AIA Best Practices:
Checklist for forming design-build teams

Contributed by the Joint Committee of the American Institute of Architects and the Associated General Contractors of America

Summary

The formation of a single-source design-build team requires the development of a partnering agreement that outlines team expectations and responsibilities. The following checklist contains key considerations that teams may use to develop the necessary problem-solving and communication strategies required for a successful partnership.

Introduction

In June 1999 the Joint Committee of the American Institute of Architects (AIA) and the Associated General Contractors of America (AGC), together with the Design-Build Teaming Agreement Industry-wide Coalition, produced a checklist to promote valuable and timely discussion of key issues in the formation of single-source design-build teams composed of design and construction partners, regardless of the leadership structure. This article is adapted from the original 1999 publication.

Although not a comprehensive checklist for every team in every configuration, it is the hope of the authors that this checklist may serve as the basis of discussion and negotiation for design and construction companies that wish to explore a partnering arrangement.

This document can be used to explore any single-source project team scenario. Although "design-build" is the most common form of single-source project delivery, this checklist also may be helpful in exploring delivery methods such as construction management, construction management agent, construction management/general contractor, or other project management and delivery methods.

The principal value of this tool lies in the process of using it. Though a workable teaming agreement is the first goal of any design-build team, an early mutual understanding of and respect for the team members' business processes, risks, and parameters is the most valuable byproduct of the teaming agreement process. The cohesiveness of the team will surely be tested during the course of the project.

This planning exercise helps the team to address issues before they become problems and to develop group problem-solving and communication skills to address the inevitable problems that will arise.

This checklist is intended as a primer for team-building and negotiation; no checklist of this type can anticipate all possible issues and scenarios. Each project team is advised to be alert to and address additional issues that may be unique to that team or project.

The checklist is organized according to the following general topic headings. Please note that while some items may appear under one heading, they may also be related to another.

- Team selection/cultural values
- Legal and corporate structure
- Getting the job
- Risk management
- Value engineering
- Financial aspects
- Roles and responsibilities
- Owner's considerations

Team selection/cultural values

Sufficient time should be expended by the design-build team members to ensure that their cultural values and corporate philosophies are compatible. In many cases, compatible team selection depends on the intuition of the principals of each company. The partners should make sure that there are no conflicts of interest that might jeopardize the business relationship, and should establish clearly defined problem-solving techniques and criteria for dispute resolution. They should engage in formal or informal partnering sessions, as necessary, to ensure a compatible, cohesive joint enterprise.

Considerations:

- Why does each member of the design-build team need the other members?
- Are there mutually beneficial levels of experience by size and category?
- Are the groups technologically compatible?
- Are both members competent to compete?
- Does either member have any previous history with the client?
- Do the team members have any previous history with each other?
- Are there other agendas that the individual team members need to discuss?

Legal and corporate structure

The first determination regarding legal relationships or corporate structures is to determine if the team will be a joint venture or a prime contractor/subcontractor. Either structure can accomplish the same results. It is imperative that a mutually acceptable contract be established between the designer and constructor. Many

standard design-build contract forms exist, including those published by the AIA, AGC, and EJCDC. Many companies have developed their own custom contracts to meet their specific needs.

Considerations:

- Changes of law
- Political risk and governmental interferences
- Patent infringements and royalties
- Consideration for price
- The claims process
- Dispute resolution
- Licensing issues and procurement laws
- Confidentiality issues
- Alternative venues for dispute resolution such as arbitration or mediation
- Termination provisions of the agreements
- Review of available contract forms
- Selection of final contract format

Getting the job

Many issues regarding the marketing process need to be explored, including the cost of marketing and how those costs will be apportioned among the parties.

Additionally, the team needs to establish the preferred basis of compensation for the team as a whole and for each team member, e.g., lump sum, cost plus (with or without a guaranteed maximum price), unit prices, and any related provisions such as cost-saving incentives.

The allocation of any cost savings must be established not only between the client/owner and the design-build team but among the team members.

Considerations:

- Which team member carries the greatest financial risk and to what extent
- Risk vs. reward for the prime contractor vs. the subcontractor
- What happens if the team is unsuccessful in getting the job
- Extent of required design and detailing for the proposal phase of the project

- Overall scope of the agreement
- How the team will respond to a potential “best and final offer”
- Allocation of individual team staffing to the project(s)
- Team member exclusivity
- Disclosure of any team member conflicts
- Points at which a design-build team member can or cannot withdraw from the relationship
- Allocation among team members of fees, stipends, and honorariums
- Final approval process for proposals

Risk management

Many firms form a design-build partnership without giving proper consideration to the associated risks. The following is a list, by no means comprehensive, of the possible issues related to risk. Each of these issues should be considered in terms of the risk to the team as a whole and to each team member:

