DELEGATION OF DESIGN TO THE CONTRACTOR: SHOULD THE CONTRACTOR "PLAN" FOR PROBLEMS?

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1. What is "Design Delegation"?

"Design delegation" is the shifting of various design responsibilities to the GC, outside of a formal Design-Build Contract, by way of the contract, specifications, or directives of the Owner, all of which result in exposure to the GC when the delegated design is a problem, or is perceived to be a problem.

2. Where does Design Delegation show up?

a. <u>Affirmative obligation on the GC to review plans and specifications and report errors</u> and defects:

AIA A201 2007 Article 3.2.2 <u>does not</u> improperly shift design responsibility to the GC where it requires:

[T]he Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner... take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies with the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

However, modified versions of this provision may:

[. . .] any errors, inconsistencies or omissions discovered . . . shall be reported promptly to the Architect . . . Having discovered such errors, inconsistencies or omissions, or if by reasonable study of the Contract Documents the Contractor should have discovered such, the Contractor shall bear all costs arising therefrom.¹

b. <u>Affirmative obligation on the GC or Construction Manager for Design Review or</u> Constructability Analysis:

- i. Coghlin Electrical Contractors, Inc. v. Gilbane Building Co., et al, No. 2013-1300-D (Mass. Sup. Ct., June 24, 2014)
 - In Coghlin, the contractor, Gilbane, contracted with the Massachusetts Division of Capital Asset Management and Maintenance (DCAMM) for the construction of a psychiatric facility and for preconstruction services. DCAMM contracted separately for design services, and Gilbane's involvement in design was limited to review of design documents prepared by DCAMM's designer. The contract specifically stated that in reviewing the design, Gilbane did not assume the **Designer's responsibility for design.** Gilbane subcontracted the electrical work on the project, to be done in accordance with the drawings and specifications prepared by DCAMM's designer, to Coghlin Electrical Contractors, Inc.. Coghlin submitted design change order requests to Gilbane, Gilbane submitted them to DCAMM, and DCAMM passed them along to their designer. Issues arose and a lawsuit was filed, and all parties were unable to resolve their claims in mediation. Coghlin sued Gilbane, and Gilbane asserted a third-party complaint against DCAMM for recovery of all change order claims based on the implied warranty that arose from the plans and specifications the owner provided.²
 - The Superior Court ultimately dismissed the third-party complaint. In doing so, the Superior Court found that Gilbane's contract was a CM at Risk, contracts that are an "alternative delivery method" from traditional design-bid-build methodology. The Court held that, unlike the traditional design-bid-build delivery method, the owner has contracted with the CM at Risk before the design is completed, "to involve the CMR contractor in project planning and to benefit from the CMR contractor's expertise during the design phase of the project." The

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¹ Contract language quoted from Michael P. Sams's article, Who Says that There Is No Risk for the General Contractor or Construction Manager?, in the June 2015 edition of For the Defense.

² See infra for a discussion of The Spearin Doctrine, recognized in Massachusetts.

Superior Court noted that, with the "added duties and responsibilities" placed on the CM at Risk comes "additional financial exposure for the Construction Manager in the event that something goes wrong, including, . . . the broad obligation to indemnify and defend the Owner[.]" The Superior Court ultimately held that the CM at Risk contract provided the following contractual design responsibilities:

"The CM shall review, on a continuous basis, development of the Drawings; Specifications and other design documents produced by the Designer. The design reviews shall be performed with a group of Architects and Engineers, who are either employees of the CM or independent consultants under contract with the CM [T]he CM shall review the design documents for clarity, consistency, constructability, maintainability/operability and coordination among the trades "

