



# DELIVERING DISPUTE FREE CONSTRUCTION PROJECTS: PART II — CONSTRUCTION & CLAIM MANAGEMENT

A RESEARCH PERSPECTIVE  
ISSUED BY THE  
NAVIGANT CONSTRUCTION  
FORUM™

**MARCH 2014**

**NAVIGANT**

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CONSTRUCTION FORUM™  
Building on the lessons learned in  
construction dispute avoidance and resolution.™

## CONSTRUCTION

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## NOTICE

This research perspective was prepared by the staff of Navigant's Global Construction Practice, edited and published by the Navigant Construction Forum™. Navigant's Global Construction Practice has been involved in thousands of construction project disputes around the globe. Through immense involvement in these projects, a number of observations have been made, developing the fundamentals for a "lessons learned" research perspective. The Navigant Construction Forum™ recently asked a group of professionals from the Global Construction Practice to reflect on the projects they have been involved in and offer suggestions on what steps could have been taken by project owners, design professionals, construction managers and contractors that may have helped them avoid such disputes.

This research perspective is a product of their observations and recommendations and is properly attributed to the following members of Navigant's Global Construction Practice:

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## PURPOSE OF RESEARCH PERSPECTIVE

The staff of the Navigant Construction Forum™ is frequently asked by project owners, design professionals, construction managers and contractors if we can provide recommendations on how to avoid disputes on future construction projects. When asked if they are referring to a “claim free” project, the vast majority respond in the negative. Most project participants and their representatives understand that it is nearly impossible to have a project with no changes, delays, site condition problems, labor issues, lost productivity, etc. Most are sophisticated enough to acknowledge that when situations such as these arise, which entitle contractors to additional time and/or money under the contract, assuming they file a well documented claim<sup>1</sup>, then the issue should be resolved at the project level. What most refer to as a “dispute” is a claim that cannot, or is not, resolved at the project level and formal legal action results.

Rather than attempt to create such a list on its own, the Navigant Construction Forum™ interviewed practitioners from Navigant's Global Construction Practice to determine their recommendations. The interviewees are all well experienced in a wide variety of construction projects, from around the world, employing all types of project delivery methods. This research perspective is the product of their experience, observations and thinking.

The purpose of this research perspective is to summarize the list of suggestions and recommendations into bite size topics for the reader. The Forum has organized the recommendations by project phase. The previous research perspective dealt with the planning, design and bidding phases of a project.<sup>2</sup> This research perspective addresses the issues of claims mitigation and dispute avoidance during the construction and claim phases of a project. These two phases, of course, overlap each other as claims can start to arise shortly after Notice to Proceed (“NTP”) is issued and even before physical construction starts.<sup>3</sup>

This research perspective treats the claim phase of a project as dealt with herein separately, not because it takes place at a different point in time, but because the activities involved in preparing, submitting, receiving, reviewing and resolving claims are entirely different from those activities concerning management and delivery of a construction project. While the activities in the claim phase overlap and are concurrent with the activities of the construction phase, they are not the same and thus are treated separately.

This research perspective has generally been drafted with the traditional Design-Bid-Build (“D-B-B”) project delivery method in mind as it is Navigant's experience that this method typically tends to result in more claims than other methods. However, when a recommendation can be employed in the Design/Build (“D/B”) or the Engineer, Procure, Construct (“EPC”) methods it is so noted.

For the purpose of this report the Forum generally uses the following terms:

- “Owner” — Includes the project owner and all members of the owner's team, including design professionals, geotechnical consultants, construction managers representing the owner, etc.
- “Contractor” — Standard industry roles such as the constructor, general contractor or Construction Manager at Risk (“CM@R”) as those terms are generally used in the industry, as well as the project participants for which the contractor is responsible and liable for, such as subcontractors, suppliers, materialmen, etc. Where the contractor is acting in a D/B or EPC capacity, this is noted.

1. The term “claim” is defined for the purposes of this research perspective as a written statement from one of the contracting parties requesting additional time and/or money for acts or omissions under the terms of the contract for which proper notice has been provided; the claimant can demonstrate entitlement under the contract; and is able to document both causation and resulting damages.

2. See [Delivering Dispute Free Projects: Part I — Planning, Design and Bidding](#), Navigant Construction Forum™, September, 2013.

3. See *The Redlands Company, Inc. v. U.S.*, 97 Fed. Cl. 736.

The Navigant Construction Forum™ believes that implementation of many of these recommendations offers a good chance of reducing the number of claims on projects. If properly employed these recommendations should also increase the likelihood that the project will close out with no follow on legal action or dispute.

## THE CONSTRUCTION PHASE

### OWNERS

#### *Project Kick Off*

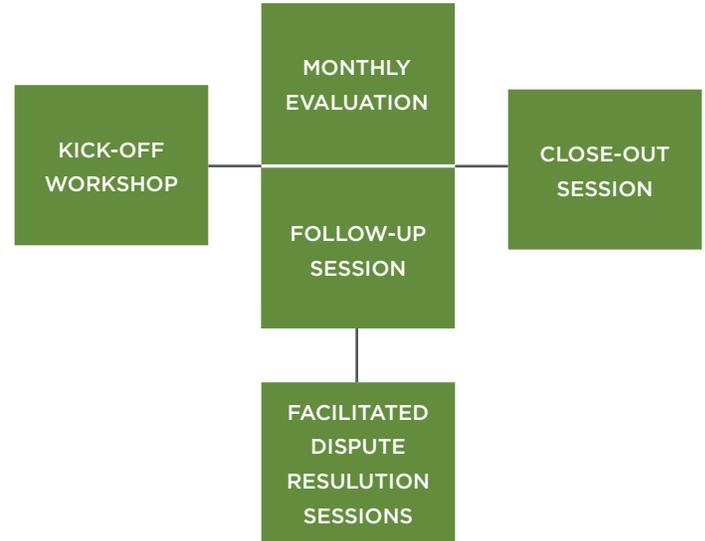
**Owner Organization** — The owner should establish, document and circulate in writing the clear lines of authority and responsibility within their own project organization for the various construction phase functions (e.g., technical submittal reviews, Requests for Information (“RFIs”) responses, schedule reviews, payment processing, etc.).

**Partnering** — Project partnering may be specified in the contract or simply agreed upon between the owner and the contractor after contract award. It is a formalized project management system whereby all parties agree to long-term commitments, at the outset of the project, to achieve mutual goals. It is a voluntary system of handling normal, everyday jobsite issues in a cooperative and joint fashion between the parties before issues blossom into claims or disputes. All stakeholders resolve that issues will be settled by employing a positive and cooperative approach. Partnering generally starts with a team building workshop aided by an outside facilitator, focused on the desired goals and outcomes of the project for each stakeholder. From this session a set of common project goals are developed and turned into a Partnering Charter signed by all participants. The intent of the charter is to change the typical adversarial attitude on the project (i.e., self-preservation, confrontational, positioning, etc.). As such,

- Partnering must be driven from the top of the organization down to the field level as it is atypical behavior for experienced construction personnel; and,
- Partnering is not a one time facilitated workshop, but rather a continuous process throughout the project on a routine basis.

The California Department of Transportation (“Caltrans”) defines this continuous partnering effort as the Lifecycle of Project Partnering and depicts it in the following manner.<sup>4</sup>

#### LIFECYCLE OF PROJECT PARTNERING



It is noted that Caltrans uses the partnering process to facilitate dispute resolution even though, as a matter of agency policy, they also incorporate Dispute Resolution Boards (“DRBs”) on all contracts in excess of \$10 million and Dispute Resolution Advisors (“DRAs”) on smaller projects.<sup>5</sup> Probably no one construction organization has been more active in promoting project partnering than the U.S. Army Corps of Engineering (“Corps”) over the years. As far back as 1991 the Corps, one of the largest construction owners in the U.S., took the position that —

“Clearly, the best dispute resolution is dispute prevention. Acting to prevent disputes before they occur is key to building new cooperative relationships. By taking the time at the

4. [Field Guide to Partnering on Caltrans Construction Projects](#), California Department of Transportation, Division of Construction, Sacramento, CA, September 2008.

start of a project to identify common goals, common interests, lines of communication, and a commitment to cooperative problem solving, we encourage the will to resolve disputes and achieve project goals.”<sup>6</sup>

For further information on partnering, the reader is referred to [Project Partnering for the Design and Construction Industry](#)<sup>7</sup> or [Successful Partnering: Fundamentals for Project Owners and Contractors](#).<sup>8</sup>

**Pre-construction Audit** — An issue that often prevents successful onsite resolution of claims is the owner’s concern (sometimes warranted, perhaps, but most often not) that the contractor has inserted some unrelated losses into their change order or claim submittal. One way to put this concern aside is for the owner to perform a pre-construction audit. A pre-construction audit is a review of the contractor’s accounting system. This includes an examination of the contractor’s chart of accounts; accounting system operations and controls; overhead structure; and cost accrual procedures. The sole purpose of such an audit is to determine the contractor’s normal accounting system and procedures. Once these are documented, the owner can test all cost submittals related to changes and claims to determine whether the asserted costs were accrued and accounted for in accordance with the contractor’s standard accounting system. If performed properly at the outset of the project, such a requirement and audit should help avoid arguments during construction concerning the pricing of changes and claims. This audit may either be specified in the contract documents prior to bidding and established as a prerequisite to issuance of the NTP or implemented by use of the contract’s Audit — Access to Records clause.

**Scheduling & Time Extension Requirements** — Navigant’s Global Construction Practice staff have observed that scheduling specifications have become longer and more complex over the years. Many scheduling specifications are so complex today that in an increasing number of instances, neither the contractor nor the owner staff have a full understanding of the detailed requirements. One method for preventing disputes related to scheduling requirements, schedule updates and/or time extensions requirements, is to hold a pre-construction meeting specifically for the purpose of discussing scheduling and the requirements related to updates, three week look aheads, delay analysis and time extension requirements. Once the owner and contractor project teams have a mutual understanding of the contract’s scheduling requirements such disputes should be mitigated.

**Capability Gap Analysis** — Schedule review, delay analysis and time extension issues are difficult on complex projects. If the owner’s staff does not have the capability to review critical path method (“CPM”) schedules, time extensions requests and delay claims, the owner should engage a professional scheduling consultant to perform these functions. If both the owner and the contractor teams have competent, professional schedulers on staff and a mutual understanding of the contract requirements, it is more likely that time extension requests and delay claims can be resolved on the job site through negotiation. Thus, the likelihood of time related disputes should decrease.

**Schedule of Values Review** — On lump sum projects, it is common for the contract to require that the contractor prepare a schedule of values to be used as a payment schedule. Owners should review the proposed schedule of values carefully to prevent front end loading or unbalanced bid breakdowns.

“A mathematically unbalanced bid is one in which each item (or breakdown of schedule values in a lump sum contract) fails to carry its proportionate share of the overhead and profit in addition to the necessary costs for the item. The results are understated

5. See Caltrans Construction Policy Bulletin 10-5, Changes to the Dispute Review Board Process, July 1, 2010. See also *Amendments to the 2006 Standard Specifications*, Section 5, Dispute Review Board.

