Design-Build Legal Issues

workshop

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A PROFESSIONAL CORPORATION

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1. An Introduction to Design-Build Transportation Construction

A. Argument For and Against

The Federal Highway Administration (FHWA) and many state highway agencies view design-build construction as a viable alternative to the traditional, design-bid-build construction. Many have stated it provides "another tool" the state DOT can use to deliver projects. The FHWA believes design-build contracting allows the contractor to optimize its work force, equipment and scheduling; and that design-build opens up a new degree of flexibility for innovation.

In surveys taken of public and private owners, the primary reason that design-build contracting is selected is to shorten the duration on specific projects. The survey reveals that additional factors which may dictate the use of design-build include the ability to establish costs, reduce costs, constructibility/innovation, establish schedule, and reduce claims.[i]

The Associated General Contractors (AGC) and other contractor associations have expressed concern regarding the use of the design-build method for construction of transportation projects. Many contractors fear that large "out-of-state" contractors will take the work away from the smaller local contractors. In an *AGC White Paper on Use of Alternative Contract Award Methods in Highway Construction* dated October 1, 1997, the AGC raised the following specific concerns with design-build of public highway construction projects:

- The introduction of subjectivity into the bid process will have a negative impact on the integrity of the industry, because subjectivity tends to politicalize the selection procedure, and opens the door for impropriety;

- Design-build restricts competition by eliminating small and medium contractors because they can not afford the level of risk associated with design liability and extended project liability inherent with design-build;

- Design-build further restricts competition by eliminating firms that can submit bids because typical process is to short list as few as three proposers;

- Design competition based on price is not a good practice, because it is in direct conflict with the goal of designing higher quality into projects;

- Design-build results in increased cost because of the restriction of competition;

- Emerging contractors would be virtually eliminated from entry into the design-build team;

- Because of small design professionals' inability to provide adequate professional liability insurance, the risk is shifted to the design-build contractor;

- Most design professionals prefer to work with owners rather than contractors;

- Preparation of a design-build proposal requires a substantial initial investment, which is barely covered by stipends paid to the unsuccessful proposers;

- Because of the subjectivity and "best value" introduced into the selection process, there will likely be increased litigation at that stage of the procedure;

- Unforeseen conditions at the site which are normally the owner's risk under the differing site condition clause might be shifted to the contractor under a design-build concept;

- Contractors have little clout when dealing with utilities and other agencies because they control the right-of-way and share funding;

- It is unreasonable to ask a contractor for a warranty on work designed in accordance with the agency's own design criteria and maintained by the owner's forces; and

- The "short-listing" subjectivity could result in an improper prequalification question of whether the contractor had ever filed a claim with the agency.

Each of the AGC concerns raises a potential legal issue concerning the design-build method of constructing transportation construction projects. For example, the introduction of subjectivity into the award process, coupled with the substantial cost of preparing a proposal, will likely generate more bid protests and litigation by the unsuccessful offerors.

Interestingly, in a May 4, 1995 letter from the Director, Office of Engineering, the FHWA stated that although there was some support from state highway agencies to use and evaluate the design-build contracting method, a large portion of the industry had expressed strong disapproval. Due to the lack of support from the highway community, FHWA decided at that point that no special emphasis, beyond the SEP-14 initiative, would be made to promote the design-build-warrant concept.

B. Expansion of Design-Build

In spite of the comments in the May 14, 1995 letter, more and more state DOTs and local governments are clamoring to use the design-build method. For example, San Joaquin Hills Toll Road, located in California between Newport Beach and I-5 in San Juan Capistrano, was constructed over 16 miles and included some 73 bridges and 32 million cy of excavation. The project, built by California Corridor Constructors, a joint venture of Kiewit Pacific Co. and Granite Construction Co., was built using the design-build method in 5 ½ years, including design, on a fast track schedule for a contract amount of $778 million. The project opened to traffic nearly 4 months early and is viewed as highly successful, in terms of quality and costs, by both design-builder and owner.[ii]

In Utah, UDOT awarded a $1.325 billion design-build contract to Wasatch Construction to rebuild I-15 in time for the 2002 Olympics. The I-15 project is being used as a primary example of the validity of using the design-build approach to construct major complex projects in the future. In fact, in a press release dated January 28, 1999 the FHWA cited the Utah I-15 project as a prime example of an innovative way to build roads. Secretary of Transportation Rodney E. Slater said: "The innovative design and contracting methods used in this Interstate 15 project in Utah are an ideal example of using creative solutions to help finish

more transportation projects early and at a lower cost–it's what commonsense government is all about."

In the press release, Federal Highway Administrator Kenneth R Wykle is referred to as having "championed" the design-build construction methods. He describes the method as the 21st century way of doing business..."

In New Mexico, the state DOT put together a design-build and maintain and warranty contract and awarded a $420 million contract to Koch Industries to construct 120 miles of road As part of the contract, the contractor warrants the pavement for 20 years and the structures. for up to 10 years. The project was recently awarded the Project Recognition Award by the National Council of Public-Private Partnerships. The project is scheduled to be completed in 2001. The New Mexico DOT believes it would have taken 27 years to complete under normal procedures. The New Mexico DOT has also determined that the one time maintenance fee of $60 Million may save the state $89 million over the 20 year period.

In Maine, the MaineDOT was faced with the potential loss of federal funds if not obligated before October 1, 1997. As a result, the Maine DOT chose to construct the new bridge over the Kennebec River between the City of Bath and the Town of Woolwich using the design-build method. In September of 1997, the MaineDOT awarded a $46.6-million contract to Flatiron Structures Co. LCC. With the project nearing completion the MaineDOT has taken pride in the small dollar percentage of changes that have been made.

In addition to large projects, smaller ones, such as the San Francisco Bay Area Rapid Transit Authority's Hayward Project have also been successfully constructed through the design-build method. That project required construction of a parking garage to have not less that 1175 parking spaces nor more that 1225 according to a design meeting certain minimum requirements. Assuming all submitted designs met the specified criteria, the contract was awarded in large part on the basis of lowest cost per parking space.[iii] Many other small transportation projects, as well as massive undertakings like the San Joaquin Hills Toll Road, will likely be delivered under design-build contracts.

C. DESIGN-BUILD IN TRANSPORTATION CONSTRUCTION -- WHY DOTS WANT TO USE IT?

I believe the design-build method is being used in the transportation construction industry first because it is an innovative approach. In addition, I believe it has been adopted as a result of the two following major interrelated factors.

- Public Owner Resource Constraints in the Face of Changing, Interrelated Technologies and New Financing Arrangements.

- Perceived Potential for Cost and Time Savings with Improved Overall Quality.

Design-build projects theoretically permit owners to take advantage of the potential time and cost savings offered by the process while integrating new technologies and taking advantage of new financing arrangements with reduced internal resources required.

1. Public Resource Constraints

State DOTs have been forced to downsize their workforces and better control costs. Through early retirements, many senior level designers and inspectors are no longer employed by their respective DOTs. Indeed, as a result, many state DOTs no longer have the internal resources to furnish design and inspection services with any consistency through their own forces as they have done in the past. Poor design or inspection in the traditional design-bid-build model invariably results in contractor claims for direct and delay costs. However, under the design-build model, the design-builder largely assumes responsibility for design defects and may have significant QC/QA responsibilities. Theoretically, and as reflected in the construction of the bridge in Maine, design-build results in fewer claims, change orders and administrative costs over the life of the contract.

New technologies and financing options are also affecting how public agencies build transportation projects. For example, automated toll collection systems require special computer, finance, technological and integration skills to implement. In many cases, those skills are not within the traditional skills and expertise of the public agencies. As such, it may often be easier to procure

such systems through design-build with a detailed set of performance specifications than through traditional methods using design specifications. The same logic applies when an automated toll collection system or other new, technical system is to be included as part of a larger road construction project.

Financing, like technologies, will likely play a role in a DOT selecting the design-build method. Many states now have some form of public-private financing legislation that provides for submission of original, unsolicited proposals for infrastructure construction. For instance, in Virginia, under the Public-Private Transportation Act of 1995[iv], the Commonwealth of Virginia may entertain proposals related to any "transportation facility" which includes any road, bridge, tunnel, overpass, ferry, airport, mass transit facility, vehicle parking facility or similar commercial facility used for the transportation of persons or goods, together with any other property that is needed to operate the transportation facility,"[v] subject to certain exclusions. Proposals under the act are to include, among other things, a conceptual design for the project and a financing plan.[vi] The final agreement for the construction of the transportation facility requires "review" and "approval" of the final project design by the responsible state agency, rather than performance of the design itself.[vii]

In June of 1998, financing was obtained for the design and construction of the 895 Connector, known as the Pocahoatas Parkway. This resulted from an unsolicited proposal submitted by Fluor Daniel, Inc. and Morrison Knudsen Corporation on November 8, 1995. In July of 1996, a detailed proposal was submitted. Negotiations were conducted over several months in an agreement with the Virginia Department of Transportation which was executed on June 3, 1998.

2. Cost, Time and Quality

In addition to allowing for construction progress in the face of reduced public agency resources, the use of design-build is perceived to reduce the cost and time required to construct a given project while, at the same time, improve the quality of the final product. The Construction Industry Institute (CII) has conducted a study of building projects the data from which they assert shows design-build projects are completed 33% faster than design-bid build projects and cost 6% less to complete.

Many in the industry believe that when the designer and contractor work closely together as a team to evaluate construction

alternatives, perform value engineering and consider constructibility issues during the design process, significant cost savings may accrue to the owner.[viii] This effect can be maximized as the contractor and designer build a relationship through multiple projects, overcome traditional animosities and learn to take advantage of opportunities to improve schedule, budget and quality. As Bruce Clawson, an attorney with the Kiewit Construction Group has stated, "sometimes only the designer can best build the project and sometimes only the builder can best design the project."[ix] Costs may be further reduced by the fact that the owner does not have to award separate design and construction contracts or administer the disputes between the designer and contractor which invariably occur when separate contracts are let.

I am aware of several state public agencies who believe that one of the most significant advantages to design-build contracting is the opportunity to fast track projects. Significant time savings can be had because as the different components or phases of the design are completed, the contractor can begin construction of each completed component. Thus, a full set of detailed construction drawings is not required as a condition of beginning construction. Again, since both the builder and designer share in the risk, each has an incentive to work according to coordinated set of plans with as little conflict as possible. When problems are discovered, each has an incentive to design an appropriate fix on a timely basis (in the field if possible) to avoid impacts to the project. Absent the designer sharing in the cost of delay, the incentive is normally not there, particularly with constructibility issues or contractor caused problems.

Finally, to ensure quality, most states are including in design-build contracts performance specifications with extended warranty provisions or even maintenance requirements for a set period of time, in addition to performance requirements. Thus, from a quality perspective, in addition to obligating itself to meet the performance acceptance criteria for the project, there is often an incentive to build a finished, high quality project that will not require excessive warranty or maintenance work.

3. Conclusion

Design-build contracting is taking its place in transportation construction in part, in response to depletion of state DOT resources, and in part, because of the perceived advantages offered to owners in terms of cost, time and quality. Given the advantages and dwindling DOT resources, design-build is here and is not likely to go away in the immediate future.

D. IS DESIGN-BUILD A PERMITTED METHOD?

1. Introduction

When legal scholars compare private contracts with public contracts, they frequently point out that in private contracts the parties can agree to anything that is not prohibited by law. In contrast, parties to a public contract may only agree to matters specifically authorized by law. The lack of specific legislation authorizing design-build has, and, will likely continue to foster litigation. In several states, disgruntled offerors and taxpayers have challenged the public body's authority to award construction contracts on any basis other than to the low responsible bidder. In some cases it has been argued that the contract itself is void. Enabling legislation of some type reduces the likelihood of such a challenge.

Many states require construction contracts to be competitively bid and be awarded to the lowest responsible bidder. Most states have mini-Brooks Acts which are modeled after the Brooks Act, 40 U.S.C. § 541 et seq. Such statutes require the government to select architects and engineers on the basis of their qualifications and not on the basis of their fees alone. In many instances, the engineer for a design-build project is actually selected by the design-build contractor. It has been suggested by some that this method of selection would violate the requirements of the Brook Act.

The final hurdle to be overcome concerns state licensing requirements for design engineers. Many state licensing statutes provide that corporations or partnerships may practice engineering provided that the practice is carried on only by professional engineers registered in the state. In *Design-Build Contracting Handbook*[x], the authors of Chapter 3 state that some state licensing laws facilitate design-build activity to a greater extent than other

state licensing laws and that some other state licensing laws effectively prohibit design-build activity. Finally, they indicate that some courts look at who performs the services while other courts look at who enters into the contract.

In an article titled *Design-Build Contracts Under State and Local Procurement Laws*[xi] Kenneth M. Roberts and Nancy C. Smith explored the legality of design-build projects on a state-by-state basis by identifying procurement statutes in judicial decisions that foster or hinder the use of the design-build method. In the article, the authors provided a chart summarizing the main procurement laws from state-by-state analysis. The authors also determined that each of the state law falls into one of four categories: (1) laws that expressly prohibit design-build; (2) laws that pose obstacles to design-build; (3) laws that pose no obstacles to design-build; and (4) laws that expressly allow design-build.

It is clear that the current trend is to enable the design-build method for constructing highways and other transportation projects. For example, in 1998, the Washington state legislature, at the request of the WSDOT, enacted a Pilot Program for design-build under which two projects will be constructed using the design-build method, after which the advantages and disadvantages will be evaluated. However, given the AGC's opposition to the design-build method for transportation construction, legislation permitting design-build will be defeated in some states, as it was in 1999 in Texas, or transportation construction projects will be excluded, as they were in West Virginia. It is also possible that there will be an increase in the number of statues specifically prohibiting design-build for highway and other transportation projects.

2. FHWA SEP-14

FHWA reports that 19 states and the District of Columbia have utilized the design-build process for transportation construction under the SEP-14 program. Those states included Alabama, Alaska, Arizona, California, Colorado, District of Columbia, Florida, Hawaii, Indiana**,** Maine, Michigan, Minnesota, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina and Utah. Washington state, as part of its legislated Pilot Projects, is currently in the process of initiating a design-build contract for construction of the Thurston Way Interchange in Vancouver, Washington. Obviously, the design-build method of constructing transportation projects is

either specifically permitted in those 19 states and the District of Columbia, or alternatively it is not prohibited in those locations.

Under federal law, until the 1998 TEA-21 legislation, construction contracts of FHWA funded projects, other than SEP-14 projects, had to be awarded competitively to the lowest responsible bidder.[xii] Engineering services contracts had to be based on qualification.[xiii] In 1991, the FHWA Office of Chief Counsel stated that design-build projects could have FHWA funding if approved under SEP-14 and awarded under competitive bidding procedures. On April 2, 1996, the FHWA office of Chief Counsel issued an opinion dated, stating that the new federal design-build law (Section 302 M of Pub. L. 104-106 Federal Acquisition Reform Act of 1995) approved February 10, 1996 does not apply to the Federal Highway Program. I have not seen an actual copy of the opinion, but I understand that the FHWA counsel believed that a legislative change to 23 U.S.C. § 112 is required to implement a design-build program on an FHWA-wide basis. Under 23 U.S.C. § 112 contracts for construction shall be awarded only on the basis of the lowest responsive bid submitted by a bidder meeting established criteria of responsibility. FHWA funds are limited to design-build projects under SEP-14 research program authorized by 23 U.S.C. § 307(a).

3. TEA-21

Section 1307(a) of TEA-21 is titled "Design-Build Contracting" and specifically amends 23 U.S.C. §112 to authorize the use of the design-build approach by State DOTs for certain federal-aid highway projects. In addition to making design-build contracting an acceptable method for letting highway contracts, Section 1307 also makes several other amendments to 23 U.S.C. §112 that Congress decided were necessary for the implementation of the method.

Section 1307 (a) permits a State transportation department or local transportation agency to award a design-build contract for a qualified project "using any procurement process permitted by applicable State or local law." Obviously, one of the issues readers will face is whether award of a design-build contract is permitted in their state. A qualified project is one that exceeds $5,000,000 in estimated total cost for intelligent transportation systems or exceeds $50,000,000 estimated total cost for other highway projects. It appears that Congress was sensitive to the concern that some states may attempt to use design-build for projects that should be competitively bid. Since TEA-21 was enacted, those

favoring design-build have suggested that the qualified project dollar amounts be reduced.

Section 1307 (c) directs the Secretary to issue regulations within three years, after consultation with AASHTO and representatives of affected industries. The regulations are to identify criteria to be used by the Secretary in approving design-build projects and procedures to be used by a State transportation department or local transportation agency to obtain approval.

Interestingly, Section 1307(e)(1) provides that the design-build provisions only become effective three years after the date of enactment of TEA-21. However, during the period before issuance of regulations, the Secretary may approve design-build contracts in accordance with the experimental program already in existence.

Section 1307(b) amends 23 U.S.C. §112(e)(2) to make the standardized provisions for changes, differing site conditions and suspensions of work inapplicable to design-build contacts. I envision that the design-build team may well find itself forced to accept the risk of site conditions differing from those it expected.

The design-build section of TEA-21 came from the Senate Bill, S. 1173. There was no comparable provision in the original House Bill. The Senate Report lists the advantages of the design-build process as "greater accountability for quality and costs, less time spent coordinating designer and builder activities, firmer knowledge of project costs, and a reduced burden in administering contracts." The report states that a particular advantage of design-build is accelerated project delivery, noting a study of eleven such projects in Florida that found that the design-build process "produced significant improvements in project performance." The average construction time was 21.1% shorter and actual procurement times were 54% less. The report did not mention that the Florida Transportation Builders Association lobbied against continuation of the Florida DOT's design-build program and that it was continued only for major bridges and transit projects. The report also failed to address whether the design-build approach results in cost savings.

The House report differs from the Senate report only by recommending a two year waiting period after enactment and a $10,000,000 floor on "intelligent" systems. The final version of the Act, as enrolled and sent to the President, contained the Senate

provisions for a three year waiting period and a $5,000,000 floor. Neither report adequately explains how the $5,000,000/$50,000,000 floor was established for qualifying contracts. The reports merely state that the design-build method is not appropriate for every highway project. The reports also state that the limit applies to each "usable segment" of the project. This language, although not repeated in the statute, may be used to prevent the use of design-build on composite projects that exceed the minimum only by grouping several smaller projects together and bidding them as one. This language may also prevent a State DOT or local transportation agency from tacking small projects onto larger projects to include them in the process. For example, State DOTs may not be able to add a separate $5,000,000 project to the bid package of a $45,000,000 project to reach the $50,000,000 level.

4. State Statutes Enabling Design-Build

State statutes specifically enabling design-build range from very detailed with little discretion by the agencies, to very general leaving broad discretion to the agencies.

A detailed state statute might include the following elements:

- public policy statement;
- criteria for use of design-build;
- qualifications of design-builders;
- authorization to compensate proposers for a portion of preparation of design proposal costs;
- a two-step process under which qualifications are considered in the first step;
- a minimum number of firms to be solicited in the first step;
- a maximum number of firms that will be considered in the second step;

- criteria for award based on price and other factors stipulated in the Request for Proposals after discussions and Best and Final Offers (BAFO); and

- authorization to obtain federal funding and/or other modes of financing.

Those states which have enacted more general design-build statutes have taken a variety of approaches. The Virginia Statute is one that is short in length but requires a two-step, competitive negotiation process. After offerors submit their qualifications, the Commonwealth decides which are most suitable for the project and allows no more than five offerors to submit their proposals.

The New Hampshire Statute is an example of broad authority stated concisely. In simplistic terms it provides that highway, bridge and turnpike projects may be built under the design-build concept, provided that the selection and award is based on objective standards, that there are measurable criteria for evaluation, and that such projects are expressly designated as design-build and authorized as such in the capital budget.

5. Model Design-Build Procurement Act

State agencies considering design-build legislation can find some useful background information. The Systems Committee of the American College of Construction Lawyers (ACCL) has prepared guidelines for a Model Design-Build Procurement Act for State and Local Contracting. The major sections include the scope of the statute, definition of the design-build builder and the proposal and selection process. Under the commentary for the scope of the statute, the guidelines reflect that it could cover all types of construction, including roads and highways. Under the definition of design-builder, the commentary suggests that the statute identify those persons or firms who are qualified to enter into design-build contracts. The guidelines further reflect that the qualifications which design-builders are required to possess be more complicated in states with highly restrictive licensing laws. The model statute was drafted with such strict licensing laws in mind in that it provides that the prime contractor on the design-build project need have only one of several different licenses, including engineering or general contracting. The model statute also acknowledges and authorizes that the prime design-build contractor may delegate other services to properly licensed firms or persons. With regard to the proposal and

selection process, the commentary states they have the most difficult issues because most public procurement statutes require some form of Brooks Act competition for design professionals and fixed price low bid for construction contracts. The guidelines reflect that the procedures set forth in the statute are meant to be a minimum and it is anticipated that specific agencies or awarding authorities will implement regulations embellishing the procedures.

The ACCL Systems Committee also has provided guidelines for a Short Form Model Design-Build Procurement Act. In those guidelines the drafters indicate that in some instances a short statement of policy may be sufficient to authorize design-build project delivery on state or local construction projects and may be preferable to a more detailed design-build statute. Whether a brief statement of policy will suffice will largely depend on whether the policy is harmonious with other policies or may even override other conflicting policies.[xiv]

6. State Cases Challenging the Validity Awards of Contracts Without Competitive Bidding

There are very few cases involving transportation projects that have been decided testing the validity of awarding contracts without using applicable public bidding statutes. Most of the cases that have been decided involve the award of contracts for intelligent transportation systems, specifically electronic toll collection (ETC). One such case is *Nachtigall v. New Jersey Turnpike Authority et al*, 694 A.2d 1057 (N.J. App. Ct. 1997). In that case a taxpayer and the unsuccessful offeror challenged the award of a contract by the New Jersey Consortium on the basis that the award had to be made, after public bidding, to the lowest-responsible-bidder. The Consortium responded that the undertaking to install, implement, and service the ETC system constitutes a variety of integrated professional services, which are exempt under the statutes from public bidding requirements. On that basis, the Consortium contended that its procedure were predicated not only on obtaining the advantageous transaction for the State, but also accomplish that purpose within the frame work of the basic procedures, spirit and philosophy of competitive bidding under the applicable New Jersey Statute which permits the State to award competitively bid contracts, not the lowest bidder, but to that bidder whose proposal is "most advantageous to the State, price and other factors considered."

In the fall of 1995, an ad hoc alliance (the Consortium) was formed by four agencies operating New Jersey's toll roads and the Port Authority of New York and New Jersey. The Delaware Department of Transportation joined the Consortium in the summer of 1996. The single purpose of the Consortium is to obtain an integrated ETC system for the various roads covered by the Consortium. Following an extensive bidding and negotiation process spanning many months and involving two bidders, the Consortium awarded the contract to MFS Network Technologies, Inc. (MFS). That award was challenged both by the other bidder, Lockheed Martin IMS (Lockheed) and a taxpayer, Walter Nachtigall.

Having reviewed a voluminous record, the Court was persuaded that the Consortium was right in its contentions that the ETC system constituted a variety of integrated professional services and that its procedures were predicated upon obtaining the most advantageous transaction for the State. The Court went into great detail to explain what the ETC system essentially is, including a discussion of the hardware and the customer service center network (CSC). The Court found that the CSC is intended to operate as an integrated and complex financial entity involving a great deal of specifically designed computer software. The Court also examined the basic component of the system being the communication link involving fiber optic cable and the method by which the installation and operation of the system was to be financed.

Against this background, the Court considered whether the proposal, as an integrated whole, is one for the rendering of professional services exempt from the strictures of the bidding laws governing the three New Jersey Consortium members. In doing so, the Court recognized that there are some individual aspects that are not themselves professional services, such as digging the trench for the fiber optic cable and laying it, and providing the patented hardware. However, the Court noted that these elements are inseparable from the predominate nature of the entire proposal, which is, essentially, an agreement providing a combination of coordinated professional services, namely traffic-consulting services; the highly specialized financial and marketing services involved in designing, operating and servicing the CSC; the development of highly sophisticated software essential to running the coordinated system; and the provision of brokerage services involved the marketing and leasing of highly technical communication access facilities. The Court concluded that the financial, brokering, marketing, and panoply of technological and

consulting services which are the essence of the contract are each, individually, services of a professional nature. The Court also concluded that they did not loose that character by being integrated into a creative proposal that affords clear financial advantage to the Consortium.

A similar issue involving electronic toll collection was raised in the case *In the Matter of AT/Comm, Inc. v. Peter Tufo,* 652 N.E.2d 915 (N.Y. 1995), where the New York Court of Appeals distinguished between construction and provision of goods and services. In that case, AT/Comm and Amtech Systems, both had submitted proposals to install ETC that designated sites along the New York State Thruway Authority (Thruway Authority).

In 1993, without public bidding, the Thruway Authority entered into a $1.7 million contract with Amtech for the manufacture and installation of an interim read-only ETC system. Upon contract award, AT/Comm filed a petition seeking to enjoin enforcement of the contract and to preclude the Thruway Authority from entering into the contract for implementation of an ETC system without first conducting competitive bidding.

In the litigation, AT/Comm contended that the ETC system constituted an "improvement" of the thruway within the meaning of the New York competitive bidding statute, thus mandating public bidding. Amtech and the Thruway Authority contended that the contract for installation of the ETC system was not a contract for "construction, reconstruction or improvement" of the thruway and, as a result, was not subject to the competitive bidding requirement.

The Court of Appeals agreed with Amtech and the Thruway Authority. The Court noted that the New York statute requires public bidding where the work undertaken is for construction, reconstruction or improvement of the actual road or passageway used for traffic. The aim of the E-Z Pass system, however, was not to improve the roadway but to improve the flow of the traffic on it. The court observed that the technological devices that comprised the E-Z Pass system were more like a provision of goods and services than a physical improvement on the thruway.

Thorne Transit Systems International, LTD v. Massachusetts Bay Transportation Authority, 40 Mass. App. Ct. 650; 667 N.E.2d 881 (1996) is a case where the court refused to

permit the MBTA to award a $40 million contract. The plaintiffs were two disappointed bidders in a competitive procurement process established by MBTA to replace the MBTA's current, largely cash and token-based rapid transit fare collection system with a computerized, automated, integrated, state of the art fare collection system. After MBTA had awarded the $40 million contract, the plaintiffs sought to enjoin it, claiming that the procurement did not comply with Massachusetts law.

The court noted that the central issue on appeal is whether a Massachusetts Statute requiring that:

> Every contracts for construction, reconstruction, alteration, remodeling or repair of any public work, or for the purchase of any material . . . by the commonwealth, or political subdivision thereof . . . and estimated by the awarding authority to cost more than ten thousand . . . shall be awarded to the lowest responsible and eligible bidder on the basis of competitive bids . . .

