



## Passing the Design Ball

### Delegated Professional Design – Part 2

by Kevin O'Beirne, PE, FCSI, CCS, CCCA, CDT

*This is the second of a two-part article on delegated designs.*

*Part 1, addressed what is delegated design, where requirements for it are located in construction documents and presented standard AIA and EJCDC language, addressed laws and regulations governing delegated designs, and presented considerations for broaching with the owner the concept of delegated design.*

### How to Delegate a Design

When the owner is on board with the concept of delegating the design of some specific element of the project to a contractor-hired designer, the process of the design professional's preparation of the associated drawings and specifications commences.

Arguably, the most-important activity in this phase is for the design professional to clearly indicate in the construction contract documents those project element(s) for which design responsibility is delegated. This is commonly done in Paragraph 1.1.A ("Section Includes") of the specifications section in which requirements for the subject work are indicated. As discussed below and in this article's Part 1 section



*Russell Westbrook of the Oklahoma City Thunder knows how to pass, but not much about delegated design (photo from [www.cheatsheet.com](http://www.cheatsheet.com))*



titled, "Contract Requirements for Delegated Design", other provisions in the same specifications section are also usually necessary to clearly communicate the delegated design responsibility.

The full extent of the delegated design must be clearly indicated in the construction contract documents. If it's not, the owner and design professional may have a contractor-submitted change issue or claim.

Furthermore, and perhaps just as important, is clearly indicating in the contract documents responsibility for potential design or construction changes associated with how and where the delegated design physically and electrically connects to project elements designed by others, such as the owner-hired design professional.

A common example observed many times by this writer is pre-engineered metal buildings, which are typically delegated designs, but are erected on a concrete foundation typically designed by the owner-hired design professional. Because there are many ways the metal building can be designed, there are a corresponding number of different building reaction forces to be accounted for in the foundation design. The metal building designer has many options for how the building may be anchored to the foundation. Properly accounting for these in the



*Erection of a pre-engineered metal building*

drawings and specifications prepared by the design professional is challenging, without tossing the design of the entire foundation to the metal building supplier, which would be unusual. Thus, the building's reaction forces assumed by the design professional in its foundation design need to be indicated in the construction contract documents, and other provisions are often necessary in the metal building specifications to address responsibility for changes that may be necessary to the concrete foundation based on the building's final design.

Continuing with the pre-engineered metal building example, simply working during the design stage with the specified building manufacturers may be insufficient. There are many designers employed by such manufacturers and design is unique to the individual; often two designers will produce different designs, both of which accomplish the same overall purpose. An owner-hired design professional cannot be assured that the same metal building designer with whom they consulted during the project's design stage will be the same individual who actually designs the metal building after the subcontract is awarded. Thus, the drawings and specifications for the metal building system, prepared by the owner-hired design professional, must be carefully and properly worded.

Further exploring the metal building example, during construction, it is often necessary for the owner-hired design professional to be aware of the potential for coordination problems between the metal building supplier and the concrete foundation—despite the common contractual obligation for the contractor to coordinate the work of its subcontractors and suppliers. Vigilance and clear, written and oral communication by the design professional are necessary in situations where the delegated design physically or electrically connects to project elements designed by the owner-hired design professional.



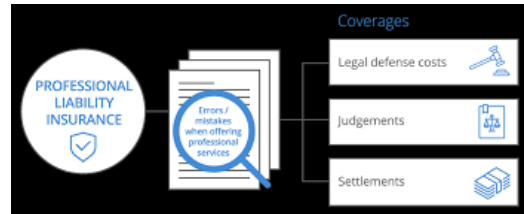
*A completed pre-engineered metal building*

Pre-engineered metal buildings can be very simple or large and complex. The larger and more-complex the delegated design, the greater the information needed to be shown or indicated in the construction contract documents to properly communicate the performance and design criteria the delegated design must satisfy. For increased fairness for the various alternative suppliers, subcontractors, and designers that will be retained by the contractor, appropriate information should be shown and indicated, but without over-specifying or unnecessarily restraining the delegated designer's hands. In short, it's a delicate balancing act and the onus

is on the owner-hired design professional to do it adequately and correctly. After all, the design professional is ultimately responsible for the proper design of the overall project.

