

### effectively structuring and managing design-build projects

#### 1. introduction

While design-build has become a particularly popular method of project delivery over the past several decades the system can be traced to the ancient Master Builders of the Parthenon in Athens, the Gothic Royal Abbey Church near Paris, and the Dome of the Florence Cathedral.<sup>1</sup> Each Master Builder was a central figure who provided seamless design and construction service and held total project accountability. The design-build system incorporates many of the fundamentals of the Master Builder approach to serve modern public and private customers. Design-build places the responsibility for both design and construction in the hands of a single entity, the design-builder. This paper will compare and contrast design-build with the traditional design-bid-build or stipulated price model, share strategies for securing and managing design-build projects, and outline best practices for risk allocation and management.

#### 2. factors involved in selecting the form of contract

##### design-bid-build / stipulated price

Design-bid-build is the traditional method for project delivery where the owner contracts with separate entities for each of the design and construction components. The owner first contracts with a consultant, who is responsible for the project's design, including detailed drawings and specifications, preparation of the bid package or Request for Proposals (where appropriate) and, generally, for the supervision and administration and certification of the work performed under the contract. Through the consulting agreement, the owner gains the benefit of the consultant's experience and expertise. Once the design has been completed and the work offered for tender or proposal, the owner will retain the general contractor, who is wholly responsible for the construction of the project in accordance with the consultant's design. The contractor under this procurement method accepts the responsibility and

<sup>1</sup> Jeffrey Beard, Michael Loulakis, and Edward Wundram, *Design Build – Planning Through Development* (New York: McGraw Hill, 2001) at 13.

risks for the construction means and methods and for the performance of the various subcontractors that it retains.

Through each component of the project, each of the parties will subcontract with various other consultants, trades, and suppliers in order to fulfil their obligations. The consultant will often subcontract portions of its scope of work to consulting engineers and architects, including environmental, structural, electrical and geotechnical specialists, who will work collectively to complete the design tasks for which the consultant was retained. In addition, the contractor will retain subcontractors and suppliers of various specializations who will supply labour and materials to the project. The owner reduces its risk by entering into single contracts for each of the design and construction of the project and has a single point of contact for each of these obligations. The consultant and the contractor mitigate their own risks by assigning portions of their scope to subcontractors and assume other risks in relation to the management and supervision of their trades. See Figure 1 below.

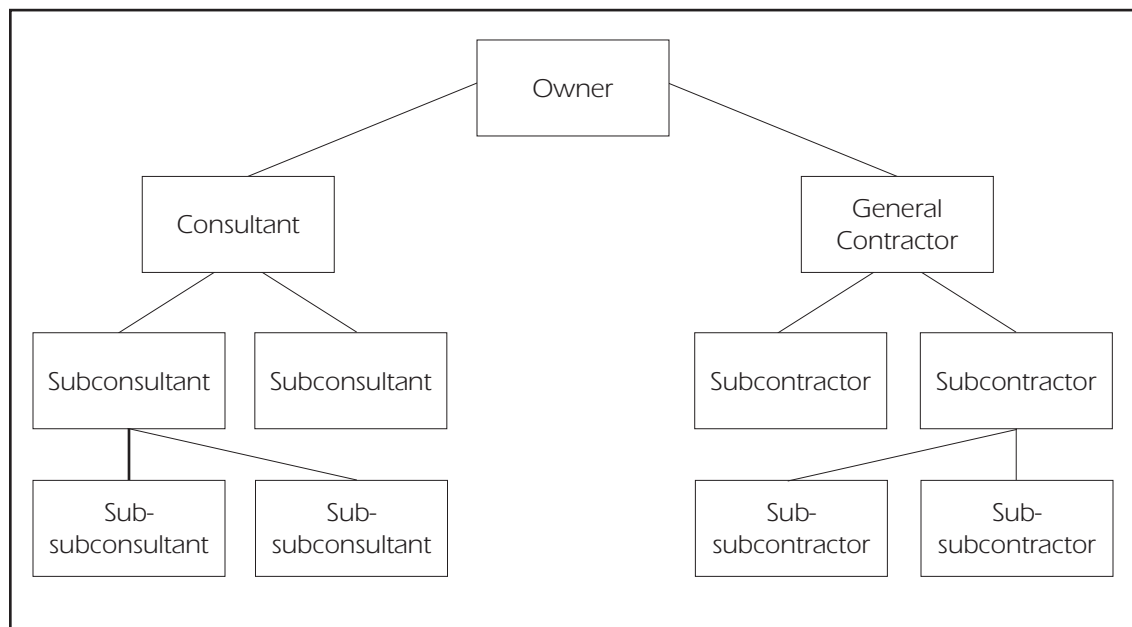


Figure 1 – Design-Bid-Build/Stipulated Price

There are several advantages of a design-bid-build contract. The traditional structure is a familiar one and most owners, consultants, and contractors understand their roles and obligations. The completion of the design in advance of the bidding process allows for greater certainty for the contractor in fixing the price and for the owner in budgeting and financing the project. Since design and construction are completed sequentially, the owner maintains a detailed control of the design and the design team remains impartial and looks out for the interests of the owner. Design-bid-build also uses competition to improve the efficiency and quality for owners by providing a range

of potential options and new contractors. As well, standard form contracts have been created to simplify these types of projects and add further certainty and predictability to the process.

