



Construction Management Consequences of the Coronavirus and Legal Responses



Mechanical Contractors Association of America, Inc.

1385 Piccard Drive Rockville MD 20850 **T** 301 869 5800 **F** 301 990 9690 **MCAA.ORG**

Your Presenters



Douglas L. Patin, Partner
Bradley Arant Boult Cummings
Washington, DC
202.719.8241
dpatin@bradley.com



The Ibbs Consulting Group



Professor William Ibbs, PhD
University of California - Berkeley
Ibbs Consulting Group
Penngrove, CA
510.593.3169
bill@ibbsconsulting.com



The Ibbs Consulting Group



Paul L. Stynchcomb, CCM, PSP, CFCC
Ibbs Consulting Group
Penngrove, CA
510.593.3169
paul@ibbsconsulting.com

Today's MCAA Webinar Agenda

- 1. Covid-19 Risks and Consequences**
- 2. Legal Considerations**
- 3. Project Management – Potential Impacts to Evaluate:**
 - Schedule Delay**
 - Loss of Labor Productivity**

Potential Liability for Delays Caused by COVID-19

- **Delays in materials, equipment deliveries. Were submittals and procurement actions timely executed?**
- **Delays caused by job shutdowns for failing to screen obvious sick employees**
- **Concurrent Delay Issues**
- **Potential Liability to Maintain Safe Work Site**

Possible Consequences of the Covid-19 Pandemic

Risk: Disrupted Supply Chains

- China produces 53% world's rebar, 70% of Portland cement, 73% of elevators

Possible Solutions

- Encourage project owners to pre-order and furnish
- Pre-Order farther in advance than normal
- Stockpile
- Propose Value Engineering alternatives; e.g. different grade of steel than spec'd
- Consider alternative suppliers

Possible Consequences of the Covid-19 Pandemic

Risk: Subcontractors and Suppliers Financial Difficulty

- **Sub and Supplier Bankruptcies**
- **Faster payment terms demanded**

Possible Solutions

- **Require bonds**
- **Pre-qualify based on financial strength**
- **Require owners to pay faster**
- **Require owners to reduce, eliminate retention**
- **Advance pay subs & suppliers**
- **Purchase materials for subs**
- **Monitor sub & supplier progress carefully**

Possible Consequences of the Covid-19 Pandemic

Risk: Craftworker Issues

- Higher absenteeism and turnover rates
- Increased hygiene requirements for workers and for turnover of building systems.
- Maintain social distances yet working in a buddy system
- Special PPE and impacts to labor productivity

Possible Solutions

- Lengthened project schedules to accommodate smaller crew sizes, reduced productivity
- Health and Safety meetings, rather than just Safety meetings
- Release of liability provisions

Possible Consequences of the Covid-19 Pandemic

Risk: Project Teams can't meet in Person

- **Less interpersonal interaction**

Possible Solutions

- **Videoconference (Zoom, Webex, etc.)**
- **Use “Record” feature on such meetings so that a permanent record of the meeting is available!**

Possible Consequences of the Covid-19 Pandemic

Risk: Long-term loss of skilled craftworkers

- **Construction workers are older than other industries**
- **Increased wage rates to attract/retain craft**

Possible Solutions:

- **Continued recruitment of craftworkers, increased collaboration with unions**
- **Increased use of offsite fabrication**
- **Standardization of design**
- **Increased automation and robotics**

COVID-19 Contractual Relief

- **Will most likely flow from Owner—General Contactor—Subcontractor**
- **Follow all subcontract pass-through requirements for notice, time, compensation**

Notice Requirements

- **Review all time extension, change order, scheduling, claim clauses in the contract/subcontract to make sure you are timely giving time/cost notices. Some onerous clauses state you waive any right to claim for time or money absent a timely notice. Do not assume that notice provisions will be waived for COVID-19 delays if you fail to follow them.**
- **Review all clauses requiring pricing or estimate of time impact required to be provided once notice is given. Give your best estimate and say it will be updated once the time and cost impacts can be better determined.**

Time vs. Money

- **Expect Sovereign Defense Arguments by Public Owners—Public Owners will say you get time-no money**
- **Expect Force Majeure Defense Arguments in Commercial Setting—Again Owners will say you get time—no money**
- **Request partial or full suspension of work depending upon each case**
- **If refused, claim constructive suspension of work**

Time vs. Money (Cont.)

