



How to **Avoid** and **Resolve Disputes** over **Delays** and **Disruptions**

PRACTICAL SUGGESTIONS AND A CALL FOR FURTHER DISCUSSION

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In April of 2016, in the wake of reports that delays and disruptions were continuing to plague construction projects across the United States, that the time and expense of resolving related disputes had reached new heights, and that arbitration and other procedures for resolving such disputes were having often inconsistent results, the President of the Associated General Contractors of America (AGC) appointed eleven of the association's members to a Delay and Disruption Task Force and directed it to draft a white paper on the nature of the problem and practical ways to limit its scope. The President's goals were to raise awareness of the problem, to help everyone manage their

ongoing risk of time-consuming and costly disputes, and to spur discussion of new and better ways of avoiding and resolving such disputes.

Over the course of the following year, the task force had numerous conference calls and meetings, and then drafted this white paper. Its members recognize that the paper remains quite far from a definitive treatment of the many and highly complex questions surrounding delays and disruptions. Indeed, they appreciate that such a treatment of these subjects would quite literally fill volumes. They do, however, hope and believe that this paper will raise awareness, provide some practical assistance and spur further

discussion among all affected parties of a very time-consuming and expensive problem.

I. THE NATURE OF THE PROBLEM

Any number of events can readily conspire to delay a construction project and/or erode the productivity of the craft labor required to complete it. Such events include (but are far from limited to) bad weather, differing site conditions, late or incorrect designs, breakdowns in equipment, shortages of qualified craft labor, problems with utilities, late or poor decisions by the parties, delays in the delivery of critical equipment or material, and of course, change orders. Such events can increase the time required to reach a milestone or complete the entire project. Even if these events do not impact the schedule, they can still increase the number of craft labor hours required to complete a particular task. Indeed, such events can idle craft workers for significant periods of time, or require an inefficient sequencing or re sequencing of the work, or acceleration that translates into overtime, shift work and perhaps a stacking of trades. Sometimes the contractor bears the contractual responsibility for these events, and when that is the case, the contractor may not be entitled to any extension of the time or any additional compensation under its contract. Other times, the owner bears that responsibility, and when that is the case, the contractor may well be entitled to additional time and/or compensation.

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This good news is that these basic principles are generally well accepted. The bad news is that they can be and frequently are difficult to apply. The parties can and often do find it challenging to determine and therefore agree on the specific cause of a delay, or the responsibility for it, or how long it lasted. They often find it even more challenging to determine the cause of a disruption, its precise impact on productivity or the cost of absorbing that impact. Making things even worse, the more that events impact a project, and the greater their severity, the harder it is to determine the discrete effect that any one event had on the schedule and/or productivity.

Experts have developed various ways of calculating the impacts that discrete events had or will have on the schedule for the construction of a project, or the productivity of the craft labor. The methodologies are, however, complex and to greater and lesser degrees, they are subject to manipulation. Some methodologies are more objective and credible than others, but that fact is only so helpful, for none of the methodologies will fit every situation. In addition, the information available to the parties, and other specifics of the situation, may limit the parties' options.

To make matters far worse, each one of these methodologies is time-consuming and expensive to develop and to use. The parties typically cannot do it themselves. Rather, they have to engage and rely on experts in scheduling, damages and/or productivity, and outside legal counsel. In addition, and all too frequently, the parties cannot agree on the methodology that is most appropriate to apply, or the experts to engage. Each party goes its own way, requiring everything to be done at least twice, and typically, in different ways. In an understandable effort to please their respective clients, the experts and lawyers develop equally reasonable but sharply conflicting theories of entitlement and/or impact. The mediator, arbitrator and/or court is then left with little or no help in determining what actually happened, who was responsible or the resulting cost of the problem.

The process is cumbersome and expensive, and all too often, the results are arbitrary. It consumes the parties' time and attention and still fails to yield anything approaching certainty. At the end of the day, most would agree that there has to be a better way.

II. WHAT CONTRACTORS CAN DO ON THEIR OWN

Entirely on their own, construction contractors can begin to mitigate the risk of a time-consuming and costly dispute over a claim for delay or disruption. As they pursue work, and after award but still prior to the start of work, they can unilaterally implement policies, protocols and procedures that will increase their chances of avoiding and/or quickly resolving such a dispute.

