

Transportation Construction Contracts

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The Committee on Contract Law studies and reports on issues in the field of contract law, including procurement, award, contract administration, dispute resolution, and litigation of construction claims. As we approach the 21st century, state and federal highway agencies are exploring ways to accelerate project delivery, modernize standard construction contracts, implement innovative contracting and procurement practices, participate in partnering, and improve the contract dispute resolution process to reduce claims and litigation.

Today's transportation lawyers are an integral part of the modern transportation agency. Transportation lawyers draft contract provisions and legislation, provide legal counsel, administer or assist in the administration of construction contracts and the resolution of disputes, and, if necessary, litigate construction matters. In this paper, some of the innovative practices and issues that transportation lawyers will face in the field of contract law in the new millennium are discussed.

TRENDS IN LOW-BIDDING CONCEPTS

The traveling public is forever frustrated by construction delays and disruption. State and federal agencies are exploring new methods of procurement that can accelerate design and project delivery. The statutory framework of public construction has been to award the contract to the lowest responsible bidder. Most of the nation's highway system has been built on the precept that competitive bidding within a free-enterprise system will deliver a transportation system at the lowest price possible. Examination of the current low-bid system indicates shortfalls that permit poor construction performers to be awarded contracts consistently if they are the low bidder. As long as the bidder obtains a performance bond, it will likely be awarded the public works contract. The public owner's administrative process and time-consuming responsibility determinations often make it difficult for public owners to determine that the lowest bidder is not a responsible contractor.

Transportation lawyers are involved in the development of procedures to allow owners to consider past performance in determining whether to accept a bid. In the past, negative past performance—including default and contractor-caused delays—could only be addressed in the determination of responsibility after a bid was accepted, since successful bidders have the right to challenge such a determination through the bid protest procedures and could virtually stop a procurement in its tracks.

States are taking a closer look at past performance of the contractor in the prequalification process and in postqualification responsibility determinations. Today some states are experimenting with modification of the low-bid system to consider past performance. States such as Ohio are adopting a performance-based evaluation system, which affects the ability of the contractor to bid on new work. Factors such as quality, timeliness, and contract administration on prior Ohio Department of Transportation contracts are factored into the contractor's overall evaluation. We will monitor the Ohio experience with great interest.

A + B Bidding

In addition to new prequalification procedures emphasizing past performance, transportation lawyers have modernized the bid process by providing for innovative approaches that encourage accelerated project delivery. Many states have adopted A + B bidding. It has long been recognized that the cost of a project involves more than the amount paid to contractors. The cost also involves the inconvenience to the traveling public. The inconvenience is measurable in dollars per day and can be introduced into the bid process by requiring the contractor to bid the amount of time it will take to complete the contract. The number of days indicated by the contractor is then multiplied by a cost per day developed from the public owner's engineering analysis of inconvenience to the traveling public to arrive at a cost for that inconvenience. The contractor bids on cost to perform (A portion) and cost of time (B portion); an award is then made to the lowest responsible bidder under the combination of the two criteria. This technique has proven successful in numerous states and has accelerated project delivery.

Lane Rental

Similarly, some public owners have also adopted lane rental provisions, whereby the contractor is charged for time it occupies a lane that affects the traveling public. The contract provides the days or hours when the contractor will occupy the lane. Should the contractor use the lane longer than the time period in the contract, the cost of the extended usage is deducted from contract payments.

Design-Build Procurement

A more dramatic approach to project delivery can be seen in the design-build concept. In design-build contracting, one entity (often a general contractor using a licensed architect or engineer as a subcontractor) assumes total responsibility for the project, from design through construction. Indeed, design-build is becoming so familiar that the labels "innovative" and "demonstration" may soon be outdated. Many of the benefits of a well-conceived and executed design-build project—improved quality delivered with significant savings in time and, often, expenditures—result from there being one party clearly in charge. Whereas the allocation of risk between the public owner and contractor can vary (depending on how much the owner wants to pay to be relieved of that burden), the design-build contractor always has "single point responsibility." This differs from the traditional design-bid-build project, where the decision-making process usually involves the public owner, one or more of its consultants, and the contractor, adding time to the project. Since most design-build infrastructure projects are bid on a lump-sum as opposed to a unit-price basis, less time is lost to job site disputes. Even if there is extra work, it is in the public

owner's best interest to perform quickly and complain about the cost later. But if the traditional shortfall of unit pricing—change orders—is to be avoided, then the owner, too, must be up to the challenges of design-build. The design-build concept may very well require a complete culture change on behalf of public owners, who must relinquish normal control of the project.