- Request time
- If There is a Refusal to Grant Time Extensions or Threat of Liquidated Damages
- Constructive Acceleration Claim

Restrictive/Denial of Access Claims

- Restrictive or complete denial of access to owner's work site due to COVID-19 precautions.
- Excusable delay—FAR 52.249-14-Time-No Money
- Default Clause FAR 52.249-10 (Fixed Price Construction)-Time-No Money.
- Force Majeure clauses.

Prior Compensable Delays Pushing Performance into COVID-19 Time Periods That Could Have Been Avoided

- If prior compensable delays/differing site conditions push your performance into COVID-19 delay periods that could have been awarded, the COVID-19 delay costs may be compensable.**

Authority

- **Make sure all notices sent to persons with authority and directions received are from those with authority—especially with public owners.**
- **Do not assume general contractors understand and respect these authority issues.**

CARES Act Section 3610. Federal Contractor Authority

Notwithstanding any other provision of law, and subject to the availability of appropriations, funds made available to an agency by this Act or any other Act may be used by such agency to modify the terms and conditions of a contract, or other agreement, without consideration to reimburse at the minimum applicable contract billing rates not to exceed an average of 40 hours per week any paid leave, including sick leave, a contractor provides to keep its employees or subcontractors in a ready state, including to protect the life and safety of Government and contractor personnel, but in no event beyond September 30, 2020. Such authority shall apply only to a contractor whose employees or subcontractors cannot perform work on a site that has been approved by the Federal Government, including a federally-owned or leased facility or site, due to facility closures or other restrictions, and who cannot telework because their job duties cannot be performed remotely during the public health emergency declared on January 31, 2020 for COVID-19: Provided, That the maximum reimbursement authorized by this section shall be reduced by the amount of credit a contractor is allowed pursuant to division G of Public Law 116-127 and any applicable credits a contractor is allowed under this Act.

Class Deviation-CARES Act Section 3610 Implementation DFARS Tracking Number 2020-O0013 (Excerpt)

- The CARES Act was enacted on March 27, 2020, in response to the Coronavirus Disease 2019 (COVID-19) national emergency. Section 3610 of the CARES Act allows agencies to reimburse, at the minimum applicable contract billing rates (not to exceed an average of 40 hours per week any paid leave, including sick leave, a contractor provides to keep its employees or subcontractors in a ready state, including to protect the life and safety of Government and contractor personnel, but in no event beyond September 30, 2020.
- It is also important that our contracting officers are good stewards of taxpayer funds while supporting contractor resiliency. Therefore, contracting officers shall use the attached DFARS 231.205-79, CARES ACT Section 3610 Implementation, when implementing section 3610, to appropriately balance flexibilities and limitations.

Class Deviation-CARES Act Section 3610 Implementation DFARS Tracking Number 2020-O0013 (Excerpt)(Cont.)

- Some contractors may receive compensation from other provisions of the CARES Act, or other COVID-19 relief scenarios, including tax credits, and contracting officers must avoid duplication of payments.
- Contractors are responsible for supporting any claimed costs, including claimed leave costs for their employees, with appropriate documentation and for identifying credits that may reduce reimbursement under section 3610. Contracting officers are encouraged to work with contractors to understand how they are using or plan to use the COVID-19 relief provisions and encourage contractors to use existing contract terms or the relief provisions available to them in response to COVID-19. In addition, it is important that contracting officers secure representations from contractors regarding any other relief claimed or received stemming from COVID-19, including an affirmation that the contractor has not or will not pursue reimbursement for the same costs accounted for under their request, to support their requests for reimbursement under section 3610.

