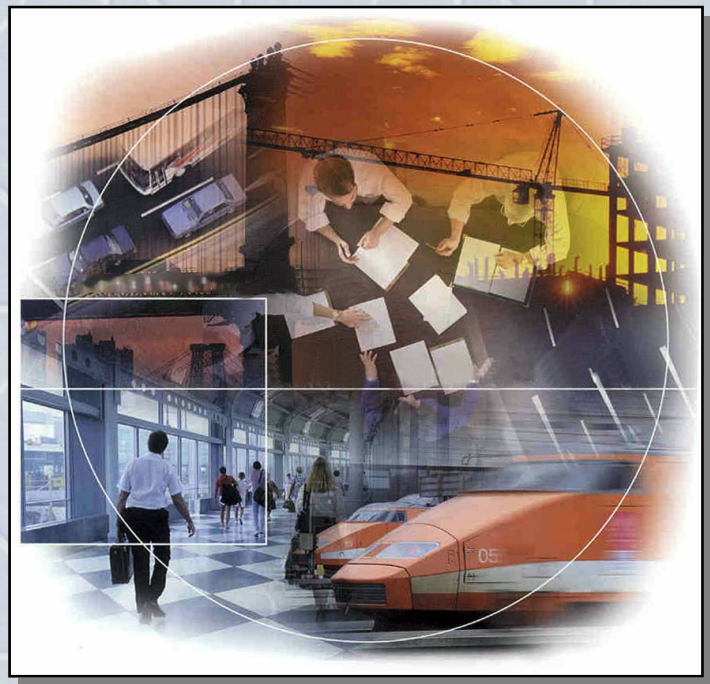


Trauner Consulting Services, Inc.

Transportation Services, Capabilities, and Experience



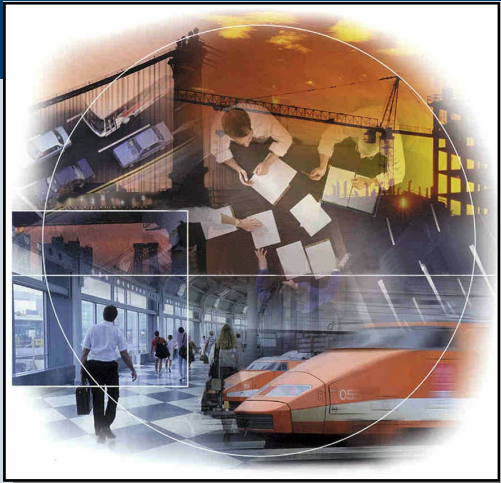


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Trauner Consulting Services, Inc.

Corporate Overview

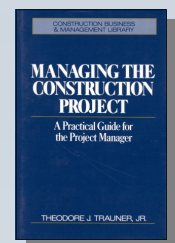
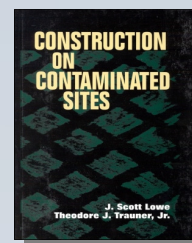
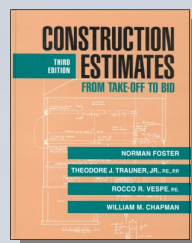
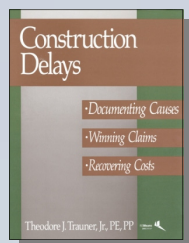
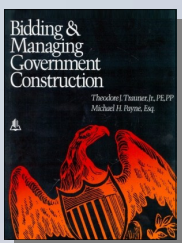
Claims Management, CPM Schedule Analysis, and Training Services

Trauner Consulting Services, Inc. is a professional construction consulting firm providing technical and management consulting services to the Transportation Industry. Construction Claims Management, CPM Schedule Development, Schedule Analysis and Professional Training are among the cadre of services performed for Department's of Transportation across the nation.

Trauner is often engaged during the early stages of project development to review the contract, specifications and bidding documents with a trained eye towards avoiding claims and resolving disputes. We provide assistance with bid evaluations and contractor selection, schedule development and staff training.

During construction Trauner is called upon to provide REALTIME Claims Management services, a concept developed by Trauner. This approach encompasses change order evaluations, schedule and cost impacts, and dispute resolution techniques in real time to avoid costly construction claims. In addition, we can perform constructability reviews and value engineering services. A more comprehensive description of REALTIME Claims Management is included at the end of this section for your review.

The firm has been providing these services to owners, construction managers, design professionals, contractors, sureties and the attorneys who represent them for over twenty years. The firm has published five texts: *Bidding and Managing Government Construction*; *Construction Delays*; *Construction Estimates - From Take-off to Bid*; *Construction on Contaminated Sites*; and *Managing The Construction Project*, all of which are highly regarded in the industry.



Trauner's team of experts represents all areas of design and construction. They are engineers, schedulers, estimators, specification writers, accountants and construction management professionals. With a proven track record of results, they have worked on virtually every conceivable type of construction project for a variety of clients including local, state, and federal government agencies, municipalities, and private corporations. Project types include transportation, entertainment, educational, medical, industrial, environmental, commercial and power.

Trauner Consulting Services, Inc.

General Competence and Knowledge

Trauner Consulting Services has contributed significantly to the body of knowledge in the construction arena, specifically regarding CPM Scheduling and Claims Management, and thus embodies the true definition of an expert in its field.

The firm proudly points to the following as evidence to this expertise:

- Trauner has authored five highly regarded construction texts as identified above, as well as numerous technical articles in national periodicals including *Roads and Bridges*, *Construction Litigation Reporter*, *Constructor* and other respected industry publications.
- Trauner, under contract with the Federal Highway Administration, has trained over 10,000 transportation professionals nationwide in CPM scheduling, Claims Avoidance, and Highway Specification Writing.
- Trauner participates in Federal Highway Accelerated Construction Technology Transfer (ACTT) program as an Innovative Contracting Team Leader.
- Trauner is a member of a team tasked with updating and rewriting the AASHTO Design-Build Specification.
- Trauner researched and published a "Guidebook to Highway Contracting for Innovation: The Role of Procurement and Contracting Approaches in Facilitating the Implementation of Research Findings", National Cooperative Highway Program (NCHRP) Report 428 for the Transportation Research Board.
- Trauner researched and published a "Synthesis of Highway Practice regarding Compensation for Contractors' Home Office Overhead", National Cooperative Highway Program (NCHRP) Synthesis 315 for the Transportation Research Board.
- Trauner has developed and successfully implemented REALTIME Claims Management as a proprietary approach to evaluate and resolve disputes as they occur on transportation construction projects.
- Trauner has participated in Primavera Systems, Inc. on-line Webinar series as the featured expert speaker. The web-based seminar was entitled "Avoiding Irrecoverable Delays" and was broadcast to an international audience.
- Trauner is also working closely with Primavera to develop a model "CPM Scheduling Specification" and provides training to Primavera's in-house sales force on construction.
- Trauner's senior professionals have testified as expert witnesses before various tribunals on over 75 occasions regarding issues of delay, disruption, inefficiency, acceleration, termination, differing site conditions, excessive changes, design defects, liability for delays, extra work, and project scheduling.

Trauner is adept at scheduling and managing diverse, complex assignments within tight time constraints and delivering the highest quality work product. The firm is certified and is intimately familiar with all of the Primavera scheduling software packages available, including Primavera Project Planner (P3) and SureTrak Project Manager. Trauner is designated by Primavera as a source for their beta testing efforts of newly developed scheduling software. In addition to Primavera, the firm is also familiar with and experienced in Microsoft Project software.

Trauner Consulting Services, Inc.

REALTIME Claims Management

REALTIME Claims Management is a formal claims avoidance - claims resolution program. It is a comprehensive approach implemented at the beginning of a project. Claims analysts working in this program are not required to be present everyday at the site; they are engaged only when needed, thus reducing costs.

We would review the special provisions and modify certain provisions if necessary to re-allocate or better manage risk.

Examples would be to review the proposed contract language to produce a clear, concise, complete contract that protects the owner while defining clearly for the contractor its responsibilities and the time frames for meeting those responsibilities. Review the changes clause to ensure it identifies required actions needed to be taken by the parties when a change occurs, who must act, and by when. The changes clause should also be properly coordinated with the scheduling clause, the extra work clause, the claims clause, the payment clause, and notice provisions. Review of contract provisions, a review and documentation of change order procedures would be examined.

Under the REALTIME Claims Management program, the claims consultant would regularly review correspondence, meeting minutes, proposed changes, and other project reports and information. The claims consultant would review all time impact analyses performed. The review would examine and report on potential claims, but would also make recommendations on any time requests. For example, recommendations would be made to correct the time impact analysis or to provide supporting documentation for entitlement.

If deemed necessary, the project staff could be trained on the procedures identified above and on the concepts of claims avoidance and claims management.



Theodore J. Trauner, Jr., P.E., P.P.

Principal, Chief Executive Officer

Education:

Master of Business Administration,
Long Island University,
1977

Master of Engineering,
Structural Engineering and
Structural Mechanics,
University of California,
1974

Bachelor of Science,
General Engineering,
United States Military
Academy, 1968

Registrations:

Professional Engineer in
AZ, CA, CO, CT, DE, FL,
GA, KT, MD, MI, MS, NJ,
NY, PA, TX, TN, VA, WA,
and PR

Professional Planner in NJ

Publications:

Construction Delays

*Bidding and Managing
Government Construction*

*Construction Estimates from
Take Off to Bid*

*Managing the
Construction Project*

*Construction on
Contaminated Sites*

With nearly 40 years of relevant experience, Ted is a nationally recognized expert in the interpretation of contract documents, management of construction projects, and the analysis and resolution of construction claims involving design defects, delay, inefficiency, impact costs, differing site conditions, acceleration, and termination. Projects include multi-million dollar capital projects; subsurface and tunneling; local, state, and federal government facilities; rail and transit; highways, roads, and bridges; dams; airports; and commercial structures. He has provided expert witness testimony before the Armed Services Board of Contract Appeals, the Engineers Board of Contract Appeals, the United States District Court for the Southern District of New York, the Superior Court of the State of California, and various other Federal, State, and District Courts. In all, Ted has testified in excess of 80 occasions.

Ted served as Technical Advisor for Trauner's contract to provide REALTIME Claims Management on the \$2.4B Alameda Corridor Project. During this four year project, Ted was responsible for due diligence review of the change order process, recommending negotiating positions and strategies, and ultimately, for providing recommendations on the resolution of any outstanding claims.

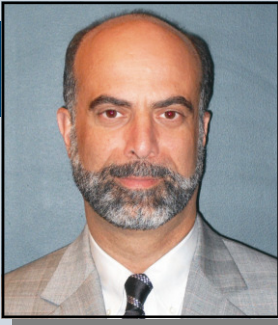
Ted evaluated the delays to the Eugene Talmadge Memorial Bridge project in Savannah, Georgia. This entailed reviewing daily inspection reports, meeting minutes, progress reports, schedules, and all available project correspondence. Ted performed a delay analysis and prepared a report of delays and liability for delays. As a result, Ted provided litigation support and expert testimony.

Ted assisted the Massachusetts Turnpike Authority evaluate and resolve high-dollar, complex claims and disputes associated with the Central Artery/Tunnel project. Services included analysis of and opinions concerning design/engineering/construction management claims asserted by contractors.

Ted assisted PENNDOT in its defense of a \$23M claim related to the central section of the Route 30 Bypass. The project involved the improvement of 2.5 miles of Route 30 and 1.5 miles of Route 283 around the City of Lancaster. Ted directed document review and project orientation, development of an electronic as-built schedule of the overall project, delay and inefficiency analysis, determination of liability, evaluation of claimed damages, report preparation, participation in discovery, and participated in litigation support/testimony.

Ted analyzed a \$45M delay and inefficiency claim involving construction and renovation of the \$197M Chesapeake Bay Bridge. Ted assisted in the preparation of graphics and assisted with mediation proceedings, which resulted in a favorable settlement for the parties involved.

Ted testified before the Ohio State Board of Contract Appeals on the issues of delay, disruption, and inefficiency associated with the construction of roadway, ramps, three new bridges, and the widening of a bridge, for a section of Interstate Highway 670 (I-670) in Columbus, Ohio.



William A. Manginelli
Principal

Education:

Bachelor of Science,
Marine (Mechanical)
Engineering, U.S. Merchant
Marine Academy, 1980

Certifications:

Certified Construction
Documents Technologist,
Construction Specification
Institute

United States Coast Guard,
Licensed Third Assistant
Engineer

Bill is a seasoned construction professional and for 15 years he has provided expert advise and claims analysis services on complex construction projects ranging from highways, roads, and bridges to landfills, utility relocation, and mechanical systems.

Bill is qualified as an expert in the areas of construction scheduling and delay analysis, construction productivity and efficiency analysis, and oversight. He has provided expert witness testimony before the American Arbitration Association, the Armed Services Board of Contract Appeals, Federal and State courts including U.S. District Courts, State Superior Courts, and in other forms of disputes resolution.

Bill's diversified experience includes all aspects of design and construction claims analysis and resolution on large sophisticated projects. His expertise encompasses differing site conditions, delay, impact, disruption and acceleration analysis, negotiations, mediation, litigation support and expert testimony. He has analyzed and assisted in the resolution of design and construction claims on a wide variety of projects including high profile and complex transportation projects.

Bill performed a senior level review of the delay analysis Trauner provided the Minnesota Department of Transportation (Mn/DOT) regarding the \$7.3M grading project on Trunk Highway 23. Bill also attended a project meeting and provided Mn/DOT with advice regarding their negotiation strategy with the Contractor. Bill has also been involved in the analysis of a \$10M claim submitted to the Pennsylvania Department of Transportation on the \$46M SR 222.

Bill provided senior-level oversight on two major bridge projects for the Connecticut Department of Transportation. On the first project, he managed the preparation of a claims analysis in defense of the contractor for performance and delays during the \$49M re-construction of I-95 in Bridgeport, Connecticut.

Bill also directed construction consulting services for the \$90M Tomlinson Bridge project in New Haven, Connecticut. His responsibilities included evaluating project performance to determine delays and extra work. He evaluated steel plant production to determine impacts to the steel fabrication schedule.

Bill directed the efforts to provide schedule review and claims analysis services for the Maryland State Highway Administration for nearly 15 years on over 15 projects. One assignment was a \$5.1M project that involved the removal, disposal, and replacement of the existing bridges on MD333 over Peachblossom Creek and Trippe Creek in Talbot County, Maryland. For this project, he reviewed and critiqued analysis and reports concerning construction productivity and delays encountered, liability for the delays, and damage calculation.

Bill assisted the State of New Jersey, Department of Transportation in the evaluation of delays and provided options for resequencing the work on the last remaining portion of the \$47M Watson's Creek Expressway. He directed the preparation of a completion schedule that required the development of innovative construction techniques and the resequencing of the work.

Bill directed the services performed for the contractor in its attempt to recover on a claim made by a structural steel subcontractor related to the widening of the Charter Oak Bridge in Hartford, Connecticut. Issues centered around the contractor's inefficient erection of the steel due to structural steel design errors and omissions.





J. Scott Lowe, P.E.
Principal

Education:

Bachelor of Science,
Civil Engineering,
Northwestern University,
1981

Registrations:

Registered Professional
Engineer in Delaware,
Florida, Louisiana,
Maryland, New York,
North Carolina,
Pennsylvania, and
Wyoming

Certifications:

Certified Construction
Documents Technologist,
Construction Specifications
Institute

Professional Affiliations:

Member, American Society
of Civil Engineers

Publications:

Construction on
Contaminated Sites

Scott's expertise lies in the areas of construction claims analysis and dispute resolution, schedule analysis, inefficiency analysis, liability analysis, and cost analysis. Claims prepared or analyzed by Scott have been presented before arbitration panels sanctioned by the American Arbitration Association, the Maryland State Board of Contract Appeals, the Armed Services Board of Contract Appeals, State Contract Appeals Boards, and in mediations and other forms of alternative dispute resolution processes. He has extensive experience in the preparation of expert reports, trial exhibits, written testimony, interrogatories, discovery requests, and questions for depositions and cross examination. In addition, Scott has testified as an expert witness on the issues of delay, responsibility for delay, inefficiency, damages, contract interpretation and other issues.