The sole issue is whether the contract was for construction or for the purchase of any material. In examining the character of the RFP, which resulted in the contract, the court noted that it called for complete replacement of the existing MTBA subway fare collection system and that the contractor is required to remove the old system and install the new one, which is to perform specific functions at a guaranteed level of reliability. The court noted that the removal and installation involved physical removal and installation of station fare collection equipment and associated equipment at the rapid transit stations, the wiring of various types of station communications, computer and support equipment, reconfiguration and remodeling of rapid transit stations to accommodate the new system, the coordination of work with and oversight of the contractor selected to perform station modification work, extensive design services, and money room design and installation. Based on that the court concluded that the work involved included physical alterations and remodeling activities as well as provision of articles, assemblies, systems and/or component parts used in such activities. Based on that bases the court concluded that the plaintiffs were entitled to a preliminary injunction.

In a concurring opinion, one of the justices stated:

> Public agencies that disregard or permit deviations from the prescribed bidding process create grave uncertainty among all interested parties and arouse public suspicion that something is amiss in the selection system . . . All too often the result of such lapses, as illustrated by this opinion, is further delay in the construction process and needless expense of public money in litigation.

In 1997, the Supreme Court of South Carolina considered the case of *Brashier v. South Carolina Department of Transportation, et al.*, 327 S.C. 179; 490 S.E.2d 8 (1997). In that case, T. Walter Brashier filed a declaratory judgment action seeking to have agreements between the SCDOT and Interwest Carolina Transportation Group, L.L.C. invalidated and to permanently enjoin SCDOT from performing them. The agreements resulted from SCDOT's issuance of a request for proposals seeking developmental concepts and financing options for the Southern Connector, to connect interstate highways I-85 and I-385 around the southern perimeter of the City of Greenville.

On January 5, 1996, Interwest submitted its proposal. On February 29, 1996, SCDOT awarded developer the right to negotiate a contract to finance and build the projects. The resulting plan to finance, develop and operate the projects is embodied in four agreements. Essentially, under the agreements three separate entities will be involved in the project: SCDOT; Interwest; and a non-profit public benefit corporation without members called the Connector 2000 Association, Inc. The Association will pay Interwest to construct the Southern Connector with proceeds with from tax-exempt toll revenue bonds. The agreements provide that "fee simple title to the Southern Connector, all tolling facilities and all real property and improvements thereon and the rights of way thereunder is and at all times shall remain vested in SCDOT." The Association will pay SCDOT a fee for a license to operate and collect tolls on the Southern Connector. Payment of the license fee will be subordinate to the repayment of the toll bonds and to the cost of operating and maintaining the Southern Connector. Once the bonds have been defeased, the Association's license will expire, the Association will dissolve, and all of its assets will be distributed to SCDOT.

In the case, Brashier argued that SCDOT was required to comply with Section 57-3-615 of the South Carolina Code before initiating the Southern Connector project, and that in any event the

agreements violate several constitutional provisions. The court found that Section 57-3-615 of the South Carolina Code prescribing procedures which a county may employ to finance and construct highways after voter approval was in violation of Article VIII of the South Carolina Constitution in that counties have been delegated the authority to approval or disapprove a governmental service requiring statewide uniformity. Article VIII of the South Carolina Constitution forbids such delegation.

Next, Brashier argued that the Southern Connector project financing scheme violates a section in the Southern Carolina Constitution which does not permit the credit of the State or its political subdivisions be pledged or loaned for the benefit of a private entity. The court noted that the Southern Connector project is not being financed with general obligation bonds, nor is the State required to use any tax revenues to pay the bonds. To the contrary, the bonds will state on their face that they are payable solely from and secured by toll revenues collected from users of the Southern Connector, and will not be a debt or loan of credit of the State.

Brashier further argued that SCDOT improperly delegated its power to plan and implement highways by covenanting not to build "Competitive Transportation Facilities" within a specified geographical area of the Southern Connector until termination of the agreements. The court disagreed. Initially, the court noted that in making these covenants, SCDOT did not actually give its authority to another entity; rather, it contractually limited its authority. The court concluded that SCDOT has legislative authority to enter into noncompetition agreements such as were involved in the Southern Connector project.

In the case of *City and Borough of Juneau v. Breck*, 706 P.2d 313 (Alaska 1985), the Supreme Court of Alaska decided that Betty Breck had delayed instituting an action to overturn the design-build contract for so long that it resulted in undue prejudice to the City and Burrow of Juneau (CBJ). As a result, Breck was not entitled to obtain injunctive relief against the petitioners. The court then remanded the case back to the trial court for determination of Breck's declaratory judgment action and any other non-injunctive relief deemed appropriate in the circumstances.

On December 9, 1983, the CBJ announced its intention to seek "design-build" proposals for construction of a parking garage and a marine park adjacent to the downtown Juneau water front. Proposals were accepted up until March 2, 1984. One month later,

on April 4, the City selected the plan that Kiewit Construction had submitted and a contract was executed on May 3, 1984 for the total contract price of $5,075,000. Sometime in March, after proposals were solicited but before acceptance of Kiewit Construction's plan, Betty Breck approached the Mayor with her concern and made the first of at least nine appearances before the assembly to express her concern that the "design-build" method of bidding and construction did not conform with Section 9.14 of the CBJ Charter, which requires that contacts for public improvements be let by competitive bid.

Construction of the project began in the middle of May with an eight month schedule for construction of three floors of the parking garage to be operational by December 31, 1984. Breck filed suit approximately eight months after the City advertised its intent to seek "design-build" proposals, four months after the contract with Kiewit Construction was signed, and approximately 50% of the project was completed.

In a nutshell, the court noted that Betty Breck had waited too long to file suit. The court considered the prejudice to the taxpayers of CBJ as a relevant consideration, noting that the total additional costs of canceling the current contract and then proceeding with conventional design-bid construction would be between $1,500,000 and $2,000,000. The court also noted that the injunction that was then in affect forced CBJ and its residents to incur as much as an additional $1.5 million. Thus, simply the lawsuit itself and the injunction issued by the trial court had caused CBJ to incur substantial additional expenses.

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[i] Anthony D. Songer, Associate Member, ASCE and Keith R. Molenaar, *Journal of Management in Engineering*, Vol. 12, No. 6, November/December 1996, pp. 47-53.

[ii] *See Kie-ways* (November / December 1996).

[iii] *See* Hughes and Kornbluh, *Innovative Use of Design Build in Public Projects, Potential Benefits and Dangers,* CHANGING TRENDS IN PROJECT DELIVERY: THE MOVE TO DESIGN BUILD (A.B.A. 1995).

[iv] Va. Code Ann. §§ 56-556 *et. seq.*

[v] *Id.* at § 56-557.

[vi] *Id*. at § 56-560.

[vii] *Id.* at § 56-566.

[viii] *See* Design Build Institute of America, *The Design Build Process -- Utilizing Competitive Selection,* reprinted in CHANGING TRENDS IN PROJECT DELIVERY: THE MOVE TO DESIGN BUILD (A.B.A. 1995).

[ix] Clawson, *Design-Build Contracting*, p. 1. Mr. Clawson's article is written from the Contractor's perspective and contains an excellent discussions of liability issues arising from design-build contracts. Copies of the article may be obtained from the author or Mr. Clawson.

[x] Robert F. Cushman and Kathy Sperling Taub, *Design-Build Contracting Handbook,* Chapter 3 (1992)

[xi] Kenneth M. Roberts and Nancy C. Smith, *Design-Build Contracts Under State and Local Procurement Laws,* Public Contract Law Journal, Volume 25, No. 4, Summer of 1996

[xii] 23 USC §112(b)(1)

[xiii] 23 USC §112(b)(2)

[xiv] Clawson, *Design-Build Contracting*, at 4.

2. An Overview of Teaming and Forms of Organization for Design-Build Relationships

A. Introduction

Unlike the arms-length relationship between designer and contractor in a conventional design-bid-build contract, on a design-build contract, designer and contractor must associate, even to prepare their proposal. It follows then that the nature of the relationship between designer and contractor must be formally established prior to submitting a proposal to the owner. That relationship may be established either through a teaming agreement, followed by a joint venture agreement (or other entity agreement), or may it be established means of a joint venture agreement (or other entity agreement) from the outset.

It is difficult to establish a clear line of demarcation between the substantive matters to be addressed in a teaming agreement and the substantive matters to be addressed in a joint venture agreement (they are frequently the same) and it is frequently difficult to determine whether a teaming agreement should be used at all and if the parties should not simply prepare a joint venture agreement. (In fact, many teaming agreements are virtually indistinguishable from joint venture agreements.)

There are no hard and fast rules to determine whether it is appropriate to have a teaming agreement, followed by a joint venture agreement, or simply to have one agreement that serves both purposes. The two step process is substantially more common, however; and has much to commend it. The combining of designer and builder talents in connection with the bidding for and construction of a design-build project is much like the process of courtship and marriage. The couple can marry quickly (joint venture agreement) and work out their problems after they are married, or they can become engaged (team) and as the courtship progresses (contract award), get married and consummate the union (joint venture agreement).

The materials that follow will provide an overview of teaming, followed by an overview of forms of organization for design-build relationships.

B. TEAMING

I. Planning for Team Formation

Teaming agreements are preliminary, interim contracts that are distinct from ordinary project contracts. Typically, a teaming agreement will "team" a subcontractor with a prime contractor that intends to respond to a government "Request for Proposal." (There is no formal requirement that teaming arrangements necessarily concern government bids, but it is axiomatic that the majority of these agreements are entered by parties seeking a piece of a large state or federal project. Also the "team" may be comprised of "partners," and not reflect a prime/sub-relationship.)

Notwithstanding the reason for uniting, the single most important element of successful team formation is communication. At the outset of the proposed teaming relationship (as with the outset of a joint venture relationship) the prospective team members should meet, try to determine if they like each other, and engage in candid discussions of topics such as:

1. team composition and compatibility
2. efforts to get the award of contract
3. risk management
4. value engineering
5. financial considerations
6. definition of roles
7. interface with owner

The points identified above (which are addressed in more detail below) are not unique. After having overcome the compatibility issue, any number of methods (and checklists) will facilitate the discussion necessary for successful teaming. The "checklist" considerations set forth below are drawn from the Design/Build Teaming Checklist of The American Institute of Architects and The Associated General Contractors of America (AGC publication no. 2906).

1. Composition and Compatibility

The prospective design-build team members must ensure that their cultural values and corporate philosophies are compatible with one another. In many cases, the answer to the correct team composition rests with instincts and intuitive feelings on the part of the principals. The parties should make sure that there are no conflicts of interest and that there are clear, defined problem-solving techniques and criteria for dispute resolution, and they should engage in either formal or informal partnering sessions, as necessary, to ensure a compatible, cohesive joint existence. The prospective team members should ask themselves:

- Is this the right team?
- Have all necessary parties been included in the teaming discussions?
- Who will be the team leader?
- Why does each member of the design-build team need the other members?
- Are the members technologically compatible?
- Are the members competent to compete?
- Does any member have any previous history with the client? Or with each other?
- Are there other agendas that the member need to discuss?

2. Efforts to Achieve Award of Contract

Joint efforts to secure the desired contract must also be explored. Matters to address include costs of marketing and how the team members will absorb such costs. Additionally, the team needs to decide upon the basis of its internal compensation, such as lump sum, cost plus, with or without a guaranteed maximum price, unit prices, and any shared savings provisions. (Shared savings provisions should be discussed not only with the owner of the project but also as between builder and the design team member.) Considerations to address include:

- Which member's fee dollars are at risk and to what extent?
- Risk versus reward for the prime versus the sub
- What happens if the team is unsuccessful bidder?
- What is the extent of required design and detailing for the

proposal phase of the project?
- How will the team handle a potential "Best and Final Offer"?
- What is the individual team staffing that will work on the project?
- Discussion of team member exclusivity
- At which point can a design-build team member withdraw?
- What is the plan for disbursement of fees, stipends, or honorariums

3. Risk Management

Risks vary with the project. The items noted below are not solutions; rather, they form a list of possible risks that must be studied and considered.

- Insurance issues
- Bonding and surety
- Workers compensation insurance
- Errors and omissions insurance
- General liability insurance
- Design errors and omissions revealed during construction
- Revisions to the drawings if the project is over budget
- Construction defects
- Third-party litigation
- Price increases due to inflation
- Differing site conditions
- Indemnity clauses
- Errors and omissions of the design entity
- Liabilities of the construction entity
- Definition of standard of care
- Environmental/pre-existing conditions
- Responsibilities for liquidated damages to the constructor and/or to the designer
- Responsibilities for health and safety issues on the project
- What happens when a team member fails to fulfill its obligations?
- Who covers deductibles, if they occur?

4. Value Engineering

Value engineering is both the goal and the reward. The team members must focus on:

- Constructibility of the design
- Applicability to the specific builder's skills and labor force
- Relationship to budget and schedule
- Cost issues with respect to document revisions
- Criteria for evaluating a "value engineered" item
- Does the team understand the elements that contribute to costs and why?
- What does the team know as fact? What is conjecture? Who are the best sources of information?
- Does the team have a good definition of what it means to achieve best value for the project?
- Does the team understand how to apply risk-management principles to the design elements?
- Will the team allow time and resources to adequately test alternatives that may produce better value?

5. Financial Considerations

The risks and rewards are many in any design-build relationship. Economic issues to discuss include:

- Cash flow of the design-build entity
- Project financing
- Team financing
- Sources of capital
- Accounting responsibilities
- Payment of taxes
- Phantom income to the design-build entity
- Retainage and related effects
- Compensation
- Performance incentives
- Shared savings as between Owner and design-builder
- Shared savings as between designer and builder

6. Definition of Roles

The novelty of the design-build relationship can lead to chaos. Roles and responsibilities must be fixed. The team members should address responsibility for:

- Site analysis
- Soft cost management
- Schematic design
- Design development
- Construction documentation
- Construction administration
- Bidding and negotiation
- Fixture, furniture, and equipment specification
- Contingency management
- Pricing package definition
- Bid package definition
- Design-phase cost control
- Construction-phase cost control
- Permitting
- Information management
- Project scheduling
- Owner communication
- Planning, zoning, and regulatory agency processes
- Quality assurance and quality control
- Correction of work responsibilities for both design and construction
- Level of documentation and specification
- Level of flexibility within the documents and specifications
- Change orders; who originates and how? And who pays?
- Payment processes; draw requests and associated timelines
- Tests and inspections
- Intellectual property issues; ownership of documents
- Press releases and press communications
- Claims and litigation
- Safety
- Constructibility review

7. Interface with Owner

In addition to communication and coordination within the team, the team must address communication and coordination with Owner, and consider the following:

- Coordinating the Owner's required insurance:
  - Builder's risk
  - Loss of use and consequential damages
- Clarification of Owner's roles and responsibilities
- Processes for formal approval and acceptance of design and major milestones
- Assurances of Owner's financial ability
- Definition of allowances
- Definition and management of the Owner's contingency fund
- Definition of budget and schedule guarantees, if any
- Award fee
- Identification of points of contact between Owner and design-builder
- Owner contractual flow down to prime/sub

II. Post-Formation

Notwithstanding the best teaming efforts, disputes arise. By far, the most common teaming agreement dispute involves a term or clause that requires the team members to negotiate for a subcontract if the project contract is awarded to the prime contractor (typically, the team leader). The project contract is, in most cases, awarded to the prime contractor without any mention of particular subcontractors. The subcontractors' right to a share of the project is usually tied to a teaming agreement provision such as "the parties agree to negotiate in good faith towards a subcontract." The parties may reach an agreement to team, but are not able to agree on a subcontract following the award of the project contract to the prime contractor. It is not unusual (or unexpected, in this scenario) that an aggrieved subcontractor demands compensation for lost profits under a subcontract that it felt was virtually guaranteed by the teaming agreement.

1. Enforceability Of A Potential Subcontract

Enforceability of a potential subcontract under a teaming agreement will depend, largely, on the law of the state in which the agreement is executed, or the law of the state in which material contractual transactions occur. Generally, a teaming agreement is construed like any other contract. The terms of the agreement will be read so as to have the meaning which is mutually intended by the parties, determined by the language in the "four corners of the document." In other words, using no other outside information, the court will ask, "What does the agreement say?"

Unfortunately, teaming agreements, by their very nature, are likely to have some open issues, which must be resolved if and when a prime contract is awarded to the team leader. As a general rule, courts dislike (and are reluctant to enforce) "agreements to agree" on matters in the future. Whether with teaming agreements, or other contracts, courts simply do not like to fill in the blanks that the parties could have (or should have) filled in. However, courts recognize the purpose of teaming agreements, recognize that the parties have legitimate reasons for entering them, and are reluctant to ignore them; but they have great difficulty in determining what exactly to enforce when material elements of the agreement (as, for example, the terms of an ultimate subcontract) are absent. Language in a teaming agreement, which only contemplates the execution of a subcontract, creates a strong inference that the parties have not agreed to all material aspects of a future transaction and do not intend to be bound. Some courts are even more forceful, holding that they should not invent and then enforce the terms of a subcontract when the parties have only agreed to negotiate in the future regarding it. The sentiment of these courts is that, if the parties had firmly known their intentions at the time they executed the teaming agreement, they would not have had to agree to "negotiate" a subcontract in the future.

Other courts have taken different positions. Some courts have enforced teaming agreements to execute a subcontract when the terms of the agreement called for no more than good faith negotiations towards a future subcontract. In these cases, a future subcontract based solely on a teaming agreement may possibly be enforced, but only after overcoming two major obstacles: (1) It must be clear from the teaming agreement that

the parties intend to enter into a binding subcontract; and (2) there must be sufficiently objective criteria to enforce a subcontract. These courts ask, "What did the parties intend when they agreed to form a team? Have the parties, by the language in the teaming agreement, shown an intention to enter a subcontract and are the terms of that subcontract sufficiently definite to be specifically enforced as a subcontract?" Courts, asking these questions, search the teaming agreement for terms that are more definite than a simple promise to enter into a subcontract at a later date. "Sufficiently definite terms" can have many meanings, but it is safe to say that there must be agreement as to price and general duties under the proposed subcontract.

2. Enforceable Teaming Agreements

The teaming agreement must be drafted to express the mutual intent of all parties. The obligation to enter a subcontract (or joint venture or other entity agreement) in the future and subsequent enforceability measures must be expressed from the start. If the parties intend only to negotiate a "potential" subcontract and have no intent to create a presently enforceable subcontract by virtue of the teaming agreement, this should be clearly expressed. References to material terms of a future subcontract in the teaming agreement could lead to a conflict over the enforceability of the teaming agreement as a subcontract. Any term that could be potentially negotiated into the subcontract should be left out of the teaming agreement. Pricing, rights and liabilities under the subcontract, and other references to negotiable terms under the potential subcontract should be conspicuously absent from the teaming agreement.

The teaming agreement should state the conditions under which the parties will negotiate for a subcontract and the express conditions under which the teaming agreement (and any potential subcontract) will expire. Finally, the teaming agreement should state (if it is the intent of the parties) that the teaming agreement is not a guarantee of a subcontract, even if the prime contractor is awarded the project.

C. FORMS OF ORGANIZATION

Design-build organizations generally follow one of five principal formats:

1. The designer is the prime contractor and the builder is a subcontractor ("Designer Prime").

2. The builder is the prime contractor and the designer is a subcontractor ("Contractor Prime").

3. The designer and the builder form a limited partnership or joint venture which becomes the prime contractor ("Partnership").

4. The designer and the builder form a corporation which becomes the prime contractor ("Corporation").

5. The designer and the builder form a limited liability company which becomes the prime contractor ("LLC").

The first two arrangements are relatively easily created, and they rely on traditional, well-known concepts of contracting in the building industry. Though well-known, these "prime-sub" arrangements present a number of potential liability and licensing issues which must be dealt with, by contract, or otherwise. In contrast, the three entity formats are generally more difficult to create and require an understanding of contract, liability and licensing issues, as well as an understanding of issues related to the operation and maintenance of the entity itself (including management and tax issues).

D. THE FIVE BASIC FORMATS

I. Designer Prime

In this format, the owner engages the designer to provide all of the design and building services. The designer then engages the builder, using a separate subcontract. Under the separate subcontract, the builder provides services directly to the designer, and not to the owner. In this format, the designer is not only responsible for the design, but also for the means and methods of the construction work, including making certain that the project is constructed in accordance with the owner's project criteria, including the plans and specifications. The builder is obligated only to the designer for defects in the builder's construction work. (The builder's insulation from contractual liability to the owner is the most significant difference between a designer prime design-build format and the traditional design-bid-build project delivery system.)

Because the designer, in the designer prime format, is forced to assume "construction risk," the designer usually attempts to shift some of this liability to the builder by means of negotiated clauses in the builder's subcontract. To accomplish this risk shift, the designer is likely to require the builder to indemnify it against all liability arising out of the builder's performance of its work. Such an indemnification provision typically makes the builder ultimately responsible for the damages it causes during the prosecution of the construction work, including late delivery of the project, cost overruns, job site safety or defects in the work.

In a design-build arrangement, and particularly in a designer prime arrangement, a designer may find himself is a unique, and uncomfortable position. In a traditional design-bid-build project the designer advises the owner regarding the contractor, certifies percentage of completion and quality of work and, generally, serves as a conduit for communication between the owner and builder. In the design-build context, particularly in a designer prime arrangement, the facts require a shift in loyalty to the design-build team. (Owners, aware that their traditional means of job oversight has disappeared, may be well served to hire consultants to advise them with respect to the project and the performance of the design-build team.) In addition to a destabilizing absence of his usual relationship with

an owner, the designer, in the designer prime format, may find himself in the unaccustomed position of responsibility for construction means and methods, as well as for (garden variety) errors and omissions of the builder. Hand-in-hand with this new exposure is the insulation of the builder, due not only to the builder's subordinate relationship, but also because the designer is in control of both the design and construction aspects of the project.

II. Contractor Prime

In this design-build delivery format, the owner contracts directly with the builder for all design and construction services. The builder then enters into a separate subcontract with a designer. In this format, the contractor is exposed to similar risk and liability issues as those affecting the designer in the designer prime format. (The increased design liability incurred by the builder is the greatest drawback to the builder in the utilization of the builder-prime format.) Specifically, the builder becomes liable to the owner for problems associated with the designer's design work. The designer is shielded from direct responsibility to the owner.

To control exposure to design risk, the builder should negotiate special subcontract provisions (typically, indemnification clauses) with the designer. The builder should seek to ensure that the designer will be responsible if the design of the project fails to conform to applicable requirements. These clauses should require the designer to indemnify the builder for any losses resulting from defective design.

Although the builder has a new exposure (to design risk), in many ways the builder is well-suited to be the prime mover in a design-build arrangement. The builder is accustomed, due to the nature of the building industry, to engage subspecialities and to assume the risk of performance of these subs. What is different for the builder in this case is the type of additional exposure. In the traditional design-bid-build, the builder does not bear the risk of inadequate plans or specifications and is not responsible for delays or increases in costs due to inadequate (or late) design.

III. Partnership

This format encompasses general partnerships, limited partnerships and joint ventures (joint ventures are a type of general partnership). Owners may have some preference for designer/builder partnerships because such partnerships provide to Owner a single point of responsibility for both design and construction matters.

A general partnership is typically defined in the United States as an association of two or more persons carrying on as co-owners a business for profit. In most states, no formal filing is required (this is why a teaming agreement, that meets the elements of the definition, may be determined to be a partnership agreement) and a general partnership/joint venture may be created orally (and sometimes, inadvertently). General partners are presumed to share equally in management and profits. Despite presumptions regarding management and profits, a partnership is very flexible; the partners can, as between themselves, tailor their rights and responsibilities (including management, profits and every other aspect of the business) in any manner they see fit. Thus, the parties may agree that the designer is responsible for design tasks and the builder is responsible for building tasks. (Such allocations of responsibility are internal management issues; they do not affect a partner's liability to third parties.)

General partners/joint venturers have joint and several liability for partnership obligations; that is, under general partnership law, each partner is liable for the contractual obligations and torts of the partnership (or joint venture). In addition, each partner (venturer) is the agent of the partnership (joint venture) for the purpose of the business and may bind the partnership (joint venture). Thus, when a designer and a builder do business as general partners or as joint venturers, each may be found to be responsible for the acts of the other. (There may be some exceptions to joint and several liability for partnership obligations in states that have enacted registered limited liability partnership statutes, but this is a very new phenomenon and will vary state-by-state. Design-build partnership/ joint ventures should investigate the limited liability partnership statutes applicable to them and probably should elect to register as such.)

Because, under the partnership format, the designer becomes responsible for building-related risks and the builder becomes responsible for design-related risks, both the designer and the builder have a great interest in ensuring that the partnership (or joint venture) has appropriate insurance, with no gaps in coverage, relating to both design and construction matters. (In addition, as between themselves, the designer and the builder, as partners, should provide in their partnership agreement for indemnification of the other as to errors within their respective areas of professional competence.) To further contain the risks of joint and several liability, the designer and the builder may (subject to applicable licensing laws) consider the formation of a corporate entity to participate in the partnership (or joint venture) so as to attempt further to contain liability, and try to limit the financial exposure to risk to the amount of capital invested in the corporate partner. In yet another variation on this liability-containment theme, and as a possible mechanism to satisfy licensing requirements, the design-build venture might consider subcontracting design (or construction) to a properly licensed affiliate. If this is done, the design-build entity becomes more like a management conduit, and less of a "doer", and, though it may satisfy licensing issues and allow the designer and the builder their desired degree of profit sharing and management participation, it may not satisfy a particular owner.

A limited partnership is a variation on the general partnership/joint venture model. Limited partnerships provide a method to limit the liability of the limited partner, while preserving the other flexibility attributes of a general partnership.. In order to have a limited partnership, the entity must have at least one general partner and at least one limited partner. A limited partnership cannot be created orally; a limited partnership must be created by means of a filing with an appropriate state authority.

In a limited partnership, the limited partner generally does not have unlimited general liability. In exchange for protection from general liability, the limited partner typically must give up the right to participate in the day-to-day management of the limited partnership. If the designer or the builder is willing to accept a more passive role, it can (potentially) substantially reduce its liability to the owner and subcontractors. A designer or builder owning a limited

partnership interest would be an equity participant in the project and would be able to share in the profits and losses of the enterprise.

If a limited partnership is chosen, one entity must still be the general partner and presumably that entity will want to be compensated for the exposure to unlimited liability which is inherent in the status of general partner.

One criticism of limited partnership arrangements that has been expressed is that the general partner retains liability and has a fiduciary duty to all partners, while the limited partner retains a "seat at the table," yet is insulated from liability. Giving the relative liability positions, some prospective general partners would rather not assume the additional fiduciary duty burdens, and, instead, would rather a prime/sub relationship (where the duties between the prime and sub are unlikely to reach the "fiduciary" standard).

In addition to operational flexibility, a partnership (general or limited) may be a prudent entity choice from the perspective of exposure to federal income tax. Partnerships are "pass-through," or "reporting" entities, but are not tax paying entities. In each reporting period, each partner is provided with the appropriate Schedule K-1 (and/or state equivalent) illustrating that partner's allocable share of income, gain, loss, deduction and credit, to be applied against that partner's own (or consolidated group) return. In this manner, double taxation (that is taxation at the design-build entity level and taxation, again, at the individual partner level) is avoided.