Class Deviation-CARES Act Section 3610 Implementation DFARS Tracking Number 2020-O0013 (Excerpt) (Cont.)

- When implementing section 3610, contracting officers shall consider the immediacy of the specific circumstances of the contractor involved and respond accordingly.

DFARS 231.205-79 CARES Act Section 3610- Implementation (Excerpt)

- **(a) Applicability**
 - 1) **This cost principle applies only to a contractor:**
 - i. **that the cognizant contracting officer has established in writing to be an affected contractor;**
 - ii. **whose employees or subcontractor employees:**
 - A. **Cannot perform work on a government-owned, government-leased, contractor-owned, or contractor-leased facility or site approved by the federal government for contract performance due to closures or other restrictions, and**
 - B. **Are unable to telework because their job duties cannot be performed remotely during the public health emergency declared on January 31, 2020, for Coronavirus (COVID-19).**
 - 2) **The maximum reimbursement authorized by section 3610 shall be reduced by the amount of credit a contractor is allowed pursuant to division G of the Families First Coronavirus Response Act (Pub. L. 116-127) and any applicable credits a contractor is allowed under the CARES Act (Pub. L. 116-136) or other credit allowed by law that is specifically identifiable with the public health emergency declared on January 31, 2020 for COVID-19.**

DFARS 231.205-79 CARES Act Section 3610- Implementation (Excerpt) (Cont.)

- (b) Allowability

- 1) Notwithstanding any contrary provisions of FAR subparts 31.2, 31.3, 31.6, 31.7 and DFARS 231.2, 231.3, 231.6, and 231.7, costs of paid leave (including sick leave), are allowable at the appropriate rates under the contract for up to an average of 40 hours per week, and may be charged as direct charges, if appropriated, if incurred for the purpose of:
 - i. Keeping contractor employees and subcontractor employees in a ready state, including to protect the life and safety of Government and contractor personnel, notwithstanding the risks of the public health emergency declared on January 31, 2020, for COVID-19, or;
 - ii. Protecting the life and safety of Government and contractor personnel against risks arising from the COVID-19 public health emergency.
- 2) Costs covered by this section are limited to those that are incurred as a consequence of granting paid leave as a result of the COVID-19 national emergency and that would not be incurred in the normal course of the contractor's business. Costs of paid leave that would be incurred without regard to the existence of the COVID-19 national emergency remain subject to all other applicable provisions of FAR subparts 31.2, 31.3, 31.6, 31.7 and DFARS 231.2, 231.3, 231.6, and 231.7. In order to be allowable under this section, costs must be segregated and identifiable in the contractor's records so that compliance with all terms of this section can be reasonably ascertained. Segregation and identification of costs can be performed by any reasonable method as long as the results provide a sufficient audit trail.

DOD Implementation Guidance for Section 3610 of the Coronavirus Aid, Relief, and Economic Security Act (Excerpt)

- To ensure traceability, it is critical that the contract and supporting documentation clearly identify these costs for reimbursement paid to contractors under section 3610 authority, as well as how such costs are identified, segregated, recorded, invoiced, and reimbursed.
- 1. Under Fixed Price contracts (including those with incentive provisions), upon receipt of a request for equitable adjustment, the contracting officer will need to negotiate equitable adjustments to the price and delivery schedule to recognize the impact of any COVID-19 caused shutdowns.
- When permissive authority under section 3610 is used, equitable adjustments should compensate only for the costs of providing paid leave as permitted by section 3610, for maintaining the workforce, and shall not increase profit.

DOD Implementation Guidance for Section 3610 of the Coronavirus Aid, Relief, and Economic Security Act (Excerpt) (Cont.)