c. Affirmative obligation on GC to prepare detailed shop drawings and submittals

- Olson Plumbing & Heating Co. v. U.S., 221 Ct. Cl. 197, 602 F.2d 950, 26 Cont. Case. Fed (CCH), 1975 WL 1968 (N.A.S.A.B.C.A. 1975).
 - In Olson Plumbing, the contractor was responsible for installing a high-temperature hot water line encased in fiberglass-reinforced plastic (FRP), a new product at the time the project was awarded, at the United States Air Force Academy. The design specifications supplied were incomplete, and the omitted details had to be provided by the contractor's supplier. However, instead of choosing the supplier the government obtained the specifications from, the contractor awarded the contract to a competitor. After experiencing damage and leaks to the conduit, the contractor claimed that the specifications were impossible to perform without changes in the scope of the work and refused to go forward with the work or the government's suggested repairs unless the government or their supplier design could guarantee the success of the repairs. The government terminated the contract and assessed liquidated damages.
 - The Court held that the government was within its rights to terminate
 the contract, since it was the contractor who bore the design risk. The
 contract specifically placed responsibility on the contractor to provide
 part of the specifications for the conduit in the shop drawings:
 - Detail drawings of systems not completely identifiable by information submitted in the materials schedules shall be submitted to the contracting officer within 20 days after the date of notice to proceed Approval of such drawings shall not relieve the contractor of the responsibility for any error which may exist as the contractor shall be responsible for the dimensions and design of adequate connections, details and satisfactory construction of all work.
 - The Court held that the contract language expressly delegated design responsibility, requiring the contractor to be responsible for the

- dimensions and design of adequate connections and details to be accomplished through the Contractor's shop drawing process.
- ii. Appeal of Poole & Kent Corporation-Washington, 75-1 B.C.A. (CCH) 11186, 1975 WL 1919 (Veterans Admin. B.C.A. 1975).
 - In *Poole & Kent*, a contractor was awarded a project to supply two compressors, heavy four-inch thick concrete pads for mounting the compressors, vibration eliminators, and related electrical and piping hook-ups. While the engineering plans supplied by the government provided some design on certain aspects of the concrete pads (e.g., 4 inches thick), the contractor was forced to design the pads so as to contain the suppression equipment and effectivity anchor it in place. Except for excessive vibration of the compressors, the contract was essentially complete by the revised contract completion date. However, the vibration problem was not remedied until 161 days after the revised completion date. The contractor requested extensions of time for the entire 161 days, which the Government denied and withheld liquidated damages.
 - The Appeals Board agreed with the government, and found that
 because the contract required the contractor to "furnish all labor,
 materials, drawings, services, and connections necessary to produce
 systems or equipment which are completely installed," the contractor
 was responsible for the design of the concrete equipment pad.
- iii. Waggoner v. W&W Steel Co., 1982 OK 141, 657 P.2d 147, 151 (Okl. 1982).
 - In Waggoner, a construction worker died when high winds caused the structural steel he was working on to collapse before it could be properly secured. The administrator of the worker's estate sued the architect for alleged negligent design in performing its review of shop drawings on the theory that design professionals are responsible for ensuring that their designs provide adequate structural support during construction. The Court was called to interpret contract language requiring contractor to perform coordination services through preparation of coordination drawings.
 - 4.3.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, and sequences and procedures and for coordinating all portions of the Work under the Contract.
 - 4.13.4 By approving and submitting Shop Drawings and Samples, the
 Contractor thereby represents that he has determined and verified all
 field measurements, field construction criteria, materials, catalog
 numbers and similar data, or will do so, and that he has checked and
 coordinated each Shop Drawing and Sample with the requirements of
 the Work and of the Contract Documents.
 - 4.13.5 The Architect will review and approve Shop Drawings and Samples with reasonable promptness so as to cause no delay, but only

for conformance with the design concept of the Project and with the information given in the Contract Documents. The Architect's approval of a separate item shall not indicate approval of an assembly in which the item functions.

