineer; Jay Obenberger, Program Scheduler	Public	Highway	million reconstruction of the interchange between I-43, I-94, and I-794 in downtown Milwaukee	scheduling specifications; development of construction management plan; development and management of overall program schedule and budget reporting for 100+ contracts; program management; program controls system development; review of contractor schedules; cost and schedule reporting to upper management; program financial management planning; provision of project controls training for WisDOT staff; negotiation of delay issues on major contracts; overall four-year program completed on schedule and under budget; largest project in WisDOT history at the time

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2004	LSA Engineering – Don Young	Engineer	Various Commercial	Design of light-gage steel framing systems for Garden Spot Health Center, Precision Medical, and Ursinus University	Design of steel framing, accessories, and connections
2003	The College of New Jersey – Brian Murray, Director of Campus Planning	Owner, Public	Public, Educational, College	Construction of a \$26 million, three-story science complex including physics and chemistry laboratories, planetarium, and two observatories.	Claims avoidance, analysis and negotiation of change orders and contract close-out for general contractor, plumbing contractor, electrical contractor, etc.; Audit of labor costs for T&M change orders >3,000 individual work invoices; RFP for completion of GC punchlist; analysis of project change issues for cause and responsibility
	Tompkins, McGuire, Wachenfeld & Barry – Eugene Sullivan				
2003	Keating Building Corp., Inc. –	Contractor General	Public, Local, Housing	Philadelphia Housing Authority/Whitehall Apartments, Phase IV – Renovations to nine apartment buildings totaling ~\$4M	Initial CPM schedule, schedule revisions, and supervision of updating
	John Minutella, Project Manager				
2003	Roland Aristone, Inc.	Contractor General	Public, Local, K-12	Berkeley Twp 5 th and 6 th grade school – Construction of new \$15 million elementary school	Preparation of 90-day preliminary CPM schedule
	Mike Capper, Project Manager				
2003	T.N. Ward Company	Contractor	Public, Local,	Penn Valley Elementary School - Construction of	Initial CPM schedule and supervision of
	Michele Jones, Project Manager	General	K-12	three additions totaling 10,000 sq. ft. and renovation of existing 85,000 sq. ft. elementary school in nine phases. (\$12M)	updating
2003	Keating Building Corp., Inc. –	Contractor General	Public, Local, Housing	Philadelphia Housing Authority/Hill Creek Apartments, Phase III – Renovations to four apartment buildings totaling ~\$4M	Initial CPM schedule, schedule revisions to incorporate change orders and project conditions, and supervision of updating
	John Minutella, Project Manager				

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2003	Keating Building Corp., Inc. –	Contractor General	Public, Local, Housing	Philadelphia Housing Authority/Whitehall Apartments, Phase III – Renovations to three	Initial CPM schedule, schedule revisions schedule revisions to incorporate change
	John Minutella, Project Manager			apartment buildings totaling ~\$3.5M	orders and project conditions, and supervision of updating
2003	Tamburro Bros. –	Contractor	Public, Local,	Moorestown Upper Elementary School – \$10	Perform delay analysis and evaluate
	Ray Tamburro, President	General	K-12	million general contract on ~\$20 million elementary school; new construction.	delays to building and sitework; perform cost analysis; graphical delay analysis presentation; expert report preparation.
2003	Fletcher-Harlee, Inc.; Cohen, Seglias, et al. (counsel) –	Contractor General	Public, Local, K-12	Pocopson Elementary School – Construction of a new elementary school in Chester Co., Pennsylvania	Interrogatory responses; analysis of delays related to foundation problems and remediation; masonry delays; structural steel delays, etc.
	John Greenhall,				
	Lane Kelman				
2003	Structural Concepts, Inc., Peter Moutis (counsel) –	Contractor General	r Public, Educational, College	tional, \$4 million underground three-pipe steam system	Review of claims, RFIs, analysis of delays and disruptions.
	Peter Moutis				
2003	The College of New Jersey – Brian Murray, Director of Campus Planning	Owner, Public,	Public, Educational, College	TCNJ Science Complex – Construction of a \$26 million, three-story science complex including physics and chemistry laboratories and two observatories.	Review of 960+ change orders and classification as errors and omissions, scope additions, field conditions, etc.; determination and analysis of claim issues.
	Tompkins, McGuire, Wachenfeld & Barry – Eugene Sullivan				

