Constructive Changes

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1. INTRODUCTION

The contract documents often enable the owner to make changes in the work within the general scope of the contract, including changes (1) in the specifications (including drawings and designs); (2) in the method or manner of performance of the work; (3) in owner-furnished facilities, equipment, materials, services, or site; or (4) directing acceleration in the performance of the work. Contracts may also provide that any other written or oral order (which could include direction, instruction, interpretation, or determination) from the owner's representative that causes a change shall be treated as a change order. Thus, if any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work, whether or not changed by any such order, the owner may be required to make an equitable adjustment and modify the contract in writing.

On the other hand, the contract may also state that no order, statement, or conduct of the owner's representative shall be treated as a change or entitle the contractor to an equitable adjustment.

The doctrine of constructive change is often alleged by the contractor to recover its increased time of performance and costs when the owner has informally directed the contractor to perform work that was not required under the terms of the contract or has instructed the contractor to perform work in a manner more costly than it had reasonably anticipated.[1] A constructive change entails two base components, the change component and the order or fault component. The "change" component describes work outside of the scope of the contract, while the "order/fault" component describes the reason that the contractor performed the work.[2] Constructive changes may develop gradually and escape specific notice during the contract life and originate from actions or inactions by the owner that may or may not be documented. However, this "cause" must be more than a mere request from the owner or its authorized representative. Care should be taken when using the word "change" even casually or informally in oral or written communications.

The "Changes" clause may provide compensation for constructive changes as if they were formal change orders.[3] Also, the courts have utilized the concept of "constructive change" to support a contractor's right to recover additional compensation and time for the added cost of the changed work.

Constructive changes often result from owner action or inaction even though the owner might not characterize it as a change. Rejection of an acceptable product, for example, may amount to a constructive change entitling the contractor to an equitable adjustment, as may rejection of a

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1 *Int'l Data Prods. Corp. v. United States*, 492 F.3d 1317, 1325 (Fed. Cir. 2007) (citing *Miller Elevator Co. v. United States*, 30 Fed. Cl. 662, 678 (1994)); accord *Ets-Hokin Corp. v. United States*, 420 F.2d 716, 720 (Ct. Cl. 1970).

2 *Miller Elevator Co. v. United States*, 30 Fed. Cl. at 678.

3 See, *e.g.*, *Miller Elevator, 30 Fed. Cl.* at 678; *Lathan Co. v. United States*, 20 Cl. Ct. 122, 128 (1990).

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method permitted by the contract. Other examples of constructive change include where the owner directs compliance with the original contract completion date not-withstanding an excusable delay, demands higher standards of inspection, supplies defective design specifications, or requires performance in accordance with an incorrect interpretation of specifications.[4] The contractor bears the burden of proving that a constructive change has occurred – that the change was actually ordered by the owner's agent with requisite authority, that the changed work was performed, and then that the contractor incurred increased costs as a result of that change.[5]

Construction changes had their root in the U.S. Boards of Contract Appeals (the bodies to which disputes on government contracts are taken), which did not have authority to deal with breaches of the contract. Thus, certain breaches were argued as being tantamount to a change issued under the changes clause of the contract, and this allowed such situations to be brought to the board. A body of cases was developed until the "constructive change doctrine" came to be recognized. In other jurisdictions, the constructive change argument per se is not recognized. Nevertheless, there are many circumstances where simple breaches fall into the same category as a constructive change, and claims for the breach are entitled.

Key words that are often associated with constructive changes are unwritten order, additional work or services, extra work, overly rigid inspection, improper rejection, errors and omissions, ambiguous plans and specifications, incorrect interpretation of plans and specifications, changing work methods, changes in sequencing of work, failure to disclose important information, extreme difficulty in performance and/or very excessive cost, and defective design.