- The Court held that the contract vested responsibility with the contractor, not the architect, to "see that the shop drawings included provisions for temporary connections which fall into the categories of 'field construction criteria', 'construction means, methods, techniques, sequences and procedures'." The Court found that the shop drawings were submitted to the architects for approval "only for conformance with the design concept of the project and with the information given in the Contract Documents."
- iv. D.C. McClain, Inc. v. Arlington County, 249 Va. 131, 452 S.E.2d 659 (1995).
 - In *D.C. McClain*, the contractor entered into contract with a county to construct a single-span, cast-in-place, post-tensioned bridge. Among other problems, the contractor asserted that it discovered numerous design errors during construction of the bridge related to elevation discrepancies. According to the contractor, these design deficiencies caused the contractor to incur additional costs. Among other demands, the contractor refused to complete the bridge unless the county issued a change order for these additional costs. The county refused to comply, and the contractor terminated and sued.
 - The contract stated:
 - The Contractor shall carry out the Work in accordance with the Drawings and Specifications. The measurements and dimensions shown on these drawings shall be verified at the site by the Contractor. The contractor shall be responsible for all dimensions and coordinated execution of the Work.... Where there are discrepancies in the contract documents [the Contractor shall] notify the Engineer before proceeding with the Work.
 - The County asserted that this provision absolved it of liability for the alleged design deficiencies, and the Court agreed and found that "the contract plainly required that [the contractor] verify the measurements and dimensions shown in the drawings before commencing construction," which the contractor failed to do.
- d. Affirmative obligation on GC to perform Coordination services or Coordination drawings
 - Appeal of Piracci Const. Co., 74-1 B.C.A. (CCH) 10597, 1974 WL 1417 (Gen. Services Admin. B.C.A. 1974).
 - In Piracci a contractor entered in to an agreement to construct a donutshaped structure supported by four large, sculptured, flaring columns which faced into the interior court. During construction, the contractor interpreted the architectural drawings as requiring the placing of tendons and rebar in a certain manner. The government disagreed, and

required it to be redone. The contractor made a claim under the contract for costs incurred in coordinating the additional design effort, plus an extension of time in the amount of 30 days. The government argued that the contract drawings clearly required the work to be done as demanded, and that any difficulties in tendon and rebar placement experienced by the contractor and its subcontractors resulted from their failure to meet its coordination responsibilities as required by the contract. The contracting officer denied the claim, and the contractor appealed.

- The contract required that:
 - The Contractor shall check the drawings and schedules, shall coordinate them (by means of coordination drawings wherever required) with the work of all trades involved before submission and shall indicate thereon his approval. Drawings and schedules submitted without evidence of the Contractor's approval may be returned for resubmission.
- The Board agreed and found that the contract language clearly stated that the contractor "was responsible for correlating rebar and tendon placement in detailed, coordinated shop drawings."
- ii. Waggoner v. W&W Steel Co., 1982 OK 141, 657 P.2d 147, 151 (Okl. 1982).
 - See supra at 2(c)(iii).
- e. <u>Contractual provisions requiring GC to review, ascertain and report ambiguities in</u> contract
 - Interstate General Government Contractors, Inc. v. Stone, 980 F.2d 1433, 38 Cont. Cas. Fed. (CCH) 76446 (Fed. Cir. 1992).
 - Recognizing the patent ambiguity doctrine, an exception to the general rule that ambiguities are construed against the drafter. Where an ambiguous term is **patent**, the contractor has an affirmative duty to inquire as to the correct meaning of the **patently** ambiguous term(s) prior to submitting its bid, regardless of the reasonableness of the contractor's interpretation of the ambiguous term(s).³
- f. Performance Specifications vs. Design Specifications
 - i. What is the difference?
 - [D]esign specifications set forth in precise detail the materials to be employed and the manner in which the work is to be performed, **from which the contractor is not privileged to deviate** . . . , but is required to follow . . . as one would a road map. *Aleutian Constructors v. United*

³ "[W]hether an ambiguity is patent [is determined by courts] on a case-by-case basis . . . and such a determination raises a question of law. A patent ambiguity has been described as "glaring," "obvious" or "gross," and found in "facially inconsistent provisions," or where the disputed terms are strewn throughout the contract. P.R. Burke Corp. v. United States, 47 Fed. Cl. 340, 352 (2000) aff'd, 277 F.3d 1346 (Fed. Cir. 2002) (internal citations omitted)

- *States*, 24 Cl. Ct. 372, 378 (1991) (internal citations and quotations omitted) (emphasis added).
- [P]erformance type specifications set forth an objective or standard to be achieved . . . , requiring the contractor to exercise its ingenuity in achieving the standard of performance, in selecting the means, and in assuming a corresponding responsibility for that selection. *Id*.

ii. Why is the distinction important?