Statutory Authority

Public owners need clear statutory authority to perform design-build projects to avoid needless litigation and challenges.

In the past, contractors and designers were retained separately by public owners through markedly different procurement processes. Now, in the design-build process, because contractors and designers become “joined at the hip,” legislators and procurement officials may hesitate in authorizing wide use of design-build projects. In addition, some contractors may fear departure from the low-bid concept, whereas designers see a loss of control of the design and restrictions on professional judgment by joining a design-build team. Competitive bidding statutes, licensing regulations, and other requirements (e.g., the use of multiple prime contractors on public works projects) are still more the rule than the exception. Whereas various states are loosening (if not removing) traditional procurement shackles, relief often comes in small doses. Design-build statutes may be project specific or contain limitations on the purpose, size, and number of projects and be subject to sunset provisions after several years. Thus, one area for focus will be to continue to inform legislators and design and contractor associations that design-build is an essential procurement tool if the limited pool of resources is going to serve the ever-expanding need to build and repair roadways and bridges.

State regulators may be concerned that if designers and contractors are contractually linked, key decisions will be unduly influenced by fiscal, as opposed to public safety, considerations. However, regulators need not worry that public safety will be jeopardized if the design engineer and general contractor are in privity. Economic pressures exist on virtually every project, regardless of the bidding structure. It is the engineer's independent, statutory obligation to act in the interest of public safety that will continue to allay these concerns.

Future

Whereas design-build has been used in major innovative contracting success stories in recent years—from the Hudson-Bergen Light Rail project along the Hudson River to the expansion of I-15 in anticipation of the Salt Lake City Olympics—it is the thousands of routine, yet urgent, rehabilitation projects making up the bulk of every department of transportation's capital budget that could benefit most from the flexibility and economy inherent in this procurement method. Larger projects that fall into such categories as “turnkey,” “public-private partnership,” or “innovative financing” often take on lives of their own and receive more than ample public attention. There is no shortage of engineering, legal, or political resources focused on such projects, so that even last-minute environmental, legislative, and political roadblocks are overcome. However, as we come to the millennium, the seemingly inexhaustible inventory of aging structures, in particular older bridges and roadways awaiting rehabilitation or replacement, could accelerate the acceptance of design-build contracting. No longer are large design staffs (in-house or

consultant) turning out final design plans with such frequency that final design packages can simply be taken “off the shelf” and put out to bid. In a time of smaller staffs, shrinking budgets, and changing priorities, design-build affords planning flexibility and construction efficiency that cannot be ignored.

Rise of Performance Specification

In most construction contracts, the owner specifies the material and methods to be used. Material and methods specifications direct the contractor to use specified material in definite proportions and to use specific types of methods and equipment to place the material. As long as the contractor follows the “cookbook,” the contractor has fulfilled its responsibility regardless of any subsequent failure. This approach limits contractor initiative, stymies innovation, and maintains the status quo in construction.

Performance specifications place the risk on the contractor or supplier as to how to produce a particular end result. There is no need for extensive inspection or sampling. They give the contractor the widest latitude possible in using new materials or procedures and selected construction methods to produce a specified end result. Public owners continue to experiment with performance specifications with mixed results. The advantages and disadvantages of performance specifications will be studied and analyzed for wider adoption in the 21st century. Performance specifications are even more relevant in the design-build construction documents, where most of the risk is on the design-build team, not the owner.

INNOVATION IN CONTRACT ADMINISTRATION

Electronic Diaries and Inspector’s Daily Reports

Transportation lawyers are responsible for defending contract claims. Successful defenses depend on the information appearing in the daily records kept during a construction project. The records provide labor and equipment impacts and detail the specific work involved on a particular day. Traditionally, these records have been kept by hand, which has made them laborious to keep, read, and analyze. Now, handheld computers with “writing boards” can perform this function. The computer recognizes words written on the board and converts them into digital computer files, which can then be downloaded to a computer with a larger memory capacity for storage and printing. Whereas computerization of daily work records makes record-keeping easier, it raises issues of security and data manipulation that merit further inquiry.