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4 See, *e.g.*, *Algernon Blair, Inc.*, ASBCA No. 23585, 81-2 B.C.A. ¶15,375 (1981), aff'd, 82-1 B.C.A. ¶15,491 (1981) (rejection of contractor's previously approved construction plans); *CWC Inc.*, ASBCA No. 28847, 84-2 B.C.A. ¶17,282 (1984), aff'd on reconsideration, 85-1 B.C.A. ¶17,876 (1995) (rejection of contractor's alternative design approach); *Bromley Contracting Co.*, ASBCA Nos. 14884 et al., 72-1 B.C.A. ¶9252 (1971) (where contractor interpreted government specification properly and performed accordingly, government's order to redo the work at its direction constituted constructive change entitling contractor to compensation); *Weeshoff Constr. Co. v. Los Angeles County Flood Control District*, 88 Cal. App. 3d 579 (1979) ; but see *LB&B Assocs. Inc. v. United States*, 91 Fed. Cl. 142 (2010) (refusing to allow a contractor's "constructive change" defense when, after the contractor failed to fulfill its contractual obligations, the government forced the contractor to hire subcontractors in lieu of a default termination, which the government was entitled to do pursuant to the terms of the contract).

5 *Sterling Millwrights, Inc. v. United States*, 26 Cl. Ct. 49, 72 (1992) (citations omitted); *Servidone Constr. Corp. v. United States*, 931 F.2d 860, 861 (Fed. Cir. 1991) (the three necessary elements are liability, causation, and resultant injury); *Wunderlich Contracting Co. v. United States*, 173 Ct. Cl. 180, 351 F.2d 956, 968 (1965).

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2. CONTRACT CHANGES CLAUSES

A typical changes clause outlines the concept of a constructive change as follows:

> *Any written order or an oral order (which includes direction, instruction, interpretation or determination) that causes a change, shall be treated as a change order under this clause; provided that the contractor gives written notice stating (1) the date, circumstance and source of the order and (2) that the contractor regards the order as a change order.*

An example owner's contract contains the following language regarding changes that are not directed:

> ***Other Changes***. *If Contractor receives any other directive, instruction, interpretation or determination from Owner which will cause a change in the Contractor's cost or time to complete the Work, Contractor shall promptly (and in any event, within 5 days) notify Owner in writing, which notice shall describe the directive and the anticipated effect on the Contractor's cost or time to complete the Work. Within 14 days after receipt of any such directive, Contractor shall submit to Owner in writing a more detailed statement of its claim that a change has been directed, including the estimated increase or decrease in Contractor's cost to complete the Work as a result of such alleged change including all direct, indirect and impact costs on the unchanged Work, the estimated increase or decrease in the time required to achieve the Scheduled Mechanical Completion Date as a result of the alleged change, the estimated cost attributable to the increase in time and the estimated cost, if any, of recovering any time delay, and a description of what steps Contractor has taken and plans to take to minimize the effect that such alleged change will have on any increase in costs to complete the Work or any delay in the schedule. Contractor shall thereupon undertake to diligently pursue those steps and use its best efforts to mitigate any adverse effects caused by the alleged change.*

3. TYPES OF CONSTRUCTIVE CHANGE

3.1 Constructive Acceleration

Constructive acceleration occurs when the owner's actions or inactions force the contractor to perform its work in less time. The owner's refusal to grant a justifiable time extension for an

excusable delay or the requirement that additional work be performed without granting additional time are two examples of constructive acceleration.[6]

3.2 Constructive Deceleration

Constructive deceleration is the opposite of constructive acceleration, where the owner suspends a portion of the work, thereby delaying the project, but refuses to acknowledge this change. The contractor's overhead is extended and labor costs may increase.

3.3 Erroneous Contract Interpretation

Another common type of constructive change occurs when an architect, engineer, or other owner's representative rules that a construction contractor must follow its interpretation of an ambiguous specification or requires the contractor to follow its unduly rigid interpretations of contract documents requiring the contractor to meet higher standards than customarily accepted by trade organizations. In such circumstances, the courts have held that a contractor cannot properly be required to exercise clairvoyance in determining its contractual responsibilities.[7] The crucial question is what a reasonable construction contractor would have understood, not what the drafter of the contract terms subjectively intended.