In conjunction with their clients, construction contractors can also take several other steps. They can establish and clarify procedures for resolving disputes and requirements for notice and/or recordkeeping, insofar as it relates to costs and quantities. Contractors can also clarify whether and to what extent delays and disruptions will be appropriate grounds for equitable adjustments. Best practice is to incorporate agreements on such matters into the contract between the parties, but whether or not such agreements find their way into the contract, the parties will still find it helpful to pursue them.

Among the specific steps that construction contractors can take, entirely on their own, are the following.

A. PRIOR TO CONTRACT AWARD

1. Identify the risks, if any, which are unique to the public or private owner of the project.
 - Past experience with a particular client is important to consider but organizations experience turnover, and as they do, both informal understandings and express contracts' terms and conditions can all change.
2. Carefully review the bid or proposal, and any of the other documents submitted in conjunction with it, including any documents that identify or memorialized the assumptions that went into the estimated schedule and cost.
 - Those assumptions often lie in notes appended to the estimates.

- Carefully review the proposed contract. Take the time to determine and fully understand how it allocates risk among the parties.
 - Sometimes, contracts address generic risks, such as the risk of differing site conditions. On other occasions, they address risks specific to the particular project, such as the risk that subsurface conditions will hinder the pile driving that the project requires.

B. FOLLOWING CONTRACT AWARD

- Prepare a “cheat sheet” that summarizes the key provisions of the final contract, including the remedies that it provides for any delay or disruption that the client may cause (whether time, money or both) and any related provisions, particularly including any related requirements to provide notice of a problem to the client.
 - The “cheat sheet” needs to provide an appropriate level of detail. Relative to each requirement for notice, the document should, for example, include the events that would trigger the requirement, the information that the notice needs to include, the information that should be readily available to the project team at the time it gives notice and any information that the team may need to provide at a later time.
 - To the “cheat sheet,” contractors frequently attach a list of the risks that the contract requires the parties to share and how it requires them to do so.
- Provide the “cheat sheet” to the project team and then walk the team through the document, taking the time to ensure that everyone is well aware of all contract terms and conditions directly relating to change orders and other potential causes of delay and/or disruption.
- Provide the project team with a written summary of any risk mitigation strategies that the contractor has developed for the particular project.
 - Contractors have found it important to ensure that their project teams comprehend any project-specific strategies and are equipped to implement them.

III. HOW CONTRACTORS CAN WORK WITH THEIR CLIENTS

In conjunction with their clients and other parties to the construction process, contractors can also take at least two more steps. One is to hold a kick-off meeting with the client’s representatives and the other is to hold a “schedule risk” workshop with the appropriate members of the client’s team, the design team (in a traditional design-bid-build situation) and key subcontractors. To the kick-off meeting, the contractor would send its entire project team and the relevant members of its management team, and the contractor would invite the client’s entire project team and the relevant members of its management team. To the workshop, the contractor would send the appropriate members of its project and management teams and invite the appropriate representatives of not only the client, but also the design firm and key subcontractors.

Quite clearly the contractor cannot unilaterally require such a meeting and/or workshop. The contractor can, however, request and encourage participation in such events even if the contract with or between the other parties does not compel participation. A well-organized kick-off meeting will provide an opportunity for the contractor and its client to clarify and align their expectations and help them to avoid the kinds of surprises that can easily grow into disputes. Such a workshop will help all of the parties to understand and appreciate the risks of a delay and how to manage if not avoid them.

A. KICK-OFF MEETING

Past experience would suggest that a kick-off meeting begin with an exchange of organizational charts that clarify and confirm the authority vested in each level of each organization. Following that exchange, the contractor should identify each member of its project and management teams and explain the role that each one plays, and the client should do the same. The follow-up discussion should address and cover the hierarchy within each organization, and it should continue until every member of each team can readily identify his or her counterpart in the other organization, his or her respective level of authority, and the appropriate lines of communication.

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The contractor should then share its “cheat sheet” with the client’s project and management teams, and walk them through it. Along the way, the contractor should express its understanding of the contract and invite the client’s teams to share any differences in the way that they understand the contract. If differences do surface, the contractor should also try to resolve them as soon as possible. Indeed, one of the primary goals of the meeting is to get everyone onto the same page.

