

1. Introduction

Over the last 20 years, claims for additional compensation and time extensions on transportation construction projects have increased to such a degree that they have become almost commonplace. In the 1990s, projects are even more complex. Contractors are being forced to deal with increasingly congested work areas. The number of rehabilitation projects has grown and environmental issues are more prevalent. As the decade continues, it is likely that events which give rise to claims for additional compensation and time extensions will increase further.

The word 'claim' is not defined in most owners' standard specifications. However, it is addressed in most standard specifications in emotional, adversarial and litigious overtones. For example, one state DOT standard specifications provides in part:

Early or prior knowledge by the Department of an existing or impending claim for damages could alter the plans, scheduling, or other action of the Department or result in mitigation or elimination of the effect of the act objected to by the Contractor. Therefore, a written statement describing the **act of omission or commission** by the Department or its agents that allegedly caused damage to the Contractor and the nature of the claimed damage shall be submitted to the Engineer at the time of occurrence or beginning of the work upon which the claim and subsequent action are based.¹ [Emphasis added]

In response to the rise in claims, the concept of **partnering** has been introduced. It is designed to encourage win-win solutions to problems. Unfortunately, partnering is only part of the answer. In planning and managing the construction of today's projects, owners and contractors must anticipate they may encounter conditions in the field that differ from those represented in the contract documents. Those differences can be referred to as variances. To avoid disputes over these changes, owners and contractors must be in a position to:

- **Define** the scope of the work.
- **Detect** changes at the first possible moment.
- **Predict** the impact of these changes.
- **Act** to mitigate the impact.

Without such a system in place to provide an early identification of problems, it is far less likely that the parties will be able to resolve a potential problem through partnering.

Chapters 2 through **5** of this book discuss causes of claims and disputes, types of claims and how they can be avoided. **Chapters 6** through **9** address preparation and analysis of requests for change orders and claims, negotiations, partnering and alternative disputes resolution. The **Appendix** is a compilation and summary of transportation construction claims cases organized by state.

2. Causes of Construction Claims and Contract Disputes

Construction is one of the riskiest businesses in the United States. It requires the coordination of many entities. The competitive bidding system forces contractors to price their work in a way that will give them the best opportunity to be the low bidder. Sometimes, too much attention is placed on getting the work and not enough attention is given to how the work can be done profitably. The construction process typically involves parties from different disciplines temporarily joining together to deliver a construction project. Each party's responsibility within the construction process is intertwined with others, either as a prerequisite for another party's work or as an integral part of such work. When one of the parties in the construction process fails, the others are adversely affected. When a problem faced by one party in the construction process is ignored or recognized late, the problem may escalate into disputes and claims. Disputes and claims are detrimental to all parties. **A prerequisite to recognizing and remedying problems on the construction project is understanding their causes.**

NCHRP Synthesis 105, Construction Contract Claims: Causes and Methods of Settlement' identified practices and characteristics of contractors and owners that are associated with the high incidence of claims:

Contractor Practices

- Inadequate investigation before bidding.
- Unbalanced bidding.
- Bidding below costs and over-optimism.
- Poor planning and use of wrong equipment.
- Failure to follow authorized procedures.

Owner Practices

- Changes in plans and specifications during construction.
- Inadequate bid information.
- Inadequate time for bid preparation.
- Excessively narrow interpretation of plans and specifications.
- Restrictive specifications.
- Contract requirements for socioeconomic objectives.

Features of the contract and contract administration process that are associated with claims - and may be of critical importance in claim prevention - include:

Causes Associated with the Contract Documents

- Exculpatory clauses.
- Mandatory advance notice of claims.
- Finality of field engineer's decisions.
- Changed Conditions clauses.
- Lack of periodic review of documents.

Causes Associated with Contract Awards

- Diversity of state contract award rules.
- Treatment of bid mistakes.

Causes Associated with Contract Administration

- Coordination of owner responsibilities.
- Interpretation of owner policy and practices.

- Attitude and style of contract administrators.
- Documentation of contract performance in field records.
- Owner program factors.

Causes Associated with Claim Settlement Procedures and Practices

- Encouragement of project-level settlements.
- Delegation of settlement authority to field supervisors.
- Effectiveness of field/headquarters consultation.

The following is a discussion of some of the practices discussed in the Synthesis as well as others that the author believes also result in claims and disputes.

A. Preconstruction Phase Causes

Many construction claims and contract disputes are caused by action or inaction of the contracting parties before construction of the project begins. In other words, a project is often destined to have claims before any work is done in the field. Preconstruction phase causes are probably the most frustrating because they are the easiest to avoid. Such causes are less costly to deal with before any physical work on the project begins. Owners and contractors can plan projects many times on paper, but they are only built once.

1. Actions/Inactions by the Owner

Incomplete, Inaccurate, or Unclear Designs

Studies conducted during the 1980s have found that approximately 50% of contract claims and contract modifications relate to design deficiencies.² More often than not, where designs are deficient, the contract drawings contain the following design defects:

- a. Incorrect, missing or conflicting dimensions.
- b. Inadequate construction details.
- c. Improperly designed slope of fills.
- d. Design fails to consider ease of installation of different systems.
- e. Quantity take-off or calculation errors.
- f. Design fails to comply with the EPA regulations.
- g. Inadequate maintenance of traffic plan.

Budget and time constraints, which typically occur when owners face political pressures or funding limitations, are factors that contribute to design defects. In light of political pressures, owners may rush to bid and award projects before the end of the fiscal year. Funding limitations may cause some owners to initiate last minute design changes to lower the cost of constructing the project prior to bids opening. In some instances, budget and time constraints force designers to compress design time. Consequently, they may not adequately review

the contract drawings or may not have the time or funds to adequately coordinate the work performed by various design disciplines prior to the bidding stage.