The separation of the design and construction phases has the disadvantage of slowing the progress of the overall project. Design-bid-build is also less conducive to teamwork since the contractor is hired after the design is finalized when there is little opportunity for input on effective alternatives. In addition, where the consultant acts as the owner's representative on site and an interpreter of its own design documents, an inherent conflict of interest arises. The consultant will have a bias in favour of its own interpretation of the contract documents rather than that of the contractor. Finally, the owner assumes a greater risk in this model if it has not adequately accounted for and allocated the design risk as between the consultant and contractor.

### design-build

Under the design-build approach, the owner retains a single entity who is responsible for both design and construction. The owner typically solicits competitive bids based upon a set of project performance requirements or specifications. The design-builder is typically the general contractor, but may also be the architect or engineer or even a joint venture between the general contractor and the architect or engineer. The design-builder usually subcontracts with on-site personnel or design professionals and rarely completes both design and construction internally. See Figure 2 below.

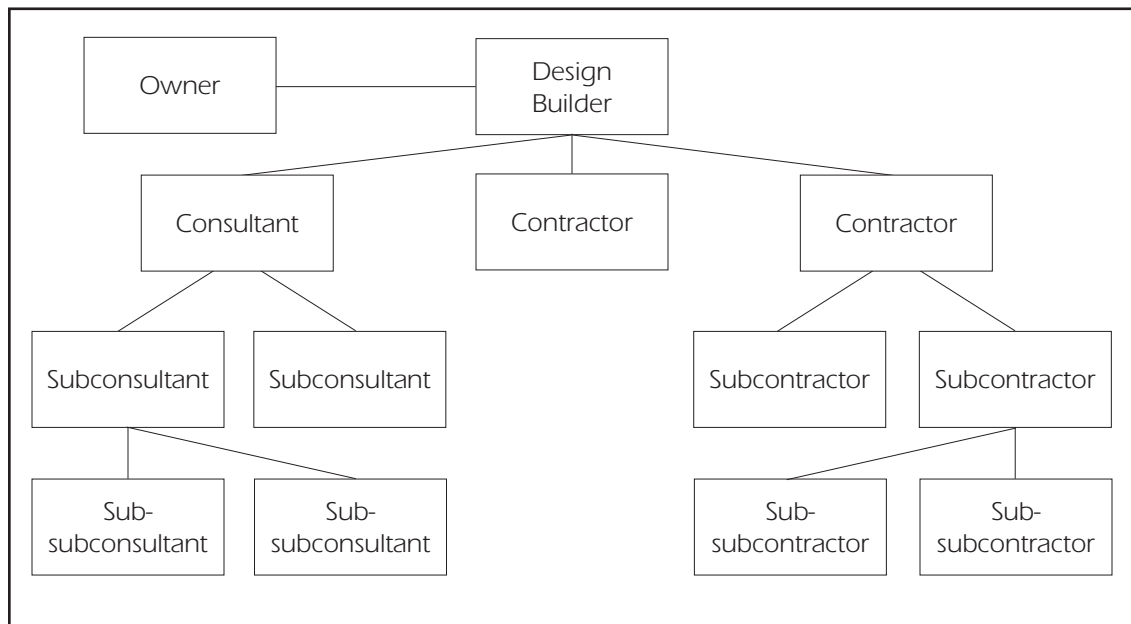


Figure 2 - Design-Build

This approach has several advantages over more conventional approaches. The expedited timeline of a design-build project saves both time and cost. Due to the intersection of the design and construction teams, the project developer can expect cost savings through a more efficient delivery of the project. In addition, since the project is delivered by a single entity with whom the owner negotiates at the outset of the project, it will be possible for the owner and the design builder to agree upon a fixed price contract for the entire project.