The test for determining ambiguity is that when a specification is susceptible to more than one interpretation, each interpretation found to be consistent with the contract language and the party's objectively ascertainable intentions become convincing proof of an ambiguity.

Once an ambiguity is found, the language in the contract can be construed against the drafter. Thus, if the architect, engineer, or other representative of the owner requires the contractor to abide by its contract interpretations, it may be ruled a change although the owner believes it to be merely an interpretation of the specifications.

3.4 Defective Specifications

A flawless design is rare. There is, however, a critical and costly difference between the normal incidence of errors and serious design flaws that cause substantial time and cost increases. These errors or omissions, when discovered, often create a constructive change.

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[6] See *Fortec Constructors v. United States*, 8 Ct. Cl. 490 (1985); *M.S.I. Corp.*, GSBCA No. 2429, 68-2 B.C.A. (CCH) ¶ 7377 (1968); *Fischbach & Moore Int'l Corp*., ASBCA No. 18, 146, 77-1 B.C.A (CCH) ¶ 12,300 (1977).

[7] See *Chris Berg, Inc. v. United States*, 197 Ct. Cl. 503 (1972) and *Sergent Mech. Sys., Inc. v. United States*, 34 Fed. Cl. 5050 (1995).

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The classic type of constructive change arises from contract plans and specifications that are defective. Changes to the contract work caused by defective plans and specifications constitute a constructive change since an owner impliedly warrants their suitability. Therefore, a contractor who (in the absence of any negligence) follows an owner's design specifications is generally not responsible to the owner for any loss or damage to the completed project resulting from deficient or defective plans or specifications.

Thus, when the owner finds it necessary to make changes in the specifications because they are defective, a contractor may recover the reasonable value of additional work and time arising from the change. For example, case a highway contractor found that the road base was in a very unstable condition, making it necessary to excavate two and one-half to three feet deeper than the specifications required in order to remove the unstable element and replace it with stone. In the absence of written change orders for extra work, the contractor proceeded with the necessary changes, relying on the directions and assurance of the engineer and inspector. The court allowed recovery since the conditions during the course of the work disclosed that the original specifications were defective.

On the other hand, if the owner provides performance specifications, the risk is on the contractor to satisfy the required performance. If the design specifications omit items necessary to complete the intended work, the courts may also impose a duty on the contractor to inquire about obvious contract omissions before bidding.

In one case, a contractor was entitled to an equitable adjustment under either the Changes clause or the Differing Site Conditions clause for extra costs of equipment and labor incurred as a consequence of the government's suspension of work under a contract for the construction of floodwater retarding structures. Geology reports and the boring profiles in contract drawings were incorrect, and work had been delayed while a geologist and construction engineer analyzed the soil and attempted to solve a problem caused by a failure to meet the plasticity index requirement for fill material. The contracting officer denied the contractor's claim on the ground that the suspension was reasonable and appropriate to address a technological problem. However, insofar as the specifications were defective because they required the use of particular fill material that did not meet specifications, a constructive change had occurred for which the contractor was entitled to an adjustment for increased costs of performance. Further, the underlying cause of the suspension was the fact that the materials encountered did not correspond with contract indications, and therefore the costs incurred as a result of the suspension were clearly related to the existence of a differing site condition.[8]

[8] *Richard P. Murray Company, Inc.*, AGBCA 77-152-4 A & B, 86-2 B.C.A. ¶ 18,804, (1986).

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3.5 Unreasonable Inspection Practices

Unnecessarily harsh, rigid, or overzealous inspection practices that hinder the contractor's performance or multiple inspections that result in inconsistent directives also constitute constructive change. Improper rejection of work, requirements to meet a higher performance standard than specified in the contract, interference with the contractor's performance, and excessive test requirements are all examples of constructive change.

If an owner or its representative improperly concludes that materials or methods of construction used do not meet the standards of the specifications, an order to change them may result in a constructive change order for which additional compensation may be due the contractor.