One type of problem contractors may encounter with incomplete, inaccurate or unclear designs is **spatial conflicts**. Spatial conflicts occur when one detail of a drawing fails to incorporate design parameters from another detail or engineering discipline. For example, a soundwall alignment design on a highway project may fail to consider the vertical excavation and resulting slope requirements, resulting in an unworkable location for the soundwall.

If the owner fails to identify defects in the contract drawings prior to bidding, the interpretation of the defective designs is left to the owner's project representatives. Disputes arising over defective contract drawings sometimes may be easily resolved by reference to contract specifications or special provisions. Most of the time, however, such disputes are not so easily resolved. The contractor usually asserts that its bid is based on the most reasonable assumption, while the designer may claim another assumption is called for.

Deficient Site Investigation

Budget constraints placed upon a designer may easily result in inadequate subsurface investigations. Typically, owners retain a geotechnical consultant, either directly, or indirectly through the designer. Either way, the number of borings the geotechnical consultant will take is dependent on the funding available. It should be noted that the fewer the number of soil borings taken, the less likely that those taken will indicate properly the site conditions.

One common example of deficient site investigation is the failure to discover a conflicting underground utility in planning the location of new utilities. In some instances, the designer has not been given accurate utility locations by the owner. When utility conflicts are discovered during construction, they result in extra costs--either for redesigning the proposed utility or relocating the existing utility--depending on which option seems more feasible at the time of discovery.

Another example of deficient site investigation is the excessive moisture content of the excavated soil. Soil that contains excessive moisture will require additional compaction effort and drying time. Those efforts and the time associated with them are usually not considered in the contract time limits. Absent an extensive subsurface investigation, such soil conditions may not be known until the contractor starts its excavation work. A designer could have forewarned the contractor about the problems or could have incorporated lime or some other soil treatment in the design to facilitate the drying process.

In some roadway rehabilitation projects, the designer bases his or her design on original as-built drawings. Several renovations and piecemeal changes may have occurred since the completion of the previous project, and the as-built drawings may not reflect those changes. Lacking the funds to verify the accuracy of the as-built drawings, the designer designs the project from out-of-date drawings only to discover the deviations when construction begins.

An inadequate subsurface investigation may fail to identify hazardous materials which require special handling for removal and disposal. A contractor may discover materials unknown to it at the designated excavation area and determine they are hazardous. Because it had no prior knowledge of the presence of contaminated material, it will not have contemplated acquiring a special permit for its disposal, or the special handling necessary. Consequently, the contractor's work may be delayed while it obtains approval of a disposal site and the disposal method.

Ambiguous Plans and Specifications

Contract provisions susceptible to more than one reasonable interpretation will certainly cause problems if events on the project require parties to resort to such provisions. In some instances, owners spend less effort on contract drafting than they do in the design and bidding process. They frequently presume that nothing will go wrong in the contract drafting process. They further presume it is only vital to include the scope of work, the contract price and the time of completion in the contract. Owner personnel reviewing contracts often avoid forcing the issue on potentially unfair or ambiguous provisions because from their perspective the probability of resorting to such provisions is remote.

Inappropriate Placement of Risk on Contractor

Limited funding places state owners under extreme pressure to control the cost of projects being awarded. To avoid unexpected surprises during construction, owners may incorporate risk shifting contract provisions into the contract. Risk shifting contract provisions shift risks over which owners have no control to contractors. Eager to obtain business and placed in a "take it or leave it" situation, contractors continue to bid on these contracts. Likewise, contractors hesitate to reflect this risk in their bids for fear their bids will not be competitive. Instead, contractors approach such bids with crossed fingers hoping that in the event their bids are low, the unexpected will not materialize.

Owners often shift risks over which they have no control to contractors through the “Investigation of Site” contract provisions. The federal **Differing Site Conditions** clause provides compensation to contractors in the event the conditions encountered differ materially from (1) those represented by the owner in the contract documents, or (2) those that are usual in nature, ordinarily encountered, and generally recognized as inherent in work of the character provided for in the contract. Owners seeking to shift all the risk to the contractor alter the Differing Site Conditions clause to prohibit any such claims for any reason, in effect, making site conditions the contractor’s problem.

Another method some owners use to shift risks to contractors is by attaching **exculpatory language** to site information in the contract documents. Exculpatory language is an attempt by the owner to negate responsibility for the accuracy of its site information. This language, in effect, removes the contractor’s reliance upon owner-supplied site information, a necessity for recovery under the Differing Site Conditions clause. The following illustrates how owners include exculpatory language in the contract provision.

“The bidder or contractor is cautioned that details shown on the subsurface information are preliminary only and in many cases the final design details are different. For bidding and construction purposes refer to the construction plans and documents for final design information on the project. The Department does not warrant or guarantee the sufficiency or accuracy of the investigation made, nor the interpretations made or opinions of the Department as to the type of materials and conditions to be encountered. The bidder or contractor is cautioned to make such independent subsurface investigations as he deemed necessary to satisfy himself as to conditions to be encountered on this project. The contractor shall have no claim for additional compensation or for an extension of time for any reason resulting from the actual conditions encountered at the site differing from those indicated in the subsurface information.”

Court response to such language varies greatly. Some courts interpret these clauses literally, barring any contractor claims based upon owner-supplied site information. Other courts view the language in exculpatory provisions as merely a factor in determining whether the contractor justifiably relied upon

owner-supplied site information. These courts look to the contract as a whole, the apparent accuracy of the site information, industry standards and evidence that the owner expected the contractor to utilize and rely upon the site information.