A partnership may be a prudent choice of entity from the perspective of exposure to federal income tax, but the formation of a design-build partnership is not free from tax traps. The formation of the entity is typically not, in itself, a taxable event but there may be adverse consequences (if not planned for) if a partners contributes encumbered property to the partnership; the contributing partner may be deemed to have received a distribution of taxable income in an amount equal to the debt secured by the property. Another trap is one that might typically confront a designer in a design-build partnership where the builder contributes property in exchange for a 50% capital interest in the partnership and the designer contributes design services in exchange for a 50% capital interest. Although the tax

treatment of receipt of a profits interest in a partnership in exchange for services is likely to be benign, there is an abundance of authority for the proposition that the transfer of a capital interest in the partnership in exchange for services is taxable.

IV. Corporate

The designer and the builder may attempt to contain virtually all liability through the formation of a corporation. This very significant advantage may be offset, however, by entity formation and administration matters, by licensing issues, and by unfavorable tax consequences.

Although a corporation enjoys a liability shield, Owner or a surety may require the designer or the builder to lower that shield and guarantee performance of its professional specialty in connection with the project. Also, lenders are very likely to require the shareholders of a closely-held corporation to guarantee the corporation's debt. Further, many state laws may provide that designers remain liable for design liability, notwithstanding that the services were provided through a corporation. To complicate matters, professional liability insurance may be difficult to obtain by a corporation performing design services. Thus, unless the insurance policy is carefully chosen, both the corporation and the designer may be uninsured with respect to design defects.

Professional licensure is always an issue for any design-build entity, but it may be particularly troubling for a corporation. Most states' professional licensing statutes provide that non-licensees may not own shares in the corporation providing professional services and general business corporations typically are not allowed to perform professional (as for example architectural) services. Typically, the problems associated with these prohibitions can be managed through prudent planning (as, for example, arranging to "furnish" the services of a licensed professional, rather than "providing" such services). If this issue is not properly addressed, the corporation may find that it is a statutorily unable to enforce contracts for the design services rendered to Owner.

A corporation must be created by means of a filing with an appropriate state authority. Presumably, the designer and the

builder would be its shareholders. If the designer and the builder determine that the corporate form is desirable, they will likely conclude that they desire "deal" documentation in addition to the standard articles of incorporation and bylaws. Particularly, it is likely that the parties will want some form of shareholders' agreement which spells out their respective rights and obligations and binds themselves to the task (including restrictions on transfers of shares) in much the same manner as a written partnership agreement would be expected to spell out the rights and obligations of the partners.

For federal income tax purposes, corporations are separate (tax paying) entities. Thus, the corporate arrangement is likely to lead to two layers of taxation. That is, taxation at the corporate level as earnings occur, and a second time at the shareholder level when any profits, in the form of dividends, are paid by the corporation to its shareholders.

Other than an "S" election, if that election is permitted under the circumstances by the tax code, there are two typical means of reducing the effects of double taxation. One is to pay out, in the form of salaries, bonuses and the like, substantially all the income of the corporation to the shareholders and in that manner reduce or eliminate taxable income. This technique is limited, though, by the IRS requirement that all such compensation be ordinary, necessary and reasonable in amount in order for the corporation to receive a deduction for it. If the payments exceed reasonable amounts, the excess is likely to be deemed a dividend which is not deductible by the corporation.

The second method commonly utilized to reduce double taxation involves the capitalization of the corporation with debt rather than equity. "Profits" are paid out in the form of interest. This technique may be more successful when combined with the first. In all events, the success of efforts to reduce the double taxation inherent in the use of the corporate structure will require competent tax advice.

V. LLC

Simply stated, limited liability companies are a hybrid between a corporation and a limited partnership. Like a corporation, LLCs are formed by making an appropriate state filing and LLCs enjoy a very advantageous liability shield. Like

partnerships, LLCs are exceptionally flexible management vehicles. The equity owners (called "members") can structure their business relationship in virtually any manner they choose. That structure is usually documented in the operating agreement of the LLC (which is a hybrid between bylaws and a partnership agreement). Unlike limited partnerships, all members can participate in management without impairing the liability shield. Ordinarily, LLCs are not subject to federal income tax; though they are reporting entities, they enjoy partnership-style flow-through taxation and not the double taxation found in regular corporations.

Except as noted above, the entity limitations applicable to a corporation will generally be applicable to an LLC. That is, Owner or a surety may require the designer or the builder to guarantee performance of its professional responsibilities and, also, lenders are likely to require the members to guarantee the LLC's debt. Members should examine state licensure laws regarding design services. Licensure laws frequently have not kept pace with the laws allowing creation of LLCs. It is likely that corporate law prohibitions on the rendition of professional services will apply to LLCs in the absence of other statutory authority.

E. SUMMARY OF RELEVANT ENTITY FORMATION CONSIDERATIONS

The choice of format will depend upon a variety of factors, including:

1. What is the nature of the project? Does it present greater design challenges or greater construction challenges?

2. What form of entity are the designer and the builder?

3. Will the designer or the builder be in control of the project?

4. What are the licensing considerations for the designer and the builder?

5. What are the insurance implications for the choice of format?

6. Which format offers the best protection from liability, under the circumstances?

7. What format will be the least expensive and most convenient to create and administer?

8. Which format offers the most advantageous (or least disadvantageous) tax consequences?

9. What format will the owner allow? Will the owner refuse to deal with undercapitalized entities?

10. Despite entity formation, will "personal" guarantees be required of the designer and/or the builder?

SELECTED RESOURCES

I. Primary Cases

Air Technology Corp v. General Electric, 199 N.E.2d 538 (Mass. 1964) – Massachusetts Supreme Court holds that a Teaming Agreement between Air Tech and GE is a binding contract. "Even if the arrangement did not constitute a typical joint venture GE (as controlling captain of the team) may be held to its contractual responsibility to AT as a team member."

ATACS Corp. v. Trans World Communications, Inc., 155 F.3d 659 (3rd Cir. 1998) – 3rd Circuit holds that contractor breached teaming agreement and allows subcontractor to recover restitutionary damages but does not allow recovery of lost profits because teaming agreement was to indefinite. "courts have generally allowed such a cause of action in contract based solely on the teaming agreement but not without overcoming two major obstacles: (1) the intent of the parties to enter into a binding contractual relationship and (2) the existence of sufficiently objective criteria to enforce."

W.J. Schaeffer Associates v. Cordant, Inc., 493 S.E.2d 512 (Va. 1997). Virginia Supreme Court holds that a teaming agreement between Schaeffer and Cordant was clear and unambiguous, however its essential terms were too vague and indefinite to enforce. If the agreement is clear and unambiguous, then the court must look to the essential terms of the agreement to determine if the agreement is enforceable. In this case there was no obligation to sell the items in the underlying contract and no purchase price in the contract. The agreement was an "agreement to agree" and not enforceable.

See also Thomas M. Brownell, J.D. *Virginia Court Refuses to Enforce Contractor Teaming Agreement* R,A&M Newsletters & Articles (1998) – This article is a review of the Schaeffer case. The article states that the Schaeffer teaming agreement was unenforceable because

its drafters "left too much for later negotiations."

ITEK Corp v. Chicago Aerial Industries, 248 A.2d 625 (De. 1968) – Delaware Supreme Court holds that a letter of intent similar to a teaming agreement between Itek and Chicago Aerial is an enforceable contract. The letter of intent stated that "failure to execute a formal contract absolved the parties from further obligation." However, the court held that it was "apparent that the parties obligated themselves to make every reasonable effort to agree upon a formal contract and only if such effort failed were they absolved from further obligation."

II. Additional Cases

Electro Nucleonics v. Goodyear, 484 F. Supp 589 (D. NJ 1980) – Team member is denied an injunction to prohibit Team leader from contracting with another sub.
Experimental Engineering v. United Technologies, 614 F.2d 1244 (9th Cir. 1980) – 9th Circuit enforces a teaming agreement as a contract.
Northrop Corp. v. McDonnell Douglas, 705 F.2d 1030 (9th Cir. 1983) – Generally teaming agreements are enforceable.

Holman Erection v. Orville E. Madsen, Inc.,330 N.W.2d 693 (MN. 1983) – Listing a subcontractor in a bid doesn't guarantee a subcontract.

III. Secondary Sources

E. Allan Farnsworth, *Precontractual Liability and Preliminary Agreements: Fair Dealing and Failed Negotiations*, Columbia L.Rev. (March 1987) – This article is a predicably academic piece which, in relevant part, deals with the general willingness of courts to enforce private agreements (even those which are incomplete in substantial respects) so long as the agreements do not contravene public policy. This article is not focused primarily on teaming agreement, but does serve to inform the preparer of teaming agreements.

Thomas J. Madden & Fernand A. Lavallee, Joint Ventures, LLCs, and Teaming Arrangements, The

George Washington University Law School (1998).

IV. Forms

The American Institute of Architects & The Associated General Contractors of America, *Design/Build Teaming Checklist*, AGC Publication No. 2906) (1999).

The American Institute of Architects, *Joint Venture Agreement for Professional Services*, (AIA Document C-801) (1993).

V. Sample Documents

Teaming Agreement (Appendix 1)
Joint Venture Agreement (Appendix 2)

TEAMING AGREEMENT

THIS TEAMING AGREEMENT (this "Agreement"), is made and entered into as of the _____ day of _____, 1999, by and between ABC, Inc. ("ABC" and also hereinafter sometimes referred to as the "Team Leader"), DEF Corporation ("DEF"), XYZ, Inc. ("XYZ") and 123 Inc. ("123") (DEF, XYZ and 123 are hereinafter sometimes referred to individually as a the "Team Member" and collectively as the "Team Members.") (ABC, DEF, XYZ and 123 are hereinafter sometimes referred to, collectively, as the "Parties" or as the "Team.")

W I T N E S S E T H:

WHEREAS, the City Department of Public Works (the "City") proposes to procure services for the design and construction of the Far North Street and Bridge Construction Project (the "Project"), located in the City and utilizing integrated design-build project delivery approaches; and

WHEREAS, the City is anticipated to issue a request for qualifications ("RFQ") in connection therewith; and

WHEREAS, the Parties wish to enter into this Agreement to set forth more fully the terms and conditions pursuant to which the Parties, through the Team Leader, will respond to the RFQ and perform any contract resulting therefrom.

NOW, THEREFORE, in consideration of these premises, and in express reliance upon the mutual promises and covenants contained herein, the Parties here agree as follows:

I. RFQ RESPONSE AND PROPOSAL PREPARATION

1.1 The Parties shall use their best efforts to prepare a qualified and competitive response to the RFQ for submission to the City.

1.2 Each Team Member shall submit to the Team Leader appropriate RFQ response data and information concerning its area or areas of professional expertise. Each Team Member shall make available appropriate and qualified personnel to work on its portion of the proposal, and shall provide reasonable assistance to the Team Leader in preparation of an appropriate response.

1.3 The Team Leader shall integrate the information provided by the Team Members, prepare the response, and submit the response to the City. The Team Leader has responsibility for the content of the response and agrees to consult with each Team Member, before submission of the response to the City, on all matters concerning such Team Member's area of professional expertise.

II. DIVISION OF RESPONSIBILITIES

2.1 ABC will provide team leadership and professional expertise in the following areas:

(a) Construction management and construction including, but not limited to, civil, structural, mechanical, electrical, instrumentation, control and architectural construction;

(b) Procurement of equipment, materials and supplies;

(c) Coordination and tracking of equipment and materials shipping and receiving;

(d) Construction scheduling, budgeting and materials tracking; and

(e) All administrative support, to include office equipment, telecommunications facilities, word processing and reproduction services.

DEF will provide professional expertise in the following areas:

(a) Design and construction engineering services.

XYZ will provide professional expertise in the following areas:

(a) Design and construction engineering services.

123 will provide professional expertise in the following areas:

(a) Steel supply, fabrication and erection.

This contemplated division of the responsibilities is predicated on the Parties' understanding of the RFQ and the City's requirements as of the date of this Agreement. Should the actual facts reflect a change to this understanding, or should the RFQ be modified, the Parties shall have the right to modify this contemplated division of responsibility.

III. GENERAL DUTIES OF THE PARTIES

3.1 The Team Leader shall:

(a) Furnish to each Team Member the RFQ and any amendments thereto issued by the City.

(b) Keep the Team Members informed of significant events, deadlines, and milestones regarding the RFQ.

(c) Prepare and submit to the City, in the name of Team Leader, a response to the RFQ, together with all proposals and other submissions required or requested by the City; provided however, that any proposal submitted by the Team Leader to the City shall identify the Team Members as proposed participants (i.e., as subcontractors or as equity owners in a contracting entity) in any contract that may be awarded for the Project that may follow from the RFQ response, and provided further, that the Team Leader, as manager, shall make the final determination regarding the form and content of the response and all other submissions to the City.

(d) Maintain responsibility for all contacts and communications with the City and for all decisions relating to the response to the RFQ; provided however, that the Team Leader shall not unreasonably exclude the Team Member from participating in City communications regarding the RFQ.

(e) Upon notification by the City that the Team has pre-qualified for the Project, the Team Leader, with the participation and cooperation of the Team Members, shall prepare and submit a proposal for the Project to the City, in accordance with the City's requirements. The Team Leader shall use its best efforts, after the Team has pre-qualified for the Project, to obtain the contract award, and the Team Members, and each of them, agree to assist in such efforts as the Team Leader may reasonably request.

(f) Contemporaneously with receipt of notification that the Team has pre-qualified for the Project, the Team Leader shall prepare and submit to the Team Members a proposal for a Project-specific agreement of association among them (such as, for example, a general contractor/subcontractor agreement, a joint venture agreement, a limited partnership agreement or an operating agreement for a limited liability company), which proposal shall address, to the extent practicable, the issues identified on the checklist attached hereto as Exhibit "A" and incorporated herein by this reference for all purposes.

3.2 Each Team Member shall:

(a) In a timely manner, respond to all requests by the Team Leader for all data and information, including, without limitation, Proprietary Information (hereinafter defined) and any other specifications, designs, process information, cost or pricing information needed by the Team Leader to successfully qualify and to compete for the Project contract.

(b) Participate, to the extent deemed necessary or desirable by the Team Leader in negotiations, discussions, and other communications with the City, it being expressly understood and agreed no the Team Member, acting individually, shall submit any data or information directly to the City or participate in any communications, clarifications, discussions, or negotiations with the City concerning the RFQ or any contract award for the Project without the prior express approval of the Team Leader.

(c) Execute and submit to the Team Leader all certifications as may be required by law, implementing regulations, the RFQ, or the terms of the proposed Project contract.

(d) Upon receipt of notification that the Team has pre-qualified for the Project, cooperate with the Team Leader and all other Team Members so as to facilitate the award of the contract for the Project to the Team and negotiate diligently and in good faith so as to achieve a written agreement of association mutually acceptable to the Parties.

(e) Extend to the Team Leader at all times such cooperation as reasonably requested by the Team Leader to facilitate an appropriate response to the RFQ and successful competition for the contract for the Project.

3.3 In the event that the Team Leader or any Team Member concludes that a protest is in order, either protesting the RFQ, the contracting process, or an award or contemplated award of a contract for the Project, the Team Leader shall be the protesting party, supported as appropriate by each Team Member. If any Team Member decides that a protest is in order but the Team Leader does not wish to pursue the protest, then such Team Member is authorized to pursue the protest for the Parties, and the Team Leader shall provide such support as is necessary to enable such Team Member to pursue the protest on behalf of the Parties.

IV. APPLICABILITY AND RELATIONSHIP OF THE PARTIES

4.1 Applicability:

This Agreement relates solely and exclusively to the Parties' establishment of and performance as a team with respect to the RFQ (and with respect to the formation by the Parties of a contracting entity if the Team is determined to be qualified by the City) and to the correlative rights and duties of the Parties within that team.

4.2 Relationship of the Parties:

(a) The Parties hereby create a team to prepare a responsive and competitive response to the RFQ. Nothing in this Agreement shall be construed to grant to the Team Leader or to any Team Member the right to make commitments of any kind for or on behalf of any other Party, without the prior written consent of such other Party. Nothing in this Agreement shall be construed so as to guarantee to any Team Member a subcontract or a right to participate as an owner in any entity which may be formed by the other Team Members.

(b) No Party shall solicit from any other firm the professional expertise possessed by any Team Member in connection with the preparation of a response to the RFQ without the agreement of all Parties. Each Party agrees that during the term of this Agreement it will not participate in the submission of a competitive proposal in response to the RFQ as a team member,

prime contractor, consultant, or as a subcontractor to any other firm(s). This Agreement shall not preclude any Party from competing for, or contracting independently, from the others on any other government or industry program that may develop or arise in the general area of business related to the RFQ for the Project.

(c) The Parties shall act as independent contractors in the performance of this Agreement, and no Party shall act as agent for or partner of any other Party for any purpose under this Agreement. The officers and/or employees of one Party shall not be deemed the officers and/or employees of the other Party. Nothing in this Agreement shall be deemed to constitute, create, give effect to, or otherwise recognize a joint venture, partnership, or formal entity of any kind, and the rights and obligations of the Parties shall be limited to those expressly set forth herein. Nothing contained in this Agreement shall be construed as providing for the sharing of profits or losses arising out of the performance of the contract contemplated by the RFQ. Except as expressly provided herein, no Party shall be liable to any other for any costs, expenses, risks, or liabilities arising out of any other Party's participation in the preparation, submission, or sustaining of competitive proposals under the RFQ process, including, without limitation, costs or expenses incurred in preproposal activities, in the preparation and sustaining of a proposal, in the clarifications, discussions, or selection process, in benchmark, qualification, operational capability, and/or testing or demonstrations, or in protests or other litigation challenging any contracts awarded, or intended to be awarded, by the City.

V. PROPRIETARY INFORMATION

5.1 Technology Transfer:

(a) The Parties shall identify in writing, by appropriate stamp, legend, or otherwise, all such technical data, knowledge, patents, marketing data or techniques, costs or pricing information and other intellectual property that a Party treats as and considers to be confidential, unique, valuable and proprietary (all of the foregoing is hereinafter sometimes referred to, collectively, as "Proprietary Information") which is transferred or disclosed or to be transferred or disclosed pursuant to this Agreement. All such Proprietary Information disclosed under this Agreement shall remain the property of, and be deemed proprietary to, the disclosing Party. The receiving Party agrees to accept such Proprietary Information in confidence, to accord it the protection required by this Agreement and such additional protection as the receiving Party customarily accords to its own proprietary information, to hold such Proprietary Information in trust for the disclosing Party, and to use such Proprietary Information solely and exclusively in accordance with the terms of this Agreement, provided however, that no Party in its capacity as receiving Party shall be liable for disclosure or use of Proprietary Information if the same:

(i) was properly in the public domain at the time it was disclosed,

(ii) was properly known to and available for use by the receiving Party and recorded as such in its files at the time of receipt from the disclosing Party; or,

(iii) is proven by the receiving Party to have been independently developed by the receiving Party; or,

(iv) becomes properly known to and available for use by the receiving Party from a source other than the disclosing Party; or,

(v) is disclosed to the City in the performance of the obligations of any Party under this Agreement or under any contract or subcontract resulting from the RFQ, provided that any such disclosure to the City by the receiving Party is accompanied by such restrictive legends as shall have been affixed thereto or otherwise required by the disclosing Party; or,

(vi) After expiration of a seven (7) year period, which period shall commence upon the date of the last signing of this Agreement.

(b) Subsections 5.1(a)(i) through (vi) of this Section shall not relieve the receiving Party of restrictions on the use of, or other obligations relating to, Proprietary Information otherwise imposed by this Agreement unless the receiving Party shall have notified the disclosing Party in writing thirty (30) days before a proposed use or disclosure of Proprietary Information that the receiving Party regards as authorized by one or more of such subparagraphs. The burden of proof with respect to the applicability of any such subparagraph to any proposed use or disclosure of Proprietary Information by the receiving Party shall be upon the receiving Party.

(c) Should the receiving Party be faced with legal action or a requirement under government regulations to disclose any of the disclosing Party's Proprietary Information, the receiving Party shall immediately notify the disclosing Party. Upon the disclosing Party's request, the receiving Party shall cooperate fully with the disclosing Party, at disclosing Party's expense, if the disclosing Party elects to contest such disclosure. Except in connection with a failure in the discharge of responsibilities set forth in the preceding sentence, the receiving Party shall not be liable in damages for any disclosure of Proprietary Information pursuant to judicial decree or government regulation.

5.2 Use of Proprietary Information:

(a) With respect to Proprietary Information disclosed by one Party to another:

(i) the Parties agree that each shall retain ownership of their respective Proprietary Information and that no other Party shall acquire any rights therein, except the right to use such Proprietary Information to the extent provided in this Agreement.

(ii) the receiving Party is hereby granted a limited, irrevocable, non-exclusive, royalty-free, non-transferable, worldwide right and license to use the disclosing Party's Proprietary Information according to the terms of this Agreement.

(iii) except as otherwise provided in this Agreement, no Proprietary Information disclosed pursuant to this Agreement shall be made available by the receiving Party to any third party for any purpose, provided, however, that such Proprietary Information may be disclosed by the receiving Party to an actual or prospective subcontractor concerning the RFQ, or the contract contemplated to be awarded in connection with the Project, where such disclosure is necessary for the performance of the receiving Party's share of the undertaking and provided, further, however, that such disclosure shall not be made without: (x) the prior written approval of the disclosing Party, (y) an express written agreement of the actual or prospective subcontractor to comply, for the benefit of the disclosing Party, with all restrictions on the use of such Proprietary Information as are imposed upon the receiving Party pursuant to this Agreement, and (z) the express written agreement of the receiving Party to indemnify the disclosing Party for any violation or breach of such restrictions by the actual or prospective subcontractor.

(iv) no Proprietary Information disclosed pursuant to this Agreement shall be used, duplicated, or disclosed for any purposes not authorized by this Agreement without the prior written approval of the disclosing Party. Proprietary Information may be disseminated to and used only by officers and employees of the receiving Party where and to the extent required in connection with the RFQ, and then upon conditions that are consistent with this Section 5.2. If the Proprietary Information is reproduced in whole or in part, the reproduction shall carry a proprietary notice or legend similar to that which appears on the original.

(b) In the event this Agreement is terminated, the receiving Party shall cease to make use of the Proprietary Information received from the disclosing Party and, upon the disclosing Party's written request, shall promptly destroy or return such Proprietary Information. In the event that the disclosing Party requests destruction, the receiving Party shall provide written certification of the destruction within thirty (30) days of such request, provided however, that such Proprietary Information may continue to be used by the receiving Party for such time as may be required to compete for, and solely for the purpose of competing for, the contract proposed by the RFQ.

(c) The rights, duties and obligations of the Parties with respect to all Proprietary Information disclosed before the date of this Agreement in contemplation of the execution of this Agreement shall be as set forth in this Article V.

5.3 Rights in Inventions:

(a) Inventions conceived jointly or reduced to practice by employees of the Parties while performing work pursuant to this Agreement and patents arising from such joint inventions shall be assigned as joint property of the Parties. The Parties agree to select mutually agreeable patent attorneys to file and prosecute United States and European patent applications based upon such joint patentable inventions and to share equally the cost of any services and expenses reasonably incurred by such attorneys. In addition and without further compensation, each Party shall give such attorneys all reasonably required assistance, cause all necessary papers to be executed, and do all other things that may reasonably be required to obtain patents on such inventions.

(b) In the event the Parties do not agree upon the filing of a United States patent application for a joint invention, the invention shall be maintained as Proprietary Information and its use shall be governed by the provisions of this Article applicable to Proprietary Information, provided however, that where any use or disclosure of Proprietary Information pursuant to this Article requires the approval of the disclosing Party, such approval, with respect to unpatented joint inventions, shall be deemed to refer to the approval of all Parties, such approval not to be unreasonably withheld or delayed.

(c) Each Party shall own an undivided interest in patents resulting from joint inventions. Any Party can practice such patents without restraint. However, no Party shall grant any license or right nor assign or otherwise alienate any right in such patents without the express, prior written consent of all of the other Parties. Nothing contained herein shall be construed as preventing the assignment of such patents in connection with the sale of substantially all of the assets of the assignor to a purchaser.

VI. TERMINATION

6.1 Except as otherwise expressly provided herein, this Agreement shall expire upon one of the following events, whichever shall occur first:

(a) Receipt of written notice from the City that it will not proceed with the Project as a design-build project.

(b) Receipt of written or other actual notice that the Team is not invited to submit a proposal for the Project.

(c) Receipt of written or other actual notice that another party has been awarded the contract for the Project.

(d) Receipt of written notice that an award of the contract for the Project has been made to Team Leader.

(e) Receipt of written or other actual notice that Team Member's portion of the proposal is unacceptable or that a Team Member (or a principal thereof) is unacceptable to the City.

(f) The execution of a mutually acceptable entity agreement such as, by way of illustration but not by way of limitation, a joint venture agreement, a partnership agreement, a limited partnership agreement, articles of incorporation or articles of organization and an operating agreement for a limited liability company.

(g) Termination of this Agreement by written agreement of all of the Parties.

(h) If any Party files a petition in bankruptcy or an involuntary petition is filed against any Party, a Party commences an action under laws providing for the relief of debtors, becomes insolvent or files for the appointment of a receiver, and such matters are not discharged or relieved within sixty (60) days.

(i) Cancellation of the RFQ or substantial changes thereto making it undesirable for the Parties to submit a proposal supported by a teaming agreement.

(j) Loss of licensure, disbarrment, suspension or similar regulatory enforcement action with respect to any Party by competent authority, if such loss, suspension or regulatory action precludes or materially impairs the participation by such Party in pursuing this Agreement, or indictment of any Party in any criminal proceeding related to doing business with a public entity as a prime contractor or subcontractor.

(k) The expiration of twelve (12) months from the date of this Agreement; provided, however, this Agreement shall be extended for one (1) additional period of twelve (12) months if the City has not provided written notice as to pre-qualification or contract award within the twelve-month period.

VII. LAWS AND REGULATIONS

The Parties agree to comply with all applicable federal, state, and local laws and regulations, and all applicable orders and regulations of the executive and other departments, agencies, and instrumentalities of the United States and the State of Wisconsin. Each Party agrees to indemnify the other Parties and hold each of them harmless against any loss, cost, damage, or liability by reason of such Party's violation of this Article.

VIII. PUBLICITY

Regardless whether or not restrictions are imposed by the City, each Party agrees not to release any publicity or information concerning the RFQ or this Agreement without the prior written approval of the others, which approval shall not be unreasonably withheld or delayed.

IX. DISPUTES

9.1 The Parties shall exercise their best efforts to settle any claim, controversy, or dispute (hereinafter collectively called "Disputes") concerning questions of fact or law arising out of or relating to this Agreement or to performance of any Party hereunder, or to the threatened, alleged or actual breach thereof by any Party, including without limitation any claim, controversy or Dispute concerning the determination (in accordance with the provisions of this Agreement) of the share of rights and responsibilities related to the proposed Project contract, or the price, or terms and conditions thereof.

9.2 If the Parties are unable to resolve the Dispute within thirty (30) calendar days from the date that all Parties are informed in a writing that a Dispute exists, the Dispute shall be settled by binding arbitration administered by the American Arbitration Association ("AAA") under its Commercial Arbitration Rules, and judgment on the award rendered by the arbitrators may be entered in any court having jurisdiction thereof.