- 2. Under cost-reimbursement contracts, the recommended approach is for costs to be charged to a separate account, such as “Other Direct Cost-COVID-19.” Contracting officers will need to work with the contractor to establish appropriate cost procedures. Additional efforts will be needed to adjust the estimated costs, again be segregating these on a separate line item. The information on supporting documentation would be retained for audit , while interim voucher would be provisionally approved and paid under existing procedures.

DOD Implementation Guidance for Section 3610 of the Coronavirus Aid, Relief, and Economic Security Act (Excerpt) (Cont.)

- 4. Because contractors can only recover once for section 3610 covered impacts, when a contract has a mix of fixed price and cost type line items, recovery need not be addressed separately for each contract type. In most cases the cost reimbursement approach is preferable.
- Remember, section 3610 is contingent upon the availability of funds and no adjustment to the contract or approval of a request for equitable adjustment should be made without sufficient funds. Contractors bear the burden of supporting any claimed costs, including claimed leave costs for their employees, allocated appropriately against individual contracts, with appropriate documentation and identifying credits that may reduce reimbursement.

What are Key Steps in Preserving Your Rights – the Project Schedule

The project CPM schedule, accurately updated to the time the impacts of the pandemic were measurable on the progress of the project, is a vital document to demonstrate the condition of the project's progress before, during and after, the adverse effects of the pandemic are identified

Under many contracts, in order to preserve rights (excusable and potentially compensable), the contractor or subcontractor claimant must show that the effect of the pandemic was the sole cause of critical path delay

In the case of critical path delays that existed prior to experiencing the effects of the pandemic, the contractor or subcontractor claimant should document the duration and cause of those delays, to the extent known by the contractor or subcontractor, to establish the “baseline” for measuring

But what if you are a subcontractor and are denied access to the project schedule information? Write a letter to the prime contractor or CM affirming that any critical path delays to the project completion date recorded at the time the impacts of the pandemic began to affect your project, were not caused by your firm.

To the fullest extent possible, ensure that all necessary materials and equipment, particularly those items that may be affected by pandemic-related procurement/transport/shipping delays, are timely ordered and received on site

What are Key Steps in Preserving Your Rights – the Project Schedule

For instance, the mechanical subcontractor in the example below may have activities that are “late” in starting, however only the activities on the *controlling critical path* dictate the amount of project delay that is being experienced – in this example, the power system work is the controlling critical path

If the pandemic effect is causing schedule slippage, each contractor on a project must know if their scope of work is on the *controlling critical path*

Activity ID	Activity Name	Original Duration	Schedule % Complete	Remaining Duration	Early Start	Early Finish	Total Float	August 2018	September 2018	October 2018	November 2018	December 2018
1A-B1-1100	Install Temp Feeder Wire For Enabling HVAC Equipment	4d	0%	4d	25-Sep-18	28-Sep-18	-9d					
1A-B1-1105	Make Connections To New HVAC Equipment & Energize	3d	0%	3d	01-Oct-18	03-Oct-18	-9d					
1A-B1-1110	Start Up & Test New Chiller Unit Level 5	2d	0%	2d	04-Oct-18	05-Oct-18	-9d					
1A-B1-1115	Start Up & Test New HVAC Unit Level G	2d	0%	2d	04-Oct-18	05-Oct-18	-9d					
1A-B1-1120	Make Safe Existing Normal Power System Bldg #1	5d	0%	5d	21-Nov-18	28-Nov-18	-41d					
1A-B1-1125	Make Safe Existing Emergency Power System Bldg #1	5d	0%	5d	21-Nov-18	28-Nov-18	-41d					
1A-B1-1130	Demolition of Bldg #1 Btwn 1G/ 101 & 3.9	10d	0%	10d	29-Nov-18	12-Dec-18	-41d					
1A-B1-1135	Demolition (X) Utility Pads	5d	0%	5d	13-Dec-18	19-Dec-18	-41d					

“Late”

Controlling Delay

What are Key Steps in Preserving Your Rights – the Project Schedule

How does a contractor forecast the estimated time impact of labor inefficiencies arising from the pandemic in the CPM schedule?