Once the parties conclude their review and discussion of the “cheat sheet,” the contractor should walk the client’s teams through the schedule for the project and the key quantities (whether labor or materials) that the contractor has estimated the project to require.

The next items on the agenda should be a hypothetical change order and a follow-up discussion of the change order process, including the information and timing required by the contract. The contractor should lay out a plausible scenario and identify the direct and indirect (whether field or home office) costs that the change order would likely require the contractor to incur. In the process, the contractor should carefully explain the difference between the direct or bare costs of a change order and the fully loaded costs. Unless the contractor has already negotiated

a daily rate for all indirect costs (given, for example, the “burn rate” for equipment and field staffing, how that rate will vary over the course of the project and any home office overhead that a change order would be likely to increase), the contractor may also want to take advantage of this opportunity to negotiate such a rate, or schedule a time to do so.

The contractor should then invite everyone to join in an analysis of the impact that the hypothetical change order would be likely to have on the schedule. If the project warrants it, the contractor might also want to raise the possibility of engaging a neutral “project scheduler” on whom everyone could rely for an impartial estimate of the duration of any resulting delay. While such a neutral would opine only on duration, and not entitlement, he or she could still expedite any claims for delay.

Depending on whether the contractor had already reached agreement with the client on such matters, the contractor could also use the meeting to seek agreement on (1) a specific set of procedures for resolving problems, if at all possible, at the project level, and (2) what would justify taking a particular problem to a higher level. The contractor might, for example, seek agreement that the project teams will regularly meet and review project progress and any problems that have surfaced. The contractor might also seek agreement that the project teams:

- will elevate slippage in the schedule only if and when it exceeds a certain number of days;
- will elevate other problems only if and when they remain unresolved for a certain number of days; and
- will elevate questions about the cause of a problem only if and when the uncertainty implicates one or more of the contractual requirements for notice.

Finally, the contractor might seek agreement on a date or deadline for a design freeze, after which the owner will not make any changes to the design, except to the extent necessary to correct prior design errors or omissions.

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B. “SCHEDULE RISK” WORKSHOP

Following contract award, and prior to the start of construction, a contractor can also hold a “schedule risk” workshop with the appropriate representatives of not only the client, but also the design firm and the key subcontractors. Some AGC members favor a facilitated session that allows the teams to develop, discuss, and collectively rate the risk of various events that could cause a delay, including the likelihood of their occurrence and severity the impact that each one would

be likely to have. Such a workshop tends to increase everyone’s understanding of the schedule, and how delays in any one party’s performance could impact the project as a whole. Once the client fully understands the risks, it can also tailor its contingencies to fit the risks.

IV. STANDARDS AND PROCEDURES FOR RESOLVING DISPUTES

In conjunction with their clients, construction contractors can also clarify the standards that the parties will apply to any disputes over delays or disruptions, and the procedures that the parties will use to resolve such disputes. The best practice is to incorporate such standards and procedures into the contract between the parties, for that would make them legally binding. That would also enable the contractor to flow the same standards and procedures down to all subcontractors. In addition the parties will typically find it easier to reach agreement on such matters prior to any dispute. At any time, however, an agreement on standards and procedures for resolving disputes over delays or disruptions is useful to pursue. Both formal and informal agreements reached at any time – including agreements that the parties reach only after work has started or a dispute has arisen – can be helpful.

A. NONBINDING OPTIONS

Contractors have several non-binding options. While much depends on whether the parties perceive the process to be truly fair and neutral, such options do promise to help the parties resolve differences of opinion. Among these non-binding options are the following.

1. At a minimum, contractors can seek an agreement that the appropriate members of the parties’ project teams will promptly (at the earliest stages of any disagreement) meet and confer in good faith, and if necessary, that the appropriate members of their management teams will do the same
 - If at all possible, such meetings and consultations should also involve and include the appropriate representatives of any subcontractors or other parties that may be responsible for the delay or disruption.
 - The meetings and consultations should begin with senior project personnel and then work their way through the hierarchy of each organization, as and to the extent necessary. Depending on the facts of the particular disagreement, the meetings and consultations may need to reach and include the CEO (or equivalent) of each organization.
 - If the disagreement is over a delay, the meetings and consultations should include the project schedulers and any schedule consultants the parties have engaged.
2. A second option for dealing with the specific risk of a delay is to seek an agreement with the client, and if possible (in a design-bid-build scenario) the design team, to retain a neutral project scheduler on whom everyone can rely upon for a credible baseline and a prompt assessment of the impact that an event will have on the project schedule.