Contract clauses often seek to enhance the use of varying brands of materials by the development and use of standard specifications. For example, in Federal Procurement, the FAR regulation, "Materials and Workmanship," provides in part:

> *All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment material, article, or process that, in the judgement of the Contracting Officer, is equal to that named in the specifications, unless otherwise specially provided in this contract.*

In *State of Texas v. Buckner Construction Co.*,[9] the contractor alleged that the State inspectors were inexperienced, not available to perform inspections when needed, and required a higher quality of workmanship than called for in the specifications. The contractor sued for breach of contract and delay damages based on the State's refusal to accept the contractor's work, which included sandblasting and painting. The trial court ruled in favor of the contractor on all issues and the State appealed. The appellate court affirmed the lower court's decision and held that the State's inspectors were inexperienced and did require a higher quality of workmanship and larger amount of sandblasting than called for in the sandblasting specifications.

3.6 Owner-Furnished Items

When owner-furnished equipment arrives on site late or damaged and the owner refuses to acknowledge the impact, a constructive change results.

[9] *State of Texas v. Buckner Construction Co.*, 704 S.W.2d 837 (Text App. 1985) (rehearing denied 1986).

Similarly, a contractor under a timber sale contract was entitled to recover costs incurred for the purchase of commercial rock when a government-owned stockpile designated as a suitable rock source for road work proved to be inadequate. The contractor had relied on the availability of the government-designated source for its performance of the contract, and it was reasonable for him under the circumstances to incur the extra costs in order to obtain the necessary aggregate from a commercial source.[10]

3.7 Directions by the Owner

Directions by the owner that deviate from the contract may represent constructive change. In *Rogers & Babler*,[11] the government disapproved a contractor's proposal to locate an aggregate plant at a certain government barrow source. As a result, the contractor was forced to obtain the aggregate commercially and to haul it to its asphalt plant. The government's rejection of the contractor's proposal constituted a modification of its contract to resurface asphalt roads because the contract promised that it would be provided with a government barrow source and did not prohibit using the source that the contractor proposed.

The BCA decision states:

> *The contract documents offered to provide the contractor 'a Government barrow source' for asphalt aggregate. Appellant was informed during a prebid inquiry, made to the proper government official, that it could haul aggregate material to the project site from Eielson Air Force Base, where its asphalt plant was located, and appellant relied on this information in preparing its bid. There is no evidence to show that obtaining barrowed aggregate material from Eielson Air Force Base was contractually prohibited.*
>
> *The government's disapproval of appellant's proposal to utilize and haul aggregate from its asphalt plant at Eielson Air Force Base to the project site was a change.*

The Board ruled that the contractor was entitled to an adjustment for the increased cost of commercially obtaining the aggregate and hauling it to its plant for processing.

In another case, the government's numerous grade and slope revisions substantially disrupted a contractor's performance and thus amounted to a constructive change of its road construction contract. The contractor had established a reasonable, planned sequence of operations for

[10] *Theodore R. McNeely dba Ted McNeely Logging*, IBCA 1844, 85-3 B.C.A. ¶ 18,495, (1985).
[11] *Rogers & Babler*, ASBCA 33714, 87-1 B.C.A. ¶ 19,480 (1986).

completing the construction. Due to the government's actions, it had to alter its plans and redirect its work force, which entailed an increase in costs.[12]

3.8 Method of Performance

Construction contracts generally provide detailed specifications as to the quality of performance to be maintained for the project but not the manner in which the work is to be performed. Unless otherwise specified in the contract, and provided the work is performed safely and in a practical manner, the contractor is entitled to perform the work by its own means and methods. If the owner insists, after contract award, that a more expensive method be utilized, a constructive change results, and the owner may be responsible for any resulting additional costs.

The contractor should carefully document an owner's change in the method of performance. If the owner's decision to make such change is based on reasons other than safety and practicality, the contractor should make it clear that any additional costs will be absorbed by the owner.