- ✓ Evaluate the CPM schedule update closest to the commencement of pandemic-related impacts for accuracy; do the activities reflect the contractor's scope of work? is the logic correct? is the progress reporting accurate? and is the forecasted end date of the project reasonably reflected in the schedule?
- ✓ Perform a forward-looking labor productivity impact analysis estimate using one of the methodologies that will be discussed in the next section of this webinar
- ✓ From that forward looking, estimated labor productivity impact analysis, determine an overall percent of inefficiency for the crews that will potentially be affected by the pandemic
- ✓ Apply that estimated inefficiency percentage to the planned durations of all of the field labor activities that are expected to be adversely affected by the pandemic and recalculate the schedule to ascertain the time impacts
- ✓ If your forward-looking estimate of time impacts arising from the pandemic is to be submitted to an owner or prime contractor for consideration / relief, prepare a detailed reservations of rights cover letter that will allow refinement of the loss of productivity estimate as events actually unfold

What are Key Steps in Preserving Your Rights – Labor Productivity Impacts

What sorts of labor productivity impacts may arise during the pandemic period?

- ✓ Crew *disruptions* caused by absenteeism of your workers, and potentially those of other trades and changed work sequences due to incomplete predecessor work of other trades
- ✓ Crew *diminishment* caused by the lack of replacement of workers on your crews for those who fall ill or who choose to “shelter in”, also known as “crew size inefficiency”
- ✓ The learning curve effect, for new workers who arrive on site to replace absent workers
- ✓ Logistics – the lack of needed materials and/or equipment, whether supplied by the owner or the contractor, arising directly from the effects of the pandemic
- ✓ Dilution of supervision caused by the absence of key labor management personnel due to illness
- ✓ Unplanned and extended overtime schedules imposed to mitigate the effects of pandemic-caused project delay

What are Key Steps in Preserving Your Rights – Labor Productivity Impacts

What can a labor intensive contractor do if the contract requires both notice and quantification of potential damages before an REA or claim will be considered by the prime or the owner?

What methods are available to a labor intensive contractor to measure the adverse effects of the pandemic on labor productivity in a forward looking analysis?

What are Key Steps in Preserving Your Rights – Labor Productivity Impacts

What sorts of labor productivity impacts may arise after the pandemic has passed?

- ✓ The learning curve effect, for new workers who arrive on site to replace non-returning workers
- ✓ Crew size inefficiency caused by a requirement to increase your crews to mitigate delay
- ✓ Stacking of trades caused by project acceleration (compression of the work into a shorter period)
- ✓ Absence of reasonable site access due to the addition of crews and equipment of all trades
- ✓ Concurrent operations – unplanned stacking of your activities as a form of acceleration
- ✓ Crew flow disruption (“Reassignment of Manpower”) caused by changing schedule priorities and interferences with other trades
- ✓ Adverse effects of extended overtime schedules to mitigate delays caused by the pandemic
- ✓ Delayed deliveries of materials and equipment caused by the pandemic effect

What are Key Steps in Preserving Your Rights – Labor Productivity Impacts

Why is the measurement of labor productivity important during this pandemic crisis?

- ✓ **To provide information that the contractor's management may use to attempt to mitigate labor productivity losses**
- ✓ **To demonstrate excusable (or potentially compensatory) delay arising from losses of labor productivity experienced during the duration of, and caused by, the pandemic effects**
- ✓ **To provide the basis of notice to owners, CMs, or prime contractors regarding the magnitude of productivity losses arising from the pandemic effect**

What are Key Steps in Preserving Your Rights – Labor Productivity Impacts

How do you measure the before-and-after productivity rates of your crews?

