Practical Impacts of Design-Build on the Design Engineer

Presented by:
Joseph C. Staak, Esq.
Smith, Currie & Hancock LLP
2700 Marquis One Tower
245 Peachtree Center Avenue, NE
Atlanta, GA 30303-1227
Tel: 404.582.8026
jestaak@smithcurrie.com
www.smithcurrie.com

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I. INTRODUCTION

Project delivery using Design-build has become increasingly popular over the last thirty years. Owners have recognized the advantages of using a single source of responsibility for a project’s design and construction. Many contractors have recognized the popularity of design-build and have made adjustments to their business model allowing them to offer this one-stop system for project delivery. Architects and engineers also recognize that, unless they want to avoid this ever growing segment of the project design market, they too must adapt to working directly with the contractor.

Nearly half of all commercial construction in the United States is being awarded using design-build as the project delivery vehicle, and the reasons are obvious. Owners perceive multiple advantages in using design-build. These advantages include, but are not limited to, a single source of responsibility for design and construction, the increased risk design-build transfers to the design-builder, the opportunity to fast track design and construction to reduce the time from concept to completion, and the owner’s ability to take advantage of the design-builder’s expertise in identifying design solutions.

Changes in public procurement during the last 20 years have precipitated an explosion in the use of design-build by government agencies. Until the 1990s, public procurement statutes required construction documents to be completed in advance of the procurement of construction services so that every bidder could price the exact same scope of work. The policy behind these competitive bidding statutes was to promote fairness and open competition in the award of public works projects. Under this “old school” low bid procurement system, any material deviation or departure from the bid documents would result in a bid being disqualified as non-responsive. There was no option to allow consideration of competitive proposals from separate contractors having different ideas on the best design solution for any project.

A majority of states have amended their public procurement statutes to allow use of design-build on public construction. These statutes depart from the old rule of low bidder wins, and authorize award to the proposer offering the “best value” for a project. This “best value” procurement is a flexible approach, giving the public agency more discretion in the award process and opening the door to design-build. Public owners now embrace design-build.
A. Design-Build Shifts the Risk of Design Errors to the Design-Builder

On traditional design-bid-build projects, responsibilities for design are kept separate from responsibilities for construction. The owner separately hires the designer and the contractor, which leaves the owner in a legal position between the two parties responsible for the success of the project. When disputes arise between the designer and contractor, the owner is effectively caught in the middle. In offering the designer’s construction documents to contractors for pricing, the owner warrants that those documents are reasonably free from defects and errors, and, that if the contractor follows the plans, the completed project will perform as intended. Contractors can bring claims against the owner for problems arising from the plans and are not responsible for unsatisfactory results so long as the plans are followed. The owner’s warranty to the contractor that the plans are adequate is known as the Spearin Doctrine in the legal community, after a 1928 United States Supreme Court decision.

When a contractor brings a defective design claim against the owner, the owner will have a pass-through claim against the designer. Owners can either bring a separate claim against the designer or join the designer in any legal proceedings the contractor may have initiated. The owner also has protection from any errors and omissions insurance the designer has. Nevertheless, with design-bid-build the owner cannot avoid direct entanglement in disputes between the designer and contractor over design issues.

Owners like design-build because it makes a single entity responsible for both design and construction. With design-build, owners can effectively remove themselves from the disputes that often arise between the contractor and designer. Whether the problem is design or construction, the responsibility is on the design-builder.

The single point of responsibility of design-build avoids an owner’s exposure to design errors specifically by giving the contractor (i.e., the design-builder) the responsibility to develop its own design. In developing its own design, the design-builder accepts all risks associated with problems with the design. If design problems arise it, is the design-builder’s responsibility to resolve them, at least as far as the owner is concerned. Resolution by the design-builder might include making design corrections, performing necessary rework and mitigating any delays.

This does not mean that design disputes go away, only that the owner typically is not involved in them. While design-build often is described as having a single team develop the design and perform the construction, design disputes can still arise. A design-builder who contracts with an independent designer likely will pursue the designer for any design defect claims, similar to the claims a contractor might bring against the owner in a traditional design-bid-build setting.
With design-build there is direct contractual privity between the contractor and the designer—a clear legal avenue to bring claims directly against the designer.

While design-build allows the owner to avoid design responsibilities, there still are design risks that the design-build team must deal with. The designer is still legally responsible for its professional negligence. However, as a practical matter and as will be explored in this paper, the dynamics of the legal relationship between designer and design-builder are far different than the dynamics of the relationship between owner and designer on traditional design-bid-build work.

B. Design-Build Allows Fast Track Completion of the Work

A major advantage to design-build is the design-builder’s ability to commence construction before the design is completed. This is often referred to as fast-track construction. In traditional design-bid-build construction, design and construction are segregated tasks taking place over separate periods of time. The owner hires the designer to develop the design and prepare the construction documents. Once the construction documents are completed, the owner advertises for bids and awards a construction contract. Construction can then proceed. Since the design process can take months or even years to complete, construction essentially is on hold while the design is being developed.

The only reason that construction waits in a design-bid-build setting is because traditionally there is no contractor until the design is completed. Design-build departs from this traditional arrangement by giving the construction entity responsibility and control over the design. Properly coordinated, there is no reason why field work cannot proceed as soon as a sufficient portion of the design is developed. Design-build not only allows for this fast tracking, it encourages it.

Accelerating job progress is the most visible difference between design-build and more traditional design-bid-build construction. It is not unusual for ground to be broken on design-build projects within weeks after the Project Criteria is agreed to between the owner and design-builder. Of course, how quickly a design-builder commences field work still depends on the nature of the project and the level of teamwork between the construction and design arms of the design-build entity. Where the design arm and the construction arm know, trust and understand each other and effectively communicate, the most success in speeding up the construction process can be achieved. Proper coordination, planning and teamwork on a fast track project can cut months, and potentially years, off the overall duration of a project.

An efficient design-build process will allow for an early work start even though many aspects of the design have yet to be completed. A design-build

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1 The only exceptions to this would be those instances where the design-builder used its in-house staff to prepare the design and construction documents.
entity has compelling economic reasons to adopt a design protocol that allows for phased completion of the design so construction can proceed at the earliest opportunity. Fast tracking naturally accelerates the project and reduces construction costs. Fast track construction is the best means to achieve the owner’s goals (to minimize costs and project duration) and the design-builder’s economic goals (to maximize profits).

Design-build can be a particular challenge for traditional designers used to working out the design details on all design elements before any work in the field is initiated. These traditional designers have the flexibility to go back and change or correct earlier design details based on subsequent design modifications without affecting field tasks. However, these are not strong reasons why a design should be fully developed before field work commences. On a typical project, proper design coordination allows site work, foundations, and structural erection to proceed while the design of those aspects that typically take longer (i.e., architectural & MEP) is still underway.

C. Design-Build Takes Advantage of the Design-Builder’s Ingenuity

In traditional design-bid-build construction, the contractor has no design input. The designer develops the design and construction documents with input only from the owner. The contractor is not identified until bidders are asked to submit bids for the construction of the completed design. A potential contractor is prohibited from providing any design input. It must bid the work reflected in the construction documents and is not allowed to suggest cost effective design alternatives. Any deviations from the bid design could result in outright rejection of the bid.

This traditional process fails to take advantage of the expertise and ideas that the contractors can bring to the table. Contractors can offer valuable input to the designer on value engineering, constructability issues, scheduling matters and material availability. Many astute owners and designers understand the value of a contractor’s input into the design effort. Construction management is a major project delivery vehicle that recognizes the value of contractor input and provides for the early involvement of a construction expert in the design process.