As Principal, Scott is responsible for quality control and quality assurance reviews on most of Trauner's construction claims and document development projects. Thus, he has provided technical review on projects for a variety of transportation agencies.

Scott was Project Executive for a construction claims management contract with Michigan Department of Transportation (MIDOT). One of the associated projects involved the reconstruction of M-59, a depressed expressway, in Detroit. Services included the review of project documents including plans and specifications, change orders, daily reports, and correspondence; delay analysis; schedule review and analysis; preparation of an as-built schedule; determination of responsibility for delays; critique of contractor's delay costs; and a review of time extension analysis by MIDOT. Scott also assisted MIDOT in the analysis of an \$8M claim regarding cost overruns and their impact on the construction of the Blue Water Bridge.

As Project Executive for construction consulting and claims analysis services under a five-year term contract with the Washington Metropolitan Area Transit Authority (WMATA), Scott directed the preparation of a delay and inefficiency analysis, and determination of entitlement for a \$25M claim involving construction of the Columbia Heights Station in Washington, D.C. The case settled successfully for the client.

Scott reviewed a contractor's claim against the New Jersey Turnpike Authority for additional compensation involving a turnpike-widening contract. Scott was asked to comment on the contractor's entitlement to reimbursement of overhead costs on deleted items.

Scott served in a leadership position for Trauner's contract with the Ohio Department of Transportation (ODOT) to rewrite its highway specifications and supplements, to review its contract administration procedures, and to develop a two-track training curriculum for ODOT Project Engineers and Inspectors.

Scott served as Technical Advisor on the \$2.4B Alameda Rail Corridor Project in Los Angeles. He reviewed the approach for the calculation of inefficiencies and reviewed impact of delay issues.

Scott provided partnering facilitation services on a Massachusetts Highway Department project for the design of the \$30M reconstruction of I-495/Marsten Street in North Andover, Massachusetts.



Sidney Scott, III, P.E.

Principal

Education:

Bachelor of Science,
Civil Engineering,
University of Delaware,
1984

Bachelor of Arts,
Anthropology,
University of Pennsylvania,
1975

Registrations:

Professional Engineer in
Delaware and Pennsylvania

Professional Affiliations:

Member, American Society
of Civil Engineers

Board of Directors, Design-
Build Institute of America,
Cord Meyer Real Estate
Development Company

Sid has wide-ranging and diverse expertise in the design and construction industry. He has more than 20 years of experience in dispute resolution, training, technical document and specification development, engineering design, construction management, and research. Sid is a recognized national expert concerning procurement and contracting methods, administrative and claims management practices for the highway and transit construction industry and has been named an innovative contracting expert for FHWA's Accelerated Construction Technology Transfer Program to determine strategies to accelerate major transportation projects.

Sid is directing services for the Wisconsin Department of Transportation (WisDOT) related to its four-year, \$860M reconstruction of the Marquette Interchange in Milwaukee, Wisconsin. Services include technical advice and modifications to WisDOT's standard general provision specifications and administrative procedures in the areas of cost and schedule control, and claims and change order management.

As part of the design-build oversight team, Sid assisted the Maine Department of Transportation (MDOT) with the development of programmatic documents for its on-going design-build program. This effort included the development of a set of stand-alone Section 100 General Conditions for design-build, which was successfully applied to the I-295 Connector project in Portland.

As Project Director, Sid assisted PENNDOT defend a \$23M claim submitted by the Contractor related to the \$84M central section of the Route 30 Bypass. Services included document review and project orientation, development of an electronic as-built schedule of the overall project, delay and inefficiency analysis, determination of liability, evaluation of claimed damages, report preparation, participation in discovery, and litigation support.

Sid advised the New York State Highway and Thruway Authorities regarding delay claims for the \$160M reconstruction of the I-87/I-287 interchange. Services have included an independent review of the schedule, the Construction Manager's analysis, and the contractor's time extension request, and recommendations for an adjustment to the overall completion date for this accelerated project. Additional work included an independent assessment of time-related costs, and recommendations for an equitable adjustment to the contract.

Sid provided expert services to the Pennsylvania Turnpike Commission in defense of a claim arising from the construction of the Mon/Fayette Expressway, a \$43M project involving deep soil solidification. He analyzed the foundation contractor's soil mixing and solidification operations and provided an independent estimate of quantities and costs incurred for presentation at trial.

Sid developed the curriculum and presented a series of one-day training programs addressing the effective management of changes and claims for the \$2.4B Alameda Corridor Rail project in California. Sid also developed key sections of the RFP for a \$300M, 120-mile roadway expansion project with a 20-year performance warranty known as Corridor 44.

Sid is also part of the Trauner team for the WSDOT On-Call contract for General Engineering Management Services for Urban Corridor's Organization in the area of Cost Risk Assessment and On-Call Engineering Specialty Services for Urban Corridor's Organization in the area of Management or Delivery of Projects Costing Over \$1B.



Rocco R. Vespe, P.E.

Director

Education:

Bachelor of Science, Civil Engineering, Drexel University, 1975

Registrations:

Professional Engineer in District of Columbia, Florida, Maine, Maryland, New Jersey, and Pennsylvania

Professional Affiliations:

Past-President, Construction Management Association of America, Mid-Atlantic Chapter

Associate Member, Pennsylvania Association of School Board Officials, New Jersey School Board Association

Publications:

Construction Estimates from Take Off to Bid

Rocco has over 35 years of diversified experience in the construction industry. His construction project experience includes transportation structures and facilities, education/recreation facilities, correctional facilities, hotels and commercial office buildings, wastewater treatment and sludge processing facilities. In the area of construction claims and dispute resolution, Rocco has performed delay, impact, disruption and acceleration analysis. He has also participated in negotiations, mediations, litigation support, and provided expert testimony.

Rocco served as Deputy Project Manager on the URS/Trauner Team selected to assist Maine DOT in the development and administration of their statewide design-build program. The first project in the program was a \$20M connection to I-295 involving 3 bridges and significant geotechnical work.

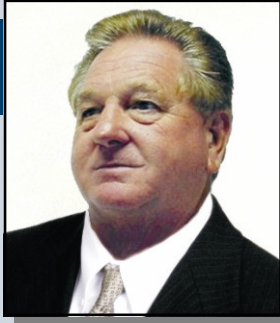
Rocco provided construction management services for the \$130M Casco Bay Bridge replacement project for the Maine Department of Transportation. His assistance began during the final design and bid phases and continued through construction with on-site monitoring and supervision. Rocco reviewed the plans and specifications for constructability, construction time requirements, and from a risk management perspective. He developed the program CPM schedule for the project as part of the constructability review; reviewed and revised the General Conditions; redrafted the Scheduling Specification; reviewed the pre- and post-qualification requirements; established a project document control system; reviewed and monitored the design and construction schedule; participated in partnering sessions; provided on-site project oversight; reviewed change orders and extra work orders; provided claims management assistance; and advised and provided training regarding contract administration issues as needed.

Rocco provided construction administration, claims management, and scheduling services for the \$45M Sagadahoc Bridge Design-Build Project and the \$15M rehabilitation of the Carlton Bridge for the Maine Department of Transportation. The Sagadahoc Bridge is a variable depth pre-cast concrete segmental bridge erected using the balanced-cantilever method. The Carlton Bridge project encompassed the rehabilitation of the mechanical, structural, and electrical components of the existing mechanical lift bridge. The rehabilitation included the electrical and mechanical work necessary to allow the bridge to continue to carry rail traffic after vehicular traffic was transferred to the newly constructed Sagadahoc Bridge.

For over 15 years, Rocco has directed scheduling and claims projects for Maryland State Highway Administration (SHA). During this time, he analyzed delay and inefficiency claims, prepared expert reports, and provided litigation support services in preparation for board hearings involving two separate claims against the SHA. Both claims involved the furnishing and installation of overhead radar detectors at more than 130 individual sites. The first claim was valued at \$1.8M and the second at \$2.1M. The reports that Rocco prepared were used to achieve successful settlements of these issues by Maryland's Attorney General's Office.

As part of the Trauner Team, Rocco is currently performing Construction Management Advisory Services, working with WisDOT to manage the \$860M Marquette Interchange and put in place systems that will help to avoid potential problems. The team developed a construction management procedures manual for each of the WisDOT's project managers to use as a guide during the project. The team will also assist with cost monitoring, scheduling, change orders, and disputes.





William "Mackie" Chapman

Director

Mackie has extensive experience in contract administration, construction management, design-build, estimating, scheduling, and construction claims evaluation and analysis. He has managed projects in excess of \$1B including airports, roads, bridges, hospitals, prisons, stadiums, hi-rise structures, office buildings, schools, commercial manufacturing plants, garages, and sports arenas.

In April of 2004 Pier No. 97 on the new construction for the Lee Roy Selmon Expressway collapsed in Tampa. Mackie is working with the Tampa-Hillsborough County Expressway Authority and providing a range of consulting services. They include the evaluation of loss of productivity; site monitoring during the demolition and re-construction of the affected piers; and assistance with the preparation of an insurance claim for the costs associated with demolition and re-construction of the damaged bridge.

Mackie provided construction completion services and claims services for a surety involved in the construction of a \$200M sports stadium in Pittsburgh, Pennsylvania. His involvement was necessitated due to problems encountered by the structural steel fabricator/erection subcontractor. The contractor had, as a part of its contract, the design of the steel connections. Design changes related to the steel connectors impacted both fabrication and erection.

Mackie assisted the Florida Department of Transportation in defense of a \$2M claim involving the \$8M expansion and resurfacing of seven miles of State Road 44 in Citrus County, Florida. Services included a review of the claim for validity and reasonableness; a review of all records to determine documentation, procedures and testing methodology; a review of plans, specifications, and schedules to evaluate the effect of changes on the project schedule; the evaluation of construction means and methods; a review of the staff's professional qualifications and the techniques used on the projects in light of project requirements and industry standards; the preparation of a report and recommendations to FDOT; and assistance in negotiations leading to settlement.

Mackie was the Project Director for project completion and claims analysis services for the \$135M Savvis Center Arena in St. Louis, Missouri. Working for the surety, Mackie provided day-to-day management for the completion of all the unfinished electrical work and contract negotiations. The completion work included the scheduling and coordination of the electrical and general construction work. Due to many project impacts to include late design and weather delays, it was necessary to resolve numerous change orders and negotiate settlement issues with the Construction Management Team. The project was completed on time. This resulted in significant non-litigated cost savings for the client.

Mackie was the Project Director for project completion and claims services for the \$60M Tropicana Stadium in St. Petersburg, Florida. Working for the City of St. Petersburg, Mackie worked with the Construction Manager to put a completion schedule together and participated in the negotiation of change orders. The project was completed on time, allowing for successful opening for the NCAA Regional Basketball Tournament.

Education:

Associate of Science,
Architecture, Catawba
Technical Institute, 1966

Bachelor of Arts, Business
Administration, University of
North Carolina, 1965

Professional Affiliations:

National Bond Claims
Association

Florida Surety Association



Anthony M. Ardito, CPA

Director

Education:

Bachelor of Science,
Accounting and Finance,
Drexel University, 1969

Registrations:

Certified Public Accountant

Publications:

Contributing Author for the
Handbook of Construction
Law and Claims

Tony is a Certified Public Accountant with 30 years of financial and audit management experience combined with a background in systems integration and installation for major construction and professional service firms. He is also a specialist in the analysis, preparation and presentation of complex construction contract claims and disputes arising from project schedule delays and cost overruns. He has reviewed claims and performed damage calculations on numerous claims and has audited and resolved construction claims in excess of \$500M.

Tony participated in a mediation session for the steel fabricator that furnished the Twin Speer Boulevard Bridges in Denver, Colorado. The categories of damages that were the subject of his testimony included home office and shop overhead costs resulting from fabrication delays, costs of inefficiencies caused by paint curing issues, and direct costs resulting from engineering changes. After two days of participation, a successful settlement for our client was reached.

Tony provided a report on the approach to the calculation of home office overhead for Florida Department of Transportation, District Four. In addition, he was involved in a claim analysis for Florida DOT's expansion of the Crosstown Expressway project in Hillsborough County, Florida. He was responsible for calculating financial loss and damages, the determination of entitlement, and negotiations.

As part of Trauner's contract to update the Washington Metropolitan Area Transit Authority's contract bid documents, Tony provided research on equipment rates for equipment used in transit construction projects. He evaluated numerous sources including the Blue Book and the Contractor's Cost Equipment Guide, and prepared a report on his findings.

Tony assisted the North Dakota Department of Transportation defend a \$5.6M claim involving construction of the Yellowstone Bridge in Fairview, North Dakota. Services included evaluation of the value of the claim in conjunction with the specifications of the contract and generally accepted construction cost principles. Tony prepared a response to the claim and provided guidance in disputing ineligible claim items. He also provided expert testimony regarding cost and damages at arbitration.

For the Maryland State Highway Administration, Tony assisted in resolving overhead costs for the \$6M renovation to the Centerville Maintenance Facility. The project involved the installation of closed circuit TV systems. Tony performed an analysis of the claim to determine the appropriateness of damage categories and amounts, and provided an alternative assessment of damages. Additionally, Tony assisted in reviewing overhead costs involving a \$2M Streetscape construction of a stretch of roadwork known as MD-7D (Main Street) from Bridge Street (MD-213) to South Street.

Tony prepared damages associated with equipment and extended field and office overhead costs associated with the construction of the New Bedford Bridge in Massachusetts. He also worked with a team of construction professionals and litigation experts in the evaluation of a \$100M claim arising from the conversion of three oil-drilling rigs into a floating production/offloading facility owned by a Brazilian concern.



John S. Crane
Director

Education:

Bachelor of Science, Civil/
Environmental Engineering,
West Virginia University,
1995

As a Director with Trauner, John is responsible for claims avoidance and claims resolution work for private, municipal, and federal construction projects and clients. John also provides written documentation in the determination of delays, entitlement, liabilities, and damages.

John reviewed and analyzed project documentation to determine the extent of changed site conditions, added work, project delays and inefficiencies alleged by PNM Corp. along with entitlement regarding the construction of a \$1.8M alteration to Sunset Harbour Drive in Miami Beach, Florida. As part of this project, John prepared a summary report addressing 74 claims submitted by PNM Corp.

John performed schedule analysis and as-built for the Broward County Aviation Department regarding the construction of the \$160M Terminal Expansion. The Contractor alleged there were changed site conditions, errors and omissions, added work, project delays, and inefficiencies.

John reviewed Contractor schedules and performed schedule analysis and as-built in order to determine delay and entitlement for the Virginia Department of Transportation regarding the construction of a \$15M Bridge. The claim submitted by the Contractor was valued at \$4.2M.

John was a member of the team retained by the Owner's Counsel to evaluate a claim submitted by the Construction Manager alleging it was impacted by added work, changed work, owner interference, and project delays during construction of the North Cross Taxiway at the Orlando International Airport. The original contract value was \$10.8M and the claim was in the amount of \$10.7M. The claim was settled at mediation in a manner favorable to the owner based on Trauner's findings.

John presented the NHI-sponsored course, Use of Critical Path Method (CPM) for Estimating, Scheduling and Timely Completion to the Louisiana Department of Transportation and the Virginia Department of Transportation. He has also presented the courses, "Construction Project Management" and "Change Orders" for Lorman Education Services.

John assisted a Contractor in providing recovery schedules through the completion of the Project and evaluating their claim submitted to the Owner. The claim alleged added work, changed work, and weather delays during construction of the \$28M Crown Bay Pier Expansion in St. Thomas, Virgin Islands. John performed a schedule analysis in order to determine the extent of delays and entitlement for the delays associated with the construction. Trauner is still evaluating the claim.



Brian Furniss

Director

As a Director at Trauner, Brian has been responsible for claims avoidance and claims resolution work for private, municipal, and federal construction projects and clients.

Brian is an approved instructor for the National Highway Institute Course, Use of Critical Path Method (CPM) for Estimating, Scheduling, and Timely Completion.