Design-build projects have the advantage of improved communication and accountability to a single source. From a practical perspective, the design and construction companies will be integrated from the very early stages of the project. This integration will provide the opportunity for and necessity of considerable interaction and discourse between the architect or engineer and the contractor during the design phase of the project. The project will be expedited since the contractor will be able to commence construction with the understanding of how the design has progressed and how it is proceeding with the potential to save both time and cost. There is often a reduction in the number and severity of conflicts between the design and construction entities since they will be, in essence, on the same "team." This, in turn, may lead to advantages for the owner when negotiating with the project's financiers, who will be more receptive to a project with a lower risk of unanticipated costs.

While the potential for cost certainty in the early stages is an advantage, this is tempered by the risks that preliminary specifications can impose on a project. The owner does not maintain direct control over design detail and may only comment on whether the design meets with the general specifications to which the design-builder bid. As well, the design builder will often be the judge of the quality of his work. Owners must rely upon design-builder's integrity, expertise, and competency. It may also be difficult to accurately price a project before design has been fully completed. This results in premature cost estimating since design documents are preliminary and may change throughout the course of a project. As a result, design-build contracts are often written to allow for unexpected situations.

For these reasons, design-build contracts are particularly well suited to turnkey projects where the owner contracts for a finished project and awaits complete delivery. Turnkey projects offer a greater range of contractor responsibilities such as land selection and acquisition, project financing, project equipment procurement, and leasing of completed facilities. These are optimal situations for design-build since projects can often be executed from standardized designs that require little or no modification and can be built to established and proven performance levels. Design-build projects must also be of a sufficiently large size or cost value to warrant the proposer's risk to obtain the contract.<sup>2</sup> This factor can be offset by an owner offering an honorarium or remuneration

<sup>2</sup> *Ibid* at 59.

to the unsuccessful bidders in order to subsidize the costs of a proposal. Furthermore, design-build might be optimal for an owner who wishes to develop a highway or a hydroelectric facility that must have certain performance output levels.<sup>3</sup> It will be advantageous to have one party responsible for both phases so as to be in a position to guarantee project performance. Using the design-build model on such projects will reduce the pricing risk which will provide greater certainty for the owner in relation to the finished product.

### 3. running an effective design-build tender process

#### principles for the proper use of design-build

The Joint Industry-Government of Canada Design-Build Task Force has approved a set of principles to provide guidance to the federal government and the industry for the selection of a design-build tender and the proper use of design-build.<sup>4</sup> They were developed in partnership with the Association of Consulting Engineers of Canada (ACEC), the Canadian Construction Association (CCA), Construction Specifications Canada (CSC) and the Royal Architectural Institute of Canada (RAIC), and are consistent with the Canadian Design-Build Institute's (CDIB) Practice Manuals. The principles address the design-builder selection process, remuneration, copyright, and the request for proposal documents.

With regards to the selection process, the principles stipulate that a maximum of five proponents who were selected at the first stage or Request for Qualifications (RFQ) may be invited to provide a detailed proposal.<sup>5</sup> This will increase the likelihood that at least three detailed proposals are received. The selection of a successful design-builder shall be based on a clear pre-stated criteria and the highest ranked proponent will be approached to finalize the contractual details with the intent of award.<sup>6</sup> The principles also mandate that the owner shall provide remuneration to all invited proponents who meet the requirements of the invitation or Request for Proposals (RFP).<sup>7</sup> The amount of compensation will reflect the effort required for the submission, shall be stated in the RFQ and RFP, and shall be at least 50% of a reasonable estimate of the submission's costs.<sup>8</sup> The design and drawings prepared by or for the owner or design-builder remain the intellectual property of the respective authors and the owner cannot use any element of the design without the consent of the author.<sup>9</sup> The principles also

3 D. Robert Beaumont, "Overview of Contracts: A Comparative Analysis" in *Design/Build The emerging Trend in Construction Contracts* (February 27 and 28, 1997, Toronto) at 16.

4 The Canadian Design-Build Institute, "Selection of a Design-Builder 'A List of Principles,'" *Practice Bulletin #3*, April 2001.

5 *Ibid* at 1.1.

6 *Ibid* at 1.2.

7 *Ibid* at 2.1.

8 *Ibid* at 2.2-2.3.

9 *Ibid* at 3.1.

recommend that standard contracts endorsed by the construction industry be used in all design-build agreements and that identical RFP documents be sent to each proponent.<sup>10</sup>

Prior to accepting proposals, the owner should establish a Statement of Requirements to outline specific needs including site information and the program requirements. The principles provide a checklist of the information to be included in the RFP documents that will be sent to each proponent. General information such as the scope of the project, proposal schedule, construction cost estimate, selection procedure and remuneration should be included in the RFP. Site information relating to existing site conditions should also be present such as descriptions, surveys, utility information, geotechnical reports, covenants, and any restrictions on the property. A summary of the project requirements or design criteria should include functional requirements and relationship diagrams, layout and physical characteristics, performance specifications, as well as a list of codes and standards.<sup>11</sup> The design-build contract requirements should include the responsibilities of the owner and design team, general or legislative conditions, terms of payment, commissioning requirements, and quality management criteria. Finally, the requirements for proposal should contain drawings, specifications, life cycle costs, information on the selection panel, quality control program, safety program, schedule, price proposal, and the financing strategy.<sup>12</sup>