Critical Path Method Scheduling

One of the major innovations in contract administration in recent years has been the development and use of the computerized critical path method (CPM) scheduling system, which is a scheduling process that assigns identifications (called nodes) and time frames to each item of work included in the contract. By identifying proposed start dates, the computer program generates a schedule showing what work will be ongoing at a particular time in the contract. This verifies that the schedule complies with all time restrictions (such as mandatory shutdowns for intermediate use of the roadway and protection of animal nesting times) or weather-related temperature restrictions—and that work will be completed on time. Once the work is begun, actual start dates and adjusted time frames can be entered to verify timeliness. In addition, proposed delays can be analyzed to determine their effect on the work. CPM schedules can be a valuable management tool for owners to monitor job

progress and resolve complicated job schedule problems. CPM scheduling has proven to be a valuable tool in claim situations to verify the actual effect of specific events.

RISE OF THE CLAIMS ENGINEER IN THE DEFENSE OF CONTRACT CLAIMS

Today's transportation lawyers work closely with engineers, who help them analyze and defend construction litigation. Many state transportation legal offices have on their staff engineers devoted to the task of assisting in the defense of contract claims. The engineers analyze the claims, supervise and coordinate the public agency's activities relative to the defense, and assist the trial attorney in preparing for and during depositions and trials. They normally work with state transportation agency staff, especially with the job field inspection team, in reconstructing the events and developing a defense to the claim allegations. The facts must be ascertained, and an analysis must be performed to determine the effect of the various activities and incidents on the contractor's operations. The process involves preparing personnel as witnesses, gathering and organizing files and records, and preparing special exhibits for presentation to the court. The claims engineer has a special role to play in translating technical issues into words and pictures that the attorney can understand. Using claims engineers devoted to the defense of claims has many advantages, including saving the attorney time by identifying and locating the appropriate personnel to work with and gather the necessary records. By working full time on contract claims, claims engineers become specialists in their field. They are also valuable to the operation of their agency. The work claims engineers do in defending claims gives staff engineers the opportunity to do their regular jobs without excessive diversion of their time to the defense of claims. Last but not least, claims engineers save money for their agencies through reduced awards made possible by their contribution to the defense effort. However, the role of the claims engineer is changing. The inclusion of changed-conditions clauses in public works contracts is widespread. Dispute resolution during the contract has received greater attention, and claims engineers are being used more frequently to improve the process and continue the trend of dispute resolution replacing litigation in the resolution of contract disputes.

PARTNERING

Partnering has become a standard practice for many state transportation agencies by bringing together interested parties responsible for a construction project. Partnering provides a note of cooperation, dedication, and job-level dispute resolution. In formal partnering, contractors, utility owners, subcontractors, and third parties pledge to cooperate and work through job problems, maintaining open lines of communication and mutual trust and respect. Partnering sets the tone for the project and does not alter the terms of the contract or the risk allocation set forth in the contract documents. The carefully drafted partnering language of transportation lawyers can play a positive role in contract administration. Partnering will continue to play a role in construction projects in the new millennium.

ALTERNATIVE DISPUTE RESOLUTION

The frustration of both contractors and agencies with the slow pace of court dockets has led to the development of alternative forms of claims resolution. Although alternative dispute resolution (ADR) has always existed in some form, particularly in the settlement negotiation

process, in the past 20 years the role of an impartial third party in deciding contract claims has been emphasized. Several forms of ADR are currently in use:

- Negotiation is the most popular form of ADR; it has proven to be successful when the public owner and contractor negotiate a resolution of the dispute without resorting to litigation.
- Arbitration consists of an arbitrator's deciding the case, in a manner similar to that of a sitting judge, on the basis of presentations by the parties, who may agree to binding or nonbinding arbitration.
- Mediation generally consists of having a third party hear each side's case individually and then attempting to help the parties achieve settlement by stressing the strongest points of the other side's position.
- Settlement typically occurs after a judge listens to both parties and then advises them on the possible outcome before a deciding judge. Settlement judges are actual judges appointed by the forum (board or court) hearing the case but are usually not the judges appointed to decide the case.
- A minitrial is an abbreviated presentation before the deciding judge. It is used to acquaint the judge with difficult technical matter and to allow the judge to point out the apparent weaknesses of each side's case.
- A disputes board (or panel) consists of three persons—one chosen by the contractor, one by the agency, and the third by the other two. They listen to factual representations and offer recommendations to the parties on how to settle the case. This method was developed particularly to deal with complex technical issues. It is extensively used for tunneling work and has gained nationwide acceptance as a viable method of ADR.

All the preceding procedures are in use throughout the country. Each has its own benefits and shortcomings and will be evaluated for its usefulness in dispute resolutions of the 21st century.

The foregoing issues are a brief outline of some of the concepts and procedures that transportation lawyers will address in the 21st century. We welcome the challenges and innovation that will help us deliver a better transportation system.