On the \$2.3B Tren Urbano Project, Brian assisted the Puerto Rico Highway and Transportation Authority in evaluating the impacts and delays on the Hato Rey Claim, which covers the train sections located throughout downtown San Juan, Puerto Rico. Brian constructed as-built schedules and evaluated delays/improvements in the contractor's schedules.

Brian assisted the New Mexico State Highway and Transportation Department on the Alamogordo Relief Route Project in Alamogordo, New Mexico. He developed project as-built schedules on Phase IA and Phase II after the contractor and subcontractor submitted claims on construction. He helped critique the contractor's delay claim and provided CPM schedule analysis on Phase IA. He also critiqued the contractor and subcontractor claims and assessed delay-related damages on Phase II.

Brian assisted the Sanford Airport Authority's Counsel by evaluating project delays, inefficiencies, impacts, causation of delays and impacts, and \$700K in Contractor's claims after the termination of the Contractor on the \$2M Taxiway Lima-Alpha-Papa Expansion of the Sanford/Orlando Airport, located in Sanford, Florida.

On the North Crossfield Taxiway Expansion, Brian evaluated the project delays, inefficiencies, and added work alleged by the contractor for the Greater Orlando Aviation Authority regarding its construction of the \$45M North Crossfield Taxiway Expansion. The claim amount was \$11M.

Brian assisted a tunneling contractor by evaluating the Owner's \$2.8M claim for liquidated damages related to tunneling work on the \$2B Terminal D Expansion of the Dallas/Fort Worth International Airport located in Dallas, Texas. He analyzed project delays, impacts, and provided assistance during settlement meetings.

Brian evaluated the project delays and accelerations alleged by the contractor for the Broward County Aviation Department regarding the construction of its \$160M Terminal Expansion in Fort Lauderdale, Florida.

For the South County Neighborhood Improvement Project in Broward County, Florida, Brian evaluated the project delays and accelerations for the \$14M South County Neighborhood Improvement Project. The claim amount was \$14.4M.

Education:

Bachelor of Science,
Industrial Engineering,
University of Central
Florida, 2003

United States Military
Academy, 1998-2000

Registrations:

Licensed Engineer Intern,
Florida



Joseph F. Hoag, P.E.

Director

Education:

Bachelor of Science,
Civil Engineering,
Old Dominion University,
1989

Master of Science
Environmental Health,
Temple University, 1997

Registration:

Professional Engineer in
Delaware

Joe's experience includes construction management and administration, preparation and review of contract documents, partnering for major construction projects, claims analysis, schedule analysis, alternative dispute resolution, and litigation support.

Joe has provided construction management and claims resolution on projects totaling over \$150M. Projects include residential, educational, transportation, government, superfund remediation, military construction, and civil construction. Joe has worked with various innovative construction techniques such as in-situ soil stabilization, roller compacted concrete, and soil bentonite slurry walls.

Joe is providing CPM scheduling review services to the New Jersey Department of Transportation for its Route 33 By-Pass Project. He is reviewing CPM schedules to ensure compliance with the project specifications as well as analyzing revisions to the CPM schedule logic, added/deleted activities, and changes in activity durations.

Joe assisted a contractor in pursuing a claim against the New Jersey Department of Transportation for delays it incurred during the performance of the work associated with the Route 31 Rehabilitation Project. The claim issues are delays, disruption, and timeliness of information. Services include determination of entitlement and litigation support.

Joe has provided schedule review and update services for a variety of projects for the New Jersey Department of Transportation including, Route 9, Route 18, Edison Bridge, Route 33, Route 18 Section 2F, and Route 1 & 9 Rahway Bridge.

Joe was instrumental in the development of the Project Management Plan for the South Corridor Light Rail Project for the Charlotte Area Transit Authority in North Carolina.



Linda Konrath

Director

Linda's experience includes design, claims analysis, specification development, research, and project management.

Linda assisted with the analysis of a \$24M claim on the \$130M Long Island Expressway/Cross Island Parkway improvement project. The project included the replacement of 14 bridges and reconstruction of 3.1km of highway.

Linda developed the module on Alternative Contracting Management Methods for the Federal Highway Administration, National Highway Institute course, entitled Alternative Contracting.

Linda participated in a \$300K research study to determine the most appropriate best-value procurement approaches for use in awarding highway construction, screening criteria, and strategies to overcome barriers to widespread implementation of best-value procurement. The draft final report is under review.

Linda is assisting the California Department of Transportation by identifying strategies to improve their innovative procurement procedures. She is working with the Trauner Team that is charged with 11 tasks including identification of innovative procurement methods successfully being used throughout the industry, development of guidelines, recommendations of changes to contract specifications, development of pre-qualification procedures, development of contract documents, legislative support, training, and implementation strategies.

Under the \$3M Performance Specifications for Rapid Highway Renewal project for the second Strategic Highway Research Program (SHRP II), Trauner, through a series of tasks, will develop guidelines for ranking important performance parameters (e.g., time, quality, cost, risk, complexity) based on project type and new performance specifications for different highway renewal scenarios (e.g., road, bridge, structures, traffic control) and guidelines for their implementation. Linda will act as a key team member during this effort.

Linda assisted with the development of affirmative claims and prepared a defense against contractor claims for the Passaic Valley Water Treatment Plant in Trenton, New Jersey. Claim issues included project delays and deficiencies related to the construction of a centrifuge facility.

Prior to joining Trauner, Linda worked as a design engineer for an environmental engineering firm. While there, she performed the engineering design, and developed plans/specifications related to the expansion and closure of municipal solid waste landfills.

She also prepared solid waste, air quality, and NPDES permit applications and conducted environmental compliance auditing for solid waste and industrial clients.

Linda's professional papers include "Iron Deposition and its Effects on the Oxidation of Polypropylene Geotextiles," "Landfill Closure and Post Closure Uses," and "Revisiting EPA Method 9090 Testing in the 21st Century."

Education:

Master of Science,
Civil Engineering,
Drexel University, 2000

Bachelor of Science,
Civil Engineering,
Drexel University, 1998

Professional Affiliations:

Member, Women's
Transportation Seminar



Cheryl McBride

Director

Education:

Associate in Applied Science, Construction Technology, Erie Community College, 1984

Bachelor of Science, Civil Engineering, Rochester Institute of Technology, 1987

As a construction professional, Cheryl has over 25 years of experience in the following capacities: field inspector, senior construction inspector, quality assurance engineer, field engineer, estimator, superintendent, construction manager, senior project engineer, cost manager, project manager and senior project manager. She has managed hard bid "at risk" projects, negotiated fee projects, cost plus contracts, and design-build projects in both the private sector and for public/government owners. Cheryl's experience includes new build projects, rehab/retrofit projects, and industrial plant shutdown projects.

Cheryl's expertise lies in the areas of general construction practices, project management, value engineering, cost analysis, and claims research and preparation. Cheryl has worked on a variety of types of projects including aviation, military, vertical, entertainment, retail/mixed use, marine, water control, transportation, bridges, transit, Department of Energy Superfund nuclear cleanup, and environmental.

As a Director at Trauner, Cheryl is responsible for assisting in the evaluation of construction claims including performing analyses for delay, acceleration, and liability. Her responsibilities will also include identifying issues involving additional cost and design, and evaluating the impact or delay associated therewith, creating issue files, and creating summaries for major issues.

Cheryl was responsible for design and construction of four new buildings, totaling \$20M, for the Florida Department of Transportation in Ocoee, Florida. During this project she coordinated all phases of design and construction with the Owner, the Construction Manager, the architects and engineers, and her field staff of eight.

Cheryl managed the construction of cast-in-place concrete abutments and pile driving for a major new bridge in East Otto, New York.

Cheryl was the Project Manager in charge of the construction of a new \$60M terminal building at the Buffalo Niagara International Airport in Buffalo, New York. During the project, Cheryl managed a team of five engineers and clerical staff; prepared, negotiated and awarded subcontractor bid packages; prepared pricing for change orders and negotiated with owner/construction manager/subs; researched/prepared/presented value engineering and cost reduction proposals; review/approve subcontractor pay applications; prepared monthly contractor pay application to owner; procured material and equipment; prepared/reviewed submittal packages; maintained drawing log, RFI log, change order log, etc.; chaired weekly meetings and prepared minutes; prepared cost reports, government reports, etc.; provided research and prepared written analyses of technical issues, i.e., drawing discrepancies, code issues, etc., for resolution by owner's design team; assisted with administration of site safety program; scheduled and implemented the transition of the new terminal to control of the owner, including training of owner's personnel, turnover of O&M manuals, turnover and inventory of spare parts, etc.; participated in partnering and brainstorming sessions.



Mark Nagata

Director

Education:

Bachelor of Arts,
Economics,
University of Pennsylvania,
1998

Certifications:

Certified as a Planning &
Scheduling Professional
(PSP) by the Association for
the Advancement of Cost
Engineering

Certified as a Construction
Documents Technologist by
the Construction
Specifications Institute

Mark's experience lies in the areas of CPM schedule development, schedule review and analysis; claims analysis and dispute mitigation; and the review and updating of technical specifications. He has been involved with the analysis and presentation of claims on transportation, mass transit, government, military, and civil works projects.

Mark is currently assisting the Pennsylvania Department of Transportation to analyze a \$10M claim involving delay and differing site conditions on SR222 in Allentown, Pennsylvania. The project involved the improvement of four to five miles of roadway and 11 structures, including related drainage, utility relocations, signals, and lighting.

Mark is currently providing CPM schedule review services for nearly 10 roadway projects for the New Jersey Department of Transportation. Additionally, Mark has provided similar services for the Ohio Department of Transportation and the Maryland State highway Administration.

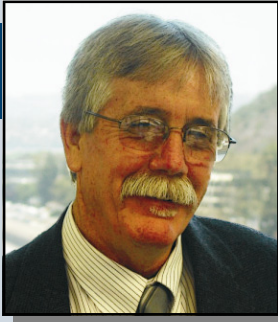
Mark analyzed project performance in determining delays and extra work on the reconstruction of I-95 in Bridgeport, Connecticut. The project includes the demolition and reconstruction of the northbound lanes of I-95 over the Penquonnock River and Metro-North Railroad train lines. He performed an as-built analysis, evaluated project delays, and assisted in the preparation for arbitration hearings.

Mark assisted Michigan DOT analyze a claim involving the \$70M reconstruction of four miles of Route M-59 through the established communities of Utica and Sterling Heights, suburbs of Detroit. M-59 was reconfigured as a depressed freeway and boulevard. Mark performed a CPM schedule analysis, determined liability for the delay, the extensions of contract time, and the contractor's claimed damages.

Mark evaluated project performance and the CPM schedule to determine delays, liability, and extra work involving the construction of the \$90M Tomlinson Bridge in Connecticut. The project includes construction of a temporary lift bridge and approaches, demolition of the existing bascule bridge, and construction of a new permanent lift bridge. Mark performed a CPM schedule analysis using the project's multiple milestone, multiple work calendar schedule, and six years of monthly updates.

Mark is a NHI-Certified Instructor for the Federal Highway Administration and teaches the training courses entitled: Use of Critical Path Method (CPM) for Estimating, Scheduling, and Timely Completions, Managing Highway Contract Claims: Analysis and Avoidance, Alternative Contracting, and Principles of Writing Highway Construction Specifications.

Mark prepared monthly CPM schedule updates for the \$30M reconstruction of the Berks, Huntingdon, and Church Street Stations of SEPTA's Frankford Elevated Mass Transit line. The project schedule had over 1700 activities and has numerous work restrictions and work calendars to schedule the work within SEPTA's operational requirements. Mark was involved in the project's successful real-time use of the schedule updates to resolve disputes over liability for project delays.



Geoffrey L. Page

Director

Education:

Bachelor of Arts,
Journalism,
Michigan State
University, 1973

Certifications:

Licensed General
Engineering Contractor in
CA

Licensed General Building
Contractor in CA

Certified NHI Instructor

Professional Affiliations:

Member, American Society
of Professional Estimators

As a Director with Trauner, Geoff's responsibilities include claim preparation and analysis, critical path method schedule review, change order analysis, cost estimating, and construction management. Geoff has evaluated delays, responsibility for delays, costs, and the completeness and reasonableness of requests for compensation.

Geoff is working closely with the Idaho Department of Transportation to review two claims totaling over \$1.6M regarding construction of the Goff Bridge. The claims involve steel erection and bolt corrosion problems. Geoff reviewed the contractor's claim and the district engineer's response to the claim. The bolt corrosion claim went to litigation and Geoff has begun to work with the transportation department's Attorney General's office to prepare for trial. Geoff prepared Trauner's preliminary report for submission to the court and later drafted a mediation and assisted the transportation department in presenting its case in mediation.

Geoff assisted New Mexico State Highway and Transportation Department (NMSHTD) on its \$7.6M U.S. Highway 70 road improvement project. The Contractor delivered a \$9.6M claim for 774 days of delay, which consisted of 54 individual claims. Geoff performed a project delay analysis; created a responsibility for delay draft report; reviewed and wrote detailed assessments for 26 of the 54 claims; attended contractor claim presentation meetings; assisted NMSHTD personnel with meetings; and attended a three-day Claims Review Board hearing with NMSHTD, the contractor, and counsel. Geoff supervised an independent audit of contractor's field and home office overhead costs, and provided a draft brief for the Claims Review Board. The Claims Review Board delivered its report, which did not satisfy the contractor who subsequently filed suit. Geoff is providing suggestions for discovery, overseeing audits of the contractor's project records, assisting with depositions, and preparing a delay analysis.

Geoff assisted the California Department of Transportation (Caltrans) on two separate projects. The SR-73 widening project in Costa Mesa and Newport Beach involved the contractor's claim that cited suspension of work during construction. Geoff assisted in an independent evaluation of the project noting a 66-day delay for claim issues, which included extra work, efficiency loss, fixed field costs, idle equipment, and home office costs. On the second project, the SR-55, Katella Avenue Undercrossing, Geoff assisted in the review of the proposed phasing plan and schedule for the project when changes were made during the course of construction to accommodate field conditions.

Geoff provided change order review services during construction of the \$1.4B Aladdin Casino and Resort in Las Vegas, Nevada. Trauner's original assignment was to perform a delay analysis on the project to support a \$50M claim by the subcontractor against the general contractor and the owner. Geoff also led efforts to organize the client's change orders by logging the progress of change orders, writing correspondence that the change orders needed, and providing pricing on some that were not priced. The results of this work included a list and the total cost of the outstanding change orders, which was included in the claim the client eventually delivered to the owner.



Vincent M. Rotonda

Director

Education:

Rutgers University MBA
Program, Newark,
New Jersey, 1964

Bachelor of Science, Civil
Engineering, New Jersey
Institute of Technology
(NCE), Newark, New Jersey

Vince's extensive experience includes work on a wide variety of project types to include transportation, infrastructure, commercial, entertainment, and government installations. He has worked closely with State Departments of Transportation to create oversight programs for minority set-aside projects. He also taught contract administration courses to Ohio Department of Transportation Project Engineers and Inspectors.

Vince was part of the project management team during completion of the \$39M Chicago Transit Authority elevated rail station reconstruction project. He rebid and monitored the concrete repaving of the tarmac at Wright-Patterson Air Force Base as well as the completion of Chicago's Deep Tunnel system.

When Pier No. 97 on the Lee Roy Selmon Expressway collapsed in Tampa, Vince worked with the Tampa-Hillsborough County Expressway Authority and provided a range of consulting services. They included the evaluation of loss of productivity; site monitoring during the demolition and re-construction of the affected piers; and assistance with the preparation of an insurance claim for the costs associated with demolition and re-construction of the damaged bridge.

Vince assisted the surety during a team replacement process of a follow-on contractor for a \$22M, four-story office building for the Pennsylvania Turnpike Authority. Vince assisted in the preparation and development of the documents to hire a replacement contractor.

For the construction of an Aircraft Maintenance Facility, at Homestead Air Force Base, in Homestead, Florida. Vince monitored the general contract work, and after the General Contractor was terminated and the surety took over, managed the project to completion. Upon completion of the contract work, closed out the project and prepared the completion documents, including the as-built drawings. Also handled warranty issues that arose during the warranty period.