Owners may include a “**No Damage for Delay**” clause in some construction contracts. The “No Damage for Delay” clause negates the common presumption made by the contractor that it will have full access to the site free from owner interference. Similar to the Differing Site Conditions provisions, courts have reacted differently to this type of provision. Generally, courts adopt one of two approaches when a “No Damage for Delay” clause is included in a contract: the literal enforcement approach and the contemplated delays approach. Under the literal enforcement approach, courts construe the language in the “No Damage for Delay” clause strictly, prohibiting recovery for all delays. This approach is based on the premise that the parties have contemplated the possibility of delays, have protected themselves (by higher price) against such delays, and have expressly provided in the contract that no compensation will be due in the event a delay occurs. In the contemplated delays approach, courts allow compensation for delays not contemplated by the contractual parties.

In a 1991 report titled “Preventing and Resolving Construction Disputes,” the Center for Public Resources (CPR) stated its belief that many contract disputes have been fostered by risk-shifting provisions in contracts. The report references other reports by the Business Roundtable and the Construction Industry Institute (CII) which have concluded that overly burdensome allocations of risk to contractors have negative impacts on project costs, schedule and quality. The referenced CII report states:

“Onerous contract conditions promote hidden costs, (including) the costs of:

- (a) restricted bid competition
- (b) increased claims and disputes
- (c) replacing a lesser quality contractor who is more likely to accept unknowingly a grossly inequitable risk allocation
- (d) an adversarial owner-contractor relationship and its impact in terms of final product quality, expeditious change orders, reputation and public relations and ultimate project outcome.”³

CPR suggests that the studies lead to the inescapable conclusion that imposition on contractors of risks they cannot manage or control is a primary cause of construction disputes.

Insufficient Bid Time Allowance

Once funds are approved, owners are under constant pressure to get the construction under way. As discussed previously, this constrains the engineering process. Likewise, once drawings are completed, public officials may be tempted to shorten the bidding process so that projects may be awarded and begun as soon as possible. Assuming contractors obtain plans immediately upon advertisement and can immediately fit the bid into their estimating schedules, a shortened bid period still leaves them little time to investigate sites completely to minimize the unknowns on a project. Two possible scenarios result. First, contractors may increase their bids to account for the greater number of unknowns. This results in higher bids to owners.

Second, and probably more realistic, the low bidder does not increase its bid, but seeks compensation through the claims process. In addition to the added dispute over such claims, contractor and owner project personnel are forced to spend valuable time administering them.

Unbalanced Bidding Schedules

Because of funding problems, unbalanced bidding schedules are not unusual in some states. For example, a highway agency may have little or no work for bids in March and April and then because of a release of funds a quarter to half of the agency's annual construction volume is let in May. That large volume of work in one letting results in contractors being unable to adequately analyze all the projects they are bidding. It also results in an uneven cash flow when the work is actually performed. These problems lead to potential claims.

Rejection of Bids

The author's experience has been that contractors inevitably bid lower the second time around. As a result, when owners reject all of the bids and then make some small alteration to the plans and specifications, they are inviting claims and disputes down the road.

Setting Unrealistic Completion Dates

Many factors affect the determination of the contract time of a project, including the project type, size, location, scope of work, expected production level, and expected weather conditions. Determination of the construction period for a project relies heavily on the subjective judgment and experience of the public official who evaluates the factors affecting the project. The capability of the public official is vital in developing a realistic contract time for a project.

Sometimes, designers allow an owner's need for the facility to set the contract time. To ensure that project time is of the essence, designers include a liquidated damages assessment provision in the contract specifications. Such provisions provide for assessment of liquidated damages if contractors fail to complete the project by the contract stipulated project completion date. The time period allotted for the project may not be realistic. Consequently, contractors will assert claims to extend the completion date to avoid such damages.

Failure to Obtain Rights of Way/Permits

On most transportation construction projects, the contractor's access to the entire job site gives it the flexibility to use its equipment in the most efficient and profitable manner. Unexpected lack of access to the entire site may result in a substantial loss of productivity and increased costs to the contractor.

Unrealistic Scheduling Requirements

Many state DOTs and other owners have recently gotten the idea that claims can be avoided by detailed **Critical Path Method (CPM)** scheduling requirements. Some owners have required contractors to submit detailed networks for the entire project at a very early stage of construction. Networks submitted by contractors under such specifications typically meet the specifications but do not adequately address job conditions or their resources. The detailed networks are also of little value to the contractor's superintendent or project manager.

2. Action/Inactions by Contractors

Approach to Bidding

The construction industry as a whole has been plagued by low profits and intense competition, a high rate of contractor turnover and failure, restrictive legislation and binding labor agreements, antiquated building codes and a general lack of research.⁴ Today, there is an excess of capacity compared to demand for transportation construction. As a result, if a contractor bids low enough to get the job, it cannot make a fair profit. If a contractor bids high enough to make a fair profit, it may be unable to get the job. These unpleasant alternatives place contractors in an extremely awkward position.⁵ In addition, it means the greater the amount of competition, the less likely the low bidder will have adequately familiarized itself with the project and the less likely it will spend money to plan and re-plan the work.

Contractors have a tendency of bidding on several projects with the hope of being the low bidder on a few. Because of this approach, less time is taken in the pre-bid planning than would be taken if the contractor bid on only a few projects.

The number of contractors bidding public projects has increased tremendously in recent years. Competition has been fierce and bids unusually low. The lead article in the March 9, 1992 issue of Engineering News Record (ENR) describes various bidding strategies contractors have been using to increase their chances of being the low bidder.⁶ Such bidding practices include:

Bid Cutting: A prime contractor wins a contract award relying on a price quote from a subcontractor or supplier and then forces the subcontractor or supplier to lower its price as a condition to award the work.