6. *Partnering: A Tool for USACE, Engineering, Construction, and Operations*, U.S. Army Corps of Engineers IWR Pamphlet 91-ADR-P-4, issued December 1991, revised May 2010.

7. Ralph J. Stephenson, *Project Partnering for the Design and Construction Industry*. John Wiley and Sons, Inc., Hoboken, NJ, 1996.

8. Henry J. Schutzel and V. Paul Unruh, *Successful Partnering: Fundamentals for Project Owners and Contractors*. John Wiley and Sons, Inc., Hoboken, NJ, 1996.

prices for some items and enhanced or overstated prices for others. A common example is Front End Loading, wherein activities scheduled to be performed early in the project ... have values encumbered with an excessive proportion of planned overhead costs and anticipated profit.”<sup>9</sup>

Unbalanced bid breakdowns can lead to change order and claim pricing disputes if a bid item on an approved schedule of values is substantially over valued and a change order involves this item.<sup>10</sup> Additionally, approval of a materially unbalanced bid breakdown constitutes advance payment which, in turn, may waive Performance Bond coverage for the owner in the event of a default termination.<sup>11</sup>

## Project Management & Contract Administration

**Owner Onsite Representative** — Since so many project decisions have to be made or approved by the owner’s representative, owners should arrange for a representative to be onsite at all times when the contractor is working. Full time, onsite representation helps facilitate decision making and should result in fewer project delays. In short the owner should remain fully engaged in the project and readily available to make timely decisions.

**Review and Respond to All Contractor Letters** — Contract documents are replete with requirements for written communications (i.e., confirmation of field agreements, submittals, change order requests, notices of delay or differing site conditions, etc.). Since the contract is owner issued, contractors are obligated to comply with the terms and conditions of the contract, including notice and other communication requirements. The owner is likewise obligated to respond with timely and accurate responses. Owners also need to review and respond to contractor e-mails.<sup>12</sup> Accordingly, it is good practice for owner staff to review and respond to all contractor letters and e-mail. If the contractor communication is unclear, this is no excuse to ignore it. Rather, the owner should seek clarification and/or explanations from the contractor in writing and then respond to the communication once the

owner understands it. Further, the owner should create a correspondence log which documents the date of receipt of the contractor communication, the issue addressed and the owner’s response date. This practice applies likewise to e-mail communications. Finally, it is noted that senior (i.e., more experienced project management staff) should review all owner responses to contractor communications to help insure that the owner response is correct and accurate and does not exacerbate a situation and leverage a routine matter into a later dispute. If this is done in a timely manner, the number of claims should decrease and the likelihood of a formal legal dispute should be mitigated.

**Appoint a “Project Czar”** — A common claim (and cause of a potential dispute) on many projects is the contractor’s allegation that a member of the owner’s staff directed the contractor to perform changed work and are therefore owed “\$x” and “y days”. The owner in turn is most likely to point to the contract provision that says “...there shall be no payment for changes unless changed work is done pursuant to an executed Change Order.” And so, the argument begins. Some Courts enforce such provisions while others do not. A relatively easy way to avoid such claims is for the owner to name a single individual who has the sole authority to issue changes to the work. As mentioned in the prior research perspective<sup>13</sup> this is best done in the contract documents. If this did not happen during design, the owner can implement this recommendation by following the Federal government system of Contracting Office Warrants. Following this procedure, the owner should name a single individual and state their level of authority (i.e., \$100,000 say) and what other authority they may have “...to administer, or terminate contracts and make related determinations and findings”.<sup>14</sup> Such a warrant should be provided in writing to all contractors, subcontractors and suppliers as well as posted in the site trailers. Additionally, both the owner’s project staff and other project stakeholders need to be trained and reminded on a routine basis, that only the named individual (the Project Czar) has the authority to direct changes to the project. Finally, if this procedure is implemented, contractors, subcontractors and suppliers need to be reminded at project meetings (and recorded in the written meeting minutes) that only the Project Czar has the authority to direct changes, suspend work, etc.

9. Frank A. Manzo, *The Impact of an Unbalanced Bid on the Change Order Process*, 1997 [Wiley Construction Law Update](#), Supplement to Chapter 7, John Wiley & Sons, Inc., Hoboken, NJ.

10. Michael T. Callahan, [Construction Change Order Claims](#), 2nd Edition, Wolters Kluwer Law & Business, New York, 2011.

11. Richard E. Tasker, G. Wayne Murphy and William Schwartzkopf, [Practical Guide to Construction Contract Surety Claims](#), Wiley Law Publications, New York, 1997.

12. Paul C. Ratwik and John M. Roszak, *The Electronic Information Age: Records Retention and Retrieval*, TIES Coordinators Conference, Minneapolis, MN, February 13, 2009.

13. See [Delivering Dispute Free Projects: Part I — Planning, Design and Bidding](#), Navigant Construction Forum™, September, 2013.

14. U.S. Army Corps of Engineers, [Memorandum for Commanders/Directors — Procurement Instruction Letter 2011-8 — Policy for Issuance of Contracting Officer Warrants](#), Department of the Army, June 2, 2011.

**Project Management Plan** — Owners should require that their design professionals and/or construction managers prepare a Project Management Plan which details systems, policies, procedures and document logs for the following —

- RFIs
- Technical submittals — shop drawings, catalogue cuts, product data, etc.
- Notices of Variations / Changes and proposals for extra cost
- Schedule submittals
- Material test results
- Payment requests and payments
- Requests for deviations
- Requests for time extensions
- Claim submittals
- Etc.

Such standardized project management procedures should mitigate delays related to these issues and in turn, decrease claims and disputes.

**Use Standard Forms** — Owners should create or have their design professionals or construction managers create a standard set of forms for use on the project to include RFIs<sup>15</sup>, Change Orders / Variations, Cost Proposals, Material Testing, Submittals, etc. Standardized forms, accompanied by standard policies and procedures, makes document processing easier and mitigates claims and disputes over issues of late return of document submittals and disruption due to improper handling.

**Agreed Upon Timeframes for RFI Responses and Submittal Reviews** — If the contract documents do not specify timeframes for responses to RFIs and submittals, owners and contractors may, during the partnering sessions, negotiate and agree upon standard review times for various documents. One frequent cause of delay claims is a specification requirement that “...the owner (or design professional or construction manager) will review submittals in a timely manner so as not to delay the progress of the work.” Such contract language may cause delay claims especially when the contractor contends that a five (5) day response time is what was needed to support the schedule and the owner takes 30 days or more.<sup>16</sup> Once timeframes have been established the owner should see that a document management system is established. Such a system should electronically track all submittals and RFIs and alert owner staff when a submittal has not been responded to in a timely manner. Prompt action

can then be taken to avoid a late response. Such an agreement on review and response times, combined with a robust tracking system can help avoid delay claims and the resulting disputes.

**Project Photography** — Despite the best kept status reports and other project documentation, engineering, architecture and construction are complex subjects. In the event of a claim or dispute, photographs or video are often more easily understood than the written word. Owners should consider employing an onsite photographic monitoring system. Not only do such systems accurately record project progress on a real time basis but the photos can be digitized and incorporated into a 4D Building Information Modelling (“BIM”) and Virtual Design and Construction (“VDC”) system. Comparisons of actual project photography with time scaled BIM and VDC models can digitally display planned versus actual project status at any point during construction. Such a system makes it easier to document delay and resolve delay claims, concurrency issues, etc. and thus prevent end of the job disputes.

**Do Not Use RFI Responses to Correct Errors or Redesign Project** — On occasion, RFIs will identify design problems or point out the need for project changes. At other times, owners may want to make changes to the design — “betterments” if you will. Owners and their design professionals and construction managers should avoid the use of RFIs to correct errors or redesign elements of the project. If the design needs to be changed during construction to achieve the owner’s needs, or if the owner simply wants a change, the owner’s team should issue a notice of change and negotiate a change order. Failure to do this will likely cause contractors to file change orders or constructive change claims in response to such actions; both of which may lead to disputes.

**Do Not Object to Written Notices** — Contract documents are replete with written notice requirements. Notices of changes, delays, suspensions of work, differing site conditions, etc. are almost always included in construction contracts. The intent of such written notice requirements is to alert project owners to problems or issues that may have potential cost and time impacts for them. Notwithstanding the fact that owners impose notice requirements by contract, it is not uncommon to find owners objecting to contractors submitting written notices. At times, contractors will, as a result of such objections stop submitting written notices. At the end of the project when the contractor files a claim, owners and/or their legal counsel assert the “no notice, no claim” defense only to find that they may have waived

15. For further discussion of RFI related issues see [Impact and Control of RFIs on Construction Projects](#), Navigant Construction Forum™, April 2013.

16. See Amanda Amadon, Steve Pitaniello and James G. Zack, Jr., [Construction Scheduling Games — Revisited](#), Navigant Construction Forum™, 2011.

the written notice requirement by their course of action earlier on the project.<sup>17</sup> The best way owners can avoid situations like this is (1) do not object to written notices and (2) always remind contractors to file written notice whenever a situation arises which requires written notice under the contract.

**Pay Promptly** — Construction in modern times (and perhaps earlier also) is always done on a cost reimbursable basis. That is, the contractor furnishes labor and equipment, procures the necessary materials and constructs the project with their own money. Depending upon the terms of the contract, contractors may be able to seek routine reimbursements for work successfully completed during last period. Frequently, such reimbursement is specified as monthly payments but they may be longer. Even then, the payments to contractors are frequently subject to the contract's retention provisions (i.e., retention of 10 percent of the progress payment during the first 50 percent of the project and 5 percent of the progress payments until substantial completion). Project owners (especially public owners) need to establish systems for the prompt handling of contractor payment requests in order to prevent (1) late payments which may subject owners to legal penalties<sup>18</sup> or (2) slow payments which may adversely impact a contractor's financial ability to prosecute the work as planned, leaving the owner exposed to claims of owner interference with the work. Owners must emphasize to their project staff the need for prompt handling of all payment requests and equally prompt resolution of disagreements over such payment requests.

**Timely Review and Evaluation of Change Order Requests** — Owners and their staff must focus on and provide for timely review and evaluation of all contractor submitted change order requests. Such requests are, under most contracts, treated as a claim. Evaluation of such requests to determine entitlement under the contract should be the first order of business for the owner staff. Ignoring change order requests or letting them languish, unanswered, is likely to lead to larger disputes later on. If the contractor's request demonstrates entitlement, owners should then review the causation and damages (time and/or money) to determine if the contractor has successfully documented this three part test. If so, owners should acknowledge entitlement to a change order (claim settlement) and negotiate settlement of the issue. If the owner's review concludes that the contractor has not proven entitlement, a written response to this effect, with full discussion of why the contractor is not entitled to a change order is appropriate.

### **Do Not Refuse to Deal with Delay and Impact Damages —**

Changes and delays are nearly inevitable on construction projects. However, all too many owners refuse to deal with delay and impact damages at the time of the delay, despite the fact that most construction contracts require prompt notice of delay and submittal of delay claims within a relatively short period of time after the delay event has passed. Many owners react to project delays with one of two approaches.