Design-build takes the construction manager concept one step further. Design-build creates a single team combining the A/E’s experience, technical expertise and ingenuity with the cost, construction and value engineering experience of the contractor. Under design-build, this team has the discretion to select systems, materials and general design approaches to maximize efficiency, function and cost. Having the contractor assisting in making design choices helps maximize overall value and provides the best chance for overall project success.

The most obvious example of the advantages created by a contractor’s input in the design process is its expertise in cost estimating, value engineering and identifying different solutions to minimize construction costs, while still
achieving the owner’s defined project goals. Contractors utilize different skill sets in evaluating design choices. The contractor arm of design-build generally is better equipped to accurately identify and assess alternative cost effective design solutions.

D. Other Advantages to Design-Build

Other perceived advantages to design-build include:

- Litigation is reduced. A closer working relationship between the contracting entity and the design entity improves communications and coordination, minimizes problems and reduces litigation.

- Change orders are reduced. One of the major reasons for change orders on any construction project involves design issues. Because the design-build entity is now responsible for the design, these changes are eliminated.

- More competitive pricing. Design-build takes advantage of the contractor’s ability to value engineer the project to reduce construction costs. In a competitive environment, this often results in better pricing to the owner.

E. Perceived Disadvantages of Design-Build

There are recognized disadvantages with design-build. Depending on the type of owner and the specific nature of the work involved, some projects may not be right for design-build. Of course, disadvantages differ depending on whether one is considering the interests of the owner, the design-builder, the designer or potential subcontractors.

When the owner announces his or her plans to use design-build, contractors and designers always need to make a realistic assessment of the risks associated with any specific project and be willing to abandon pursuing a project when risks grow too large.

A design-builder generally should try to avoid the following situations when considering design-build work:

1. **Contracting with the Wrong Type of Owner**

   In selecting a single entity responsible for both design and construction, the owner gives up the right to dictate the details of the design. Design-builders need flexibility and discretion to implement their own project plan so long as it is consistent with the terms of the contract. The design-builder develops its pricing based not only on the Project Criteria the parties negotiate, but also on a multitude of ideas, concepts and assumptions identified during proposal development and
contract negotiations. Once an award is made, the design-builder will want to implement these ideas, concepts and assumptions in seeing the project through.

Some owners don’t have the mindset to give the design-builder the design freedom design-build requires. Many owners want to maintain a hands-on approach during design to assure their project goals are satisfied. An owner who needs or wants to control or manipulate the details of the design is a poor choice as a contracting partner in design-build. Such owner involvement with design issues can create havoc with the process, and cause arguments, delays and claims. Such an owner would be far more satisfied with the design-bid-build system which gives the owner total discretion to develop the design the way it wishes. It is extremely important for any design-builder to do design-build work with the right type of owner. Successful owners in design-build understand that their design input primarily occurs when developing the Project Criteria prior to award of the design-build contract. A design-builder needs to carefully evaluate whether the owner it is negotiating with understands this, and therefore is a good candidate for design-build.

2. **Projects Containing Performance Guarantees**

Projects that require the design-builder to meet performance guarantees often should be avoided by all but the most sophisticated design-builders. Owners often want guarantees or warranties of performance, production, sustainability or efficiency. Promising to meet minimum performance requirements creates risks for the design-builder that must be carefully evaluated. Unless the design-builder specializes in achieving the specific performance standards the owner wants, these types of projects should be avoided.

Many industrial and commercial design-build projects with performance guarantees are successfully completed every year. Most EPC (Engineer-Procure-Construct) contracts have performance guarantees and are constructed design-build. However, the design-builders on these jobs have both design and construction expertise in the type of facility in question and generally can accurately assess the risks associated with owner performance requirements. Unless the design-builder specializes in the type of work required and is experienced in achieving the efficiency, sustainability or performance requirements the owner is demanding, the design-builder should probably avoid these projects.

3. **Unfamiliar Work Scopes**

Design-builders should avoid work they are not familiar with. Design-build clearly places more risks on the design-builder. The design-builder not only must identify and evaluate the risks, but also must be experienced to manage and minimize the risk. It is therefore not a good idea for a company to cut its teeth on unfamiliar work using design-build.
4. Unique Work Scopes

Design-build is not a good project delivery choice on projects with unique work scopes. Design-build is all about allocating most project risks to the design-builder and giving the design-builder the power and flexibility to control and manage the risk. For projects with unique or unusual work scopes, it is difficult to identify or assess risk, and thus it is difficult to manage and minimize the risk.

Projects with predictable work scopes (i.e., stand-alone chain retail facilities) often are the best candidates for design-build.

II. Legal Duties Owed by the Designer

Designers owe various legal duties depending on the general organization of the project and the contractual relationships of the parties. This section first reviews the legal duties designers owe on traditional design-bid-build projects and then evaluates how design-build alters how and to whom many of these same duties are owed.

A. Legal Duties Owed by the Designer on Design-Bid-Build Work

1. Duties Owed to the Owner

   a. The Duty to meet the Professional Standard of Care.
   The law obligates professional engineers and architects to meet the applicable standard of care when performing professional design services for an owner. The specific standard of care is typically defined by statute or by the common law (case law) of the jurisdiction state. In Georgia, for example, the applicable standard of care was defined in Mauldin v. Sheffer, 113 Ga. App. 874, 880 (1966) as follows:

   The law imposes upon persons of professional standing performing medical, architectural, engineering, and those performing other and like skilled services, pursuant to their contracts made with their clients, an obligation to exercise a reasonable degree of care, skill and ability, such as is ordinarily exercised under similar conditions and like circumstances by persons employed in the same or similar professions.

   Clients can sue the professional for damages caused by any failures to meet this defined standard of care.
b. **Express duties arising from contract.** In addition to the professional standard of care, the designer owes the owner any duties created by the contract between them. The parties are free to modify through their contract the generally applicable standard of care.

c. **Fiduciary duties owed to the owner.** Many states recognize that a professional engineer or licensed architect has fiduciary duties owing to an owner arising from the trust and confidence that the owner places in a design professional. The owner relies on the design professional to provide the technical expertise to implement the goals and wishes of the owner. In this fiduciary relationship, the professional owes the owner its utmost good faith in pursuing the interests of the owner above his or her own interests.

2. **Duties owed to the Public**

A professional designer owes duties to the public to meet applicable codes and to avoid creating hazardous conditions that reasonably could be expected to do harm. This duty usually arises from the language used in state licensing laws. For example, in Georgia the definition of professional engineering is expressly defined to include circumstances “wherein the public welfare or the safeguarding of life, health or property is concerned or involved. . . .” OCGA § 43-15-1. Moreover, OCGA § 43-15-24 states that a professional engineer must be involved in the development of any structure which by its nature “could adversely affect or jeopardize the health, safety, or welfare of the public . . . .” If an engineer’s judgment is overruled under circumstances where the safety, health or welfare of the public is endangered, he or she shall inform proper authorities and his or her employer. Ga. Admin. Rule 180-6-.02.

Professional engineers and architects may be sued by a member of the public who suffers harm as a result of any failure to protect the public. Depending on the circumstances, such a lawsuit may be based on negligence, breach of the standard of care, or failure to comply with applicable codes.

3. **Duties owed to the Contractor**

Under traditional design-bid-build, the designer does not have a direct contractual relationship with the contractor. The contractor therefore cannot bring a breach of contract action against the designer. Any contract action would be against the owner. The designer could only be joined in such a breach action by the owner through an allegation that any damages the owner may owe the contractor arise from the designer’s performance. Such third party actions can be based on contract, negligence, breach of the standard of care, or indemnity.
Contractors may have a direct legal action against the designer for claims arising from the designer’s construction documents depending on the jurisdiction state’s “economic loss rule.” The economic loss rule is a judicial rule which defines the circumstances of when a party that suffers economic losses in a commercial transaction can sue a person the party did not contract with. The rule depends in large part on whether the courts in that jurisdiction think that a party in a commercial setting should be limited to its contractual remedies.