Bid Peddling: A subcontractor persuades a prime contractor to disclose the price quotes from other subcontractors so that the subcontractor may be able to reduce its price.

Bid Shopping: A prime contractor uses the price quotes from various subcontractors and suppliers to obtain a lower price from their competitor.

Low Ball Bidding: A contractor purposely bids below cost to win the contract award and then attempts to recover its losses or profit through bid shopping among the subcontractors or suppliers and through claims.

The ENR article suggests that the practices outlined above provoke legal disputes, invite cheap substitutions and plant time bombs on the project. The explosions propel subs and prime contractors into making change orders and claims.

Allowing Inadequate Time to Prepare Estimate

Some contractors may for whatever reasons, allot insufficient time to prepare a bid. The result of such action is similar to the situation where owners allow insufficient time for contractors to bid a project. Having inadequate time to prepare a bid estimate, a contractor sacrifices its ability to minimize the number of unknowns on a project.

The shortage of bidding time also increases the likelihood of errors in computation and judgment because less time is available for the contractor to check its estimate. Mistakes in computation include misplaced decimal points, inconsistencies between unit and extended prices, and incorrect addition of extended prices. Judgment mistakes involve the production rate of a contractor's labor, plant, and equipment. For example, a contractor makes a mistake in judgment when it overestimates the ability of its work force and fails to consider the actual site conditions affecting labor productivity.

A serious judgmental error in bidding a project is usually visible by evidence of large disparities between the low bidder and the next low bidder or group of bidders. Public owners usually require the contractor and surety to verify the bid in such an event before it awards the project. It is important to note that in most states, contractors seeking to withdraw their bids as a result of a mistake must show that the mistake was a result of computation or clerical errors and not one of judgment. Where an error was one of judgment, the bid may not be withdrawn.

Many contractors who make mistakes in judgment when submitting bids try to find ways to offset losses later in prosecuting the work. Contractors may either cut costs or submit claims for items which would not otherwise have been pursued. Obviously, the larger the error, the less likely the contractor can fully compensate through cost cutting. The claims route then becomes more necessary.

Owners should take particular caution in awarding contracts to bidders “leaving a lot on the table.” This dilemma occurs when the contractor decides to accept the contract award and then searches for ways to make up the difference. Whether purposeful or not, one way to make up the difference is to find something to claim for additional compensation. The mere rise in the tension level on such a project tends to make it more likely to have claims.

Failure to Familiarize Itself with the Contract Documents

The contract documents form the principal source of most construction disputes and claims. These disputes take the form of interpretation disagreements, allegations of defective specifications, changes in specifications, and changes in design. Many interpretation disagreements can be avoided if the contractor reviews the contract documents prior to bidding and requests clarification of ambiguous provisions at that time.

Contract documents have become quite voluminous over the years. Part of the reason for their increasing volume is the growing complexity of public projects. Because contract documents are so extensive, some contractors only read them when they want to clarify a point. Quite often, contractors will find that the language in the contract provision may not support their assumption of the disputed work. To compensate for their ignorance, some contractors may try to distort the true intent of the contract provision and seek compensation for the difference.

Contractors who repeatedly do business with the same owner often ignore the important task of familiarizing themselves with the contract documents. This is usually due to their familiarity with the existing contract documents. Contractors who adopt such an approach often miss revisions to the standard language. Particular attention should be given to special provisions issued by the owner with each project. In addition to changes in performance specifications, the special provisions often alter language or omit certain standard contract provisions to fit the particulars of each project. Failure to detect such changes or omissions will ultimately lead to disputes.

Unbalanced Bid

An **unbalanced bid** on a unit priced contract is a bid submitted by a contractor that contains a mixture of extremely high priced and extremely low

priced bid items yet still maintains an overall competitive total bid price. The practice of unbalanced bidding may undermine the owner's objective to receive an ultimate lowest cost price for the work.

There are two types of unbalancing. The first and most frequent type is a way for contractors to improve their cash positions regarding specific projects. Because contractors usually get paid only after completion of certain work, they are usually in cash deficit positions until projects are nearly complete. This is especially true where owners retain a percentage of payments until the project achieves a specified percentage of completion. Larger companies are able to withstand such cash deficits because they can balance them out with cash flows coming in from other, completed projects. Smaller companies-and even those larger companies seeking to improve overall cash flow positions-often unbalance their bids. This is done by increasing the unit prices of work which will be performed early in the project and decreasing the unit prices of work which will be performed later in the project. The total bid price for the project remains unchanged through unbalancing. When bids are unbalanced to achieve better cash flows, the more appropriate term is "front-end loading" or "front loading" the job. In such cases, there comes a time in the project when the contractor goes from a positive cash flow position to a negative cash flow position. From that time forward there is an increased likelihood of claims and disputes.

The second reason some contractors unbalance their bids is in anticipation of upward and downward changes in the actual quantity of the work. For example, if the contractor believes there will be no actual borrow excavation for a project with a borrow excavation bid item, it will be tempted to bid a penny (1¢) for the borrow excavation bid item. Usually, contractors who bid this way do so to be more competitive. On the other hand, if the contractor suspects that the owner has underestimated the quantity of a particular bid item, it might increase the unit price for that bid item in order to benefit from the contemplated increase in quantity.