Vince prepared competitive re-bidding documents for the Mass Properties Building, at Eglin Air Force Base, Florida and received and analyzed bids for the completion of a facility to be used in testing and research of military ordinance. In order to prepare the necessary documents, it was necessary to determine the amount of uncompleted contract items and generate documents for the remaining scope of work.



John M. Unbewust, P.E.

Director

Education:

Graduate, State and Local Government Program, Harvard University, 1998

AASHTO Management Institute, Indiana University, 1993

Master of Business Administration, Finance, University of Colorado, 1976

Bachelor of Science, Civil Engineering, Pennsylvania State University, 1970

Registrations:

Professional Engineer in Colorado

Professional Affiliations:

Member, American Road and Transportation Builders Association, Planning and Design Division, Professional Services Committee

Having spent more than 32 years with the Colorado Department of Transportation (CDOT) culminating as Chief Engineer, John has extensive experience in all aspects of heavy highway construction, including engineering design, project management, specification development, contract administration, claims analysis, and dispute resolution. John has directed the resolution of hundreds of claims involving the design-bid-build and design-build methods of delivery, as well as those using innovative contracting methods in finance and project delivery. John has directed the evaluation of contractor claims and performed delay and inefficiency analysis involving virtually every type of road, bridge, tunnel, structural wall, resurfacing, and connector project.

As Chief Engineer, John was charged with bringing to fruition CDOT's largest project, the \$1.7B Southeast Corridor ("T-REX") project. This included the formation of legislative bills to affect needed changes in statutes, rule making, request for proposal composition, contract award, and the charter formation of a Dispute Resolution Board to cost-effectively and expediently address claims. John served as CDOT's technical expert in selecting a Dispute Review Board and served with the Federal Highway Administration, Federal Transit Administration, and Colorado's mass transit authority in the formation of a partnering agreement for this ambitious multi-modal project.

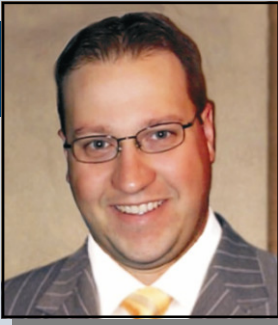
John has extensive training experience. He provided training workshops on contract administration to the Alaska Department of Transportation and Public Facilities (ADOT&PF). The seminars were designed to improve participants' understanding of highway, air, marine, and facility construction administration in accordance with ADOT&PF standards, and enhance problem-solving skills. He has also developed and presented a management-training seminar entitled, "A Strategy for Decentralization for ADOT&PF." He is also an instructor for the National Highway Institute's Alternative Contracting course, for the Federal Highway Administration and was one of the instructors for the pilot presentation of this course given to the Florida DOT.

As Project Director, John was responsible for the complete update, rewrite, and conversion into active voice of the New Mexico DOT's Standard Specifications for Road and Bridge Construction. John is also the Project Director for the revision of New Mexico DOT's contractor prequalification program. This project also includes preparation of a new model and procedures manual with training of DOT staff and outreach to the contracting community.

For the Wisconsin Department of Transportation's \$820M Marquette Interchange project, John helped develop the claims management procedures manual. He participated in the preparation and coordination of the program schedule, and development of the risk management and change order review processes.

John is also currently working with the Montana Department of Transportation to update and revise their QC/QA Program and develop a Procedures Manual and guidelines for use by MDT staff and contractors.

John is currently directing a project for Caltrans on innovative procurement practices. This assignment includes the creation of model laws and project prioritization criteria for design-build procurements. John also worked on Trauner's recent rewrite of the California Department of Transportation's General Provisions, particularly in a technical review role. This work included the creation of a style guide and its application on all new specifications.



Michael Pytlik
Consultant

Education:

Bachelor of Science,
Construction Management,
University of Nebraska,
2001

Master of Science
Program., Engineering
Management,
(currently attending)
New Jersey Institute of
Technology

Asphalt Paving
Technologist, NJ Society
of Asphalt Technologists

Associate Constructor,
American Institute of
Constructors

Mike has several years of experience providing services to the construction industry, including CPM scheduling, delay and inefficiency analysis, construction management, and contract administration.

Mike provided CPM schedule review and update using Primavera 5.0 on the \$125M Park Avenue Viaduct Project in New York City, NY. During this project, Mike also interfaced with NYSDOT's Sharehive implementation to upload schedule updates and comments to the project team.

Mike is a member of the team that is assisting the Triborough Bridge and Tunnel Authority (TBTA) with CPM scheduling and delay analysis services for the \$136M replacement of the Roadway deck in suspension spans at the Bronx Whitestone Bridge. The team is currently reviewing the contractor's schedule and schedule updates to determine the critical path and assess responsibility for delays and acceleration on the project. The information will be used in an effort to help TBTA negotiate a request for additional costs for delays and acceleration alleged by the contractor. For this project, Mike analyzed the project schedules utilizing Trauner's proprietary CASE (Computer-Aided Schedule Evaluation) software. CASE automates the time-consuming mathematical process that one must go through to compare schedule updates on a day-by-day basis. By automating the mathematical portion of the analysis, Mike was able to spend more time on the aspects of the analysis that require research and judgment. As a result, this process helped the team provide a thorough and objective analysis of the project schedule in an efficient manner.

Mike reviewed project schedules to analyze several delay and acceleration claims on the SR4 Project in Clark County, Ohio.

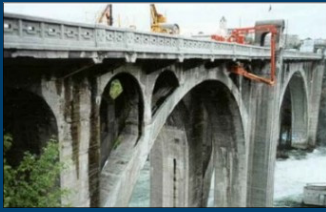
Utilizing Primavera software, Mike analyzed subcontractor inefficiency claims attributed to change orders and owner directed changes. Mike's analysis was included in a report submitted by Trauner to assist in the defense of \$35M in claims on the construction of the Veteran's Affairs Medical Facility in Dallas, TX.

Mike assisted with the development of an independent cost estimate for a new Student Services Building at St. Mary's College in St. Mary's City, MD. The college used the estimate in the final price negotiations with the contractor.

Prior to his work with Trauner, Mike was a Construction Engineer with an engineering, surveying, and planning firm in northern New Jersey. During this time, he assisted several clients with the successful completion of capital improvement projects.

Mike represented the township while providing contract administration during the state-aided Vath Street, Basso Street, and Jordan Avenue Reconstruction Project in Jackson, NJ. Mike provided coordination and supervision of the contractor's performance, monitored the project schedule's conformance with the contract documents, and development of contract documents to assist with the letting of the project.

Project Experience



Accelerated Construction Technology Transfer

Various Locations

Project Value: Unknown
Value of Services: \$390,000
Client: Federal Highway Administration

In recent years communities have witnessed a tremendous increase in highway construction. Although this construction is unavoidable, The Federal Highway Administration (FHWA), in conjunction with The Technology Implementation Group (TIG) and American Association of State Transportation Officials (AASHTO), are taking steps to avoid unnecessarily long construction timeframes, which can be costly and increase construction workers exposure to traffic. In response, they developed the Accelerated Construction Technology Transfer (ACTT), a strategic process that uses innovative technologies and techniques to reduce traffic delays and community disruption during highway construction.

As a leader in the area of innovative project delivery, Trauner and in particular Sid Scott, P.E., was tapped as an innovative contracting expert for this program. To date Sid has attended workshops for several high-profile projects around the country. They include the Monroe Bridge Rehabilitation Project in Louisiana, the \$200M Crosstown Reconstruction Project in Minnesota, the \$100M US93 Upgrade Project in Montana, the RT-46 Bridge Project in New Jersey, the I-40 Crosstown Project in Oklahoma, the \$160M I-40 Project in Tennessee, the \$760M Project Pegasus in Texas, the \$1.5B SR-520 Project in Washington, and the \$100M US-287/26 Project in Wyoming.

Trauner Work: Ongoing



PennDOT SR-222

Allentown, PA

Project Value: \$46,500,000
Value of Services: Unknown
Client: Pennsylvania Department of Transportation

Trauner was hired by PennDOT to evaluate a \$10M claim submitted by the Contractor involving new roadway construction and reconfiguration of existing roadway on SR 222 in Allentown, Pennsylvania. The \$46M project includes 5.5 miles of roadway, five bridge structures, two sound barriers, drainage, and utility relocations. Trauner analyzed delays and disruptions, design issues, and differing site conditions. Trauner has provided PennDOT with our preliminary findings.

Trauner Work: 2006-Ongoing



Tacoma Narrows Bridge

Tacoma, WA

Project Value: \$650,000,000
Value of Services: Unknown
Client: Washington State Department of Transportation

The Tacoma Narrows Bridge is a mile-long (1600 meter) suspension bridge with a main span of 2800 feet (850 m) (the third-longest in the world when it was first built) that carries Washington State Route 16 across the Tacoma Narrows of Puget Sound from Tacoma to Gig Harbor, Washington. In 1998, voters in several Washington counties approved an advisory measure to create a second Narrows span. The construction of the new span, which will run parallel to the current bridge is currently underway. In 2007, the new \$650M bridge on State Route 16 will open, giving eastbound traffic two general purpose lanes and a "drop" lane. In summer 2008, when new and existing bridges open in their final form, the 1950 span will take drivers westbound on two general purpose lanes and one carpool lane.

Trauner is conducting schedule analysis services and providing a monthly report summarizing the progress and addressing project delay. Trauner is also providing on-call claim and technical engineering analysis for the project.

Trauner Work: 2007-Ongoing



Indiana DOT Training Programs

Statewide

Project Value: Unknown
Value of Services: Unknown
Client: Indiana Department of Transportation

Over the years, Trauner has been engaged by the Indiana Department of Transportation (INDOT) to develop and present focused training programs to DOT personnel throughout the state. In 2000, we developed and provided 12 seminars to INDOT's six construction districts on the subject of project scheduling, claims avoidance and handling. Recently, we developed and presented a tailored training course to assist field engineers to better manage change orders on highway projects in Indiana. These courses were presented to over 600 field engineers assigned to six districts throughout Indiana. For each of these training programs we traveled to Indianapolis and met with INDOT personnel to review and revise the training program outlines to specifically reflect their procedures, practices, and needs. All of the training sessions were well received.

Trauner Work: Ongoing



Mn/DOT Trunk Highway 23 Richmond, MN

Project Value: \$7,300,000
Value of Services: \$98,000
Client: Minnesota Department of Transportation (Mn/DOT)

Trauner is assisting Mn/DOT with the evaluation of a claim submitted by the general contractor on the widening of Trunk Highway 23 project in Richmond and Cold Spring, Minnesota. Trauner first met with Mn/DOT in its St. Cloud District 3B Office to discuss the project on May 16, 2006. Given the time constraints of the case, Trauner was tasked with performing an analysis of the delays, evaluating the contractor's claimed costs, and presenting our preliminary findings within three weeks of the initial project meeting. During those three weeks, we developed an as-built schedule using Mn/DOT's daily diaries and performed an as-built delay analysis that identified the critical project delays. We also assessed the responsibility for critical delays, identified instances where the contractor overstated the work performed in its claim, and critiqued the contractor's presentation of its damages.

Trauner met with Mn/DOT on June 7, 2006, to present and discuss our findings which addressed the following issues and items:

1. Contractor performance on Bypass #1 & #3 roadway installation in Richmond and in the rural portion of the project in 2003.
2. Contractor performance on roadway installation in Cold Spring during 2004.
3. Key contract provisions and their relevance to the contractor's claim, with Mn/DOT personnel at the meeting.
4. Key project documents and identified instances when Midwest notified Mn/DOT that the project was being delayed.
5. Identified where the contractor inflated its actual quantities in its claim.
6. How the contractor calculated its loss of efficiency and how this calculation was based on the development of an after-the-fact estimate.
7. Review of the contractor's claim summary of costs and discussed each of the items in detail.
8. Identified the weaknesses in the contractor's pricing of the claim, showed where the claim did not establish the causal relationship between the claimed impacts/costs.
9. Our preliminary findings indicated that the contractor needs to provide additional information to explain its claimed costs and clarify its support for the assumptions in its claim.

Trauner wrote a letter to Mn/DOT explaining its findings, identifying the weaknesses in the contractor's claim, and the need for the contractor to provide additional information.

Trauner Work: 2006-Ongoing



Bridge and Highway Projects State of Maryland

Project Value: \$300,000,000+
Value of Services: \$1,500,000
Client: Maryland State Highway Administration

For over 20 years, Trauner has worked with the Maryland Department of Transportation, State Highway Administration (SHA) to resolve construction claims and disputes on transportation projects. Projects have been varied and have included numerous projects dealing with underground construction, utilities, paint systems, bridges, and structural wall systems. Projects have included:

- \$4M claim involving procurement, installation, and testing of traffic detection services at 123 sites.
- CPM schedule review and approval services for the replacement/rehabilitation of a bascule bridge over Bear Creek in Baltimore County, MD.
- Schedule review and evaluation for the Knapps Narrow Bridge and replacement bridges at Peach Blossom Creek and Trippe Creek.
- Delay analysis, liability analysis, and determination of liability and magnitude for delays on a claim involving Maryland Route 471 over the St. Mary's River, Maryland.
- Assisted in the defense of a claim involving construction of noise walls with four retaining walls along the Baltimore Beltway, I-695, at intersection with I-83. Issues included delays due to value engineering change proposals, differing site conditions, utility conflicts, and unavailability of right-of-way.

Trauner has been consulted on virtually all types of transportation-related projects involving the entire spectrum of claim issues. These services include claim review and evaluation; constructability review; CPM schedule review and analysis; preparation of written reports; review of project documents including plans and specifications, contract documents, correspondence, extra work orders, change orders, and daily reports; preparation of graphics; preparation of as-built schedules; litigation support; assistance in negotiations; contract administration services including review of plans, specs, construction schedule, claims avoidance, and review of schedule; determination of liabilities; inefficiency/productivity analyses; on-site project neutral; expert testimony; and training programs and seminars. Training programs have addressed CPM scheduling and claims training.

Trauner Work: 1985-Ongoing



**Federal Highway Administration (FHWA)
National Highway Institute (NHI)
Training Program**
Courses presented nationwide

Use of Critical Path Method for Estimating, Scheduling, and Timely Completion (Course #13049)

Trauner developed the course curriculum for a training program focusing on applications of the critical path method (CPM) for control of schedules, resource planning/resource leveling, identification of potential bottlenecks, recognition of slack time, and overall project monitoring. The course includes methods for measuring the attainment of learning objectives. We presented the pilot course in early 2001 and made revisions to the course based on feedback received. We were then selected by FHWA to present the course, and have consistently received very favorable ratings. In 2004, Trauner was again contracted to present these courses through 2007.

Managing Highway Contract Claims: Analysis and Avoidance (Course # 134037)

In 1987, Trauner developed the original course outline and curriculum, developed class materials, and presented over 80 sessions of the course, Highway Construction Contract Claims Handling and Avoidance. The course used a seminar format to teach participants how to avoid claims on their projects, how to handle a claim that had been filed, and how to resolve the dispute fairly with a minimum expenditure of resources. The course was designed to be flexible, allowing increased emphasis in areas such as scheduling, schedule analysis, and the incorporation of actual claim examples from the state or agency for which the course is being given. Over a period of 15 years, several updates and revisions were made to the course, including the incorporation of modules, additional case studies, and instructional system design (ISD) modules.

Principles of Writing Highway Construction Specifications (Course #134001)

Trauner developed and pilot tested, Principals of Writing Highway Construction Specifications, a training course which focuses on the technical issues involved in writing clear, concise, and practical specifications. During our initial five-year contract, we presented the four-day course 40 times to more than 30 highway agencies throughout the United States. In the mid-1990s, we revised the course based on feedback and lessons-learned from the participants. We have since presented many additional courses. In 1999 and again in 2004, Trauner was awarded additional task orders, which now extend our contract to present these courses through 2007.