For example, a contractor was entitled to additional costs when it could not follow the method of construction identified in the contract and was required to use a more expensive method.[13]

In another case a contractor was entitled to an equitable adjustment for increased labor costs incurred when it was forced to use electric heat guns to remove paint. The government's refusal to allow the contractor to remove paint with open flame propane torches and chemicals constituted a constructive change. The contract neither specified nor prohibited the use of any particular tool or method for paint removal. Under the circumstances, the government's actions in prohibiting the use of open flame propane torches and chemicals before the contractor had a chance to propose them and demonstrate their safety was arbitrary. Although the government permitted the contractor to use a torch with a shield attached, "tight areas" could not be reached with the device and use of electric heat guns was required. The use of such heat guns decreased productivity and increased the contractor's labor costs.[14]

Similarly, the selection of the sequence of completing work is the right of the contractor as long as the contractor conforms to the contract requirements. An owner cannot alter the contractor's sequence without being responsible for extra costs related to the change. Certain owners preserve the right to change the contractors "method, manner, or sequence of performance of the Work." Owners should be aware that by making such changes, they may incur increased costs or delays to the contractor's planned schedule of performance.

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12 *Wylie Brothers Contracting Co.*, IBCA 1175-11-77, 84-1 B.C.A. ¶ 17,078 (1984).
13 *Charles Meads & Co. v. City of New York*, 181 N.Y.S 704, 191 A.D. 365 (1920).
14 *Bill Wright Painting & Decorating, Inc.*, ASBCA 33343, 87-1 B.C.A. ¶ 19,666, (1987).

In addition, a contract may be written to give the owner the option to "request Mechanical Completion and turnover of a portion of the Work prior to all of the Work being Mechanically Complete." While the Agreement is clear that the owner can make this request, the owner should recognize that if this request changes the contractor's planned sequence of Mechanical Completion for portions of the Work, it may incur increased costs and delay as a result of making such requests. For that reason, the turnover sequence should be defined during the development of the contractor's Project Master Schedule and/or detailed construction and start-up schedule to avoid this problem.

3.9 Extra Work

When the contractor is required to perform extra work due to owner-caused quantity changes, performance specification changes, or site location changes, and the impacts of these changes are not acknowledged by the owner, a constructive change exists.

Contractors routinely perform extra work on almost any project. Extra work is a self-defining term that means work in addition to the work required by the plans and specifications. Extra work becomes a claim only when the contractor and owner do not agree whether the particular item of work is required by the plans and specifications.

The contract documents are critical to a dispute about extra work because they are usually the source of the dispute. The dispute usually arises when the contract documents are ambiguous. The greater the ambiguity, the greater the potential for a dispute; the greater the cost of the extra work, the more bitter the dispute.

Typically, the primary cause of the dispute is a lack of specificity of the contract requirements. The contractor alleges that the disputed work is not explicitly required. Instead of explicitly telling the contractor that the disputed work is required, the contract documents refer in a very general way to all work necessary for successful completion of the project or incorporate by reference some document that describes the disputed work. Architects invariably argue that by incorporating a 500-page document, they intended that the contractor when preparing its bid would carefully analyze the 500-page document and determine that the requirements in paragraph 4 on page 257 would apply to this project.

For example, a contractor was entitled to an equitable adjustment resulting from the government's correction of its shop drawings because the correction constituted a deviation from the contract drawings. The contract called for sheet metal roofing. The contractor had submitted shop drawings for approval, and they were returned with corrections in respect to roof accessories. The contractor had to make these accessories on site, which was more expensive

and time consuming than the purchase and installation of prefabricated accessories as originally contemplated.[15]

In another case, the contractor claimed that the concrete mixes that the government proportioned and supplied were deficient.[16] Workability suffered throughout the project's concrete placement, with the most conspicuous early symptom being the rapid slump loss of the Class C fly ash mix. The contractor sought recovery for the direct costs, delay-related damages, and lost productivity attributable to the perceived deficiencies. The contractor argued that its use of the government-proportioned and -provided concrete mixes was a design specification implicating the implied warranty that they would perform as designed,[17] and also constituted a constructive change to the Contract. The court found that the government was liable in damages for the extra work under the constructive change doctrine.[18]

In this same case, testing of miter gate cylinders revealed a problem with the cylinder settings. The problem consisted of a conflict between the contract specifications and the government-approved manufacturing drawings. The government gave direction to the contractor to adjust the cylinder operation, and required the contractor to perform additional remedial work prior to dry-testing and rewatering.