Some states give contractors broad latitude to sue the designer for economic damages (i.e., cost overruns) caused by a defective design or unreasonable contract administration. Others strictly limit this right or prohibit it totally.

In Georgia, the only recognized cause of action that a contractor can bring against the designer is for the negligent preparation of information (i.e., plans) that the contractor thereafter relies upon in performing construction services. In other words, the designer owes a duty to the contractor not to make “negligent misrepresentations” in written information that the designer prepares when the designer has reason to know that the contractor will use and rely on the information. See, J. Kinson Cook of Georgia, Inc. v. Heery/Mitchell, 284 Ga. App. 552 (2007).

4. Duties Owed to Construction Subcontractors

Legal duties owed to any subcontractors would be essentially identical to the duties owed to the contractor as discussed above.

B. Legal Duties Owed by the Designer in Design-Build Work

Legal duties owed by the designer in design-build depend on the contractual arrangements and the position the designer occupies within the design-build team. Design-build comes in many forms and the designer’s involvement can vary significantly from project to project.

In design-build, the design-builder is commonly comprised of one of the following:

- A single company having both in-house construction and design capabilities. Many of the contractors on ENR’s Top 400 have large design departments and perform both EPC and design-build work using these in-house staffs;

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2 The economic loss rule does not apply when an accident occurs that causes personal injury or property damage. It applies to more intangible losses such as cost overruns, delays damages and the like.
A joint venture consisting of a design firm and construction firm (and possibly others). In this setting, some design and/or construction work may be subcontracted;

A construction contractor who subcontracts the design work. The contractor also may subcontract out specific portions of the field work;

A designer who contracts out the construction work

In some of these settings, a designer can effectively take on the status of “contractor” in the legal relationship with the owner. Designers must recognize when they are entering into the construction business. A designer’s status fundamentally changes to that of a contractor when it becomes the design-builder, or agrees to join a joint venture serving as the design-builder.

In the role of lead design-builder, the designer agrees to accept all the duties of the contractor in its relationship with the owner. Subcontracting the construction work will enable the designer to flow down those construction responsibilities to another. A properly drafted subcontract for construction services is crucial to adequately protect the designer. Such subcontracts must include appropriate flow down clauses, indemnification, insurance and surety bonds. However, even when the designer/design-builder subcontracts out the construction activities, as far as the owner and the law is concerned, the designer remains the contractor.

The designer also may partner in a joint venture formed to function as the design-builder. Under established partnership law, each joint venture member is jointly responsible for the liabilities of the venture. Thus, in a design-build joint venture between a designer and a contractor, even where each agrees to perform its own function, the design partner is jointly responsible for construction, and the contractor is jointly responsible for design. Of course, the joint venture agreement should provide for insurance and indemnification between the two partners so that the correct party ultimately bears the responsibility for its own work.

As a practical matter, the construction business is very different from design and has very different duties and risks. Construction issues that a designer has to consider and address when it agrees to act as design-builder include licensing, bonding, insurance, indemnity, safety, workers compensation, guarantees and warranties, means and methods, and the list will go on. It is therefore very important for the designer to understand and recognize the substantial differences in risks and responsibilities that are involved when it agrees to act as the design-builder.

For those designers that want to limit their design-build responsibilities to design only, the best position to be in is as a subcontractor to the design-builder.
for design services. A subcontract legally separates the designer from the design-builder and defines and limits the duties and responsibilities of the subcontractor.

Any discussion of the construction duties arising where the designer fills the role of “design-builder” deserves separate and detailed consideration. Therefore, for purposes of this article, and unless otherwise stated, it is assumed that the designer has a sub-consulting agreement with the design-builder solely for design services.

1. Duties Owed to the Design-Builder

   a. The Duty to meet the Professional Standard of Care. In design-build, the designer’s client is now the design-builder, not the owner. The designer must perform its professional services consistent with the applicable standard of care. The difference is that this duty is now owed to the design-builder as the client.

   b. Express duties arising from contract. The designer subcontracts with the design-builder for some or all of the design services. In addition to the professional standard of care, the designer owes the design-builder any specific duties arising from the written agreement between them.

   c. Fiduciary duties owed to the design-builder. While there is little case law on point, it should be anticipated that in those states where fiduciary duties arise in the owner/designer relationship, similar duties would also arise in the design-builder/designer relationship. The designer would owe the design-builder a fiduciary duty to do its utmost to protect the interests of the design-builder and to make every reasonable effort to make the design-build enterprise a success. This fiduciary duty could extend to the designer’s involvement with owner negotiations, with any preliminary design work to support the proposal, or in the final design services.

2. Duties Owed to the Public

   The designer’s duties to the public would be the same whether working in a design-bid-build project or in design-build.

3. Duties Owed to the Owner

   Contrary to what many designers believe, there may be no legal duties owed by a design sub-consultant directly to the owner. This will change if specific facts give rise to a duty. And owners would have rights as any member of the public to the extent the designer’s work causes harm.
The owner’s primary legal rights for design deficiencies are against the design-builder (not the designer). The design-builder has the direct contractual relationship with the owner for design (and construction) and owes the same legal duties as any designer would owe to someone it contracts with, including the obligation to meet the applicable standard of care, obligations arising from the contract, and potential tort (negligence) duties. To the extent the owner asserts claims for design problems, the design-builder would have a pass-through claim against the sub-consultant/designer.

Involvement in negotiations leading to the award of the design-build contract possibly can give rise to legal duties the designer would owe the owner. There are occasions where the designer will actively participate in discussions between the prospective design-builder and the owner over design matters, scope of work, processes, materials, equipment, etc. To the extent the owner relies on these recommendations in defining its Project Criteria and thereafter contracting with the design-builder, a cause of action could arise if the designer’s recommendations were negligently made. Reliance on information negligently provided is recognized as an exception to the economic loss rule in a number of states.

There is a lack of case law addressing other circumstances that would create a legal duty owed by a design subcontractor directly to an owner on a design-build project. The cases that do exist have unique factual settings that trigger direct liability. For example, in Professional Builders, Inc., v. Sedan Floral, Inc. 819 P.2d 1254 (Kan. App. 1991), the designer on a design-build job also was designated as the owner’s representative during construction of the project. This was due in large part to the parties’ decision to use standard AIA contract forms intended for design-bid-build construction. Regardless of the obvious conflict of interest on the part of the designer, the court recognized that once the designer agreed to act as the owner’s representative during construction, legal duties arose requiring the designer to act in the best interests of the owner.

Owners have tried to use an agency theory to sue the design subcontractor. For example, in Kishwaukee Community Health Services Center v. Hospital Building & Equipment Company, 638 F. Supp. 1492 (M.D. Ill. 1986), two employees of the engineer/designer participated directly with the design-builder in presentations to the owner during competitive negotiations. The owner later alleged that the design-builder and the individual engineers were jointly engaged in the design-build “enterprise” and acted as agents for each other. Even though there was a sub-consulting agreement identifying the designer as an independent contractor to the design-builder, the court allowed the owner to press its suit against the designer under an agency theory, essentially equating the designer and the design-builder as partners (much like a joint venture arrangement).
In most other situations it is doubtful whether an owner could sue a sub-consultant/designer for economic losses arising from design errors. The obstacles presented by the economic loss rule would prevent such an action. Moreover, there is nothing in state licensing regulations or in the common law that necessarily creates a legal duty owed to the owner. Normally, all duties would flow through the design-builder. Nevertheless, because there is little direct case law on the issue, arguments can be made and could be successful.