- Construction contracts usually contain both design and performance specifications. *Id.* However, contractors are entitled to rely on **design specifications** because "they **contain an implied warranty** that if they are followed, an acceptable result will be produced." *Id.* In contrast, performance specifications do not give rise to an implied warranty because they "require[] the contractor to use its own expertise and ingenuity...." *Id*, 24 Cl. Ct. at 379.
- Under performance specifications, the contractor essentially assumes the role of designer with respect to a certain element of a project.

iii. Example:

- In Aleutian Constructors, the construction contract required the installation of a roof that could withstand 80 p.s.f. of wind uplift. Id., 24 Cl. Ct. at 375. The general contractor suggested its own design for meeting this requirement, which was accepted by the owner and ultimately failed. Id. at 380. The Court held that the contractor was not entitled to the benefit of an implied warranty from the design it was provided because the contractor undertook the design of that portion of the work. Id.
- g. Field Changes where Contractor is directed to provide an engineered solution

3. What problems occur for GC through Delegated Design?

a. Liability exposure (i.e. cost of repair and replacement of faulty system or work) possibly uninsured.⁴

⁴ General Liability Coverage will typically exclude coverage for design issues. A separate Contractor's Errors and Omissions Policy may pick up some coverage for these type issues. See brochures attached. Thanks to Mike Link, Wells Fargo Insurance Services in Charlotte, NC (mike.link@wellsfargo.com) for these materials. Design may not be covered by a surety bond, the following is an example of a contract provision confirming the understanding between the principal and the beneficiary that the bond does not protect the beneficiary from design errors by a design-builder: "The bond does not cover any responsibility for negligence, errors or omissions in design, or warranty of design. Coverage under the bond is limited to only the construction phase and post-construction phase of the contract. The bond premium is based only upon the value of the construction and post-construction phase of the contract and not upon the design aspect of the contract. Carl J. Circo, Contract Theory and Contract Practice: Allocating Design Responsibility in the Construction Industry, 58 Fla. L. Rev. 561, 615-16 (2006).

 Loss of Protection through Spearin Doctrine, which protection is often the GC's best friend in defending a claim of defective work, or prosecuting affirmative claims for time & money

i. What is the Spearin Doctrine?

In 1918, the United States Supreme Court held that an owner who
provides drawings and specifications to a contractor has impliedly
warranted that the plans are accurate and suitable for their intended
purpose if the contractor builds per the drawings and specifications.⁵
Since that time, this or similar doctrines have been adopted across the
United States.⁶

ii. Spearin Doctrine as a sword – Your bad plans cost me money!

• The contractor can use the Spearin Doctrine for claims for additional time and recovery of costs incurred, even without a right to do so under the contract, where an inadequacy in the design results in delay, disruption, or additional cost to the contractor. Battle Ridge Co. v. N.C. Dep't of Transp., 161 N.C. App. 156, 160, 587 S.E.2d 426, 429, disc. rev. denied, 358 N.C. 233, 594 S.E.2d 191 (2003); Gilbert Eng'g Co. v. City of Asheville, 74 N.C. App. 350, 328 S.E.2d 849, disc. rev. denied, 314 N.C. 329, 333 S.E.2d 485 (1985).

iii. Spearin Doctrine as a shield – I just built what he designed!

- Where the contractor constructs the improvement in accord with the drawings and specifications, they will not be held liable for the consequences of defects in the plans and specifications.
 - HOWEVER: If the contractor does not comply with the drawings and specifications, the contractor has assumed the risk of such deviations and guaranteed the suitability of the work. Burke County Public Schools Bd. of Ed. v. Juno Const. Corp., 50 N.C. App. 238, 273 S.E.2d 504 (1981).
- iv. How is Spearin Doctrine impacted by delegated design?
 - Coghlin Electrical Contractors, Inc. v. Gilbane Building Co., et al, No. 2013-1300-D (Mass. Sup. Ct., June 24, 2014)

⁵ U.S. v. Spearin, 54 Ct. Cl. 187, 248 U.S. 132, 39 S. Ct. 59, 63 L. Ed. 166, 42 Cont. Cas. Fed. (CCH) P 77225 (1918).