## Professional Liability Insurance

Where the construction contract requires delegated design or the contractor’s retaining of a licensed designer for temporary facilities such as excavation supports or excavation dewatering systems (temporary facilities are typically not, however, delegated design), it is appropriate for the construction contract documents to specify required professional liability insurance to be obtained by either the contractor or its subcontracted designer. Sample construction contract language for professional liability insurance is as follows:



AIA® A101™—2017, *Exhibit A, Insurance and Bonds*, includes:

**§ A.3.2.8** If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

**§ A.3.2.10** Coverage under Sections A.3.2.8 and A.3.2.9 [*pollution liability insurance*] may be procured through a Combined Professional Liability and Pollution Liability insurance policy, with combined policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

EJCDC® C-800—2018, *Supplementary Conditions of the Construction Contract*, includes:

- N. Contractor’s Professional Liability Insurance:** If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall cover negligent acts, errors, or omissions in the performance of professional design or related services by the insured or others for whom the insured is legally liable. The insurance shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. The retroactive date on the policy shall pre-date the commencement of furnishing services on the Project.

Contractor’s Professional Liability	Policy limits of not less than:
Each Claim	\$
Annual Aggregate	\$

**[EJCDC] Guidance Note—Combining Contractor’s Pollution and Professional Liability Policies:** Contractor’s pollution liability and contractor’s professional liability policies are sometimes sold as a hybrid or combined policy. If after receiving the advice of its risk managers the Owner concludes that it is an acceptable alternative for Contractor to provide such a combination policy, Paragraphs SC-6.03.N [above] and O [regarding pollution liability insurance] should be combined, with the required policy limits for a combination policy stated in a single table in the combined paragraph.

## Specifying Submittals for Delegated Designs

The associated specifications section should indicate all the required submittals for the delegated design that the design professional believes are necessary for the review purposes discussed in this article’s next section.

CSI *SectionFormat—2007* and CSI's *Practice Guides* suggest that contractor-furnished submittals should be apportioned into categories: "action submittals", "informational submittals", "closeout submittals", and "maintenance material submittals". In which category are delegated design submittals, and why?

Both AIA A201—2017 Section 3.12.10 and EJCDC C-700—2018 Paragraph 7.19, both presented in Part 1 of this article, refer to the architect or engineer "approving" delegated design submittals, which appears to imply that they should be action submittals. However, as discussed in this article's section on reviewing delegated design submittals, delegated design submittals are a special type of "action submittal" and need to be reviewed and processed accordingly.

Typically, "action submittals" are those submittals that must be approved by the design professional before the associated items can be released for fabrication and shipment to the construction site. Submittals of delegated design drawings, design specifications, and calculations are certainly in this category. For readers who object to classifying them as action submittals, a key element in managing the owner-hired design professional's risk is the proper, limited review of delegated design submittals and having a design professional's submittal review stamp specific to delegated design submittals.



However, as discussed in greater detail in this article's section on reviewing delegated design submittals, this writer recommends that shop drawings, product data, certifications, and possibly certain other submittals for the delegated design be classified as "informational submittals". In contrast, shop drawings and product data for non-delegated designs are almost always action submittals.

## Specifications for Delegated Designs

CSI *SectionFormat—2007* appropriately describes delegated design submittals as:

"[Delegated design submittals are] submittals intended to demonstrate design work prepared by the Contractor's licensed professional. [The specifier should] Describe [in the specifications] the nature of the submittals without repeating the design criteria (which should be specified in the appropriate Articles in Part 2) or the qualifications of the Contractor's licensed professional (which should be specified in "Quality Assurance" [in Part 1 – General]).

"If necessary, identify the action to be taken on the submittal. This action may vary significantly depending on applicable regulatory requirements and on the provisions of the project Owner-A/E Agreement. Coordinate with procedures for deferred approvals, if any. Note that all delegated design is not necessarily subject to deferred approval."