Designers need to understand that in design-build, the client is not the owner. Once the designer meets its duties to protect the health and welfare of the public, the designer’s legal duties are owed to the design-builder. The quasi-adversarial relationship between contractor and designer typical of design-bid-build has no place in design-build or problems will certainly arise. Designers must not confuse this fundamental difference and must resist any desire to protect the interests of the owner at the expense of the design-builder.

4. **Duties owed to Construction Subcontractors**

Subcontractor claims usually will be asserted against the design-builder. Any legal duties owed by the designer to construction subcontractors for economic losses would be determined by the state’s economic loss rule. In many states, a trade subcontractor could sue a design sub-consultant under a negligent misrepresentation exception to the economic loss rule.

III. **THE PRACTICAL IMPACTS OF DESIGN-BUILD ON THE DESIGNER**

A substantial amount of written material has been published on design-build. Countless articles discuss the various advantages and disadvantages of design-build from the perspective of the owner or the design-builder. However, little has been written focusing on the unique challenges design-build creates for the design professional and how those challenges either differ from or are consistent with design-bid-build projects.

Certainly, design-build does not change the fundamental role of the designer to develop the design and prepare the construction documents. The designer still must satisfy the minimum professional standard of care. The designer’s responsibility to the public, as established by state licensing laws, remains the same regardless of the project delivery system used.

However, most other aspects of design-build likely will be different for the designer. Different aspects of design-build include party relationships, scheduling pressures, fast tracking the work, possible technical input in scoping or pricing the work, collaborating with the design-builder during design development, responsibilities during construction, interrelationships with design-build subcontractors or design sub-consultants, and the list goes on and on.
This section examines design-build from the engineer’s perspective. It will identify and discuss many of the legal and practical differences for the design engineer between design-build projects and more traditional design-bid-build jobs. Legal responsibilities owed by the designer to various parties were identified in Part II. As will be seen, these different legal relationships alter the designer’s risks and responsibilities in many common situations that can arise on design-build jobs.

The following is a summary listing of some of the practical issues affecting the designer’s role in design-build that can affect risk. All will be discussed in more detail later as indicated.

A. The Designer works for a different client (Page 14)
B. The Designer’s involvement in pre-award activities (Page 17)
C. The Designer’s responsibilities to support fast track construction (Page 20)
D. Consideration of the Builder’s Means & Methods and other Coordination Issues during Design (Page 21)
E. Limiting the Owner’s influence during the design (Page 22)
F. Problems arising when the Designer deviates from the Project Criteria (Page 23)
G. The level of detail to be provided on the construction documents (Page 24)
H. The Designer’s participation in the construction process (Page 27)
I. Working with design-build subcontractors (Page 29)
J. Limiting the Designer’s liability in design-build (Page 30)
K. Conflicts of Interest (Page 31)

A. The Designer Works for a Different Client

Designers usually are more comfortable working for owners. Architects and engineers understand their traditional role as assisting owners achieve their project goals, including scope, design, quality, function and cost. Traditionally the designer works with the owner to develop the design and construction documents and then provide construction administration services to ensure all project goals
are met in the field. In this one-on-one relationship with the owner, designers often see the contractor as an adversary.

Contractors have their own project goals, which can conflict with the owner’s goals the designer is trying to achieve. Foremost among a contractor’s goals is the economic goal to generate profits. The contractor must complete the work in accordance with the plans and specifications and within cost limits if the contractor hopes to generate its profit. While an owner has a project budget it hopes to maintain, the contractor has a contract price it must work within.

Contractors accept more cost risk, and this substantially affects their behavior. Contractors want to control costs and will assert claims if their costs are impacted by design problems or owner related problems arising during construction.

In design-bid-build work, designers understand that a contractor’s economic goals are not generally consistent with the owner’s goals. Designers therefore prepare plans and specifications in a prescriptive manner to strictly define the scope of work and the minimum performance levels required from the contractor. The designer thereafter often becomes involved in construction administration to ensure that the contractor meets the minimum requirements of the construction documents. While the contractor wants to minimize its costs, the designer is there to make sure the contractor does not cut performance corners. The tension created by the adversarial relationship between the designer and the contractor is one of the hallmarks of design-bid-build.

Design-build effectively flips the role of the designer. The designer now works directly for the builder who has goals very different from those of the owner, goals focused on cost, production, schedule, efficiency and quality. As a consultant to the contractor, the designer must support the priorities of this new client while still fulfilling its professional responsibilities.

Designers used to the traditional one-on-one relationships with owners can fail to appreciate the different priorities of the design-builder. Designers that have the mindset to protect the interests of the owner first will encounter many problems in design-build. The designer must appreciate that the design-builder’s strategies, choices, budget and schedule take priority over owner interests. In design-build, the designer’s contractual and professional responsibilities are owed first and foremost to the design-builder.

Typical form contracts between design-builder and designer highlight that the designer no longer works for the owner. The Design-Build Institute of America (DBIA) Form Agreement between Designer-Builder and Design Consultant (Document No. 540) prohibits direct communications between owner and designer unless the parties agree otherwise.
Designers shoulder more risk in design-build when it comes to claims for design problems. Contractors will assert claims for design errors if design problems increase construction costs or cause delays. This is true regardless of the project delivery system being used. However, in design-build, the designer will be the sole target when a builder discovers a significant design problem.

On a design-bid-build job, the owner warrants the adequacy of the plans, and the contractor therefore typically can pursue the owner for design problems. In addressing and resolving these design defect claims one of three paths is typically followed. First, the owner defends and defeats the claim. The designer is not directly implicated and actually can generate billings by giving the owner technical assistance. Second, the claim is successful and the owner pays it, thus ending the matter. The designer again is not implicated and again may generate revenues by assisting the owner. Third, the owner both defends the claim and asserts a pass-through claim against the designer. In this situation, the owner and designer usually will work together to defeat the claim. If the claim has merit, the owner likely will share in the monetary resolution of the designer’s error. Under any of these alternative avenues, the designer benefits from having the owner between the designer and contractor.

On the other hand, if a design-builder encounters a design problem, it has no action against the owner. Its only legal cause of action would be directly against the designer. The designer has no owner to run interference, to help defend, or to contribute to the resolution of a claim for defective design.

Standard design-build form contracts make the designer responsible for all problems and delays caused by design problems. The DBIA Document 540 provides that “Nothing . . . shall relieve Design Consultant of responsibility for errors, inconsistencies, or omissions in the Services.”

Designers may have even greater exposure to design defect claims from the design-builder because the design-builder will have more information about the design problem from its factual involvement in the design process. For example, a problem that might otherwise be considered an unfortunate turn of events may be recognized as a design defect based on the discussions that took place or decisions made during the design process.

Many published design-build cases involve claims by design-builders against their designers. While each turns on its own unique facts, the frequency of this type of claim in design-build case law demonstrates the risks a designer accepts in designing directly for the builder. Working for the builder is fundamentally different from designing for an owner. Designers need to understand that different rules, expectations and goals exist and that contactors will hold designers accountable for their errors.
B. Designer Involvement in Pre-Award Activities

Designers often are asked to participate in pre-award activities in design-build. Such activities can include direct discussions with the owner about the scope of work, helping the design-builder develop its technical proposal, or assisting the design-builder in developing its price proposal. Involvement by the designer in these activities can give rise to liability if problems later occur.

One important challenge on design-build jobs is identifying what the design-builder is to design and build. Some owners are very sophisticated and experienced in communicating what they want. Either the owner has in-house staff to define the project scope or it retains a separate consultant for this purpose. These owners prepare and issue a “Project Criteria” or “Project Statement” defining the parameters and performance requirements the successful design-builder must follow. The competing design-builders then submit their proposals based on these project parameters. In these situations, there is little discussion with the prospective design-builders over the owner’s specific project criteria.