⁶ North Carolina has expressly adopted the Spearin Doctrine. <u>Burke County Public Schools Bd. of Ed. v. Juno Const. Corp.</u>, 50 N.C. App. 238, 273 S.E.2d 504 (1981). Similarly, under South Carolina law, "if a party furnishes specifications and plans for a contractor to follow in a construction job, he thereby impliedly warrants their sufficiency for the purpose in view." <u>Hill v. Polar Pantries</u>, 219 S.C. 263, 271, 64 S.E.2d 885, 888 (1951); <u>see also APAC-Carolina, Inc. v. Towns of Allendale & Fairfax, S.C.</u>, 868 F. Supp. 815, 825 (D.S.C. 1993) (extending <u>Hill</u> to the plans and specifications given by a contractor to a subcontractor) <u>aff'd sub nom. APAC Carolina, Inc. v. Town of Allendale, S.C.</u>, 41 F.3d 157 (4th Cir. 1994)

- As previously discussed *supra*, Gilbane contracted with DCAMM for construction and preconstruction services, which the Superior Court found was a CM at Risk contract.
- The Superior Court found that CM at Risk contracts place on the CM at Risk "additional financial exposure for the Construction Manager in the event that something goes wrong, including, . . . the broad obligation to indemnify and defend the Owner[.]"

 The Superior Court held that, "[g]iven the material changes in the roles and responsibilities voluntarily undertaken by the parties in a modern CMR contracts [sic], the protections that Massachusetts courts historically have extended to construction contractors in the traditional design-bid-build context . . . simply are inapplicable to such contract." In doing so, the Superior Court held that the Spearin Doctrine does not apply in the CM at Risk model.

4. What defenses exist for GC where design delegation has occurred?

- a. Owner or Owner's designer approved GC design—does that bar a claim for a defective design? Maybe yes, maybe no:
 - i. Does not bar claim
 - Waggoner v. W&W Steel Co., 1982 OK 141, 657 P.2d 147, 151 (Okl. 1982).
 - Submittal of shop drawings to architect was for approval only and not for conformance with design concept; duty was on contractor to see shop drawings included provisions for temporary connections. See supra at 2(c)(iii).
 - D.C. McClain, Inc. v. Arlington County, 249 Va. 131, 452 S.E.2d 659 (1995).
 - Engineer was not responsible for approval of shop drawing detailing method for post-tension bridge because "the contract plainly required that [the contractor] verify the measurements and dimensions shown in the drawings before commencing construction," which the contractor failed to do. See supra at 2(c)(iv).
 - Appeal of Mercury Const. Corp., 80-2 B.C.A. (CCH) 14668, 1980 WL 2708 (Armed Serv. B.C.A. 1980).
 - Approval by government inspector must be authorized by contract documents to relieve contractor of responsibility.

- *Johnson v. Salem Title Co.*, 246 Or. 409, 425 P.2d 519 (1967).
 - Duty to meet minimum safety standards of the building code are non-delegable.

ii. Bars claim

- Toombs & Co., Inc. v. U.S., 4 Cl. Ct. 535, 31 Cont. Cas. Fed. (CCH) 72149 (1984) aff'd, 770 F.2d 183 (Fed. Cir. 1985).
 - Approval of shop drawings held to incorporate shop drawing details into owner's implied warranty of design adequacy
- Henningson Durham & Richardson v. Swift Bros. Constr. Co., 739 F.2d
 1341 (8th Cir. 1984).
 - o A contractor can be held not liable if the architect has approved.
- b. <u>Design delegation contrary to law prohibits delegation to non-professionals</u>
 - Duncan v. Missouri Bd. For Architects, Professional Engineers and Land Surveyors, 744 S.W.2d 525, 527 (Mo. Ct. App. E.D. 1988).
 - Revocation of engineer licenses by Board affirmed because the statute imposes a non-delegable responsibility for design of connections on the engineer.
 - ii. Johnson v. Salem Title Co., 246 Or. 409, 425 P.2d 519 (1967).
 - Duty to meet minimum safety standards of the building code are nondelegable.
 - State Bd. Of Registration for Professional Engineers v. Rogers, 239 Miss. 35, 120So. 2d 772 (1960).
 - Chapter establishing responsibility of a certified engineer when he undertakes a professional contract creates a non-delegable duty of responsibility for projects to which he affixes his seal.

5. What should the GC do to protect itself?

- a. Written notice to Owner and disclaimers as to how proposed system interacts with broader design intent
- b. Pass liability down to subcontractors
- c. Insure against exposure