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2003	E. Bock & Son Const. –	Contractor General	Public, Local, Housing	McGuire Gardens – Two-phase renovation of approximately 30 buildings in a Camden Housing Authority complex.	Change order analysis; delay analysis; development of arguments and presentation for mediation of a \$2.3M delay claim by the general contractor
	David Gill, Project Manager				
2003	Overlook Condominium Association, Greenbaum, Rowe, Smith, Ravin, Davis & Himmel	Owner, Private	Private, Commercial	Overlook Medical Center –Four-story medical office condominium complex attached to Overlook Hospital in northern NJ.	Above-ceiling inspections throughout complex and inspection report on fire code compliance.
2003	Oppenheimer, Wolf & Donnelly LLP	Developer	Private, Residential	Broadway Plaza – Design of a \$40-\$70M, nineteen story apartment complex in Rochester, MN (Cost of construction was principal issue).	Analysis of ~40 design issues to determine their origin and effect on project cost; expert report preparation
2002	DKM Residential Properties Corp. –	Developer	Residential	Cherry Valley Homes – Development of ~550 single-family residences in Skillman, NJ; review of water damage associated with EIFS panels around windows and roof flashing	Inspect damage to two residences, observe repair procedures, prepare inspection report.
	John Broderick, Project Manager				
	Golden Rothschild et al. (counsel) –				
	Scott Stiehl				

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2002	J.M. Brown, Inc. –	Contractor General (CM)	Private, Office Building	Harborside Plaza 10 – J.M. Brown constructed an 18-story office building for Mack-Cali under a CM –GMP agreement. The electrical subK, Kleinknecht Electrical Contractors (KEC) submitted a request for \$2.8MM in additional compensation due to delays/inefficiencies.	Review change order request, identify issues, develop as-built schedule, analyze issues for entitlement and damages, participate in mediation discussions.
	Mike Preston, Project Executive				
	Cohen, Seglias, Pallas & Greenhall (Counsel) –				
	Roy Cohen, Ed DeLisle				
2002	Perskie, Nehmad & Perillo, counsel for Feriozzi Concrete Co.	Contractor Concrete	Public, Local, Fountain	Atlantic Plaza Fountain – A one acre seascape fountain was constructed for the Casino Reinvestment Development Authority (CRDA) in 1997 by Feriozzi Concrete.	Site review, including coring and removals by owner's consultants; photograph and prepare field report; review owner's consultants' report; analysis of design and construction issues including concrete slab-on-grade, membrane waterproofing, piping, and fountain performance; expert report preparation.
2002	Alvin H. Butz –	Contractor General	Private, Educational, College	Valley Forge Christian College – New library construction using cast-on-site, tilt-up wall panels	Development of as-built; Review issue files and develop document chronologies; cost and manpower analysis; development of presentation charts and exhibits for mediation.
	Tom Hyland, Project Manager				
2002	Ray Angelini, Inc. Chuck McCormick, Project Manager	Contractor Electrical	Public, Local, K-12	Franklin Elementary School – Addition and renovations to Benjamin Franklin Elementary School in the School District of Philadelphia, PA (electrical work)	Review project documentation, delay analysis, inefficiency analysis, damages, prepare report for request for equitable adjustment