Other owners may solicit design ideas from the design-builder(s) to help define the owner’s project parameters. This can be done in a variety of ways. For example, the owner may conduct informal one-on-one discussions with prequalified design-builders and their design consultants. In these informal discussions, the owner solicits ideas that can thereafter become part of the project definition that becomes the basis for further negotiations and competition.

Yet another approach is where the owner seeks formal technical proposals from competing design-builders. Under this process, the design-builder offering the best technical concept and the best financial terms will be awarded the contract. The design concept as set out in the technical proposal will then be the basis for the full design. The design sub-consultant is often instrumental in developing such a technical proposal.

An informal understanding or more formal teaming agreement is often executed between the design-builder and the designer for purposes of these pre-award discussions and negotiations. The parties understand that if successful, the designer will perform the full design under a separate agreement the parties will enter in the event they win the competition.

Input, advice or recommendations from the designer in pre-award negotiations often are considered and relied upon by the design-builder, and sometimes by the owner. For example, in informal discussions the owner will describe a performance goal for a specific facility function. The designer thereafter may suggest a design approach to meet the stated performance goal. The suggested approach may then become the basis of the Project Criteria that helps defines the scope of the project. Under this scenario, the suggested solution
by the designer becomes part of the design-build contract and is priced by the builder in arriving at its financial arrangement with the owner.

This situation creates many possible problems for the designer if his advice later can be criticized. Competent technical advice is of major assistance when seeking a contract award and therefore is both expected and encouraged. Any designer entering into these types of negotiations must know what it is doing. Experience and expertise produces sound decisions and minimizes the risks associated with helping define the scope of a design-build project.

On design-build projects where the Project Criteria is well defined, the owner often will use price competition as a major component in selecting the successful design-builder. In these situations, the design-builder must be able to evaluate and price a complete scope of work from the general performance and design criteria the owner provides. Prior experience with the type of work obviously is important to accurately price the project.

The design-builder, usually with assistance from its design consultant, will identify and quantify the manpower, materials, equipment, systems, work processes and finishes needed to meet the Project Criteria and still give the design-builder a competitive advantage. The design consultant typically will provide input on potential design solutions that will meet the performance criteria identified by the owner. The design consultant also may prepare preliminary layouts and floor plans, identify and size equipment, prepare schematics of utility systems, and identify, evaluate and compute quantities of acceptable construction materials.

The designer’s willingness to help the design-builder to develop its proposal is necessary if the designer wants the contract for the design work. However, specific involvement in the design-builder’s proposal brings with it certain responsibilities and risks. Any incorrect information or advice that the designer provides and the design-builder relies upon later can be the basis of a claim.

The biggest risk occurs when the designer provides specific anticipated scope information that the design-builder then relies upon to price the work. For example, designers may be asked to develop a technical design concept and estimate quantities of work and/or materials. The design-builder thereafter relies on these estimated quantities to price its proposal. The designer will be expected to provide reasonably accurate estimated quantities.

The circumstances arising in C.L. Maddox, Inc. v. Benham Group, Inc, 88 F.3d 592 (8th Cir. 1996) is an example of how a designer can get into trouble assisting a design-builder prepare its price proposal on a design-build job. Maddox involved the major refurbishment of a coal handling system at an Illinois power plant. The utility owner issued an RFP for design-build proposals for the refurbishment. The design consultant (Benham) agreed to provide Maddox
engineering services to assist Maddox in developing its design-build proposal. Benham thereafter completed a series of drawings and proposed specifications as well as equipment lists and estimated quantities. Maddox relied on these estimates and drawings in developing its lump sum bid price for the work.

Maddox received the award and contracted with Benham for the full design services. The project encountered many problems and delays, and Maddox sued Benham for deficiencies in the final design and for errors made in Benham’s preliminary design work done in support of the original proposal. During the trial, Maddox put on evidence showing the differences between the work shown on Benham’s pre-proposal conceptual design and quantity computations and the actual work that had to be done per the final design drawings.

The court noted that Benham had repeatedly assured Maddox that Benham was well-qualified to do the pre-proposal concept design and that Benham understood that Maddox would be relying on Benham’s preliminary design and quantity information to price the work. The court recognized that as the engineer, Benham impliedly warranted that its pre-proposal work would be performed properly and that Maddox had a right to rely on it.

In *CRS Sirrine, Inc. v. Dravo Corporation*, 213 Ga. App. 710 (1994), the design-builder brought claims against its designer for failing to develop an accurate technical proposal on a Navy power plant project. The designer’s technical proposal was the basis of the builder’s cost proposal. The design-builder alleged that the actual cost of the work, once the design was completed, was $12 million more than its cost proposal. The design-builder alleged that the difference primarily was due to the designer’s deficient technical proposal and low quantity estimate. The *CRS Sirrine* court found that the designer breached both contractual and fiduciary duties owed to the design-builder for failing to reasonably develop a work scope during the technical proposal stage and for creating unanticipated delays due to its failure to develop a reasonable estimate of quantities.

These cases demonstrate that designers accept risk when they provide preliminary design input to a design-builder for purposes of developing a price proposal. Consistent with the contracting business, design-builders take risks when offering lump sum or guaranteed maximum prices. Designers who involve themselves with this aspect of design-build work take similar risks. Even though builders do not normally expect direct input from the designer on estimating costs, they will rely on their design consultants to provide accurate information during the pre-proposal phase of the project.
C. The Designer’s Responsibilities to Support Fast Track Construction

One of the biggest advantages of design-build is the ability to fast track the work and thus shorten the time from project inception to completion. In fast track, field work starts before the design is completed. Since the design-builder is responsible for both design and construction, it has the opportunity to orchestrate the project so construction can proceed as soon as appropriate portions of the design are completed.

Designers working for design-builders will be expected (i.e., required) to support the design-builder’s efforts to fast track the work. Under the DBIA form design contract, the designer must submit a proposed design schedule upon award of its contract. This schedule is then jointly reviewed “to determine whether it permits Design-Builder to satisfy its obligations under the Project Schedule and the Design-Build Agreement.” Oftentimes, the design-builder has already negotiated a project schedule with the owner, including milestones, completion deadlines and possible liquidated damages. These project schedules often require work starting almost immediately after contract award and long before the entire design could ever be completed.

Fast track construction changes the timing, sequence and priorities of design tasks, and the designer must adapt to these new requirements. The designer no longer has the luxury to work toward a single “issued for bid” or single “released for construction” deadline. A fast track design is divided into designated segments with each segment having its own RFC date. Careful planning is necessary to schedule, staff and coordinate each design segment so that individual RFC dates are met. Final design decisions must be made on a segment by segment basis with only partial design information available on subsequent segments. Variables involving later design segments that might affect earlier segments must be identified and considered prior to RFCing the earlier segments. The entire design must be considered even while RFCing only limited portions of the drawings. Whenever later design activities require changes to previously RFC’d design components the possibility of problems arise. Mistakes, errors and omissions must be kept to a minimum.

Fast tracking requires close and continuous coordination with the builder throughout the work. Coordination meetings with the builder often can generate changes that impact the designer. Many builders continue to tweak scope details, work plans, means and methods, and the project schedule throughout performance. Designers need to understand that the construction process on a fast track design-build job is dynamic with changing priorities and work sequences. The ever evolving work plan will affect design priorities and potentially the manpower and schedule of the designer. The designer will be expected to support these changing requirements. Proper and timely coordination of design work becomes even more difficult because of the time pressures that fast track creates.
Fast tracking requires the designer meet short term RFC deadlines to support construction while following an overall comprehensive project design plan. Designers should not expect to control the sequence, priorities or pace of the design as they normally do in design-bid-build work. With fast track construction, designers must understand that the design-builder will significantly control the design process by the demands of the construction schedule.