If increasing the unit price of the one item would not greatly increase the total bid price, the contractor may do nothing more. If, on the other hand, the original quantity is high enough to result in a great increase in the contractor's bid price, the contractor may lower the unit price of another bid item or items to compensate for the increase. These adjustments are usually made to items the contractor feels will not change. The contractor has three goals when unbalancing a bid for this purpose:

1. Maintain the original bid price calculated using legitimate figures.

2. Increase the price of the one item as high as possible without subjecting itself to disqualification.
3. Decrease another item or items correspondingly without significant exposure in the event quantities of those items increase as well.

Whether unbalancing a bid for purposes of cash flow or in anticipation of a decrease or increase in quantity of a particular bid item, there are significant risks involved. First, if the actual quantity of the undervalued bid items is greater than expected, the contractor will be forced to perform the additional work below its cost. Second, the contractor, after benefiting from the cash surplus at the beginning of the project, may find it cannot complete the project effectively because of financial difficulties. Short of a total failure with a resulting surety takeover, the contractor may not be able to dedicate the required resources to finish the project. As a result, the contractor may put economics ahead of quality, potentially resulting in substandard work. Although these risks might be characterized as not within the control of the contractor, in reality they are. The contractor could elect not to assume the risks and still have as good a chance to win a project. Unfortunately, if the contractor takes such a risk and loses, the owner might be faced with claims asserted by the contractor to compensate for the resulting losses.

Lack of Communication with Subcontractors and Suppliers During the Bidding Stage

Many contract claims and disputes arise from lack of communication between the contractor and the subcontractor or supplier during the time of bidding. If a contractor merely receives subcontractor and supplier price quotes “as per plans and specs” via the telephone without conferring on detailed scopes of work, schedules and expected working and coordination details, the project is doomed to fail. Subcontractors and suppliers frequently quote work with the idea of being competitive with other subcontractors and suppliers. Their prices are generally based on performing the work or supplying the materials at a time and manner most efficient with the entity’s common practices. These practices are usually based on unrestricted access to the work site, no interference from other trades, no overtime work, one mobilization and within a time period the subcontractor or supplier contemplates. If the contractor’s requests during the project fall outside the subcontractor’s or supplier’s parameters, the subcontractor or supplier will seek extra compensation.

The key to eliminating “after the fact” problems is for contractors to communicate their needs to subcontractors and suppliers at bid time. Most important, contractors should incorporate desired conditions in the quotes subcontractors receive. When contractors fail to communicate effectively with suppliers and subcontractors, problems and increased costs will have to be remedied somewhere. Often, these unanticipated costs will come in the form of claims for compensation from the owner.

B. Construction Phase Causes

1. Actions/Inactions by the Owner

Failure to Recognize Deficiencies and/or Ambiguities in the Plans or Specifications and Move Quickly to Resolve Them

Sometimes, owner personnel are reluctant to admit there are design deficiencies or ambiguities in plans or contract specifications. When contractors challenge such design deficiencies or ambiguities, owner personnel often insist the design is correct or only their own interpretation of the plans or specifications is accurate.

Under the implied duties of a contract, owners have the duty to cooperate and not to hinder or interfere with the contractor's work performance. Under the implied duties of a contract, owners have the duty to cooperate and not to hinder or interfere with the contractor's work performance. When owners fail to recognize design deficiencies and ambiguities in the plans or specifications and do not move quickly to resolve them, such action/inaction may constitute a breach of implied duty to cooperate.

From a legal standpoint, if both parties' interpretation is reasonable, then ambiguity in the contract specifications or plans is construed against the drafter. In other words, if a court determines that the language of a contract provision is "ambiguous" and that both parties' interpretation is reasonable, it will generally rule in favor of the contractor. Therefore, it might be in the best interest of the owner to be more open-minded when contractors allege ambiguities in plans or contract specifications. By recognizing ambiguities in plans or specifications and resolving them promptly, owners may lessen the potential of such ambiguities escalating into claims or disputes.

Sometimes, owners may order contractors to continue performance despite a known defective specification. In **S.J. Groves & Co. v. State**, 273 S.E.2d 465 (N.C. App. 1980), a state DOT was five months late in accepting the contractor's contention that unsuitable materials which had been represented as suitable would have to be wasted as well as the underlying foundation material. The five month delay in accepting this reality resulted in a loss of the best weather months that ever occurred during the life of the project.

Not Being Sensitive to Coordination Problems

Project coordination problems among contractors often occur when several contractors occupy the same work area or have been scheduled to perform their work as consecutive phases of a project. Despite specification clauses requiring separate prime contractors to coordinate their work, courts have held that owners have a legal obligation to oversee the coordination of work activities on the project.

It is inevitable that one contractor's work may interfere with another contractor's work if both are working at the same place and at the same time. If the owner does not coordinate the work properly, incidents such as trade stacking and inaccessibility to work sites may occur. Coordination problems may lead to inefficiency in work or delay in work completion, thereby increasing the contractor's costs of work performance. Despite their duty to coordinate, owners may take no action to resolve any coordination problems.

Failure to Get Utilities or Separate Prime Contractors to do Their Work in a Timely Manner

In transportation contracts, the start of a project or work is frequently subject to either the relocation of certain utilities or the completion of certain work by others. It is the owner's duty to ensure the timely relocation of all utilities and the timely completion of work performed by separate prime contractors. Failure on the part of a owner to fulfill this obligation will cause delay or disruption to the contractor.

American Bridge Co. v. State, 283 N.Y.S. 577 (N.Y. App. Div. 1935) illustrates the seriousness of a state DOT's failure to get a preceding contractor to complete its work on time. To construct a particular bridge project, the state DOT awarded two separate contracts to two separate contractors. The first contract was for the construction of piers and abutments for the bridge. The second contract was for the construction of the bridge superstructure. The start of the construction of the bridge superstructure depended on the completion of the substructures. Because the state DOT failed to accept the substructure work in a timely manner, the bridge super-structure contractor was delayed in starting its work.