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2002	Trataros Construction, Inc.	Contractor General	Public, Local, Transit	MTA Job Order Contracts – Six projects for the New York City Transit (NYCT) Division of the Metropolitan Transportation Authority (MTA) constructed under the JOCS Program; projects included the construction of nine communications rooms (two projects), tiles and signs at 145 th Street Station, installation of a cold-storage unit at the Transit Museum, bridge replacement at 240 th Street Station, and expansion of the Murphy Tower control center.	Review request for time extensions submitted by Trataros; identify delay issues; perform fragnet analysis of schedules (impacted updates); report preparation to support request for time extensions.
	Tom Asimopolous, Project Manager				
2002	The Poole & Kent Company	Contractor Mech.	Public, Local, Prison	Baltimore Juvenile Justice Center – Construction of a \$45 million juvenile justice center for the City of Baltimore; structure consisted of a three-story administrative building, including courtrooms, and an adjoining 2-story, 150,000-square-foot detention center.	Identify claim issues, perform inefficiency analysis of masonry work, report preparation for request for equitable adjustment.
	Donald Campbell, Project Manager				
2002	Trataros Construction, Inc. –	Contractor General	Public, Institutional	Queens College/Powdermaker Hall – Renovations and additions to a three-story classroom building.	Prepare recovery schedules with Project Manager.
	Walter Bartels, Project Manager				
2002	Trataros Construction, Inc.	Contractor General	Public, Federal, Institutional	West Point Gymnasium – \$4 million gymnasium at the U.S. Military Academy	Initial CPM schedule and updates
	Tom Asimopolous, Project Manager				
2002	Tormee Construction, Inc.	Contractor General	Public, Local, K-12	Jackson Township Elementary School	Initial CPM schedule and updates
	Scott Havard, Project Manager				

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2002	Tamburro Bros. Construction, Inc.	Contractor General	Public, Local, K-12	Miller Elementary School – New 3 rd – 4 th grade school in Egg Harbor, NJ	Prepare initial CPM schedule
	Steve Horner, Project Manager				
2002	Tamburro Bros. Construction, Inc.	Contractor General	Public, Local, K-12	New school in Cape May Courthouse, NJ	Prepare initial CPM schedule and updates
	Steve Horner, Project Manager				
2002	MDSHA, District 2	Owner, Public	Public, State, Highway	MD 213 in Elkton, MD – Streetscape project including paving, brick paver walks, and relocation of all utilities from poles to underground conduits	Review of contractor's CPM schedules, evaluation of delay issues and contractor's time extension requests, assistance with negotiations for time extensions
	Norris Embert, Project Manager				
2001	St. Paul, Venable Baetjer & Howard	Surety	Public, Local, Housing	Richard Allen Homes – \$12 million public housing project for the Philadelphia Public Housing Authority; conversion of two-, three, and four-story apartment buildings into town homes; general contractor was terminated and St. Paul was called upon to complete.	Evaluate status of project at the time of surety's takeover based on payment applications, surety's reports, and videos; Evaluate surety's relet process; report preparation
	Jennifer Horn, Dan China (Venable)				
2001	Housing Authority of New Orleans (HANO); Deutsch Kerrigan & Stiles	Owner, Public	Public, Local, Housing	Iberville Housing Development – \$4 million modernization of a housing development with the installation of new sewer, drain, and water systems	Review contractor's \$1.3 million claim, review project issues including delays, inefficiency, extra work, and interest on late payments, perform Eichleay
	Charles Seemann (DKS)				calculation of home office overhead, delay/inefficiency damage analysis, prepare report, presentation at formal mediation sessions

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2001	NJDOT,	Owner, Public	Public, State, Highway	Rt. 35 Section 12T, Victory Bridge – \$85 million Replacement of a steel truss bridge with a high- level pre-stressed, post-tensioned, segmental concrete box-girder bridge and associated approach and intersection work	Review of contractor's CPM schedules, evaluation of delay issues
	Nat Kasbekar, Project Manager				
2001	The Poole & Kent Company	Contractor Mech.	Public, Authority, Convention Center	Washington D.C. Convention Center – \$750 million 2.3-million-square-foot convention center (\$40 million mechanical systems)	Prepare revised CPM schedule for mechanical work after project experienced early delays related to structural steel erection
	Ken Flummer, Project Controls Manager				
2001	Framan Mechanical, Inc.	Contractor Mech.	Public, State, Institutional	Woodbridge Developmental Center Fire Prot. System – \$4.5 million fire alarm and sprinkler retrofit of 23 structures on one campus	Initial CPM and updates
	Frank Manginelli, President				
2001	Tamburro Bros. Construction, Inc.	Contractor General	Public, Local, K-12	Hammonton Early Education Center – New \$10 million pre-K, K, and 1st grade building	Initial CPM and updates
	Steve Horner, Project Manager				
2001	FHWA, James Sorenson, Director of Asset Management	Owner, Public	Public, Federal, Highway	National Highway Specifications Website – Development of a website making all state highway specifications available nationally for use and comment	Project management and planning/scope development; research into the specifications writing and maintenance practices of 50+ DOTs, preparation of report on best practices in highway specification development; oversight of website and database development contractor to facilitate specification knowledge sharing between all DOTs.