- The unfortunate truth is everyone tends to distrust schedule information that a self-interested party has provided.
 - If the parties accept this option, they should also direct and enable the neutral periodically to review the schedule, and specifically, to observe (1) whether it accurately represents the progress in the field, (2) whether the parties are maintaining it in the manner necessary to support a delay analysis, and (3) whether it is being used to “set up” a claim.
 - If the parties accept this option, they will also need to address the confidentiality of any baseline or assessment that the scheduler provides. While this assessment would not be binding, it may – depending on what the parties decide – be admissible as evidence in subsequent proceedings.
 - The benefits of a neutral project scheduler would accrue to all of the participants in the project, and for that reason, it would be fair and logical for the project itself to bear the cost.
3. If the parties are unable to agree on a neutral “project scheduler,” another option is to seek agreement on the methodology that the contractor will use to create and maintain the schedule and that all parties will use (1) to establish a reliable baseline and (2) promptly (on an expedited basis) assess the impact that an event will have on the project schedule.
- An advance agreement on the methodology would have the added benefit of clarifying the records that each party should expect the other to create and retain, including the level of detail, the integration of impact activities and the like. The parties would, however, need to guard against any temptation to “hijack” the recordkeeping process, in a result-oriented effort to demonstrate or refute delays, for that would render the schedule unfit for its intended use as a construction planning tool.
 - The parties should select a methodology and design any related procedures to enable them to resolve any differences prior to the next monthly update of the schedule because differences will otherwise pile up, from month to month, and become unmanageable.
 - Understanding that some disagreements relating to the schedule may remain unresolved at the end of the project, the contractor can also seek agreement (1) on an after-the-fact methodology (and/or order of preference for different methodologies) that the parties will use to resolve any remaining disagreements and (2) on a neutral scheduling expert to apply that methodology to the relevant facts.
4. Prior to and possibly in lieu of more traditional mediation, the contractor can also seek agreement to engage a neutral reviewer to whom the parties can turn for a non-binding review of any claims for delay and/or disruption. The engagement could be limited to entitlement or encompass both entitlement and the costs that the delay or disruption required the contractor to incur. This approach can be particularly effective if both parties are committed to seek a negotiated resolution of the matter.
- If the parties take this approach, they will want to ensure that the reviewer is qualified to do the job, meaning that he or she has the expertise in construction law and the prior experience with claims for delay and/or disruption to identify and properly analyze the relevant facts.
 - The parties will also have to decide whether to engage a neutral expert to advise and assist the reviewer.
 - The parties will also need to establish the ground rules for the review, such as the requirements for notice, the timing and scope of an exchange of information, a schedule for briefing the issues, and the parameters of an informal hearing. Typically, the parties do require the reviewer to provide a written opinion.
 - The contractor may also want to seek agreement on follow-up meetings that will provide an opportunity for the parties to discuss any written opinion, and if possible, reach a final agreement resolving all differences.
 - While the opinion would be advisory, it might – depending on what the parties decide – be admissible as evidence in subsequent proceedings. If the opinion is admissible, it will carry more weight and it will be more likely to induce the parties to settle their differences.
 - Like the benefits of a neutral project scheduler, the benefits of a neutral reviewer would accrue to all of the participants in the project, and for that reason, it would be fair and logical for the project itself to bear the cost.
 - If set up properly, the evaluation and any reports could remain confidential and between the parties.
5. If the contract does not already require the parties to mediate any claims for delay and/or disruption, as an express condition precedent to either arbitration or litigation, the contractor can also seek an agreement to that effect.
- If they take this approach, the parties will have to decide whether to limit their agreement to such claims or expand it to reach and include other claims and potential disagreements. One option is to reach and include all disagreements that exceed a certain amount.
 - If they take this approach, and it is possible for them to do so, the parties should also identify and preselect, in advance of any disagreement, several mediators who would be acceptable to both parties. If that is not possible, the parties should at least agree on a procedure for selecting a mediator at a later point in time.
 - If they take this approach, and it is possible for them to do so, the parties should also identify and preselect, in advance of any disagreement, scheduling and disruption experts acceptable to both parties and available, if needed, to assist the

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mediator. If that is not possible, the parties should at least agree on a procedure for selecting an expert, if needed, at a later point in time.