9.3 Except as otherwise specifically provided in this Section 9.3, no Party shall institute any action or proceeding against any other Party in any court with respect to any Dispute that is or could be the subject of a claim or proceeding pursuant to this Article.

9.4 The Parties further acknowledge that the remedies available to them under this Agreement, or which would otherwise be available at law, will be inadequate in case of any default or threatened default in the performance of the Parties' respective obligations under the Article captioned, "Proprietary Information." Accordingly, the Parties agree that notwithstanding any other provisions of this Agreement, the rights of the Parties under that Article shall be specifically enforceable by a decree of specific performance, or by an injunction against any violation of its terms, or otherwise.

9.5 The Parties shall proceed diligently with the performance of this Agreement pending the resolution of any Dispute that is subject to this Article.

9.6 This Agreement has been entered into solely for the benefit of the Parties hereto and is not intended to create any legal, equitable, or beneficial interest in any third party or to vest in any third party any interest with respect to the enforcement or performance thereof.

X. SEVERABILITY

If any term, provision, covenant, or condition of this Agreement is held invalid or unenforceable for any reason, the remainder of the provisions shall continue in full force and effect as if this Agreement had been executed with the invalid portion thereof eliminated.

XI. APPLICABLE LAW

This Agreement shall be governed and construed in accordance with the laws of the State of _____.

XII. CHANGE IN FINANCIAL CONDITION

If any Party experiences a material change in its financial condition at any time after the effective date of this Agreement, the other Parties shall be notified in writing of the change at the time the change occurs or is identified. Failure to notify the other Parties of a material change in financial condition will be deemed a breach of this Agreement. For purposes of this Article, a material change includes a loss contingency as defined in Statement of Financial Accounting Standards No. 5 referring to accounting for contingencies that would require financial statement disclosure.

XIII. ASSIGNMENT

No Party shall assign, sell, transfer, or in any way encumber its interest under this Agreement without obtaining prior written consent of the each other Party hereto.

XIV. AMENDMENT

This Agreement shall be subject to amendment at any time upon the agreement of all Parties. Any such amendment shall be in writing, shall identify the provisions of this Agreement that are to be amended, and shall be signed by authorized signatories of the Parties.

XV. NOTICES AND REPRESENTATIONS

15.1 For purposes of establishing and maintaining effective direct communication between the Parties and providing any notice contemplated hereby, the points of contact for any notices required hereunder are:

ABC _____
_____
_____

DEF _____
_____
_____

XYZ _____
_____
_____

123 _____
_____
_____

Notices given by facsimile shall be effective upon dispatch; notices given by mail shall be effective three (3) calendar days after mailing first class, postage prepaid. Any notice, demand, request, statement, or other writing required or permitted by this Agreement shall be deemed to have been sufficiently given either when personally delivered, transmitted by facsimile and acknowledged as received, or mailed by any carrier providing a receipt. Changes in either of the above appointments must be made in writing.

15.2 The following individuals are herewith designated as the representatives of each of the Parties identified below, and each is responsible for directing the performance of that Party's necessary functions pursuant to this Agreement:

ABC: _____ - Vice President
DEF: _____ - Vice President
XYZ: _____ - Vice President
123: _____ - President/General Manager

XVI. INDEMNITY AND LIMITATION OF LIABILITY

16.1 Each Party shall indemnify and hold the other harmless from any and all claims, actions, damages and liabilities (including reasonable attorney's fees) arising directly and proximately out of the indemnifying Party's negligence, or willful, wanton, or reckless conduct resulting in death or bodily injury to any person or damage to any real or tangible personal property. Without limiting these undertakings in any way, each Party shall maintain public liability and property damage insurance in reasonable limits covering the obligations set forth above and shall maintain proper workmen's compensation insurance covering all employees performing under this Agreement.

16.2 In no event, whether through arbitration or court proceeding, shall any Party be liable to any other Party for special or consequential damages of any kind or nature attributed to any breach by any Party of this Agreement.

XVII. CORPORATE AUTHORITY

Each Party hereby represents and warrants to the other:

(a) That it has full corporate power and authority to enter into this Agreement and to perform its obligations hereunder;

(b) That the execution, delivery, and performance of this Agreement by such Party and the performance of its obligations hereunder have been duly approved and authorized by all requisite corporate action; and

(c) This Agreement has been duly executed and delivered and constitutes a valid and legally binding obligation of each Party enforceable against such Party in accordance with its terms.

XVIII. ENTIRE AGREEMENT; HEADINGS

18.1 This Agreement is the entire agreement between the Parties with respect to the subject matter hereof and supersedes with respect to the RFQ any prior oral or written agreements, commitments, drafts of agreements, understandings, memoranda, or other communications with respect to the subject matter of this Agreement. The Parties stipulate and agree that no prior drafts, memoranda, notes, or discussions relating to this Agreement shall be used at any time by either Party in any trial or hearing, or be used or discoverable in any discovery process pertaining thereto, to prove or evidence in any way the intention or understanding of either Party with respect to any provision or part of this Agreement.

18.2 The headings of the sections, paragraphs and subparagraphs hereof are included for convenience of reference only and shall not affect the meaning or construction thereof.

IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to execute this Agreement on and as of the date first above written.

ABC
a _____ corporation

By:_____
Printed Name:_____
Title:_____

DEF
a _____ corporation

By:_____
Printed Name:_____
Title:_____

XYZ
a _____ corporation

By:_____
Printed Name:_____
Title:_____

123
a _____ corporation

By:_____
Printed Name:_____
Title:_____

EXHIBIT "A"

CHECKLIST

A. Management Considerations
   1. Designating a Management Committee
      (a) Representatives/Chairman
      (b) Authority of committee/representatives
      (c) Percentage required to approve
      (d) Replacement of representatives
      (e) Meeting frequency
   2. Establishing General Supervision/Management
      (a) Project Manager
         1) authority/control/responsibility
      (b) Project Document Retention
B. Financial Considerations
   1. Initial Capitalization
      (a) Subsequent capitalization
      (b) Failure to contribute
   2. Establishment of Bank Accounts
      (a) Where?
      (b) Signatory authority
   3. Borrowing/Pledging Against Entity Funds
   4. Distribution of Profits/Advances Returned
   5. Costs Chargeable to the Entity
      (a) Defining nonchargeable costs
   6. Audits/Tax Returns
      (a) Prepared by whom?
      (b) When/how often?
   7. Means of Disposal of Equipment/Material
   8. Establishment of Entity Books of Account
      (a) Who maintains?
      (b) Access by other parties
C. Dispute Resolution
   1. Forum
   2. Timing
   3. Nonunanimous Settlement Considerations
D. Insurance/Bonds
E. Tax Considerations
F. Scope of Services

1. Defining the Individual Member's Scope of Services
2. Minority Participation Requirements

G. Proprietary Information/Business Secrets
1. Antitrust Considerations
2. Learning and Sharing Each Other's "Secrets"

H. Termination/Default
1. Termination
(a) For convenience of owner
(b) By bankruptcy/insolvency of one member
2. Default Issues
3. Rights/Obligations of Defaulting Party
4. Rights/Obligations of Nondefaulting Party
5. Project Guarantees/Defects

I. Risk Allocation
1. Declaration of Profit/Loss Percentages
2. Fee to Manager
3. Responsibility for Errors in Areas of Professional Expertise
(a) Cap on exposure?
4. Indemnifications
5. Joint and Several Liability to Owner

J. General Terms
1. Limitation and Purpose of Entity
(a) Description of project/projects
2. Assignment of Rights and Obligations
3. Notice Provisions
4. Term of Agreement
5. Entity Name
6. Antitrust Considerations
7. Rights of Third-Party Beneficiaries
8. Names, Addresses, Identification of Business Form of Each Member
9. Acquisition of Licenses
(a) Subcontract with licensed entity?

JOINT VENTURE AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, _____, by and between A/E Engineering and Design Corp. ("A/E") and Builder Corp. ("Builder") hereinafter called the "Parties" and individually a "Party".

WITNESSETH:

WHEREAS, the State Department of Transportation (the "Owner") has advertised for bids for the construction of the Far North Bridge and Highway Connection (the "Project"), on which preliminary bids are to be submitted on or about _____;and

WHEREAS, the Parties have agreed to form a joint venture to submit a joint venture bid for and, if possible, to obtain a contract, hereinafter called the "Engineering, Design and Construction Contract", with the Owner for the performance of such work; and

WHEREAS, the Parties desire to enter into an Agreement in order to fix and define between themselves their respective responsibilities, interests and liabilities in connection with the submission of a joint bid and the performance of the Engineering, Design and Construction Contract in the event it is awarded to them.

NOW, THEREFORE, in consideration of the mutual promises and agreements herein set forth, the Parties hereby agree to constitute themselves as joint venturers for the purpose of submitting a joint bid to the Owner for the performance of the Engineering, Design and Construction Contract, and for the further purpose of performing and completing the Engineering, Design and Construction Contract in the event it is awarded to them on such joint bid, and the Parties hereby agree that such bid, if filed, and the Engineering, Design and Construction Contract, if awarded to them, shall be performed and completed by them as a joint venture pursuant to the following terms and conditions.

1.0 Scope of Agreement.

1.1 This Agreement shall extend only to the submission of a joint bid and the performance of the Engineering, Design and Construction Contract, including all additions thereto and modifications thereof and shall have no other purpose.

1.2 Nothing contained in this Agreement shall create or be interpreted or construed as to create any permanent relationship between the Parties or limit their respective rights to carry on their individual businesses for their own benefit, including other work for the Owner.

2.0 Engineering, Design and Construction Contract Bid and Award

2.1 The joint bid, if filed, and the Engineering, Design and Construction Contract, if awarded to the Parties, shall be bid and entered into in the name of "Builder/A/E, a Joint Venture" by the Parties as joint venturers. The obligations of the parties under the joint bid and Engineering, Design and Construction Contract shall be joint and several.

2.2 The Engineering, Design and Construction Contract, if awarded to the Parties as a result of their joint bid, shall be carried out and performed by them in the name set forth in Subsection 2.1 above and all money, equipment, materials, supplies and other property acquired by the joint venture in connection with the performance of the Engineering, Design and Construction Contract shall be held jointly by the Parties in that name.

2.3 The Parties intend that the joint bid contemplated and provided for herein shall be satisfactory and acceptable to each and all of them. If all the Parties are unable to agree upon a joint bid, or if the Parties fail to agree on the terms of the Contract award, a joint bid shall not be filed, this joint venture shall terminate and no Party shall have any liability to the others.

2.4 Each Party shall individually bear all costs it may incur in preparing the joint bid and securing the award of the Engineering, Design and Construction Contract and no reimbursement of any such bid and pre-award costs will be made to any Party by any other Party or by the joint venture, unless the Parties have mutually agreed, in advance, to a cost sharing arrangement.

2.5 This Agreement shall terminate in the event that award of the Engineering, Design and Construction Contract is not made to the Parties, or in the event the award is not made within twelve (12) months after the execution of this Agreement, unless the Parties agree to extend.

2.6 The Parties have attempted to define their respective responsibilities in Exhibit A attached. Nothing contained in Exhibit A shall preclude the Policy Committee from assigning additional work or reassigning existing work by unanimous vote. It is the intention of the Parties that, to the maximum extent possible, the Work shall be performed by employees from the regular staffs of the Parties rather than by personnel hired from outside sources. All material and equipment purchased or leased for the performance of the Project shall be procured in the name of the joint venture. Craft labor shall be hired in the name of the joint venture. Each Party assumes full responsibility for the payment of all salaries, benefits, withholdings, etc. to its own employees.

Each Party when performing services for the joint venture with employees employed and paid by the respective Party and not the joint venture, shall perform such services for the joint venture and/or furnish such equipment, supplies, labor, and material to the joint venture for the performance of the Contract, and shall be compensated for such services on the basis enumerated in Exhibit B attached hereto.

3.0 Percentage of Participation

3.1 Except as otherwise provided in Sections 6.0 and 9.0 hereof, the interests of the Parties in any profits and their respective shares in any losses and/or liabilities that may result from the filing of a joint bid and/or the performance of the Engineering, Design and Construction Contract, and their interests in all property and equipment acquired and all money received in connection with the performance of the Engineering, Design and Construction Contract shall be as follows:

Party	Percentage
Builder	_____
A/E	_____

Each percentage figure above shall be referred to hereinafter as the Party's "Percentage of Participation".

3.2 The Parties agree that in the event any losses arise out of or result from the submission of the joint bid and/or the performance of the Engineering, Design and Construction Contract, each Party hereto shall assume and pay the share of such losses that is equal to its Percentage of Participation.

3.3 If for any reason, a Party sustains any liabilities or is required to pay any losses arising out of or directly connected with the submission of the joint bid and/or the performance of the Engineering, Design and Construction Contract, or the execution of any surety bonds or indemnity agreements in connection therewith, which are in excess of its Percentage of Participation, the other Party or Parties shall promptly reimburse such Party the amount or amounts of the losses paid and/or liabilities assumed by such Party that are in excess of such Party's Percentage of Participation in the joint venture, so that each and every member of the joint venture will then have paid its proportionate share of such losses to the full extent of its Percentage of Participation.

3.4 To further assure the intent of this Section 3, each of the Parties agrees to indemnify the other Party or Parties against, and to hold the other Party or Parties harmless from, any and all losses of the joint venture that are in excess of such other Party's Percentage of Participation. Provided, however, that the provisions of this subsection shall be limited to losses that are directly connected with, or arise out of the submission of the joint bid and/or the performance of the Engineering, Design and Construction Contract or the execution of any bonds or indemnity agreements in connection therewith, and shall not relate to or include any incidental, indirect or consequential losses that may be sustained or suffered by a Party.

3.5 The Parties shall from time to time execute such bonds and indemnity agreements, including applications therefor, and other documents that may be necessary in connection with the submission of the joint bid for and the performance of the Engineering, Design, and Construction Contract. Provided, however, that the liability of each of the Parties under any agreements to indemnify a surety company or surety companies shall be limited to the percentage of the total liability assumed by all the Parties under such indemnity agreements that is equal to the Party's Percentage of Participation.

3.6 A/E shall indemnify, defend and hold Builder harmless from and against any and all losses, expenses, claims, demands and causes of action asserted against Builder by any person (including without limitation, A/E's and Builder's employees, A/E's subcontractors and employees of such subcontractors and Owner and the employees of the Owner or any third party) for personal injury or death or for loss of or damage to property or failure of the completed work to perform as required by this Agreement, arising out of the design of the Project, including any design services which were provided or should have been provided by A/E for the design of the Project. The indemnification required by this paragraph shall not be limited in any way by the limits, terms or conditions of any insurance policy.

3.7 Builder shall indemnify, defend and hold A/E harmless from any and all losses, expenses, claims, demands and causes of action asserted against A/E by any person (including without limitation, Builder's and A/E's employees, Builder's subcontractors and employees of such subcontractors, and Owner and the employees of the Owner or any third party) for personal injury or death or for loss of or damage to property or failure of the completed work to perform as required by this Agreement, arising out of the construction of the Project, including any construction services which were provided or should have been provided by Builder for the construction of the Project. The indemnification required by this paragraph shall not be limited in any way by the limits, terms or conditions of any insurance policy.

3.8 The fee structure for the project shall be as follows:

Design	_____ %
Pre-construction Services	_____ %
Construction Services	_____ %

This fee shall be applied by the parties to the reimbursable costs incurred as provided in the Engineering Design and Construction Contract.

3.9 A/E's percentage of participation with regard to construction cost or gain shall be limited to A/E's percent of the joint venture times A/E's original fee. This provision shall not apply to personal injury, property damage, insurance deductibles or other non-construction cost items.

4.0 Policy Committee

4.1 The management of the joint venture shall be conducted pursuant to policy established by the Parties acting through a "Policy Committee" which is hereby established.

4.2 Except as provided in Sections 6.0 and 9.0, each Party shall have an equal voice in the Policy Committee. For such purpose each Party hereby designates the following representatives to serve on the Policy Committee:

Party	Representatives

Builder _____
A/E _____

4.3 Each Party may, at any time, substitute an alternate in place of any of its above-named representatives by serving written notice to all the other Parties. Each Party's representative or alternate representative on the Policy Committee is hereby granted and shall hereafter possess authority to act for such Party on all matters of interest to it with respect to its participation in the joint venture.

4.4 The Policy Committee shall determine the policy for the management of the joint venture by mutual agreement. Should the Parties fail to reach mutual agreement on any issue requiring action, Builder shall have the responsibility and authority to decide the matter, in which case A/E may object as provided in Section 11.0, Disputes.

4.5 The Policy Committee shall have the following powers:

(a) To determine the time and place of holding its meetings and to establish procedures for conducting Committee affairs.

(b) To determine and act upon the various matters, expressly or impliedly contained in other sections of this Agreement, which require decision by the Policy Committee.

(c) To determine and act upon any other matters of joint interest to, or requiring prompt action by, the joint venture.

(d) To determine rental rates not specifically set forth in the Additional Provisions of this Agreement for equipment owned by any of the Parties and made available for use on this Project. Any equipment owned by third parties will be invoiced to the joint venture at actual rental rates.

(e) To determine Joint Venture insurance reserves for other potential liabilities that may result from or arise out of the Project work.

(f) To consider all claims and disputes of any kind between the joint venture and the Owner, subcontractors and/or third Parties and to authorize negotiation, arbitration, litigation, and/or any other process for their resolution and to authorize the settlement thereof.

4.6 Notwithstanding any other provisions to the contrary herein, insurance coverages and limits shall be subject to approval of all the Parties. As a minimum the Parties agree to take out and maintain as a joint venture cost for the benefit of the joint venture the insurance coverages as described in Exhibit C-Conceptual Insurance Program. Additional or increased coverages may be maintained as the parties may

subsequently agree upon in writing. Unless otherwise agreed upon between the parties in writing, Builder shall be responsible for taking out and maintaining all the insurance coverages with the exception of the professional liability coverage. This insurance will be billed to the joint venture.

4.7 The Policy Committee shall generally perform its duties at a meeting at which all designated representatives of the Parties are present, but where circumstances warrant, telephonic communication between all Party representatives or their alternates is authorized.

4.8 Except as otherwise provided in the Additional Provisions herein, the salaries and expenses of each representative on the Committee shall be borne by the Party whom the representative has been designated to represent, and shall not be an expense to the joint venture.

5.0 Delegation of Authority

5.1 Builder is hereby designated as the Managing Party, subject, however, to the superior authority and control of the Policy Committee. The Managing Party shall appoint the General Manager through whom the Managing Party shall have direct charge and supervision of all matters necessary to and connected with the performance of the Engineering, Design and Construction Contract, except as otherwise provided herein.

5.2 Authority to act for and bind the Parties in connection with all or any part of the performance of the Engineering, Design and Construction Contract may from time to time be delegated in writing by unanimous vote of all the Parties to any of the Parties nd/or to any individual or individuals. The General Manager shall have the authority to bind the Parties in connection with all or any part of the performance of the EDC Contract.

53 Any delegation of authority to any Party or individual or individuals may be revoked by majority vote of all the Parties; provided, however, that if the authority of the individual serving as General Manager is revoked, the Managing Party shall have the right and obligation to appoint another individual to serve in that capacity who is acceptable to the Parties hereto.

5.4 No Party or individual shall have authority to act for or bind to other Parties except in connection with the performance and administration of the Engineering, Design and Construction Contract, and then only pursuant to authority delegated according to the provisions of this Section.

5.5 For federal income tax purposes, the Managing Party shall be deemed the "tax matters partner". The "tax matters partner" shall submit all tax forms for review by the other parties prior to submittal to the IRS.

6.0 Working Capital Requirements

6.1 The Policy Committee, upon recommendation by the Managing Party, shall determine the amount of capital required to carry out and perform the Engineering, Design and Construction Contract and pay for any losses or liabilities resulting therefrom, said amount herein referred to as "Working Capital". Upon such determination, each Party shall contribute the percentage of such Working Capital that is equal to its Percentage of Participation whenever requested to do so by the Policy Committee. Such contribution shall be made with ten (10) days after request therefor.

62 If a Party fails to promptly contribute its share of Working Capital in the amounts and by the date set by the Policy Committee, such Party shall be considered to be in default of this Agreement, hereinafter referred to as "Defaulting Party"; and:

(a) A Defaulting Party's share of the profits shall be decreased, and the shares of the other Parties in the profits shall be increased proportionately, so that the respective interests of the Parties in the joint venture profits shall be in the same proportion as the amounts of Working Capital actually furnished.

(b) A Defaulting Party's share in joint venture losses shall in all events remain the same as the Percentage of Participation and nothing contained in this Agreement nor any events hereafter occurring shall under any circumstances reduce a Defaulting Party's share in such losses.

(c) The nondefaulting Parties may mutually agree as to the amount of excess Working Capital that each will contribute to make whole the deficiency created by a Defaulting Party; provided in the event the nondefaulting Parties are unable to so agree, the excess contribution by each Party shall be treated as a request for Working Capital by the Policy Committee and each nondefaulting Party shall contribute a portion of such request that is in the same ratio that its Percentage of Participation bears to the total Percentage of Participation held by the nondefaulting Parties. Failure to make such additional contribution shall constitute a subsequent default and is subject to the provisions of this Section 6.0.

(d) Reduction in a Defaulting Party's share of the profits and increases in the shares of profits of the other Parties shall be calculated as of the time of each default in contributions and as of the time of excess contributions by the other Parties. Reductions in a Defaulting Party's share of profits will not be reinstated.

(e) A Defaulting Party shall pay default interest with respect to its uncontributed share of Working Capital at the rate per year of three percent (3%) above the prime rate of interest charged from time to time by the Morgan Guaranty & Trust Company of New York (but not exceeding the maximum allowed by law).

(f) Default interest payments shall be payable to the joint venture for the account of the nondefaulting Parties, shall be compounded daily and shall accrue until such time as all contributions of Working Capital and default interest have been paid.

(g) Any unpaid share of the Working Capital, including all interest above described, shall be deducted from any distributions due a Defaulting Party and, if upon final settlement of the joint venture accounts, such amounts due a Defaulting Party are insufficient, a Defaulting Party shall, on written demand of the nondefaulting Parties, pay such insufficient amount to the joint venture for the account of the nondefaulting Parties, provided, however, that the nondefaulting Parties shall be entitled to receive the greater of the interest above described on their excess contribution or the amount by which their shares of any profits were proportionately increased, as described in Subsection 6.2(a) above, but not both.

(h) Any distributions of contributed capital, joint venture assets and/or profits otherwise distributable to a Defaulting Party shall first be applied to the payment of the default interest due the nondefaulting Parties, then to the payment of a Defaulting Party's uncontributed share of the Working Capital to the accounts of the nondefaulting Parties who made excess contributions before any distributions of contributed capital, joint venture assets and/or profits are made to the Defaulting Party.

(i) A Defaulting Party shall have no right, title or interest in any joint venture contributed capital, assets and/or profits until such time as all contributions to Working Capital and any default interest due thereon have been paid to the joint venture for distribution to the nondefaulting Parties.

(j) A Defaulting Party shall have no representative on the Policy Committee and shall have no right to participate in the affairs of the joint venture until either (i) all of the defaulted Working Capital contributions and default interest have been paid to the joint venture, or (ii) distributions to the nondefaulting Parties have included repayment of all of the excess contributions and payment of all default interest. The representatives of the nondefaulting Party or Parties on the Policy Committee shall be entitled to vote the Defaulting Party's votes in proportion to their respective share of total Working Capital actually furnished. If the Defaulting Party's representative is reinstated to the Policy Committee pursuant to the terms of this Subsection, the Defaulting Party shall be entitled to no greater share of votes than is equal to its share of joint venture profits as modified herein pursuant to this Section 6.

(k) The provisions of Sections 6 and 11 notwithstanding, the failure of a Party to contribute its share of Working Capital within the time set by the Policy Committee is a material breach of this Agreement. Such uncontributed capital contributions and all default interest accrued thereon are due and payable on the first day following the payment of excess contributions by the other Party or Parties and each and every day thereafter until all

uncontributed Working Capital and all default interest due thereon have been paid in full. The Parties making contributions in excess of their Percentage of Participation as a result of such Party's default may bring suit in a court of competent jurisdiction in the name of the joint venture or in their own names against the Defaulting Party for payment of the Defaulting Party's share of said Working Capital and any default interest due thereon and shall, in addition, be entitled to recover reasonable attorney fees and other such relief that may be grated by the court.

(l) In the event the profits of the joint venture are insufficient to fully repay the Defaulting Party's uncontributed share of Working Capital and all default interest due thereon and such monies are not recovered from the Defaulting Party, the nondefaulting Parties shall each bear the proportionate share of such Defaulting Party's deficiencies that their Percentage of Participation bears to the total Percentage of Participation held by the nondefaulting Parties notwithstanding the fact that the Party or Parties may be entitled to a greater or lesser share of the profits pursuant to the provisions of Subsection 6.2(c) above, and notwithstanding the provisions of Section 3 herein which would otherwise limit a Party's losses to its Percentage of Participation. The nondefaulting Parties agree to reimburse and indemnify each other for and against any losses or liabilities that any one or more of them may incur as a result of a Party's or Parties' default that are in excess of their respective share of the Defaulting Party's deficiencies as defined in this Subsection.

7.0 Joint Venture Bank Accounts

7.1 All contributions of Working Capital made by the Parties and all other funds received by the joint venture in connection with the performance of said Engineering, Design and Construction Contract shall be deposited in an account or accounts in such bank, or banks as the Policy Committee may designate which shall be separate from any bank accounts now maintained by any Party.

7.2 Withdrawals of such funds may be made in such form and by such persons as the Policy Committee may from time to time delegate. All persons authorized to draw against the funds of the joint venture shall be bonded in such company or companies and in such amounts as the Parties may mutually determine.

7.3 Any delegation of authority under this Section shall be as provided in Section 5.0

8.0 Accounting and Auditing

8.1 Separate books of account shall be kept by the Managing Party of the transactions of the joint venture. A Party to this joint venture may inspect such books at any reasonable time.

8.2 Periodic audits shall be made of such books at such times and by such persons as the Parties may direct or upon the written request of a Party and copies of the audit reports shall be furnished to each Party.

8.3 Upon completion of the Engineering, Design and Construction Contract, a final audit shall be made and copies of such audit report shall be furnished to each of the Parties.

9.0 Bankruptcy of a Party

9.1 If a Party hereto shall dissolve, become bankrupt or insolvent, or commit any act of bankruptcy, or take advantage of any bankruptcy, reorganization, composition or arrangement statute, then from and after such date such Party (referred to herein as "Insolvent Party") or its legal representatives, shall have no further voice in the performance of the Engineering, Design and Construction Contract or in the management of the joint venture. All acts, consents and decisions with respect to the performance of the Engineering, Design and Construction Contract or the management of the joint venture shall thereafter be taken solely by the remaining Party or Parties.