Considerations:

- Automobile and inland marine insurance
- Bonding and surety
- Construction defects
- Constructor's liability
- Constructor's technical ability
- Definition of standard of care
- Design professional's errors and omissions
- Design professional's errors and omissions insurance
- Design professional's limits of liability
- Design errors and omissions revealed during construction
- Design revisions if the project is over budget
- Environmental or pre-existing conditions
- Failure of a team member to fulfill its obligations
- Financial responsibility for insurance deductibles

- Force majeure (natural disasters, acts of war, failure of third parties to perform)
- General business liability insurance
- Indemnification clauses
- Pollution coverage
- Price increases due to inflation
- Responsibility for liquidated damages to the constructor and/or the designer
- Responsibility for health and safety issues on the project
- Third-party litigation
- Unanticipated site conditions
- Workers' compensation, disability, health and life insurance

Value engineering

The process of value engineering to better conform to the project objectives can be both an opportunity and a challenge. The successful team knows how to use the tools of value engineering while keeping the project goals foremost in mind.

Considerations:

- Underlying reasons for the project
- Evaluation criteria for value engineering proposals
- Relationship of budget and schedule
- Constructibility of the design
- Compatibility of the design with the constructor's skills and labor force
- Cost issues with respect to document revisions
- Stakeholders in the project, including all internal and external customers
- Project program requirements vs. the tolerance for modifications
- Understanding of the elements that affect cost, their relationship to one another, and why
- Facts vs. assumptions with respect to cost
- Best sources of cost/value information
- Working definition of “best value” for this project

- Application of risk-management principles to the design elements
- Life-cycle cost goals
- Means of evaluating life-cycle costs
- Time and resources needed to adequately test alternatives that may produce better value
- Threshold for acceptable return on evaluation and testing resources
- Retaining a certified value specialist for assistance
- Timing of value engineering: pre-award or post-award

Financial aspects

The risks and rewards are many in any design-build relationship.

Considerations:

- Cash flow of the design-build entity
- Project financing
- Team financing
- Sources of capital
- Accounting responsibilities
- Payment of taxes
- Tax liabilities that may exist prior to actual realization of profit, turning pretax net income into "phantom income"
- Retainage and related effects
- Risk vs. reward
- Performance incentives
- Shared savings distribution scenarios to owner and design/build team
- Shared savings distribution scenarios among design/build team members

Roles and responsibilities

The integration of the design and construction process creates an opportunity to provide greater value to the client and implement the best-available solutions; however, this very integration can be a source of confusion to team members accustomed to more traditional roles in a design-bid-build business environment. Detailed discussion of specific roles and responsibilities is essential to the success of the team.

Considerations:

- Information management
- Intellectual property issues; ownership of documents
- Press releases and press communications
- Quality assurance and quality control
- Safety
- Contingency management
- Development of the project budget
- Project scheduling
- Marketing
- Client/owner communication
- Definition and scope of additional architectural, engineering, and other design professional services
- Site analysis
- Soft cost management
- Schematic design
- Design development
- Design-phase cost control
- Constructibility review
- Planning, zoning, and regulatory agency processes
- Construction documentation
- Level of documentation and specification
- Level of flexibility within the documents and specifications
- Interior design
- Fixture, furniture, and equipment specification
- Pricing package definition
- Bid package definition
- Bidding and negotiation
- Permitting

- Construction administration
- Construction-phase cost control
- Correction of work responsibilities for both design and construction
- Origination and approval of change orders
- Construction schedule definition; notice to proceed, milestone dates, date of substantial completion
- Force majeure, including delay claims and costs
- Payment processes; draw requests and associated timelines
- Tests and inspections
- Claims and litigation

Owner's considerations

In a design-build relationship coordinated communication is a must within the project team. Communicating and working with the owner needs to be managed congruently by the entire team by addressing the following issues:

Considerations:

- Coordination of the owner's required insurance: builder's risk insurance, loss of use and consequential damages
- Clarification of owner's roles and responsibilities
- Processes for formal approval and acceptance by owner of design and major milestones
- Assurances of owner's financial viability
- Definition of allowances
- Definition and management of the owner's contingency fund
- Definition of budget and schedule guarantees, if any
- Award fee
- Definition of roles with respect to communication with the owner
- Identification of the point of contact with the owner
- Contractual relationship of owner to project team, down to prime and subcontractors

Source: Design-Build Teaming Checklist, © 1999, American Institute of Architects, Washington, D.C., and Associated General Contractors of America, Washington, D.C.

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This article corresponds to:

Architect's Handbook of Professional Practice, 15th edition Unit 1 - The Profession
Chapter 10 – Design Project Management
Section 02 – Project Teams