When the work under a given specifications section includes delegated design, appropriate qualifications and requirements for the contractor-hired designer should be indicated in the specification section's "Part 1 – General" article on quality assurance; example language drafted to coordinate with EJCDC C-700 is:



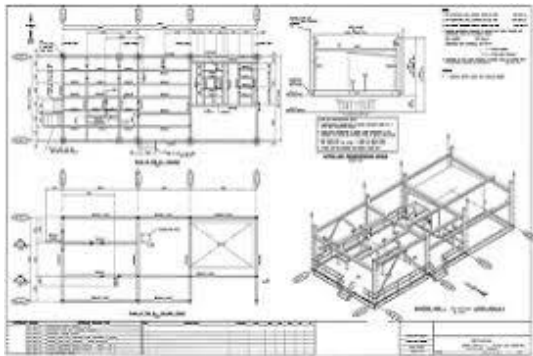
- 9) Submitting through Contractor to Engineer written, signed, and sealed certification that the installed delegated design Work complies with Contractor's professional engineer's design and is substantially complete.

The specifications for project element(s) for which design is delegated should be performance specifications. Specifying using other methods, such as descriptive specifying, reference standard specifying, and proprietary specifying, should typically be avoided by the owner-hired design professional in delegating designs, lest the responsibility for the design be inadvertently shared with the contractor-hired designer and to avoid unnecessarily constraining the designer. Laws, rules, or regulations governing delegated designs, such as those of New York, may explicitly require performance specifying. For additional guidance on performance specifying, refer to *CSI SectionFormat—2007* language on the "Part 2 – Products" provision titled, "Performance/Design Criteria", as well as Section 11.3.7.2 ("Performance Specifications") in the *CSI Project Delivery Practice Guide, 2nd Edition* (2018) and Chapter 3.1.2 ("Performance Specifications") of the *CSI Construction Specifications Practice Guide* (2011).

Specific requirements for the delegated design should be set forth at the locations indicated in the provision titled, "Contract Requirements for Delegated Design" in this article's Part 1 and, where appropriate, basic layouts should be shown on the drawings included in the construction contract documents.

## Reviewing Delegated Design Submittals

Delegated design submittals are where the rubber meets the road, as far as the owner-hired design professional is concerned. This aspect of properly handling a delegated design is fraught with potential pitfalls for the unwary owner-hired design professional.



Delegated design submittals often include design drawings, design specifications, calculations, certifications by the designer, shop drawings, product data, and possibly other submittals. To ensure clearly defined lines of professional liability, the design professional's review of delegated design submittals must differ from that of other, garden-variety shop drawings and other contractor's submittals. Delegated design submittals are to be reviewed by the design professional only for limited purposes, as discussed below.

For purposes of this article, delegated design submittals are divided into two subtypes: (1) design drawings, design specifications, calculations, and reports, and (2) shop drawings, product data, and certifications. The former are the contractor-hired designer's "instruments of service"—the representation of the delegated, final design. The latter (shop drawings, product data, certifications) are basically traditional construction submittals, albeit for the delegated design work.

Before the shop drawings, product data, and certifications for a delegated design are submitted to the owner-hired design professional, they must be reviewed and approved by both the contractor-hired designer and the contractor itself; the approval stamp of both entities should appear on each shop drawing, product data, and certification submitted for the delegated

design. Any shop drawing, product data, or certification submittal for delegated design work without the approval stamp of both the contractor and its designer should be returned by the design professional and should not be resubmitted or reviewed until these approvals are furnished.

Because shop drawings, product data, certifications, and quality control submittals for the delegated design already bear the approval stamp of the designer to which the design was delegated, it is unnecessary for the owner-hired design professional to treat them as “action submittals” (which typically require an explicit approval by the design professional). Instead, this writer suggests that such submittals be “informational submittals”, which are subject to mere “acceptance” by the design professional when they demonstrate compliance with the contract documents. This classification as “informational submittals” of shop drawings, product data, certifications, and quality control results that have already been approved by the designer should be taken into consideration when the design professional is drafting the submittals article in the specifications for the delegated design work.

The trickier type of delegated design submittals are the designer’s instruments of service— design drawings, design specifications, calculations, and reports that come with the designer’s seal and signature. Any such submittals that are delivered to the design professional without the designer’s seal and signature should be rejected and returned to the contractor.