### what to include in a design-build tender proposal

A design-build team should take great care in responding to an owner's solicitation for services. The design-build team should include a number of important items in their project tender proposal. The design-builder must first analyze the RFP documents to determine how the owner has outlined the project scope and the degree of complexity. Together with the budget and schedule, the design-build entity will ascertain whether the program is reasonable.<sup>13</sup> Upon scrutinizing the details of the project, the team must plan to prepare deliverables in accordance with the owner's guidelines. The design-builder should also assemble the appropriately experienced team that has the necessary expertise and select the best team leader. The tender proposal should address each of the owners expectations and specifications listed on the RFP documents. The design team should create a checklist of all required submittals, criteria, and timelines to save time for all parties involved since, for busy owners, less is probably more.<sup>14</sup> All forms and supporting documents, such as conceptual design and outline specifications, should be complete without adding excessive volume.<sup>15</sup> Design-build includes designer-of-record services so clarifications and understanding are critical to meeting the owners needs.<sup>16</sup>

10 *Ibid* at 4.1-5.1.

11 The Canadian Design-Build Institute, "Design-Build – A Fast-Growing Project Delivery Method" *Practice Bulletin #1*, January 1999.

12 *Supra* note 4 at 5.1.

13 *Supra* note 1 at 110.

14 *Ibid*.

15 *Ibid* at 111.

16 *Ibid*.

Accordingly, design-builders should attend pre-proposal conferences and ask questions to clarify doubts about the project's objectives or scope.<sup>17</sup>

The design-build tender should include an exhibit listing what is not included in the package of deliverables. This list of exclusions helps to manage the expectations of both the owner and design-build team and is an excellent check for completeness.<sup>18</sup> It is also recommended that the final response package include several items that help the team stand out. For example, the team can provide an unsolicited alternative that helps provide an added value to the project at no additional cost to the owner; show precedent-breaking innovation in design, process, or materials; or incorporate the owners logo into the proposal package or in a project design element.<sup>19</sup> The design-build tender proposal should be a visually appealing package that is a bound submission printed on high-quality paper. If an opportunity to meet and interview with the owner is provided, the design-build team must stress the team's shared vision to all of the project priorities outlined in the RFP documents.<sup>20</sup> At the conclusion of the solicitation process, most owners will be inclined to select the solution that offers the "best value" for their project.<sup>21</sup> For this reason, low-bid procurement is not the optimal method for design-build projects since performance, quality, and a proposal that satisfies the owner's distinctive needs are often the most important attributes.

### role of the consultant

If the owner does not have the qualified staff within the organization to evaluate the proposals and administer the work, an advocate consultant may be hired to advise them during the process. The advocate consultant is the entity or person engaged by the owner to assist with the organization and administration of the design-build selection process and to provide ongoing professional assistance to the owner during the project's implementation.<sup>22</sup> The advocate consultant can assist in drafting the original proposal document, assessing the proposals, and reviewing contract documents or construction.<sup>23</sup> Although the owner may appoint consultants as representatives or advisors, they are recognized in CCDC Document 14 as the owner's authorized representatives. The only consultant recognized in CCDC Document 14 is the design-builders' consultant. The design-builder has the option of hiring a design consultant to advise during the process.<sup>24</sup> The roles of the design-builder's consultant are to design the owner's Statement of Requirement and to prepare the construction documents, to interpret contract and construction documents, to certify compliance, performance, and progress

17 *Ibid.*

18 *Ibid* at 113.

19 *Ibid.*

20 *Ibid.*

21 *Ibid.*

22 The Canadian Construction Association, *Design-builder/ Consultant Contract*. Standard Construction Document 15, 2000.

23 *Supra* note 5 at 1.