The court found that the additional testing of the miter gate cylinders required by the government constituted a change to the Contract, under the constructive changes doctrine, and awarded extra costs to be paid to the contractor.

3.10 Restriction of Work Hours

Interference with the contractor's ability to work by restricting work hours may also constitute a constructive change. In *La Madera Services*,[19] a claim was sustained for the cost of maintaining drilling equipment on a well-drilling site on weekdays on which the contractor was denied the opportunity to operate the equipment for the 12 hours per day that it had planned. The contract prohibited performance on weekends and holidays, when the contractor had also wished to operate, but it did not limit the number of hours per work day. BCA ruled that the contractor was entitled to recover costs for lost work hours due to being restricted to an eight-hour workday.

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15 *Schnenle Construction Co., Inc.*, PSBCA 1338, 85-3 B.C.A. ¶ 18,312, (1985).

16 *Fireman's Fund Insurance Company v. U.S.* (Fed.Cl. 5-26-2010) *Fireman's Fund Insurance Company, American Home Assurance Company, Fidelity and Deposit Company Of Maryland, and Universal Underwriters Insurance Company, Plaintiffs, v. The United States*, Defendant. No. 04-1692C, (consolidated with Nos. 08-782C, -783C & -784C), U.S. Court of Federal Claims, May 26, 2010.

17 *United States v. Spearin*, 248 U.S. 132, 136 (1918)

18 See *Ace Constructors*, 499 F.3d at 1364 ("Impracticability of performance [due to defective specifications] is treated as a type of constructive change to the contract; because a commercially impracticable contract imposes substantial unforeseen costs on the contractor, the contractor is entitled to an equitable adjustment." (quoting *Raytheon Co. v. White*, 305 F.3d 1354, 1367 (Fed. Cir. 2002))).

19 *La Madera Services*, ASBCA 29518, 87-1 B.C.A. ¶ 19621 (1987).

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3.11 Misrepresentation

Misrepresentation is another category of constructive change. This particular type of constructive change occurs when the owner has misrepresented information regarding a construction specification, and the contractor has relied upon the misrepresentation to its detriment.[20] Absent some valid basis for a contrary conclusion (*e.g.*, an absence of detrimental reliance by the contractor, a failure to investigate sources which would have revealed the truth, or the like), the owner may be liable for damage attributable to misstatements of fact (in a contract or specifications) which are representations made to the contractor.[21] In order for a contractor to prevail on a claim of misrepresentation, the contractor must show that the owner made an erroneous representation of a material fact that the contractor honestly and reasonably relied on to the contractor's detriment.[22] It is of no consequence that such misrepresentations may have been innocent and inadvertent, as long as they are material and the contractor suffers increased costs of performance as a result.[23] In addition, if the owner misrepresents information regarding its specifications in its communications to the contractor during performance, the owner may be liable if the contractor relies on such misinformation.[24]

3.12 Miscellaneous Actions

Numerous other actions by the owner can constitute a constructive change. Examples include: owner-caused damages to construction work, orders causing higher wages, orders to increase the labor force when it is already adequate, nondisclosure of technical information on matters of substance, and improper disclosure of the contractor's proprietary information.

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20 See *Miller Elevator*, 30 Fed. Cl. at 678 (citations omitted); see also *Meyers Cos. v. United States*, 41 Fed. Cl. 303, 311 (1998) ("Misrepresentation occurs when the government misleads a contractor by a negligently untrue representation of fact, or fails to disclose information it has a duty to disclose" (quoting *John Massman Contracting Co. v. United States*, 23 Cl. Ct. 24, 31 (1991))).