When reviewing the designer’s submitted instruments of service, the design professional should be careful to review only for the limited purposes of verifying that:

- the submittal generally covers the scope of the delegated design work required by the contract documents;
- the designer’s instruments of service indicate compliance with the applicable performance and design criteria stated in the contract documents; and
- the delegated design is consistent with the design professional’s overall intent for the final project as a functioning whole.



The latter must be satisfied if the owner-hired design professional’s intent for the overall project is to be satisfied. If a reasonable evaluation of the delegated design submittals for compliance with the construction contract reveals they are inconsistent with the design professional’s overall design intent, then a change order to the contractor will likely be necessary.

In reviewing the designer’s instruments of service, the owner-hired design professional should generally not review things such as:

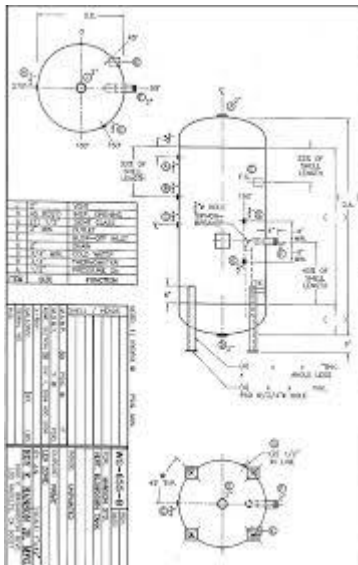
- Mathematical correctness of the designer’s calculations.
- Computational methodology used by the designer, unless the method is specified in the construction contract.
- Whether the contractor-hired designer used the appropriate version of the building code or other applicable code or design standard.
- Typographical errors, inconsistencies, or dimensional errors in the designer’s design drawings and specifications.
- Anything else other than the limited review, discussed above, to be performed by the design professional.



*Controlled-environment rooms are often delegated designs*

In reviewing delegated design submittals, the owner-hired design professional should bear in mind the axiom, “too many cooks spoil the broth.” Should the design professional review and comment on matters such as computational methods, math errors, or that an outdated edition of the building code was used, then it could potentially be interpreted that the design professional is performing

quality control on the designer’s instruments of service, thus creating the potential for blurring the lines of professional liability. There is no direct contractual relationship between the contractor-hired designer and the owner-hired design professional, so the design professional is not responsible for the designer’s instruments of service. It is best to act to ensure that there is a “bright line” between the designer’s professional liability and that of the owner-hired design professional.



Because delegated design instruments of service are a special type of action submittal that is fraught with potential liability for the owner-hired design professional, it is appropriate for the design professional to have a submittal review stamp (or stamp facsimile) specific to the unique needs of delegated design. The disclaimer language on the submittal review stamp should be consistent with the construction contract language on delegated design submittals. The following stamp, coordinated with EJCDC C-700—2018, may be appropriate for submittals of delegated design instruments of service:



- APPROVED
- APPROVED AS CORRECTED
- APPROVED AS CORRECTED – RESUBMIT
- REVISE AND RESUBMIT
- NOT APPROVED

Engineer’s action on this Submittal is subject to these notes.

Engineer’s review and approval of delegated design reports, calculations, design drawings, and specifications is only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents.

Review by Engineer of other delegated design Submittals is only for general compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents, and for general compliance with the information given in the Contract Documents. Contractor shall be solely responsible for complying with the Contract Documents, as well as with Supplier instructions consistent with the Contract Documents, Owner’s directions, and Laws and Regulations. Contractor is solely responsible for obtaining, correlating, confirming, and correcting dimensions at the Site; quantities; information and choices pertaining to fabrication processes; means, methods, sequences, procedures, and techniques of construction; safety precautions and programs incident thereto; and for coordinating the work of all trades.

Engineer is not responsible for resubmittals or tracking progress of resubmittals.

[*Design professional’s company name*]

Date: 12/10/2019 By: xxxx xxxxxx

### Gray Areas

During project implementation, there is sometimes a lack of clarity or “gray areas” about whether a certain matter is, or should be, a delegated design. These include: (1) design of temporary structures or facilities, (2) design of contractor-proposed substitutions submitted with an alternative design.