9.2 The participation of the Insolvent Party, or its representatives in the profits of the joint venture shall be as set forth in Section 6.0 of this Agreement for Defaulting Party but the Insolvent Party and its representatives shall be charged with, and shall be liable for, any and all losses that may be suffered by the joint venture under said Engineering, Design and Construction Contract, or any additions or supplements thereto or modifications thereof, to the full extent of the Insolvent Party's Percentage of Participation and any uncontributed Working Capital and any default interest due the nondefaulting Parties to the full extent of the provisions set forth in Section 6.0 above.

10.0 Distribution of Assets

10.1 The Parties may determine from time to time during the course of this Agreement that some of the joint assets held and acquired by the joint venture may be divided among or paid to the Parties, as the case may be, in accordance with their respective interests and shares in same, as hereinbefore provided.

10.2 Upon completion of the Engineering, Design and Construction Contract, the remaining assets of the joint venture and the profits and losses accrued in the performance of the Engineering, Design and Construction Contract shall be divided in accordance with the Parties' respective interests and share in same, as hereinbefore provided.

10.3 When final disposition and distribution of all assets and/or liabilities has been made, this Agreement shall terminate; provided, however, that if claims of any nature or legal action of any type are brought against the joint venture or any of the Parties at any time after the distribution of said assets and/or liabilities by any party or parties, including the Owner and subcontractors at any level, who are not signatory to this Agreement or a surety of or affiliated with a Party and such claims and/or legal actions relate to or arise out of this Agreement, the performance of the Engineering, Design and Construction

Contract and/or the work product thereof, this Agreement shall be considered to have remained in full force and effect and the rights and obligations of the Parties hereto with respect to the resolution of such matters shall be determined by this Agreement, the passage of time notwithstanding.

10.4 The Parties shall, prior to the sale or distribution of any equipment or other assets, mutually agree upon the valuation and method of distribution of the equipment or assets involved.

11.0 Disputes

11.1 In the event of any dispute whatsoever between the Parties, they shall exhaust every effort to settle or dispose of the same, including a discussion of the matter between senior ranking officials of each Party.

11.2 Any controversy or claim arising out of or relative to this Agreement or the breach thereof not adjusted or disposed of by mutual agreement between the Parties, may, if the parties mutually agree after the dispute has arisen, be settled by arbitration under the rules then obtaining of the American Arbitration Association Construction Industry Rules, and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof, and arbitration decision shall be final and binding on the joint venture and on all Parties. Said arbitration proceedings shall be filed in the nearest Regional office of the American Arbitration Association. If the parties fail to agree, either party may file suit in the jurisdiction where the project is located.

11.3 Should any dispute between the Parties affect or threaten the orderly or timely progress of the work, the Parties shall proceed diligently with the work as directed by the Managing Party in writing, whose decision with respect to matters affecting the prosecution or performance of the work shall be final and binding unless the aggrieved Party provides written notice of its objections within twenty (20) days after receipt of Managing Party's written directive. In no event shall any dispute be permitted to delay the progress of the work.

12.0 Other Provisions

12.1 The principal office of the joint venture shall be located at the Project site or as otherwise determined by the Policy Committee.

12.2 This Agreement shall be governed and construed pursuant to the laws of the State of the project site.

12.3 In the event that any part, term or provision of this Agreement is determined by a court of competent jurisdiction to be unlawful or unenforceable, the validity and enforceability of the remaining portions or provisions shall not be affected thereby.

12.4 Each Party, through its execution of this Agreement, hereby individually certifies and attests to the other Party or Parties and to any third parties having an interest in the Project, that neither it nor any members, affiliates, or employees of its company, has participated in any antitrust activities or any other illegal anticompetitive activity with respect to the bidding and/or obtaining the Engineering, Design and Construction Contract for which purpose this joint venture is being formed.

12.5 This Agreement constitutes the entire agreement between the Parties, and is subject to no other oral or written proposals, agreements or understandings whatsoever, and can only be supplemented or amended by a written document subscribed by the Parties.

12.6 This Agreement is binding upon the heirs, court-appointed representatives, assigns and successors of the Parties. The interests and rights of a Party in the Engineering, Design and Construction Contract and as a member of this joint venture, shall not be transferable or assignable without written consent of the other Parties, except that a Party may assign its share in any money to be received by it from the joint venture for the purpose of obtaining a loan or loans from any bank or other lending agency. Any such assignment, pledge, hypothecation or other collateralization of the proceeds or receivables of a Party to this joint venture shall be subordinate to any claims, offsets, adjustments and/or repayment of uncontributed Working Capital and/or default interest to the nonassigning Party or Parties.

13.0 Additional Provisions

The following additional provisions are attached hereto and made a part hereof.

NONE

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized officers or agents effective the day and year first above written.

By _____ By: _____

Witness: _____ Witness: _____

By: _____

Witness: _____

EXHIBIT A

Responsibilities Of The Parties

EXHIBIT B

1. A/E non-reimbursables

- Programming
- Home office design costs
- Specialty consultant costs
- Cost cycle analysis
- Code reviews
- Construction phase services

2. A/E reimbursable costs

- On site testing
- Travel & subsistence expenses directly related the specific project
- Document reproduction

3. Builder non-reimbursables

- Home office pre-construction services
- Home office accounting services
- Off site administration costs

4. Builder reimbursable costs

- Permits
- Bonds
- Construction material & labor expenses
- Construction equipment
- On site supervision & accounting
- On site indirect expenses
- Document reproduction
- Builder's Risk insurance
- Travel & subsistence expenses directly related to the specific project
- Construction testing

EXHIBIT C

CONCEPTUAL INSURANCE PROGRAM

A. Worker's Compensation either through the State Insurance fund or through a retrospectively rated program through an "All rated company. The "loss limit" (deductible) shall be $1,000,000 each accident under any such retrospective rated policy. Employer's Liability limit shall be $1,000,000 each accident. Which coverage option shall be subject to the mutual agreement of the parties.

B. Primary Comprehensive General Liability, $2,000,000 each occurrence and $4,000,000 aggregate to be provided under a large deductible program through an "All rated company. The deductible amount shall be $1, 000, 000 each occurrence. Excess Liability insurance with a limit of $50,000,000 each occurrence and aggregate. Excess coverage is to be provided under Builder's Blanket Excess Insurance Program and shall be excess of the Primary Comprehensive General Liability provided in this paragraph B, and the Automobile Liability Insurance provided in paragraph C., immediately below.

C. Automobile Liability Insurance with a limit of $2, 000, 000 each accident.

D. Builder's "All Risk" insurance covering loss or damage to the Project including transit and off-site storage if required. Such policy shall be in an amount of the full constructed value of the facility and shall be maintained until final acceptance of the Project. Such insurance shall provide coverage for resulting physical damage due to errors in design or faulty workmanship or material.

E. Construction Equipment insurance covering loss or damage to equipment used in the Project Construction, with a deductible of $100,000 each claim.

F. A/E will name Builder as an additional insured on A/E's Professional Liability policy which contains a limit of $_____ each claim and aggregate. Excess of $_____ each claim, A/E will, to the extent coverage is maintained by A/E, provide a limit of $_____ each claim and aggregate under its Blanket Professional Liability Program to cover claims of third parties against the Joint venture and/or its partners arising out of A/E's professional services for a period of three years following completion of the Project.

G. Comprehensive General Liability and Excess Liability coverage in the name of the Joint venture will include an extension of products and completed operations coverage for 3 years beyond final acceptance of the work by the Owner.

H. All such insurance coverage hereunder shall include the Joint venture and the individual Partners, and the employees of the joint venture and each partner as insured or additional insured as appropriate and waivers of subrogation.

3. Contract Solicitation and Award

A. Introduction

Proponents of design-build point to the reduction of claims and disputes as one of the reasons to utilize the design-build approach. Those proponents believe that by combining the design and construction functions into one contract with a single entity, disputes would be substantially reduced. As discussed previously, in its *White Paper on Use of Alternative Contract Award Methods and Highway Construction*, the AGC suggests that the potential for litigation as a result of the subjective selection process based on "best value" is actually increased. The purpose of this section is to address the causes of disputes in the selection process and make suggestions to reduce or eliminate those disputes.

B. Why Disputes Arise

Essentially, disputes arise in the selection and award of a design-build contract because:

- subjective determinations must be made by the awarding authority;
- the cost involved in preparing proposals are great;
- it is difficult to enter the market; and
- when decisions are made by awarding authorities on factors other than cost, business reputations can be tarnished.

In a nutshell, the public agency must convey to the proposers that they are fair and that the award will be based on the application of the evaluation criteria set forth in the request for proposals.

C. Suggested Steps to Avoid Disputes

As explained in greater detail below, I believe there are several steps that can be taken by the public agency in an effort to

avoid disputes and litigation in the selection and award of a design-build contract. I suggest that public agencies:

(1) Select projects appropriate for design-build and explain why the agency intends to use the design-build approach for the particular project;

(2) Engage a registered design professional to prepare the detailed project scope, level of quality expected, budget requirements and schedule so that they are clearly understood by the design-build builders;

(3) As utilized by the Federal Government, select the design-build team based on a two-step process;

(4) The perception of honesty and integrity of the public agency's evaluation team is essential;

(5) Both design and construction professionals should be represented on the public agency's evaluation team;

(6) The evaluation criteria and weight given for each item in the evaluation must be clearly stated and followed by the evaluation team;

(7) Requirements of the RFP must be clearly stated including what will be considered to be a non-responsive proposal;

(8) Include the terms and conditions of the proposed design-build contract in the RFP and make clear whether any of those terms are negotiable;

(9) Require the design-build builder to identify key subcontractors;

(10) Limit the number of design-build builders that will be "short-listed;"

(11) In the second stage, each short-listed team should be given an equal opportunity to converse with the representatives of the public agency's evaluation team to clarify any of the requirements of the RFP; and

(12) Candid feedback and a stipend should be given to the unsuccessful offerors.

D. FHWA Ideas

In *The Role of Design-Build in the Federal-Aid Highway Program*, the FHWA identifies five specific design-build selection procedures. First is the "low bid," which FHWA advises is not recommended by most proponents of the design-build concept. Second, is the adjusted bid with a qualitative composite scoring formula. Third, is the highest composite score which uses a combination of costs and qualifications to select the successful proposer. The established criteria that was used for a project in South Carolina was: cost of the project - 55%, qualification of the proposer - 25%, and time of completion - 20%. Next, FHWA identifies the best value which Utah used for the I-15 Corridor Project. Under this approach, the award of the project was based on costs and other considerations considered in the selection process with the costs and technical factors considered approximately equal. Finally, FHWA identifies the best values/fixed budget which was used by the Utah DOT on the $1.5 million design-build project. In this instance, the offerors were rated on specific criteria and the successful contractor was selected based on the maximum technical score.

In the same document, the FHWA identifies criteria that could be used by the public agency in the design-build evaluation. Those criteria include:

- understanding of scope of work;
- applicability of design criteria;
- durability;
- maintainability;
- schedule;
- maintenance of traffic;
- community impacts;
- aesthetics; and
- quality control plan.

FHWA also identifies lessons that have been learned to date. Specifically, FHWA states that the scope of work MUST be clear. In addition, FHWA recommends the two-step selection process utilized by other federal agencies with the prequalification of no more than five firms in selection based on price and technical proposals. FHWA also suggests:

- quality criteria be included in the award process;
- evaluation criteria and relative weights must be specified with costs being at least 50% in comparison to all other technical factors to stay within the competitive bidding framework of 23 U.S.C. §112;
- integrity of the evaluation process and the confidentiality of the proposals must be maintained;
- pre-proposal reviews give the pre-qualified bidders the assurance that their proposal meets the minimum requirements of the RFP and allows the agency to seek preliminary concepts to see if changes are necessary in the RFP; and
- stipends, not to exceed 50% of the proposers' estimated development costs, be paid to the proposers.

E. AIA/AGC Recommended Guidelines

The AIA and AGC have produced recommended guidelines for procurement of design-build projects in the public sector. The document, which has been endorsed by the Design-Build Institute of America, was published in 1995. While admittedly the recommendations are specifically aimed at the design-build method for building projects, many of the same points could clearly apply to transportation projects. As it relates to the solicitation and award of design-build projects, the AIA and AGC recommended guidelines provided in pertinent part as follows:

- The solicitation should clearly spell out the procedures to be followed in conducting the design-build selection and subsequent management of the project, including the project program and scope of

work, criteria for selection, requirements for presentations, timetable for selection process, the composition of the selection panel and other related issues.

- The solicitation should explain how the design-build method of procurement meets the criteria in law or regulation for use of the design-build method.
- Statement of project requirements should set forth the agency's needs with sufficient clarity to assure comprehensive understanding of program requirements, project scope, and business requirements.
- During the solicitation, the agency should provide a copy of the contract that the winning competitors are expected to sign.
- The scope of work should be as flexible as possible to elicit creative responses from competitors.
- The two-phase selection process should be used and the number of competitors who submit final proposals should be limited.
- Final selection criteria need to state clearly what weight will be assigned to each criterion.
- Prior to the design-build solicitation, the public agency must make a determination about the significance of price.
- The amount of documentation required in submission should be limited to the minimum necessary to judge adequately between the competing proposals.
- Selection in both phases should be objective, based on qualifications and responses to the project requirements and selection criteria.
- The names of the selection panel should be made public and be included in the initial solicitation.
- A stipend should be paid to each of the unsuccessful design-build teams.

- Public agencies should arrange for each short-listed team to be given an opportunity for direct and private communication with the agency's representatives to ask any questions regarding the project.

- Feedback should be given to the unsuccessful teams after the selection process has been completed.

F. Building Futures Council Recommendations

In January of 1995, the Committee on Management and Contracting Alternatives of the Building Futures Council prepared a report on *Design-Build as an Alternative Construction Delivery Method for Public Owners*[i]. The report includes a part on selecting the right project delivery method and a part on design-build contracts in the public sector. In the part on design-build contracts in the public sector, the Committee indicated that it supports the recommendations in the ASCE Report of the Task Committee on Design-Build which was issued in 1992. The ASCE Report is included as an Appendix to the report. As it relates to the solicitation and award of design-build contracts, the ASCE recommends as follows:

- Public agencies need to more closely define the project RFP/Project Program/Specification packages to ensure full understanding of the project scope and purpose.

- Public agencies should seek to limit the number of concept design competition submittals (after pre-qualification) to hold down the aggregate costs of preparation by the offerors.

- Uniformity in approaches (perhaps not more than two or three design-build variations, among all government agencies using design-build, must be mandatory).

- While the Committee believes that civil engineering projects can be acquired using the design-build approach, agency and design-build teams will have to pay much closer attention to the issues raised above, because of the uniqueness of the approach to these types of projects.

- The design-build selection criteria leading up to the contract award must include qualifications of the offeror that are weighted greater than (or at a minimum, equal to) costs considerations, to ensure final project quality.

G. American College of Construction Lawyers Guidelines

In the report on design-build, the building future's counsel also included the guidelines for a Model Design-Build Procurement Act[ii] for state and local contracting which was drafted by members of the American College of Construction Lawyers (ACLC). In the guidelines, the ACLC points out that one of the most difficult issues is dealing with the Public Procurement statutes which require some form Brooks Act competition for design professionals and fixed price low bid for construction contracts. Procedures in the model statute are meant to be a minimum and ACLC anticipates that specific agencies or wording authorities would implement regulations embellishing the procedures.

The ACLC also points out that one of the chief purposes of public procurement laws is to minimize collusive practices between public agencies and contractors and design professionals that might unjustly enrich the private firms at public expense or deprive deserving firms the opportunity to compete for public work. The model statute provides several provisions intending to minimize collusive practices. The ACLC states that adding minimum, the Agency should make a specific decision that design-build is an appropriate delivery system in each instance where it is proposed.

The ACLC recommends that a qualified design professional establish performance criteria for each request for proposals and that the design professional doing so be disqualified from submitting a proposal to enter into the design-build contract either as a prime contractor or a subcontractor. With regard to the solicitation of proposals, the ACLC provides a substantial list of elements that should be included in the request for proposals. That list includes the following:

- procedures to be followed for submitting proposals;

- proposed terms and conditions for the design-build contract;
- the performance criteria;
- a description of the drawings, specifications, or other submittals to be submitted with the proposal;
- a schedule for plan commencement and completion of the design built contract;
- budget limits, if any;
- affirmative action, disadvantage business or set aside goals for requirements;
- the qualifications of the design builder will be required to have; and
- requirements for performance bonds, payment bonds and insurance.

The ACLC model statute also provides that proposals shall be sealed and not opened until expiration of the time for making proposals as set forth in request for proposals. This provisions is included to discourage collusion and protect competition. Proposals also are required to identify each person to whom the design-builder proposes to sublet obligations under the design built contract and provides that such persons will not be replaced without approval of the agency. This provision is included to enable the agency to evaluate the qualifications of the persons to whom duties will be sublet and to also discourage potentially harmful post-award bid shopping.

H. The Federal Government Two-Phase Design-Build Selection Procedure

In 1996, Congress enacted the Clinger-Cohen Act of 1996[iii] which introduced the two-phase design-build selection procedures into the Federal Government construction procurement process. In January of 1997, the Federal Acquisition Regulations (FAR) were made final, implementing the Clinger-Cohen Act of 1996. In Phase One of the two-phase procedure, the Government creates a short list limited to five design-build contractors.

36-303-1 Phase One

(a) Phase One solicitation(s) shall include --

(1) The scope of work;

(2) The phase-one evaluation factors, including:

(i) Technical approach (but not detailed design or technical information);

(ii) Technical qualifications, such as

(A) Specialized experience and technical competence;

(B) Capability to perform;

(C) Past performance of the offeror's team (including the architect-engineer and construction members); and

(iii) Other appropriate factors (excluding cost or price related factors, which are not permitted in Phase One);

(3) Phase-two evaluation factors (see 36.303-2); and

(4) A statement of maximum number of offerors that will be selected to submit phase-two proposals. (The maximum number specified shall not exceed five unless the contracting officer determines, for that particular solicitation, that a number greater than five is in the Government's interest and is consistent with the purposes and objectives of two-phase design-build contracting).

36.303-2 Phase Two

(a) Phase Two of the solicitation(s) shall be prepared in accordance with Part 15, and include phase-two evaluation factors, developed in accordance with 15.304. Examples of potential phase-two technical evaluation factors include

design concepts, management approach, key personnel, and proposed technical solutions.

(b) Phase Two of the solicitation(s) shall require submission of technical and price proposals, which shall be evaluated separately, in accordance with Part 15.

After evaluating the phase-one proposals, the contracting officer shall select the most highly qualified offerors and request that only those offerors submit phase-two proposals.

Under Phase Two, the solicitation shall require submission of technical and price proposals, which are to be evaluated separately in accordance with Part 15 of the FAR. In Phase Two, the design-build contract is to be awarded to the design-builder which provides the best value to the Government, considering both the design approach and the price.

I. Bid Protest

Because the use of the design-build method is relatively new in public construction, there are few decisions by courts and the General Accounting Office (GAO).

In a nutshell, the GAO has given the public agencies broad discretion in their evaluation and award of design-build projects, as long as the agency follows the criteria it has established in the Request for Proposals (RFP). While there are several cases on the subject, the following case illustrates most of the point the GAO has considered in design-build protest.

Other relevant points that have been made by the GAO in other design-build cases are as follows:

- There is no obligation for an agency to take steps to redress one offeror's competitive advantage from having performed an earlier contract, so long as the advantages do not result from preferential or unfair action by the Government.

  Specifically, knowledge gained through performance of a prior contract, without more, does not constitute an "unfair" advantage. *Chant Engineering Company, Inc.*, B-279049; B-279049.2, April 30, 1998.

- Where the award of a fixed-priced contract is contemplated, a proposal's "cost realism" is not ordinarily considered since a fixed-priced contract places the risk and responsibility for the contract costs and resulting profit or loss on the contractor, even if the solicitation states generally that the prices will be evaluated for realism.

  In a best value procurement, where there is substantial price difference between the protestor's and the awardee's proposal, the protestor must show its proposal should have been evaluated by the agency not just as essentially technically equal or close in technical merit, but as overall technically superior to the awardee's proposal. *Newport News Shipbuilding and Dry Dock Company; Combustion Engineering, Inc.; Sierra Nuclear Corporation*, B-261244.2; B-261244.3; B-261244.4; B-261244.5, September 11, 1995.

- Where offerors are required to list prior experience and offerors are aware that the source of this experience may be contacted, the contracting agency may contact these sources and consider their replies without further investigation into the accuracy of the information. The GAO will not sustain a protest unless the protestor demonstrates a reasonable possibility that it was prejudice by the agency's actions (the denial of an opportunity to discuss an unfavorable reference of past performance). That is, unless the protestor demonstrates that, but for the agencies actions, it would have had a substantial chance of receiving the award. *Black & Veatch Special Projects Corp.*, B-279492.2, June 26, 1998.

- Awards to offerors with higher technical ratings and higher prices are proper so long as the result is consistent with the evaluation criteria, and the procuring agency has determined that the technical difference is sufficiently significant to outweigh the price difference. *Dawco Construction, Inc.*, B-278048.2, January 2, 1998.

F2M-WSCI, B-278281, January 14, 1998.

The Navy received three proposals, all of which were technically acceptable. F2M and Hawaiian Dredging received the same adjectival ratings under each subfactor, and both proposals were rated highly acceptable overall, Hawaiian Dredging's price was $34,399,540, while F2M's price was $33,489,000. The agency's source selection board (SSB) found that Hawaiian Dredging's proposal offered the best overall value to the government despite its higher price.

F2M asserted that:

- Hawaiian Dredging's proposal failed to confirm to the requirements of the RFP with respect to streets, parking, sidewalks, water mains, and project phasing; and

- Since both proposals were rated highly acceptable, the agency was required to make award to F2M, because of its lower-priced offer.

With respect to the non-compliance argument, the GAO stated that the contracting agencies are responsible for evaluating information or data submitted by an offeror to determine if the offer complies with the RFP. GAO will not disturb the agency's technical judgment unless it is shown to be "unreasonable." GAO further stated that even where the record shows the agency relaxed a solicitation requirement for one offeror, GAO will not sustain a protest unless the agency's actions were prejudicial to the protestor. On one of the compliance issues the GAO noted that the drawings submitted were only preliminary, being only 25% complete. The mere fact that the proposal did not specifically show a sidewalk did not demonstrate the firm's final design will lack the required walkway.

GAO next turned to F2M's agreement that it should have received the award because both proposals were highly acceptable technically and its price was lower. GAO first stated the rule that agencies are required to evaluate proposals consistent with a solicitation's stated evaluation criteria, including considerations reasonably and logically encompassed by the stated factors.

F2M argued that the RFP did not provide for more favorable consideration of an offer or permit subjective judgment relating to a performance for one design as compared to another. GAO responded that such considerations are the essence of any "best value" source selection decision; agencies distinguish

between proposals on the basis of judgments about the relative value of features offered by one or another proposal. This is particularly true when the proposal involves preparation of a unique response, such as a design.

Finally, GAO stated that adjectival ratings, like point scores, are merely guides for intelligent decision-making by source selection officials; agencies are not bound to make source selection decisions based solely on such ratings, and may properly distinguish between offers regardless of the closeness of the scoring.

J. Processes used by State DOTs

The State DOTs have used a variety of different processes to award design-build contracts. One example, is a multi-step process, similar in nature to the federal process described above that Utah DOT used on the I-15 project. The steps included the Request for Qualification (RFQ) phase, the Request for Proposals (RFP) phase and the Request for best and Final Offer (BAFO) phase. After the three qualified offerors submitted proposals in response to the RFP, they were each allowed the opportunity to make a two hour oral presentation of their proposals.

Another example of a multi-step is being used by the State of Washington DOT (WSDOT). In February of 1999 WSDOT published its Design-Build Process for Highway Projects. In Appendix D WSDOT describes the two-step process consisting of preparing a Proposal of Qualifications (POQ) in response to a Request for Qualifications (REQ) and then a Best and Final Proposal (BAFP). WSDOT describes its RFQ as being similar to and based on the RFQ it uses for professional services, expanded to include experiences of the contractor's personnel and the understanding of the understanding of the construction phase. The goal of the POQ process is for WSDOT to select the top three to five design-builders. The RFP is the second step, and contains the technical requirements for developing the design and construction of the project as well as the contract documents for execution of the project. Award of the contract is to be based on the "best value" determination selecting the BAFP in which the combination of technical, quality operating, and pricing factors most closely meets the owner's requirements. Under Washington law, final proposals may not be considered if the proposed cost is greater than the maximum allowable construction cost identified in the RFP. WSDOT is required to negotiate with the highest scored design-builder to execute a contract.

[i]Committee on Management on Contracting Alternatives Building Futures Council, *Report on Design-Build as an Alternative Construction Delivery Method for Public Owners* (1995)

[ii]Committee on Management and Contracting Alternatives, Building Futures Council, Georgetown, MD, *Report on Design-Build as an Alternative Construction Delivery Method for Public Owners,* Appendix F (January 1995)

[iii]Pub. L. No. 104-106, § 4001, 110 Stat. 186, 642

4. Design-Build Contract

A. Introduction

The heart of any construction contract is a detailed description of the scope of work. In the case of a design-build contract, the public agency will have only one opportunity to describe its expectations for the project. While some state DOTs and public agencies may believe that harsh contract provisions that attempt to shift the risk to the design-builder are a means of avoiding contract disputes, the best ways those agencies can protect themselves is through a complete and detailed description of the scope of work. Obviously, in a design-build situation specifications are of a performance type. Furthermore, should the public agency increase the scope of the project, through drawing review or otherwise, the design-builder should be entitled to an equitable adjustment for any changes in costs or time required to complete the project. As a result, it is incumbent upon the state DOT or other public agency to clearly state the level of quality desired.

Turning to the general conditions to be included in the design-build contract, first and foremost, the public agency and the contractor should keep in mind that in the design-build environment, the design-builder **does not assume all risks** of all unforseen costs and every responsibility for seeing that the project is completed. While the design-builder is responsible for designing and constructing the scope of work specified in the contract, its responsibility is limited to that scope of work. For example, in *In re Mortenson Co.,* ASBCA No. 39978, 93-3 BCA §26, 189, the Army Corps of Engineers was held responsible for increased quantities because the design-builder reasonably relied on the 35% preliminary project drawings. The Instructions to Proposers stated that the minimum requirements for the project stated in the Design Criteria, Specifications, Equipment Lists and Project Drawings could be used to form the basis for the pricing proposal.

In addition, unlike a bid based on a definite set of plans and specifications with Standard Specifications and project specific Special Provisions, the design-builder may have room to negotiate contract terms and conditions of the contract. This is a very important opportunity for the design-builder that a low bidder does not have. Design-Build contractors should look to the clauses

typically found in contracts between the public agencies and its designers and make sure those clauses are included in the design-build contract with the public agency. A contractor led design-build team will find itself at great risk if the public agency has expanded the design risks in the design-build contract and the designer has limited its risks in the design-build subcontract.

There are many subjects that will be addressed in some form in the final design-build contract between the public agency and the contractor. These provisions establish the risk assumed by the contractor and should be the subject of negotiations of the final contract when those provisions are negotiated.