1. *"We don't need to deal with this delay now, we can wait until the end of the job to determine the total delay to the work and settle up then."* This is tantamount to schedule abandonment; leaves the contractor at risk of being assessed liquidated damages at the end of the project; opens the owner up to a constructive acceleration claim; and forces the contractor to file an end of the project delay damage and disruption claim consisting of all delay events occurring on the project in a single claim. None of these results are good for the project, the owner or the contractor and all should be avoided.
2. *"If I acknowledge a time extension now — giving time and/or money as appropriate — and the contractor completes the work before the extended date, haven't I wasted both time and money?"* This approach produces the same outcome discussed above and results in the same consequences.

Once notice of delay or potential delay is filed, the owner's project management staff should meet with the contractor to find out what has happened, or failed to happen, to determine whether there is any action the owner can take to mitigate such delays. Owner staff should also remind contractors of the contractual timeframe for filing of the actual claim and the requirements of the contract concerning proof of delay and impact.

### **Review All Time Extension Requests and Time Impact Analyses ("TIAs") Promptly to Avoid Later Claims of**

**Constructive Acceleration** — "Constructive acceleration" is generally defined as compelling a contractor to complete their work on time despite legitimate, documented requests for time extensions. This type of claim most often arises when a contractor files a request for a time extension (either excusable or compensable); the owner denies all, or part, of the request or ignores the request entirely; the owner specifically directs the contractor to complete work by the original date or threatens the imposition of liquidated damages for "failure to complete on time"; all of which forces the contractor to accelerate their efforts to complete work on time, thus incurring actual damages. This type of claim most frequently occurs when owners ignore time

17. *Paul Reed Constr. & Supply, Inc. v. Arcon, Inc.*, 2014 U.S. Dist. Lexis 5660 (D. Neb. Jan. 16, 2014).

18. For example, California's Prompt Payment Statutes in Public Contract Code §§10261.5 and 20104.50 require State and local agencies respectively to make payments within 30 days of submittal on all undisputed amounts or pay a 10% annual interest on late payments. With respect to release of retention at the end of the project public owners are required by California Public Contract Code §7107 to release retained funds within 60 days of completion of the work or face a penalty of 2% per month plus attorney fees and costs. Other States and the Federal government have similar statutes.

extension requests, deny them out of hand or refuse to engage with contractors over such requests. This ostrich like behavior of sticking one's head in the sand and hoping delay claims will go away is self-destructive. In almost all cases it will make situation worse. The owner team should have the ability to analyze and resolve delay claims. Likewise, owners should ensure that their project staff deals with time extension requests promptly, objectively and in accordance with the terms and conditions of the contract.

**Hold Regular Project Progress Meetings** — Experience teaches that communication on a project is critical to successful completion with no outstanding disputes. Routine, face to face conversations on a regular basis will likely provide more, and more current, information than written communication. Routine meetings (preferably weekly) with formal written agendas attended by all appropriate project team members from both the owner and contractor organizations including project managers, schedulers, quality control/quality assurance (“QC/QA”) personnel, procurement managers, subcontract managers, etc. will help status the project on a contemporaneous basis, bring problems to light early and provide an open forum for both teams to ask questions and air their concerns. Experience also shows that if senior managers of both teams take the time to walk the jobsite together either prior to, or immediately following these meetings, each side will gain more understanding of the perspective of the other side, thus increasing effective project communications.

**During Progress Meetings Allot Time for Discussion of Contractor Needs from the Owner** — As part of the regular meeting agenda, the contractor should be asked to identify specific needs from the owner, the construction manager and/or the design team. These needs may be related to return of certain shop drawings or submittals by a date certain, release of specific Authorized for Construction (“AFC”) Drawings, responses to certain RFIs, etc. This allows and forces contractors to advise owners of what is important for the progress of the work, why and by what dates. In the process contractors can work with owners to prioritize necessary items. This may help prevent later constructive suspension of work or delay claims in the event that the owner's team does not respond to submittals, RFIs, etc. in the order and/or by the dates the contractor needed to receive such responses.

**Require Major Subcontractor Participation in All Progress and Schedule Review Meetings** — Owners should insist that all “major” subcontractors attend and participate in all project progress and schedule review meetings.<sup>19</sup> The value of having major subcontractors participate in such meetings is to fully communicate actual project status, progress, problems, etc. Experience proves that open project communication is a key factor in completing project successfully with no disputes at the end of the job. Inclusion of major subcontractors enhances the communication process. Each subcontractor should be given some time at the meetings to discuss their issues so that the owner team can remain aware of actual project status. Further, each subcontractor should be asked whether they were aware of any potential delays and impacts affecting their work and a careful record should be made in the meeting minutes of their responses.

**Make Certain Meeting Minutes Are Circulated Promptly to All Meeting Participants with an Appropriate Waiver Clause** — Owner staff or its designee must keep accurate written meeting minutes. These meeting minutes may be thought of as the “project history” and should establish what the contemporaneous project priorities are; what current issues need to be resolved, by whom and when; what agreements have been reached between the project teams; etc. These meeting minutes should be processed and sent out within a day or so of the meeting to all attendees, as well as to agreed upon project executives who are involved in the project but do not ordinarily attend such meetings. The meeting minutes should include a disclaimer at the bottom of the last page to the effect that –

“If any participant in this meeting disagrees with the contents of these meeting minutes such objection shall be submitted to the author, in writing, within five (5) days of receipt of the meeting minutes with the suggested correction.”

This disclaimer is intended to prevent people involved in a dispute months or even years later, claiming that the meeting minutes were inaccurate or incorrect and did not represent what was said or done at the time.

19. Major subcontractors may include those who hold contracts worth more than 5 percent of the total value of the contract or those whose activities are on or near the project's critical path.

**Owner Daily Reports** — The owner’s project staff and/or their onsite representatives should keep and maintain Daily Reports listing all activities worked on by the contractor and each subcontractor, by trade; daily manpower; all equipment onsite, whether used or idled; daily weather; site visitors; site inspection activities; ongoing or potential delays; etc. The Daily Report is one of the most important pieces of project documentation. These reports must include only factual comments and observations, not opinions. They must be created on a daily basis and reviewed by the project manager for accuracy and completeness.<sup>20</sup>

**Advise the Contractor of Improper Material Storage Onsite** — Owners typically provide a work site large enough to accommodate both the construction of the project, as well as a laydown area for the contractor’s project trailers, equipment, maintenance yard and storage of some equipment and materials yet to be installed. Should the owner staff observe that material or equipment stored in the laydown area is improperly stored (e.g., equipment exposed to weather, etc.) they should call this to the contractor’s attention immediately so the contractor can remedy the situation. Such actions should help reduce punchlist work at the end of the job and expedite transfer of care, custody and control of the project when work is completed, which in turn should help mitigate disputes.

**Advise the Contractor of “Dry Trade” Work In Progress in Areas with Inadequate Building Enclosure** — Similar to the above, should the owner’s staff observe such a situation, the situation should be identified to the contractor’s project manager as soon as possible.

**Monitor Contractor’s Work Forces** — On a daily basis, owner staff should monitor the contractor’s labor forces as well as onsite labor for all subcontractors. Routinely, such headcounts should be compared to the contractor’s planned labor utilization identified either on the baseline schedule or a revised or updated schedule. If there is a difference between planned and actual labor this provides early warning of a potential productivity loss or project delay. The owner’s team can identify this trend to the contractor to determine what is causing the labor shortage and document contractor’s response. Such labor utilization monitoring may help prevent a project delay later on or assist in defending against a loss of productivity claim or dispute at the end of the job.

**Monitor Contractor’s Production** — Similar to the above, owner staff ought to routinely monitor the contractor’s field labor production and compare it to the planned production calculated from the baseline schedule or current schedule revision or update. Similar to the above, this helps to provide early identification of problems which can be corrected prior to becoming a dispute in the future. Or, in the alternative, this may help defend against delay and impact damages claims later on.

**Audit Contractor Payrolls and Interview Workers** — Owner staff should review contractor payroll information to determine if contractors are in compliance with applicable wage and labor hour requirements. Depending upon Federal, State and local regulations owner staff may also have to routinely interview contractor and subcontractor workers to determine if their employers are conforming to all wage and labor hour requirements of the contract and applicable labor laws. Public owners are frequently required to do this by statute or ordinance, but private owners may be well advised to do the same to decrease potential labor strife on the project site.

**Prepare and Issue Deficiency Reports** — Owner staff should routinely prepare interim reports of deficiencies while the work is in progress, provide them to the contractor and obtain the contractor’s commitment to immediately remedy such defects without waiting until the end of the job. The owner staff should then follow up to make certain that appropriate corrections have actually been completed. Such actions should help reduce punchlist time at the end of the project and potentially reduce the number of delay claims based on the owner not advising the contractor earlier that the work was considered defective.

## Cost Management

**Carefully Review Monthly Payment Requests** — Owner staff must review routine payment requests very carefully. They need to ensure that materials and equipment claimed to be onsite were actually delivered and properly stored. Owner staff should also perform a physical inspection of the work in progress and construction claimed to be in place to ensure the accuracy of the payment request. Payment requisitions must be checked against appropriate unit prices and payment breakdown line items also before authorizing payment. Failure to exercise due caution in reviewing and approving contractor payment applications may cause the owner to make overpayments. Either underpayment or overpayment to the contractor may relieve the surety of its obligations.<sup>21</sup>

20. For a good discussion of Daily Reports see Andrew M. Civitello, Jr. and Sidney M. Levy, *Construction Operations Manual of Policies and Procedures*, 4th Edition, McGraw Hill, New York.

21. Lynn Schubert, *The Legal Basics of Surety Bonds*, *Construction Executive*, November, 2003. See also, Wolf Slatkin & Madison, *Discharge of Surety*, *Construction Law Briefs*, 2014.

**Release of Liens** — Assuming the contract requires lien waivers with each payment application and also at the end of the project, owner staff must make certain that payment requisitions are accompanied by all required lien waivers. This is even more critical for private owners as liens may cloud the property's title.

## Change Management

**Implement a Clearly Regimented Change Control Process with Formal Authority Delegation** — The owner's Project Management Plan should establish a rigorous change management plan that is harmonized with the terms and conditions of the contract documents. Standard forms should be used and a standardized procedure for issuance of change requests, review of contractor proposals, negotiation of changes, etc. should be implemented. To help avoid disputes, a delegation of authority should be made by the owner's senior management to the project team. For example, depending on the size of the project, the project manager may have an authority delegation of \$100,000 while the project executive may have authority up to \$250,000. The concept is to provide a level of authority at the project level that allows for rapid resolution of smaller issues in order to avoid issues going unresolved and festering, ultimately being wrapped up into a single global claim at the end of the project. Avoidance of a large, complex, end of the job global claim can help prevent a major dispute.