24 *Supra* note 21 at 1.

to the design builder.<sup>25</sup> The design builders' consultants are bound to fulfill their duties and responsibilities in accordance with the professional standards required by the various professions.<sup>26</sup>

## 4. risk management and the allocation of risk in design-build tenders

### significant risk factors

Design-build allows owners to allocate the risk for design and for on-time and on-budget performance requirements to a single entity. The owner bears the financial risk that the cost of the completed project may vary greatly from the original estimate since cost estimation is difficult based on preliminary specifications and design documents. The owner is also responsible for a lack of clarity in the project's definition, problems with RFP documents, and for any unknown site conditions.<sup>27</sup> The design builder is liable for an overall failure of the design or any construction defects. The design-builder is responsible for usual risks associated with any project such as scheduling issues, site health and safety, labour, materials and construction equipment. The compact timeline may also limit time available for early regulatory review. Since projects are completed before the plans may be reviewed, design-builders can face costly change orders to bring the project into compliance with the applicable regulatory requirements.<sup>28</sup> Furthermore, design-builders are given a great deal of control with no third party observer or independent architect to administer processes. There is a risk that the contractor could sacrifice the quality of materials and systems to pad their own profits.<sup>29</sup>

### strategies and best practices for risk management

There are a number of ways for an owner to minimize the risk of claims. The pre-contract period is the first opportunity for formal contact with the design-builder. It is essential to invest in a transparent procurement process and in the preparation of concise RFP documents.<sup>30</sup> It is critical for all of the parties to understand the unique Canadian law of competitive bidding. The Supreme Court of Canada set out the Contract A – Contract B paradigm in *R v. Ron Engineering & Construction (Eastern) Ltd.*<sup>31</sup> Bids submitted in response to an RFP or tender are deemed to create Contract A, the bidding contract, between the owner and each compliant bidder.<sup>32</sup> Contract B, the actual construction contract, is formed when the owner accepts the bid. The specific language of the RFP

25 *Ibid.*

26 *Ibid.*

27 Douglas Gransberg, James A. Koch, and Keith Robert Molenaar, *Preparing for Design Build Projects* (New York: ASCE Press, 2006) at 123.

28 *Ibid.*

29 *Ibid.*

30 Michal Brady, "Design/Build: The Owner's Perspective" in *Design/Build The Emerging Trend in Construction Contracts* (February 27 and 28, 1997, Toronto) at 11.

31 [1981] 1 S.C.R. 111, 119 D.L.R. (3d) 267.

32 *Ibid.*



and the intention of the parties are used to determine whether Contract A has come into existence.<sup>33</sup> Where a valid Contract A is formed the bidder and owner receive legally enforceable rights and obligations. Contract A will not arise where the RFP is silent on key business terms, is used simply to identify a negotiating partner, or if the document makes clear that there is no intention to create legally binding relations.<sup>34</sup>

In *Design Services Ltd. v. Canada*, the Supreme Court affirmed that RFPs for design-build projects are not exempt from the application of Contract A, even though many details are left to be settled before the execution of Contract B.<sup>35</sup> Owners should carefully review the language of each RFP to ensure that only the intended legal consequences are created. Further, an owner who hastily recycles another owner's RFP template may not achieve the desired result.<sup>36</sup> When Contract A is formed, the owner has the duty to make full disclosure in the RFP process, has the duty to conduct a fair and transparent process, and has the duty to award as described in the RFP.<sup>37</sup> These duties have been interpreted by a number of Canadian courts and are a key area of focus because design-build RFPs leave a great deal of discretion with the owner. The courts have frequently found that the broad reservation of rights scattered across most RFPs are overly broad in scope and indefensible.<sup>38</sup> Design-build RFP processes are particularly vulnerable to challenge by disappointed bidders as many project attributes remain unsettled until after the submission deadline.<sup>39</sup> Even where a Contract A is not established, courts have imposed a duty of fairness that compels owners to fairly consider each submitted proposal.<sup>40</sup> The rationale for the duty of fairness is that bidders incur significant expense and resources in preparing their bids, especially with design-build delivery projects.<sup>41</sup> Hence, owners must assume that such a duty will apply to their design-build RFP process and conduct themselves accordingly.

Based upon the size of the project, the owner may wish to have a referee agreement. A referee on retainer provides a means of early resolution of disputes and allows the parties to deal with situations in an informal setting and before a technically proficient individual.<sup>42</sup> Another important way for owners to minimize the risk of claims is to clearly define the requirements of the contract. All contractual requirements and responsibilities should be defined to avoid interpretive issues.<sup>43</sup> The design-builder should ensure that all of the owner's expectations are clear before entering into contract. Although the scope

33 *Ibid.*

34 *Ibid.*

35 [2008] 1 S.C.R. 737, 293 D.L.R. (4th) 437.

36 Denis Chamberland, *Requests for Proposals for Design-Build Projects: Identifying and Mitigating Select Legal Risks* (Ottawa: Canadian Design-Build Institute, 2008) at 1.

37 *Ibid.*

38 *Ibid.*

39 *Ibid.*

40 *Buttcon Ltd. v. Toronto Electric Commissioners* (2003), 65 O.R. (3d) 601, 38 B.L.R. (3d) 106 (S.C.J.).

41 *Supra* note 36 at 2.