B. The Contract Documents and Order of Precedence

Most contracts include an order of precedence provision that is established to deal with any inconsistencies in the Contract Documents. Contractors should determine that their proposal is part of the defined Contract Documents. Then they should determine what takes precedence over their proposal. Does, for example the Request for Proposals take precedence over the Proposal? If so, what happens if the Contractor has proposed something different than was called for in the Request for Proposals. This issue arises frequently in connection with Intelligent Transportation System (ITS) contracts, where the technical solution proposed may be different than envisioned in the RFP

C. Responsibility for Differing Site Conditions

Some state DOTs have eliminated the Differing Site Conditions clause found in the their standard specifications. This is an attempt to place all of the risk of site conditions on the contractor. Some state DOTs have made no changes to their Differing Site Conditions clause. In some public-private venture projects, such as the San Joaquin project in California, an allowance or a contingency has been established for Differing Site Conditions. After award of the San Joaquin contract, the Design-Builder traded in the allowance and accepted the site risk with a lump sum price increase at less than the allowance amount.

The Differing Site Conditions clause in the WSDOT SR 500 Thurston Way Interchange Amendments to Standard

Specifications is different than the standard Differing Site Conditions clause in several respects. First, Harmful/Hazardous Materials shall not be considered to be Differing Site Conditions if they are in a category for which unit prices were provided in the Proposal Documents. Harmful/Hazardous Materials in other categories may be considered to be Differing Site Conditions only if the work effort associated with remediation has a material adverse cost or delay impact Second, **if the Engineer determines that different site conditions do not exist and no adjustment in costs or time is warranted, such determination shall be final.** Third, the Design-Builder has the burden of proving that a Differing Site Condition exists and **that it could not reasonably have worked around the Differing Site Condition so as to avoid additional cost.** Fourth, with each request for a Change Order must be accompanied by a statement signed by **a qualified professional setting forth all relevant assumptions made by Design-Builder with respect to the condition of the Site, justifying the basis for such assumptions and explaining exactly how the existing conditions differ from those assumptions, and stating the efforts undertaken by Design-Builder to find alternative design or construction solutions to eliminate or minimize the problem and the associated costs**.

D. Responsibility for Environmental Hazards and Remediation

Responsibility for environmental hazards and remediation is an important clause to determine risk. Design-Builders should make sure they are not responsible for pre-existing hazardous materials. Some public agencies have established unit prices to pay the Design-Builder for removal and/ or remediation of hazardous materials. Other public agencies treat pre-existing hazardous materials differently than new discoveries of hazardous materials. Design-Builders should seek some form of indemnification from the public agency to cover the risks associated with handling and disposing hazardous materials.

E. Responsibility for Obtaining Permits and Easements

Design-Builders should determine which permits they will be responsible for obtaining and whether they must identify any permits that are needed. In some Design-Build contracts, the Design-builder is responsible for obtaining permits that would normally be obtained by the public agency. In other Design-Build

contracts the public agency obtains the various environmental permits and the Design-Builder obtains any other needed permits.

In the Washington State DOT Request for Proposals, the proposers, as part of their past performance, are asked to describe their experience obtaining permits required for similar projects and compliance with permit conditions and environmental regulations. Proposers are also asked to describe the approach they intend to take to obtain permits and any problems they expect to encounter.

F. Responsibility for Finding and Relocating Utilities Within the Project

Finding and relocating utilities is obviously an issue of importance on any transportation construction. Most state DOT Standard Specifications place the responsibility on the DOT to identify and coordinate relocation of conflicting utilities. On Design-Build Projects, the identification of utilities to be relocated may not take place until the design has reached a certain stage. As a consequence, public agencies have placed greater responsibility on the Design-Builder to identify conflicting utilities and to coordinate their relocation with the utility companies. In some contracts, the Design-Builder specifically has the risk arising from unknown utilities. Design-Builders may even be required to identify conflicting utilities and describe their plan for relocating them as part of their proposal.

G. Responsibility for Compliance with Changes in Applicable Laws and Regulations

Almost every construction contract places the responsibility on the contractor to comply with the applicable laws and regulations. The question, particularly in the context of a design-build contract is who is responsible for changes in the applicable laws and regulations. Some argue that it makes little sense for the public agency to pay for contingencies contractors may place in their contract price for events, such as changes in law, that may never occur. In many design-build contracts this specific issue is not addressed. This leaves the door open for future disputes as to who accepts the responsibility for such changes.

H. Responsibility for Delays

In transportation construction most state DOT Standard Specifications provide that contractors are entitled to time extension for delays beyond their control. As a result of Federal legislation, many state DOT Standard Specifications provide that the contractor is entitled to additional compensation when the state DOT suspends the work in writing for an unreasonable period of time.

In many design-build contract, efforts have been made by the public agency to allocate more risk of delays to the contractor. As with some of the other contract provisions, many design-build requests for proposals include a provision requiring the proposer to provide experience in completing similar projects with little or no cost or schedule growth and provide experience with procedures to avoid delays and minimize claims.

Obviously contractors believe that public agencies should retain responsibility for delays that they cause. In response, some public agencies are including an anticipated number of days of delay which are to be priced as part of the original contract price.

I. Responsibility for Overruns in Design or Construction Budget

One of the primary reasons that public agencies use design-build is to create more certainty on the cost to construct the project. This certainly is created because the design-builder is ultimately responsible for the design of the project and any errors or defects in the design which cause the construction cost to increase are borne by the design-builder. Generally, the public agencies shift the risk to the design-build contractor by using performance specifications, which allow the design-build contractor discretion in the means and methods. As mentioned above, when the public agency prepares a partial design, it may be liable for changes to the contract based on the design-builder's reliance on the information in the preliminary project drawings.

In some requests for proposals, the proposer must provide information on the cost growth through change orders on construction of similar projects. That information is evaluated as part of the experience factor. In addition, proposers must describe their management system and how they will control and coordinate the cost and schedule of the work.

J. Scheduling Provisions

One of the primary reasons for using design-build is to decrease the time necessary to design and construct the project, greater emphasis is placed by some public agency on the scheduling provisions. For example, the design-builder must include in its schedule the design reviews and review times for each design item, segment, or phase of construction.

In addition, design-builders are frequently asked to show in their schedule the items, segments, or phases that the design-builder plans to release for construction prior to having 100% of the design documents.

K. Force Majeure Events

Design-builders should seek to have a provision in the design-build contract which provides that they will not be responsible for delay or liable for damages caused by acts of God and other force majeure issues. Many design-build contracts do not include a force majeure provision. Without such a provision, the design-builder may be taking on the risk of increased cost and time resulting from force majeure events.

Some force majeure events may be covered by insurance. Insurance covering force majeure risks include events such as earthquakes, strikes, and any other event beyond the control of both the public agency and the design-builder. The question then is who is responsible for force majeure events that are not covered by insurance.

L. Changes and Value Engineering

As stated previously, one of the reasons public agencies choose to use design-build contracts is to limit the dollar volume of changes. Yet, changes are frequently necessary.

Some of the design-build contracts provide that the design-builder or the public agency may initiate “design” changes. In such cases the cost for changes initiated by the design-builder shall be borne by the design-builder and that the cost for changes initiated by public agency shall be borne by the public agency.

Design-build contracts also typically give the public agency the right to make changes at any time during construction of the project. In such cases if the public agency determines that the change increased or decreased the design-builder's cost or time to do any of the work, the clause typically provides that the public agency will make an equitable adjustment. In some cases, public agencies have used unit prices in the contract as a means of pricing the changed work.

Some design-build contracts include value engineering clauses and other design-build contracts do not. In most instances, contract provisions on value engineering give the public agency discretion to reject the value engineering proposal by the design-builder and further provides that the design-builder will have no claim for additional costs and delays resulting for rejection of the value engineering proposal.

M. Indemnification, Insurance and Bonding

In states where it is legal, public agencies may attempt to indemnification provision requiring the design-builder to indemnify and hold harmless the public agency for any and all liability associated with construction of the project even if the damage was caused by the public agency's sole negligence. In such an instance, the design-builder has agreed to cover all risks of the public agency connected with the project. Because of the unfairness of this type of provision, some states have adopted legislation that prohibits the indemnification of a party for its sole negligence or intentional misconduct.

In states prohibiting indemnification of a party for its sole negligence or intentional misconduct, public agencies typically seek an indemnification provision which requires the design-builder to indemnify the owner for any and all liability for even the slightest negligence by the design-builder. For example, the design-builder could be 1% negligent and the owner 99% negligent, and the design-builder would, under such circumstances, have to indemnify the owner.

Design-builders should seek an indemnification clause which limits its indemnification to acts or omissions by the design-builder in any subcontractor's representatives or employees.

The subject of insurance is included in another section of these materials. For purposes here, the design-build contract

usually requires commercial liability insurance, professional liability insurance and the other typical types of insurance utilizing construction contracts. The errors and omissions professional liability insurance may require pre-paid tail to provide coverage for cost overruns, time delays, and liquidated damages; and the cost to correct defects and deficiencies arising from design negligence, and errors or omissions.

Bonds are also covered in another section of these workshop materials. As with design-bid-build contracts, the successful proposer must furnish payment and performance bonds for design-build contracts. In addition, the normal bond requirements may be extended for the warranty period that may be a part of the design-build requirements.

N. Design-Builder's Duties Responsibilities / Liabilities

Under a design-build contract, the design-builder takes on both the responsibilities of the designer as well as those of the constructor. As a result, the construction contractor must make sure that the design is constructable at the price submitted in the proposal to the public agency.

Historically, engineers and other professionals, have been held to the standard of care customary in the industry. Essentially, that means that the engineer must exercise the ability, skill and care customarily used by engineers on similar projects. The design engineer generally is liable for negligently performing the task. Prime contractors are required to perform the contract in accordance with the plans and specifications.

The design-build approach potentially creates expanded bases for liability. This is particularly true with contracts establishing performance based requirements. Obviously, the design-build contractor must closely review the contract provisions which establish warranties of end results. For example, contractors performing ETC projects must pay close attention to the specified degree of accuracy the system they are designing and installing.

There appears to be a move by the courts to expand potential liability to the point where there is potentially "strict" liability. The concept of strict liability is based on products liability. Essentially, an entity which sells a product in a defective condition is subject to liability for the physical harm caused by the

defective condition. Based on Section 402A of the Restatement (Second) of Torts. That section provides:

> (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
>
> (a) the seller is engaged in the business of selling such a product, and
>
> (b) it is expected to and does not reach the user or consumer without substantial change in the condition in which it is sold.
>
> (2) The rule stated in Subsection (1) applies although (a) the seller has exercised all possible care in the preparation and sale of his product, and (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

Unfortunately, it appears that some courts are stretching the definition of a product to include materials involved in construction projects. For example, *Abdul-Warith v. Arthur G. McKee,* 488 F.Supp. 306 (Ed. Pa. 1980). In that case, the plaintiffs filed a products liability action seeking recovery for injuries attributed to a defectively designed skip bridge, which is a component of the blast furnace unit used in the production of steel. The complaint included a theory of liability based on strict liability. The defendant argued that the strict liability theory was not applicable because McKee is not a "seller" and the skip bridge is not "product," as those terms had been interpreted by the Pennsylvania courts.

The court noted that the evolving Pennsylvania case law had not clearly addressed that issue and neither defendant company nor the challenged instrumentality fits neatly into the definitions of "seller" and "product." The court then noted that Pennsylvania court had been more expansive than restrictive based on the underlying policy to hold strictly liable for ensuing harm all suppliers of products who, because they are engaged in the business of selling or supplying a product, have assumed a special responsibility toward the consuming public.

The defendant then argued that its agreement with US Steel was a construction contract and that it is a supplier of labor and services rather than a seller of a product. The court responded stating that there had been no general judicial expansion of (Section 402A) to include persons who supply a service. However, a party who supplies a defective product while rendering a service may nevertheless be held accountable under Section 402A for injuries attributable to the defective product. The court noted that McGee unquestionably supplied services in the form of labor and engineering expertise, yet in the course of performing this "service," McKee supplied US Steel with the injury-causing instrumentality.

O. Public Agency's Duties and Responsibilities

The single most important duty and responsibility of the public agency is to adequately describe the scope of work. By defining the scope of work clearly, the public agency can establish a budget and completion date that will be realistic. Clearly establishing the scope of work will also enable the public agency to evaluate the design-builder's proposal.

P. Subcontracting

Public agencies will likely require that all major subcontractors be subject to approval by the public agency. Major subcontractors will also likely be considered as part of the evaluation of the qualification of the design-build team to design and construct the project.

Public agencies will also likely require that they be considered the third party beneficiaries of the subcontracts. By making themselves the third party beneficiaries of the subcontracts, they avoid the lack of privity of contract argument that would likely arise if they filed suit against a subcontractor designer.

Q. Damages for Non-Performance

One of the very most important subjects of negotiation for the design-build contractor in finalizing any design-build prime contract is obtaining limitations on overall liability for any damages the public agency might incur as a result of the project

and indemnification. Since potential losses can be great, limitations on liability to a fixed sum, with no liability for consequential damages for the design-build contractor is extremely important.

1. Consequential Damages

Royal Insurance Company v. CNF Constructors, Inc., 1995 WL 4204, illustrates the point. Plaintiffs, Cogen Energy Technology, L.P. ("Cohen") and Royal Insurance Company of America ("Royal"), brought the action against CNF seeking confidential damages for temporary operating shutdown caused when a Steam Turbine Generator ("STG") failed in a power plant designed and constructed by CNF for Cogen. CNF moved for summary judgment, which the court denied.

Cohen and CNF entered into a design-build contract requiring CNF to construct a combined-cycle cogeneration facility. The parties structured the agreement to allow Cohen to go on-line and sell energy commercially before the plant was completed. Under the agreement, CNF was required to achieve provisional acceptance or final acceptance by April 2, 1992.

On March 28, 1992, Cohen granted provisional acceptance. Three days later, the STG experienced a catastrophic failure, requiring complete shutdown of the plant for three months while CNF repaired the STG. For purposes of the Motion for Summary Judgment, CNF conceded that the shutdown was "due to defects in the design and/or materials and/or workmanship and/or installation of the generator."

CNF argued (1) that it did not breach the contract because the defect was repairs prior to final acceptance; and (2) that Cogen's remedy for breach of warranty is expressly limited to replace and repair, and does not include consequential damages; or (3) the liquidated damages provision precludes any recovery for consequential damages.

The court noted that under New York law, to limit a party's right to consequential damages, the parties must do so expressly in the contract. Since the agreement between Cohen and CNF makes no limitation on available remedies, Cohen's rights to consequential damages are preserved.

With respect to CNF's argument that liquidated damages provisions preclude recovery of consequential damages, the court found that neither provision covering liquidated damages applies to

the facts. According to the plain language of the agreement, the liquidated damages provisions were included to cover the possibility of a delayed opening, not for an interim shutdown caused by temporary failure of a component part.

In addition to getting the owner to accept directly the standard limitations on design liability for damages arising from the negligence of the engineer, the prudent design-builder should try to obtain an overall cap on damages which may be awarded against the design-builder in favor of the owner. It has been suggested that an overall cap equal to 20 - 25% of the total contract amount should be considered reasonable.[i] Caps on liquidated damages for delay, limitations on performance guarantees, and prohibitions against consequential damages should also be considered as part of an overall scheme to limit damages. If the design-build project will generate revenue for the owner, it may also be possible to arrive at an equitable formula for offsetting damages incurred by the owner against revenue generated by the project or some part thereof.[ii]

2. Negotiated Cap on Damages

The meaning of words used to describe a contractor's maximum liability is a subject of interpretation. *Union Oil Company v. John Brown E & C, Inc.*, 1995 WL 549091 (N.D. Ill.), a recent case decided by a federal district court in Illinois highlights the interpretation issue.

In April of 1989, Union Oil Company of California (Unocal) entered into a "cost reimbursable contract" ("Contract") with John Brown, Inc. (JBI) for the construction of a polymer plant. Unocal sued JBI for damages arising out of its design and construction of the plant. The issue before the court involved a determination of JBI's liability cap.

The salient term of the Contract was Section 9.16, which provided, in pertinent part:

> (g) [JBI's] maximum aggregate liability to Unocal with respect to subsections 9.16(a) through 9.16(f) above, shall not exceed the proceeds of the applicable insurance coverages plus eighty percent (80%) of the aggregate fee paid to [JBI] ...

In 1990, JBI agreed to limit its total fee to $415,000. Thereafter, in a letter dated June 17, 1991, Mr. G.C. Dohm of JBI

wrote to Unocal indicating they agreed to credit 80%of JBI's fee, or $332,000 to Unocal. John Dietzman, a Unocal vice president, acknowledged that JBI informed him it was "willing to totally forfeit the fee." JBI submitted that this "credit" or "forfeit" of its fee to Unocal equals the maximum amount of damages Unocal was entitled to recover under Section 9.16 of the Contract. Because the only count remaining in this litigation, Count I, is a breach of contract claim, JBI argued that it was entitled to summary judgment. In the alternative, JBI also pointed to Section 9.16's exclusion of the availability of "special, indirect, or consequential damages."

In order to avoid the Section 9.16 limitations on liability, Unocal argued they were not applicable to its breach of contract claim, because it alleged gross negligence on the part of JBI, one of the exceptions to the limitations on JBI's liability. Unfortunately for Unocal, the court had previously dismissed Unocal's claims for gross negligence. The court noted that gross negligence had nothing to do with the breach of contract claim. Instead, it was a "tort" theory.

The court found Unocal was simply attempting to ward off summary judgment by converting its breach of contract claim into the gross negligence claim the court had already dismissed, without any allegations or evidence to support its attempt. Indeed, in the previous dismissal proceedings, Unocal essentially admitted that its damages were due to breach of contract, not to tortious conduct.

Because Unocal was left with only a breach of contract claim, the limitation of JBI's liability to 80% of its fee was applicable. Summary judgment was appropriate up to this point. Beyond that, however, the court was unconvinced, based on the record, to rule as a matter of law that JBI's liability had already been satisfied. There was no record of any credit to Unocal's account before the court. The court noted that the suggestion in the letter that the fee be waived does not necessarily mean it was in fact waived. The only evidence the court had before it was JBI's statement that it was willing to waive its fee. Thus, that matter had to be determined later.

This case presents many interesting points to be considered by parties entering into design-build contracts. First, JBI negotiated a clear maximum liability clause. In fact, its maximum exposure was limited to its insurance coverage plus 80% of its fee. Unocal either did not consider the potential damage it might face

or was willing to take the risk. When the damage far exceeded the maximum liability, Unocal tried every theory possible to avoid the maximum clause. The court saw through its effort and found the damages sought to be limited by the maximum liability clause. Design-build contractors should seek to limit their liability to an insurable risk or some reasonable amount above the amount of insurance coverage.

SUMMARY OF CONTRACT PROVISIONS TO NEGOTIATE

PUBLIC AGENCIES WANT:	DESIGN-BUILDERS WANT:
Contract Documents	
The design-builder's proposal to not be a contract document. This is particularly true if the proposal differs in any way from any of the RFP provisions.	Their proposal to be listed as a contract document and to take precedence over any conflicting provisions in the RFP.
Standard of Care on Design	
Strict liability for any design-errors.	Limited liability based on negligent errors and omissions that are covered by their Professional Liability Policy.
Permits	
The design-builder to obtain all permits.	The public agencies to obtain the permits they normally obtain on design-bid-build contracts.
Differing Site Conditions	
Design-builders to perform any geotechnical testing they believe to be necessary and to be responsible for site conditions.	The standard differing site conditions clause found in design-bid-build contracts.
Authority of Chief Engineer or Other Public Agency Representative	
The chief engineer to have the final decision on all aspects of performance of the work, including claims for additional compensation and delays.	A right to appeal any decision by the chief engineer to a neutral third party.
Indemnification Clause	
The design-builder to assume the defense of, and protect, indemnify and hold harmless the public agency and its representatives from and against all claims, suits, actions, damages and costs of every type and description, including attorney's fees and court cost, brought or recovered against the public agency arising out of or in connection with any of the work performed under the contract.	Indemnity to be limited by the amount of the insurance required under the provisions of the contract and to not have to indemnify the public agency from its own negligence or willful misconduct and to have the indemnification limited to events arising out of the negligent omissions or willful misconduct by the design-builder or anyone under its control.

PUBLIC AGENCIES WANT:	DESIGN-BUILDERS WANT:
Warranties Extended warranties with a bond to cover the warranty period.	Normal warranties with the bond covering the normal warranty period.
Schedule and Delays No damages for public agency delay, liquidated damages and road user fees for contractor delays.	Equitable adjustment for public agency caused delays and a cap on delay damages. A bonus for early completion.
Damages for Non-Performance Unlimited damages, including consequential damages.	An overall cap on damages, no consequential damages and limitation of liability to the contractor and not to related companies.
Hazardous Waste The contractor to be responsible for hazardous waste.	The public agency to be responsible for pre-existing hazardous waste.

[i] Clawson, *Design - Build Contracting* at 7.

[ii] *See id*. at 7-8.

5. The Contractor / Designer Relationship

Unlike the arms length relationship between designer and contractor on a design-bid-build contract, on a design-build contract, the designer and contractor must hold hands to even prepare their proposal. The great scope of some design-build projects may even require their marriage. In either event, the nature of the relationship between designer and builder (i.e. the teaming agreement) must be formally established prior to submitting a proposal to the owner.

Prior to defining their relationship, the members of the design-build team must be selected. Most public design-build contracts are awarded in a two step process. During the first phase, the Owner issues a Request for Qualifications (RFQ) requesting preliminary information on the qualifications of the design-build team and its concept for the project. Following receipt of the responses to the RFQ, the owner will then typically develop a short list (typically 3 - 5 entities) of prospective design-builders who are then invited to submit detailed proposals for performing the work. Obviously, since the qualifications of the members of the design-build team will be evaluated in deciding whether or not the team will be invited to submit a detailed proposal, it is important to have a quality designer with a strong reputation in the field as part of the contractor's team. If the design-build team is not viewed as qualified because of selection of a poor designer, no matter how good the builder, he will never get a chance to profit from the work.

Once the designer is selected, establishing a good working relationship between designer and builder is almost as important as having a quality designer in the first place. Indeed, the importance of cooperation between them and knowledge of each other's needs can not be emphasized enough. As noted below, I believe a potential pitfall is that designers have historically thought differently than contractors. The designer's natural tendencies may cause the design to "grow" beyond the conceptual design, and that which is necessary to meet the performance desires of the owner, if not closely monitored by the contractor. To avoid design growth beyond that which is necessary to obtain required performance goals, the contractor must work closely with the designer during the design phase to ensure constructibility and that costs remain in

line with estimates. Most contractors have full time personnel assigned to the design team.

Typically, design-build proposals are submitted by either a joint venture between a contractor and designer, or by either of them utilizing a subcontract with the other. Due to errors and omissions liability reasons, some joint ventures actually subcontract the design work back to the designer. The particular structure of the arrangement between the participants is a matter of taste, partially dependant on how state laws regarding licensing of designer and contractors interact with public bidding statutes,[i] insurance necessities and other liability issues.[ii]

CRS Sirrine, Inc. v. Dravo Corporation, 213 Ga. App. 710; 445 S.E.2d 782 (1994) covers a dispute between a contractor and a designer. Dravo and CRS Sirrine entered into an agreement to jointly pursue a contract for construction of a large, technically complex power plant for the United States Navy. The agreement combined the parties' capabilities to design and construct the project. The Navy prepared conceptual diagrams, drawings and initial performance specifications and a narrative about the power plant and required the potential bidders on the project first to submit technical proposals, and if the Navy the technical proposal, then submit a bid for the project. The power plant was a design-build project in which fixed-price competitive bids were submitted on the basis of preliminary design and engineering done by the bidders and the detailed design and engineering work was done after the award of the contract on a fast track basis in conjunction with the construction of the project.

In a letter agreement, Dravo and CRS Sirrine agreed that CRS Sirrine would take the lead in preparing and submitting the technical proposal and, if the technical proposal was accepted, Dravo wholly owned subsidiary, Wether/Livsey would assume primary responsibility for preparing and submitting the bid based on the technical proposal. CRS Sirrine was responsible for supplying the technical information needed to prepare the bid. The agreement further provided that CRS Sirrine, as design engineer, would not guarantee the accuracy of Wether/Livsey's estimates used in preparing the bid. Pursuant to their agreement, a technical proposal was submitted and accepted and a bid of over $100 million was submitted to the Navy in the name of Wether/Livsey - Dravo - Sirrine Joint Venture.

The power plant cost substantially more to construct than the winning bid and Dravo and Wether/Livsey incurred losses in

excess of $30 million. Dravo and Wether/Livsey brought suit against CRS Sirrine alleging breaches by CRS Sirrine caused over $12,500,000 of loss in added costs to construct the project.

Plaintiffs claimed that CRS Sirrine breaches of duty caused increased quantities of construction materials needed to build the project over the amounts in the fixed-price bid, which was based on design and technical information provided by CRS Sirrine. The court concluded that quantities of various materials increased dramatically over the bid quantities and that the majority of the increase was attributable to CRS Sirrine breaches of its duties under the joint venture agreement. The trial court also found that the plaintiffs' incurred costs of $671,202 for disruption and loss of productivity cause by quantity growth in the electrical and piping area, lack of prompt notice from CRS Sirrine of such growth, and CRS Sirrine's crowded piping design.

The trial court also concluded that the end date of the project was delayed 91 days because of CRS Sirrine's failure to give timely notice of quantity growth, CRS Sirrine's late issue of release for construction drawings, and increase material quantities CRS Sirrine designed to be installed in the project. Additionally, the court found another 102 day delay was caused by CRS Sirrine design errors.

On appeal, CRS Sirrine claimed that a provision in the joint venture agreement unambiguously released CRS Sirrine from any responsibility for damages resulting from increases in construction material quantities. The court concluded that the section relied upon by CRS Sirrine was ambiguous on its face and on that basis could not be interpreted as shielding CRS Sirrine from all responsibility for increases in construction material quantities even if the increases were caused by errors or omissions in CRS Sirrine's pre-bid or post-bid design and engineering work. The court found it noteworthy that during the trial a CRS Sirrine official admitted that it was not CRS Sirrine's intention to shield itself from all liability regardless of the quality of work it performed.

Most lawyers who represent contractors recommend that the contractor take the lead role or majority interest in the endeavor and have a contractual right to exercise that control. Designers typically work on an hourly or cost plus basis. Most contractors, on the other hand, work on a hard money basis. Given this fundamental difference in approach, the contractor should not turn over his ability to control his own costs. In addition, contractors

typically have greater resources than designers due to the differences in hard asset requirements necessary to sustain their businesses. With those greater resources come greater risks of loss. It is much easier to reassemble the assets necessary to design a bridge than the assets necessary to build one.