- If they take this approach, the parties will also need to establish ground rules for the mediation. Rather than establish an original set of such rules, they may, however, prefer to identify and adopt guidelines that the AAA or a similar administrator of dispute resolution procedures has already developed.
- It is common for the parties to share the cost of any mediation, including the cost of retaining a neutral expert.

6. Depending on the size and complexity of the project, the contractor may want to seek an agreement to appoint a dispute resolution board (DRB) that will typically have the power, much like a neutral reviewer, to hold hearings and make written but non-binding recommendations relating to entitlement and/or the costs that the delay or disruption required the contractor to incur. Such a board typically has three independent and impartial members that the parties select and engage prior to the start of construction. In addition, it typically meets on some regular schedule over the course of construction, monitoring the progress of the project, spotting problems in real time and proactively helping the parties address and resolve problems before they escalate into disagreements.

- If they take this approach, the parties will have to make many of the same decisions that mediation would require them to make. They will have to determine the scope and/or size of the disagreements that the DRB will have the power to resolve, and they will have to establish ground rules for board review. Rather than establish an original set of such rules, they may, however, prefer to identify and adopt guidelines that the AAA or a similar administrator of dispute resolution procedures has already developed.
- The parties will also have to decide whether direct discussions, mediation or other dispute resolution procedures will be conditions precedent to DRB review of any disagreements.
- The parties will also have to agree, in advance of any claims or disagreements, on the members of the board. One option is for each of the parties to select a member and then empower those two members (selected by the parties) to select the third member. Given the frequency and complexity of claims for delay and/or disruption, the contractor may want to seek agreement that at least one member of the DRB will have expertise in construction scheduling and/or productivity.
- The parties will also have to address whether the DRB's recommendation will be admissible in any subsequent proceedings.
- The parties could, in fact, authorize the DRB to make binding recommendations, if not for resolving all

disagreements, then at least for resolving any disagreements that fall below a certain threshold. The parties could also decide to make DRB recommendations binding on an interim basis, pending recourse to binding arbitration, to litigation or to some other binding procedure for resolving the dispute.

- Like the benefits of selecting a neutral project scheduler or a neutral reviewer, the benefits of a DRB accrue to all of the participants in the project, and for that reason, it is fair and logical for the project itself to bear the cost.

B. BINDING OPTIONS

In addition to these non-binding options, contractors have at least two options that will be binding on the parties. These options include the following.

1. The contractor can seek agreement to submit any claims for delay and/or disruption to binding arbitration.
 - If they take this approach, the parties will have to make many of the same decisions that a neutral reviewer, mediation and/or a DRB would require them to make. They will have to determine the scope and/or size of the disagreements that will be subject to arbitration and establish ground rules for arbitration. Rather than establish an original set of such rules, the parties would, once again, have the option of identifying and adopting guidelines that the AAA or a similar administrator of dispute resolution procedures has already developed.
 - The parties will also have to decide whether to engage a single arbitrator or a panel of arbitrators. If they decide on a panel, they will also have to decide on its composition (whether attorneys, retired judges or construction or other experts) and whether a panel engaged to resolve a claim for delay or disruption claims will include an expert in the relevant subject.
 - If it is possible for them to do so, the parties should also identify and preselect, in advance of any disagreement, several arbitrators and, perhaps, experts acceptable to both parties. If this is not possible, the parties should at least agree upon on a procedure for selecting these individuals at a later point in time.
 - The parties also have to decide whether direct discussions, mediation or other dispute resolution procedures will be conditions precedent to arbitration.
 - The parties also have to decide how to allocate or share the cost of the arbitration.

The best practice is to incorporate well-crafted standards and procedures for resolving disputes over delays and/or disruptions into the contract between the parties.

2. By withholding its agreement to any other options that are binding on the parties or by express agreement, the contractor can make litigation the only binding procedure for resolving some or all disagreements between the parties.
 - Before the contractor takes this approach, it should carefully review and consider any contractual provisions relating to the state law that will govern any disputes between the parties and the forum in which the contractor may be required to litigate.
 - With claims for delay and/or disruption specifically in mind, the contractor should also consider the merits of seeking at least an agreement on the after-the-fact methodologies and/or an order of preference for different methodologies that the parties will use to resolve any delay or disruption claims that remain at the time of substantial completion.