21 *Summit Timber Co. v. United States*, 677 F.2d 852, 857 (Ct.Cl. 1982) (quoting *Flippin Materials Co. v. United States*, 312 F.2d 408, 413 (Ct. Cl. 1963)) (other citations omitted).

22 *T. Brown Constructors, Inc. v. Pena*, 132 F.3d 724, 729 (Fed. Cir. 1997); see *Helene Curtis Indus., Inc. v. United States*, 312 F.2d 774, 778 (Ct.Cl. 1963) ("Specifications so susceptible of a misleading reading (or implication) subject the defendant to answer to a contractor who has actually been misled to his injury.") (citations omitted).

23 *Summit Timber*, 677 F.2d at 857 (citing *Everett Plywood & Door Corp. v. United States*, 419 F.2d 425, 431 (Ct.Cl. 1969) and *Morrison-Knudsen Co. v. United States*, 345 F.2d 535, 539 (Ct.Cl. 1965)).

24 See *Max Drill, Inc. v. United States*, 427 F.2d 1233, 1243 (Ct.Cl. 1970) ("When an official of the contracting agency is not the contracting officer, but has been sent by the contracting officer for the express purpose of giving guidance in connection with the contract, the contractor is justified in relying on his representations [and may be entitled to an equitable adjustment for such misrepresentations of fact material to contract performance].") (citing *Fox Valley Eng'r, Inc. v. United States*, 151 Ct. Cl. 228, 240 (1960)).

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It is perhaps worth noting that these constructive changes or simple breaches are often the result of unfamiliarity on the part of the engineer's field representatives with all of the terms. Some specific examples of this type of situation are as follows:

1. Imposition of construction tolerances that are closer than those specified, or closer than is normal in the construction industry.
2. Imposition of acceptance tests where none were specified or that are more severe than those specified – for example, testing of pipelines in small increments rather than by larger sections or testing at pressures exceeding those specified or normally required.
3. Testing of welds by x-ray where this was not specified.
4. Operations to improve the appearance of concrete surfaces in areas where the specifications merely require the use of plywood or steel forms.
5. Sandblasting of construction joints in concrete when that method is not specified.
6. Imposition of safety regulations beyond those specified or normally required.
7. Imposition of noise abatement measures not specified.
8. Refusal to permit the adoption of more economical methods, which are not prohibited by the contract; for example, use of a less expensive value if an alternative is permitted and the alternative fulfills the technical specification.
9. Insistence on use of a more distant borrow source for an earthmoving job where an alternative closer borrow source was designated.
10. Refusal to authorize elimination of unnecessary construction joints in concrete.
11. Insistence on water curing when use of a curing compound is not prohibited.
12. Insistence on a brand name when the contract permits the use of materials or equipment of equal quality.

In each of the above cases, the contractor has probably incurred more cost, and this cost could not have been anticipated. Courts will determine if a delaying event, interference, or other requirement was foreseeable by the contractor in determining if the event, interference, or requirement was outside the scope of the contract.[25] Thus, the basis on which the bid was made has been altered. Under such circumstances, the contractor may be entitled to an adjustment in his price just as he would if the different situation were recognized under the changes clause and ordered as a change.

[25] *Green Constr. Co. v. Kansas Power & Light* Co., 1 F.3d 1005 (10th Cir. 1993).

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The type of change shown by the above examples frequently has its genesis in a memo or even an oral communication from the field inspectors. While a memo may constitute written notice, any instructions that are communicated orally may not. This goes back to the express terms of the contract. Thus, if the contract provides that work is to be done only upon receipt of orders in writing or if notice is required in respect of disputed extra work, the contractor must be guided by those requirements, although in some circumstances the written order requirements may be held to have been waived.