**Establish a Mechanism to Pay For Changes Promptly** — Change orders that have been negotiated successfully are typically included in the list of pay items, allowing contractors to proceed with change order work and receive payment on the percentage of work completed basis less retainage. However, all too often, contractors are instructed to begin work on change orders on a time and material ("T&M") basis. When this occurs, the T&M change order is not included on the list of pay items because there is no agreement on the cost of the changed work. As a result, the contractor is not entitled to seek payment for the change order work in process. Owners should consider establishing a system which allows contractors to obtain partial payments for ongoing T&M change orders. This is especially true if the T&M change is large and likely to have a long duration. Unpaid change order work can place a serious financial strain on a contractor which, in turn, may impact the contractor's ability to prosecute the remainder of the work. It may also lead to a major dispute later on.

**Settle All Changes Full and Final** — Change is inevitable on construction contracts. This means that there will be a number of change orders on nearly every project. Some changes will be resolved by prospectively settled change orders. These are change orders where the scope, time and cost of the change is agreed to between the owner and the contractor before any work on the change is performed. More frequently, however, other changes will be settled retrospectively. These are change orders where the work is completed prior to the change order being issued. In either event, it is recommended that all change orders, prospective or retrospective, be settled with some sort of full and final settlement language on the face of the change order. Language similar to the following should be inserted into every change order when possible.

“The compensation (time and cost) set forth in this Change Order comprises the total compensation due the Contractor (which term includes all subcontractors at any tier, all suppliers, and all materialmen) for the work or change defined in the Change Order, including all impact on any unchanged work. By signing the Change Order, the Contractor acknowledges and agrees that the stipulated compensation includes payment for all work contained in the Change Order, plus all payment for the interruption of schedules, extended overhead costs, delay and all impact, ripple effect or cumulative impact on all other work under this Contract. Signing this Change Order indicates that the Change Order constitutes full mutual accord and satisfaction for the

change and that the time and/or cost under the Change Order constitutes the total equitable adjustment owed the Contractor as a result of the change. The Contractor waives all rights, without exception or reservation of any kind whatsoever, to file any further claim or request for equitable adjustment of any type, for any cause whatsoever that shall arise out of or as a result of this Change Order or the impact of this Change Order on the remainder of the work under this Contract.”

Two caveats are offered with respect to change order waiver clauses — one practical and the other legal.

1. From a practical point of view, it is highly unlikely that a contractor will execute a change order with language such as this if the contractor is seeking a time extension and/or impact damage costs and the owner wants to settle only the hard dollar cost. Owners who want to use such language will be faced with the obligation to negotiate and reach agreement on scope, cost (including impact costs) and time during change order negotiations. Owners unwilling to do this will likely find that contractors carve out and reserve their rights to delay, impact costs and cumulative impact.
2. From a legal point of view, such claim waiver language should be reviewed by competent legal counsel as various jurisdictions have different statutes governing such clauses. That is, if the Law of the Contract clause states that the contract will be construed in accordance with the law of Idaho (even though the owner is headquartered in New Jersey and the contractor is from Texas) legal counsel familiar with Idaho law should review such language.

**Advise Contractors of Significant Changes as Early as Possible —**

All too frequently, owners and their design professionals and construction managers consider and scope potential changes for some period of time prior to advising the contractor about the potential change order. To exacerbate the situation further, most contracts require contractors to provide cost quotations

(including time extension estimates) within a relatively short period of time after receiving the owner's request. In order to plan adequately for forthcoming changes, it is recommended that owners advise contractors as early as possible about changes under consideration. Where possible, owners may want to involve contractors in planning and assessing potential change orders in order to help mitigate the impact of the change on existing construction activities. While the technical details of the change under consideration should remain under the purview of the design professionals, contractors may be able to provide input from the construction viewpoint which may help mitigate time and cost impacts should the change move forward. This approach may also help resolve change orders more quickly and assist in obtaining agreement on prospectively priced change orders, thus avoiding later disputes over time, cost and impacts.

**Avoid T&M Changes When Possible —** It is not uncommon for owners to direct contractors to proceed with changed work before a change order is issued notwithstanding contract language that requires signed change orders before any changed work is performed. This course of action is commonly referred to as a change directive, unilateral change, T&M change, cost reimbursement change or force account change. Regardless of the nomenclature used they all have the same meaning – the contractor is required to perform the changed work keeping track of all time and cost associated with the change with the objective of submitting “actual costs” to the owner when the changed work is completed. This approach does have the advantage of getting changed work underway more quickly than estimating, negotiating and resolving all details of the change order before proceeding with the work. If time is truly of the essence concerning the changed work, owners may be forced to issue T&M change orders. If this is the case, owners should direct contractors to keep track of all T&M time and costs by change order, on a daily basis and set forth the terms and conditions of what costs will and will not be accepted as the types of costs to be included. Owners should require that such daily T&M sheets be submitted to owner field staff by the end of each day or each shift (as appropriate). Further, owners should direct their field staff to review and write comments on each contractor daily T&M sheet should they disagree with the information on the daily report. It is impractical to allow the contractor turn in eight weeks of T&M sheets all at the end of the change order work and then expect the owner's field staff to be able to review and comment in detail on documents created several weeks or months earlier or start a disagreement with the contractor over the time and material costs expended.

A caution is offered to owners contemplating use of T&M change orders. There are five risks arising from the issuance of T&M change orders, all but one of which falls to the owner. They are the following —

1. **Time** — If the owner looks at the current schedule update and determines that there is schedule float of 60 days associated with the activity which is to be changed, the owner may issue a T&M change assuming that it will not cause a delay. However, if the contractor takes 82 days to complete the T&M change, resulting in the change becoming the critical path, then the T&M change has caused a 22 day delay and the contractor will file a compensable delay claim and the owner will owe a time extension and related delay damages. The risk of time therefore falls to the owner.
2. **Cost** — If the owner prepares an in-house cost estimate and determines that the changed work should not cost more than \$75,000 but after the contractor completes the changed work and turns in the T&M sheets, the owner learns that the contractor expended a greater amount, the owner will owe an additional amount plus change order markup unless they can document that the contractor duplicated costs, included costs not allowed under the contract, etc. Should the owner issue the T&M change with a “not to exceed” cost to try to control the cost of the change, there is no guarantee that the contractor will complete the changed work within the cost established by the owner. In fact, many times contractors are not required or obligated to complete the changed work within “not to exceed” costs. However, they are entitled to stop work on the change order once the “not to exceed” cost is reached regardless of whether the changed work is completed. The risk of cost therefore falls to the owner.
3. **Performance** — Unlike a prospectively priced change order where the contractor is obligated to complete all work in strict conformance with all contract requirements, under a T&M change order, if the owner later finds that the allegedly completed change was not fully completed, they may be required to pay the contractor extra to complete the previously uncompleted work on the basis that had the contractor performed the T&M work properly and completely earlier, they would have been paid more. The risk of full completion of the changed work (unless the installed work is defective) may fall to the owner.
4. **Means and Methods** — If the contractor completes and submits daily T&M sheets to the owner’s onsite project staff the owner has the chance to direct how the changed work is to be done. Should the contractor select different means and methods and the owner does not object, then the owner will be unable to argue “failure to mitigate damages” in order to reduce the total cost of the changed work. The risk of “excess costs” attributable to means and methods therefore falls to the owner.
5. **Inability to Track Lost Productivity** — T&M change order work is most often accomplished by “pick up” crews selected from labor already onsite. That is, the contractor’s project manager or superintendent may pick a couple of people from one crew; a few from another crew; one or two from a third crew; and assign a foreman to oversee this new crew to perform the T&M work. Unless the existing contractor crews were initially overstaffed when the T&M change was issued (a highly unlikely scenario) the crews from which the superintendent picked people will likely be unable to accomplish their base scope work assignments at the as planned production rates and productivity levels. It is highly unlikely that the contractor will or can track such lost productivity. This risk therefore falls to the contractor to quantify lost productivity. Failing to do this will result in the contractor being unable to recover such damages.

The bottom line is that whenever possible, owners should avoid the use of T&M change orders due to the amount of uncontrollable risk that accompanies such changes.

**Minimize Design Changes During Construction** — If owners and design professionals plan and design the project thoroughly then there should be little need for design changes during construction, absent issues like the needs of the owner changing after the contract is let. In order to minimize design changes owners should, to the extent possible, make all critical decisions during the planning and design phases of the project. During the construction phase, owners should resist the urge to change their initial decisions or order changes to obtain betterments during construction. If owners can minimize design changes the chances of an end of the job dispute will be substantially reduced.

## Risk Management

**Project Risk Management System** — Assuming owners, design professionals and construction managers establish a risk management system and risk matrix during the planning phase<sup>22</sup>, then owner staff should implement a monthly or quarterly risk management meeting – depending on the size, scope, speed and complexity of the project. Owners should recognize that as the project progresses the elements of risk evolve from one risk to another. For example, once all underground utilities are in place and the foundation completed for a building project, underground risks drop off the risk matrix and are replaced by new risks, either those previously identified or newly discovered. The project team’s focus should transition to the new risks. Risk event planning should be performed for these new risks. If this is done throughout the life of the project then the entire project team will be better positioned to respond to risk events should they occur. In this manner, project teams can mitigate damages and potentially avoid disputes.

### Check With Counsel Before Threatening or Withholding

**Liquidated Damages** — Owners generally view the assessment of liquidated damages as an administrative matter, not requiring anything more than the owner withholding such damages from the contractor’s payments once the work has exceeded the contract completion date. When owners seek to assess liquidated damages, they must first bear the burden of proving that the work of the contract was not “substantially completed” by the contract completion date and that the time period for which the liquidated damages are being assessed is appropriate.<sup>23</sup> Once the owner meets their burden of proof, the contractor has the burden of proving any excusable delays (not already granted under the contract) and that the assessment of liquidated damages should be reduced, in whole or in part. Courts have long ruled that when owners prevent a contractor from completing work on time, the contractor is relieved of their obligation to complete work on time and also relieved of the obligation to pay liquidated damages.<sup>24</sup> With this in mind, before owners announce their decision to assess liquidated damages, they should consult with legal counsel to determine whether their case for withholding liquidated damages is warranted or valid in order to avoid disputes related to owner versus contractor delays at the end of the project.

**Advise Senior Management and Legal Advisors of Potential Breaches of Contract** — Breach of contract and anticipatory breach are legal, not project management, issues. Such allegations will invariably give rise to legal disputes. In order to prevent such disputes, whenever the project team believes a breach has occurred or the contractor has announced their intent to breach the contract both senior management and legal counsel should be consulted. Early intervention by senior management and legal counsel may help avoid a dispute.