Traditional design agreements between owner and engineer contain numerous limitations on the engineer's design liability. They may include limitations on the standard of design care which can be expected from the designer, disclaimers of any express or implied warranties of the design, and a dollar cap on the total amount for which the engineer can be held liable in the event he is negligent in preparing his design. As a further practical limitation of liability, many design firms are effectively judgement proof as a result of their limited assets.[iii] In forming a design-build team, designers are sometimes insistent in that traditional limitations against designer liability are maintained through the teaming agreement. As suggested by Mr. Clawson, the place for any disclaimers of liability for design should be in the agreement of the design-build team with the owner, **not** in the teaming agreement between designer and builder -- thus ensuring that the design risk remains equal between the design-build team members. If such an arrangement can not be agreed upon, the risk of design errors should remain with the designer, who is best able to control that risk, and a subcontract between any joint venture and the designer is strongly recommended to provide the joint venture with a remedy against the designer in his individual capacity. Put differently, '***The contractor should avoid accepting design risks which neither the designer nor the Owner wish to accept.'***[iv] Some of those risks include design flaws which cause failure of the finished project to perform at completion or during the warranty period, project delays and injuries to innocent third parties.

In an article on the *Legal Exposure of the Design/Build Participant*,[v] Thomas H. Asselin and L. Bruce Stout identify the following subjects which the contractor and designer need to address:

- Accuracy of reports, such as subsurface condition reports, prepared by outside consultants.
- Design error.
- Overrun in design budget.
- Delay in design.

- Time and cost overruns due to performance by the designer's consultants.
- Time and cost overruns in design caused by the owner.
- Acceleration costs to bring the design within the design schedule.
- Construction defects.
- Overrun in construction budget.
- Construction cost overruns due to estimating errors.
- Delay in completion of construction.
- Acceleration costs to bring the construction within the construction schedule.
- Discovery of hazardous materials on site.
- Force majeure which results in time and cost overruns.
- Unforeseen site conditions which are not the owner's contractual responsibility.
- Owner failure to pay.
- Indemnification for performance and labor and material payment bonds.
- Carrying costs associated with fulfilling unwarranted demands of the owner until recovery is obtained.
- Liability to subcontractors resulting from design defects.
- Cost overruns resulting from subcontractor or supplier defaults.
- Insurance obligations.

- Indemnification obligations in the contract.
- Fees and expenses for pursuing claims.

Finally, with respect to liability, to balance responsibility within the design-build team for liability to third parties as a result of the team's actions, the designer and builder may wish to consider mutually indemnifying each other for any and all liability arising solely out of the actions of the other. Of course, if one of the team members is judgment proof (i.e. the designer), the indemnification provision will be of little real value.

Unlike the contracts with set terms and conditions used in the design-bid-build formula, with design-build, there is typically a much greater flexibility to negotiate applicable contract terms and conditions. As described above, by carefully structuring first, the relationship between designer and contractor and second, the relationship between design-builder and owner, the prudent contractor can minimize his exposure to risks on design-build projects and maximize his opportunity to earn a reasonable profit.

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[i] Watson and Thornton, *Recurring Issues in the Design Build Field*, CHANGING TRENDS IN PROJECT DELIVERY: THE MOVE TO DESIGN BUILD (A.B.A. 1995).

[ii] *See* Peden, *Design Build and Joint Venture Agreements*, CHANGING TRENDS IN PROJECT DELIVERY: THE MOVE TO DESIGN BUILD (A.B.A. 1995).

[iii] Clawson, *Design - Build Contracting*, provides an at length discussion of the design liability issue and its potential pitfalls.

[iv] *Id*. at 4.

[v] American Bar Association Forum on the Construction Industry 11th Annual Meeting, *Changing Trends in Project Delivery the Move to Design/Build,* April 26-29, 1995

6. Warranties

A. Introduction

For many years prior to issuing regulations in 1976, the FHWA had a longstanding policy against the use of warranties in federal aid highway contracts based on the rationale that warranty requirements in contract specifications would indirectly result in federal aid participation in maintenance cost. There was no federal statute which specifically prohibited the use of a warranty. Nevertheless, in 1976 FHWA issued regulations (23 C.F.R. § 635.413) which restricted the use of warranty clauses on federal aid projects located on the National Highway System, except for contracts which involved furnishing or installing electrical or mechanical equipment.

In the early 1990's there has been renewed interest in the use of warranty as a means of encouraging contractors' attention to quality and as a necessary element in innovative contracting approaches such as design-build-warrant contracting. Design-build contracting in transportation construction has thus brought forward new elements that had not previously been thought of as part of the contracting equation. The use of warranties as a quality enhancing, risk shifting and risk reduction device has received increasing attention from government and industry. In 1996, FHWA finalized new regulations, discussed below, which authorized expanded use of warranties by state DOTs.

The purpose of this section is to outline what warranties are, how they work, and what their possible use in transportation contracting are.

B. Definition Of Warranty

To look at the possible role of warranties in innovative contracting, one first needs to look at what a warranty is. Historically, warranties have a long history in commercial law. We can look to this history to tell us about what legal baggage warranties carry and what their role in modern transportation contracting might be.

Traditionally, a warranty is a promise or engagement by which one person assumes or undertakes to do some act or pay

something to another.1 Beyond that simple formulation, a warranty may take the form of a representation or a promise that a certain fact or condition exists: in transportation, for example, that a particular mix was used, or a particular paint. Or a warranty may take the form of a promise of some level of performance: again, that a road surface will not suffer a certain kind of deterioration for some period of time, or that a piece of equipment will perform the function required of it.

A warranty in modern usage has become more and more a contractual promise. But it is important to recognize that warranties are originally grounded in torts, the law of injuries, not of contracts. Specifically, warranties arise out of the tort law of deceit, and only in modern times, that is, the last couple of hundred years, have they become imbued with contract law characteristics.

The significance of the historical derivation of warranty is in the elements that weigh into very practical issues of proof and defense. If warranty is treated as a tort concept, the proofs and defenses stem out of tort law. To prove a warranty breach, a plaintiff may then have to prove fault or negligence, just as fault or negligence has to be proved in an everyday auto accident. Or in certain cases, the rules of strict liability as in tort law may apply. The defendant might have a defense assumption of risk by the other. Even the remedies may take on the characteristics of remedy for torts which look for foreseeable consequences.

On the other hand, if a warranty is just a contract breach, a different set of characteristics must be considered. In this case, a plaintiff may show a promise from one party to the other party and a violation of that promise. That promise may be circumscribed by the rules of contractual privity. That is, unless one party has a contract directly with the other party, that other party will have no obligation to him. This becomes an important issue when the relationships involve multiple parties, such as subcontractors or subsubcontactors. Contractual reliance may need to be shown. The remedies may tend to focus on contractual concepts, like valuing the difference between what you had before and what you have after.

Different statutes of limitations may also apply, since every jurisdiction has different statutes of limitations applicable to contracts and torts. Tort statutes as a general rule tend to be shorter because not only is an injured person expected to seek recompense promptly, but evidence in tort cases tends to be

more fleeting and subject to loss if the possibility of suit remains open too long. So that is why the legal history can make a difference in what a warranty really is.

C. Remedies

If a warranty is breached, the kind of warranty you are dealing with may determine the remedy.

Express contractual warranties frequently specify the applicable remedy. They may provide that, if the warranty is breached, the contractor will repair the work, replace it or pay for the diminishment of value. If a remedy is specified, the issue arises whether other remedies that might be applicable in the case of a similar warranty are excluded by the principle of interpretation that inclusion of one excludes others.

The issue can arise when a beneficiary sues the warrantor for breach of contract for defects discovered after the express warranty period has expired, or whether there is an express and implied warranty covering the same defects. The general rule has been that the express warranty is not an exclusive remedy, and an owner can recover for breach of contract, common law damages for defective work, or other implied warranties as well.2

If the specific remedy is not set forth for an express warranty breach, of course, a range of remedies may be available. Frequently in the case of express warranties, the remedy is set forth just as a matter of completeness. In the case of implied warranties, of course, the remedy will be implied as well.

Warranty remedies depend not just on the specific remedial provision given but also on the derivation of the warranty involved. Their scope and duration also may vary depending on the warranty.

D. Warranty vs. Guarantees, Bonds, and Insurance

The terms warranty and guarantee are frequently interchanged and often are used to mean the same thing. A warranty is said to be an absolute liability on the part of the warrantor, binding a party to the terms of his contract.3 Strictly

speaking a guarantee is a promise by a third party to back the promise of the promisor. A warranty, on the other hand, is the warrantor's original promise.

In construction practice, warranties and bonds serve complementary purposes. A warranty constitutes a promise, while a bond is a guarantee by a surety that the promised performance will be achieved. If the representation proves invalid, or the performance does not meet the stated requirement and the warrantor fails to make it good, the surety's bond is available to pay the resulting obligation.

A bond functions essentially as a loss avoidance mechanism. The function of a bond in relation to a warranty is to back the warrantor's obligation with the financial strength of another party. This puts the owner in the position of not having to rely completely and totally on the contractor's performance or his financial strength and longevity. If the contractor goes out of business, the bond is there to meet the bonded obligation. If the contractor fails for some other reason to perform, the bond is there to insure either the contractor or the surety will perform. Bonds give certainty to warranties and therefore perform a key function in the warranty context.

A warranty is also not insurance. Insurance is the obligation of a third party to fund a loss. It has no relation to a warranty, except that it may affect the warrantor's financial status. Insurance functions as a loss funding device. Unlike a bond which assumes that the loss will not occur, insurance is a mechanism to pool funds to meet expected loss contingencies. Insurance assumes that loss will occur. It is a mechanism to transfer risk to a broad constituency to carry the financial cost of anticipated losses.4 Insurance is not usually a factor in the warranty context.

E. Traditional Warranty Law

1. Express Warranties

Professor Williston taught that any affirmation of fact or promise relating to something sold is an express warranty if its natural tendency is to induce the buyer to purchase and he does so relying on that fact or promise.5 We usually think of express warranties as written, but a warranty may also be oral. The elements of proof of an express warranty are that the warranty

was made and not complied with, and the defect proximately caused damage.6 Since an express warranty is by nature contractual, negligence is normally not a factor.7

The principles which apply to warranties in general also have application in the field of construction. While some of the same warranties and the same factors apply as they do to other areas, a salient difference is that construction work is generally considered to involve the provision of services, not the sale of goods. For this reason, UCC warranties governing the sale of goods generally are not applicable in highway or other construction contracts.8 Of course, some types of construction contracts such as provision of toll systems may fall under the category of sales of goods and be affected by warranties applicable to such sales.

i. Materials and Equipment

In highway construction contracts in the United States, the road and bridge specifications requiring conformance of materials to the contract will serve the same purpose as express warranties in other contracts. The most common express construction warranty is the warranty of materials and equipment. This provides that materials and equipment will be "good quality and new," and that the work will be free from defects. It also provides that work not conforming to the contract documents will be considered defective. The "work" is defined to include materials and equipment.9

ii. Services

Express warranties for construction services may be included in the materials and equipment warranties under the warranty for work described above. Otherwise, construction contracts will include an express services warranty that the work will be done in a good and workmanlike manner, that workers will have appropriate training and experience, and that contract documents and applicable standards and codes will be complied with.

iii. Repairs

Most construction related contracts warrant the work to be compliant with the contract documents for one year from substantial completion. This is a warranty to repair defects, unless a particular defective condition is accepted. The

obligation survives acceptance of the work and termination of the contract, but requires prompt notice by the owner. The one year limitation applicable to this type of warranty does not apply to other warranties including materials and equipment warranties which may also include an overlapping warranty of the work.

iv. Vendor Warranties

Vendor warranties are often a factor in road and bridge and other construction contracts. These usually are warranties given by the vendor to the owner. Normally, the contractor is not a party to this warranty, though he may be required to obtain the vendor warranty for the owner.

In such a case, the contractor has no privity with the vendor. Where the vendor's warranty is limited, and not necessarily coextensive with the contractor's own warranty to the owner, the contractor may have exposure to the owner without corresponding liability from the subcontractor.

2. Implied Warranties

Implied warranties, unlike express warranties, are obligations imposed by the law as a consequence of making a contract. They do not depend on the intent of the parties. In other words, when a person contracts to make a sale, or do a piece of work, the law will imply certain obligations into his contract. An example is the warranty of workmanlike construction. Basically, the law imports standards from outside the contract which govern the conduct of the contracting parties. Generally, these are tort law standards, such as negligence and they imply tort law defenses, as described.

What is problematic about implied warranties is that their scope and certainty are frequently not clearly defined, and they depend to a considerable extent on what the courts of the particular jurisdiction have ruled in the past. While some implied warranties are well recognized and accepted, others are not. While some apply to certain types of sales, others do not. The applicable statutory and case law of the state in question must be examined with care.

Implied warranties are a factor in all contracts including public highway contracts.

i. Workmanship

As a general proposition, highway and other construction contracts imply a warranty that the work will be performed in a "good and workmanlike" manner. While this warranty does not insure perfection, it does demand a level of quality equal to that of a person experienced in the trade who performs proficiently.10

In most jurisdictions, this warranty does not extend to construction materials. A contractor is generally not liable for latent defects and materials supplied by a reputable dealer, absent his own negligence.11. If the owner specifies a particular material, the owner's warranty of specifications supersedes the contractor's warranty as to workmanship.

ii. Vendor literature

Where a contractor supplies vendor literature containing a warranty to an owner in order to obtain approval for use of the material, the contractor may create an implied warranty. Some cases hold that the special warranty thus created for the material furnished supersedes a general one year construction warranty, with the result that the contractor may be obligated for long past the expected term.12 A contractor request for use of alternative materials may also create an implied warrant that the substitute will perform as well as the original.

iii. UCC Goods

As noted before, the Uniform Commercial Code creates implied warranties for the sale of goods, including specially manufactured goods.13 Because construction involves primarily services, the UCC normally does not apply.

However, where the predominant purpose of the contract is found to be the sale of goods, the UCC and its implied warranties of merchantability, fitness for a particular purpose and good title will apply. Under the UCC, an implied warranty is created by a description of goods or promise relating to the goods which is made a part of the bargain.

Subsequent modifications by the owner may render this warranty unenforceable. The UCC contains a 4 year statute of limitations running from tender of delivery.14 It should be noted

that, if a purchase order is accepted subject to a disclaimer that materially alters the contract, the disclaimer will not be deemed part of the contract for warranty purposes unless the seller expressly agrees.

A court has held a contract to supply concrete, including a provision to pour it, may to be a sale governed by the UCC for warranty purposes.15

3. Legal Issues Frequently Encountered in Warranty Law

In warranty law in general, certain legal issues arise frequently.

i. Privity

A basic principle of contract law, privity limits the contractual obligations to the parties that are contracting. The contracting party is responsible only to the other contracting parties. He has no responsibility to third parties, except in limited circumstances where a third party is a clearly intended beneficiary of the contract.

Express warranties, being a contractual device, go to the contracting party only. This means that third parties, such a subcontractors, do not benefit from express warranties. By the same token, owners do not benefit from subcontractors' express warranties. However, in many contracts and subcontracts, pass through provisions require that warranties be extended to noncontracting parties, like owners.

Implied warranties frequently do not carry the same privity limitations as express warranties. Nevertheless, similar limitations have been applied to implied warranties through application of concepts such as foreseeability, proximate cause and reliance requirements.

ii. Time Limitations

Frequently, an express warranty will contain its own limitation. Thus, for example, the obligation to repair or replace an item which does not meet a stated standard is usually limited in the warranty itself to a relatively short period, one or two years. Where the warranty fails to limit the duration of the obligation, the courts look to other provisions of the contract, or

to state statutes of limitations applying to the contract. As a general rule, warranties survive competition and project acceptance. Otherwise, they would have little utility. But survival is for a reasonable time unless its duration is specified.

Implied warranty provisions are driven by tort law concepts. State law will set out the applicable period for tort suits to be brought.16 The Uniform Commercial Code governing commercial transactions in the sale of goods set forth 4 year statute of limitations for implied warranties of goods under the UCC.

When a limitation or statute of limitations begins to run can also be a significant factor. In many states, the discovery rule establishes that a breach of warranty does not occur for statute of limitations purposes until the discovery of the defect. In other cases, or where the warranty is express and prescribes its own limitation, the period runs from the date of delivery, substantial completion or acceptance.

Some states also have statutes of repose. Under such a statute, for example, the action might have to be brought within one year after discovery, but no later than five years after completion of the contract. The majority rule in the states is that parties may contractually reduce the statute of limitations to a reasonable period within which to sue. Some courts, however, hold that the parties cannot lengthen the statute of limitations by express warranty terms. Different statutes of limitations may also apply to different obligations in the same contract and may be triggered by different events. Since it is not always clear when the obligation is triggered or when it expires, exclusive reliance should not be placed on one provision without careful consideration of others.

iii. Disclaimers

Disclaimers are sometimes used with express warranties to limit with greater precision precisely what being warranted. Since as a general proposition the law says that the parties can, in effect, write their own law for a particular case by writing their own contract, disclaimers of express warranty will generally be upheld. However, when a disclaimer undercuts the major purpose of the express warranty, or is completely inconsistent with it, the courts will impose on the disclaimers that will be recognized.17

Disclaimers of implied warranties generally are treated more restrictively. Since implied warranties are duties imposed by law in particular circumstances, it is to be expected that public policy would dictate limitations on disclaiming them. Disclaimers may make eminent good sense when the parties intend to provide incomplete services or nonstandard goods, in which case ordinary implied warranties would not be wanted. In such cases, explicit disclaimers consistent with the purpose of the contract will be respected by the courts.

Since disclaimers generally work against the public policy reasons that justify implied warranties in the first place, the courts will require clarity and conspicuousness of the disclaimers if they are to be honored. An integration clause in a contract which is intended to prevent extrinsic factors from being considered may not suffice to prevent the application of implied warranties serving public policy.18

iv. Remedies

Remedies for breach of warranty are largely a function of the type of warranty involved. Most express warranties state their own remedy. For example, an express warranty may set forth repair or replacement, limit or other remedies. If a warranty expresses its own remedy, as a general rule, the law may not treat this as the exclusive remedy.

Otherwise, remedies for breaches of warranty entitle the owner to the typical measure of damages for breach of contract. This may range from repair to replacement to amount spent in reliance and even, in some circumstances, consequential damages. Consequential damages must be foreseeable at the time of the contract, and proximately result from the breach. The principle of mitigation of damages applies to warranties. The owner owes the contractor a reasonable opportunity to do required repairs during the warranty period. An owner is not entitled to a remedy which exceeds the original value of the contract.

(1) Valuation Issues

Generally speaking, typical contract breach measures of damages apply in the case of warranties. Federal and many state laws and regulations require correction of defective or nonconforming work within in a one year period after substantial

completion. Where the contractor fails to remedy the default within a reasonable time after notice, the owner has the right to do so at the contractor's expense. This warranty does not limit remedies available under other warranty provisions of a contract.

While the cost of repair or replacement of warranted work is the usual measure of damages, circumstances may require different measures. For example, diminution in value may be a more appropriate measure if **repairs cannot be made, or** if repairs would result in economic waste. Damages may also be awarded for savings the contractor made by substituting cheaper materials, or for amounts spent in reliance on the breached warranty. Consequential damages naturally following from the breach and reasonably foreseeable at the time of the contract may be recovered if proximately caused by the breach and not precluded by the warranty terms.

(2) Mitigation

The duty to mitigate damages applies to the extent reasonable. If the contractor will not make the repairs adequately itself, the owner is entitled to the cost of hiring a replacement contractor. To prevent unjust enrichment, an owner's remedy for a warranty may not exceed the value of contract performance.

(3) Liquidated Damages

Liquidated damages clauses are enforceable if they represent a reasonable assessment of damages that are otherwise difficult to quantify. The courts universally refuse to award LD's as a penalty. Graduated LD's provisions are increasingly used where performance warranties involve incremental failures. Where damages are easily calculated, however, LD's will not generally be allowed for warranty breaches because of the penalty prohibition of public policy.

F. Use of Warranties in Design-Build

Warranties in innovative contracting are an outgrowth of the application of warranties in other fields and in the construction field in general. But innovative contracting methods bring new issues to the fore and have focused increased attention on the uses and potential uses of warranties. There is

special interest in the use of warranties to improve quality and function as risk shifting mechanisms in this relatively new environment.

1. Pressures for Increased Use of Warranties in Design-Build

Much has been written about the possible desirability of using warranties in innovative contracting. Less certain are the conclusions. We are focusing here on legal aspects so I will only mention the highlights.

i. Cost

The pressure for reduction in cost of major projects has been a primary factor in heightening interest in warranty solutions. Warranties may be thought to reduce the long term cost of projects by enhancing quality. On the other hand, they also can increase up-front project costs by causing contractors to inflate bids to cover their added risk, especially if that risk is difficult to quantify.

ii. Perception of Traditional Contracting

Some observers have perceived the traditional methods of contracting as barriers to innovation in the industry. Low bid/detailed specification contracts obviously reward contractors for meeting the specified requirements at the lower cost. Contractors have no incentive for finding better solutions, particularly if they might involve increased up-front costs. The use of warranties is seen by some as a way to move away from unsatisfactory traditional bidding practices and improve overall quality.

iii. State DOT's

Many state and local governments face increasing financial pressures in bridge and highway construction and maintenance. As a result, manpower for engineering and inspection is constrained and the prospect of shifting risk to contractors through warranty devices appears attractive.

At the same time, the governments are under pressure to improve quality without adding to cost. Again, warranties may offer a way.

Attached as Attachment A is a chart reflecting FHWA's current understanding of the states that have used warranty provisions for various products.19

iv. European Experience

Studies of Western European experience in highway contracting demonstrate much more extensive use of warranties than is the case in the United States. Three and even five year warranties on road construction are normal. Road quality and durability frequently are better. While it is not clear that warranties are a major factor in achieving this result, the successful European experience with warranties suggests that the same might be successful here.

v. FHWA

FHWA's SEP-14 program has given additional impetus to the potential use of warranties in U.S. highway construction. Under this program, the states have been authorized to use warranties on certain highway projects on an experimental basis. Positive experiences have been reported in a number of states that have taken advantage of it, and this has provided a basis for further expansion of warranty use.

In April 1996, FHWA issued a final rule at 23 CFR Pt. 635 authorizing the states to proceed with use of warranties in highway construction so long as federal funds were not employed for highway maintenance. The TEA-21 legislation contains authorization for design-build contracting by state DOT'' for qualified projects. It seems likely that as a result of these actions the states will continue experimentation with and expansion of warranty programs.

2. The Changing Risk Equation in Design-Build Contracting and Warranties

In design-build contracting, new factors are at work in the risk equation. Design-build emphasizes an approach toward combining previously separate elements of the construction process into a single contractual mode. The key element, of course, is the combination of contractor and designer under one umbrella. These changed functions alter the risk for both owners and contractors. They also complicate the risk, because design

services have not previously been subject to construction warranties. The increasing use of design-build has had the effect of further focusing the industry on the potential utility of warranties in this type of contracting.

For one, there is a new need to adequately define risk. This requires refocusing on the types of warranties that are needed and appropriate, and on the measurement of risks. It also requires a broader understanding of the consequences of the use of warranties, and the effectiveness of warranty remedies. Finally, the use of warranties cannot be separated from the requirements of bonding projects and providing insurance coverage adequate to the need.

3. Specific Legal Issues Affecting Warranties in Innovative Contracting

Design-build contracting involves combining design and building work under a single contractor team. This arrangement sets the context for different warranty arrangements. It also raises legal issues in the use of warranties that need to be addressed.

i. Professional Services

Traditionally, professional services have not been the subject of warranties. This is because the law has regarded the conduct of professional services as an inexact science, not subject to a promise of specific results. The design professional's obligation has been to exercise a reasonable degree of skill, care and diligence consistent with that of similarly situated professionals, unless a different standard of care of was written into an express warranty in the agreement between the designer and the owner.

The advent of design-build, of course, alters the position of the design professional, who now becomes a contractor team member. Now the contractor rather than the owner is in the position of warranting the sufficiency of the drawings and specifications.20 And as team members, architects and engineers are parties to the construction contract rather than a designer's professional agreement.

Accordingly, an express warranty of professional services will frequently stated in the design-build contract. As a

practical matter, this warranty may add little to the ordinary duty of skill and care that is an implied term of every contract for professional services. This warranty will frequently be accompanied by a disclaimer of any waiver by the owner of the professional's warranties or obligations based on the owner's review or approval of plans and specifications.

Design-build contracts new often provide a performance warranty. Such a warranty bypasses the need for fully detailed plans and specifications, but warrants that the design and construction will achieve a certain level of performance. The question then becomes how to measure and specify the appropriate level of performance. This is probably the chief difficulty of design-build contracting warranties, because the state of knowledge of needed or desired performance criteria is not exact.

This problem has been addressed by conditioning warranties depending upon use, maintenance and other factors beyond the contractor's control. In addition, performance warranties may be limited to passing a test, or a series of tests, or they may provide a short expiration. All these are ways to deal with the difficulty of adequately defining quality for warranty purposes. It is obvious that the more a warranty builds in risk that is difficult for the contractor to quantify, the more pressure the contractor has to compensate for that risk by increasing prices.

ii. Time Limitations

Time limitations in design-build warranties present an issue that must be carefully addressed in every contract. Consistency may be a critical factor. The duration of different but overlapping warranties within the same contract may differ, and the contracting parties need to be aware of the effect of extrinsic time limitations.

For example, a repair warranty may specify the period within which the contractor may be called back to perform repair work. At the same time, the contract may contain a performance warranty which provides a different period of duration, or expresses none at all. In many cases, the warranty terms may involve some element of overlap among different warranties, so that the applicable time limitation covering a particular warranty event may not be entirely clear. The situation may be further complicated by different statutes of limitations applicable to

different contracts or warranties, depending on how they are characterized in the law.

iii. Dispute Risk

All construction contracts, of course, carry a risk of disputes. Carefully drafted warranties can minimize that risk. The problem is in achieving clarity in what is being warranted, and what is being specified.

Since so far there has been little experience with enforcement of warranties in the design-build context, risk is hard for the parties to pin down. The full economic benefits of design-build will need to await better quantification of risks with its presumed effect on pricing. Quantification issues will be addressed in more detail later in this program in the quality control discussion.

iv. Bonding and Insurance Issues

No discussion of warranties is complete without at least brief consideration of bonding and insurance issues. Innovative contracting with design-build creates new bonding and insurance issues.

Typical insurance coverage for architects/engineers excludes coverage for warranties of performance. It has been pointed out that if strict liability for defects in professional services became the norm, pricing for insurance would become prohibitive. Ultimately, of course, the owner bears the cost.

Since standard form insurance policies now exclude warranty coverage, parties in construction contracts have turned to other ways to control potential liabilities, including indemnification, hold harmless clauses, limitations of liability to insurance coverage, exclusions of consequential damages and limitations on repairs of faulty work.

Performance bonds as a general rule bind the surety to the same extent as the contractor. However, since the surety is generally discharged on completion of performance and final payment, a gap may arise between the liability and the bond coverage.21

Where the warranty extends beyond acceptance, as in the case of a one year repair warranty, the performance bond will cover. Where a bond contains its own time limitation, that will supersede the warranty time limitation.

Sometimes, the interplay of bonds and time limitations can be complex. Several different rules may be involved. First, the warranty may have a time limit, either within the terms of the warranty itself or imposed by a statute of limitations. Second, the performance bond may be similarly limited. Third, the discovery rule may have application, and forth, there may also be a statute of repose which provides an absolute time limit to sue regardless of when the defect is discovered.