In **Grant Constr. Co. v. Burns**, 443 P.2d 105 (Idaho 1968), it was necessary for a power company to relocate certain utility poles in order for the contractor to timely complete the work. The owners of the power lines failed to timely move the poles. As a result, the contractor was forced to change its

sequence of work resulting in a delay and increased costs. The court ruled that the contractor could recover its additional costs resulting from the DOT's breach of duty to cause the timely removal of the poles.

Changing Traffic Patterns or Traffic Control

Today, more and more public projects involve the widening and rehabilitation of roadways. Because of this, traffic control has become a critical work item in such projects. The cost involved in providing traffic control on roadway improvement projects has increased significantly.

The contract drawings of a highway project typically contain a traffic control plan devised by the public owner. These plans are more sophisticated for urban projects. Despite the difficulty in developing applicable traffic control plans, public owners may require contractors to change traffic patterns to meet requests from local communities. Changing the traffic pattern during the construction phase may force the contractor to re-plan the whole construction operation for the project. The time and money involved in changing the traffic pattern during the construction phase may be substantial. Such directives by public owners will often trigger unnecessary claims and disputes.

Excessive Plan Revisions

It is almost inevitable that owners will make revisions to contract drawings during the course of project construction. When an owner becomes excessive in revising its plans, however, the contractor's operation will be adversely affected. When a contractor's work is delayed or disrupted due to excessive plan revisions, it will usually seek compensation to cover unanticipated costs.

Insufficient Owner Personnel

Due to insufficient funding and other reasons, owners may not have enough on-site personnel to monitor contractors' daily activities or to resolve problems contractors may have. As a result, owners may:

- 1.. Fail to keep adequate job records - Such failure may handicap the owner in claim or dispute negotiations with contractors.

2. Delay in processing change orders.
3. Delay in providing inspection and test results to contractors.
4. Delay in responding to problems that contractors may have.
5. Delay in reviewing and approving contractors' submittals.
6. Delay in processing contractors' bills.

The above incidents constitute the owner's breach of the contract-implied **duty to cooperate and not hinder** a contractor's work performance. Inevitably, these incidents will be sources of claims or disputes.

Over Inspection

The primary duty of an inspector is to ensure that contractors perform work in compliance with contract requirements. An inspector is authorized to make detailed inspection of any or all portions of the work and materials at any time prior to project acceptance. Most inspectors, however, do not have the authority to accept, waive, alter or direct any extra, additional or changes in the work.

Over inspection occurs in a number of ways. In **State v. Buckner Construction Co.**, 704 S.W.2d 837 (Tex. App. 14 Dist. 1985), an inspector exceeded his vested authority by directing the contractor to perform sandblasting work beyond the contract requirements. In other instances, inspectors have taken over the supervision of the work. There have been many instances where inspectors asked contractors to comply with their own subjective inspection standard instead of objectively measurable standards. Another example of over inspection occurs when inspectors attempt to hold contractors to excessively stringent standards of interpretation. In any event, whether inspectors or State DOT personnel knowingly or inadvertently interfere with or hinder contractors' performance of the work, contractors will seek compensation for monetary losses resulting from inspectors' actions.

2. Actions/Inactions by Contractors

Insufficient Planning/Scheduling

Insufficient planning and scheduling by contractors and by owners is a cause of many claims. In an evaluation of 325 claims included in the Federal Highway Administration's (FHWA) Report No. FHWA-TS-85-217 titled *Comparative Analysis of Time and Schedule Performance on Highway Construction Projects Involving Contract Claims*,⁷ the following characteristics of a schedule-related claim were determined:

- One claim in five has a schedule-related problem as a root cause.
- Almost half of schedule-related claims are a result of poor or nonexistent scheduling or schedule control.
- Schedule-related claims are more likely to occur on rehabilitation and paving projects.
- The dollar values of schedule-related claims are generally higher than those of non-schedule-related claims.
- Almost half of all schedule-related claims were originally claims in which the contractor alleged delay.
- Contractors and state DOTs share the responsibility for most schedule-related claims.

In their book, *Productivity Improvement in Construction*, Oglesby, Parker and Howell include a chapter titled "Formal Preplanning for On-Site Construction."⁸ They suggest that one reason contractors are reluctant to do necessary preplanning is that it costs money, and in the usual project cost-reporting system, these added costs will appear in an overhead account that is highly visible and will be the first target for cost reduction if the job seems to be in trouble. They point out that the costs of a lack of preplanning are not measured separately. As a result, management unwisely looks only at reported costs while disregarding unquantified savings.

All owners include scheduling requirements in their contract documents. The main reason why owners incorporate scheduling requirements as a part of the contract is to ensure that contractors have adequately planned the project prior to starting work. Some owners even require contractors to submit a

project schedule either during the preconstruction conference or sometime shortly thereafter. Unfortunately, most contractors view scheduling requirements as a burden rather than as a motivation to do the preplanning suggested by Oglesby, Parker and Howell.

To comply with scheduling requirements in a contract, some contractors hastily submit a plan of operation that their field personnel do not intend to follow. What these contractors don't realize is that this schedule may be critical in demonstrating the impact of a delay or disruption. In fact, an approved "fictitious" as-planned schedule may handicap a contractor's chances of discovering the impact, communicating to the owner resolving the claim, or recovering its unanticipated delay costs if the delay ends up as a dispute.