## Time Management & Scheduling

**Submittals of Short Interval Schedules** — Most standardized scheduling specifications require routine schedule updates either on a monthly basis or when specified contract milestones are achieved. This sort of requirement means that the owner may be reviewing reports on activities completed a month or more prior to the report being submitted. Reviewing month old data is inconsistent with the continuous communication style of project management recommended throughout this research perspective. Therefore, it is recommended that owners work with contractors to obtain the contractor’s short interval schedules. These are frequently three week bar charts showing what was scheduled and completed last week; what is scheduled this week; and what needs to be planned for the following week. Such schedules are often issued to superintendents and foremen by trade. Owners should arrange to receive these the same day they are issued to the contractor’s staff. Owners should review these short term schedules to see that they are consistent with the overall project schedule to determine if the contractor is executing to their own plan. Review of these contemporaneous documents will provide the owner with a better picture of what is happening on the project on a weekly basis; thus providing for better communications between the project teams.

**Enforce Scheduling and Time Extension Requirements** — If owners follow the recommendations of the previous research perspective<sup>25</sup> then a requisite amount of time during the design phase will have been expended on creating a “tailored scheduling specification” consistent with the size, scope and complexity of the project and the needs of the owner. Assuming this has been done, owners should always enforce the scheduling specification and adhere to the time extension requirements of the contract.

22. See *Delivering Dispute Free Construction Projects: Part I – Planning, Design & Bidding*, Navigant Construction Forum™, October 2013.

23. *PCL Constr. Servs., Inc. v. U.S.*, 53 Fed. Cl. 479, 484 (2002), *aff’d*, 96 Fed. Appx. 672 (Fed. Cir. 2004).

24. See *Schmoll v. U.S.*, 91 Ct. Cl. 1, 28 (1940) and *Levering & Garrigues Co. v. U.S.*, 73 Ct. Cl. 566, 578 (1932).

25. See *Delivering Dispute Free Construction Projects: Part I – Planning, Design & Bidding*, Navigant Construction Forum™, October 2013, pp. 10-11.

Failure to do so may waive the requirements of the time extension and scheduling specifications to the detriment of the owner. Owners need to keep in mind that since the contract was created by them, failure to enforce the provisions of the contract may later, during a dispute, be deemed to be a “waiver of the contract terms through a prior course of dealings”.<sup>26</sup> This should help avoid disputes at the end of the project.

**Establish and Implement a Protocol for How Delay and Disruption Events Are to Be Prepared and Analyzed** — It is unfortunate that all too many contracts are silent on the issue of how the contractor’s team should prepare delay and impact analyses. Correspondingly, contracts are also generally silent on how the owner’s team will analyze such time extension requests and claims. Many disputes in the construction industry arise, not because the owner and contractor cannot agree on whether there was or was not a delay or an impact, but because the two sides cannot agree on how the claim should be documented and proven and the damages calculated. If a protocol on delay analysis is not specified in the contract it is recommended that at the outset of the project, the owners and contractors should establish some sort of protocol between themselves as to how time extensions and impact claims should be developed, documented, submitted and reviewed.<sup>27</sup> If the two sides can reach such an agreement, it should be committed to writing, signed by the senior management of both sides, and adhered to at all times. While such an agreed upon protocol will do little to prevent delays and impacts from arising, it will help guide preparation and analysis of each such event thus helping resolve some, if not most, of the events contemporaneously and preventing them from rolling up into a major dispute at the end of the project.

**Document and Discuss Conflicts, Errors or Omissions in Contractor Submittals** — Upon receipt of any contractor submittal (technical, administrative or otherwise) the owner’s team should review them in a timely and thorough manner and in accordance with the requirements of the contract. Should the owner’s team ascertain errors, omissions, conflicts, etc. in a submittal they should document their findings and provide this information to the contractor in detail. Responses like “Rejected, Resubmit” are virtually useless unless accompanied by a discussion of why the submittal was rejected. And, responses like “Reviewed” or “Reviewed, Proceed at the Contractor’s Risk” may

later be construed during a dispute as a form of approval. While this recommendation may consume staff time it will likely reduce the number of future disputes based on whether or not various submittals were actually approved or rejected.

**Recognize the Importance of Scheduling** — Owners should make a commitment to CPM scheduling or other scheduling tools, as appropriate, to help them manage projects. Schedule management practices include the following:

- Thorough review and approval or rejection of all schedule submittals and updates;
- Attend all meetings where schedules are discussed to help resolve schedule challenges and/or issues;
- Insist on strict compliance with schedule specification requirements;
- Maintain hard copy and electronic records of all documents related to schedule submittals;
- Keeping accurate records of all time extension requests — when submitted, when responded to, how responded and whether and when a time extension was issued.

## CONTRACTORS

### Project Kick Off

**Avoid Letters of Intent** — Contractors should avoid, if at all possible, proceeding with work on the project based on Letters of Intent (“LOI”). Likewise, contractors should not direct subcontractors or suppliers to proceed based on LOI. If LOI cannot be avoided, contractors should ensure that the LOI is descriptive of what the contractor or subcontractor can do and how they will be paid. A recent legal journal article identified LOI as “agreements to agree” and noted that the treatment of LOI in courts is still evolving.<sup>28</sup> The authors of referenced article go to great lengths to illustrate the point that there may be no actual, enforceable agreement even though an LOI has been issued and work has proceeded. It appears that reliance on LOI is a risky proposition and should a dispute arise, considerable time, energy and money may be spent arguing over whether a deal ever existed. Such potential disputes are avoidable by insisting upon executed contracts and written change orders prior to starting work.

26. Rieck and Crotty, P.C., [Non-Waiver Clause May Be Waived By Clear and Convincing Proof of Waiver](#), Lawpact, March – April, 2009. See also, David Schneider, [The Doyle-Gresham Spectrum of Waiver of Contract Terms Through Prior Course of Dealing](#), Office of Dispute Resolution for Acquisition, Federal Aviation Administration, Summer 2010.

27. For a good discussion of various methods of performing schedule delay analysis, see AACE International Recommended Practice No. 29R-03, [Forensic Schedule Analysis](#), April 25, 2011 Revision.

28. K. Brett Marston, Spencer M. Wiegard, Joshua C. Johnson and Abigail E. Murchison, [“Deal... Or No Deal: Identifying and Addressing Gray Areas in Construction Contracting”](#), [The Construction Lawyer](#), ABA Forum on the Construction Industry, Vol. 33, No. 3, Summer 2013.

**Conform the Contract** — Frequently, addenda to bid documents are issued during the bidding process. Most Invitations to Bid (“ITB”) require that in order to be a responsive bidder each bidder must acknowledge receipt of all addenda issued and have reflected the impact of each addendum in their bid. On some projects bid addenda often change hundreds of pages of drawings, specifications and other contract requirements. During the bidding process, a member of the contractor’s team should be assigned the role of conforming the bidding documents (i.e., cutting and pasting the addenda changes into a master set of the contract documents) so that they are current at all times. Once the contract is awarded the contractor should scan and create electronic copies of the final contract and print a number of hard copies for use by the various members of their team including subcontractors and suppliers, as appropriate. This should help avoid disputes over the requirements of the contract which often arise when one party is relying on the conformed copy and the other is using a copy of the contract without the changes imposed by addenda. As change orders and RFIs are issued by owners, the contract documents should also be conformed to include all changes brought about by these documents.

**Document All Notice Requirements** — A member of the contractor’s team should be tasked with reviewing all contract documents to determine all notice requirements. Such research should be documented into a form which lists the following:

- What notice is required (i.e., changes, delays, differing site conditions, etc.)?
- When is the notice required (e.g., within 10 days)?
- What contract clauses or specifications require the notice?
- What information must be included in the notice?
- What form of notice is required (i.e., in writing, verbal or both)?
- Who should the notice be provided to?
- How should it be delivered (i.e., e-mail, courier, U.S. mail, etc.)?
- Is there any requirement for the owner to respond within a specified period of time?

Once this form is created, it should be provided to all members of the contractor’s management team as well as to all subcontractors and suppliers. The contractor must constantly keep notice requirements in mind so as not to lose entitlement to an issue due to a lack of or late notices. Contractors should also train their staff concerning notice requirements and its importance. Similar notice requirements should also be flowed down in all subcontracts and purchase orders.

**Study the Contract** — The contractor’s management staff must become familiar not just with the specifications but also with the General and Supplemental Conditions as well as all other administrative provisions of the contract including:

- Notice provisions (discussed above);
- Project phasing requirements and milestones;
- Submittal requirements and timeframes for submittal;
- Owner and/or designer review times;
- Payment provisions;
- Bonding and insurance requirements;
- Lien requirements;
- Responsibilities of the design professional, construction manager and the owner;
- Requirements of the scheduling specification;
- Timing requirements for all owner furnished equipment and materials;
- Project work hours and/or work area restrictions;
- Etc.

A thorough familiarity with all such requirements will help avoid disputes arising later concerning delays and impacts which may result from non-conformance with such requirements.

## **Project Management & Contract Administration**

**Open and Regular Communications with Owners** — As this research perspective has noted numerous times, one of the most effective ways to prevent disputes is initiating open communications at all times between the project teams. Open communication is far preferable to late or no notice which leads to even more difficult disputes. The contractor’s project manager should start on the first day to meet and speak with the owner’s project manager on a daily basis to discuss project progress, issues, problems, status, etc. Walking the site together daily will go a long way toward establishing a good working relationship based on mutual respect and trust. Experience indicates that if such a relationship can be developed between the two project managers, this will likely flow down to the rest of the project management staff on both sides, thus lessening the likelihood of a major dispute at the end of the project.

**Regular Oversight From the Home Office** — Even if the contractor puts their “A Team” on the project any job can go bad, even the “easy” ones. One way to prevent this is to have the home office provide routine project oversight on the site. At times, project staff can become so overwhelmed with the details of the project that they cannot “see the forest for the trees”. A routine high level review may detect pending problems early enough that the contractor and the owner can avoid them all together or resolve them at a very low cost, thus avoiding a dispute later on.

**Do Not Volunteer** — Contractors are entitled to payment for work done under the contract, including work performed pursuant to owner issued change orders. However, if a court or arbitration panel determines that a contractor performed work without proper written direction or instruction from the owner, they may impose the “Rule of Volunteerism” which may lead to the following determination — “A contractor who voluntarily and without instructions does additional work not required by the contract is not entitled to any extra payment therefor.”<sup>29</sup> In order to avoid such disputes, contractors should resist requests for extra or changed work unless it is in the form of a written change order or written change directive issued by the owner.

**Record Progress Accurately Based on Actual Progress** — A common dispute in construction revolves around the calculation of delay and delay impacts. What should be a relatively straight forward mathematical calculation is often complicated by the fact that contractors do not status construction schedules properly. One of the keys to properly statused schedules is to record progress on all activities on an actual progress basis. Each activity’s start and completion date, any suspension of work related to the activity, etc. should be the rule, not the exception.<sup>30</sup> Contactor schedulers often update schedule activities using the “percentage complete” methodology which, roughly, assumes that if an activity has consumed 50 percent of the time allotted to it on the schedule then the activity is 50 percent complete. So the update will display this and show the other 50 percent as the remaining duration. Experience shows that such flawed schedule updating leads to disputes later on when forensic scheduling is performed to determine entitlement and causation of delay.