A recent Florida Supreme Court decision analyzed all these issues. The court ultimately concluded that, though a surety's liability is generally coextensive with that of the contractor, an action against a surety on a performance bond accrues on the date of acceptance and falls under a shorter statute of limitations. For this reason, the court allowed no recovery against the surety.22

The rules governing time limitations on actions against sureties vary in different states. Some specifically include sureties in statutes of limitations for construction contracts, making surety liability coextensive with that of contractors. Some apply the discovery rule, and some apply both the discovery rule and a statute of repose. Others provide for the cause of action to accrue on acceptance or substantial completion. And further, some states permit the parties to a private construction contract to contractually limit the time for bringing in action on a performance bond, but do not allow action to be barred before the loss or damage can be ascertained. Each state's statutes and decisional law must be reviewed carefully to ascertain the effect of a performance bond in a construction contract.

G. Conclusion

Innovative contracting with the use of the design-build method introduces warranty issues that are new to transportation project construction in the United States. Because design-build contracting is not dependent to the same extent on detailed specifications, contractors in this environment can no longer satisfy their obligations by merely building to specifications.

Public agencies and contractors using this method need increased knowledge and understanding of traditional warranty law and its application to design-building contracting. Warranty law is largely base don common law principles and is a dynamic, not static, element in the filed of design-build construction.

H. Performance Specifications

Under the traditional design-bid-build project delivery method, the owner hires a design professional to design the project. Once the design is complete, the plans and specifications are given to bidders upon which they can base their prices.

Implied in the relationship between the contractor and owner is a warranty that the plans and specifications are accurate and functionable. If the design or any aspect of it produces results that are unacceptable to the owner, the owner must pay the contractor to make whatever adjustments are necessary. Likewise, if a defect in the design causes the contractor to incur additional costs to perform the work, the contractor is entitled to additional compensation and project time, if required. This warranty of the plans and specifications is also referred to as the Spearin Doctrine.

Implied warranties frequently arise out of provisions in the contract dealing with the details of the work. If the particular detail or specification at issue calls only for an end result or objective, it is not subject to the owner's implied warranty. Such a specification would clearly require the contractor to come up with the precise method of achieving the objective and any failure to achieve the objective would be the contractor's responsibility. On the other hand, if the particular specification prescribed exactly what the end product will look like or how the result should be accomplished, the owner warrants that the intended result will be met.

Labeling a project "Design-Build" does not automatically relieve owner from warranting plans and specifications if – during programming or other phases of the design process, owner provides design specifications as opposed to performance specifications).

A design specification describes in precise details the materials to be employed and the manner in which the work is to be performed and the contractor is required to follow them as

one would a road map. Blake Constr. Co. v. U.S., 987 F.2d 743, 745 (Fed. Cir. 1993). Performance specifications, on the other hand, set forth an objective or standard to be achieved and the successful bidder is expected to exercise his ingenuity in achieving that objective or standard of performance; selecting the means and assigning the corresponding responsibility for that selection. Id.

Although these terms have separate and distinct definitions, the distinctions between them re often hard to discipher and reasonable persons can disagree as to whether a particular specification constitutes a performance or design specification. Moreover, traditional design-bid build projects often contain both types of specifications. Dillingham Constr., N.A. v. U.S., 35 Fed. Cl. 495 (1995). Even the Design-Build project may contain some design specifications.

For example, under a Design-Build highway contract where the designer must use storm drainage structures contained in the DOT's road and bridge standards manual, the DOT warrants that portion of the Design-Build entity's design assuming the designer choose an appropriate structure for the application. Moreover, DOT's warrant pavement designs where such the designer is constrained by pavement sections contained in the DOT design manual.

The design-build entity should carefully examine specifications supplied or approved by the owner to determine whether the owner has implicitly warranted the suitability of particular specifications.

A contract may contain mostly design specifications, but one aspect of the project design is left to the contractor and the requirements are stated as a performance specification. Because there is no bright line test to determine whether a specification is a design or performance specification, the particular specification goes unclassified.

Hence, sureties have been bonding design responsibilities in instances where the contract contained – in whole or in part – performance specifications. If the contractor's work did not perform as required under the contract, one reason might be the contractor's failure to design that component of the work. The surety's undertaking of this risk is frequently unknown because the overall project is based upon an otherwise complete design with the exception of a particular project feature that was

expressed as a performance specification rather than as a design specification.

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1 Black's Law Dictionary.

2 *Burton-Dixie Corp. v. Timothy McCarthy Construction Co.,* 436 F.2d 405 (5th Cir. (1971)); *Tassan v. United Development Co.,* 410 N.E.2d 902 (1980).

3 Transportation Research Board, NCHRP 195 at 5 (1994).

4 *Id.* at 17.

5 8 S. Willston, *A Treatise on the Law of Contracts* § 970, at 484 (3d ed. 1964).

6 Foster, Winters & NICL, *Construction and Design Law*, Chap. 20, Warranties at 4 (1991).

7 *Id.*

8 Friedlander, Contractors' Construction Warranties, *Construction Briefings* [Get cite from constr. Briefings index.] This article provides a useful summary of warranties in the Construction field, which we refer to at several points.

9 See AIA Construction Contract Form A201 (1987).

10 *Melody Homes Mfg. Co. v. Barnes,* 741 S.W.2d 349 (Tex. 1987).

11 *Wood-Hopkins Cosntr. Co. v. Masonry Contractors, Inc.,* 160 S.E.2d 476 (N.C. 1968).

12 *Hillcrest Country Club v. N.D. Judds Co.,* 461 N.W.2d 55 (Neb. 1990).

13 UCC §2-105(1)(1978).

14 UCC §2-725(1)(1978).

15 *Port City Construction Co. v. Henderson,* 266 So.2d 896 (Ala. App. 1972).

16 *Velotta v. Leo Petronzio Landscaping, Inc.* 433 N.E.2d 738 (1973).

17 *Weimer v. Gulf Oil Corp.,* 264 N.W.2d 374 (Minn. 1978).

18 3 *Corbin Contracts* § 578 (1960).

[19] Briefing, FHWA Initiatives to Encourage Quality through Innovative Contracting Practice, Special Experimental Projects No. 14 (SEP. 14), September 21, 1998.

[20] *Rosell v. Silver Crest Enters.,* 436 P.2d 915 (Ariz. 1968).

[21] *Fed. Ins. Co. v. Southwest Fla. Retirement Center, Inc.,* No. 89574 (Fla. Feb. 12, 1998).

[22] *Id.*

7. Insurance and Bonding

A. Bonding And Insurance Generally

1. Introduction

Under the traditional design-bid-build model the risks underlying the construction process are distributed – not necessarily equally – among the owner, designer, and contractor. This relationship is often referred to as the Construction Triad.

Risks emanating from this relations have been well defined over the years and bonding and insurance tuned to provide complete coverage. Insurance companies are comfortable providing these products because their underwriters have developed systems for defining the risks and for accurately assessing them. For this reason, the price a contractor must pay to obtain insurance and bonding under the traditional design-bid-build project delivery method is relatively competitive.

Although the Design-Build approach is not a new one, the frequency of its use has been somewhat limited until the last ten years. Accordingly, insurers have been slow to add new insurance and bonding products to accommodate the Design-Builder. Unfortunately, the current trends and great increase in demand for seriously challenge the supply of the insurance and bonding product lines currently available. This supply and demand dilemma is exacerbated because the Design-Build process is coming into favor on highway, bridge, and heavy civil projects. The entry of highway/heavy project into the Design-Build mix exacerbates the supply and demand problem because in addition to simply adding to the demand, these projects carry new and different risks from those posed in the building and general construction industry. Thus, insurance and bonding underwriters have their work cut for them in meeting the demand expected from TEA-21.

Before addressing bonding and insurance issues associated with the Design-Build process, a review of the basic concepts of insurance and bonding should be helpful. The following section provides such a review and also illustrates the major distinctions between insurance and bonding.

2. Bonding vs. Insurance

Bonding is a three-party relationship whereby the Surety (insurance company) agrees to answer for the debts or defaults of the Principal (contractor) by either paying the principal's debts to, or completing the principal's performance for, the Obligee.

Interestingly, the premium or fee paid by the contractor for a bond is based upon the surety's expectation that no loss will occur. Indeed, as part of the agreement between the contractor and its surety, the contractor agrees to indemnify the surety from any and all losses the surety might incur under the bond. Simply put, the bonding company fully expects that in the rare event it might have to step in and fulfill the contractor's obligations under the construction contract, the guarantors of the bond – usually the contractor's owners – will reimburse the surety. Therefore, a contractor's ability to obtain bonding is necessarily based upon the surety's judgment as to the contractor's ability to perform the work and the guarantor's ability to pay any losses the bonding company might incur in connection with the agreement to provide bonding.

The factors viewed by underwriters when deciding whether or not to enter into a surety relationship with a contractor are: (1) the contractor's experience in the particular type of work it performs; (2) the generally recognized risks inherent in such work; (3) the size and complexity of the contractor's past projects; (4) the financial well being of the contractor (debt/equity); and (5) the financial strength of the contractor's principal who will ultimately be the guarantors under all bonds the surety issues.

Another characteristic of a surety bond is that it is non-cancelable. That is, it remains in full effect until all obligations under the construction contract are satisfied. Under the trademark design-bid-build scenario, all obligations are satisfied when the owner finally accepts the project, makes final payment, and executes a release of surety.

Insurance, on the other hand, is written with the expectation that losses will occur. Hence, the premiums for an insurance policy are based upon the size, frequency and overall probability of such anticipated losses. This is why a contractor's "experience" or actual track record of accidents is or prime importance to a carrier considering whether to provide coverage.

However, the insurance company is less concerned with the financial well being of a contractor for whom it is writing policies than it would be if it were issuing surety bonds.

Whereas suretyship involves a tri-party contract, the contract for insurance involves only two parties – the insurer and the insured (contractor). In essence, under the insurance contract the insurer indemnifies the insurer from any losses it might incur from specified risks – usually.

B. Design-Bid-Build and Insurance

1. Introduction

Under the traditional design-bid-build model, insurance providers supply separate policies to owners, designers, and contractors to cover the particular risks each face. Although not always, the owner usually procures a Builder's Risk policy, which covers in-place work from loss or damage during construction. The Builder's Risk policy essentially serves as a temporary property policy for the benefit of the owner until the project is complete and a permanent insurance policy is purchased.[1]

Two other principal types of insurance are procured by the contractor and design firm and cover against losses arising out of their respective functions. These coverages are the Professional Liability Policy (also referred to as Errors and Omissions Policy) and the Commercial General Liability Policy ("CGL").

The project owner usually requires that designer to carry an Errors and Omissions Policy, which protects from losses resulting from negligent design. The designer and contractor are also required to carry a CGL Policy. This policy covers against bodily injury and property damage arising from the insured's operations on the project. However, the contractor is rarely required to carry Professional Liability insurance because the contractor has no responsibility for this separate and distinct function.

2. Commercial General Liability

As stated above, the CGL Policy protects the insured against, bodily injury and property damages arising form the insured's operations on the project. The policy is usually written on an occurrence basis, which means that the policy covers only those losses that occur during the policy period – regardless of when the claim is actually made.

A claims-made policy, on the other hand, covers claims asserted during the policy period – regardless of when the actual loss occurred. To illustrate, a claims-made policy procured on January 1, 1999, would cover a loss that occurred on December 22, 1998, if the claim is made after January 1. Similarly, if the insured purchased a policy from another insurer the following year, a claim made that following year for a loss during 1999 would be covered by the new policy.

It is worthy of mentioning that many CGL policies cover losses from design performed by the contractor that is incidental to construction means and methods. This provision would cover against losses due to shop drawings errors or, for example, excavation shoring design errors. However, if the contractor has undertaken any non-incidental design on a project, the CGL Policy will be inadequate to fully protect it from liability. The standard exclusion in a CGL Policy relating to design states as follows:

> *This insurance does not apply to "bodily injury," "property damage," "person injury," or "advertising injury" arising out of the rendering or failure to render any professional services by you or any engineer, architect or surveyor who is either employed by you or performing work on your behalf, but only with respect to either or both of the following operations:*
>
> *Professional services include:*
>
> *b. Providing engineering, architectural or surveying services to others in your capacity as an engineer, architect or surveyor; and*
> *c. Providing, or hiring independent professionals to provide engineering,*

architectural or surveying services in connection with construction work you perform.

2. *Subject to paragraph 3 below, professional services include:*

   a. *The preparing approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and*
   b. *Supervisory or inspection, activities performed as part of any related architectural or engineering activities.*

3. *Professional services do not include services within construction means, methods, techniques, sequences and procedures employed by you in connection with your operations in your capacity as a constriction contractor.*

Hence, the CGL policy would cover losses resulting from routine shop and detail drawings submitted in connection with fabrication otherwise fully design structural members or detailing the contractor's means and methods, but not those activities constituting project design.

A special note should be made that the CGL Policy covers only personal bodily injury and property damage and does not cover the cost to rebuild the contractor's work or consequential economic damages such as delay or loss of use of the facility. Hence, even though means and methods-related design is covered, it is covered only to the extent of bodily injury and/or property damage. If, using the shoring example, failure of the shoring system causes to the contractor's work and causes project delay, these losses are not covered. Moreover, the cost to repair or rebuild the work is not covered.

As we will see later, most design-bid-build projects contain "design specifications," which essentially tell the contractor what to do – not how to do it. However, even under

this traditional project delivery system, some specifications are expressed as "performance specifications." Performance specifications leave to the contractor exactly what to provide, however, what the contractor ultimately provides must perform as specified by the owner. When the contractor builds to a performance specification, it is, in essence, providing a design much like a design professional provides a design to meet the owner's stated objectives. Hence, even under the traditional design-bid-build system, the contractor may have some design liability. Performance specifications are, therefore, a trap for the unwary because CGL Policies provide no protection from this type of liability.

3. Professional Liability

Professional Liability or Errors and Omissions Policies protect a designer from liability for negligent design. It is important to stress at this point that the designer's liability with respect to design is based upon a standard of care. The standard of care is a yardstick against which a particular designer's performance can be measured. Simply put, a designer will not be liable for a defective design unless it can be shown that the designer's performance failed to adhere to what a reasonable similar-situated designer would have done under the same circumstances. This is always the subject of expert testimony.

Given the standard of care to which a designer is held, it is easy to recognize why an owner in the traditional design-bid-build scenario is caught between a rock and a hard place. Indeed, although a design problem might not rise to "negligence" and entitle the owner to recover damages from the designer, the owner is still liable to the contractor for any problems such design problem causes. This is known as the *Spearin* Doctrine.

The Spearin Doctrine is an implied warranty the owner provides to the contractor that if it builds in accordance with the owner-supplied design, the project will function as intended. If the design doesn't function and additional work is required, the contractor will be compensated for such additional work. Likewise, if the contractor incurs additional expense attempting to make the design work because of design flaws or oversights, the contractor is entitled to additional compensation. In such a case, the owner must pay the contractor, but cannot collect from the designer unless the design error rose to the level of professional negligence.

In a day where designers are "pushing the envelope" and using state of the art technology and untried materials and material combinations, owners are frequently hung out to dry as a result of this gap in liability. Unfortunately, the Errors & Omissions Policy protects only against professional negligence, not against those "minor design challenges" that routinely occur on projects.

Unlike the CGL Policy, Errors and Omissions Policies are usually claims-made and, therefore, cover only those loses for which a claim is made during the policy period. However, even though the typical policy is stated as "claims-made," such policies frequently exclude claims for errors made by the designer before the policy period unless the designer specifically requests such coverage. Obviously, the designer must pay more for such extended coverage and the insurer requires the designer to represent that it has no knowledge of any impending claims or errors in design. The main point to be taken from this is that even though a designer has coverage while performing design for a particular project, he might not six months down the road. Since such policies are claims-made, the designer might be without coverage later on and the owner's recovery would then be dependent upon the financial state of the design firm.

The Design-Build process presents special challenges with respect to Professional Liability and CGL coverage because when one entity performs both design and construction, policies must cover the types of risks previously covered by separate policies. Also since insurance policies for the construction industry have been designed with the underlying assumption that the design and construction functions are separate, the definitions in the policies may take on a different meaning when applied to the design-build method.

Whether or not a design-build entity must procure professional liability insurance depends upon the form of such entity. Moreover, the form of the design-build entity dictates the types of insurance issues with which it must face.

C. Design-Build and Insurance

1. Introduction

Under the Design-Build scenario, the owner is no longer

caught in the middle of the design and construction and, therefore, no longer warrants the design to the contractor. Rather, the contractor is now the single point of responsibility ("SPR") and must provide both the design and construction for the project.[2] Hence, the contractor will be liable to the owner for any design errors and/or defects in construction. More important for the owner, he is no longer placed in the untenable position of determining whether a functionality problem is a design error or a construction defect. He simply looks to the contractor to take care of it.

A design-build entity may take several forms. A form might be truly integrated and maintain its own in-house design personnel or might be totally separate through a subcontract or joint venture relationship.[3] The risks inherent in the Design-Build process depend greatly upon the form of the Design-Build entity involved. For this reason, we will address insurance issues separately by the entity type.

2. Contractor Subcontracted Design

Many contractors assume that design coverage exists under the standard CGL Policy. However, as stated above, design coverage under the CGL usually applies only to that design incidentally related to the contractor's means and methods. Moreover, no coverage under the CGL applies to damage to the contractor's work or to passive economic losses such as impact or delays.

One policy endorsement for the CGL Policy applicable to Design-Build is ISO CG 2280. (Attachment 1) This endorsement, which must be purchased for an additional premium, covers against loss from design performed by third parties under contract with the insured. Only a few insurers are willing to extend this type of coverage under their CGL Policies. Nevertheless, consistent with the objectives of the CGL coverage, the 2280 endorsement applies only to property damage of others and bodily injury. Accordingly, no coverage exists for reconstructing the contractor's work or for other passive economic losses. This is significant because design defect claims are often accompanied by large economic damages.

Insurers unwilling to provide design coverage under the CGL include ISO Endorsement CG 2279, (Attachment 2) which specifically excludes such coverage, except that related to means

and methods. So, what must a Design-Build entity do in order to be adequately covered against design errors committed by a design contractor?

Historically, contractor-led Design-Build entities have simply looked to the designer to provide its Errors & Omissions Policy coverage to meet the Design-Build contract requirement for such coverage. This was the answer because a typical contractor could not obtain Errors and Omissions coverage. This approach works sometimes and at other times does not.

For example, assume the owner asserts a design-related claim against the Design-Build entity several months after the project is completed. The contract – if it has coverage under the CGL Policy for subcontractor provided design – may obtain relief under that policy. However, the CGL Policy covers losses for bodily injury and property damage only. Therefore, the contractor is not covered for any loss of business, loss of use of the property or other economic damages.

Under the above example, the contractor would assert a claim against the designer's Errors and Omissions Policy through an indemnity clause in the subcontract. A significant roadblock may occur because many Errors and Omissions Policies specifically exclude coverage on Design-Build projects. This would place the contractor in the situation of having to defend the case and look to the design firm to cover the loss. Because profits are generally distributed to the principals of design firms and such firms do not retain earnings, it is unlikely that the design firms will be able to fully fund the loss. Hence, the Design-Build entity entering into a subcontract arrangement with a designer must include in the subcontract a provision requiring that the Errors and Omission Policy cover the particular relationship for the project.

Even if the subcontract is properly drafted and the designer provided the Errors and Omission coverage, nothing prevents the design firm from dropping the insurance later on. If the owner's claim is made after the insurance has been dropped, there will be no coverage because Errors and Omissions Policies are almost always claims-made policies. Moreover, Errors and Omissions Policies – like other insurance policies – contain policy limits which may have been exhausted by other claims before the current claim is asserted.

Another potential problem of relying upon the designer's Errors and Omissions coverage is Errors and Omissions policies are not standardized like CGL Policies are. Therefore, Design-Build participants must involve an insurance professional on each project to review policies for proper coverage. Also, an owner's claim against the Design-Build entity may not always be characterized as a design error versus defective construction. Hence, the contractor and designer may end up in a dispute over whether a particular claim falls into one category or the other. Lastly, the contractor may find itself in a position of defending against the designer's allegation that a "defective design" occurred because the designer was instructed as to some aspect of the design or was otherwise overruled during the project when a design issue arose.

All of these potential problems also complicate things for the project owner who likely chose the Design-Build process to simplify the "caught in the middle" scenario present in the design-bid-build process. The bottom line is that even if the designer is required to obtain Errors and Omissions coverage, the Design-Build entity will never be absolutely sure that such coverage will be in force and with adequate limits to cover losses when claims are made at a later date.

The only other option is for the Design-Build entity to seek design coverage in its own name. Sophisticated owners have also begun to require that the Design-Build entity provide Errors and Omissions coverage in its name. Moreover, in response to the need of the market, insurers are now starting to provide Errors and Omissions coverage to Design-Build contractors

These policies come in several forms. First, there are annual claims-made Contingent Design Errors and Omissions policies that cover all Design-Build projects a contractor may build during the policy period. A sample policy is attached hereto as Attachment C.

Second, project specific policies are also available. The project specific policy is not always the best choice because it is more expensive than the annual policy. Moreover, such policies can contain set time limitations for claims that may not correspond with the statutory time limits within which owners may file claims. Lastly, the project specific policy requires the contractor to fill out an application and go through the insuring process for each project, which tend to be an administrative

nightmare.

Regardless of whether the annual policy or project specific policy is chosen, the Design-Build entity is protected form the nuances and uncertainties of relying upon the designer's Errors and Omissions coverage. The contractor may then make its own informed decision about how long it desires to continue coverage if for some reason it decides not to undertake additional Design-Build projects.

3. In-House Design

If an insurer issues a CGL Policy to a contractor which it knows employs in-house designers, it will usually add a special exclusion denying any design-related coverage – even coverage for shop drawings and means and methods-related drawings. However, even if the Design-Build entity believes it has purchased design-related coverage and has the ISO Endorsement CG 2280, it likely has no coverage at all because that endorsement appears to apply only to subcontracted design work. Specifically, it is unlikely to apply to design performed in-house. According, a Design-Build entity should not expect its CGL Policy to cover such in-house design.

If the design-build entity employs directly the design personnel who will perform the design on a project, it clearly must procure Professional Liability insurance to cover for losses from negligent design. However, this coverage is expensive and small shops often cannot afford it. Accordingly, owners and others suing small designers or small design-build firms often learn too late that no coverage is available and the only source of recovery is from the assets of the firm and/or principals.

D. Design-Build and Bonding

The concerns of the Design-Build process upon bonding is best illustrated by the case of *Nicholson & Loup, Inc.*,[4] where a project owner sued a Design-Build contractor and its surety after a supermarket the contractor built experienced differential settlement. The contractor argued to the court that the surety should not be a party in the suit because the case involved an alleged defective design. The contractor had Errors and Omissions coverage, which would cover the loss.

The thrust of *Nicholson & Loup* was whether a surety

that issued a performance bond on the project was liable for a defective design. Naturally, the bonding company did not feel that it was standing behind the design when it issued the bond. However, nothing specifically stated that the "performance" the surety was guaranteeing was limited to construction. Indeed, the contract, which was referenced in the bond, clearly provided that the contractor was responsible for design and construction. The court found that the project contained design deficiencies and entered judgment against the contractor and surety.

Naturally, a Design-Build contractor takes on an inordinate increase in risk compared to a traditional design-bid-build project. Accordingly, the long-standing rules of analyzing the "bondability" of a contractor go out the window when it comes to Design-Build project. The owner is the winner because under the traditional project delivery system, the owner is protected from defective work by the performance bond, which is written for the full amount of the project. Design defects, on the other hand, are covered by the designer's Errors and Omissions policy, which has limits – usually well below the contract price. Hence, in many instances, owners under the traditional project delivery method have access to less coverage than the damages it might sustain as a result of the defective design. By making the surety responsible, the owner benefits from increased coverage limits because the bond is for the full amount of the project.

The design liability is not the only source of risk the surety experiences in the Design-Build project. Time of exposure is increased as well. To illustrate, under the traditional design-bid-build project, the surety's liability ended when the project was complete. Under the Design-Build project bond, liability continues on for as long as a party can sue for defective design. This may be as long as five or even ten years after the project is finished.

As a result of this, sureties are somewhat uncomfortable to say the least with providing bonding for Design-Build projects. Indeed, where a surety can typically review plans and specifications for a project to determine its exposure, the very fact that plans and specifications are no more advanced than approximately 30-30% at bid time eliminates that option for the surety. Hence, underwriting a bond a Design-Build project is quite difficult. Moreover, underwriters believe an established track record with Design-Build projects is important before they

will issue bonds to a particular contractor. This may – in the end – severely limit the number of contractors that qualify for Design-Build to only the largest and most viable from a financial standpoint.

Contractors must understand the additional risks sureties are undertaking when they issue performance bonds on Design-Build project. The traditional rules of analysis are discarded and the contractor must assist the surety by addressing the risks in the contract, subcontracts, and by adopting strategies to minimize and manage the risk. Sureties will also have to exercise flexibility.

In light of *Nicholson & Loup*, some bonding companies have refused to issue Design-Build performance bonds. Others have expressly limited their obligations to construction and have excluded design. Public entities will, no doubt, have to exercise some flexibility on this issue and should have trouble doing so because the Little Miller Acts' bonding provisions are usually directed at the prime contractor and are not applicable to design services.

Another possible approach to appeasing the surety would be to limit by contract provision the liability of the Design-Build entity to the Errors and Omissions policy limits. The weakness of this approach is highlighted in the previous section – i.e., the designer might drop its E&O insurance or might have other claims that exceed its policy limits. Although the issues surrounding performance bonding on Design-Build projects are far from being resolved, industry leaders recommend that the contractor seeking on a Design-Build project do the following to best assist underwriters in thoroughly assessing the risks:

- Prepare a detailed discussion of the project, which should include an analysis of all critical phases, including performance specifications, the extent of new technology and the project's inherent design exposures;

- Identify the Design-Build team and its members, including experience, reputation, and financial strength;

- Provide copies of the contract documents and required bond forms. Also include a discussion of

risk allocation among the Design-Build team members and a clear delineation of responsibilities.

- Identify whether the surety is being requested to bond the entire design-build contract, or whether there has been a separation of the surety's responsibilities for the construction obligations from the design responsibilities; and

- Identify the professional liability insurance coverages of the Design-Build team members or a project specific policy for the Design-Build team, as appropriate.[5]

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[1]Owen J. Shean, *Construction Insurance: Coverages and Disputes*, p. 213 (Michie 1994).

[2]Terry R. Tennant, *Design-Build and Design Delegation Insurance Issues*, American Bar Association Forum on Construction Industry Advanced Project management Systems (Chicago, Ill. October 16-17, 1998).

[3]Id.

[4]David C. Moylan, *Unique Bonding Issues Presented by the New and Emerging Project Delivery Systems,* American Bar Association Forum on Construction Industry Advanced Project Management Systems (Chicago, Ill. October 16-17, 1998).

[5]Owen J. Shean, *Construction Insurance: Coverages and Disputes*, p. 213 (Michie 1994).