V. CONTRACT TERMS AND CONDITIONS

AGC members have yet to identify any substitutes for real-time, honest and transparent collaboration between and among the parties, and they have yet to identify anything that can guarantee such collaboration. But contract terms and conditions can and typically do influence behavior and, certainly, they can make a situation either better or worse. The issues on which the parties have reached contractual agreement are not subject to debate if a dispute later arises.

As noted, the best practice is to incorporate well-crafted standards and procedures for resolving disputes over delays and/or disruptions into the contract between the parties. Other provisions are also important to include, for they can also encourage the prompt and fair resolution of any claims for delay and/or disruption. Following are comments on provisions that require notice of an issue, require the discrete tracking of additional costs or quantities (and/or explain how the parties will estimate same), allocate the cost of uncertainty surrounding a claim and reserve certain rights.

A. PROVIDING NOTICE OF AN ISSUE

Contractors can seek provisions that clarify their obligation to give appropriate notice of a potential claim for delay and/or disruption. Such provisions should be fair to the client but not impose an undue burden on the contractor or create a trap for the unwary.

1. Such provisions should give the contractor a reasonable amount of time to provide the client with written notice of the potential cause or causes of delay or disruption. A reasonable amount of time would typically be seven (7) calendar days, beginning with the day on which the contractor became aware of the relevant event(s), whether past or anticipated. If the contract is silent on the subject, that same period of time should normally be considered reasonable.
2. Such provisions should identify the information to be included in the notice. If the cause of the problem is reasonably clear, the contractor can and should be expected to

provide that information. If multiple events are contributing to a delay or disruption, a single notice that includes and identifies all of the reasonably clear causes of the problem should be sufficient.

3. Such provisions can reasonably require the contractor to provide follow-up notices of a continuing cause or causes of delay or disruption, for the duration thereof. A reasonable interval for such follow-up notices would typically be thirty (30) calendar days. If the contract is silent on the subject, that same period of time should be considered reasonable.
4. Such provisions should also identify the information that any follow-up notice(s) should include. The contractor can and should be expected to include, to the extent feasible, a rough estimate, or an order of magnitude, of the additional time that the relevant event(s) are likely to add to the schedule and/or the costs that the event(s) are likely to require the contractor to incur. Whether or not the contractor is required to do so, the contractor may find it advisable to include its daily rate for time related overhead ("TRO"), so that the client is aware of how quickly the contractor's overhead cost is increasing. To the extent that the contractor can quantify a decline in productivity, the contractor should also be expected to include its assessment, along with the methodology that the contractor used.
5. Reasonably, such provisions can also require the contractor to provide the client with written notice of the point at which the cause of a delay or disruption has ceased, and they can require the contractor to do so within a reasonable amount of time. A reasonable amount of time would typically be seven (7) calendar days, beginning with the day on which the contractor became aware of the relevant event(s) ceased. If the contract is silent on the subject, that same period of time should normally be considered reasonable.
6. Such provisions should also give the contractor a reasonable amount of time, following notice that a problem has ceased, to request an extension of time and/or an equitable adjustment of the contract price. What is reasonable will depend on the circumstances, but typically, thirty (30) calendar days should be considered reasonable. If a longer period of time would be more reasonable, under the particular circumstances, such provisions should only require the contractor to give the client notice of the date by which the contractor will request an extension and/or adjustment. If the contractor has multiple claims relating to multiple events, it may be appropriate to permit the contractor to combine all of them in a single claim.
7. Finally, such provisions should make it clear that the contractor's failure to strictly comply with the requirements for notice will not, in and of itself, amount to a waiver of the contractor's right to an equitable adjustment, unless the owner can demonstrate that the contractor's failure to

do so actually prejudiced the owner's position, and in that case, the owner should be relieved of its duty to provide an equitable adjustment in time and/or contract price to only the extent of such prejudice.

B. TRACKING AND/OR ESTIMATING ADDITIONAL COSTS AND QUANTITIES

Contractors can also seek provisions that outline and clarify their obligation to track additional costs and quantities relating to any delay and/or disruption, and explain what the parties will do if discrete tracking is infeasible.