**Accept Responsibility for Rework** — Rework is common in construction and causes both time and cost impacts for owners and contractors. The impact of rework is frequently quite large.<sup>31</sup> As the cost and time impact of rework can be substantial, disputes may arise over who is responsible for rework; that is, who is responsible for paying for rework. It is recommended that when the need for rework is identified, contractors should perform an objective analysis of the proximate cause of the rework. If it turns out to be the contractor or one of their subcontractors, the contractor ought to accept responsibility and rectify the defective work. If such an analysis is done properly, disputes over contractor caused rework may not arise and owners will be more likely to resolve cost and time impacts in situations where they caused the need for rework.

## Cost Management

**Track and Trend Base Scope Costs** — Contractors should track and trend base scope costs carefully. Costs must be collected and accrued accurately by cost account. Cost trending on a weekly or monthly basis should be performed in order to monitor project performance and provide early warning of cost overruns before they occur. This allows contractors to ascertain the cause of such adverse cost trends earlier. If it turns out that the owner is the proximate cause of the cost overrun, prompt notice can be provided. This will help avoid disputes over timely notice and whether the contractor has forfeited entitlement to the claim due to lack of or late notice.

**Track Field Productivity and Production Rates** — When contractors bid a project, the bid contains assumptions concerning labor productivity in the field as well as production rates. Together, such assumptions help determine the bid cost and ascertain what it will take to complete the work on time. Knowing the productivity and production rate assumptions, contractors should track and trend both productivity and production rates. Comparison of these two factors (after the typical learning curve has been completed) will allow the contractor staff to determine if the project is on track financially. If either productivity or production rates fall off then the contractor staff should examine the situation to determine the proximate cause of such a downturn. If it appears to be brought about by an owner action, then appropriate written notice should be provided to the owner. If the lower rates are not caused by the owner, the contractor staff may have a self-imposed problem which they need to remedy in order to avoid a large loss later on.

29. *Dusenka v. Dusenka*, 21 N.W. 2nd 528 (Minn. 1946). *J&P Reid Developments v. Branch Tree Nursery & Landscaping Limited*, 2006 NBSSC 226.

30. See AACE International Recommended Practice No. 53R-06, *Schedule Update Review — As Applied in Engineering, Procurement and Construction*, August 14, 2008.

31. See *The Impact of Rework on Construction & Some Practical Remedies*, Navigant Construction Forum™, August 2012.

**Track Change Order and Claim Costs Separately** — Experience shows that contractors frequently do not segregate change order and claim costs separately from base scope costs. All too many contend that it cannot be done and/or it is too complicated or too expensive to do. As a result, many contractors end up with claims and disputes at the end of the job without properly segregated cost accounts. Contractors then attempt to rely upon the Total Cost or the Adjusted Total Cost Methods for calculating damages. These methods are among the least favored methods of calculating damages in the event of a dispute as these methods are often thought to be a method of recovering contractor underbidding errors or mismanagement in addition to the damages caused by the owner. As a result, there are a number of very difficult legal hurdles that contractors must overcome.<sup>32</sup> Such disputes may be avoidable if contractors carefully track the costs associated with changes and claims separately from base scope costs.

## Change Management

**Carefully Review Subcontractor Change Requests** — It is well known that there are two sets of change orders on a construction project. The first is the more obvious; these are changes directed by the owner under the Changes clause. The second set of change orders is more opaque; these are change orders strictly between prime contractors and subcontractors or suppliers. As the owner has little to do with these changes they are, ordinarily, not available to the owner. In either case contractors must exercise proper due diligence in reviewing subcontractor change order requests, especially those that the contractor intends to sponsor or pass on to the owner. This is especially true if the owner is a public owner as submittal of a subcontractor change order may expose the contractor to False Claim allegations.<sup>33</sup> This is the type of dispute contractors should take pains to avoid.

**Review Subcontractor Delay Notices Promptly** — When subcontractors file delay or potential delay notices with the contractors, such notices must be reviewed promptly. Should there be any plausible allegation that the owner is the proximate cause of the delay event, contractors must submit their own notice of potential delay along with the subcontractor's notice so as to conform to the notice requirements of the prime contract. A contractor's failure to provide a notice of potential

delay may result on in a decision of “no notice/late notice, no claim” especially if the project is in a jurisdiction where notice requirements are strictly enforced.

## Risk Management

**Harmonize Subcontract Terms and Conditions** — Once the prime contract is awarded, contractors must review all subcontracts and purchase orders that will be issued on the project to make certain that the terms and conditions of these documents are harmonized with those of the prime contract. This is especially true if the prime contract contains milestone dates with associated late completion damages. If this is the case, and assuming that the contractor will need certain materials onsite and certain subcontractor work activities completed by specific dates in order for the contractor to achieve their milestone, then making certain that the milestone dates are properly reflected in subcontracts and purchase orders will help avoid major problems downstream. For example, the prime contract requires completion of Milestone 1 by January 31, 2015; but to accomplish this milestone the underground utility, the concrete, the steel erection and the mechanical, electrical and plumbing subcontractors all must have their work completed by December 1, 2014 in order for the contractor to meet this milestone date. If the subcontracts all show completion of their related Milestone 1 activities by January 1, 2015, then it is highly unlikely the contractor will achieve the date outlined in the prime contract. In this case, the contractor will be faced with late completion damages which they cannot defend against, and will be unable to pass these damages along to either the owner or the subcontractors. This sort of dispute is avoidable.

**Bond Critical Subcontractors** — In today's construction industry general contractors typically subcontract a large percentage of the work. Thus, contractors are heavily reliant on subcontractors in order to deliver successful projects. As part of the contractor's risk management planning analysis, the contractor should determine which subcontractors represent the greatest potential for project failure. One way to shed this risk is to bond the riskiest subcontracts, thus transferring the risk to a surety. Should one or more of these critical subcontractors fail to complete their work, the contractor can look to the surety to complete the scope of work and avoid a potential dispute with the owner over late completion.

32. Karl Silverberg, *Construction Damages: A Critical Analysis of the “Total Cost” Method of Valuing Damages for “Extra Work”*, King & King LLP, June 2003.

33. Patrick A. McGeehin and Margie Collins, *Avoiding False Claim Allegations in Pricing*, Section of Litigation, American Bar Association, Winter 2013.

**Establish a Risk Tracking Log** — Similar to the earlier recommendation for owners, contractors should perform their own risk analysis and create a risk log for each project when planning how to perform the work. Such risk logs should be reviewed by the project team to assess and evaluate each risk on a monthly or quarterly basis as appropriate. Higher risks should have risk management plans prepared in the event the risk actually occurs. If this is done properly, there is a greater likelihood that projects will be completed on time and within budget, thus reducing the chances of an end of the job dispute.

**Notify Sureties Early** — Should contractors begin to face severe financial issues or potential default termination, they are well advised to notify their surety earlier, rather than later. Sureties may be in a position to assist contractors in avoiding disputes with owners should financial hardship or default termination occur.

**Keep the Owner Apprised** — Similar to the above recommendation, if financial issues or potential default situations arise, contractors should communicate these problems to owners as soon as possible. If it can be done, contractors should try to get owners involved in discussions concerning the issues. It may be possible to negotiate a revised contract structure to prevent a termination for default. Recognize that owners, like contractors, most likely want to avoid the sort of disputes which typically arise from default terminations.

## Time Management & Scheduling

**Involve Subcontractors and Suppliers in the Planning and Scheduling Process** — All too often, contractors plan and schedule projects without obtaining input from their subcontractors. This approach often results in unrealistic baseline schedules which become the focus of a dispute at the end of the project. A joint planning and scheduling process where the contractor and all subcontractors participate in creating the baseline schedule should help avoid such disputes. If subcontractors are allowed to participate early on and buy into the results of the schedule planning process, it is more likely that they will be able to achieve the plan, thus helping to avoid disputes.

**Baseline Schedules Must Comply with Schedule Specifications** — It is not infrequent that a contractor's initial baseline schedule submittal does not comply with the requirements of the schedule specification. Such submittals invariably result in a "Rejected,

Resubmit" response from the owner's team. This, in turn, jump starts a series of delays to schedule approval that often results in the work progressing for several months before an accepted/ approved baseline schedule is agreed upon. Should delays occur in this period, they are very difficult to analyze as there is no agreed upon baseline schedule in place. Forensic scheduling, when there are no agreed upon schedules available, is a complex, difficult and disputatious process. To avoid such disputes, contractors should examine scheduling specifications closely and make certain their baseline schedule submittals conform to the contract requirements.

**Include the Entire Scope of Work in the Baseline Schedule** — At the outset of the project, contractors should prepare a thorough Work Breakdown Structure ("WBS") to determine that all required elements of the project are identified and accounted for in the schedule. This WBS should be incorporated into the baseline schedule to check that the baseline schedule depicts the entire scope of work and there are no missing activities which must be completed in order to finish the project. This will help avoid future disputes over scope of work issues.

**Include Activities for Submittals, Approvals and Delivery of Materials** — It is not uncommon for contractor schedules to contain only onsite construction activities and not take into account the submittal, submittal review, procurement and delivery process.<sup>34</sup> Especially on complex submittals, contractors should include time for potential re-submittals and second owner reviews as these are very likely to occur. However, these steps are necessary on most every project and do represent actual project activities that consume time. Contractors should analyze the contract documents; determine all submittals required; ascertain the owner review and response times; determine fabrication and delivery times for material and equipment procurements; and then incorporate this data into the WBS and the baseline schedule. If done accurately, by coding these activities appropriately, contractors can produce submittal, procurement, and delivery schedules which will help both project teams focus on these critical activities and avoid delays associated with such activities.

**Do Not Employ Milestone Dates Other Than Those Required by the Contract** — Milestone dates force schedules and project activities to follow a predetermined path. If milestones are imposed by contract, they effectively take over some of the contractor's means and methods (with respect to which

34. James G. Zack, Jr., Stephen Pitaniello and Amanda Jo Amadon, *Construction Scheduling Games — Revisited*, Navigant Construction Forum™, 2011.

activities will be performed when). However, since owner imposed milestone dates must be incorporated in the bidding documents, contractors have the ability to include the resulting cost impacts into their bid. Contractors should not incorporate other milestones in baseline schedules as this may impact the project's critical path, thus leading to disputes over acceptance of the baseline schedule as most owners will perceive the addition of milestone dates other than those in the contract as preferential logic. Such disputes are easily avoided.

**All Activities Must Have at Least One Predecessor and One Successor Activity** — One way to avoid disputes over acceptance of baseline schedules is to run a simple check to determine that all schedule activities have at least one predecessor and one successor activity other than the NTP and Substantial/Mechanical Completion activities.

**Do Not Create Overly Detailed Schedules** — One of the problems with current scheduling software is that it will handle thousands of activities. This problem is sometimes exacerbated by an owner's scheduling specification that requires "no schedule activity may have a duration of more than 15 days" — or some other relatively low number. Software and schedule specifications may entice schedulers to prepare a schedule that has too many activities, thus making the schedule too complicated to manage and use on a daily or weekly basis as an effective project management tool. While contract compliance must be achieved, a sanity check should be performed concerning the number of activities on draft schedules to determine whether fewer activities may actually result in a more useable schedule. The less complicated and confusing the baseline schedule, the more useful the schedule will be as a project management tool during the project, as well as an analytical tool when delay and impact claims or disputes arise.