D. Consideration of the Builder’s Means & Methods and Other Coordination Issues During Design

Contractors carefully evaluate constructability and work sequence issues when developing strategies on how to perform the work. Designers generally understand that such “means and methods” are matters solely for the contractor to work out. In fact, many designers ignore means and methods issues during design because different contractors will have different approaches and designers cannot predict what any particular builder might prefer.

A design-builder also wants to evaluate means, methods and work sequence issues when developing its construction strategies. However, in design-build, the designer cannot ignore the builder’s means and methods and strategies. A design-builder expects its designer to assist in the development of the optimum plan to perform the work.

A designer’s efforts to coordinate design with the builder’s planned construction strategies can be invaluable in making a design-build project a success. Constructability issues often drive design decisions in design-build. One of the hallmarks of design-build is the frequency and importance of meetings between design and construction teams to coordinate design concepts with the builder’s planned means, methods and construction sequences. Consideration of the builder’s construction means and methods during design development is a process that reaches the very heart of design-build.

The designer will be expected to provide support not only for the design-builder’s construction means and methods, but also on a number of other construction related issues. The designer’s task is to produce construction documents that will support the design-builder’s overall performance strategies while meeting all design requirements. For example, the previous section specifically discussed the importance of coordinating and sequencing the design to support fast track construction. Other ways the designer will be expected to assist the design-builder during the design include:

1. Supporting the design-builder in its constructability reviews and making necessary changes to the design to simplify construction;

2. Value engineering new and better design solutions;
3. Coordinating with the design-builder and its suppliers to identify the best material and equipment solutions for the project;

4. Performing periodic quality assurance audits of the ongoing design work to verify compliance with all Project Criteria;

5. Keeping abreast of ongoing construction activities as remaining portions of the design are being completed.

This list should not be considered complete and often will change not only from project to project but from week to week. Design-builders often expect their designers to provide all necessary technical and design support for the overall construction plan, throughout performance and regardless of how the plan might change over time. This can be a real challenge for the designers, especially when the design-builders’ actions and demands precipitate questions over the compensation due the designers. A designer must be aware of when the design-builder crosses the contractual line and demands services that justify additional compensation to the designer.

E. Limiting the Owner’s Influence during the Design

Successful design-build requires giving the design-builder the latitude to design the project so long as the design meets the Project Criteria negotiated and agreed to between the parties. Owners who either need or want to dictate the details of design will create problems on a design-build project.

An owner’s need or desire to control the design process is a major reason why design-build does not work on many projects. For example, there currently is a belief in some military organizations that design-build is not the project delivery vehicle of choice because of end user complaints about the finished product of previous design-build projects. In gaining experience with design-build on multiple projects, these organizations have realized that for some projects maintaining a hands-on involvement throughout the design is necessary to ensure that the end user receives exactly what it wants. These military organizations now consider the specific project and whether end user needs and expectations can be met before adopting design-build as their project delivery vehicle.

It is important for the owner to give the design-builder the freedom to develop the design based on its own project strategies and design preferences. However, the owner is never totally isolated from the design process once the design-build contract is executed. Contract language gives the owner the right to review design submissions at various points during the design. For example, DBIA Standard Form of General Conditions Form 535 anticipates that interim design submissions will be given to the owner for review and approval. Under these provisions, the owner’s review is intended to confirm only that the design-builder is following the Project Criteria (and the “Basis of Design Documents”). As with most design-build projects, these contract documents presume there will
be frequent interaction between the designer and the owner during the development of the design. The owner has the right to be kept informed as to the progress and details of the design’s development.

However, the owner is not being invited to depart from the Basis of Design Documents, identify new ideas, or abandon previous agreements. The DBIA form General Conditions go state that any departures from the Basis of Design Documents will entitle the design-builder to a change.

Owner involvement can create scope creep during the design stage. In design reviews, owners may focus attention on project details that were not discussed during negotiations or included in the project scope. Innocently or not, these owners will seek additions or changes. For purposes of client relations, such requests should be discussed openly. However, the final decision on any design question generally rests with the design-builder. It is important to recognize when an owner suggested revision constitutes a departure from the design-builder’s plan or creates a potential cost impact. In these circumstances, the owner needs to be informed about the scope change and the requirement that such a change will require a pricing change.

Problems can arise when the owner crosses the line from “reviewing” design submissions to dictating design decisions. The designer needs to understand and be vigilant when this occurs. Designers in the design-build setting must understand the limited rights owners have to control the design process.

The designer must first and foremost protect the interests of the design-builder. Therefore, limiting the owner’s involvement (while keeping the owner informed) during the design process is one of the important functions of the designer. This requires the designer to complete the design within the parameters of the design-build contract, and usually not more.

Having to deal with a potentially difficult owner is major reason why a subcontractor/designer on a design-build project should insist on having a representative of the design-builder attend every design review meeting. The design-builder has the contract with the owner, not the designer. DBIA form contracts require the design-builder to attend all design review meetings with the owner.

F. Problems Arising when the Design Deviates from the Project Criteria

The scope of a design-build project is defined by the Project Criteria and/or the Basis of Design Documents that are negotiated with the owner. Project Criteria include the performance requirements and the general scope statement that identifies the minimum performance level the design-builder must meet. The “Basis of the Design Documents” is a term used by DBIA and consists of a comprehensive package of documents that the design-builder agrees to follow and generally includes the negotiated Project Criteria.
Subsection B discussed the potential liabilities arising when the designer gets involved in helping the design-builder develop the technical proposal that ultimately may define the scope of the design-build engagement. This section addresses the problems that can occur when the designer deviates from the agreed Project Criteria during the design process.

Exceeding the minimum requirements of the Project Criteria can arise through actions of the owner, decisions by the designer, or instructions from the design-builder. Unless properly authorized by the design-builder, such deviations can increase construction costs and potentially generate design-builder claims against the designer or the owner.

Under standard contractual arrangements, the designer’s job is to design the project consistent with the Project Criteria. Since the design-builder based its price, in part, on the Project Criteria, the design-builder depends on the designer to design the project consistent with the Project Criteria. Under standard design-build contracts, the designer does not have the discretion to pursue new or different design ideas without obtaining the informed consent and authorization of its employer.

Designers must guard against scope creep during the design process. At periodic intervals, the designer should check to insure that the day to day progress of the design is not causing an expansion of the scope of the design over the minimum requirements established in the Project Criteria.

Less likely but probably more important are situations where the designer, either as a result of the day-to-day design process or in an over-zealous effort to meet scheduling or budgetary demands, deviates from the Project Criteria by failing to meet minimum design requirements. The design-builder depends on the designer to meet all contractual performance requirements in the design, no more and no less. Failing to satisfy minimum design requirements often will result in rework, cause project delay, increase the design-builder’s overall costs, and hurt the relationship with the owner. When these problems occur, the designer likely will be defending claims brought against it by the design-builder.

It takes discipline for the designer to remain within the Project Criteria during a long and fluid design process. Designers are expected to take the lead in ensuring that the requirements of the Project Criteria are met, but not exceeded, unless the express approval of the design-builder is obtained.

G. The Level of Detail to be Provided on the Construction Documents

There are many examples of design-build where the design-builder and its designer have worked together on multiple similar projects and have a mutual understanding of the amount of design detail the builder needs to be shown on the
plans. A close working relationship and familiarity between the two entities allows the work to proceed using less detail on the plans. Precious time can be saved in the design process if the designer does not have to provide the same level of detail on the plans as in those situations where the work will be performed by an unidentified and unknown builder.