Because delegated designs typically apply only to some element of the completed project, the design of temporary facilities—whether scaffolding, support of deep excavations, temporary well systems for groundwater removal during construction, temporary bridges, and the like—is typically not delegated design.

Such systems are temporary, are removed prior to or at the end of construction, and will not be part of the completed project. In many cases, it is wise or perhaps even a statutory requirement for certain temporary facilities or systems to be designed by an appropriately-licensed, contractor-hired registered engineer or geologist;



and

at

however, the owner-hired design professional typically need not, and likely should not, indicate in the construction contract documents the performance and design criteria that temporary systems are to satisfy. Rather, such matters will depend in part on the contractor's means, methods, procedures, techniques, and sequences of construction.

This article's author has encountered numerous situations where a vital element of infrastructure was exposed and required temporary support during construction of other, adjacent work. For example, installing a large-diameter sewer in an urban area may require a



25-foot deep excavation in a street, thus necessitating a temporary support for, say, a 75-year-old, 36-inch diameter cast-iron water main believed to be in deteriorated condition. In such a situation, clearly both the project owner (a sewer utility) and the water main owner both strongly desire that the water main be adequately protected during construction, but by whom, and how? It would be reasonable in such situations to require in the contract documents that the contractor be required to retain a licensed, registered engineer experienced in designing similar work

to design the temporary supports for the water main. However, because the temporary supports are part of the contractor's means and methods, and are not part of the completed project, it may be appropriate for the owner-hired design professional to not receive, review, or file the designer's submittals for the temporary supports. It would, however, be appropriate to specify minimum qualifications for the contractor-hired designer of the temporary supports.

Another gray area is contractor-proposed substitutes submitted with an alternative design which is, admittedly, relatively rare. The preferred approach for contractor-proposed substitutions during construction is, where revision of the design is necessary, for the design professional of record to make the necessary revisions, to ensure consistent responsibility for the project's design. EJCDC C-700 addresses construction phase substitutes and requires that the contractor pay the owner's cost of engineering for reviews and design revisions, regardless of whether the substitute is ultimately approved. However, some contractors have submitted substitution requests complete with a new design for that element of the project.



*Communication towers are typically delegated designs*

When this is done, and the design professional and owner are strongly considering approving the substitute, and neither the contractor nor owner are open to the idea of having the owner-hired design professional revise the design (especially when the contractor has already paid a separate designer to do it), then it may be appropriate to deem the substitute design a delegated design and to so indicate it in the change order necessary to approve the substitute. In such a situation it would be necessary for the owner-hired design professional to indicate the performance and design criteria that the delegated design is to satisfy, to ensure that the delegated design is consistent with the completed project as a functioning whole. Such required performance and design criteria should be clearly communicated to the contractor and included in the associated change order.

There may be other gray areas as well. As with any unusual aspect of implementing a capital project, clear communication among participants, clear understanding of reasonable risk allocations, and clear lines of professional liability will do much to ensure that the risk to all participants is appropriate.

## Conclusions on Part 2

This article has addressed how to properly delegate design responsibility and prepare associated requirements in the construction contract, and addresses the significant pitfalls of reviewing delegated design submittals and handling gray areas when they arise.

Proper use of delegated designs in capital projects is a useful tool for managing project risk and capital cost, and for promoting innovation. However, delegated designs require greater care and understanding of roles and responsibilities, and have significant potential liability. The risks and liability can be significantly mitigated by following the recommendations presented in both parts of this article.

*This concludes the second of a two-part article on delegated designs.*

Text © 2018 by Kevin O'Beirne

The opinions expressed in this article are the author's alone and should not be attributed to any other individual or entity.



*Kevin O'Beirne, PE, FCSI, CCS, CCCA is a professional engineer licensed in NY and PA with over 30 years of experience designing and constructing water and wastewater infrastructure for public and private clients. He is the engineering specifications manager for a global engineering and architecture design firm. He is a member of various CSI national committees and is the certification chair of CSI's Buffalo-Western New York Chapter. He is an ACEC voting delegate in the Engineers Joint Contract Documents Committee (EJCDC) and lives and works in the Buffalo NY rea. [Kevin O'Beirne's LinkedIn page](#). (Author info updated in December 2019)*