**Reasonableness Tests** — Prior to submitting a baseline schedule or schedule update, a set of tests should be applied to all draft schedules to determine the reasonableness of the update. All reported critical and sub-critical paths should be reviewed. The following questions should be asked:

- Do these paths make sense?
- Are these paths based on accurate schedule update information?
- Do they reflect the way the project will be built going forward?

- Can they be supported if a future dispute arises?
- Are the changes made to future activities reasonable and valid?

If such reasonableness tests are applied with every schedule submittal, submittals are likely to be more accurate and thus more reliable when delay or impact events arise. This should help avoid later disputes.

**Timely Baseline and Schedule Update Submittals** — All schedule submittals should be submitted timely and in accordance with the requirements of the contract. If done in accordance with the contract provisions, a timely schedule submittal will serve as a useful tool for project management purposes as well as for delay analysis when contractors seek time extensions, thus helping avoid future disputes.

**Use Schedules to Facilitate Discussion** — Assuming the schedule is a realistic and achievable plan for the project, and that updates are accurate representations of project status, then schedules can be used as a means of focusing and facilitating discussions between project participants (i.e., owners, design professionals, construction managers, contractors, subcontractors and suppliers). Potential problems can be identified, discussed and resolved in a timely manner thus minimizing impacts and avoiding disputes.

**Use Project Schedules To Communicate Impacts** — Properly updated schedules can also serve as a useful tool when trying to identify the impact of changes, delays, work arounds, etc. Fragmentary networks ("fragnets") can be created and incorporated into current schedule updates to help visualize the impact of various actions and events. If done jointly with both project teams, impact issues can be addressed rationally and resolved contemporaneously, avoiding future disputes.

**Prepare and Submit Accurate Schedule Updates** — Contractors are typically required to submit schedule updates on a routine basis. Schedule updates should be accurate depictions of the actual status of the work (to the left of the Data Date) and the plan for completing the remainder of the work (to the right of the Data Date). In some cases, schedule update submittals are a prerequisite to progress payments. Obviously, contract compliance is paramount. In order to provide a good document trail concerning schedule updates, contractors should electronically archive each previous schedule update before

inputting progress for the new schedule update. Each schedule update should have a unique file name that identifies that update specifically. Contractors should also create a schedule update index documenting each update including the Data Date, when it was submitted, when and what comments were received and responded to, and when the update was accepted/approved by the owner. When working with schedule delay issues and forensic scheduling, such an archival system will help avoid disputes over which schedule update should be used for time impact analyses.

#### **Timely Notices of Delay, Preparation of Time Impact Analyses and Prompt Submittal of Time Extension Requests**

— Whenever a potential delay arises, contractors are generally required to submit potential delay notices to owners in accordance with the terms of the contract. It is recommended that whenever a notice of delay is submitted, that a new activity be added to the current schedule update (using the same nomenclature used in the notice of delay). It is important to tie a predecessor activity or activities to each new potential delay, however the new delay activity does not need to have a successor activity or activities until the delay event is past; unless the delay event is likely to be very short and the contractor can predict with reasonable accuracy which activity or activities will be impacted. Once the event passes, successor activities which were actually delayed by the event should be linked to the event and a TIA prepared.<sup>35</sup> If the TIA demonstrates that the event caused a critical path delay, a second analysis should be conducted looking for potential concurrent delay. Assuming there is none, a time extension request should be prepared and submitted quickly. It is noted that many scheduling specifications establish a timeframe for submission of time extension requests (e.g., “...within 30 days after the delay event has been concluded...”). Contractors must comply with such timeframes or risk losing entitlement due to an untimely filing. Contractors should also examine the schedule specification to determine if there is an additional requirement for filing a “Continuing Delay Notice” (e.g., “...the Contractor shall file written notice of continuing delay every 30 days until the delaying event is concluded...”). If such a requirement is contained in the contract then contractors must comply with this notice requirement also.

**Add Change Order Work Contemporaneously** — Immediately upon receipt of a notice that a change order is to be issued by the owner, contractors should create a new schedule activity (a fragnet encompassing all the activities involved with “Change Order 29”, for example) and include this new activity or fragnet in the schedule, tying it to existing schedule activities as predecessor and successor activities as required and appropriate. Owners frequently believe that change order impact does not start until the contractor is told to initiate work on the change. However in reality, change order impact can start as early as the notice that a change order will be issued and discussion of the scope of the forthcoming change order ensues. Contractors may stop ongoing work in order to avoid installing the originally scoped work, then having to remove it once the change is issued. Contractors may implement work arounds so as to mitigate damages resulting from the change order. This is why contractors should add new change orders to the current schedule as soon as the contractor is advised there is a forthcoming change order. This procedure also provides contractors with a method of tracking change order impact including float consumption caused by the change order. When done properly, contractors will be able to explain the basis for the logic and the impact resulting from the addition of these new activities in the monthly schedule update narrative.

#### **Time Extensions Should Be Based on the Critical Path Reflected in Current Schedule Updates**

— When contractors are preparing time extension requests, they must be based on the current project critical path that reflects current project status. Submittal of any other critical path as justification for a time extension is likely to be disputed. Such disputes are easily avoided following this recommendation.

#### **Do Not Overstate Delays or Create False Critical Paths**

— When requesting time extensions, contractors should not overstate the delay or create false critical paths in order to justify time extension requests. Not only will it hurt the contractor’s credibility, it will undermine the credibility of the schedule as well as cast serious doubt on the truthfulness or reliability of the contractor’s schedule delay analysis. Additionally, if the contractor is working on a public contract, such a submittal may draw a False Claim allegation in return.<sup>36</sup> This sort of dispute can easily be avoided.

35. For a good discussion of how to perform time impact analyses see AACE Recommended Practice 52R-06, Time Impact Analysis — As Applied in Construction, AACE International, Morgantown, WV, October 19, 2006.

36. Subsequent to the Deficit Reduction Act of 2005 (P.L. 10-171, February 2, 2006) some 28 States have adopted State False Claim Acts and 3 municipalities have done likewise. Other States and municipalities are reported to be considering adoption of doing the same. See Trends in Construction Claims & Disputes, Navigant Construction Forum™, December 2012.

**Don't Ignore Contractor Concurrent Delays** — When contractors request time extensions, they cannot afford to ignore the issue of concurrent delay. It is almost axiomatic that owners will examine all time extension requests and compare them to current schedule updates to ensure there is no concurrent delay. Owners do this to avoid having to pay delay damages if contractors are seeking compensable delay or grant time extensions if contractors are seeking excusable, non-compensable delay when there is concurrent delay. Contractors must also be aware of court rulings that the contractor, as the claimant seeking the time extension, has the burden of demonstrating in the time extension request that there is no concurrent delay.<sup>37</sup> Additionally, the failure to account for concurrent delay when submitting a time extension request undercuts the credibility of the claim. This may lead to disputes which can and should be avoided.

**Do Not Create a False Critical Path to Mask Contractor Delays** — Contractors should not attempt to create a false critical path in order to mask contractor delays. Such a scheduling game is easily proven by an owner's scheduler or scheduling consultant. Utilizing this approach may damage project relationships, severely damage the contractor's credibility, and draw a False Claim allegation in response and cause a dispute. Such a dispute is easily avoided.

## OWNERS & CONTRACTORS

### Project Kick Off

**Read the Contract and Train Project Staff** — Both parties need to take the time and make the effort to train their respective staffs concerning the terms and conditions of the contract. On the owner side, this is especially needed when changes are made to prior "standard contracts". Contractor staff needs such training likewise, as they routinely move from one contract to another quite often. A better understanding of provisions of the contract should help avoid disputes concerning contract requirements.

**Understand Your Obligations and Those of Other Parties** — The contract should be examined closely by both parties to understand their obligations and the obligations of the other party. All too often each party focuses only on the responsibilities

and obligations of the other party and glosses over their own. Construction industry surveys indicate that the primary causes of claims and disputes are contract administration issues and the failure of owners and contractors to resolve time extensions and delay damages at the time they occur on the project.<sup>38</sup> Disputes arising from contract administration problems should be avoidable if both parties understand the requirements of the contract and focus on meeting their own obligations in a timely manner and in accordance with the requirements of the contract.

**Project Staffing** — Both owners and contractors should staff the project with individuals who are educated and experienced in project management and with this form of contract delivery — D-B-B, D/B, Public Private Partnerships ("P3"), Integrated Project Delivery ("IPD"), etc. The more experienced the staff is with the project delivery method and the type of project, the less likely disputes will arise from poor contract administration.

**Project Leadership** — Both parties should carefully select the senior project leaders and commit to keeping these key players on the project until transfer of care, custody and control of the project is accomplished. Both project teams should have senior leadership committed to project success. If the senior leadership stays focused on successful project delivery then disputes are much less likely to arise.

**Co-Located Staff** — Owners and contractors should consider co-locating the project teams when possible in order to increase project communications. This is especially true if the project is a D/B or EPC project where constant communication and "over the shoulder review" is common. Again, this close working relationship will foster communication, allow for timely responses and prevent disputes over work scope.

**Stakeholder Involvement** — Stakeholder involvement was strongly recommended in the previous research perspective in order to flesh out the scope of work needed to meet the requirements of the stakeholders.<sup>39</sup> Continued stakeholder involvement during the construction phase of the project is warranted and intended to avoid disputes at the end of the project. This recommendation is oriented at avoiding end of

37. See James G. Zack, Jr., Mark A. Sgarlata, Joseph S. Guarino, [Time Extension Requests — A Checklist](#), CMAA Annual Meeting Proceedings, 2011.

38. See [Trends in Construction Claims & Disputes](#), Navigant Construction Forum™, December 2012.

39. See [Delivering Dispute Free Construction Projects: Part I — Planning, Design & Bidding](#), Navigant Construction Forum™, October 2013.

the project change orders when stakeholders see the actual project for the first time. By involving the stakeholders during construction there is a reduced likelihood of “surprises” at the end of the work which cause last minute changes and project turnover delays. This can help avoid disputes.

## Project Management & Contract Administration

**Project Trending** — Both project teams should cooperate in an effort to jointly trend the project through routinely scheduled joint reviews of documents such as the following logs for the project: change orders, RFIs, payment requests, time extensions, submittals and defective work notices. A high level review may indicate where there are problems on the project. For example, applying the Forward Thinking Index™ to RFIs will indicate of how well the contractor in avoiding delays associated with late submittal of RFIs.<sup>40</sup> With such information in hand, senior executives dedicated to project success should be in a position to rectify the problems identified and in the process, avoid disputes.

**Manage the Project Properly** — Both parties should focus on fulfilling their responsibilities under the contract and managing the project in accordance with the terms and conditions of the contract. If both parties can avoid the contract administration mistakes identified herein, then the likelihood of a dispute on the project should be substantially diminished.