The most common example of a designer-builder relationship that supports a reduced level of detail on the plans is with design-build specialty subcontractors where both the design staff and field staff are employed by the subcontractor and where the subcontractor specializes in a very specific and limited work scope. For example the design staff may size specific equipment but then leave it to the field staff to determine the necessary methods of installation. Experience over time has made the field staff experts in the installation process, and therefore construction details are not needed.

Another example is where a general construction contractor has performed repetitive projects for a single owner, using the same designer and subcontractors time after time. Since each project is similar, many work tasks essentially become repetitive. In those situations, unless the owner wants a specific level of details on the plan (i.e., for record drawing purposes), the subcontractors may not need as much construction details and the designer can proceed accordingly.

Of course reducing the amount of detail in the plans will backfire on the wrong job or when problems arise. Designers are hired to prepare the design and construction documents per the applicable standard of care. Cutting corners during the design process runs the risk of claims being brought when things go wrong. If field mistakes are made when there are no details included in the design, the designer likely will receive some or all of the blame. Even with repetitive projects and experienced field crews, poor decisions or practices in the field can result in the designer taking on risk.

Reducing unnecessary details in the plans can be an option but should be only be exercised with care. Prior experience with the builder is crucial so the designer understands the extent it can omit what otherwise are commonly expected details. If in doubt, the designer must provide full details.

On some contracts the ability to omit information on the plans may be limited by the owner’s requirement for detailed as-built drawings. Specifically, many public contracts require detailed as-builts. Owner personnel involved in the review of design submissions during design development may insist on full design details on the plans regardless of whether the design-builder believes they are necessary. However, the legal right of the owner to dictate the level of detail on the plans depends largely on the contract language.

In *Metcalf Construction Co., Inc., v. United States*, 2011 WL 6145128 (Fed. Cl. 2011), a design-builder on a Navy housing project intended to provide
simplified plans to the project and work out many of the construction details in
the field. The design-builder was experienced in private sector design-build where
it typically had the discretion to determine the level of plan detail. Even though
this Navy project was design-build, the contract had very specific requirements
for the design submissions that the design-builder had to satisfy. In addition, once
a portion of the final design was approved by the Navy, the builder was obligated
to strictly follow the design unless design changes were presented to and
approved by the Navy.

The design-builder alleged that the Navy breached duties of good faith and
fair dealing by not allowing the design-builder more flexibility in the performance
of its work. The design-builder claimed that by the very definition of design-
build the design-builder had discretion to determine how best to construct the
project. The court quickly rejected that argument. Regardless of whether the
contract was designated “design-build,” the contractor had to meet the specific
requirements the contract laid out.

Lack of fully detailed plans will create problems when unexpected
developments occur. In BMAR Associates, Inc. v. Midwest Mechanical Group,
2010 U.S. Lexis 40183 (D. Md., April 23, 2010), a design-builder doing medical
renovations subcontracted the design and construction of the boiler work. This
subcontract was divided into a design phase and construction phase. The
subcontractor required the subcontractor to bond its construction responsibilities.

Because the subcontractor anticipated performing the fieldwork with its
own forces, it did not prepare the construction documents with the same detail
that an independent designer would have provided. The subcontractor intended
that any design questions arising during construction would be addressed and
resolved by its field staff. When field work was ready to commence, the
subcontractor could not provide the required surety bonds. In response to this
bonding problem, the design-builder sought a substitute subcontractor to do the
field work. However, the design-builder then got caught in a “Catch 22.”
Potential replacement subcontractors complained about the lack of detail on the
drawings that were intend for use by the original subcontractor. Moreover, the
replacement subcontractors did not want to take over design responsibilities. The
original subcontractor refused to remain designer of record unless it also was
allowed to perform the construction work as originally planned (without a bond).
Under the circumstances there was no reasonable solution for the design-builder.
The BMAR Associates case demonstrates the problems that can arise when design
details are left off the plans and unexpected events then occur.

Experienced designers on design-build projects are able to develop a sense
of how much detail needs to go on the plans. A close working relationship with
the builder is mandatory before any reduction in the level of design detail should
even be considered. Also, contract language must be reviewed to determine what
the owner requires in terms of detail.
H. The Designer’s Participation in the Construction Process.

Designers in the role of design-builder, either in their own right or as a partner in a joint venture, accept both design and construction responsibilities. Designers who do not bear any construction responsibility want to subcontract with the design-builder for strictly design services. As a subcontractor, designers can separate themselves from direct responsibility for construction activities. However, that does not mean that the design-builder will not be asking (or demanding) the designer to participate in some way in the construction process.

In traditional design-bid-build, the designer’s involvement with the construction process is typically limited. According to standard AIA contract form contracts, the designer’s construction involvement is limited to processing payment applications, reviewing submittals, answering RFIs, reviewing and processing change orders, making periodic visits to the site, and addressing claims. In performing these tasks the designer effectively operates independently from the contractor and the contractor has no effective control over the designer.

On the other hand, design-builders often expect more active cooperation and support from their designers during construction. Designers may be asked to value engineer the work, approve deviations from the approved design, or change the design and/or construction documents in response to issues that may arise during construction. The direct contractual relationship between the design-builder and the designer can put the designer in a more difficult position during construction than in a design-bid-build setting. The designer’s expected involvement in the construction process will be affected by the personality of the design-builder and the needs and circumstances of the project.

Designers in design-build are well served to try to limit their involvement during construction. Even though a sub-consultant designer will be expected to coordinate its design with the builder’s planned construction strategies (as discussed in Subsection I), this does not result in the designer taking responsibility for field issues arising during construction. A sub-consultant designer to a design-builder generally is not responsible for construction errors and should not want to accept such responsibility. The builder should be solely responsible for implementing its own means and methods and otherwise ensuring that all field work meets contract requirements.

Published design-build contracts typically limit the designer’s construction involvement and the designer generally should avoid expanding that role. These contracts will list the construction phase services that the designer provides. By limiting the designer’s construction involvement to those recognized tasks should allow the designer to avoid responsibilities for the field work. However, that can change through specific factual circumstances, revisions to contract language, or demands from the design-builder.
One of the major ways a designer can find itself responsible for construction activities is through broad contract language the designer agrees to. For example, in one case the design-builder included a requirement in the sub-consulting agreement that the designer would keep the design-builder “informed of the progress and quality of the Work, and shall endeavor to guard [the design-builder] against defects and deficiencies in the Work…” Based on this subcontract provision, the design-builder sued its designer for field errors, claiming that the designer was supposed to be checking (i.e. inspecting) the work for construction errors. The court agreed that the quoted language gave the designer the duty to provide quality control in the field. However, the court found that a second provision in the agreement clearly placed responsibility for construction means and methods on the design-builder. This second provision stated that the designer “shall not have control or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, . . . for the acts or omissions of [the design-builder], subcontractors or any other persons performing any of the Work . . . .” If this second provision was not in the contract, the court was prepared to hold the designer responsible for any field errors that should have been identified through competent inspections. C.L. Maddox, Inc. v. Benham Group, Inc., 88 F.3d 592, 602 (8th Cir. 1996).

As demonstrated in the Maddox case, designers must carefully review their proposed contracts and be prepared not only to object but to refuse to accept language that changes the fundamental role of a designer.

The direct contractual relationship between designer and design-builder changes the nature of the relationship and makes the designer’s position more difficult. The builder, now as client, can be more demanding than an owner/client. This is particularly true when there is no prior established relationship between designer and design-builder and the pressures to achieve budgeting and scheduling goals can precipitate demands similar to the demands that contractors might make to their trade subcontractors.