- ✓ The best method is an actual (“empirical”) method that establishes a *productivity rate ratio* before the start of the pandemic effect, and then establishes a production rate ratio during the effects of the pandemic
- ✓ What is a *productivity rate ratio*? It is the number of field craft labor hours required to install an identifiable unit of work, e.g., hours per linear foot of pipe, hours per cubic yard of concrete
- ✓ What is this method called? It is the measured mile method of productivity measurement, and it is the most widely accepted method to quantify the loss of labor of productivity in the construction industry
- ✓ Must it be performed while the work is actually taking place? No, with a reasonably detailed labor plan that tracks actual labor hour by work activity codes, and the contract drawings, a measured mile analysis can usually be done after the fact
- ✓ If no reasonably detailed labor tracking was performed, is all lost? No . . .

What are Key Steps in Preserving Your Rights – Labor Productivity Impacts

What if you could not perform a measured mile productivity analysis?

- ✓ Then a non-empirical method may be utilized. These include, but are not limited to: an “Earned Value” analysis or an “MCAA Factors” (industry study) analysis methodology
- ✓ An earned value analysis can involve comparing the actual hours required to “earn” a percent complete for an activity of work accomplished before the effects of the pandemic to a similar activity of work accomplished during the pandemic
- ✓ An MCAA Factors analysis involves the application of the MCAA’s Factors Affecting Labor Productivity – the claimant refers to the 16 categories of labor inefficiencies enumerated in the MCAA’s publication and by experience on the project or interviews of site personnel, selects the appropriate labor impact category and the associated intensity level
- ✓ A less favored method is the “Modified Total Cost” (or “Total Cost”) method whereby the claimant simply subtracts from the actual labor hours expended on the project its labor estimate, change order labor hours, T&M ticket hours and hours for contractor-caused deficiencies such as field rework and/or bid estimate errors

What are Key Steps in Preserving Your Rights – Labor Productivity Impacts

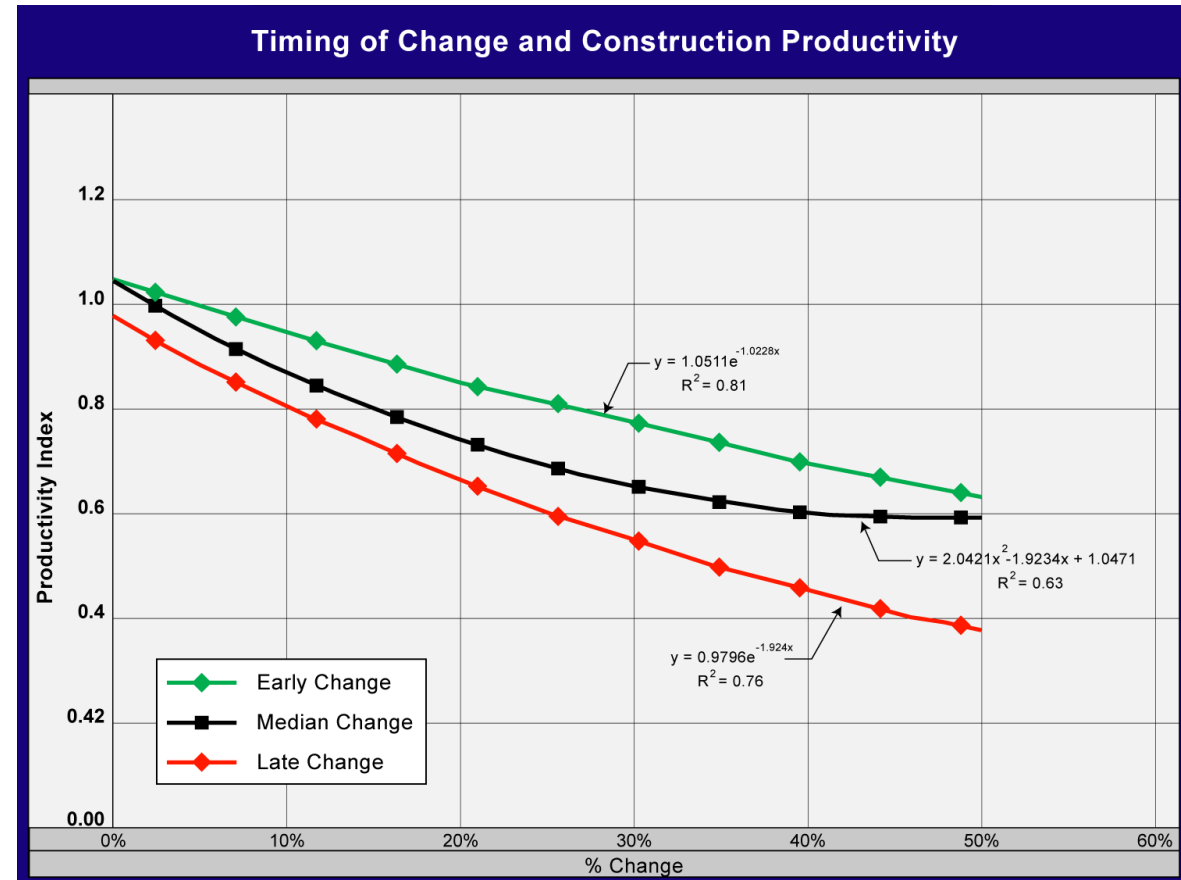
The MCAA Factors productivity tables and user instructions are contained in the MCAA's publication titled "Change • Orders Productivity • Overtime A Primer for the Construction Industry"