## Change & Claim Management

**Resolve Claims Promptly and At Lowest Possible Level** — Experience shows that claims resolved quickly (i.e., as soon after the event which gave rise to the claim is past) tend to be resolved at lower cost than those claims which are left to fester for months or years. Further, experience indicates that issues resolved at the lowest organizational level (i.e., the level of the field staff that were actually onsite when the claim event occurred) tend to be resolved at a lower cost. Prompt resolution typically means that the parties are working only on a single claim and not on a number of disparate issues bundled into a single claim. Additionally, claims resolved at the field level generally involve the individuals onsite at the time meaning that they have a greater understanding of what actually happened, who was responsible, how and when the event occurred, etc. Rapid resolution of claims, one at a time, by onsite staff will help avoid disputes, as end of the job disputes most often involve myriad unresolved claims that arose but were unresolved throughout the project.

**Finalize Change Orders as Quickly as Possible** — When a change notice is issued, both parties should focus first and foremost on negotiating the full scope of the proposed change order. One of the most common causes of claims arising from change orders is that both sides immediately jump into debate over the time, cost and impact of the change before they even have an agreement on the scope of the changed work. The first discussion that owners and contractors should hold, subsequent to issuance of a change notice is a discussion of the scope of work (i.e., what’s to be changed, how is it to be changed, when must it be changed, what are the perceived impacts of the potential change, etc.). Contractors participating in such discussions are often at a disadvantage since they were not involved in the owner’s earlier change order discussions and thus do not have as full an understanding of the change as the owner’s staff. Therefore, contractors at the first meeting must focus on understanding the scope of work of the proposed change before they start to prepare time and cost estimates. If this is done properly, the likelihood of disputes centering on owner directed changes should be reduced.

**Properly Document Changes** — All changes should be in writing and executed by both the owner and the contractor. Both owners and contractors should maintain change order logs starting with the change notice so that there is no debate in the future about when the contractor first learned of the change, when the change proposal was submitted, when negotiations were completed, when the contractor was given the notice to proceed with the work of the change order, etc. Such properly maintained logs will help decrease disagreements over the timing of changes which, in turn, will increase the accuracy of forensic scheduling on both sides. This should help decrease disputes.

**No Excuse for Non-Performance** — Owners and contractors have a vested interest in seeing that all change orders have a clear and thorough scope of work concerning all changes. The more thorough the written scope of work, the easier it will be to negotiate time and cost settlement concerning changes. And, the more thorough the scope of work for change, the less likely it is that there will be a dispute over whether all the change order work was accomplished in accordance with the terms and conditions of the change order.

40. See [Impact & Control of RFIs on Construction Projects](#), Navigant Construction Forum™, April, 2013.

## Time Management & Scheduling

**Thorough Project Documentation** — Owners and contractors must properly document all activities, meetings, agreements, changes, events, etc. related to the project. Disputes over delay and impacts are most often resolved when the contemporaneous project documentation is available to show:

- What happened?
- When did it happen?
- Who or what was the proximate cause?
- How long did it take to overcome the situation?
- How was the situation resolved?
- What other activities were impacted and how?
- Etc.

Such project documentation will be invaluable in preventing or resolving disputes. In the real estate industry, the mantra is “Location, location, location!” The corollary related to construction claims is “Documentation, documentation, documentation!” Such contemporaneous project documentation records facts and forms the basis for claims resolution and dispute prevention.

## THE CLAIM PHASE

### OWNERS

**Claims Management Planning** — As noted earlier in this research perspective, claims are inevitable on construction projects as it is literally impossible to avoid all claims. Therefore, preparing for claims management is both logical and necessary. Depending on the size, duration and complexity of the project and the project delivery method utilized, owners should prepare a claim management process and procedure at the outset of the work. Such a claim management plan may include:

- A written claim processing procedure;
- An onsite claim management team;
- A formal Early Neutral Evaluation Process;
- A Standing Project Neutral;
- A two step claim resolution process;
- A DRB process;
- Etc.<sup>41</sup>

**Mediation is Always an Option** — In the event a claim arises that is not settled through negotiation, the Disputes clause in most standard construction contracts specifies arbitration or litigation in a court of competent jurisdiction. Generally, contractors are contractually required to demand arbitration or file suit within a specific period of time, or risk losing their right to do so. This does not, however, mean that they must immediately proceed to arbitration or litigation subsequent to filing the demand for arbitration or the complaint in a lawsuit. This is often just a placeholder requirement while negotiations continue. If negotiations ultimately fail to resolve the issue, mediation is always an option. Mediation does not have to be included in the Disputes clause of the contract. If the parties cannot agree on anything else with respect to the claim, if they can at least agree that they do not want to spend a lot of time and money in arbitration or litigation, they can always agree to mediate. Mediation can be run by a neutral organization such as the American Arbitration Association (“AAA”) or the Judicial Arbitration and Mediation Service (“JAMS”) or can be on an ad hoc basis. Typically, the parties will have to agree on selection of a mediator and the rules of the mediation. But, as mediation is a private, consensual dispute resolution process, the parties are in control of the process and ultimately, in control of the outcome. Mediation is very likely to resolve claims and prevent them from becoming a dispute decided in arbitration or litigation.

### CONTRACTORS

**Hard Line Positions Rarely Succeed** — Contractors almost always know the bottom line of any claim submitted — (i.e., how much do they need to collect). This often leads contractors to taking very hard line positions on claims. Such a hard line approach is often combined with a great deal of emotion and passion, both of which may operate to blind contractors to the facts or analysis prepared by the opposing side. Such positions and emotion rarely convince owners to settle. It is more than likely that this approach will force the claim into a dispute headed toward arbitration or litigation. If the claim has a strong basis, the project record should make it clear. If this is the case, contractors should try to remove their emotions from the negotiations and focus on documented facts. If contractors have the facts and the contract on their side in a claim situation, they should present the facts and insist that owners acknowledge the facts and apply the contract provisions. If done properly resolution should be possible.

41. The 2nd quarter 2014 Navigant Construction Forum™ research perspective is entitled [Delivering Dispute Free Projects: Part III — Alternative Dispute Resolution](#). This research perspective will go into considerably more detail concerning the recommendations contained in this list.

**Contractor Refusal to Supply Supporting Documentation —**

Although rare, there have been times when contractors simply refuse to supply supporting documentation of their claims. While they are willing to tell a story of how badly they were damaged, they cannot or will not provide factual evidence or justification for the damages. Contractors should be careful before taking this position. In the minds of most owners, such an approach raises a red flag, perhaps indicative of a false delay claim. The willing presentation of all documentation concerning a claim is generally required under the contract and is much more likely to result in a settlement.

**Dramatic Changes in Delay Analysis and Position Are**

**Inadvisable —** This is especially true when a contractor is performing work for a public owner. Public owners are today more attuned to False Claims than at any time in history.<sup>42</sup> If a contractor radically revises their delay analysis position during the claim process, it may draw a False Claim allegation from the owner. This is becoming more common for Federal, State and local government agencies. To avoid this risk, contractors need to objectively prepare their delay and impact analysis. Once done, it may be advisable (depending on the size and complexity of the claim) to have the draft claim submittal reviewed by an outside claims expert to make certain that all factual documentation is included; that the delay analysis was properly performed; and that the damages requested are all substantiated by accurate cost records.

**Maintain Issue Files —** When preparing a notice of potential claim contractors are well advised to have their staff prepare an issue file that contains all information (i.e., e-mails, correspondence, RFI responses, submittal responses, schedule review comments, etc.) leading up to the decision to file the notice. This issue file should be supplemented with other documentation as the issue goes forward such as responses from the owner; meeting minutes of project meetings where the issue was discussed or negotiation meetings; e-mail related to the issue; etc. In addition to this critical information concerning the claim, the issue file should contain an objective summary (in narrative form) of the factual and contractual issues that created the claim. Creation of such issue files will support the contractor's documentation of facts, dates and costs which could help lead to resolution of the claim and avoidance of a later dispute.

**Contractor Claim Prosecution Process —** Just as owners have to plan for claims management, contractors must do likewise. Contractors are typically the claimant (i.e., the party seeking additional time and/or money). As such, the contractor bears the burden of proving:

- Entitlement — Something happened on the project which entitles the contractor to recover under the terms of the contract;
- Causation — The event caused the contractor to do something they would not have done were it not for the event; and
- Damages — The event resulted in additional time and/or money under the contract (or, in some cases, relief from contractual remedies such as liquidated damages).

With this in mind, a contractor's claim management planning should include:

- A process for opening an issue file and submitting timely notice for each claim;
- A process for documenting entitlement, causation and damages for each claim;
- A process for preparing and reviewing each claim including the claim narrative, documentation and pricing of each claim;
- A process for establishing reasonable goals and negotiation milestones for a prompt and cost effective resolution of all claims;
- A process for identification of all reasonably foreseeable obstacles to reach the negotiating milestones for each claim;
- A process for engaging appropriate resources (e.g., the owner's senior management, claim consultants, legal counsel, mediators and/or arbitrators) as soon as possible for each claim; and,
- A process for estimating the reasonable costs for each negotiation milestone and preparing a budget for each claim.

During claim negotiations, contractors must listen closely to owner position statements concerning each claim as they may have ascertained some facts the contractor has not heard previously. Contractors must learn to listen carefully to and seriously consider advice from experienced, well informed neutrals (i.e., DRB members and/or mediators). Contractors must also keep an open mind concerning all possible avenues of claim resolution.<sup>43</sup>

42. See Peckar & Abramson, *The Civil False Claims Act — A Hidden Risk Assumed By Contractors*, <http://www.lorman.com/newsletter> See also, Cohen Seglias Pallas Greenhall & Furman, *The False Claims Act*, Federal Contracting Database.

43. Gene Commander, *How To Resolve Disputes Proactively*, *Engineering News-Record*, October 16, 2013.

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## CONCLUSION

**Construction claims** — requests for additional time and money — are common and virtually unavoidable on most projects unless everything on the project proceeds exactly as planned from the outset; there are no problems with the design and no changes caused by the owner, the contractor or outside events. However, the Navigant Construction Forum™ firmly believes that with proper prior planning, good design, selection of good contractors and project management focused on project success (by all parties involved), it is entirely possible to complete projects without any formal disputes (i.e., arbitration or litigation). That is, while construction claims are inevitable and unavoidable, disputes are not!

The Forum believes that the implementation of many of the practices set forth in this research perspective during the construction and claims management phases of a project will help avoid disputes on projects.

## NAVIGANT CONSTRUCTION FORUM™

Navigant (NYSE: NCI) established the Navigant Construction Forum™ in September 2010. The mission of the Navigant Construction Forum™ is to be the industry's resource for thought leadership and best practices on avoidance and resolution of construction project disputes globally. Building on lessons learned in global construction dispute avoidance and resolution, the Navigant Construction Forum™ issues papers and research perspectives; publishes a quarterly e-journal (Insight from Hindsight); makes presentations globally; and offers in-house seminars on the most critical issues related to avoidance, mitigation and resolution of construction disputes.