As stated previously, today, bidding on transportation construction projects is very competitive. Most low bidders have very little margin built into their bids. To make a profit or avoid losing money, contractors feel forced to accept the risks associated with minimal planning. Unfortunately, without proper planning and scheduling, contractors may overlook some cost saving alternatives or make costly mistakes such as insufficient labor forces to perform certain work, using the wrong equipment to perform the work or failing to plan for the efficient use of the equipment. They may also fail to coordinate their crews and subcontractors.

Lack of Good Communication with the Owner

Lack of good communication between contractors and owners often leads to numerous claims and disputes. The common channel of communication between contractors and owners is the meeting. Some contractors avoid the seemingly frequent but necessary meetings with the owner. Some contractors take an adversary position when dealing with owner personnel. Other contractors may withhold from the owner information pertaining to problems. Sometimes, personality conflicts between contractors and owner personnel result in a breakdown of good communication between the parties. Whatever the reason, the lack of good communication between contractors and owners is not beneficial to either party.

A contractor's lack of good communication with the owner often causes conflicts in its schedule of operations. For example, a contractor may plan to work on weekends or holidays but fail to communicate this information to the owner.

Poor communication with owners can have a tremendous impact on identifying and resolving potential claims or disputes. If the owner is kept "in the

dark” on matters related to the project, it cannot make a timely decision when the contractor needs one. Likewise, the owner cannot mitigate problems encountered by contractors or resolve issues at the project level if it has limited or no awareness of such problems. Open lines of communication between contractors and owners are essential.

Lack of Control and Good Communication with Subs

Many construction claims and contract disputes occur between the contractor and its subcontractors. Lack of good communication is usually a primary factor in most instances. Many contractors make unilateral decisions and do not inform their subcontractors of these decisions in a timely manner. Sometimes, problems occur when a subcontractor fails to respond to a contractor’s request.

Contract disputes often occur because of project schedules. Some contractors independently develop the overall project schedule and then impose it upon subcontractors. A subcontractor may not agree with the duration or the logic link between activities for its work on the contractor-created schedule. When contractors insist that subcontractors comply with such project schedules, subcontractors may resort to claims to recover added costs.

Poor communication is also the culprit in situations where the contractor does not timely relay information needed by the subcontractor from the owner. In situations such as this, subcontractors may be delayed in meeting their installation schedule, resulting in subcontractor-generated claims to recover added costs. This type of situation can usually be avoided when contractors make the effort to keep lines of communication with their subs open.

One effective way contractors can communicate with subcontractors is **through job-coordination meetings**. Contractors need to keep subs up-to-date with the work progress on the project. A contractor will be able to better control the project if its subcontractors know about problems the contractor faces. Subcontractors Will then have ample time to mitigate or minimize the impact of problems which may occur.

Contractors are responsible for **coordinating the schedules** of various subcontractors. They are responsible for ensuring the adequacy of manpower or equipment furnished by the subcontractors. Contractors also assume full responsibility for any actions or inactions taken by their subcontractors. An open line of communication between a contractor and its subcontractors is essential. It

allows the contractor to foresee potential problems and react promptly to prevent or resolve the problems.

Lack of Good Communication Within the Company

Construction claims and contract disputes may occur because of lack of good communication between management and field personnel within the contractor's organization. Claims or disputes may result from a contractor's home office not providing adequate constructive support or effectively monitoring the project. They may also result from a lack of communication between the estimator and the field personnel.

One example of lack of good communication within the contractor's organization is in the implementation of the project schedule. Upper management may feel the need to use the project schedule to control and monitor a project, but field personnel may feel otherwise. Significant amounts of time and money may be spent to develop a project schedule that never gets used. This waste may well have been avoided had the upper management communicated their reasons for having a schedule to manage the project to the field personnel and invited their feedback.

The following example of lack of good communication within a contractor's organization may serve to illustrate its importance. A project manager for a contractor knew that the contract specifications limited the size of rock to be used as fill material. The contractor's field personnel, however, were unaware of such requirements and used rock larger than specified as fill material. After the completion of the fills, an unacceptable amount of settling occurred and the project owner requested the contractor to remove the completed fills. Ultimately, the contractor had to remove and replace the fills at its own expense. Arguably, the contractor's field personnel should have been aware of the specification requirement. However, it was upper management's responsibility to **make sure** they were aware.

Failure to Re-plan and Update the Schedule and Schedule Gamesmanship

A project schedule can be a good planning and management tool if it is used properly. It can also be a useful tool in identifying the impact of events on the work and in proving or refuting delay or disruption claims. However, when a contractor does not update its project schedule regularly, it defeats the good

intentions of having a project schedule in the first place. It is analogous to using an outdated airline schedule to plan a trip. Just as an outdated airline schedule cannot tell a passenger whether he will make his flight, an outdated schedule cannot tell a contractor or an owner the impact of events on the time necessary to complete the project.

Frequently, a contractor has to change its schedule of operations in light of the actual site conditions. When this happens, some contractors may abandon their original project schedules entirely. However, disputes may arise when subcontractors have already relied on a contractor's abandoned project schedule to plan their work. To avoid disputes with subcontractors regarding the project schedule of operations, contractors not only have to follow the schedule, but must also update the schedule regularly to reflect the actual conditions encountered.

Some contract specifications do not require contractors to update their schedules. In those instances, many contractors do not perform schedule updates, thinking that if it is not a contract requirement, there is no reason to do it. Other contract specifications may require contractors to submit their schedule updates on a weekly or monthly basis. Despite these contract requirements, some contractors fail to update their schedules on a regular basis and some owners do not enforce the update requirements. The consequences of not having an updated schedule will surface when the contractor needs to prove its delay claims.