Trauner Work: Ongoing

Alternative Contracting (Course #13405A)

In 2004, Trauner researched, developed, and presented a pilot for National Highway Institute Course No. 134058, entitled "Alternative Contracting." The course explores alternative methods of project management and procurement, including Design-Build and A+B Bidding, currently in use, or proposed for use, on highway construction projects. It defines objectives for their use, implementation, and risk allocation, legal, and administrative issues related to their use. It also explores key differences between traditional and alternative contracting methods and why some of them are widely used while others remain experimental. Finally, the course addresses best practices for implementation of selected methods including criteria for selection of appropriate projects, guidance and sample specifications, and how alternative-contracting methods might be combined to achieve multiple project objectives. Trauner was selected, as part of a term contract, to present this course to DOTs throughout the nation.

Partnering: A Key Tool for Improving Project Delivery in the Field

Utilizing ISD principles, Trauner is currently developing a new FHWA-NHI course entitled Partnering: A Key Tool for Improving Project Delivery in the Field, to update and elevate Partnering with the goal of expanded use by DOTs. Trauner was the author of an earlier NHI-sponsored course entitled, Partnering Concepts. Trauner presented that course to DOTs



NJDOT CPM Scheduling and Claims Assignments
New Brunswick, NJ

Project Value: Unknown
Value of Services: Unknown
Client: New Jersey Department of Transportation

For over 15 years, Trauner has provided NJDOT with a variety of services including claims analysis and resolution, schedule review, and specification writing. Since 2004, Trauner has assisted NJDOT perform schedule review and analysis for numerous projects. We are currently assigned to the following NJDOT scheduling projects. Claim Digger software was used for each of these projects.

- Route 46 and Van Houten
- Route 78, West of Allerton Road, Clinton
- Route 78, Sections 6J and 6K, Warren and Hunterdon Counties
- Route 78 Roadway Improvements, Milepost 50.59-52.80, Union Township
- Route 18, Sections 2F, 7E and 11H, New Brunswick
- Route 46 Bridge Replacement, West Patterson
- Route 1&9/Section 1K & 3M, Woodbridge Township

Trauner Work: Ongoing

Project Experience



State Route 125 Toll Road San Diego, CA

Project Value: \$1,100,000,000
Value of Services: \$290,000
Client: Watt, Tieder, Hoffar & Fitzgerald LLP

This project involves a new 11-mile highway alignment from California's State Route 905 near the international border to State Route 54 near Sweetwater Reservoir. The State Route 125 Toll Road connects the only commercial port of entry in San Diego to the regional freeway network. This project, being developed as a public-private partnership, will complete the missing link in San Diego's third north-south freeway corridor.

This highway segment directly connects Otay Mesa, the largest area of industrial zoned land remaining in San Diego County, with eastern Chula Vista, including the Otay Ranch, the largest planned residential development in San Diego County. Commuters between these two areas now must travel 10 miles out of direction on heavily congested city streets.

The toll road is being developed as a public/private partnership under a franchise agreement between the California Department of Transportation and a private company, California Transportation Ventures, Inc. (Parsons Brinckerhoff and Egis Projects).

The project is in the very early stages of construction. The design/build contractor, Otay River Constructors (ORC), believes that the project has been delayed by several events for which it is not responsible. ORC requested an extension for delays caused by an environmental lawsuit.

The law firm of Watt, Tieder, Hoffar & Fitzgerald, LLP, representing ORC, hired Trauner Consulting Services to develop a plan and a proposed scope for analyzing delays. Although Trauner has been informed of several delays, we initially are focusing on the effect of incomplete geometric approval drawings, the environmental lawsuit, and the extended approval of ORC's QA/QC plan.

Trauner Work: 2004-Ongoing



Charlotte Area Transit System Charlotte, NC

Project Value: \$372,000,000
Value of Services: \$100,000+
Client: Charlotte Area Transit System

Charlotte Area Transit System (CATS) manages Charlotte, North Carolina's transit services while also planning for a regional transit system. The system will include bus rapid transit, light rail, commuter rail, and expanded bus service within a six-county area. CATS currently serves Mecklenburg County, including the City of Charlotte and the six suburban towns surrounding Charlotte: Davidson, Huntersville, and Cornelius to the north; and Matthews, Pineville and Mint Hill to the south.

CATS and the Metropolitan Transit Commission, CATS' policy board, selected light rail transit in an existing railroad right-of-way as the preferred alternative for rapid transit service in Charlotte's South Corridor. This is the first light rail project in North Carolina and has already generated over \$400 million in private sector development.

The proposed light rail project is approximately 10 miles long running south from Uptown Charlotte to Interstate 485. The system will operate on separate tracks generally within the Norfolk Southern right-of-way. Originally, 19 potential station locations along the light rail alignment were identified. Further analysis has reduced the potential stations to 15 locations based on access, site characteristics, compatibility with surrounding development, potential development, and public comments.

The South Corridor Light Rail Project is just the beginning of progress for transit in Charlotte and its surrounding regions. CATS strives to improve the quality of life for its citizens by not only providing them with an efficient, cost-effective transit system, but also by building a livable and sustainable community, integrating land and transit uses. CATS' dedication to customer service and system development aids the organization in increasing its share of the travel market and in becoming a progressive leader in the transit industry.

Trauner examined the organization, procurement, quality, construction and change order management, reporting, and project closeout sections of the Project Management Plan (PMP). We also assisted STV, the lead firm, in the implementation of a claims avoidance program. Services included drafting a program description for the PMP; reviewing/commenting on the General Conditions of the Contract; reviewing/commenting on the contract administration procedures manual, project procurement manual, and construction manager's manual; conducting training on claims avoidance, reviewing drawing notes, and other necessary steps to implement the program. We are also providing partnering on the project.

Trauner Work: 2004-Ongoing





Tren Urbano Project San Juan, Puerto Rico

Project Value: \$2,000,000,000

Value of Services: \$1,000,000

Client: Puerto Rico Highway and Transportation Authority

Tren Urbano, the "Urban Train," is a 17-kilometer, heavy-rail transit system, which includes 16 stations, situated in the outskirts of San Juan, Puerto Rico. This is one of the most important projects in Puerto Rico's transportation history. The public's perception of the Tren Urbano Project has been a mix of eager anticipation and wariness despite that it is the first rail transit system ever to be constructed in Puerto Rico, which has one of the highest automobile densities in the world. Begun in 1996 as a five-year, federally funded project budgeted at \$1.25 billion, the cost of Tren Urbano has risen significantly, currently projected to reach over \$2 billion. Additionally, delays have pushed back the public opening date from late 2001 to mid-2004 (projected). Controversy regarding rising costs and delays has played out in the political arena, which has kept the project squarely in the public eye. Despite the construction delays, the heavy rail system is expected to carry 113,300 riders per day by 2010. The train's route, or "alignment," is being constructed in sections, consisting of one or more stations by seven contractors, each under a separate design-build contract with Puerto Rico Highway and Transportation Authority (PRHTA).

Trauner has been retained to analyze disputes between PRHTA and Siemens Transportation Team, Puerto Rico (STT), which was responsible for constructing two such stations, an operations and maintenance building, a train car storage yard, and the entire 17 kilometers of dual track. STT was also responsible for design and manufacture of 37 married-pair train car sets, as well as all systems and software related to train control, communication, and passenger safety. Services include preparation of as-built schedule, delay/schedule analysis, determination of entitlement or liability, participation in negotiations, and report preparation.

Trauner Work: 2003-Ongoing



Assist and Review Analysis of Highway Construction CPM Schedules and Related Claims Statewide

Project Value: \$130,000,000

Value of Services: Unknown

Client: North Carolina DOT

Trauner has a four-year contract to provide the North Carolina Department of Transportation with CPM scheduling and related services. Trauner is providing services for two phases of a \$130M reconstruction project that encompasses three miles of Interstate 85. The project includes eight bridges, ten culverts, and one retaining wall. The construction involves widening, grading, drainage, concrete and asphalt pavement, resurfacing, lighting, signing, signals, long-life pavement markers, bridges, culverts, water lines, soil fabric retaining walls, concrete barrier, and a planter with an irrigation system and noise wall.

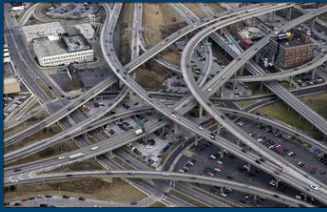
Trauner is analyzing and interpreting the contractor's monthly schedule updates in "real-time." Performing a review of the contractor's monthly updates, we determine what critical activities have been delayed and what activities have been improved. We also provide a look-ahead at what activities could become critical. Furthermore, we assess how owner-planned changes might impact the project and how that will affect the schedule.

In an effort to avoid potential claims, we provide "non-legal" advice on how certain topics (i.e. problems with specifications and enforcement issues) might be perceived in court, based on our prior experience. We are providing the NCDOT with contemporaneous documentation and are working "one-on-one" with the Project Engineer to provide immediate feedback that is relevant to the project now.

This "one-on-one" approach to client service provides a distinct advantage to our clients. During the initial stages of the project we provided NCDOT personnel with informal training on basic CPM methodology and Primavera software using examples from the ongoing project.

Trauner Work: Ongoing

Project Experience



Marquette Interchange Milwaukee, WI

Project Value: \$860,000,000
Value of Services: \$2,700,000
Client: Wisconsin Department of Transportation

The Marquette Interchange project is a revitalization of an interchange that has served as the life force of southeastern Wisconsin, currently handling approximately 1/3 of the freeway traffic for the state. The Wisconsin Department of Transportation (WisDOT) has developed a plan to replace the current interchange with a design aimed at encouraging smooth traffic flow, reducing lane jumping, and reducing the potential for traffic delays. The project is set to take place over the next four years, wrapping up sometime in 2008. Two lanes of through traffic are to remain open in all directions during the construction process. WisDOT also plans to work closely with the community in order to reduce the inconveniences associated with keeping a smooth flow of traffic during the construction.

Trauner's history with this project is almost as long as our 10-year relationship with WisDOT, which began as we were hired to update their Division 100 specifications. Trauner adjusted these specifications to better suit "mega-projects", which are projects, costing more than \$500 million. These Mega-Projects require special considerations, to avoid problems with delays, change orders, and claims, which may increase due their size.

With the Marquette Interchange Project in mind, WisDOT asked Trauner to provide a presentation, in March of 2003, addressing the potential pitfalls associated with tackling a project of such large proportions. Once the project was funded, the Federal Highway Administration requested that WisDOT bring aboard experts with Mega Project experience. Because of our experience on similar projects and our understanding of WisDOT's objectives and specifications, Trauner was a natural fit.

Teaming with URS, Trauner will provide Program Construction Management Consultant Services, working with WisDOT to manage the project and put in place systems that will help to avoid potential problems. The team will develop a construction management procedures manual for each of the clients project managers to use as a guide during the project. We will also assist with requests for information, change orders, and disputes. Furthermore we will be preparing a master schedule and reviewing the contractor's construction schedules and schedule updates throughout the project duration. Currently, we are working to bring the diverse team's methods and goals into alignment before construction begins as well as overseeing tasks during the pre-construction phase of the project.

Trauner Work: 2004-2008



New Mexico DOT Standard Specifications Update/Rewrite Santa Fe, NM

Project Value: Unknown
Value of Services: \$450,000
Client: New Mexico Department of Transportation

This project consisted of the complete update and rewrite of the New Mexico Standard Specifications for Road and Bridge Construction, as well as the revision of the Division 100 Specifications.

Trauner was hired to develop a style guide and update NMDOT's Standard Specifications for Road and Bridge Construction. During this project Trauner created a style guide which defined grammatical, format, and language style parameters and conventions to be used by all specification writers and contributors in the specification rewrite process. Also, Trauner revised and updated the Division 100 specifications, incorporating departmental updates and revised requirements. Trauner also made recommendations to NMDOT reflecting alternative provisions and established practices for consideration as part of the rewrite process. Furthermore, Trauner revised and updated the Division 200-900 specifications, incorporating departmental updates and revised requirements. Trauner also integrated additional content from supplements and special provisions to the extent desired by NMDOT and to the extent allowed by the budget. In addition, we converting the standard specification language to active voice, consolidated repetitive language, decreased the volume of superfluous text, changed dual unit measurements to U.S. customary units, and increased the general readability of the specifications. The document is now nearly 35% shorter, much more consistent, and clearly defines the responsibilities of the contractor and the department.

Trauner Work: 2006-2007





Caltrans Innovative Procurement Procedures Sacramento, CA

Value of Services: \$450,000

Client: California Department of Transportation

Caltrans awarded Trauner a contract to provide on-call consulting services to identify innovative procurement methods currently not used by the Department, but which have been successfully applied nationally. Any contract method that deviates from the traditional, prescriptive method, as authorized by the State and Federal procurement processes and procedures can be considered innovative. This includes assessing the applicability of those innovative procurement practices to the Department based on the its goals and desire to implement more efficient and cost-effective procurement practices. These on-call services consist of providing recommendations on a variety of policy and business issues related to existing and proposed procurement and contracting methods, including the following activities:

- Assist the Department in developing guidance, contract documents and implementation strategies (including risk analysis) for innovative procurement methods selected by the Department's Contract Manager.
- Identify statutory requirements for selected procurement and/or contracting methods. Assist the Department in the development of legislative proposals and legislative bill analysis. Assist in responding to requests for information.
- Identify any necessary changes in existing standard contract specifications to accommodate alternative contracting methods. Assist the Department in developing new contract special provisions to implement the new contracting methods.
- Assist the Department in developing procedures for pre-qualifying contractors (e.g., vendors, service providers, architectural and engineering contractors, etc.) for the selected procurement methods. Recommend pre-qualification criteria.
- Assist the Department in developing solicitation documents for selected projects. Coordinate with the Department's Office Engineer and the Procurement and Contract Officer in developing contract documents.
- Develop training materials and plan each selected procurement method. Assist with the implementation of the training plan.
- Consultations, meetings, and presentations will also be coordinated in Sacramento with the Department and Business, Transportation and Housing Agency (Agency) staff.

Task Order No. 1

Covers meetings and consultations with the Department and Agency on an on-call basis. The scope includes progress reports and meetings with the Contract Manager as needed to discuss the progress of the projects. Trauner coordinates and establishes the schedule of these meetings with the participants as appropriate and to accommodate the Department as requested.

Task Order No. 2.

Trauner Work: 2005-2007

Set Up and Maintain a Secure Website: Trauner developed an information sharing website to make all documents available to project participants. The website allows participants to develop a matrix of innovative methods, initially screened and categorized, for possible application on Department projects. The initial screening will recognize the Department's goals and regulations describing the current procurement circumstances and identify areas of opportunity. The transfer of information and coordination of analysis provided by this website also facilitates other contract tasks and activities.

Assist in Developing Criteria for Selecting Projects: Trauner works closely with Department staff to develop appropriate criteria for project selection. Trauner created a matrix of project selection criteria for the list of innovative procurement and contracting methods. This matrix will permit the Department's staff to choose projects appropriate to the methods desired.

Design-Build White Paper: Trauner developed a Design-Build White Paper introducing and outlining the design-build project delivery approach, why it is used, the design-build experience in California and nationally, key issues to consider, and conclusions.

Outreach Plan: Trauner consults with Caltrans to insure that the innovative procurement options developed succeed when implemented by identifying and addressing reservations within the owner's organization and determining industry support. This strategy identifies stakeholders who will play a role in the supporting, advocating, or use of the selected innovative methods and their concerns. Trauner consults with Caltrans in the creation of a strategy for making the selected methods attractive to all stakeholders and successful for the Department.

New Standard Specifications: Trauner is evaluating the existing Caltrans specifications to determine needed changes to support the implementation of new procurement and contracting methods. This includes coordination with Department staff to comply with the internal specification change process.

Contractor Prequalification Procedures: Trauner provides support to Department staff in the development of prequalification procedures consistent with the procurement methods the Department has selected for implementation. This is based upon on information gained from the best practices research to identify and summarize those procedures most applicable to the Department and its limitations, as established by statute.

Assist in Developing Solicitation Documents: Trauner provides support to Department staff in the development of solicitation and contract documents. This includes advising the Department and assisting staff with the development of documents and revisions to standard specifications as necessary. Trauner also recommends modifications to the Department's administrative procedures to make them compatible with the selected methods.