42 *Supra* note 30 at 12.

43 *Ibid.*

and specifications of a design-build project are usually well defined prior to submission of the bid, there are questions about when terms may be reasonably inferred or implied if not expressly articulated in the documents. Canadian courts have consistently noted that bid repair is not acceptable.<sup>44</sup> A design-builder's bid that requires repair by the owner to meet an aspect of the RFP is a non-compliant bid that must be disqualified.<sup>45</sup> Moreover, where substantial changes are made to a design-build RFP process, the courts will typically not support the broad RFP language that entitle the owner to do as it pleases during the evaluation process.<sup>46</sup> Owners and their advisors should also disclose the sub-evaluation criteria as well as the high-level criteria in the RFP to reinforce the objective of transparency.<sup>47</sup> Additionally, both parties would be wise to place some dispute resolution guidelines in the contract to avoid court expenses. Consideration should be given to the particular effectiveness of facilitators, mediators, referees, and arbitrators.<sup>48</sup>

Careful selection of a design-builder will help to minimize risk. Since an owner using design-build cannot place a great deal of reliance upon early cost estimates, the reputation and quality of the hired design-builder is of pivotal importance. Each party can use their bargaining power to minimize and appropriately allocate risk by selecting competent legal counsel. The construction solicitor has the objective to ensure that the form of contract and its drafting properly allocate the risks associated with the project to the party who has accepted and the party who will be compensated for the risk. The solicitor must ensure that their clients are protected to the greatest extent possible against the risks that they have chosen to accept. Counsels' creativity, experience, and foresight can make all the difference in ensuring that only the appropriate risks are assumed. Examples range from sharing of financial information, the allocation of due diligence risk, ensuring appropriate insurance coverage to milestone targets. The list is as endless as the range of projects and the needs of the parties.

A number of business risks may be assigned to one of the parties to the contract. However, most business entities are unwilling to take direct responsibility for certain risks, since a potential loss can endanger their financial viability.<sup>49</sup> These risks may be managed by transferring them to a third party, such as an insurance carrier or bonding company.<sup>50</sup> Professional liability insurance, commercial general liability insurance, builder's risk insurance, performance bond, and payment bond are the most typical insurance and bonding products used in the construction industry.<sup>51</sup> Most contractors, design firms, design sub-consultants and some sub-contractors carry professional liability insurance coverage. Professional liability insurance protects the insured party against liability

44 *Supra* note 36 at 3.

45 *Ibid.*

46 *Ibid.*

47 *Ibid.*

48 *Supra* note 30 at 13.

49 *Supra* note 1 at 393.

50 *Ibid.*

51 *Ibid.*

arising from negligence, errors, and omissions in rendering professional services.<sup>52</sup> In addition to covering the economic damage as a result of the negligence, most professional liability insurance covers attorneys' fees that are sustained defending the action.<sup>53</sup> A number of gaps are apparent when attempting to implement a professional liability program on a design build project. Some of these issues can be resolved by modifying the policy's exclusions to fit a design-builder's role and by the contractor obtaining a policy to cover vicarious liability for negligent design.<sup>54</sup>

Project-specific professional liability insurance policies can address some of the shortcomings of standard professional coverage. This type of policy covers professional liability on a particular project. A project-specific policy offers a reduced threat of eroded limits as coverage is non-cancellable because the premium and limits are dedicated to the project.<sup>55</sup> Project-specific professional liability policies offer a single source of responsibility for claims with fewer lawyers and insurers arguing over a claim.<sup>56</sup> Also, coverage for all professional consultants is provided, including design work that has been delegated to contractors.<sup>57</sup> Project-specific policies may include coverage for a wider variety of claims and may permit the owner to be named as an additional insured party.<sup>58</sup> The policy term usually runs from the commencement of design, through construction plus three to ten years afterward.<sup>59</sup> Although project-specific policies tend to be quite expensive, the cost may be offset by the risk avoidance benefits.

## 5. the standard form design-build contract

once the owner has selected the successful proponent, a formal contract can be executed. Standard form contracts are commonly used in the construction industry and are designed by industry groups such as the Canadian Construction Document Committee, the American Institute of Architects, the Design-Build Institute of America, and the International Federation of consulting Engineers.<sup>60</sup> Standard form contracts incorporate the accumulated wisdom and knowledge of experienced industry participants but cannot always anticipate the unique characteristics of a particular project.<sup>61</sup> While these contracts are simple to use and often only involve filling in blanks on a form, this must be done with care because errors and inconsistencies are easy to make.<sup>62</sup> The original CCDC Design-Build Stipulated Price contract

52 *Ibid.*

53 *Ibid* at 397.

54 *Ibid* at 401.