The importance of updating a project schedule from a proof of claim standpoint is echoed in **Ballenger Corp., DOT**, BCA Nos. 74-32, 74-32A, 74-32H, 84-1 BCA 16,973. In that case, the Department of Transportation Board of Contract Appeals stated that the schedule's (CPM's):

[U]sefulness as a barometer for measuring time extensions and delay damages is necessarily circumscribed by the extent to which it is employed in an accurate and consistent manner to comport with the events actually occurring on the job.***
[This is the single most important factor in determining the acceptability of the [CPM] analysis.
[Emphasis added]

In an article titled "Schedule 'Games' People Play and Some Suggested Remedies,"⁹ James G. Zach, Jr. suggests that some contractors use schedules to build claims by "**schedule gamesmanship.**" Among other "games," Zach suggests that those reviewing schedules look out for the contractor's failure to (1) include submittal reviews, (2) show procurement activities, and (3) include schedule restraints. He also submits that some contractors present phony early

completion dates, use preferential logic to maximize the opportunity for owner interference and reduce float by preferential sequencing and by artificial activity durations.

In addition to the failure to update the schedule, Zach believes some contractors play other “games.” He suggests that a few contractors purposely provide inaccurate updates or even change the project history to eliminate float. He also argues that some contractors fail to incorporate changes into the schedule or include the changes so as to maximize their impact.

Failure to Keep Adequate Job Records

Job records come in many forms which include but are not limited to videotapes, photographs, daily logs and reports. Job records can be used to verify whether the contractor has performed work in compliance with the contract requirements. Job records are also useful for establishing entitlement of claims.

More often than not, contractors only keep payroll records and equipment and material invoices on the job. A project manager or superintendent may start a job diary but not keep it up. Some contractors do not record oral directives from the owner or the delaying events it encountered. Other contractors do not separate the time and the cost for extra work and contracted work.

To effectively control and monitor a project, contractors need to maintain good, accurate and complete records. In addition, adequate job records will allow the contractor to better present its position in the event of claims or disputes. Good record keeping facilitates the change order negotiation process, minimizes the potential for claims and helps resolve disputes in a timely manner.

Failure to Give Notice As Required by Contract

Most public owner contracts require contractors to provide prompt notification of their claims. Some contract provisions may explicitly state the consequences of a contractor’s failure to notify the owner of its claim within a specific time frame. In FHWA Report No. FHWA-TS-85-215 titled *Highway Construction Contract Claims Causes and Resolution Practices*,¹⁰ the authors argue that notice and time limitation requirements are important because they establish a set of contract rules and because prompt notification will enable the owner to investigate the problem, ascertain and document pertinent facts, and take

appropriate action to solve the problem, thereby minimizing the impact of additional costs and time.

A contractor's failure to notify the owner of dispute in a timely manner may be attributable to the following reasons:

1. Ignorance of the notice requirements.
2. Failure to recognize the condition giving rise to the claim.
3. Concern about being labeled as a "claim happy" contractor. In other words, contractors are afraid of ruining the good relationship they have had with owner personnel.
4. The Scarlett O'Hara Syndrome-There's a problem today but we'll solve it tomorrow.

Many claims or disputes can be avoided simply by raising problems in a timely manner. As pointed out in the FHWA report, this allows the owner ample time to assess and resolve the problems. On the contrary, if a contractor fails to notify the owner of its claim in a timely manner, the owner feels it has been blindsided. Such a feeling makes it more difficult to resolve the problem and may ultimately deprive the contractor of its right to claim for recovery of costs for which it should have been paid.

3. Other Causes

Some claims and disputes are caused through no fault or negligence of either the owner or the contractor. These causes are beyond either party's control. To minimize construction claims and contract disputes caused by others, **early recognition** and **prompt resolution** from both the owner and the contractor are necessary.

Unusually Severe Weather

Unusually severe weather is considered a *force majeure*, or "an act of God." It refers to a weather condition which is abnormal in comparison with normal or average weather conditions for a locality at a given time of year. Examples of unusually severe weather conditions are heavy snowstorms, excessive rainfall, frost, etc.

Unusually severe weather can greatly impact contractor costs and time of work performance. Adverse weather conditions often prevent contractors from performing their work. They may also change the physical characteristics of the site conditions. Construction operations such as earth moving activities will be impacted by excessive rainfall. Additional efforts to compact a fill are almost always necessary. Resulting muddy site conditions often slow the mobility of the earth moving crew and equipment. In short, unusually severe weather conditions generally cause the contractor to incur extra and additional costs.

To minimize claims and disputes arising from unusually severe weather, the owner must recognize the effect of such weather and grant appropriate contract time extensions promptly. If not, contractors may be forced to accelerate work, which will ultimately develop into a claim for extra compensation.

Actions/Inactions of the Third Parties

A third party is a party not contractually obligated to either the owner or the contractor. The third party to a contract may be environmentalists, politicians, union strikers, and the like. The actions or inactions of a third party may delay or disrupt a contractor's work performance. Examples of the actions/inactions of a third party include:

1. Utility company does not relocate utilities as scheduled.
2. Railroad company verbally agrees to allow temporary crossing over the railroad, but changes its mind the day the crossing is to be installed. Receipt of written permission to install the temporary crossing takes three months.
3. A third party requires the contractor to change its work schedule or means and methods of construction as conditions to issue the permit necessary for the construction of the product.
3. Unforeseeable strikes or labor unrest.

Differing Site Conditions

Subsurface conditions involve many uncertainties and unknown factors. They are the greatest **Aneutral@** cause of claims and disputes. Even when extensive subsurface investigations are undertaken, the possibility of discovering

differing site conditions still exists. The question from a claims and disputes avoidance standpoint is: *How will the contractor and the owner handle this neutral cause when it is encountered.*

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