Designers must be disciplined when dealing with a demanding design-builder client. Contractors often react aggressively when field errors are made, bid assumptions prove to be unrealistic, or when a project is adversely impacted by nothing more than bad luck. In these situations a difficult design-builder can blame the designer, make threats and demand action. In these situations, the designer needs to be aware of its contract duties and recognize when any demands extend beyond the designer’s responsibilities. Documentation should be maintained in preserving the designer’s rights to payment for additional services when the design-builder forces excessive demands on its designer.

Controlling the actions of a difficult design-builder requires careful drafting of the sub-consulting agreement and proper discipline in administering that agreement. It is extremely important that a designer’s responsibilities during
construction on a design-build job be clearly defined. Both the AIA and DBIA forms are good examples of contracts that define exactly what the designer is required to do during construction. Anything over and above the defined scope should be billed as additional services.

A contract provision that can be particularly troublesome requires the designer to proceed with any instruction from the design-builder, regardless of the nature of the instruction and without advance agreement on the compensation that might be due. Aggressive design-builders will use this type of clause to order additional services without acknowledging that the work as an extra and without any consideration of the problems the instruction may have on the operations or cash flow of the designer.

Designers are well served to object to contract language that would require the designer to perform additional services without some agreement in place on compensation. Many design contracts include a schedule of hourly rates to compensate the designer for additional services. However, design-builders control the contract drafting process. They will omit or delete such provisions and leave the question of compensation for additional services to be negotiated on a case by case basis. Combine this provision with a clause mandating that the designer proceed with any instruction from the design-builder, and a major problem is created for the designer. Beware of such clauses.

Goal oriented builders can be hard on their team members. Designers need to be aware of the risks associated with an aggressive builder making unreasonable demands on the designer, particularly when the design contract is written in favor of the builder.

I. Working with Design-Build Subcontractors.

Design-builders often contract portions of the work to design-build subcontractors. These subcontractors will develop the design and perform the field work for a specific element of the work. The unique aspect of this arrangement, as far as the primary designer is concerned, is that there is no direct contract relationship between the two design firms. Without a contact relationship, the prime designer has less control over the design-build subcontractor. Whether this lack of contract relationship affects the design process depends on the nature of the subcontractor’s work, the corporate personality of the subcontractor, and the working relationship with the prime designer.

Many design-build subcontractors have specialized or narrow work scopes and their design activities will have little impact on the overall project design. In these situations necessary design coordination may be minimal. With design-build subcontractors whose activities play a larger role on the project, design coordination will be important and will depend on the willingness of the
subcontractor to work with the project designer despite no contractual relationship between them.

Even though the prime designer is not responsible for the subcontracted design, it will be expected to coordinate the subcontractor’s services with the overall project design. Lack of cooperation by the subcontractor’s design team can create problems, both for the designer and the design-builder. If the subcontractor refuses to cooperate or ignores the published design schedule, the direct involvement of the design-builder may be necessary to obtain compliance. The design-builder, being the only party under contract with the subcontractor, has the only leverage to enforce the subcontracted design obligations. Designers therefore may need to involve the design-builder in the coordination of design services when there is one or more design-build subcontractors.

Another question that can arise is the extent the prime designer should peer review the subcontractor’s design. While there may be technical or quality control reasons for some sort of peer review, a prime designer should avoid any direct involvement over the quality, accuracy or completeness of a design-build subcontractor’s design.

The design-builder has its own practical issues to concern itself with when entering into design-build subcontracts. Subcontractor defaults are always a risk and the default of a subcontractor with design responsibilities can create complicated problems. For example, in BMAR Associates, Inc. v. Midwest Mechanical Group, 2010 U.S. Lexis 40183 (D. Md., April 23, 2010) a design-build subcontractor defaulted on the field work and the design-builder sought a replacement contractor to install per the original subcontractor’s design. However, the design developed by the first subcontractor had been developed assuming its own field crews would perform the work. The design-builder found it extremely difficult to find a replacement subcontractor willing to proceed based on the design developed by the first subcontractor.

There are a number of cases where the design-builder gets into a legal dispute over the performance by a design-build subcontractor. In those situations, the prime designer must keep in mind that its loyalties lie with the design-builder and not with the subcontractor’s design team.

### J. Limiting the Designer’s Liability in Design-Build

Many states will enforce a properly written limitation of liability (“LOL”) clause that limits an AE’s liability to its customer. For example, the Georgia Court of Appeals has specifically enforced a contract clause that limits the AE’s liability to its customer:

[o]n account of any error, omission or other professional negligence to a sum not to exceed $50,000 or the amount of the fee, whichever is greater. If [customer] prefers to have higher limits
professional liability, the limits can be increased to a maximum of $1 million upon written request at the time of acceptance of this proposal. . . .


Designers can run into problems in Georgia if they insert broad indemnity language into their LOL clauses. Indemnity language, such as language requiring the client to indemnify the designer for liabilities the designer may owe to a third party, can run afoul of applicable anti-indemnity statutes, see, e.g., O.C.G.A. § 13-8-2. *See, Lanier at McEver, LLP v. Planners & Engineers Collaborative, Inc.*, 663 S.E.2d 240 (Ga. 2008).

Florida has an interesting variation on the enforceability of limitation of liability clauses in design contracts. Generally, a LOL clause is enforceable between the engineering company and its client. However, contractual limitation of liability clauses will not protect an individual professional (such as an employed engineer of the engineering company). An individual engineer may be sued for malpractice for design work performed under a contract his or her employer executed, even if the contract contains an otherwise enforceable LOL clause. Florida courts have ruled that Florida’s engineering licensing statute bars licensed professionals from limiting their personal liability with a LOL clause. *See, Witt v. La Gorce Country Club, Inc.*, 35 So.3d 1033 (3d DCA 2010).

K. Conflicts of Interest

All sorts of conflicts of interest can arise on design-build projects. One example is when direction received from the design-builder conflicts with any duties the professional owes to the public under the applicable Rules of Professional Conduct. A design-builder may not realize the duties the professional owes the general public under the Rules. Situations can arise where the design-builder provides instructions to the designer that, in the opinion of the designer, could violate its duties toward the public. In many states, if an engineer’s judgment is overruled under circumstances where the safety, health or welfare of the public is endangered, he or she must inform the proper authorities and his/her employer of the situation.

Other conflicts arise when the designer does not agree with instruction issued or decisions made by the design-builder. Many of those conflicts, while important, may not give rise to a formal conflict of interest. A design-builder is in overall charge of the project and will occasionally make decisions that its designer disagrees with. Instructions from the design-builder changing what otherwise would be the applicable standard of care may or may not create a conflict. However, such instructions should only be followed if they are in writing, if any duties owed to the public will be satisfied, and only after full disclosure to the design-builder of the designer’s concerns.
IV. CONCLUSION

Owners embrace design-build because of the advantages it offers over other project delivery alternatives. Owner risk is reduced when a single entity is assigned responsibility for design and construction. With careful identification of project requirements at the front end of a project, the disadvantage of design-build—lack of control over design details—can be minimized. Because of all the perceived advantages of design-build, its popularity continues to grow.

Most designers should want to participate in design-build. However, the legal relationships and the risks on the designer are different and must be understood. Engineers and other designers should keep the following points in mind when considering a design-build project:

- The client is now the builder and will have different goals;
- The designer will typically participate in the design-build proposal process and will take on risks associated with those activities;
- The builder will have significant involvement in the design and the owner will not;
- The design often will reflect a compromise between design, construction and cost issues;
- The designer will need to consider the contractor’s means & methods;
- The designer must appreciate the added complexity of designing to support a fast track project;
- The level of detail on the construction documents should not be reduced without careful consideration;
- The builder typically can be quite demanding of its designer;
- The designer should negotiate terms of its contract with care.