Task Order # 3 includes additional review of innovative procurements and practices in non-design-build areas.

The scope of services will include identifying alternative procurement and contracting methods, identifying the pros and cons of each method, developing guidance, contact documents, and implementation strategies, identifying changes in standard specifications and creating new standard specifications. These tasks will not be completed within this fiscal year.

Trauner will submit progress reports and meet with the Department Contract Manager and Project Coordinator as needed to discuss progress on the projects.



National Highway Specifications Website / and Website Update Nationwide

Value of Services: \$285,000 / \$148,000

Client: Federal Hwy Administration

Easy, industry-wide access to thousands of state-of-the-art highway specifications is now available at one URL due to the development of the National Highway Specifications Website project, a collaborative effort of the Federal Highway Administration (FHWA) and the Association of State Highway and Transportation Officials (AASHTO). Trauner not only developed this National Highway Specification Website, but also developed ways to maintain it.

The aim of this website project was to gather, organize, and index specifications and related information from public and private organizations so that users throughout the industry could efficiently search, cross-reference, compare, and download current specifications, access related training information, and review and participate in the development of new specifications. Envisioned as a comprehensive, fully searchable electronic “spec library,” the site hosts a variety of documents: approved construction specs from DOTs in the 50 States, District of Columbia, and Puerto Rico; current approved standard specs and supplements of Federal agencies and national highway-related organizations; relevant training materials of the National Highway Institute; and specifications under development such as quality assurance and performance-related specifications. Trauner performed a survey of states and Canadian provinces to determine how DOTs manage and maintain their specs and related documents, including how and to what extent they provide electronic access. Research on current practices concerning electronic construction specifications was gathered, as well as information on quality assurance, performance-related, and warranty specs. Together these findings were used to determine the best overall design for the pilot. Documents were organized by agency and by major category, allowing users to select specs from a single agency, subset of agencies, or all agencies on a particular topic. It contains the most recent approved specifications from across the country, emerging specifications utilizing innovative contracting practices, knowledge-based web pages with discussion forums, and related NHI and industry links. The website consolidates the industry’s knowledge of highway specs and makes this information available to all users.

During the development of this website Trauner worked with the various DOTs to obtain electronic versions of their specifications and other documents as well as directed the development of the website database and page design. Trauner pilot tested the site, which went live in 2002. The address for this site is <http://fhwapap04.fhwa.dot.gov/nhswp/index.jsp>

Since its launch in 2003, the National Highway Specifications Website (NHSW) has provided users with a fully searchable, electronic library of construction specification information from all 50 states and Puerto Rico, as well as from Federal Highway Administration’s (FHWA) Federal Lands Highway offices, and AASHTO. In addition, the site contains innovative and emerging specifications and special provisions, abstracts from relevant ASTM standards, and links to related websites. Consolidation of this information in one place has proven to be an invaluable resource to its AASHTO and FHWA community of users. As a one-stop source for specification information, the website has saved users time and money, while improving practices and promoting higher quality in construction end products. Three years on from its debut, the NHSW can thus be deemed a success. Trauner is working with the FHWA to make sure it remains a success challenge.

Trauner is assisting with Phase 2 of the NHSW implementation to ensure the website continues to meet its original mission statement of providing “easy, industry-wide access to thousands of state-of-the-art highway specifications at one URL.” Services that Trauner is performing include:

- Updating specifications as necessary;
- Improving the upload procedure to facilitate periodic maintenance of the website’s contents;
- Expanding the library of alternative and emerging specifications and special provisions;
- Improving search engine capabilities; and
- Expanding the existing FHWA Technical Advisory T5080.16, “Development and Review of Specifications,” to create a comprehensive guidance document regarding the development, review, and evaluation of specifications and the process by which approved specifications are to be submitted for uploading onto the NHSW.

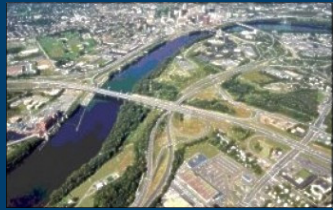
Phase 2, however, will not merely update the existing website’s contents. Although ambitious in and of itself, the original NHSW, as implied by its very name, is limited to specifications. To be a truly comprehensive library of highway construction information, its universe of documents must expand. Therefore, as part of the Phase 2 improvements, a library of fully searchable construction manuals will be added to the website. In addition, a feasibility study will be conducted to evaluate the potential of incorporating additional materials onto the website. This additional information could include standard plans, design and materials manuals, quality assurance procedures, and similar information crucial to a project’s success.

In summary, after the Phase 2 improvements, the website will reemerge as the definitive source for electronic specifications and manuals related to highway construction. In addition, the feasibility study will provide guidance for the possible future expansion of the NHSW to include standard plans, design manuals, and similar information.

Trauner Work: 2001-2002

Trauner Work: 2006-2007

Project Experience



Charter Oak Bridge Hartford, CT

Project Value: \$90,000,000
Value of Services: \$50,000
Client: Edwards & Angell

This project involved construction of the new Charter Oak Bridge - a critical component in a sequence of projects in the downtown Hartford area. Standard Structural Steel (SSS) bid the steel fabrication for the project relying on the adequacy of the plans furnished by the Connecticut Department of Transportation. SSS also anticipated that it would be permitted to perform according to the work sequence and durations represented at the time of bid. This did not occur due to deficiencies in the plans and the time and effort needed to correct them, delays in approvals, ConnDOT's decision to accelerate the work instead of extending the project completion date, and changes in the sequence of erection.

Trauner was retained by the counsel for SSS to perform an inefficiency analysis and assist in the preparation of a claim. Work reviewed by Trauner included alleged structural steel design errors and omissions, the history of the fabrication period, the liability and impacts, the approach used to analyze fabrication performance, and the resulting damages. Trauner also provided expert testimony during mediation proceedings.



Penobscot Narrows Bridge and Observatory Prospect, ME

Project Value: \$84,000,000
Value of Services: \$50,000
Client: Maine Department of
Transportation

The new cable-stayed bridge being erected between the towns of Verona and Prospect, along Route 1 in Maine replaced the existing Waldo-Hancock Suspension Bridge. The decision was made to erect a new bridge when it was determined the suspension cables on the Waldo-Hancock were badly corroded. Although other alternatives were considered, constructing an entirely new span was the only option that made sense in the long-term. Considerable effort was made to take into account community input. The community expressed concerns about the bridge design and also requested a structure that looked historical rather than modern or futuristic. In order to maintain a historical appearance, the final bridge design incorporated two obelisk-like towers with proportions resembling those of the Washington Monument. In order to ease the communities concerns over the height of these two towers, the final design also incorporated an observatory atop one of the towers. The designers hoped that the observatory would become a regional tourist attraction. Due to the urgent nature and accelerated schedule required for erecting this new bridge, an owner-facilitated design/build process was utilized after prior approval from the Federal Highway Administration. This fast-track construction of the new cable-stayed bridge along US Route 1 in Maine was designed to promote innovative contracting practices.

Trauner was hired by the Maine Department of Transportation (Maine DOT) to provide independent cost estimating for this project. Essentially, Trauner developed the cost estimate from the perspective of a bidding contractor. This helped Maine DOT procure in a non-traditional design build method, in which the designer and contractor are hired separately. Services included a site visit, preparation of estimate, and presentation of findings.

Trauner Work: 1992-1994

Trauner Work: 2005-2006





Blue Water Bridge Port Huron, MI

Project Value: Unknown
Value of Services: Unknown
Client: Michigan Department of Transportation

Blue Water Bridge is a major international crossing over the St. Clair River at the southern end of Lake Huron connecting the City of Port Huron, Michigan, U.S.A. to the Village of Point Edward, Ontario, Canada.

Trauner was retained to analyze an \$8M acceleration claim for delays submitted by the general contractor on the rehabilitation of the Michigan portion of the first span of the bridge. Trauner's services included analysis of quantity overruns and their impact on the project schedule.

Trauner Work: 2005-2006



Ted Stevens Anchorage International Airport Anchorage, AK

Project Value: \$200,000,000
Value of Services: \$100,000
Client: Insurance Company of the West

The existing terminals at the airport were about 45 years old and in need of upgrading. Work included new terminal structures, parking facilities, and air-side improvements for Alaska Air. Replacement of old Concourse 'C' was bid and a contract was let to Kiewit Pacific for approximately \$100M. Permit delays and other issues delayed the project about 2 years. Kiewit's contract ultimately exceeded \$200M.

Design deficiencies were evaluated by Wiss Janney. Trauner was retained to quantify the impact of design issues on construction of the project. The evaluation of delays and delay damages was part of the scope of our services. Our services also included performance of a delay/schedule analysis, damage preparation/evaluation, and participation in mediation.

Trauner Work: 2005-2006



Lee Roy Selmon Expressway Tampa, FL

Project Value: \$350,000,000
Value of Services: Ongoing
Client: Tampa-Hillsborough
Expressway Authority

On April 13th, 2004, Pier No. 97 collapsed on the new construction project for the Lee Roy Selmon Expressway. Due to the collapse, "The Bridge to the 21st Century" sank approximately 20 feet and exhibited an abnormal V-shape dip near 50th street in Tampa, Florida.

This large and complex project has a long history. During the 90's, increasing traffic congestion made the commute on the Selmon Expressway difficult. The Tampa-Hillsborough County Expressway Authority (THEA) needed to find a solution to this traffic nightmare. The idea originally started as two traditional bridges. However, this concept was dropped after concerns about the environmental impact were reviewed. With traffic historically flowing in the direction of the commute, an idea was sparked to build an elevated, 6-mile, three lane, reversible highway (meaning that the highway goes into the city during the morning and out during the evening rush.) Essentially, this means that THEA will get the benefit of six lanes for the price of three, and commuters will have a direct travel route between the cities of Brandon and Tampa.

The elevated highway will also serve as a testing ground for new advancements in highway safety. The hollow shell of the structure will house cabling and a communications center, which will be used to control displays that inform commuters of highway conditions. There will also be a safety net system that will snag cars that might attempt to enter the highway in the wrong direction.

After the pier collapse, Trauner was retained to evaluate loss of productivity; to review the schedule status; to monitor the demolition and re-construction; and to assist the Authority with its insurance claim for the demolition and reconstruction of the damaged bridge sections.

Trauner Work: 2004-2006



Maine DOT Statewide Design-Build Program Portland, ME

Project Value: \$17,000,000
Value of Services: \$350,000
Client: Maine Department of Transportation

On this project, Trauner provided Design-Build Oversight Support Services.

Trauner, along with URS, served as Technical Advisor of Procurement to assist MDOT in the development of their Statewide design-build program. For each assigned project, there were four main tasks: review and coordination with MDOT, RFQ development and advertisement, RFP development and contract document preparation. MDOT procured a design-build team to design and construct approximately 4,000 feet of new access road connecting Commercial Street in Portland to I-295 near the Congress Street intersection. This project included two new railroad crossings and three new signalized intersections. Coordination with the City of Portland and utilities was required, and maintenance of traffic was critical. MDOT selected this project for their design-build program in a effort to have the project completed in a reduced period of time due to the planned new hospital (Mercy) to be constructed in the project area. Trauner/URS reviewed documents of other states that have successfully used design-build for highway projects to provide MDOT with appropriate recommendations for consideration. A complete review of the preliminary engineering for this project was undertaken to determine the overall level of completeness and suitability for issuance as supporting documentation for the RFP. The second task was to develop an RFQ, develop evaluation criteria, review with selection team/technical review committee, advertise the RFQ, answer questions, and evaluate and shortlist qualified teams. The third task involved development of a draft and final RFP, as well as answering questions and requests for clarifications from the design-build teams. The final task was to review existing contract documents and revise or modify, as necessary.

Trauner Work: 2002-2006



NCHRP Best-Value Procurement Methods

Project Value: \$299,900
Value of Services: \$299,900
Client: National Cooperative Highway Research Program

Legislative requirements in most states require that highway construction contracts be awarded using a low-bid system. Under a low-bid system, contractors submit bids based on plans and specifications prepared by the highway agency or a private engineering firm hired by the agency, and, except under extraordinary circumstances, the contractor submitting the lowest bid is awarded the construction contract. In all but a few cases, experience levels of the contractor, quality issues, and other criteria are not taken into consideration in awarding these contracts. It is believed that this contract delivery method may affect efficiency and quality of construction projects.

In 2002, The National Cooperative Highway Research Program contracted Trauner to conduct a research study to develop guidelines for alternative contracting methods and "best-value" procurement.

Under a "best-value" selection process, the low-bid concept can be modified by adding quality issues to the bid evaluation process. During this selection process, the low-bid is weighted with other elements to determine a best value that reflects quality, as well as cost issues. Several governmental organizations, including the Army Corps of Engineers, have used the best-value concept to award construction contracts.

With this study, Trauner will clarified what "best-value" procurement means for the industry, evaluated the effectiveness of the various approaches used or proposed for use, and developed practical and flexible procedures for the implementation of "best-value" procurement in the context of the traditional low-bid system.

During this research study, Trauner identified best-value procurement methods that have been considered, developed, or used for awarding construction contracts; critically evaluated the effectiveness of the best-value procurement methods; developed best-value procurement methods for use in awarding highway construction contracts; developed practical, objective criteria and processes (including a scoring system) to be used in quantifying best-value elements of a construction bid; developed screening criteria for selecting projects for application of best-value procurement methods; developed strategies to overcome institutional, legislative, industry-related, and other barriers to implementing the recommended best-value procurement methods; and submitted a report that documents the entire research effort.

Trauner Work: 2002-2006

Project Experience



Triborough Bridge
New York, NY

Project Value: \$271,000,000
Value of Services: \$99,900
Client: Metropolitan Transportation Authority Bridges and Tunnels

The TB-64B project is a \$271M bridge widening and deck replacement project, containing two new ramps for the Triborough Bridge in New York, New York. The contractor submitted a \$5M claim for damages.

Trauner was hired by the Triborough Bridge and Tunnel Authority to perform a preliminary delay analysis and analyze construction acceleration issues on the project. As part of this analysis, we calculated costs for materials and manpower.

Trauner Work: 2006



Tomlinson Bridge
New Haven, CT

Project Value: \$88,000,000
Value of Services: \$200,000
Client: White Oak Corporation

The contractor was hired to perform all work associated with the \$88M removal and replacement of the existing four-lane U.S. Route 1 bridge over the Quinnipiac River in New Haven, Connecticut. The contract specified that the existing bascule span was to be replaced by a lift span. To minimize the impact on U.S. Route 1 traffic, the construction sequence that was utilized by the contractor required the construction of a temporary two-lane lift bridge to handle traffic during demolition of the existing bridge and construction of the new bridge. The project notice to proceed was given on July 5, 1994, and the planned completion date was January 5, 1998. Due to several difficulties, ranging from design problems, owner interference, and differing site conditions, the project experienced a delay of over 1,000 days.

As a result of project delays and alleged mishandling by the Owner, the contractor hired Trauner to perform the following services.

- Identification of issues related to the project delays, disruptions, acceleration, and differing site conditions
- CPM schedule review and analysis
- Graphics preparation for arbitration and mediation proceedings
- Support and testimony for arbitration hearings

Trauner Work: 1997-2005



Cross Island Parkway
Douglas County, NY

Project Value: \$134,000,000
Value of Services: \$277,000
Client: Greenman-Pederson

The project consisted of 3.3 kilometers of roadwork and replacement of 14 bridges on the Cross Island Parkway link of the Long Island Expressway in Douglas County, New York. A claim was filed for Loss of Productivity.

Trauner provided claims analysis services including evaluating the original baseline schedule, identifying delays and inefficiencies, auditing the claim submitted by the Construction Manager, and identifying any damages incurred as a result of the Construction Manager's performance.