4. PROBLEMS ESTABLISHING ENTITLEMENT

Constructive changes should always be asserted promptly, at least within a reasonable time, and definitely before final payment is made. Common problems in establishing a contractor's entitlement to compensation under the constructive change doctrine are:

- The person ordering the change was not authorized to issue changes as an agent of the owner.
- The order was oral and no documentation or proof exists that the order was given, and often the terms of an oral order are unclear.
- The owner construed that the contractor, by not contesting an order, acquiesced or voluntarily performed the work.
- Constructive changes claimed after final payment have been allowed by the courts only under special circumstances.

These problems can be quickly eliminated by timely and proper notice, the importance of which cannot be understated.

It should be noted that refusal by the owner to issue a formal change order does not preclude the contractor from compensation. Three elements must be established before a contractor will be granted relief by the courts for a constructive change.

These elements are:

- The minimum performance that the contractor was required to furnish under the contract.
- The fact that the work performed exceeded the established minimum.
- The performance of the change was required by the owner or its agent.

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Work done by the contractor voluntarily may not be compensated. A change element and an order element (by act or omission) must both exist. Only the formality of the writing may be absent in a constructive change order.

An owner will often issue work orders, either written or oral, without realizing that they could potentially be regarded by the contractor as change orders. To protect the owner from having the contractor submit long lists of extras and requesting an equitable adjustment upon the completion of the project, most construction contracts require the contractor to give notice to the owner in order to recover under the doctrine of constructive changes. Generally, these notice requirements are strictly followed by the courts.

However, in certain situations the notice time limitation may not be strictly enforced. If the owner has actual or imputed knowledge of the extra work being performed and the contractor's anticipation of payment for the work, formal notice may have been waived. Also, if the contractor was induced to do extra work by a promise of the owner's representative that he or she would process the proper papers to compensate the contractor for the extra work, relief may be granted. Likewise, late notification may not affect the contractor's rights if the contractor can show that the owner is not prejudiced by the delay in notification.

5. CONTRACTOR'S REMEDIES

If the contractor believes that actions or inactions by the owner represent a constructive change, the contractor should send letters to notify the owner of all owner-caused impacts. The contractor should document any owner-caused cost and schedule impacts. Finally, the contractor should maintain a log of documents sent to the owner for review, notify to the owner when time requirements are not met and record the actual dates that the documents were returned. While the contractor may not be able to prevent constructive changes by the owner, these simple actions by the contractor can mitigate the impact of constructive changes and help to secure the contractor's right to recover damages.

6. CONCLUSION

Constructive changes are a common cause of construction claims. If the owner's actions or inactions require the contractor to implement changes, the owner is obligated to pay for those changes even though the changes were not formally directed. In order to establish its right to claim additional compensation for constructive changes, the contractor must notify the owner in a timely manner that a changed condition has occurred.

Constructive Changes

If the prevalence of the "changes" clause in construction contracts today is a recognition of the inevitability of changes in virtually all construction undertakings, then the constructive change doctrine may be seen as an acknowledgement that frequently – for a myriad of reasons – a change in the value of the work performed or in the time required to perform it will not be memorialized in the formal, written change order contemplated by that clause. In such a case, the courts may provide a remedy.

About the Author

Richard J. Long, P.E., P.Eng., *is Founder of Long International, Inc. Mr. Long has over 50 years of U.S. and international engineering, construction, and management consulting experience involving construction contract disputes analysis and resolution, arbitration and litigation support and expert testimony, project management, engineering and construction management, cost and schedule control, and process engineering. As an internationally recognized expert in the analysis and resolution of complex construction disputes for over 35 years, Mr. Long has served as the lead expert on over 300 projects having claims ranging in size from US$100,000 to over US$2 billion. He has presented and published numerous articles on the subjects of claims analysis, entitlement issues, CPM schedule and damages analyses, and claims prevention. Mr. Long earned a B.S. in Chemical Engineering from the University of Pittsburgh in 1970 and an M.S. in Chemical and Petroleum Refining Engineering from the Colorado School of Mines in 1974. Mr. Long is based in Littleton, Colorado and can be contacted at rlong@long-intl.com and (303) 972-2443.*