55 The Canadian Design-Build Institute, "Project Specific Professional Liability For Design-Build Projects" *Practice Bulletin #4*, October 2001 at 1.

56 *Ibid.*

57 *Ibid.*

58 *Supra* note 1 at 402.

59 *Supra* note 55.

60 Jeffrey Vallis, Q.C., "Allocation of Risk Through Contracts" in *The 17<sup>th</sup> Annual Construction Superconference* (November 22 and 23, 2007) at 11.

61 *Ibid.*

62 *Ibid.*

as drafted in 1975. The document has been continually revised and the most current draft of CCDC Document 14 was published in September, 2000.<sup>63</sup>

CCDC Document 14 allocates risk between the parties to the design-build contract. Article A-1 requires the design-builder to fulfill everything indicated by the contract documents and to complete work by a particular date. Article A-4 stipulates the contract price and A-5 outlines the payment schedule with interest due if either party fails to make payments. GC 1.6 requires the owner and design-builder to keep all matters respecting technical, commercial, and legal issues confidential. The roles and responsibilities of the consultant for both the client and contractor are outlined in GA 2.1 and 2.2. GA 2.3 requires the design-builder to permit the owner to review and inspect the work. The owner may order an examination of any work to ensure compliance with construction documents, and shall require the design-builder to correct and pay any costs incurred to fix the deficient work. GC 3.1 gives the design builder total control and sole responsibility for the work and the builder must keep the owner informed of the project's progress. The design-builder is given the sole responsibility for the construction schedule, safety, as well as to hire a supervisor, consultant, subcontractor, and suppliers. The design-builder must pay for labour and products and must maintain the workplace in a clean and orderly manner.

GC 5.1 requires the owner to "furnish to the Design-builder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the contract" at the request of the design-builder. Similarly, the owner is required to notify the design-builder in writing of any material changes in the owner's financial arrangements. Canadian courts have held that a similar provision did not permit the contractor to terminate the contract if it was dissatisfied with the financial evidence provided by the owner.<sup>64</sup> The provision does not require the owner to provide a guarantee and the contractor is not excused from not following the procedures set out in the contract for resolving disputes and terminating the contract.<sup>65</sup> Furthermore, GC 5.2 requires the design-builder to provide the owner with a schedule for progress payments. GC 5.3 stipulates that the design-builder's consultant is responsible for the certification of all payments: monthly payments, payment upon substantial completion and the final payment. Once the design-builder's consultant has issued any of these payment certificates, the owner is obliged to make payments due to the builder.

GC 6.1 allows an owner to submit a "change order" or "change directive" to require changes that add to the work, delete items from the work, or make other types of revisions to the work. GC 6.2 and 6.3 specify that when a proposed change alters the scope or nature of the work, either the contractor or the owner is to provide a notice describing the proposed change to the other party. If the parties cannot agree on the change order, the owner

<sup>63</sup> The Canadian Construction Documents Committee, *Design-build Stipulated Price Contract*. Standard Construction Document 14, 2000 [CCDC Document 14].

<sup>64</sup> For example, see *B. Matthews Developments Ltd. v. Humford Developments Ltd.* (1985) 20 C.L.R. 134 (B.C. Co. Ct).

<sup>65</sup> *Ibid.*

can still require the work to be completed by issuing a change directive which compels the design-builder to complete the work and to be compensated for extra costs. The consultant is the party responsible for stating the additional time required to perform the extra work. GC 7 gives the owner and design-builder specific rights to perform work, suspend work, or terminate the contract. GC 8 highlights the sequence of steps that must be followed if a dispute arises between the parties. The earlier steps are less costly and burdensome than the later procedures and the steps involve negotiation, mediation, and arbitration. GC 9.1 deems the design-builder liable for the owner's property and responsible for damage unless the damage is the fault of the owner. GC 9.2 states, "if either party to the contract suffers damage in any manner because of any wrongful act or neglect of the other party... then that party shall be reimbursed by the other party for such damage."

GC 9.3 indicates that for the purposes of environmental legislation, the owner has control over the place of work. Before work commences, the owner must take reasonable steps to determine if there are any hazardous substances on the site. The owner has an obligation to take reasonable steps to ensure that no person is injured due to hazardous substances on the site and the owner is responsible for disposing of hazardous substances. Furthermore, the owner must indemnify the design-builder and consultant for any damages arising from the presence of hazardous substances which were on the site before the work commenced. The contractor's only obligations under GC 9.3 are to advise the owner if he becomes aware that there are hazardous substances on the site and to take reasonable steps to avoid anyone getting injured by them.