Trauner Work: 2005



Pullman Square
Huntington, WV

Project Value: \$37,000,000
Value of Services: \$1,000,000
Client: The Transit Authority

Pullman Square is a new transit-oriented urban Town Center developed on a 9.1 acre site known as the "Superblock" in downtown Huntington, West Virginia. This 200,000 sf project was developed jointly by The Transit Authority (TTA) and private developers through private funds and public grants from the Federal Transit Administration and the West Virginia State Economic Development Committee. The Center includes an assortment of restaurants, entertainment venues, specialty retail shops and office space, and bolsters the TTA's existing transit network through dedicated customer pick-up and drop off areas, customer information areas, and park and ride facilities.

Trauner's role in this project's success was significant. As the Project Management Oversight Consultant, Trauner developed the project management plan, and revised the schedule specification and claims avoidance clause in the TTA's contract. The Trauner team worked closely with the Construction Manager to establish the schedule and interfaced with the contractors to ensure that schedule updates accurately reflect the progress made and forecast. Furthermore, Trauner advised the TTA on complying with Federal Transit Administration's contracting requirements and worked with public and privately hired contractors on their project schedules. The project was completed successfully.

Trauner Work: 2000-2005

Project Experience



Logan Airport Station Boston, MA

Project Value: \$35,000,000
Value of Services: Unknown
Client: Massachusetts Bay Transportation Authority

Due to the construction of the Central Artery/Tunnel (CA/T) "Big Dig" project in Boston, the Massachusetts Bay Transportation Authority performed a \$35M reconstruction project on its Logan Airport Station in Boston. Delays to the CA/T construction affected the adjacent construction on the Logan Airport Station, causing 89 change orders and issues of acceleration.

Trauner was hired to provide an independent estimate of a global settlement on these change orders.

Trauner Work: 2005



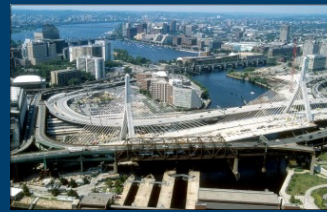
Phoenix Deer Valley Airport Phoenix, AZ

Project Value: \$1,000,000
Value of Services: \$60,000
Client: Mid-State Surety Corporation

Phoenix Deer Valley Airport is classified as a general aviation reliever airport for Phoenix Sky Harbor International Airport. The airport is home to more than 1,350 aircraft and had over 389,500 takeoffs and landings in 2002. A vital component of the City of Phoenix airport system, Deer Valley is the second busiest airport in the state and the third busiest general aviation airport in the country.

Improvements to the airport were completed in 2000. Phase I of the work included remodeling and expanding the airport restaurant, kitchen, dry storage, freezer, first floor rest rooms, elevator, and equipment room. Phase II involved balancing passenger terminal facilities that included administration offices and public areas; paving and parking lot improvements also occurred. Trauner was retained to analyze claims of delay, wrongful termination, and disputed extra work. Trauner's services included: preparation of an as-built schedule; delay/schedule analysis; determination of entitlement and liability; damage preparation / evaluation; and participation in mediation.

Trauner Work: 2003-2004



Big Dig-Central Artery Tunnel Boston, MA

Project Value: \$14,000,000,000
Value of Services: unknown
Client: Massachusetts Turnpike Authority

Boston's Central Artery/Tunnel Project (CA/T) is to date the most complex and expensive highway project ever undertaken in the United States. The project called for replacement of an outdated highway infrastructure with a new state-of-the-art highway system, most of which is underground or underwater. The eighteen-year, fourteen-billion-dollar project consisted of two major components: the new eight-to-ten-lane underground expressway; and the extension of I-90 (the Massachusetts Turnpike) from its current end-point south of downtown Boston, through the Ted Williams Tunnel, to Logan Airport. It also included five major new highway interchanges and a two-bridge crossing of the Charles River. The CA/T Project reconnects downtown Boston with its waterfront and historic North End neighborhoods.

Trauner was retained by the Massachusetts Turnpike Authority (MTA) as Independent Claims Consultant Services to provide the MTA with evaluation of the detailed claims review and analysis already performed by the CA/T Claims and Changes staff. Trauner's assignment pertained to the construction of a \$297M portion on I-90 in the South Boston area from the Haul Road to D Street and North of Summer Street. The work consisted of approximately 600 linear feet of varying width cut-and-cover reinforced concrete highway tunnel and boat sections; 1600 linear feet of steel and pre-cast box beam bridges; 9700 linear feet of surface roadway; and an above ground, reinforced concrete transit way station structure including finishes.

The general contractor, Kiewit/Atkinson/Cashman (KAC), alleged it experienced delays and additional costs on both the Central Artery and the World Trade Center portions of the project; and that it was seeking to recover some of the additional costs it had incurred.

Trauner conducted a due diligence/quality assurance review of the completeness and adequacy of the analysis performed by the CA/T Claims and Changes staff including documentation pertaining to selected contract modifications. Our work was completed in 2004. The final outcome was an approximate \$28M settlement of a \$64M claim. The CA/T staff indicated that our work product was the best independent claim oversight report they received from any of the Independent Claims Consultants.

Trauner Work: 2003-2004

Project Experience



John Wayne Airport Orange County, CA

Project Value: \$6,000,000
Value of Services: \$50,000
Client: Watt Tieder Hoffar & Fitzgerald LLP

John Wayne Airport, located 35 miles south of Los Angeles, California, is owned and operated by the County of Orange, and provides service to approximately 8 million passengers per year. Between September 1997 and August 1999, construction of the Airport's East Parking Structure Levels 2 and 3, and a parking structure addition with structural improvements, occurred. Following completion, the contractor alleged it incurred delay impacts and extra costs as the result of the construction manager's faulty specification and approval process. The contractor claimed the construction manager's actions or inactions caused significant delays to the project. From issues of liquidated damages or loss of use; changes/E&O issues; and design inadequacy, the contractor calculated its damages as over \$10M for the delays and related extra cost issues.

Trauner was retained to perform an analysis of the stress and cracking issues; a delay and schedule analysis; damage preparation/evaluation; and report preparation.

We were again retained to provide evaluation of damages and expert witness testimony at deposition and during the trial of issues surrounding the construction of the John Wayne Airport Fire Station #33, which, upon completion in December 2004, was 18 months behind schedule and \$2.7M over budget. The contractor was terminated by the airport, the contractor claims wrongfully so. The contractor asserts that the initial cause of any delay was the Airport's contention that the concrete foundation was non-conforming work and needed to be removed. The contractor had tests performed to establish that the foundation work was fine. Over the course of a year, the disagreement was never resolved, and the Airport eventually brought in a new contractor to complete the project.

Trauner Work: 2004



287/87 Interchange Westchester County, NY

Project Value: \$187,000,000
Value of Services: \$70,000
Client: New York State Thruway Authority

In March 2001, the New York State Thruway Authority (NYSTA), in conjunction with the New York State Department of Transportation, launched a 30-month, \$187 million project to reconstruct the I-287/87 interchange (Interchange 8) from the Tappan Zee Bridge toll plaza to the Saw Mill River Parkway on the Cross Westchester Expressway.

This project, the Authority's largest to date, was designed to improve mobility, provide more reliable service, increase safety and add convenience for motorists using this vital east-west corridor. The I-8 reconstruction project was to be a part of the New York State Thruway Authority's continuing mission to provide safe, reliable service to its customers.

Delays hindered the project throughout the construction. The contractor awarded to the project, submitted a claim requesting a 352 calendar day time extension covering the period from the start of the project to May 2002. NYSTA subsequently hired a consultant to analyze this claim. After the consultant submitted its assessment to NYSTA, the authority came to Trauner, requesting a third party review of the consultants analysis and conclusions.

After receiving the review, Trauner was asked to further investigate the claim and provide review of the project schedules in greater detail, develop an as-built schedule from the Inspector's Daily Reports, review the project records. Trauner then compared these results to develop and apply a methodology to understand what work delayed the project, and determine the magnitude of those delays.

Trauner Work: 2003-2004



Southeastern Pennsylvania Transit Authority (SEPTA) Philadelphia, PA

Project Value: \$30,000,000
Value of Services: \$39,000
Client: Tony DePaul & Sons

This project consisted of the reconstruction of the Frankford Elevated Blue Line at Berks, Huntington & Church Stations, and the adjoining passenger platforms. The project also included the conversion of SEPTA's existing power distribution system.

Trauner provided initial baseline schedule development, periodic schedule updating, attended progress meetings, and developed monthly progress reports.

Trauner Work: 1999-2004



Project Experience

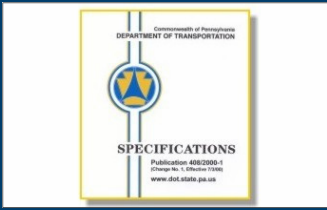


Badger Bridge
Los Angeles, CA
Project Value: \$31,000,000
Value of Services: \$80,000
Client: The Port of Los Angeles

On this project a bascule railroad drawbridge was replaced with a lift-span bridge to allow passage of double-stacked container ships. The bridge is the only rail connection between Terminal Island and the mainland and connects to the Alameda Corridor Mainline. The project finished late and the contractor filed a claim for delay and disruption, allegedly due to differing site conditions.

Trauner assisted legal counsel for the Port of Los Angeles. We reviewed the claim; prepared delay, inefficiency, schedule, and cost analyses; and provided general claims support. We reviewed documents, interviewed the Port personnel regarding the alleged delays, and performed an independent evaluation of the effect of those delays. Issues included calcium carbonate removal, timber cribbing removal, pile driving obstructions, counterweight and auxiliary counterweight modifications, electric chase and cable selections, and the lack of a workable plan to remove the existing bridge superstructure. Trauner provided expert testimony and assistance during the negotiation and litigation process.

Trauner Work: 2000-2003

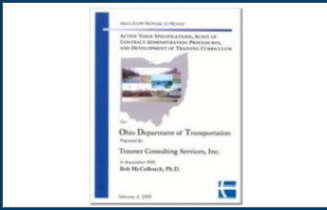


PennDOT's Pub 408 e-Spec Project
Harrisburg, PA
Project Value: \$780,000
Value of Services: \$780,000
Client: PennDOT

The objectives of this project were to standardize, simplify and update specifications and instructions consistent with regional and national practices, and create an electronic, web-based specification linked to reference standards and other PennDOT publications, and incorporating multi-media enhancements.

Trauner facilitated PennDOT Work Groups in editing, revising, and updating their Pub 408 to promote clarity, consistency, and ease of use for all specification users (contractors, suppliers, consultants, and PennDOT). Trauner also assisted PennDOT in identifying and incorporating performance requirements where appropriate. Tasks associated with the work included needs assessment and market analysis; prototype and schedule development; format and specifications content development; hypertexting, linkage, and expert training incorporation; assembly and integration of the final product; user familiarization - develop an audio-visual familiarization program; and system implementation and maintenance.

Trauner Work: 2000-2003



ODOT's Multi-Scope Contract Administration Project
Columbus, OH
Project Value: \$870,000
Value of Services: \$870,000
Client: Ohio DOT

The Ohio Department of Transportation (ODOT) recognized a need to update, revise, and rework its contract documents and procedures in order to help better serve its growing annual highway construction program.

Trauner was the sole consultant for this ambitious and exciting project. It was comprised of three phases. Phase I involves the rewrite of the Standard Specifications for Highway Construction into the active voice, including Division 100 and all supplements; Phase II involved conducting a six state construction administration practices survey with ODOT, FHWA and Contractor's Associations and the publishing of a comprehensive "Best Practices" report; Phase III involved the development of a complete training curriculum for ODOT Project Engineers and Inspectors, to include career ladders for advancement within ODOT.

Trauner Work: 2000-2002



Project Experience



On-Call Claims Support Services

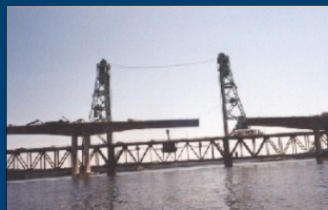
New Brunswick, NJ

Project Value: Unknown
Value of Services: \$200,000
Client: New Jersey Turnpike Authority (NJTA)

Trauner performed construction claims support services for NJTA's aggressive turnpike widening construction program on an on-call basis over a two-year period.

The NJTA's construction program encompassed bridge rehabilitation, repair, repainting, and highway resurfacing; sound walls, retaining walls, a service area improvement and enlargement, and new major capital projects (road, bridge, and toll plaza construction). Trauner services included the review of contractor claim documents; fact gathering efforts at contractor offices, construction sites, NJTA offices, and other locations; schedule and delay analyses; analysis of impacts such as inefficiency and constructive acceleration; analysis of entitlement issues such as differing site conditions and deficiencies in the contract documents; cost analysis and audit capabilities; preparation of letters, reports, and recommendations; preparation of final reports for the Authority for claims which were settled; assistance to the Authority's Law Department for claims that resulted in litigation; and

Trauner Work: 2000-2003



Carlton Bridge

Sagadahoc County, ME

Project Value: \$15,000,000
Value of Services: \$40,000
Client: Maine Department of Transportation

This project involved the rehabilitation of the mechanical, structural, and electrical components of the Carlton Bridge spanning the Kennebec River in Maine. This is a mechanical lift bridge that formerly carried vehicular and rail traffic. The rehabilitation work included the electrical and mechanical work necessary to allow the bridge to continue to carry rail traffic. Vehicular traffic was transferred onto the new Sagadahoc Bridge.

Trauner provided scheduling, construction administration, and document review. We provided initial schedule development and schedule updates; review of the drawings (at 95%) and specs for constructability, and identification of any potential duplications and ambiguities to ensure that the documents adequately and accurately described the work to be bid. We reviewed project documentation regularly, attended partnering meetings, conducted site visits, and provided claims avoidance and resolution.

Trauner Work: 1999-2001



Greater Orlando International Airport

Orlando, FL

Project Value: \$350,000,000
Value of Services: \$500,000
Client: Greater Orlando Aviation Authority

Trauner assisted the Greater Orlando Aviation Authority (GOAA) on numerous projects involving its ambitious airport expansion. This North East Terminal Expansion Project involved a four-story structure and Hyatt Hotel ballroom; an international baggage claim facility; the North Crossfield Taxiway; construction of three new taxiways; site preparation for the NE Terminal expansion; and the West ramp rehabilitation. For the \$48M North Crossfield Taxiway project, GOAA embarked on a new method of routing the aircraft and automobiles into the new terminal - an elevated taxi and roadway system.

Trauner was selected by GOAA to provide a variety of services including project monitoring, CPM schedule review, on-site project oversight, and project inspection, claims analysis, delay/schedule analysis, determination of entitlement or liability, damage preparation/evaluation, preparation of as-built schedules, inefficiency analysis, participation in negotiations, determination of liability, contract interpretation, and analysis of defective work. One project involved a foundation and sitework contract. We evaluated a delay and liability claim made by the contractor. We performed a delay analysis in order to determine the source and magnitude of delays and the calculation of cost damages related to time.

For another project, we provided on-site assistance, CPM schedule review and analysis, delay and impact analysis, the determination of liability for delay, review of all project correspondence, evaluated daily progress, documented project status, and prepared a detailed correspondence report.

Trauner Work: 1997-2003



Alameda Corridor Los Angeles, CA

Project Value: \$2,400,000,000

Value of Services: \$2,500,000

Client: Alameda Corridor
Transportation Authority

The Alameda Corridor Transportation Authority (ACTA) oversaw the design and construction of one of the country's largest infrastructure projects, including the first consolidated railroad link expressway of its kind, the Alameda Corridor.

The 20-mile-long, \$2.4 billion corridor consolidates 90 miles of track and four branch lines into a single line and links the two San Pedro Bay ports to key rail yards near downtown Los Angeles. The corridor crosses or borders ten cities, and its construction eliminated more than 200 rail and street intersections, eased traffic congestion and reducing air and noise pollution. During construction, contractors dealt with contaminated sites, significant archaeological findings, multiple rail and utility districts, and differing site conditions. Hundreds of subcontractors and thousands of employees participated in the construction of this project, which included one of the largest design-build contracts ever awarded to a single contractor, \$760 million for construction of the 10-mile Mid-Corridor.