1. Such provisions can reasonably require a contractor to segregate and discretely track any additional costs and/or quantities that a delay or disruption has the effect of increasing, provided that clients also account for the time and effort necessary to segregate and separately track those costs, and whether it is feasible to do so. The exact same cost codes typically cover work that is impacted and work that is not, without distinguishing between the two, and that reality can often make it difficult, if not impossible, to segregate the hours or costs associated with each one. Clients need to recognize and acknowledge that discrete tracking may not be feasible, and should avoid requiring such tracking if and when it is not feasible to implement.
2. Understanding that it may not be feasible for the contractor to segregate and discretely track the additional costs that a project delay is causing the contractor to incur, the parties can also identify, limit and prioritize the methodologies that they will use, after the fact, to calculate the duration of a delay or disruption and/or the resulting costs. While it is preferable for the parties to agree on a single methodology, the facts and circumstances surrounding a particular problem may preclude them from taking any one approach. Both limiting and prioritizing the options is, however, helpful. The parties can reasonably agree, for example, to the following options and priorities for assessing the impact that an event has had on the project schedule:
 - Time Impact Analysis
 - Collapsed As-Built Analysis
3. Understanding that it may not be feasible for the contractor to segregate and discretely track the additional costs that a disruption is causing the contractor to incur, the parties can also identify, limit and prioritize the methodologies that they will use, after the fact, to calculate those costs. While it is preferable for the parties to agree on a single methodology, the facts and circumstances surrounding a particular problem may preclude them from taking any one approach. Both limiting and prioritizing the options is, however, helpful. The parties can reasonably agree, for example, to the following options and priorities:
 - Measured Mile Study
 - Earned Value Analysis
 - Industry Productivity Studies (such as MCAA factors)

C. SHARING THE COST OF UNCERTAINTY

Contractors can also seek provisions that fairly allocate and require the parties to share the costs of the uncertainty that can surround claims for delay and/or disruption for a significant period of time. Such claims can be complex, and the parties can require time to sort out the details, and they would do well to account for that possibility.

1. If the client has neither granted nor denied an appropriately prepared claim for delay and/or disruption within thirty (30) calendar days of the client's receipt of that claim, such provisions can reasonably entitle the contractor to the prompt but contingent payment of fifty percent (50%) of the claim. In this context, a payment would be prompt if made within thirty-seven (37) calendar days of the client's receipt of the contractor's request. The payment would be contingent in the sense that the contractor could be required to return it, with interest, depending on how the parties ultimately resolved the claim. Given the particular circumstances, the parties may also want to consider whether the contractor should provide any security to the owner.
2. Such provisions would reasonably require the contractor to return any partial payment that it has received in accordance with the preceding provision, plus interest at a monthly rate that the parties should specify, if either of the following occurred:
 - The client ultimately denied the claim and the contractor did not further pursue it (under and in accordance with any contractual provisions relating to the resolution of disputes); or
 - The individual or body assigned the responsibility for resolving the dispute (whether an arbitrator, board or court) determined that the claim did not have merit.
3. In addition, if that individual or body determined that the contractor had made its claim for delay and/or disruption in bad faith, such provisions could reasonably require the contractor to reimburse the client for its cost (including reasonable attorneys' fees) of defending its denial of that claim.

D. THE RESERVATION OF CERTAIN RIGHTS

Contractors also find it useful if not necessary to seek contractual provisions expressly reserving their right to equitable adjustments for any delay or disruption that the client causes, particularly where the impact is a cumulative one resulting, for example, from multiple change orders.

1. It is reasonable for such provisions to specify that the contractor cannot be required to waive or release its right to pursue a cumulative impact claim merely to resolve a claim relating to one or a few discrete events.
2. It is equally reasonable for such provisions to specify that any routine and/or partial waiver or release on which the

client conditions any monthly progress payment does not waive or release any claim for delay and/or disruption.

VI. CONCLUSION

The search for new and better ways to eliminate and reduce the cost of resolving claims for delay and/or disruption is likely to continue for quite some time. AGC acknowledges that such claims

can be complex and that the various methodologies for estimating related changes in costs and/or quantities will remain the subject of much debate. The association's modest goal is to raise awareness of the problem, provide some practical assistance and spur further discussion of a very time-consuming and expensive problem. AGC's Delay and Disruption Task Force hopes and believes that this paper will meet those objectives. ♦