Factor	Percent of Loss per Factor		
	Minor	Average	Severe
1. STACKING OF TRADES: Operations take place within physically limited space with other contractors. Results in congestion of personnel, inability to locate tools conveniently, increased loss of tools, additional safety hazards and increased visitors. Optimum crew size cannot be utilized.	10%	20%	30%
2. MORALE AND ATTITUDE: Excessive hazard, competition for overtime, over-inspection, multiple contract changes and rework, disruption of labor rhythm and scheduling, poor site conditions, etc.	5%	15%	30%
3. REASSIGNMENT OF MANPOWER: Loss occurs with move-on, move-off men because of unexpected changes, excessive changes, or demand made to expedite or reschedule completion of certain work phases. Preparation not possible for orderly change.	5%	10%	15%
4. CREW SIZE INEFFICIENCY: Additional workers to existing crews "breaks up" original team effort, affects labor rhythm. Applies to basic contract hours also.	10%	20%	30%
5. CONCURRENT OPERATIONS: Stacking of this contractor's own force. Effect of adding operation to already planned sequence of operations. Unless gradual and controlled implementation of additional operations made, factor will apply to all remaining and proposed contract hours.	5%	15%	25%
6. DILUTION OF SUPERVISION: Applies to both basic contract and proposed change. Supervision must be diverted to (a) analyze and plan change, (b) stop and replan affected work, (c) take-off, order and expedite material and equipment, (d) incorporate change into schedule, (e) instruct foreman and journeyman, (f) supervise work in progress, and (g) revise punch lists, testing and start-up requirements.	10%	15%	25%