Trauner in association with URS was selected by ACTA to provide REALTIME Claims Management services, which included: contract document review, including development of "claims resistant" bid and contract documents; project monitoring and oversight; consultant performance audits; master schedule review and updates; evaluation of contractors' baseline schedules, updates, and requests for time extensions; evaluation of proposed change orders; development and presentation of project-specific training courses to construction administration personnel on understanding and implementing contract provisions, change order management, claims avoidance, and dispute resolution; and the development and implementation of claims avoidance and mitigation strategies.

Trauner regularly verified each contractor's schedule updates, resulting in no disputed time-extension issues. This schedule review and verification process allowed the project to avoid disputed time-extensions issues.

Also, this project was completed on time, within budget and, most importantly from the perspective of Trauner's contribution, without significant claims. It was Trauner's REALTIME Claims Management services that allowed the project team to focus their resources on problems before the issues led to disputes and claims. Early detection and monitoring also allowed, for example, the contemporaneous documentation of productivity data, keeping claims at a minimum, and settling changes for actual costs based on real-time data.

Trauner Work: 1999-2002



Ft. Lauderdale-Hollywood International Airport Virginia Beach, VA

Project Value: \$160,000,000

Value of Services: Unknown

Client: Broward County Aviation
Department

Fort Lauderdale-Hollywood International Airport is expected to contribute an average of more than \$2.3 billion each year to the local economy. The Airport is in the center of Broward's unique multi-modal transportation complex. The combination of two railroads on either side of the Airport, a deep-water seaport and an highway system leading to the Airport's main entrance provides unparalleled transportation opportunities.

In 1999, Ft. Lauderdale International Airport started construction on an expansion project that included the construction of a multi-level public passenger terminal and concourses. The work included nine new aircraft gates, supporting terminal facilities, a pedestrian bridge, public facilities, lounges, lobbies, baggage devices, a centralized mechanical chilled water plant and cooling towers, air handlers, and tenant space. At the completion of Phase One construction, a claim was settled with the general contractor. The Aviation Department believed that a majority of the delay accepted by the department was the architect's responsibility. Trauner was hired to analyze the claim.

Trauner prepared an as-built schedule, performed a delay/schedule analysis, a liability analysis, and provided support during mediation. The case settled favorably for the Aviation Department.

Trauner Work: 1999-2000

Project Experience



Vermont Standard Specs Montpelier, VT

Project Value: \$75,000
Value of Services: \$75,000
Client: Vermont Agency of Transportation

This project entailed rewriting, updating, and converting to dual dimensions the 1995 Vermont Agency of Transportation (VAOT) Standard Specifications for Construction. The 1995 book was written entirely in metric units of measure.

Documents incorporated included the General Special Provisions, Errata Sheets, selected Supplemental Specifications, and some high-use Project Special Provisions. VAOT supplied electronic versions of both their 1990 English and 1995 metric books in Word Perfect format. Additional services included general provision rewriting, verifying and establishing English and metric tolerances, and the printing of the 2001 VAOT Standard Specifications for Construction (bound and CD-ROM).

Trauner Work: 2000



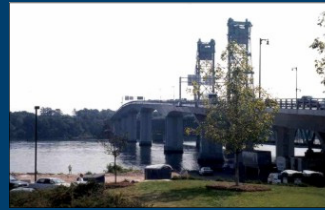
McCarran International Airport Las Vegas, NV

Project Value: Unknown
Value of Services: \$40,000
Client: Bergelectric

In calendar year 2003, McCarran International Airport handled more than 36 million passengers. This puts McCarran among the top 10 busiest airports in North America. As the second largest origin-and-destination (non-hub) airport in the world, and the host to 31 scheduled and four unscheduled/seasonal airlines, hundreds of concession customers, and nearly three million passengers per month, McCarran requires an aggressive construction and remodeling program to keep pace with passenger traffic and growth. Over the past decade, McCarran has accomplished numerous expansion projects, totaling \$1.14B. Among these projects was an electrical upgrade of Concourse C.

Trauner performed an analysis of lost electrical worker productivity at the McCarran International Airport. The contractor claimed it experienced cost overruns as a result of limited access and acceleration via extensive night work. Trauner analyzed the contractor's documentation and the contract requirements to determine the cause of the lost productivity and evaluate the productivity impact factors.

Trauner Work: 2001



Sagadahoc Bridge Bath, ME

Project Value: \$46,000,000
Value of Services: \$300,000
Client: Maine Department of Transportation

The project consisted of the design/build of a high level, precast segmental bridge approximately 900 meters long and 20 meters wide, with drilled caisson foundations, a horizontal navigational span of about 61 meters and a vertical navigational clearance of about 20 meters. The new bridge, which spans the Kennebec River between the City of Bath and the Town of Woolwich, is located about 45 meters north of the existing Carlton Bridge, and consists of a new four-lane highway and sidewalk. The Bath approach, approximately 150 meters in length, was included in the design/build contract.

Trauner provided construction contract administration and REALTIME Claims Management services for the Maine Department of Transportation. Services included a review of the design/build RFP, the contractor's proposal, and the project design and contract documents; review of the design/builder's CPM schedule for the project; review of schedule updates and revisions; update of the overall CPM schedule; presentation of a one-day seminar on CPM scheduling for Department personnel; development of a document control system; review of all project documentation; preparation of a written report with recommendations for each review conducted; contract administration; project review; claims avoidance and management; and attendance at all partnering meetings.

Trauner Work: 1998-2000

Project Experience



Carlton Bridge
Sagadahoc County, ME
Project Value: \$15,000,000
Value of Services: \$40,000
Client: Maine Department of Transportation

This project involved the rehabilitation of the mechanical, structural, and electrical components of the Carlton Bridge spanning the Kennebec River in Maine. This is a mechanical lift bridge that formerly carried vehicular and rail traffic. The rehabilitation work included the electrical and mechanical work necessary to allow the bridge to continue to carry rail traffic. Vehicular traffic was transferred onto the new Sagadahoc Bridge.

Trauner provided scheduling, construction administration, and document review. We provided initial schedule development and schedule updates; review of the drawings (at 95%) and specs for constructability, and identification of any potential duplications and ambiguities to ensure that the documents adequately and accurately described the work to be bid. We reviewed project documentation regularly, attended partnering meetings, conducted site visits, and provided claims avoidance and resolution.



New Mexico State Route 44
Santa Fe, NM
Project Value: \$300,000,000
Value of Services: \$100,000
Client: New Mexico State Highway and Transportation Department

This project involved the widening of New Mexico State Road 44 from two to four lanes running northwest from San Ysidro to just outside of Bloomfield, near the Four Corners. NM44 also became part of US 550, as of January 2000. All U.S. maps now have the US 550 designation on them.

New Mexico State Highway and Transportation Department (NMSHTD) requested the services of a Consultant with experience in Design-Build to assist in the development of an RFP and the selection and negotiation process for the high-profile and unique NM Corridor 44 project, a \$300M highway expansion and improvement program. The RFP solicited a Project Development Contractor to provide financing, final design, construction management, and warranty services for the project. Trauner worked closely with New Mexico personnel on the development of the RFP and supporting documentation to procure the Development Contractor. Aspects of this project and our involvement in it included the development of language for design requirements, construction management, quality assurance, selection and evaluation criteria, and development of a long-term pavement and structures warranty. This RFP represented a shift in the responsibility for quality from the state to the private sector. This project represents a new and innovative approach for road development and maintenance. We provided research regarding innovative design and financing methods. As a follow-up to our initial contract, NMSHTD requested that Trauner participate as an advisor to NMSHTD selection committees in the selection process, and develop comprehensive pre-qualification procedures.



Project Experience



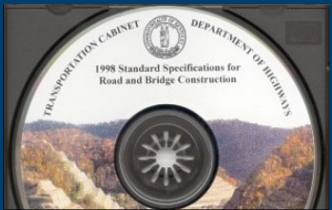
Bi-State Development Agency's MetroLink St. Louis, MO

Project Value: \$339,000,000
Value of Services: \$30,000
Client: Bi-State Development Agency

In the St. Louis area, a \$27.7 million grant was used to extend the Bi-State Development Agency's MetroLink light rail system approximately 17 miles, from the existing Fifth and Missouri Station in East St. Louis, IL, through Belleville, IL, to Belleville Area College. The project includes eight new stations, seven with park-and-ride lots; 20 new light rail vehicles; and a new maintenance facility in East St. Louis. The Federal Transit Administration entered into a Full Funding Grant Agreement (FFGA) with Bi-State in October 1996, committing almost \$244 million in federal funds for this project. Including the new grant, federal funds under the FFGA provided to date total \$240.6 million. The total project cost is \$339 million, of which the St. Clair County Transit District will provide \$95.2 million in local funds from a three-quarter-cent county sales tax and interim gap financing.

As a subconsultant to the PMO, Trauner recommended and drafted new contract language for the general and special conditions for a major capital light rail project for the Agency. Trauner's work was performed substantially ahead of schedule and under budget.

Trauner Work: 1998



Kentucky Standard Specifications Frankfort, KY

Project Value: \$200,000
Value of Services: \$200,000
Client: Kentucky Transportation Cabinet

This project consisted of the rewrite of the 1994 Standard Specifications for Road and Bridge Construction and Supplemental Specifications for distribution on CD-ROM.

Trauner was selected by The Kentucky Transportation Cabinet, Department of Highways to rewrite the 1994 Standard Specifications for Road and Bridge Construction and Supplemental Specifications in the active-voice/imperative mood in a standardized, consistent format without changing the meaning or intent of the specifications. Trauner organized the supplements and developed and provided an electronic version of the Specifications on CD-ROM, which was hypertext-linked to the Kentucky Methods Manual and the Field Sampling Manual, to produce the final version of the 1998 Standard Specifications. All internal appendices, table of contents, as well as Legal Statutes, were extensively linked throughout the documents.

Trauner Work: 1996-1997





Suffern Interchange Suffern, NY

Project Value: \$97,000,000
Value of Services: \$50,000
Client: New York State Department of Transportation

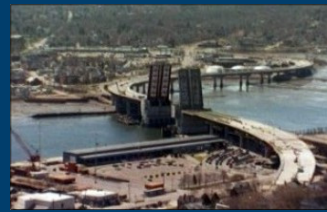
The Suffern Interchange involved the construction of a new interchange among I-287, the New York State Thruway, Route 17 and local roads in Suffern, New York. This project was divided into two main areas: the main interchange and the local interchange. The main interchange work consisted of constructing five new ramps, including three with super-elevated sections, enabling the connection of three major roadways. As a part of the contract, most of the existing interchange was demolished. The local interchange also connected three roadways and involved the construction of five new ramps, a new connector, and the demolition of the existing interchange. Other areas of construction included roadway widening to accommodate acceleration and deceleration lanes, and to provide additional shoulder width. Four existing bridges were widened to accommodate the additional lanes. This required the construction of seven retaining walls and three substantial rock cuts. Traffic was maintained at all times during the project.

Trauner was initially retained by the New York State Department of Transportation (NYSDOT) to assist the replacement construction manager in completion of this troubled project. Allegations of inspector fraud concerning pile driving were a component of the problems on the project.

Trauner provided construction scheduling and claims management. Specifically, our services included a review and analysis of contractor's CPM schedule, revisions to project reporting systems to accurately document manpower and equipment utilized and work performed, analysis of as-planned vs. as-built schedule and analysis of liability related to time extensions, acceleration, and extra work.

Trauner assisted NYSDOT in project closeout and provided assistance in the analysis of claims and disputes that arose during the project. In addition, we assisted NYSDOT in the analysis of project time extensions requested by the Contractor on the project.

Trauner Work: 1994-1997



Casco Bay Bridge Portland, ME

Project Value: \$130,000,000
Value of Services: \$450,000
Client: Maine Department of Transportation

Trauner was selected by the Maine Department of Transportation to provide construction contract administration services in connection with the \$130M Casco Bay Bridge replacement project. Our assistance began during final design and bid phases and continued through construction with on-site monitoring and supervision.

Trauner reviewed the plans and specifications for constructability, construction time requirements, and from a risk management perspective. We developed the program CPM schedule for the project as part of the constructability review; reviewed and revised the General Conditions; redrafted the Scheduling Specification; reviewed the pre- and post-qualification requirements; established a project document control system; reviewed and monitored the design and construction schedule; participated in partnering sessions; provided on-site project oversight; reviewed change orders and extra work orders; provided claims management assistance; and advised and provided training regarding contract administration issues as needed. Trauner assisted the Department in preparation for a DRB hearing regarding a claim made by the contractor involving the coating system. We helped prepare the presentation and provided testimony regarding delays and damages. The DRB proceeding resulted in the successful settlement of the claim.

With regard to our scheduling role, Trauner was responsible for the review and critique of the six prime contractors' baseline schedules and monthly updates. The baseline schedule was reviewed relative to contract requirements including phasing, milestones, and coordination with outside agencies. Proposed logic and duration were reviewed for reasonableness. The schedules were also checked to ensure the use of proper scheduling techniques. Trauner reviewed each monthly update to assure that each accurately reflected project progress. A monthly progress report was prepared and submitted to Maine DOT which verified progress and identified logic revision and any potential problem areas.

Trauner Work: 1993-1997

Project Experience



WMATA
District of Columbia
Project Value: \$333,000,000
Value of Services: \$390,000
Client: Washington Metropolitan Area Transit Authority

In conjunction with its construction program to expand the metro-rail system, the Washington Metropolitan Area Transit Authority (WMATA) contracted with Trauner to revise and upgrade The Basic Standard Provisions, General Requirements, Construction Procedures, and related documents to meet the challenges of this new program. WMATA also hired Trauner to incorporate innovative contracting techniques into the construction program and partner with the contracting industry to effect these changes.

The primary goal of Trauner's assignment was to revise and upgrade WMATA's Special Provisions and General Requirements. Achieving that goal, however, required the performance of several peripheral tasks, including:

- Holding several coordination, discussion, and planning meetings with the AGC
- Interviewing key WMATA and AGC construction, legal, and accounting personnel
- Reviewing WMATA's and other agencies' resident engineer and construction manuals and editing WMATA's manuals
- Researching "lessons learned" and "best practices" from FTA and other agencies' records
- Researching construction contracts from Virginia, Maryland, and District of Columbia
- Coordinating a legal review with an independent construction attorney
- Providing training for WMATA and the AGC regarding the changes in the provisions to keep everyone informed and updated

The objectives of the revisions to WMATA's Special Provisions and General Requirements were to improve change order procedures, facilitate timely payments, streamline the minor modification process, clarify QA/QC processes, provide incentives for finishing projects on time, revise the dispute resolution process, and offer alternative contracting approaches. WMATA has incorporated revisions to its change order procedures, made revisions to its dispute resolution process, and expanded the use of alternative contracting procedures as a result of these efforts.

Trauner Work: 1999-2000



Chesapeake Bay Bridge
Virginia Beach, VA
Project Value: \$197,000,000
Value of Services: \$80,000
Client: McKenna & Cuneo

This project involved new bridge construction and renovation of an existing bridge from Virginia Beach to the eastern shore of Virginia. The contract was awarded in May 1995. Notice to Proceed was June 16, 1995. The contract-required completion date for the new bridge was September 1, 1998. The contract-required completion date for the renovation project was to be July 1, 1999. The forecasted contract completion date was December 1998 (the Contractor's As-planned completion dates were April 1998 for the new bridge, and August 1998 for the renovation contract).

The new bridge is comprised of approximately 12.2 miles of low-level trestle spans, consisting of pre-stressed concrete girder-deck superstructure on precast pile caps, which are supported by 54-inch and 66-inch diameter cylinder piles. In addition, higher-level bridges were constructed at the north end of the project, which consisted of piles, pile caps, piers, pier caps, girders, and decking. The work included the fabrication of over 2400 concrete piles (consisting of more than 14,000 centrifugally-spun precast sections), 650 concrete pile caps, and 1,850 concrete modular deck units.

Trauner was retained to review and analyze a claim prepared by the Contractor. Our services were all-encompassing. We determined damages associated with delays and inefficiencies resulting from rejection of spun piles and defective specifications. We identified issues of delay, acceleration, and disruption. We prepared graphics and assisted with mediation proceedings which resulted in a favorable settlement for the parties.

Trauner Work: 1999-2000