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2001	Travelers –	Surety	Public, Local, K-12	Rancocas Valley High School – Construction of a new high school after termination of original general contractor	Evaluation of project status to determine whether principal's delays were excusable
	Bob Roberts				
2000	Department of Veterans Affairs	Owner, Public	Public, Federal, Hospital	VA Detroit Medical Center – Construction of a new \$230 million medical center	Review of contractors delay analysis (impacted updates as required by VA) and report preparation (\$68 million claim)
2000	Coakley Landfill Group	Owner, Private	Public, Landfill	Coakley Landfill – \$12 million environmental remediation and capping of a 25-acre landfill	Cost analysis of general contractors delay damages
2000	USF&G Wolf Block Schorr & Solis-Cohen	Surety	Public, Federal, Hospital	VA West Haven Medical Center – Construction of a \$10 million metal-panel and glass curtainwall building envelope and associated renovations of a hospital.	Review of project, identification of delay issues, damage analysis, report preparation, assistance with depositions and mediation
2000	Kullman Industries	Contractor General (modular)	Public, County, Prison	Essex County Women's Detention Center – Construction of a \$11 million modular women's detention center for Essex County, NJ	Review of project, delay analysis, report preparation
2000	South Florida Water Management District	Owner, Public	Public, State	SFWMD EOC Addition – Construction of a \$2.8 million Emergency Operations Center addition to an operations building	Review of project, delay analysis, report preparation
2000	Helix Electric	Contractor Electrical	Private, Casino	The Resort at Summerlin – Electrical installations in a new \$276M resort complex including two hotels, a parking garage, and a casino.	Prepare an as-built schedule of electrical work
2000	Tamburro Bros. Construction, Inc.	Contractor General	Public, Local, K-12	Moorestown Elementary School	Prepare CPM Schedule updates
	Steve Horner, Project Manager				

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2000	PENNDOT, Dave Azzato, P.E., Chief of Contract Management Division/Bureau of Design, Scott Vottero, P.E., Specifications Review Section CMD/BOD	Owner, Public	Public, State, Highway	PENNDOT Pub 408 e-spec – Development of technical and editorial revisions to PENNDOT's Standard Specifications and development of a web-based, multi-media enhanced specifications book	Project management and planning, meet with Central Office and District Structural Control Engineers and contractors, research, develop, and draft revisions to Section 1000, Structures.
2000	Washington Metropolitan Area Transportation Authority (WMATA) Frank Mihevic	Owner, Public	Public, Local, Transit	WMATA Project Management Plan – Development of a generalized project management plan for use as a template plan for Washington Metropolitan Transit Authority capital projects.	Drafting of a project management plan based on agency procedures, FTA requirements, and discussions with Authority personnel
1999	Atlantic City Board of Education; Donald J. Targan Associates	Owner, Public	Public, Local, K-12	Atlantic City High School – Construction of an \$80 million high school.	Review of project, review of claims by the general and electrical prime contractors, analysis of issues including foundation installation and electrical installation, report preparation
	Donald Targan, Leo Dubler				
1999	LSA Engineering – Don Young	Engineer	Various, Residential and Commercial	Design of light-gage steel framing systems including three Giant supermarkets, Villanova field house and Bartley Hall, Notre Dame Academy, Simpson House retirement home, etc.	Design of steel framing, accessories, and connections
1997	Brandywine Valley Engineers (Vollmer Associates, now Pennoni)	Engineer	Various, Residential and Commercial	Projects including residential developments and an ice rink in Aston Township, PA; a church in Edgmont Township, PA; and Aston Township's annual roadway construction program	Inspection of land development and roadway construction projects for conformance to specifications