Factor	Percent of Loss per Factor		
	Minor	Average	Severe
7. LEARNING CURVE: Period of orientation in order to become familiar with changed condition. If new men are added to project, effects more severe as they learn tool locations, work procedures, etc. Turnover of crew.	5%	15%	30%
8. ERRORS AND OMISSIONS: Increases in errors and omissions because changes usually performed on crash basis, out of sequence or cause dilution of supervision or any other negative factors.	1%	3%	6%
9. BENEFICIAL OCCUPANCY: Working over, around or in close proximity to owner's personnel or production equipment. Also badging, noise limitations, dust and special safety requirements and access restrictions because of owner. Using premises by owner prior to contract completion.	15%	25%	40%
10. JOINT OCCUPANCY: Change cause work to be performed while facility occupied by other trades and not anticipated under original bid.	5%	12%	20%
11. SITE ACCESS: Interferences with convenient access to work areas, poor man-lift management or large and congested worksites.	5%	12%	30%
12. LOGISTICS: Owner furnished materials and problems of dealing with his storehouse people, no control over material flow to work areas. Also contract changes causing problems of procurement and delivery of materials and rehandling of substituted materials at site.	10%	25%	50%
13. FATIGUE: Unusual physical exertion. If on change order work and men return to base contract work, effects also affect performance on base contract.	8%	10%	12%
14. RIPPLE: Changes in other trades' work affecting our work such as alteration of our schedule. A solution is to request, at first job meeting, that all change notices/bulletins be sent to our Contract Manager.	10%	15%	20%
15. OVERTIME: Lowers work output and efficiency through physical fatigue and poor mental attitude.	10%	15%	20%
16. SEASON AND WEATHER CHANGE: Either very hot or very cold weather.	10%	20%	30%

What are Key Steps in Preserving Your Rights – Labor Productivity Impacts

- ✓ Ibbs Curves to Measure Loss of Productivity (LoP)
- ✓ More change => More LoP
- ✓ Late change => More LOP
- ✓ Empirically-based
- ✓ Industry accepted.



New DoD Guidelines

1. Under Fixed Price contracts (including those with incentive provisions), upon receipt of a request for equitable adjustment, the contracting officer will need to negotiate equitable adjustments to the price and delivery schedule to recognize the impact of any COVID-19 caused shutdowns. In the case of incentive contracts,

This new directive has important points: “upon receipt of an REA” & the Contracting Officer’s need to “negotiate equitable adjustments to price & delivery schedule . . . “

It underscores the need for a schedule and productivity analyses during the non / less impacted period to set the benchmark.

Then, the forward looking time impact and labor productivity analyses must be performed to estimate the time and labor impacts caused by the pandemic

What are Key Steps in Preserving Your Rights – Project Impact Analyses

Regardless of what method is used to estimate time impacts and/or loss of labor productivity:

- ✓ Accompany the estimated impact results with a narrative that explains how the delay time impact and/or loss of labor productivity estimates were prepared and what assumptions were made
- ✓ Label the time impact / loss of productivity estimates as a “ROM”, Rough Order of Magnitude
- ✓ Suggest ways that the expected delays and/or loss of labor productivity could be mitigated
- ✓ Include a comprehensive reservations of rights letter that clearly states the loss of productivity, and / or any time impact / delay quantifications, are estimates based on assumptions being made at a given date, and that these ROMs may change given actual circumstances.



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Thank you for your participation, stay healthy and safe!

Douglas L Patin, Partner, Bradley Arant Boult Cummings LLP

Professor William Ibbs, PhD The Ibbs Consulting Group

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Douglas L. Patin, Partner
Bradley Arant Boult Cummings
Washington, DC
202.719.8241
dpatin@bradley.com



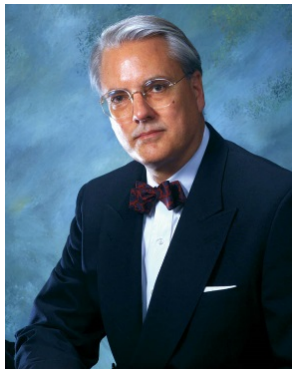
The Ibbs Consulting Group



Professor William Ibbs, PhD
University of California - Berkeley
Ibbs Consulting Group
Penngrove, CA
510.593.3169
bill@ibbsconsulting.com



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Paul L. Stynchcomb, CCM, PSP, CFCC
Ibbs Consulting Group
Penngrove, CA
510.593.3169
paul@ibbsconsulting.com