GC 10 sets out the requirements of the owner and design builder to pay taxes, duties, laws, notices, permits, fees, and workers compensation. GC 11.1 requires the design builder to provide, maintain, and pay for the minimum insurance coverage specified in the section. 11.2 requires the design-builder to provide to the owner such surety bonds as are required by the contract documents. GC 12.1 states that the design-builder shall indemnify and hold harmless the owner, the owner's agents, and employees from and against claims, demands, losses, costs, damages, actions, suits, or proceedings that arise from the design-builders work. GC 12.2 states that, as of the date of the final payment certificate, an owner expressly waives and releases a contractor from all claims, including all claims for breach of contract and negligence. GC 12.3 states that the warranty runs for one year from the date of substantial performance unless the parties agree to a different period. Design-builders are the party primarily liable to correct deficiencies or defects which appear prior to or during the warranty periods. The language of GC 12.3 is far short of the warranty that is implied in law and, if read in isolation from the waiver provisions of GC 12.2, is inconsistent with the logic of design-build that would render a design-builder liable for ensuring that an owner received the product for which that owner bargained.<sup>66</sup>

66 Lise Favreau and Joel Richler, "The New Form of the CCA's Design-Build Stipulated Price Contract" in *Design/Build The emerging Trend in Construction Contracts* (February 27 and 28, 1997, Toronto) at 50.

## 6. effective management of design-build during construction

Just as the parties have different roles during the construction process, the management of the construction phase also carries differing obligations. Owners are responsible for inspection of the contractor's work to ensure general compliance with the contract documents. It is critical that the contract identifies the full extent of the owner's management and supervision obligations relative to inspection, and that the contract indicates the party responsible for declaring the project successfully completed.<sup>67</sup> To facilitate the execution of the contract, design-builders must put comprehensive project management models in place. The most important project management skills relate to planning and scheduling as well as estimating and costing.<sup>68</sup> The design builder must also manage the hiring and review of subcontractors. The development of subcontract work or bid packages helps the design-build project manager define issues for major subcontractors.<sup>69</sup> The design-builder must decide whether the subcontractor will work as a design-build subcontractor, inheriting design responsibility as well as construction responsibility as a key participant of the team; or if the subcontractor will act in a traditional construction-only role, relying on the plans and specifications of the design builder.<sup>70</sup>

Introducing a construction manager to the design-build project is another management technique that should be considered. Construction managers apply professional management techniques to a construction program for the purposes of controlling time, cost, and quality.<sup>71</sup> Construction managers can assist owners with limited resources with the supervision of complex design-build projects in order to achieve the project goals. Construction management may be practiced through the "agency construction management" contract format where the manager acts solely as the owner's agent and advisor and takes no direct risk for cost overruns, timelines, construction quality or design deficiencies.<sup>72</sup> Under the "at-risk construction management" format, the at-risk manager is placed in virtually the same legal and contractual position as a general contractor, except that the manager becomes involved earlier in the project.<sup>73</sup> A management concept referred to as "program management" has become frequently used for complex and intricate projects. Program management is a variation of agency construction management and has been primarily used on large public sector infrastructure projects.<sup>74</sup> The program manager has broader responsibilities than the typical agency construction manager, including assisting the owner with the development of the overall project concept and evaluation exit strategies for the project.<sup>75</sup> In addition, many project managers operate as actual agents for the

67 *Supra* note 1 at 93.

68 *Ibid* at 122.

69 *Ibid*.

70 *Ibid*.

71 *Ibid* at 477.

72 *Ibid* at 479.

73 *Ibid*.

74 *Ibid* at 480.

75 *Ibid*.

owner and stand in the owner's shoes relative to the administration of the contracts.<sup>76</sup> The decision to use a construction manager should be based on the unique characteristics of each particular project. Generally, a project will benefit from a construction manager if it is especially complex and where the owner has a great deal of work in addition to design and construction.<sup>77</sup>

## 7. conclusion

The popularity of design build has introduced novel business issues, has adjusted the allocation of risk, and has created new roles for all parties involved. By contrasting design-build with design-bid-build, outlining dexterous strategies for securing and managing design-build projects, and examining risk allocation and management, it is possible to gain a more complete understanding of the project delivery method. Design-build can be a complex process and each new project carries unique complexities that must be diligently anticipated and analyzed. Understanding the basic structure of your agreement and getting good advice – before you sign on the dotted line – are crucial elements of ensuring that the project is accurately priced and that only the appropriate risks are assumed.

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Timothy John Murphy and Jason J. Annibale

<sup>76</sup> *Ibid.*

<sup>77</sup> *Ibid.*

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### a cautionary note

The foregoing provides only an overview. Readers are cautioned against making any decisions based on this material alone. Rather, a qualified lawyer should be consulted. © McMillan LLP 2009.